FINAL VERSION



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

SEVENTH CENTRAL AMERICAN AIR NAVIGATION EXPERTS WORKING GROUP MEETING

CA/ANE/WG/7

NINTH CENTRAL CARIBBEAN WORKING GROUP MEETING

C/CAR/WG/9

REPORT

ICAO NACC REGIONAL OFFICE, MEXICO CITY, MEXICO 5 TO 9 MARCH 2012

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	5.2	ICAO Electronic Safety Tools	

HISTORICAL

ii.1 Place and Date of the Meeting

The Seventh Central American Air Navigation Experts Working Group Meeting (CA/ANE/WG/7) and the Ninth Central Caribbean Working Group Meeting (C/CAR/WG/9) were held at the premises of the ICAO NACC Regional Office, in Mexico City, Mexico, from 5 to 9 March 2012.

ii.2 **Opening Ceremony**

Mrs. Loretta Martin, Regional Director of the ICAO NACC Regional Office, welcomed participants. She highlighted the importance of the work of the CA/ANE and C/CAR Working Groups, the progress and operational benefits reported to their respective meeting of Directors of Civil Aviation, as well as the contribution of their Ad-hoc groups for the harmonized implementation of air navigation in the CAR Region, thanked the attendees for their participation, and opened the Meeting. The Chairmen of the CA/ANE/WG and C/CAR/WG welcomed the respective members of each group.

ii.3 **Organisation of the Meeting**

The CA/ANE/WG/7 and the C/CAR/WG/9 Meetings were held jointly with the presence of their Chairmen, Mr. Juan Carlos Trabanino and Mr. Fidel Ara, respectively. By agreement of the Meeting, Mr. Trabanino chaired the plenary of the Meeting. Mr. Julio Siu, Regional Officer, Communications, Navigation and Surveillance acted as Secretary of the Meeting, assisted by Mr. Raúl Martínez, Regional Officer, Aeronautical Information Management, Mr. Víctor Hernández, Regional Officer, Air Traffic Management and Search and Rescue, Mr. Jaime Calderón, Regional Officer, Aerodromes and Ground Aids, Mr. Julio Garriga, Regional Officer, Technical Cooperation and Mr. Guillermo Vega, Regional Officer, Aeronautical Meteorology, all from the ICAO NACC Regional Office.

ii.4 Working Languages

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

ii.5 Agenda

The Meeting adopted the following agenda:

Agenda Item 1 Approval of the draft agenda and schedule

Agenda Item 2 Review and follow-up to Conclusions/Decisions of previous CA/ANE/WG/6 and DGAC/CAP/95, C/CAR/WG/8 and C/CAR/DCA/11, GREPECAS/16, NACC/WG/3 and NACC/DCA/4 Meetings

Agenda Item 3 Air Navigation Matters

- 3.1 Global/Regional Air Navigation Developments
- 3.2 Follow-up on the implementation of the NAM/CAR Regional Performance Based Air Navigation Plan (RPBANIP) in Central America and the Central Caribbean:
 - Progress reports of the AIM, AGA, ATM, CNS, MET and SAR Committees and the Chairpersons of each Working Group
 - AIM, AGA, ATM, CNS and MET National Plan Reports
- 3.3 Specific Developments in Air Navigation
 - AIM
 - AGA
 - ATM
 - CNS
 - MET
 - SAR

Agenda Item 4 Terms of Reference (ToRs) and Work Methodology Review

4.1 CA/ANE/WG and C/CAR/WG Terms of Reference (ToRs) and Work Methodology review and update

Agenda Item 5 Other business

- 5.1 Host and dates of the next CA/ANE/WG and C/CAR/WG Meetings
- 5.2 ICAO Electronic Safety Tools

ii.6 Schedule and Work Mode

The Meeting agreed to hold its daily sessions from 09:00 to 15:00 hours, with adequate breaks.

ii.7 Attendance

The Meeting was attended by 51 participants from 10 States located in Central America and the Central Caribbean and 3 International Organisations. The list of participants is shown in pages iii-1, iv-1 to iv-8.

ii.8 **Draft Conclusions and Decisions**

The Meeting recorded its activities as Draft Conclusions and Decisions as follows:

DRAFT

CONCLUSIONS: Activities requiring endorsement by the Directors of Civil Aviation of Central

America and Panama (DGAC/CAP) or by the Directors of Civil Aviation of the

Central Caribbean (C/CAR/DCA)

DECISIONS: Internal activities of the Central American Air Navigation Experts Working

Group (CA/ANE/WG) or the Central Caribbean Working Group Meeting

(C/CAR/WG)

LIST OF DRAFT CONCLUSIONS AND DECISION ADOPTED BY THE CA/ANE/WG/7 / C/CAR/WG/9 MEETING

Conclusion Decision	Number	Title	Page
С	1	Action Plan for AIDC Implementation; using CPL-LAM Messages	3-8
С	2	Implementation of the New ICAO Flight Plan Format by 15 November 2012	3-10
С	3	Improvements to AMS Communications Services in the CAR Region	3-14
С	4	Feasibility Study Project for the Implementation of an e-TOD Central American Database	3-16
D	5	Designation of Members and Update of Committees Action Plans of the CA/ANE/WG	4-1
С	6	Implementation of the ICAO Fuel Savings Estimation Tool (IFSET) in Central Caribbean and Central America	5-2

ii.9 List of Working and Information Papers

To view and download papers refer to the Meeting web page: http://www.mexico.icao.int/Meetings/CCARWG9CAANEWG7.html

		WORKING PAPERS		
Number	Agenda Item	Title	Date	Prepared and Presented by
WP/01	1	Provisional Agenda and Meeting Schedule	20/01/12	Secretariat
WP/02	2	Valid Conclusions/Decisions from the CA/ANE/WG, NACC/WG and	17/01/12	Secretariat
		C/CAR/WG Meetings		
WP/03	3.2	Lack or Deficient AMS Service in the CAR Region	14/02/12	Secretariat

Number Agenda Item WORKING PAPERS Title				Prepared and Presented by
	Item			1 resented by
WP/04	3.2	Follow-up on the Implementation of the NAM/CAR Regional Performance Based Air Navigation Plan (NAM/CAR RPBANIP)	08/02/12	Secretariat
WP/05	3.3	Guide for an Action Plan for the eTOD implementation	10/02/12	Secretariat
WP/06	3.3	QMS/SMS Harmonization	16/02/12	Secretariat
WP/07	3.3	Runway Safety	03/02/12	Secretariat
WP/08	3.2	Results on the Implementation of a PBN Airspace Concept	28/02/12	Secretariat
WP/09	3.3	Search and Rescue Capacity Assessment	20/02/12	Secretariat
WP/10	3.3	Implementation of the ICAO Fuel Savings Estimation Tool – IFSET	27/02/12	Secretariat
WP/11	3.3	ICAO NACC Database (ICARD) / Five-Letter Name Codes (5LNCs) and Eliminating Duplication of 5LNCs	03/02/12	Secretariat
WP/12	3.2	Results of the Off-Line Tests and Follow-Up to the Implementation of the New ICAO Flight Plan (FPL) Format	10/02/12	Secretariat
WP/13	3.2	ICAO Final Position for the ITU Radio Communication Conference 2012 (WRC-2012)	10/02/12	Secretariat
WP/14	3.3	Progress on ADS-B Update and multilateration	13/02/12	Secretariat
NE/15	3.2	Informe de avances del plan de acción del Comité ATM del CA/ANE/WG Available only in Spanish	03/02/12	Relator Comité ATM CA/ANE/WG
WP/16	4.1	CA/ANE/WG and C/CAR/WG Terms of Reference (ToRs) and Work Methodology review and update	06/03/12	Secretariat
WP/17	5	Block Upgrades (ASBU) Methodology and update of the performance-based air navigation implementation plans	02/03/12	Secretariat
WP/18	5.1	Host and Dates of the Next CA/ANE/WG and C/CAR/WG Meetings	29/02/12	Secretariat
WP/19	3.1	Relevant Aspects Related to Aeronautical Training in the CAR Region	24/02/12	Secretariat
WP/20	3.1	ICAO Regional Technical Cooperation Project for the Caribbean Region – "Implementation of the Performance Based Air Navigation Systems" RLA/09/801		Secretariat
WP/21	3.3	Transition from MEVA II to MEVA III	03/02/12	MEVA TMG Coordinator
WP/22	3.3	WIFS Transition Status Update	03/02/12	United States

		WORKING PAPERS		
Number	Agenda Item	Title	Date	Prepared and Presented by
WP/23	3.3	50 NM Lateral Separation and RNAV Route Structure in the Gulf of Mexico	03/02/12	United States
NE/24	3.2	Avance de implementación de la gestión de afluencia de tránsito aéreo (ATFM) en la FIR Centroamérica Available only in Spanish	03/02/12	COCESNA
NE/25	3.2	Consideraciones sobre eTOD en la transición del AIS a la AIM en Centroamérica Available only in Spanish	03/02/12	COCESNA
WP/26	3.2	Progress Report on Activities and Updated Work Plan of the CNS Committee of the CA/ANE/WG	03/02/12	Relator Comité CNS CA/ANE/WG
NE/27	3.2	Avances en la implementación del nuevo formulario de plan de vuelo presentado (FPL) de la OACI <i>Available only in Spanish</i>	03/02/12	COCESNA
NE/28	3.2	Avance en el establecimiento de los requisitos normativos para la implementación del PBN Available only in Spanish	20/02/12	COCESNA
NE/29		CANCELLED		
WP/30	3.3	Guide ADS-B Cost-Benefit Analysis – Support from CANSO to the Region	21/02/12	CANSO
WP/31	3.2	Implementation of Meteorological Quality System	28/02/12	Secretariat
WP/32	3.2	Report of the Progress Achieved in C/CAR/WG	02/03/12	C/CAR/WG Chairperson
WP/33	3.2	Reports of National Plans	02/03/12	Cuba

		INFORMATION PAPERS		
Number	Agenda Item	Title	Date	Prepared and Presented by
IP/01		List of Working and Information Papers	05/03/12 Revised	Secretariat
IP/02	2	Conclusions/Decisions from Previous Meetings of Directors of Civil Aviation and GREPECAS	09/02/12	Secretariat
NI/03	3.2	Avances en las coordinaciones MET en Centroamérica Available only in Spanish	02/03/12	COCESNA
IP/04	3.1	Updates to ICAO SARPs and Current Works of ICAO Expert Panels	20/02/12	Secretariat
NI/05	3.3	Renovación de Centro de Control en Centroamérica, implementaciones ADS y operación con radares Modo-S	03/02/12	COCESNA

INFORMATION PAPERS				
Number	Agenda Item	Title	Date	Prepared and Presented by
		Available only in Spanish		
NI/06	3.2	Avances en la modernización del Sistema AMHS Available only in Spanish	03/02/12	COCESNA
NI/07	3.2	Avances en la gestión del proyecto de implementación del sistema de gestión de la seguridad operacional (SMS) en el servicio ATS de COCESNA <i>Available only in Spanish</i>	03/02/12	COCESNA
NI/08	3.2	Avances en la implementación de la transición a la AIM Available only in Spanish	03/02/12	COCESNA
IP/09	3.1	Regional Performance Framework – Transition to eANPs	16/02/12	Secretariat
NI/10	3.2	Informe de avance de actividades relacionadas con la coordinación de búsqueda y salvamento (SAR) Comité SAR CA/ANE/WG Available only in Spanish	03/02/12	Relator del Comité SAR CA/ANE/WG
IP/11	3.2	ATS Interfacility Data Communication Implementation in the Caribbean, North, Central and South American Regions	24/02/12	United States
IP/12	3.3	Automatic Dependent Surveillance – Broadcast ADS-B	23/02/12	United States
IP/13	3.3	Establishment of Regional Maritime Rescue Coordination Centers (MRCCs) in Central America	23/02/12	United States
NI/14	3.2	Mejoras en la comprensión situacional en la FIR HAV Available only in Spanish	21/02/12	Cuba
NI/15	3.3	Continuidad de los ensayos ADS-B en la FIR HAV Available only in Spanish	28/02/12	Cuba
NI/16	3.2	Avances logrados en la implementación del intercambio automático de datos de vuelo Available only in Spanish	28/02/12	Cuba
NI/17	3.2	Reporte de avances al Plan Nacional para la implementación del nuevo formulario de plan de vuelo <i>Available only in Spanish</i>	28/02/12	Cuba
IP/18	3.2	Status of the VHF Coverage in the NW Sector of the Curação FIR	05/03/12	Curaçao

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Agenda Item 1 Approval of the draft agenda and schedule

1.1 The Secretariat presented WP/01, inviting the Meeting to approve the provisional agenda and schedule and referred to IP/01-Rev with the list of associated documentation and presentations. The Meeting approved the agenda as presented in the historical section of this report and made minor changes to the meeting schedule.

Agenda Item 2 Review and follow-up to Conclusions/Decisions of previous CA/ANE/WG/6 and DGAC/CAP/95, C/CAR/WG/8 and C/CAR/DCA/11, GREPECAS/16, NACC/WG/3 and NACC/DCA/4 Meetings

- 2.1 The Meeting reviewed WP/02 presented by the Secretariat, which included the valid Conclusions/Decisions from previous Meetings of the North American, Central American and Caribbean Working Group Meeting (NACC/WG), Central American Air Navigation Experts Working Group Meeting (CA/ANE/WG), and the Central Caribbean Working Group Meeting (C/CAR/WG). The Secretariat reminded participants that during the NACC/WG/3 Meeting, all Conclusions/Decisions from the Eighth Central Caribbean Working Group Meeting had been completed.
- 2.2 As a result of the review, all Conclusions/Decisions of the CA/ANE/WG were superseded or completed.
- 2.3 The Meeting followed-up on the valid Conclusions/Decisions from the previous NACC/WG Meeting recognizing that the current work plans were ongoing.
- 2.4 In addition, the Meeting took note of IP/02 as a reference, which included Conclusions/Decisions of previous DGAC/CAP/95, C/CAR/DCA/11, GREPECAS/16 and NACC/DCA/4 Meetings.

Agenda Item 3 Air Navigation Matters

3.1 Global/Regional Air Navigation Developments

- 3.1.1 For the implementation activities and corresponding coordination of the Working Groups, under IP/04 the Secretariat provided a briefing on the most recent relevant ICAO Standards and Recommended Practices (SARPs) and guidance material updates with a general overview of the current works by the ICAO Panels.
- 3.1.2 Under IP/09, the Secretariat informed of the new web based format for all Regional ANPs, called electronic ANPs (eANPs), which can be updated in real time, edited online, viewed by all relevant partners and aligned with the Aviation System Block Upgrades (ASBU) methodology. The electronic access and format will result in far more accurate and up-to-date data source at a lower cost in terms of: time spent; work duplication and error-checking. The salient features of the eANPs were highlighted. The initial scope of this system is currently viewable on the Safety Tools User Group (STUG) website (https://portal.icao.int/stug/Pages/Homepage.aspx). Beta-versions of other applications to view data related to the eANP, will be launched by June 2012.

Relevant Aspects Related to Aeronautical Training in the CAR Region

3.1.3 Under WP/19, the Meeting took note regarding the progress of the Next Generation of Aviation Professionals (NGAP) Task Force, the NGAP Symposium carried out in March 2010, and the promotion and continuity of the NGAP initiative through NGAP and TRAINAIR *PLUS* regional conferences. The Meeting encouraged States to note and follow-up the progress of the NGAP initiative, the ICAO Training Policy and the TRAINAIR *PLUS* programme, to consider in their human resources national planning the results and current activities of the NGAP Task Force Group, the ICAO guidance material and other regional guidance related to the generation of competencies and training, to comment the CAR Aeronautical Training Regional Plan shown in the web page of the ICAO NACC Regional Office and encourage States/Territories to develop Strategic Training Plans sending them to the ICAO NACC Regional Office as soon a possible.

ICAO Regional Technical Cooperation Project for the Caribbean Region – "Implementation of the Performance Based Air Navigation Systems" (RLA/09/801)

3.1.4 The Secretariat presented WP/20, on the progress in preparing for the implementation of the ICAO Regional Technical Cooperation Project for the Caribbean Region – Implementation of the Performance based air navigation systems (RLA/09/801). The Meeting took note of the the First Meeting of the Project Steering Committee which was held as part of the NACC/DCA/4 Meeting during which the project objectives, scope, organization, members, activities, benefits, deliverables, schedule, resources, funding, metrics, risks and next steps were presented.

- 3.1.5 The Meeting recognized the benefits of the regional Project and Cuba and COCESNA reconfirmed their intention to participate in the Project. The Secretariat also informed that Bahamas, Barbados, Haiti, Jamaica, Mexico and Trinidad and Tobago already deposited the initial amount of US\$25,000.00 to the ICAO account.
- 3.1.6 The Meeting encouraged the CAR States that have not confirmed their participation in the Project, to deposit the initial contribution of USD\$25,000 in ICAO's account as soon as possible and also to take into consideration the activities and scope of the RLA/09/801 project in the implementation of the air navigation systems in the Region. ICAO was urged to convene the project participants to attend the Second Meeting of the Steering Committee once the contributions of the Project have been received.
- 3.2 Follow-up on the implementation of the NAM/CAR Regional Performance Based Air Navigation Plan (RPBANIP) in Central America and the Central Caribbean

Progress reports of the AIM, AGA, ATM, CNS, MET and SAR Committees and the Chairpersons of each Working Group

- 3.2.1 Under WP/04, the Secretariat informed of the reported progress and update of the NAM/CAR Regional Performance Based Air Navigation Plan (RPBANIP) presented to the NACC/DCA/4 Meeting, as well as the coordination actions performed by ICAO to follow-up on the RPBANIP implementation activities.
- 3.2.2 The Meeting noted that since August 2011 to date, several conference calls have been carried out with the respective Chairmen of each Working Group in order to support and guide them to follow-up on RPBANIP activities as well as to highlight accomplishments and operational benefits achieved from the experiences of these implementations. Regarding the analysis of established timelines, planned activities and corresponding action plans for Regional Performance Objectives (RPO), the following was concluded:
 - a) several activities for the RPO require time validation and responsible parties, since in several cases their dates have expired or have not compliance report
 - b) there is a lack of detailed action plans for some RPO as the RPO 10, 11 and 12, in the case for the C/CAR/WG and for the RPOs associated with AIM, MET and SMS, for the CA/ANE/WG
 - c) ICAO has not been informed on action plans updates in accordance with the RPBANIP NAM/CAR (V-2.0).

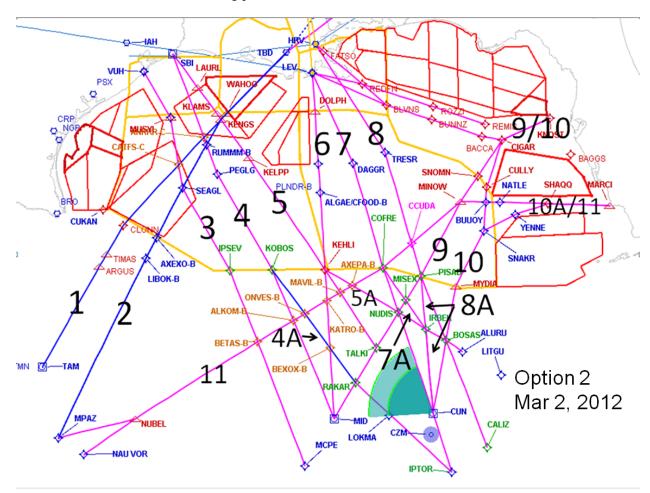
- 3.2.3 Considering the preliminary progress reported by the C/CAR/WG in the NE/32, the C/CAR/WG updated its progress as detailed in the ND/01. Likewise, the CA / ANE / WG reported its preliminary progress reported through its committees ATM, CNS and SAR (WP/15, WP/26 and IP/10) and as a result of the discussion were updated detailed progress in ND/02. The most significant advances reported are detailed in **Appendices A** and **B** to this part of the report, for the C/CAR/WG and CA/ANE/WG respectively.
- 3.2.4 Likewise, the Ad-hoc groups also met to discuss several specific topics, which results are presented in the respective Discussion Papers:
 - a) Regional Telecommunications Network VSAT for Central Caribbean, MEVA II Network, made their 23th Technical Administrative Group Meeting. (MEVA TMG/23). Results in DP/05
 - b) Lack or deficient service of AMS communications in the CAR region, based on reports of NE/03. Results in DP/04
 - c) Implementation Activities for the ADS-B. DP/03
 - d) PBN Routes implementation in the Gulf of Mexico, GoMex. Results in ND/06

AIM, AGA, ATM, CNS and MET National Plan Reports

RPO 1

- 3.2.5 In regard to the NACC/WG/3 Conclusion 3/1, the Meeting recalled that CAR States, Territories and International Organization should examine the airspace structure to implement a PBN Airspace Concept that offers the best operational advantages for the users and ATS providers, in relation to ATS operational capacity, fuel consumption, as well as the preservation of the global environment through the reduction of CO₂ emissions.
- 3.2.6 Several States have made progress on the PBN airspace implementation, according to the information included in WP/08 Appendix C. Nevertheless, improvements to the RNAV routes should be analyzed. The implementation of SID/STAR RNAV requires the publication of air navigation specifications for terminal areas that allow linking the RNAV routes with the respective PBN instrument approach procedures according to the A37/1 Assembly Resolution. The ATS providers should also analyze the implementation of continuous descend operations (CDO).
- 3.2.7 In compliance with the C/CAR/WG Conclusion 8/2, United States presented WP/23 with the implementation progress of the RNP 10 Phase 2, 50 NM Lateral Separation and RNAV Route Structure in the Gulf of Mexico. The Meeting reviewed the proposed new RNAV structure in the Gulf of Mexico and draft documents related to the project including a Concept of Operations, a draft of the RNAV Routes Structure, a draft list of routes proposed to be deleted or amended and the draft of Route Operating Policies.

- 3.2.8 The Meeting noted that Mexico, United States and IATA representatives will carry out follow up actions on the following:
 - Conduct a quality check and finalize the FAA Technical Center Route Analysis
 - Analyze potential enhancements provided by Option 2 route design, depicted in the following picture:



• Significant changes to the 23 February 2012 route design, depicted in the following picture, would make it unlikely to be able to complete the necessary tasks to implement in September 2012, as tentatively planned.

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GOMEX RNAV Routes - as of 23 Feb 2012

• In approximately 10 days, conduct a teleconference to finalize the decision to pursue implementation in Sept 2012 or to pursue a January 2013 implementation of a route design incorporating Option 2 modifications

IPTOR-

- 3.2.9 The Meeting observed that the review to the regional route network is limited to a certain airspace in the Gulf of Mexico without considering the review and extension of routes to the rest of the CAR Region.
- 3.2.10 In addition, the Meeting expressed its concern regarding the impact resulting from the restriction of overflights in the Cancun neighbouring airspace, which grants a higher preference to descent and climb operations at this airport. This implementation approach, projects a higher trajectory distance with the corresponding impact on fuel consumption of international flights that operate to/from Central and South America.
- 3.2.11 The Meeting considered that there is a need to ensure a proper coordination with all parties involved through the extension of the Central American, Havana and Kingston FIR benefits, as required. Furthermore, there is a need to coordinate the steps prior to the implementation through a transition plan and to present the related information to the next meeting of Directors of Civil Aviation for its approval.

- 3.2.12 COCESNA presented WP/28 were, as part of the PBN implementation process, ACSA had developed and submitted to the Central American States a draft circular on "PBN requirements and procedures for Air Navigation Service Providers (ANSP) and airspace operators". This document proposes to the Civil Aviation Authorities of Central America an applicable legal framework to ANSPs and the necessary operational requirements within the PBN context.
- 3.2.13 This combination of elements in a single document will enrich the knowledge and facilitate the common understanding of the PBN concepts and at the same time, establish the mandatory national requirements for the PBN implementation in the States, as well as to take the necessary actions for airspace operators to comply with the PBN implementation requirements.

RPO 3

- 3.2.14 The Meeting took note of the progress in the implementation of air traffic flow management (ATFM) in the Central American FIR. The purpose of ATFM in COCESNA is to balance air traffic demand and ATS capacity in order to ensure maximum and efficient use of airspace in the Central American FIR, and ensure that air traffic volume is compatible with the capacities declared by the appropriate ATS suppliers.
- 3.2.15 ATFM application trials between CATFM, located at COCESNA Headquarters, and the FMU of Guatemala and Costa Rica will be initiated in the second half of 2012 and the equipment will be installed in the other States of Central America over time.
- 3.2.16 The Meeting recalled that, in order to achieve a balance between demand and capacity, it is necessary to determine the airport acceptance rate (AAR) and the sector in the States. Therefore, ATS providers should declare Airport Capacity (AAR) and ATC for those aerodromes which have more operations in the format that best suits their systems and their availability.
- 3.2.17 Similarly, it was recalled that according to the ATFM implementation tasks it is required to collect statistics of the operations carried out in the CAR Region FIRs. This results in a need to analyze the requirements of electronic tools to collect the information from States.

RPO 4

- 3.2.18 Under IP/11, United States presented the benefits and improvements achieved with the use of ATS Inter-facility Data Communications (AIDC) as means for the exchange of notification, coordination, transfer and related data between automated ATS systems. The AIDC infrastructure significantly has reduced the need for verbal coordination between Air Traffic Service Units. ATS Interfacility Data Communications (AIDC), or similar automation, can provide the means by which automated data exchange can be harmonized between ATS Units providing air traffic service in the Caribbean region.
- 3.2.19 As ATS providers develop their automation systems, consideration should be given to meeting the capabilities identified within an interface specification such as an Interface Control Document (ICD). For the Caribbean and South American Regions, the CAR/SAM ICD was developed by ICAO.

- 3.2.20 United States described the implementation of the AIDC with Canada and Mexico, Class I messages (CPL-LAM)/ Class II messages and the personalization of the messages to satisfy the operational requirements included in their NAM ICD.
- 3.2.21 The automation gains of AIDC implementation had provided significant safety and efficiency benefits as:
 - a) Reduced workload for controllers
 - b) Reduction of readback/hearback errors during coordination
 - c) Reduced "controller to controller" coordination errors; and language barrier issues
 - d) Increased in support for performance based navigation initiatives and emerging technologies with automation
- 3.2.22 There is, however, considerable effort and planning involved during development, testing, and implementation of the automation interface. These tasks included airspace and system parameter adaptation, ATC procedure coordination, Letter of Agreement tailoring, communications interoperability and protocol testing and troubleshooting, and controller training. Both non-operational and operational testing was extensively conducted. The telecommunication infrastructure for automated data exchange interfaces consists of NADIN, MEVA II, and other interconnections which support the automated data exchange as well as AFTN messaging.
- 3.2.23 In this sense, Cuba described the benefits achieved with the implementation of CPL-LAM with United States as detailed in IP/16. Furthermore, under IP/14, Cuba presented the progress accomplished for the improvement of situational awareness with the modernization and expansion of their secondary radar network as well as the automation plans of the Havana ACC.
- 3.2.24 United States indicated that the NAM ICD may be used by other States either for updating the CAR/SAM ICD or to facilitate the AIDC implementation with other CAR Region States. This document will be sent to ICAO to be disseminated to other members in the CAR Region.
- 3.2.25 The Meeting was informed that other States also are interested in implementing the AIDC initially with the CPL LAM messages like Curaçao, Dominican Republic, Jamaica and COCESNA. Similarly in Central America the AIDC is being implemented through the OLDI functionality. Related to this discussion, ICAO informed that for September 2012 a workshop on ATC Automated Systems is planned, in which AIDC implementation is one of the topics.
- 3.2.26 Considering the benefits presented with the implementation of CPL-LAM messages and due to the high level of automation in the CAR Region ATC Systems, the Meeting agreed in the following draft conclusion:

DRAFT CONCLUSION 1

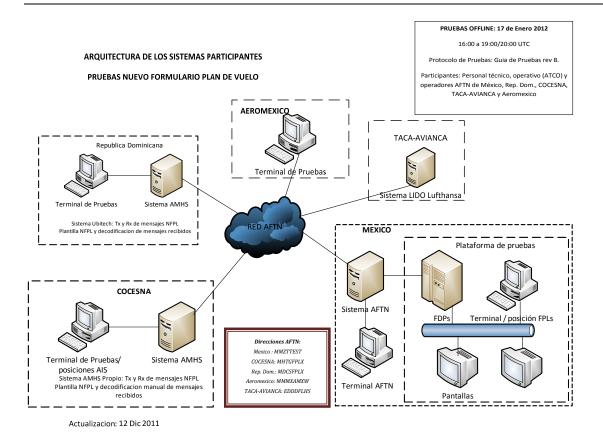
ACTION PLAN FOR AIDC IMPLEMENTATION; USING CPL - LAM MESSAGES

That, considering the importance and benefits of AIDC implementation, States/ Territories of the Central Caribbean and Central America:

- a) inform the ICAO NACC Regional Office about the capacity of their ATC Systems to process CPL LAM messages no later than **21 September 2012**;
- b) review the NAM ICD and CAR/SAM ICD as a basis to implement AIDC, recommending changes to the CAR/SAM ICD for its update no later than **26 October 2012**;
- c) prepare together with ICAO an action plan to harmonize the AIDC implementation for the use of CPL LAM messages; and
- d) present this Action plan to the next Working Group meetings for its implementation.

RPO 5

- 3.2.27 The Secretariat, through WP/12, informed the Meeting about the follow-up on implementation activities for the New Flight Plan Format that have been reported since the NACC/WG/3 Meeting; highlighting the results of the off-line tests carried out and the urgent attention to develop Transition Phase activities to be carried out, in this regard, States were urged to:
 - a) visit the ICAO NACC Regional Office web page are the relevant references to follow for the implementation of the New Flight Plan Format (http://www.mexico.icao.int/ATM.html#FPL);
 - b) consider GREPECAS Conclusion 16/39, which urged States to develop their action plans and inform the results of this implementation to the ICAO NACC and SAM Regional Offices no later than 30 November 2011; and
 - c) review the consolidated Action Plan, which is based on the regional performance objective (RPO) No. 5 *Implementation of the New ICAO Flight Plan Format* within the NAM/CAR RPBANIP. This RPO will serve as a regional reference for the drafting of national action plans, with the aim of duly complying with this implementation.
- 3.2.28 In this sense, the Meeting was reminded regarding the activities to be implemented (see Appendix A to WP/12), the agreements reached in the Follow-up Workshop on the Implementation of the New ICAO Flight Plan Format for the NAM/CAR Regions was held in the ICAO NACC Regional Office in Mexico City in September 2011 (see Appendix B to WP/12); and the results from the off-line preliminary tests of the new FPL form carried out in 28 November 2011 and in 17 January 2012 (see Appendix C to WP/12) under the following configuration:



- 3.2.29 In order to continue with this follow-up and accomplish a harmonized implementation, the Secretariat urged States to participate in the Follow-up Meeting/Workshop on the Implementation of the New ICAO Flight Plan Format for NAM/CAR Regions, to be held in the ICAO NACC Regional Office in Mexico City from 26 to 28 March 2012, States/Territories/International Organizations are requested to:
 - a) review the national plan for the implementation of the FPL format in accordance with the Consolidated Action Plan;
 - b) confirm and update the impact table in the systems; and
 - c) review and update the completion of activities of the transition phase.
- 3.2.30 Likewise, under WP/27, COCESNA presented their progress regarding this implementation including:
 - a) a Central American aeronautical messaging network, along with the creation of a multidisciplinary working group, the convening of different workshops, the availability of a website within COCESNA (http://www.cocesna.org/pagina.php?id=262&lng=0) and a new version of the AIS/ARO application; and

- b) the renewal of CENAMER, Managua and El Salvador Control Centres, which will be installed in 2012 and the development of a converter as a contingency measure to ensure that the software in Control Centres is always up to date. The use of converters may be a temporary solution to be implemented from the NEW form to the CURRENT form.
- 3.2.31 Under NI/17, Cuba informed regarding the progress made in their implementation action plan, including coordination with other ANSPs, the preparation of the A Series AIC, the compliance with the training programme to complete the automated processing system and filling forms of flight plans used in ARO/AIS/MET offices and the preparation and modernization of system trials platforms.
- 3.2.32 In this sense, Cuba reiterated through NE/33, the incoherencies and difficulties for the implementation of the new flight plan format, which were dealt with in the Follow-up Workshop on the Implementation of the New ICAO Flight Plan Format for the NAM/CAR Regions was held in the ICAO NACC Regional Office in Mexico City in September 2011 as well as through GREPECAS Project C3 and which are mentioned as follows:
 - a) the maximum amount of characters in fields 18 and 10; and
 - b) the time requirement of 120 hours in advance to file a flight plan.
- 3.2.33 On this regard, the Secretariat confirmed that in the next New ICAO Flight Plan Format Meeting/Workshop for the NAM/CAR Regions, a new agreement to resolve these problems will be reached.
- 3.2.34 Considering the above-mentioned, the Meeting agreed on the following Draft Conclusion:

DRAFT CONCLUSION 2

IMPLEMENTATION OF THE NEW ICAO FLIGHT PLAN FORMAT BY 15 NOVEMBER 2012

That, considering the importance to comply with the Amendment 1 to ICAO Doc 4444 implementation activities for the new flight plan format, States/Territories of the Central Caribbean, Central America and International Organizations:

- a) comply with the timely implementation of tasks defined in the consolidated Action Plan as detailed in WP/12;
- b) provide the information on the implementation status of their national implementation plan to the ICAO NACC Regional Office prior to the convening of the Follow-up Meeting/Workshop on the Implementation of the New ICAO Flight Plan Format for NAM/CAR Regions scheduled from **26 to 28 March 2012**;

- c) take the necessary measures to implement the use of the New ICAO Flight Plan Format on **15 November 2012** at 0600 UTC in the C/CAR and Central American FIRs; and
- d) plan the necessary contingency measures to ensure the user flight plan data exchange in scheduled airspace and international airport operations in the CAR Region, as required.

RPO8

- 3.2.35 Under WP/13, the Secretariat emphasized the update to the ICAO final position for the ITU WRC-2012, which was disseminated to all focal points designated by States resulting in a very efficient coordination. The update was presented in the NACC/WG/3 and NACC/DCA/4 Meetings, resulting in several conclusions that support the position. In this regard, States were urged to communicate any change on the contact information of the focal points designated by States.
- 3.2.36 Since the ITU Radio Communication Conference 2012 (WRC-12), was held in Geneva, Switzerland, from 23 January to 17 February 2012, the WRC-2012 results will be informed in due course as soon as the reports from the ICAO representatives who attended this Conference are available. However, the Meeting was informed that the results from this Conference were satisfactory in general terms.
- 3.2.37 Likewise, in order to have an optimum use of the radio electric spectrum assigned to aviation, States were urged to take note and review recent updates to the frequency assignment lists (COM Lists) by communicating any change or observation to these updates to the ICAO NACC Regional Office by 30 March 2012.
- 3.2.38 Under NI/06, COCESNA provided Information on the activities for the modernization of the AMHS Central American System, along with the training provided to personnel, the signing of an Agreement with the United States to carry out trials and update software. United States and COCESNA agreed to carry out the AMHS trials in March 2012.

RPO 9

3.2.39 Under WP/03, the Secretariat presented serveral deficiencies in the provision of Aeronautical Mobile Service (AMS) communications in the CAR Region, which affect the safety of the flights and requires joint efforts to solve them from users and service providers (ANSP). The deficiencies reported by several airspace users/airlines were the following:

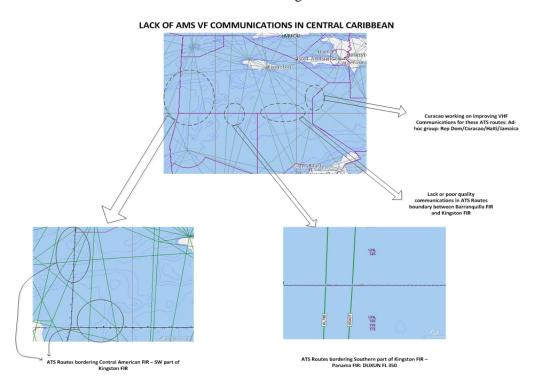
a. Pacific Oceanic Airspace: FIR Central American

Lack of HF AMS Communications in ATS routes in the Pacific Ocean



Deficient HF communications or complete lack of HF Communications

b. Lack/deficient VHF AMS coverage in Central Caribbean



c. Lack of VHF coverage in the Mexico FIR Pacific coasts

Lack or deficiencies in VHF Communications in Pacific Ocean in Mexico



Lack - deficient AMS VHF Communications in routes close to the Pacific coasts – near Acapulco and boundary with Central American FIR

- d. There is a lack of VHF communications coverage in low airspace ATS routes eg. El Salvador, Guatemala and Costa Rica require the implementation of improvements to optimize the service and safety of flights.
- 3.2.40 In this regard, the meeting agreed that an Ad-hoc Group discuss these deficiencies and present an action plan to the meeting to address and evaluate the improvements to be implemented, including the definition of agreements and joint work plans, defining activities, dates, focal points and the involvement of users in the verification tests of these improvements.
- 3.2.41 Under IP/18, Curaçao presented the progress made in their VHF AMS communication coverage of the NW sector of the Curaçao FIR, from the coordination with Dominican Republic for the possible use of a high site named Barahona to the re-evaluation of their high site, together with improvements to antenna, feeder, cabling, interface equipment and the replacement of a new Digital voice communication switch. A preliminary compilation of test results in the NW sector of Curaçao FIR indicated good coverage. In this regard the Meeting agreed that the Ad-hoc Group on Deficient AMS coverage shall analyze this information for their discussion.
- 3.2.42 Curação also informed on their planning for radar data sharing with Jamaica, Dominican Republic and Venezuela as soon as their AMHS project is finalized, as well as the use of CPL messages to increase automation level and reduce coordination errors.
- 3.2.43 Regarding these deficiencies in the AMS communication services in the CAR region, described in WP/03, and the Ad-hoc Group results (ND/04), IATA indicated their support and agreement to work and assess the solutions together between the users/operators and the service providers. In this regard the Meeting agreed on formulating the following draft conclusion:

DRAFT CONCLUSION 3

IMPROVEMENTS TO AMS COMMUNICATION SERVICES IN THE CAR REGION

That, due to the deficiencies reported in the CAR Region on the AMS communication services (Pacific oceanic airspace: Central American FIR/VHF AMS in the Central Caribbean/Lack of VHF coverage in the Pacific coasts of Mexico FIR/Lack of VHF communication coverage in lower ATS routes), the Central Caribbean and Central American States/Territories involved and IATA.

- a) coordinate together with ICAO a joint evaluation to thoroughly identify and specify the reported deficiencies by **31 March 2012**;
- b) inform ICAO of other deficiencies detected in the AMS communication service by **31 March 2012**;
- c) designate a focal point for the coordination of the activities by **31 March 2012**;
- d) inform ICAO of the solutions and improvements achieved to organize the evaluation activities of these improvements in a joint manner starting with the improvements reported by Curaçao for **30 April 2012**;
- e) define together with ICAO a working Plan for the execution of the activities in a) to d) including the coordination of the evaluations by **30 April 2012**; and
- f) inform to the respective forthcoming Meetings of Directors of Civil Aviation (DGAC/CAP and C/CAR/DCA) of the progress, achievements and results of these activities.
- 3.2.44 As a result of the discussion of the AMS Communication Service Ad Hoc Group as described in ND/04, there is a need to review certain routes in the Kingston FIR such as UL474 from Panama to Port Au Prince, Haiti. Due to safety and communications issues arising from aircraft conflicts from proximity to the FIR boundary between Kingston and Curacao. Barranquilla FIR has discontinued the use of this route within their airspace by NOTAM. In this regard, Jamaica proposes that the UL474 should be discontinued by consultation with all the States concerned and replace the UL474 by extending the route UB882 from Benet to Taboga (TBG) in Panama Airspace. Jamaica will coordinate with ICAO, IATA and involved States in April 2012 to discuss the UL474 matters and other ATS routes improvements as to make them available for the ICAO ATS Route Amendment.

RPO 11

3.2.45 Under NI/08, COCESNA presented the progress in Phases I and II of the AIM transition within the framework of the AIM transition roadmap, that were carried-out by COCESNA's AIM unit and which are in accordance with the transition objectives from AIS to AIM in the context of the ATM global operational concept. The AIM transition plan of COCESNA is available in the web page http://www.cocesna.org/pagina.ais.php?id=268&lng=0

- 3.2.46 AIM Staff received a course on Safety Management System (SMS), in collaboration with Instructors from the Central America Aeronautical Training Institute of COCESNA (ICCAE). Also, the AIM course training guidance for the CAR/SAM Regions is being used in the following training courses:
 - AIM basic course
 - Integrated Aeronautical Information Package (IAIP)
 - NOTAM Specialist, static and dynamic data management
 - New AIM concept
 - New Flight Plan Format (according to amendment to Doc. 4444).
- 3.2.47 The Meeting was informed that the Geographical Information System (GIS) continues with its development and improvements, being an important element to the ICAO SARPs support and the elaboration of the Central America AIP aeronautical charts in digital formats, which is being georeferenced to WGS-84 with the AIRAC system application and for the AIRAC Central America AIP amendments elaboration.
- 3.2.48 Additionally, the Central American AIP in digital format is available, in CD-ROM and in the web page: http://www.cocesna.org/ais.php as a progress towards the electronic AIP (e-AIP) elaboration. The Information Technology (IT) staff of COCESNA, continues adapting the Aeronautical Information Exchange Model (AIXM), in order to have the Central American AIP in electronic format, aimed at the exchange between regional data bases.

RPO 12

Implementation of the MET Quality System in the NAM/CAR Region

- 3.2.49 Under WP/31, the Secretary reported the MET quality system implementation (QMSMET) in the NAM/CAR Regions, as well as the revised draft Guide developed by the GREPECAS Aeronautical Meteorology Subgroup (AERMETSG9) for the CAR/SAM Regions, to support States in the implementation of the quality system in aeronautical meteorology services. The QMS/MET Guide is available on the website: http://www.mexico.icao.intMET.html.
- 3.2.50 The AERMETSG/11 meeting, consider that in order to support the meteorological information quality system for the international air navigation, one of the projects of GREPECAS MET programmes will be in charge to update this Guide.
- 3.2.51 In this regard, and according to NACC/WG/3/7 Conclusion, States were encourage to take the necessary actions and required the assistance by the ICAO NACC Regional Office, if necessary, to implement a QMS/MET no later than **15 November 2012**.

3.3 Specific Developments in Air Navigation

AIM

3.3.1 Through WP/05 presented by the Secretariat and NE/25 presented by COCESNA, the Meeting focused its attention on the requirement for States to supply electronic terrain and obstacle data in different Areas [1, 2 (a, b, c and d), 3 and 4] and, taking into account the GREPECAS AIM e-TOD Project, it is proposed to have a guide to prepare an e-TOD Action Plan for the CAR Region.

- 3.3.2 The Meeting reviewed the Guide to Prepare an e-TOD Action Plan presented through Appendix B to WP/05 of this Meeting, and to integrate within the Action Plan the use of an aeronautical information exchange model, the use of geographic information systems (GIS) and metadata definition. Finally, the Meeting was requested to send to the ICAO NACC Regional Office the Action Plans for the e-TOD Implementation by **31 July 2012**.
- 3.3.3 Through WP/25, COCESNA proposed to Central American States to consider the possibility to request a feasibility study to implement an e-TOD database in Central America. During the presentation to the Technical Committee, the following recommendations were highlighted:
 - Consolidate working teams formed by AAC or DGAC/National Geographical Institute or its equivalent to carry out geodetic surveys
 - Schedule a working calendar
 - Certificate information
 - Publish information/aeronautical data
 - Design, verify in-flight PBN procedures and to publish them in the AIP
 - Consider the convenience to create a unique Central American e-TOD database
- 3.3.4 The Meeting was informed about the following considerations to be analyzed and resolved by the CA/ANE/WG in order to promote the e-TOD data compliance:
 - The territorial extension of the six Central American States considered within Area 1 is of approximately 445,882 km²
 - 14 international airports in Central America, to comply with the survey standard for e-TOD Areas
 - Currently, most Aeronautical/Civil Aviation administrations do not have the specialists nor the equipment to carry out the surveys
 - In some cases, there is no allocation of funds to carry out these activities and no detailed plans to comply with these ICAO requirements.
- 3.3.5 Regarding this issue, the CA/ANE/WG considered the following Draft Conclusion:

DRAFT CONCLUSION 4

FEASIBILITY STUDY PROJECT FOR THE IMPLEMENTATION OF A CENTRAL AMERICAN e-TOD DATABASE

That Central American States consider carrying out a feasibility study for the implementation of a Regional Project for the development of a Central American e-TOD database whose viability is to be approved in the forthcoming Central American Civil Aviation Directors General Meeting.

- 3.3.6 The Secretariat presented to WP/06 on QMS and SMS, which are issues that should be dealt with jointly in order to reach the aviation safety objectives within an organization. The Meeting concluded that both systems require harmonization and that it was necessary to clarify how to do it and that it is important to minimize any conflicts and identify any overlaps between them. SMS and QMS should be complementary.
- 3.3.7 Several global SMS and QMS harmonization practices from States were presented (Japan, Australia, Europe and China). The Secretariat informed the Meeting that ICAO Headquarters is working on Amendment 37 to Annex 15 (which could include a relationship between QMS and SMS) and the ICAO QMS Manual, which could support States to clarify how to harmonize QMS and SMS.

AGA

- 3.3.8 The Secretariat presented WP/07 highlighting the runway safety program developed by ICAO related to the prevention and mitigation of runway incursions/excursions and other related occurrences. In addition, the best practices for improving safety and the creation of Runway Safety Teams were highlighted. To date, it has been considered to establish of Runway Safety Teams (RST) which are meant to assist on the development of a deficiencies analysis of the RST, identifying areas of opportunity with the respective recommendations that will support its implementation.
- 3.3.9 Following-up on this project, the Meeting was informed that currently there is a pilot project launched to create a RST on the Mexico City International Airport, the same that has been supported by the DGAC of Mexico and International stakeholders, together with the ICAO NACC Regional Office. For this purpose, monthly meetings are being held to continue with the process of implementation of a RST at the AICM.

ATM

- 3.3.10 The Meeting noted that the ICARD has been implemented around the world and is currently the only approved method by ICAO for the allocation of 5LNCs, according to State Letter Ref. EMX0530 sent on 1 June, 2011 requesting the States/Territories eliminate any 5LNCs codes allocated before the implementation of ICARD and which have not yet been published.
- 3.3.11 States should verify the availability of 5LNCs using the ICARD before the publication of the 5LNCs that were awarded through the ICARD database, to reduce the possibility of code duplication, which will help States adhere to the principles of 5LNCs establishment and allocation, as set out in Annex 11, Appendix 2.

CNS

3.3.12 Complementary to the ND/05, MEVA TMG Coordinator presented an update the transaction plan MEVA II Network to the MEVA III, highlighting the reasons of this transaction and activities to perform in this process. In this sense the meeting agreed to support all necessary to accomplish successfully the transaction, assuring that member states of MEVA participate in the elaboration of the required documentation, supporting the participation of their representatives on next meeting.

- 3.3.13 The Ad-hoc group on ADS-B implementation of activities based their discussion on the following notes:
 - a) WP/14, in which the Secretariat presented a brief review on the ADS-B work and activities in the CAR Region, the results and agreements of the ADS-B/MLAT workshop and proposes actions to continue with the participation in these activities.
 - b) IP/05, in which COCESNA presented a new Project for the renovation of the Central America Control Centres, as well as plans to implement in a short term ADS-B and ADS-C systems
 - c) IP/12, United States informed of the progress made in their Surveillance and Broadcast Services (SBS) Project with the ADS-B implementation for Air Traffic Control (ATC) separation services and the Traffic Information Services Broadcast (TIS-B) and Flight Information Services Broadcast (FIS-B), expecting to achieved an ADS-B coverage in the majority of the United States National Airspace System by 2013, where there is radar coverage today.
 - d) NI/15, Cuba reported the evaluation of ADS-B data, different problems in the flight identifiers, messages with NIC 0 and other observations that will be considered in the evaluation and comparison with ADS-B data.
 - e) WP/30, CANSO presented a cost-benefit analysis draft basic guide, which should be analyzed and optimized by the Ad-hoc Group to be presented to the next CA/ANE/WG and C/CAR/WG meetings as a reference guide for the CAR Region States.
- 3.3.14 States were urged to support the ADS-B data analysis, informing their plans or activities related to ADS-B for consideration and participation of other States, review the agreements accomplished in the ADS-B/MLAT Implementation Workshop, held in September 2011, and encourage participation of Ad-hoc groups and other States in this implementation by designating a focal point by State for future coordination.
- 3.3.15 IATA expressed its support to the activities related with the ADS-B implementation and informed that currently, IATA is finishing the development of an online database (web-based) with avionics information from its members fleet and which are defining the form in which the database is accessed by States so they can use and complement the information contained in it. IATA will notify ICAO when this database is available and projected its availability by the next meeting of the Working Groups.

MET

WAFS to WIFS Transition Status Update

3.3.16 The GREPECAS Aeronautical Meteorology Subgroup (AERMETSG/11) noted that some users have several point of contacts (PoCs), therefore agreed that, as a backup to the authentication of the application process for the internet file service WAFS (WIFS), the WIFS register will consider only one list and one PoC which the ICAO Regional Offices in Mexico and Lima should keep updated, in compliance with GREPECAS Conclusion 15/6. In this context, WP/22 includes the WIFS operational point of contact lists for the CAR/SAM Regions.

- 3.3.17 Likewise, the Meeting was informed on the International Satellite Communications System Generation 2 (ISCS-G2) to WIFS by the CAR/SAM Regions States which have register for a WIFS account, and the operational implementation has been successful. However, the Meeting noted that several WIFS accounts have been very active, but others are not.
- 3.3.18 The Meeting recalled that the ISCS/WIFS provider in Washington extended the ISCS-G2 service until 30 June 2012, and no additional extensions are possible, and beginning 1 July, 2012, WIFS will be the only means available for users to obtain WAFS data products from the Washington WAFC.
- 3.3.19 Also, the NACC/DCA Fourth Meeting approved Conclusion 3/7 c), in which States are encourage to activate their account and hence assist the ISCS/WIFS State provider to evaluate if the account operates adequately and if the user is accessing the WAFS data. The objective of this follow-up to States is to guarantee the ISCS service transition to WIFS, as soon as possible and no later than 31 March 2012.
- 3.3.20 Haiti informed that by the end of March 2012, will send to ICAO the PoC and WIFS registration.

SAR

- 3.3.21 Following NACC/WG/3 Conclusion 5, the Secretariat presented WP/09 with the progress on the State SAR capability assessment considering the implementation of the 406 MHz Emergency Locator Transmitter (ELT), the implementation of national procedures for searching aircraft, risk management in practice and safety management systems (SMS) for the SAR service, the requirements, profiles of staff and inspectors, SAR training programmes and the establishment of SAR agreements.
- 3.3.22 The Meeting took note that so far only Guatemala, Honduras, Mexico, Dominican Republic and Trinidad and Tobago have presented the information according to their SAR capability. In support to this work, the ICAO NACC Regional Office is organizing a SAR Capability Assessment Workshop in June 2012. The Meeting considered that States/Territories and International Organizations should promote their participation in order to accomplish established goals.
- 3.3.23 COCESNA presented NI/10 with the SAR activities report that has been developed by the Central American States according to the recommendations and conclusions of the Search and Rescue Committee (COBUSA), which supports the civil and military cooperation as a complement of coordination of Search and Rescue (SAR) in response to the activation of the Emergency Transmitter Locator (ELT) 406 MHz.
- 3.3.24 United States presented IP/13 regarding a technical cooperation project approved by IMO for the "Establishment of Regional MRCCs in Central America." The project refers to the seven Central American States Belize, Costa Rica, El Salvador, Guatemala, Honduras, Nicaragua and Panama. The first step of the project, expected to start in early 2012, and includes a series of needs assessment and evaluation missions.

3.3.25 The Meeting expressed its concern about the lack of coordination with the States and requested that the ICAO NACC Office carries out the necessary coordination and present the information for the next meeting of General Directors of Civil Aviation.

SMS Project Implementation in ATS / COCESNA

- 3.3.26 COCESNA presented NI/07 with updated information on the SMS Project Implementation in ATS in accordance with ICAO guidelines contained in the *Safety Management Manual (SMM)* (Doc 9859), which is also estimated to facilitate the integration process when States implement their State Safety Programme (SSP).
- 3.3.27 Based on the integration of Management Systems (SMS/QMS) in the services provided by COCESNA, there are important advances in the combined activities performance execution for the implementation Phases (IV) of the SMS. COCESNA is expected to implement an initial SMS in the ATS Service by late 2012, which will be the basis for a continued strengthening/improvement.

APPENDIX A RELEVANT PROGRESS MADE BY THE C/CAR/WG

RPO 1 Implementation of Performance Based Navigation (PBN) (en route, Terminal and procedures)

Cuba will finalize the optimization of the ATS en-route route network, as well as several SID and STARs in the end of 2012.

Dominican Republic will implement RNAV-5 by September 2012. Jamaica will also implement RNAV-5. United States has planned the implementation of RNP-1 and RNP-2.

RPO 2 Implement Flexible Use of Airspace (FUA)

Despite the progress in this RPO, the C/CAR/WG suggested that ICAO circulate a survey among the States on the usefulness and necessity to carry out civil/military coordination and cooperation workshops to improve the scope and benefits of these events.

RPO 3 Improve Demand and Capacity Balancing (DCB)

The Meeting recognized that most of the C/CAR States has not reported ATS and AAR capacity for at least those aerodromes with more movement intensity and this information is basic to be able to assess the demand and capacity balance. Likewise, several States have not informed their point of contact for teleconferences regarding ATFM.

RPO 4 Improve ATM Situational Awareness

Regional cooperation regarding radar data sharing between Cuba Jamaica, and COCESNA is highlighted, as well as ATC systems modernization plans by Cuba, Curaçao (April 2013) and Dominican Republic including ADS-B data collection by Cuba, Jamaica and United States.

Jamaica reported having eventual coordination difficulties concerning en-route traffic with Barranquilla and Panama ACCs.

RPO 5 Implementation of the New ICAO Flight Plan Format

Activities for this implementation continue and it is estimated that the C/CAR States will be ready for the change to the new flight plan format on the foreseen date (15 November 2012).

RPO 6 Improve SAR System

SAR agreements reached between States and local authorities in Dominican Republic and the SAR-related training provided are highlighted.

RPO 7 Enhance Capacity and Efficiency of Aerodrome Operations

Dominican Republic, Haiti and Jamaica have provided courses to reduce runway incursions.

RPO 11 Implementation of the AIM Transition

Cuba informed about its progress regarding AIM implementation, AMHS development and training. Curação has planned this transition, to be completed by 2013 and Mexico is working in preparing the electronic AIP by 2013.

RPO 12 Improve Availability of Meteorological Information

Cuba and United States have already implemented a MET quality management system (QMS) and Dominican Republic is in the process of obtaining ISO-9001 quality certification for MET services.

Further details on this progress and other implementation activities are available in DP/01.

APPENDIX B RELEVANT PROGRESS MADE BY THE CA/ANE/WG

RPO 3 Improve Demand and Capacity Balancing (DCB)

WP/24 presents the progress made by COCESNA concerning the development of an Air Traffic Management system and the plans for its implementation.

RPO 4 Improve ATM Situational Awareness

Progress on the implementation of radar data exchange between Cuba, Panama and COCESNA, as well as contracting for the enhancement of CENAMER, El Salvador and Managua ATC centres and the Renewal of radar systems and the use of Mode S radars in Central America was reported. The continuity of activities for the collection of ADS- data was also reported.

RPO 5 Implementation of the New ICAO Flight Plan Format

Under WP/27 COCESNA informed on the work to enhance the modernization of the message handling system to comply with the new FPL format, the training activities, the Central American regional work plan and the planning of changes in the ATC systems, as well as the development of a converter as a temporary solution. The implementation activities continue and it is estimated that the Central American States will be ready for the transition to the new flight plan format on the foreseen date (15 November 2012).

RPO 6 Improve SAR System

NI/10 includes the progress achieved by COCESNA through the COBUSA.

RPO 9 Optimization and Modernization of Communication Infrastructure

COCESNA is working on an AMS communications improvement plan for the Pacific Oceanic part of the Central American FIR through a study on the improvement of the HF radio systems, the use of ADS-B and VHF AMS communications from Isla del Coco. Likewise, ATS voice communications for COCO APP and Panama ACC as well as Belize APP and Merida ACC have been completed.

RPO 11 Implementation of the AIM Transition

COCESNA already has a work plan for this transition.

Further details on this progress and other implementation activities are available in DP/02.

Agenda Item 4 Terms of Reference (ToRs) and Work Methodology Review

4.1 CA/ANE/WG and C/CAR/WG Terms of Reference (ToRs) and Work Methodology review and update

- 4.1.1 The Meeting reviewed the CA/ANE/WG and C/CAR/WG Terms of Reference as approved by the Directors of Civil Aviation. **Appendices A** and **B** of WP/16 include a updated version of the CA/ANE/WG and C/CAR WG Terms of Reference, respectively.
- 4.1.2 The Meeting agreed that the work programme of the CA/ANE/WG and C/CAR/WG are aligned to the NAM/CAR Regional Performance-Based Air Navigation Implementation Plan (RPBANIP), being supplemented by the actions plans corresponding to the RPBANIP Regional Performance Objectives (RPO).
- 4.1.3 The CA/ANE/WG in its ND/02, updated their group's membership and requested the new members to review and update its Committee corresponding action plans. In this regard and to supersede Decision CA/ANE/WG/6/3, the CA/ANE/WG members agreed on the following Decision:

DECISION 5 MEMBER DESIGNATION AND UPDATE OF CA/ANE/WG AND COMMITTEES ACTION PLANS

Considering the designation of new CA/ANE/WG members and with the objective to have an update and definition of the action plans to be executed by each Committee, the CA/ANE/WG Chairperson will:

- a) coordinate and update the membership of the CA/ANE/WG and Committees;
- b) coordinate the update and/or define the Committee's action plans according to the new CA/ANE/WG membership; and
- c) inform ICAO of the new membership and action plans, no later than **23 April 2012.**

Election of the C/CAR/WG President

- 4.1.4 Since Mr. Fidel Ara (Cuba) completed two terms as Chairman of the C/CAR Working Group, the members of this Group considered appropriate to appoint a new Chairperson and Mr. Julio César Mejía Alcántara from the Dominican Republic was unanimously elected.
- 4.1.5 The delegates of the Meeting thanked Mr. Ara for the valuable work performed during his term as Chairman, and at the same time welcomed Mr. Mejía, offering their support and wishing him success in his new assignment.

Comments on the CA/ANE/WG/7 and C/CAR/WG 9 joint meeting

- 4.1.6 With the purpose to improve the efficiency of the Working Group work, the Meeting agreed to express some comments on the joint organization of the two working groups:
 - The delegate from Cuba mentioned that several simultaneous meetings were held which limits the States participation.
 - The United States delegation informed that there was not enough time between activities.
 - The Dominican Republic delegation expressed that joint meetings should only be held if there are common issues between both Working Groups.
 - The delegation of Guatemala and the representative of IATA agreed with the holding of a joint meeting for both Working Groups.

Agenda Item 5 Other business

- 5.1 Through WP/17, the Secretariat informed about ICAO's initiative regarding the Aviation System Block Upgrades (ASBUs) Methodology, which complies with the global requirements for airspace interoperability while maintaining its focus on safety and the need to integrate the air, ground and regulatory parts in the air navigation infrastructure planning by addressing flight trajectories as a whole, distributing the decision-making process, taking into account safety risks and recognizing the changing role of the human element.
- 5.2 The ASBU methodology establishes a global framework that comprises a suite of modules, which are organized into flexible and scalable building blocks and can be implemented in a State or a region depending on the need and level of readiness. The ASBU initiative will be integrated under the *OneSky* concept in the revised Global Air Navigation Plan (GANP, Doc 9750) with the intent to seek the endorsement of the Twelfth Air Navigation Conference (AN-Conf/12) scheduled from 19 to 30 November 2012 in Montréal, Canada,.
- 5.3 The Meeting was invited to learn more about this methodology through the Global Air Navigation Industry Symposium (GANIS) webpage, held in September 2011, in which initial ASBU proposals presented with the participations of all the involved http://www2.icao.int/en/GANIS/Pages/Documentation.aspx. In addition, the Meeting was informed about the ICAO Regional Workshop on Preparations for AN-Conf/12 — Aviation System Block Upgrades (ASBU) Methodology for the North American, Central American and Caribbean States (NAM/CAR) that was held in the ICAO NACC Regional Office from 27 February to 2 March 2012. The presentations and results of the Workshop are available at: http://www.mexico.icao.int/Meetings/ASBU2012.html. In addition, the Meeting was informed about the forthcoming presentations planned for the Directors Meetings.
- In this regard, the Meeting noted that air navigation plans must be adjusted in accordance with the Global Air Navigation Plan (GANP) update and the ASBU methodology, issues that will be available once discussed and agreed in the AN-Conf/12.

5.5 Host and dates of the next CA/ANE/WG and C/CAR/WG Meetings

- 5.5.1 Under WP/18, the Meeting was briefed of the established host rotation schedule for the C/CAR/WG and CA/ANE/WG Meetings. In accordance with the Terms of Reference of each Working Group, these meetings will be convened every year, or whenever necessary. In this regard the meetings shall be held in:
 - C/CAR/WG/10 Meeting shall be held in Aruba. Since Aruba was not present in the Meeting, ICAO will coordinate accordingly with Aruba.
 - CA/ANE/WG/8 Meeting will be held in Costa Rica, preferably during the second quarter of 2013. The representative of Costa Rica confirmed this hosting.

5.6 ICAO Electronic Safety Tools

- 5.6.1 The Secretariat submitted information on the ICAO Electronic Safety Tool, whose content focused on the ICAO Safety framework, the Training Plan, Safety Tools User Group (STUG) and examples of the usage of these tools. New electronic tools will be available for the States in coming months.
- 5.6.2 The Meeting considered that the electronic tools will be a valuable resource for obtaining and exchanging data between ICAO and the States. Therefore, the Meeting considered necessary to promote its usage, especially considering the upcoming celebration of the AN-Conf/12 referred in the paragraph 5.1.2 of this Agenda Item.
- 5.6.3 The Secretariat introduced the ICAO Fuel Savings Estimation Tool (IFSET) specifically designed to calculate the benefits of operational improvements.
- The Meeting took note that the tool is not intended to replace the use of detailed measurement or modelling of fuel savings, where those capabilities exist. Rather, it is provided to assist those States or ANSPs without such facilities to estimate the benefits from operational improvements. Moreover, the tool shall be considered to carry out these estimates under the Aviation System Block Upgrades (ASBU) methodology and the NAM/CAR Regional Performance-Based Air Navigation Implementation Plan (NAM/CAR RPBANIP).
- 5.6.5 The application is available on the following website: http://www.mexico.icao.int/Meetings/ASBU2012.html . Additional information exists in the user guide available at: http://www.icao.int/environmental-protection/Pages/Tools.aspx3
- 5.6.6 The Meeting agreed that the States/ANSPs in the CAR region should start reporting the benefits of operational improvements. In this regard, the following was agreed:

DRAFT CONCLUSION 6

IMPLEMENTATION OF THE ICAO FUEL SAVINGS ESTIMATION TOOL (IFSET) IN CENTRAL CARIBBEAN AND CENTRAL AMERICA

That, taking into account the Assembly Resolution A37-19, consolidated statement of the continuing ICAO policies and practices related to environmental protection – Climate change, the Central Caribbean and Central American States/Territories report to ICAO the benefits achieved with the implementation of improvements related to the fuel savings every three months from **30 June 2012**.