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

FIRST NAM/CAR AIR NAVIGATION IMPLEMENTATION WORKING GROUP MEETING

ANI/WG/1

FINAL REPORT

MEXICO CITY, MEXICO, 29 JULY TO 1 AUGUST 2013

Prepared by the Secretariat

July 2013

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HISTORICAL

ii.1 Place and Date of the Meeting

The First Meeting of the North American, Central American and Caribbean Air Navigation Implementation Working Group (ANI/WG/1) was held at the ICAO NACC Regional Office in Mexico City, Mexico, from 29 July to 1 August 2013.

ii.2 Opening Ceremony

Mr. Jorge Fernandez, Deputy Director of the International Civil Aviation Organization (ICAO) North America, Central America and Caribbean (NACC) Regional Office, on behalf of Mrs. Loretta Martin, Regional Director of the ICAO NACC Regional Office, welcomed the participants. He highlighted the importance of consolidating the activities of the former sub-regional working groups; the scope and role of the ANI/WG in air navigation implementation issues; the reporting, monitoring and preparation of its activities under the ICAO Aviation System Block Upgrade (ASBU) framework; the challenges and organization to be carried out in 2014; ICAO air navigation milestones; and the upcoming Fourth North American, Central American and Caribbean Working Group Meeting (NACC/WG/04). He also thanked the chairmen of the former working groups for their contributions, the attendees for their participation and officially opened the meeting.

ii.3 Officers of the Meeting

The ANI/WG/1 was chaired by the elected Chairman, Mr. Julio Mejia, from Dominican Republic. Mr. Julio Siu, Regional Officer, Communications, Navigation and Surveillance, acted as Secretary of the meeting and was assisted by Mr. Víctor Hernández, Regional Officer, Air Traffic Management and Search and Rescue, Mr. Raúl Martínez, Regional Officer, Aeronautical Information Management, and Mr. Julio Garriga, Regional Officer, Technical Cooperation.

The meeting was conducted in plenary and Ad hoc groups were formed to discuss specific topics of the agenda.

ii.4 Working Languages

The working languages of the meeting were English and Spanish. The working papers, information papers and draft report of the meeting were available to the participants in both languages.

ii.5 Schedule and Working Arrangements

It was agreed that the working hours for the sessions of the meeting would be from 09:00 to 15:30 hours with adequate breaks.

ii.6 Agenda

Agenda Item 1 **Appointment of the Chairperson, Review and Approval of the Agenda, Working Method and Schedule of the Meeting**

Agenda Item 2 **Terms of Reference (ToRs) and Work Methodology Review**

Agenda Item 3 **Review and Follow-up onRelevant and Valid Conclusions/Decisions of C/CAR/WG/9, CA/ANE/WG/7, E/CAR/CATG/1, DGAC/CAP/97, E/CAR/DCA/24, C/CAR/DCA/13, GREPECAS PPRC/2, NACC/WG/3 and NACC/DCA/4 and Actions from NAM/CAR ANI/WG Teleconferences**

Agenda Item 4 **Air Navigation Matters**

4.1 AN-Conf/12 Results and other Global/Regional Air Navigation Developments

4.2 Follow-up on the NAM/CAR Regional Performance Based Air Navigation Implementation Plan (NAM/CAR RPBANIP):

- Alignment of RPBANIP with Aviation System Block Upgrades (ASBU) framework and Block 0 Modules - How to address the subjects not covered by ASBU framework
- Progress reports of the former Sub-regional Working Groups on AIM, ATM and CNS fields.
- National Plans Reports on ASBUs (AIM, ATM and CNS)

4.3 Performance Monitoring of Air Navigation Systems:

- Implementation monitoring through Air Navigation Report Form (ANRF)
- Review of Air Navigation performance indicators and metrics - Determine performance indicators/metrics that are suitable for the NAM/CAR Regions
- Annual Global Air Navigation Report

4.4 Human Factor and Training Issues

Agenda Item 5 **Other Business**

5.1 Dates of the next ANI/WG meeting and Teleconferences

5.2 Other Business

ii.7 Attendance

The meeting was attended by 13 States/Territories from the NAM/CAR Regions, 1 State from the SAM Region, 4 International Organizations, totalling 37 delegates as indicated in the list of participants.

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 the NAM/CAR Regions

DECISIONS: Internal activities of the Air Navigation Implementation Working Group Meeting (ANI/WG)

ii.9 List of Working and Information Papers and Presentations

Refer to the Meeting web page:
http://www.mexico.icao.int/Meetings/ANIWG1.html

WORKING PAPERS

Number	Agenda Item	Title	Date	Prepared and Presented by
WP/01	1	Provisional Agenda and Schedule of the First NAM/CAR Air Navigation Implementation Working Group Meeting	19/06/13	Secretariat
WP/02	2	Review of the Terms of Reference and Work Methodology of the ANI/WG	05/07/13	Secretariat
WP/03	3	Review and follow-up to relevant and valid conclusions/decisions of the former working groups, E/CAR/CATG/1 Meeting and actions from NAM/CAR ANI/WG Teleconferences	11/07/13	Secretariat
WP/04	4.1	Twelfth Air Navigation Conference (AN-Conf/12) and Recommendations Implementations of Aviation System Block Upgrades (ASBUs)	03/07/13	Secretariat
WP/05	4.1	The New ICAO Annex 19 on Safety Management of Air Navigation	09/07/13	Secretariat
WP/06	4.2	Final Report of CA/ANE/WG	25/07/13	COCESNA
WP/07	4.2	Progress Report on Air Navigation Implementation in the Eastern Caribbean area	20/07/13	E/CAR/CATG Chairman
WP/08	4.2	Report on the Progress of the Central Caribbean Working Group	25/06/13	Chairman of Former C/CAR/WG
WP/09	4.2	Follow-up on the Implementation of the NAM/CAR Regional Performance Based Air Navigation Plan (NAM/CAR RPBANIP)	25/06/13	Secretariat
WP/10	4.2	Progress in ADS-B Activities and Multilateration (MLAT)	26/07/13	ADS-B Ad-hoc Group Rapporteur
WP/11 Rev.	4.2	The NAV Canada Air Navigation System Plan	12/07/13	Canada

WORKING PAPERS

Number	Agenda Item	Title	Date	Prepared and Presented by
WP/12	4.2	Follow- up to Aeronautical Mobile Service (AMS) Communications Improvements, ATS Messages Handling Systems (AMHS) and ATS Interfacility Data Communication (AIDC) Implementation	25/06/13	Secretary
WP/13	4.2	Adoption of the Global Operational Data Link Document (Gold), Edition 2	26/07/13	Secretariat
WP/14	4.2	Efficient use of the Airspace	11/07/13	Secretariat
WP/15	4.2	PBN Airspace Concept Implementation	08/07/13	Secretariat
WP/16	4.2	ICAO Regional Technical Cooperation Project for the Caribbean Region – Implementation of the Performance Based Air Navigation Systems for the CAR Region (RLA/09/801) – Tool for streamlining air Navigation Implementation	11/07/13	Secretariat
WP/17	4.2	The ICAO position for the International Telecommunications Union (ITU) World Radiocommunication Conference (2015) (WRC-15) and Updates to the ICAO Frequency Policy	09/07/13	Secretariat
WP/18	4.2	Results of the Implementation of the New ICAO Model Flight Plan (FPL) Form	09/07/13	Secretariat
WP/19	-----	Cancelled		
WP/20	4.3	Review of Regional Performance – Based Metrics and Benefits	11/07/13	Secretariat
WP/21 Rev.	4.4	Air Navigation Training and Human Factors	29/07/13	Secretariat
WP/22	4.2	ASBU Implementation	26/07/13	Secretariat
WP/23	5.1	Hosting of Air Navigation Implementation Working Group Meetings	16/07/13	Secretariat
WP/24	4.2	ATM-MET-AIM Coordination	26/07/13	Secretariat
WP/25	4.2	National Plans for the Transition from AIS to AIM	17/07/13	Secretariat
WP/26	4.2	Review of the IPV4 addressing scheme for the Inter/Intra-Regional G-G links of the CAR/SAM	15/07/13	Dominican Republic
WP/27	4.2	Flexible Use of Airspace in the Common Boundary of Habana and Miami FIRs	24/07/13	Cuba
WP/28	4.2	New ICAO Flight Plan Model Post-Implementation Monitoring	26/07/13	Cuba

INFORMATION PAPERS

Number	Agenda Item	Title	Date	Prepared and Presented by
IP/01 Rev.	--	List of Working and Information Papers	06/08/13	Secretariat
IP/02	3	Review and Follow-up to Relevant and Valid Conclusions/Decisions from DCA´s Meetings, GREPECAS and NACC/WG Related to ATM, AIM and CNS Matters	26/07/13	Secretariat
IP/03	4.2	MEVA III Transition Process Update	05/07/13	MEVA TMG Coordinator
IP/04	4.2	MEVA II E-CAR AFS Network Interconnection Activities	09/07/13	MEVA TMG Coordinator
IP/05	4.1	ICAO eANP Development	25/06/13	Secretariat
IP/06	4.1	A Comprehensive Strategy for the Revised Global Air Navigation Plan	25/06/13	Secretariat
IP/07	4.2	Cooperation Between Canada and the United States	08/07/13	Canada and United States
IP/08	4.2	ADS-B Via Low Earth Orbiting Satellites: Benefits Assessment	15/07/13	Canada
IP/09	4.2	Implementation of Reduced Lateral Separation and New RNAV Route Restructure in the Gulf of Mexico	08/07/13	United States
IP/10	4.2	Global Information Space for Seamless Delivery of Air Traffic Management (ATM) Information	08/07/13	United States
IP/11	4.1	The Mini-Global Demonstration	08/07/13	United States
IP/12	4.2	Improvements in the PIARCO FIR- System Automation Progress	09/07/13	Trinidad and Tobago
IP/13	4.2	Manual of Quality Management System (QMS) for Aeronautical Information Management (AIM)	09/07/13	Secretariat
IP/14	4.2	Communication and Surveillance Improvements in the Piarco FIR – Eastern Caribbean	15/07/13	Trinidad and Tobago
IP/15	4.1	The evolution of electronic tools and data: A strategic plan for the creation of a community-driven decision-support digital environment for the global aviation community	15/07/13	Secretariat

PRESENTATIONS

Number	Agenda Item	Title	Presented by
1	4.2	NextGen: the United States' Modernization Plan	United States
2	4.3	Air Navigation Monitoring and Reporting ANRF, Dashboard and Annual Report	Secretariat
3	4.2	The NAV CANADA – Air Navigation Plan	Canada
4	4.2	ADS-B via Low Earth Orbiting Satellites Benefits Assessment	Canada
5	4.2	Avionic Equipage Survey 2012	IATA
6	4.2	Performance de Comunicación Requerida (RCP) Comunicaciones ATS *Disponible únicamente en español*	Secretariat

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Agenda Item 1 Appointment of the Chairperson, Review and Approval of the Agenda, Working Method and Schedule of the Meeting

1.1 The Meeting elected Mr. Julio Mejia from Dominican Republic and Mr. Rohan Garib from Trinidad and Tobago as Chairman and Vice Chairman of the ANI/WG, respectively.

1.2 The Secretariat presented WP/01, inviting the Meeting to approve the draft 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 schedule.

Agenda Item 2 Terms of Reference (ToRs) and Work Methodology Review

2.1 The Meeting reviewed WP/02 presented by the Secretariat, which included the proposed ANI/WG ToRs and Work Programme. The Meeting made a few changes to reflect the main activities and scope of the Working Group for the NAM and CAR air navigation implementation activities for the ATM, AIM and CNS fields.

2.2 Considering the existence of various Ad hoc Groups that were working in support of the implementation working groups, such as the ADS-B Ad hoc Group, the AMHS Implementation Group, etc., the Meeting considered necessary to group them under the ANI/WG structure, including any other specific implementation task group, with the aim of providing continuity. In this regard, seven topics that shall be developed through Task Forces under the ANI/WG were identified, and initial ToRs and preliminary membership were agreed upon. The Task Forces are as follows:

a) Task Force on Implementation of the Performance-Based Navigation (PBN) Airspace Concept
b) Task Force on Implementation of Air Traffic Flow Management (ATFM)
c) Task Force on Implementation of ATS Message Handling Systems (AMHS)
d) Task Force on Implementation of Automatic Dependent Surveillance – Broadcast (ADS-B)
e) Task Force on Implementation of Air Traffic Services Inter-Facility Data Communication (AIDC)
f) Task Force on Implementation of Aeronautical Information Management (AIM)
g) Task Force on Operational Analysis of the GOLD Document Version 2

2.3 Similarly, the Meeting proposed several delegates in attendance at the Meeting as Rapporteurs and Members of the ANI/WG. Due to the absence of several CAR States and Territories, the Meeting agreed that ICAO should pursue additional members for the ANI/WG. The Terms of Reference, Work Programme and membership of the ANI/WG are presented in **Appendix A** to this part of the report. Likewise, the ToRs and membership of each one of the ANI/WG Task Forces are presented in **Appendices B** to **H** to this part of the report. In this regard, the Meeting formulated the following draft conclusions and decisions:

DRAFT
CONCLUSION ANI/WG/1/1 TERMS OF REFERENCE AND WORK PROGRAMME OF THE ANI/WG

That in order to establish the functions, responsibilities and actions of the NAM/CAR Air Navigation Implementation Working Group (ANI/WG), its Terms of Reference and Work Programme included in Appendix A to this part of the report are proposed for approval by the Directors of Civil Aviation of the NAM and CAR Regions.

DRAFT
CONCLUSION ANI/WG/1/2 MEMBERSHIP OF THE ANI/WG

That in order to ensure appropriate ANI/WG representation of NAM and CAR States and Territories and International Organizations, ICAO transmit a letter to NAM/CAR States, Territories and International Organizations requesting designation and confirmation of respective Members to the ANI/WG, including its Task Forces, by **31 October 2013**.

DECISIÓN ANI/WG/1/3 TERMS OF REFERENCE, WORK PROGRAMME AND MEMBERSHIP OF THE ANI/WG TASK FORCES

That in order to continue the implementation works of the ANI/WG, the ANI/WG Task Forces:

a) organize their first teleconference by **31 October 2013,** in order to review and update their terms of reference and corresponding work programme; and

b) present the proposed changes to their terms of reference and corresponding changes to the work programme and membership of the ANI/WG to the ICAO NACC Regional Office by **15 November 2013**.

DECISION ANI/WG/1/4 ANI/WG ACTION PLANS

That in order to comply with the RPBANIP Regional Performance Objectives related to the AIM, ATM and CNS fields, the ANI/WG:

a) develop necessary action plans considering the plans of the former implementation groups (C/CAR/WG, CA/ANE/WG and E/CAR/WG); and

b) present these action plans to the ICAO NACC Regional Office by **29 November 2013**.

2.4 The Secretariat referred to ANI/WG support granted, making available a web page to include necessary references for implementation and follow-up on the work of the ANI/WG, as well as technical assistance availability and the use of the “GotoMeeting” application in order to facilitate necessary teleconferences.

APPENDIX A

TERMS OF REFERENCE AND WORK PROGRAMME OF THE NAM/CAR AIR NAVIGATION IMPLEMENTATION WORKING GROUP (ANI/WG)

1. Background

The NAM/CAR Air Navigation Implementation Working Group (ANI/WG) was established in response to Conclusion 4/9 - *Consolidation of Sub-Regional Working Groups in the CAR Region* at the Fourth Meeting of North American, Central American and Caribbean Directors of Civil Aviation (NACC/DCA/4) and endorsed by the 96th Meeting of Directors General of Civil Aviation of Central America and Panama (DGAC/CAP/96) held in Mexico City, Mexico, from 22 to 25 May 2012, the Twelfth Meeting of Directors of Civil Aviation of the Central Caribbean (C/CAR/DCA/12) held in Punta Cana, Dominican Republic, from 10 to 13 July 2012, and the Twenty-fourth Meeting of Directors of Civil Aviation of the Eastern Caribbean (E/CAR/DCA/24) held in Martinique, France, from 2 to 5 October 2012.

This objective of the ANI/WG is to consolidate the existing sub-regional working groups, reduce the number of meetings, avoid duplication, expedite work progress, and improve regional harmonization focused on the Air Traffic Management (ATM), Communications, Navigation and Surveillance (CNS) and Aeronautical Information Management (AIM) air navigation fields.

2. Terms of Reference

a) Promote development of operational initiatives and Aviation System Block Upgrades (ASBUs) related to the AIM, ATM and CNS fields according to ICAO Doc 9750 - *Global Air Navigation Plan*

b) Support air navigation system(s) implementation and services identified in the CAR/SAM Air Navigation Plan, Air Navigation Plans (ANPs) of the NAM Region Air Navigation Service Providers (ANSPs), and potentially CAR/SAM and NAM Region e-ANPs related to the AIM, ATM and CNS fields according to ICAO Doc 9750 - *Global Air Navigation Plan*

c) Harmonize operational improvements and associated implementation activities in accordance with the NAM/CAR Regional Performance-based Air Navigation Implementation Plan (NAM/CAR RPBANIP) and update the NAM/CAR RPBANIP as required

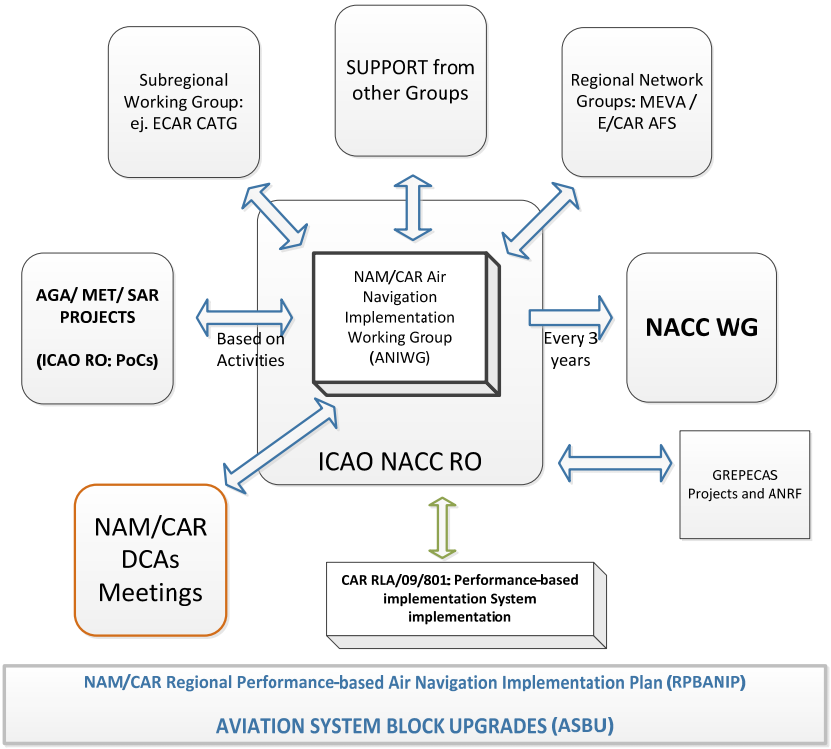
d) Promote ICAO Strategic Objectives

e) Report work programme progress to the NAM and CAR Directors of Civil Aviation and the North American, Central American and Caribbean Working Group (NACC/WG) Meetings

3. Work Programme

The ANI/WG Work Programme is based on Regional Performance Objectives (RPO) activities/tasks contained in the NAM/CAR Regional Performance-based Air Navigation Implementation Plan (RPBANIP) for the AIM, ATM and CNS fields.

The ANI/WG will coordinate and be linked with other groups and projects as shown below:



Representatives are expected to present their work progress and provide inputs to the NAM/CAR ANI/WG meetings on behalf of their State/Territory/International Organization according to the following:

a) Associate implementation of operational improvements with the seven components of Doc 9854, (Airspace Organization and Management (AOM), Demand/Capacity Balancing (DCB), Aerodrome Operations (AO), Traffic Synchronization (TS), Conflict Management (CM), Airspace User Operations (AUO) ATM Service Delivery Management (ATMSDM)) as appropriate

b) Provide recommendations to develop proposals for amendment to ICAO Doc 7030, Doc 8733 and the Air Navigation Plans of the NAM Region ANSPs to satisfy ATM community expectations

c) Develop guidelines to assist States/Territories/International Organizations to develop and implement their Air Navigation Services (ANS) National Plans related to the AIM, ATM and CNS fields so as to align with the RPBANIP

d) Monitor implementation of air navigation facilities and procedures and take appropriate action to resolve intraregional and interregional interoperability issues

e) Coordinate contributions from the Aerodromes, and Ground Aids (AGA), Aeronautical Meteorology (MET), and Search and Rescue (SAR) fields through the respective Points-of-Contact, as required

f) Promote close cooperation among States, Territories and International Organizations to optimize the use of available expertise and resources

g) Provide recommendations to improve human resource planning and development in line with ICAO guidelines

h) Quantify cost/benefit analysis of performance measurements, deadlines, stakeholders and results in terms of operational safety and environmental benefits for each implementation activity undertaken to address the RPBANIP

4. Membership

All ICAO States, Territories and International Organizations to which the ICAO NACC Regional Office is accredited shall be members of the ANI/WG. Other States adjacent to the CAR and NAM Regions may be invited to participate in the ANI/WG.

5. Working Methods

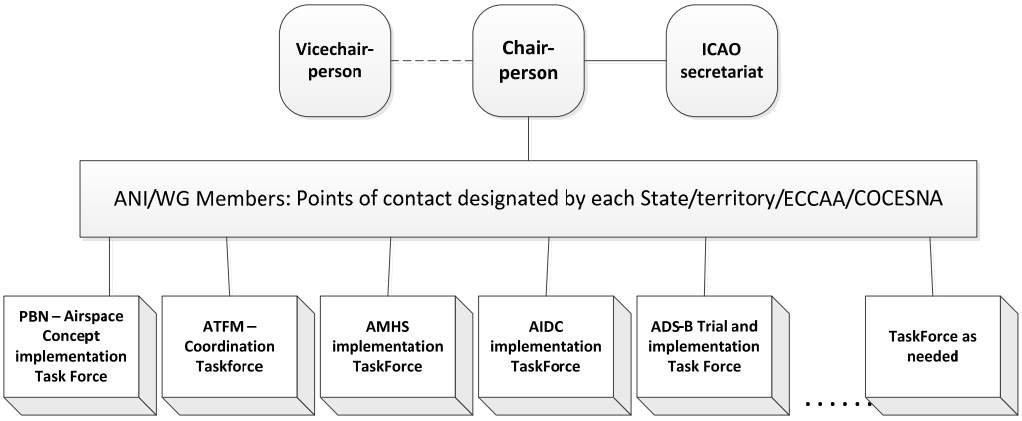
a) The ANIWG will use the following classification/definitions to record recommendations in t meeting reports:

- Decisions: Internal actions of the ANI/WG
- Draft Conclusions: Actions requiring communication to States and Territories and/or endorsement by Meetings of the NAM and CAR DCAs

b) The Vice-Chairperson, who will also be a representative from a CAR or NAM State or Territory, will be elected for the same period as the Chairman and will carry out the duties of the Chairperson when requested to do so by him/her. The duties of the Chairperson are the following:

- Chair ANI/WG meetings
- Coordinate fulfillment of tasks and action plans
- Closely coordinate with the Secretariat on development of agendas and planning, and conduct ANI/WG meetings
- Inform the CAR and NAM Region Directors of Civil Aviation meetings on ANI/WG meeting results

c) The ANI/WG may form committees to analyze specific topics whose duration will be valid for the time of the meeting. Task forces and Ad hoc Groups will be valid until the completion of the assigned tasks or until disbanded by the ANI/WG. All tasks and activities should be clearly defined by time and deliverables. Nominations of committee rapporteurs and/or task forces may be made by any State, Territory, COCESNA or ECCAA. For illustration, consider the following functional structure of the ANI/WG:



d) The ANI/WG will avoid duplication of work and maintain close coordination with States/Territories/International Organizations

e) The ANI/WG will conduct activities in the most efficient manner with a minimum of formality and documentation, using electronic tools and teleconferences to ensure timely exchange of information, as required

f) The ANI/WG Members will conduct coordination of works as follows:

- Via written correspondance, i.e., e-mail, fax, etc.
- Via phone and teleconference calls
- Via a dedicated page on the ICAO NACC Regional Office Website
- Hold meetings when necessary

g) The ANIWG will consider inputs from other regional implementation groups and States, as appropriate

h) The ANI/WG meetings will be convened every year except in years when the NACC/WG meets, or whenever necessary

i) The ICAO NACC Regional Office will provide Secretariat service

5. Meeting Sites

a) The ICAO NACC Regional Office will convene the ANI/WG Meeting at least six months prior to holding it

b) The ANI/WG will meet in accordance with the following rotational scheme: Central America, ICAO, North America, ICAO, Eastern Caribbean (E/CAR), ICAO and Central Caribbean (C/CAR)

c) Any member may, at any time, offer to host an ANI/WG meeting

6. Points-of-Contact

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APPENDIX B

TASK FORCE ON IMPLEMENTATION OF PERFORMANCE-BASED NAVIGATION (PBN) AIRSPACE CONCEPT

1. Background

During the first ANI/WG meeting, a PBN Implementation Task Force was formed in order to streamline related air navigation implementation activities. This Task Force shall carry out specific studies to support Performance-Based Navigation (PBN) implementation in the NAM/CAR Regions in accordance with the NAM/CAR RPBANIP, as well as update and report progress to the ANI/WG based on the action plan for these tasks.

2. Responsibilities

2.1 The Task Force is responsible for:

a) Work Programme Management
b) Continued refinement and ongoing review of the NAMCAR PBN Implementation Plan and monitoring and reporting on its application in the Regions
c) Assisting States with optimizing the Air Traffic Services (ATS) route structure within the NAM/CAR Regions based on PBN Airspace Concept implementation
d) Carrying out specific studies, developing guidance material and organizing workshops and seminars to assist States with Area Navigation/Required Navigation Performance (RNAV/RNP) implementation in the en-route, terminal, and approach flight phases, taking into account the PBN concept according to the ICAO Strategic Objectives and Global Plan Initiatives (GPIs)
e) Assisting States with preparation and review of their PBN Implementation Plan to ensure regional harmonization and possible inclusion in ICAO regional documentation
f) Identifying deficiencies and constraints with PBN implementation, and propose solutions that would facilitate resolution of such problems
g) Developing and reviewing material needed to meet the ICAO initiative on the introduction of Approach Procedure with Vertical Guidance (APV) approaches including Barometric Vertical Navigation (Baro-VNAV) and Required Navigation Performance-Authorization Required (RNP-AR) as part of the PBN initiative
h) Addressing other regional PBN implementation issues, including those related to safety management
i) Reviewing activities of PBN Task Forces from other regions, including their PBN implementation action plans, to ensure harmonization and avoid duplication of work

3. Working Methods

The Task Force will:

a) Present its work programme containing activities in terms of objectives, responsibilities, deliverables and timelines
b) Avoid duplicating work within the ANI/WG and maintain close coordination among the existing entities to optimize use of available resources and experience
c) Designate, as necessary, ad hoc groups to work on specific topics and activities and organize clearly defined tasks and activities
d) Coordinate tasks to maximize efficiency and reduce costs via electronic means including emails, telephone and teleconference calls, and convene meetings as necessary
e) Report on and coordinate the progress of assigned tasks to the ANI/WG

4. ***Work Programme*** - will be included

5. Membership:

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TBD	IFALPA	
TBD	IFATCA	

APPENDIX C

AIR TRAFFIC FLOW MANAGEMENT (ATFM) IMPLEMENTATION TASK FORCE

1. Background

During the first ANI/WG meeting, an ATFM Implementation Task Force was formed in order to streamline related air navigation implementation activities. This Task Force shall complete ATFM implementation in accordance with the Regional Performance Objective (RPO) and Improve Demand and Capacity Balancing (DCB) of the RPBANIP, as well as update and report progress to the ANI/WG based on the action plan for these tasks.

2. Responsibilities

The Task Force is responsible for:

a) Work Programme Management
b) Coordinating implementation and support of the ATFM system
c) Identifying and improving ATFM operations

3. Working Methods

The Task Force will:

a) Present its work programme containing activities in terms of objectives, responsibilities, deliverables and timelines
b) Avoid duplicating work within the ANI/WG and maintain close coordination among the existing entities to optimize use of available resources and experience
c) Designate, as necessary, Ad hoc Groups to work on specific topics and activities and organize clearly defined tasks and activities
d) Coordinate tasks to maximize efficiency and reduce costs via electronic means including emails, telephone and teleconference calls, and convene meetings as necessary
e) Report on and coordinate the progress of assigned tasks to the ANI/WG

4. Work programme - will be included

5. Membership

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APPENDIX D

ATS MESSAGE HANDLING SYSTEM (AMHS) IMPLEMENTATION TASK FORCE

1. Background

During the first ANI/WG meeting, an AMHS Implementation Task Force was formed in order to streamline related air navigation implementation activities. This Task Force shall complete AMHS implementation in accordance with the Regional AMHS Implementation Plan as well as update and report progress to the ANI/WG based on the action plan for these tasks.

2. Responsibilities

The Task Force is responsible for:

a) Work Programme Management
b) Coordination, implementation and trials of ATN ground applications/AMHS implementation (AMHS Regional Plan)
c) Revising and updating the IPv4 address plan and other CAR Region technical implementation issues in accordance with ICAO technical principles and guidelines

3. Working Methods

The Task Force will:

a) Present its work programme containing activities in terms of objectives, responsibilities, deliverables and timelines
b) Avoid duplicating work within the ANI/WG and maintain close coordination among the existing entities to optimize use of available resources and experience
c) Designate, as necessary, Ad hoc Groups to work on specific topics and activities and organize clearly defined tasks and activities
d) Coordinate tasks to maximize efficiency and reduce costs via electronic means including emails, telephone and teleconference calls, and convene meetings as necessary
e) Report on and coordinate the progress of assigned tasks to the ANI/WG

4. ***Work Programme*** - will be included

5. Membership

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APPENDIX E
AUTOMATIC DEPENDENT SURVEILLANCE – BROADCAST (ADS-B) IMPLEMENTATION TASK FORCE

1. Background

During the first ANI/WG meeting, an ADS-B Implementation Task Force was formed in order to streamline related air navigation implementation activities. This Task Force shall support ADS-B trials and implementation activities as well as update and report progress to the ANI/WG based on the action plan for these tasks.

2. Responsibilities

The Task Force is responsible for:

a) Work Programme Management
b) Providing advice and support to States wishing to initiate operational ADS-B trials
c) Guiding States that have conducted trials to project operational implementation
d) Recommending targets for ADS-B implementation based on air navigation service providers (ANSPs) and user needs
e) Periodically requesting statistics from States resulting from their trials

3. Working Methods

The Task Force will:

a) Present its work programme containing activities in terms of objectives, responsibilities, deliverables and timelines
b) Avoid duplicating work within the ANI/WG and maintain close coordination among the existing entities to optimize use of available resources and experience
c) Designate, as necessary, Ad hoc Groups to work on specific topics and activities and organize clearly defined tasks and activities
d) Coordinate tasks to maximize efficiency and reduce costs via electronic means including emails, telephone and teleconference calls, and convene meetings as necessary
e) Report on and coordinate the progress of assigned tasks to the ANI/WG

4. Work Programme – to be included

5. Membership

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APPENDIX F

TASK FORCE ON AIR TRAFFIC SERVICES INTER-FACILITY DATA COMMUNICATION (AIDC) IMPLEMENTATION

1. Background

During the first ANI/WG meeting, an AIDC Implementation Task Force was formed in order to streamline related air navigation implementation activities. This Task Force shall complete AIDC implementation in accordance with the Regional AIDC Implementation Plan as well as update and report progress to the ANI/WG based on the action plan for these tasks.

2. Responsibilities

The Task Force is responsible for:

a) Work Programme Management
b) Analyzing and coordinating mitigation/solution actions for duplicate/missing FPLs
c) Coordinating, implementation, and trials for AIDC implementation (Regional Plan)

3. Working Methods

The Task Force will:

a) Present its work programme containing activities in terms of objectives, responsibilities, deliverables and timelines
b) Avoid duplicating work within the ANI/WG and maintain close coordination among the existing entities to optimize use of available resources and experience
c) Designate, as necessary, Ad hoc Groups to work on specific topics and activities and organize clearly defined tasks and activities
d) Coordinate tasks to maximize efficiency and reduce costs via electronic means including emails, telephone and teleconference calls, and convene meetings as necessary
e) Report on and coordinate the progress of assigned tasks to the ANI/WG

4. Work programme - will be included

5. Membership

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APPENDIX G

AERONAUTICAL INFORMATION MANAGEMENT (AIM) IMPLEMENTATION TASK FORCE

1. Background

During the first ANI/WG meeting, an AIM Implementation Task Force was formed in order to streamline related air navigation implementation activities. This Task Force shall improve AIM regional coordination as well as update and report progress to the ANI/WG based on the action plan for these tasks.

2. Responsibilities

The Task Force is responsible for:

a) Work Programme Management
b) Supporting States that have not yet finished the transition to AIM
c) Supporting States with Phase 2 and Phase 3 implementation of the ICAO AIM Roadmap
d) Periodically requesting statistics from States to monitor implementation status

3. Working Methods

The Task Force will:

a) Present its work programme containing activities in terms of objectives, responsibilities, deliverables and timelines
b) Avoid duplicating work within the ANI/WG and maintain close coordination among the existing entities to optimize use of available resources and experience
c) Designate, as necessary, Ad hoc Groups to work on specific topics and activities and organize clearly defined tasks and activities
d) Coordinate tasks to maximize efficiency and reduce costs via electronic means including emails, telephone and teleconference calls, and convene meetings as necessary
e) Report on and coordinate the progress of assigned tasks to the ANI/WG

4. Work Programme

TASK DESCRIPTION	Estimated Target Date	STATUS
Tasks to implement AIM Roadmap identified steps must be specified and conducted in accordance with the 3 phases for transition from AIS to AIM as follows: a) Comply with the process to introduce and implement amendments to Annexes 4 and 15 of the Chicago Convention	2015	Valid

b) Periodically report on the generation and distribution of Integrated Aeronautical Information Package (IAIP) to the ICAO NACC Regional Office for improved air traffic services safety in the Region	2016	Valid
c) Develop a methodology to measure performance and outcomes from States, Territories and International Organizations on the distribution of quality assured aeronautical information to improve understanding of ATM requirements, safety and effectiveness related to the electronic distribution of the information	2016	Valid
d) Assist States, Territories and International Organizations with making appropriate decisions related to aeronautical information current services and the transition to AIM	2015	Valid
e) Assist States, Territories and International Organizations with the AIM transition process in order to implement ICAO Standards for aeronautical information products, service,s and technologies, as required	2016	Valid
f) Support AIM developments to achieve the ATM system foreseen in the *Global Air Traffic Management Operational Concept*; including the NOTAM contingency plans	2015	Valid
g) Ensure that AIM solutions harmonize and integrate at a regional and international level, and avoid unnecessary requirements imposed by the transportation of equipment on board or the use of ground systems	2016	Valid
Electronic terrain and obstacle data (e-TOD) h) Share experience and resources with implementation of e-TOD through the establishment of an e-TOD regional working group	2016	Valid
i) Implement technical requirements of ICAO Doc 9881, as required	2016	Valid
j) Report requirements and monitor implementation status of e-TOD using electronic media to the ICAO NACC Regional Office	2016	Valid
k) Develop a high-level agreement for management of a national e-TOD programme	2016	Valid

5. Membership

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APPENDIX H

OPERATIONAL ANALYSIS OF THE GOLD DOCUMENT VERSION 2 TASK FORCE

1. Background

During the first ANI/WG meeting, a Gold Document Operational Review/CPDLC Task Force was formed in order to streamline related air navigation implementation activities. This Task Force shall examine the Global Operational Data Link Document (GOLD) for applicability in the NAM/CAR Regions and identify any potential regional differences as well as update and report progress to the ANI/WG based on the action plan for these tasks.

2. Responsibilities

The Task Force is responsible for:

a) Work Programme Management
b) Reviewing the GOLD Document for applicability in the NAM/CAR Regions
c) Identifying any regional differences and documenting these as potential additions to the next edition of GOLD
d) Making recommendation to the ANI/WG on adoption of GOLD in the NAM/CAR Regions

3. Working Methods

The Task Force will:

a) Present its work programme containing activities in terms of objectives, responsibilities, deliverables and timelines
b) Avoid duplicating work within the ANI/WG and maintain close coordination among the existing entities to optimize use of available resources and experience
c) Designate, as necessary, ad hoc groups to work on specific topics and activities and organize clearly defined tasks and activities
d) Coordinate tasks to maximize efficiency and reduce costs via electronic means including emails, telephone and teleconference calls, and convene meetings as necessary
e) Report on and coordinate the progress of assigned tasks to the ANI/WG

4. Work programme - will be included

5. Membership

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Agenda Item 3 **Review and Follow-up on Relevant and Valid Conclusions/Decisions of C/CAR/WG/9, CA/ANE/WG/7, E/CAR/CATG/1, DGAC/CAP/97, E/CAR/DCA/24, C/CAR/DCA/13, GREPECAS PPRC/2, NACC/WG/3 and NACC/DCA/4 and Actions from NAM/CAR ANI/WG Teleconferences**

3.1 Under WP/03, the Meeting reviewed the list of valid conclusions/decisions of the Seventh Central American Air Navigation Experts Working Group (CA/ANE/WG/7) and the Ninth Central Caribbean Working Group Meeting (C/CAR/WG/9) held in 2012. As a result of the review, all Conclusions/Decisions of the CA/ANE/WG and C/CAR/WG were superseded or completed.

3.2 The Meeting followed-up on the valid decisions and draft conclusions from the First Eastern Caribbean Civil Aviation Technical Group Meeting (E/CAR/CATG/1) held in June 2013. The Meeting considered all of the draft conclusions as valid and for reference to be considered by the ANI/WG. Similarly, the Meeting reviewed the action items agreed upon at the last ANI/WG teleconference, concluding them as completed.

3.3 In addition, the Meeting took note of IP/02 as a reference, which included conclusions/decisions from the 97th Central American and Panama DGCAs Meeting (DGAC/CAP/97); Twenty-fourth Meeting of Directors of Civil Aviation of the Eastern Caribbean (E/CAR/DCA/24); Thirteenth Meeting of Directors of Civil Aviation of the Central Caribbean (C/CAR/DCA/13); Second Meeting of the Programmes and Projects Review Committee (PPRC/2); Third North American, Central American and Caribbean Working Group Meeting (NACC/WG/3); and Fourth Meeting of North American, Central American and Caribbean Directors of Civil Aviation (NACC/DCA/4); and the DGAC/CAP/95, C/CAR/DCA/11 and GREPECAS/16 Meetings.

3.4 The Meeting agreed that the actions derived from the conclusions and decisions from the meetings above will be included in the ANI/WG work programme in order to follow-up on the former CAR working group(s) activities, GREPECAS and the Directors of Civil Aviation conclusions.

Agenda Item 4 Air Navigation Matters

4.1 AN-Conf/12 Results and Other Global/Regional Air Navigation Developments

4.1.1 Under WP/04, the Meeting was briefed on the recommendations from the Twelfth Air Navigation Conference (AN-Conf/12) held in Montreal, Canada, from 19 to 30 November 2012, and implementation of the Aviation System Block Upgrade (ASBU) methodology and its impact on regional plans for the North American and Caribbean Regions (NAM/CAR). The AN-Conf/12 resulted in adopting 56 recommendations under its 6 Agenda Items covering strategic issues for the integration, interoperability and harmonization of systems to achieve the concept of "One Sky" for international civil aviation and 4 areas of efficiency enhancement.

4.1.2 To facilitate successful implementation of the ASBUs and their modules, it is necessary to use current and emerging technologies and a regulatory framework that includes Standards and Recommended Practices, procedures and guidance from ICAO. It is also necessary to have technology roadmaps and regional planning supported by metric parameters that measure the progress and effectiveness of identified implementation.

4.1.3 The AN-Conf/12 recognized the need to reach a common vision of ATM system architecture as an instrument to facilitate ASBU implementation. Repercussions on increasing automation levels in the global ATM system were also considered, as well as the need to have a roadmap showing automation system evolution in global ATM to support the GANP. Therefore, Recommendation 1/4 - *Architecture* and Recommendation 1/11 - *Automation Roadmap* were adopted.

4.1.4 Similarly, Recommendation 1/2 - *Implementation* recommended that ICAO, through its regional offices, provide guidance and practical assistance to States, regions and sub-regions when they decide to implement ASBU blocks or individual modules; establish a group or an improved mechanism for interregional cooperation to ensure ATM harmonization; and assist States and regions with training and enhancing the capacity to implement appropriate ASBU modules.

4.1.5 The Meeting was informed that in order to assist States, regulators, service providers, airline operators, military and international organizations with familiarization of ASBU implementation, ICAO carried out an ASBU implementation workshop for the States/Territories of the North American/Caribbean Regions (NAM/CAR) from 22 to 26 July 2013, at the ICAO NACC Regional Office in Mexico City, Mexico, to provide necessary training on development of a performance-based framework for air navigation systems using ASBU methodology. The workshop outcomes are available at the ICAO NACC Regional Office webpage: http://www.mexico.icao.int/Meetings/2013ASBUWorkshop.html. Similarly, related regional workshops such as Implementation of ATS Messages Handling Systems (AMHS) (September 2013), Automatic Dependent Surveillance-Broadcast (ADS-B) (October 2013), Performance-Based Navigation (PBN) Approval (October 2013) and Automation of ATC Systems (November 2013) will be held.

4.1.6 The Meeting recalled that by adopting the ASBUs and follow-up to regional implementation plans undertaken by the ANI/WG, all air navigation regional plans and implementation activities should be updated during 2013. Based on analysis of the AN-Conf/12 Recommendations, the Meeting agreed to activate an Ad hoc Group and formulated the following draft conclusion:

DRAFT
CONCLUSION ANI/WG/1/5 FOLLOW-UP ON AN-CONF/12 RECOMMENDATIONS

That in order to follow-up on implementation of the AN-Conf/12 Recommendations the ANI/WG:

a) initiate and propose follow-up actions to the NAM/CAR States/Territories;

b) update its work programme as required by **29 November 2013**; and

c) report progress of items a) and b) to the NACC/DCA and NACC/WG meetings.

4.1.7 The Ad hoc Group to update the ANI/WG work programme and necessary actions for the AN-Conf/12 Recommendations, denoted as AN-Conf Ad hoc Group, is formed by:

- Cuba: Carlos Jimenez
- Dominican Republic: Julio Mejia
- Jamaica: Orville Shaw
- Trinidad and Tobago: Rohan Garib
- United States: Michael Polchert

4.1.8 In this regard, the following decision was formulated:

DECISION ANI/WG/1/6 UPDATE THE ANI/WG WORK PROGRAMME TO INCLUDE AN-CONF/12 RECOMMENDATIONS

That in order to ensure necessary actions related to the AN-Conf/12 recommendations are included in the ANI/WG work programme, the AN-Conf Ad hoc Group study the AN-Conf/12 recommendations pertaining the States and present the respective ANI/WG work programme addendum to the ANI/WG Chairman by **15 December 2013.**

4.1.9 Under IP/05, the Meeting was briefed on the development of the electronic version of the Air Navigation Plan (eANP) as part of the follow-up actions being taken in regard to AN-Conf/12 Recommendation 6/1 - *Regional performance framework – planning methodologies and tools* on the alignment of regional air navigation plans with the fourth edition of the Global Air Navigation Plan.

4.1.10 Under IP/06, the Meeting was informed on the fourth edition of the *Global Air Navigation Plan* (GANP, Doc 9750), which provides strategic direction for the ICAO technical work programme in terms of global air navigation system efficiency and serves as guidance for Planning and Implementation Regional Groups (PIRGs), States, service providers, airspace users and other stakeholders.

4.1.11 Under IP/11, the United States informed the Meeting of their *"Mini Global Demonstrations"* initiative planned for 2014, which simulates seamless transfer of data between ANSPs to ultimately promote more efficient operations across Flight Information Regions. United States invited ANSPs in the CAR and NAM Regions to observe or participate in the initiative. To participate in or observe the Mini-Global Demonstration, operators or service providers will be able to link on via the internet. Participants will be asked to provide live or simulated data, while observers will be able to monitor and watch how the data is used and shared. For further information on this initiative, the Meeting was advised to contact Ian Ross, FAA NextGen Office – International Programs, via email: ian.ross@faa.gov

4.1.12 Under WP/05 ,the Meeting took note that the new Annex 19 consolidates existing ICAO State Safety Programme (SSP) Standards related to State safety management responsibilities, elevating the four components of the SSP framework to Standards.

4.1.13 The SSP framework seeks implementation of Safety Management Systems (SMS) by service providers and the requirement for States to achieve an Acceptable Level of Safety Performance (ALoSP), which includes specific safety indicators and targets. The combined elements and the prescriptive performance-based approach supports SMS implementation by service providers.

4.1.14 SMS implementation requires establishment of adequate mechanisms to measure system safety performance, such as the assessment of incidents in terms of probability and tolerability, risk classification and appropriate measures for resolution in accordance with ICAO *Procedures for Air Navigation Services – Air Traffic Management* (Doc 4444) and *Safety Management Manual* (Doc 9859).

4.1.15 The new Annex 19 includes provisions related to the collection, protection and analysis of safety data and through a prompt and secure exchange of safety information as part of the SSP, with Standards to establish mandatory and voluntary incident reporting systems, which consolidate safety management provisions. Likewise, the accuracy of the data reported on safety incidents should be ensured using Accident/Incident Reporting (ADREP) programme compatible systems.

4.1.16 In support of safety management framework implementation, the Meeting recommended that the ICAO NACC Regional Office organize more activities through the RLA/CAR/09/801 *Regional Technical Cooperation Project for the Caribbean Region —Implementation of the Performance Based Air Navigation Systems in the CAR*, Region, such as courses and workshops on implementation of a State safety oversight system, ALoSP, SSP and SMS to ensure harmonized regional safety management implementation.

4.1.17 Under IP/15, the Secretariat informed on the continued transition of the ICAO centered, paper-based, data collection and reporting processes into a set of tools designed to support the implementation of global strategies, including the Global Aviation Safety Plan (GASP) and the Global Air Navigation Plan (GANP).

4.2. Follow-up on the NAM/CAR Regional Performance Based Air Navigation Implementation Plan (NAM/CAR RPBANIP)

4.2.1 *Air Navigation Implementation Activities*

4.2.1.1 For ANI/WG consideration in harmonizing air navigation implementation activities for the NAM/CAR Regions, progress with the NAM/CAR Regional Performance-Based Air Navigation Implementation Plan (RPBANIP) was presented for the CAR Region. The national plans of Canada and United States corresponding to the NAM Region were also presented.

4.2.1.2 Under WP/09, the Secretariat recalled progress achieved by each one of the sub-regional implementation groups in accordance with the RPBANIP as presented to the corresponding Directors of Civil Aviation (DCA) Meetings (Appendices A, B and C of WP/09 for CA/ANE/WG, C/CAR/WG and E/CAR/CATG, respectively).

4.2.1.3 Under WP/11, Canada presented information on the NAV CANADA ANS Plan, which is organized under the following sections:

- Performance Based Navigation (PBN)
- Communications
- Surveillance
- Air Traffic Management (ATM)
- Aeronautical Information Management (AIM)
- Aeronautical Meteorology

4.2.1.4 NAV CANADA usually updates its ANS Plan every three years. Recently, however, NAV CANADA undertook a strategic partnership to form Aireon Limited Liability Company (LLC), a joint venture to provide global satellite-based tracking capability. Other partners in this joint venture currently include Iridium Communications, Incorporated with support from the United States Federal Aviation Administration (FAA) and suppliers Harris Corporation and IT Exelis. NAV CANADA's initial goal from this joint venture is to reduce aircraft separation minima between aircraft operating over the North Atlantic through the use of Automatic Dependent Surveillance – Broadcast (ADS-B) OUT via Low Earth Orbiting Satellites (LEOS). The LEOS ADS-B initiative is viewed as a "game-changer," which will significantly change NAV CANADA's priorities and service plans.

4.2.1.5 The Meeting noted that NAV CANADA had presented its ANS Plan at the AN-Conf/12. It was further noted that the ANS Plan mapped numerous implementation activities and plans to the ASBU Modules. The Meeting was advised that NAV CANADA intended to issue its next ANS Plan one year early, taking into account its LEOS ADS-B initiative and the changes made to the ASBU Modules following the AN-Conf/12.

4.2.1.6 Under P01, United States presented its Next Gen modernization plan, highlighting the support provided to the ASBU methodology and the Air Navigation Global Plan with the adoption of 18 Block 0 modules and United States internal organization for the implementation formed by 8 implementation portfolios and projects that support these portfolios (1. Improved Surface Operations; 2. Improved Approaches and Low-Visibility Operations; 3. Improved Multiple Runway Operations; 4. On-Demand NAS Information; 5. Collaborative Air Traffic Management; 6. Separation Management; 7. Time Based Flow Management; and 8. Performance Based Navigation). The progress on the ASBU module implementation activities was presented; details are available on the FAA website: www.FAA.Gov/nextgen.

Cooperation between Canada and the United States

4.2.1.7 Canada and United States presented IP/07, which included an overview of the existing arrangements supporting effective cooperation and collaboration between Canada (NAV CANADA) and United States (FAA) for the safe and effective provision of air navigation services extended to international forums, such as the North Atlantic Systems Planning Group, where the two States play key roles in ensuring that NAT Regional planning and developments are aligned with those supporting North American domestic operations (see Appendix to IP/07). Canada and United States also cooperate closely in other multi-regional groups such as the Cross Polar Working Group (CPWG), the North American/European Air Traffic Flow Management Group (NAM/EUR ATFM), and the Trans-Regional Airspace and Supporting Air Traffic Management (ATM) Systems Steering Group (TRASAS).

4.2.1.8 The chairmen of the former regional implementation groups (E/CAR/WG, CA/ANE/WG and C/CAR/WG) presented progress achieved since their last Working Group Meeting as follows:

4.2.1.9 When analyzing WP/06, the Chairman of the CA/ANE/WG briefed the Meeting on progress and agreements achieved through coordination with Belize, Costa Rica, El Salvador, Guatemala, Honduras and Nicaragua and COCESNA’s progress in Central America in relation to the RBANIP Regional Performance Objectives (RPOs) as detailed below:

a) Implementation of 18 RNAV routes in the Central America Flight Information Region (FIR) upper airspace; a minimum of 11 more routes will be added in 2013
b) ATS agreements among the military authorities of Central American States;
c) coordination with Belize on Prohibited Area MZP1reduction from the approach path of Phillip S. Goldson international airport, Runway 07; and proposal to reduce Restricted Area MHR5 in Honduras
d) Progress with the Implementation of Air Traffic Flow Management (ATFM) Project development for Central American States and COCESNA
e) Development of a modernization plan for ATM automation systems in Central America
f) Implementation of a radar data sharing agreement between Cuba-COCESNA

g) Continuation of Automatic Data Dependent Surveillance-Broadcast (ADS-B) analysis
h) 2013 trial planning for Automatic Dependent Surveillance-Contract Data (ADS-C) and Controller Pilot Data Link Communications (CPDLC) in the Pacific oceanic sector of the Central American FIR
i) ATS voice channel between El COCO APP and the Panama Area Control Center (ACC) implemented
j) AMHS system operation in Central America
k) Improvements to the CAMSAT communications network
l) Implementation plans and trials for direct exchange of data (OLDI)/AIDC in Central America
m) Jamaica and Panama have requested COCESNA to study installation of VHF equipment at the Puerto Cabezas (PZA) site to resolve VHF communication problems at the border area between their FIRs; in the case of
Jamaica, coordination was carried out with the MEVA service provider to enable and test a channel between Tegucigalpa and Kingston; the configurations and trials are currently being conducted
n) Implementation of a digital terrestrial network in Central America in support of CAMSAT
o) Evaluation of radar coverage and identification of improvements to meet operational requirements
p) COCESNA has achieved significant progress with implementation of the Geographic Information System (GIS) and initiated the incorporation of the Aeronautical Information Exchange Model (AIXM) for the electronic version of the Aeronautical Information Publication (AIP) of Central America
q) COCESNA implemented online NOTAM and MET information in accordance to the AIM transition, which is available 24/ since May 2013

4.2.1.10 Under WP/07, the Meeting was briefed on the agreements and results from the discussions realized at the First Eastern Caribbean Civil Aviation Technical Group (E/CAR/CATG) Meeting on air navigation issues regarding monitoring RPBANIP implementation activities as well as follow-up on the actions of outstanding conclusions/decisions. The Meeting was also briefed on follow-up to recommendations of the AN-Conf/12 and the progress achieved in the ATM, AIM and CNS fields highlighting:

a) PBN implementation activities in the Eastern Caribbean by consolidating and completing the Regional E/CAR PBN Implementation Plan and supporting PBN training matters
b) ATS coordination issue(s) support for Antigua and Barbuda, San Juan, Sint Maarten and Trinidad and Tobago
c) Support for amendment of the Caribbean and North Atlantic Regional Supplementary Procedures (ICAO Doc 7030) with the provisions for application of 30NM lateral, and 30NM and 50NM longitudinal separation minima in the New York Flight Information Region (FIR) and Oceanic Control Area (CTA)

d) Evaluation of RNP/RNAV approach procedures, SIDs and STARs and regional Air Traffic Service (ATS) impact when the new Argyle Airport in Saint Vincent is commissioned in 2014
e) Implementation of Quality Management System (QMS) in the E/CAR
f) Development of a proposal for an E/CAR eTOD Implementation Plan for areas 1 to 4
g) Development of a proposal for an E/CAR AIS to AIM Implementation Plan using the ICAO Roadmap
h) Development of a PIARCO AIS/NOTAM Contingency Plan
i) Implementation of the Central Flight Planning Unit/Centralized Database by December 2013
j) an agreement with ARINC was implemented for the provision of High Frequency (HF) service in the Piarco Oceanic airspace
k) the satisfactory operation and maintenance of the E/CAR AFS Network
l) The activities carried out to follow-up on radar data display implementation and radar data exchange activities
m) Agreement on active State support of the ICAO position when developing their proposals and delegation briefs in preparation for the ITU WRC-15

4.2.1.11 Under WP/08, progress on activities developed by the C/CAR/WG was presented. Since the C/CAR/WG/9 Meeting, the following progress has been achieved:

a) ICAO new Model Flight Plan Form implementation: two teleconferences for coordination of regional testing and implementation status update of each State, progress with Aeronautical Information Circular (AIC) publication by some States, such as Aruba, Bahamas, United States, etc.; successful tests by Cayman Islands
b) Continued MEVA II Network (MEVA III) modernization process: Currently in bidding process
c) Coordination to resolve the lack or deficient AMS communications service in the CAR Region: States concerned and IATA have been asked to identify detailed deficiencies and several improvement actions have been confirmed
d) AIDC implementation, initially with CPL-LAM messages: Cuba, Curacao, Dominican Republic, Jamaica, Mexico, United States and COCESNA will participate; an AIDC capabilities questionnaire was circulated and the initial plan was agreed
e) AMHS systems Regional implementation: Bilateral agreements in process
f) ADS-B implementation activities: First teleconference held, draft cost-benefit study available, and a follow-up teleconference is scheduled

4.2.1.12 The C/CAR/WG held two teleconferences to follow-up on pending tasks since the C/CAR/WG/9 Meeting, but only a few States presented progress with pending air navigation issues in monitoring RPBANIP implementation activities, as well as follow-up actions on outstanding conclusions/decisions from previous meetings and review of the working group terms of reference.

4.2.1.13 Cuba and Dominican Republic presented progress on these activities (Appendices to the WP/08). Jamaica notified on the discontinuation of ATS Route UL474, replacing it with the extension of Route UB882 from Benet to Taboga (TBG); nevertheless, Colombia and other users made observations to this action, and so, Jamaica will take action to coordinate and agree this ATS Route change..

4.2.2 Performance-Based Navigation

4.2.2.1 Under WP/15, the Secretariat noted the activities and achievements with PBN implementation in the NAM/CAR Regions. To date, 100% of NAM/CAR States and Territories have presented their PBN Implementation Action Plans. **Appendix A** to this part of the report shows PBN airspace concept implementation targets for en-route, Standard Instrument Departure (SIDs), Standard Instrumental Arrival (STARs) and PBN approach procedures in the CAR Region. Specific PBN achievements are:

a) RNP10 and RNAV routes implemented in WATRS oceanic airspace, the Gulf of Mexico, Houston and Miami Oceanic FIRs. RNAV random routes also implemented in the Piarco FIR.
b) RNAV 5 routes implemented in the continental upper airspace.
c) 60% of international aerodromes have implemented instrument approach procedures with vertical guidance (APV), (BARO-VNAV and/or Global Navigation Satellite System (GNSS) augmentation) as the primary approach or as a back-up for precision approaches.
d) 60% of international aerodromes implemented SIDs/STARs with PBN navigation specifications and CDO/CCO criteria.
e) In March 2013, analysis of the RNP 10 and 11 new RNAV routes in the Gulf of Mexico (GoMEX Project implemented on 10 January 2013) shows total fuel savings of over 712,066 kg, resulting in economic savings of $1.5M dollars per month (about $18M annually). In addition, en-route capacity and air traffic management flexibility was enhanced.
f) According to Resolution A37-19, all States should submit benefits accomplished in reducing CO_2 emissions through PBN implementation by using the online IFSET tool. The estimation of indicators should be based on operational improvements obtained in air traffic management, operational efficiency, use of infrastructure and alternative fuels.

4.2.2.2 The implementation of a PBN airspace concept requires a multidisciplinary team to analyze Aerodrome Organization and Management (AOM). Airspace organization relates to flight, radio communication, and service requirements provided, as specified in Annex 11, Appendix 4, Table of ATS Airspace Classes. Management relates to Air Traffic Control (ATC) management techniques, which together are an elementary component of the *ATM Operational Concept*, ICAO Doc 9854.

4.2.2.3 PBN airspace concept implementation requires first to focus on optimization of the current ATS route structure and second to address airspace redesign. The major differences between optimization and redesign efforts are the projected scope and implementation timeframe. This work requires the team to use the Collaborative Decision-Making (CDM) process along with a corresponding high level of support from their organizations.

4.2.2.4 Redesign efforts require longer timeframes to develop new structures, incorporating technological and conceptual enhancements as they become available. The outcome of this approach will be a single and continuously evolving airspace structure. All efforts must focus, develop, and maintain the regional vision necessary to ensure achievement of an efficient regional ATS airspace.

4.2.2.5 During the Regional PBN Airspace Concept Workshop held in Miami, United States, Costa Rica, El Salvador, Honduras, Jamaica, Mexico, Trinidad and Tobago, Turks and Caicos Islands and COCESNA provided a new PBN airspace project with dates and goals in short term. The ICAO NACC Regional Office will continue working in coordination to provide assistance in accordance with particular needs. The workshop result was the following:

a) Significant improvements have been achieved in the CAR Region ATS route network.
b) States shall follow ICAO Standards for airspace redesign.
c) States should develop training programmes for all staff concerned (civil aviation authorities, ANSPs, airlines, etc.) to achieve better understanding of PBN fundamentals.
d) States should develop and implement PBN approval processes and recognize other State's PBN operational approval as described in ICAO Doc 9613, *Performance-based Navigation (PBN) Manual*.
e) States should promote collaborative PBN efforts with all stakeholders.
f) States should ensure high quality aeronautical information and data associated with the publication of PBN aeronautical charts.
g) Very High Frequency (VHF) omnidirectional radio range/distance measuring equipment (VOR/DME) for PBN has significant coverage for en-route, terminal and approach procedures. However, States shall review their navigation infrastructure (DME/DME, VOR, etc.) coverage for PBN implementation in the terminal areas.
h) States should revise restricted areas based on Flexible Use of Airspace (FUA) in order to improve safety, efficiency, and airspace capacity for aircraft operations according to the actual necessities of civil and military users.
i) The States to carry out the coordination with the ICAO NACC Regional Office.

4.2.2.6 The Meeting took note that approximately 90% of the aircraft fleet operating in the region has different RNAV/RNP capabilities. However, despite the progress made with PBN implementation, approximately only 30% of air operators use PBN routes and procedures mainly due to the lack of PBN training programmes. Therefore, civil aviation authorities should make greater effort to encourage verification of air operators' operational approval conditions.

4.2.2.7 While significant progress has been made in the PBN implementation, the need to increase the number of qualified human resources, improve training programmes, as well as improve PBN operational approval programmes has been identified. In this regard, it is necessary for States to review and improve their own PBN implementation projects with the assistance of ICAO. As follow-up of the discussions above-mentioned, the Meeting agreed that the ICAO NACC Regional Office continue with the assistance to the States in order to ensure that the PBN implementation works among the NAM/CAR Regions.

4.2.3. Flexible Use of Airspace (FUA)

4.2.3.1 Under the WP/14, the Meeting recalled the 37th Session of the Assembly, Resolution A37-15, Appendix O, *"Coordination and cooperation of civil and military air traffic"* where it was recognized that airspace is a resource common to both civil and military aviation and that many air navigation facilities are provided for and used by both civil and military aviation. Further, the shared use of airspace and certain facilities and services by civil and military aviation shall be arranged so as to ensure the safety, regularity and efficiency of international civil aviation as well as the requirements of military air traffic.

4.2.3.2 FUA is based on the principle that airspace should not be designated as purely civil or military, but rather as a continuum in which all user requirements are accommodated to the greatest extent possible and, where feasible, avoid permanent airspace segregation. The management of airspace should follow these guiding principles and strategies:

a) All available airspace should be managed flexibly.
b) Airspace management processes should accommodate dynamic flight trajectories and provide optimum operational solutions.
c) When conditions require different types of traffic to be segregated by airspace organization, the size, shape, and time regulation of that airspace should be set to minimize the impact on operations.
d) Airspace use should be coordinated and monitored in order to accommodate conflicting requirements of all users and minimize constraints on operations.
e) Airspace reservations should be planned in advance with changes made dynamically, whenever possible. The system also needs to accommodate short-notice unplanned requirements.
f) Complexity of operations may limit the degree of flexibility.

4.2.3.3 The first steps toward effective implementation of the FUA concept is to allow civilian users temporary access to military restricted and reserved airspace for optimum airspace usage and creation of temporary restricted airspace to accommodate military users, as required. This necessitates that States evaluate the restricted or reserved airspace areas.

4.2.3.4 In consideration, States should therefore review the airspace that consists of permanent restricted areas in NAM/CAR States and encourage ANSPs and military authorities from NAM/CAR States to take appropriate action to develop institutional arrangements, with practical and operational measures, to enhance civil/military cooperation with optimizing safe and efficient use of airspace for all users.

4.2.3.5 Under WP/27, Cuba presented a study on repeated activation of warning areas due to military operations, which considerably affect safety, and added mileage penalties to flights, representing significant additional fuel consumption in addition to increased emissions. This situation affects air traffic control within Habana FIR, causing increased coordination with other authorities, operational safety risks, and additional expenses for air operators due to fuel consumption and additional flight time.

4.2.3.6 For example, a 5-hour activation of Warning Areas KW465 and KW174 between 1200 and 1730 UTC, involving operations on Route UG/G448 represents approximately 30% of the total monthly operations. Of the airlines concerned, 60% are North American companies. In 2012, three incidents occurred in the TADPO section - VARADERO involving six airlines, five of which were North American.

4.2.3.7 The Meeting was informed that United States has already taken actions to improve the coordination with Cuba and the Meeting coordination[ML1] consider that other States should also improve civil and military coordination/ cooperation in order to meet the principles set out in the provisions of Appendix O of Resolution A37-15.

4.2.3.8 Through IP/09, United States informed on the project to implement 50 nautical mile (NM) lateral separation and RNAV routes in the Gulf of Mexico (GoMex) with participation of the Dirección General de Aeronáutica Civil de México (DGAC) and Servicios a la Navegación en el Espacio Aéreo Mexicano (SENEAM), in coordination with the ICAO NACC Regional Office and operator organizations. 50 NM lateral separation was implemented on 20 October 2011, and a new GoMex RNAV route structure was successfully implemented on 10 January 2013. The transition from the old routes to the new routes was smooth and uneventful. Based on a 31-day period in March 2011, the benefits of the new route structure were $1.5M for operator fuel cost savings.

4.2.3.9 ICAO informed that in preparation to report outcomes on the environmental benefits of CO_2 reduction, ICAO Headquarters and COCESNA are working together on data analysis from 2007 to 2013.

4.2.3.10 The Meeting noted that the benefits achieved from PBN and FUA should be quantified. To this end, ICAO IFSET may be used, which is not well known by States, and therefore, the following draft conclusion was formulated:

DRAFT
CONCLUSION ANI/WG/1/7 ASISSTANCE FOR IFSET TRAINING

That in order to support and ensure the use of IFSET:

a) NAM/CAR Regions States/Territories inform the ICAO NACC Regional Office by **31 October 2013,** on the name and email of their personnel requiring IFSET training; and

b) ICAO organize and provide online IFSET training by **29 November 2013**.

4.2.4 Global Operational Data Link Document (GOLD)

4.2.4.1 Under WP/13, and based on the outcome of the implementation of air traffic transfers via data link broadcast in several regions, the Meeting noted the operational and/or safety benefits of implementing data link applicationsas:

a) Reduced workload for pilots and controllers
b) Improved data integrity
c) Removal of errors due to reception/transcription of information
d) No time constraint or coverage limitation for ground-air broadcast
e) Reduced radio voice channel congestion
f) Enhanced flight efficiency and safety
g) Receipt of most recent updated information; and
i) Quick access to specific information in the CPDLC messages

4.2.4.2 In view of the successful trials and applications of data link, and the added operational and/or safety benefits, the Meeting deemed appropriate that the GOLD/CPLDC Task Force analize the GOLD, Edition 2, in order for States to initiate homogeneous application of data link in the NAM/CAR Regions. Therefore, the following draft conclusion was formulated:

DRAFT
CONCLUSION ANI/WG/1/8 OPERATIONAL REVIEW OF GLOBAL OPERATIONAL DATA LINK DOCUMENT (GOLD) EDITION 2

That in order to harmonize data link application usage in the NAM/CAR Regions with adjacent ICAO Regions, the Operational Analysis of the GOLD Document Version 2 Task Force assess and present the operational considerations and recommendations for the adoption of GOLD, Edition 2, to the ANI/WG by **30 January 2014**, for subsequent presentation at the NACC/WG/4 Meeting.

4.2.4.3 Likewise, some NAM/CAR Region States, Territories, and international organizations should analyze data link communications, including Aircraft Communication Addressing and Reporting System (ACARS) and VHF Digital Link (VDL) in continental and oceanic airspace. Therefore, the ANI/WG adopted the following draft conclusion:

DRAFT
CONCLUSION ANI/WG/1/9 OPERATIONAL USE OF CPDLC AND ADS-C IN THE CAR REGION

That in order to improve situational awareness and communications in oceanic airspace of the CAR Region, Mexico, Trinidad and Tobago and COCESNA:

a) analyze and identify the necessary actions for operational use of CPDLC and ADS-C in their corresponding FIRs, including necessary automated system adjustments and associated ATS procedures;

b) develop an implementation action plan;

c) develop and coordinate the necessary proposal for amendment of CPDLC and ADS-C with the corresponding sections of ICAO Doc 7030 – *CAR Region Supplementary Procedures* by **March 2014**; and

d) provide progress of these actions at the NACC/WG/4 and NACC/DCA/5 Meetings.

4.2.5 New ICAO Model Flight Plan Form

4.2.5.1 Under WP/18, the results of the New ICAO Model Flight Plan (FPL) Form implementation since 15 November 2012, post monitoring activities, and follow-up activities were presented, highlighting that this implementation was successfully with an active participation of all States/ANSPs from NAM/CAR Regions. Implementation represented a continuous training, coordination, testing, system upgrades, procedure revision, contingency procedure development, planning, publication and teamwork among the States/ANSPs and at the regional level.

4.2.5.2 Even though the new ICAO model FPL form was completely implemented, several States/ANSPs achieved it either through a temporary solution using a converter or through manual procedures. The implementation status updated by the Meeting is shown in **Appendix B** to this part of the report.

4.2.5.3 Similarly, the Meeting was informed of several problems due to the application of the New ICAO Model Flight Plan Form; several FPL problems consisting of missing and duplicated FPLs still remained. Efforts such as the centralized FDP system in the E/CAR and collaborative meetings in Central America and Central Caribbean States/ANSPS are on-going. IATA and the users have expressed support to resolve FPL related problems and are conscious that these problems limit the regions´ capability to automate several services, such as the automatic exchange of ATS messages.

4.2.5.4 Likewise, under the WP/28, Cuba advised that despite the adopted measures and achievements with the new ICAO Model Flight Plan Form implementation, duplicated messages with mistakes that cause rejection of the filed flight plan are still received. Cuba presented flight plan messages statistics from 35 operators that flew in the Habana FIR, which were monitored for 6 months and 4 days after implementation of the new FPL Form. From the results, it was evident that:

a) The problems for duplication of flight plans and rejection of flight plans were due to syntactic mistakes or misfiling of flight plans
b) The duplicated messages are not always originated from the operators units; many of them are sent by the Air Traffic Services (ATS) units at the destinations, departures and overflights
c) The percentage of rejected FPLs per region is significant as well as per Aeronautical Fixed Telecommunication Network (AFTN) specific addresses
d) Most FPLs received by the Cuba automated system come from the NAM/CAR/SAM Regions
e) More than 80 %[ML2] of the messages from the NAM/CAR/SAM regions were rejected as follows: 17% NAM, 25.5% CAR and 41% SAM
f) 33% of all messages rejected by the system are due to errors and 67% are similar or duplicate
g) Implementation results on agreed actions in the NACC/WG Conclusion 3/3 have not been totally effective to avoid mistakes, loss and duplication of flight plans

4.2.5.5 Therefore, the Meeting agreed that the Air Traffic Services Inter-Facility Data Communication (AIDC) Implementation Task Group prioritize and implement necessary action with the ICAO Secretariat and users to follow-up on mitigation/solution measures to this problem and notify the ANI/WG of results as soon as possible.

4.2.5.6 CANSO informed on the survey conducted in support of resolving FPL issues and invited States to participate in the survey. The target date to complete the questionnaire is 12 August 2013.

a) The link to complete the questionnaire is:
http://www.surveymonkey.com/s/TKJCXBQ

b) If States want to share the questionnaire with operators, the latter can complete the questionnaire at the following link:
http://www.surveymonkey.com/s/T2ZYD3S

c) Due to identification purposes, it is important that States fill in the name of the organization (question 10 of the questionnaire)

4.2.5.7 Once the questionnaire is completed, it will be analyzed, outcomes will be sent to ICAO, and the report will be submitted to the ANI/WG.

4.2.6 Communications

4.2.6.1 Under IP/03, the MEVA TMG Coordinator informed on the transition from the Request for Information (RFI) Process to the MEVA III Tender Process, the development of the Request for Proposal (RFP) Document, the MEVA TMG and Task Force participation, the current ICAO Technical Cooperation Bureau tender process, and the current schedule for the MEVA III transition. The MEVA Task is currently working on the Tender Questions and Answers period. Site visit coordination was conducted from 1 to 26 July.

4.2.6.2 Under IP/04, the MEVA TMG Coordinator presented progress and results of the E/CAR/NTG and the MEVA Technical Management Group (TMG) regarding E/CAR – MEVA II interconnectivity, describing the up-to-date list of telecommunication requirements for this interconnection. Several follow-up teleconferences among Sint. Maarten, Trinidad and Tobago, United States, and ICAO have taken place since the MEVA TMG/25 Meeting. The MEVA II – E/CAR AFS Network interconnection implementation is a key process for optimizing service connectivity and efficient delivery of services and is an on-going process carried out by the active participation of the MEVA II and E/CAR AFS Network members.

4.2.6.3 Under IP/14, Trinidad and Tobago informed the Meeting on the progress and improvements of the Eastern Caribbean Aeronautical Fixed Services Network, the installation of the AMHS/Aeronautical Information Services System (AISS) Aeronautical Telecommunication Network (ATN) and application of on-going activities for the Radar Sharing Project and radar data exchange with adjacent FIRs.

4.2.7 Automatic Dependent Surveillance – Broadcast (ADS-B)

4.2.7.1 Under WP/10, the Rapporteur of the ADS-B Implementation Ad-hoc Group provided a brief overview of the CAR Region ADS-B work and activities, the results and agreements of the ADS-B/MLAT Implementation Workshop, and proposed actions to continue participation in these activities, highlighting the following:

a) ASBU, Block Module 0, B0-84 ASUR *"Initial Capacity Ground Surveillance"* recommends that States implement ADS-B as it offers an economical alternative to acquire the capacity for surveillance
b) ADS-B technology is considered part of the enablers of other B0 modules such as B0-75 ASURF, B0-85 ASEP and B0-86 OPFL, and other future modules such as B2-ACAS
c) ICAO has provided guidelines and guidance material for ADS-B implementation as detailed in ICAO Doc 9924 - *Aeronautical Surveillance Manual,* and Circular 326 - *Evaluation of ADS-B and multilateration surveillance in support of services air traffic and implementation guidelines*
d) GREPECAS Project C is preparing a guide to support ADS-B implementation in the CAR Region

4.2.7.2 Among CAR Region ADS-B testing and implementation activities, the following was reported:

a) COCESNA continues ADS-B trials in the Central American FIR
b) United States reported on progress with implementing ADS-B services
c) Cuba has been providing the results of analysis of ADS-B data collected during their trials
d) Mexico reported on its ADS-B Project
e) Jamaica informed on the operation of its ADS-B receiver
f) Trinidad and Tobago reported that they have an ADS-B System, which is not currently in use so they are not performing tests

4.2.7.3 Likewise, the following remarks on ADS-B implementation were noted:

a) Very little progress with ADS-B activities has been reported by participants in order to coordinate activities in the NAM/CAR Regions and have common criteria on ADS-B analysis and data exchange
b) ADS-B regional implementation plans need to be reviewed in order to make adjustments from conclusions arising from ASBU implementation
c) A target date for ADS-B operational implementation needs to be determined in order to allow ANSPs and users to prepare their equipment accordingly
d) Several States have implemented or are working with ADS-B receivers and Multilateration (MLAT) as well as their processing capacity for this type of surveillance data in their ATS automated systems

4.2.7.4 IATA expressed full support for ADS-B implementation and requested that ANSPs inform on implementation in a timely manner and provide user benefits of ADS-B. In this regard, the Meeting agreed the ADS-B Implementation Task Force should adopt actions to address the aforementioned remarks and expand ADS-B implementation and trials.

4.2.7.5 Under IP/08 and P/04, Canada presented an overview of the results of the benefit assessment performed to support NAV CANADA's plans for ADS-B (out) via Low Earth Orbiting Satellites (LEOS). The initial goal is to reduce aircraft separation minima between aircraft operating within portions of the ICAO NAT Region. The planned Aireon ADS-B implementation will provide near real-time position updates for each equipped aircraft, which will significantly improve situational awareness for air traffic controllers and provide for more timely conflict detection and resolution.

4.2.7.6 The Secretariat informed that the Project CAR RLA/09/801will acquire several ADS-B receivers to lend among Project members in order to promote the use and understanding of this service, recommendations from the ADS-B Implementation Task Force will be required.

4.2.7.7 Under P/05, IATA informed on the avionics survey outcomes conducted among their Members, in 2012, where the ADS-B out surveillance capabilities with the DO -260A and DO 260B transponders were exposed.

4.2.8 ATS Messages Handling Systems (AMHS) - ATS interfacility Data Communication (AIDC), Aeronautical Telecommunication Network (ATN)

4.2.8.1 Under WP/12, the Secretariat followed-up on Aeronautical Mobile Service (AMS), ATS Messages Handling System (AMHS), ATS Interfacility Data Comunnication (AIDC) and Current Flight Plan- Logical Acknowledgement Message (CPL-LAM) improvements considered in the Regional Performance Objectives - RPO 4 - *Improve ATM Situational Awareness* and RPO 9 - *Optimization and Modernization of Communication Infrastructure* of the RPBANIP. The following was highlighted:

- Development of a regional follow-up table for AMS improvements (**Appendix C** to this part of the report). Trinidad and Tobago is coordinating with IATA to identify the currently status of these deficiencies and their potential solutions. IATA confirmed that COCESNA has resolved the High Frequency (HF) communications deficiency with the recently implemented HF system. In this sense, the Meeting agreed that everyone involved in these deficiencies coordinate solutions with users and IATA and that ICAO continue supporting these efforts.

- IATA's support for these improvements; identifying communication deficiencies in the Region; feedback on deficiencies/improvements to coordinate with ICAO; and assignments of IATA Points of Contact (PoCs) for ATM matters: Marco Vidal and for FPL matters: Abang Floyd.

- Some relevant actions in these improvements:

  a) Curacao Very High Frequency (VHF) AMS communications were improved and tested in 2012;
  b) improvements to low altitude AMS communications achieved in Costa Rica and Nicaragua;
  c) coordination and trials with VHF Radio communications as a solution in the Kingston and PIARCO FIRs are ongoing; and
  d) Automatic Dependent Surveillance – Contract (ADS-C)/Controller-Pilot Data Link Communication (CPDLC) for the Central American FIR Pacific area are scheduled

- Regional coordination for AMHS systems implementation with the adoption of the AMHS regional implementation plan mainly interconnecting with different CAR Region ANSPs and the AMHS "*Message Transfer Agent"* (MTA) system in Atlanta

- Future evaluation and update of AMHS regional implementation Plan in September 2013 at the III Workshop/Meeting on the Follow-up to Implementation of the ATS Message Handling System (AMHS) in the NAM/CAR Regions (III AMHS-IMP**).**

- Development of initial planning for AIDC implementation using CPL-LAM messages as shown in Appendix D to this part of the report; follow-up was assigned to the Air Traffic Services Inter-facility Data Communication (AIDC) Implementation Task Force.

4.2.8.2 Under WP/26, Dominican Republic presented a review of the IPV4 addressing scheme for the CAR/SAM Regions inter/intra-regional ground-ground links and pointed out some errors detected in this scheme as well as some inconsistencies that impede correct implementation. In this regard, Dominican Republic presented a draft scheme where only the permitted addresses are used, without the network and broadcast addresses, and the redundant links were eliminated. It was proposed that if the network is to remain the same that it be studied to know how many additional links are required so as to reserve the necessary address blocks.

4.2.8.3 In view of the above, the Meeting agreed that the ATS Messages Handling Systems (AMHS) Implementation Task Force should analyze the IPV4 addressing scheme and the observations presented by the Dominican Republic and inform the ANI/WG of actions taken in this regard.

4.2.9 Frequency Management

The ICAO Position for the International Telecommunication Union (ITU) World Radiocommunication Conference (2015) (WRC-15)

4.2.9.1 Under WP/17, the Secretariat briefed on the current status of the ICAO Position for the International Telecommunication Union (ITU) World Radiocommunication Conference (2015) (WRC-15); the proposed amendments to the ICAO policy statements, which are included in the ICAO *Handbook on Radio Frequency Spectrum Requirements for Civil Aviation including Statement of Approved ICAO Policies* (Doc 9718); a new proposed draft ICAO frequency spectrum strategy to be included in Doc 9718; and the results of the ICAO CAR/SAM Workshop on Frequency Management carried out in March 2013.

4.2.9.2 Major threats to aviation include the possibility of harmful interference to essential aeronautical radio navigation and radio communication systems. This could have a direct and severe impact on the safety as well as the efficiency of flight operations. To satisfy future frequency spectrum aviation needs, long-term planning and engagement is required. In order to provide a proactive response to the increasing pressure of other frequency spectrum dependent industries, active participation by aviation regulatory authorities and industry is required in the national and international fora leading to and including WRC-15.

4.2.9.3 The Meeting agreed on the need for States to provide active support to the ICAO position when developing their proposals and delegation briefs in preparation to the WRC-15 to ensure that decisions taken by the Conference are in favor of the aeronautical requirements (Assembly Resolution A36-25 refers). In this regard, the Meeting formulated the following draft conclusion:

DRAFT
CONCLUSION ANI/WG1/10 ACTIVE STATE SUPPORT TO ICAO POSITION FOR WRC-2015

That States, in order to ensure active support by States/Territories for the ICAO WRC-15 Position for the protection of the aeronautical frequency spectrum and satisfy future frequency spectrum aviation needs:

a) when preparing their ITU WRC-15 proposals, include to the maximum extent possible, the ICAO WRC-2015 position;

b) fully participate in the development of State positions to ensure support for the ICAO WRC-15 position;

c) include representatives from their civil aviation administrations and experts from aviation in their national delegations, to the extent possible, when participating in the International Telecommunication Union-Radio (ITU-R) and regional preparatory activities for WRC-15; and

d) ensure, to the extent possible, that their delegations to the WRC-15 include representatives of their civil aviation administrations.

4.2.10 Automation

4.2.10.1 Under IP/12, Trinidad and Tobago informed on improvements in the PIARCO FIR through progress made with the PIARCO automated system under its new capabilities and functionalities, which became operational July 2012, after the training of all appropriate staff.

4.2.11 AIM Plan

4.2.11.1 Under WP/25, the Meeting reviewed the need and importance to develop action plans for CAR Region AIS to AIM transition, which incorporates the use of relational databases with geospatial technologies in the management of information. Capabilities of transferring digital and/or electronic data between the air and the ground will be used for new products, such as in-flight information bulletins by uploading aeronautical and meteorological information directly aboard the aircraft during all phases of flight.

4.2.11.2 The Meeting reviewed the most important recommendations from the latest AIM Transition Seminar held in Montego Bay, Jamaica, July 2012 (see Appendix to WP/25). ICAO assistance was requested regarding development of documentation on AIM Standards and Recommended Practices (SARPs); guidance material to assist States in the transition from AIS to AIM; providing special training courses, seminars, workshops and awareness campaigns related to the importance of the AIM implementation; and development of standard AIM training courses.

4.2.11.3 The Secretariat highlighted the widespread difficulties faced in the Region for the transition to AIM:

a) Implementation of Phase 1 (consolidation); some States will not complete the implementation of some steps from Phase 1 before the end of 2013 (especially P-17 QMS)
b) Timelines for Phase 2 and Phase 3 implementation are not realistic; NAM/CAR Region implementation of Phase 2 and Phase 3 probably cannot be completed before 2016 and 2020, respectively
c) Tight timelines
d) Financial constraints
e) Availability of personnel, resources (human and material), and knowledge (required expertise)
f) Staff training represents a significant challenge to organize, train and assess staff for AIM relevant tasks and develop required competency for involved experts
g) Lack of detailed ICAO guidance material; AIM documentation with detailed description of steps to assist States with the implementation processes
h) Need to amend ICAO Annexes 4 and 15; documents and manuals to include AIM requirements
i) Awareness and commitment of data originators and adoption of appropriate arrangements with all data originators (national regulations)
j) Electronic data exchange with all data originators
k) e-TOD implementation

4.2.11.4 The Secretariat advised that it is necessary to assure that AIM fits within the SWIM environment included in the ASBU methodology in order to adhere to the new AIM/SWIM developments. The Meeting was informed on the AIM transition status as presented in the following table:

ESTIMATED STATUS IN THE TRANSITION FROM AIS TO AIM			
States (UN Code) International Org.	**States with Action Plan for the Transition**	**Estimated % of advance in the Transition**	**Remarks**
ATG (PIARCO)	---	0	Under agreement with PIARCO/AIM
BHS	---	---	No information
BRB	YES	20	Phase 1 in progress
BLZ (COCESNA)	YES	0	Under agreement with COCESNA/AIM
CAN	YES	80	All Phases initiated or developed
CRI	YES	40	Phase 1 completed Phase 2 initiated
CUB	YES	35	Phase 1 completed Phase 2 initiated
DOM	YES	45	Phase 1 completed Phase 2 initiated
SLV (COCESNA and CEPA)	YES	0	Under agreement with COCESNA/AIM and CEPA
USA	YES	85	All Phases initiated or developed
GRD (PIARCO)	---	0	Under agreement with

ESTIMATED STATUS IN THE TRANSITION FROM AIS TO AIM			
States (UN Code) International Org.	**States with Action Plan for the Transition**	**Estimated % of advance in the Transition**	**Remarks**
			PIARCO/AIM
GTM (COCESNA)	YES	0	Under agreement with COCESNA/AIM
HTI	YES	0	No initiated
HND (COCESNA)	YES	20	Under agreement with COCESNA/AIM
JAM	YES	---	No information
MEX	YES	---	No information
NIC	YES	35	Phase 1 completed Phase 2 initiated
KNA (PIARCO)	---	0	Under agreement with PIARCO/AIM
LCA (PIARCO)	---	0	Under agreement with PIARCO/AIM
VCT (PIARCO)	---	0	Under agreement with PIARCO/AIM
TTO (PIARCO)	---	40	Phase 1 progress Phase 2 in progress
COCESNA/AIM	YES	55	Phase 1 completed Phase 2 in progress Phase 3 initiated

4.2.12 Quality Management System Manual for AIM

4.2.12.1 The Secretariat presented IP/13 regarding the ICAO Headquarters study group on the transition from AIS to AIM, which prepared the draft version of *the Quality Management System (QMS) Manual for AIM*; the document was designated as Doc 9839 (see Appendix to the IP/13). This is a first draft English version; the corresponding translations are being prepared, including the version in Spanish. This draft could be used by States of the Regions for reference as an introduction to support AIM QMS processes implementation.

4.2.13 Global Information Space for Seamless Delivery of Air Traffic Management Information

4.2.13.1 The representatives from United States presented IP/10 related to global information space for seamless delivery of ATM. Information is increasingly becoming data dependent and demands the delivery of higher quality operational information. To meet this challenge, the Federal Aviation Administration (FAA) is working with international regulatory, oversight and operational partners on a performance-based approach to information management. Such an approach will allow the achievement of high quality operational information space and seamless delivery of harmonized ATM information to the user.

4.2.14 AIM/MET/ATM Coordination

4.2.14.1 According to WP/24, the Secretariat noted the increasing need for interaction between ATS units, Aeronautical Information Management (AIM) units, and Meteorological (MET) authorities. Coordination between these parties was discussed, and in this context, the Meeting recalled that timely provision of information, notices and warnings to aircraft crews on volcanic ash, volcanic activity prior to eruptions, radioactive and hazardous chemicals "clouds," among other events, cannot be achieved without close coordination among AIM and ATM units and meteorological offices.

4.2.14.2 In this regard, the Meeting agreed to conduct a workshop addressed to ATM, AIM and MET units and administration personnel that have the responsibility to provide each one of these services, as well as coordination among them. The participation of airline operator representatives was also deemed important.

4.2.14.3 The Meeting agreed that a date in the second quarter of 2014 could be chosen to develop the ATM/AIM/MET Coordination Workshop to be held at the ICAO NACC Regional Office.The syllabus for the workshop will result from State inputs. Therefore, the Meeting adopted the following draft conclusion:

DRAFT
CONCLUSION ANI/WG/1 1/11 WORKSHOP ON ATM, AIM AND MET COORDINATION

That, in preparation of the ATM/AIM/MET Unit Coordination Workshop, and in order to promote coordination to improve safety during natural events with major aviation impact, States of the CAR Region and COCESNA provide information on coordination among ATM, AIM and MET services to the ICAO NACC Regional Office by **28 February 2014.**

4.2.15 Technical Cooperation Project (RLA/09/801) – Implementation of Performance-Based Air Navigation Systems for the CAR Region

4.2.15.1 Under WP/16, the Secretariat presented progress with the RLA/09/801 Project as a tool to streamline air navigation matters in the CAR Region and provided the updated Project and Activities Plan proposed by the Secretariat for 2013-2016. The Activities Plan aims to achieve the expected results in line with the immediate objectives set out in the RLA/09/801 Project Document. The RLA/09/801 Project activities are presented as **Appendix E** to this part of the report.

4.2.15.2 The Meeting recognized the value of the Project and therefore adopted the following draft conclusion:

DRAFT CONCLUSION
ANI/WG/1/12 **ICAO REGIONAL TECHNICAL COOPERATION PROJECT FOR THE CARIBBEAN REGION - IMPLEMENTATION OF PERFORMANCE-BASED AIR NAVIGATION SYSTEMS FOR THE CAR REGION (RLA/09/801)**

That recognizing the value and assistance from the RLA/09/801 Project:

a) the Members of Regional Project RLA/09/801:

i. revise and advise on improvements or topics to include in the Project Activities Plan for 2013-2016 by **29 November 2013**;
ii. participate in the Project Activities Plan for 2013-2016 presented in **Appendix E** to this part of the report;
iii. apply for fellowships for upcoming 2013 Project events; and

b) those States/Territories/international organizations that are not members of the Project yet, consider participation in the Project and inform ICAO accordingly.

4.2.16 Draft Update of the NAM/CAR Regional Performance-Based Air Navigation Implementation Plan (RPBANIP)

4.2.16.1 Under WP/22, the revised updated draft of the NAM/CAR Regional Performance Based Air Navigation Implementation Plan, aligned with the ICAO ASBU methodology, was presented (refer to the Appendix to WP/22). This draft resulted from the ICAO Regional NAM/CAR Workshop on the Aviation System Block Upgrades (ASBU) Framework: Planning, Implementation and Monitoring held in the ICAO NACC Regional Office in Mexico City, Mexico, from the 22 to 26 July 2013.

4.2.16.2 The Secretariat explained the principal changes to the draft:

- 4 section structure
- 5-year term plan
- 15 ASBU B0 modules selected, and the corresponding Air Navigation Report Forms included
- 8 Regional Performance Objectives (RPOs) upgraded, a SAR RPO to be included and potentially a SMS RPO
- Detailed glossary included

4.2.16.3 It was also commented that this document remains to be upgraded with several comments received during the recent ASBU workshop. The Meeting suggested the following additions:

- Expansion of operation scenarios that justify the plan
- Explanation on categorization/prioritization of ASBU B0 modules
- Cross reference information between RPOs and ASBU B0 modules

4.2.16.4 The Secretariat commented that the final draft of the NAM/CAR RPBANIP, version 3, is scheduled for 30 October 2013, for submission to NAM/CAR States/Territories approval. In this regard, the Meeting adopted the following decision:

DECISION ANI/WG/1/13 REVIEW UPDATE OF DRAFT NAM/CAR REGIONAL PERFORMANCE-BASED AIR NAVIGATION IMPLEMENTATION PLAN (NAM/CAR RPBANIP)

That in order to support and enrich the NAM/CAR RPBANIP draft update:

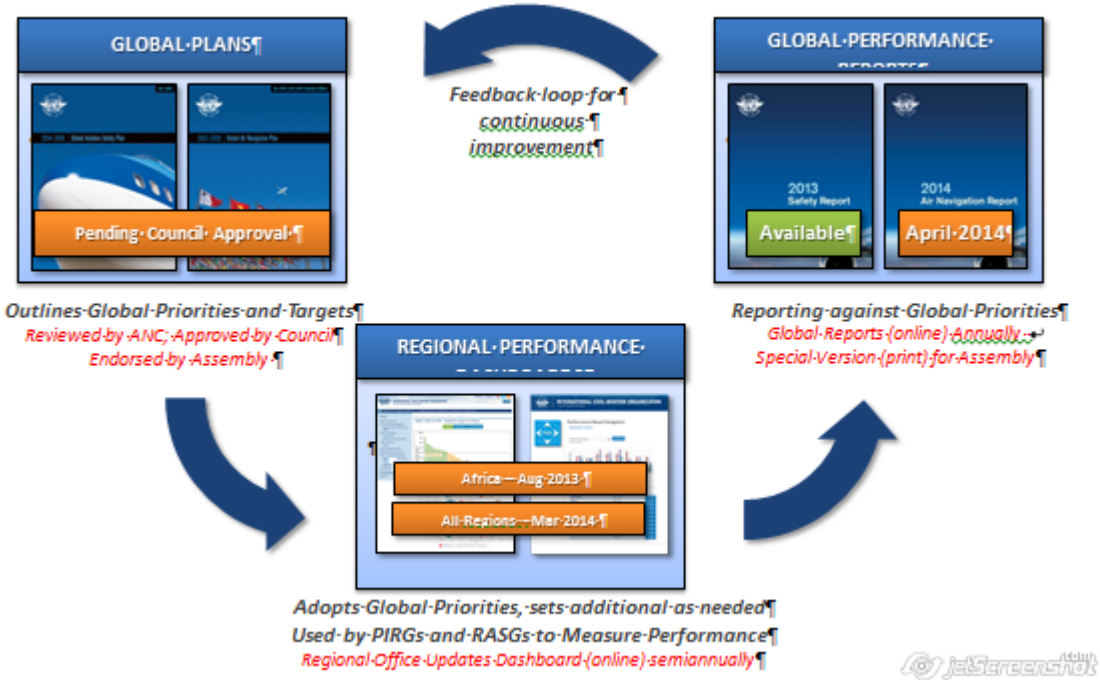
a) the ANI/WG review the draft and provide their remarks, comments and desirable additions to the document to ICAO by **15 October 2013**; and

b) ICAO distribute the draft to all NAM/CAR States by **30 October 2013**, and request that ICAO receive their comments and observations by **15 December 2013**.

4.3 Performance Monitoring of Air Navigation Systems

4.3.1 Implementation monitoring through Air Navigation Report Form (ANRF)

4.3.1.1 Through Presentation P/02, the Secretariat briefed on ICAO implementation of a dynamic monitoring and reporting regional dashboard system, the results of the Headquarters PIRG and RASG meeting; the Air Navigation Report Form (ANRF) and Air Navigation annual report to be completed.



4.3.1.2 The dashboard prototype is shown below:

4.3.1.3 Likewise, the Meeting noted that:

- Currently, implementation plans are being aligned with ASBU methodology and that States are working on adoption of the ANRF
- A dashboard prototype will be tested in the AFI Region in August 2013 for full implementation in other Regions by March 2014
- The first air navigation performance annual report will be published in April 2014

4.3.2 Review of Air Navigation performance indicators and metrics/Determine performance indicators/metrics that are suitable for the NAM/CAR Regions

4.3.2.1 When analyzing WP/20, the Secretariat presented updated information on the Key Performance Areas (KPAs) and associated metrics that serve as a basis for measuring RPBANIP performance and the air navigation performance-based national implementation plans. The safety and efficiency metrics and benefits reported up to May 2011 based on the NAM/CAR Regions implementation works were presented in Appendix A to WP/20.

4.3.2.2 The RPBANIP organizes strategies into a detailed set of regional work activities necessary for successful implementation. The RPBANIP encompasses all elements of the regional work programme life-cycle, from proposal to result, incorporating a process for monitoring and evaluation. It also serves as task management interface for reporting and monitoring project activities.

4.3.2.3 The national action plans translate key operational improvement activities related to topics and strategic approaches, expected output, Key Performance Indicators (KPIs), the assignment of specialists, and the estimation of required resources.

4.3.2.4 Based on the ASBU ANRF, States/Territories/international organizations should select only a limited number of metrics per KPA type, serving as implementation benefits measurement. This approach would assist States with collecting data for the chosen metrics.

4.3.2.5 Taking into account a common approach for ASBU implementation, the Meeting adopted the following draft conclusion:

DRAFT
CONCLUSION ANI/WG/1/14 ADOPTION OF A PERFORMANCE MONITORING AND MEASURING PROGRAMME IN THE NAM/CAR REGIONS

That taking into account the importance of monitoring and measuring Key Performance Areas (KPAs)**,** NAM/CAR Region States/Territories/international organizations:

a) adopt a group of metrics on access and equity; capacity; efficiency; environment; and safety related to the KPAs as described in the ANRF;

b) incorporate these metrics into their performance monitoring programmes;

c) collect pertinent data;

d) coordinate with ATM community members in order to encourage data and information collection; and

e) inform the ICAO NACC Regional Office on measured progress by **30 January each year**.

4.3.3 Required Communication Performance (RCP)

4.3.3.1 The Meeting recalled that Required Communication Performance (RCP) elements are related to the type of ATS depending on the airspace classification specified in Annex 11. The RCP requirement became valid in November 2012.

4.3.3.2 States should ensure the ATS communication service is applying the RCP principles to ensure acceptable communications performance within the ATM system. ATS units should comply with these requirements according to Doc 9869 - *Manual on required Communication Performance (RCP).*

4.3.3.3 RCP characterizes communication capabilities with the possibility of using new technologies in ATS operational components, such as the application of separation between aircraft, change of routes, and the provision of flight information, etc.

4.3.3.4 Doc 9869 sets forth that the RCP concept is aimed at communication performance management that requires ATM concepts in evolution and emerging technologies. This is achieved by:

- Determining a RCP type for communication capabilities for an ATM function;
- Prescribing the RCP types related to communication systems for ATM functions within a determined airspace
- Complying with the RCP type prescribed through analysis, operational assessment, and performance surveillance of communication systems.

4.3.3.5 States should use the following Table as guidance for determining the appropriate RCP for the ATM service to be provided in the airspace concerned:

RCP types recommended for application.

RCP type	***Transaction time (sec)***	**Continuity (probability /flight hour)**	**Availability (probability /flight hour)**	**Integrity (acceptable rate/flight hour)**
RCP 10	10	0.999	0.9999	10-5
RCP 60	60	0.999	0.9999	10-5
RCP 120	120	0.999	0.9999	10-5
RCP 240	240	0.999	0.999 0.9999	10-5
RCP 400	400	0.999	0.999	10-5

4.3.3.6 The Meeting noted that within the new version of the RPBANIP a task to work in the RCP definition, application and assessment has already been included in the ATM services of the NAM/CAR Regions.

4.4 Human Factor and Training Issues

4.4.1 The Secretariat presented WP/21 on the ICAO Next Generation of Aviation Professionals (NGAP) initiative training activities, ICAO civil aviation training policy, and the TRAINAIR *Plus* Programme as elements to be considered in the development of national aviation training plans and regional activities to guide CAR States with development of their aviation training programmes.

4.4.2 Similarly, the Secretariat informed on the existing ICAO training guidance, the initial CAR Training Plan, training courses offered by the Civil Aviation Training Centres in the NAM/CAR Regions, and the First Meeting of Civil Aviation Training Centres (NAM/CAR/CIAC/1) to be held at the ICAO NACC Regional Office from 27 to 29 August 2013.

4.4.3 The Meeting considered that States and Territories, together with the users and the Civil Aviation Training Centres, should work together to enforce and improve training in the region. In this regard, the Meeting agreed on the following draft conclusion:

DRAFT
CONCLUSION ANI/WG/1/15 REVIEW OF CIVIL AVIATION TRAINING MATTERS IN THE CAR REGION

That in order to enforce and improve training in the region, States/Territories/international organizations:

a) review the initial Regional CAR Training Plan (Appendix A to WP/21);

b) evaluate the Programs and Training Courses currently offered by the Civil Aviation Training Centres in the CAR Region (Appendix B to WP/21); and

c) identify any particular civil aviation training needs and send these needs and the results of items a) and b) to the ICAO NACC Regional Office by **29 November 2013**.

PBN Implementation Progress in the CAR Region and Bermuda (15.06.13)
Avances de implementación PBN en la Region CAR y Bermuda (15.06.13)

FIR (RNAV Routes / Rutas RNAV)	PBN Routes, SIDS/STARS & RNP Approach Procedures Rutas PBN, SIDS/STARS & Procedimientos de Aproximacion RNP										
	State, Territory / Estado, Territorio (#Aerodromes / #Aerodromos)	Aerodrome / Aeródromo	RWY / Pista	SID	STAR	APPs LNAV (RNP)	APPs VNAV (RNP)	APPs RNP AR	Total APPs (RNP)	TOTAL	AIP
CENTRAL AMERICA (18 RNAV Routes / 18 Rutas RNAV)	BELIZE (1)	**MZBZ**	07/25								
	COSTA RICA (4)	**MROC**	07/25	2	4				2	8	Feb-10
		MRPV	09/27								
		MRLB	07/25			1				1	
		MRLM	14/32						1	1	Jun-09
	EL SALVADOR	**MSLP**	07/25	10	3				3	16	Feb-13
		MSSS	15/33 - 08/26	3						3	
	GUATEMALA (2)	**MGGT**	01/19	3	4					7	Nov-11
		MGTK	10/28								
	HONDURAS (5)	**MHTG**	02/20	1	2				3	6	Nov-10
		MHSC	17/35			2			2	2	Nov-10
		MHLC	06/24								
		MHLM	04/22	1	3				1	5	Jan-09
		MHRO	06/24	1	1				1	3	Jan-09
	NICARAGUA (1)	**MNMG**	09/27								
CURACAO (10 RNAV Routes / 10 Rutas RNAV)	ARUBA (1)	**TNCA**	11/29			2	1		3	3	Mar-08
	BONAIRE (1)	**TNCB**	10/28	2	2				2	6	Apr-12
	CURACAO (1)	**TNCC**	11/29		4				2	4	Apr-12
HAVANA (13 RNAV Routes / 13 Rutas RNAV)	CUBA (10)	**MUCM**	07/25	10	9		2		2	21	Nov-12
		MUCC	08/26	9	7		2		2	18	Nov-12
		MUCL	12/30	8	7		2		2	17	Nov-12
		MUCF	02/20	4	4		2		2	10	May-13
		MUHA	06/24	7	7		2		2	16	May-13
		MUHG	05/23	10	10		2		2	22	Nov-12
		MUMZ	08/26	4	4		2		2	10	May-13
		MUCU	10/28 01/19	5	5		2		2	12	May-13
		MUSC	08/26	5	4		2		2	11	May-13
		MUVR	06/24	6	4		2		2	12	Nov-12
KINGSTON (10 RNAV Routes / 10 Rutas RNAV)	CAYMAN ISLANDS, UK (2)	**MWCB**	09/27			2			2	2	Jan-10
		MWCR	08/26			2			2	2	Feb-10
	JAMAICA (2)	**MKJP**	12/30	3		2	2		4	7	Aug-08
		MKJS	07/25	4		2	1		3	7	Jun-06
MEXICO (55 RNAV Routes / 55 Rutas RNAV) RNP 10 implemented in the Gulf of Mexico oceanic airspace (10 RNAV Routes) / RNP 10 implementado en el espacio aereo oceanico del Golfo de Mexico (10 Rutas RNAV)	MEXICO (66)	**MMUN**	12/30 L/R								
		MMMX	05/23 L/R								
		MMTO	15/33	2	2					4	Jul-12

PBN Implementation Progress in the CAR Region and Bermuda (15.06.13)
Avances de implementación PBN en la Region CAR y Bermuda (15.06.13)

NASSAU	BAHAMAS (8)	**MYNN**	14/32 - 09/27	10					3	13	Nov-08
		MYGF	06/24	7					2	9	Jul-09
		MYEH	07/25	4					1	5	May-09
		MYSM	10/28	1	1				1	3	Jan-10
		MYEF	12/30	2					2	4	Jan-10
		MYEM	15/33	2					2	4	May-09
		MYAT	14/32	2					2	4	Feb-10
		MYSM	10/28	1	1				1	3	Jan-10
NAT	BERMUDA, UK (1)	**TXKF**	12/30		2	2	2		4	6	Apr-12
PORT AU PRINCE	HAITI (2)	**MTPP**	10/28	2		2	1		3	5	Jul-05
		MTCH	05/23	2		2			2	4	Jul-05
PIARCO Random RNAV Routes implemented in the Piarco FIR / Rutas Random RNAV implementadas en la FIR Piarco UL435, UL695, UL375, UL337, UL776, UL205, UM791, UL462, UM402	ANGUILLA, UK (1)	**TQPF**	10/28	1		2			2	3	
	ANTIGUA & BARBUDA (2)	**TAPH**									
		TAPA	07/25								
	BARBADOS (1)	**TBPB**	09/27	2		2	1		3	5	May-09
	DOMINICA, UK (1)	**TDPD**	09/27	1					1	1	Jun-11
	FRANCE (5)	**TFFM**	09/27								
		TFFR	11/29	4	1				2	7	Apr-09
		TFFF	09/27	4	2				2	8	Jan-09
		LVFM	12/30								
		LFVP	08/26	1	1				2	4	Sep-05
	GRENADA (2)	**TGPY**	10/28						2	2	Mar-12
		TGPZ									
	MONTSERRAT, UK (1)	**TRPG**									
	ST. KITTS & NEVIS (1)	**TKPK**	07/25	3					2	5	Jun-11
		TKPN	10/28	1					2	3	Mar-12
	ST. LUCIA (2)	**TLPC**	09/27								Jun-11
		TLPL	10/28						2	2	
	ST. VINCENT & THE GRANADINES(2)	**TVSV**	07/25								
		TVSC	13/31						2	2	Jan-09
	TRINIDAD & TOBAGO (2)	**TTPP**	10/28			2			2	2	Oct-12
		TTCP	11/29			2			2	2	Oct-12
SANTO DOMINGO (18 RNAV Routes / 18 Rutas RNAV)	DOMINICAN REPUBLIC (7)	**MDSD**	17/35	10	14	2			2	26	Dec-08
		MDPC	09/27	8	10	2			2	20	Mar-12
		MDPP	08/26	10	10	2			2	22	Jun-09
		MDLR	11/29	2	2	2			2	6	Mar-09
		MDST	11/29	8	12	2			2	22	Dec-10
		MDJB	01/19								
		MDCY	07/25			1			1	1	Oct-10
SAN JUAN - MIAMI RNP 10 implemented in the San Juan FIR and WATRS airspace (25 RNAV Routes) / RNP 10 implementado en el espacio aereo de la FIR San Juan y WATRS (25 Rutas RNAV)	BRITISH VIRGIN I., UK (1)	**TUPJ**	07/25								
	PUERTO RICO, US (6)	**TJBQ**	08/26						1	1	Oct-09
		TJIG	09/27			1			1	1	Apr-08
		TJMZ	09/27			1			1	1	Oct-05
		TJPS	12/30			2			2	2	Mar-09
		TJSJ	08/26-10/28	4		4	4		8	12	May-09
		TJVQ	09/27	1		1			1	2	Feb-10
	ST. EUSTATIUS, NL (1)	**TNCE**	07/25								
	ST. MAARTEN (1)	**TNCM**	10/28	3	3				1	7	Apr-12

PBN Implementation Progress in the CAR Region and Bermuda (15.06.13)

Avances de implementación PBN en la Region CAR y Bermuda (15.06.13)

	TURKS & CAICOS I., UK (5)	**MBAC**	07/25	4					2	6	Feb-10
		MBGT	11/29	1		2			2	3	Feb-10
		MBMC	10/28	7					2	9	Dec-08
		MBPV	10/28	2		2	1		3	5	Sep-11
		MBSC	11/29	1		2			2	3	Feb-10
	VIRGIN ISLANDS, US (2)	**TIST**	10/28			1			1	1	Nov-06
		TISX	10/28			2			2	2	Nov-06
159 RNAV Routes (Fixed)	**TOTAL**			**211**	**145**				**140**	**494**	**May-13**

APPENDIX B
FPL2012 Post implementation Checklist and Follow-up to FPL2012 full compliance activities
Follow-up: 30 July 2013

State	Solution	
	AFTN Terminal –FPL	**ATC Automated System - FDP**
Anguilla	Implemented	Manual
Antigua and Barbuda	Implemented	Manual
Aruba	Implemented	Implemented
Bahamas	AMHS (FPL2012) terminals implementation date to be defined **(TBD)**	Full upgrade planned (converter is use)
Barbados	Implemented	Implemented
Belize	Implemented	Full upgrade planned (converter is use)
Bermuda	Implemented	Manual
British Virgin Islands	Implemented	Manual
Canada	Implemented	Implemented
Cayman Islands	Implemented	Implemented
COCESNA	Implemented	Full upgrade planned (converter is use)
Costa Rica	Implemented	Full upgrade planned (converter is use)
Cuba	Implemented	Implemented
Curacao	Implemented	Implemented
Dominica	Implemented	Manual
Dominican Republic	Implemented	Full upgrade planned (converter is use)
El Salvador	Implemented	Full upgrade planned (converter is use)
Grenada	Implemented	Implemented
Guatemala	Implemented	Full upgrade planned (converter is use)
French Antilles	Implemented	Implemented
Haiti	Manual	Manual
Honduras	Implemented	Full upgrade planned (converter is use)
Jamaica	Implemented	Full upgrade planned (converter is use)
Mexico	Implemented	Implemented
Montserrat	Implemented	Manual

State	Solution	
	AFTN Terminal –FPL	**ATC Automated System - FDP**
Netherlands (BES Islands)	Manual	Manual
Nicaragua	Implemented	Implemented
Saint Kitts and Nevis	Implemented	Manual
Saint Lucia	Implemented	Manual
Saint Vincent and the Grenadines	Implemented	Manual
Sint Maarten	Implemented	Implemented
Trinidad and Tobago	Implemented	Implemented
Turks and Caicos	Implemented	Implemented
United States	Implemented	Implemented

APPENDIX/APÉNDICE C
IMPROVEMENTS TO AMS COMMUNICATION SERVICES IN THE CAR REGION/
MEJORAS A LOS SERVICIOS DE COMUNICACIONES AMS EN LA REGIÓN CAR (Update/Actualización: 2/04/2013)

State/ International Organization / Estado/ Organización Internacional	Type deficiency (No coverage, poor quality, intermittent failure) / Tipo de deficiencia (sin cobertura, calidad mediocre, falla intermitente)	Deficiency description (include if permanent, time of day, other considerations)/ Descripción de la deficiencia (incluir si es permanente, hora del día, otras consideraciones)	ATS Route + pair of waypoints/ Ruta ATS + par de puntos de recorrido	Has been reported by airlines, ATCO or other sources / Notificado por aerolíneas, ATCO u otras fuentes	Solution				
					Planned Solution (add more pages as needed) / Solución planificada (añadir más hojas si es necesario)	Target date of solution/ Fecha meta de solución Month- year Mes-año	Is participation of adjacent FIR or airline users requested?/ ¿Se solicita la participación de FIR adyacente o usuarios de aerolíneas?	Focal point for deficiency details and solution/ Punto focal para detalles y solución de deficiencias	Remarks/ Observaciones
COCESNA	Poor quality, and no coverage in some areas in some hours/Calidad mediocre y falta de cobertura en algunas áreas a algunas horas.	Lack of HF AMS Communications in ATS routes in the Pacific Ocean. Falta de Comunicaciones HF AMS en rutas ATS en el océano Pacífico	UL 312: Artom (1°25´N, 87°28´W). Vodir (5°31´N, 90°39´W), Rotro (8°52´N, 95°31´W),	Yes / Sí	COCESNA´s HF improvements. Mejoras a HF de COCESNA	1 phase 15/01/13 (RX System)/1a fase, 15/01/13 (Sistema RX) 2nd Phase, 15/11/2013 (TX System)/2a fase, 15/11/13 (Sistema TX) 1/02/13 FANS 1A (one year contract/test)/1/02/13 FANS 1A (contrato/pruebas 1 año)	Testing the new systems when installed. / Pruebas a los nuevos sistemas una vez instalados. Yes, Mexico/ Si, Mexico	Juan Carlos Trabanino (juancarlos.trabanino@cocesna.org) and Roger Alberto Pérez (roger.perez@cocesna.org)	IATA reportó que con las mejoras al sistema HF de COCESNA, esta deficiencia esta resuelta.
Jamaica	Main radio 128.35 MHz No coverage / Falta de cobertura radio principal 128.35 MHz	Permanent / Permanente	U/G448/Levor Levor, north to about 100 miles south of GCM. U/G448/North Levor UM782	Airline & ATCO / Aerolínea y ATCO	Radios to be placed at Puerto Cabezas (Nicaragua)	Not determined / Sin determinar	Yes, Participation from adjacent FIR / Sí, participación de FIR adyacente	Carl Gaynair ~~(~~ (mats@jcaa.gov.jm) and Orville Shaw (oshaw@jcaa.gov.jm)	There is no radar coverage or intermittent radar coverage for the area, no or poor radio communication. Radar sharing agreement being envisaged. Links from the radios to Kingston will be via satellite. / No hay cobertura radar o es intermitente para el área y nula o mediocre comunicación por radio. Se contempla compartir datos radar. Los enlaces de radio a Kingston se harán vía satélite.

State/ International Organization / Estado/ Organización Internacional	Type deficiency (No coverage, poor quality, intermittent failure) / Tipo de deficiencia (sin cobertura, calidad mediocre, falla intermitente)	Deficiency description (include if permanent, time of day, other considerations)/ Descripción de la deficiencia (incluir si es permanente, hora del día, otras consideraciones)	ATS Route + pair of waypoints/ Ruta ATS + par de puntos de recorrido	Has been reported by airlines, ATCO or other sources / Notificado por aerolíneas, ATCO u otras fuentes	Solution				
					Planned Solution (add more pages as needed) / Solución planificada (añadir más hojas si es necesario)	Target date of solution/ Fecha meta de solución Month- year Mes-año	Is participation of adjacent FIR or airline users requested?/ ¿Se solicita la participación de FIR adyacente o usuarios de aerolíneas?	Focal point for deficiency details and solution/ Punto focal para detalles y solución de deficiencias	Remarks/ Observaciones
	Main radio 128.35 MHz poor quality/ Intermittent failure/ / Falta de cobertura radio principal 128.35 MHz	Permanent (During the afternoon especially when there is increased cloud cover and/or precipitation)/ Permanente (Durante la tarde, especialmente cuando hay cobertura de nubes y/o precipitaciones)	UL465 Arnal and south of Arnal UG 448, UB 767, UL 465, UG 633, UR 644, UG 877	Airline & ATCO / Aerolínea y ATCO	Radios to be placed at Puerto Cabezas (Nicaragua) / Radios a ubicarse en Puerto Cabezas (Nicaragua)	Not determined / Sin determinar	Yes, Participation from adjacent FIR / Sí, participación de FIR adyacente		Intermittent radar coverage as well as no or poor radio communication. Radar data sharing agreement being envisaged. / Cobertura radar intermitente y nula o mediocre comunicación radio. Se contempla acuerdo para compartir datos radar.
Haiti	Lack or deficient AMS coverage/ Falta o cobertura AMS deficiente	Permanent / Permanente	Port-au-Prince FIR	Adjacent FIRs and airlines / FIR adyacentes y aerolíneas	TBD	TBD	Yes, Participation from adjacent FIR / Sí, participación de FIR adyacente	Yes, Participation from adjacent FIR / Sí, participación de FIR adyacente	
Mexico	Lack of AMS coverage/ Falta de cobertura AMS	Permanent / Permanente	ATS routes near Acapulco towards oceanic airspace / Rutas ATS cerca de Acapulco hacia el espacio aéreo oceánico.	Airline & ATCO / Aerolínea y ATCO	TBD	TBD	No	Sergio Valencia: svmendez@sct.gob.mx Ever Molina: emolinac@sct.gob.mx	

State/ International Organization / Estado/ Organización Internacional	Type deficiency (No coverage, poor quality, intermittent failure) / Tipo de deficiencia (sin cobertura, calidad mediocre, falla intermitente)	Deficiency description (include if permanent, time of day, other considerations)/ Descripción de la deficiencia (incluir si es permanente, hora del día, otras consideraciones)	ATS Route + pair of waypoints/ Ruta ATS + par de puntos de recorrido	Has been reported by airlines, ATCO or other sources / Notificado por aerolíneas, ATCO u otras fuentes	Solution				
					Planned Solution (add more pages as needed) / Solución planificada (añadir más hojas si es necesario)	Target date of solution/ Fecha meta de solución Month- year Mes-año	Is participation of adjacent FIR or airline users requested?/ ¿Se solicita la participación de FIR adyacente o usuarios de aerolíneas?	Focal point for deficiency details and solution/ Punto focal para detalles y solución de deficiencias	Remarks/ Observaciones
	No coverage in some areas in some hours: Mazatlan Oceanic FIR/ Sin cobertura en algunas áreas en algunas horas Mazatlán Oceanic FIR/	Lack of HF AMS Communications in ATS routes in the Pacific Ocean/ Falta de comunicaciones HF AMS en rutas ATS en el Océano Pacífico	No fixed ATS routes / No hay rutas ATS fijas.	Airline/ Aerolínea	TBD	TBD	Yes, Participation from adjacent FIR / Sí, participación de FIR adyacente		
PIARCO	HF Communications/ Comunicaciones HF	Permanent / Permanente	Oceanic airspace PIARCO FIR / Espacio Aéreo oceánico FIR PIARCO.	Airline	ADS-C/CPDLC	2013	No	Veronica Ramdath (vramdath@gmail.com)	

APPENDIX/APÉNDICE D
CPL-LAM IMPLEMENTATION Update: 30 July 2013 / IMPLEMENTACIÓN CPL-LAM Actualización: 30 Julio 2013

1	2	3	4	5	6	7	8
State/Estado	Does your current Flight Data Processing System (FDPS) have the capacity to process CPL-LAM messages? (Y/N)// ¿Tiene su actual Sistema de procesamiento de datos de vuelo (FDPS) la capacidad para procesar mensajes CPL-LAM/ (Sí/No)	Indicate with what adjacent FIR/ATS Unit is the CPL-LAM implementation required/ Indicar con cuál FIR/Dependencia ATS adyacente se requiere implementación CPL-LAM	Indicate intended date for CPL-LAM testing and implementation/ Indicar fecha prevista para pruebas e implementación CPL-LAM	Provide Point of Contact for further CPL-LAM coordination (name, title, e-mail, phone number)// Proporcionar Punto de Contacto para coordinación CPL-LAM (nombre, puesto, e-mail, número tel.)	If CPL-LAM has been implemented, provide bilateral agreement(s) for its operation, if applicable (for example ICD document)// Si se ha implantado CPL-LAM, proporcionar acuerdo(s) bilateral(es) para su operación, si es el caso (por ejem. Documento ICD)	CPL-LAM messages are transmitted through AFTN circuits, what is the current AFTN circuit speed and, if any, upgrade for CPL-LAM implementation:/ Los mensajes CPL-LAM se transmiten a través de circuitos AFTN ¿cuál es la velocidad actual del circuito AFTN y si es caso, modernización para implementación CPL-LAM?	Comment or concerns for CPL-LAM implementation/ Comentarios o preocupaciones sobre la implementación CPL-LAM
Cuba	yes - Oracle Version 9 modificada by LITA-CUBA / Sí - Oracle Versión 9 modificada por LITA-CUBA	FIR Miami	With Miami was started in 15 December 2011. Merida started in 9 March 2012. With the other FIRs the implementation date hasn´t been established./ Con Miami empezó 15/12/11. Mérida empezó 09/03/12. Con otras FIR no se ha establecido implementación.	Manuel Vega Rodríguez, Operations Management Havana ACC (537) 649-7281 manuelvega@aeronav.ecasa.avianet.cu	NAM-ICD Version D	19200 BPS	We received many mistakes from the users in the FPL, in almost all fields. We have detected changes in the FPL forwarded by ACC´s or ANSP offices related to FPLs filed by operators/ Recibieron muchos errores de los usuarios en el FPL, en casi todas las esferas. Detectaron cambios en el FPL enviado por ACC u oficinas ANSP relacinadas con FPL presentados por explotadores.
		FIR Merida					LOA pending approval by Mexico /aprobació LOA pendiente por México.
		FIR Kingston	TBD/Por definir				
		FIR CENAMER	01-01-2014				
		FIR Haiti	TBD/Por definir				
Dominican Republic/	No - For mid 2013 yes- TopSky-ATC,	KZMA/Miami ARTCC	MTEG/Port au Prince ACC	Julio Cesar Mejia A. Enc. ATM, jmejia@idac.gov.do, 809 274-4322.	NAM-ICD Versión D	AFTN: 9600 bps/ AMHS: 64 Kbps	

1	2	3	4	5	6	7	8
State/Estado	Does your current Flight Data Processing System (FDPS) have the capacity to process CPL-LAM messages? (Y/N)// ¿Tiene su actual Sistema de procesamiento de datos de vuelo (FDPS) la capacidad para procesar mensajes CPL-LAM/ (Sí/No)	Indicate with what adjacent FIR/ATS Unit is the CPL-LAM implementation required/ Indicar con cuál FIR/Dependencia ATS adyacente se requiere implementación CPL-LAM	Indicate intended date for CPL-LAM testing and implementation/ Indicar fecha prevista para pruebas e implementación CPL-LAM	Provide Point of Contact for further CPL-LAM coordination (name, title, e-mail, phone number)// Proporcionar Punto de Contacto para coordinación CPL-LAM (nombre, puesto, e-mail, número tel.)	If CPL-LAM has been implemented, provide bilateral agreement(s) for its operation, if applicable (for example ICD document)// Si se ha implantado CPL-LAM, proporcionar acuerdo(s) bilateral(es) para su operación, si es el caso (por ejem. Documento ICD)	CPL-LAM messages are transmitted through AFTN circuits, what is the current AFTN circuit speed and, if any, upgrade for CPL-LAM implementation:/ Los mensajes CPL-LAM se transmiten a través de circuitos AFTN ¿cuál es la velocidad actual del circuito AFTN y si es caso, modernización para implementación CPL-LAM?	Comment or concerns for CPL-LAM implementation/ Comentarios o preocupaciones sobre la implementación CPL-LAM
República Dominicana	Thales ATM / No - para mediados de 2013 sí- TopSky-ATC, Thales ATM	TJZS/San Juan CERAP	1 Oct 2013 - Ready to test	Ext. 2103 + Fernando Casso,fcasso@idac.gov.do			
		TNCF/Curazao ACC	1 Oct 2013 - Ready to test				
		MTEG/Port au Prince ACC	TBD/Por definir				
Mexico	Yes- FDP=EUROCAT-X.V3 Model, Producer= THALES ATM, INFO= Four Control Centres, all Mexico covered / Sí- FDP=EUROCAT-X.V3 Modelo, Productor= THALES ATM, INFO= 4 centros de control, todo México	Central America (COCESNA/CENAMER)	Mexico FDP system available / Sistema disponible FDP México	Ing. Jose de Jesus Jimenez Director de Sistemas Digitales SENEAM/SCT/MÉXICO xxxxx@sct.gob.mx 55 57 86 55 32	NAM-ICD Versión D	19200 bps	Mexico already counts with the implementation of CPL/LAM information exchange between: MZT ≤ ≥ LAX, MZT ≤ ≥ ABQ, MTY ≤ ≥ABQ, MTY ≤ ≥HOU, MID ≤ ≥ HOU, MID ≤ ≥ HAB / México ya cuenta con implementación de intercambio de información CPL/LAM entre: MZT ≤ ≥ LAX, MZT ≤ ≥ ABQ, MTY ≤ ≥ABQ, MTY ≤ ≥HOU, MID ≤ ≥ HOU, MID ≤ ≥ HAB
United States/	Yes - The domestic FDP is integrated	Current United States Domestic North	Future initiatives being evaluated:	Dan Eaves, Federal Aviation Administration Air Traffic Control	NAM-ICD Versión D	US- Mexico: NADIN/AFTN 64 kbps	None / Ninguno

1	2	3	4	5	6	7	8
State/Estado	Does your current Flight Data Processing System (FDPS) have the capacity to process CPL-LAM messages? (Y/N)// ¿Tiene su actual Sistema de procesamiento de datos de vuelo (FDPS) la capacidad para procesar mensajes CPL-LAM/ (Sí/No)	Indicate with what adjacent FIR/ATS Unit is the CPL-LAM implementation required/ Indicar con cuál FIR/Dependencia ATS adyacente se requiere implementación CPL-LAM	Indicate intended date for CPL-LAM testing and implementation/ Indicar fecha prevista para pruebas e implementación CPL-LAM	Provide Point of Contact for further CPL-LAM coordination (name, title, e-mail, phone number)// Proporcionar Punto de Contacto para coordinación CPL-LAM (nombre, puesto, e-mail, número tel.)	If CPL-LAM has been implemented, provide bilateral agreement(s) for its operation, if applicable (for example ICD document)// Si se ha implantado CPL-LAM, proporcionar acuerdo(s) bilateral(es) para su operación, si es el caso (por ejem. Documento ICD)	CPL-LAM messages are transmitted through AFTN circuits, what is the current AFTN circuit speed and, if any, upgrade for CPL-LAM implementation:/ Los mensajes CPL-LAM se transmiten a través de circuitos AFTN ¿cuál es la velocidad actual del circuito AFTN y si es caso, modernización para implementación CPL-LAM?	Comment or concerns for CPL-LAM implementation/ Comentarios o preocupaciones sobre la implementación CPL-LAM
Estados Unidos	into the Host Automation. En Route Automation Modernization (ERAM) systems. Lockheed-Martin (LMCO) is the prime contractor for the Host/ERAM system. The flight data function of the San Juan Combined Center/Radar Approach Control (CERAP) is integrated into the Miami Air Route Traffic Control Center (ARTCC) Host/ERAM. Ocean21 provides its own FDP processing in the oceanic environment. LMCO is also the contractor for Ocean21. / Sí - El FDP nacional está integrado en la automatización Host. Sistemas de Modernización de Automatización En Ruta (ERAM).	American interfaces which have been implemented include: / Las interfaces actuales nacionales de Estados Unidos Norteamérica que se ahn implementado incluyen: Canada (Seattle ARTCC-Vancouver ACC; Salt Lake ARTCC-Edmonton ACC/Winnipeg ACC; Minneapolis ARTCC-Winnipeg ACC/Toronto ACC; Cleveland ARTCC-Toronto ACC/Mazatlan ACC; Los Angeles ARTCC-Mazatlan ACC Cuba – Miami ARTCC – Havana ACC.ACC; Boston ARTCC-Montreal ACC/Moncton ACC. Mexico – Houston ARTCC-Merida ACC/Monterrey ACC; Albuquerque ARTCC-Monterrey	Additional NAM ICD Phase II message set enhancements (beyond CPL & LAM) of the Miami ARTCC–Havana ACC interface are being planned airspace/system capabilities for potential interfaces: Piarco FIR, Nassau FIR and Sant0 Domingo FIR tentatively for development in 2013. - Analysis of Caribbean and oceanic airspace/system capabilities for potential interfaces: Piarco FIR, Nassau FIR and Santa Domingo FIR / Las futuras iniciativias en evaluación: Mejoras a conjuntos de mensajes adicionales NAM ICD Fase II (más allá de CPL & LAM) del ARTCC Miami–	Specialist, Dan.Eaves@FAA.gov, 202-385-8492		X.25 US- Cuba : MEVA II 19.2 kbps connection to NADIN/conexión a NADIN	

1	2	3	4	5	6	7	8
State/Estado	Does your current Flight Data Processing System (FDPS) have the capacity to process CPL-LAM messages? (Y/N)// ¿Tiene su actual Sistema de procesamiento de datos de vuelo (FDPS) la capacidad para procesar mensajes CPL-LAM/ (Sí/No)	Indicate with what adjacent FIR/ATS Unit is the CPL-LAM implementation required/ Indicar con cuál FIR/Dependencia ATS adyacente se requiere implementación CPL-LAM	Indicate intended date for CPL-LAM testing and implementation/ Indicar fecha prevista para pruebas e implementación CPL-LAM	Provide Point of Contact for further CPL-LAM coordination (name, title, e-mail, phone number)// Proporcionar Punto de Contacto para coordinación CPL-LAM (nombre, puesto, e-mail, número tel.)	If CPL-LAM has been implemented, provide bilateral agreement(s) for its operation, if applicable (for example ICD document)// Si se ha implantado CPL-LAM, proporcionar acuerdo(s) bilateral(es) para su operación, si es el caso (por ejem. Documento ICD)	CPL-LAM messages are transmitted through AFTN circuits, what is the current AFTN circuit speed and, if any, upgrade for CPL-LAM implementation:/ Los mensajes CPL-LAM se transmiten a través de circuitos AFTN ¿cuál es la velocidad actual del circuito AFTN y si es caso, modernización para implementación CPL-LAM?	Comment or concerns for CPL-LAM implementation/ Comentarios o preocupaciones sobre la implementación CPL-LAM
	Lockheed-Martin (LMCO) es el contratista principal para el sistema Host/ERAM. La función de los datos de vuelo del Centro Combinado San Juan/Control de Aproximación Radar (CERAP) está integrado en el Centro de Control de Tránsito Aéreo de Ruta Miami (ARTCC) Host/ERAM. Ocean21 proporciona su propio procesamiento FDP en el ambiente oceánico. LMCO también es contratista de Ocean21.		Interfaz Havana ACC planificados capacidades espacio aéreo/sistema para interfaces potentiales: Piarco FIR, Nassau FIR y Santo Domingo FIR tentativamente para desarrollar en 2013. Análisis de capacidades del espacio aéreo(sistema del Caribe y oceánico para interfaces potentiales: FIR Piarco, Nassau y Santo Domingo.				
COCESNA (CENAMER)	FDP System to be upgraded in 2013/	Merida, Panama (in the future analyses	COCESNA still does not has date for	Juan Carlos Trabanino, Director ACNA, juan.trabanino@cocesna.org,	NAM-ICD Version D	N/A (the current AFTN circuit speed is 1.2 kbps	The ability to process this type of messages

1	2	3	4	5	6	7	8
State/Estado	Does your current Flight Data Processing System (FDPS) have the capacity to process CPL-LAM messages? (Y/N)// ¿Tiene su actual Sistema de procesamiento de datos de vuelo (FDPS) la capacidad para procesar mensajes CPL-LAM/ (Sí/No)	Indicate with what adjacent FIR/ATS Unit is the CPL-LAM implementation required/ Indicar con cuál FIR/Dependencia ATS adyacente se requiere implementación CPL-LAM	Indicate intended date for CPL-LAM testing and implementation/ Indicar fecha prevista para pruebas e implementación CPL-LAM	Provide Point of Contact for further CPL-LAM coordination (name, title, e-mail, phone number)// Proporcionar Punto de Contacto para coordinación CPL-LAM (nombre, puesto, e-mail, número tel.)	If CPL-LAM has been implemented, provide bilateral agreement(s) for its operation, if applicable (for example ICD document)// Si se ha implantado CPL-LAM, proporcionar acuerdo(s) bilateral(es) para su operación, si es el caso (por ejem. Documento ICD)	CPL-LAM messages are transmitted through AFTN circuits, what is the current AFTN circuit speed and, if any, upgrade for CPL-LAM implementation:/ Los mensajes CPL-LAM se transmiten a través de circuitos AFTN ¿cuál es la velocidad actual del circuito AFTN y si es caso, modernización para implementación CPL-LAM?	Comment or concerns for CPL-LAM implementation/ Comentarios o preocupaciones sobre la implementación CPL-LAM
	Sistema FDP a modernizarse en 2013	connection with Havana, Kingston, Bogota and Guayaquil)/ Merida, Panamá (en el future analiza conexión con Havana, Kingston, Bogotá y Guayaquil) Havana Panama Merida Kingston Bogota Guayaquil	testing and implementation/ COCESNA todavía no tiene fecha para pruebas ni implementación	(504) 2234 3360 ext. 1510 Roger Perez (roger.perez@cocesna.org)		internally and 9.6 kbps the internationals)/ No palica (La velocidad del circuito AFTN actual es de 1.2 kbps intermente y 9.6 kbps internacional)	will be complete once COCESNA have installed the New Control Centre. The required bandwith must be analyzed prior to the implementation of this type of messages, however, considering only text messages we estimated that the current bandwith wia AFTN is sufficient./ La habilidad de procesar este tipo de mensajes se finalizará una vez que COCESNA haya instalado el Nuevo Centro de Control. El ancho de banda requerido debe analizarse antes de implementar este tipo de mensajes, sin embargo, considerando solo mensajes de texto se estima que el ancho de banda actual vía AFTN es sduficiente.
Nassau					NAM-ICD Version D		
Porrt-au-Prince					NAM-ICD Version D		

1	2	3	4	5	6	7	8
State/Estado	Does your current Flight Data Processing System (FDPS) have the capacity to process CPL-LAM messages? (Y/N)// ¿Tiene su actual Sistema de procesamiento de datos de vuelo (FDPS) la capacidad para procesar mensajes CPL-LAM/ (Sí/No)	Indicate with what adjacent FIR/ATS Unit is the CPL-LAM implementation required/ Indicar con cuál FIR/Dependencia ATS adyacente se requiere implementación CPL-LAM	Indicate intended date for CPL-LAM testing and implementation/ Indicar fecha prevista para pruebas e implementación CPL-LAM	Provide Point of Contact for further CPL-LAM coordination (name, title, e-mail, phone number)// Proporcionar Punto de Contacto para coordinación CPL-LAM (nombre, puesto, e-mail, número tel.)	If CPL-LAM has been implemented, provide bilateral agreement(s) for its operation, if applicable (for example ICD document)// Si se ha implantado CPL-LAM, proporcionar acuerdo(s) bilateral(es) para su operación, si es el caso (por ejem. Documento ICD)	CPL-LAM messages are transmitted through AFTN circuits, what is the current AFTN circuit speed and, if any, upgrade for CPL-LAM implementation:/ Los mensajes CPL-LAM se transmiten a través de circuitos AFTN ¿cuál es la velocidad actual del circuito AFTN y si es caso, modernización para implementación CPL-LAM?	Comment or concerns for CPL-LAM implementation/ Comentarios o preocupaciones sobre la implementación CPL-LAM
PIARCO	Selex system/ Sistema Selex	SAL ACC		Alexis Brathwaite, Manager ATS (Ag.) abrathwaite@caa.gov.tt	NAM-ICD Version D		
		NEW YORK ACC			NAT ICD		
		French Guyanne, Maiquetia, San Juan					
Curacao	Raytheon	Maiquetia ACC		Jacques Lasten, ATS Manager, DC-ANSP, j.lasten@dc-ansp.org	CAR/SAM-ICD		
	Raytheon	Kingston ACC			NAM ICD Version		

APPENDIX E

RLA/09/801
ACTIVITIES PLAN 2013-2016 / PLAN DE ACTIVIDADES 2013-2016

Priority Prioridad	Mandate Mandato	Language Idioma	Key Activity / Tasks Actividad Clave / Tareas	Deliverable Resultado entregable	Activity Location and Date Fecha y lugar de la actividad	Fellowships Becas	Estimated Costs Costos estimados	Benefits Beneficios
Sub-Project / Objective RPO[1] / SOI[2]		*1. Implement a PBN Airspace Concept for the CAR Region* ***Objective:*** *Assist States with implementing a regional PBN airspace concept (Version 1)*					***Target Date:*** *December 2016* ***RPOs****: 1, 9,10* ***SOI****: 1, 2*	
Sub-Proyecto / Objetivo RPO / SOI		*1. Implementación de un concepto de espacio aéreo PBN para la Región CAR* ***Objetivo:*** *Asistir a los Estados en la implementación de un concepto de espacio aéreo regional PBN (Versión 1)*					***Fecha prevista:*** *diciembre de 2016* ***RPOs****: 1, 9,10* ***SOI****: 1, 2*	
1.1	NAM/CAR RPBANIP RPO 1, 2, 3, 4, 5, 8, 10, 11	BIL	First NAM/CAR Air Navigation Implementation Working Group (ANI/WG/1) Meeting Primera Reunión del Grupo de Trabajo NAM/CAR sobre la Implementación de la Navegación Aérea (ANI/WG/1)	Regional Implementation of AIM, ATM and CNS activities in accordance with the RPBANIP Implementación de las actividades AIM, ATM y CNS a nivel regional según el RPBANIP	ICAO NACC Regional Office, Mexico City, Mexico Oficina Regional NACC de la OACI, Ciudad de México, México July / Julio 2013	1 fellowship per Project member State 1 beca por Estado miembro del Proyecto	$ 18,900 USD	Facilitate the implementation of air navigation services/systems identified in the RPBANIP Support the implementation of ASBU Module 0 within AIM, ATM and CNS areas Facilitar la implementación de los servicios/sistemas de Navegación Aérea identificados en el RPBANIP Apoyar la implementación de las mejoras ASBU módulo 0 en las áreas AIM, ATM y CNS
1.2	NAM/CAR RPBANIP RPO 1	BIL	Workshop / Meeting for PBN Airspace Redesign (including assessment / GNSS infrastructure improvements) Taller / Reunión sobre el rediseño del espacio aéreo PBN (incluyendo la evaluación	Plan for implementation of a PBN airspace concept in the States Plan para la implementación del concepto de espacio aéreo PBN en los Estados	ICAO NACC Regional Office, Mexico City, Mexico Oficina Regional NACC de la OACI, Ciudad de México, México March / Marzo 2014 March / Marzo 2015 March / Marzo 2016	1 fellowship per Project member State 1 beca por Estado miembro del Proyecto	$ 18,900 USD Per event Por evento	Establish a strategy for implementation of a regionally harmonized PBN Airspace Concept Establecer una estrategia para la implementación de un concepto de espacio aéreo PBN regionalmente armonizado
1.3	NAM/CAR RPBANIP RPO 1	BIL	Design and publishing of PBN approach procedures course Curso sobre diseño y publicación de procedimientos de aproximación PBN	Implement PBN Approach Procedures in international airports of CAR Region Implementar los procedimientos de aproximación PBN en los aeropuertos internacionales de la Región CAR	ICAO NACC Regional Office, Mexico City, Mexico Oficina Regional NACC de la OACI, Ciudad de México, México March / Marzo 2014 (two weeks) (dos semanas)	1 fellowship per Project member State 1 beca por Estado miembro del Proyecto	$ 37,800 USD	Implement PBN procedures according to Assembly Resolution A37-11 for the implementation of PBN Airspace Concept Implementar procedimientos PBN en conformidad con la Resolución de la Asamblea A37-11 para la implementación del concepto de espacio aéreo PBN

[1] Regional Performance Objective
[2] Strategic Operational Improvement

Priority Prioridad	Mandate Mandato	Language Idioma	Key Activity / Tasks Actividad Clave / Tareas	Deliverable Resultado entregable	Activity Location and Date Fecha y lugar de la actividad	Fellowships Becas	Estimated Costs Costos estimados	Benefits Beneficios
1.4	NAM/CAR RPBANIP RPO 1	BIL	PBN Operational Approval Workshop Taller sobre aprobación operacional PBN en los Estados	Implement procedures to PBN operational approval in the States Implementar procedimientos de aprobación operacional PBN en los Estados	ICAO NACC Regional Office, Mexico City, Mexico Oficina Regional NACC de la OACI, Ciudad de México, México October / Octubre 2013 May / Mayo 2015 May / Mayo 2016	1 fellowship per Project member State 1 beca por Estado miembro del Proyecto	$ 18,900 USD Per event Por evento	Develop guidelines and procedures for PBN operational approval in the States Desarrollar material de orientación y procedimientos para la aprobación operacional en los Estados
1.5	NAM/CAR RPBANIP RPO 1	BIL	Provide safety assessment methodology tool to be used by States Proporcionar una herramienta de metodología para la valoración de la seguridad operacional a ser utilizada por los Estados	Rapid simulation program for air traffic Programa de simulación rápida para el tránsito aéreo	ICAO NACC Regional Office, Mexico City, Mexico Oficina Regional NACC de la OACI, Ciudad de México, México May / Mayo 2014	1 fellowship per Project member State 1 beca por Estado miembro del Proyecto	$ 18,900 USD	Software for the evaluation of benefits for PBN Programa informático para la evaluación de los beneficios del PBN
1.6	NAM/CAR RPBANIP RPO 1, 9	BIL	Communication and Surveillance Infrastructure for PBN Implementation Meeting Reunión sobre la infraestructura de comunicaciones y vigilancia necesarias para la implementación PBN	CNS preparation for PBN implementation Preparación CNS para la implementación PBN	ICAO NACC Regional Office, Mexico City, Mexico Oficina Regional NACC de la OACI, Ciudad de México, México June / Junio 2015	1 fellowship per Project member State 1 beca por Estado miembro del Proyecto	$ 18,900 USD	CNS infrastructure preparation for PBN implementation Preparación de la infraestructura CNS para la implementación PBN
1.7	NAM/CAR RPBANIP RPO 1, 2, 3, 4, 5, 8, 10, 11	BIL	NACC/WG/4, ANI/WG/2, ANI/WG/3 Meetings Reuniones NACC/WG/4, ANI/WG/2, ANI/WG/3	Follow-up implementation to RPBANIP Seguimiento de la implementación	ICAO NACC Regional Office, Mexico City, Mexico Oficina Regional NACC de la OACI, Ciudad de México, México 2014 2015 2016	1 fellowship per Project member State 1 beca por Estado miembro del Proyecto	$ 18,900 USD Per event Por evento	Evaluation of operational benefits achieved and activities follow-up on RBPANIP Evaluación de beneficios operacionales logrados y seguimiento de actividades del RPBANIP

Priority Prioridad	Mandate Mandato	Language Idioma	Key Activity / Tasks Actividad Clave / Tareas	Deliverable Resultado entregable	Activity Location and Date Fecha y lugar de la actividad	Fellowships Becas	Estimated Costs Costos estimados	Benefits Beneficios
1.8	NAM/CAR RPBANIP RPO 1 (GREPECAS Program AIM Project G1) (Programa AIM Proyecto G1 del GREPECAS)	BIL	Workshop / Meeting Electronic Terrain and Obstacle Data (eTOD) Taller / Reunión sobre datos electrónicos sobre el terreno y obstáculos (eTOD)	Action Plan for implementation of a Model eTOD airspace concept in the States Modelo de Plan de Acción para la implementación del concepto de espacio aéreo eTOD en los Estados	ICAO NACC Regional Office, Mexico City, Mexico Oficina Regional NACC de la OACI, Ciudad de México, México 11 to 14 November 2013 11 al 14 de noviembre de 2013	1 fellowship per Project member State 1 beca por Estado miembro del Proyecto	$ 18,900 USD	Development of Action Plans e- TOD and establish coordination between the Aeronautical Authorities and State Geodetic Authorities in support of PBN Airspace Concept Desarrollo de Planes de Acción eTOD y establecer la coordinación entre las Autoridades Aeronáuticas y las Autoridades Geodésicas del Estado en apoyo al concepto de espacio aéreo PBN
1.9	NAM/CAR RPBANIP RPO 1	BIL	Electronic Aeronautical Chart Development Workshop Taller sobre desarrollo de cartas aeronáuticas electrónicas	Electronic Aeronautical Chart ICAO Model Modelo de la OACI de cartas aeronáuticas electrónicas	ICAO NACC Regional Office, Mexico City, Mexico Oficina Regional NACC de la OACI, Ciudad de México, México November / Noviembre 2014	1 fellowship per Project member State 1 beca por Estado miembro del Proyecto	$ 18,900 USD	Development of electronic aeronautical charts and electronic publication in the AIP to support PBN airspace concept Desarrollo de cartas aeronáuticas electrónicas y publicación electrónica en la AIP para apoyar el concepto de espacio aéreo PBN
1.10	NAM/CAR RPBANIP RPO 1	BIL	CAR Region States Training Course on implementation of ATC emerging techniques Curso de instrucción para los Estados de la Región CAR para la implementación de técnicas ATC emergentes	Provide technical assistance to States to enhance airspace capacity Proporcionar asistencia técnica a los Estados para mejorar su capacidad de espacio aéreo	ICAO NACC Regional Office, Mexico City, Mexico Oficina Regional NACC de la OACI, Ciudad de México, México May / Mayo 2015	1 fellowship per Project member State 1 beca por Estado miembro del Proyecto	$ 18,900 USD	Develop ATM training programme based on ATC emerging techniques for PBN Desarrollar un programa de instrucción ATM basado en las técnicas ATC emergentes para la PBN
Sub-Project / Objective RPO / SOI			*2. Implementation of Regional Air Traffic Flow Management (ATM)* ***Objective:*** *Enhance Airspace Capacity in the CAR Region*				***Target Date:*** *December 2016* ***RPOs:*** *3, 4, 9, 10, 12* ***SOI:*** *1, 2*	
Sub-Proyecto / Objetivo RPO / SOI			*2. Implementación de un Flujo de Gestión de Tránsito Aéreo Regional (ATM)* ***Objetivo:*** *Mejorar la capacidad del espacio aéreo en la Región CAR*				***Fecha prevista:*** *diciembre de 2016* ***RPOs:*** *3, 4, 9, 10, 12* ***SOI:*** *1, 2*	
2.1	NAM/CAR RPBANIP RPO 6	BIL	Meeting/Workshop to establish regional requirements for ATFM situational awareness Reunión/Taller para establecer los requerimientos regionales para la conciencia situacional ATFM	ATFM situational awareness requirements Requerimientos para la conciencia situacional	ICAO NACC Regional Office, Mexico City, Mexico Oficina Regional NACC de la OACI, Ciudad de México, México February / Febrero 2014 February / Febrero 2015	1 fellowship per Project member State 1 beca por Estado miembro del Proyecto	$ 18,900 USD Per event Por evento	ATFM requirement evaluation and implementation for CNS, AIM and ATM procedures Evaluación de requerimientos ATFM e implementación de procedimientos CNS, AIM y ATM

Priority Prioridad	Mandate Mandato	Language Idioma	Key Activity / Tasks Actividad Clave / Tareas	Deliverable Resultado entregable	Activity Location and Date Fecha y lugar de la actividad	Fellowships Becas	Estimated Costs Costos estimados	Benefits Beneficios
2.2	NAM/CAR RPBANIP RPO 6	BIL	Meeting/Workshop on implementation of the Regional ATFM Procedural Handbook Reunión/Taller sobre la implementación del Manual de Procedimientos Regional ATFM	Implementation of Regional ATFM initiatives Implementación de las iniciativas regionales ATFM	ICAO NACC Regional Office, Mexico City, Mexico Oficina Regional NACC de la OACI, Ciudad de México, México September / Septiembre 2014	1 fellowship per Project member State 1 beca por Estado miembro del Proyecto	$ 18,900 USD	ATS capacity evaluation and ATFM Manual update Capacidad de evaluación ATS y actualización del Manual ATFM
2.3	GREPECAS Conclusion 14/50	BIL	Meeting/Workshop to improve ATS Contingency Plans Reunión/Taller para mejorar los planes de contingencia ATS	States ATS contingency plans improved to ensure continuity of international air operations Mejoramiento de los planes de contingencia ATS de los Estados para garantizar la continuidad de las operaciones aéreas internacionales	ICAO NACC Regional Office, Mexico City, Mexico Oficina Regional NACC de la OACI, Ciudad de México, México April 2014 Abril 2014	1 fellowship per Project member State 1 beca por Estado miembro del Proyecto	$ 13,500 USD	Ensure continuity of international air operations throughout the CAR Region FIRs Garantizar la continuidad de las operaciones aéreas internacionales a lo largo de todas las FIR en la Región CAR
2.4	NAM/CAR RPBANIP RPO 1	BIL	AIXM Seminar for the electronic exchange of aeronautical information and IAIP data Seminario AIXM para el intercambio electrónico de información aeronáutica y datos IAIP	Tools for Implementation of AIXM Herramientas para la implementación AIXM	ICAO NACC Regional Office, Mexico City, Mexico Oficina Regional NACC de la OACI, Ciudad de México, México September / Septiembre 2015	1 fellowship per Project member State 1 beca por Estado miembro del Proyecto	$ 18,900 USD	Get the tools and knowledge to establish the exchange of information and electronic data of IAIP in support of ATFM Obtener las herramientas y conocimientos para establecer el intercambio de información y datos electrónicos de la IAIP en apoyo a la ATFM
2.5	NAM/CAR RPBANIP RPO 1	BIL	AIM Workshop to coordinate areas: ATM, CNS, AGA and MET for System-Wide Information Management (SWIM) Implementation Coordinación de un Taller AIM con las áreas ATM, CNS, AGA y MET para la implementación de la gestión de la información de todo el sistema (SWIM)	Model set of Action Plans for the implementation of the SWIM	ICAO NACC Regional Office, Mexico City, Mexico Oficina Regional NACC de la OACI, Ciudad de México, México November / Noviembre 2016	1 fellowship per Project member State 1 beca por Estado miembro del Proyecto	$ 18,900 USD	Get the information and knowledge elements for the development of Action Plans for the implementation of SWIM for DCB Obtener los elementos de información y de conocimientos para el desarrollo de planes de acción para la implementación del SWIM para el DCB

Priority Prioridad	Mandate Mandato	Language Idioma	Key Activity / Tasks Actividad Clave / Tareas	Deliverable Resultado entregable	Activity Location and Date Fecha y lugar de la actividad	Fellowships Becas	Estimated Costs Costos estimados	Benefits Beneficios
Sub-Project / Objective ***RPO / SOI***	*3. Implementation of Flexible Use of Airspace (FUA)* ***Objective:*** *Improve civil-military coordination between CAR States to reduce restricted areas*						***Target Date:*** *December 2016* ***RPOs:*** *2* ***SOI:*** *1, 2*	
Sub-Proyecto / Objetivo ***RPO / SOI***	*3. Implementación del uso flexible del espacio aéreo (FUA)* ***Objetivo:*** *Mejorar la coordinación civil-militar entre los Estados CAR para reducir áreas restringidas*						***Fecha prevista:*** *diciembre de 2016* ***RPOs:*** *2* ***SOI:*** *1, 2*	
3.1	NAM/CAR RPBANIP RPO 4	BIL	Meeting/Workshop for Civil-Military Coordination Reunión/Taller sobre coordinación civil-militar	Coordination mechanism between States Civil and Military authorities Mecanismo de coordinación entre las autoridades civiles y militares de los Estados	ICAO NACC Regional Office, Mexico City, Mexico Oficina Regional NACC de la OACI, Ciudad de México, México October / Octubre 2014 October / Octubre 2015	1 fellowship per Project member State 1 beca por Estado miembro del Proyecto	$ 18,900 USD Per event Por evento	Improve airspace capacity and flexibility Mejorar la capacidad y flexibilidad del espacio aéreo
3.2	NAM/CAR RPBANIP RPO 4	BIL	Meeting/Workshop for Civil-Military Coordination Reunión/Taller sobre coordinación civil-militar	Regional coordination for the implementation of the FUA in States Coordinación regional para la implementación del FUA en los Estados	ICAO NACC Regional Office, Mexico City, Mexico Oficina Regional NACC de la OACI, Ciudad de México, México October / Octubre 2014 October / Octubre 2015	1 fellowship per Project member State 1 beca por Estado miembro del Proyecto	$ 18,900 USD Per event Por evento	Evaluation of restricted airspace to improve airspace flexibility and air operations Evaluación del espacio aéreo restringido para mejorar la flexibilidad del espacio aéreo y las operaciones aéreas
Sub-Project / Objective ***RPO / SOI***	*4. Improve ATS situational awareness and improve efficiency of ATS Unit(s) Operations* ***Objective:*** *Improve situational awareness by 30% and efficiency by 40 %*						***Target Date:*** *December 2015* ***RPOs:*** *4,9* ***SOI:*** *1, 2*	
Sub-Proyecto / Objetivo ***RPO / SOI***	*4. Mejorar la conciencia situacional ATS y mejorar la eficiencia de las Unidades ATS* ***Objetivo:*** *Mejorar conciencia situacional en 30% y la eficiencia en 40%*						***Fecha prevista:*** *diciembre de 2015* ***RPOs:*** *4,9* ***SOI:*** *1, 2*	
4.1	NAM/CAR RPBANIP RPO 1, 3, 4, 10, 11	BIL	Automation and Integrated Telecommunications for Air Navigation Services Workshop Taller sobre Automatización y Telecomunicaciones integradas para los servicios de navegación aérea	Identification of automation level and planning for interconnection and functionalities implementation Identificación del nivel de automatización y planificación para la interconexión y la implementación de funcionalidades	ICAO NACC Regional Office, Mexico City, Mexico Oficina Regional NACC de la OACI, Ciudad de México, México 11 to 15 November / 11 al 15 de noviembre 2013 April / Abril 2014	1 fellowship per Project member State 1 beca por Estado miembro del Proyecto	$ 18,900 USD Per event Por evento	Promote ATS automation and maximize interconnection and functionalities implemented Promover la automatización ATS y maximizar la interconexión y las funcionalidades implementadas

Priority Prioridad	Mandate Mandato	Language Idioma	Key Activity / Tasks Actividad Clave / Tareas	Deliverable Resultado entregable	Activity Location and Date Fecha y lugar de la actividad	Fellowships Becas	Estimated Costs Costos estimados	Benefits Beneficios
4.2	NAM/CAR RPBANIP RPO 4, 10	BIL	ADS-B Workshop and Meeting Taller y Reunión ADS-B	Identify ADS-B Trial and propose evaluation-data exchange Identificar los ensayos ADS-B y proponer una evaluación en el intercambio de datos	ICAO NACC Regional Office, Mexico City, Mexico Oficina Regional NACC de la OACI, Ciudad de México, México 14 to 18 October / 14 al 18 de octubre 2013	1 fellowship per Project member State 1 beca por Estado miembro del Proyecto	$ 18,900 USD	Evaluation of benefits and planning of implementation Evaluación de los beneficios y planificación de la implementación
4.3	NAM/CAR RPBANIP RPO 4, 10	BIL	ADS-B Implementation Meeting Reunión de implementación ADS-B	Action Plan and evaluate operational benefits Plan de Acción y evaluación de los beneficios operacionales	ICAO NACC Regional Office, Mexico City, Mexico Oficina Regional NACC de la OACI, Ciudad de México, México November / Noviembre 2014	1 fellowship per Project member State 1 beca por Estado miembro del Proyecto	$ 18,900 USD	Preparation for the implementation of ADS-B/use of test equipment ADS-B Preparación para la implementación del ADS-B/uso de los equipos de prueba ADS-B
4.4	NAM/CAR RPBANIP RPO 10	BIL	AMHS Workshop and Meeting Taller y Reunión AMHS	AMHS updates and implementation status Actualizaciones AMHS y estatus de implementación	Dominican Republic República Dominicana September 2013 / septiembre 2013	1 fellowship per Project member State 1 beca por Estado miembro del Proyecto	$ 18,900 USD	Increase G-G infrastructure capacity Aumentar la capacidad de infraestructura G-G
4.5	NAM/CAR RPBANIP RPO 10	BIL	AMHS Implementation Meeting Reunión de implementación AMHS	Completion of planned AMHS interconnections based on the regional AMHS implementation plan Finalización de las interconexiones planificadas del AMHS basado en el plan de implementación regional del AMHS	ICAO NACC Regional Office, Mexico City, Mexico Oficina Regional NACC de la OACI, Ciudad de México, México September / Septiembre 2014	1 fellowship per Project member State 1 beca por Estado miembro del Proyecto	$ 18,900 USD	Complete implementation of AMHS interconnections Finalizar la implementación de las interconexiones AMHS
4.6	NAM/CAR RPBANIP RPO 4, 10	BIL	Sharing of ADS-B equipment Compartición de equipos ADS-B	Shared use of ADS-B receivers for States experiences and knowledge Uso compartido de los receptors ADS-B para la experiencia y conocimiento de los Estados	ICAO NACC Regional Office, Mexico City, Mexico Oficina Regional NACC de la OACI, Ciudad de México, México April / Abril 2014		$ 33,000 USD	Practical experience on ADS-B data and operational knowledge

Priority Prioridad	Mandate Mandato	Language Idioma	Key Activity / Tasks Actividad Clave / Tareas	Deliverable Resultado entregable	Activity Location and Date Fecha y lugar de la actividad	Fellowships Becas	Estimated Costs Costos estimados	Benefits Beneficios
Sub-Project / Objective ***RPO / SOI***			*5. Implement Operational Efficiencies at Aerodromes.* ***Project 1:*** *Improve Aerodrome Certification; includes 4 phases from November 2011 to July 2015.* ***Project 2:*** *Improve Runway Safety, includes 3 phases from November 2011 to July 2015*				***Objective:*** *Using alternative mitigation methods in the certification process and increase the number of certified aerodromes in the CAR Region* ***Target Date:*** *November 2011 to Jul 2015 for both projects* ***RPOs:*** *7* ***SOI:*** *3*	
Sub-Proyecto / Objetivo ***RPO / SOI***			*5. Mejorar la eficiencia de las operaciones en los aeródromos* ***Proyecto 1:*** *Mejorar la certificación de aeródromos; incluye las 4 fases desde noviembre 2011 a Julio 2015* ***Proyecto 2:*** *Mejorar la seguridad operacional en pistas, incluye tres fases*				***Objetivo:*** *Utilizar métodos de mitigación alternativa en el proceso de certificación e incrementar el número de aeródromos certificados en la Región CAR* ***Fecha prevista:*** *noviembre de 2011 a julio de 2015 para ambos proyectos* ***RPOs:*** *7* ***SOI:*** *3*	
5.1	GREPECAS Project F3 Proyecto F3 del GREPECAS	BIL	ICAO Regional Workshop on Aerodrome Runway and Taxiway Geometric Design and Visual Aids to Improve Runway Safety Taller Regional de la OACI sobre Diseño geométrico de pistas, calles de rodaje y ayudas visuales de aeródromo para mejorar la seguridad operacional en pista	Improve infrastructure conditions at aerodromes in the region to ensure safe operations of aircraft and assist in the certification of aerodromes by 80% Mejorar las condiciones de infraestructura en los aeródromos en la región para garantizar operaciones seguras de las aeronaves y asistir en la certificación de aeródromos por un 80%	ICAO NACC Regional Office, Mexico City, Mexico Oficina Regional NACC de la OACI, Ciudad de México, México 9 to 12 July 2013 9 al 12 de julio de 2013 This event was cancelled due to lack of quorum. Este evento se canceló debido a falta de quórum.	1 fellowship per Project member State 1 beca por Estado miembro del Proyecto	$ 18,900 USD	Improve infrastructure conditions at aerodromes in the region to ensure safe operations of aircraft and assist in the certification of aerodromes by 80% Mejorar las condiciones de infraestructura en los aeródromos de la región para garantizar las operaciones seguras de las aeronaves y asistir en la certificación de aeródromos en un 80%
5.2	GREPECAS Project F1 Proyecto F1 del GREPECAS NAM/CAR RPBANIP RPO 7	BIL	SMS Workshop and progress achieved with the aerodrome certification process in the CAR Region Taller sobre SMS y avances logrados en el proceso de certificación de aeródromos en la Región CAR	Increase the number of certified aerodromes in the CAR Region and reach 80% at the end of the project Incrementar el número de aeródromos certificados en la Región CAR y alcanzar un 80% al final del proyecto	ICAO NACC Regional Office, Mexico City, Mexico Oficina Regional NACC de la OACI, Ciudad de México, México 14 to 18 October 2013 14 al 18 de octubre de 2013	1 fellowship per Project member State 1 beca por Estado miembro del Proyecto	$ 18,900 USD	To know the current state of certification and SMS implementation, identify and group common problems at aerodromes, propose solutions to common problems in the region and plan future events Conocer el estado actual de certificación e implementación SMS, identificar y agrupar los problemas comunes en los aeródromos, proponer soluciones a los problemas comunes en la región y planificar eventos futuros

Priority Prioridad	Mandate Mandato	Language Idioma	Key Activity / Tasks Actividad Clave / Tareas	Deliverable Resultado entregable	Activity Location and Date Fecha y lugar de la actividad	Fellowships Becas	Estimated Costs Costos estimados	Benefits Beneficios
Sub-Project / Objective RPO / SOI		*6. Improve Regional Safety* ***Objective:*** *Safety Management Reference Framework Implementation*					***Target Date:*** *December 2016*	
Sub-Proyecto / Objetivo RPO / SOI		*6. Mejorar la seguridad operacional regional* ***Objetivo:*** *Implementar un marco de referencia de gestión de la seguridad operacional*					***Fecha prevista:*** *diciembre de 2016*	
6.1		BIL	Workshop for the implementation of State ANS and AGA inspection programmes Taller para la implementación del programa de proveedores de servicios de los Estados (ANS) e inspección AGA	Provide 6 training Workshops to specialists from States to develop ANS and AGA Inspection Programmes. (2 per year) Proporcionar seis talleres de instrucción a especialistas de los Estados para desarrollar los Programas ANS y de inspección AGA	ICAO NACC Regional Office, Mexico City, Mexico Oficina Regional NACC de la OACI, Ciudad de México, México June / Junio 2014	1 fellowship per Project member State 1 beca por Estado miembro del Proyecto	$ 18,900 USD	Improve States safety oversight system Mejorar el sistema de la vigilancia de la seguridad operacional de los Estados
6.2	Annex 19 Anexo 19	BIL	Conduct SSP Implementation Courses Llevar a cabo cursos de implementación SSP	SSP courses (3) Cursos SSP (3)	ICAO NACC Regional Office, Mexico City, Mexico Oficina Regional NACC de la OACI, Ciudad de México, México December 2014 Diciembre 2014	1 fellowship per Project member State 1 beca por Estado miembro del Proyecto	$ 18,900 USD	Regional Safety Training Instrucción regional sobre seguridad operacional
6.3	Annex 19 Anexo 19	BIL	Conduct SMS Implementation Courses Llevar a cabo cursos de implementación SMS	SMS courses (3) Cursos SMS (3)	ICAO NACC Regional Office, Mexico City, Mexico Oficina Regional NACC de la OACI, Ciudad de México, México December 2014 Diciembre 2014	1 fellowship per Project member State 1 beca por Estado miembro del Proyecto	$ 18,900 USD	Regional Safety Training Instrucción regional sobre seguridad operacional
6.4	Annex 19 Anexo 19	BIL	ECCAIRS Implementation Workshop Taller para la implementación del ECCAIRS	Provide training to States in the use of the ECCAIRS software. (1 per year) Proporcionar instrucción a los Estados sobre el uso del programa informático ECCAIRS (1 al año)	ICAO NACC Regional Office, Mexico City, Mexico Oficina Regional NACC de la OACI, Ciudad de México, México June / Junio 2014	1 fellowship per Project member State 1 beca por Estado miembro del Proyecto	$ 18,900 USD	Achieve the regional implementation of the exchange of hazards data and accidents and incident investigation under a common ICAO taxonomy Lograr la implementación regional del intercambio de datos de riesgos y las investigaciones de accidentes e incidentes bajo una taxonomía común de la OACI

Priority Prioridad	Mandate Mandato	Language Idioma	Key Activity / Tasks Actividad Clave / Tareas	Deliverable Resultado entregable	Activity Location and Date Fecha y lugar de la actividad	Fellowships Becas	Estimated Costs Costos estimados	Benefits Beneficios
Sub-Project / Objective RPO / SOI		*7. Improve Search and Rescue System* ***Objective:*** *Promote and support States with development of SAR agreements*					***Target Date:*** *December 2016*	
Sub-Proyecto / Objetivo RPO / SOI		*7. Mejorar el Sistema de búsqueda y salvamento* ***Objetivo:*** *Promover y apoyar a los Estados en el desarrollo de acuerdos SAR*					***Fecha prevista:*** *diciembre de 2016*	
7.1	NAM/CAR RPBANIP RPO 9	BIL	Meeting/Workshop to Improve Regional SAR System Performance Reunión/Taller para mejorar la performance regional del sistema SAR	Review three SAR agreements implemented One SAR exercise executed Revisar los tres acuerdos SAR implementados Se ha ejecutado un ejercicio SAR	ICAO NACC Regional Office, Mexico City, Mexico Oficina Regional NACC de la OACI, Ciudad de México, México July / Julio 2014	1 fellowship per Project member State 1 beca por Estado miembro del Proyecto	$ 13,500 USD	Improve coordination among adjacent RCCs. Enhance SAR personnel competencies Mejorar la coordinación entre las RCC adyacentes. Perfeccionar la competencia del personal SAR

Agenda Item 5 Other Business

5.1 Dates of the next ANI/WG Meeting and Teleconferences

5.1.1 When analyzing WP/23, the Meeting reviewed the meeting venue rotational schemes of the former Subregional Working Groups (C/CAR/WG, CA/ANE/WG) and E/CAR/CATG and a proposed rotational scheme for the ANI/WG meetings based on its Terms of Reference. The Meeting noted that in 2014, no face-to-face ANI/WG meetings are expected, but necessary coordination and teleconferences will be required for the ANI/WG´s contribution to the NACC/WG Meeting. The Second Meeting of ANI/WG shall be held in 2015, hosted by Costa Rica. The Meeting tentatively agreed to hold the ANI/WG/2 Meeting during the first week of June 2015.

5.1.2 The agreed rotational scheme is included in **Appendix A** to this part of the report. In this regard, the Meeting formulated the following draft conclusion:

DRAFT
CONCLUSION ANI/WG/1/16 ANI/WG MEETING VENUE ROTATIONAL SCHEME

That in order to continue with air navigation implementation established in the NAM/CAR RPBANIP, the ANI/WG adopt the rotational scheme included in Appendix A to this part of the report for its future meetings.

5.1.3 Costa Rica confirmed its support for hosting the next ANI/WG Meeting in 2015.

5.2 Review of Draft Agenda for the NACC/WG/4 Meeting

5.2.1 The Meeting reviewed the draft agenda for the NACC/WG/04 Meeting developed by ICAO as presented in **Appendix B** to this part of the report. The Secretariat indicated that further comments to this agenda may be submitted when the corresponding invitation letter is circulated

5.2.2 The Meeting was informed that the NACC/WG/04 Meeting is scheduled from 24 to 28 March 2014. The ANI/WG needs to coordinate preparation of the ANI/WG Progress Report for the NACC/WG/04 Meeting. In this regard, the Meeting formulated the following decision:

DECISION ANI/WG/1/17 NACC/WG/4 MEETING PREPARATION BY THE ANI/WG

That, in order to prepare the ANI/WG Progress Report and coordinate active participation of the ANI/WG in the NACC/WG/04 Meeting, the ANI/WG Chairman:

a) schedule, with the assistance of ICAO, the necessary teleconferences to organize the work of the ANI/WG Members and his participation at the NACC/WG/04 Meeting; and

b) coordinate and develop the corresponding working paper for the NACC/WG/04 Meeting describing all NAM/CAR Region air navigation implementation progress.

APPENDIX A
FUTURE ANI/WG MEETING HOST ROTATION SCHEME INCORPORATING THE NACC/WG MEETING SCHEDULE

a) The following meeting host rotation scheme has been adopted for the ANI/WG meetings incorporating the NACC/WG Meeting schedule.

b) Any other States and international organizations normally invited to participate in the ANI/WG meetings may at any time offer to host a meeting.

c) Should a State or group of Territories be unable to host a particular working group meeting as per the rotation scheme, it may exchange positions with another State or group of Territories through bilateral discussions. The ICAO NACC Regional Office should be informed of the change at the latest six months prior the convening of the meeting.

d) Should a State or group of Territories be unable to host a particular working group meeting as per the programme and not be able to exchange host positions with another State or Territory, the ICAO NACC Regional Office shall be advised at least six months prior to the convening of the meeting, whereupon the next State on the rotation shall take the responsibility to host the meeting.

e) ANI/WG Meeting Host Rotation Scheme

YEAR	STATES / TERRITORIES/INTERNATIONAL ORGANIZATIONS
2013	ICAO NACC Regional Office (ANI/WG/1)
2014	North America (NACC/WG/4)
2015	Central America – Costa Rica (ANI/WG/2)
2016	ICAO NACC Regional Office (ANI/WG/03)
2017	Eastern Caribbean (NACC/WG/5)
2018	North America (ANI/WG/4)
2019	ICAO NACC Regional Office (ANI/WG/5)
2020	Central Caribbean (NACC/WG/6)
2021	Central Caribbean – Dominican Republic (ANI/WG/6)
2022	ICAO NACC Regional Office (ANI/WG/07)

APPENDIX B
FOURTH NORTH AMERICAN, CENTRAL AMERICAN AND CARIBBEAN WORKING GROUP MEETING (NACC/WG/4)

(North America, 24 to 28 March 2014)

DRAFT AGENDA

Agenda Item 1 **Review and Approval of the Agenda, Working Method and Schedule of the Meeting**

Agenda Item 2 **General Matters**

2.1 Valid Conclusions/Decisions of the Previous NACC/WG Meetings and the ANI/WG/01 Meeting, as well as the Valid and Relevant Conclusions of the NACC/DCA and Subregional DCA Meetings
2.2 Review of the Status of Air Navigation Deficiencies
2.3 ICAO and GREPECAS Recent Relevant Aspects Related to Global, Inter and Intra-Regional Air Navigation Matters

Agenda Item 3 **Follow-up on the Progress of the NAM/CAR Regional Performance-Based Air Navigation Implementation Plan (NAM/CAR RPBANIP)**

3.1 Global/Regional Air Navigation Developments
3.2 Review and Progress on the NAM/CAR Regional Performance-Based Air Navigation Implementation Plan
3.3 ANI/WG Progress Report and Other Regional GroupProgress Reports
3.4 National Plan Reports on Aviation System Block Upgrades (ASBUs)
3.5 Other Air Navigation Activities to be Analyzed and Included in the NAM/CAR RPBANIP
3.6 Performance Monitoring of Air Navigation Systems:
- 3.6.1 Review of Air Navigation Performance Indicators and Metrics/ ICAO Dashboard
- 3.6.2 Implementation Monitoring through the Air Navigation Report Form (ANRF)
- 3.6.3 Annual Global Air Navigation Report

Agenda Item 4 **Regional Cooperation and Training Matters to Support Air Navigation Implementation**

4.1 Regional Projects RLA/09/801 –Implementation of the Performance-Based Air Navigation Systems for the Caribbean Region, and RLA/03/902 – Transition to GNSS in the CAR/SAM Regions – Augmentation Solution for the Caribbean, Central and South America (SACCSA-Phase III)

4.2 Review of Human Factor and Training Matters for Air Navigation Implementation and Performance-based Monitoring

4.2.1 Aviation Training Plan for the CAR Region

4.2.2 Results of the First Meeting of Directors of Civil Aviation Training Centres in the NAM/CAR Regions (NAM/CAR/CATC/1)

4.3 Other Training and Regional Cooperation Matters in Support of Implementation

Agenda Item 5 **Review of the Terms and Reference (ToRs) and Work Programme of the NACC/WG**

5.1 Review of Terms of Reference (ToRs) and Work Programme of the NACC/WG

5.2 Host and Dates for the Next NACC/WG Meeting

Agenda Item 6 **Other Business**