Fourth NAM/CAR Air Navigation Implementation Working Group Meeting

ANI/WG/4

Final Report

Miami, United States, 21 to 24 August 2018

Prepared by the Secretariat

November 2018

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

List of Contents

ents		P
Index		
Histo	rical	
:: 1	Place and Date of the Meeting	
ii.1 ii.2	Place and Date of the Meeting	
ii.2	Opening Ceremony	
ii.4	Officers of the Meeting	
	Working Languages	
ii.5	Schedule and Working Arrangements Agenda	
ii.6		
ii.7	Attendance	
ii.8	Draft Conclusions and Decisions	
ii.9	List of Working and Information Papers and Presentations	
List of	f Participants	
	Contact Information	
Agend	da Item 2	
	w and Follow-up to Relevant and Valid Conclusions/Decisions of ANI/WG/3, /WG/5 and GREPECAS Meetings	
Ageno	da Item 3	
•	ıl and Regional Air Navigation Plans	
3.1	Regional Electronic Air Navigation Plan (eANP) progress	
3.2	Relevant updates of ICAO Standards and Recommended Practices (SARPs)	
3.3	Proposal of AGA, MET and SAR integration to ANI/WG	
3.4	Other Global/Regional Air Navigation Developments	
Λαορι	da Item 4	
•	v-up, Performance Evaluation and Monitoring of the CAR Regional Performance	
	d Air Navigation Implementation Plan	
4.1	Progress Reports of the Task Forces of the ANI WG	
4.2	Progress on the new version 4.0 of the Regional Performance Based Air Navigation	
	Plan	
4.3	Progress report by States of Adopted Aviation System Block Upgrades (ASBU) BO	
	Modules	

Contents	Page
4.4 Project RLA/09/801 — Multi-Regional Civil Aviation Assistance Programme	
(MCAAP)	
4.5 Review of the ICAO NACC Regional Office No Country Left Behind (NCLB) Strate	gy
Agenda Item 5	5-1
Other Business	

HISTORICAL

ii.1 Place and Date of the Meeting

The Fourth NAM/CAR Air Navigation Implementation Working Group Meeting (ANI/WG/4) was held at the Hyatt Regency Coral Gables Hotel in Miami, United States, from 21 to 24 August 2018.

ii.2 Opening Ceremony

Mr. Raúl Martínez, Regional Officer, Aeronautical Information Management of the North American, Central American and Caribbean (NACC) Office of the International Civil Aviation Organization (ICAO) gave the opening remarks and thanked FAA for hosting the meeting, Mr. Julio C. Mejía Alcántara, ANI/WG Chairperson (Dominican Republic), commented on the important work of the ANI/WG in the harmonization of air navigation for the NAM/CAR Regions. Finally, Mrs. Janice Deak, Facility and Air Traffic Manager, from the host State welcomed the participants to United States and officially opened the meeting.

ii.3 Officers of the Meeting

The ANI/WG/4 Meeting was chaired by Mr. Julio C. Mejía Alcántara, Dominican Republic, who presided the Meeting as a whole. Mr. Raúl Martínez, Regional Officer, Aeronautical Information Management of the ICAO NACC Regional Office, served as Secretary of the Meeting, assisted by Mrs. Mayda Ávila, Regional Officer, Communications, Navigation and Surveillance (CNS) from the ICAO NACC Regional Office and Mr. Eddian Méndez, Regional Officer, Air Traffic Management and Search and Rescue (ATM/SAR).

ii.4 Working Languages

The working languages of the Meeting were English and Spanish. The working papers, information papers and report of the meeting were available to 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 daily with adequate breaks. Ad hoc Groups were created during the Meeting to do further work on specific items of the Agenda.

ii.6 Agenda

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

Agenda Item 2: Review and Follow-up to Relevant and Valid Conclusions/Decisions of ANI/WG/3, NACC/WG/5 and GREPECAS Meetings

Agenda Item 3: Global and Regional Air Navigation Developments

- 3.1 Regional Electronic Air Navigation Plan (eANP) progress
- 3.2 Relevant updates of ICAO Standards and Recommended Practices (SARPs)
- 3.3 Proposal of AGA, MET and SAR integration to ANI/WG
- 3.4 Other Global/Regional Air Navigation Developments
 - 3.4.1 Follow-up to the implementation of a regulatory framework for Unmanned Aircraft System(s) (UAS) Operations
 - 3.4.2 Review of Regional Supplementary Procedures (*Doc 7030*)
 - 3.4.3 Update of ICAO's position to the 2019 International Telecommunication Union (ITU) World Radiocommunication Conference (WRC)
 - 3.4.4 The Air Traffic Services Inter-facility Data Communication (AIDC) (APAC) and NAM/ICD Protocols of the NAM/CAR Regions Implementation

Agenda Item 4: Follow-up, Performance Evaluation and Monitoring of the CAR Regional Performance Based Air Navigation Implementation Plan

- 4.1 Progress Reports of the Task Forces of the ANI WG
- 4.2 Progress on the new version 4.0 of the Regional Performance Based Air Navigation Plan
- 4.3 Progress report by States of Adopted Aviation System Block Upgrades (ASBU) B0 Modules
- 4.4 Project RLA/09/801 Multi-Regional Civil Aviation Assistance Programme (MCAAP)
- 4.5 Review of the ICAO NACC Regional Office No Country Left Behind (NCLB) Strategy

Agenda Item 5: Other Business

ii.7 Attendance

The Meeting was attended by 14 States/Territories from the NAM/CAR Regions, 4 International Organizations and 3 industries, totalling 58 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 North

America, Central America and Caribbean (NACC/DCA).

DECISIONS: Internal activities of the NAM/CAR Air Navigation Implementation Working

Group (ANI/WG).

An executive summary of these conclusions/decisions is presented in Appendix A.

List of Draft Conclusions

Number	Title	Page
ANI/WG/4/01	AVAILABILITY OF DOC 10066 – PANS-AIM	3-3
ANI/WG/4/02	GREATER SUPPORT FROM STATES AND AIRPORT OPERATORS TO	3-4
	AGA/AOP, MET AND SAR TASK FORCES	
ANI/WG/4/03	CAR REGIONAL CONTINGENCY PLANNING AND RESPONSE STRATEGY	3-5
ANI/WG/4/04	DEVELOPMENT OF THE CAR REGIONAL SAR PLAN	3-6
ANI/WG/4/05	REVIEW THE PROPOSAL TO AMEND THE CAR/SAM ATFM CONOPS	3-7
ANI/WG/4/06	SUPPORT NAM/CAR SMS IMPLEMENTATION FOR ANS	3-8
ANI/WG/4/07	REGIONAL STRATEGY FOR THE MANAGEMENT OF THE RADIOELECTRIC	3-11
	SPECTRUM FOR AERONAUTICAL SERVICES	
ANI/WG/4/08	PROVIDE POINT OF CONTACT (POC) RESPONSIBLE FOR MANAGEMENT	3-13
	AND MAINTENANCE OF AMHS OR AFTN	
ANI/WG/4/09	ANALYSIS OF CURRENT PBN IMPLEMENTATION STATUS IN THE NAM/CAR	4-2
	REGIONS AND PROVIDING INDIVIDUAL PLANS FOR	
	STATES/TERRITORIES/INTERNATIONAL ORGANIZATIONS	
ANI/WG/4/10	FEASIBILITY STUDY ON THE ESTABLISHMENT OF A FLIGHT PROCEDURE	4-3
	PROGRAMME (FPP) WITHIN THE NAM/CAR REGION	
ANI/WG/4/11	REVISION FOR THE APPROVAL OF VERSION 4.0 OF THE RPBANIP	4-12

ii.9 List of Working and Information Papers and Presentations

Refer to the Meeting web page:

https://www.icao.int/NACC/Pages/meetings-2018-aniwg4.aspx

WORKING PAPERS				
Number	Agenda Item	Title	Date	Prepared and Presented by
WP/01 Rev.	1	Provisional Agenda and Schedule of the Fourth NAM/CAR Air Navigation Implementation Working Group Meeting (ANI/WG/4)	11/07/18	Secretariat
WP/02	2	Review and Follow-Up to Relevant and Valid Conclusions/Decisions of the ANI/WG/3, NACC/WG/5 and GREPECAS Meetings	11/06/18	Secretariat
WP/03	3.4.2	Review of Regional Supplementary Procedures (Doc 7030)	04/07/18	Secretariat
WP/04	3.1	Regional Electronic Air Navigation Plan (eANP) implementation progress	16/08/18	Secretariat
WP/05	4	Progress with AMHS Transition and Legacy X.25 AFTN Support	08/08/18	United States
WP/06	4.1	Progress Report of the ANI/WG	02/07/18	Chairperson o
WP/07	4.1	PBN Task Force Progress Report	15/08/18	PBN Task Force Rapporteur
WP/08	4.1	Progress Report on ATFM Task Force Work Programme		ATFM TF Rapporteur
WP/09	4.1	ANI/WG Surveillance Task Force (SUR TF) Progress Report	16/07/18	SUR Task Force Rapporteur
WP/10	4.1	AIDC Task Force Progress Report	22/05/18	AIDC Task Force Rapporteur
WP/11	4.1	Preliminary Report on the Progress of the AIM Task Force (AIM/TF)	06/08/18	AIM Task Force Rapporteur
WP/12	4.1	ANI/WG Aeronautical Message Handling System (AMHS) Implementation Task Force Progress Report		AMHS Task Force Rapporteur
WP/13	4.1	Progress Report on ASBU Task Force Work Programme	15/08/18	ASBU/TF Rapporteur
WP/14	4.2	RPBANIP new Ver. 4.0	21/08/18	Secretariat

Number	Agenda Item	WORKING PAPERS Title	Date	Prepared and Presented by
	item			Tresented by
WP/15	3.3	AGA, MET and SAR issues	21/08/18	Secretariat
WP/16	4.4	Review of the Implementation of RLA/09/801 Project Activities	14/08/18	Secretariat
WP/17	3.4	Proposal to Amend the Caribbean/South American Air Traffic Flow Management Concept of Operation (CAR/SAM ATFM CONOPS)	10/08/18	Secretariat
WP/18	3.4.4	Progress in the Implementation of the Air Traffic Services Inter-Facility Data Communication (AIDC) APAC Protocols and the NAM Interface Control Document (ICD) of the NAM/CAR Regions	28/06/18	Secretariat
WP/19	4.1	Progress of the NAM/CAR Air Navigation Implementation Working Group (ANI/WG)	13/08/18	ANI/WG Chairman
WP/20	4.1	Automatic Dependent Surveillance – Broadcast (ADS-B) Progress	27/06/18	Secretariat
WP/21	4.1	MEVA Communications Network Challenges	27/06/18	Secretariat
WP/22	4.1	AIM Licensing	02/08/18	AIM/TF Rapporteur
WP/23	3.2	Amendment 40 to Annex 15 – Aeronautical Information Services and New PANS-AIM		Secretariat
WP/24	4.1	Performance Based Navigation (PBN) Approach Charts from Area Navigation (RNAV) to Required Navigation Performance (RNP)		Secretariat
WP/25	4.1	AIM Proficiency Level 4		AIM/TF Rapporteur
WP/26	4.4	Sub-project to Develop and Implement a Performance-Based Navigation (PBN) Airspace Concept Document for the CAR Region	16/08/18	Secretariat
WP/27	4.1	Training Profiles	06/08/18	AIM/TF Rapporteur
NE/28	3.4	Propuesta para la Creación de una Red Regional de Intercambio de Información sobre el Monitoreo de la Constelación Satelital GNSS (<i>Available only in Spanish</i>)	17/08/18	Cuba
WP/29 Rev.	4.1	PBN Regional Implementation Strategy	08/08/18	Secretariat
WP/30	4.1	ATFM Regional Implementation Strategy	09/08/18	Secretariat
WP/31	3.4	NAM/CAR SMS Implementation Strategy for ANS		Secretariat
WP/32	3.4	CAR Regional Contingency Planning and Response Strategy	13/08/18	Secretariat

	WORKING PAPERS				
Number	Agenda Item	litie		Prepared and Presented by	
WP/33	3.3	CAR Regional SAR Strategy	13/08/18	Secretariat	
WP/34	4.1	Follow-up and achieved actions to reduce errors in flight plans in the FIR MHTG	21/08/18	COCESNA	
WP/35	3.4.3	International Telecommunication Union (ITU) World Radiocommunication Conference (WRC-19) ICAO Position Update	09/08/18	Secretariat	
WP/36	4.1	Aeronautical Surveillance system of the Central American FIR radar data share	21/08/18	COCESNA	

Information Papers				
Number	Agenda Item	Title	Date	Prepared and Presented by
IP/01Rev2		List of Working, Information Papers and Presentations	24/08/18	Secretariat
IP/02	5	Awareness and Training on Civil Aviation Cyber Security	01/06/18	Secretariat
IP/03	3.4	ICAO Updates (2018-March-13)	01/06/18	Secretariat
IP/04		Cancelled		
NI/05	3.4	Convenio de Cooperación Técnica entre DGAC Ecuador Y COCESNA (<i>Available only in Spanish</i>)	02/07/18	Secretaría
IP/06	4.1	Status of the FAA's Transition from AIS to AIM		United States
IP/07	3	Automatic Dependent Surveillance – Broadcast (ADS-B) Out: Ensuring Preparedness for the 2020 Equipage Mandate		United States
IP/08	3	Automatic Dependent Surveillance – Broadcast (ADS-B) Out: Equipage Data for States in the Region		United States
IP/09	3.4.1	Integration of Unmanned Aircraft Systems		United States
IP/10	5	Promotion of Cyber Resilience through Global Awareness and Regional Exercises		United States
IP/11	3.1	FAA and SENEAM Implementation of Mazatlán Offload and Severe Weather Playbook Routes	03/08/18	United States and Mexico
IP/12	3.4	San Juan Combined Center/Radar Approach Control (CERAP) Airspace Designation	08/08/18	United States

	Presentations				
Number	Agenda Item	Title	Presented by		
1	4.5	Accountability and Performance Report of ICAO NACC Regional Office to Member States	Secretariat		
2	4.3	Jamaica's Aviation System Block Upgrade (ASBU) Implementation	Jamaica		
3	4.1	AIM Strategy – AIM Operational Concept	Secretariat		
4	3.1	ANP Workshop	United States		
5	4.1	ATM-Grade Network References	Frequentis		
6	4.1	Aligning GANP, Regional ANP, and National/State ANP using ASBU	United States		
7	3	Space-based ADS-B Progress Update	Aireon		

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

Under this Agenda Item, the following working paper was discussed:

- WP/01 (Secretariat)
- 1.1 The Secretariat presented WP/01, inviting the Meeting to approve the provisional agenda and schedule, and referred to IP/01 with the list of associated documentation. The Meeting approved the agenda as presented in the historical section of this report and did not make changes to the schedule.

Agenda Item 2: Review and Follow-up to Relevant and Valid Conclusions/Decisions of ANI/WG/3, NACC/WG/5 and GREPECAS Meetings

Under this agenda item, the following working paper was discussed:

- WP/02 (ANI/WG Chairperson)
- 2.1 Under this working paper, the Secretariat presented a review of the list of valid conclusions/decisions of the previous NAM/CAR Air Navigation Implementation Working Group (ANI/WG), the North American, Central American and Caribbean Working Group (NACC/WG) and CAR/SAM Regional Planning and Implementation Group (GREPECAS) meetings.
- 2.2 The status and follow-up comments for each conclusion/decision is the result of a review completed by the Secretariat based on information available at the time of preparing this paper. The status for each conclusion/decision is designated as valid, completed or superseded.
- 2.3 The Secretariat reminded that Conclusions/Decisions require a continuous review and follow up. Accordingly, the ICAO NACC Office is reminding States and International Organizations of pending tasks. The report of the Eighth Meeting of the North American, Central American and Caribbean Directors of Civil Aviation (NACC/DCA/08) held in Ottawa, Canada, from 31 July to 2 August 2018, presents an updated status of the decisions and conclusions.
- Regarding Conclusion NACC/WG/5/9 CNS XML TESTING OVER AMHS, participants in the meeting mentioned that XML tests can be performed even before migrating to AIM. To comply with Conclusions NACC/WG/5 10, 11, 12 and 13, a survey to assess the current PBN status of implementation for the CAR Region was developed as part of the Project RLA/09/801 Multi-Regional Civil Aviation Assistance Programme (MCAAP) to develop an airspace model concept for the CAR Region. This survey is pending to be sent to States. The PBN Task Force will make the proper analysis of the results of this survey.
- 2.5 With regards to Decision NACC/WG/5/ 15 ANALYSIS FOR GNSS MONITORING FOR PBN OPERATIONS, to avoid duplication of work, it was considered this task is better suited to be addressed by the Surveillance Task Force. The decision should be amended to reflect that.
- 2.6 Due note was taken of the changes suggested by the Meeting, they will be incorporated into the respective databases for subsequent presentation in following meetings as appropriate.

Agenda Item 3 Global and Regional Air Navigation Developments

Under this Agenda Item, the following information papers were discussed:

- IP/07 (United States)
- 3.1 In 2010, the United States (U.S.) Federal Aviation Administration (FAA) published a regulatory requirement for all aircraft operating within certain airspace to be equipped with Automatic Dependent Surveillance Broadcast (ADS-B) Out technology by 1 January 2020, according to Title 14 of the U.S. Code of Federal Regulations (14 CFR) sections 91.225 and 91.227. This requirement will affect all flights in the designated airspace. To prepare the aviation community and prevent any operational disruptions, the FAA is promoting the new mandate to the international community so that foreign aircraft intending to operate within the affected airspace will be equipped with the appropriate ADS-B Out system by the compliance date.
 - IP/08 (United States)
- 3.2 The FAA monitors all ADS-B information that is received in airspace covered by FAA-contracted ADS-B ground stations, including 3 radio stations in Mexico. IP/08 provided information on ADS-B equipage detected by the FAA monitoring system.

3.1 Regional Electronic Air Navigation Plan (eANP) progress

- WP/04 (Secretariat)
- 3.1.1 This Working Paper presented the implementation status of the electronic Air Navigation Plan (eANP), the National Air Navigation Plans (ANPs), and the efforts for their alignment with the Global Air Navigation Plan through the Global framework for Global harmonization and Aviation System Block Upgrades (ASBU) Block 0. Complementary activities in preparation for upcoming provisions from the GANP Sixth version were presented for consideration and discussion of the Meeting.
- 3.1.2 The Meeting reviewed the successful results from the first state's ANP workshop. In addition, it was mentioned that the ICAO NACC Regional Office scheduled two more workshops in 2018; one was developed and supported by FAA and sponsored by COCESNA to cover Central American States. A second workshop for this year will be hosted by Barbados to cover the Eastern Caribbean States. It was also recommended to review the fruitful results at the web site: https://www.icao.int/NACC/Pages/meetings-2018-asbu18.aspx

IP/11 (United States)

- 3.1.3 This Information Paper presented the development and implementation of playbook routes between the United States' Federal Aviation Administration (FAA) and Mexico's *Servicios a la Navegación en el Espacio Aéreo Mexicano* (SENEAM) that allow aircraft to transition the northern portion of SENEAM airspace from Houston Air Route Traffic Control Center (ARTCC), Albuquerque ARTCC and Los Angeles ARTCC. In addition, the FAA and SENEAM developed offload routes from Los Angeles ARTCC that would offload aircraft around Mazatlán Area Control Center (ACC) airspace for arrivals to Mexico City, Monterrey and Cancun.
- 3.1.4 The use of the playbook routes and the offload routes occurs only after coordination and collaboration between SENEAM's *Sistema de Monitoreo, Administración y Regulación del Tránsito Aéreo* (SMART) unit, FAA's Air Traffic Control System Command Center (ATCSCC) and the affected SENEAM and FAA field facilities. After all parties agree to the implementation of the routes and any applicable restrictions, the routes are issued to the aircraft. Flight operators were involved in the development of the routes to ensure stakeholder concerns where considered and mitigated where necessary.
 - P/04 (United States)
- 3.1.5 A presentation on States Air Navigation Plan (ANP) Workshop presentation prepared by FAA was given, which included fundamental information on the GANP-ASBU relationship and the Air Navigation Report Form (ANRF) preparation. The States ANP preparation was also explained, as well as the ASBU, Regional Aviation System Improvements (RASI) and State Aviation System Improvements (SASI) Status.
 - 3.2 Relevant Updates of ICAO Standards and Recommended Practices (SARPs)
 - WP/23 (Secretariat)
- 3.2.1 The ICAO State Letter Ref. AN. 2/33-18/85 on the adoption of the amendment 40 to Annex 15 Aeronautical Information Services, dated 31 August 2018, which contains the new Procedures for Air Navigation Services Aeronautical Information Management (PANS-AIM) was presented and discussed by the attendance, that expressed concern on the difficulty for the States on the Annex 15 with many AIS remains and the inclusion of new AIM themes taking into consideration that without an important supporting document like PANS AIM that will be available until 2020 it is not clear how to implement it and probably the second most important issue is the lack of availability of the new Doc 8126 Aeronautical Information Services Manual Vol I, II, III and IV references in order to finish the transition to AIM in accordance with the ICAO Roadmap. The Secretariat recalled the importance of the AIM Quality Management System (QMS) Training Manual.

- 3.2.2 Additionally, Cuba mentioned the confusion generated in the States in terms of the impact to financial issues for the acquisition of equipment, software and training towards the System Wide Information Management (SWIM) and on the other hand are safety concerns related with the implementation of the Digital Aeronautical Management (DATM) Module from ASBU.
- 3.2.3 Cuba expressed its concern on the adverse effect of the adoption of Amendment 40 to Annex 15 *Aeronautical Information Services*, due to the lack of availability of the PANS AIM document, because some Annex 15 SARP issues are not complemented with any ICAO document until 2020 PANS-AIM adoption; therefore, the Meeting agreed the following draft conclusion:

DRAFT CONCLUSION							
ANI/WG/04/01 AVAILABILIT	Y OF DOC 10066 – PANS-AIM						
What:	Expected impact:						
That the ICAO NACC Regional Office con Headquarters the States regional concern availability of PANS AIM and other reference transition to AIM, according to the ICAO roadr 2019.	on the lack of ⊠ Inter-regional □ Economic						
Why:							
It is required to know the contents of Doc 10066 or its draft version for AIM implementation.							
When: 31 March 2019	Status: ⊠ Valid / □ Superseded / □ Completed						
Who: ☐ States ☒ ICAO ☒ Other:	ICAO NACC Regional Office, ICAO Headquarters						

3.3 Proposal of AGA, MET and SAR integration to ANI/WG

- WP/15 (Secretariat)
- 3.3.1 The proposal of this note was to present an intention to reincorporate AGA TF, MET TF and SAR TF as part of the ANI/WG. The importance to maintain all Air Navigation Areas Task Forces joint taking into account the interaction and interdependence among them was presented.
- 3.3.2 The proposal was widely discussed by the Meeting emphasizing the importance of the great interaction and interdependence among all ANS areas, in particular for the GREPECAS Projects that need special support from ANI/WG Task Forces for each ANS Area, that is why AGA, MET and SAR require to be included in the ANI/WG, even on the alternate basis of one or more new Task Forces.

- 3.3.3 The Meeting took into consideration the importance of the Infrastructure Policy and Standardization strategy for the ANS that maintains direct relation with the Global Aviation Safety Plan (GASP) and the Global Air Navigation Plan (GANP). This is put into action by all the areas within the ANS, through the Planning and Implementation Regional Groups (PIRGs), which include States and aviation partners, in order to face the aviation risks that are often complex and require an ANS coordinated multi-disciplinary response.
- 3.3.4 The Secretariat commented that it was an opportune moment for the ANI/WG to integrate the three ANS Areas AGA, MET and SAR taking into account the SWIM Concept. Finally, the Meeting support the following Draft Conclusion:

DRAFT CONCLUSION ANI/WG/04/02 GREATER SUPPORT FROM STATES AND AIRPORT OPERATORS TO AGA/AOP, MET AND SAR TASK FORCES							
What: That, States/Territories, International Organ operators (operational staff), show a stronger take more effective action in support of GREI and SAR harmonized Projects, and designate points by 31 October 2018, in order implementation of aerodrome certification, is search and rescue activities through the internal ANI/WG.	commitment and PECAS AGA, MET □ Economic □ Environmental □ Derational/Technical						
Why: It is required to support GREPECAS Projects, harmonized ANS activities and implementation of SWIM Concept							
When: 31 October 2018 Who: ⊠ States □ ICAO ⊠ Other:	Status: ⊠ Valid / □ Superseded / □ Completed International Organizations						

WP/32 (Secretariat)

3.3.5 This Working Paper presented the preliminary actions undertaken to develop and implement a Caribbean Regional Contingency Planning and Response strategy, in order to address the disruption, or potential disruption, of air traffic services and related supporting services in the CAR Region.

3.3.6 Recent experience proved the need to take concrete actions to address emergency and contingency situations from a regional perspective. In line with that, the International Air Transport Association (IATA) and the ICAO NACC Regional Office took the initiative to establish a CAR Regional Contingency Coordination Team (CCT), which takes into consideration the main threats that periodically attack the region, to provide regional operational steps to address them. This Team should be the cornerstone for the Caribbean contingency planning and response. Therefore the following Draft Conclusion was formulated:

DRAFT CONCLUSION								
ANI/WG/4/03	CAR REGI	ONAL CO	NTINGEN	Y PLANNING	AND	RESPONSE		
What:				Expected impa	ct:			
That, States and Territories of the NAM/CAR Regions: a) update their ATS contingency plans, and submit their updated contingency plans to the ICAO NACC Regional Office by 31 October 2018;				☑ Political / GI☑ Inter-region☑ Economic☐ Environment☑ Operational,	al tal	ical		
b) endorse and collaborate to develop and implement the CAR Regional Contingency Coordination Team (CCT); and c) as part of the CAR Regional Contingency Coordination Team				•				
(CCT), update their point(s) of contact for contingency situations, and submit this information to the ICAO NACC Regional Office by 31 October 2018 .								
Why:	Why:							
In order to enhance the p	overy from	contingencies						
When: 31 October 2018		Status:	⊠ Valid ,	′□ Superseded	/ □ Co	mpleted		
Who: ⊠ States ⊠ ICAO	☐ Other:							

- WP/33 (Secretariat)
- 3.3.7 This Working Paper presented the current search and rescue level of implementation in the CAR Region, with an update of the Regional Performance Objective "Improve Search and Rescue Services" of the NAM/CAR Regional Performance-Based Air Navigation Implementation Plan (RPBANIP) identified the regional implementation challenges, and suggested actions to address them.

- 3.3.8 The current CAR Region USOAP results for the SAR related Protocol Questions (PQs) in the ANS area is 48.13%. 9 States of the CAR region have not established an entity which provides, on a 24-hour basis, SAR services within its territory and the areas where the State has accepted responsibility to provide SAR to ensure that assistance is rendered to persons in distress. No regional entity has been assigned with the SAR Regional Performance Objectives (RPO) related tasks of the RPBANIP; therefore, it is evident that from the very conception of the planning process no progress or regional support should be expected in this entire area.
- 3.3.9 It is crucial to raise awareness of this situation among all States and Territories of the CAR Region, to make them understand that without resources and their commitment nothing can be accomplished for SAR implementation. Their support is vital to make some progress. Therefore the following Draft Conclusion was formulated:

DRAFT DECISION								
ANI/WG/4/04 DEVELOPME	I/WG/4/04 DEVELOPMENT OF THE CAR REGIONAL SAR PLAN							
What:		Expected impact:						
That, in order to support SAR implementation is the ANI/WG establish an Ad hoc Group to draft implementation Plan for the CAR Region and a support of this regional plan shall include concrete reconsidered regional SAR support, identifying initiatives and opportunities to enhance them this Ad hoc Group will be composed by the Territories and International Organizations: Cuba Dominican Republic United States (US Coast Guard) Trinidad and Tobago COCESNA	the Regional SAR regional SAR Plan. ommendations to ongoing regional at a wider level;	 ☑ Political / Global ☑ Inter-regional ☑ Economic ☐ Environmental ☑ Operational/Technical 						
and shall present its results to the ICAO NACC Regional Office by								
1 December 2018. Why:								
•								
To Support SAR implementation in the CAR Reg	ion							
When: 1 December 2018	Status: ⊠ Valid	/ \square Superseded / \square Completed						
Who: ⊠ States □ ICAO □ Other:								

3.4 Other Global/Regional Air Navigation Developments

- WP/17 (Secretariat)
- 3.4.1 This Working Paper presented a draft proposal to amend the Central American, Caribbean and South American (CAR/SAM) Regions Air Traffic Flow Management (ATFM) Concept of Operations (CONOPS) in order to update the interregional ATFM implementation strategy according to the actual context and reality. This proposes a shift from a centralized ATFM implementation and functioning towards a multi-nodal cross border ATFM concept. This change will lead the regional efforts for ATFM implementation, promoting the establishment and strengthening of Flow Management Position (FMP)/Flow Management Unit (FMU) with resources and trained personnel to coordinate with the ATS the application of traffic management initiatives to balance demand with capacity.
- 3.4.2 The meeting agreed with the proposal, considering this would address current discrepancies among the GREPECAS ATFM Projects and the interregional operational context.
- 3.4.3 The meeting agreed the following Draft Conclusion:

DRAFT CO	NCLUSION								
ANI/WG/	4/05		THE	PROPOS	SAL T	O AMENI	THE	CAR/SAM	ATFM
		CONOPS							
What:						Expecte	d impa	ct:	
That, th	ne ATFM Task Force:					☐ Politi	☐ Political / Global		
							-region	al	
•	ew the proposal to amend	-				L COII	⊠ Economic		
	bmit its results to the I	CAO NACO	Reg	ional Off	ice by	🛮 🖾 Envii	⊠ Environmental		
1 Octo	ber 2018					⊠ Oper	☑ Operational/Technical		
b) Develop a road map to describe future developments for									
ATFM Implementation in the CAR Region.									
Why: To provide high level guidance to lead ATFM implementation in the CAR Region					gion.				
When:	1 October 2018		S	tatus: [⊠ Vali	d / □ Supe	rseded	/ □ Comple	ted
Who:	☐ States ☐ ICAO ☒ Othe	er:	А	TFM Tasl	k Force	<u> </u>			

- NE/28 (Cuba)
- 3.4.4 This paper proposed the establishment of a regional network for the information exchange of a Global Navigation Satellite System (GNSS).
- 3.4.5 Cuba presented the benefits of the establishment of a sharing data network on the monitoring of the satellite constellation using the MEVA telecommunications network, through a regional working group that studies its feasibility and establishes the requirements for the exchange of information.

- 3.4.6 Tasks will be integrated according to how they correspond to the Surveillance Task Force and the MEVA Technical Management Group (TMG).
 - WP/31 (Secretariat)
- 3.4.7 This Working Paper presented the initial steps to develop a Regional strategy to support Safety Management System (SMS) implementation in Air Navigation Service Providers (ANSPs), in order to improve compliance to Annex 19 requirements and enhance safety performance levels for ANS provision.
- 3.4.8 In July 2018 the ICAO NACC Regional Office organized a SMS Implementation Workshop for ANSPs. The purpose of this event was to establish the necessary actions to promote the SMS implementation among ANSPs and support the development of acceptance and supervision programmes of these management systems by Civil Aviation Authorities, as part of their State Safety Programme (SSP).
- 3.4.9 The meeting agreed the following Draft conclusion

DRAFT CONCLUSION						
ANI/WG/4/06 SUPPORT NA	AM/CAR SMS IMPLEMENTATION FOR ANS					
What:	Expected impact:					
That, in order to support SMS implementation NAM/CAR Regions:	on for ANS in the □ Political / Global □ Inter-regional □ Economic					
 a) the ICAO NACC Regional Office continue w the initial implementation of SMS in the CAR Re the acceptance on behalf of the regulators; 	orking to support					
b) states and Territories of the NAM/CAR harmonize SMS requirements for ANSPs, performance indicators; and						
c) the Secretariat suggest the GREPECAS Scrutiny Group (GTE) to consider expanding its scope to include among its activities the establishment of a safety information exchange network related to safety performance measurement of air navigation services.						
Why:						
To enhance compliance with Annex 19 Require	ments for SMS implementation in ATS					
When: 31 December 2019	Status: \boxtimes Valid / \square Superseded / \square Completed					
Who: States ICAO □ Other:						

IP/03 (Secretariat)

- 3.4.10 This paper provided information on the ICAO documentation updates during the years of 2017 and 2018 and important activities that were carried out on main information like State Letters for Proposed Amendments to ICAO Annexes and PANS Document and/or Electronic Bulletins of possible interest.
 - IP/05 (Secretariat)
- 3.4.11 This information paper reflected the actions agreed between Ecuador Civil Aviation Authority and COCESNA to promote safety in the South Pacific Oceanic Region.
- 3.4.12 The Secretariat indicated the scope of the technical cooperation agreement between Ecuador and the (COCESNA), and on behalf of the ICAO NACC Regional Office, congratulated COCESNA for the effort made to diminish Large Height Deviation (LHD) errors in its coordination in the South Pacific, which is a point of concern due to the LHD errors reported by the GTE of the CAR/SAM Regions.
 - IP/12 (United States)
- 3.4.13 The FAA ATS facilities encompassed by North America, Central America, and the the ICAO/IATA/CANSO Caribbean (NACC) are actively involved in harmonization/Modernization/Implementation Working Group tasking. In recent PBN Harmonization meetings, the FAA agreed to provide the ANI/WG/4 meeting with an update on the airspace designation of San Juan Control Area (CTA) of Flight Information Region (FIR), particularly, the oceanic and domestic offshore airspace volumes. This information paper specified the current airspace classification and designation, the activities currently in progress to designate airspace appropriately in concurrence with available Communication, Navigation, And Surveillance (CNS) capabilities, and the type of longitudinal separation San Juan CERAP can apply, currently, in non-surveillance airspace.
 - 3.4.1 Follow-up to the implementation of a regulatory framework for Unmanned Aircraft System(s) (UAS) Operations
 - IP/09 (United States)
- 3.4.1.1 United States is undertaking an incremental and multifaceted approach toward the integration of Unmanned Aircraft Systems (UAS). This paper provided an update on the FAA activities to integrate UAS into the U.S. national airspace system (NAS). The FAA's incremental approach to UAS integration, including continued collaboration between the U.S. government and industry, will help shape future rulemaking efforts as more complex UAS technologies and operations continue to mature.

3.4.2 Review of Regional Supplementary Procedures (Doc 7030)

- WP/03 (Secretariat)
- 3.4.2.1 This Working Paper presented the Proposal for Amendment (PfA) to Doc 7030 Regional Supplementary Procedures (SUPPS), CAR part. These procedures complement the provisions included in Annex 2 Rules of the Air, Annex 6 Operation of Aircraft (Parte II), Annex 11 Air Traffic Services, Doc 4444 ATM Air Traffic Management (PANS-ATM) and Doc 8168 OPS Aircraft Operations (PANS-OPS). The application area of the CAR Region Regional Supplementary Procedures (SUPPS) appears in the Amendment 9 dated 25 April 2014, by ICAO.
- 3.4.2.2 The Meeting was invited to review and support the draft PfA to the SUPPS for the CAR Region.
- 3.4.2.3 In attention to IATA's request, the Secretariat will be providing a copy of the PfA to AOP table from the eANP Vol. I and Vol. II (Doc 8733), related with some changes made by Guatemala to AOP I-1 and AOP II-1 Tables eliminating Mundo Maya (MGMM) as international airport, as well as Puerto Barrios (MGPB), changing them to national Airports.
 - 3.4.3 Update of ICAO's position to the 2019 International Telecommunication Union (ITU) World Radiocommunication Conference (WRC)
 - WP/35 (Secretariat)
- 3.4.3.1 This Working Paper presented update of the relevant information about the International Telecommunication Union (ITU) World Radiocommunication Conference (WRC-19) and the summary about all activities that NAM/CAR States are developing in the present year.
- 3.4.3.2 The Meeting was informed that a procedure between the United States and ICAO has been implemented to work in a better way the frequencies allocation in the Caribbean and thus avoid interference in the services, FAA designated Mr. Michael Biggs (michael.biggs@faa.gov) as a Point of Contact (PoC) for this activity.
- 3.4.3.3 During the meeting, it was informed of the establishment of an Ad hoc Group part of the MEVA/TMG, which will be responsible for leading the regional activities aimed to the preparation tasks before the International Telecommunication Union (ITU) World Radiocommunication Conferences (WRC), held every four years with the objective of distributing the radio electric spectrum between the different services, therefore the Meeting formulated the following:

DRAFT CO	ONCLUSION									
ANI/WG/	4/07	REGIONAL	STRATEG	Y FOR	THE	MANAGEMENT	OF	THE		
		RUM FO	R AERO	ONAUTICAL SERV	ICES					
What:						Expected impact:				
That, the States support the work of the MEVA Ad hoc Group for the management of the information and activities to be developed for a harmonized and regional management of the aeronautical frequencies in the NAM/CAR Regions and provide the names of the persons in each State that will support the tasks of this Ad hoc Group by 30 September 2018 .				to be of the provide	☐ Inter-regional ☐ Economic					
Why:										
Need to create regional strategies for the required aeronautical frequencies protection to suppor the current and future systems of the air navigation.							pport			
When:	30 September 2018		Status:	⊠ Valid	/ □ Su	iperseded / 🗆 Co	mplete	ed		
Who:	States □ ICAO □ Other	er:								

3.4.4 The Air Traffic Services Inter-facility Data Communication (AIDC) (APAC) and NAM/ICD Protocols of the NAM/CAR Regions Implementation

- WP/18 (Secretariat)
- 3.4.4.1 This paper presented updated information on the AIDC operation performance in the NAM/CAR Regions, and the needed activities to be executed by States to ensure the correct implementation of the NAM Interface Control Document (ICD) and APAC Air Traffic Services Inter-facility Data Communication (AIDC) automated protocols.
- 3.4.4.2 The need for the States to incorporate the technical/operational requirements not only of their own, but also of their adjacent States was identified.
- 3.4.4.3 The need for the development of a document for the NAM/ICD protocol that better integrates the operational requirements to support the Caribbean States that require automated operations between their ATC control centers with the United States was agreed. The United States accepted to provide NAM/ICD lesson learned like a supplement of this documents with aim to improve this automated protocol implementation.
- 3.4.4.4 The Secretariat remarked the need for United States to work more closely with the Caribbean States with which it will carry out its connections with the objective of supporting the States to develop clearer technical/operational requirements for the ATC systems suppliers, especially States of the Caribbean, which could help them to improve the implementations more effectively and in less time and prevent States from having to make a greater economic investment due to corrections to their software.

- 3.4.4.5 United States provided suggestions and offered assistance on multiple occasions on critical implementation items which should have been commonly identified as part of the requirements, system capability and software delivery of regional partners. Additionally, spoke of the integration of the requirements process and holding the contractor accountable to work along with the operational Automated Data Exchange (ADE) member States, ensuring the available subject matter expertise is integrated into the requirements process. Along with the NAM ICD this collaboration between the contractors and member States using the FAA expertise should form the technical and operational results needed for the NAM ICD implementation.
- 3.4.4.6 The need to have up-to-date information on the contact points who are responsible for the management and handling of the NAM/CAR regions Aeronautical Fixed Telecommunication Network (AFTN) and Aeronautical Message Handling System (AMHS) aeronautical information was discussed during the meeting; because with the implementation of automation it is necessary integrate procedures to ensure the quality and monitoring of AFTN messaging. In this sense, the Secretariat agreed to the request of the States in the last meeting held in Lima, Peru during April 2018, they requested that this information would be available to expedite the coordination in case of failure or others. ICAO will integrate this information and will have it available on the website for States usage.
- 3.4.4.7 IATA indicated the need to integrate operational goals to the implementation of this kind of facilities, such as supporting the reduction of longitudinal separation of operations or greater efficiency of airspace, because States invest in ATC systems without clear benefits of these facilities previously established.
- 3.4.4.8 Flight plan errors are one of the problems that directly affect automation in the region, enormous efforts have been made to minimize the percentage of occurrence having good results to date, it is necessary to strengthen two important aspects:
 - 1 Training of the personnel who manages the flight plans.
 - 2. Maintenance of the States' Aeronautical Information, both the published information and the maintenance of their ATC databases.
- 3.4.4.9 In this regard, the Secretariat indicated that, in order to address item No. 1, within the Project RLA/09/801 Multi-Regional Civil Aviation Assistance Programme (MCAAP) assistance programme for 2019, two workshops are planned to support the personnel of the States to better understand the impact of quality of the flight information within the automated coordination, one in Spanish that will be held at the ICAO premises in Mexico City and another one in English, for which the support of the States is required and they are urged to offer some of their facilities in order to carry out this workshop. In the case of the maintenance of systems databases, ICAO will coordinate a workshop to strengthen this weakness by April 2019. In that sense, Trinidad and Tobago will respond before the end of September 2018, if it can offer its facilities to provide this training to all English-speaking States.

3.4.4.10 Finally, the Secretariat indicated that the meeting of the NAM/CAR/SAM Regions at its last meeting in Lima, Peru identified several actions that must be carried out by each of the States before 30 December 2018, in order to strengthen the AIDC implementation and minimize the occurrence of flight plan errors. The participating States were requested to carry out the proposed activities (Appendix A to WP/18) and that the AIDC Task Force and Flight Plan Errors (FPL) Task Force monitor them. Therefore, the Meeting formulated the following:

DRAFT CO	ONCLUSION							
ANI/WG/	4/08 POINT OF 0	POINT OF CONTACT (PoC) RESPONSIBLE FOR MANAGEMENT AND						
	MAINTENANCE OF AMHS OR AFTN							
What:				Expected impact:				
	the States provide, the PoC of their St chnical management of the AMHS or A	☐ Political / Global☐ Inter-regional						
-	nber 2018 . Information which will be	ilable by	☐ Economic					
ICAO f	or use by the States.		☐ Environmental					
				☑ Operational/Technical				
Why:								
an into	the need to update the PoCs of the A egral part of the preventive and correnate faults as soon as possible and mated messages and others.	ctive mair	ntenance	procedures in order to be able to				
When:	30 September 2018	Status:	⊠ Valid	/ \square Superseded / \square Completed				
Who:	States □ ICAO □ Other:							

Agenda Item 4: Follow-up, Performance Evaluation and Monitoring of the CAR Regional Performance Based Air Navigation Implementation Plan

4.1 Progress Reports of the Task Forces of the ANI WG

Under this Agenda Item, the following working, information, and discussion papers and presentations were discussed:

- WP/06 (Secretariat)
- 4.1.1 This working paper introduced the progress achieved by the NAM/CAR Air Navigation Implementation Working Group (ANI/WG) since the Third ANI/WG Meeting, including the approved action plans that were presented by each Task Force rapporteur.
- 4.1.2 Cuba took the opportunity to comment that it is important to change the work method and implement a better schedule system for the year with enough time for financial and staff resources planning by the States in order to attend at least one face to face meeting for the Task Force members. Several attendants supported the comment and the Secretariat took note.
 - WP/07 (PBN Task Force Rapporteur):
 - DP/01 (PBN Task Force Rapporteur)
- 4.1.3 This Working and Discussion Papers presented the progress achieved by the PBN Task Force following the Fifth North American, Central American and Caribbean Working Group Meeting (NACC/WG/5).
- 4.1.4 The NAM/CAR Regions are very diverse and complex, not only in terms of the traffic patterns and airspace classifications, but also in terms of the resource capabilities, technological advancement and policies within each State/Territory/Organization. This creates a challenge for a harmonized approach to PBN implementation within the Regions.
- 4.1.5 Reports from the previous PBN Surveys conducted suggest that while the NAM Region has made substantive progress in their PBN implementation plans, there appears to be several roadblocks within the CAR Region. There may also be a disconnection between reported implementation and effective implementation. Some States are yet to produce a comprehensive PBN implementation plan and in some cases, those that have submitted a plan, have found difficulty in meeting the objectives of the plan. There are also some States which have not participated in any of the previous surveys conducted by the Task Force. Therefore the following Draft Conclusion was made:

DRAFT CONCLUSION					
• • • •	F CURRENT PBN IMPLEMENTATION STATUS IN THE				
•	REGIONS AND PROVIDING INDIVIDUAL PLANS FOR				
STATES/TERRITORIES/INTERNATIONAL ORGANIZATIONS What: Expected impact:					
write.	Expected impact.				
That, in order to determine the current implementation in the NAM/CAR Regions, roadblocks to implementation and identify inef used on past PBN projects: a) the ICAO NACC Regional Office produced by the PBN TF States/Territories/International Organizations is	determine the ffective initiatives Inter-regional Economic Environmental Operational/Technical Operational/Technical				
2018;					
b) States/Territories/International Organ accurate responses to the survey and provide implementation of tasks are stated as concember 2018; and	e evidence where				
c) the PBN TF conducts analysis on each	survey response				
and provides individual assessments to the ICA	· · · · ·				
Office by 31 May 2019 .					
Why:					
To analyze current situation in order to implementation	provide adequate support for CAR Region PBN				
When: 31 May 2019	Status: ⊠ Valid / □ Superseded / □ Completed				
Who:					

- 4.1.6 Apart from the previously reported roadblocks such as lack of available training, of subject matter expertise, of financial and human resources, a major impediment to harmonization is the lack of coordination of PBN initiatives amongst adjacent FIRs/TMAs.
- 4.1.7 The PBN Task Force Rapporteur has made several requests for updated information regarding NAM/CAR States PBN implementation plan status. The response was very limited. The reports that were received still showed that within the CAR Region there were many coordination issues amongst adjacent FIRs and in some cases between the FIR and TMAs within, additionally, the lack of harmonization continues to be a major issue.
- 4.1.8 The Meeting stressed the importance of obtaining approval at the highest level for planning and subsequent initiatives related to the PBN implementation.

- 4.1.9 During the ANI/WG/4 Meeting, the PBN Task Force (TF) met as a Working Group Committee consisting of representatives from Antigua and Barbuda, Barbados, Cuba, Dominican Republic, Haiti, United States, Trinidad and Tobago, IATA and ICAO.
- 4.1.10 The Meeting discussed the need to amend the Terms of Reference (ToRs) of the PBN Task Force to improve its effectiveness and agreed that the TF should comprise of at least one representative from each Sub-region within the CAR Region, as well as a representative from the NAM Region. The TF Members should be Subject Matter Experts (SMEs) with PBN training or experience; additionally, the TF should contain at least one Procedure Designer and one airspace designer. Notwithstanding the TF members, each State/Territory/International Organization should nominate a PoC who is responsible to coordinate with the PBN TF. This PoC will then be responsible for internal coordination within their own Organization including for the Flight Procedures Programme (FPP). The Meeting proposed the following conclusion:

CONCLUSION/DECISION						
	Y STUDY ON THE ESTABLISHMENT OF A FLIGHT SE PROGRAMME (FPP) WITHIN THE NAM/CAR					
What:	Expected impact:					
That, taking into consideration ICAO Assemb 14, where States are urged to utiliz implementation, the PBN Task Force in coll ICAO NACC Regional Office: a) promulgate a survey form by 30 Sept seeks to identify which States/Terri Organizations require assistance in procedure b) identify the resources required for the a FPP within the Region; and	E FPPs for PBN aboration with the aboration with the Economic Environmental Operational/Technical design;					
c) provide a report to the ICAO NACC Rappropriate recommendations by 30 April 20 .						
Why:						
To enhance support by analyze current situa implementation Region	tion in order to provide adequate support for CAR PBN					
When: 30 April 2019	Status: ⊠ Valid / □ Superseded / □ Completed					
Who: ☐ States ☐ ICAO ☒ Other:	ANI/WG PBN Task Force					

- WP/08 (ATFM Task Force Rapporteur)
- DP/02 (ATFM Task Force Rapporteur)
- 4.1.11 This Working Paper presented the progress achieved by the Air Traffic Flow Management (ATFM) Implementation Task Force (TF) since its previous progress report to the Fifth North American, Central American and Caribbean Working Group Meeting (NACC/WG/5) in Port of Spain, Trinidad and Tobago, 22 to 26 May 2017. This paper includes the results for previously identified deliverables and recommendations for improving the Task Force function and coordination
- 4.1.12 The Meeting expressed a challenge for ATFM implementation due to the limited use of ATFM software and automated tools. It was considered beneficial to promote exchange of information amongst states and ANSPs regarding the tools they are using, in order to reduce the possible expenditure for ATFM solutions.
- 4.1.13 The Meeting highlighted the importance of data exchange as a key component for ATFM functions. Trinidad and Tobago already started data exchange with United States. COCESNA is in the process of doing so. The ANI/WG should continuously encourage ATFM data exchange.
- 4.1.14 The discussion topics of DP/02 included review of the ToRs, Regional Performance Objectives, Concept of Operations and Work Programme. The ATFM/TF will conduct teleconferences to complete the review of these issues and submit the updated information to the ICAO NACC Regional Office.
- 4.1.15 To enhance TF effectiveness and efficiency, new ToRs were agreed. The revised ToRs were presented at Appendix A to DP/02. In compliance with the new ToRs, the Task Force appointed its Rapporteurs. It was decided these responsibilities should be shared by two members instead of one. The TF appointed Mr. Roosevelt Peña (Dominican Republic) and Mr. Greg Byus (United States) as co-Rapporteurs.
- 4.1.16 The Task Force moved to accept the ANI/WG/4 meeting as the face to face meeting requirement for 2018. The next ATFM face to face meeting will be held the last week of January 2019 in conjunction with the CANSO Air Traffic Flow Management Data Exchange Network for the Americas (CADENA) Regional Implementation Group Meeting.
- 4.1.17 In order to prepare a work programme that would accurately reflect the Region's requirements for ATFM, the TF considered the ATFM related Regional Performance Objectives (RPOs) needed to be revalidated and updated. With regard to the CAR RPBANIP Ver 4.0, the TF determined that, due to the scope of the RPOs update, this effort should be done in a more comprehensive manner and submitted to the ICAO NACC Regional Office by 1 October 2018. After the RPO update is completed, the ATFM/TF co-Rapporteurs and the Secretariat will work to submit a draft Work Programme to the TF to be approved by a teleconference convened for such purposes.

- WP/09 (Surveillance Task Force Rap)
- DP/03 (Surveillance Task Force Rap)
- 4.1.18 This paper presents the progress of the AN/WG Surveillance Task Force. The Rapporteur provided information on the Task Force ToRs, the membership and one update of the activities that the States have conducted in the last year in order to achieve a successful ADS-B implementation. The group's Rapporteur also talked about the changes made to the group's tasks, since its activities have been extended to cover all the needs regarding surveillance of the Region.
- 4.1.19 Under DP/03, the Surveillance Task Force informed on the methodology to address the regional implementation of new technologies. In this sense, Task Force indicated the need for States to have a precise definition of their operational needs and recommendations to develop at a regional level the knowledge of regional infrastructure, the benefit of new technologies and the requirements of avionics.
- 4.1.20 All the members of the group agreed on the benefits of the ADS-B implementation. However, they identified some needs that must be taken into account for their implementation, such as planning based on safety and efficiency, capacity based on user needs, airspace and air navigation services, to follow global/regional objectives, take into account the requirements of all involved stakeholders and ensure harmonization and standardization.
- 4.1.21 The complete information provided by the Task Force is found in the Discussion paper, in the following link: https://www.icao.int/NACC/Pages/meetings-2018-aniwg4.aspx, for review. The activities of the Surveillance Task Force will be updated in accordance to the presented recommendations.
 - WP/10 (AIDC Task Force Rapporteur)
 - DP/04 (AIDC Task Force Rapporteur)
- 4.1.22 This Working Paper presented the progress of the AIDC Task Force and the Ad hoc Flight Plan (FPL) Monitoring Group, since the Fifth North American, Central American and Caribbean Working Group Meeting (NACC/WG/5) meeting; as well as the updated ToRs work programme for each group.
- 4.1.23 During the session, the membership of the Task Force was updated, which is found as Appendix to DP/04. Additional information related to the support activities for the implementation of the NAM/ICD protocol of Jamaica was provided. The State was also provided with the necessary recommendations to follow up on the implementation of the NAM/ICD and the aspects to take into account regarding errors in flight plans.
- 4.1.24 The Task Force will be responsible of following-up on the implementation of the recommendations provided by the meeting held in Lima, Peru in April 2018, which aim to implement actions that minimize errors in flight plans.

- WP/11 (AIM Task Force Rapporteur)
- DP/05 (AIM Task Force Rapporteur)
- 4.1.25 This Working Paper presented some improvements and updates to the work programme and the progress of the AIM Task Force since the ANI/WG/3 Meeting was commented. The Paper also urged to discuss/update the Terms of Reference (ToRs), and update the membership accordingly.
 - WP/12 (AMHS Task Force Rapporteur)
 - DP/06 (AMHS Task Force Rapporteur)
 - WP/05 (United States)
- 4.1.26 This Working Paper presented the progress achieved by the AMHS Task Force since its creation in the ANI/WG/1 Meeting. Following the work programme of the Task Force and its deliverables, the paper included the results for these deliverables and recommendations for actions to be taken by the Task Force while improving the Task Force function and coordination.
- 4.1.27 The Rapporteur of the Task Force emphasized that Bahamas, Brazil, Curacao, Haiti, Peru and Venezuela will coordinate with United States the decommissioning of their X.25 channels, since the FAA X.25 system is beyond the end of life for which these services will no longer be maintained.
 - WP/13 (ASBU Task Force Rapporteur)
 - DP/07 (ASBU Task Force Rapporteur)
 - P/06 (United States)
- 4.1.28 This Working Paper presented the progress achieved by the ASBU Task Force (TF) since its formation during the NACC/WG/5 Meeting in Trinidad and Tobago in May 2017. This paper presented the newly created ToRs for this Task Force including the Work Programme and Membership tables. The major accomplishments since the formation of this Task Force have been the contribution to prepare the CAR RPBANIP and the Workshop to create/update the States´ Air Navigation Plans (ANPs).
- 4.1.29 The ICAO NACC Regional Office and ASBU TF Rapporteur organized the 1st and 2nd State ANP Development Workshops. Upon completion of the workshops, all attendees created their State ANP in draft form including all Block 0 ANRFs. The 3rd Workshop is planned in November 2018. States without national ANPs are recommended to take advantage of this opportunity to develop the national ANP.
- 4.1.30 The companion to this Working Paper, the briefing titled "Aligning GANP, Regional ANP, and National/State ANP using ASBU" was presented. The importance of moving together to the harmonized Global Air Navigation system and the process to align GANP, regional ANP, and national ANP were explained. The States with draft ANPs expressed their plan to use ANPs to support the planning and investment for ANS implementation at State levels and their intention to use ANPs as communication tools with their managements and their neighbouring States.

• WP/19 (ANI/WG Chairman)

- 4.1.31 This paper presented to the attendees the progress made by the ANI/WG since its Third Meeting (ANI/WG/3) and some main issues of the Fifth Meeting of the North America, Central America and the Caribbean Working Group (NACC/WG/5), including important approved Action Plans.
 - WP/20 (Secretariat)
- 4.1.32 This paper presented updated information on the ADS-B implementation progress in the NAM/CAR Regions and some important information of the SAM Region that affects the NAM/CAR Regions.
- 4.1.33 The Secretariat emphasized the importance that States share surveillance data between their FIRs to promote safety and take advantage of the benefits of shared data.
- 4.1.34 The corresponding information links were provided in which the discussion of the November 2017 meeting was placed, in which the NAM/CAR/SAM States participated.
- 4.1.35 The Secretariat recommends that the States within their surveillance projects and in all kind of projects integrate, in addition to their needs, the requirements of the adjacent States to their operations and when they have operations in common, users of their airspace, in general all parties involved, to ensure that the technical operational requirements are integrated to meet the needs of all and at the same time ensure that the investments to be made will be beneficial.
- 4.1.36 IATA indicated the need to integrate clear and regional operational objectives that allow the airspace to be efficient, and grow in a harmonized manner according to ICAO document 9883. It also recommended that the region identify the required performance of the transponders to standardize at a same distance the longitudinal separation of all aircraft in all different FIRs.
- 4.1.37 The Secretariat requested that the States who have not yet sent the surveillance information of their States, according to **Appendix B** of this report, provide the same by **30 October 2018**, with the information required, necessary to update the surveillance infrastructure of the region, which will support the activities of operational working groups such as AIDC and PBN. This activity will be monitored by the NAM/CAR Surveillance Working Group.
 - WP/21 (Secretariat)
- 4.1.38 This working paper provides updated information on the MEVA Network status, and the new challenges that need to be faced to satisfy the communication needs of the future aeronautical services of the region.

- 4.1.39 The Secretariat informed that during the last MEVA/TMG meeting, it was decided to create an Ad hoc Group composed of Dominican Republic, Trinidad and Tobago, United States and COCESNA, with the objective of executing a project for developing the ToRs of the MEVA IV Network, which will be responsible for meeting the needs of high bandwidth channels with the same advantages as the current MEVA network, availability, security, a private network and low cost for the member States of MEVA.
- 4.1.40 During the meeting the schedule and the execution times of the activities were also discussed, United States expressed concern with the time that is relatively short for the execution of all activities.
- 4.1.41 Finally, it was informed that COCESNA will be responsible for leading the group due to the experience of a similar network in the six member Countries of COCESNA in Central America.
 - WP/22 (AIM/TF Rapporteur)
- 4.1.42 This paper presented discussion elements, suggestions and recommendations for the proper evaluation of requesting aeronautical information service personnel, as well as ATS Reporting Office personnel to become in licensed personnel, in order to have adequate, skilled and certified persons carrying out the high responsibility activities and tasks. Therefore, proposal to bring amendment to Annex 1 was requested.
- 4.1.43 In that sense, the Secretariat decided to postpone the action requested in terms of following the appropriate ICAO protocols related with a Proposal for Amendment (PfA) to Annex 1 for AIM Licensing. This action will be coordinated with the ICAO NACC Regional Office and the AIM/TF, once the right process is done.
 - WP/24 (Secretariat)
- 4.1.44 This paper introduced to the Meeting to the transition plan for the change of PBN approach chart identification from RNAV to RNP. Important coordination among States, GREPECAS, ICAO Headquarters and NACC Regional Office is required to develop a plan for this transition, which minimizes the impact on the ATM system safety risks.
- 4.1.45 The PBN concept was brought in to replace existing Area Navigation Implementations, there has inevitably been some confusion regarding the old and new terminology. ICAO as well as industry recognized this became a problem for the appropriate understanding of the PBN concept. In order to address this, a plan to further harmonize the terminology used for PBN was developed. In addition, it was mentioned that many States in the region have already begun to implement the new chart identification, and a number of new charts have been published in the States' AIP.
- 4.1.46 Finally was indicated that ICAO Headquarters will be providing a central repository of information on the chart transitions. This will identify, graphically, those States that have indicated a timeline for the transition as well as those, which have finally completed this work. This will be available through:

https://www.icao.int/safety/charting/

WP/25 (Secretariat)

- 4.1.47 This paper presents the suggestions and recommendations for the proper evaluation of converting and/or requesting for Aeronautical Information Service personnel as well as ATS Reporting Office personnel to become licensed personnel, in order to have adequate, skilled and certified persons carrying out the tasks. Therefore, proposal to bring amendment to ICAO Annex 1 Personnel Licensing is requested.
- 4.1.48 A request for improving the Language proficiency level for the personnel was presented to the Meeting. Pilots, as well as air traffic controllers, aeronautical station operators and AIS and/or AIM personnel shall demonstrate the ability to speak and understand the language used for radiotelephony communications to the level specified in the language proficiency requirements contained in Appendix 1 to WP/25.
 - WP/27 (AIM Task Force Rapporteur)
- 4.1.49 The improvements to the work programme and the progress of the Aeronautical Management Information Task Force (AIM/TF) from the ANI/WG/3 Meeting were presented, for discussion and to determine basic and official training for AIM personnel.
- 4.1.50 Based on the ANI/WG/1 to ANI/WG/3, the NACC/WG/5, and the AIM/AIDC/FPL/1 Meetings and the AIM Task Force ToRs and the activities of the work programme, the information on the implementation continuity of the transition to AIM by States and International Organizations was provided. In this ANI/WG/4 meeting the basic training methods in order to comply with the required skills and knowledge for proper AIM tasks execution were presented. The suggested profiles were presented in the Appendix to the referred paper.
 - WP/29 (Secretariat)
- 4.1.51 This working paper presented an update of the current Performance-Based Navigation (PBN) implementation progress of the RPBANIP, a root cause analysis of the regional implementation challenges, and suggested actions to address them.
 - WP/30 (Secretariat)
- 4.1.52 This working paper presented an update of the ATFM implementation strategy for the NAM/CAR Regions, aligned with the RPBANIP, a root cause analysis of the regional implementation challenges, and suggested actions to address them.
 - NE/34 (COCESNA)
- 4.1.53 This paper presented an identification of the most common errors detected in the management of flight plans in the Central American FIR, in addition to the actions taken by COCESNA, for the mitigation of those errors, in the short and medium terms.

NE/36 (COCESNA)

- 4.1.54 This paper described the optimization of the infrastructure of the Aeronautical Surveillance System in Central America, with which the area, approach and terminal area control services within the Central American FIR are provided safely and efficiently; using the conventional solutions: SSR, Mode S, and PSR; and the new terrestrial technologies MLAT, ADS-B, ADS-C and satellite ADS-B.
- 4.1.55 COCESNA provided a summary of the total data with which it performs radar data exchange and according to its analysis they have been able to identify the operational benefits, increase air safety and have backup surveillance data for its Operations.
- 4.1.56 COCESNA finally recommended taking into account the technical and operational benefits obtained by sharing radar data and that it is necessary for the States to promote the sharing of surveillance data in the region considering the coverage of the systems, implementing systems that allow the establishment of a network of surveillance, given the requirements for sharing radar data in the region and other users; and finally to promote the establishment of the ADS-B operational concept and the establishment of a mandate for the ADS-B equipment of the Aircraft that overfly the region
- 4.1.57 The Secretariat recommended that the participants review the information provided in Appendix to this working paper
 - IP/06 (United States)
- 4.1.58 This paper presents the status of the U.S. Federal Aviation Administration's (FAA) transition from AIS to AIM in alignment with ICAO's Roadmap.
 - P/03 (Secretariat)
- 4.1.59 This presentation was discussed by the meeting that recognized that to meet new requirements arising from the Global ATM Operational Concept, AIS must transition to the broader concept of aeronautical information management (AIM).
- 4.1.60 In addition, the Meeting agreed to assist the States with the implementation of a global strategy-roadmap for the transition from AIS to AIM, prepared by ICAO HQs, and additional guidance material related to the provision of a standard aeronautical information conceptual model and standard aeronautical information exchange model to enable the global exchange of data in digital and electronic formats and other related SARPs, guidance material and training material as necessary to support AIM implementation.
- 4.1.61 Other important AIM issues mentioned were:
 - New PANS-AIM: the daily book for AIM practitioners
 - New expanded "AIM" manual
 - Implementation strategy to address non-compliances on aeronautical charts

- Regional guidance publicly available
- Regional templates to support national AIM implementation plan & roadmap
- Regional workshops and conferences
- Centralized resources and regional databases
- Intl. organizations providing guidance and tools to support implementation
- Industry offering the technological means and training to go operational now
- P/05 (Frequentis)
- 4.1.62 Under this presentation Frequentis presented its alternatives in terms of communication systems and the monitoring facilities of them. Also presented the projects that have been provided in recent years and their experience in the system implemented in Brazil and indicated that this experience could be very beneficial to be considered for the new development of phase IV of the MEVA network.
 - P/07 (AIREON)
- 4.1.63 Under this presentation, AIREON explained the performance of the ADS-B satellite surveillance and the benefits that the ANSP could achieve with the implementation. It was also indicated that the type of air traffic service depends on the communication system and the performance of the surveillance system for the control of the aircraft. It was also informed that the AIREON ALERT SM system is now open for pre-registration, those interested in aviation can now pre-register for the free aircraft tracking service and Emergency Response Tracking (ALERT), operated by the Aviation Authority of Ireland (IAA). The registration can be done through the following link:

www.aireonalert.com.

- 4.2 Progress on the new version 4.0 of the Regional Performance Based Air Navigation Plan
- WP/14 (Secretariat)
- 4.2.1 This Paper presented the status of the updated RPBANIP, Version 4.0, aligned with the ASBU strategy, with collaboration of the FAA. It was presented to include comments received from the CAR States. The RPBANIP serves as the basis for the implementation of air navigation projects in the CAR Region, reflecting regional and global priorities, from the GANP.
- 4.2.2 The last Meeting of Directors of Civil Aviation was informed about the air navigation key objectives of the RPBANIP version 4.0 to be approved by the States after their review as their reference for their own national Plans.
- 4.2.3 Comments and observations on the revised version of the RPBANIP will be received in the final version 4.0, available at the following link:

- 4.2.4 Under this topic, it was discussed that the tasks of the different task forces are not aligned to the joint tasks that foster the specific regional air navigation objectives. In this sense, IATA expressed its concern on the new capabilities of States' aeronautical infrastructure, because operational benefits are not obtained even having modern equipment.
- 4.2.5 The Meeting indicated the possibility that two or three regional objectives would be generated in a consultative manner that would allow the working groups to focus their activities to achieve these objectives and find the joint tasks in which the work groups have common tasks.
- 4.2.6 This version of the RPBANIP is to be reviewed, commented and approved by the States. In this sense, the following Draft Conclusion was proposed:

DRAFT CONCLUSION						
NI/WG 04/11 REVIEW FOR THE APPROVAL OF VERSION 4.0 OF THE RPBANIP						
What:	Expected impact:					
That considering that the Performance-base Implementation Plan for the CAR Region (CAI basis for the implementation of air navigation is where regional objectives and milestones have upon and priorities Regional air navigation are 1. ICAO identify the three regions be developed more strongly 2020 no later than 30 January 2. That the Working Groups all most the identified regional of the identifi	R RPBANIP) is the n the CAR Region, ave been agreed reflected that: □ Economic □ Environmental □ Operational/Technical □ Operational objectives to during 2019 and a 2019.					
meet the identified regional of than 30 March 2019 .	objectives no later					
Why:	<u>, </u>					
Update for cycle change of the document and in preparation for new CAR eANP Vol. III						
When: 30 March 2019.	Status: ⊠ Valid / □ Superseded / □ Completed					
Who: States ICAO Other:						

4.3 Progress report by States of Adopted Aviation System Block Upgrades (ASBU) B0 Modules

- WP/05 (Secretariat)
- 4.3.1 This Working Paper presented the progress of FAA transition to AMHS and support for remaining legacy X.25 AFTN connections after decommissioning of its X.25 network.
 - P/02 (Jamaica)
- 4.3.2 Under P/02, the Meeting was informed of the progress of Jamaica's ASBU implementation. The presentation covers the details progress of each ASBU module implementation to enhance Jamaica's air navigation system. The challenges faced by Jamaica, and solutions, were outlined on this presentation, that may serve as a reference for other States of the Regions.
 - 4.4 Project RLA/09/801 Multi-Regional Civil Aviation Assistance Programme (MCAAP)
 - WP/16 (Secretariat)
- 4.4.1 The implementation results of Project RLA/09/801 *Multi-Regional Civil Aviation Assistance Programme (MCAAP)* developed during 2017 and the first semester of 2018 for the assessment of participants were presented, proposing the following points:
 - Haiti commented that it has recently signed a contract with THALES to obtain an AMHS system
 to meet its needs on aeronautical messaging and requested that the MCAAP could support it
 with an AMHS implementation assistance mission.
 - Jamaica indicated that it requires a technical assistance mission in support of the NAM/ICD implementation with Cuba and the ASIA/PAC protocol, for which it requires an AIDC assistance mission to support the automatized protocol implementation.
 - The Meeting discussed on the need of developing a regional workshop to create awareness of
 the project development oriented to results development, risk analysis and basic requirements,
 aligned to regional and global air navigation objectives and including standardization and
 harmonisation needs in the region.
 - WP/26 (Secretariat)
- 4.4.2 In order to assist the CAR Region in the compliance with agreed PBN implementation targets, the Secretariat used the resources available through Project RLA/09/801 —MCAAP for the completion of a Performance-Based Navigation (PBN) Airspace Concept Document for the CAR Region. Using the recognized skills, experience and outstanding knowledge of experts from Cuba, Dominican Republic, Trinidad and Tobago and COCESNA, the Secretariat was able to complete this important document for the objectives mentioned in WP/26, Section 2.

- 4.5 Review of the ICAO NACC Regional Office No Country Left Behind (NCLB) Strategy
- P/01 (Secretariat)
- 4.5.1 Under P/01, the Secretariat explained the ICAO NACC Regional Office strategy to face the correct implementation of the Standards and Recommended Practices (SARPs). The Sistemic Assistance Programme (SAP) ensures the SARPs correct implementation in the NAM/CAR Regions through five implementation phases, the last one was recently developed with the aim of maintaining the results obtained through the four previous phases. The Programme supports the implementation and at the same time supports States to achieve adequate implementation levels and prepare them for the ICAO Universal Safety Oversight Audit Programme (USOAP).

Agenda Item 5: Other Business

Under this Agenda Item, the following information papers were discussed:

- IP/02 (Secretariat)
- 5.1 This working paper presented relevant information regarding actions taken by the Aviation Security Cybersecurity Programme of the ICAO/LACAC NAM/CAR and SAM Aviation Security and Facilitation Regional Group (AVSEC/FAL/RG).
 - IP/10 (United States)
- In accordance with ICAO Assembly Resolution A39-19, the FAA has worked with partners at ICAO as well as with regional partners to identify threats and risks from possible cyber incidents on civil aviation operations and critical systems and to encourage the development of a common understanding of cyber threats, risks and cyber-incident mitigation among partners. As such, the FAA proposed a model of regional cyber tabletop exercises utilizing facilitated discussion of scenarios designed to be an open, thought-provoking exchange of ideas on various issues regarding a hypothetical and simulated cyber incident. This exercise can be used to enhance general awareness, validate current plans and procedures, and assess the systems and activities that lie within the framework of cyber incident response and recovery.

APPENDIX A EXECUTIVE LIST OF CONCLUSIONS

Number	Conclusion	Responsible for Deadline action				
C/01	AVAILABILITY OF DOC 10066 – PANS-AIM					
	That, ICAO NACC Regional Office communicates ICAO Headquarters the Region States concern on the lack of availability of PANS AIM and other reference material for the transition to AIM, according to the ICAO roadmap					
C/02	GREATER SUPPORT FROM STATES AND AIRPORT OPERATORS TO AGA/AOP, MET AND SAR TASK FORCES					
	That, States/Territories, International Organizations and airport operators (operational staff), show a stronger commitment and take more effective action in support of GREPECAS AGA, MET and SAR harmonized Projects, and designate experts as focal points by 31 October 2018, in order to support the implementation of Aerodrome Certification, Meteorology and Search and Rescue activities through the integration into the ANI/WG.	States, International Organizations	31 October 2018			
C/03	CAR REGIONAL CONTINGENCY PLANNING AND RESPONSE STRATEGY					
	That, States and Territories of the NAM/CAR Region:					
	a) Update their ATS contingency plans, and submit their updated contingency plans to the ICAO NACC Regional Office by 31 October States 2018;					
	b) Endorse and collaborate to develop and implement the CAR Regional Contingency Coordination Team (CCT); and	States	31 October 2018			
	c) As part of the CAR Regional Contingency Coordination Team (CCT), each State and territory shall update their point(s) of contact for contingency situations, and submit this information to the ICAO NACC Regional Office by October 31 2018.	States				

Number	Conclusion	Responsible for action	Deadline	
C/04	DEVELOPMENT OF THE CAR REGIONAL SAR PLAN			
	That, in order to support SAR implementation in the CAR Region, the ANI/WG:			
	a) Establish an ad-hoc group to draft the Regional SAR implementation Plan for the CAR Region and draft a regional SAR Plan. This regional plan shall include concrete recommendations to address regional SAR support, identifying ongoing regional initiatives and opportunities to enhance them at a wider level;			
	b) This Ad hoc group will be composed by the following States, Territories and International Organizations:	States	1 December 2018	
	 Cuba (IACC) Dominican Republic (IDAC) United States (US Coast Guard) Trinidad and Tobago (TTCAA) COCESNA 			
	c) This SAR ad-hoc group shall present its results to the ICAO NACC Regional Office no later than December 1st 2018			
C/05	REVIEW THE PROPOSAL TO AMEND THE CAR/SAM ATFM CONOPS			
	That, the ATFM Task Force:			
	a) Review the proposal to amend the CAR/SAM ATFM CONOPS, and submit its results to the ICAO NACC Regional Office by 1 October 2018	ATENA Tools Fores	1 October 2010	
	b) Develop a road map to describe future developments for ATFM Implementation in the CAR Region.	ATFM Task Force	1 October 2018	

C/06	SUPPORT NAM/CAR SMS IMPLEMENTATION FOR ANS			
	That, in order to support SMS implementation for ANS in the NAM/CAR Regions:			
	a) The ICAO NACC Regional Office continue working to support the initial implementation of SMS in the CAR Regions' ANSPs and the acceptance on behalf of the regulators;		31 December 2018	
	b) States and Territories of the NAM/CAR Regions work to harmonize SMS requirements for ANSPs, including Safety Performance Indicators; and	States, ICAO, GREPECAS GTE GROUP		
	c) Suggest the GREPECAS GTE to consider expanding its scope to include among its activities the establishment of a safety information exchange network related to safety performance measurement of air navigation services.	divoor		
C/07	REGIONAL STRATEGY FOR THE MANAGEMENT OF THE RADIOELECTRIC SPECTRUM FOR AERONAUTICAL SERVICES			
	That, the States support the work of the MEVA Ad hoc Group for the management of the information and activities to be developed for a harmonized and regional management of the aeronautical frequencies in the NAM/CAR Regions and provide the names of the persons in each State that will support the tasks of this Ad hoc group	States	30 September 2018	
C/08	PROVIDE POINT OF CONTACT (POC) RESPONSIBLE FOR MANAGEMENT AND MAINTENANCE OF AMHS OR AFTN			
	That, the States provide by 30 September 2018, the PoC of their State responsible for the technical management of the AMHS or AFTN system. ICAO will have available this information for use by the States.	States	30 September 2018	

C/09	ANALYSIS OF CURRENT PBN IMPLEMENTATION STATUS IN THE NAM/CAR REGIONS AND PROVIDING INDIVIDUAL PLANS FOR STATES/TERRITORIES/INTERNATIONAL ORGANIZATIONS		
	That, in order to determine the current status of PBN implementation in the NAM/CAR Regions, determine the roadblocks to implementation and identify ineffective initiatives used on past PBN projects: a) The ICAO NACC Regional Office promulgate survey developed by the PBN TF to NAM/CAR States/Territories/International Organizations by 30 September 2018; b) States/Territories/International Organizations provide accurate responses to the survey by 31 December 2018 and provide evidence where implementation of tasks are stated as completed; and c) the PBN TF conducts analysis on each survey response and provides individual assessments to the ICAO NACC Office by 31	States, ICAO, ANI/WG PBN/TF	31 May 2019
C/10	May 2019; FEASIBILITY STUDY ON THE ESTABLISHMENT OF A FLIGHT PROCEDURE PROGRAMME (FPP)		
	That, taking into consideration ICAO Assembly Resolution A39 – 14, where States are urged to utilize FPPs for PBN implementation, the PBN Task Force in collaboration with the ICAO NACC Regional Office should: a) promulgate a survey form by 30 September 2018, which seeks to identify which States/Territories/International Organizations require assistance in procedure design; b) identify the resources required for the establishment of a FPP within the Region; and c) provide a report to the ICAO NACC Regional Office with appropriate recommendations by 30 April 2019.	States, ICAO, ANI/WG PBN/TF	30 April 2019

C/11	REVISION FOR THE APPROVAL OF VERSION 4.0 OF THE RPBANIP		
	That considering that the Performance-based Air Navigation Implementation Plan for the CAR Region (CAR RPBANIP) is the basis for the implementation of air navigation in the CAR Region, where regional objectives and milestones have been agreed upon and priorities Regional air navigation are reflected that:		
	1. ICAO identify the three regional objectives to be developed more strongly during 2019 and 2020 no later than 30 January 2019.	States ICAO	30 March 2019
	2. That the Working Groups align their tasks to meet the identified regional objectives no later than 30 March 2019.		

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State's Surveillance Information

No.	State/ Estado	Facility Name/ Nombre de Facilidad	Type/Tipo (PSR, SSR, MSS-S, MLAT, ADSB)	Supplier/ Proveedor	Model/ Modelo	ASTERIX Protocol Provided/ Tipo de protocolo Asterix que proporciona	Geographic Location/ Ubicación Coordenadas Geograficas	Height / Altitud (Above Sea level/Mts respecto al mar)	INTERROGADO R CODE (II) (If Assigned/Si lo tiene asignado)	Observaciones
1	2	3	4	5	6	7	8	9	10	11
1	Belize / COCESNA	BELICE	MSSR/Modo S	INDRA	IRS 20 MP/S+ADS B	cat 1/2	17° 32' 27" N 88° 18' 21" W	20	9	
2	Costa Rica / COCESNA	POAS	MSSR/Modo S	INDRA	IRS 20 MP/S+ADS B*	cat 34/48	10° 10' 36" N 84°14' 27" W	2700	3	
3	Costa Rica / COCESNA	MATA DE CAÑA	MSSR/Modo S	INDRA	IRS 20 MP/S+ADS B*	cat 34/48	10° 07′ 59" N 85° 37′ 53""W	1200	4	
4	Islas Cayman / COCESNA	GRAN CAYMAN	MSSR/Modo S	INDRA	IRS 20 MP/S+ADS B	cat 34/48	19° 17′ 50" N 81° 21′07′" W	30	1	
5	El Salvador / COCESNA	OJO DE AGUA	MSSR	INDRA	IRS 20 MP/L	cat 1/2	13° 37' 22" N 89° 03' 44" W	1100	n/a	
6	Honduras / COCESNA	MONTECRUD O	MSSR/Modo S	INDRA	IRS 20 MP/S+ADS B	cat 34/48	13° 57' 46" N 87° 06' 08" W	2100	6	
7	Honduras / COCESNA	DIXON HILL	MSSR/Modo S	INDRA	IRS 20 MP/S+ADS B*	cat 34/48	16° 20' 08" N 86° 31' 21" W	200	7	
8	Nicaragua / COCESNA	PUERTO CABEZAS	MSSR/Modo S	INDRA	IRS 20 MP/S+ADS B*	cat 34/48	14° 03' 16" N 83° 22' 57" W	30	2	
9	Guatemala / COCESNA	CERRO SANTIAGO	MSSR/Modo S	INDRA	IRS 20 MP/S+ADS B*	cat 34/48	14° 31' 17" N 90° 08' 55" W	2200	5	
10	Nicaragua / COCESNA	MANAGUA	MSSR/Modo S	INDRA	IRS 20 MP/S+ADS B*	cat 34/48	15° 26' 45" N 87° 56' 02" W	1100	8	

^{*} ADS-B Updates will be concluded starting 2018/La actualización con ADS B se concluirá a inicios del 2018