ICAO International Civil Aviation Organization
North American, Central American and Caribbean Office

Fifth NAM/CAR Air Navigation Implementation Working Group Meeting

(ANI/WG/5)

Final Report

Mexico City, Mexico, 27 – 31 May 2019

Prepared by the Secretariat

October 2019

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4-3 ATS Facilities, Tower Systems, Approach, Route, etc.
4.4 Systems to support the operation of airports.

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HISTORICAL

ii.1 Place and Date of the Meeting

The Fifth NAM/CAR Air Navigation Implementation Working Group Meeting (ANI/WG/5) was held in Mexico City, Mexico, from 27 to 31 May 2019

ii.2 Opening Ceremony

Mr. Melvin Cintron, Regional Director of the North American, Central American and Caribbean (NACC) Office of the International Civil Aviation Organization (ICAO) provided opening remarks. Mr. Julio Mejía, Chairperson of the Meeting, welcomed the participants 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) and Mr. Eddian Méndez, Regional Officer, Air Traffic Management and Search and Rescue (ATM/SAR) from the ICAO NACC Regional Office.

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 16:00 hours daily with adequate breaks.

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 Valid Conclusions/Decisions of the ANI/WG/04, NACC/WG/05 and GREPECAS/18 Meetings

2.1 Introduction
2.2 Follow-up and performance and monitoring assessment of the NAM/CAR Regional Performance-Based Air Navigation Implementation Plan (RPBANIP)
2.3 Progress reports of the Task Forces of the ANI/WG. States´ implementation status.
2.4 Progress report by States of Adopted Aviation System Block Upgrades (ASBU) B0 and B1 Modules
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Agenda Item 3: Global and Regional Air Navigation Developments

3.1 Regional electronic Air Navigation Plan (eANP) progress and the CAR Regional Performance-Based Air Navigation Implementation Plan (PRPBANIP) new ver 4.0
3.2 Project RLA/09/801 — *Multi-Regional Civil Aviation Assistance Programme* (MCAAP) outcomes
3.3 Other Global and Regional Air Navigation developments

Agenda Item 4: Industry Participation, Presentations and Conferences

4.1 Facilities for the implementation of Aeronautical Information and Data management (Aeronautical Information Management (AIM), Collaborative Decision Making (CDM), Air Traffic Flow Management (ATFM), System Wide Information Management (SWIM), Aeronautical Meteorology (MET))
4.2 Promotion of the development of the Communication, Navigation and Surveillance (CNS) infrastructure (radars, ADS-B Systems, Air Navigation Systems, GNSS, Radio Communication Systems and ATS Communication Systems, Data Recording Systems, Aeronautical Message Handling Systems (AMHS), Others)

4.3 ATS Facilities, Tower Systems, Approach, Route, etc.
4.4 Systems to support the operation of airports.

Agenda Item 5: Other Business

ii.7 Attendance

The Meeting was attended by 12 States/Territories from the NAM/CAR Regions and 3 International Organizations/Industry, totalling 71 delegates as indicated in the list of participants.

ii.8 Conclusions and Decisions

ii.8.1 The Meeting recorded its activities as Conclusions and Decisions as follows:

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** to this report.

ii.8.2 List of Conclusions/Decisions

List of Conclusions

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ii.9 List of Working and Information Papers and Presentations

Refer to the Meeting web page:

https://www.icao.int/NACC/Pages/meetings-2019-aniwg5.aspx

WORKING PAPERS

Number	Agenda Item	Title	Date	Prepared and Presented by
WP/01	1	Provisional Agenda and Schedule of the Fifth NAM/CAR Air Navigation Implementation Working Group Meeting (ANI/WG/5)	21/03/19	Secretariat
WP/02	3.3	Free Route Airspace	16/05/19	IATA
WP/03	2	Review and Follow-Up to Relevant and Valid Conclusions/Decisions of the ANI/WG/4, NACC/WG/5 and GREPECAS/18 meetings	07/05/19	Secretariat
WP/04	2	Implementation of Automatized Protocols in NAM/CAR Regions	16/05/19	Secretariat
WP/05	2.1.3	AGA, MET, and SAR Integration Proposal for the ANI/WG	25/04/19	Secretariat
WP/06	2.1.2	States Action Plans on CO2 Emissions reduction activities for International Civil Aviation	24/05/19	Secretariat
WP/07	2.1.1	ADS-B Implementation in the NAM/CAR Regions	21/05/19	Secretariat
WP/08	2.1.1	Progress Report on ASBU Task Force Work Programme	06/05/19	ASBU/TF Rapporteur
WP/09Rev	2.1.1	Progress Report on PBN Task Force Work Programme	21/05/19	PBN/TF Rapporteur
WP/10	2.1.1	Progress Report on ATFM Task Force Work Programme	07/05/19	ATFM/TF Rapporteurs

WORKING PAPERS

Number	Agenda Item	Title	Date	Prepared and Presented by
WP/11	2.1.1	Progress Report on SAR Task Force Work Programme	16/05/19	SAR/TF Rapporteur
WP/12	2.1.1	Progress Report on AIM Task Force Work Programme	24/05/19	AIM/TF Rapporteur
WP/13	2.1.1	Progress Report on AIDC/FPL Task Force Work Programme	23/05/19	AIDC/FPL/TF Rapporteur
WP/14	2.1.1	Progress Report on SURV Task Force Work Programme	10/05/19	SURV/TF Rapporteur
WP/15	2.1.1	ANI/WG Aeronautical Message Handling System (AMHS) Implementation Task Force Progress Report	08/05/19	AMHS/TF Rapporteur
WP/16	3.2	Review of the Implementation of RLA/09/801 Project Activities	16/04/19	Secretariat
WP/17	3	Update and Publication of the Airport Obstacle Chart	07/05/19	Secretariat
WP/18	3	Regional challenges and objectives in the MET area	27/05/19	Secretariat
WP/19	2.2	Progress Report on Regional Contingency and Emergency Planning and Response	22/05/19	Secretariat
WP/20	3	NACC Regional Plan for Collaborative Aeronautical Information Management (AIM)	21/05/19	Secretariat
WP/21	2.1	Air Navigation Implementation Working Group (ANI/WG) Progress Report	24/05/19	ANI/WG Chairman
WP/22	3	Presentation of Deficiencies, Challenges, and Regional Objectives in the AGA Area	25/04/19	Secretariat
WP/23	5	Annex 1 Amendment Proposal and AIM Training Curriculum Standardization	30/05/19	AIM/TF Rapporteur

INFORMATION PAPERS

Number	Agenda Item	Title	Date	Prepared and Presented by
IP/01	-----	List of Working, Information Papers and Presentations	05/04/19	Secretariat
IP/02	2	Necessity of the states and service providers to access Updated aircraft type databases	10/05/19	Cuba
IP/03	3	Next ICAO Assembly	28/05/19	Secretariat
IP/04	2.1.2	Progress in the Implementation of Block 0 of ASBU Module DATM, in Cuba	10/05/19	Cuba

INFORMATION PAPERS

Number	Agenda Item	Title	Date	Prepared and Presented by
IP/05	2.1	Analysis of the Most Common Flight Plans Errors Received in Havana FIR	10/05/19	Cuba
IP/06	2.1	MET Implementation Progress in Cuba	10/05/19	Cuba
IP/07	2.1	Overview of the FAA's Operational Evaluation of Space-Based ADS-B in the Caribbean	21/05/19	United States
IP/08	2.1	Access to United States ADS-B Airspace after January 1, 2020	21/05/19	United States
IP/09	2.1.2	ICAO NACC Regional Approach to Support States to Prepare National Air Navigation Plans (ANPs) Aligned with ASBU Block 0	21/05/19	Secretariat/ASBU Rapporteur

PRESENTATIONS

Number	Agenda Item	Title	Presented by
1	3	ICAO SWIM Context	Secretariat
2	3.1	Challenges and Objectives Regional Work	Secretariat
3	2.1.2	ASBU TF Progress Report	ASBU/TF Rapporteur

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

1.1 Under the WP/01, the Secretariat invited the Meeting to approve the provisional agenda and schedule. 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 Valid Conclusions/Decisions of the ANI/WG/04, NACC/WG/05 and GREPECAS/18 Meetings

2.1 Introduction

2.1.1 WP/03 presented an overview of the tables of valid conclusions and decisions of the NAM/CAR Air Navigation Implementation Working Group Meeting (ANI/WG), North American, Central American and Caribbean Working Group Meeting (NACC/WG), and CAR/SAM Regional Planning and Implementation Group (GREPECAS) Meeting to the participants.

2.1.2 The status and follow-up comments were the result of a review completed by the Secretariat based on available information from the States. The status for each Conclusion or Decision was designated as Valid, Completed or superseded. The Secretariat took note from the Meeting recommendation for the next ANI/WG meeting, in order to be more specific providing percentages especially for those Conclusions and Decisions that require a continuous review and follow up, taking into account the pending tasks.

2.1.3 The Meeting was informed that the full text of the Conclusions and Decisions can be found on the respective final reports of each meeting (ANI/WG/04, NACC/WG/05 and GREPECAS/18)

2.2 Follow-up and performance and monitoring assessment of the NAM/CAR Regional Performance-Based Air Navigation Implementation Plan (RPBANIP)

Necessity of the States and service providers to access updated aircraft type databases

2.2.1 IP/02 presented the need of the States and Service Providers in order to have access to updated aircraft type databases, and technical parameters of the most recent aircraft models.

MET implementation progress in Cuba

2.2.2 Under IP/06, Cuba presented the progressive developments on the implementation of its Aeronautical Meteorology (MET) service indicating the fulfillment of the proposed implementation goals in support of greater efficiency and safety.

2.2.3 The Meeting agreed the following Conclusion:

<table>
<tr><td colspan="3">CONCLUSION
ANI/WG/5/01 MET IMPLEMENTATION PROJECT</td></tr>
<tr><td colspan="2">What:
That, for the MET implementation programme updating NACC States and Territories inform the Secretariat of the implementation mechanisms they have been using, the challenges they face and their assistance needs by 30 June 2019.</td><td>Expected impact:
☐ Political / Global
☒ Inter-regional
☐ Economic
☒ Environmental
☒ Operational/Technical</td></tr>
<tr><td colspan="3">Why:
Is necessary that the ANIWG support MET implementation activities and ensure harmonization in the work of ANS.</td></tr>
<tr><td>When: 30 June 2019</td><td colspan="2">Status: ☒ Valid / ☐ Superseded / ☐ Completed</td></tr>
<tr><td>Who: ☒ States ☐ ICAO ☒ Other:</td><td colspan="2">International Organizations</td></tr>
</table>

Analysis of the most common Flight Plan errors received in Havana FIR

2.2.4 IP/05 described the most common Flight Plans errors.

2.3 Progress reports of the Task Forces of the ANI/WG States´ implementation status

Progress Report of the ANI/WG Performance Based Navigation Task Force (PBN/TF)

2.3.1 WP/09 presented the progress achieved by the PBN/TF since its previous progress report presented to the Fourth NAM/CAR Air Navigation Implementation Working Group Meeting (ANI/WG/4). This paper included the results for previously identified deliverables and recommendations to improve the TF work programme. In addition, some challenges for implementation remain relevant; the PBN/TF adjusted its work programme to address them.

2.3.2 In addition to the previously reported roadblocks, such as lack of available training, lack of subject matter expertise, and of financial and human resources, a major impediment to harmonization is the lack of coordination of Performed Based Navigation (PBN) initiatives amongst adjacent Flight Information Regions (FIRs)/Terminal Control Areas (TMAs). Within the CAR Region especially, there are many adjoining FIRs which not only share boundaries with CAR States, but also with NAM/SAM Regions States. In 2017, the Task Force (TF) divided the CAR airspace into four (4) subsections, [E/CAR, C/CAR (East), C/CAR (West) and Central America (CA)] and elected "Champions" to lead the coordination efforts. This was done with the hope that each subsection would find it easier to coordinate amongst themselves and alleviate the inherent issues which may occur in larger groups. Discussions held during the ANI/WG PBN Implementation Task Force meeting (ANI/WG/PBN/TF) in Mexico City, Mexico, from 22 to 25 April 2019, revealed that while the system appears to be working well within the E/CAR and Central American subsections, there are still some coordination issues amongst some FIRs within the Central Caribbean. Additionally, coordination with adjacent SAM FIRs has also been problematic for some CAR FIRs.

2.3.3 The following States reported Area Navigation (RNAV) 5 route implementation as of 31 January 2019:

- The Havana FIR (Cuba) implemented sixteen (16) new RNAV 5 routes.
- The Central American FIR implemented five (5) new RNAV5 routes.
- The Kingston FIR (Jamaica) implemented nine (9) new RNAV 5 routes.
- The Piarco FIR (Trinidad and Tobago) implemented three (3) new RNAV 5 routes
- The San Juan FIR (Puerto Rico) implemented three (3) new RNAV 10 routes
- The Santo Domingo FIR (Dominican Republic) implemented four (4) new RNAV 5 routes.

2.3.4 The Florida Metroplex route system (Q and Y routes) was implemented on 8 November 2018. The Jacksonville Centre (ZJX), Miami Centre (ZMA) and San Juan Centre (ZSU) utilize this new route structure.

2.3.5 The ICAO South American (SAM) Regional Office requested that an Air Traffic Management (ATM) expert from the CAR Region should join as part of the ATM team to develop the SAM Route Optimization (RO) version 5. COCESNA agreed to support this project, providing an ATM Expert, to assist the initial coordination of the proposal of the CAR/SAM interface routes. The activities involved face to face work in the ICAO SAM Regional Office in Lima, Peru. The SAM Team (2 specialists from Peru and 1 specialist from Venezuela) met from 11 February to 1 March 2019. COCESNA joined the meeting from 25 February to 1 March 2019. During the ANI/WG/PBN/TF Meeting, 22 – 25 April 2019, the PBN Task Force (TF) discussed the proposals and representatives were asked to provide their responses, presented in Appendix A to WP/09.

2.3.6 The PBN/TF decided to develop a full process for agreement and implementation of airspace optimization. This process is attached as Appendix C to WP/09. The TF also agreed that the next target date for the regional route implementation would be 25 February 2021.

2.3.7 The Secretariat informed the PBN/TF on the current challenges faced to ensure the ICAO Standards and Recommended Practices (SARPs) compliance and the maintenance of the ICAO International Codes and Routes Designators (ICARD) database for routes and Five-letter name codes (5LNCs). The situation related to 5LNCs and Air Traffic Services (ATS) routes designators requires a significant amount of work and was included in the PBN/TF priorities. During the TF meeting, it was decided that the ICAO NACC Regional Office send a request to States, Territories and ATS service providers of the CAR Region to submit a list of all their published regional ATS routes and 5LNCs to the ICAO NACC Regional Office by 31 July 2019, using the template which will be sent for this purpose.

2.3.8 From 8 to 11 May 2018 a team of PBN Subject Matter Experts met at the ICAO NACC Regional Office, Mexico City, Mexico, to develop a model structure for airspace and Terminal Control Areas (TMAs) that allows continuous flow in the upper and lower airspace of contiguous FIRs and TMAs, proposing a possible solution to the complex structure of the existing FIRs in the CAR Region. Phase 1 of the project, Concept
Development, was completed in 2018 and in order to gather the information required to continue with the following phases (Phase 2 - Data Collection and Analysis and Phase 3 - Assessment and Development of Individual Plans), a letter was sent to States and Territories providing ATS in the CAR Region, including a survey to assess their PBN implementation status. Only 6 States/Territories and 1 International Organization responded the survey, which caused a delay in the completion of the Sub-Project. The participants agreed that one of the causes that could have affected the response to the survey is that communications reached high level officers of the State/Territory, who not necessarily understood the implications of it. Sometimes, when not knowing what to do with these communications, they are filled out without redirecting them to ATS personnel, who have control over the information required to provide an appropriate reply. As a result, the TF agreed that the ICAO NACC Regional Office should resend the States/Territories PBN Implementation Status Form to the PBN/TF Members and Points of Contact in order to obtain their official response by 31 August 2019.

2.3.9 The work and nature of the Task Force demands a significant work load from its members. The TF has focused on the development of deliverables that, subsequently, support the harmonized implementation of the main objectives. In this sense, it is necessary that the civil aviation authorities that have designated members in the TF provide sufficient support to comply with agreed activities, in this regard the following conclusion was reached:

<table>
<tr><td colspan="3">CONCLUSION
ANI/WG/5/02 SUPPORT PBN IMPLEMENTATION INITIATIVES IN THE NAM/CAR REGIONS</td></tr>
<tr><td colspan="2">What:

That, in order to support the current PBN initiatives in the NAM/CAR Regions and to overcome ineffective initiatives utilized on past PBN projects;

a) Encourage States, Territories, and International Organizations to participate in the ICAO CAR Region PBN Survey and provide accurate, updated information which would then allow the PBN/TF to provide a proper analysis on their PBN implementation status by 31 December 2019;

b) Encourage States, Territories and International Organizations to participate in a regional project to harmonize both the upper and lower level airspace routes within the NAM/CAR/SAM Regions by 31 December 2019; and

c) Request States, Territories and International Organizations represented in the PBN/TF to provide sufficient support to their personnel in order to comply with agreed activities by 31 December 2019.</td><td>Expected impact:

☐ Political / Global
☒ Inter-regional
☒ Economic
☒ Environmental
☒ Operational/Technical</td></tr>
<tr><td colspan="3">Why:

To provide adequate support for NAM/CAR Regions PBN implementation</td></tr>
<tr><td>When: 31 December 2019</td><td colspan="2">Status: ☒ Valid / ☐ Superseded / ☐ Completed</td></tr>
<tr><td>Who: ☒ States ☐ ICAO ☒ Other:</td><td colspan="2">ANI/WG PBN/TF</td></tr>
</table>

2.3.10 During the ANI/WG/4 Meeting, the PBN/TF noted that there were elements within the work programme that might need to be amended. The TF also recognized the need to re-evaluate the Regional Performance Objectives (RPOs) within the NAM/CAR Regional Performance-Based Air Navigation Implementation Plan (RPBANIP). It was agreed that amendments to the RPOs would drive the PBN/TF work programme. During the PBN/TF meeting in April 2019, the PBN/TF proposed to update the PBN RPOs within the RPBANIP and consequentially amended its work programme. The proposed RPOs are presented as Appendix D to WP/09 and the amended work programme as Appendix E to WP/09. The following decision was formulated:

<table>
<tr><td colspan="4">DECISION
ANI/WG/5/03 AMENDMENT OF THE IMPLEMENTATION OF PBN NAM/CAR</td></tr>
<tr><td colspan="3">What:

That, in order to maintain up to date the regional planning and initiatives to support the implementation of PBN in the NAM/CAR Regions;

a) the proposed update to the PBN RPO presented by the PBN/TF is approved;

b) the PBN/TF Work Programme for 2019-2023 is endorsed; and

c) the PBN/TF to submit annual progress reports to the ANI/WG.</td><td>Expected impact:

☐ Political / Global
☒ Inter-regional
☒ Economic
☒ Environmental
☒ Operational/Technical</td></tr>
<tr><td colspan="4">Why:

To establish and provide adequate guidance for NAM/CAR Regions PBN implementation</td></tr>
<tr><td colspan="2">When: 31 May 2019</td><td colspan="2">Status: ☒ Valid / ☐ Superseded / ☐ Completed</td></tr>
<tr><td colspan="2">Who: ☒ States ☒ ICAO ☒ Other:</td><td colspan="2">ANI/WG PBN/TF</td></tr>
</table>

Progress Report on Air Traffic Flow Management Implementation Task Force (ATFM/TF) Work Programme

2.3.11 WP/10 presented the progress achieved by the ATFM/TF since its previous progress report to the ANI/WG/4 in Miami, United States, held from 21 to 24 August 2018. This Working Paper included the results for previously identified deliverables and recommendations for improving the Task Force function and coordination.

2.3.12 The TF held web conference meetings since August 2018 on information of the current TF participants and ATFM capabilities. The web conferences provided updates on data sharing from the United States Federal Aviation Administration (FAA) and the experience of Trinidad and Tobago sharing the benefits of data exchange through System Wide Information Management (SWIM). They also provided an opportunity to discuss the routes used during high volume seasonal traffic and the contingency plans during hurricane operations.

2.3.13 The NAM/CAR ATFM/TF and CANSO Air Traffic Flow Management Data Exchange Network for the Americas (CADENA) agreed to work together through the ANI/WG ATFM/TF co-rapporteurs: Mr. Greg Byus and Mr. Roosevelt Peña. In addition, the ANI/WG ATFM/TF is working on reviewing the CAR/SAM ATFM Concept of Operations (CONOPS).

2.3.14 The ATFM Task Force proposed an update to the ATFM related RPOs in the RPBANIP Implementation of Flexible use of airspace and improve demand and capacity balancing. The revised RPOs are included as Appendix B to WP/10. The changes include an update of the dates, removal of some tasks considered to be completed, amendment of current tasks for clarification and the inclusion of new tasks in line with current situation and expected goals. Therefore, the Meeting formulated the

<table>
<tr><td colspan="3">DECISION
ANI/WG/5/04</td><td colspan="2">AMENDMENT OF THE IMPLEMENTATION OF FLEXIBLE USE AIRSPACE (FUA) AND IMPROVE DEMAND AND CAPACITY BALANCING (DCB) NAM/CAR REGIONAL PERFORMANCE OBJECTIVES</td></tr>
<tr><td colspan="3">What:

That, In order to maintain up to date the regional planning and initiatives to support the implementation of Flexible Use Airspace (FUA) and Improve Demand and Capacity Balancing (DCB) in the NAM/CAR Regions;

a) is approved the proposed update to the FUA and DCB RPOs presented by the ATFM Task Force;

b) the ATFM Task Force Work Programme for 2019-2020 is endorsed; and

c) the ATFM Task Force to submit annual progress reports to the ANI/WG.</td><td colspan="2">Expected impact:

☐ Political / Global
☒ Inter-regional
☒ Economic
☒ Environmental
☒ Operational/Technical</td></tr>
<tr><td colspan="5">Why:

To establish and provide adequate guidance for NAM/CAR Regions ATFM implementation</td></tr>
<tr><td colspan="2">When: 31 May 2019</td><td colspan="3">Status: ☒ Valid / ☐ Superseded / ☐ Completed</td></tr>
<tr><td colspan="2">Who: ☒ States ☒ ICAO ☒ Other:</td><td colspan="3">ATFM/TF</td></tr>
</table>

2.3.15 The ATFM/TF has been promoting ATFM in the region through the CADENA week and Ad hoc web conferences, CADENA OIS, and CADENA Regional Implementation Group (RIG) meetings. The ATFM/TF and CADENA RIG jointly hosted a meeting in Santo Domingo, Dominican Republic, from 22 to 24 January 2019. During this joint meeting, the ICAO NACC Regional Office presented the points to be considered when integrating two groups: ATFM/TF and CADENA RIG. The two groups are different in nature and scope. The ATFM/TF's main relationship and responsibility is with and for the Civil Aviation Authorities (CAAs) and it has a direct requirement for deliverables related to the RPBANIP. CANSO, and thus CADENA, supports ANSPs. The ATFM/TF examined the original ATFM/TF Work Programme and found that many of its items have been accomplished, or that other work items are more adequately addressed by ANSPs, via CADENA RIG. The ATFM/TF revised its Work Programme to reflect these changes.

2.3.16 The approach for 2019 continues to be sharing best practices, information on demand and capacity balancing, and ATFM capabilities in the region. The TF is encouraging all ANSPs and stakeholders to participate and share information from operations at the airport level through the overlying airspace. With the information available to ANSPs, States can better identify their constraints, implement flow management programmes, improve their arrival and departure rates, and increase capacity for both airports and airspace.

Progress report on the Search and Rescue (SAR) activities

2.3.17 WP/11 presented the progress on the activities related to SAR implementation, from the decisions of the ANI/WG/4.

2.3.18 During the ANI/WG/4, held in Miami, United States from 21 to 24 August 2018, the Secretariat presented the CAR Regional Strategy for SAR Implementation, which proposed establishing an Ad hoc Group to plan SAR implementation for the CAR Region and draft a SAR regional plan. This Ad hoc Group was composed of Cuba, Dominican Republic, Trinidad and Tobago, United States (United States Coast Guard), and the COCESNA, having to present their work results to the ICAO NACC Regional Office by 1 December 2018.

2.3.19 Continuing with the proposed works, the Secretariat convened the First Search and Rescue (SAR) Implementation Meeting and NAM/CAR Civic-Military Coordination (SAR/CM), held in Mexico City, Mexico, from 5 to 7 November 2018. This meeting was attended by representatives of 12 States and International Organizations of the CAR Region, including members of the Ad hoc Group.

2.3.20 The SAR Adhoc Group held several teleconferences to coordinate the delegated tasks and worked on the development of the first draft of the CAR Regional SAR Plan (presented as Appendix to WP/11) and considered that the CAR Regional SAR Plan should be the main conceptual document to support the regional implementation of SAR in the Caribbean States. The purpose of this Plan would be to provide a framework to assist CAR States to comply with their accepted obligations under the Chicago Convention, for the harmonized and interoperable delivery of aeronautical and maritime SAR services within the region, and through other regions, where applicable. In this sense the following conclusion was agreed:

<table>
<tr><td colspan="3">CONCLUSION
ANI/WG/5/05 APPROVAL OF THE CAR REGIONAL SAR PLAN AND THE ANI/WG SAR TASK FORCE (SAR/TF)</td></tr>
<tr><td colspan="2">What:
That, in order to support the current SAR initiatives in the NAM/CAR Regions and to achieve the regionally agreed objectives;

a) Approve the CAR Regional SAR Plan, as a regional SAR implementation planning tool, to translate the requirements of Annex 12 - Search and Rescue to the regional context of the Caribbean by 31 December 2019;.;

b) Establish the ANI/WG SAR Task Force, as part of the ANI/WG structure, in order to support SAR implementation in the CAR Region and to lead with activities to support compliance of the RPBANIP Regional performance objectives by 31 December 2019; and

c) The ICAO NACC Regional Office take the necessary measures to ensure the adequate establishment of the ANI/WG SAR Task Force, and convene its first meeting with the SAR activities proposed by the ICAO NACC Regional Office by 31 December 2019.</td><td>Expected impact:
☐ Political / Global
☒ Inter-regional
☒ Economic
☐ Environmental
☒ Operational/Technical</td></tr>
<tr><td colspan="3">Why:
To support SAR implementation in the CAR Region</td></tr>
<tr><td>When: 31 December 2019</td><td colspan="2">Status: ☒ Valid / ☐ Superseded / ☐ Completed</td></tr>
<tr><td>Who: ☒ States ☒ ICAO ☒ Other:</td><td colspan="2">ANI/WG</td></tr>
</table>

ADS-B Implementation in the NAM/CAR regions

2.3.21 Following up on the work of the last two years, the Secretariat presented WP/07 with a summary of the activities that States must develop in the short term to meet the goal of implementing the Automatic dependent surveillance - broadcast (ADS-B) by 1 January 2020. One of the most important activities to develop by the States is to issue the corresponding regulation for the use of the ADS-B, in this regard it is important that the States analyze in the short term how their operations are affected by the implementation of the ADS-B, either by their own implementations or due to its implementation in the States adjacent to its operations. The analysis should include how its operations are affected due to the ADS-B mandatory implementation by the United States effective on 1 January 2020.

2.3.22 It also was recommended to States to take into account certain aspects when developing projects for the implementation of surveillance systems such as, carry out a preliminary evaluation of the implementation of the service by integrating an analysis of it with all interested parties, data for evaluation, risk analysis, among others. The implementation of any surveillance system must ensure that it has carried out the coverage analyzes to ensure that it meets the requirements in this regard. Identify the operational objectives prior to the development of any project and ensure that operational benefits are achieved after implementation.

2.3.23 Therefore, the following conclusion was formulated:

<table>
<tr><td colspan="3">CONCLUSION
ANI/WG/5/06 PROCESS OF IMPLEMENTING THE ADS-B</td></tr>
<tr><td colspan="2">What:

That, States which are in the process of implementing the ADS-B according to the regional goal of 1 January 2020

a) Publish its regulation by 30 October 2019; and

b) States that have not yet done so conduct an analysis on how their operations may be affected by the implementation of the ADS-B in the adjacent States and that they take the necessary measures to carry out actions that may be required by 31 December 2019.</td><td>Expected impact:

☐ Political / Global
☒ Inter-regional
☒ Economic
☐ Environmental
☒ Operational/Technical</td></tr>
<tr><td colspan="3">Why:

To support SAR implementation in the CAR Region</td></tr>
<tr><td>When: 30 October and December 2019</td><td colspan="2">Status: ☒ Valid / ☐ Superseded / ☐ Completed</td></tr>
<tr><td>Who: ☒ States ☒ ICAO ☒ Other:</td><td colspan="2">ANI/WG</td></tr>
</table>

Progress report of the AIDC Task Force

2.3.24 WP/13 indicated the importance of automated protocols due that in the 5th Edition of the Global Air Navigation Plan, the Air Traffic Services Inter-facility Data Communication (AIDC) were indicated as the first step for improvements on Flight and flow-information for a collaborative environment (FF-ICE), ATFM and Collaborative Decision Making (CDM). This positioned the AIDC implementation as a clear priority. Furthermore, the AIDC was identified by the Scrutiny Group (GTE) as a factor that contributes in the reduction of Large height deviations (LHDs), strengthening the incentive to put in operation the AIDC interphases between the FIRs.

2.3.25 The AIDC Task Force informed that up to date 39 interphases are operating, 12 are being tested and 14 are already planned, plus three in implementation status. Two more are still being planned.

2.3.26 The AIDC Task Force also indicated the importance of the States participation in the planned activities, performance metrics and the activities of the working plan focused to reach the regional objectives.

2.3.27 The AIDC/TF requested the AIM and PBN TFs to support the development of tasks requested in the AIDC Meeting report of April 2019, in which was requested that under the tasks of this Tasks Force the following elements could be analyzed.

1. Technical/operative training profile for the use of the AIDC
2. Proposal of a regional agreement for 6 characters in Small Island Developing States (SID) and Standard Instrument Arrival (STAR) names
3. To expose the problem of the lack of availability of the performance data of aircraft types for updating Air Traffic Control (ATC) systems databases.
4. Mechanisms to update ATC systems databases.
5. Registry of the functionalities of the flight plan treatment systems
6. Cases of differences in the interpretation of ICAO documents for the flight plans processing

2.3.28 The Secretariat indicated that these follow-up activities would be carried out through the closure of conclusions of the AIDC Report of April 2019.

Report on the development of the Surveillance Task Force (SURV TF) of the ANI/WG

2.3.29 Through WP/14 the ADS-B implementation status was provided, not only for the NAM/CAR Regions but also for Panama, and the Meeting was invited to carry out actions considered appropriate to comply with the regional agreements in force on surveillance, and to start using the operational ADS-B in all the FIRs of the region by 2020.

Some considerations for the surveillance systems implementation

2.3.30 Nowadays, air controllers are as dependent to surveillance information as they are to communication systems, for that reason bad quality or failure in the surveillance information is unacceptable, and we must know very clearly what are our surveillance needs and requirements and the benefits of each available technology to decide which system to implement.

2.3.31 Majority of States have several radar installations with high maintenance costs and limited benefits to achieve the exigencies of the operational concepts in force and the goals of the different ASBU modules. Furthermore, in much cases they do not satisfy their FIR coverage and have cones of silence, all of which affects the air transit surveillance that makes inevitable the implementation of the new systems with lower installations and maintenance costs, and considerable better benefits, which makes this subject only a matter of which system to implement.

2.3.32 The region has not achieved a 100% surveillance coverage and This is an ideal momentum to achieve this combining the available surveillance systems. For this reason, we must think independently and we must have into account our neighbours and their benefits and needs, and by sharing surveillance data can provide important solutions and savings, considering in addition, the availability of a satellite ADS-B that can be used in some specific regions where is not possible other surveillance system.

2.3.33 With the ADS-B implementation we can obtain an up to one second refreshment of the air transit situation, and receive more information in the data that is received from aircrafts, we know their location independently, based on the on-board global fix systems and ten times lower maintenance costs, in accordance with costs calculations, which allows the development of various ASBU modules, including the fundamental subject on electronic warnings which could have a very important benefit with the ADS-B. The principal inconvenient to achieve its total implementation is the requirement that all the fleet to be controlled must be equipped, which can be progressively resolved in the following years with the entrance in force of its mandatory usage in United States FIRs on 1 January 2020.

2.3.34 Because of the aforementioned, it is necessary a coexistence of the current secondary radars with the new systems in a period that warranties a safe transition in its implementation and the integration of both signals in the automatized representation systems.

2.3.35 In this period a Multilateration (MLAT) system implementation is also possible, fundamentally if it is necessary to control aircrafts without transposing and obtaining the position of the objectives completely independently of the aircraft, due that this system calculates the position of the aircraft based on a Time Division Multiple Access (TDMA) triangulation, but it must define if it would be used only for surveillance with a minimum of stations or for ground movement control, which raises costs and makes more complex the implementation due that all the components need all the energy and connectivity supports with only one ADS-B station, no matter if the provided information is the same provided by the ADS-B.

2.3.36 The commitment of all the States in the region is needed to achieve an effective implementation of the new surveillance systems, comply with the ASBU planned goals and then obtaining important benefits that will be beneficial for the security of the air operations of our region.

Progress report of the AIM Task Force (AIM/TF)

2.3.37 WP/12 urged the States to update the activities of the new version of the AIM/TF Work Programme and Terms of Reference (ToRs), in addition, the AIM Status Survey results were presented (see Fig. 1, Fig. 2, Fig 3 and Fig. 4). This was conducted by the AIM/TF Rapporteur and ICAO during 2019, showing low response from the States (some States show 0%, because they did not provide information to the AIM survey), the available information on the implementation continuity of the transition from AIS to AIM was provided by States and International Organizations showing the progress per phase and the three phases in total per State. In addition, the TF informed as wellon the importance of training, having recognized professional personnel handling the tasks assigned to them. A recognized international training curriculum, licenses etc. are needed.

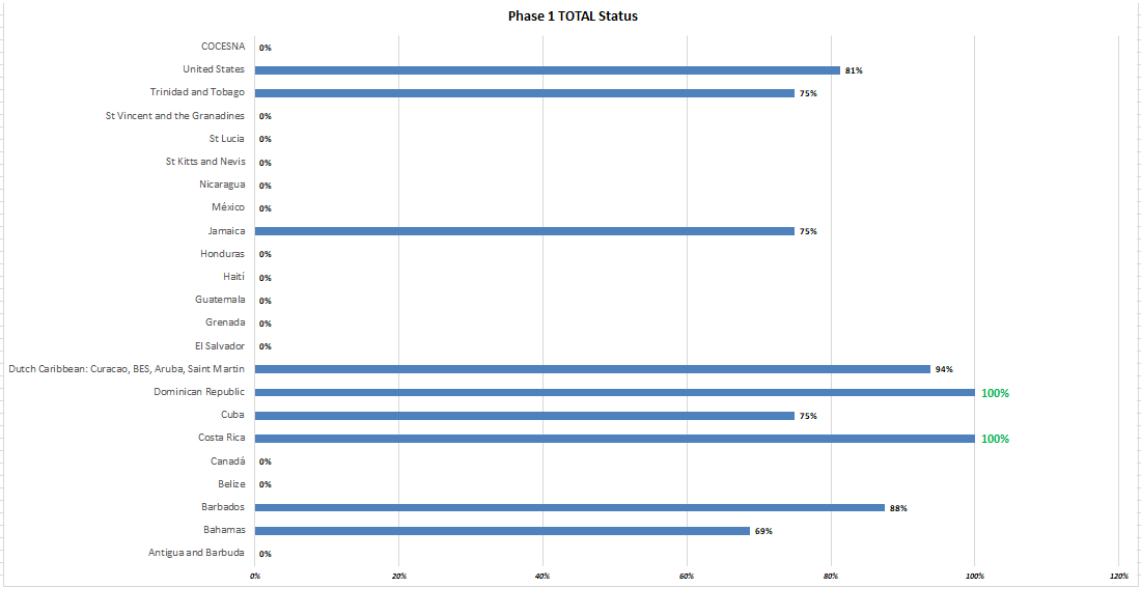

Fig. 01 AIM Status Phase 1

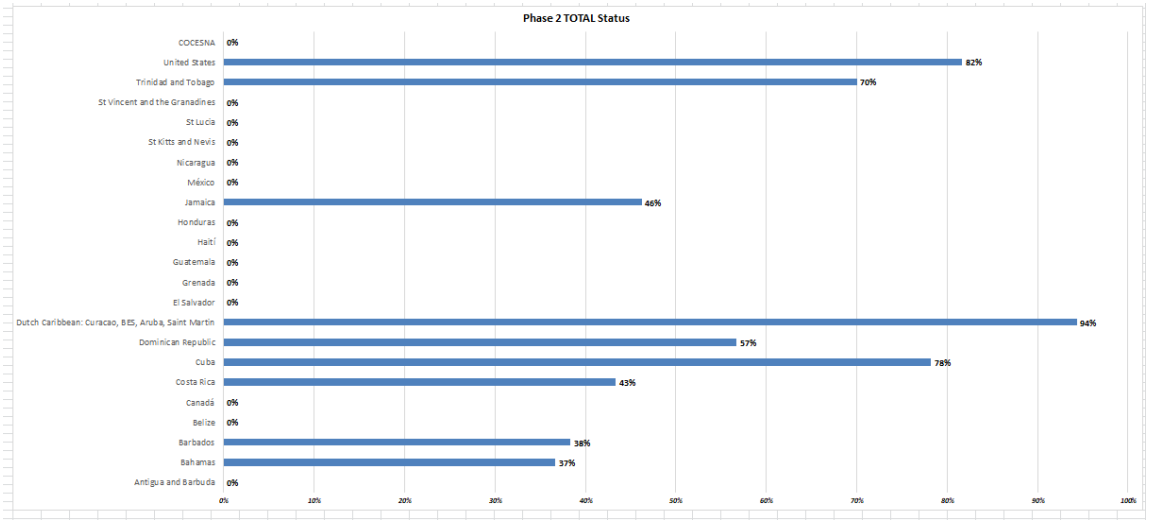

Fig. 02 AIM Status Phase 2

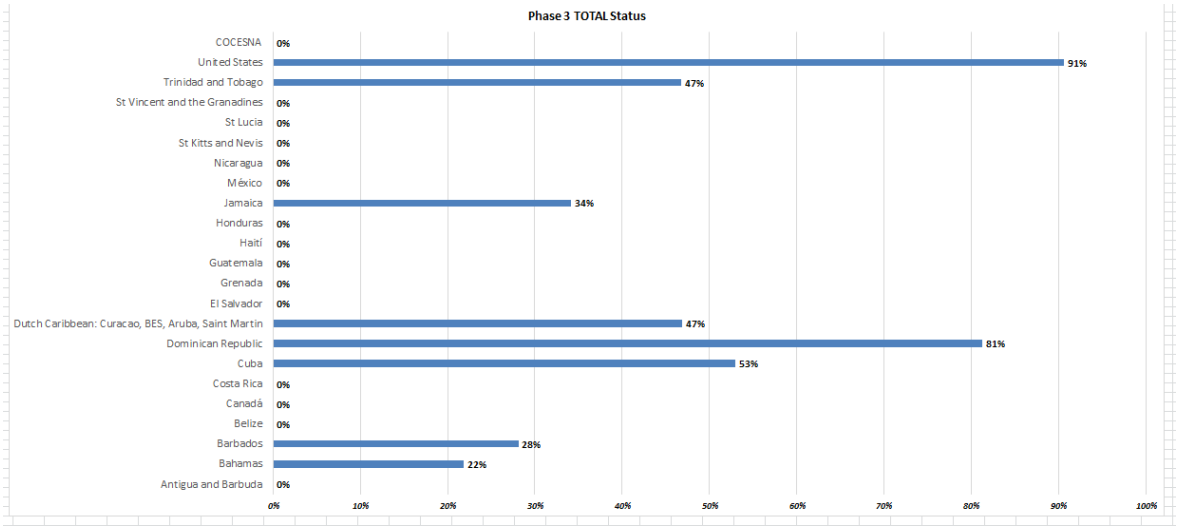

Fig. 03 AIM Status Phase 3

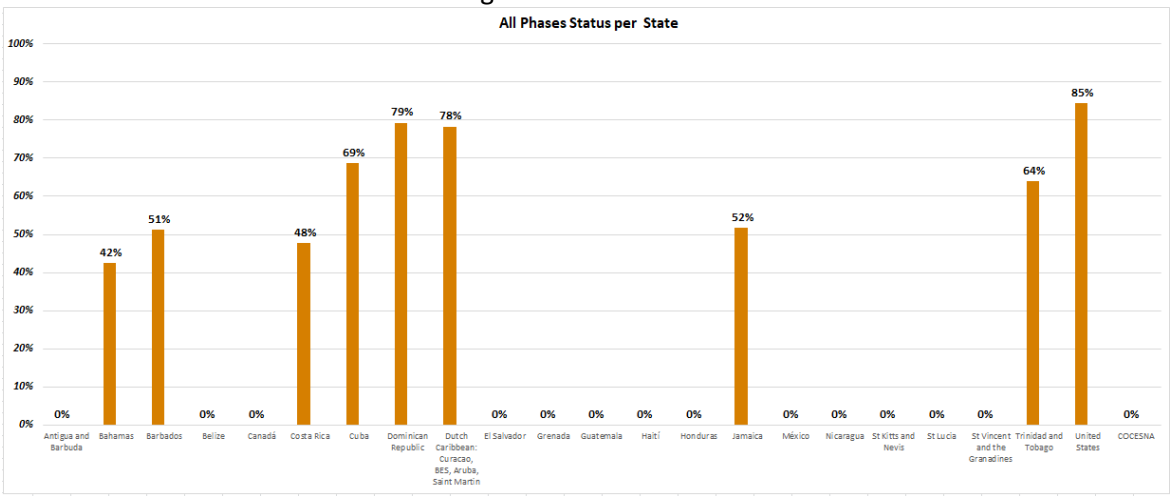

Fig. 04 AIM Status All Phases

2.3.38 The TF is currently creating and reviewing Annex 1 amendment proposal and standardized training curriculum for initial and basic training related to (AIS), (ARO), (FPL) (AIM) personnel, on international level. This paper will therefore be presented to the NACC/DCA by the ICAO NACC Regional Office.

2.3.39 In addition to the training curriculum set up, the AIDC/TF FPL/MON/WG requested to the AIM/TF to include this in the creation of modules as well. This curriculum should be integrated or replaced in Doc 9991 and be officialised.

2.3.40 The Secretariat emphasized that it will be important to review and integrate to the AIM/TF Work Programme the new *AMDt-40* to Annex 15, Doc 10066 - *PANS-AIM* and other new AIM documentation released during 2019 and 2020. It also was mentioned the important role of the AIM for SWIM integration, providing high quality data and information. It is of vital importance the review by all participating States, by 15 June 2019, especially the AIM/TF, of the WP/20 presented by the Secretariat at the ANI/WG/05.

2.3.41 The Meeting considered the opportunity to bring the AIM/TF members to update the information in accordance with the progress report presented. States were urged to further participation in the AIM Task Force, face-to-face meetings, seminars and workshops.

2.3.42 Additional issues were included on IPs, that were presented in the AIDC meeting held in Mexico City, Mexico from 08 to 11 April, 2019 (refer to the respective Final Report of that Meeting on the ICAO website).

Progress report on the work programme of the ASBU Task Force (ASBU/TF)

2.3.43 WP/08, IP/09 and P/03 presented the following:

2.3.44 The Rapporteur of the ASBU/TF presented the progress made by the ASBU/TF since the ANI/WG/04, which includes:

a) Creation and maintenance of the ASBU/TF website as a mechanism to disseminate relevant information and results of the Task Force
b) The formulation of a preliminary state ANP template based on the experiences and good practices of working with States
c) The development of three workshops to support the States, Territories and International Organizations of the region understands the relationship between the Global Air Navigation Plan (GANP), the Regional Air Navigation Plans (ANP), the national ANP and the ASBU and the creation of its State ANP project
d) 16 of the 21 selected States/Territories/International Organizations successfully prepared their ANPs
e) Work in progress to prepare the NAM ANP Volume III covering Canada and the United States
f) The regional implementation status of the elements of Block 0 of ASBU

2.3.45 The approach taken by the ANI/WG to support the States, Territories and International Organizations in the region includes the relationship between the GANP, the Regional ANPs, the national ANPs and ASBU worked very well in the NACC States and over 75% of the selected States, Territories and International Organizations produced their ANP as of 1 March 2019. It is recommended to continue applying the methodology.

2.3.46 The Meeting approved the ToR of the ASBU Working Group, which includes the Work Programme and Membership, and the Rapporteur received an update of the Point of Contact details; The Rapporteur urged States, Territories and International Organizations to present the National Air Navigation Plan (NANP), including Air Navigation Report Form (ANRF), to ensure compliance with the assigned tasks.

2.3.47 Taking into account the three-year review of the GANP and ASBU framework and the definition of the new block elements, it is necessary for States to review their national ANPs periodically and determine their best use. The ANI/WG needs to keep abreast of the evolution of GANP and take appropriate measures to achieve a global interoperable air navigation system for NACC States.

2.4 Progress report by States of Adopted Aviation System Block Upgrades (ASBU) B0 and B1 Modules

States Action Plans on CO2 Emissions Reduction Activities for International Civil Aviation

2.4.1 In WP/06, the Secretariat presented the implementation status of the NACC States Action plans on CO2 emissions reduction activities for international aviation and make reference to the basket of measures to limit or reduce emissions from international civil aviation to be included during the preparation and update of States' action plans in accordance with the Consolidated Statement of continuing ICAO policies and practices related to environmental protection.

2.4.2 At the NAM/CAR Regions, 13 from the 22 States have developed an Action Plan on CO2 emissions reduction and submitted to ICAO. Out of the 13 States, 7 States have submitted an updated plan. Out of the 22 States, 15 have nominated a focal point for the States Action Plan related activities; States representatives attending the Meeting were invited to establish proper coordination with the State focal point and ensure all national actions as well as activities implemented regionally related to the basket of measures, been included at the national plans. Therefore, the following decision was taken:

<table>
<tr><td colspan="3">DECISION
ANI/WG/5/07 REVIEW THE PACKAGE OF MEASURES TO LIMIT OR REDUCE EMISIONS FROM INTERNATIONAL CIVIL AVIATION</td></tr>
<tr><td colspan="2">What:
That, the ANI/WG Tasks Forces review ICAO Doc 9988 and analyse possible synergies between its work plans and the examples of measures to limit or reduce CO2 emissions from international aviation, in order to ensure possible contributions resulting of its work be included as part of the States´ action plans on CO2 emissions reduction activities.</td><td>Expected impact:
☐ Political / Global
☒ Inter-regional
☒ Economic
☐ Environmental
☒ Operational/Technical</td></tr>
<tr><td colspan="3">Why:
It is necessary to ensure that States are reflecting all mitigation measures for emission reduction that are being implemented in their action plans</td></tr>
<tr><td>When: 30 August 2019</td><td colspan="2">Status: ☒ Valid / ☐ Superseded / ☐ Completed</td></tr>
<tr><td>Who: ☒ States ☐ ICAO ☒ Other:</td><td colspan="2">ANI/WG Task Forces</td></tr>
</table>

Progress in the implementation of block 0 of ASBU module DATM, in CUBA

2.4.3 IP/04 described details of the progress in different AIM topics of this module.

2.5 AGA, MET and SAR Information

AGA, MET, and SAR integration proposal for the ANI/WG

2.5.1 WP/05 presented as a follow-up to the proposal to include Aerodromes and Ground Aids (AGA), Aeronautical Meteorology (MET), and Search and Rescue (SAR) in the ANI/WG due to the importance of maintaining together all air navigation fields considering the interaction and the interdependence among them and considering the SWIM concept, the ANI/WG/4 agreed on Conclusion ANI/WG/04/02: Greater support from States and Airport Operators to AGA/Airport Operator (AOP), MET and SAR task forces.

2.5.2 In addition, on the same line of action, according to GREPECAS Conclusion 18/8, a letter was sent to States/Territories requesting the designation of an expert in AGA/Airport Operator (AOP) in support for the implementation of the activities concerning aerodrome.

2.6 Deficiencies, Challenges and Regional Objectives

Progress Report on Regional Contingency and Emergency Planning and Response

2.6.1 WP/19 provided an update of the initiatives being undertaken in the CAR Region to enhance the contingency planning, coordination and response at State and regional level.

2.6.2 The ICAO NACC Regional Office has been working to support the development of the capacities, in terms of planning and response to contingency situations, of States, Territories and International Organizations linked to the provision of Air Traffic Services in the CAR Region.

2.6.3 At the Thirteenth Meeting of the CAR/SAM Regional Planning and Implementation Group (GREPECAS/13) held in Santiago, Chile, from 14 to 18 November 2005, the CAR and SAM Regions agreed basic guidelines, in line with Annex 11 SARPs, to address ATM contingency planning. Despite the time elapsed since these regional guidelines, their implementation has not been consistent with the risk the Region is exposed and the compliance with the SARPs.

2.6.4 During years 2017 and 2018 States and Territories of the CAR Region faced contingency situations, mostly related (but not limited to) natural phenomena, such hurricanes, floods, earthquakes, volcanic eruptions, etc. that pose a significant threat to air transport operations. These situations emphasized the need for the region to take a different approach with regards to contingency planning.

2.6.5 At the ANI/WG/4 meeting, ICAO presented a proposal of a CAR Regional Contingency Planning and Response Strategy in order to enhance the preparedness, response and recovery from contingencies in the CAR Region.

2.6.6 To move forward with this strategy, the ICAO NACC Regional Office convened the First Regional Contingency and Emergency Planning and Response meeting (NAM/CAR/CONT/1), held in Mexico City, Mexico, from 12 to 14 March 2019. This Meeting was attended by representatives of 14 States, Territories and International Organizations of the CAR Region. The objectives of this meeting were: to take concrete actions to address contingency and emergency situations from a regional perspective; to draft the CAR Regional Contingency Response Plan; and to make the necessary arrangements to prepare for the 2019 hurricane season. The Meeting also performed a basic table top exercise to analyse different contingency scenarios according to different high probability threats to the eastern Caribbean and Central America. This was a very good experience that needs to be enhanced and annually supported by all ATS providers in the CAR Region.

2.6.7 The Meeting agreed concrete actions that will not only enhance the regional preparedness for contingencies, but will also provide a closer follow-up to the ATM contingency arrangements in the region. One of these actions was the creation of an Ad hoc Group, integrated by Dominican Republic, Mexico, Trinidad and Tobago, COCESNA and IATA to draft the Caribbean Region ATM Contingency Plan, presented in the Appendix to WP/19. This Plan will provide the region with a hierarchy of contingency plans and categories of contingencies; some of the challenges identified during the Meeting. In this regard the following Conclusion was considered:

<table>
<tr><td colspan="3">CONCLUSION
ANI/WG/5/08 ENDORSEMENT OF THE CAR REGION ATM CONTINGENCY PLAN</td></tr>
<tr><td colspan="2">What:

That, in order to enhance the regional contingency readiness and the continuity of air transport operations in contingency scenarios;

a) States to endorse the first draft of the CAR Region ATM Contingency plan, and request ICAO NACC Regional Office to continue working on this plan to ensure that its related required contingency plans are included, such as those related to NOTAM, MET and ATFM offices by 15 June 2019;

b) Encourage the States that have not yet done so, to develop their ATM contingency plans, following the guidelines established by GREPECAS, and submit them to the ICAO NACC Regional Office by 15 June 2019; and

c) The ICAO NACC Regional Office establish a procedure for the systematic request, publication and annual review of the ATS contingency plans, for those States, Territories and International Organizations which provide Air Traffic Services in the CAR Region by 15 June 2019.</td><td>Expected impact:

☐ Political / Global
☒ Inter-regional
☒ Economic
☐ Environmental
☒ Operational/Technical</td></tr>
<tr><td colspan="3">Why:

To ensure timely, harmonized and appropriate responses to all events resulting in disruption to the provision of ATS in the CAR Region</td></tr>
<tr><td>When: 15 June 2019</td><td colspan="2">Status: ☒ Valid / ☐ Superseded / ☐ Completed</td></tr>
<tr><td>Who: ☒ States ☒ ICAO ☐ Other:</td><td colspan="2"></td></tr>
</table>

Agenda Item 3 Global and Regional Air Navigation Developments

3.1 Regional electronic Air Navigation Plan (eANP) progress and the CAR Regional Performance-Based Air Navigation Implementation Plan (PRPBANIP) new ver 4.0

Challenges and Objectives Regional Work

3.1.1 Under P/02, the Secretariat presented an analysis of the challenges and the common objectives of the region. One of the challenges of the region is to update the implementation regional plan and the regional development, aligned with the new version of the GANP that will be reviewed in the next ICAO Assembly to be held in October 2019. Once finished, a new version of the GANP will be available, and consequently, the global aviation objectives.

3.1.2 The GANP is an important planning tool to establish global priorities directed to the evolution of the global air navigation systems and ensure an integrated, harmonic and globally interoperable vision.

3.1.3 The Secretariat provided the web site link of the GANP:

https://www4.icao.int/ganpportal

in which the four planning strategic levels are detailed:

i. Global strategy: provides high level strategic direction for the people that are in charge of decision making lead towards evolution of the global navigation systems.
ii. Technical: support the technical managers in the implementation planning of the basic services and its operational and performance enhancements.
iii. Regional: The regional and national level of the GANP assures consistency for the development of the operational enhancements for its implementation.
iv. National: developed by the States, in coordination with the appropriate stakeholders, for the development of the navigation plans aligned with the regional and global plans.

3.1.4 The Secretariat also presented the Basic Building Block (BBB), which are proposed by ICAO as the basis for any strong air navigation system that defines the essential services (basic services) that all the States shall have implemented in aerodromes, air traffic management, search and rescue, meteorology and information management.

3.1.5 The need for States to develop an analysis of their implemented capacity and the requirements that are complying with the BBB was presented.

3.1.6 One of the most important aspects of the new version of the GANP is its integration with the ICAO Global Aviation Safety Plan (GASP, Doc 10004) and the Global Aviation Security Plan (GASeP, Doc 10118) in view that these three documents are complementary and must be part of the regional and national planning development.

3.1.7 One of the most important aspects to face in the BBB implementation, the three global documents integration, is to carry out an analysis of the current regional implementation mechanisms. In this regard, it has been identified that the implementation mechanisms to date have not been the most efficient because there is a large amount of valid tasks, conclusions and decisions that do not have mechanisms to assess their implementation percentage.

3.1.8 Furthermore, the region has new challenges on human resources management, cybersecurity, interoperability, implementation of emergent technology, and on being more competitive, because aviation must be seen as a socio-economic development source in the States. Finally, the challenge of contributing in a better way to CO2 reduction and boost favorable environment mechanisms exists.

3.1.9 As part of the discussions of the ANI/WG/4, the Secretariat proposed a new regional working plan, focused on boosting the development of the three regional objectives:

1. Efficiency: through the longitudinal separation reduction of the region´s operations
2. Predictability/efficiency: through the standardization of the use of the air messaging information
3. CO2 emission reduction

3.1.10 In this regard, the Meeting discussed the need of aligning the working tasks of the Regional Groups in line with the abovementioned regional strategic objectives.

3.1.11 It is necessary that the TF integrate their tasks with the goal of identifying the impact of its activities in the development of the activities of the different TFs and their contribution to the development of the strategic objectives, identifying common tasks and avoiding work duplicity.

3.1.12 In attention to the sustained discussions, the Secretariat proposed to change the ANI/WG structure creating a Task Force: ANI/WF-MA (Air Navigation Implementation Working Group – Multidisciplinary Areas). This group, integrated by all the regional Tasks Force rapporteurs would be responsible for developing integral objectives in all areas; identifying common tasks, developing the regional objectives aligned with the GANP, GASP, GASeP and the BBB, and to implement the regional measurement mechanisms and their application.

3.1.13 The Meeting also identified that the AMHS/TF has finished its assigned tasks and that it is necessary to disband it.

3.1.14 The Secretariat congratulated the AMHS/TF members, especially the most active members that supported the regional AMHS implementation, which contributed with the AMHS implementation in Haiti, closing this implementation phase, and formulated the following conclusion:

<table>
<tr><td colspan="3">CONCLUSION
ANI/WG/5/12 XML TESTS ON THE AMHS SYSTEMS PLATFORM</td></tr>
<tr><td colspan="2">What:
That, in order to test the XML capacity of the regional networks CAR, Cuba, the United States, the Dominican Republic, Trinidad and Tobago and COCESNA coordinate XML tests. For this purpose, the following activities are carried out:
About AMHS reporting its progress by 30 December 2019

a) An Ad-hoc Group composed of the States and Organizations mentioned above is created and is led by Cuba by 30 December 2019.;

b) That the Ad-Hoc Group be part of MEVA/TMG by 30 December 2019

c) That the results of the tests be reported to the States by 30 December 2019.</td><td>Expected impact:
☐ Political / Global
☒ Inter-regional
☐ Economic
☐ Environmental
☒ Operational/Technical</td></tr>
<tr><td colspan="3">Why:
Because said States have the necessary capacity for the development of these tests.</td></tr>
<tr><td>When: 31 December 2019</td><td colspan="2">Status: ☒ Valid / ☐ Superseded / ☐ Completed</td></tr>
<tr><td>Who: ☒ States ☐ ICAO ☒ Other:</td><td colspan="2">Ad hoc Group</td></tr>
</table>

3.1.15 Taking into account emergent technologies and the existence of specific issues in the States were solutions can be applied through the implementation of technologic solutions, the Secretariat proposed the creation of a regional working group, non-permanent, responsible for the emergent technologies assessment and their application, with the objective that the ANI/WG may count with updated information.

3.1.16 It was also identified that in all this change and development is necessary to integrate the stakeholders, and that at a national level the States integrate to the development of their national planning the requirements of the stakeholders within and outside the State, and the integration of aviation organizations within the development of reginal plans to align their work agenda with the regional tasks and objectives, avoiding duplicity of activities. Likewise, it is required that the industry that develops the projects in the region know the regional objectives and goals for these requirements to be integrated to the projects to be developed and, in this way, assure the systems´ interoperability.

3.1.17 In this regard, the Meeting approved the new ANI/WG organization chart, including what has been presented above:

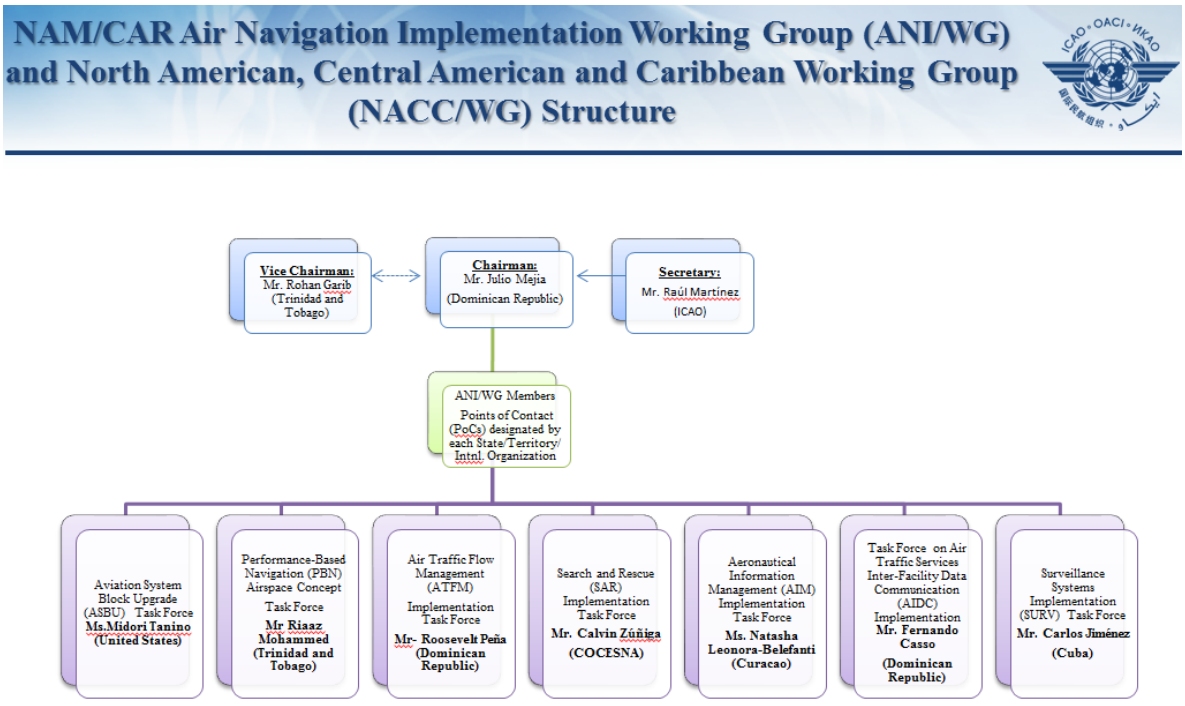

Figure 3.1

3.1.18 The final goal is the ANI/WG to be a Group in which results of the TFs carried out tasks are presented. Thereby, the Meeting concluded the following decision:

<table>
<tr><td colspan="3">DECISION
ANI/WG/5/10 UPDATING OF THE ANI/WG TASK FORCES REGIONAL PLANS</td></tr>
<tr><td colspan="2">What:
That, the new structure under Figure 3.1 is approved and ANI/WG Task Forces analyze the global and regional requirements and update their working plans to ensure:

a) the development of tasks with the purpose of reaching the regional objectives that were proposed by the ICAO NACC Regional Office;

b) identifying common activities to be developed by each Task Force; and

c) that the plans are submitted to the ICAO NACC Regional Office for its integration by 30 September 2019.</td><td>Expected impact:
☐ Political / Global
☐ Inter-regional
☐ Economic
☐ Environmental
☐ Operational/Technical</td></tr>
<tr><td colspan="3">Why:
Because it is required the analysis of the most important and priority regional tasks, to identify common tasks and to make more efficient the implementation.</td></tr>
<tr><td>When: By 30 September 2019</td><td colspan="2">Status: ☐ Valid / ☐ Superseded / ☐ Completed</td></tr>
<tr><td>Who: ☐ States ☐ ICAO ☐ Other:</td><td colspan="2">Regional Task Forces Rapporteurs</td></tr>
</table>

Regional challenges and objectives in the MET area

3.1.19 Under WP/18, the Secretariat presented, for consideration of the Meeting and necessary actions, a summary of the activities of the MET Panel, the amendments of the SARPs of Annex 3 and the possible restructuring of the thread: Advanced Meteorological Information (AMET), Blocks 0 and 1, to highlight the planned transition from a product-centred environment to an information-centric environment, within the framework of the next edition of the GANP (sixth edition, 2019).

3.1.20 The Secretariat informed the Meeting about the statistics recorded by the Online Framework (OLF) of the Universal Safety Oversight Audit Program (USOAP) for the Compliance Checklist (CC) in the Electronic Filing of Differences System (EFOD) with respect to Annex 3 for NACC States, indicating that only 64.36% has been reached up to May 2019, which conclude that some States in the region fail to successfully complete the amendment process of SARPs and the Meeting should consider new assistance mechanisms.

Update and publication of the Airport Obstacle Chart

3.1.21 Under WP/17, the Secretariat presented a recommendation from the Thirty Second Pan-America Regional Aviation Safety Team (PA-RAST/32), on the electronic Aeronautical Information Publication (eAIP), for Airport Obstacle Chart publication in the CAR Region that have been found to have outdated or incomplete obstacle information and data. This is a regional safety priority taking into account the accuracy of the information.

3.1.22 SARPS form ICAO Annex 19 consider that, as part of the State Safety Programme (SSP), it is required that: "…*States to develop a process to identify actual and potential safety hazards and to assess their associated risks*…", as part of this Obstacle Charts hazard identification, States should consider the lack of information and update of obstacles data as a priority, since it represents a risk to the safety system.

3.1.23 Additionally, t is of great importance that States update the airport obstacle charts and terrain information and data in their Electronic Aeronautical Information Publication (eAIPs). This effort will contribute to mitigate the safety hazards associated with the lack of situational awareness due to inaccurate aerodrome obstacle information.

3.1.24 The Meeting considered requesting the ICAO NACC Regional Office to urge NACC Sates to update the Obstacle Chart and terrain information and data, in accordance with existing ICAO provisions on Doc 9674 (WGS-84) and Doc 9881 (eTOD) for the process to monitor and address future eAIPs updates in the NACC States on this issue.

NACC Regional Plan for Collaborative Aeronautical Information Management (AIM)

3.1.25 Under WP/20, the Secretariat informed that the ATM implies the integration of data in real-time operations, historical information and prospective data, the information management, data sharing and distribution to shareholders and users.

3.1.26 On the other hand, ICAO is working on the Information Management (IM) planning standards based on the strategic and tactical provision of quality assured and timely operational information in support of ATM operations in a SWIM environment.

3.1.27 This Plan for Collaborative AIM addresses to CAR States, and was developed as part of a suite of NACC Air Navigation Plans, thus, it should not be considered in isolation.

Deficiencies, challenges, and regional objectives in the AGA Area

3.1.28 WP/22 presented the Meeting the progress on the correction of deficiencies with the support from States under the Systemic Assistance Programme (SAP), and the CAR Region status of aerodrome certification indicating that from 151 International aerodromes designated in the eANP, 83 aerodromes have already been certified by some Civil Aviation Authorities. The figure has increased by 28% to date up to 55%. In addition, 20 aerodromes in the CAR Region have started the certification process in 2018 and Mexico, with a large number of international aerodromes is completing the certification of its 27 remaining aerodromes and will have the 62 aerodromes certified by the end of 2020.

3.1.29 The Secretariat mentioned the aerodrome certification requires additional surveys and teleconferences with the States in order to identify the barriers delaying certification. The intention is to identify main barriers and the lack of an adequate mix of competencies of personnel, the operator and inspectors, to carry out the certification process and the non-compliance with ICAO Annex 14 SARPs related to aerodromes physical characteristics, especially aerodromes built before the regulatory requirement (from 50`s and 60`s)

3.1.30 Finally following-up Conclusion GREPECAS/18/19, it was proposed and accepted by the Meeting to expand the deadline for the presentation of the aerodrome certification plan to the ICAO NACC Regional Office by 28 June 2019.

ICAO SWIM Context

3.1.31 Under P/01, the Secretariat presented an important but challenging situation in a multi-organizational and technological framework of reusable and shared services; such as SWIM is the coexistence of multiple releases of active air navigation services.

3.1.32 P/01 provided general ICAO initial provisions, requirements and guidelines for service versioning in the context of ICAO Doc 10039 *System Wide Information Management (SWIM).* The Meeting noted that the Information Management Panel (IMP) is in the process of developing a draft SWIM Manual, Vol. II *Implementation Guidance* (Doc 10039) to provide top-level guidance which will be submitted to the Air Navigation Commission (ANC) for consideration by the end of 2019

3.1.33 Additionally, in order to ensure alignment with ICAO guidance on global SWIM implementation, the States and meeting participants were invited to critically review the draft SWIM Manual, Vol. II, when available and to provide their comments and feedback to ICAO. Particular attention should be paid to any missing information and whether there is insufficient guidance to support the Asia Pacific (APAC) regional SWIM implementation initiative.

3.1.34 Finally, the Secretariat commented on the importance of the information management that has some standards that define the information content, format and rules of information and Data exchange. Some of these are described on some websites (FAA and EUROCONTROL) articulating information exchange standards applicable to aeronautical information (AIXM-Aeronautical Information Exchange Model, 2013), flight information (FIXM-Flight Information Exchange Model, 2012), meteorological information (WXXM-Weather Information Exchange Model, 2011) (IWXXM-ICAO Meteorological Information Exchange Model, 2013), and aviation information (AIDX-Aviation Information Data Exchange, 2012).

3.2 Project RLA/09/801 — Multi-Regional Civil Aviation Assistance Programme (MCAAP) outcomes

3.2.1 Through WP/16 the Secretariat presented an analysis of the execution results of RLA/09/801 (MCAAP) Project during 2018 and 2019.

3.2.2 The tools that this project has to support implementation, training and fellowship initiatives to participate in ICAO events were explained, and the Member States that are part of the Project were encouraged to benefit from this regional implementation tool and of the facilities that it provides, for the tool to offer solution mechanisms for regional issues and training needs, among others.

3.2.3 The Member States that are part of the Project were also invited to increase their participation in the Project´s activities to make this tool effective, not only by widening the use of the fellowships but also getting involved with the events proposals that, under the Project´s umbrella, would have a significant regional impact. Therefore, the following conclusion was formulated:

<table>
<tr><td colspan="3">CONCLUSION
ANI/WG/5/09 PROJECT EVALUATION COMMISSION (RLA/09/801 PEC)</td></tr>
<tr><td colspan="2">What:
That, The Project Member States are encouraged to send the information of their necessities to the Secretariat by 14 June 2019, for it to be forwarded to the Project Evaluation Commission (RLA/09/801 PEC).</td><td>Expected impact:
☐ Political / Global
☒ Inter-regional
☒ Economic
☒ Environmental
☒ Operational/Technical</td></tr>
<tr><td colspan="3">Why:</td></tr>
<tr><td>When: By 14 June 2019</td><td colspan="2">Status: ☒ Valid / ☐ Superseded / ☐ Completed</td></tr>
<tr><td>Who: ☐ States ☐ ICAO ☒ Other:</td><td colspan="2">Project Member States</td></tr>
</table>

3.3 Other Global and Regional Air Navigation developments

Free Route Airspace (FRA)

3.3.1 WP/02 presented a proposal to change the applicable strategy for the optimization of the airspace in the region, through the application of the Free Route Airspace (FRA) concept, applying as a transition strategy for the implementation of User Preferred Routes (UPR), as currently being used by Central American FIR, Curaçao FIR, Santo Domingo FIR, Barranquilla FIR and Bogota FIR.

3.3.2 The FRA provides unparalleled performance in terms of flight path efficiency through air traffic management cooperation.

3.3.3 Expected benefits:

a) Improved predictability through the "File it – Fly it" concept
b) Elimination of constrains caused by the fixed ATS-route network structure, congestion points will disappear
c) No change shall be required to existing ATC procedures
d) Using the entire airspace as a 'resource' – traditional 'unused airspace' is made available to either civil or military users (through flexible and optimal use)
e) Enhanced planning flexibility for operators
f) CO2 Reduction

3.3.4 The Meeting noted the Free Route Operations (FRTO)/FRA operation proposal to be adopted as a regional objective and to be identified as a RPBANIP goal and the national navigation plans. Therefore the following Decision was formulated:

<table>
<tr><td colspan="3">DECISION
ANI/WG/5/11 ASSESSMENT OF THE REQUIREMENTS FOR THE FREE ROUTE AIRSPACE (FRA) IMPLEMENTATION</td></tr>
<tr><td colspan="2">What:
That, for the assessment of the necessary requirements to allow the free route airspace implementation the different ANI/WG Tasks Forces:

a) integrate, in their working plans, activities to assess the possibility and requirements for the FRA implementation in the NAM/CAR region; and

b) report to the next ANI/WG meeting the results of this analysis and recommend additional activities for this implementation.</td><td>Expected impact:
☐ Political / Global
☒ Inter-regional
☒ Economic
☒ Environmental
☒ Operational/Technical</td></tr>
<tr><td colspan="3">Why:
Enhance the efficiency of the flight profiles in air operations of the NAM/CAR regions.</td></tr>
<tr><td>When: ANI/WG/6</td><td colspan="2">Status: ☒ Valid / ☐ Superseded / ☐ Completed</td></tr>
<tr><td>Who: ☐ States ☐ ICAO ☒ Other:</td><td colspan="2">ANI/WG Task Forces</td></tr>
</table>

3.3.5 The plenary discussed different aspects that could be considered to generate a checklist (ATM/CNS) to be taken into account for a harmonized regional implementation. Within the points to be considered in the checklist it was initially noted:

- Mid-Term Conflict Detection (MTCD);
- Usage of existent fixed routes in the FIRs boundaries with the finality of having MTCD accurate information (security networks).
- Air Traffic Control (ATC) Procedures for the correct Current Flight Plan (CPLs) updating.
- Regional CONOPS update, including the FRA/FRTO-0 as part of the strategies to achieve operational benefits.
- Update and verification of published information.
- FPLs data quality (box 15); and
- Coverage surveillance areas in the region.

Implementation of automated protocols in the NAM/CAR regions

3.3.6 Under WP/4, the Secretariat presented a summary of discussions and agreements of the last NAM/CAR Air Traffic Services Inter-facility Data Communication (AIDC) and North American Interface Control Document (NAM/IDC) Implementation Follow-up meeting held in Mexico City from 8 to 11 April 2019, in which issues of the implementation of the AIDC and NAM/ICD were addressed, the importance of taking into account the experience of the States that already implemented and take advantage of this knowledge were addressed.

3.3.7 The Secretariat proposed a mechanism to measure the regional implementation of the NAM/ICD and AIDC protocols, which will be taken to the AIDC/TF for analysis and recommendations.

3.3.8 A document was proposed to be used by the States as baseline for agreements between States on radar data sharing, which will be available at the ICAO NACC Regional Office website:

https://www.icao.int/NACC/Pages/edocs-cns.aspx

for consultation by the States.

Agenda Item 4 Industry Participation, Conferences and Presentations

4.1 Under this Agenda Item, the industry participated through companies: AIREON, FREQUENTIS, GECI GROUP, INDRA, INFINA, METRON AVIATION, SOLACE and THALES, coordinated by CANSO, which were sponsors of the event.

4.2 The industry presented its developments for the implementation of AIM aeronautical data and information management, Collaborative Decision Making (CDM), Air Traffic Flow Management (ATFM), SWIM, MET, the momentum for the development of CNS infrastructure, radar systems, ADS-B systems, Global Navigation Satellite System (GNSS), Radio communication systems and ATS communication systems, Data Recording Systems, AMHS, among others such as ATS facilities, tower systems, approach systems and support systems for the operation of aerodromes.

4.3 Under the presentation of CANSO its structure and organization were shown, as well as the purpose of the organization to support and boost the performance of ATM systems and aviation in general. This work is carried out through a worldwide body of ATM experts to develop documents, guidance material and share best practices that support their objectives.

4.4 CANSO invited States to take advantage of the available documentation in support of their implementation processes. Similarly, it confirmed its commitment to the ICAO NACC Regional Office to work jointly on regional objectives and be able to reach common goals in less time.

4.5 AIREON, presented the status of the services that can be provided through satellite ADS-B data, indicating that AIREON can provide real-time information of all aircraft worldwide with the capacity of the corresponding avionics of ADS-B. The benefits of implementing this service, especially supporting the reduction of CO2 emissions were also emphasized. AIREON explained its certification process and that it allows them that ADS-B satellite data may be integrated into ATM systems and that this data may be used for radar control.

4.6 One of the main aspects highlighted by AIREON was the creation of “AIREON ALERT” which was made available to the States in August 2018 and is in operation since July 2019. This facility is open to all service providers, aircraft operators and search and rescue organizations. The link for this information is available at:

https://aireonalert.com/

4.7 FREQUENTIS presented the company's portfolio of solutions to different needs in the fields of civil and military ATM, public safety, public transport and maritime services. Regarding ATM solutions, communications, automation, surveillance and specific service solutions were shown to provide media, in addition to new applications for aviation using emerging technologies.

4.8 GECI Group presented the structure and organization of the company and the services they provide to the areas of AN, MET, airports, telecommunications and safety, as well as other specific services. GECI also emphasized on these specific products in the area of surveillance and terrestrial calibration systems of navigation systems and presented some examples of problems that have arisen in the region and how GECI has supported its solution through aeronautical management projects of the systems they provide.

4.9 INDRA presented information about the configuration and divisions of that company as well as ATM and CNS automation services, in the areas of communications, navigation, surveillance and new developments in all areas of AN, highlighting the handling of drones. The important information and data maintenance services to systems based on incident and request management, as well as technical support and life cycle management of equipment and systems was also presented.

4.10 INDRA also unveiled its new catalog of products which include innovation in which the company has been working, aimed at a new generation of air traffic control positions, solutions for control towers including remote towers, applications for efficient management of airspace, virtual reality, cyber-security for air traffic management systems, new GBAS systems and the integration of unmanned airspace management systems.

4.11 INFINA presented its company as a provider of innovative solutions and services to complex problems and processes to which applies its creative skill set and expertise to empower government. INFINA has more than 27 years of experience in helping businesses within the US government achieve their goals.

4.12 Information was presented on the services they cover in the fields of formulation and management of aviation projects, strategic planning, training, solutions for data management and aeronautical information, among others. In terms of training, INFINA explained its training system based on virtual reality and augmented reality, with important benefits that this kind of technologies and procedures provide to personnel who train under these new highly efficient modalities.

4.13 INFINA emphasized its goal “to advance in modernization of ANSPs and presented its history and services (financial analysis, data visualization, data analytics, among others) and focused on its activities on ATS and CNS; in addition a series of demonstrations were presented to the Meeting.

4.14 Under the presentation of METRON AVIATION, the products of procedures development, consulting, training and specific airspace studies were presented. Information on ATFM tools, MET information, tools for airport capacity management was provided, indicating that the tools are developed to increase efficiency, reduce fuel consumption, and maximize the use of airspace capacity and aerodromes, among other aspects of air navigation.

4.15 The company SOLACE talked about aeronautical data and information management systems and meteorological systems, as well as ATM applications, the new systems associated with the SWIM concept, data interoperability standards, cyber-security, new systems of communications to support ATM services. SOLACE made the following recommendations according to its experience:

1. Seek the standardized exchange of interoperable aeronautical information and data.
2. Define communication and information exchange interfaces and aeronautical data appropriately.
3. Keep in mind that the dynamics of information and aeronautical data is constantly changing so that systems must have the capacity to evolve adapting to changing requirements, protect and preserve the managed data sets.
4. Seek the use of compressors for data and implement information security mechanisms.
5. Visibility and transparency in data management are a great help in the proactivity of the system.
6. Compatibility with previous and later versions of the systems allows participants and projects of the “digital ecosystem” to be updated at different times
7. Take advantage of the “cloud” and “hybrid cloud” technologies for data, which are future-proof features that messaging can support.

4.16 THALES presented the company's product letter and how it manages the needs of the States according to their local needs and data interoperation. Information was provided about the changes and management of the ATM project of Dominican Republic to achieve a successful implementation of the AIDC and NAM/ICD automated protocols of that State with the adjacent FIRs.

4.17 THALES also presented their experience and systems in the areas of surveillance, navigation, operations in airports, efficiency management of flight plans, capacity and flexible use of airspace, aeronautical information management, SWIM concept management, cyber-security. THALES also highlighted the main factors that influence airspace management capacity:

a) Availability and capacity of ATM systems
b) The availability and capacity of the CNS infrastructure
c) Aircraft separation standards
d) Human factor
e) Meteorological Information
f) The airspace design
g) The design of airports
h) Regulations, culture and state policy.

4.18 Finally THALES emphasized the importance of Industry and users speaking the same language when defining the technical and operational specifications that will govern a project.

4.19 The Meeting took note of the information provided by the Industry, the systems that can meet its current needs and the systems that are being developed using new emerging technologies. Through the lessons learned raised by the Industry, the need for States to work more closely when defining aeronautical projects, which in addition to the specific requirements of the States, interoperability needs with the adjacent States is seen.

4.20 And that, in addition, standardization and homologation be sought, to ensure the correct interoperability of the Systems, and whenever possible, the States seek to make joint implementations to ensure regional benefits and integration and reduce investment costs while also reducing the number of systems, taking advantage of developing standardized operational and technical procedures.

4.21 The Meeting thanked the participation and sponsorship of CANSO and the Industry and, above all, their support to work more closely with the States of the NAM/CAR Regions and take into account regional needs and objectives at the time of project development for the NACC States.

Agenda Item 5 Other Business

5.1 Under this Agenda Item the AIM/TF Rapporteur presented WP/23 on Annex 1 amendment regarding the licences and ratings for personnel other than flight crew members (Chapter 4) and international standardized training curriculum for AIM (AIS/ARO/FPL) personnel.

5.2 ANI/WG Chairman and Dominican Republic presented a list of Observations and Proposals to the Meeting shown in **Appendix B.**

APPENDIX A
EXECUTIVE LIST OF CONCLUSIONS/DECISIONS

Number	Conclusion/Decision	Responsible for action	Deadline
1	MET IMPLEMENTATION PROJECT		
	That, for the MET implementation program updating, NACC States and Territories inform the Secretariat of the implementation mechanisms they have been using, the challenges they face and their assistance needs by 30 June 2019.	States	30 June 2019
2	SUPPORT PBN IMPLEMENTATION INITIATIVES IN THE NAM/CAR REGIONS		
	That, in order to support the current PBN initiatives in the NAM/CAR Regions and to overcome ineffective initiatives utilized on past PBN projects;		
	a) Encourage States, Territories, and International Organizations to participate in the ICAO CAR Region PBN Survey and provide accurate, updated information which would then allow the PBN/TF to provide a proper analysis on their PBN implementation status by 31 December 2019;	States, ICAO NACC, PBN/TF	31 December 2019
	b) Encourage States, Territories and International Organizations to participate in a regional project to harmonize both the upper and lower level airspace routes within the NAM/CAR/SAM Regions by 31 December 2019; and		
	c) Request States, Territories and International Organizations represented in the PBN/TF to provide sufficient support to their personnel in order to comply with agreed activities by 31 December 2019.		
3	AMENDMENT OF THE IMPLEMENTATION OF PBN NAM/CAR		
	That, In order to maintain up to date the regional planning and initiatives to support the implementation of PBN in the NAM/CAR Regions		
	a) the proposed update to the PBN RPO presented by the PBN/TF is approved	States, ICAO NACC, ANI/WG	31 May 2019
	b) the PBN/TF Work Programme for 2019-2023 is endorsed; and		
	c) the PBN/TF to submit annual progress reports to the ANI/WG.		

Number	Conclusion/Decision	Responsible for action	Deadline
4	AMENDMENT OF THE IMPLEMENTATION OF FLEXIBLE USE AIRSPACE (FUA) AND IMPROVE DEMAND AND CAPACITY BALANCING (DCB) NAM/CAR REGIONAL PERFORMANCE OBJECTIVES		
	That, In order to maintain up to date the regional planning and initiatives to support the implementation of Flexible Use Airspace (FUA) and Improve Demand and Capacity Balancing (DCB) in the NAM/CAR Regions		
	a) is approved the proposed update to the FUA and DCB RPOs presented by the ATFM Task Force;	States, ICAO NACC, ANI/WG	31 May 2019
	b) the ATFM Task Force Work Programme for 2019-2020 is endorsed; and Task Force Work Programme for 2019-2020; and		
	c) the ATFM Task Force to submit annual progress reports to the ANI/WG..		
5	APPROVAL OF THE CAR REGIONAL SAR PLAN AND THE ANI/WG SAR TASK FORCE		
	That, in order to support the current SAR initiatives in the NAM/CAR Regions and to achieve the regionally agreed objectives;		
	a) Approve the CAR Regional SAR Plan, as a regional SAR implementation planning tool, to translate the requirements of Annex 12 - Search and Rescue to the regional context of the Caribbean by 31 December 2019;	States, ICAO NACC, ANI/WG	31 December 2019
	b) Establish the ANI/WG SAR Task Force, as part of the ANI/WG structure, in order to support SAR implementation in the CAR Region and to lead with activities to support compliance of the RPBANIP Regional performance objectives by 31 December 2019; and		
	c) The ICAO NACC Regional Office take the necessary measures to ensure the adequate establishment of the ANI/WG SAR Task Force, and convene its first meeting with the SAR activities proposed by the ICAO NACC Regional Office by 31 December 2019.		

Number	Conclusion/Decision	Responsible for action	Deadline
6	PROCESS OF IMPLEMENTING THE ADS-B		
	That, States which are in the process of implementing the ADS-B according to the regional goal of 1 January 2020.		
	a) Publish its regulation by 30 October 2019; and	States, ICAO, ANI/WG	31 December 2019
	b) States that have not yet done so conduct an analysis on how their operations may be affected by the implementation of the ADS-B in the adjacent States and that they take the necessary measures to carry out actions that may be required by 31 December 2019.		
7	REVIEW THE PACKAGE OF MEASURES TO LIMIT OR REDUCE EMISIONS FROM INTERNATIONAL CIVIL AVIATION		
	That, the ANI/WG Tasks Forces review ICAO Doc 9988 and analyse possible synergies between its work plans and the examples of measures to limit or reduce CO2 emissions from international aviation, in order to ensure possible contributions resulting of its work be included as part of the States´ action plans on CO2 emissions reduction activities	States, ANI/WG Task Forces	30 August 2019
8	ENDORSEMENT OF THE CAR REGION ATM CONTINGENCY PLAN		
	That, in order to enhance the regional contingency readiness and the continuity of air transport operations in contingency scenarios;		
	a) States to endorse the first draft of the CAR Region ATM Contingency plan, and request ICAO NACC Regional Office to continue working on this plan to ensure that its related required contingency plans are included, such as those related to NOTAM, MET and ATFM offices by 15 June 2019;	States, ICAO	15 June 2019

Number	Conclusion/Decision	Responsible for action	Deadline
	b) Encourage the States that have not yet done so, to develop their ATM contingency plans, following the guidelines established by GREPECAS, and submit them to the ICAO NACC Regional Office by 15 June 2019; and		
	c) The ICAO NACC Regional Office establish a procedure for the systematic request, publication and annual review of the ATS contingency plans, for those States, Territories and International Organizations which provide Air Traffic Services in the CAR Region by 15 June 2019.		
9	PROJECT EVALUATION COMMISSION (RLA/09/801 PEC)		
	That, The Project Member States are encouraged to send the information of their necessities to the Secretariat by 14 June 2019, for it to be forwarded to the Project Evaluation Commission (RLA/09/801 PEC).	MCAAP State Members	14 June 2019
10	UPDATING OF THE ANI/WG TASK FORCES REGIONAL PLANS		
	That, the new structure under Figure 3.1 is approved and ANI/WG Task Forces analyse the global and regional requirements and update their working plans to ensure:	ANI/WG	30 September 2019
	a) the development of tasks with the purpose of reaching the regional objectives that were proposed by the ICAO NACC Regional Office.		
	b) identifying common activities to be developed by each Task Force; and		
	c) that the plans are submitted to the ICAO NACC Regional Office for its integration by 30 September 2019.		

Number	Conclusion/Decision	Responsible for action	Deadline
11	ASSESSMENT OF THE REQUIREMENTS FOR THE FREE ROUTE AIRSPACE (FRA)IMPLEMENTATION		
	That, for the assessment of the necessary requirements to allow the free route airspace implementation the different ANI/WG Tasks Forces:		
	a) integrate, in their working plans, activities to assess the possibility and requirements for the FRA implementation in the NAM/CAR region; and	ANI/WG Task Forces	ANI/WG/06
	b) report to the next ANI/WG meeting the results of this analysis and recommend additional activities for this implementation		
12	XML TESTS ON THE AMHS SYSTEMS PLATFORM		
	That, in order to test the XML capacity of the regional networks CAR, Cuba, the United States, the Dominican Republic, Trinidad and Tobago and COCESNA coordinate XML tests. For this purpose, the following activities are carried out: About AMHS reporting its progress by 30 December 2019.	States Ad-Hoc Group	30 December 2019
	a) An Ad-hoc Group composed of the States and Organizations mentioned above is created and is led by Cuba by 30 December 2019.		
	b) That the Ad-Hoc Group be part of MEVA/TMG by 30 December 2019		
	c) That the results of the tests be reported to the States by 30 December 2019.		

APPENDIX B
OBSERVATIONS AND PROPOSALS OF THE ANI/WG
PRESIDENT AND THE DOMINICAN REPUBLIC

Number	
1	The AIDC/TF will request examples from IATA on traffic handoff facilities by other means than AIDC, and will consider its applicability and convenience in the region
2	Regarding the proposal to consider 100% implementation of AIDC under the NAM/ICD when Class III is completed, it will be sent to the AIDC/TF for analysis.
3	That the States review compliance with the BBB, and work on those aspects where they do not comply.
4	In the implementation of strategies to implement direct routes, and in general for any other measure, take into account the dependencies between the different ASBU areas and modules. Prepare checklists of requirements and preconditions
5	The creation of task groups for AGA, MET and SAR is supported.
6	SWIM implementation needs to consider to keep in sight its global nature, and therefore from the beginning to consider interoperability at a regional and global level.
7	It is proposed to modify the table of the Operation Plan of the SNA 2019, presenting the expected benefits on the first column, then the activities and finally the areas and Tasks Groups involved, since the same objective often involves more than one Working Group or Area.

Number	
8	The proposal that national plans integrate global and regional plans is supported. It is understood in this aspect that: 1. The regional plans reflect and are aligned with the global plan, and therefore integrating the national plans are indirectly integrated into the global. 2. The integration of the regional plan to the national ones should occur when the changes indicated during the ANI/WG/05 meeting are reviewed and accepted to the Regional Plan
9	The proposal to establish a defined deadline for States to report their national priorities is supported, understanding that these priorities do not conflict with, and consider the contribution to, the regional objectives. In this way, this proposal does not contradict proposal 2 of the presentation.
10	The proposal that the Task Forces analyze the global and regional plans to update their work programs is accepted. It is recommended that the task groups do not do this analysis in isolation, that at some stage it is done together, either face-to-face or virtual.
11	The proposal to integrate other members of the ATM community is supported. It is proposed to establish contact points for each Member State or International Organization and formalize their participation
12	It is also proposed to send a letter to the States with the list of Points of Contact (PoC) of the ANI/WG, as well as the TF , so that they either ratify them or update it.
13	The elaboration of an airspace operation concept is supported. The change of name of the PBN/TF is also supported to reflect the change in scope.

Number	
14	It is recommended that the proposal to give high priority to the concept of airspace operation be determined by the analysis of the regional objectives of the Task Force Groups.
15	The consolidation of the current and proposed documents of radar exchange agreement is supported, in order to have a single version with the benefits of both documents
16	The motion to carry out the analysis of the impact of the United States mandate on the use of the ADS-B is accepted, and to submit the applicable relative regulation by 30 October 2019
17	The ICAO NACC Regional Office is requested to motivate and support the importance of the SAR/TF and the other proposed AGA and MET groups to the Civil Aviation Authority Directors(NACC/DCA) Meeting.
18	It is proposed to take into account the requirements for the implementation of the AMHS extended services as a next step to the implementation of the basic service, especially the need for the directory service