International Civil Aviation Organization
CAR/SAM Regional Planning and Implementation Group (GREPECAS)

Nineteenth Meeting of the CAR/SAM Regional Planning and Implementation Group

GREPECAS/19

Final Report

Online, 27 – 29 October 2021

Prepared by the Secretariat

November 2021

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HISTORY OF THE MEETING

ii.1 Place and Duration of the Meeting

ii.1.1 The Nineteenth Meeting of the CAR/SAM Regional Planning and Implementation Group (GREPECAS/19) was held on-line, from 27 to 29 October 2021, from 9:00 to 15:00 hours with one coffee break and one lunch break.

ii.2 Opening Ceremony and Other Matters

ii.2.1 Mr. Melvin Cintron, Secretary of GREPECAS and Regional Director of the ICAO NACC Regional Office, welcomed the participants and mentioned the great importance for GREPECAS and for the States of the CAR and SAM Regions of the review of Programmes and Projects, as well as the improvements on the implementation processes in all of air navigation areas of the ICAO Standards and Recommended Methods (SARPs), and the Global Air Navigation Plan (GANP) in the priorities of both regions. He emphasized:

a) the analysis of the activities carried out on air navigation to assist the States with issues of the pandemic with a view to the recovery of aviation and air operations,
b) the preparation of the report and more effective follow-up and monitoring based on the air navigation indicators and metrics, with the description of the report to be given to Headquarters and the implementation of the GREPECAS dashboard,
c) the good results of the GREPECAS-Regional Aviation Safety Group–Pan America (RASG-PA) coordination,
d) the different progress and achievements in the implementation of air navigation along with the results of the review of GREPECAS programmes and projects as part of the improvements proposed for GREPECAS; and
e) the implementation of activities for the development of Volume III of the CAR/SAM Regional Air Navigation Plan and the review of its volumes I and II.

ii.2.2 Mr. Fabio Rabbani, Regional Director of the ICAO South American (SAM) Regional Office, also welcomed the meeting participants and spoke about the review and update of GREPECAS Projects. He also highlighted the importance of the Programmes and Projects Review Committee (PPRC) for this purpose, in support of the implementation actions of the States in the CAR/SAM Regions. He also indicated that the aviation sector has improved in some aspects due to COVID-19, and mentioned that cooperation to overcome this crisis together is more important now than ever.

ii.2.3 The Secretariat invited the PPRC and GREPECAS Member States to identify the implementation needs during the aviation recovery process in both regions and to propose performance improvements and, if necessary, new projects and tasks to GREPECAS, that fulfil the requirements and needs of the new emerging technologies, focusing on the new priorities of the States.

ii.2.4 Collaboration between the CAR/SAM air navigation areas was requested, for a harmonized development, so that both Regional Offices work closely to ensure that the mandates of GREPECAS and the RASG-PA are operating in the best way and to comply with the requirements of ICAO Headquarters.

ii.2.5 Mr. Ary Bertolino, Vice-Chairperson of GREPECAS, commented that GREPECAS should anticipate the requirements of new technologies, to better and proactively assist the States of the CAR/SAM Regions, making greater efforts to maintain operations in both regions through proper health management and he encouraged the Coordinators of Air Navigation Services (ANS) projects to jointly and collaboratively participate in the ANS implementation processes. Mr. Bertolino officially opened the Meeting.

ii.3 Organisation, Officers and Secretariat

ii.3.1 On the first day, the Meeting was chaired by Mr. Ary Bertolino, Vice-Chairperson of GREPECAS. Mr. Hector Porcella, Chairperson of GREPECAS, chaired the Meeting on the second and third days. Mr. Melvin Cintron, Regional Director, ICAO NACC Regional Office, acted as Secretary of the Meeting with the assistance of officers from ICAO Headquarters and the NACC and SAM Regional Offices.

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Oscar Quesada-Carbon	Deputy Regional Director, SAM Regional Office
Julio Siu	Deputy Regional Director, NACC Regional Office
Jaime Calderon	Regional Officer, Aerodromes and Ground Aids, NACCRegional Office
Raúl Martínez	Regional Officer, Aeronautical Information Management (AIM), NACC Regional Office
Jorge Armoa	Regional Officer, Aeronautical Information Management / Aeronaultical Meteorology and Environment, SAM Regional Office
Luis Sanchez	Regional Officer, Aeronautical Meteorology and Environment, NACC Regional Office
Fabio Salvatierra	Regional Officer, Aerodromes and Ground Aids, SAM Regional Office
Fernando Hermoza	Regional Officer, Air Traffic Management and Search and Rescue, SAM Regional Office
Herman Pretorius	Technical Officer Safety, ICAO Headquarters
Herve Forestier	Technical Officer Implementation, ICAO Headquarters
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Francisco Almeida da Silva	Regional Officer, Communications, Navigation and Surveillance, SAM Regional Office
Sereya Schotborg	Regional Officer Safety Implemention, NACC Regional Office

Roberto Sosa	Regional Officer, Air Navigation Services and Safety, SAM Regional Office
Ruben Martinez Lino	Regional Officer, Accident Investigation, NACC Regional Office
Ernest Snyder	Regional Officer, Air Traffic Management, NACC Regional Office
Daniel Barafani	Accident Investigation Expert, SAM Regional Office

ii.3.2 As part of the RASG-PA-GREPECAS coordination, during Agenda Item 5, the joint session of both regional groups was organized, where the GREPECAS Chairperson and the RASG-PA Vice-Chairperson greeted each other and discussion was held to develop this joint agenda of both groups. In this regard, the GREPCAS and RASG-PA Secretariats supported the development of this session.

ii.4 **Working Languages**

ii.4.1 The working languages of the Meeting and meeting documents were English and Spanish.

ii.5 **Agenda**

ii.5.1 The following agenda was adopted:

Agenda Item 1: Adoption of the Provisional Agenda and Schedule

Agenda Item 2: Topics in Support of the COVID-19 Contingency: CAR/SAM Follow-up to the Activities in Support of the ICAO Aviation Recovery due to the COVID-19 Pandemic

Agenda Item 3: GREPECAS Work Programmes, Objectives and Results

3.1 **CAR/SAM Regional Air Navigation Plan Work Update**

3.2 GREPECAS Work Programmes, Objectives and Results

3.3 Review of GREPECAS functions

Agenda Item 4: Global and Interregional Activities

Agenda Item 5: Coordination between GREPECAS and the Regional Aviation Safety Group–Pan America (RASG-PA) - Ongoing Meeting (Back to Back)

5.1 Agreements and Coordination for the Implementation of GREPECAS/RASG-PA Safety Objectives, including Working Arrangements (virtual meetings and frequency of meetings)

5.2 Global Reporting Format (GRF) Implementation

Agenda Item 6: GREPECAS Administrative and coordination activities

6.1 Follow-up of GREPECAS Conclusions

6.2 Report to the Air Navigation Commission (ANC) in coordination with RASG-PA

6.3 Last Update of the GREPECAS Procedures Handbook

Agenda Item 7: Other Business

ii.6 **Attendance**

ii.6.1 The GREPECAS/19 Meeting was attended by 96 participants from 22 States and 2 Territories of the CAR/SAM Regions, 5 International Organisations, and representatives of 3 companies of the industry., A total of 117 participants, including the ICAO Secretariat. The list of participants appears on page iii-1.

ii.7 **Conclusions and Decisions**

ii.7.1 GREPECAS records its action in the form of conclusions and decisions as follows:

Conclusions deal with matters that, in accordance with the terms of reference of the Group, require the direct attention of States/Territories and/or International Organisations, or further action as proposed by the Secretary in accordance with the established procedures.

Decisions refer to matters dealing exclusively with the internal organisation of the Group and its contributory bodies.

ii.8 **List of Conclusions**

Number	Title	Page
19/01	***GUIDE FOR THE GREPECAS AIRPORT COLLABORATIVE DECISION MAKING (A-CDM) IMPLEMENTATION***	Appendix G
19/02	***IMPLEMENTATION OF ICAO ANNEX 3 STANDARDS AND RECOMMENDED PRACTICES (SARPS)***	Appendix G
19/03	***IMPLEMENTATION OF THE DIGITAL DATA SETS (DDS), THE DATA CATALOG, THE STANDARD MODEL FOR THE EXCHANGE OF AERONAUTICAL INFORMATION AND THE e-AIP***	Appendix G
19/04	***REMOTE SUBSCRIPTION OF LETTERS OF AGREEMENT (LOAs) AND EFFECTIVE REGIONAL IMPLEMENTATION OF THE SAR SERVICE***	Appendix G
19/05	***COMPLETION OF CAR/SAM AIR NAVIGATION PLAN (ANP) VOLUME III***	3-3

ii.9 **List of Decisions**

iii. **List of Participants**

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6. Florencia Cornelio
7. Pamela Vergara

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8. Anthony Kirchner

BARBADOS

9. Gail Clarke
10. Roderick A. Oliver

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12. Ellis Stanley Gideon
13. Gilberto Torres

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15. Reynaldo Cusi Mita

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18. Fabricio Cordeiro
19. Victor De santanna souza
20. Cristiane Pereira
21. Jorge Avila
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23. Marcelo Fagundes
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31. Luiz Scovino
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37. Ricardo Rocha

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39. Eduardo Peña

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41. Francisco Ospina

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44. Evelyn Quiros

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62. Sofia Manzo
63. Margarita Rangel Rangel
64. Berenice Perez

PANAMA / PANAMÁ

65. Gary Acosta

PERU / PERÚ

66. Paulo Vila
67. Sady Beaumont

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68. Kenrick Duncan

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iv List of Documentation

iv.1 All meeting documentation is available at the following web link:

GRP/19 (icao.int)

WORKING PAPERS

Number	Agenda Item	Title	Date	Prepared and Presented by
WP/01 REV	1	Adoption of the Provisional Agenda and Schedule	26/10/21	Secretariat
WP/02	2	Support topics COVID-19 - SAM Region	14/10/21	Secretariat
WP/03	2	ICAO NACC Follow-up to Activities in Support of ICAO Aviation Recovery for COVID-19	15/10/21	Secretariat
WP/04	3.2	Summary of the current status of programs and projects - SAM Region	15/10/21	Secretariat
WP/05	3.2	Summary of the Status of the Programmes and Projects- CAR Region	25/10/21	Secretariat
WP/06	3.1	Progress on the Work Related to the Update of the CAR/SAM ANP	15/10/21	Secretariat
WP/07	3.2	GREPECAS Improvements – Update	11/10/21	Secretariat
WP/08	4	Follow-up to the Global Campaign for NOTAM Improvements in the SAM Region	15/10/21	Secretariat
WP/09	6.2	Report to the Air Navigation Commission (ANC)	25/10/21	Secretariat
WP/10	4	Implementation of the new SNOWTAM format	15/10/21	Secretariat
WP/11	4	Current Status of 5LNC Codes in the CAR/SAM Regions	05/10/21	Secretariat
WP/12	4	Follow-up to the Work of the GREPECAS Scrutiny Working Group (GTE) Results of the CAR/SAM RVSM Airspace Safety Assessment - Period 2018-2020	20/10/21	Secretariat
WP/13	5.1 & 5.2	GREPECAS – RASG-PA Activities, Projects and Coordination Proposals	20/10/21	Secretariat
WP/14	3.2	Development of Air Navigation Services (ANS) Work in the NAM/CAR Region	25/10/21	Secretariat
WP/15	3.2	GREPECAS Dasboard	25/10/21	Secretariat
WP/16	3.2	Air Space Optimization in Brazil	08/10/21	Brazil

WORKING PAPERS

Number	Agenda Item	Title	Date	Prepared and Presented by
WP/17	3.2	CAR/SAM Integration for the Development of Air Traffic Flow Management (ATFM) in the Region	27/10/21	Brazil
WP/18	3.2	Status of ADS-B Implementation in Brazil	06/10/21	Brazil
WP/19	6.1	Progress in the Implementation of the Current Conclusions of GREPECAS	25/10/21	Secretariat
WP/20	4	Approval of the Amendment to the Manual for Points of Contact Accredited to CARSAMMA (PoCs Manual)	21/10/21	Secretariat
WP/21	3.2	Regional CAR Flight Procedure Programme (CAR FPP)	25/10/21	COCESNA
WP/22	3.2	Cooperation in National Regulatory Processes for Meteorology	25/10/21	Costa Rica
WP/23	4	Global and Interregional Activities (GRF, SNOWNOTAM, Global NOTAM Campaign)	25/10/21	Secretariat
NE/24	3.2	Modelo Sugerido para la Automatización de la TWR con el Objetivo de Reducir la Carga de Trabajo de Pilotos y Controladores de Tránsito Aéreo en las Regiones CAR/SAM Integrada a REDDIG (available only in Spanish)	26/10/21	Brazil

INFORMATION PAPERS

Number	Agenda Item	Title	Date	Prepared and Presented by
IP/01 REV	--	List of Working and Information Papers	25/10/21	Secretariat
IP/02	3.2	Activation of the Communications, Navigation and Surveillance (CNS)/Air Navigation Plan (ANP) Subgroup of Interop Task Force (TF)	18/10/21	Secretariat
IP/03	4	Activities carried out by Brazil to improve NOTAM	21/10/21	Brazil
IP/04	6.3	GREPECAS Procedural Handbook Update	20/10/21	Secretariat
IP/05	3.2	Initiatives to Deploy SWIM in Brazil	06/10/21	Brazil
NI/06	3.2	Programa SIRIUS de Brasil (available only in Spanish)	06/10/21	Brazil
IP/07	6.1	Review of the Status of Air Navigation Deficiencies Reported in the GREPECAS Air Navigation Deficiencies Database (GANDD)	20/10/21	Secretariat
IP/08	3.3	Gap Analysis Between the Global Air Navigation Plan (GANP) and the Regional Air Navigation Plan (RANP) Updating the Functions and Terms of Reference (ToRs) of GREPECAS	18/10/21	Secretariat
IP/09	4	Operationalization of CPDLC in Continental Airspace in Brazil	14/10/21	Brazil

INFORMATION PAPERS

Number	Agenda Item	Title	Date	Prepared and Presented by
NI/10	3.2	Actualización informativa sobre actividades de ALACPA 2020-2021 (available only in Spanish)	22/10/21	ALACPA
NI/11	3.2	Informe sobre las actividades adelantadas por el Comité Regional CAR/SAM de Prevención del Peligro Aviario y Fauna-CARSAMPAF (available only in Spanish)	22/10/21	CARSAMPAF
NI/12	4	Implementación de la Vigilancia Dependiente Automática – Radiodifusión (ADS-B) en el Espacio Aéreo Superior de la Región de Información de Vuelo (FIR) Centroamérica (available only in Spanish)	22/10/21	COCESNA
IP/13	3.2	NAM/CAR Regional Airspace Optimization Team	25/10/21	Secretariat
IP/14	3.2	New Scheme to Improve Communications for States at the Interface of the CAR and SAM Regions	25/10/21	Secretariat
NI/15	3.2	Implementación del CDM y A-CDM en Uruguay (available only in Spanish)	26/10/21	Uruguay

PRESENTATIONS

Number	Agenda Item	Title	Presented by
1	4	ACI-LAC Presentation	ACI-LAC

Agenda Item 1 Adoption of the Provisional Agenda and Schedule

1.1 The GREPECAS Vice Chairperson submitted WP/01REV for consideration of the Meeting, which presented the Provisional Agenda and the Order of the Day, which had no objection to their approval. Under IP/01REV details on the documentation for this Meeting were presented.

1.2 Administrative aspects and logistical support were taken into account, and it was suggested that the Meeting carry out its work in three plenary sessions and adopt the modality and working hours that were presented.

1.3 The Vice-Chairperson of GREPECAS finally emphasized the importance of the review and update of GREPECAS Projects as support to the States in the implementation actions in the CAR/SAM Regions, despite the impact that has had the COVID 19 pandemic issue in the aeronautical community.

Agenda Item 2 **Topics in Support of the COVID-19 Contingency: CAR/SAM Follow-up to the Activities in Support of the ICAO Aviation Recovery due to the COVID-19 Pandemic**

2.1 Under WP/03 and WP/04, the Secretariat summarized the different activities, actions and efforts carried out by ICAO jointly with the States and all aviation actors to mitigate the impact of the COVID-19 pandemic, with a focus on the implementation of the Council Aviation Recovery Taskforce (CART) measures and their reporting and monitoring in the COVID-19 Response and Recovery Implementation Centre (CRRIC) system. The restart and recovery of aviation have been the highest priority for the regions, the States and the industry.

2.2 Under WP/02, the Secretariat presented a summary of the support activities developed by the South American Regional Office for the response of the SAM States to COVID-19, including the level of implementation of the CART and the document *Take-off* in the SAM Region. Since its creation as part of a conclusion of the Virtual Meeting of DGACs of the SAM Region, the Strategic Group of the SAM Region has held seven virtual sessions and has prepared a Regional Strategic Framework, which has served as the basis for the States to implement regional recovery measures based on CART documents. In addition, the Directors General have met five times since April 2020 to address recovery issues of.

2.3 The SAM Region has achieved the highest percentage of reporting on the implementation of CART Recommendations, achieving 96% in the report. However, the CRRIC platform shows that only 64% has been achieved in the effective adoption of the CART Recommendations; leaving an important gap that must be addressed by the States.

2.4 Under WP/03, the Secretariat informed the Meeting on the activities developed by the NACC Regional Office in support of States/Territories in their response to the COVID-19 pandemic. Information was provided on the level of implementation of the Recommendations of the CART in the CAR Region and the *Take-Off* Document, as well as on the progress of the implementation of Public Health Corridors (PHCs) in the CAR Region. Several meetings with the NAM/CAR Civil Aviation Authorities (CAA) Directors General (DGs) have been conducted, for assistance and support on the implementation of COVID-19 measures and the aviation recovery in the region. These meetings can be find in https://www.icao.int/NACC/Pages/NACC-C19Meetings.aspx

2.5 It was mentioned that during the last two Virtual Meetings on Aviation Recovery, PHCs Implementation was highlighted through the Declaration of Intent on the PHCs Implementation among North American and Caribbean States/Territories. Similarly, it was informed that based on CART Recommendation 14 concerning PHCs the first PHC implementation Package (iPack) has been deployed, since October 2021, in the Eastern Caribbean States through the Eastern Caribbean Aviation Authority (ECCAA) to its six States.

2.6 Regarding the CART Recommendation status dashboard, the overall implementation status in the CAR Region is 60% and the level of adoption of PH measures is 78.59%.

2.7 Based on the above, the Meeting was informed on the main COVID-19 contingency challenges, identified to date:

- States need to establish CRRIC as a priority
- Availability of State representatives
- Training of State Point of Contact (PoC)
- State internal coordination among different players to report progress
- Several States/Territories found some difficulties when uploading their progress into the CRRIC
- Objective and concise completion of CRRIC
- Reaching and guiding technical staff within small States through the Internet

2.8 In this sense, the following comments were received from the States:

- Brazil commented on the challenges imposed by this complicated period, specifically in the case of Santos Dumont airport, where traffic was significantly reduced. It also commented on the joint work with Uruguay in terms of approach procedures.

- Chile shared its experience on the mitigation actions facing the pandemics and the ICAO CART measures application.

- Cuba mentioned that sharing of information in the CRICC has been updated with no problems; however, the implementation of the PHC is progressing very slowly.

- United States indicated that during ICAO's Covid-19 High-Level Virtual Conference, some working papers were presented on the importance of surveillance by States through the virtual medium. Therefore, United States suggests that GREPECAS analyse the means to provide assistance to States on virtual surveillance in compliance with ICAO Standards and Recommended Practices (SARPs). Moreover, it suggested that Regional Office shall provide additional guidance to States on how to implement these surveillance activities. The Secretariat noted the United States' comments and indicated that the Regional Safety Oversight Cooperation System (SRVSOP) currently has some guidance documents where these surveillance parameters are already integrated. The website https://www.srvsop.aero/site/wp-content/uploads/2020/11/MIA-Enmend-N%C2%B010-Ago-2020.pdf was shared, containing a document that in its Part II Chapter 1 contains related information, NI/16 (*available only in Spanish*) provides further details. Similar guides are available from other States and the Regional Safety Oversight Organizations (RSOOs).

- Peru reported on its good experience with CRICC and CART; however, on air navigation there was no greater information sharing by the States. Regarding licensing, they had to extend the validity of the licenses for pilots and controllers among others and the recovery was slow. Beyond air navigation capability, currently public health restrictions continue.

- Dominican Republic shared its experience on mitigation actions and active work at the country level together with the Ministry of Health and Tourism to maintain operations and avoid restrictions. It highlighted that it has been possible to recover aviation and tourism at similar levels of or above those of 2019.

- Central American States and COCESNA explained on the measures taken to ensure operations within the Flight Information Region (FIR) Central American, as well as at the Air Traffic Services (ATS) unit level, recognizing the strong impact suffered because of the pandemic and the impact on regional aviation.

- IATA mentioned the difficulties of restarting activities due to the disparity of criteria on health measures in the States of the CAR / SAM Regions. It also indicated that the States that have been less restrictive in their health measures are those that are leading the recovery. In addition, it suggested promoting the implementation of procedures that allow the maximum use of performance of the modern aircraft with which the CAR/SAM Regions operate.

2.9 In this sense, the Meeting recognized the efforts and experiences of everyone on the issue of aviation recovery due to the pandemic, identifying that recovery has not been the same in all the States and therefore the importance of following the guidelines, the CART measures and of continuing to report the status into the CRRIC, as well as continuing regional collaboration during this recovery. Therefore, the following conclusion was adopted:

<table>
<tr><td colspan="2">CONCLUSION GREPECAS 19/07 [i]</td><td colspan="2">ACTIVITIES IN SUPPORT OF ICAO AVIATION RECOVERY FROM COVID-19</td></tr>
<tr><td colspan="2">What:
That, States, Industry and stakeholders

a) recognize the suitable and prompt support of ICAO for aviation recovery greatly impacted by the COVID-19 pandemic through the Council Aviation Recovery Taskforce (CART) measures, the COVID-19 Response and Recovery Implementation Centre (CRRIC) and the NACC and SAM specific guidance and particular support for the air navigation matters to ensure a sustainable and harmonized effort aimed at aviation recovery in the CAR/SAM Regions;
b) continue the implementation of COVID-19 guidance and supporting documentation prepared for Air Navigation Services (ANS) available at the NACC and SAM websites;
c) propose specific aspects and needs that could be addressed in future meetings at the NACC and SAM ICAO Regional Offices meetings and events related with COVID-19; and
d) take action regarding the implementation of the CART Recommendations, the Take-off Measures, and the continuous reporting in the CRRIC.</td><td colspan="2">Expected impact:
☐ Political / Global
☒ Inter-regional
☒ Economic
☐ Environmental
☒ Operational/Technical</td></tr>
<tr><td colspan="4">Why:
The sustainable aviation recovery from the impact of the COVID-19 pandemic is a global and regional priority for all States and stakeholders for which the harmonized, systemic and coordinated effort from each State and industry is key for this common goal</td></tr>
<tr><td>When:</td><td>By GREPECAS/20</td><td>Status:</td><td>☒ Valid / ☐ Superseded / ☐ Completed</td></tr>
<tr><td>Who:</td><td>☒ States ☒ ICAO ☒ Other:</td><td colspan="2"></td></tr>
</table>

[i] Conclusions 1 to 6 are presented in Appendix G to this report

Agenda Item 3 GREPECAS Work Programmes, Objectives and Results

3.1 CAR/SAM Regional Air Navigation Plan Work Update

3.1.1 Under WP/06, the Secretariat updated its work for developing the CAR/SAM Regional Air Navigation Plan (RANP) specifically for its Volume II, but also the updates needed on Vols. I and II, and the maintenance activities for the valid version be used and referenced. The Secretariat and the GREPECAS Chairperson emphasized the need to count with the active participation and contribution of States and aviation stakeholders on these activities to achieve the successful update of the RANP and the development of its Vol III.

3.1.2 The Secretariat reminded the Meeting that GREPECAS, through its ePPRC Meetings, has been preparing the work and activities to comply with the development of the CAR/SAM Air Navigation Plan (ANP) Vol. III. This, in compliance with Recommendation 4.3/1, item d) from the ANConf/13 that encouraged the Planning and Implementation Regional Groups (PIRGs) to apply a Performance-Based Approach (PBA) to implementation and to adopt the process of management of the six-step performance described in the *Manual on Global Air Navigation System Performance* (Doc 9883) reflecting the process in Vol. III of all RNAPs.

3.1.3 The Secretariat also informed that ICAO had formed an interregional Working Group to prepare a Standardized Template for Vol. III of the RNAPs with a PBA.

3.1.4 The Meeting was informed that the Secretariat had decided to design a Project for the Review of Vols. I and II of the e-ANP and the processes related to preparing and managing the CAR/SAM e-ANP, in order to have a solid base on which to build Vol. III of the RANP, to ensure a consistent and systemic update of the CAR/SAM RANP, and indicated the following main outcomes:

a) project planning;
b) management of the master of the CAR/SAM RNAP;
c) analysis of the RANP with other documents (ICAO Global Aviation Safety Plan (GASP), Doc 7030 — *Regional Supplementary Procedures*, etc.);
d) review of CAR/SAM RANP Vols. Iand II; and
e) CAR/SAM RANP Vol. III - assistance for the formulation and management of Vol. III of the CAR/SAM e-ANP

No.	Project Outcomes	Progress and updates
1.	Project Planning	Completed. The Project has been planned and approved at the Regional Offices' level.
2.	Management of the Master CAR/SAM RANP	CAR and SAM procedures have been established for managing and updating the Master of the RANP. A final procedure will be defined shortly with the corresponding links/repository website for the valid RANP. For this procedure, a amendments control will be created for the management of the master document.
3.	Analysis of the RANP with other documents (GASP, Doc 7030, etc.);	Review of Doc 7030 in relation to ANP. The review of the template will be aligned with the ANPs and not the other way around. In addition, there is nothing to do about Regional Supplementary Procedures (SUPPs) in the ANP.
4.	Review of CAR/SAM RANP Vol. I	Vol. I has been completely reviewed, considering amendments to the Annexes and ICAO Documents on which this Vol. of the CAR/SAM e-ANP is based. The latest evaluations are being carried out to raise the opportunities for improvements detected for consideration by the Air Navigation Bureau. Likewise, proposals for amendment on the Air Traffic Management (ATM) and Aerodromes and Ground Aids (AGA) areas have already been processed.
5.	Review of CAR/SAM RANP Vol. II	Vol. II has been completely reviewed. Proposals for amendments to the ATM, AGA, and Meteorology (MET) areas have already been processed. Other proposals are being evaluated for the areas of AGA, Aeronautical Information Management (AIM), MET, Communications, Navigation and Surveillance (CNS), and Search and Rescue (SAR). During the SAM/IG/26, Conclusion SAM/IG/26-3 *Review of the CNS tables of Vol. II of the CAR/SAM Air Navigation Plan and support in the preparation of Vol. III of the CAR/SAM ANP*, on CNS issues was approved. A request for updating Vol. II for tables Airport Operator (AOP) I-1, II-1 and MET II-1 has been submitted for States' action (Ref. NACC E.OSG-NACC91036 and SAM SA363 dated 11 October 2021).
6.	CAR/SAM RANP eANP Vol. III - Assistance for the formulation and management of Vol. III of the CAR/SAM e-ANP	Instructions to use Vol. III template of the CAR/SAM RANP has been prepared and the PPRC approved its use as a tool for the preparation of Vol. III. Further details on these Instructions are available as Appendix E to the Minutes of the Meeting mentioned above (available at the following link: https://www.icao.int/NACC/Documents/Meetings/2021/PPPRC3/ePPRC03-Minute.pdf)

3.1.5 The Secretariat informed on the progress of the activities on the ANP Vol III development, referred to in Conlcusion ePPRC/03/08, items b) and c). The Secretariat has been implementing the outcome of the Project on the "Assistance for the formulation and management of Volume III of the ANP CAR/SAM". States were urged to designate or ratify their focal points and ANS work teams, in order to facilitate communication and integration into the activities scheduled by the Secretariat, TO ensure the

participation of the States in the planned activities for the development of the CAR/SAM RANP Vol III. The update of Vol. III activities is shown in **Appendix A** of this report. This update highlighted the deadline for the end of Vol. III planned for the end of July 2022.

3.1.6 Due to the importance of the development of Vol III of the CAR/SAM ANP and the need for the active participation of States and international Organizations to achieve this task, the Meeting agreed to adapt conclusion ePPRC/03/08 as follows:

<table>
<tr><td colspan="3">CONCLUSION
GREPECAS 19/05</td><td colspan="2">COMPLETION OF CAR/SAM AIR NAVIGATION PLAN (ANP) VOLUME III</td></tr>
<tr><td colspan="3">What:
That,

a) States adopt the “Instructions for the use of template of air navigation regional plan – ANP CAR/SAM, Volume III”;

b) States appoint or ratify their focal points/work teams to act as counterparts of the Secretariat and communicate such nomination to the correspondent Regional Office by 30 November 2021;

c) States ensure the active participation of focal points/work team in the activities assisted by the Secretariat for the development of Volume III; and

d) States and Regional Offices complete the development and approval of Vol III in the first semester of 2022.</td><td colspan="2">Expected impact:
☐ Political / Global
☒ Inter-regional
☐ Economic
☐ Environmental
☒ Operational/Technical</td></tr>
<tr><td colspan="5">Why:
To achieve a planning aligned with the Global Air Navigation Plan (GANP), according to the needs of efficiency, balance between demand and capacity of the States, to ensure interoperability of the air navigation services and facilities of the CAR SAM Regions with the rest of the world, for an orderly and safe development of regional aviation and to be able to benefit from new technologies in a cost-efficiently manner.</td></tr>
<tr><td colspan="2">When: By 31 July 2022</td><td colspan="3">Status: ☒ Valid / ☐ Superseded / ☐ Completed</td></tr>
<tr><td colspan="2">Who: ☒ States ☒ ICAO ☐ Other:</td><td colspan="3"></td></tr>
</table>

3.1.7 Finally, the Secretariat emphasized that the work of drafting and implementing Vol. III required the integration of all technical areas, given that the selection of Aviation System Block Upgrade (ASBU) modules, as well as the implementation of a mechanism for performance measurement at the regional level, would encompass in a cross-sectional manner all ANS.

3.1.8 It was highlighted that, in addition to the benefits that Vol. III would bring by itself, the relevance of the CAR/SAM ANP Regions would be retaken as the main reference for regional implementation.

3.2 GREPECAS Work Programmes, Objectives and Results

Current Status of the GREPECAS Programmes and Projects

3.2.1 The monitoring of GREPECAS Projects for the CAR/SAM Regions was informed to the Meeting through WP/04 and WP/05, highlighting:

a) Since the GREPECAS 18, in the virtual Meetings PPRC 01, 02 and 03 held, the continuous review of the Programmes and Projects, and their results, was maintained. The Review Committee provided guidance for such review, analysis and adoption of Conclusions/Decisions to ensure that the Projects that remain valid truly support the implementation in air navigation in the region. Guidance material provided at the ePPRC/02 Meeting is included in **Appendix B** to this report.

b) The review of GREPECAS Programmes and Projects has been adapted to the emerging needs and priorities imposed both by the COVID-19 pandemic and by the updates of the latest Edition of the GANP (6th. Ed.)

c) The continuity of the Projects and the fact that the ePPRC/01, 02 and 03 Meetings, in addition to the Evaluation Meeting to update the GREPECAS projects, were held in the context of the COVID-19 pandemic. These virtual Meetings concluded that, despite the context of the pandemic, the SAM Region Projects related to the ATM, AGA, AIM, and CNS programmes should continue, but they should be reviewed to either restructure and/or update them.

d) The SAM Region MET Area Projects should be finalized because they have generated the documentation and procedures initially projected and the approval of new MET projects was recommended on:
   i. Preparation of information related to en-route meteorological phenomena that could affect the safety of aircraft operations (homogeneous SIGMET); or
   ii. Implementation of the ICAO Weather Information Exchange Model (IWXXM); or
   iii. Preparation of meteorological messages for their exchange in a System Wide Information Management (SWIM) environment.

e) Regarding the CAR Region Projects:
   i. Projects related to ATM (A1, B1 and B2) remain valid
   ii. Projects related to CNS (C and D) remain valid

iii. The creation of a new Project under the Aerodrome F Programme for the CAR/SAM Regions on airport Collaborative Decision Making (CDM) and maintenance of the SM Aerodrome and certification.

iv. The AIM-related Projects (G1 and G2) were replaced by a new Project for the implementation of the AIM Collaborative Plan

v. For MET, previous Projects (H2, H3 and H4) were reported as completed and no new Projects were proposed.

f) That the limitations generated by the pandemic had not allowed SAM States to adopt the documentation and guides for the Air Traffic Flow Management (ATFM) service prepared in 2019 and that the Meeting of the regional implementation group SAMIG/26 (virtual, 20 to 23 September 2021) had adopted the ATFM Operations Plan (OPSAM) and the Guide for the implementation of ATFM in the SAM Region 2022-2026. Hence, Project B1 on ATFM in the SAM Region was modified, "Improving the balance between demand and capacity", as shown in Appendix A of WP/04.

3.2.2 After the discussion of the Meeting, the review of the status of the Projects was completed, as shown in **Appendix C** to this report that shows the current status of each Project, their Project/programme coordinators and other general data. Therefore, the Meeting agreed the following decision:

<table>
<tr><td colspan="3">DECISION
GREPECAS 19/08 GREPECAS PROJECT REVIEW</td></tr>
<tr><td colspan="2">What:
That, following the review and updates of the GREPECAS Programme and Project, based on the requirements of the 6th Edition of the Global Air Navigation Plan (GANP) and the CAR/SAM Regions Air Navigation Services (ANS) priorities,

a) States approve the list of GREPECAS Projects shown in Appendix C of this report

b) The GREPECAS Secretariat update the GREPECAS website with these updates by 31 December 2021; and

c) States and industry ensure the active participation of their representatives in support of the implementation and successful deployment of these Projects.</td><td>Expected impact:
☐ Political / Global
☒ Inter-regional
☐ Economic
☐ Environmental
☒ Operational/Technical</td></tr>
<tr><td colspan="3">Why:
Identification and follow-up to the valid Programme and Projects for the CAR/SAM Regions, updated with their Project Coordinators, activities, dates and deliverables</td></tr>
<tr><td>When:</td><td>By 31 December 2021</td><td>Status: ☒ Valid / ☐ Superseded / ☐ Completed</td></tr>
<tr><td>Who:</td><td>☒ States ☒ ICAO ☐ Other:</td><td></td></tr>
</table>

3.2.3 The Meeting recalled that during the ePPRC/03 Meeting, the development of the GREPECAS Dashboard was announced, and that the monitoring of the Projects is sought through this initiative, as well as having a monitoring, control and measurement mechanism of the efficiency of Programmes and Projects, as well as timely reports on the status of the implementation of ANS, with the following goals for the year 2022:

INITIAL GOALS TO THE YEAR 2022
Goal 1) Increase the annual percentage of effective implementation of the projects proposed in the Working Groups.
Goal 2) Link the needs of the CAR/SAM States with the implementation projects of the Regions, contributing to regional initiatives, through the training of Human Resources.
Goal 3) Establish an effective work methodology that guarantees the continuity of the work and the fulfilment of current and future goals.
Goal 4) Establish a program for the exchange of good practices among the States, based on the objectives of the Global Air Navigation Plan (GANP) and the ICAO Global Aviation Safety Plan (GASP), through the GREPECAS and the Regional Aviation Safety Group–Pan America (RASG-PA) implementation projects.

GREPECAS Contributory Bodies Report

3.2.4 Under IP/10, the Latin American and Caribbean Association of Airfield Pavements, ALACPA, presented a summary of its activities in 2020 and 2021, where it highlighted the holding of the XVII ALACPA Seminar - 2nd Technical Forum on airfield pavements by Zoom, from 8 to 10 November, 2021, adding that while registration to the forum is free for anyone who wishes to participate, within the framework of the collaborative agreement with GREPECAS, the Civil Aviation Authorities (CAAs) of the NAM/CAR and SAM Regions are exempted from paying the annual membership fee, a general condition to receive the certificate of attendance to the above-mentioned event and subsequent access to the presentations.

3.2.5 Under IP/11, a summary of the activities of the CAR/SAM Regional Bird/Wildlife Hazard Prevention Committee (CARSAMPAF) was presented. These include the Training, dissemination and information exchange program; the airport operator support program; and the State advisory and support program. For each of them, the deliverables and the progress achieved to date were presented. The Meeting was also invited and information was presented on the 19th Conference of the CAR/SAM Regional Bird/Wildlife Hazard Prevention Committee, to be held virtually from 1 to 3 December, 2021.

GREPECAS Dashboard – Indicators and Metrics

3.2.6 Under WP/15, the Secretariat announced the prototype of the CAR/SAM Regional Dashboard to monitor and follow up on the implementation of the air navigation elements and support the Annual Regional Report to the ICAO Air Navigation Commission. It was reported that GREPECAS, in response to the mandate of the ICAO Council, shall report the status of the implementation of air navigation with a common report for all the regional offices, which should include regional planning, development and maintenance of regional ANP (ANPs), based on the operational needs of the States. Furthermore, tactical adjustments to work programs are made on an ongoing basis and with the support of ICAO online standard tools.

3.2.7 The Dashboard for measurement and reporting is based on regional indicators and their goals. The States were invited to collect data, for the subsequent presentation of reports and the timely monitoring of the levels of implementation, in order to obtain the information and the infrastructure of the ANSs.

3.2.8 Although GREPECAS has identified a set of regional indicators and metrics, the States must support and establish a measurement mechanism that includes data collection. The measurement mechanism will allow the correlation of the actual implementation status with expectations. In order to support the collection, measurement and reporting of data, GREPECAS provided the task of defining the data collection, measuring and reporting to its new Data Analysis Working Group (DAWG), and that the GREPECAS website allow the CAR/SAM implementation status to be viewed. through tables and graphs. In order to achieve the objectives of the Dashboard it is necessary to comply with the following factors:

- Implement the measurement mechanism, with common parameters, goals and languages (English and Spanish).
- Exchange information between different stakeholders. Transparency in the exchange of data and information is essential.
- Identify the Points of Contact (PoCs) in the States, responsible for providing, evaluating and feeding the Dashboard, so that their information is always updated, according to the real levels.

3.2.9 In this sense, the DAWG will make use of the indicators referred to in the ICAO documentation (GANP) for each navigation area and is working to propose the necessary procedures for this task.

3.2.10 In order to develop an online platform of the Dashboard within the GREPECAS website, the Power BI tool will be used and in coordination with the States and stakeholders of the region, it will be agreed which indicators/metrics will subsequently be the highest relevance to be visualized and measured in the Dashboard.

3.2.11 An explanation of the initial prototype of this Dashboard was provided, which includes the indicators proposed by GREPECAS, as shown in **Appendix D** to this report.

3.2.12 GREPECAS members would be able to access the Dashboard according to the official designation of their State or International Organization. Access will be allowed only to GREPECAS Members. The Administrator of these accesses will be the Secretariat of GREPECAS. During the next PPRC Meeting, the DAWG will present the procedure developed in detail. It is estimated to complete the Dashboard with real data for the next GREPECAS 20 Plenary Meeting in 2022

3.2.13 It was concluded by the Meeting that a measurement mechanism that includes the collection, processing, storage, as well as the graphic presentation of the indicators/metrics in the dashboard available to the States is essential for the greatest benefit of the States and for the GREPECAS improvements. In this sense, the following conclusion was formulated:

CONCLUSION **GREPECAS 19/09**	**DASHBOARD IMPLEMENTATION**	
What: That, States, in order to increase the efficiency of GREPECAS, a) support the establishment of a GREPECAS management dashboard as part of the GREPECAS improvements which should be implemented by GREPECAS/20; and b) provide the ICAO Regional Offices with the information and data sets necessary for the development of the Air Navigation Dashboard, as necessary.		**Expected impact:** ☐ Political / Global ☒ Inter-regional ☐ Economic ☐ Environmental ☒ Operational/Technical
Why: Implement improvements to increase GREPECAS efficiency and effectiveness		
When: GREPECAS**/20**		**Status:** ☒ Valid / ☐ Superseded / ☐ Completed
Who: ☒ States ☐ ICAO ☐ Other:		

Follow-up to GREPECAS Improvements

3.2.14 In WP/07, the updated status of the GREPECAS Improvement Project was presented to the Members of the Regional Group, as part of the "GREPECAS Improvement Proposal", sent to the States through the ICAO NACC and SAM Regional Offices , requesting States to promote among GREPECAS members a search for improvements in alignment with the goals and objectives of GREPECAS and the requirements of the States.

3.2.15 Despite the adverse conditions imposed by the pandemics, the Secretariat made progress in different aspects of the improvement Project, some of these improvements have been achieved through the implementation of a GREPECAS Dashboard. The progress status of these improvements is detailed in **Appendix E** to this report.

ANS Implementation in the NAM/CAR Regions

3.2.16 Under WP/14, a summary of the decisions and conclusions agreed upon at the Sixth Meeting of the North American, Central American and Caribbean Working Group (NACC/WG/06) held in August 2021 was presented, where the activities of the different task forces for the area of air navigation were resumed. Although several activities planned within the Air Navigation Task Forces for the CAR Region suffered delays due to the COVID-19 pandemic, the new mechanisms of on-line Meetings were used to carry out activities in all areas of air navigation, which reached more personnel and there was greater involvement.

3.2.17 All areas were covered in this Meeting, especially the work in the areas of performance-based navigation (PBN), MET, Automatic dependent surveillance – broadcast (ADS-B), AIM, the new CAR communications network, and others. In particular, the decision that all Task Forces integrate into their action plan the evaluation of the ASBU elements that are "ready to implement" and that this evaluation provide information to define the regional objectives that will support the realization of the e-ANP development project in its volume III.

Airspace optimization

3.2.18 Under WP/16 Brazil presented an update on the implementation of airspace concepts project, design of instrument flight rules procedures (IFR) and other actions adopted by DECEA to achieve the SIRIUS Project's objectives (implementation of national ATM) regarding the optimization of Brazilian airspace. The implementation of PBN re-designs for Terminal Control Areas (TMAs) since 2015 was shown highlighting the recent optimization of the Sao Paulo airspace (TMA SP Neo). Work in progress at the Recife FIR and Brasilia FIR was also listed. Brazil has 1,442 IFR procedures (Instrument Approach Chart (IAC), Standard Instrument Departure (SID), Standard Instrument Arrival (STAR)) published for 141 airports where IFR operations occur.

3.2.19 Considering these IFR procedures, the status of implementation of the PBN concept as well as the Continuous Descent Operations (CDO) and Continuous Climb Operations (CCO) techniques at Brazilian airports is shown in the following table:

APV/LNAV			STAR	SID	CDO TMA	CCO TMA
IAP APV	LNAV	IAP RNP AR	STAR PBN	SID PBN		
100,00%	100,00%	9,3%	100,00%	100,00%	100,00%	100,00%

3.2.20 The impact of the isolation measures generated by the pandemic on the production of aeronautical charts in Brazil was analysed. In response, remote access to the PANS OPS application servers was provided for designers to work from home. The situation could be reverted and the productivity of the IFP service is now increasing.

3.2.21 In this regard, the Meeting was informed of the progress made in Brazil and the SAM Region regarding the implementation of PBN procedures on visual flight runways and the application of RF (radial to fix) segments in Required Navigation Performance (RNP) Approach (APCH) procedures, which are supported, respectively, by studies conducted by GESEA (SAMIG Airspace Planning and Implementation Group) and the updated technical text of the regional SRVSOP system. The aim is to optimize airport accessibility and, therefore, to guarantee safety and operational efficiency.

3.2.22 Under IP/13, the Secretariat reported on the Regional NAM/CAR Airspace Optimization Project led by ICAO NACC Office, which aims to optimize airspace for an efficient move towards Free Route Airspace as required by the GANP. The Project is comprised of a team of experts from the States as well as CANSO/IATA and the SAM Regional Office. The team held its first Meeting on October 7 and will meet regularly over the next 2-3 years. The team will measure the success of the new routes using metrics provided by the users.

3.2.23 IATA expressed its support for the Regional NAM/CAR Airspace Optimization Project, emphasizing that efficiency gains can be achieved wherever possible without capital expenditure. With air traffic growth expected to continue and be consistent in the region, this effort will not only save money but also carbon emissions.

Improvements in ATFM

3.2.24 Under WP/17, Brazil stated that, in order to assist in planning the demand for operations that has been gradually increasing, the resumption of the ATFM agenda for the SAM Region was encouraged through the creation of GESEA (SAMIG Airspace Planning and Implementation Group) Subgroup, coordinated by specialists from the Air Navigation Management Center - CGNA and with the participation of specialists from States in the region and IATA members.

3.2.25 This Subgroup has been promoting an ATFM Operations Plan for the region, emphasizing practical activities among all ATFM services, and generating studies of the main flows, data management and demand forecasts through a regional dashboard, weekly pre-tactical briefings, as well as a monthly briefings to submit strategic and post-operational aspects in joint work with the airlines. At the same time, the Capacity Calculation Manual is being reviewed and a 2022 - 2025 Regional ATFM Implementation Guide has been prepared through a Task Force coordinated by Argentina.

3.2.26 It was highlighted that these ATFM initiatives have enabled State capabilities with respect to the management of several GAND Key Performance Indicators (KPI). Brazil reiterated its willingness to continue cooperating, through the CGNA team, with all CAR/SAM States that wish to be part of the construction of the ATFM of the region.

Automation of Control Tower processes (TWR)

3.2.27 WP/24 presented by Brazil highlighted the importance of automation of the control tower processes (TWR) to increase the efficiency and safety of air operations, contributing to the reduction of carbon emissions and to lower fuel consumption.

3.2.28 The recent implementation of the Airport Collaborative Decision Making (A-CDM) concept at the São Paulo International Airport (Guarulhos), in its first year of operation, showed as evidence the great value of the automation of TWR processes, increasing the efficiency of air operations at the airport, as well as in the reduction of carbon emissions, lower fuel consumption in ground operations, greater flight safety, also bringing gains for ATFM throughout the system.

3.2.29 It was found that the model is really efficient and that the association between Strips, a centralized database and a local system responsible for yard operations adds great value not only to the airport's optimization capacity, but also to the real demand for time updates in ATFM systems.

3.2.30 Especially for countries that have access to REDDIG network,, the process of implementing this model can benefit from the channels already available through this network, reducing its operational costs and increasing interoperability among participating States. It can also be a good tool for the exchange of data needed to forecast flight demands in the flow management of countries.

3.2.31 After pointing out several operational advantages, Brazil indicated that the major benefit of Strips is the equipment integration. They contain operational information from a flight plan and are digitally distributed among the different operational positions, creating a pattern and automatic organization of the information, besides avoiding the need to use a large volume of paper.

3.2.32 Given the importance of automating TWR routines, involving TWR communications with other operational bodies and aircraft digitally in the development of ATFM services and the ASBU TBO element, it is necessary to find alternatives that facilitate the access of States in the region to this more automatic and digital pre-departure operation environment. Finally, Brazil informed the Meeting that it is available to clarify the details and operational advantages of the model presented.

Regional Programme for the Design of CAR Flight Procedures (CAR FPP)

3.2.33 Under WP/21, COCESNA, on behalf of the Central American States, presented the initiative of the Regional Programme for the Design of CAR Flight Procedures (CAR FPP) as a collaborative regional solution to ensure the effective, cost-effective and sustainable implementation of PBN. In this sense, it mentioned that PBN is a high priority for air navigation due to the operational benefits and the improvement in the safety of the operations and the capacity and efficiency for the performance of the users and the use of the airspace. PBN is an important element of ICAO ASBU to take advantage of the operational benefits provided in the ICAO GANP, emphasizing the current low levels of PBN implementation in the CAR Region and for the Central American States.

3.2.34 In most cases, States hire a third party for PBN procedures at a high cost, due to limited resources and the need for specialized local/national qualified personnel among some of the shortcomings in flight procedure design activities. COCESNA joins the regional collaboration as a solution for States in the implementation of services and systems of the Flight Procedure Design Program (FPP) initiative, which is why it has promoted its initiative for FPP regional for the CAR Region.

3.2.35 The Central American States and COCESNA have worked together on the implementation of air navigation services in the Central American FIR, in coordination and harmonized operation with the adjacent FIRs with a high level of services and security. The ICAO FPP initiative is an option that COCESNA has joined in support of the Central American subregion and the CAR Region. COCESNA will be under this initiative through its established Procedures Design unit, with qualified personnel, software and hardware infrastructure and experience, which provides distance training courses and On-the-Job (OJT) to operators that approve PBN operations, as well as any other associated assistance required in the field of PANS OPS procedures. The following results of the CAR FPP are expected in COCESNA:

a) improve competence in the design of procedures
b) Increase PBN implementation
c) Increase the Aeronautical Information Publication (AIP) with the new procedures
d) Increase in local operators approved in PBN operations
e) Proven evidence to improve the safety and efficiency of IFR flight operations

A-CDM Implementation in Uruguay

3.2.36 IP/15 presented by Uruguay, updated the Meeting on its coordination work carried out for the organization both in the air and on the ground, performing decision making among the main members of the aeronautical community, with a view to attend important sport events to be held in Uruguay.

3.2.37 The good sanitary conditions in Uruguay, a country that has vaccinated a high percentage of its population, was a determining factor in the decision of the CONMEBOL Council to designate the city of Montevideo as the venue for the single finals of the CONMEBOL *Libertadores* for both women and men and the South American CONMEBOL in 2021. Work is underway to implement the CDM concept, including its application on ATFM and airport operations through airport-level CDM (A-CDM) by identifying the roles and responsibilities of actors and stakeholders, and specifying the methods and tools to be considered in A-CDM decision making.

ADS-B implementation in Brazil

3.2.38 Under WP/18, Brazil reported on the implementation status of ADS-B surveillance within the framework of the SIRIUS Brazil strategic programme for the evolution of ATM in the country. *Implementation of ADS-B in the Campos basin*. One of these projects was carried out at the Terminal Area (TMA)-Macae in order to improve air navigation services in the oil-ocean basins in the Southeast region of Brazil. The objective was to support helicopter air operations of interest to oil activities between the mainland and platforms or vessels anchored in that basin, in the oceanic area, for the transport of both people and cargo. Since November 2018 the TMA-Macae operates with surveillance information supported by ADS-B and radar.

3.2.39 Currently, 100% of the 122 helicopters flying in that region are already equipped with the avionics required to support ADS-B 1090 ES. The ADS-B system, together with other ATS automation and communications capabilities, allows APP-Macae to provide a minimum separation of up to 5 NM between aircraft flying at low altitudes, providing a significant increase in the safety of flights between oil platforms and enabling low-altitude surveillance of the entire volume of the TMA-Macae. These efficiency and safety improvements motivated the plan of implementation of ADS-B surveillance in the Santos Basin. The schedule foresees the implementation by 2026.

3.2.40 The Brazilian administration began negotiations to establish 66 ground ADS-B stations in its territory, with the objective of providing better and more accurate surveillance data, which potentially include, for example: accuracy and integrity indicators of navigation data, aircraft selected altitude and course - supporting the use of the 4D path and the reduction of the time needed for ATM decision making. The project is structured in four phases of implementation, which meet the operational needs. In addition, studies were initiated to identify the need for a future mandate in the Brazilian airspace. To date, there is no forecast for the next five years. If the need to establish a mandate in the future is identified, the aviation community will be invited to participate in the implementation plan from the beginning, establishing the regulatory timetable, allowing sufficient time for operators to equip.

SIRIUS Programme

3.2.41 IP/ 06 prepared by Brazil presents a description of the SIRIUS Programme as the instrument established by the Brazilian State to promote the evolution of the Brazilian Airspace Control System (SISCEAB), in harmony with the global and r air navigation plans and in compliance with the guidelines defined by the Brazilian administration, in response to the growth in demand and diversity of air traffic foreseen for the coming decades and the technological evolution in the field of aviation.

3.2.42 Conducted by the Department of Airspace Control (DECEA), the SIRIUS Programme has ensured the continuous raising of safety levels and the increase of the capacity to control, defend and integrate a volume of airspace that covers more than 22 million km^2, being 8.5 million km^2 over the continent, 3.5 million km^2 over the Exclusive Economic Zone (EEZ) and 10 million km^2 covering part of the Atlantic Ocean, this last segment resulting from international agreements within the scope of the International Civil Aviation Organization (ICAO). The SIRIUS Programme presents a performance-based action plan that will enable flights in a dynamic digital environment with high connectivity, focused on Meeting the needs of Brazilian airspace users.

Improvements to Regional Aeronautical Telecommunications Networks

3.2.43 The Secretariat presented under IP/14 the initiative to implement communication improvements for States at the interface of the CAR and SAM Regions. The Meeting noted that, during the Twenty-seventh (extraordinary) Meeting of the Coordination Committee of Project RLA/03/901 (RCC/27 - Virtual, 31 August 2021), the Committee adopted Conclusion RCC/27-1 *Implementation of REDDIG II ground network nodes (MPLS) in CAR States*, and requested ICAO to take the necessary steps to contact the CAAS of the Caribbean States to obtain authorisation for the installation of the REDDIG II (MPLS) nodes, at no cost to these States, allowing for a significant improvement in communications between the States at the interface between the CAR and SAM Regions.

3.2.44 Therefore, considering the REDDIG approach in its conclusion RCC/27-1A, the NACC Regional Office will communicate and advise some States regarding the opportunity for the facilities of these nodes and their consideration of this initiative, and taking into account that it requires coordination and technical evaluation as a network by the MEVA, the members of the MEVA network, through the MEVA Technical Management Group (TMG), will carry out an analysis of the technical implications and the implicit changes of this proposal. For this, the MEVA TMG , in coordination with REDDIG, will hold technical Meetings for this exchange of information and definition of future actions.

Activation of the CNS/ANP Subgroup of SAM/IG

3.2.45 Under IP/02, the Secretariat presented the activation of the CNS/ANP Subgroup, within the framework of the activities of the Interoperability Task Force (Interop TF) of the SAM Region Implementation Group (SAM/IG). This group will support the review of the information contained in Vol. II of the CAR/SAM ANP, as well as provide support, in the preparation of Vol. III of the CAR/SAM ANP, on CNS issues. This will be supported by Conclusion SAM/IG/26-03 – *Review of the CNS tables of Vol. II of the CAR/SAM Air Navigation Plan and support in the preparation of Vol. III of the CAR/SAM ANP, on CNS issues*, in the framework of the SAM Region Implementation Group.

SWIM implementation in Brazil

3.2.46 Under IP/05, Brazil informed the Meeting about its SWIM implementation initiatives. and listed the regulatory references used to design and implement the SWIM, to be executed by DECEA. To this end, Brazil, prepared and published a SWIM Implementation Guide, in 2019, based on ICAO Doc 10039 and Eurocontrol SPEC 168, 169 and 170.

3.2.47 Once the Guide published, Brazil identified the information providers that should be part of the SWIM. Following this identification, it has formed working groups with these information providers, defining "Standard Information Exchange Models" to be implemented by each information provider. These institutions are information providers, but in order to implement SWIM, there should be a process of re-conversion to turn them into "Information Service Providers", which implied a change of both paradigm and personnel profile. In order for this change to take place, it was necessary to make an effort in the area of information technology, since the staff of the above-mentioned organizations is integrated by teams with an operational profile.

3.2.48 Brazil then elaborated the SWIM Implementation Project, applying Project Management Principles (PMBOK). In order to implement the Project, Brazil identified eight actions. The final objective of this project is to deliver the "SWIM Registry Prototype", expected this year. The development of the SWIM Registry Prototype will allow the production of knowledge by the team working on the project and will allow information providers to materialize the concepts linked to SWIM in a more practical way, through access to the SWIM Registry Prototype.

Implementation of the Aeronautical Regulation on Aeronautical Meteorology Services

3.2. 49 With WP/22, Costa Rica informed the Meeting about the process carried out to implement the Costa Rican Aeronautical Regulation (RAC-03) on the Aeronautical Meteorology Services associated with Annex 3 and the improvements established so that the RAC is updated with the frequency due, as a fundamental component to improve the implementation of the Basic Building Blocks (BBB) as well as the elements of the ASBU AMET blocks.

3.2.50 Costa Rica noted the challenges it faced in keeping national regulations up to date and informed the Meeting about the development and implementation of a process to ensure timely amendment in accordance with the dynamic process of amendments to the Annexes to the Chicago Convention. One of the challenges mentioned is the limited number of personnel specialized in aeronautical meteorology and its high turnover, which limits some countries to maintain updated national regulations associated with Annex 3 and reduces compliance with the obligations of CAAS regarding safety oversight.

3.2.51 Costa Rica noted as a determining factor, the technical support provided by ICAO through the Systemic Assistance Programme (SAP) of the NACC Regional Office and requested the Meeting that the States share their experience and best practices on the establishment and implementation of an effective Meteorology regulatory process and an effective and sustainable surveillance system.

3.2.52 The Secretariat recognized the effort of Costa Rica regarding the establishment of the safety oversight system for air navigation services. Costa Rica has done an extraordinary job to update all its national regulations on air navigation. It also highlighted that Costa Rica has been an outstanding participant in the NACC SAP, developing a transparent and fluid work relationship to identify its opportunities for improvement and work together with ICAO in its resolution. In the same way, the Secretariat recognized that Costa Rica implemented during the COVID-19 pandemic a remote operational safety surveillance scheme for ANS, documenting processes that allow monitoring activities to be carried out despite the health restrictions of distancing imposed.

3.3 Review of GREPECAS functions

3.3.1 Under NI/08, the Meeting was informed how the functions and Terms of Reference (ToRs) of GREPECAS have been updated, taking into account the gap analysis of the GANP and the ToRs in force of GREPECAS at that time, through the Conclusion PPRC/04/05. The results of this analysis are reflected in the latest version of the GREPECAS Procedures Manual approved by the CAR/SAM States.

3.3.2 Lastly, the Secretariat urged the States to familiarize themselves with the GANP portal to follow future updates to GREPECAS functions for their compliance with the GANP and its CAR/SAM regional plans.

Agenda Item 4 Global and Interregional Activities

Global Campaign for the Improvement of NOTAM

4.1 Through WP/08 and WP/23, the Meeting was informed of the actions implemented by the NACC and SAM Regional Offices in support of the Global Campaign for NOTAM improvements, highlighting the following:

a) The SAM Region reported that it actively participated, through the Secretariat and some States, in the webinars that have been developed in support of the Campaign. Additionally, the SAM Region indicated that those States, that have old and very old NOTAMs active in the system, have presented their Corrective Action Plans, which can be observed in the Appendix to WP/08. When it was reviewed, the Meeting was able to verify that three States have not submitted their Corrective Action Plans and that three States do not have old and very old NOTAMs active in the system. The Meeting urged the States, which have old and very old NOTAMs active in the system, to proceed to review the information contained therein, and to transfer the information to a Supplement or to the AIP, by means of an amendment, as appropriate. Additionally, the Meeting urged the originators of data and information, when preparing a Pre-NOTAM, adapt their NOTAM issuance requests to the regulatory framework of the States and the Reference Framework of Annex 15 and the PANS –AIM. In the NAM/CAR Regions various activities of the Task Force for the Implementation of Aeronautical Information Management (AIM/TF) were carried out at its fourth meeting and the last Meeting of the North America, Central America and Caribbean Working Group (NACC/WG), including four follow-up webinars scheduled for 16 June, 31August, 28 October, and 15 December 2021. Follow-up webinar registration links, as well as other information about the campaign, including a NOTAMeter tool, is presented on the ICAO NOTAM website: https://www.icao.int/airnavigation/information-management/Pages/GlobalNOTAMcampaign.aspx. Presentations and recordings from the Global NOTAM Campaign Webinar are available at: https://www.icao.int/Meetings/NOTAM2021/Pages/default.aspx

b) The tasks of the AIM/TF on the Global NOTAM Campaign seek to develop means to help States eliminate outstanding, old or permanent NOTAMs and ensure that NOTAMs are published in accordance with the Standards established in Annex 15 and the new edition of Doc 8126 – *Aeronautical Information Services Manual* as well as with Doc 10066 - *PANS-AIM*. And the Communication to the States Ref. *E.OSG - NACC86055* was issued, informing the start of Phase 1 on old NOTAMs, and inviting States to participate.

4.2 Under IP/03, Brazil informed the Meeting about the NOTAM improvement planning. Brazil indicated that the specific work to improve the quality of NOTAMs began in January 2020 at the Aeronautical Cartography Institute (ICA), through internal restructuring actions, process improvement and personnel training. For this work, ICA created a planning and control sector that began to carry out integration work between the cartography, procedure development and aeronautical information management sectors.

4.3 Brazil, based on the analysis of the current permanent NOTAMs, created work packages to incorporate these NOTAMs in publications and letters with coordination between the different sectors, taking into account the date defined by the Aeronautical Information Regulation and Control (AIRAC) for the entry into force of the corresponding products. Currently, the number of NOTAMs with more than 90 days in Brazil is 175 national and 49 international, which represents 15% of the NOTAM in force. Brazil's planning aims that, by March 2022, there will no longer be NOTAMs in force in Brazil with over 90 days of validity

SNOWTAM implementation

4.4 Under WP/10, the Secretariat reported the Implementation of SNOWTAM in its new format, explaining the difficulties of implementing it, for States that are not affected by snow. Follow-up has been carried out at the SAM/AIM Meetings, as well as at the NACC regional meetings by the AIM TF. The status was reported through Appendix B to WP/10.

4.5 In common, the States of the CAR and SAM Regions have indicated that, by modifying the SNOWTAM format, and including other phenomena, other than snow, in the scope of the new SNOWTAM, an additional effort is needed for the States that have no experience with the management of this type of NOTAM.

4.6 The Secretariat reminded the Meeting that the ePPRC/03 meeting had analysed the proposal for a SNOWTAM Emission Guide for the CAR/SAM Regions. It was mentioned that ePPRC/03 had instructed the Secretariat to translate it into English, and submit it to the GREPECAS Plenary, in both versions. The Secretariat fulfilled the mandate of ePPRC/03. The SNOWTAM Emission Guide for the CAR/SAM Regions is found as Appendix A to WP/10.

4.7 The Meeting, after analysing the Guide included in Appendix A to WP/10, decided to approve this document as a regional guide, adopting the following conclusion:

<table>
<tr><td colspan="2">CONCLUSION
GREPECAS 19/10</td><td colspan="2">APPROVAL OF THE GUIDE ON THE ISSUANCE OF SNOWTAM FOR THE CAR/SAM REGIONS</td></tr>
<tr><td colspan="3">That :
In order to have a document that allows standardizing the criteria and formats for issuing SNOWTAM messages in the CAR/SAM Regions,

a) the document presented to GREPECAS, as Appendix A to WP/10, Guide on the Issuance of SNOWTAM for the CAR/SAM Regions, is approved for State implementation as a regional guidance document;

b) the Secretariat include the Guide-Document for the CAR/SAM Regions in the GREPECAS website; and

c) the NACC and SAM Regional Offices communicate the States, air navigation service providers and industry on its use and socialization by 31 December 2021.</td><td>Expected impact:
☐ Political / Global
☐ Inter-regional
☐ Economic
☐ Environmental
☒ Operational/Technical</td></tr>
<tr><td colspan="4">Why:
To standardize the criteria and formats for issuing SNOWTAM messages.</td></tr>
<tr><td colspan="2">When: 31 December 2021</td><td colspan="2">Status: ☒ Valid / ☐ Superseded / ☐ Completed</td></tr>
<tr><td colspan="2">Who: ☒ States ☒ ICAO ☐ Other:</td><td colspan="2"></td></tr>
</table>

GREPECAS GTE Activities

4.8 Under WP/12, a summary of the last triennium Scrutiny Working Group (GTE) activities was presented, comprising the years 2018-2020; including the Reduced Vertical Separation Minimum (RVSM) airspace safety performance analysis for the CAR/SAM Regions that shows that operations in the airspace between flight level 290 to 410 have been maintained within the acceptable level of safety (below the Target Level of Safety (TLS) of 5 x10^{-9}.)

4.9 As part of the analysis presented in the WP, the Meeting was informed that the data show that approximately 95% of Large Height Deviations (LHDs) are due to coordination errors between Air Traffic Control (ATC) units, and that the implementation of Air Traffic Services Inter-facility Data Communication (AIDC), Aeronautical Message Handling System (AMHS), and of the Automatic Dependent Surveillance – Broadcast (ADS-B) the surveillance data exchange have a significant impact on the reduction of these events, which is why the States are encouraged to continue with the implementation of these technologies. During the presentation, the Meeting was informed that the ICAO Offices, in coordination with the LHD focal points, CAR/SAM Monitoring Agency (CARSAMMA), the Air Traffic Service Providers (ATSP), and the CAA, have been working on a strategy for the improvement of RVSM airspace safety, focusing mainly on the FIRs boundaries, and the hotspots of the CAR/SAM Regions.

4.10 The excellent work developed by CARSAMMA in the CAR/SAM Regions safety assessment process was recognized and the support of Brazil and the agency to this critical process was appreciated.

4.11 Finally, the Meeting was asked to continue supporting the GTE's actions on the LHD reduction of the RVSM airspace in the CAR/SAM Regions, to continue with the implementation of the AIDC, the surveillance data exchange agreements, and the implementation of ADS-B to reduce coordination errors among the air traffic services, and to request the States/international organizations to share the data for the calculation of the CRM, and the Flight Plan (FPL) audit accordingly.

4.12 Under WP/20, the Secretariat presented the information on amendment 1 to the Manual of Points of Contact (PoCs) accredited to CARSAMMA, which represents the main reference document for the PoCs that coordinates the data collection activities and analysis for the RVSM airspace monitoring process in the CAR/SAM Regions.

4.13 The document amendment was developed by an Ad hoc Group, integrated by representatives of Argentina, Chile, Colombia, CARSAMMA and COCESNA, within the GTE framework with the objective that the PoCs use it throughout the data collection process, registration of operational approvals, and analysis of LHD events, as well as to guarantee the quality of RSVM data and to support intelligent and efficient decisions that contribute to substantial safety improvements in the CAR/SAM RVSM airspace. Among the objectives of the amendment are the following:

a) Provide a guide for the establishment of roles, responsibilities, and interaction processes between the CAAs and the Air Navigation Service Providers (ANSPs).
b) Harmonize the PoC Manual with the new operational guidelines of CARSAMMA, as well as with the new guidelines established in ICAO Doc 9937.
c) Optimize the quality of data process flows supplied by the States to CARSAMMA
d) Improve the roles and functional duties of the PoCs towards their peers and towards CARSAMMA.

4.14 Finally, the Meeting approved the Manual of PoCs accredited to CARSAMMA, Revision 1, adopting the following conclusion:

<table>
<tr><td colspan="4">CONCLUSION
GREPECAS 19 /11 APPROVAL OF THE MANUAL FOR POINTS OF CONTACT ACCREDITED TO CARSAMMA, AMENDMENT 1</td></tr>
<tr><td colspan="3">What:
That, considering the need to provide States with updated guidance of the internal processes of the Points of Contact of each State, to ensure the regularity, quality and efficiency of the data provided to CARSAMMA for the fulfilment of its monitoring activities in the CAR/SAM RVSM airspace:

a) Amendment 1 to the Manual for PoCs Accredited to CARSAMMA is approved for State implementation as a regional guidance document; and

b) the amended manual be distributed by the ICAO NACC and SAM Regional Offices to the States, Territories and International Organizations accredited to CARSAMMA.</td><td>Expected impact:
☐ Political / Global
☐ Inter-regional
☐ Economic
☐ Environmental
☒ Operational/Technical</td></tr>
<tr><td colspan="4">Why:
To update the processes of data collection, recording of operational approvals and analysis of LHD events managed by CARSAMMA</td></tr>
<tr><td>When:</td><td>Immediately</td><td>Status:</td><td>☒ Valid / ☐ Superseded / ☐ Completed</td></tr>
<tr><td>Who:</td><td>☒ States ☒ ICAO ☐ Other:</td><td></td><td></td></tr>
</table>

Five-letter name-code (5LNC) in the CAR/SAM Regions

4.15 The Secretariat presented WP/11 with an update regarding the use of the five-letter name-code (5LNC) in the CAR/SAM Regions and proposing actions to promote their correct publication according to the guidance of the ICAO International Codes and Routes Designators (ICARD) database.

4.16 In March 2017, ICAO finalized the initial implementation of the new ICARD platform. The updated ICARD database system, accessible through the ICAO secure portal, replaced the previous platform, with the main objective of meeting the needs of States to support the efficient and secure implementation of unique 5LNCs. In spite of the implementation of the new system, a significant number of States did not comply with the recommendations issued by ICAO, as they had not updated the information on 5LNCs, while continuing to use 5LNCs that have not been requested nor registered in ICARD.

4.17 With the implementation of the new ICARD platform, the ICAO NACC and SAM Regional Offices began a campaign to approach and guide the States and service providers regarding the need to address the existing duplicate codes:

a) The ICAO NACC Regional Office requested the States and Territories of the CAR Region to list the 5LNCs and ATS route identifiers that they have published in their AIP. Replies were received from all the States, Territories and International Organizations that provide services in the upper airspace of the CAR Region, tabulating the results and comparing what had been sent with what was entered into the ICARD.

b) The ICAO SAM Office promoted the resolution of cases of duplicate points, triplicates, etc., as well as the other listed problems. Likewise, a roadmap has been designed, with the following purpose:

i. By 2019: Solve 15% of the previously observed problems.
ii. By 2020: Review and amend the AIP and other documents for 40% of problem codes.
iii. By 2021: Solve 60% of code-related problems.
iv. By 2022: Solve 80% of code-related problems.

c) In the SAMIG and SAM/AIM fora, States have been urged to the following actions:

i. request new 5LNC only when it has been verified that it is not in use, previously doing a cross-check between the ICARD and other industry databases;
ii. once its non-use has been verified, verify if there is no phonetic similarity within 500 NM;
iii. publish the amendment once the codes have been validated by the ICAO Regional Office.
iv. Argentina, Brazil, Chile, Colombia and Peru have made several amendments in order to gradually eliminate duplicate, triplicate codes, etc.

4.18 Based on the foregoing, the Meeting decided to issue the following Conclusion:

<table>
<tr><td colspan="3">CONCLUSION
GREPECAS 19/12 IMPROVEMENTS TO THE FIVE-LETTER NAME CODES (5LNCs) MANAGEMENT IN THE CAR/SAM REGIONS</td></tr>
<tr><td colspan="2">What:
That, in order to manage duplicate Five Letter Name Codes (5LNC) and the registration into the ICAO International Codes and Routes Designators (ICARD) Database of all the 5LNC used by the CAR/SAM States/Territories

a) the States, Territories and International Organizations that provide air traffic services in the CAR/SAM Regions comply with Recommendation 3.5/1 of AN/Conf-13 in relation to the total population of the 5LNC codes that they use; and

b) the NACC and SAM Offices compile the 5LNCs and Air Traffic Services (ATS) routes published by the States, Territories and International Organizations of the CAR/SAM Regions, compare the information published with that available in ICARD and submit their analysis to ICAO Headquarters for the ICARD database to be updated by 31 December 2023.</td><td>Expected impact:
☐ Political / Global
☐ Inter-regional
☐ Economic
☐ Environmental
☒ Operational/Technical</td></tr>
<tr><td colspan="3">Why:
To update ICARD data base and comply with AN/Conf-13 Recommendation 3.5/1</td></tr>
<tr><td>When: 31 December 2023</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>

ACI-LAC Aerodrome Program

4.19 Under P/01, ACI-LAC stated that it works closely with the ICAO Regional Offices and the GREPECAS Secretariat to achieve the objectives of the Aerodrome programme and its projects, commenting on the following:

a) The *Airport Excellence in Safety (APEX) program*, the objective of which is to help airports optimize their safety measures to facilitate compliance with ICAO regulations and standards.

b) The creation, as part of its operational safety activities, of the Subcommittee on wildlife hazard management for airports, with the purpose of promoting the exchange of experiences among ACI-LAC members, preparing and sharing recommendations, and supporting the development of technologies to help reducing the risk represented by wildlife. It also mentioned its support for the initiatives of the CARSAMPAF.

c) Regarding the GRF, ACI-LAC developed a Quick Guide for its implementation, which has been shared among members in Spanish, Portuguese and English languages. It also referred to the various courses developed and carried out jointly by the NACC and SAM Regional Offices.

d) The Get airports ready for disasters (GARD) initiative that DHL has been developing since 2009 with the aim of preparing airports to serve as logistics centers for the collection and distribution of aid in critical moments such as natural disasters.

e) ACI-LAC has been working jointly with the NACC and SAM Regional Offices in the development and revision of the regional guide that will serve as a guideline for the implementation of Airport Collaborative Decision Making (A-CDM) at airports.

f) The training centre that has developed a course on the A-CDM, and invited to visit the ACI World web page where this and other courses of interest to the airport community can be found.

4.20 The Meeting thanked and congratulated ACI-LAC for the alignment of efforts with the States and the region on the implementation of issues related to aerodromes and expressed a mutual consensus to continue the work of coordination and harmonization of same through the Regional Offices and GREPECAS.

CPDLC links in Brazil

4.21 Brazil reported under IP/09, on the implementation of the Controller/Pilot Data Link Communication (CPDLC) in the upper continental airspace, entitled LANDELL Project, presenting its technical and operational characteristics, sharing the planning and implementation efforts, as well as the good practices adopted. Since the launch of the project, a team of experienced data link professionals has been monitoring the operation at the Amazonica and Recife Area Control Centres. To date, no significant technical, operational or doctrinal problems have been identified.

ADS-B Implementation in the FIR Central American

4.22 Under IP/12, COCESNA presented information related to the implementation of ground and satellite based ADS-B in the upper airspace of the Central American FIR through the use of ground based ADS-B sensors installed in the different States of Central America which provide coverage for the continental airspace and the Caribbean area, as well as the satellite ADS-B data provided by AIREON that will provide coverage to the Pacific Oceanic airspace volume, which aims to optimize the airspace, improve surveillance capacity, reliability and as a result in a reduction of separation minimums. Thirteen continental surveillance sensors are installed, which provide the service in the continental area, but required data to strengthen the surveillance coverage in the oceanic part.

4.23 With the ADS-B satellite data, which has been a project developed in four phases and is operational (in test phase for 18 months) since June 2021, with the objective of carrying out a study in that area and according to the results the ADS-B satellite data contract with AIREON could be extended. During the study period the functionality, technology and operational security provided will be analysed. COCESNA also reported that in parallel a three-month study would be conducted with SATCOM through the company SITA.

4.24 These tests and the technologies implemented are expected to provide benefits on improved situational awareness by having ADS-B data information available instead of synthetic track in case no information is available, aircraft-to-aircraft traffic surveillance capability, improve the performance of Air Traffic Control (ATC) automation and safety functions, by the availability of figures of merit for data reporting and alerting functions, among others.

4.25 The Meeting congratulated COCESNA for this implementation and the Organization shared its interest in sharing the data obtained through its studies for the benefit of the States. The Secretariat emphasized the need for States to take into account the new version of the GANP and the implementation of the ASBU. elements. The ADS-B as an ASBU element has several enablers that must be taken into account at the time of making an implementation of this type, such as regulation, certification of ground and on-board equipment, training, etc., which must be worked in parallel to the implementation of the equipment, to ensure a successful implementation and obtain the expected benefits.

Activities of the ATS Continuous Improvement Implementation over the South Atlantic Group – SAT

4.26 The Secretariat informed the Meeting that the ATS Continuous Improvement Implementation over the South Atlantic Group - SAT has defined its new organization, which considers a Steering Group and two contributing bodies: the Implementation Management Group (IMG) and the Safety Oversight Group (SOG). This new organization aims to enhance the participation of the ANSPs and States involved, as well as to ensure interoperability with the North Atlantic (NAT) Region. It was reported that the elections of the SAT Board of Directors for a 4-year term will be held on 29 October 2021, with nominations from Brazil and Trinidad and Tobago, respectively, for the chairmanship and vice-chairmanship of the SOG.

Agenda Item 5 **Coordination between GREPECAS and the Regional Aviation Safety Group–Pan America (RASG-PA) - Ongoing Meeting (Back to Back)**

5.1 Agreements and coordination for the Implementation of GREPECAS/RASG-PA safety objectives, including working arrangements (virtual meetings and frequency of meetings)

5.1.1 The GREPECAS Secretary welcomed the Co-Chairs of the Regional Aviation Safety Group - Pan America (RASG-PA) to the joint GREPECAS/19 and RASG-PA/11 plenary meetings, addressing them and the GREPECAS Chair and Vice-Chair, the SAM Office Regional Director and RASG-PA Secretary, and the participants of both regional groups. He noted that the meeting was being held in compliance with the new generic ToRs for the Regional Planning And Implementation Groups (PIRG) and the Regional Aviation Safety Groups (RASG) with a view to informing the ICAO Council of the joint activities carried out and of those other activities that could have some kind of relationship/interaction with the work programme of the other regional group, emphasising that both regional groups should complement each other and be in permanent contact in promoting the implementation of the GANP and the GASP, in order to seek sustainable growth while contributing to safety enhancement in the air transportation system in the region.

5.1.2 Then, both GREPECAS and RASG-PA Secretariats, through the Officers of both NACC and SAM Regional Offices, presented in WP/13 the current coordination issues between both regional groups.

5.1.3 Regarding the coordination meeting between the GREPECAS and RASG-PA technical teams, it was noted that it was held on 25 March 2021 with the objective of conducting a coordinated and participatory work between both regional groups. It was attended by representatives of the GREPECAS technical teams: ALACPA, CARSAMPAF, the GTE and the DAWG; and from RASG-PA: the Pan America Regional Aviation Safety Team (PA-RAST) and the Safety Monitoring and Reporting Team (SMRT). The result of this meeting was the achievement of greater cooperation between GREPECAS and RASG-PA by encouraging communication and contact between their respective technical teams, opening the possibility to continue scheduling more meetings of this type if necessary.

5.1.4 Regarding cooperation between the GTE and the PA-RAST, a presentation was made on the progress of the joint work, involving an exchange of information for joint and more accurate identification of the areas where actions needs to be implemented to improve safety in CAR/SAM airspace. Accordingly, a suitable mechanism is currently being considered for the exchange of data analyses under the responsibility of the GTE concerning LHDs and data provided by PA-RAST on traffic alert and collision avoidance systems (TCAS) resolution advisory occurrences.

5.1.5 It was also noted that monthly meetings were being held between the GTE and PA-RAST in order to maintain this exchange of data in search of a correlation between the information of the GTE and that provided by PA-RAST. Likewise, it was stated that the only forum in the CAR/SAM Regions where the performance of air navigation services was discussed was the GTE, where safety information was exchanged. However, the performance of these services is only measured in airspace where RVSM are applied. Therefore, it is necessary to broaden the scope of this measurement to all levels. It was concluded that this collaboration with PA-RAST offered the opportunity to encourage the participation of the RASG-PA air navigation area, so that at some point in time indicators with a broader scope could be discussed with regard to air navigation.

5.1.6 Regarding the implementation of the PBN approach on visual runway, it was noted that although this project started only in RASG-PA, it had been able to extend its benefits based on close collaboration with GREPECAS. The result (of this collaboration) had been the development and publication of RNP APCH procedures as well as departure and arrival routes for the Guapi runway (SKGP) in Colombia. This led to the production of a guide for the development of this type of flight procedures, and to a series of projects that were being carried out in Brazil, Bolivia and other States of the CAR Region, apart from those that already had made some progress in Chile, Panama and Peru.

5.1.7 In addition to the collaboration between GREPECAS and RASG-PA, collaboration among various stakeholders was worth noting, as this project had been carried out thanks to the disinterested contribution of Aerocivil de Colombia, Satena, ATR and Thales, that took on their share of the costs. Also, at the time of publication of the cost-benefit study scheduled for the first quarter of 2022, it is expected that significant savings will be obtained in its implementation, since it involves low-cost measures to improve capacity and efficiency, safety and airport access.

5.1.8 Finally, it was noted that RASG-PA was working on a project to support States in the implementation of Runway Safety Teams (RSTS). Although this project was to be implemented at airports, it was expected that work would be done directly with the States.

5.1.9 With regard to the implementation of Part I of the Aeronautical Information Services (AIS) Manual to promote compliance with the responsibilities of all parties involved in AIM, it was stated that ICAO recently saw the need to restructure the AIS Manual (Doc 8126), with emphasis on the so-called "Part I - Regulatory Framework for Aeronautical Information Services", since the main objective of this first part of the AIS Manual was to provide guidance for the establishment and management of an effective and sustainable State AIS safety oversight system, it was deemed important to include this subject in the coordination activities between GREPECAS and RASG-PA.

5.1.10 Finally, regarding the proposed meetings of GREPECAS and RASG-PA for the next triennium, it was stated that the ToRs of the PIRG and RASG (mentioned above) on the frequency of plenary meetings (every year) and their conduction (back-to-back) between both regional groups increased the level of complexity of their execution. Therefore, in order to improve planning and coordination of activities of States, Territories, international organisations, industry and stakeholders of both regional groups, both plenary meetings approved the following tentative schedule of meetings for the next triennium (2022 – 2025):

<table>
<tr><td colspan="2">DECISION
GREPECAS 19/13</td><td colspan="2">APPROVAL OF THE PROVISIONAL MEETING SCHEDULE OF GREPECAS AND RASG-PA FOR THE 2022-2024 TRIENNIUM</td></tr>
<tr><td colspan="3">What:
That,

a) the GREPECAS Secretariat plan and carry out the GREPECAS Programmes and Projects Review Committee (PPRC) meetings in the following periods:

• ePPRC/04 – 21 and 22 April 2022
• ePPRC/05 – 11 and 12 April 2023
• ePPRC/06 – 24 and 25 April 2024;

b) the RASG-PA Secretariat plan and carry out the Executive Steering Committee (ESC) meetings in the following periods:

• ESC/37 – 25 and 26 May 2022
• ESC/38 – 24 and 25 May 2023
• ESC/39 – 29 and 30 May 2024;

c) the GREPECAS and RASG-PA Secretariats plan and carry out the following plenary meetings and coordinate that they are held back-to-back in the following periods:

• GREPECAS/20 and RASG-PA/12 – 14 to 18 November 2022
• GREPECAS/21 and RASG-PA/13 – 13 to 17 November 2023
•
GREPECAS/22 and RASG-PA/14 – 10 to 14 November 2024.</td><td>Expected impact:
☐ Political/Global
☒ Inter-regional
☐ Economic
☐ Environmental
☒ Operational/Technical</td></tr>
<tr><td colspan="4">Why: To comply with the contents of the generic ToRs issued by the ICAO Council for PIRGs and RASGs.</td></tr>
<tr><td>When:</td><td>The complete Agendas will have to be available for approval 30 days prior to the PPRC and ESC meetings and 60 days before the plenary meetings.</td><td colspan="2">Status: ☒ Valid / ☐ Superseded / ☐ Completed</td></tr>
<tr><td>Who:</td><td>☐ States ☒ ICAO
☒ NACC Office (GREPECAS Secretariat) and SAM Office (RASG-PA Secretariat)</td><td colspan="2">Responsible: ICAO NACC and SAM Regional Offices.</td></tr>
</table>

5.1.11 Based on the above, the Secretariat highlighted the importance of face-to-face meetings, but clarified that they would be held in this modality where appropriate measures could be taken; otherwise they would be held virtually. However, it was emphasised that options would remain open and would be subject to an analysis of the situation at the time.

5.1.12 The Secretariat also noted that this session was a preamble to future meetings between RASG-PA and GREPECAS, highlighting the importance of each regional group may be able to identify and relate the work it was doing with that of the other group. Other considerations were: the possibility of working together with the information available, for mutual benefit in decision-making; similar projects initiated in one regional group could be implemented or assessed by the other group; and different points of view could supplement each other to improve the performance of the entire aviation system in the region. Finally, all States were invited to participate in both GREPECAS and RASG-PA as it was very important to have this active participation by sharing experiences in both fora.

5.1.13 It was also noted that States willing to host any of the above events were welcome to do so. In this regard, both Brazil and Dominican Republic and offered to host one of the GREPECAS and/or RASG-PA meetings in 2022. Both Regional Directors acknowledged both States for their offer. Accordingly, both Regional Offices (NACC and SAM) would coordinate with each other and with these States to reach an arrangement regarding these offers.

5.1.14 Finally, the Secretariat noted that the achievements and difficulties experienced this year in the RASG-PA had also been good examples for GREPECAS, and *vice versa*, as GREPECAS had given examples to RASG-PA on various opportunities for work improvement. An example of this was the fact that the papers presented by the two regional groups showed many similarities in terms of data management and the way of addressing various projects. The participants were invited to review the documentation of these plenary meetings.

5.2 Global Reporting Format (GRF) Implementation

5.2.1 Under paragraph 4 of WP/13 on the implementation of the Global Runway Surface Reporting Format (GRF), mention was made to Conclusion e-PPRC/03/06, where it was proposed that, in order to encourage the harmonised implementation of the GRF in member States, GREPECAS coordinate with RASG-PA so that both fora could encourage member States to make efforts to ensure GRF implementation. The progress made in both regions was discussed, as well as the challenges faced for the implementation of this provision, which has an impact on ANS, airports, aircraft operators and safety.

5.2.2 Due to the lack of response from States to the letters sent on the GRF, mainly in the CAR Region, States were urged to send the information requested in the implementation plan format to continue to support and assist in implementation.

Agenda Item 6 GREPECAS Administrative and Coordination Activities

6.1 Follow-up of GREPECAS Conclusions

6.1.1 Under WP/19, the Secretariat, in continuity with the last GREPECAS, PPRC, and ePPRC meetings, presented a table as an executive summary with the status of validity of the current Conclusions and Decisions of the abovementioned meetings.

6.1.2 The Secretariat asked the Meeting to consider the impact that in 2020 and part of 2021, COVID 19 caused to the aviation industry, for which changes have been made in many priorities in the areas of ANS.

6.1.3 From this follow-up, it was identified that all the conclusions and decisions of GREPECAS/18, PPRC/5, ePRC/1 and ePPRC/2 have been completed or superseded by new conclusions. From the ePPRC/3, 6 conclusions were identified that are still valid, so they were adopted as part of the conclusions of this GREPECAS/19 meeting. The final status of these conclusions and decisions is presented in **Appendix F** to this Report.

6.1.4 Finally, the valid GREPECAS/19 Conclusions/Decisions are presented in Appendix G to this report.

Follow-up of GREPECAS Air Navigation Deficiencies Database (*GANDD) deficiencies*

6.1.5 The Secretariat presented IP/07 with summarized and updated information on the air navigation deficiencies with priority “A”, “B” and “U” of States/Territories of the CAR and SAM Regions, and the recent actions taken. It was reminded that based on the Uniform Methodology for the Identification, Assessment and Reporting of Air Navigation Deficiencies, formulated by the ICAO Council, GREPECAS and its contributory bodies determined to evaluate the deficiencies in the air navigation fields within the CAR/SAM Regions, classified as “A” and “B” (necessary for safety of air navigation and for the regularity and efficiency of air navigation) and with “U Priority”, urgent requirements that have a direct impact on safety and require immediate corrective action.

6.1.6 The Secretariat explained that recently there has been a positive reaction in the resolution of the deficiencies of priority "U", resulting in its significant reduction. The review/resolution of air navigation deficiencies is the responsibility of the CAAs of the States and it is necessary to promote measures that support the CAAs to solve such deficiencies, as well as establish specific dates to implement these solutions.

6.1.7 From the ICAO review of the action plan, it was observed that some Points of Contact (PoCs) have not updated the GREPECAS GANDD and, on the other hand, there are common deficiencies in several States.

6.1.8 ICAO Secretariat urged the States to review the deficiencies, as well as the development of an appropriate Corrective Action Plan (CAP), showing the evidence to be sent by email to ICAO so that it can be followed up with each PoC of the States.

6.1.9 ICAO is currently reviewing the Uniform Methodology for the Identification, Assessment and Reporting of Air Navigation Deficiencies in order to see the possible improvements under the GANP and the ICAO GASP.

6.1.10 Although the Secretariat is working with the States to resolve and update the deficiencies, the States are required to coordinate through their PoC to review its outstanding deficiencies, with the assistance of ICAO for any update or clarification, submitting the applicable evidence to ICAO NACC or SAM Regional Office.

6.1.11 On 10 September 2021, the NACC Regional Office sent a letter to each State requesting the review and update of the status of air navigation deficiencies. This prompted a response from several States, which allowed to update/eliminate many deficiencies that remained valid. States that have not yet done so are encouraged to submit information on the status of current deficiencies in order to update the GANDD.

6.2 Report to the Air Navigation Commission (ANC) in coordination with RASG-PA

6.2.1 With WP/09, the Secretariat presented the actions taken by the ICAO Air Navigation Commission (ANC), of the GREPECAS Meetings Report, and considering that the CAR and SAM Regional Offices request the collaboration of airspace users , the air transport industry in general and professional associations and organizations, such as: IATA, IFAMA, CANSO, ACI, IFALPA, etc.) to participate in the implementation processes in collaboration with the work of GREPECAS, supporting the air navigation developments.

6.2.2 To this respect, the Secretariat reminded that the ICAO Council updated the generic ToRs of the PIRGs and the RASGs with the aim of improving efficiency and working methodologies, as well as promoting the participation of the States of the International Organizations and the aeronautical industryin the work, in the meetings and related activities of the aforementioned regional groups. The Generic ToRs serve as a global basis for the operations of the PIRGs and RASGs, expanding or adapting them.

6.2.3 Following these generic ToRs, GREPECAS will report the results to the ICAO Council through the ANC. GREPECAS meeting reports will be provided in a standardized format to ICAO governing bodies to identify regional challenges and emerging situations faced, and which should include as a minimum certain requirements, which have been reviewed in the present report.

Minimum requirements requested by the ANC	Reference in the GREPECAS/19 Report / Comments	Status
a) a brief history of the meeting (duration and agenda);	Historical	Fulfilled
b) a list of meeting participants, affiliation and number of attendees;	Historical	Fulfilled
c) a list of conclusions and decisions with a description of their rationale (what, when, why and how);	Appendix G	Fulfilled
d) common implementation challenges identified amongst GREPECAS members and possible solutions, assistance required and estimated timelines to resolve, if applicable, by sub-region;	Agenda Items 3 and 4	Fulfilled
e) identification of and recommendations on particular actions or enhancements that would require consideration by the ANC and Council to address particular challenges, including the need for amendment proposals to global provisions and guidance materials submitted by States;	Understood	Fulfilled
f) a list of issues cross-referenced to actions to be taken by ICAO Headquarters and/or Regional Offices;	Understood	To be implemented
g) based on the GANP, and associated KPIs and tools, report to the extent possible on the status of implementation of air navigation goals, targets and indicators, including the priorities set by the region in their regional air navigation plans exploring the use of regional dashboards to facilitate monitoring regional progress being made;	Understood	To be implemented in next meetings
h) a list of items for coordination with the RASG-PA and a concise summary of the outcome of related discussions;	Agenda Item 5	Fulfilled
i) Air Navigation deficiencies identified and timelines for mitigation thereof	Agenda Item 6	Fulfilled
j) the work programme and future actions to be taken by the GREPECAS.	Agenda Items 2, 3 and 4	Fulfilled

6.2.4 The Meeting appreciated the participation of the technical officers of ICAO Headquarters (Air Navigation Bureau) (Messrs. Herman Pretorius andHerveé Forestier) and their support to the Meeting. The GREPECAS Secretariat will subsequently coordinate the presentation of the report of this GREPECAS Meeting to the ANC and the Council for their review and harmonization. The final GREPECAS report is a bilingual report (English and Spanish) that is available and approved within twenty business days after the closing of the Meeting.

6.2.5 Later, Headquarters will provide feedback to GREPECAS highlighting the actions taken by the ANC and the Council related to the results of their previous meetings. Regional planning and the development and maintenance of Regional ANPs are carried out by the ICAO GREPECAS with the assistance of the Regional Offices.

6.2.6 With the introduction of reporting requirements for GREPECAS, and for RASG-PA, improvements are expected for the efficiency and work methodologies, as well as the participation of the States.

6.3 Last Update of the GREPECAS Procedures Handbook

6.3.1 Under IP/04 the new GREPECAS Seventh Edition Procedural Handbook, ver. 2.1, was presented, as part of the follow-up to the improvement activities of the GREPECAS.

6.3.2 The Procedural Handbook contains information on the role, organization and operation of GREPECAS, as well as its different programmes, processes and projects in support of implementation. The Handbook will serve States and International Organizations when planning and managing necessary resources for their participation in the Group.

6.3.3 Important aspects were considered in this new version of the Handbook, such as:

a) adjustments that include the joint plenary meetings of GREPECAS and the RASG-PA; and
b) the inclusion of the ToRs and the DAWG work programme.

6.3.4 The Handbook, in its current version: 2.1 is available at the following web site:
https://www.icao.int/GREPECAS/Pages/ProceduralHandbook.aspx

Agenda Item 7 Other Business

7.1 No other business were discussed.

ASSISTANCE FOR THE FORMULATION AND MANAGEMENT OF VOLUME III OF THE CAR/SAM ANP
(REV. 5 after GREPECAS/19)

OUTPUT > VOLUME III of the CAR/SAM ANP aligned with the Global Air Navigation Plan (GANP) and the Aviation System Block Upgrade (ASBU) methodology.

OUTCOME > Implementation of ASBU elements/modules to improve air navigation performance in the CAR/SAM Regions, applying a consistent, measurable and cost-effective process.

BENEFITS > Airspace and Air Navigation Services (ANS): operationally safe, effective and interoperable.
Main airports: with Airport Collaborative Decision Making (A-CDM) and/or demand/capacity management.
Environment: reduction of CO2 emissions*

** To be defined: The proposal is to reduce CO2 emissions by 150,000 tons between May 2024 - May 2028, through the implementation of GANP operational threads (APTA, ACDM, FRTO, NOPS, etc.). Calculations based on IFSET.*

Abbreviations:

NNV	NACC Regional Air Navigation Officers (MA, JC, RM, LS)
SNV	SAM Regional Air Navigation Officers (JA, RS, FS, FA)
ANB	Air Navigation Bureau / ANB Officer Olga de Frutos (ODF)
DRD	Regional deputy directors (OQ, JS)
STOs	States/Territories/Organisations
GV3	GREPECAS project for the management of Vol. III of the CAR/SAM ANP
ANI/WG	CAR implementation group
SAMIG	SAM implementation group
COORD	Subproject coordinators - ATM/SAR officers (FH, EM)

See Explanatory Notes in the last Table

(6) ASSISTANCE FOR THE FORMULATION AND MANAGEMENT OF VOLUME III OF THE CAR/SAM ANP

Note. - Following the Secretariat's GANTT numbering.

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Description of activities	*Start*	*End*	*Responsible party*	*Remarks*
(6.1) Regional planning concepts and methods contained in the GANP 6th ed.				
(6.1.1) Virtual meeting 1 • Review of GANP methodology and website • Gap analysis for managing KPIs and selecting ASBU elements	15 April 2021	15 April 2021	COORD NNV SNV	COMPLETED
(6.1.2) Virtual meeting 2 • Coordination for drafting and defining the contents of the Instructions to States on the implementation of the template for Volume III • Continue ASBU implementation in the CAR and SAM Regions	16 April 2021	16 April 2021	COORD NNV SNV	COMPLETED
(6.2) Drafting of Instructions on the use of the template for Volume III of the Regional air navigation plan				
(6.2.1) Development of DRAFT Instructions, including the implementation phase	15 April 2021	7 June 2021	COORD	COMPLETED
(6.2.2) Virtual meeting 3. DRAFT validation	8 June 2021	9 June 2021	COORD NNV SNV DRDS	COMPLETED
(6.2.3) DRAFT translation and editing	11 June 2021	25 June 2021	COORD	COMPLETED
(6.2.4) Instructions approved by GREPECAS/PPRC	31 August 2021	2 September 2021	E PPRC 03	Ref. Conclusion ePPRC/03/08 item a) COMPLETED

Description of activities	*Start*	*End*	*Responsible party*	*Remarks*
(6.3) Workshops with States/Territories/Organisations (STOs) and preparation of final draft.				
(6.3.1) Promote / coordinate the creation of the work team in each STO, for its participation in workshops	2 September 2021	30 November 2021	DR DRD COORD	Ref. Conclusión GREPECAS 19/05 ítem b)
(6.3.2) Deliver **CAR** workshop. Initial tables prepared by STOs.	15 February 2022	17 February 2022	NNV STOs	
(6.3.3) Deliver **SAM** workshop. Initial tables prepared by STOs.	15 November 2021	17 November 2021	SNV STOs	CONVENED
(6.3.4) 1st feedback from industry / stakeholders IATA - CANSO – IFALPA – ACI LAC, etc.	22 February 2022	23 February 2022	DRD ANB COORD NNV SNV	
(6.3.5) Deliver **CAR/SAM** workshop with all STOs. Consolidation.	29 March 2022	31 March 2022	NNV SNV STOs	
(6.3.6) Follow-up to CAR/SAM workshop. Delivery of tables by STOs. Tables in **final draft** version prepared by STOs.	04 April 2022	06 April 2022	NNV SNV STOs	
(6.3.7) With final draft, 2nd feedback from industry / stakeholders IATA - CANSO – IFALPA – ACI LAC, etc.	11 April 2022	12 April 2022	COORD NNV SNV	
(6.3.8) Presentation of final draft for approval of PPRC/04 meeting	**21 April 2022**	**22 April 2022**	COORD NNV SNV	
(6.3.9) Final editing of tables and SP/EN translation.	2 May 2022	13 May 2022	COORD	
(6.4) Formulation of Volume III of the CAR/SAM ANP with the participation of STOs				
(6.4.1) Consolidation of draft 1.0 of Volume III of the CAR/SAM ANP. Validation by NACC RO and SAM RO.	16 May 2022	20 May 2022	COORD NNV SNV DRD	

Description of activities	*Start*	*End*	*Responsible party*	*Remarks*
(6.4.2) Submit to STOs for objections or feedback. Submit to GREPECAS for approval.	23 May 2022	27 May 2022	COORD STOs	
(6.4.3) Approval of Volume III by GREPECAS/PPRC. Submit the PfA to HQ Montreal.	**6 June 2022**	**14 July 2022**	GREPECAS /PPRC COORD	
(6.5) Formulation of the new programme/project "Management and amendment procedures of Volume III of the CAR/SAM ANP – GV3"				
(6.5.1) Formulate the draft GV3 scheme. Consensus on VOL III amendment procedures.	9 March 2022	18 March 2022	COORD NNV SNV	
(6.5.2) Consolidate the draft GV3. Edit and translate. Prepare proposal for PPRC/04 approval	21 March 2022	31March 2022	COORD	
(6.5.3) Approval of GV3 including amendment procedures by PPRC/04.	**21 April 2022**	**22 April 2022**	PPRC/04	
(6.6) Updating or replacement of GREPECAS projects ABCDFGH				
(6.6.1) Analysis for the update or harmonization **or** replacement of projects ABCDFGH**,** to be taken over by Regional Offices (with ANIWG and SAMIG)	09 August 2022	16 August 2022	COORD NNV SNV	
(6.6.2) Validation/approval of approaches. Definition of transition process with DRDs	28 August 2022	8 September 2022	COORD NNV SNV DRDS	
(6.6.3) Draft the revised or harmonized projects for implementation of ASBU elements stipulated in Volume III	25 September 2022	14 October 2022	COORD NNV SNV ANIWG/SAMIG	
(6.6.4) Draft the new projects at the Regional Offices for the implementation of ASBU elements stipulated in Volume III	25 September 2022	14 October 2022	COORD NNV SNV ANIWG/SAMIG	

Description of activities	*Start*	*End*	*Responsible party*	*Remarks*
(6.6.5) Approval by GREPECAS of revised or harmonized or, where applicable, new projects ABCDFGH	14 November 2022	18 November 2022	GREPECAS/20	
(6.7) Preparation for deactivation of CAR /RPB-RPBANIP and SAM/PBIP				
(6.7.1) Analysis for CAR/RPBANIP deactivation. Define the approach.	16 May 2022	27 May 2022	COORD NNV	
(6.7.2) Analysis for SAM/PBIP deactivation. Define the approach.	16 May 2022	27 May 2022	COORD SNV	
(6.7.3) Validation /approval of approaches. Specify transition process with DRDs.	30 May 2022	3 June 2022	COORD DRDS	
(6.7.4) Approval by GREPECAS of RPBANIP and PBIP deactivation	**6 June 2022**	**14 July 2022**	GREPECAS /PPRC	
(6.8) Start of implementation of Volume III and project modifications, and new GV3 management. Deactivation of RPBANIP and PBIP				
(6.8.1) Start of programme/project "Management and amendment procedures of Volume III of the CAR/SAM ANP - GV3"	**01 August 2022**			
(6.8.2) Entry into force of Volume III of the CAR/SAM ANP	**01 August 2022**			
(6.8.3) Entry into force of revised or new projects ABCDFGH	**After GREPECAS/20**			
(6.8.4) Deactivation of RPBANIP and PBIP	**01 August 2022**			

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MILESTONES

Activity	Dates	Notes
Tentative date of approval by GREPECAS/PPRC of the Instructions on the use of the template for Volume III of the Regional air navigation plan	2 September 2021	Ref. Conclusion ePPRC/03/08 item a) Immediate application
Tentative date of approval by PRCC/04 of Volume III first draft.	22 April 2022	
Tentative date of approval by PPRC/04 of the programme/project "Management and amendment procedure of Volume III of the CAR/SAM ANP - GV3"	22 April 2022	Date of application 1 August 2022
Tentative date of approval by GREPECAS of Volume III of the CAR/SAM ANP. Formalities before ICAO.	14 July 2022	Date of application 1 August 2022
Tentative date of approval by GREPECAS of the revised or new projects ABCDFGH	14 July 2022	Date of application 1 August 2022
Tentative date of approval by GREPECAS of the deactivation of RPBANIP and PBIP	After GREPECAS/19	Date of application to be decided by the meeting.

EXPLANATORY NOTES

(6.1) Regional planning concepts and methods contained in the GANP 6th Ed.	DEFINE COMMON DENOMINATORS REGARDING REGIONAL PLANNING AND THE GANP.
(6.2) Drafting of Instructions on the use of the template for Volume III of the Regional air navigation plan	ENSURE HOMOGENEOUS IMPLEMENTATION BY STATES OF THE TEMPLATE FOR VOLUME III ALIGNED WITH THE GANP.
(6.3) Workshops with States/Territories/Organisations (STOs) and preparation of final draft.	CREATE STO TEAMS, CIRCULATE THE INSTRUCTIONS IN THE CAR AND SAM REGIONS. PROVIDE TRAINING IN THE USE OF TABLES AND BUILD CAPACITIES IN MEASUREMENT OF KPIS AND/OR REGIONAL METRICS
(6.4) Formulation of Volume III of the CAR/SAM ANP with participation of STOs	FORMULATE VOLUME III BASED ON THE DELIVERABLES OF CAR/SAM STATES/TERRITORIES/ORGANISATIONS

6.5) Formulation of the new programme/project "Management and amendment procedures of Volume III of the CAR/SAM ANP – GV3"	FORMULATE THE NEW GREPECAS PROJECT FOR MANAGEMENT OF VOLUME III IN ORDER TO FACILITATE THE IMPLEMENTATION OF THE PRESCRIBED ASBU ELEMENTS AND MEASURE REGIONAL PERFORMANCE. STIPULATE VOLUME III AMENDMENT PROCEDURES.
(6.6) Update or replacement of GREPECAS projects ABCDFGH	UPDATE OR, WHERE APPLICABLE, REPLACE GREPECAS PROJECTS ABCDFGH, TO BE TAKEN OVER BY THE REGIONAL OFFICES
(6.7) Preparation for deactivation of the CAR/RPB-RPBANIP and the SAM/PBIP	PREPARE TO DEACTIVATE CAR /RPBANIP AND SAM/PBIP, COMPLETING ALIGNMENT WITH GANP
(6.8) Entry into force of Volume III and project modifications and new GV3 management. Deactivation of RPBANIP and PBIP.	ENTRY INTO FORCE OF VOL. III, DEACTIVATION OF CAR /RPBANIP AND SAM/PBIP. FULL ALIGNMENT OF CAR/SAM ANP WITH GANP 6TH ED.

APPENDIX
SUMMARY OF THE GUIDANCE FOR PROJECT AND PROGRAMME REVIEW
ePPRC/01

The Meeting agreed that current projects be analysed taking into account all the changes in the context of COVID pandemic that they will be developed to determine if they continue being justified under the new priorities and needs of the States. The following should be addressed for the review:

a) respond to the 5 questions described under paragraph 8 of the ePPRC/1 minute
b) consider complementation of the following assessment matrix:

Evaluation criteria	Assessment ideas	Evaluation scale				
Relevant	It is the project purpose and project goals still significant?	1	2	3	4	5
Impact	What impact (positive or negative) does the project bring to the State?					
Sustainable	To what extent is it possible to continue developing the project under the new operational scenario?					
Reachable	To what extent are the goals and objectives defined in the project achievable under the new operational scenario?					

In view of the aforementioned, the decision ePRCC01/03 was adopted.

ePPRC/02

1. The PPRC set itself the objective of deciding the continuity of the different Air Navigation Services Projects (ANS) that GREPECAS has been developing and working on for a long time. For this work, a Project evaluation guide was provided for the Coordinators to take into account the following points in their analysis and evaluation:

a) identify the need to continue with the projects;
b) prioritize project tasks;
c) prioritize the allocation of resources;
d) identify the need for new projects;
e) identify actions to mitigate obstacles to achieving the proposed objectives; and
f) ensure that projects are consistent and aligned with the GANP and the GREPECAS Terms of Reference (ToR)

2. It was taken into account that the Programmes may have several Projects, and that they require periodic reviews, and that the State Coordinator of each project reflects the value of the parts of each Project, in consideration of a uniform criterion. The Coordinator of each project had to determine an update/modification to the projects in their area, observing that the main objectives of the project review were:

- Update the information, determining if it is **Valid** or **Obsolete**
- Make the decision whether the Project **continues** or **is closed**
- Launching new projects is **Feasible** or **Not Feasible**

3. The Meeting determined that the Projects were duly reviewed mainly by the Coordinators of the Secretariat and, in some cases, with the participation of the Coordinators of the States, said evaluation was carried out based on:

a) Objectives and Scope
b) Description/Activities
c) Quality
d) Cost
e) Calendar, Programme, milestones, terms
f) Risk
g) Results, products, deliverables
h) Human resources
i) Responsibilities
j) Resources: experts and budget
k) Metrics/Indicators

4 To achieve the expected results of the projects, it is necessary to allocate resources considering that the most important components of these resources are the project coordinators and designated experts, making sure that those designated have the necessary time to carry out appropriate coordination and participate in the various activities and tasks of each project.

5. The Meeting urged the Project/Programme Coordinators to take into account the bases for the updates recommended by the Project Management Methodologies for each project:

Objective and Scope	The coordinator will explain what the project is about, as well as define and control what is and what is not included in the project (scope).
Cost	Project cost management includes the processes involved in estimating, budgeting, and controlling costs so that the project is completed within the approved budget, depending on the needs of the project. It is appropriate that this topic and the next take up the bulk of the review. What everybody wants to know is if it has any limitations and how much it would cost to fix them.
Programme	Through effective management, in order to meet the objectives established in the strategic plan. If a Program Performance index less than the established limit is reported, and the project's critical route indicates an end in time, perhaps too many milestones have been limited.

Risk	Project risk management includes processes related to carrying out management planning, identification, analysis, risk response planning, as well as their monitoring and control. Once the baseline is approved, risk management may be irrelevant. Additionally, a risk analysis of this review would indicate that a possible contingency will need to be considered.
Quality	Quality indicates that the result delivered by the project meets the expectations generated by it. Besides, this is more of a human/process-related situation than the specific project.
Communication	The management of Project Communications includes the processes required to ensure that the generation, collection, distribution, storage, retrieval and final disposal of project information and data are adequate and timely.
Human Resources	Project human resource management includes the processes that organize, manage and lead the project team, which is made up of people who have been assigned roles and responsibilities to complete the project.

6. Finally, the Meeting agreed that by the end of January 2021, all GREPECAS Programmes and Projects must present their revised and current version of Projects, taking into account all the comments and discussion of this meeting, adopting Decision ePPRC/02/01.

7. The GREPECAS Project coordinators were urged that, within the analysis of the different GREPECAS Air Navigation Services (ANS) Projects, they seek to provide an update, based on an evaluation of the current conditions in the CAR/SAM Regions derived from the COVID-19 pandemic and with reference to the latest edition of the GANP.

8. For this evaluation, the following subjects were required to be considered, as guidance to identify the situation of the Projects:

- Have the objectives of the current Programmes and Projects been met?
- How was the need for one or the other determined?
- Who and what follow-up is given to them?
- At what point should they be updated, closed or created?

9. In the discussion, the lack of a methodology to measure, evaluate and monitor the actions of the different ANS Projects that should be aligned with the regional objectives and the GANP was identified, and some of the significant aspects were specified, such as:

- Low level of implementation of the States
- Lack of deliverables and clear responsibilities
- Commitment to efficiency and compliance with the Standards
- To include objectives aligned to the GANP in existing GREPECAS Projects
- To create GREPECAS Projects that are required from the GANP

10. The ePPRC/02 meeting proposed three possible phases of analysis:

1st. Phase	**Clarification of concepts** that support the subjects, establishing the current situation and the effects on the results due to financial conditions as an effect from COVID-19
2nd. Phase	**Analysis** of the status and current situation of the Project, as a brief diagnosis
3rd. Phase	**Development of an action plan** to define the methodology, and establish the guidelines for systematized measurement, where the indicators are defined, which allow to measure the efficiency and benefits of the final products.

GREPECAS PROJECTS – GREPECAS/19 28-10-2021

PROJECT		References	PROJECT COORDINATOR			ASSOCIATED PROGRAMME		PROGRAMME COORDINATOR
ID	Title		Names	State / Int. Org	Contact	ID	Name	
A1 CAR	Implementation of Performance-Based Navigation (PBN)	B0-APTA, B0-FRTO, B0-CDO & B0-CCO	Riaaz Mohamed	Trinidad and Tobago	rmohammed@caa.gov.tt	A	Performance Based Navigation (PBN)	Eddian Méndez, RO/ATM/SAR
B1 CAR	Improve Demand and Capacity Balance (DCB)	(B0-SEQ, B0-FRTO, B0-NOPS & B0 ACDM)	Greg Byus	Untied States	Greg.Byus@faa.gov	B	Air Traffic Flow Management (ATFM)	Eddian Méndez, RO/ATM/SAR
B2 CAR	Implementation of Flexible use of airspace (FUA)	--------	Greg Byus	Untied States	Greg.Byus@faa.gov	B	Air Traffic Flow Management (ATFM)	Eddian Méndez, RO/ATM/SAR
A1 SAM	PBN Operational Implementation	(B0-APTA, B0-FRTO, B0-CDO & B0-CCO)	Julio Pereira	IATA	pereiraj@iata.org	A	Performance Based Navigation (PBN)	Fernando Hermosa, RO/ATM/SAR
A2 SAM	Air Navigation Systems in support to PBN	(B0-APTA, B0-FRTO, B0-CDO & B0-CCO)	Julio Pereira	IATA	pereiraj@iata.org	A	Performance Based Navigation (PBN)	Fernando Hermosa, RO/ATM/SAR
B1 SAM	Improve Demand and Capacity Balance (DCB)	(B0-SEQ, B0-FRTO, B0-NOPS & B0 ACDM)	Marcos Pecanha	Brazil	pecanhamrps@cgna.decea.mil.br	B	Air Traffic Flow Management (ATFM)	Fernando Hermosa, RO/ATM/SAR
C CAR	Automation and Improved ATM Situational Awareness	(BO-RSEQ, B0-FICE, B0-SNET, B0-ASUR & B0-SURF)	Alex Rodriguez	Untied States	Alex.rodriguez@faa.gov	C	Automation and ATM Situational Awareness	Mayda Ávila, RO/CNS
C SAM	Automation and Improved ATM Situational Awareness	(BO-RSEQ, B0-FICE, B0-SNET, B0-ASUR & B0-SURF)	Hebert dos Santos	Brazil	herberths@decea.mil.br	C	Automation and ATM Situational Awareness	Francisco Almeida, RO/CNS
D CAR	Ground-ground and air-ground communications infrastructure	(B0-FICE & B0-TBO)	Layla Rodriguez	Cuba	laylarodriguez@aeronav.avianet.cu	D	Ground-Ground and Ground-Air Communications Infrastructure	Mayda Ávila, RO/CNS
D SAM	Ground-ground and air-ground communications infrastructure	(B0-FICE & B0-TBO)	Jorge Merino	Peru	jmerino@corpac.gob.pe	D	Ground-Ground and Ground-Air Communications Infrastructure	Francisco Almeida, RO/CNS
F1 CAR SAM	Aerodrome safety and certification implementation	(BO-SURF)	TBD	TBD	---	F	Aerodromes (AGA/AOP)	Jaime Calderón, Fabio Salvatierra, ROs/AGA
F2 CAR SAM	Airport Planning		TBD	TBD	---	F	Aerodromes (AGA/AOP)	Jaime Calderón, Fabio Salvatierra, ROs/AGA
F3 CAR SAM	Airport Collaborative Decision Making (A-CDM)	B0-ACDM	Sady Beaumont	Peru	Sbeaumont@mtc.gob.pe	F	Aerodromes (AGA/AOP)	Jaime Calderón, Fabio Salvatierra, ROs/AGA
G1 SAM	Implementation of the provision of Electronic Terrain and Obstacle Data (e-TOD)	DAIM-B1/3 DAIM-B1/4	Juan González	Uruguay	juancartografo@yahoo.com	G	Aeronautical Information Management (AIM)	Jorge Armoa, RO/AIM

PROJECT		References	PROJECT COORDINATOR			ASSOCIATED PROGRAMME		PROGRAMME COORDINATOR
ID	Title		Names	State / Int. Org	Contact	ID	Name	
G2 SAM	Implementation of the Standard Aeronautical Information Exchange Model	DAIM-B1/2	Karina Calderón	Peru	kcalderon@corpac.gob.pe	G	Aeronautical Information Management (AIM)	Jorge Armoa, RO/AIM
G3 SAM	Implementation of Quality management system in AIM dependencies (QMS/AIM)	DAIM-B1/1	Lidia Cáceres	Paraguay	lidigca@hotmail.com ---	G	Aeronautical Information Management (AIM)	Jorge Armoa, RO/AIM
G CAR	Implementation of the AIM Collaborative Plan	DAIM-B1/1	Natasha Leonora-Belefanti	Curaçao	nleonora-belefanti@icaonacc.org	G	Aeronautical Information Management (AIM)	Raul Martínez, RO/AIM

GREPECAS Q3/21

Quarterly ANS Implementation Report CAR/SAM Regions

Data valid as of **18 October 2021**

Next update: ***15 January 2022***

FICE - Flight and Flow Information for a Collaborative Enviroment (FF-ICE)

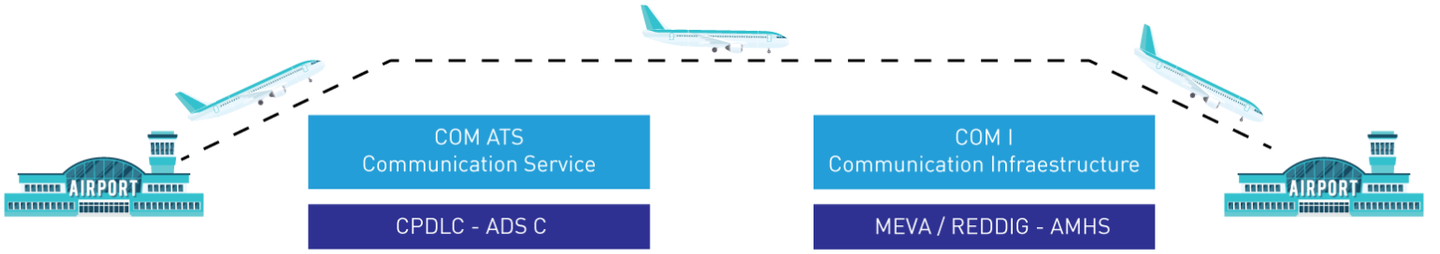
AIDC

DAIM - Digital Aeronautical Information Manual

AMET - Meterological Information

AIM QMS - e AIP - eTOD

MET QMS - IWXMM - OPMET



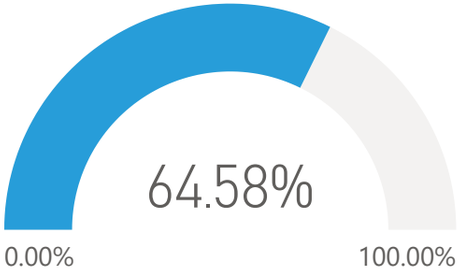
COM ATS
Communication Service

COM I
Communication Infraestructure

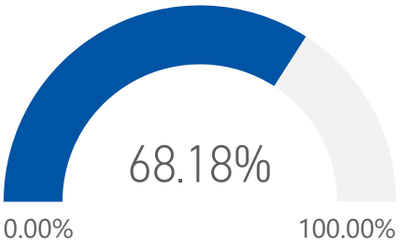
CPDLC - ADS C

MEVA / REDDIG - AMHS

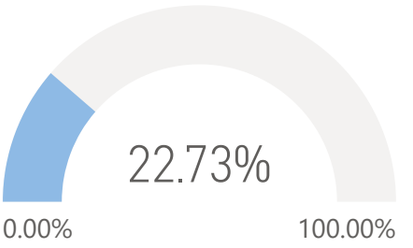
% of AIDC Implementation - CAR Region



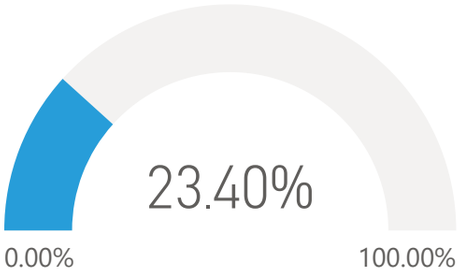
% of QMS AIM Certification and Implementation - CAR Region



% e-AIP Progress (Partial Operation) - CAR Region



% of AIDC Implementation - SAM Region



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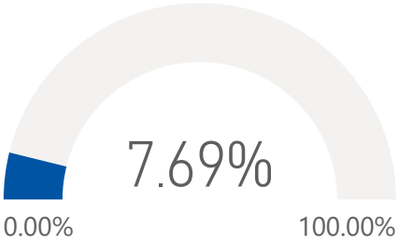
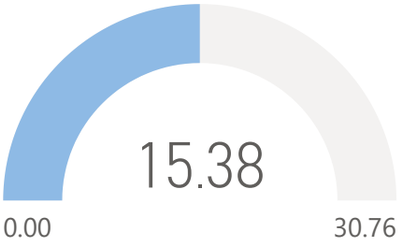
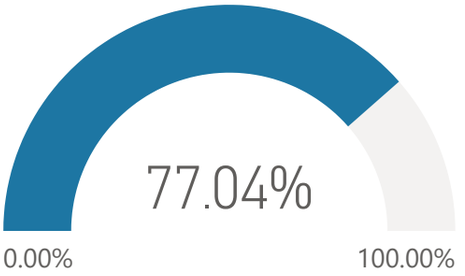


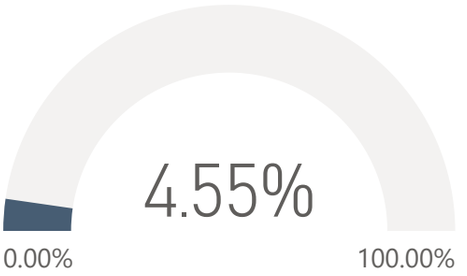
% e-AIP Progress (Partial Operation) - SAM Region



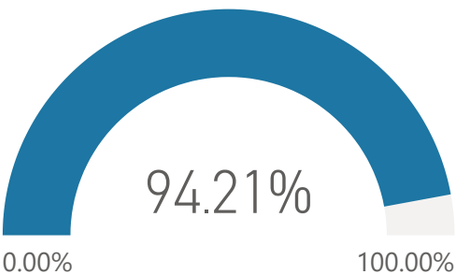
% AMHS implementation - CAR Region



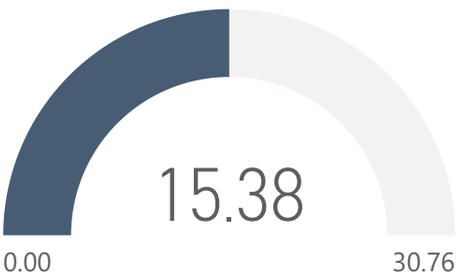
% IWXXM implementation - CAR Region



% AMHS implementation - SAM Region



% IWXXM implementation - SAM Region



FICE - Flight and Flow Information for a Collaborative Enviroment (FF-ICE)

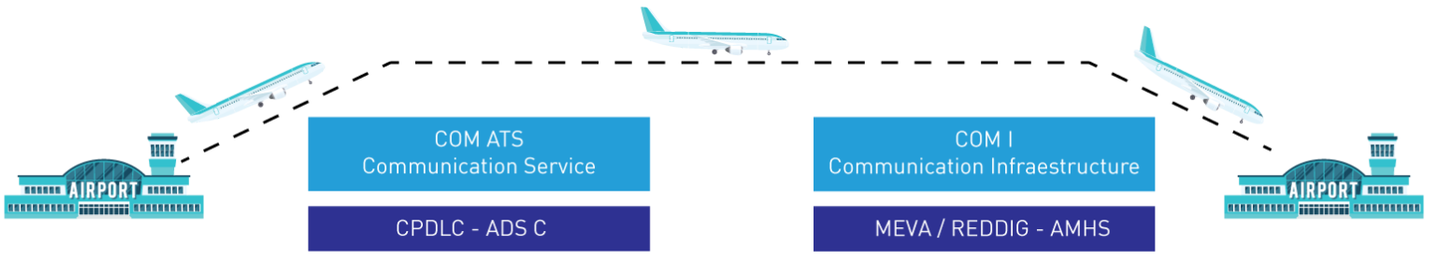
AIDC

DAIM - Digital Aeronautical Information Manual

AMET - Meterological Information

AIM QMS - e AIP - eTOD

MET QMS - IWXMM - OPMET



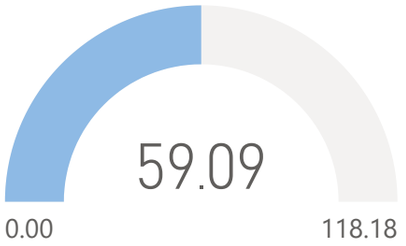
COM ATS
Communication Service

COM I
Communication Infraestructure

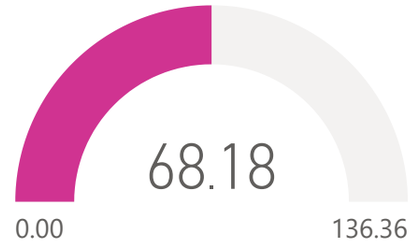
CPDLC - ADS C

MEVA / REDDIG - AMHS

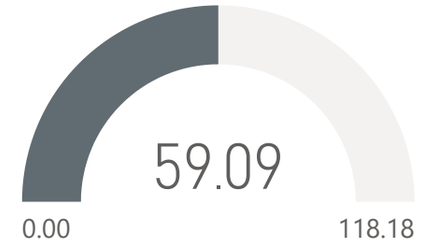
% eTOD Implementation - Area 2A - CAR Region



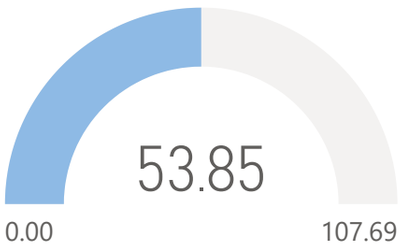
% eTOD Implementation - >1.2% trajectory - CAR Region



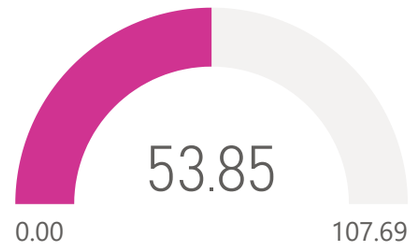
% eTOD Implementation - OLS Penetration - CAR Region



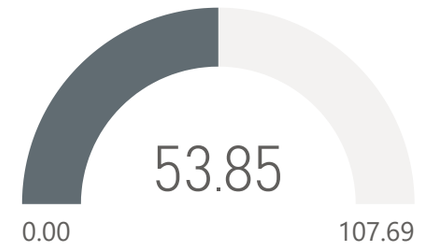
% eTOD Implementation - Area 2A - SAM Region



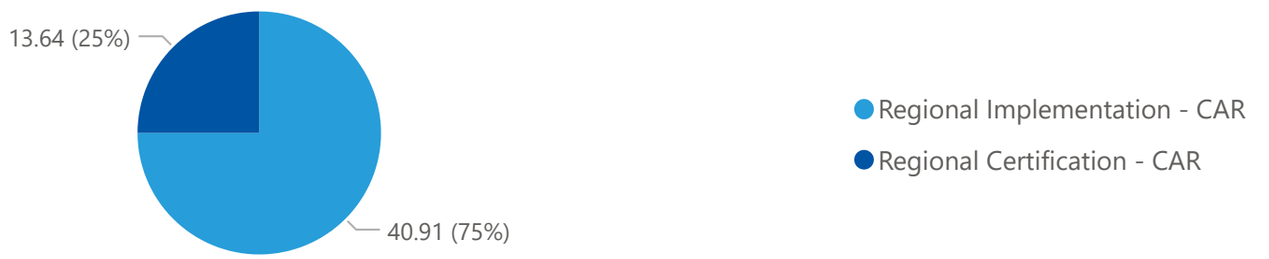
% eTOD Implementation - >1.2% trajectory - SAM Region



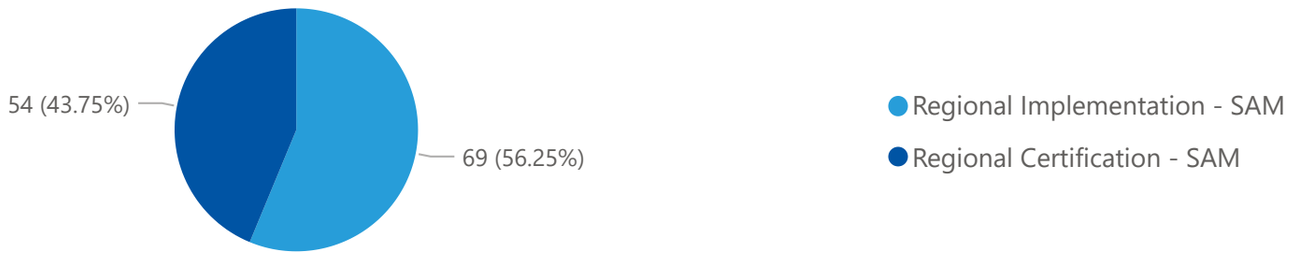
% eTOD Implementation - OLS Penetration - SAM Region



% QMS MET certification and implementation - CAR Region



% QMS MET certification and implementation - SAM Region



ATS-RO - RNAV5 Regional

FRTO - Improved Operations Through Enhanced En-Route Trajectories

ACDM

ACDM - Airport Collaborative Decision Making

PBN TMA

RNP Apch

Automatización ATM

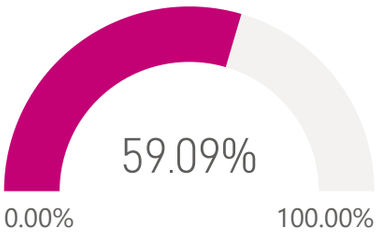
SNET Ground-based Safety Nets

AFTM

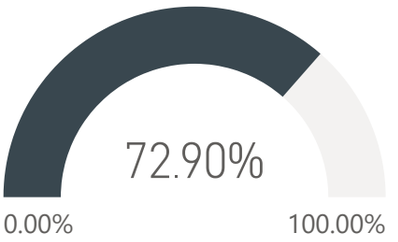
NOPS - Network operations

APTA - Improved Arrival and Departure Operations

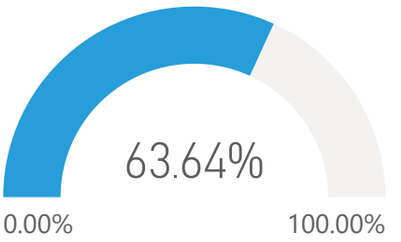
% of International Aerodromes that have implemented airport operations enhancement through A-CDM (Applicable = High Density) - CAR Region



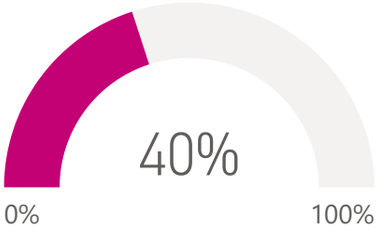
% of implemented APCH RNP (APV Minimums) on IFR RWY - CAR Region



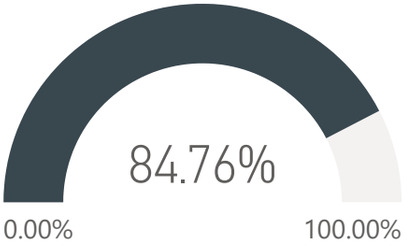
% of implemented AFTM dependencies (FMP/FMU) - CAR Region



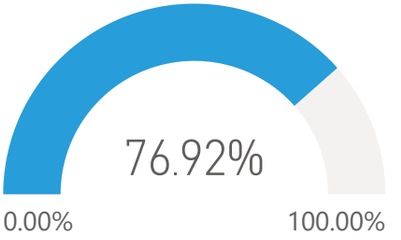
% of International Aerodromes that have implemented airport operations enhancement through A-CDM (Applicable = High Density) - SAM Region



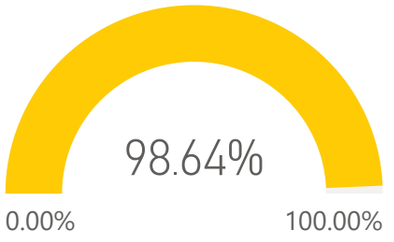
% of implemented APCH RNP (APV Minimums) on IFR RWY - SAM Region



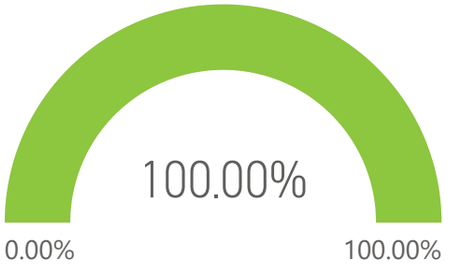
% of implemented AFTM dependencies (FMP/FMU) - SAM Region



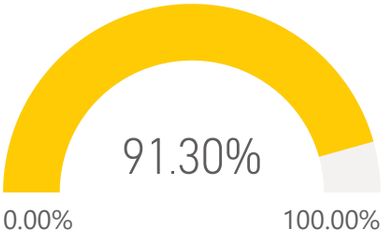
% STAR PBN Routes for IFR RWY - CAR Region



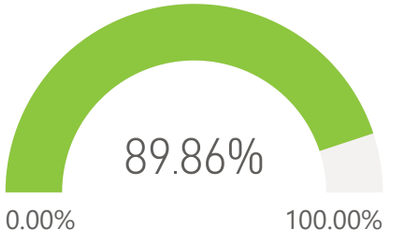
% SID PBN Routes for IFR RWY - CAR Region



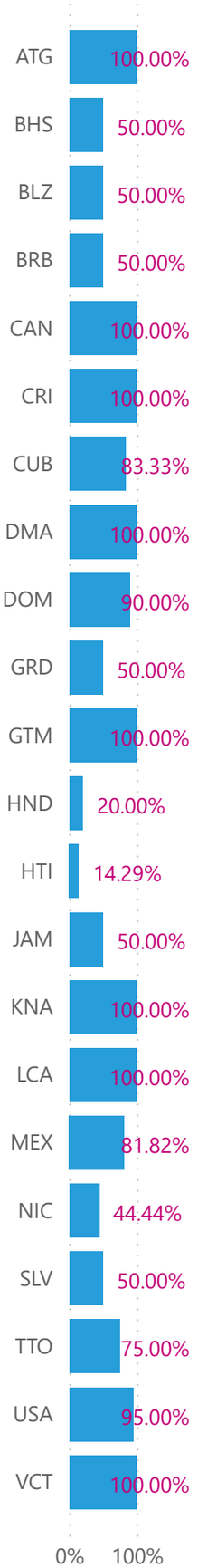
% STAR PBN Routes for IFR RWY - SAM Region



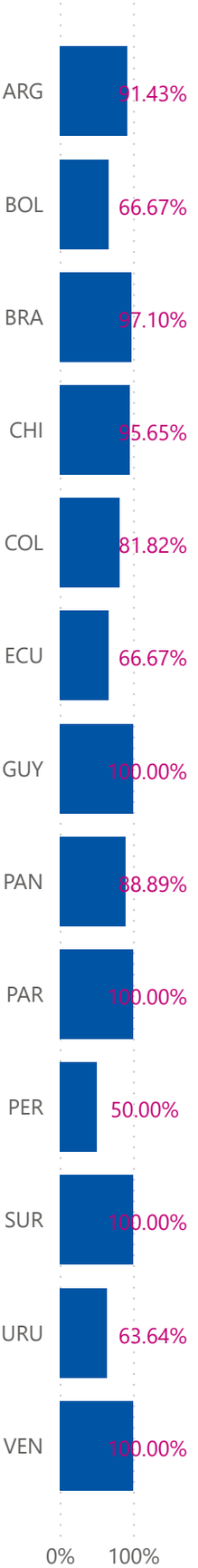
% SID PBN Routes for IFR RWY - SAM Region



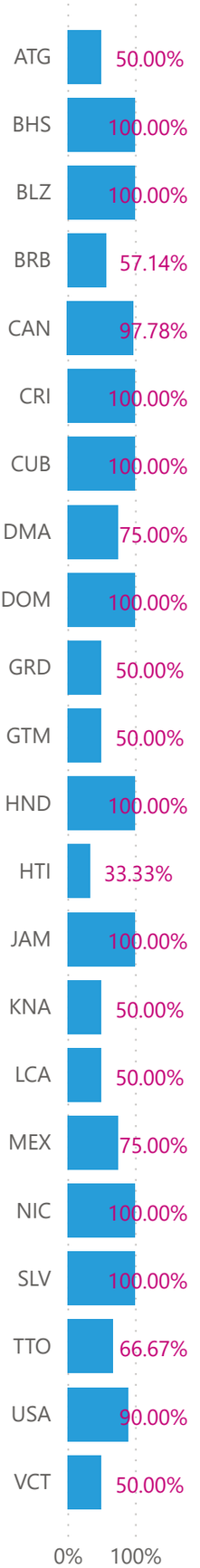
APV % Regional Implementation by State - CAR Region



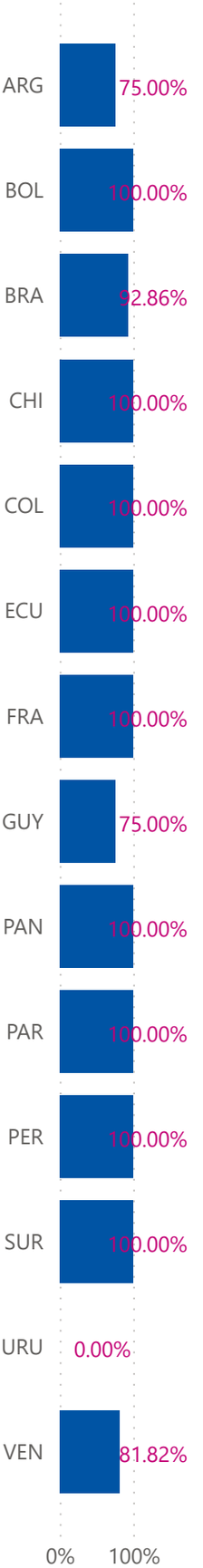
APV % Regional Implementation by State - SAM Region



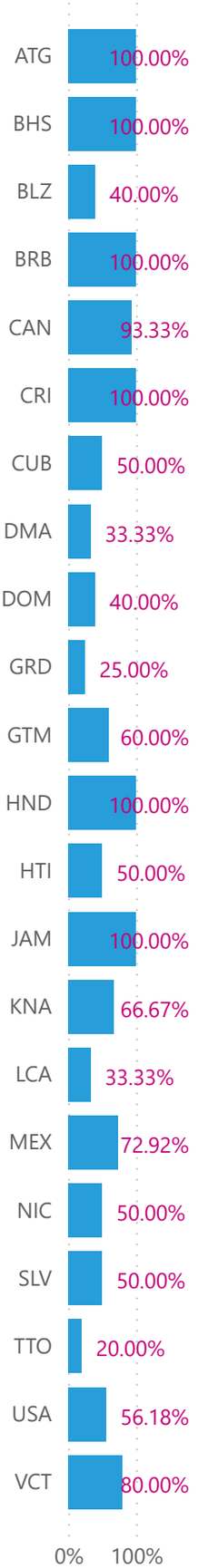
AMHS % Regional Implementation by State - CAR Region



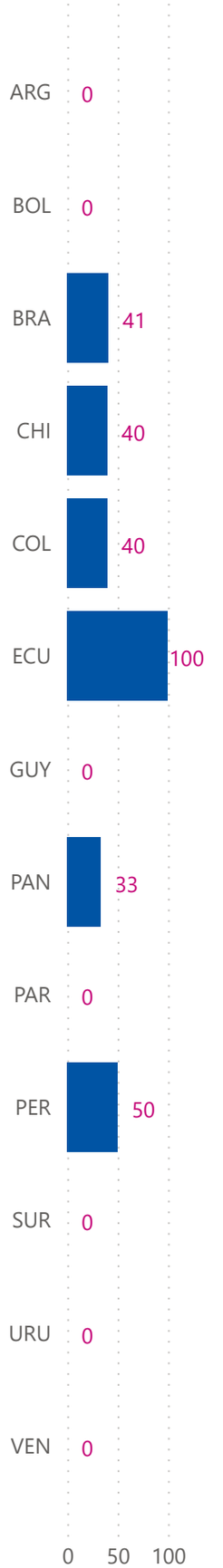
AMHS % Regional Implementation by State - SAM Region



AIDC % Regional Implementation by State - CAR Region



AIDC % Regional Implementation by State - SAM Region



ATFM Regional Implementation by State - CAR Region

State	Implemented
ATG	✓
BHS	✓
BLZ	✗
BRB	✓
CAN	✓
CRI	✗
CUB	✓
DMA	✗
DOM	✓
GRD	✗
GTM	✓
HND	✓
HTI	✗
JAM	✗
KNA	✓
LCA	✗
MEX	✓
NIC	✓
SLV	✓
TTO	✓
USA	✓
VCT	✗
Total	**14**

ATFM Regional Implementation by State - SAM Region

State	Implemented
ARG	✓
BOL	✓
BRA	✓
CHI	✓
COL	✓
ECU	✓
GUY	✓
PAN	✓
PAR	✓
PER	✓
SUR	✓
URU	✓
VEN	✓
Total	**13**

AIM QMS Regional Implementation by State - CAR Region

State	Implemented
ATG	✓
BHS	✓
BLZ	✓
BRB	✓
CAN	✓
CRI	✓
CUB	✓
DMA	✓
DOM	✓
GRD	✓
GTM	✓
HND	✓
HTI	✓
JAM	✓
KNA	✓
LCA	✓
MEX	✓
NIC	✓
SLV	✓
TTO	✓
USA	✓
VCT	✓
Total	**22**

AIM QMS Regional Implementation by State - SAM Region

State	Implemented
ARG	✓
BOL	✓
BRA	✓
CHI	✓
COL	✓
ECU	✓
GUY	✓
PAN	✓
PAR	✓
PER	✓
SUR	✓
URU	✓
VEN	✓
Total	**13**

MET QMS Regional Implementation by State - CAR Region

State	Implemented
ATG	✗
BHS	✗
BLZ	✓
BRB	✗
CAN	✗
CRI	✗
CUB	✓
DMA	✗
DOM	✓
GRD	✗
GTM	✗
HND	✗
HTI	✗
JAM	✓
KNA	✗
LCA	✗
MEX	✓
NIC	✓
SLV	✓
TTO	✓
USA	✓
VCT	✗
Total	**9**

MET QMS Regional Implementation by State - SAM Region

State	Implemented
ARG	✓
BOL	✓
BRA	✓
CHI	✓
COL	✓
ECU	✗
GUY	✓
PAN	✓
PAR	✓
PER	✓
SUR	✗
URU	✗
VEN	✗
Total	**9**

ACDM Regional Implementation by State - CAR Region

State	Implemented
ATG	✓
BHS	✓
BLZ	✓
BRB	✓
CAN	✓
CRI	✓
CUB	✓
DMA	✓
DOM	✓
GRD	✓
GTM	✓
HND	✓
HTI	✓
JAM	✓
KNA	✓
LCA	✓
MEX	✓
NIC	✓
SLV	✓
TTO	✓
USA	✓
VCT	✓
Total	**22**

ACDM Regional Implementation by State - SAM Region

State	Implemented
ARG	✗
BRA	✓
CHI	✓
COL	✓
PAN	✓
PER	✓
Total	**120.00%**

Status improvement to GREPECAS (Phase 1) / Estado de las mejoras al GREPECAS (Fase 1)

Área/Area		Descripción/Description	Status
Diagnóstico Diagnosis	1	Crear un compendio con las deficiencias detectadas en las tres reuniones anteriores Create a compendium with the deficiencies detected in the three previous meetings	Sustituido por DASHBOARD En Progreso fase inicial Replaced by DASHBOARD In Progress initial phase
	2	Priorizar las deficiencias detectadas / Prioritize the deficiencies detected	
Requerimientos del Sistema Management System Requirements	3		
	4		
	5	Mecanismo para medir los impactos de los programas y proyectos a través de indicadores KPI Mechanism to measure the impacts of programs and projects through KPI indicators	
	6	Generación de Informes en tiempo real desde la Plataforma Generation of reports in real time from the Platform	
	7		
	8		
	9	Cargar estructura de desglose de trabajo estándar predeterminado por proyecto Load Default Standard Work Breakdown Structure By Project	
Software del Sistema System Software	10	Crear plantillas adicionales / Create additional templates	Sustituido por DASHBOARD En Progreso fase inicial Replaced by DASHBOARD In Progress initial phase
	11	Desarrollar requisitos del sistema / Develop system requirements	
	12		
	13	Crear versión en línea para el Sistema / Create online version for the System	
	14	Definir roles, funciones y responsabilidades Define roles, functions and responsibilities	
	15		
	16	Crear bloques para filtros / Create blocks for filters	
	17	Crear enlaces entre objetivos estratégicos, programas y proyectos Create links between strategic objectives, programs and projects	
	18	Implementación y prueba de versión en línea / Online version testing and deployment	
Estructura de GREPECAS GREPECAS structure	19	Revisar la estructura actual y el Manual de procedimientos (AMDts)-Circular Estados- Review the current structure and the Procedures Manual (AMDts) -Circular States-	**100%**
	20	Proponer una nueva Estructura para apoyar mejor los proyectos Propose a new Structure to better support projects	En espera On hold 2022
	21	Revisar las funciones, roles y responsabilidades y proponga ajustes en caso necesario. Nuevos términos de referencia. Actualización de PoC de GRP Review the functions, roles and responsibilities and propose adjustments if necessary. New terms of reference. GRP PoC upgrade	**100%**
	22	Crear el Grupo de trabajo de "Data Analisys" / Create the "Data Analyzes" Working Group	**100%**
	23	Revisar las funciones y responsabilidades de la interacción GREPECAS RASG-PA. "GAP Analysis" – Sin respuesta Review the functions and responsibilities of the GREPECAS RASG-PA interaction. "GAP Analysis" – No response	**100%**
	24	Realizar capacitación basada en los nuevos requisitos de perfiles Conduct training based on new profile requirements	En espera On hold 2022
Página WEB del GREPECAS GREPECAS WEBSITE	25	Revisar la página WEB para depuración / Check the WEB page for debugging	**65%**
	26	Revisar estructura de la página WEB / Review structure of the WEB page	**75%**
	27	Recomendar mejoras a la estructura de la pagina / Recommend improvements to the structure of the page	**90%**
Cambio de Imagen del GREPECAS GREPECAS Image Change	28	Realizar estrategia de re-lanzamiento de GREPECAS / Carry out GREPECAS re-launch strategy	**35%**
	29	Plan de marketing / Marketing plan	**80%**
	30	Encuesta a Estados miembros y análisis de datos / Member State survey and data analysis	**65%**
	31	Sensibilización de los Estados / State awareness	**20%**
	32	Difusión sobre los acontecimientos en la gestión de GREPECAS Dissemination of events in the management of GREPECAS	En espera On hold 2022
Actividades hacia el GREPECAS 19 Activities towards GREPECAS 19	33	Agenda propuesta se presentó a DRD / Proposed agenda was presented to DRD	**100%**
	34	CAR/SAM Coordinación / CAR/SAM Coordination	**100%**
	35	NACC ANS ROs Coordinación NACC ANS ROs Coordination	En espera On hold 2022

Deleted: Desarrollar una tarjeta de puntuación equilibrada / Develop a balanced scorecard

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Develop a project monitoring and control mechanism with early alerts for overdue actions

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Assign hours to collaborative staff by: year, Meeting, Medical leave, Vacation, etc.

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Deleted: Crear sistema automatizado para la gestión de programas y proyectos de GREPECAS¶
Create automated system for managing GREPECAS programs and projects

Deleted: Crear un correo para difundir los mensajes de alerta¶
Create an email to broadcast the alert messages

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GREPECAS/18 CONCLUSIONS AND DECISIONS https://www.icao.int/SAM/Documents/2018-GREPECAS18/1GRP18_Final%20Report.pdf		
CONCLUSIONS	**Title**	**Validity Status**
18/1	ACTIONS FOR ATFM IMPLEMENTATION IN THE CAR REGION That, States and Territories of the CAR Region, in their ATFM implementation projects: a) implement as soon as possible, ATFM Positions (FMP) or ATFM units (FMU) in order to avoid an imbalance between capacity and demand, either by scheduled or by unforeseen events; and b) ICAO NACC Regional Office take the corresponding actions to develop a proposal for amendment to Doc 7030 concerning ATFM procedures and ATC minimum separation for aircraft transfer between adjacent Control Centres (ACC) counting with overlying radar coverage, as applicable, informing PPRC/4 meeting on the progress of such actions.	Completed New criteria are being prepared for the implementation of ATFM in the CAR Region, which will entail a new project for GREPECAS.
18/2	ESTABLISHMENT OF A WORKING GROUP TO OBTAIN BETTER AMHS OPERATIONAL USE	Completed
18/3	REVISION OF THE MET PROGRAMME AND ITS TASKS That, a) QMS/MET implementation be measured by certification, through a QMS certifying firm on aeronautical meteorology services; b) States that have obtained QMS/MET system certification, submit a copy of their certificates to the Secretariat;	Completed Only sending of the ISO certificates corresponding to the QMS MET by the States is missing. Refer to page 22 of the report at: https://www.icao.int/SAM/Documents/2018-GREPECAS18/1GRP18_InformeFinal.pdf
18/4	DEVELOPMENT OF AIR NAVIGATION PLANS ALIGNED WITH THE GANP AND THE REGIONAL PERFORMANCE-BASED AIR NAVIGATION PLANS	Superseded – new actions and follow-up adopted with the new planning of the ANP CAR/SAM Vol. III
18/5	IMPROVED DATA COLLECTION PROCESS FOR THE TREATMENT OF DEFICIENCIES REPORTED BY IFALPA AND IATA	Completed
18/6	RESOLUTION OF AERONAUTICAL METEOROLOGY DEFICIENCIES That, in order to resolve aeronautical meteorology deficiencies associated to its personnel, and in order to have in their staff aeronautical meteorologists that meet the training requirements of the World Meteorological Organization, CAR/SAM States and Territories that present this deficiency: a) develop and conduct professional training courses for aeronautical meteorologists, aligned with the BIP-M contained in WMO Publication No. 1083, in partnership with universities, CATCs or tertiary non-university training institutions that meet education quality standards;	Completed It was considered completed when referring to the qualification and competencies of aeronautical meteorology personnel Refer to page 23 of the report at:: https://www.icao.int/SAM/Documents/2018-GREPECAS18/1GRP18_InformeFinal.pdf

	b) create cooperation links with the permanent representatives of their States to the WMO in order to have access to WMO-approved personnel remote training courses offered by universities and international institutes; c) develop and implement a programme to link university meteorological staff or technical personnel with the aeronautical meteorology units of air navigation services in the short and medium term; and d) inform the respective ICAO Regional Offices at GREPECAS/18 about their plans to develop and conduct aeronautical meteorology training courses aligned with the BIP-M contained in WMO Publication No. 1083.	
18/7	POSTPONEMENT OF THE APPROVAL OF VOL. III OF CAR/SAM EANP	Superseded - new actions and follow-up adopted with the new planning of the ANP CAR / SAM Vol III
18/8	GREATER SUPPORT FROM STATES TO AGA ISSUES AND PROJECTS	Completed-
18/10	FOLLOW-UP TO THE IMPLEMENTATION OF A39 RESOLUTIONS RELATED TO AIR NAVIGATION	Completed
18/13	SAFETY MANAGEMENT IMPLEMENTATION That, in order to support the implementation of safety management, CAR/SAM States, international and regional organisations share tools and examples that support effective safety management implementation, to be posted on the Safety Management Implementation (SMI) website.	Completed States and international organizations support the implementation of safety management by sharing tools and examples in Safety Management Implementation (SMI) on the Website, it is specified that this conclusion is an action for States. Additionally, the Website and the new edition of Doc 9859 – Safety Management Manual were deliverables of the "ICAO Safety Management Programme" in 2018, the year of GREPECAS/18.
18/14	ENHANCEMENT OF SOUTH ATLANTIC (SAT) GROUP STRUCTURE	Completed
18/15	INTERFACE CONTROL DOCUMENTS FOR AIDC IMPLEMENTATION	Completed
18/16	SHORT-TERM IMPLEMENTATION BY THE STATES OF AIDC FUNCTIONALITY	Completed During 2021, the AIDC task force for the NAM / CAR region updated its work plan and the status of implementation of the AIDC connections. In addition, workshops were held to implement flight plan error mitigation measures.

18/17	MEASURES TO REDUCE FLIGHT PLAN ERRORS	Completed
18/19	AERODROME CERTIFICATION PLAN	Completed
18/20	MODIFICATION OF THE GREPECAS PROCEDURAL HANDBOOK	Completed
18/21	SUPPORT TO GTE AND CARSAMMA ACTIVITIES TO IMPROVE THE ANALYSIS OF INFORMATION ON DEVIATIONS IN RVSM AIRSPACE Following actions be carried out in order to improve the analysis of information on deviations in RVSM airspace: a) States/international organisations and CARSAMMA, in coordination with ICAO Regional Offices, carry out activities to improve the reception and processing of information on deviations in RVSM airspace; b) CARSAMMA and the GTE exchange information and closely coordinate with the implementation groups coordinated by ICAO Regional Offices, in order to strengthen implementation activities that will help reduce LHD occurrences in CAR/SAM FIRs; c) States/international organisations, in coordination with CARSAMMA and ICAO Regional Offices, take the necessary measures to avoid the operation of non-RVSM aircraft, and coordinate with the relevant parties for proper flight plan completion for the operation of State aircraft in RVSM airspace; and d) GTE submit the plans for the aforementioned activities and their status of implementation at the PPRC/5 meeting.	Valid An update of the Contact Points Manual will be presented to CARSAMMA, formalizing changes in the processes that have been addressed in the GTE meetings. After the presentation and approval of the aforementioned Manual, we will evaluate if we consider it concluded
18/22	APPROVAL OF THE AMENDMENT TO CARSAMMA TERMS OF REFERENCE AND OF THE GUIDANCE MANUAL FOR POINTS OF CONTACT (POC)	Completed
DECISIONS	**Title**	**Validity Status**
18/9	AD HOC GROUP TO ANALYSE GREPECAS - RASG-PA COORDINATION IMPROVEMENTS	Completed
18/11	CHARTING DEFICIENCY STRATEGY	Completed
18/12	RNAV TO RNP CHARTING TRANSITION	Completed
18/18	MERGING OF PROJECTS F1 AND F2 INTO A NEW PROJECT F1	Completed

PPRC/05 https://www.icao.int/NACC/Documents/Meetings/2019/PPRC5/PPRC05DraftReport.pdf		
CONCLUSIONS	**Title**	**Validity Status**
05/01	FOLLOW-UP TO AIR NAVIGATION DEFICIENCIES PROCEDURE AND EFFECTIVENESS OF THE GANDD	Completed
05/02	PROPOSAL FOR IMPROVEMENTS TO GREPECAS	Completed
05/03	USE OF NEW ICAO GANP PORTAL	Completed
05/04	GAP ANALYSIS FOR COMPLIANCE WITH THE 6TH EDITION OF THE GANP	Completed
05/09	SUPPORT TO THE ACTIVITIES OF THE GTE AND OF ICAO TO IMPROVE SAFETY IN THE RVSM AIRSPACE OF THE CAR/SAM REGIONS	Completed
05/10	DEVELOPMENT OF VOLUME III OF THE CAR/SAM GANP IN PREPARATION OF NATIONAL AIR NAVIGATION PLANS That, in Coordination with the NACC and SAM Regional Offices, a) the States support the Secretariat in the preparation of Vol. III of the CAR/SAM e-ANP and the revision of Vols. I and II of the aforementioned document to align it to the GANP - Sixth Edition, considering the catalogue of KPI contained in the GANP; b) the States, in coordination with the NACC and SAM Regional Offices, after completing the preparation and revision of the three CAR/SAM e-ANP Volumes, elaborate or, if applicable, update their NANP, in order to align them to the GANP initiatives, including the requirements of all the areas that involve air navigation services; c) the States forward the developed or updated NANP to the ICAO NACC and SAM Regional Offices by the second semester of 2021; d) ICAO process the approval of Vol. III of the CAR/SAM e-ANP by the third quarter of 2020; e) ICAO, once Vol. III is approved, replace the Regional Air Navigation Plans based on performance by Vol. III of the CAR/SAM e-ANP, and present it to the PPRC/6; and f) ICAO provide technical support to the States that request it for the development of their NANP and supervise the delivery of said plans to the ICAO NACC and SAM Regional Offices.	Superseded by new actions and follow-up adopted with the new planning of the ANP CAR / SAM Vol III

05/12	EXTRAORDINARY TELECONFERENCE FOR THE REVIEW OF THE ADJUSTMENT PROPOSAL OF GREPECAS AND COORDINATION WITH RASG-PA	Completed
05/13	INCLUSION OF THE AERONAUTICAL REQUIREMENT OF TROPICAL CYCLONE ADVISORY INFORMATION FOR THE WESTERN SOUTH ATLANTIC That, considering the occurrence of tropical cyclones in the Western South Atlantic, and given the absence of SIGMET by tropical cyclones for this event due to the lack of advisory information on tropical cyclones, ICAO, a) in coordination with the World Meteorological Organization, take the necessary actions for the designation of a Tropical Cyclone Advisory Centre (TCAC) to cover the area between Equator and the 30° South parallel, limited by the continental blocks of Africa and South America by GREPECAS/19; and b) once the designation of the new Tropical Cyclone Advisory Centre has been approved, proceed with the amendment of the CAR/SAM e-ANP, Vol. I.	Valid
DECISIONS	**Title**	**Validity Status**
05/05	APPROVAL OF THE CONOPS ATFM CAR/SAM AMENDMENT	Completed
05/06	NEW PROJECTS UNDER THE AERODROME F PROGRAMME FOR THE CAR AND SAM REGIONS	Completed
05/07	REVIEW OF THE AIM PROGRAMME AND ITS PROJECTS	Completed
05/08	REVIEW OF MET PROGRAMME AND ITS PROJECTS That, Coordinators of the Programme H Projects assess the status of the Programme and send the results to the PPRC by 30 November 2019, identifying improvement opportunities and additional implementation strategies.	Completed According to results of eCRPP / 02 and CRPP / 03, conclusion eCRPP / 03/02 Referto page 4 in: https://www.icao.int/NACC/Documents/Meetings/2021/PPPRC3/eCRPP03-Minuta.pdf
05/11	REFORMULATION OF GREPECAS PROGRAMMES AND PROJECTS	Completed

ePPRC/01 https://www.icao.int/NACC/Documents/Meetings/2020/CRPP01/ePPRC01-Minute.pdf		
DECISIONS	**Title**	**Validity Status**
01/01	STATUS OF IMPLEMENTATION OF THE AUTOMATED MANAGEMENT SYSTEM OF GREPECAS That, with the aim of reporting on the status of implementation of the GREPECAS Automated Management System and of inviting the States that wish to be part of the ongoing activities for this implementation, the Secretariat and the GREPECAS Chairman send by 26 June 2020, to GREPECAS Member States, a communication detailing this information and the need for involvement for the prompt implementation of the System.	Completed
01/02	IMPROVEMENTS TO PANDEMIC OR EPIDEMIC CONTINGENCY PLANS IN THE CAR/SAM REGIONS	Completed
01/03	REVIEW OF THE CURRENT PRCC PROGRAMMES AND PROJECTS That, considering the new overview foreseen for civil aviation due to the restrictions imposed by the States to avoid spread of the COVID-19 and before the new scenario in which GREPECAS projects are developed, the Secretariat shall: a) assess GREPECAS programmes to determine if they can still be justified under the new scenario in the CAR/SAM Regions (questions and Projects matrix); b) work on the implementation of air navigation in line with guidelines established or to be established by the groups created by ICAO, at a global and regional level, for reactivating and the recovery of civil aviation; c) review the objectives, targets and implementation dates of the different current on-going Programmes and Projects, and make them suitable for the requirements established by the new horizons determined by the COVID-19 crisis; and d) present a report by 30 November 2020, with the restructuring of the targets, objectives and dates of the reviewed Projects.	Completed
01/04	ON-LINE FOLLOW-UP MEETINGS AND NEXT GREPECAS FACE-TO-FACE MEETING	Completed

ePPRC/02 https://www.icao.int/NACC/Documents/Meetings/2020/PPRC02/ePPRC02-Minute-REV.pdf		
CONCLUSIONS	**Title**	**Validity**
02/03	REVIEW OF THE A-CDM IMPLEMENTATION PLAN PROPOSAL That, considering the new CAR/SAM Project F3 on Airport Collaborative Decision Making (A-CDM) under the Aerodrome Program, the States: a) endorse the first version of the A-CDM Implementation Plan proposal included in the Appendix of WP/05, b) send their comments to the A-CDM Implementation Plan proposal by 8 February 2021.	Completed
02/05	RASG-PA/GREPECAS COORDINATION That, in order to achieve the timely participation and preparation of the States, and in coordinated work between RASG-PA and GREPECAS, it is approved to hold an annual coordination meeting between the RASG-PA and GREPECAS work teams, at the beginning of every year (calendar), urging that the GREPECAS Working Groups support this effective coordination.	Completed
02/06	GREPECAS 2021 MEETINGS PROGRAMME That, in order to achieve the timely participation and preparation of States in the air navigation planning and implementation activities for the CAR/SAM regions, the States approve the planning of GREPECAS 2021 events/meetings as proposed in P/01.	Completed
DECISIONS	**Title**	**Validity**
02/01	PRESENTATION OF REVISED GREPECAS PROJECTS That, considering all the comments and guidelines provided by the PPRC to the GREPECAS Programme and Project Coordinators, the alignment of the Projects with the GANP, the prioritization of Projects according to the current CAR/SAM regional aviation context and financial resources prevailing as a result of COVID-19, Project/Programme Coordinators submit their revised and valid version to the PPRC by 8 February 2021.	Completed
02/02	CAR/SAM REGIONS ATFM DOCUMENTATION UPDATE That, considering the publication of ICAO Doc 9971 and its different updates, as well as the development of the Guide for the implementation of the ATFM service and a runway capacity and Air Traffic Control (ATC) sector calculation manual in the SAM Region in 2019, a) the elimination of the CAR/SAM ATFM Manual is approved, considering that ICAO Doc 9971 provides the necessary reference to support the implementation of the ATFM; and b) the amendment proposal for the CAR/SAM ATFM CONOPS contained in the Appendix of WP/02 of this meeting is approved.	Completed
02/04	COORDINATION FOR THE IMPLEMENTATION AND ASSISTANCE TO THE STATES IN UAS/RPAS AND CYBERSECURITY	Completed

	That, considering the subject of UAS/RPAS as cybersecurity, as non-exclusive multidisciplinary topics to be dealt with in GREPECAS, the GREPECAS Secretariat coordinate the definition of activities and responsibilities to support the implementation of these issues with the regional implementation groups in Aviation Security, the Regional Group on Aviation Security and Facilitation (AVSEC/FAL) CAR/SAM, as well as the Regional Aviation Safety Group–Pan America (RASG-PA) by ePPRC/03..	

ePPRC/03 MEETING CONCLUSIONS APPROVED BY THE FAST TRACK PROCEDURE AND ADOPTED BY GREPECAS/19

<table>
<tr><td colspan="3">CONCLUSION
GREPECAS 19/01</td><td colspan="2">GUIDE FOR THE GREPECAS AIRPORT COLLABORATIVE DECISION MAKING (A-CDM) IMPLEMENTATION</td></tr>
<tr><td colspan="3">What:
That, considering the new Project F3 on Collaborative Decision Making at the airport Level under the Aerodrome Programme, the States:

a) include in Volume III of the Regional Air Navigation Plan the implementation requirements of A-CDM to those applicable airports (the requirements to be designated by the States) and that such implementations follow the implementation guide as a basis; and as part of Project F3; and

b) propose to the Secretariat those aerodromes that could serve as pilot implementation projects, so that their performance may be monitored and the expected benefits validated by 30 November 2021.</td><td colspan="2">Expected impact:
☐ Political / Global
☐ Inter-regional
☐ Economic
☐ Environmental
☒ Operational/Technical</td></tr>
<tr><td colspan="5">Why:
Ensure that, in those States and aerodromes where it is decided, in accordance with the Regional Plan, the implementation of A-CDM or in those aerodromes where the implementation is already underway, it be carried out in a harmonized manner thus avoiding disruptions in future integration between aerodromes and with the Air Traffic Management (ATM) network.</td></tr>
<tr><td colspan="2">When: 30 November 2021</td><td colspan="3">Status: ☒ Valid / ☐ Superseded / ☐ Completed</td></tr>
<tr><td colspan="2">Who: ☒ States ☐ ICAO ☐ Other:</td><td colspan="3"></td></tr>
</table>

CONCLUSION
GREPECAS 19/02 **IMPLEMENTATION OF ICAO ANNEX 3 STANDARDS AND RECOMMENDED PRACTICES (SARPS)**

What:

That, Contracting States:

a) consider the necessary mechanisms to verify the effective implementation of the Basic Building Blocks (BBBs) corresponding to the Meteorological Service for International air navigation and notify their implementation emphasizing the following:
   i) Quality Management System (QMS)/MET;
   ii) training of aeronautical meteorological personnel (considering international standards according to guidance from the World Meteorological Organization Publication 1083);
   iii) exchange of Operational Meteorological Information Messages (OPMET) in the ICAO Weather Information Exchange Model (IWXXM) format;
   iv) procedure for cases of volcanic ash and release of radioactive material;
   v) procedures for issuing information concerning *en-route* weather phenomena which may affect the safety of aircraft operations (SIGMET), information concerning *en-route* weather phenomena which may affect the safety of low-level aircraft operations (AIRMET), Aerodrome Warnings, Wind Shear Warnings; and
   vi) SIGMET issuance procedures in coordination with the Meteorological Watch Offices [MWO] of the adjacent Flight Information Regions (FIRs); and

b) finalize the implementation of the operational meteorological information (OPMET) message exchange in IWXXM format as a basis for the System wide information management (SWIM) equipping the operational meteorological offices (Aeronautical Meteorological Station [AMS], Aerodrome Meteorological Office [AMO] and Meteorological Watch Office [MWO]) with the following communications infrastructure:
   i) connection to the Aeronautical Message Handling System (AMHS) system;
   ii) AMHS terminal installed in the MET Offices with the capacity to translate OPMET messages, from the Traditional alphanumeric code (TAC) format to the IWXXM format; and
   iii) AMHS terminals installed in MET Offices have the capacity to attach messages in IWXXM format to OPMET messages in TAC format.

Expected impact:

☐ Political / Global
☐ Inter-regional
☐ Economic
☐ Environmental
☒ Operational/ Technical

Why:

Contracting States are required to ensure an adequate organization of the Air Navigation Services (ANS), particularly the Meteorological service for international air navigation and to properly implement the ICAO Annex 3 SARPs.

When:	a) 30 November 2021 b) 30 June 2022	**Status:** ☒ Valid / ☐ Superseded / ☐ Completed
Who:	☒ States ☐ ICAO ☐ Other:	

CONCLUSION GREPECAS 19/03	**IMPLEMENTATION OF THE DIGITAL DATA SETS (DDS), THE DATA CATALOG, THE STANDARD MODEL FOR THE EXCHANGE OF AERONAUTICAL INFORMATION AND THE e-AIP**	
What: That, States, as far as possible, accelerate the implementation of the Digital Data Sets (DDS), the Data Catalog, and the standard Information Exchange Models, in all their domains, in order to make possible the management of information in an electronic environment by 2024.		**Expected impact:** ☒ Political / Global ☒ Inter-regional ☐ Economic ☐ Environmental ☒ Operational/Technical
Why: To comply with the requirements of ICAO Annex 15 and build the basis for SWIM.		
When:	Complete the implementations by 2024.	**Status:** ☒ Valid / ☐ Superseded / ☐ Completed
Who:	☒ States ☐ ICAO ☐ Other:	

<table>
<tr><td colspan="3">CONCLUSION
GREPECAS 19/04 REMOTE SUBSCRIPTION OF LETTERS OF AGREEMENT (LOAs) AND EFFECTIVE REGIONAL IMPLEMENTATION OF THE SAR SERVICE</td></tr>
<tr><td colspan="2">What:
That, the ICAO NACC and SAM Regional Offices evaluate the current challenges regarding the provision of SAR services in the CAR/SAM Regions and identify opportunities for improvement in order to:
a) optimize regional coordination to allow subscribe and/or update SAR agreements, considering the signing of them remotely;
b) promote joint work of the SAR between the CAR/SAM Regions; and
c) develop a Project proposal to support activities a) and b) above, for GREPECAS consideration by the GREPECAS/20 Meeting.</td><td>Expected impact:
☐ Political / Global
☒ Inter-regional
☐ Economic
☐ Environmental
☒ Operational/Technical</td></tr>
<tr><td colspan="3">Why:
The provision of SAR services is an essential part of air navigation services, it is necessary to update and progress on the implementation of the requirements of Annex 12 to support the effective implementation of SAR as part of the follow-up to the Plan Air Navigation of the CAR/SAM Regions.</td></tr>
<tr><td>When: GREPECAS/20 Meeting</td><td colspan="2">Status: ☒ Valid / ☐ Superseded / ☐ Completed</td></tr>
<tr><td>Who: ☐ States ☒ ICAO ☐ Other:</td><td colspan="2">ICAO NACC and SAM Regional Offices</td></tr>
</table>

<table>
<tr><td colspan="2">CONCLUSION
GREPECAS 19/05</td><td colspan="2">COMPLETION OF CAR/SAM AIR NAVIGATION PLAN (ANP) VOLUME III</td></tr>
<tr><td colspan="3">What:
That,

a) States adopt the “Instructions for the use of template of air navigation regional plan – ANP CAR/SAM, Volume III”;

b) States appoint or ratify their focal points/work teams to act as counterparts of the Secretariat and communicate such nomination to the correspondent Regional Office by 30 November 2021;

c) States ensure the active participation of focal points/work team in the activities assisted by the Secretariat for the development of Volume III; and

d) States and Regional Offices complete the development and approval of Vol III in the first semester of 2022.</td><td>Expected impact:
☐ Political / Global
☒ Inter-regional
☐ Economic
☐ Environmental
☒ Operational/Technical</td></tr>
<tr><td colspan="4">Why:
To achieve a planning aligned with the Global Air Navigation Plan (GANP), according to the needs of efficiency, balance between demand and capacity of the States, to ensure interoperability of the air navigation services and facilities of the CAR SAM Regions with the rest of the world, for an orderly and safe development of regional aviation and to be able to benefit from new technologies in a cost-efficiently manner.</td></tr>
<tr><td colspan="2">When: By 31 July 2022</td><td colspan="2">Status: ☒ Valid / ☐ Superseded / ☐ Completed</td></tr>
<tr><td colspan="2">Who: ☒ States ☒ ICAO ☐ Other:</td><td colspan="2"></td></tr>
</table>

CONCLUSION **GREPECAS 19/06**	**PROPOSED AMENDMENT TO CARSAM ANP VOLUME I, TABLE AOP I-1 AND ANP VOLUME II, TABLE AOP II-1**
What: That, as many aerodromes used for international operations or aerodromes under construction or planned for international operations in the CARSAM Region were not included in CARSAM ANP Volume I, Table AOP I-1 and ANP Volume II, Table AOP II-1, and it is also important that the information included in AOP Tables I-1 and AOP Table II-1 is accurate and up-to-date for regional planning of the other air navigation services. States: a) review the aerodromes listed in CAR/SAM ANP Volume I, Table AOP I-1 by 4 December 2021; b) review Volume II of the ANP, Table AOP II-1 to obtain the list of facilities and services to be provided by the State concerned in each aerodrome listed in Table AOP I-1 by 4 December 2021; c) initiate and send to ICAO NACC and SAM Regional Offices proposed amendments to CAR/SAM ANP Volume I, Table AOP I-1 and ANP Volume II, Table AOP II-1 according to the template provided in WP/14 (Appendix A), if its international aerodromes are not listed in Table AOP I-1 or require amendments to update the information provided in Tables AOP I-1 and AOP II-1 by 4 December 2021; and d) evaluate if the Proposal for Amendment (PfA) proposed to the AOP Tables impact Table MET II-2 of Volume II, of the CAR/SAM e-ANP, and if it will impact it, propose another PfA for Table MET II-2 by 4 December 2021.	**Expected impact:** ☐ Political / Global ☐ Inter-regional ☐ Economic ☐ Environmental ☒ Operational/Technical
Why: The update of Volumes I and II of the ANP will allow an adequate basis for the construction of Volume III.	
When: 4 December 2021	**Status:** ☒ Valid / ☐ Superseded / ☐ Completed
Who: ☒ States ☒ ICAO ☐ Other:	

GREPECAS/19 MEETING CONCLUSIONS AND DECISIONS

Agenda Item 1: Adoption of the Provisional Agenda and Schedule

There are no Conclusions/Decisions under this Agenda Item.

Agenda Item 2: Topics in Support of the COVID-19 Contingency: CAR/SAM Follow-up to the Activities in Support of the ICAO Aviation Recovery due to the COVID-19 Pandemic

<table>
<tr><td colspan="2">CONCLUSION GREPECAS 19/07</td><td colspan="2">ACTIVITIES IN SUPPORT OF ICAO AVIATION RECOVERY FROM COVID-19</td></tr>
<tr><td colspan="2">What:
That, States, Industry and stakeholders

a) recognize the suitable and prompt support of ICAO for aviation recovery greatly impacted by the COVID-19 pandemic through the Council Aviation Recovery Taskforce (CART) measures, the COVID-19 Response and Recovery Implementation Centre (CRRIC) and the NACC and SAM specific guidance and particular support for the air navigation matters to ensure a sustainable and harmonized effort aimed at aviation recovery in the CAR/SAM Regions;
b) continue the implementation of COVID-19 guidance and supporting documentation prepared for Air Navigation Services (ANS) available at the NACC and SAM websites;
c) propose specific aspects and needs that could be addressed in future meetings at the NACC and SAM ICAO Regional Offices meetings and events related with COVID-19; and
d) take action regarding the implementation of the CART Recommendations, the Take-off Measures, and the continuous reporting in the CRRIC.</td><td colspan="2">Expected impact:
☐ Political / Global
☒ Inter-regional
☒ Economic
☐ Environmental
☒ Operational/Technical</td></tr>
<tr><td colspan="4">Why:
The sustainable aviation recovery from the impact of the COVID-19 pandemic is a global and regional priority for all States and stakeholders for which the harmonized, systemic and coordinated effort from each State and industry is key for this common goal</td></tr>
<tr><td>When:</td><td>By GREPECAS/20</td><td>Status:</td><td>☒ Valid / ☐ Superseded / ☐ Completed</td></tr>
<tr><td>Who:</td><td>☒ States ☒ ICAO ☒ Other:</td><td colspan="2"></td></tr>
</table>

Agenda Item 3: GREPECAS Work Programmes, Objectives and Results

3.1 CAR/SAM Regional Air Navigation Plan Work Update

Conclusion ePPRC/03/08 was adapted as Conclusion GREPECAS 19/05.

3.2 GREPECAS Work Programmes, Objectives and Results

<table>
<tr><td colspan="3">DECISION
GREPECAS 19/08 GREPECAS PROJECT REVIEW</td></tr>
<tr><td colspan="2">What:
That, following the review and updates of the GREPECAS Programme and Project, based on the requirements of the 6th Edition of the Global Air Navigation Plan (GANP) and the CAR/SAM Regions Air Navigation Services (ANS) priorities,

a) States approve the list of GREPECAS Projects shown in Appendix C of this report

b) The GREPECAS Secretariat update the GREPECAS website with these updates by 31 December 2021; and

c) States and industry ensure the active participation of their representatives in support of the implementation and successful deployment of these Projects.</td><td>Expected impact:
☐ Political / Global
☒ Inter-regional
☐ Economic
☐ Environmental
☒ Operational/Technical</td></tr>
<tr><td colspan="3">Why:
Identification and follow-up to the valid Programme and Projects for the CAR/SAM Regions, updated with their Project Coordinators, activities, dates and deliverables</td></tr>
<tr><td>When: By 31 December 2021</td><td colspan="2">Status: ☒ Valid / ☐ Superseded / ☐ Completed</td></tr>
<tr><td>Who: ☒ States ☒ ICAO ☐ Other:</td><td colspan="2"></td></tr>
</table>

CONCLUSION GREPECAS 19/09	**DASHBOARD IMPLEMENTATION**
What: That, States, in order to increase the efficiency of GREPECAS, a) support the establishment of a GREPECAS management dashboard as part of the GREPECAS improvements which should be implemented by GREPECAS/20; and b) provide the ICAO Regional Offices with the information and data sets necessary for the development of the Air Navigation Dashboard, as necessary.	**Expected impact:** ☐ Political / Global ☒ Inter-regional ☐ Economic ☐ Environmental ☒ Operational/Technical
Why: Implement improvements to increase GREPECAS efficiency and effectiveness	
When: **GREPECAS/20**	**Status:** ☒ Valid / ☐ Superseded / ☐ Completed
Who: ☒ States ☐ ICAO ☐ Other:	

3.3 Review of GREPECAS functions

Agenda Item 4: Global and Interregional Activities

CONCLUSION GREPECAS 19/10	**APPROVAL OF THE GUIDE ON THE ISSUANCE OF SNOWTAM FOR THE CAR/SAM REGIONS**
That : In order to have a document that allows standardizing the criteria and formats for issuing SNOWTAM messages in the CAR/SAM Regions, a) the document presented to GREPECAS, as Appendix A to WP/10, *Guide on the Issuance of SNOWTAM* for the CAR/SAM Regions, is approved for State implementation as a regional guidance document; b) the Secretariat include the Guide-Document for the CAR/SAM Regions in the GREPECAS website; and c) the NACC and SAM Regional Offices communicate the States, air navigation service providers and industry on its use and socialization by 31 December 2021.	**Expected impact:** ☐ Political / Global ☐ Inter-regional ☐ Economic ☐ Environmental ☒ Operational/Technical
Why: To standardize the criteria and formats for issuing SNOWTAM messages.	
When: 31 December 2021	**Status:** ☒ Valid / ☐ Superseded / ☐ Completed
Who: ☒ States ☒ ICAO ☐ Other:	

<table>
<tr><td colspan="3">CONCLUSION
GREPECAS 19 /11 APPROVAL OF THE MANUAL FOR POINTS OF CONTACT ACCREDITED TO CARSAMMA, AMENDMENT 1</td></tr>
<tr><td colspan="2">What:

That, considering the need to provide States with updated guidance of the internal processes of the Points of Contact of each State, to ensure the regularity, quality and efficiency of the data provided to CARSAMMA for the fulfilment of its monitoring activities in the CAR/SAM RVSM airspace:

a) Amendment 1 to the Manual for PoCs Accredited to CARSAMMA is approved for State implementation as a regional guidance document; and

b) the amended manual be distributed by the ICAO NACC and SAM Regional Offices to the States, Territories and International Organizations accredited to CARSAMMA.</td><td>Expected impact:

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

To update the processes of data collection, recording of operational approvals and analysis of LHD events managed by CARSAMMA</td></tr>
<tr><td>When: Immediately</td><td colspan="2">Status: ☒ Valid / ☐ Superseded / ☐ Completed</td></tr>
<tr><td>Who: ☒ States ☒ ICAO ☐ Other:</td><td colspan="2"></td></tr>
</table>

<table>
<tr><td colspan="3">CONCLUSION
GREPECAS 19/12 IMPROVEMENTS TO THE FIVE-LETTER NAME CODES (5LNCs) MANAGEMENT IN THE CAR/SAM REGIONS</td></tr>
<tr><td colspan="2">What:
That, in order to manage duplicate Five Letter Name Codes (5LNC) and the registration into the ICAO International Codes and Routes Designators (ICARD) Database of all the 5LNC used by the CAR/SAM States/Territories

a) the States, Territories and International Organizations that provide air traffic services in the CAR/SAM Regions comply with Recommendation 3.5/1 of AN/Conf-13 in relation to the total population of the 5LNC codes that they use; and

b) the NACC and SAM Offices compile the 5LNCs and Air Traffic Services (ATS) routes published by the States, Territories and International Organizations of the CAR/SAM Regions, compare the information published with that available in ICARD and submit their analysis to ICAO Headquarters for the ICARD database to be updated by 31 December 2023.</td><td>Expected impact:
☐ Political / Global
☐ Inter-regional
☐ Economic
☐ Environmental
☒ Operational/Technical</td></tr>
<tr><td colspan="3">Why:
To update ICARD data base and comply with AN/Conf-13 Recommendation 3.5/1</td></tr>
<tr><td>When: 31 December 2023</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>

Agenda Item 5: **Coordination between GREPECAS and the Regional Aviation Safety Group–Pan America (RASG-PA) - Ongoing Meeting (Back to Back)**

5.1 Agreements and Coordination for the Implementation of GREPECAS/RASG-PA Safety Objectives, including Working Arrangements (virtual meetings and frequency of meetings)

<table>
<tr><td colspan="2">DECISION
GREPECAS 19/13</td><td colspan="2">APPROVAL OF THE PROVISIONAL MEETING SCHEDULE OF GREPECAS AND RASG-PA FOR THE 2022-2024 TRIENNIUM</td></tr>
<tr><td colspan="3">What:
That,

a) the GREPECAS Secretariat plan and carry out the GREPECAS Programmes and Projects Review Committee (PPRC) meetings in the following periods:

• ePPRC/04 – 21 and 22 April 2022
• ePPRC/05 – 11 and 12 April 2023
• ePPRC/06 – 24 and 25 April 2024;

b) the RASG-PA Secretariat plan and carry out the Executive Steering Committee (ESC) meetings in the following periods:

• ESC/37 – 25 and 26 May 2022
• ESC/38 – 24 and 25 May 2023
• ESC/39 – 29 and 30 May 2024;

c) the GREPECAS and RASG-PA Secretariats plan and carry out the following plenary meetings and coordinate that they are held back-to-back in the following periods:

• GREPECAS/20 and RASG-PA/12 – 14 to 18 November 2022
• GREPECAS/21 and RASG-PA/13 – 13 to 17 November 2023
•
GREPECAS/22 and RASG-PA/14 – 10 to 14 November 2024.</td><td>Expected impact:
☐ Political/Global
☒ Inter-regional
☐ Economic
☐ Environmental
☒ Operational/Technical</td></tr>
<tr><td colspan="4">Why: To comply with the contents of the generic ToRs issued by the ICAO Council for PIRGs and RASGs.</td></tr>
<tr><td>When:</td><td>The complete Agendas will have to be available for approval 30 days prior to the PPRC and ESC meetings and 60 days before the plenary meetings.</td><td colspan="2">Status: ☒ Valid / ☐ Superseded / ☐ Completed</td></tr>
<tr><td>Who:</td><td>☐ States ☒ ICAO</td><td colspan="2">Responsible: ICAO NACC and SAM Regional Offices.</td></tr>
</table>

☒ NACC Office (GREPECAS Secretariat) and SAM Office (RASG-PA Secretariat)	

5.2 Global Reporting Format (GRF) Implementation

Agenda Item 6: GREPECAS Administrative and coordination activities

6.1 Follow-up of GREPECAS Conclusions

6.2 Report to the Air Navigation Commission (ANC) in coordination with RASG-PA

6.3 Last Update of the GREPECAS Procedures Handbook

Agenda Item 7: Other Business