MINUTES OF THE SECOND GREPECAS PROGRAMMES AND PROJECTS REVIEW
COMMITTEE (PPRC) VIRTUAL MEETING
(ePPRC/02)
ICAO NACC REGIONAL OFFICE
30 October 2020

List of Participants:

See **Appendix A**.

Agenda

See **Appendix B**.

Objective: Follow-up to GREPECAS activities – revision of priority subjects in air navigation.

ICAO Documentation and Presentation by the NACC and SAM Regional Offices.

The documentation and presentations can be found in the following link, as listed in IP/01:

https://www.icao.int/NACC/Pages/meetings-2020-pprc02.aspx

Introduction

1. Participants were welcomed by the ICAO NACC Regional Office Director and GREPECAS Secretary, Mr. Melvin Cintron, who mentioned that the review of projects and their programmes is of great importance for GREPECAS and the States for improvements in the implementation processes of ICAO Standards and Recommended Practices (SARPs), as well as emerging technological requirements in all areas of air navigation. This evaluation should seek to maximize the benefits for the States and be fully in line with the Global Air Navigation Plan (GANP) compliance and the priorities of the regions and the States.

2. Likewise, the Director of the ICAO SAM Regional Office, Mr. Fabio Rabbani, also supported this perspective and emphasized that the projects of the different GREPECAS programmes have a performance that should be more effective, using the basic concepts of project management, as a baseline for them.

3. Finally, the Chairperson of GREPECAS, Mr. Héctor Porcella (Dominican Republic), emphasized the importance of the review and update of GREPECAS Projects as support to States in implementation actions in the CAR/SAM Regions.

4. The Secretariat invited the Member States of the Programmes and Projects Review Committee (PPRC) to evaluate the current level of performance and benefit of GREPECAS work, to identify new implementation needs and to consider/propose new projects or tasks so that the results of the Group satisfy the current and future needs of the States, in line with new priorities. The Project Coordinators were provided the following points as guidance:

- Follow-up on progress
- Follow-up on actions to start, continue or finish
- Current budget context and assigned resources

Discussion

Agenda Item 1:   ***Review of Air Navigation Projects of the GREPECAS***

Project Evaluation Guidance/Evaluation Criteria

1.1   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)**

1.2   It was taken into account that Programmes may have several Projects, and that they require periodic reviews, and that the State Coordinators for each project reflect the value of the parts of each Project, in consideration of a uniform criterion.

Evaluation criterion

1.3   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**

1.4   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

Project Evaluation

Aerodromes and ground aids area (AGA)

1.5   In the review of the AGA area, the information from appendices A, B and C of WP/04 of ePPRC/02 was presented as a reference for review by the Meeting, as well as the progress of the projects of Aerodrome F Programme; similarly, the follow-up to Decision ePPRC/01/03 was also included, where the Secretariat was requested to evaluate current programmes and projects in the context of COVID-19.

1.6   In this regard, both the NACC and SAM Regional Offices presented the status of the Programme F projects for each Region. In Appendix C of WP/04, the Secretariat presented an analysis of AGA projects using the methodology suggested under Decision ePPRC/01/03.

1.7   The Meeting also recalled the prior agreement from the eCCRP/01 meeting, where the new proposal for an Airport Collaborative Decision Making (A-CDM) was approved for the benefit of the regions, which should be included in the F Programme.

1.8   In summary, after the respective analysis, the Secretariat proposed that F Programme projects be maintained with some modifications, as they continue to be relevant for GREPECAS Member States.

Air Traffic Management (ATM) Area

1.9   In the ATM area of the CAR Region, nothing specific was added since the ePPRC/01 meeting, therefore the understanding that the ATM and Performance-based navigation (PBN) projects are still considered relevant was accepted and they will be maintained, but trying to ensure that the projects are reviewed to remove the routine activities carried out by the Regional Offices and focus on specific Project activities.

Communications, Navigation and Surveillance (CNS) Area

1.10   In the SAM Region, Projects C (Automation and Situational Understanding) and D (Ground-Ground/Air-Ground Communications Infrastructure) established to address the implementation of CNS/ATM systems (applications) and the necessary CNS infrastructure and to be implemented were:

- AMHS (Aeronautical message handling system);
- AIDC (Air Traffic Services Inter-Facility Data Communication);
- ADS-B (Automatic Dependent Surveillance - Broadcast); and
- ATN (Aeronautical telecommunications network) domestic and regional

1.11   The project management approach was not effective due to the difficulty that the Coordinators managed to actually act as project managers; due to the lack of a formally organized project team and available resources, as well as the lack of influence on the representatives of the States of the region.

1.12   Likewise, existing project management methodologies support the assignment of a project to each project manager, providing the human and financial resources necessary to conduct the planned activities.

1.13   It was reported that in the SAM Region, since the Meeting of the Implementation Group SAM/IG/22 (Lima, from 19 to 23 November 2018), when the need to support and promote air navigation services modernization initiatives was recognized and to guarantee interoperability between the automated systems utilised by users of Aeronautical Information Management (AIM), ATM, Air Traffic Flow Management (ATFM), CNS and Aeronautical Meteorology (MET), the Task Force Interoperability (GT Interop) that is composed of 5 subgroups that are activated, according to the needs identified by the Implementation Group (SAM/IG), and are the following:

1.   ATM/AIDC Subgroup: to establish 76 AIDC communications planned for the region (intraregional and interregional);
2.   ATM/FPL subgroup: to mitigate errors and duplication/multiplicity in flight plans (FPL), which have an impact on the establishment of the automation of air navigation services;
3.   CNS/AMHS Subgroup: in order to establish the 41 AMHS interconnections planned for the region (28 intraregional and 13 interregional);
4.   CNS/SUR Subgroup: supporting the States in the implementation of surveillance systems (SUR) and, specifically, studying and proposing the necessary activities for the implementation of ADS-B Satellite, using the South American Digital Network (REDDIG) as a platform for the distribution of information, and reduce the cost of contracting the telecommunications services by the States interested in contracting the Space-Based Automatic Dependent Surveillance - broadcast (SB ADS-B) service.
5.   MET/IWXXM subgroup: to address the adaptation of aeronautical meteorology user systems to the new ICAO Meteorological Information Exchange Model (IWXXM).

1.14   The Secretariat stated that, although there has been a greater effectiveness in the results and deliverables, the subgroups of the Interop WG are far from functioning according to the project management methodologies, greatly overloading the CNS Regional Officer, which facilitates the hosting of teleconferences; preparation of documents and the support of the Secretariat, as a result of the difficulty of subgroups' rapporteurs/coordinators in having the necessary resources.

1.15   The Secretariat made a proposal for the consideration of the Meeting, consisting of the assignment/hiring of project managers for each activated subgroup, with a defined support team that fully assumes the management of the activities, providing reports at SAM/IG meetings and the PPRC.

1.16   It was mentioned that, considering the complexity of future implementations of systems related to ATFM and the concept of System wide information management (SWIM), it is imperative that the activities be conducted in a more robust way, fully applying a project management methodology.

AIM and MET area

1.17   For these Projects in AIM and MET, the Meeting was reminded of the different conclusions that have been raised since GREPECAS/18 and the last PPRC meetings, where indications have been given for these projects to be reviewed.

1.18   <u>SAM AIM and MET projects</u>: nothing additional was presented to what was reviewed and updated during the ePPRC/02 meeting, highlighting the following points of the review carried out at the appropriate time, particularly in:

a) MET area:

- Projects in the MET area should be replaced by a follow-up project of the implementations that have been pending in the MET Programme.
- If the preparation of new projects is considered, it should be focused on:
    o Preparation of homogeneous information concerning en-route weather phenomena which may affect the safety of aircraft operations (SIGMET)
    o Implementation of the ICAO Weather Information Exchange Model (IWXXM)
    o Preparation of meteorological messages for exchange in a System Wide Information Management (SWIM) environment

b) AIM area: it has been considered, if necessary, to prepare new projects for AIM and gradually replace the projects with implementation follow-up actions, which should be focused on:

- AIM personnel training programme guides considering the new profile of technicians for their performance in a data management environment; and
- review of the processes for issuing notice distributed by telecommunications means that contains information related to the establishment, condition or modification of any aeronautical facility, service, procedure or danger, the timely knowledge of which is essential for the personnel in charge of flight operations (Notice To Air Men - NOTAM) to resolve deficiencies in the preparation, dissemination and monitoring of the same.

1.19   <u>AIM Projects in the CAR Region:</u> the projects on the Quality Management System (QMS) and Electronic Terrain and Obstacle Data (e-TOD) are terminated, replaced by the "Project on the AIM Collaborative Plan" (currently in English with the Spanish translation in process), which includes the 21 steps for the AIM implementation and a direct link will be integrated with the AIM tracking website (AIM Tracking) which is in the design process.

Final comments in the evaluation

1.20   A summary of the projects and the review and adjustment actions that each project must carry out is attached in **Appendix C**

1.21   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.

1.22   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.

1.23   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 the following decision:

DECISION	
ePPRC/02/01	**PRESENTATION OF REVISED GREPECAS PROJECTS**

What:	**Expected Impact**
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**.	☐ Political / Global ☒ Inter-regional ☐ Economic ☐ Environmental ☒ Operational/Technical

Why: Approval of the revised and valid versions of GREPECAS Projects/Programmes		
When: 8 February 2021	**Status:**	☒ Valid / ☐ Superseded / ☐ Completed
Who: ☒ Coordinators ☐ States ☐ ICAO Secretariat ☐ ICAO HQ		

Agenda Item 2:   Follow-up on GREPECAS Programmes and Projects

2.1   CAR/SAM GREPECAS Programmes

2.1.1   Under WP/03, the Secretariat urged the GREPECAS Project coordinators 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.

2.1.2   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?

2.1.3   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

2.1.4   This 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.

2.2   Project B1: CAR/SAM Air traffic flow management (ATFM) - documentation update

2.2.1   Under WP/02, the status of the ATFM documentation of the CAR/SAM Regions was emphasized and an update of said documentation was proposed in accordance with the analysis carried out by the regional implementation groups. Considering that ATFM is one of ICAO's global priorities according to the GANP, which purpose is to balance demand and capacity, providing a framework for collaborative decision-making and making efficient use of available resources for the provision of air traffic Services.

2.2.2   As background, important events were cited that led to the publication of Doc 9971 and its different updates that left the CAR/SAM ATFM Manual irrelevant; in addition, the SAM/IG developed a guide for the implementation of the ATFM service in the SAM Region and a runway capacity and Air Traffic Control (ATC) sector calculation manual in 2019.

2.2.3   It was concluded that, given that the ATFM Task Force of the Air Navigation Implementation Working Group (ANI/WG) considered that the development, publication and update of ICAO Doc 9971 is sufficient and as for the Concept of Operations (CONOPS), the ATFM Task Force of the ANI/WG determined the need to incorporate improvements to Version 2.1. Therefore, the amendment to the CAR/SAM ATFM CONOPS was proposed, which includes the minimum requirements of the AFTM tools, the ATFM Training Program and the ATFM Key Performance Indicators (KPI), in line with the performance framework of the GANP. Therefore, the Meeting agreed to the following Draft Decision:

DECISION	
ePPRC/02/02 **CAR/SAM REGIONS ATFM DOCUMENTATION UPDATE**	

What:
 	
    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.
	Expected Impact
	☐ Political / Global
	☒ Inter-regional
	☒ Economic
	☒ Environmental
	☒ Operational/Technical

Why: To provide updated support for ATFM implementation in the CAR/SAM Regions	
When:	**Status** ☐ Valid / ☐ Superseded / ☒ Completed
Who: ☒ States ☐ ICAO ☐ Others	GREPECAS

2.2.4   The status of Projects A1 and B1 in the SAM Region was indicated to the Meeting, as well as the status of Search and Rescue (SAR) in both Regional Offices, as follows:

Project A1 of the SAM Region
The SAM Airspace Optimization Programme, the PBN Operational Implementation Project most of the Project activities have been carried out, as precursor activities for the implementation of PBN at international airport runway thresholds, in accordance with Assembly Resolution A37-11, with 88.3% progress in the SAM Region. 67.3% was implemented for Standard Instrument Departure (SID) routes and 51.2% for Standard Terminal Arrival (STAR) routes.   • The new priorities and/or deliverables for this project should be reviewed, within the framework of the GANP 6th Edition and of Vol. III of the CAR/SAM Air Navigation Plan (ANP). In addition, the optimization of the route network through the implementation of Area Navigation (RNAV-5) promoted with meetings that address CAR/SAM regional and inter-regional routes, including the Tenth Workshop/Meeting for the Optimization of the ATS Routes Network of the SAM Region (ATSRO/10), Bogotá, Colombia in 2019 and the Optimization of the CAR Region Airspace Meeting – NAM/CAR Air Navigation Implementation Working Group (ANI/WG) Performance-Based Navigation (PBN) Airspace Concept Task Force (ANI/WG/PBN/TF/OPT), held online on 23 October 2020. **Recommendation: It was proposed that the project review address the merge of projects jointly for the CAR and SAM Regions.**
B1 Project of the SAM Region
The ATFM Project improves the balance between demand and capacity in SAM, with progress in 10 out of 14 States/Territories enabling the Flow Management Position (FMP) or the Flow Management Unit (FMU). The ATFM documentation and guides prepared in the last quarter of 2019 have not been adopted due to COVID-19.
SAR service in the CAR/SAM Regions
The activities for harmonized SAR implementation harmonized with Annex 12 are promoted by the NACC and SAM Regional Offices amongst States. In the medium term, there could be a GREPECAS project for the implementation of the elements of the Global Aeronautical Distress and Safety System, in block 2 module (GADSS–B2/2) that directly concern the SAR service.

2.2.5   Therefore, the Meeting urged that the recommendations and observations previously indicated on the Projects of Programmes A and B be included in the evaluation of Projects to be carried out at the Ad-hoc meeting.

2.3   Projects CNS C and D

2.3.1   WP/09 informed the Meeting about the detailed status of implementation of the activities of the ATN Architecture (D1) and ATN Ground-Ground and Air-Ground Applications (D2) projects of the Communications Infrastructure Programme Ground-Ground/Air-Ground for the SAM Region. The ATN Infrastructure Project in the CAR Region and its Ground-Ground and Ground-Air (D) applications for the CAR Region was also mentioned and presented with IP/06.

2.3.2 On the other hand, IP/06 provided a summary of the status of implementation of the ATM Automation and Situational Awareness Programs (BO-RSEQ, B0-FICE, B0-SNET, B0-ASUR and B0-SURF) and the Ground-Ground/Air-Ground Communications Infrastructure Programme (B0-FICE and B0-TBO) of the CAR Region and pointed out that all plans are in the process of evaluation and update to include the verification of regional implementation of the Basic Building Blocks (BBBs) in them and integrate the new regional and operational requirements and develop action plans according to the new version of the GANP.

2.4 CAR/SAM coordinated review of Projects F1 and F2: AGA projects

2.4.1 During the presentation of WP/04, the progress of the projects of the Programme F on Aerodrome and the follow-up to Decision ePPRC/01/03 which requested the Secretariat to review and evaluate current projects in the context of COVID-19, for which the NACC and SAM AGA regional officers held a virtual meeting to review the objectives, goals and implementation dates of the different Programmes and Projects, currently under development, and adapt them to the requirements established by the new horizons determined by the COVID-19 crisis:

CAR Region:

Project F1: Certification and Operational Safety of Aerodromes
Aerodrome certification reached 58%, out of a total of 152 aerodromes.
As a result of COVID-19, some States postponed the Certification plan to 2021. It should be noted that, in the last 6 months, airports did cabinet work with the aviation authorities and the NACC Regional Office.
It is expected that by 2025 90% of certified aerodromes will be reached in the CAR Region.
Regarding the Runway Safety Programme, there is good progress with a total of 73 aerodromes with Runway Safety Team (RSTs) implemented.

Project F2: Aerodrome Planning
The NACC Regional Office is preparing a survey for the CAR States to determine which aerodromes do not have master plans and to provide them with further assistance and guidance in the preparation of said plans.

Project F3: Implementation of A-CDM
The airports participating in the September 2019 event, which have a medium to high traffic density, are monitored. The implementation of the A-CDM is made more effective in aerodromes with high traffic. Support was given to the proposed A-CDM Implementation Plan for the SAM Region to adapt it to the CAR Region as appropriate.

SAM Region:

Project F1: Certification and Safety of Aerodromes
Aerodrome certification in SAM is 46%, out of a total of 104 aerodromes.
A proposal for aerodrome certification goals was presented for the SAM States under paragraph 3.3 of this WP, inviting the SAM States to review the certification goals to achieve 100% certification by 2025. For comments write to: icaosam@icao.int.

Project F2: Aerodrome Planning
A survey was conducted with the States in order to know the baseline for the analysis and preparation of the guidance document.

Project F3: Implementation of A-CDM
A proposal for the A-CDM implementation plan was presented under WP/05.

2.4.2   WP/05 presented the Meeting a proposal for the Implementation Plan A-CDM as part of the activities of GREPECAS Project F3, approved in PPRC/05 by the GREPECAS States. The proposal, initially prepared for the SAM Region, would be adjusted to incorporate the CAR Region and in accordance with the comments of the GREPECAS States. This Plan was developed in accordance with the objectives of the GANP 6th Edition and the results of different events held by the SAM Regional Office in 2019.

2.4.3   It was also said that, currently, in the SAM Region a series of A-CDM implementations have been identified in the main connection centres, however, they are being carried out in a non-harmonized way, the States and the users of the system encounter interoperability and processes problems that carry a risk. The results of a survey to the SAM States on A-CDM can be obtained at the following link:

https://www.icao.int/SAM/Pages/eDocuments-v18.aspx?area=AGA&cat=ACDM

2.4.4   Based on the above and with the objective that the States may benefit from a harmonized and interoperable implementation in the A-CDM Region, the Meeting adopted the following Draft conclusion:

DRAFT CONCLUSION ePPRC/02/03 REVIEW OF THE A-CDM IMPLEMENTATION PLAN PROPOSAL	
What: 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**.	**Expected Impact** ☐ Political / Global ☐ Inter-regional ☐ Economic ☐ Environmental ☒ Operational/Technical
Why: So that a first step can be taken to guarantee a harmonized and scalable implementation of the A-CDM concept, and its incorporation into Vol. III of the Regional Air Navigation Plan.	
When: 8 February 2021 **Status** ☒ Valid / ☐ Superseded / ☐ Completed	
Who: ☐ Coordinators ☒ States ☐ ICAO Secretariat ☐ ICAO HQ	

2.5   CAR/SAM AIM Projects

2.5.1   Under WP/06 and IP/02, the activities carried out under the AIM Programme Projects were presented for both, SAM and CAR regions respectively; WP/06, in particular, disclosed the achievements of the projects in the SAM Region, considering the adjustments required even from the PPRC/5 meeting which requested the review of the AIM projects, in order to update and standardize in both regions.

2.5.2   On the other hand, the restructuring of Annex 15 and the issuance of Doc 10066 - PANS-AIM defined the reference framework for the exchange of aeronautical information in an electronic environment. With this restructuring and that of the GANP in its sixth edition, the revision of the Regional Air Navigation Plan is required, a document of which the AIM requirements are part, as well as the situation of COVID-19, which is why the Secretariat carried out follow-up activities of the projects in virtual format. In this context, the SAM Regional Office held the Thirteenth AIM Multilateral Meeting of the SAM Region for the transition to the AIS (SAM/AIM/13) and 3 other teleconferences with AIM focal points.

2.5.3   WP/06 provided details of Projects G-1, G-2 and G-4 regarding the SAM States, and it presented a list of recommended activities to be carried out in 2021 was given:

- Course on Aeronautical Information Exchange Model 5.1 (AIXM) 5.1
- Training on the preparation and use of the electronic Aeronautical Information Publication (e-AIP)
- Preparation of a Regional Training Guide for AIM, based on the new requirements of Annex 15 and Doc 10066 PANS-AIM
- Update Course for Lead Auditors of the quality management system (ISO 9001: 2015 Standard)

2.5.4   Regarding AIM in the SAM Region, other developments in the region were also reported, such as:

Project G1: Implementation of eTOD
Brazil: It will set up a website with data from 34 airports. Photogrammetry, laser, radar image, digital topography, etc. techniques will be used. The Project is from the Aeronautical Cartographic Institute (ICA).
Chile: It has lifted obstacles of 5 airports and one more in process, and they will set a website with data in a portal with ESRI, still without an application date.
Colombia: In the process of purchasing a software that allows dynamic data, as well as the survey of obstacle data. They could have the data in December 2021.
Ecuador: With advice from the International Federation of Aeronautical Information Management Associations (IFAIMA) they are raising obstacles through the use of drones.
Panama: They reported that Tocumen S.A. carried out the survey of obstacles and sent the data to the Authority. Also, there are data surveys from Panama Pacific.
Peru: It has a coordination group between the Authority and CORPAC S.A, as the first phase. In a second phase, it will work with other aerodrome operators.
Uruguay: They reported there are meetings with raw e-TOD data providers with working groups with companies that carry out the surveys and there will be in a tender to acquire a system to process this data.
Venezuela: They collect new or additional data using aerophotogrammetry supported by Global Navigation Satellite System (GNSS) measurements. This year it began for the Simon Bolívar de Maiquetía International Airport with the greatest influx of air traffic, following the Margarita Airport, Barcelona, Maracaibo, Valencia, the other international airports and others of national interest.

Project G2: Implementation of a Standard Model for the Exchange of Aeronautical Information
Argentina, Chile and **Colombia** present progress in the implementations.
Brazil and **Panama** already have an electronic version of the AIP.
Paraguay has acquired the software for the preparation of the AIP in electronic format and they have carried out training for its use.

G4 Project: Implementation of the QMS in the AIM
Argentina: Due to the change of Authority in the National Administration of Civil Aviation (ANAC), no progress has been made, so there is a rethinking of the processes, in addition to the situation of the COVID-19 pandemic.
Bolivia: With information from 2019, the fifth planning phase that had been drawn up with the service provider is in process. In November 2020, the full implementation and then the certification process was planned. They will do an analysis with the provider, but most likely it will be delayed to December 2020 or January 2021.
Brazil, Chile, Panama, Paraguay, Peru and **Uruguay:** With implementation completed and certified.

2.5.5   Regarding IP/02, the suspension of the AIM, QMS and e-TOD Projects for the CAR Region (G1 and G2), as individual projects was informed, projects which are now part of the "AIM Collaborative Plan" (see Appendix to IP/02) as an initiative to maintain the continuous and sustainable development of AIM in the CAR Region, with a paradigm shift that considers AIM as part of a whole and not as an independent and isolated project or projects. It was observed that both, the QMS and the e-TOD, require a broader and clearer context for their management. For this reason, the Project change based on the AIM Collaborative Plan is aimed at all interested parties within a comprehensive ATM development scheme that includes a broad set of Aviation System Block Upgrade (ASBU) elements related to the GANP, for which it should not be considered in isolation.

2.5.6   Therefore, the Meeting urged that the recommendations and observations previously indicated on the Projects of Program G be included in the evaluation of Projects to be carried out at the 18 November Meeting.

2.6   Coordinated review of Projects H1, H2, H3, H4 and H5: MET projects

2.6.1   Under WP/07, the Meeting was informed on the activities developed by the CAR and SAM Regions for MET Programme Projects H, their achievements and future challenges in particular in the formulation of new projects and, as in all areas of AN, the situation of COVID-19 forced to rethink the activities of the projects for 2020. Therefore, the ePPRC/01 requested an analysis of the continuity of the projects in the context of the pandemic and post-pandemic. It included a detailed presentation of each Project H. Also, due to the GANP 6th Edition and to the analysis of the experts of the ICAO Meteorology Panel (METP), a restructuring of Advanced Meteorological Information (AMET) was implemented, from Blocks 0 and 1, including a different distribution and organization of the elements to highlight the planned transition from a product-centric environment to an information-centric environment, as well as the migration and MET inclusion in SWIM, therefore, the implementation of the IWXXM is imperative. More detailed information on the SAM Region is in **Appendix D** and below:

Situation of the IWXXM in the SAM Region
Argentina, Ecuador, Uruguay and Venezuela have software to transform operational meteorological (OPMET) messages from TAC format to XML format.
Brazil adapted the OPMET Regional Data Bank system and communicated in December 2017 that it could receive and transmit OPMET messages in IWXXM version 2.1 format. The regional OPMET database can still provide support to TAC users.

2.6.2   Additionally, in preparation for the re-evaluation required from the PPRC/5 meeting and the continuity analysis requested by ePPRC/01 as well as the revision of the MET Tables according to the GANP 6th Edition, a

teleconference was held to propose the main activities during 2021 in the MET area. The list of recommended activities is:

• verification of effective implementation of national and regional essential MET services in accordance with the BBBs;
• detailed review of the MET tables in Volumes I and II of the CAR/SAM e-ANP, as well as initiating the development of the MET Tables for Volume III;
• the preparation of SIGMET (homogeneous and continuous), information concerning en-route weather phenomena which may affect the safety of low-level aircraft operations (AIRMET) and Aerodrome Warnings (including wind shear);
• incorporate the requirements of the World Meteorological Organization (WMO) into the QMS relating to the qualification and competencies of Aeronautical Meteorology personnel;
• analyse the implementation of the QMS in light of the most recent provisions of Annex 3 and the costs of ISO implementation;
• implementation of the IWXXM; and
• establish working mechanisms that allow addressing emerging issues such as new requirements, for example: aeronautical requirement for advisory information on tropical cyclones for the western South Atlantic.

2.7   Proposals for other projects

2.7.1   Under P/02, the implementation of the regulation of Unmanned Aircraft Systems (UAS) and Remotely Piloted Aircraft (RPAS) was discussed, as well as cybersecurity for aviation. For the first part, it was said that 18 of the 19 ICAO Annexes are being updated to include standards and recommendations applied to this new system in aviation and it is necessary for States to establish adequate regulation to guarantee the operational safety of civil aviation.

2.7.2   It was also mentioned that, for the establishment of regulation it is necessary for States to include technologies and systems to detect and prevent intrusions, frequency of the radio spectrum (including its protection against unintentional or illegal interference), Air traffic Control (ATC) standards and the development of a solid comprehensive regulatory framework. In the future, the possibility of a Project on Unmanned Aircraft Systems (UAS) will be brought to the GREPECAS forum.

2.7.3   In relation to cybersecurity, it was reported that civil aviation depends more and more on the availability of information and communication technology systems, as well as on the integrity and quality of data, due to emerging threats that affect systems and infrastructure, mainly due to its interconnection, which is why it is necessary to establish a future regional project that supports States in identifying:

- risks and weaknesses
- mitigation measures
- resilience in the regional aviation system

2.7.4   The Meeting considered that both, the UAS/RPAS and cybersecurity issues, are non-exclusive issues to be dealt with in GREPECAS, since due to their implementation aspects they require the contribution and harmonized and coordinated work amongst the other regional 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). In this sense, the Meeting agreed to the following decision:

DECISION ePPRC/02/04	COORDINATION FOR THE IMPLEMENTATION AND ASSISTANCE TO THE STATES IN UAS/RPAS AND CYBERSECURITY	
What: 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..		**Expected Impact** ☐ Political / Global ☒ Inter-regional ☐ Economic ☐Environmental ☒ Operational/Technical
Why: Ensure a harmonized and coordinated implementation amongst the different regional groups in the region to avoid duplication of tasks and optimize efforts.		
When: ePPRC/03	**Status** ☒ Valid / ☐ Superseded / ☐ Completed	
Who: ☐ Coordinators ☐ States ☒ ICAO Secretariat ☐ ICAO HQ		

Agenda Item 3:   *GREPECAS organization and administration activities*

3.1   Follow-up of pending Conclusions/Decisions of GREPECAS

3.1.1   Under IP/04, the Secretariat presented an executive summary that showed, in its appendix, the validity status of the conclusions and decisions resulting from the GREPECAS/18, PPRC/05 meetings, in particular, for the ePPRC/01 meeting, the Secretariat's comments on the Decisions of said meeting were included, concluding that the resulting decisions and conclusions are as follows:

Decision/ Conclusion	Title	Date of completion	Responsible	Comments
GREPECAS 18/1	ACTIONS FOR ATFM IMPLEMENTATION IN THE CAR REGION	Undetermined in the recoding of GREPECAS 18 Conclusions and background	a) States and Territories in the CAR Region b) ICAO NACC Regional Office	Still valid
GREPECAS 18/3	REVISION OF THE MET PROGRAMME AND ITS TASKS	Undetermined in the recoding of GREPECAS 18 Conclusions	**States**	**States continue to be encouraged to submit their ISO certifications.**

Decision/ Conclusion	Title	Date of completion	Responsible	Comments
				The ePPRC/02 was recommended to analyse the implementation of the QMS in light of the most recent provisions of Annex 3 and the costs that ISO implementation demands. **Pending response from the PPRC.**
GREPECAS 18/4	DEVELOPMENT OF AIR NAVIGATION PLANS ALIGNED WITH THE GANP AND THE REGIONAL PERFORMANCE-BASED AIR NAVIGATION PLANS	**Superseded given the entry into force of the GANP 6th Edition.** Superseded by the new Draft Conclusion PPRC/05/10		
GREPECAS 18/6	RESOLUTION OF AERONAUTICAL METEOROLOGY DEFICIENCIES	**December 2016**	States	CAR States have received assistance for the implementation of the qualification, competencies and training requirements of the Aeronautical Meteorology Program (PMA).
GREPECAS 18/7	POSTPONEMENT OF THE APPROVAL OF VOL. III OF CAR/SAM eANP	**Superseded given the entry into force of the GANP 6th Edition.** Superseded by the new Draft Conclusion PPRC/05/10		
GREPECAS 18/13	SAFETY MANAGEMENT IMPLEMENTATION	Implementation development in progress	States	Valid Pending comment for recent updates in activities and the change in Flight Safety position. However, the implementation process of Operational Safety Management is in progress

Decision/ Conclusion	Title	Date of completion	Responsible	Comments
GREPECAS 18/14	ENHANCEMENT OF SOUTH ATLANTIC (SAT) GROUP STRUCTURE	June 2020	ICAO HQ SAT Group	**Completed** Sponsored by ICAO HQ, two Atlantic Coordination Meetings (ACM) were held, resulting in the restructuring of the SAT Group, creating the Implementation Management Group for the Atlantic (SAT IMG) to develop the SAT Vision, CONOPS and work plans.
GREPECAS 18/15	INTERFACE CONTROL DOCUMENTS FOR AIDC IMPLEMENTATION	April 2018	CAR and SAM States	**Completed** The AIDC/ASIA PAC version 3.0 protocol was adopted between the adjacent control centres between the CAR and SAM Regions. The interconnections among SAM States will also use the AIDC/ASIA PAC version 3 protocol. The CAR Region and the States adjacent to the United States will use the NAM/ICD Version E protocol or higher.
GREPECAS 18/16	SHORT-TERM IMPLEMENTATION BY THE STATES OF AIDC FUNCTIONALITY	May 2019	CAR and SAM States	**Completed** The SAM Region Implementation Group (SAM/IG) has created the Interoperability Task Force (Interop TF), which activated two subgroups to deal with issues related to AIDC implementation and errors mitigation and flight plans duplication/multiplicity (ATM/AIDC Subgroup and ATM/FPL Subgroup).

Decision/ Conclusion	Title	Date of completion	Responsible	Comments
GREPECAS 18/21	SUPPORT TO GTE AND CARSAMMA ACTIVITIES TO IMPROVE THE ANALYSIS OF INFORMATION ON DEVIATIONS IN RVSM AIRSPACE	PPRC/05	a) States / International Organizations and CARSAMMA b) CARSAMMA and GTE c) States / International Organizations, in coordination with CARSAMMA and ICAO Regional Offices d) GTE	Still valid due to various pending activities.
PPRC/05/10	DEVELOPMENT OF VOLUME III OF THE CAR/SAM eANP IN PREPARATION OF NATIONAL AIR NAVIGATION PLANS	Before 2021	Stakeholders	Valid Guided by NACC and SAM DRDs, as indicated during interregional coordination meetings.
PPRC/05/13	INCLUSION OF THE AERONAUTICAL REQUIREMENT OF TROPICAL CYCLONE ADVISORY INFORMATION FOR THE WESTERN SOUTH ATLANTIC	GREPECAS/19	SAM RO/MET	SAM RO/MET advances with the procedures before HQ in coordination with NACC RO/MET
PPRC/05/08	REVIEW OF MET PROGRAMME AND ITS PROJECTS	30 November 2019	Programme H Project Coordinators	In reformulation according to ePPRC/01/03 and what is required by ePPRC/02
ePPRC/01/01	STATUS OF IMPLEMENTATION OF THE AUTOMATED MANAGEMENT SYSTEM OF GREPECAS	26 June 2020	GREPECAS Chairperson	The new GREPECAS Chairpersonship confirms this commitment and its implementation will continue

Decision/ Conclusion	Title	Date of completion	Responsible	Comments
ePPRC/01/03	REVIEW OF THE CURRENT PPRC PROGRAMMES AND PROJECTS	30 November 2020	States and ICAO	The Secretariat proposes to hold one or more evaluation meetings of the GREPECAS Projects for the CAR/SAM Regions and meet the stipulated date

3.2   Update of the GREPECAS Procedures Manual

3.2.1   Through IP/03, the Meeting was informed of the new Procedures Manual of GREPECAS Seventh Edition, Version 2.0, as an important progress in the follow-up of the Group's improvement activities. The Secretariat commented on the significant aspects in this new version of the Manual, such as the integration of the GANP 6th Edition guidance, the alignment of the generic ToRs for the Regional Planning and Execution Group (PIRG) proposed by the ICAO Council, as well as the Coordination of GREPECAS with RASG-PA, updating and enriching the GREPECAS Manual.

3.2.2   This review incorporated changes such as the development of the new Data Analysis Working Group (DAWG) and the subsidiary bodies of GREPECAS, and the appropriate updates regarding the relationship with the GANP and the ASBUs, the manual is available in the following web link:

https://www.icao.int/GREPECAS/Pages/ES/ProceduralHandbook_ES.aspx

3.3   GREPECAS - RASG-PA Coordination

3.3.1   Under WP/08, the Secretariat presented a proposal to formalize an annual coordination meeting between the RASG-PA and GREPECAS work teams, as a follow-up to the general terms of reference of the Regional Aviation Safety Groups (RASG) approved by the ICAO Council, and that establish that "*the RASG shall coordinate matters related to safety with the corresponding PIRG*", in this case with GREPECAS. Likewise, the RASG-PA Procedural Handbook, under Section: "*RASG-PA Coordination and Communication*", establishes that "*With respect to coordination, RASG-PA will coordinate safety issues with GREPECAS*".

3.3.2   On the other hand, the GREPECAS Procedural Handbook, under the Terms of Reference Section, establishes that "*In order to comply with the Terms of Reference, the Group must coordinate with the Regional Aviation Safety Group - Pan American (RASG-PA) to avoid duplication of efforts and work, as well as to develop joint activities if necessary*", and it also includes a specific section called "*Coordination with the RASG-PA*", which WP/08 presented in its appendix.

3.3.3   In the structure of RASG-PA, there are already two work teams:

a) The **Regional Aviation Safety Team - Pan America (PA-RAST)**, which work focuses on the analysis of safety data and the development of Safety Enhancement Initiatives/detailed implementation plans (SEIs/DIPs) designed to reduce the risk of mortality in the region.

b) The **Safety Monitoring and Reporting Team (SMRT)**, which task is to periodically compile the status of the RASG-PA Safety Performance Indicators (SPI), to produce and keep the SPI Data Dashboard of the RASG-PA updated, and the preparation of periodic reports with key regional safety information, to assist members in decision-making.

3.3.4   Similarly, to the RASG-PA groups, the GREPECAS considers two working groups:

a) The **Scrutiny Group (GTE),** whose purpose is to review the problems that affect the Target Level of Safety (TLS) based on the information on Large Height Deviations (LHD) provided by States and International Organizations, Controlled Flight Into Terrain (CFIT), Mid-Air Collision (MAC), etc.

b) The **Data Analysis Working Group (DAWG**), whose terms of reference are under development.

3.3.5   Finally, the Secretariat proposed to formalize an annual coordination meeting between the RASG-PA and GREPECAS work teams, at the beginning of each (calendar) year, to agree on a joint work programme of activities or projects in the that both groups have participation, this according to their respective ToRs and specific objectives. Said meeting should be part of the work programme of each team or working group of both GREPECAS and RASG-PA. The results of this annual meeting would be submitted to the RASG-PA Executive Steering Committee (ESC) and to the GREPECAS PPRC for approval. Therefore, the Meeting adopted the following Draft Conclusion (SEGÚN YO ES DECISIÓN) to support this RASG-PA/GREPECAS coordination:

DRAFT CONCLUSION ePPRC/02/05 RASG-PA/GREPECAS COORDINATION	
What: 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.	**Expected Impact** ☐ Political / Global ☒ Inter-regional ☐ Economic ☐Environmental ☒ Operational/Technical
Why: Optimize the coordination and harmonized work between RASG-PA and GREPECAS	
When: Immediate	**Status** ☒ Valid / ☐ Superseded / ☐ Completed
Who: ☒ Coordinators ☒ States ☒ ICAO Secretariat ☐ ICAO HQ	

GREPECAS tentative meetings for 2021

3.3.6   Subsequently, under P/01, the Secretariat proposed a tentative calendar of GREPECAS Meetings for next year 2021, considering what was stated for the Coordination Meeting between GREPECAS/RASG-PA, and the GREPECAS meetings: ePPRC/03 and GREPECAS/19. The following table was the proposal for meetings in 2021, in virtual format:

Meeting	Tentative date in 2021
GREPECAS/RASG-PA	17 February
ePPRC/03	22 Abril
GREPECAS/19 (possibly back-to-back GREPECAS and RASG-PA)	3 days of meeting, 4 hours each, from 28 to 30 September
Ad-Hoc or specific tasks meetings of the Projects are not included.	

3.3.7   Therefore, the Meeting approved the proposed meetings for 2021, adopting the following Draft Conclusion:

DRAFT CONCLUSION		
ePPRC/02/06	**GREPECAS 2021 MEETINGS PROGRAMME**	
What: 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.		**Expected Impact** ☐ Political / Global ☒ Inter-regional ☐ Economic ☐Environmental ☒ Operational/Technical
Why: For the adequate planning and participation of States in GREPECAS meetings.		
When: Immediate	**Status**	☒ Valid / ☐ Superseded / ☐ Completed
Who: ☐ Coordinators ☒ States ☐ ICAO Secretariat ☐ ICAO HQ		

3.4   Progress in relation to Vol. III of the CAR/SAM e-ANP

3.4.1   IP/05 was presented to the Meeting with information on the activities developed by the Secretariat in the preparation of Vol. III of the e-ANP of the CAR and SAM Regions (CAR/SAM e-ANP), in the PPRC/5 meeting, through Conclusion PPRC/05/10, an interregional Working Group was created to introduce changes to the standardized template of Volume III of the Regional Air Navigation Plans (RNAP), in accordance with GANP 6th Edition. The proposed template, which is still a draft version, has been included in Appendix A of this IP. The final version of Volume III of the CAR/SAM e-ANP is expected to be presented to the GREPECAS/19 meeting.

3.4.2   The Meeting was informed of the Secretariat's follow-up activities, in follow-up to Conclusion PPRC/05/10; additionally, a list of both CAR and SAM activities for the ANP implementation strategy was presented and discussed, indicating the links to the web pages of each of such activities in the CAR Region, as well as detailed information on the SAM Region as follows:

CAR/SAM Volume III
CAR Region:
Workshop on the fundamentals and tools of the GANP 6th Edition to support the formulation of the ANS implementation strategy of the CAR Region; Mexico City, Mexico, from January 27 to 31, 2020;
ICAO Workshop on the New Version of the Global Air Navigation Plan (GANP); Mexico City, Mexico, February 17-21, 2020;

Gradual review of the work plans of the ANI/WG task forces to align them with the GANP 6th Edition and consider the modifications to the e-ANP.
SAM Region
Workshop on the identification and implementation of performance indicators (KPI) of air navigation systems in the SAM Region from 5 to 9 August 2019;
Technical assistance to the State of Panama from 25 to 28 November 2019
Technical assistance to the State of Peru from 21 to 23 January 2020
Workshop on the application and development of the Template of Vol. II of the CAR/SAM e-ANP including formulation of KPIs for the SAM Region.

3.4.3   Additionally, the Secretariat reported on the planning of activities for 2021. Likewise, the Meeting was informed that the Secretariat plans to present Vol. III of the CAR/SAM e-ANP at the GREPECAS/19 meeting.

Agenda Item 4:   Other Business

4.1   No other business was discussed during the Meeting.

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SECOND GREPECAS PROGRAMMES AND PROJECTS REVIEW COMMITTEE (PPRC) VIRTUAL MEETING (ePPRC/02) /
SEGUNDA REUNIÓN VIRTUAL DEL COMITÉ DE REVISIÓN DE PROGRAMAS Y PROYECTOS (CRPP) DEL GREPECAS (eCRPP/02)
30 October 2020 / 30 de octubre de 2020

APPENDIX-APÉNDICE A
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Second GREPECAS Programmes and Projects Review Committee (PPRC) Virtual Meeting
(ePPRC/02)
30 October 2020, from 08:30 to 11:30 hours CST (UTC -6)

APPENDIX B

AGENDA

Agenda Item 1: **Review of Air Navigation Services (ANS) Implementation in the Context of the COVID-19 Contingency and the Reestablishment of Air Operations in the CAR/SAM States**

Agenda Item 2: **Follow-up on GREPECAS Programmes and Projects**

2.1   CAR/SAM GREPECAS Programmes
2.2   Project B1: Air Traffic Flow Management (ATFM) CAR/SAM documentation updates
  •   Elimination of the ATFM Manual of the CAR/SAM Regions
  •   Proposal to update the CAR/SAM ATFM Concept of Operations (CONOPS)
2.3   CAR/SAM AIM Projects
2.4   CAR/SAM coordinated review of Projects F1 and F2: Aerodromes and Ground Aids (AGA) projects
2.5   Coordinated review of ProjectsH1, H2, H3, H4 and H5: Meteorology (MET) projects
2.6   Communications, navigation and surveillance (CNS) C and D Projects
2.7   Other Project proposals

Agenda Item 3: **Organizational and Administrative Activities of the GREPECAS**

3.1   Follow-up to outstanding GREPECAS Conclusions/Decisions
3.2   GREPECAS Procedural Handbook update
3.3   GREPECAS – RASG-PA coordination
3.4   Presentation of the new Chairperson of the GREPECAS
3.5   GREPECAS tentative 2021 meetings
3.6   Progress towards CAR/SAM e-ANP Vol. III

Agenda Item 4: **Other Business**

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AGENDA
EXPLANATORY NOTES

Agenda Item 1: **Review of ANS Implementation in the Context of the COVID-19 Contingency and the Reestablishment of Air Operations in the CAR/SAM States**

Under this agenda item, the status of the aviation reactivation/restart process in the CAR/SAM Regions will be reviewed. The Meeting will examine the current situation and the implementation of ANS in the present COVID-19 Outbreak.

Agenda Item 2: **Follow-up on GREPECAS Programmes and Projects**

2.1 CAR/SAM GREPECAS Programmes
2.2 Project B1: Air Traffic Flow Management (ATFM) CAR/SAM documentation updates
 • Elimination of the ATFM Manual of the CAR/SAM Regions
 • Proposal to update the CAR/SAM ATFM CONOPS
2.3 CAR/SAM AIM Projects
2.4 CAR/SAM coordinated review of Projects F1 and F2: Aerodromes and Ground Aids (AGA) projects
2.5 Coordinated review of ProjectsH1, H2, H3, H4 and H5: MET projects
2.6 CNS C and D Projects
2.7 Other Project proposals

Under this Agenda Item, an overview of CAR/SAM GREPECAS Programmes will be presented in response to Decision ePPRC/01/03, including their main challenges. This overview serves in preparation for the Ad hoc virtual meeting on this topic, scheduled for 18 November 2020 with the Programme Coordinators and State Project coordinators. Some specific activities for updating the GREPECAS current Projects will be presented.

Similarly, other Project initiatives shall be presented as Unmanned Aircraft Systems (UAS)/RPAS and Cybersecurity. The most significant challenges that the RPAS and cyber-security issues represent for the CAR/SAM Regions will be presented.

Agenda Item 3: **Organizational and Administrative Activities of the GREPECAS**

3.1 Follow-up to outstanding GREPECAS Conclusions/Decisions
3.2 GREPECAS Procedural Handbook update
3.3 GREPECAS – RASG-PA coordination
3.4 Presentation of the new Chairperson of the GREPECAS
3.5 GREPECAS tentative 2021 meetings
3.6 Progress towards CAR/SAM e-ANP Vol. III

Under this agenda item, a follow-up to the outstanding previous conclusions/decisions from GREPECAS (GREPECAS/18 and ePPRC/01) will be carried out, as well as an overview of the updates to the Seventh Edition of the GREPECAS Procedural Handbook will be presented. The Meeting will be informed about the GREPECAS annual report to the Council. The new GREPECAS Chairperson (DOM) will be introduced. Finally a tentative calendar for 2021 GREPECAS meetings will be proposed.

Agenda Item 4:   Other Business

Under this agenda item, the Meeting will analyse any other matter as needed.

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GREPECAS PROJECTS REVISION STATUS – 30 October 2020

PROJECT		References	PROJECT COORDINATOR			ASSOCIATED PROGRAMME		PROGRAMME COORDINATOR	Status and Actions to follow for new revised version of the Project
Key	Title		Name	State / Intl. Org.	Contact Data	Key	Name		
A1 CAR	Implementation of Performance-Based Navigation (PBN)	B0-APTA, B0-FRTO, B0-CDO and B0-CCO	Riaaz Mohamed	Trinidad and Tobago	rmohammed@caa.gov.tt	A	Performance Based Navigation (PBN)	Eddian Méndez, RO/ATM/SAR	Valid Restructure to remove routine NACC/SAM RO activities
B1 CAR	Improve Demand and Capacity Balance (DCB)	(B0-SEQ, B0-FRTO, B0-NOPS and B0 ACDM)	Greg Byus	United States	Greg.Byus@faa.gov	B	Air Traffic Flow Management (ATFM)	Eddian Méndez, RO/ATM/SAR	Valid Restructure to remove routine NACC/SAM RO activities
B2 CAR	Implementation of Flexible use of airspace (FUA)	--------	Greg Byus	United States	Greg.Byus@faa.gov	B	Air Traffic Flow Management (ATFM)	Eddian Méndez, RO/ATM/SAR	Valid Restructure to remove routine NACC/SAM RO activities
Airspace Optim. SAM	Airspace Optimisation	Example: (B0-APTA, B0-FRTO, B0-CDO and B0-CCO)	Julio Pereira	IATA	---	A1		Fernando Hermosa, RO/ATM/SAR	Valid Restructure to remove routine NACC/SAM RO activities
PBN SAM	PBN	Example: (B0-APTA, B0-FRTO, B0-CDO and B0-CCO)	Julio Pereira	IATA	---	A2		Fernando Hermosa, RO/ATM/SAR	Valid Restructure to remove routine NACC/SAM RO activities
ATFM SAM	ATFM	(B0-SEQ, B0-FRTO, B0-NOPS and B0 ACDM)	Nicolas Borovich	Argentina	---	B1		Fernando Hermosa, RO/ATM/SAR	Valid Restructure to remove routine NACC/SAM RO activities NOTE.- pending confirmation due to change of management, since he must receive permission from his Headquarters.
C CAR	Automation and Improved ATM Situational Awareness	(BO-RSEQ, B0-FICE, B0-SNET, B0-ASUR and B0-SURF)	Carlos M. Jiménez Fernando Casso Dulce Roses	Cuba Dominican Republic United States	Carlosm.jimenez@iacc.avianet.cu/ fernando.casso@idac.gov.do Dulce.roses@faa.gov	C	Automation and ATM Situational Awareness	Mayda Ávila, RO/CNS	Valid a) Update activities b) Improve operation – Performance results
C SAM	Automation and Improved ATM Situational Awareness	(BO-RSEQ, B0-FICE, B0-SNET, B0-ASUR and B0-SURF)	Alexander Santoro	Brazil	---	C	Automation and ATM Situational Awareness	Francisco Almeida, RO/CNS	Valid a) Update activities b) Improve operation – Performance results

PROJECT		References	PROJECT COORDINATOR			ASSOCIATED PROGRAMME		PROGRAMME COORDINATOR	Status and Actions to follow for new revised version of the Project
Key	Title		Name	State / Intl. Org.	Contact Data	Key	Name		
D CAR	Ground-ground and air-ground communications infrastructure	(B0-FICE and B0-TBO)	Dulce Roses	United States	Dulce.roses @faa.gov	D	Ground-Ground and Ground-Air Communications Infrastructure	Mayda Ávila, RO/CNS	Valid a) Update activities b) Improve operation – Performance results
D SAM	Ground-ground and air-ground communications infrastructure	(B0-FICE and B0-TBO)	Jorge Merino	Peru	---	D	Ground-Ground and Ground-Air Communications Infrastructure	Francisco Almeida, RO/CNS	Valid a) Update activities b) Improve operation – Performance results
F1 CAR SAM	Aerodrome safety and certification implementation	(BO-SURF)	TBD	TBD	---	F	Aerodromes (AGA)	Jaime Calderón, Fabio Salvatierra, ROs/AGA	Valid Designate Project Coordinator
CAR SAM	ACDM	(B0-ACDM)	TBD	TBD	---	F	Aerodromes (AGA)	Jaime Calderón, Fabio Salvatierra, ROs/AGA	Valid (recently started) Project approved at PPRC meeting Complete project pending Designate Project Coordinator
G1 SAM	Implementation of the provision of Electronic Terrain and Obstacle Data (e-TOD)	DAIM-B1/3 DAIM-B1/4	Juan González	Uruguay	---	G	AIM	Jorge Armoa, RO/AIM	Valid
G2 SAM	Implementation of the Standard Aeronautical Information Exchange Model	DAIM-B1/2	Karina Calderón	Peru	---	G	AIM	Jorge Armoa, RO/AIM	Valid
G3 SAM	Implementation of Quality management system in AIM dependencies (QMS/AIM)	DAIM-B1/1	TBD	TBD	---	G	AIM	Jorge Armoa, RO/AIM	Valid Coordinator, Mr. Oscar Dioses, is no longer at Peru's AIS. He transferred to another dependency of the provider. Designate Project Coordinator

PROJECT		References	PROJECT COORDINATOR			ASSOCIATED PROGRAMME		PROGRAMME COORDINATOR	Status and Actions to follow for new revised version of the Project
Key	Title		Name	State / Intl. Org.	Contact Data	Key	Name		
G1 CAR	Implementation of Electronic Terrain and Obstacle Data and (e-TOD)		Alfredo Mondragón	COCESNA		G	AIM	Raul Martinez, RO/AIM	**Cancelled**
G2 CAR	Implementation of Quality management system in AIM (QMS/AIM)		Enrique Echarri	Cuba		G	AIM	Raul Martinez, RO/AIM	**Cancelled**
G CAR	Implementation of the AIM Collaborative Plan	DAIM-B1/1	Natasha Leonora-Belefanti	Curaçao	nleonora-belefanti@icaonacc.org	G	AIM	Raul Martinez, RO/AIM	**Valid - New**
H2 CAR	Implementation of Meteorological Watch For The Monitoring Of En-Route Severe Phenomena, Volcanic Ash, Tropical Cyclones And The Release Of Radioactive Material	--------	Iván González	Cuba	---	H	Aeronautical Meteorology (MET)	Luis Sánchez, RO/MET	Finalized
H3 CAR	Implementation of the quality management system for the provision of the meteorological service for international air navigation (QMS/MET)	--------	Haley Anderson	Trinidad and Tobago	---	H	Aeronautical Meteorology (MET)	Luis Sánchez, RO/MET	Finalized

PROJECT		References	PROJECT COORDINATOR			ASSOCIATED PROGRAMME		PROGRAMME COORDINATOR	Status and Actions to follow for new revised version of the Project
Key	Title		Name	State / Intl. Org.	Contact Data	Key	Name		
H4 CAR	Optimisation of Operational meteorological (OPMET) exchange, including Significant Meteorological information (SIGMET) (WS, WV, WC, and WR), warnings and meteorological alerts	--------	Enrique Camarillo	Mexico	Camarillo_enrique@yahoo.com.mx	H	Aeronautical Meteorology (MET)	Luis Sánchez, RO/MET	Finalized
H2 SAM	Implementation of surveillance of en-route severe phenomena, International Airways Volcano Watch (IAVW), tropical cyclones and and Protocols in case of Release of radioactive material and AMET-B0/2 - Meteorological forecast and warning products	--------	Roxana Vasquez Ferro		TBD	H	Aeronautical Meteorology (MET)	Jorge Armoa, RO/MET	Valid Analyse benefits and merge project as CAR / SAM

PROJECT		References	PROJECT COORDINATOR			ASSOCIATED PROGRAMME		PROGRAMME COORDINATOR	Status and Actions to follow for new revised version of the Project
Key	Title		Name	State / Intl. Org.	Contact Data	Key	Name		
H3 SAM	Implementation of QMS/MET	--------	Vacant (Previous Coordinator, Mr. Pablo Malve, is retired from the Argentinian National Civil Aviation Administratio n	TBD	TBD	H	Aeronautical Meteorology (MET)	Jorge Armoa, RO/MET	Valid Analyse benefits and merge project as CAR / SAM Designate Project Coordinator
H4 SAM	OPMET AMET Exchange -B0/4 - Dissemination of meteorological product		Working directly with the Brasilia OPMET Data Bank on all jobs			H	Aeronautical Meteorology (MET)	Jorge Armoa, RO/MET	**Cancelled:** work done by RO
H5	Improvements to MET services according to the new operational requirements in support of ATM	--------	Arturo Lomas		TBD	H	Aeronautical Meteorology (MET)	Jorge Armoa, RO/MET	Valid

Appendix D

SAM Region

- **Project H2: Implementation of meteorological surveillance for the monitoring of severe phenomena en-route, volcanic ash, tropical cyclones and release of radioactive material**

  a) Review of Letters of Agreements between the Volcano Observatories and the MET service provider, currently in process, in Chile, in order to update the issuance processes of the Volcano Observatory Notices to Aviation (VONA).
  b) Review of the Table of Volcano-logical Observatories of Vol. I of the CAR / SAM e-ANP. Update of the official name of the Volcano Observatories.
  c) Monitoring of the SIGMET on volcanic ashes issued by the Aeronautical Meteorological Surveillance Offices to verify the format.
  d) Follow-up to the implementation of Contingency Plans for the release of radioactive material.
  e) Monitoring of SIGMET emission due to severe phenomena. 4-state format correction.
  f) Planning of the volcanic ash exercise.
  g) Planning of activities for 2021

- **Project H3: Implementation of the Information Quality Management System MET (QMS / MET)**

  a) Seven States have completed the implementation and have their QMS / MET systems Certificates (Argentina, Bolivia, Chile, Colombia, Panama, Paraguay and Peru)
  b) Brazil should be completed in October 2020. At the time of sending this report, it should have already been certified;
  c) The States of Ecuador, Guyana, Suriname, Uruguay and Venezuela present progress, but also opportunities for improvements to complete the implementation process.

- **Project H4: OPMET exchange to introduce the point related to the implementation of the IWXXM with completion by 2020 of this task**

  a) The quarterly controls of the OPMET Exchange carried out by the OPMET Database of Brasilia are maintained. The Secretariat analyses the results and makes decisions based on them.
  b) Teleconferences to monitor the implementation of the exchange of OPMET messages in IWXXM format. All the results of the follow-ups can be seen in the **attachment**.

- Other activities:

It has been considered to submit to the Meeting the priorities in the MET area for 2021. In this sense, the Meeting considered the following points:

- The preparation of SIGMET (homogeneous and continuous), AIRMET and Aerodrome Warnings (including those of Wind Shear).
- Implementation of the QMS. The latest provisions and the high cost of ISO implementation need to be considered in light of the current aviation situation.
- Accelerate the implementation of the IWXXM.
- Determine work mechanisms that allow addressing emerging issues such as new requirements. Example: TCAC

ePPRC/02

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Attachment

Progress in the Implementation of the IWXXM in the SAM Region

Amendment 77 to ICAO Annex 3 had introduced the requirement to transmit OPMET messages in XML/GML format, as a recommendation. SAM Region had included it in its Meeting Activities Agenda this requirement since 2015. In this sense, the following capacity building activities were carried out:

a) Seminar on AIXM and XML/GML messages;
b) COM/MET Coordination Meetings
c) Inclusion of this requirement in the Agenda of GREPECAS (Planning and Execution Group of the CAR/SAM Regions)
d) Inclusion of the requirement in the Agenda of the SAM Implementation Group (SAM/IG)

Previously, the meeting of Directors of Civil Aviation in 2014 had established implementation priorities in the Region, which included the implementation of the AMHS system, as well as the interconnection in AMHS, a system that would provide support for the OPMET exchange, in this format.

The actions implemented in the States, after these activities are:

a) Brazil adapted the system of the Regional OPMET Databank, and communicated in December 2017 that the OPMET Databank was able to receive and transmit OPMET messages in IWXXM version 2.1 format. The Regional OPMET Databank can still provide support to TAC users.
b) Ecuador and Venezuela have generated software to transform OPMET messages from TAC format to XML format.

Amendment 78 to ICAO Annex 3 was approved on 7 March 2018, and introduced, inter alia, IWXXM, as the format for all OPMET messages. This requirement would become a standard from 5 November 2020.

Observing this amendment, the ICAO Secretariat implemented the following actions:

a) SAM/IG/22 urged the States to adapt the AMHS terminals of the Aeronautical Meteorological Offices in order to adapt them for the exchange of OPMET messages in IWXXM format;
b) Tracked implementation status through a survey;
c) The requirement was included in the SAM/IG InterOP Group Agenda

The Secretariat has done a follow up to these recommendations. The actions implemented by the States are listed below:

a) Implementation of AMHS and Interconnection in AMHS:

1) All the States implemented their systems in the COM AMHS Centres;
2) Out of 28 regional connections, 26 were established (92.85%), with 02 remaining to be established: Brasilia-Montevideo and Ezeiza-Montevideo.

b) Current Status of IWXXM Implementation:

1) Argentina: Advances have been made in encoding capacity in the IWXXM format. They are coordinating with those responsible for the CNS systems to enable the exchange in the IWXXM format. They estimate will be ready by 5 November 2020.

2) Brazil is replacing the Regional OPMET databank system, which is estimated to be in place on March 2021, with the ability to transmit and receive in the version 3.0 of the new format (IWXXM). The new system will also interchange information through a web service.

3) Bolivia: It will not yet have the ability to transmit in IWXXM format by 5 November 2020.

4) Chile: Changing the equipment to transmit. They estimate to be ready for the first quarter of 2021.

5) Ecuador: They are updating the entire messaging system in AMHS. The contract has not yet been signed.

6) Guyana: They will not be ready by 5 November 2020.

7) Panama: They register progress, but estimate that they will not have the capacity to transmit in IWXXM format before 5 November 2020;

8) Paraguay: It will not yet have the ability to transmit in IWXXM format by 5 November 2020.

9) Peru: It is in the capacity to receive and send attached messages. They are in the process of acquiring a new System. For the first quarter of 2021, ETIC and Meteorology has been working for the conversion, only the decoding is missing. Venezuela will technically assist Peru in encoding in IWXXM format. Peru's capacity for 5 November will be to send the OPMET message in IWXXM, as an attachment.

10) Uruguay: The evaluation indicates that they will not be ready for 5 November 2020. The MET provider has the conditions for encoding in IWXXM format, but the AMHS system will not yet be in a position to exchange in this format.

The states of Colombia, Suriname and Venezuela have not reported information in this regard.