



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

WORKING PAPER

GREPECAS/21 — WP/03 Rev. 06/10/23

Twenty-first Meeting of the CAR/SAM Regional Planning and Implementation Group (GREPECAS/21)

Santo Domingo, Dominican Republic, 15 to 17 November 2023

Agenda Item 2: Third GREPECAS-RASG-PA Joint Meeting (asynchronous)
2.2 Progress report of joint GREPECAS-RASG-PA Activities

GREPECAS-RASG-PA COORDINATION

(Presented by the Secretariat)

EXECUTIVE SUMMARY

Coordination between the CAR/SAM Planning and Implementation Regional Group (GREPECAS) and the Regional Aviation Safety Group—Pan America (RASG-PA) ensures efficient work, avoids duplication of efforts and allows Member States, from both CAR/SAM Regional Groups, to benefit from the coordinated analysis and implementation of corrective and mitigating actions to improve safety, efficiency and capacity in Air Navigation Services (ANS), while achieving the goals and vision of the Global Air Navigation Plan (GANP) and the Global Aviation Safety Plan (GASP).

Action:	Described in Section 4.
Strategic	• Safety
Objectives:	Air Navigation Capacity and Efficiency
References:	RASG-PA Executive Steering Committee (ESC) meetings reports
	RASG-PA/12 Meeting Report
	GREPECAS/20 Meeting Report
	GREPECAS Procedural Handbook
	RASG-PA Procedural Handbook

1. Introduction

1.1 The CAR/SAM Planning and Implementation Regional Group (GREPECAS) establishes actions focused on ICAO's strategic objective on "Air Navigation Capacity and Efficiency" and the Global Air Navigation Plan (GANP). On the other hand, the RASG-PA carries out activities aligned with the strategic objective on "Safety" and with the Global Aviation Safety Plan (GASP).

- 1.2 In order to facilitate coordination and ensure efficient use of resources and achieve a high level of effectiveness, using the Fast Track approval procedure, during the joint meeting of GREPECAS/20 and RASG-PA/12, the following conclusions were agreed upon: Conclusion *GREPECAS/20/14* "COORDINATED ACTIVITIES BETWEEN RASG-PA AND GREPECAS" and Conclusion RASG-PA/C12/2022 "COORDINATED ACTIVITIES BETWEEN RASG-PA AND GREPECAS."
- 1.3 The list of joint activities that the Plenary Meetings of GREPECAS/20 and RASG-PA/12 approved can be found in paragraph 3.3.2 of GREPECAS/20 meeting final report and paragraph 8.2 of the RASG-PA/12 plenary meeting final report.

2. Discussion

2.1 The topics for discussion to improve the working collaboration between the two Regional Groups in accordance with Conclusion GREPECAS/20/14 and Conclusion RASG-PA/C12/2022 are as follows:

Coordination Items and Topics	Suggestions			
Generic ToRs	Both Groups - Planning and Implementation Regional Groups (PIRG) /			
	Regional Aviation Safety Group (RASG))			
Specific ToRs	Both Regional Groups - CAR/SAM Planning and Implementation Regional			
	Group (GREPECAS) / Regional Aviation Safety Group–Pan America			
	(RASG-PA)			
Joint working	a) Sharing of information and decisions between GREPECAS and RASG-			
mechanism	PA.			
	b) GREPECAS/RASG-PA common website (including SMS, common			
	work, etc.).			
	c) Creation of Ad-Hoc Groups with the participation of representatives from			
	both meetings.			
Progress in Regional	Progress of joint activities has been monitored through:			
Meetings	o RASG-PA and the Regional Aviation Safety Team (RAST): on			
	aviation safety, accident investigation and development of safety-related			
	human resources;			
	o GREPECAS and its Ancillary Bodies: on air navigation services,			
	aerodrome certification and related human resource development.			

GREPECAS and RASG-PA coordination activities		
Coordination activities	Apéndice	
Collaboration between the Scrutiny Working Group (GTE) and the RASG-PA Mid-Air Collision (MAC).	A	
CAR and SAM Runway Safety Team (RST) Implementation Project.	В	
Implementation of Performance Based Navigation (PBN) procedures on Visual Runway – SAM	С	

GREPECAS and RASG-PA coordination activities		
Coordination activities	Apéndice	
Implementation of Performance Based Navigation (PBN) procedures on a Visual Runway – NACC	D	
Air Traffic Services (ATS) Language Proficiency Project in the CAR and SAM regions.	Е	
IATA/ICAO Project for the Mitigation of controlled flight into terrain (CFIT)	F	
General considerations on possible interference caused by the 5G network.	G	
UAS/RPAS related activities	Н	
Competency assessment of AIS personnel	I	
Activities related to the prevention of turbulence-related accidents	J	
Analysis of the 7th Edition of the GANP	K	

- 2.3 Information related to the status, scope, objectives, background, achievements and next steps or actions on each of these activities can be found in the respective Appendices of this working paper. The main results obtained from November 2022 to the present are:
 - Identified common causes between Large Height Deviation (LHD) and Traffic and Traffic Collision and Avoidance System-Resolution Advisory (TCAS-RA);
 - The baseline at the beginning of the Runway Safety Team (RST) project was 43% for the CAR and for the SAM Region currently is 52% (total: 146 in CAR and 104 in SAM), therefore an increase of 22 international airports with RST;
 - The tender has been published for the selection of the training organization that will develop the training programme for the improvement of language proficiency in air traffic controllers of the Latin American Region States;
 - The establishment of the regulatory status for the SAM Region correlated with Unmanned Aircraft (UA), and the adoption and revision of the documents and adaptation in the CAR States
 - All activities continue to be executed except for the "General considerations on possible interference caused by 5G network", which has been completed.
- 2.4 In order to incorporate the progress of these coordinated activities into the GREPECAS and RASG-PA annual report to be submitted to the Air Navigation Commission (ANC) and the ICAO Council, the following draft Conclusion is suggested:

DRAFT CONCLUSION			
GREPECAS/21 LIST OF GREPECAS AND RASG-PA JOINT ACTIVITIES			
What:	Expected impact:		
That,	☐ Political / Global		
The GREPECAS and RASG-PA Plenary Medupdated list of joint activities for submis Navigation Commission (ANC):	• **		
 a) Collaboration between the Scrutiny Worl and the RASG-PA Mid-Air Collision (MAC); 	king Group (GTE)		
b) CAR and SAM Runway Safety Implementation Project;	Team (RST)		
c) Implementation of Performance-Based I procedures on a Visual Runway – SAM;	Navigation (PBN)		
d) Implementation of Performance-Based I procedures on a Visual Runway – NACC			
e) Air Traffic Services (ATS) Language Pro the CAR and SAM regions;	ficiency Project in		
f) IATA/ICAO Project for the mitigati accidents;	on of CFIT type		
g) Activities related to Unmanned Aircraft Remotely Piloted Aircraft System (RPAS			
h) Aeronautical Information Service competency evaluation; and	(AIS) personnel		
 Activities related to the prevention of accidents; 	turbulence related		
Why:			
To include the progress and next steps of the coordinated activities in the GREPECAS and RASG-PA reports and submit to the ANC and the ICAO Council.			
When: XX	Status: ⊠ Valid / □ Superseded / □ Completed		
Who: ⊠ States ⊠ ICAO □ Other:	XX		
4. Suggested Actions 4.1 The Meeting is invited to:			

- - Take note of this working paper; a)
 - Review and if appropriate, approve the Draft Conclusion in 2.4; and b)
 - take other action as deemed necessary. c)

APPENDIX A

Scrutiny Group (GTE) and Pan America Regional Aviation Safety Team (PA-RAST) Joint Activities

Current status: () Completed or (X) In process

Scope and Objective

- For the purposes of trend analysis, reported occurrences will be reviewed and observed: Large Height Deviation (LHD) and Traffic Collision and Avoidance System-Resolution Advisory (TCAS-RA) Advisories within FL245 and above.
- For the purposes of safety management activities, the events reviewed and monitored in the region will be those indicated by the GTE and the PA-RAST-
- Identify security opportunities for improvements and conduct a strategic review.

Background

Based on the *GREPECAS/20/11 Decision* and after an exhaustive analysis of the activities of each group and the identification of the potential benefit of data exchange for the improvement of operational safety.

The details are available in GREPECAS/21 WP/05.

Progress, achievements and/or deliverables from November 2022 to date:

- Joint review of 2022 data to identify possible linkages of events and joint mitigation actions.
- Identification of LHD and HRCT-RA that have common causes.

Next steps or actions:

GREPECAS:

- Activities to improve cooperation and data exchange.
- Identify additional data exchange mechanisms.
- Request that the GTE Secretariat participate in the PA-RAST meetings held at the ICAO Regional
 offices.

RASG-PA:

- Identify additional mechanisms for data exchange.
- Identify mechanisms to identify data to be able to present it virtually.

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APPENDIX B

CAR/SAM RUNWAY SAFETY TEAM (RST) IMPLEMENTATION PROJECT

Current status: () Completed or (X) In process

Scope and Objective

CAR and SAM RST Implementation Project (RASG-PA ESC/37/C3) has as its main objective to achieve the goal of "Establish and implement effective local RST at selected international aerodromes by 2025", for the States and aerodromes of the CAR and SAM Region.

Background

Runway safety remains one of the high-risk categories that needs to be addressed to mitigate the risk of fatalities in international civil aviation. ICAO Assembly Resolution A37-6 on Runway Safety urged States to take measures to improve runway safety, including the establishment of runway safety programmes using a multidisciplinary approach that includes at least regulators, aircraft operators, air navigation service providers, aerodrome operators and aircraft manufacturers to prevent and mitigate the effects of runway excursions, runway incursions and other events related to runway safety.

Under the CAR and SAM RST Implementation project, the following deliverables are planned:

D1- D1-RST implementation plan by State;

D2- RST Effectiveness Mechanism;

D3- Project repository/project workplace;

D4-Runway Safety Teams (reports); and

D5-Specific training on Runway Safety Teams.

Progress, achievements and/or deliverables from November 2022 to Date:

- The D3-Repository/project workplace (completed);
- The RST Go-Team for St. Kitts and Nevis took place in July 2023, involving the RST implementation initiative at four international aerodromes in the Caribbean.
- The baseline at the beginning of the project was 43% for the CAR and for the SAM Region currently is 52% (total of 146 in CAR and 104 in SAM), therefore, an increase of 22 international airports with RST.
- Progress in the implementation of the agreed milestones of 58% in the SAM Region. The
 implementation of RST is also duly recorded under the Dashboard available at:
 https://www.icao.int/SAM/SAFETY/RST/Pages/default.aspx

RASG-PA:

- Follow-up and finalize the following products:
 - o D1- D1-RST Implementation Plan by State (in progress);
 - o D2- RST Efficiency Mechanism (in progress);
 - o D4- Runway Safety Teams reports (pending); and
 - o D5-Specific training in Runway Safety Teams (in progress).

APPENDIX C Implementation of Performance based Navigation (PBN) flight procedures in a Visual runway - SAM

Status: () Finalized or (X) In progress by GREPECAS

Scope and objective

 States, ANSP and Industry joint initiative, to study and implement PBN procedures in a Visual runway.

Background

The SAM Implementation Group (SAM/IG) and its contributing bodies developed the Regional guide on the implementation of PBN visual runway procedures in November 2020. The participation of airlines and IATA specialists in this working group is highlighted. The purpose of the Guide is to provide guidelines on the process of implementing PBN procedures to visual runways, aimed at aircraft operators, PANS-OPS service providers and ATS service providers.

As reported to RASG-PA ESC/37 (25 y 26, May 2022), the implementation of the PBN procedures in the airport of Guapi, Cauca, Colombia (SKGP), were completed. Since its implementation, flight data was collected to allow comparison with data corresponding to a period before the implementation, so that conclusions can be reached over potential benefits. Refer to the tables below for the results on the metrics:

Progress outcomes and/or deliverables from November 2022 until today:

Safety metrics:

Unstable Approaches and Continued landing after Unstable Approach are precursors to at least 24% of all fatal Runway Excursions.

	Year before	Year after	Change
Unstabilized	12/year	0/year	-100%
approaches	(2.5 % of all approaches)	(0% of all approaches)	
Hard	2/year	0/year	-100%
landings	(0.42 of all landings)	(0% of all landing)	

Additionally, a survey was sent to all (29) pilots from the only operator serving Scheduled operations to SKGP asking if:

- 1) They consider the PBN procedure increased the overall safety level of SKGP operations;
- 2) They consider that the PBN favors Stable Approaches as compared with the visual procedure;
- 3) They consider that the PBN procedure favors crew situational and terrain awareness during approaches to SKGP; and
- 4) They consider that the PBN procedure reduces crew workload during approaches to SKGP.

100% of responses were positive.

Other metrics positively affected as a result of the implementation of the PBN Procedure:

	Year before	Year after	Change
Cancelations by weather	28/year	14/year	-50%
	(5.83% of all operations)	(2.92% of all operations)	
Fuel consumption	241 Tn/year	204 Tn/year	-15.3%
CO2 Emissions	747 Tn CO2/year	642.6 Tn/year	-15%
Time savings	24 flight hours/year		

Guidance on PBN procedures design for Visual Runways

Regarding operational minimums, the Regional Guide stipulates that the lowest height to which one can descend under IFR condition when approaching a visual track will depend on the complexity of the operational environment and the need for visual references necessary to complete the approach safely. The obstacle clearance height (OCH) applicable on a direct approach shall be equal to or greater than 500 ft and the visibility equal to or greater than 3000 meters. Likewise, criteria are presented in case of obstacles in the Visual section surface (VSS). Based on this Guide, flight procedures have been designed in Brazil, Colombia, and Peru.

On the other hand, ICAO has issued this year Circular 359 - Development of Procedures for Visual Maneuvering with Prescribed Tracks using Required Navigation Performance (VPT), which addresses procedures developed by an air navigation service provider in conjunction with an operator, which are intended for publication for use. The Circular also provides information on procedures owned by the operator designed to facilitate the execution of complicated visual maneuvers, such as a circuit approach.

RASG-PA:

• Follow up and report.

GREPECAS:

- Analyzing Circular 359 of ICAO, for its application in the Region. Also, the Guide issued in 2020 is being reviewed to identify aspects of harmonization to Circular 359.
- Follow up and report.

APPENDIX D

Implementation of Performance Based Navigation (PBN) procedures on a Visual Runway – NACC

Current status: () Completed or (X) In process

Scope and Objective

Joint initiative of States, Air Navigation Service Providers (ANSP) and Industry to study and implement PBN procedures on a Visual runway.

Background

The "Visual into PBN" project was born from an initiative by the manufacturer ATR, given that their aircraft operate mostly on visual runways that do not have instrument procedures, which exposes them to greater operational risk associated with unstable approaches, loss of consciousness. situational, CFIT, etc.

The ICAO South American (SAM) Regional acted as general coordinator of the project to direct the efforts of the various actors who were interested in contributing to it, which is why procedures for departures, arrivals and procedures were published in the AIP of Colombia. and PBN approaches for both thresholds to the Guapi runway, of the aforementioned State.

The ICAO NACC Regional Office believes that adopting this project for the CAR region will bring great benefits to aviation, so given the characteristics of the various States in the region, as well as the volume of air operations and the number of airports that it has, Mexico meets the best conditions for its implementation.

Due to the above, the NACC office agreed with the civil aviation authority of Mexico (*Agencia Federal de Aviación Civil - AFAC*) to implement this project in some of the country's airports, and then expand it to other runways where it is considered necessary to improve the safety margins in air operations.

Likewise, this project is being planned with the active collaboration of the aircraft manufacturer ATR and the civil aviation authorities in Mexico planning its implementation by the end of 2024.

Progress, achievements and/or deliverables from November 2022 to date:

- Obstacle survey of possible airports.
- Obstacle survey validation.

RASG-PA:

- Visual PBN procedure design
- Flight Management Systems (FMS)
- Flight and pilot simulators for validation
- In-flight validation and data analysis
- AIP Publication

APPENDIX E

Air Traffic Services (ATS) Language Proficiency Project in the CAR and SAM regions.

Current status: () Completed or (X) In process

Scope and Objective

Development of a pilot training project to improve linguistic competence in air traffic controllers of the Latin American region States.

Background

Since 1995, language proficiency in aeronautical communications has been identified as a critical area that could affect aviation safety worldwide. The ICAO Assembly took note of several accidents and incidents in which the language proficiency of pilots and air traffic controllers were causal or contributing factors and formulated Assembly Resolution A32-16 urging the ICAO Council to urge the Air Navigation Commission to consider, with a high level of priority, the issue of English language proficiency and to complete the task of strengthening the relevant provisions of Annexes 1 and 10, oblige Contracting States to take measures to ensure that air traffic control personnel and flight crews participating in flight operations in airspace where the use of the English language is required, mastery of conducting and understanding radiotelephone communications in the English language.

Since 2005, States in the Latin American region (LATAM) have implemented programmes to improve the English language skills of air traffic controllers. However, despite these efforts, there is a significant gap between the competency achieved and the requirements described in Annex 1.

Several factors have influenced the results of language training programmes for air traffic controllers, including the absence of an aviation-friendly curriculum, competent instructors, unambiguous objectives, and the involvement of Air Traffic Controllers (ATCOs). in the program due to schedule limitations.

To address this situation, the development of a pilot project to support the Latin America and Caribbean States has been proposed to treat the lack of command of the English language used in air traffic services, this as a measure to reduce the risk of safety events due to communications errors, mainly in those airports or airspaces with significant volumes of air traffic, and communications in English and Spanish languages.

Progress, achievements and/or deliverables from November 2022 to date:

The budget was approved by RASG-PA for the pilot project.

- The terms of reference of the project were completed, which will serve as a framework for the selection of the institution that will develop the training programme.
- The tender has been published for the selection of the training organization that will develop the training programme.

RASG-PA:

- Inform about the selection of the training institution.
- Inform States on the nomination of participants for the pilot project.

APPENDIX F IATA/ICAO Project for the Mitigation of controlled flight into terrain (CFIT)

Current status: () Completed or (X) In process

Scope and Objective

In efforts to continue reducing the number of CFIT accidents, IATA, in collaboration with the ICAO NACC and SAM Regional Offices, called on States and industry stakeholders to ensure the updating of ground databases and systems. Continuous monitoring and implementation of the Detailed Implementation Plan (DIP) is necessary for all aviation stakeholders on Controlled Flight into Terrain (CFIT).

Background

Analysis of data from the last five years (2017-2021) and according to IATA Global Aviation Data Management (GADM) Accident Data Exchange (ADX), CFIT is marked as the second cause of fatality accidents, resulting in 117 deaths. Dedication and commitment of leaders and everyone, establishing a positive safety culture, effective monitoring, compliance with Standard Operating Procedures (SOPs) and technological advances, such as the Ground Proximity Warning System (GPWS), among others. Mitigation strategies have played a role in reducing CFIT accidents. However, CFIT accidents continue to occur.

Progress, achievements and/or deliverables from November 2022 to date:

Phase I - Determination of reference values

- (i) Percentage of airline Technical Operations departments using GNSS/GPS Completed.
- (ii) Percentage of regulators checking whether terrain viewing SOPs are implemented as part of their surveillance activities Completed.
- Production 1a) Draft Regional Security Notice version 1 Completed.
- Production 1b) Publish Regional Security notice version 1 Completed.
- Production 2a) ICAO survey results to Member States Completed
- Production 3a) Survey results from Pan American operators and information from IATA Operational Safety Audit (IOSA) – Completed.
- Production 1c) Update of the Regional Safety Notice with the results of the survey of Member States and operators of the Pan American region and information from IATA and IOSA – Completed.

Phase II - Regional Action Plan

Based on the information obtained during Phase I, IATA and ICAO will develop an Action Plan with specific objectives, goals, timelines and periods to reduce the annual average LATAM/CAR CFIT. The reduction percentage and target dates will depend on the size of the gap determined during Phase I.

Additionally, the result will be shared with the PA-RAST so that it can be included in its work. Plan for 2023 and beyond.

RASG-PA:

- Production 1d) Publish Regional Security notice version 2 in progress.
- Production 2b) Second survey for Member States First Quarter 2025.
- Production 3b) Second survey of Pan America operators and IATA IOSA information First Quarter 2025.
- Production 6) Project Review First Quarter 2026.

APPENDIX G

General consideration on the possible interference caused by the 5G network

Current status: () Concluded or () In progress

Scope and objective

The objective of the workshop is to present and share the lessons learned, the implementation of and all related information that will help States mitigate the impact of these 5G implementation measures.

Background

Further to Conclusion GREPECAS/20/12 "NAM/CAR/SAM Workshop for the Implementation of Mitigation Measures to Avoid Interference in the Operation of Radio Altimeters Due to the Commissioning of 5G Technology" of the Twentieth Meeting of the Caribbean and South American (CAR/SAM) Regional Planning and Implementation Group (GREPECAS/20) and the Twelfth Regional Aviation Safety Group — Pan America Meeting (RASG-PA/12), both held in Salvador, Brazil, from 14 to 18 November 2022, and the continuation of awareness-raising events and preparation of mitigation measures by States due to this implementation, such Workshop was held online for the NAM/CAR/SAM Regions on 28 February 2023 with the kind support of Boeing.

The States, International Organizations, and members of the industry that participated as presenters at the event were:

- a. Boeing;
- b. the International Air Transport Association (IATA);
- c. Brazil, through the Department of Airspace Control (DECEA);
- d. United States, through the Federal Aviation Administration (FAA); and
- e. The Central American Corporation of Air Navigation Services (COCESNA).

Developments, achievements and/or deliverables since November 2022 to this date:

The following recommendations were provided as a result of the event:

Recommendation 1: to designate personnel within the aeronautical environment to work continuously on the management of aeronautical frequencies, dedicated to the management of aeronautical frequencies and the services that operate through these frequencies.

Recommendation 2: to continue with interference mitigation activities at international airports, follow up on the results of these measures, and continue with its continuous monitoring and improvement according to the carried out analyzes.

Recommendation 3: to share the lessons learned with other States and learn for future actions, since the evolution of technology and the implementation of services advances at a greater speed than that of the implementation of aeronautical services, therefore, the lessons learned will be used to work on future technological implementations.

Recommendation 4: take advantage of the technological development, implementation, and investment that telecommunications companies are making, since this technological development will also serve to promote and implement other services in the aeronautical environment.

Recommendation 5: to consider the importance of coexisting with other companies that provide other services through frequencies and that it is necessary to find a balance of operation and work, which is why the involvement of aviation in the management of services provided through the spectrum radio is essential to find this balance of coexistence.

	Next	step	or	actio	ns:
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None

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APPENDIX H Activities related to UAS/RPAS

Current status: () Concluded or (X) In progress

Scope and objective

Support the CAR and SAM States in the development of the corresponding regulation and integration into Unmanned Aircraft Systems (UAS) Traffic Management (UTM) operations.

Background

Due to the increasing number of Unmanned Aircraft (UA) operating in low-level airspace which could conflict with manned aviation, the International Civil Aviation Organization (ICAO) was asked to develop a global baseline of provisions and guidance material for the proper harmonization of regulations for Unmanned Aircraft Systems (UAS), which fall outside the framework of international Instrument Flight Rules (IFR).

The NACC Regional Office has developed three UAS workshops and the SAM Regional Office to date, through the regional group of UAS/RPAS focal points, has held 10 meetings.

Developments, achievements and/or deliverables since November 2022 to date:

- The establishment of the regulatory status of the regions.
- The final documents developed by the SAM Regional Office and approved by the States have been published on its website:
 - Unmanned aircraft systems Concept of Operations (UAS CONOPS)
 - Unmanned aircraft system traffic management Concept of Operations (UTM CONOPS)
- The adoption and review of the documents and adaptation to the CAR States, of the documents developed by the SAM Regional Office.

Next step or actions:

Subsequent CAR region activities will be carried out through the NACC/WG Working Group and activities planned by the SAM region through the Regional Safety Oversight Cooperation System (SRVSOP) and recommended by The SAM Office will support the proposal of the *Project LAC APP II – RoC 142 – Support to the SRVSOP for UAS* so that the SRVSOP can continue with the implementation of the UAS.

GREPECAS:

• Report the work developments of the group.

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APPENDIX I

Assessment of competencies of Aeronautical Information Service (AIS) personnel

Current status: () Concluded or (X) In progress

Scope and objective

Review of the implementation of the requirements included in the Seventh Edition of Doc 8126 – AIS Manual, Part I.

The aforementioned Meeting issued Conclusion 20/13, through which it requested the dissemination of the document and the holding of workshops to promote the Regulatory Framework.

Background

- 1. The RASG-PA GREPECAS/20 Meeting observed that Part I of the Seventh Edition of Doc 8126 AIS Manual, intuited the Regulatory Framework for the AIS. In this part of the document, after describing the entire Regulatory Framework, it was highlighted that it includes three appendices, described below:
 - a) Appendix A: Competence Regulatory Framework for aeronautical information services;
 - b) Appendix B: ICAO Annex 15 Compliance Checklist; and
 - c) Appendix C: Compliance checklist of Doc 10066 Procedures for Air Navigation Services of Aeronautical Information Management (PANS-AIM).
- 2. The Secretariat has worked with the States in the Competency Assessment of AIS personnel. It was found that the States have established procedures for this evaluation, but they will review them for their alignment, if necessary, with the requirements of Doc 8126 Part I.
- 3. In relation to its dissemination, it has been planned, for the first quarter of 2024, to hold a NAM/CAR/SAM Workshop related to Doc 8126 and the Proposal for (PANS-IM).

Developments, achievements and/or deliverables since November 2022 to date:

- Carry out the Workshop in the first quarter of 2024.
- Definition of procedures for the evaluation of competencies in the States.

Next steps and actions:

GREPECAS:

- Follow up on the review of competency evaluation procedures for AIS personnel in the States.
- Promote other dissemination activities of the Regulatory Framework included in Part I of the Seventh Edition of Doc 8126 – AIS Manual.

RASG-PA:

• Capture the Competency Assessment information of AIS personnel, analyze it, and propose opportunities for improvements, from the perspective of Safety Surveillance.

APPENDIX J Activities related to the prevention of turbulence-related accidents

Current status: () Completed or (X) In process

Scope and Objective

Provide operational tools for forecasters working in Meteorological Watch Offices, also provide recommendations and guidelines for users of the Meteorological Service for Air Navigation in order to collaborate in improving operations safety in situations of presence of severe meteorological phenomena (storms, turbulence, hail).

Deepen into the causality of potential events that can lead to air accidents or incidents, starting from the point of view of meteorological science to provide operational tools for forecasters and expand the state of the art of aeronautical meteorology in South America.

Background

In 2018 and 2019, serious incidents of commercial aircraft encountering severe turbulence, thunderstorms, and hail have been reported, resulting in injured passengers and damage to the aircraft fuselage. Some flights were even forced to make technical stopovers due to the damage suffered.

The MET Meeting of June 2019 took note of the air incidents that occurred in recent years in the SAM Region and proposals were made to analyze the most significant events in the Regional Aviation Safety Group – Pan America.

A team of meteorologists from different countries in the SAM Region had been formed and worked on the analysis of 10 cases that occurred at the end of 2018 and beginning of 2019.

The analysis has been completed and is currently in the review process to verify whether the studies carried out comply with the scientific rigor that allows valid conclusions to be issued and that the works could be replicated under the same analysis rules.

Based on the work carried out, recommendations have been issued and presented to GREPECAS/20 and RASG-PA/12.

Progress, achievements and/or deliverables from November 2022 to date:

- Scientific review of the Analysis Report of cases of severe phenomena.
- Preparation of the report for distribution to ICAO and the World Meteorological Organization.

GREPECAS:

- Follow-up on the recommendations of the work analysis on severe phenomena and incidents recorded due to aircraft encountering these phenomena.
- Promote recurring courses on severe meteorological phenomena for MET, ATS personnel and Aircraft Crew Members, as well as for Flight Dispatchers.

RASG-PA:

- Follow-up on the recommendations of the work analysis on severe phenomena and incidents recorded due to the encounter of aircraft with these phenomena, from the point of view of operational safety.
- Promote conferences and workshops on flight risks in regions with reports of severe meteorological phenomena.

APPENDIX K Analysis of the 7th Edition of the GANP

Current status: () Completed or (X) In process

Scope and Objective

Coordinate with RASG-PA and Runway Safety Teams the analysis of the Key Performance Indicators (KPI) of the safety Key Performance Area (KPA) included in the Seventh edition of the Global Air Navigation Plan (GANP).

Background

The Sixth Edition of the GANP included Key Performance Indicators (KPIs) for the areas of Capacity and Efficiency.

The 41st Session of the ICAO Assembly approved the Seventh Edition of the GANP, which included areas and sub-areas related to the safety Key Performance Area (KPA). Additionally, it has been highlighted that this edition includes three KPIs related to safety.

GREPECAS/20 requested, through Conclusion 20/16, that an Ad-Hoc Group be formed to analyze the interactions between the Regional Safety Plans and the Air Navigation Plan, as well as manage safety KPIs in order to not duplicate efforts and save States' resources.

Progress, achievements and/or deliverables from November 2022 to date:

• It has been worked with RASG-PA the analysis of KPIs and agreed on the methodology that would be applied for their management, as well as the data that would be used to evaluate them in the Table of Vol. III of the Regional Air Navigation Plan.

Next steps or actions:

GREPECAS:

- Request States to reflect in the Tables of Vol. III, the agreements on the management of the safety KPIs of KPA.
- Follow-up the population of the Tables of Vol. III by States;
- Organize teleconferences and workshops to review the progress of KPIs in the safety area; and
- Continue promoting capacity building for the formulation of KPIs.