



ICAO

Second Meeting of the Steering Group of the Improvement of Air traffic Services over the South Atlantic, (SAT/SG2)

Dakar, Senegal, 9-12 December 2024

Agenda Item 4: Development in regions with interest to the SAT Group

4.3 Outcomes of GREPECAS related to SAT

GREPECAS/22 MEETING OUTCOMES

(Presented by Secretariat)

SUMMARY

This paper provides preliminary information concerning the outcomes of the GREPECAS/22 meeting. The Secretariat is currently preparing the Report that must be validated by members States. GREPECAS/22 discussed matters related to safety in the South Atlantic, for instance, Cyclone monitoring and the activities of the GREPECAS Scrutiny Working Group (GTE).

Strategic Objectives

- Safety
- Capacity and Efficiency

1 INTRODUCTION

1.1 The Twenty-second Meeting of the CAR/SAM Regional Planning and Implementation Group (GREPECAS/22) was held in two parts: one as an on-line asynchronous session from 16 September to 18 October 2024; and the second session as an in-person meeting held at ICAO SAM Regional Office premises in Lima, Peru, from 20 to 22 November 2024.

1.2 The Fourth GREPECAS–RASG-PA Joint Meeting, included under Agenda Item 8 of the GREPECAS/22 Meeting, a joint session of the Plenary meetings of the RASG-PA and the GREPECAS, and was held in person in the afternoon of 20 November 2024 in the same venue of the GREPECAS/22 meeting.

1.3 GREPECAS/22 discussed matters related to South Atlantic safety, for instance, Cyclone monitoring and activities of the GREPECAS Scrutiny Working Group (GTE). The complete information, documents and papers of GREPECAS/22 are available in the link below. The preliminary report will be published by the third week of December.

<https://www.icao.int/NACC/Pages/meetings-2024-grp22.aspx>

2. DISCUSSION

Western South Atlantic Tropical Cyclone Advisory Centre (TCAC)

2.1 Brazil expressed interest to establish a Tropical Cyclone Advisory Centre (TCAC) in the coverage area of the western South Atlantic to be defined in the requirement, to support international air navigation as part of the CAR/SAM Regional Air Navigation Plan (Doc 9750).

2.2 Brazil reminded the meeting that WMO initiated a study of the need to establish a TCAC for the Western South Atlantic due to the occurrence of Hurricane Katarina in 2004. However, Brazil highlighted in its note that no other hurricanes have developed subsequently, but deep extratropical cyclones have developed, prior to a hurricane.

2.3 The Meeting agreed that international collaboration in cyclone monitoring and reporting is very important as it is crucial to mitigate the impacts of these severe events and minimize their effects on operations and safety.

2.4 Brazil informed the Meeting that, in the State, there are several agencies that collaborate in meteorological monitoring. In addition, there are institutions dedicated to the scientific research of meteorological events, as well as to the development of software and technologies for the monitoring of meteorological systems and their prediction.

2.5 Brazil reported that the implementation of the TCAC will be a shared task among all these agencies and institutions, but it is clarified that the Integrated Centre for Aeronautical Meteorology (CIMAER) would be responsible for the TCAC, in this proposal.

2.6 GREPECAS/22 has considered that a Tropical Cyclone Advisory Center (TCAC) is a meteorological center that must be designated under a regional air navigation agreement.

2.7 The Secretariat clarified that GREPECAS can provide the agreement, however, the establishment must be under technical and administrative evaluations that must be conducted by ICAO Headquarters and other multilateral organizations.

2.8 The Secretariat also recalled that the implementation of the Tropical Cyclone Advisory Centre, once the processes are completed, implies the amendment of Vol. I of the CAR/SAM Regional Air Navigation Plan.

2.9 The Meeting has drafted Decision GREPECAS/22/XX, as shown in **Appendix A**.

GREPECAS Scrutiny Working Group (GTE)

2.10 The Secretariat provided a detailed overview of the activities carried out by the GREPECAS Scrutiny Working Group (GTE) during 2023 and the first semester of 2024.

2.11 The result of the CAR/SAM Regions' Collision Risk Model (CRM) assessment for 2023 was 2.371×10^{-9} , indicating the risk remained within the acceptable safety level of 5×10^{-9} fatal accidents per flight or loss of the standard vertical separation of 1,000 ft.

2.12 Regarding large height deviations (LHDs) in 2023, 624 valid events were included in the CRM study. As in previous years, LHDs with Code "E" (error/failure/no coordination between ATC units) were the most frequent, with 561 events, followed by Code "L" (non-RVSM approved aircraft), with 94 events.

2.13 As part of the agreements from GTE/24 Meeting (Mexico City, 5-9 August 2024), CARSAMMA, with the Secretariat, will organize a seminar for the CAR/SAM States to train Contact Points on the actions necessary for reporting approvals of Performance-Based Communications and Surveillance (PBCS).

2.14 The GTE/24 acknowledged the good work of coordination and harmonization of procedures being carried out by CARSAMMA and the North American Approvals Registry and Monitoring Organization (NAARMO), which has led to an improvement in data exchange and in the performance analysis of the CAR Region's RVSM airspace.

2.15 The effectiveness of monitoring RVSM airspace depends on the quality and quantity of the data received by CARSAMMA. States must collaborate proactively to ensure that the data provided is accurate and complete, enabling proper risk assessment and timely corrective actions. The analysis conducted shows that certain events, particularly those related to lack of or erroneous coordination between FIRs and the operation in the RVSM airspace by non-approved aircraft, pose a significant safety risk.

2.16 Cooperation among States and active participation in data updating and validation are essential to maintaining a high level of safety in RVSM airspace. Implementing seminars and training, as proposed during the GTE 24 meeting, will facilitate a deeper understanding of the processes and contribute to the continuous improvement of the system. Updating the RVSM aircraft capability database and implementing GTE recommendations are necessary to ensure that all aircraft operating in RVSM airspace are authorized and that the vertical collision risk remains acceptable.

2.17 From this discussion, the Conclusion GREPECAS/22/NN was drafted, as shown in Appendix B.

3 ACTION BY THE MEETING

3.1 The SAT SG is invited to

- a) note the information provided; and
- b) provide further guidance, as necessary.

Appendix A

DRAFT DECISION GREPECAS/22/XX		Regional agreement for the implementation of a Tropical Cyclone Advisory Centre (TCAC)	
What: The GREPECAS/22 MEETING decides to support the regional air navigation agreement for the establishment of a TCAC for the South Atlantic; a) Communicate to the Air Navigation Commission the decision to support the establishment of the TCAC; b) To instruct the Secretariat to coordinate administrative and technical arrangements, with Headquarters and other multilateral organizations, for the implementation of the TCAC for the South Atlantic; c) To entrust the State of Brazil with the implementation of the TCAC once the technical processes with the Headquarters and the multilateral organizations involved have been completed; and d) To instruct the Secretariat to manage the amendment to Vol. I of the CAR/SAM Regional Air Navigation Plan, once the process of establishing the TCAC has been completed.		Expected impact: <input type="checkbox"/> Political / Global <input checked="" type="checkbox"/> Inter-regional <input type="checkbox"/> Economic <input type="checkbox"/> Environmental <input checked="" type="checkbox"/> Operational/Technical	
Why: Due to tropical and extratropical cyclone events that have occurred in the South Atlantic whose area is not under the coverage of any of the currently existing TCACs			
When: By GREPECAS/23		Status: <input checked="" type="checkbox"/> Valid / <input type="checkbox"/> Superseded / <input type="checkbox"/> Completed	
Who: <input type="checkbox"/> State: Brazil <input checked="" type="checkbox"/> ICAO <input checked="" type="checkbox"/> Other:		ANC, HQ and WMO	

Appendix B

DRAFT CONCLUSION	
GREPECAS/22/NN ENHANCE CAR/SAM RVSM AIRSPACE SAFETY	
<p>What:</p> <p>That, to promote actions that allow maintaining operational safety in RVSM airspace,</p> <ul style="list-style-type: none"> a) States of FIRs that reported in 2023 a TLS above the acceptable level to work with their respective ICAO Regional Office to develop an action plan to mitigate the main occurrences identified in this period; b) take necessary measures to ensure that LHDs, in particular Categories A, B, C, D, E, H, J and K, as applicable, are reported in timely manner; and c) the ICAO NACC and SAM Regional Offices reiterate to States the importance of keeping the regional monitoring agencies' database on RVSM approvals up to date and report progress to GREPECAS/23. 	<p>Expected impact:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Political / Global <input checked="" type="checkbox"/> Inter-regional <input type="checkbox"/> Economic <input type="checkbox"/> Environmental <input checked="" type="checkbox"/> Operational/Technical
Why: To ensure target level of safety is achieved in CAR/SAM Regions RVSM airspace	
When: Report by GREPECAS/23	Status: <input checked="" type="checkbox"/> Valid / <input type="checkbox"/> Superseded / <input type="checkbox"/> Completed
Who: <input checked="" type="checkbox"/> States <input checked="" type="checkbox"/> ICAO <input type="checkbox"/> Other:	
