



**Fifth GREPECAS–RASG-PA Joint Meeting (GREPECAS-RASG-PA/5) and
 Twenty-Third Meeting of the CAR/SAM Regional Planning and Implementation Group
 (GREPECAS/23)**

Virtual Phase (Asynchronous, 19 January to 17 February 2026)
 In-Person Phase (Mexico City, Mexico, 4 to 6 March 2026)

Agenda Item 5: Assembly 42nd Results; Matters Concerning Air Navigation Initiatives

SPACE TRANSPORT OPERATIONS

(Presented by Secretariat)

EXECUTIVE SUMMARY

The rapid expansion of commercial and governmental space transportation activities is increasingly affecting civil aviation operations across the NAM, CAR and SAM Regions. Launches, re-entries and associated hazard areas routinely impact multiple FIRs, resulting in airspace closures, route restrictions and traffic flow disruptions. While ICAO has initiated global work on the integration of space operations into the air navigation system, there is currently no structured regional framework to manage these impacts in a coordinated, predictable and performance-based manner. This paper proposes a regional approach under GREPECAS to strengthen Space-ATM coordination, enhance situational awareness, and protect airspace capacity while maintaining safety.

Action:	Action suggested is exposed in section 7.
<i>Strategic Objectives 2026-2050:</i>	<ul style="list-style-type: none"> • Every flight is safe and secure • Aviation is environmentally sustainable • Aviation delivers seamless, accessible, and reliable mobility for all • No country left behind • The International Civil Aviation Convention and Other Treaties, Laws and Regulations Address All Challenges • The Economic Development of Air Transport Assures the Delivery of Economic Prosperity and Societal Well-Being for All
<i>References:</i>	<ul style="list-style-type: none"> • Fourteenth Air Navigation Conference (AN Conf - 14) outcomes • ICAO Space Operations work programme •

1. Introduction

1.1 Space transportation activities, including orbital and sub-orbital launches and vehicle re-entries, have expanded significantly in recent years and are expected to continue increasing as commercial

spaceflight matures. These activities require the establishment of airspace hazard areas that can affect civil aviation operations over large geographic regions and across multiple FIRs.

1.2 The AN Conf/14 Recommendation 3.1/6 – Addressing the safe integration of space transport operations into the airspace system, highlighted that ICAO works with Member States and international organizations to identify, compile and publish best practices, as necessary, related to the safe and efficient air navigation of aircraft around space transport operations.

1.3 In the NAM, CAR and SAM Regions, space operations originating primarily from North America and French Guiana routinely affect oceanic and continental airspace, generating reroutes, capacity reductions and increased coordination demand for ANSPs, airlines and ATFM units.

1.4 While ICAO is developing global policy and guidance for space-aviation integration, there is a need for GREPECAS to translate this guidance into practical regional coordination and operational mechanisms.

2. Regional Operational Context

2.1 Space transportation activities impacting the region include orbital launches, sub-orbital flights and vehicle re-entries associated with both governmental and commercial space operators.

2.2 These activities frequently require large, time-critical hazard areas that cross multiple FIRs in the Caribbean and South America, including FIRs with limited automation and ATFM capability.

2.3 Current coordination relies largely on NOTAMs and ad-hoc arrangements, which do not provide sufficient predictability, situational awareness or integration with regional traffic flow management.

3. Safety and Efficiency Impacts

3.1 The increasing frequency and complexity of space operations has led to:

- Unpredictable airspace closures and route restrictions;
- Increased ATFM complexity and workload;
- Reduced airspace capacity and airline network disruption; and
- Elevated operational risk in highly constrained airspace.

3.2 Without a structured regional framework, these impacts are expected to intensify as launch and re-entry activity continues to grow.

4. Alignment with ICAO Frameworks

4.1 ICAO has recognized the need to integrate space operations into the global air navigation system through policy, governance and operational guidance.

4.2 AN Conf-14 emphasized the importance of regional implementation through PIRGs, including the development of coordination, information exchange and traffic management mechanisms.

4.3 GREPECAS provides the appropriate platform to operationalize these global objectives in the NAM, CAR and SAM Regions.

4.4 Note that, during the CIIFRA (CANSO–IATA–ICAO Free Route Airspace) / AMCB (Airspace Management and Capacity Balancing) meeting held in September 2025 in Mexico City, ad hoc sub-groups were established. One of the key ad hoc groups created was the **Space Operations Sub-Task Ad Hoc Group**, composed by representatives from CANSO, IATA, ICAO, and Member States of the region.

4.5 As an initial deliverable, this ad hoc group agreed to conduct a “*Space Operations 101*” workshop in November 2026. The objective of this forum is to introduce foundational concepts related to space operations, raise regional awareness of operational impacts on air traffic management, identify baseline educational and training needs, and promote the development of a common terminology and understanding across the region.

4.6 The outcomes and progress of this ad hoc subgroup will be reported to GREPECAS/24, and regular updates will be provided to the AMCB Task Force and the NACC Working Group, including any identified gaps, challenges, or emerging issues arising from this work.

5. Proposed Regional Approach

5.1 It is proposed that GREPECAS adopt a phased regional approach including:

- a) Space-ATM Coordination – establishing mechanisms for timely, standardized information exchange between space operators, States, ANSPs and ATFM units. It should start with high priority with the preparation of a list of States – ANSP- Industry Focal Points;
- b) Operational Integration – integrating space operations into ATFM, contingency planning and flow management processes;
- c) Capacity Protection – minimizing unnecessary airspace closures through dynamic hazard area management; and
- d) Regional Exercises – validating coordination concepts through workshops and operational demonstrations, including the ICAO Space Operations Logistics Dialogue Workshop planned for 2026.

6. Way Forward

6.1 The Secretariat, in coordination with ICAO Headquarters, States, ANSPs and industry partners, will continue developing a regional framework for the safe and efficient integration of space transportation operations, aligned with ICAO global guidance and regional operational needs.

6.2 Consequently, a drafted Decision is presented to the GREPECAS23, as follows:

DECISION GREPECAS/XX XX		Activities for the development of a regional framework on space transport
What: That the CAR SAM States, working with NAM Region, assisted by the Secretariat, to develop a regional framework on space transport based on phased studies and practical activities, and in coordination with RASG-PA including at least the following subjects: <ul style="list-style-type: none"> a) Space-ATM Coordination, giving priority to the preparation of a Focal Points list (States-ANSPs-Industry); b) Operational Integration; c) Protection of ATM Capacity; and d) Regional Exercises 		Expected impact: <ul style="list-style-type: none"> <input checked="" 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 a) establish mechanisms for the timely and standardized exchange of information between space operators, States, ANSPs and ATFM units; (b) integrate space operations into ATFM, contingency planning and flow management processes; (c) minimising unnecessary airspace closures through dynamic management of hazardous areas; and (d) validate coordination concepts through workshops and operational demonstrations, including the ICAO Space Operations Logistics Dialogue Workshop scheduled for 2026.		
When: GREPECAS /24		Status: <input checked="" type="checkbox"/> Valid / <input type="checkbox"/> Superseded / <input type="checkbox"/> Completed
Who: <input checked="" type="checkbox"/> States <input type="checkbox"/> ICAO <input checked="" type="checkbox"/> Other: Industry, ANSP, Organizations		ICAO HQ, NACC SAM, RASGPA

7. Suggested actions

7.1 The meeting is invited to:

- a) Note the increasing impact of space transportation activities on civil aviation in the NAM, CAR and SAM Regions.
- b) Approve the presented Decision, to endorse the development of a GREPECAS regional framework for Space-ATM integration; and
- c) Support continued coordination with ICAO Headquarters and relevant stakeholders.
