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Tenth Eastern Caribbean Civil Aviation Technical Group (E/CAR/CATG/10) Meeting
Fort-de-France, Martinique, 15 to 17 July 2026

Agenda Item 4: Follow-up of the activities of the E/CAR/CATG
4.3 Progress report of the Air Traffic Management (ATM) Committee

San Juan Combined Control Facility Airspace Safety and Efficiency Initiatives

(Presented by United States)

EXECUTIVE SUMMARY	
San Juan Combined Control Facility brief on initiatives to enhance safety and improve efficiency with foreign ANSPs.	
<i>Strategic Objectives 2026–2050:</i>	• Every flight is safe and secure • Aviation is environmentally sustainable • Aviation delivers seamless, accessible, and reliable mobility for all • No country left behind
<i>References:</i>	• TAPA/TTZP/TJZS/TNCM Quadrilateral

1. Introduction

1.1 San Juan Combined Control Facility (TJZS) is continuously working on the development and implementation of initiatives to enhance safety and improve internal and cross-border challenges associated with outdated bilateral agreements, technological challenges, and emerging technologies. TJZS is eager to collaborate with adjacent ANSPs to improve safety and efficiency in the Eastern Caribbean.

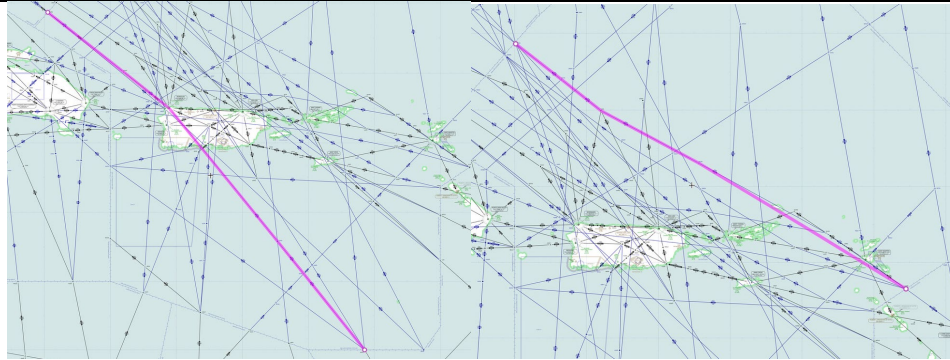
2. Quadrilateral MOU amongst TAPA (V.C. Bird International Airport), TTZP (Piarco Area Control Center (ACC)), TJZS, and TNCM (Princess Juliana International Airport)

2.1 The parties to this Quadrilateral MOU have expressed an interest in reopening the MOU dated May 4, 2015. TJZS is open to exploring all safety and efficiency enhancements in the area covered by this MOU, is making any associated revisions deemed appropriate by all parties and will discuss (with all concerned ANSPs) the benefits of converting the MOU into a Letter of Agreement.

3. Contingency Routes for KZMA (Miami ACC) /TJZS/TTZP

3.1 TJZS and the Systems Operations Directorate Officer for Contingency Planning have identified a need to enhance contingency planning to ensure airspace continuity if TJZS loses its ability to provide ATC services. Recent changes to FAA policy also provide an opportunity to share additional operational information with foreign Flight Information Regions (FIRs), enhancing coordination and supporting more effective contingency planning. In collaboration with TTZP, the following routes were developed and agreed upon in May 2024. Since 2026, TJZS has established a Traffic Management Unit (TMU), which has further strengthened contingency planning efforts and is actively working with partner facilities to develop and incorporate additional contingency routes. Miami, San Juan, and Piarco needs to complete Safety Risk Management requirements and any other requirements identified by TTZP before implementing the following routes.

Non-Radar Contingency Routes			
SE Flow	NW Flow	SE Flow	NW Flow
HARBG.L452.ANADA @ FL330	ANADA.L452.HARBG @ FL320	FIPEK.Y355.ELOPO @FL310	ELOPO.Y355.FIPEK@ FL340



4. TJZS and TTZP Automated Interface

4.1 Integrating automatic handoffs via Automated Data Exchange (ADE) is an ongoing project at both TJZS and TTZP. TJZS and TTZP have tested and simulated data exchanges between our systems, and we have proven that these exchanges are feasible and would be beneficial. TTZP is currently waiting on its vendor to expedite development by concentrating on Cleared Flight Plan (CPL)/Logical Acknowledgment (LAM)/Logical Rejection (LRM) and Modification (MOD) messages, which would allow both facilities to enable automated handoffs. Once complete, this effort will advance safety and efficiency while also reducing the workload for air traffic controllers.

5. Space Operations Affecting TJZS and Stakeholders

5.1 Recent commercial space launch operations have created airspace challenges within the TJZS Flight Information Region (FIR) that extend to neighboring Air Navigation Service Providers (ANSPs). As launch trajectories continue to evolve and Debris Recovery Areas (DRAs) shift, close collaboration among affected ANSPs has become increasingly important to support coordinated traffic management strategies and ensure the safe and efficient movement of air traffic. Over the past year, TJZS has worked

closely with the Air Traffic Organization's Space Operations Group and regional partners to improve communication, planning, and operational coordination. These collaborative efforts have resulted in significant improvements in traffic management initiatives and mitigation strategies, reducing the operational impacts of launch-related hazard areas while maintaining the safety and efficiency of the National Airspace System.

6. TNCM & TJZS Airspace and Technology Enhancement Proposals

6.1 Automation and Coordination Enhancements - TJZS and TNCM continue to explore automated capabilities. TNCM was upgraded to the Thales TopSky system and now has the same capabilities as those in the Dominican Republic and Jamaica, which could facilitate the successful development of Automated Interfacility Data Communications (AIDC) and other automated coordination solutions.

6.2 TJZS and TNCM recognize that current level of traffic in the northeastern Caribbean warrant continued efforts to pursue automation. The absence of automated coordination necessitates extensive manual processes, increasing controller workload and reducing operational efficiency. Given the substantial volume of commercial and corporate traffic operating within the area, both facilities agree that the long-term benefits of automation would justify the effort required to develop and implement the necessary procedures and system enhancements.

6.3 Recent discussions between TJZS and Juliana Approach Control reaffirmed that current manual coordination processes are inefficient and require simplification. Both facilities identified recurring delays associated with telephone coordination and agreed that automation should remain a priority. The current Letter of Agreement between the facilities will be re-evaluated over the next few months with the goal of implementing any changes before our busiest traffic season.

6.4 Both facilities have committed to working collaboratively to explore automated solutions that would improve operational efficiency and reduce coordination workload.

6.5 TNCM Remote Communications Air/Ground (RCAG) Facility - TJZS, in collaboration with the Government of Saint Maarten, is pursuing the construction and installation of a Remote Communications Air/Ground (RCAG) facility on Saint Maarten. The proposed RCAG will significantly enhance radio coverage and communication reliability in the easternmost portion of TJZS airspace, improving both routine operations and contingency capabilities.

6.6 The FAA signed a contract with a construction company and work began on 21 June 2026. Once construction activities are complete, technicians will do commissioning services after installation and system tests are finished. Upon implementation, the RCAG will strengthen communications infrastructure in a critical operational area and support future airspace modernization initiatives.

7. OTHER ANSPS PROPOSED ENHANCEMENTS

7.1 TJZS, TQPF (Clayton J. Lloyd International Airport), and TNCM collaborated to improve the Letter of Agreement, expanding coordination to all boundary fixes, resulting in improved traffic flow, increased airspace capacity, and more efficient routing for airspace users. This initiative reduced

operational bottlenecks, enhanced weather avoidance options, and generated measurable benefits in fuel efficiency, flight time, and controller flexibility.

7.2 The FAA is currently executing the Radar System Replacement (RSR) Program within TJZS, modernizing the radar processing equipment at the San Juan (SJU), St. Thomas (STT), Pico del Este (QJQ), and Borinquen (BQN) radar sites. Current implementation schedules project upgrades at SJU in August 2026, at STT in November 2026, at QJQ in January 2028, and at BQN in April 2028. The modernization effort focuses on replacing the radar processing cabinets and associated electronics while retaining the existing radar antennas and infrastructure. As a result, radar coverage, airspace procedures, and separation standards are expected to remain unchanged. While significant coverage increases are not anticipated, the upgraded systems are expected to improve long-term reliability, maintainability, and system resiliency, reducing the likelihood of equipment failures and enhancing recovery capabilities during maintenance or outage events. The program will also provide a modernized platform that can be further optimized over time to maximize surveillance performance and support future National Airspace System (NAS) modernization initiatives. At this time, no ADS-B antenna installations have been identified as part of the RSR program; however, the San Juan FIR currently utilizes three ADS-B sites that continue to support surveillance operations throughout the region.

7.3 As part of ongoing communications modernization efforts within the Caribbean region, the current MEVA (Mejoras al Enlace de Voz del ATS) network is planned to transition to the Caribbean Air Navigation Services Network (CANSNET) during the first quarter of 2027. CANSNET will replace the existing voice communications architecture with a modern Internet Protocol (IP)-based network provisioned by Frequentis, providing a more resilient, robust, and scalable communications platform for participating Air Navigation Service Providers. The new network will incorporate increased bandwidth and greater route diversity, significantly enhance reliability, and reduce the risk of service interruptions. For San Juan Combined Control Facility. The transition will provide both terrestrial and satellite connectivity, with the terrestrial connection serving as the primary path and the satellite connection providing redundancy. This represents a substantial improvement over the current MEVA configuration, which relies on a single satellite connection and is vulnerable to a complete loss of MEVA services if that connection fails. In addition to improving operational resilience, CANSNET will support future growth, facilitate the integration of new services, and align with the FAA's broader initiative to modernize communications infrastructure through IP-based technologies. Frequentis is currently coordinating requirements with MEVA participants and telecommunications providers, with implementation planning actively underway as the FAA works toward establishing final deployment dates.

7.4 The integration of automatic handoffs via Automated Data Exchange (ADE) between TJZS and TTZP is an active joint initiative aimed at improving interfacility coordination and operational efficiency. Successful testing and simulation of data exchanges have already demonstrated technical feasibility and clear benefits, particularly in reducing controller workload and enhancing safety and traffic flow. TTZP is currently coordinating with its vendor to expedite development of key message sets, including CPL, LAM, LRM, and MOD, which are required to enable full automation of handoffs. Both facilities are now in the final coordination phase, with formal documentation being signed and operational testing expected to begin within the next two months, supporting a timely transition toward implementation.