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

INFORMATION PAPER

GTE/26 — IP/09
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Twenty-Sixth Scrutiny Working Group Meeting (GTE/26)
of the CAR/SAM Regional Planning and Implementation Group (GREPECAS)
Mexico City, Mexico, 12 to 16 October 2026

Agenda Item 3: Review of the Results of the Analysis of Large Height Deviations (LHDs) and of the Collision Risk Model (CRM)

Item 3.5 LHD Event Management and Progress for LHD Reduction by CAR/SAM States

REPORT ON LHD MITIGATION WITHIN THE GEORGETOWN FIR FROM 2024 TO DATE

(Presented by Guyana)

EXECUTIVE SUMMARY

Guyana has provided Area Control – Surveillance (ACS) services within the Georgetown Flight Information Region (SYGC FIR) using ground-based ADS-B since 2015, while coordination with adjacent FIRs continues to be conducted procedurally under bilateral Letters of Agreement (LoAs). Since 2024, LHD reporting has been supported by established operating procedures, full compliance with CARSAMMA reporting requirements, and the successful closure of ICAO USOAP CMA Protocol Question ANS PQ 7.117.

To mitigate the risk of transfer-of-control errors (Code E LHDs), Georgetown ACC has pursued internal operational barriers: conducting an operational trial to transition from paper-based coordination logs to an electronic coordination web application log using a dedicated tablet, alongside the use of an automated ATM track label level-discrepancy visual alert. These technological and procedural enhancements support a steady downward trend in occurrences across the FIR.

Action by the Meeting is presented in Paragraph 4.

Strategic Objectives:	• 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
References:	• Guyana Civil Aviation Requirements for ATS 2024; • Procedures for Air Navigation Services (PANS) – Air Traffic Management (Doc 4444); • LOAs between SYGC and TTZP, SVZM, SBAZ, SMPM; • Relevant RASG-PA/GTE LHD material;

1. INTRODUCTION

1.1 Guyana has provided Area Control – Surveillance (ACS) service within the Georgetown Flight Information Region (SYGC FIR) using ADS-B since 2015. Coordination with adjacent facilities — Piarco (TTZP) FIR, Maiquetía (SVZM) FIR, Amazonica (SBAZ) FIR, and Paramaribo (SMPM) FIR — continues to be accomplished using procedural methods.

1.2 Pursuant to State obligations to CARSAMMA, Guyana has ensured the rigorous coordination and submission of monthly LHD reports, including prompt NIL reports. This coordination is supported by internal procedures for Georgetown ACC as mandated by Civil Aviation Regulations governing Air Traffic Services. Notably, Guyana was successful at closing USOAP CMA ANS PQ 7.117 regarding the collection and reporting of LHD events to CARSAMMA at the 2024 Audit.

1.3 From 2024 to date, the Georgetown FIR has experienced a total of two (2) isolated LHD occurrences (one in 2024 and one in 2025). This represents a sustained downward trend and stability below the regional Target Level of Safety (TLS), attributed to the provision of ACS using ADS-B as well as internal system enhancements as detailed in Section 2 below.

2. MEASURES TAKEN

2.1 ELECTRONIC COORDINATION LOGGING TABLET (OPERATIONAL TRIAL):

a) Georgetown ACC is currently conducting an operational trial involving a transition from traditional paper-based coordination logs to electronic logs utilizing dedicated tablets.
b) This trial aims to evaluate dynamic controller visibility over pending transfer estimates, seeking to streamline coordination workflows, minimize manual transcription errors, and reduce coordination delays.
c) Preliminary operational feedback indicates that the digital logging interface supports earlier situational awareness and dynamic tracking of coordinated parameters, aiding in the early detection of impending level and boundary conflicts *(see Figure 1)*.

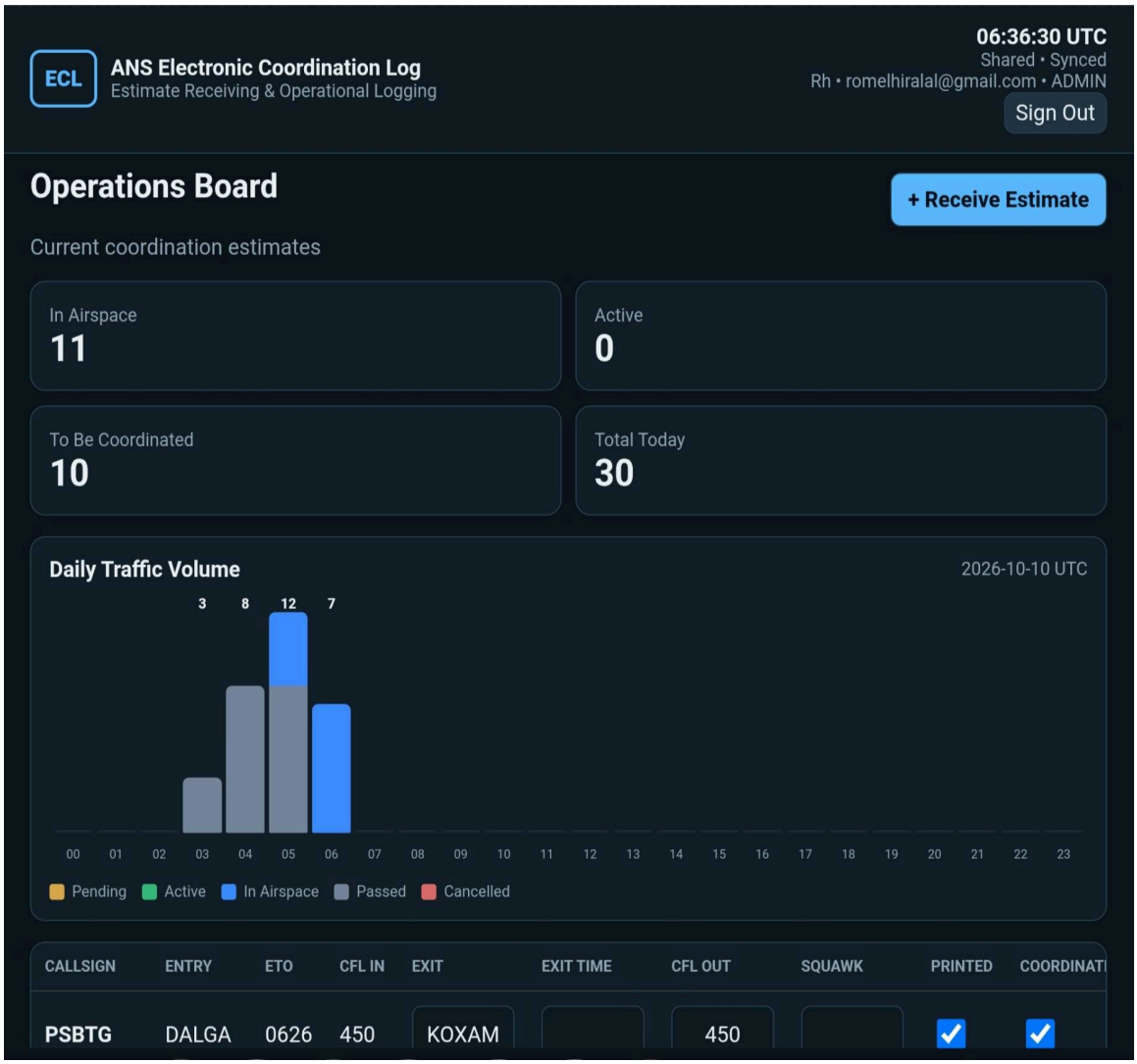


FIGURE 1- USER INTERFACE OF THE DIGITAL LOG

2.2 AUTOMATED ATM TRACK LABEL DISCREPANCY ALERTING: Building upon its Flight Data Processing and surveillance display capabilities, Georgetown ACC integrated an automated altitude verification barrier directly within Line 2 of the active surveillance label:

a) The label continuously compares the downlinked Mode C/ADS-B Actual Flight Level (AFL), the tactical Cleared Flight Level (CFL), and the agreed Coordinated Flight Level (<CF###>).
b) When all parameters align, the altitude block displays in a uniform operational colour, depending on the aircraft direction of flight: blue for westbound tracks (even levels), and yellow for eastbound tracks (odd levels).

c) Whenever a clearance is entered (e.g., CFL FL 380) that differs from the coordinated profile agreed with the receiving unit (e.g., <CF360>), or while an aircraft is transitioning between levels, the altitude line dynamically illuminates in high-conspicuity amber.

d) This visual alert notifies the controller to reconcile the profile, or update adjacent Unit coordination prior to the transfer waypoint, directly preventing Code E coordination errors from manifesting across the boundary.



FIGURE 2 – DEPICTION OF THE AUTOMATED ALTITUDE VERIFICATION BARRIER IN USE:

a. DAL226 *(extreme left)* is westbound and the system displays a position indication label that is blue. The AFL, CFL and Coordinated Flight Level are all the same and there is no colour difference for these levels.

b. SLM431 *(centre)* is eastbound and the system displays a position indication label that is amber. The AFL, CFL and Coordinated Flight Level are all the same and there is no colour difference for these levels.

c. DAL226 *(extreme right)* is westbound. The CFL differs from the AFL and Coordinated Flight Level. This discrepancy is observed via a system-generated highlight of the levels in amber.

3. CONCLUSION

3.1 The combination of the electronic coordination log application and active automated track label altitude discrepancy alerts provides Georgetown ACC with progressive, multi-layered defenses against transfer-of-control errors. These initiatives demonstrate Guyana's commitment to continuous safety enhancement and support the stable, low-risk profile of the Georgetown FIR.

4. ACTION BY THE MEETING

4.1 The GTE/26 Scrutiny Working Group is invited to:

a) Note the operational information and safety data presented in this paper;

b) Note the sustained downward trend and low-risk stability of LHD occurrences within the Georgetown FIR from 2024 to date; and

c) Acknowledge the operational trial of electronic coordination log and the automated track label discrepancy alerts as proactive safety barriers.

d) Provide guidance and feedback as may be deemed appropriate.

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