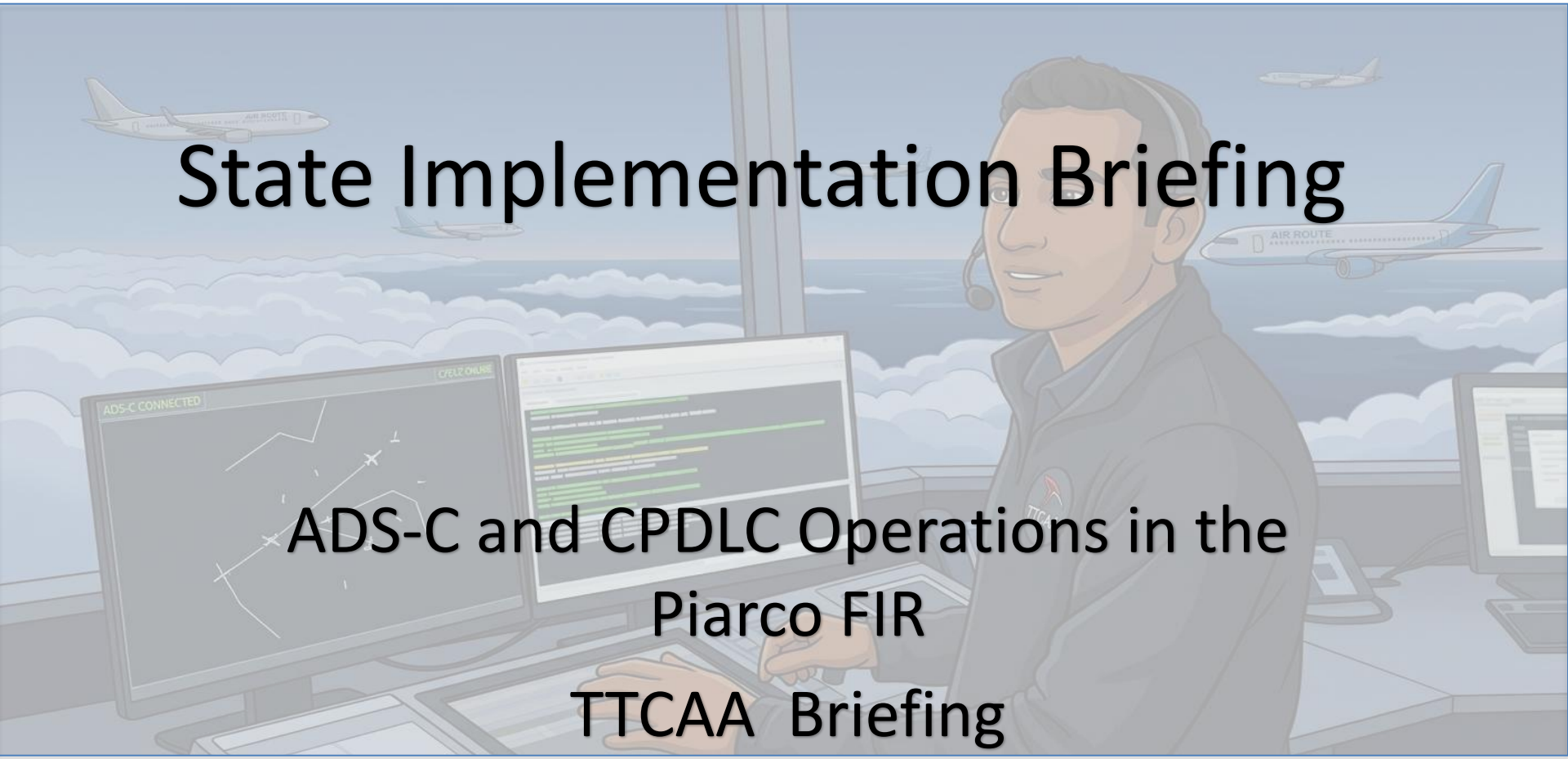
Regional Implementation of ADS-C CPDLC in the CAR Region



State Implementation Briefing

ADS-C and CPDLC Operations in the Piarco FIR

TTCAA Briefing

Presented by Riaaz Mohammed

Date: 10/11/2026

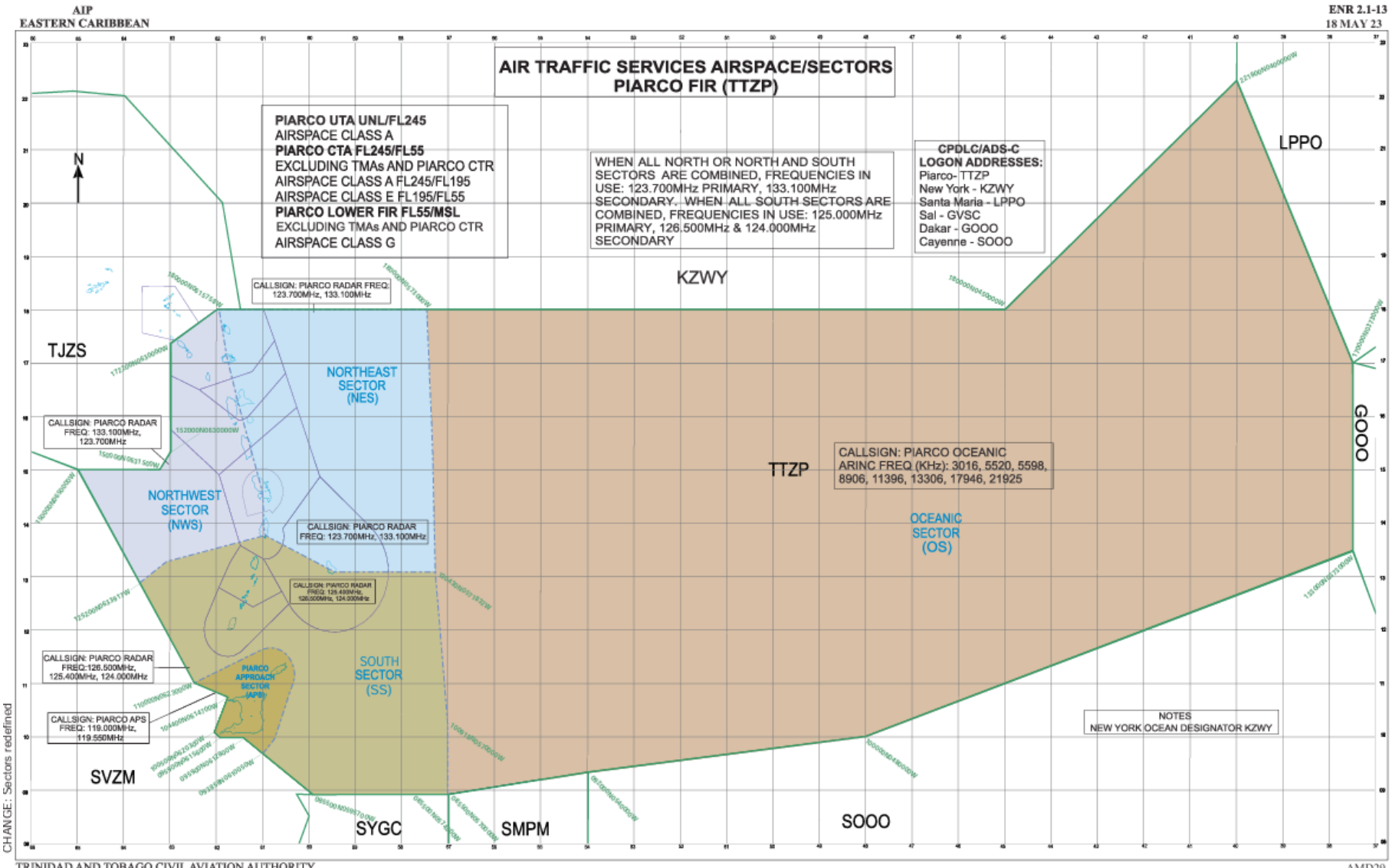
Objectives

- Describe the current ADS-C/CPDLC environment
- State milestones achieved
- Relate operational experience
- Discuss challenges
- Identify support requirements

Piarco FIR Operational Environment

- Gateway between North and South America and the Eastern Caribbean
- Central location for Oceanic Flights between Europe, Africa and South America and the Caribbean
- 24-hour ATS operations
- Oceanic operations east of 57W

Piarco FIR Overview



What We Have Implemented

- AIC 01/16 published July 2016
  - ADS-C procedures
  - CPDLC procedures
  - TTZP Data Authority
  - Contingency procedures
- Upgrades to the ATM system in 2019 solved issues with logon

Current Operational Use

- ADS-C primary position reporting east of 57W
- CPDLC primary communication in oceanic airspace
- HF as alternate
- Voice primary west of 57W
- CPDLC used as back up in the Continental Airspace

Operational Experience and Reliability

ADS-C / CPDLC Service Performance since January 2025:

- **Operational Challenges Identified**
  - **Ground Systems**
    - AGDL server resilience and failover management
    - Intermittent system stability issues
  - **Network Infrastructure**
    - Telecommunications circuit failures
    - Dependence on external connectivity providers
  - **Service Providers**
    - Reliance on ARINC and third-party networks
    - Limited local control over outage resolution
  - **Performance Monitoring**
    - Difficulty identifying root causes of transient failures
    - Need for enhanced monitoring and analytics

Key Challenges

- TECHNICAL CHALLENGES
  - Maintaining service continuity
  - Managing outage recovery
  - Monitoring system performance
- OPERATIONAL CHALLENGES
  - Limited specialist expertise
  - Training requirements
- REGULATORY CHALLENGES
  - PBCS implementation requirements
  - Performance monitoring framework
  - Validation processes

Assistance Requested from ICAO and FAA

- PBCS implementation roadmap
- RCP/RSP guidance
- Safety assessment support
- Monitoring framework
- Training and regional coordination/harmonization

The Way Forward

TTCAA Objectives

- Short-Term
  - Improve ADS-C/CPDLC reliability
  - Strengthen monitoring and reporting
  - Build technical expertise
- Medium-Term
  - Develop a national PBCS implementation strategy
  - Conduct required safety assessments
  - Establish performance monitoring capability
- Long-Term
  - Achieve PBCS operational readiness
  - Participate fully in regional performance-based communication and surveillance initiatives