

CADENA's Contingency Management Approach

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The CANSO ATFM Data Exchange Network for the Americas (CADENA) has been promoting Air Traffic Flow Management (ATFM) in the Latin America and Caribbean (LAC) region since 2016. ATFM balances the traffic demand and aerodrome/airspace capacity. Contingency situations often cause sudden reductions in capacity and disrupt the flow of air traffic. There are many types of contingency situations, each requiring different responses, either standardized or specific. CADENA has gained extensive experiences in dealing with disruptions to air traffic operations, due to the frequent challenges specific to the LAC region. To address these ATFM disruptions, CADENA has implemented several initiatives such as twice-weekly operational web conferences, ad hoc web conferences, operational information system (OIS), planned airway system alternatives (PASA), and contingency management procedures. Overall, CADENA's contingency management approach with an emphasis on information sharing and collaboration, has been very effective in the LAC region. As a result, CANSO created the CANSO Aviation Data Exchange Network for Cooperative Excellence (CADENCE) Task Force to share the knowledge and experiences of CADENA with other regions.

Key Words: Air Traffic Flow Management, Contingency Planning, Contingency Management

1. Introduction

CANSO ATFM Data Exchange Network for the Americas (CADENA) has been promoting Air Traffic Flow Management (ATFM) in the Latin America and Caribbean (LAC) region since 2016. CADENA has implemented several capabilities such as twice-weekly operational web conferences, ad hoc web conferences, an operational information system (OIS), planned airway system alternatives (PASA), and contingency procedures. CADENA has gained extensive experiences in dealing with disruptions to air traffic operations, due to the frequent challenges specific to the LAC region.

2. Contingency Event Considerations

Contingency events will inevitably happen. However, the exact location, date and time, types of contingency event, and level for impacts are unknown until it happens. The impact of contingency events often propagates adjacent Flight Information Regions (FIRs) and beyond. Thus, it is important to have a system and procedures to manage contingency events at the regional level. The system should be inclusive so that all stakeholders have the opportunity to communicate and share information. Procedures should be practical and effective. CADENA's contingency management approach takes these characteristics into consideration.

3. Contingency Management Approach

Once the contingency event is identified, the appropriate information must be gathered to share with others who are also impacted by the event. Next, CADENA has prepared fifteen "Contingency Events and

Checklists", one for each contingency event identified. Third, to share the contingency information, CADENA utilizes predetermined forms, templates, and conference procedures. For example, ANSP Contingency Form helps collect pertinent contingency event information. CADENA OIS Advisory has two types, Urgent and For Your Information (FYI). The contingency event will most likely require an Urgent Advisory. To prepare for the contingency (a.k.a. Ad Hoc) web conferences, the participating ANSPs prepare the appropriate information based on the event by filling the slide template. The contingency web conference host will guide the conference using the Host Master slide deck.

To communicate, CADENA uses commercially available methods such as Chat, Email, and Web Conference tools. In addition, CADENA OIS is developed to address the needs that could not be addressed by commercially available tools.

4. Conclusion

CADENA's contingency management approach has been very effective in the LAC region. CANSO wishes to share the information on this successful approach with other regions through the CADENCE Task Force.

References

- 1) CADENA Regional Implementation Group, *CADENA Air Traffic Flow Management and Collaborative Decision-Making Procedures Manual, version 8.0*, 30 June 2024.
- 2) CADENA Operational Information System, <https://www.cadenaais.org/index.html>