# TRINIDAD AND TOBAGO

# ACTION PLAN
# FOR
# AIDC IMPLEMENTATION

Third Meeting of the NAM/CAR Air Navigation Implementation Working Group (ANI/WG)

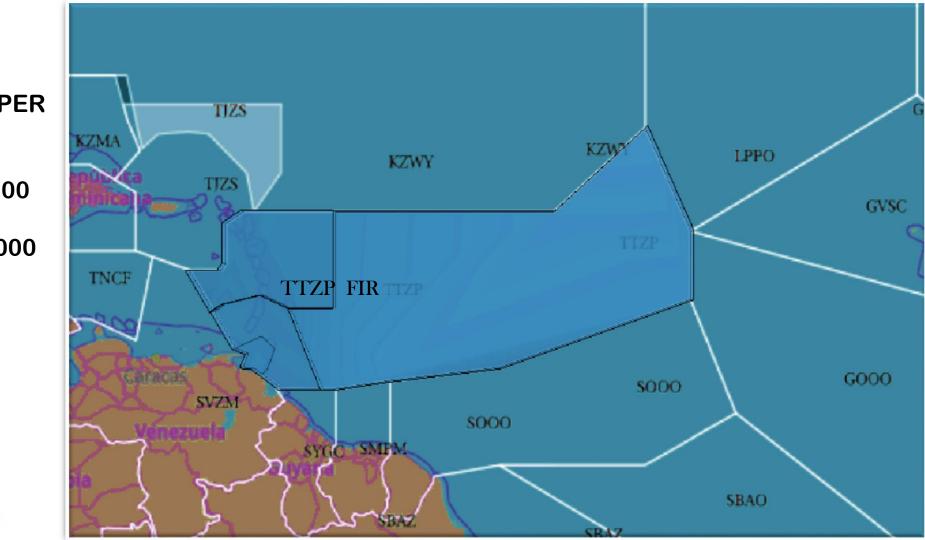Aeronautical Information Management (AIM) Implementation Task Force Meeting

(AIM/TF/3)

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# PLAN FOR AIDC IMPLEMENTATION

References:

- ICAO Asia and Pacific Office; *ATS Interfacility Data Communication (AIDC) IMPLEMENTATION AND OPERATIONS GUIDANCE DOCUMENT*, ED. 1.0-July 2017.

- ICAO Asia and Pacific Office; *Asia and Pacific Interface Control Document (ICD) for ATS INTERFACILITY DATA COMMUNICATIONS (AIDC), Version 3.0 –September 2007.*

- *North American (NAM) Common Coordination Interface Control Document Area Control Centre (ACC) to ACC,* Revision E – 15 April, 2016.

- ICAO DOC 4444; *Procedures for ANS Air Traffic Management*, 16th Ed.- 2016.

# PLAN FOR AIDC IMPLEMENTATION

**COORDINATIONS PER YEAR:**

**KZWY-TTZP    23 000**

**TJZS – TTZP    40 000**

# PLAN FOR AIDC IMPLEMENTATION

## Pre-Implementation Checklist

| | |
|---|---|
| ➢ AIDC Version | APAC |
| ➢ Available Communication Network | AFTN/AMHS |
| ➢ List of AIDC Messages applicable | Off-line testing ongoing on full set of messages |
| ➢ AIDC Parameters of ATM System configured | Off-line testing ongoing |
| ➢ ATM System and Sub-system are time synchronized | GPS clock updates the system/sub-system via an Network Time Protocol (NTP) server |

# PLAN FOR AIDC IMPLEMENTATION

## Pre-Implementation Checklist

➢ Comprehensive test with AIDC Adjacent ATSU regarding test document

Discussion ongoing with adjacent ATSU on messages to be exchanged and test flights.

➢ Ensure COP is consistent between the two ATSUs

All COPs along common boundary recently updated

➢ Procedures to revert to voice communication where deviations occur

To be discussed

➢ Contingency procedures for AIDC failures have been published in LOAs

To be discussed and developed by both ATSU

# PLAN FOR AIDC IMPLEMENTATION

## Pre-Implementation Checklist

➢ Training of Operational and Technical Personnel

Preliminary training with CNS, Planning and ATC ongoing

➢ Communication network performance latency is monitored and recorded

The network carries surveillance data and it is accepted that the latency will be minimal.

➢ Standard Operating Procedures for AIDC are published and form part of the LOAs

To be discussed and developed

➢ Safety assessment for AIDC is carried out and documented

Information if being collected during the setup and the information pool will grow as the project develops

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# PLAN FOR AIDC IMPLEMENTATION

Lesson Learnt about AIDC implementation:

- There must be management support of AIDC implementation
- It is important to have a multi-faceted team dedicated to the project
- The implementation takes time for configuration and testing to be successful
- Connectivity between ATM systems must be tested in different load conditions
- It is important to have an agreed test plan with a wide variety of flight plans
- Message set and message fields must be agreed and tested
- Extensive pre-operational tests are important prior to ATM to ATM testing
- A comprehensive project plan should be developed and followed
- Cyber Security has to be considered

# PLAN FOR AIDC IMPLEMENTATION

Challenges being faced during AIDC Implementation

- There is little experience in AIDC in the state
- Flight plan errors have been reduced but there are still a large number
- There are airports within 20 minutes flying time of KZWY and TJZS boundary
- ATM vendor provided APAC in baseline, NAM ICD will have to be added
- Flight Data Processor database needs to be kept updated
- AIDC requires a number of internal and external players to work collectively on implementation
- Availability of human resources for surveillance and automation implementation

# PLAN FOR AIDC IMPLEMENTATION

Framework for next Implementation

- To be developed in medium to long term

# PLAN FOR AIDC IMPLEMENTATION

Benefits Identified with an AIDC implementation:

- Increased safety:
  - Reduction in LHD
  - More precise flight coordination
  - Greater controller availability for surveillance

- Efficiency in ATC operations

# PLAN FOR AIDC IMPLEMENTATION

Next step: Checklist for AIDC implementation

## Automated Data Exchange

**Appendix B**
**Implementation Checklist**

| Activity # | Activity/Task Description | Assigned | Due Date | Complete | Comments |
|---|---|---|---|---|---|
| 1.0 | General Implementation Survey | | | | |
| 1.x | Construct overview briefing | | | | |
| 1.x | Identify operational impacts / changes | | | | |
| 1.xx | Identify facility(ies) areas/ sectors involved | | | | |
| 1.x | Identify known issues | | | | |
| 1.xx | Duplicate/error flight plans | | | | |
| 1.x | Construct requirements matrix | | | | |
| 1.x | Construct fallback /recovery plan | | | | |
| 1.x | Interfacing facility impacts | | | | |
| 1.x | Plan recurring meetings with cross-border partners | | | | |
| 1.x | Plan action item tracking list | | | | |
| 1.x | Identify system metrics | | | | |
| 1.x | Define project milestones | | | | |
| 1.x | Identify key personnel for site implementation. ATC, labour, automation, data specialists | | | | |
| 1.x | Identify existing /required telecommunications | | | | |
| 1.x | Identify limitations/impacts of other projects or installations | | | | |
| 1.x | Coordinate project/facility / inter facility contacts | | | | |
| 1.x | Review/coordinate site unique implementation documents | | | | |
| 1.x | Schedule/timeline/coordination | | | | |
| 1.x | Review LOAs existing/changes | | | | |
| 1.x | Formulate traffic scenarios that duplicate existing traffic flows and walkthrough how automaton should handle the situations | | | | |
| 1.x | Develop a procedure to capture/document problems or lessons learned — Non-operations/automation — Operations | | | | |

## Implementation Checklist

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| 1.x | Construct requirements matrix | | | | |
| 1.x | Construct fallback /recovery plan | | | | |
| 1.x | Interfacing facility impacts | | | | |
| 1.x | Plan recurring meetings with cross-border partners | | | | |
| 1.x | Plan action item tracking list | | | | |
| 1.x | Identify system metrics | | | | |
| 1.x | Define project milestones | | | | |

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# Comments or Questions?