



# AIDC Task Force and Dominican Republic AIDC Implementation Progress

NAM/CAR/SAM Air Traffic Services (ATS) Data Link Implementation Workshop  
Philipsburg, Sint Maarten, 18 to 21 April 2016



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AIDC Task Force Rapporteur

# Outline

## → AIDC Task Force

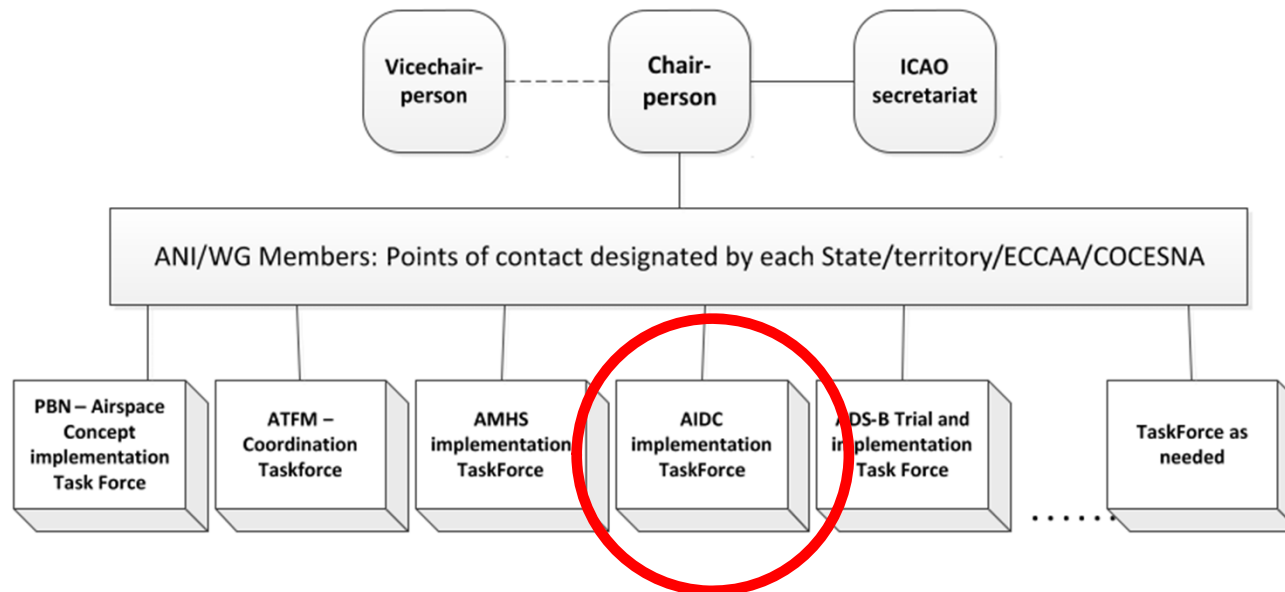
- ANI/WG AIDC TF background and ToRs
- Activities of the AIDC TF/AIDC analysis
- Activities of the AIDC TF/FPL Monitoring Group
- AIDC Go Team concept
- AIDC monitoring and progress evaluation

## → AIDC in the Dominican Republic

- Need for AIDC
- Implementation Status
- Go Team mission in Dominican Republic
- Latest accomplishments
- Lessons learned

# Background and Terms of Reference

- \* Formed during the first ANI/WG meeting in July, 2013.



# Background and Terms of Reference

## ***Objectives***

- \* Streamline related air navigation implementation activities.
- \* Complete AIDC implementation in accordance with the Regional AIDC Implementation Plan
- \* Update and report progress to the ANI/WG based on the action plan for these tasks.

# Background and Terms of Reference

## Membership

Member Name	State/Territory/Organization	Email
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# Activities and Deliverables

- \* 14 Teleconferences.
- \* 3 Face to Face Meetings.
- \* Regional Plan
- \* Comparison of ICDs
- \* Agreement for the use of NAM as regional ICD
- \* Implementation checklist
- \* Formation of FPL Monitoring Group
- \* Example LoAs for AIDC to include in operational LoAs
- \* Evaluation of interface implementations

# FPL Monitoring Group

- \* Ad hoc group
- \* To report on problems and follow up on their solution in the matter of duplicate and erroneous FPLs.
- \* 15 Teleconferences, 2 meetings
- \* 3 phases of data collection completed
- \* 2 phases of data collection scheduled
- \* Action plans for mitigation
- \* Guidelines and best practices
- \* Data collection analysis and statistics

# FPL Monitoring Group - Membership by FIR

Member Name	FIR	Email
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<b>Jose Gil Jimenez (main)</b> <b>Margarita Rangel (support)</b> <b>Oscar Vargas (support)</b>	Mexico	<a href="mailto:jjiljim@sct.gob.mx">jjiljim@sct.gob.mx</a> <a href="mailto:mrangel@sct.gob.mx">mrangel@sct.gob.mx</a> <a href="mailto:ovargasa@sct.gob.mx">ovargasa@sct.gob.mx</a>
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# FPL Monitoring Group

## First Phase of Data Collection

- \* From July 21 to August 18, 2014
- \* Most frequent errors:
  - \* Duplicate, Missing or Similar
  - \* Inconsistent ATS Route, SID or STAR Designator
  - \* Other
- \* Result: Recommended mitigation actions document

# FPL Monitoring Group

## Second Phase of Data Collection

- \* From March 16 to April 10, 2015
- \* Most frequent errors:
  - \* Duplicate Flight Plan
  - \* Inconsistent SID or STAR Designator
  - \* FPL does not belong to FIR/State
- \* No significant reduction in error
- \* Result: Change of strategy, focus on one error at a time
- \* Mitigation actions with airlines via IATA

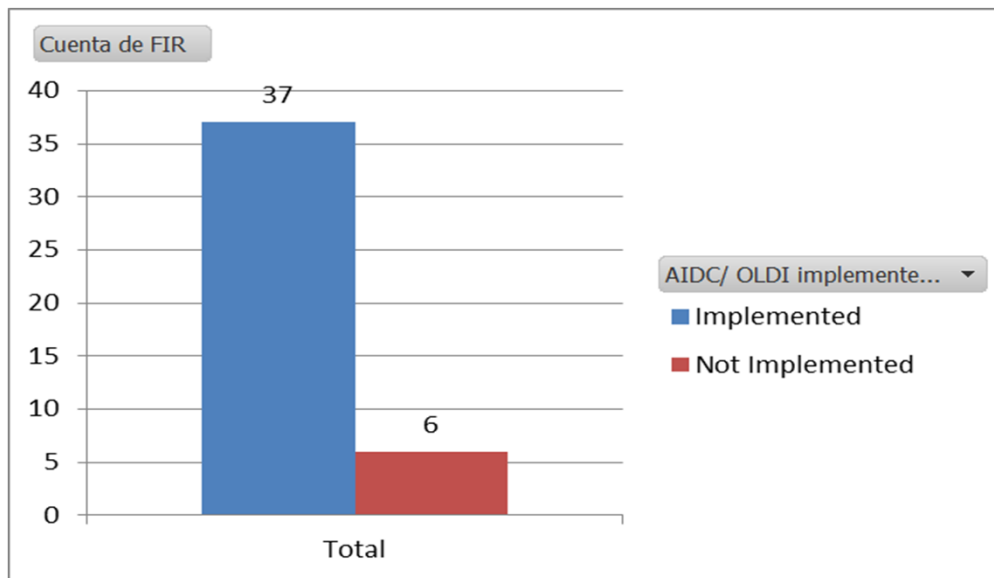
# FPL Monitoring Group

## Third Phase of Data Collection

- \* From September 14 to October 4, 2015
- \* Focused on duplicate flight plans
- \* Significant reduction in duplicates relative to prior phase
- \* Setting of new goals for FPL duplicates

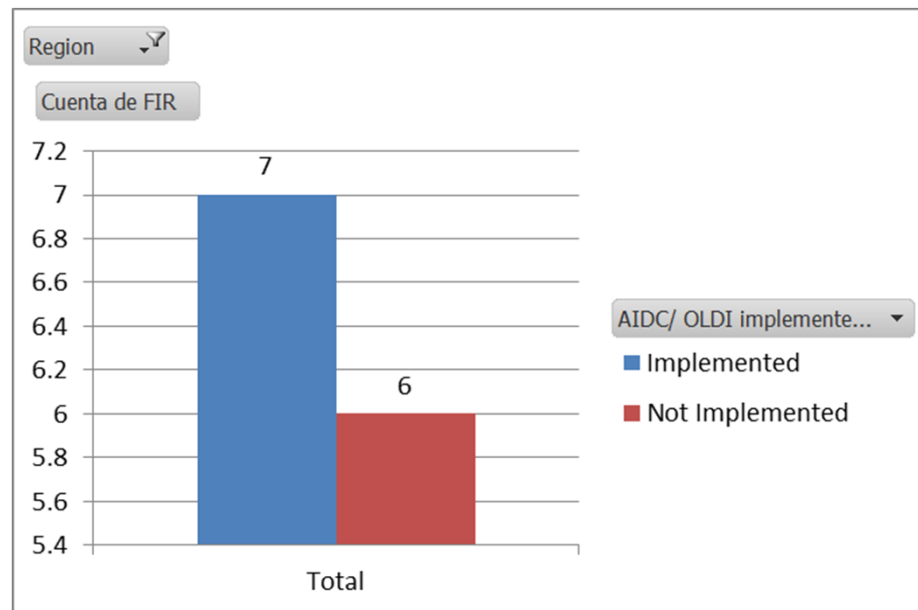
# AIDC Monitoring and Progress

- \* 50% of FIRs with applicable ACCs to have implemented at least one interface to use AIDC by December 2016. (*Port of Spain Declaration*)
- \* Currently at 86%



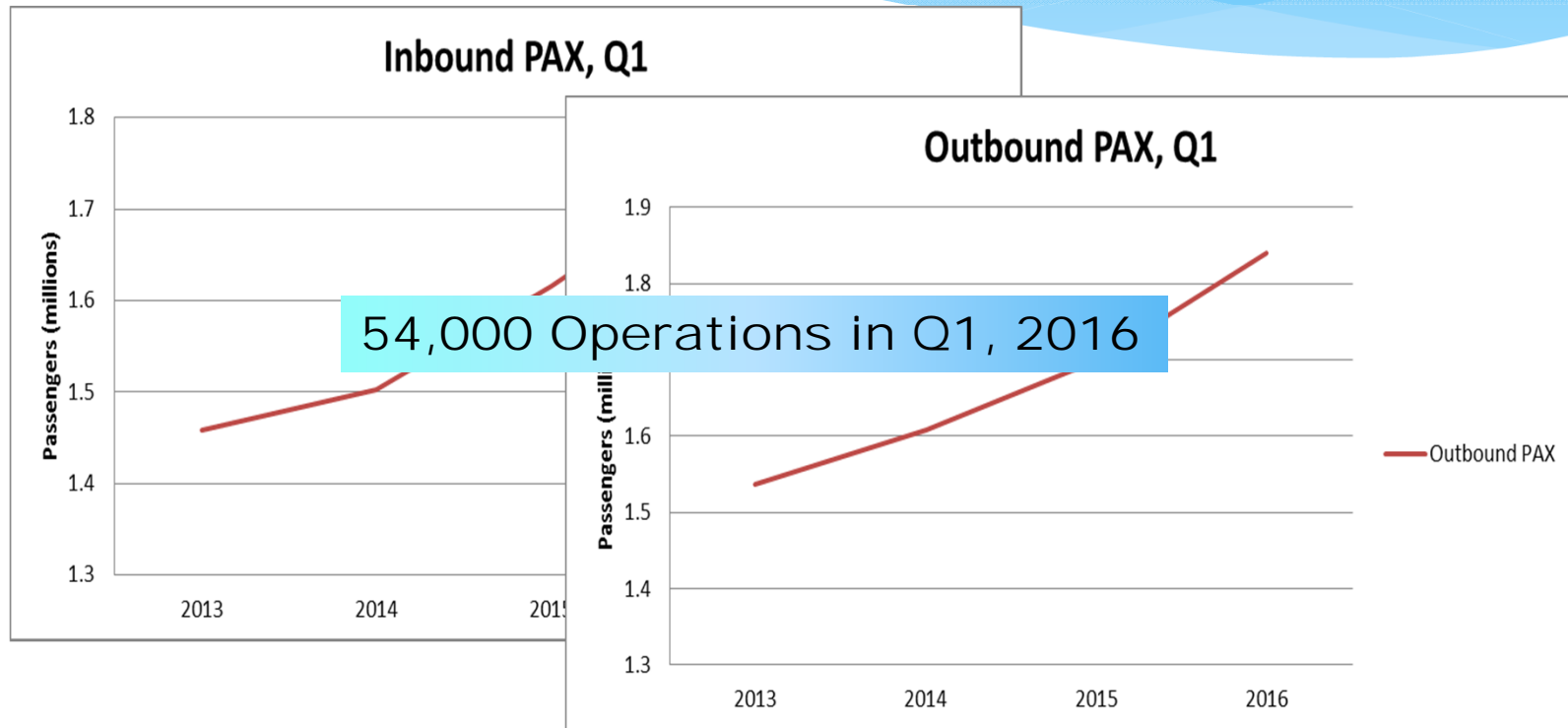
# AIDC Monitoring and Progress

- \* Group goal of 9 FIRs in the CAR region to have implemented AIDC by December 2016.
- \* Currently at 7.



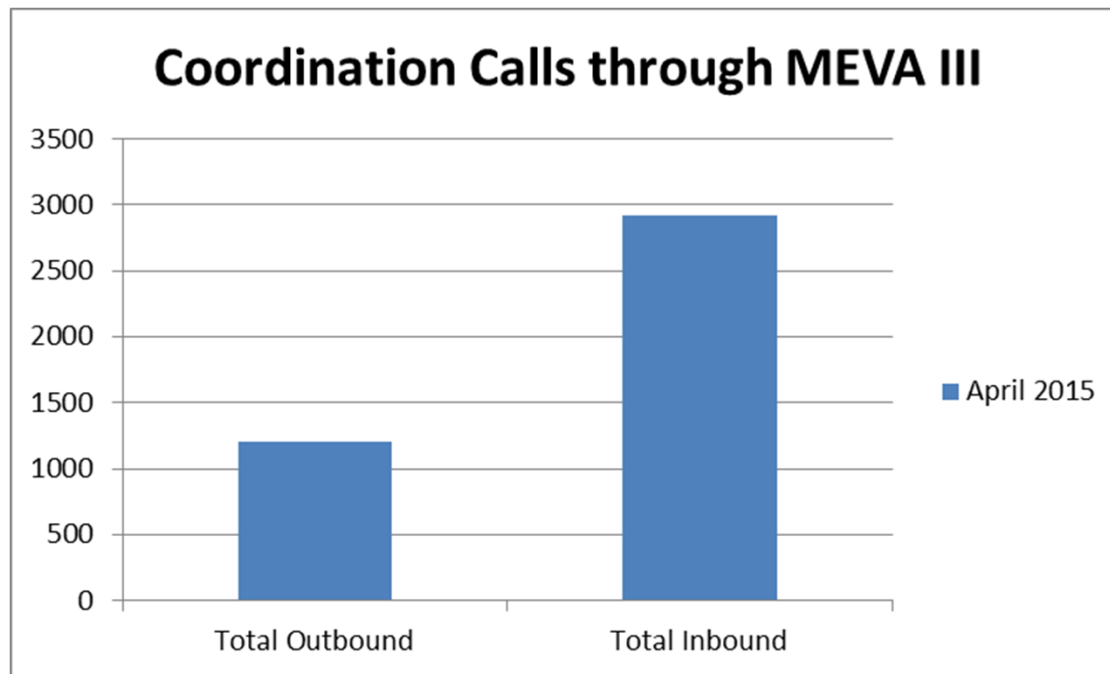
# Need for AIDC

→ Increasing traffic between adjacent FIRs

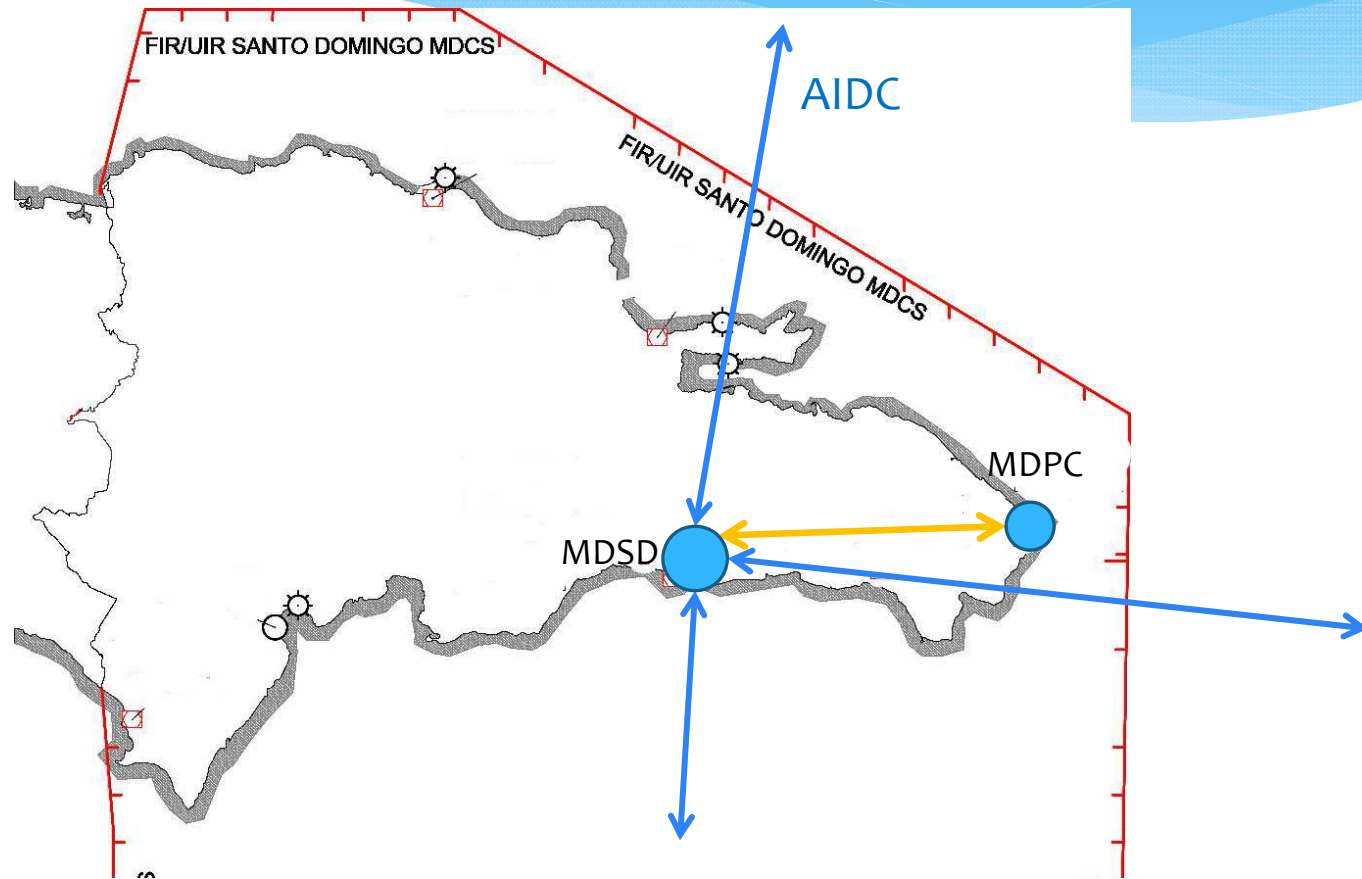


# Need for AIDC

→ Verbal coordination between centers is error-prone and time consuming.



# Need for AIDC – Planned Functionality





# Implementation status – ATC system

- Thales TopSky System
- AIDC capability
  - OLDI
  - AIDC (NAT/APAC)
  - NAM
- Test environment

# Implementation Status – AMHS system

- Ubitech/IDS system
- System capabilities
  - Funcional gateway with the U.S.
  - Funcional interconnection with TopSky system
- AMHS address defined for TopSky system (operational/test environment)

# Implementation status – Connectivity

- Part of MEVA III network
- 64k V.35 link to network
- Using TCP/IP internally and to outside world

# Go Team Mission Dominican Republic

- 9 – 12 September, 2014
- Overview of State's implementation status
- Technical analysis / Gap analysis
- Developing action plan
- Recommendations and report

# Go Team Mission Dominican Republic

## → Notable items

- System preparedness: TopSky ATC system has NAM ICD messages ready, but not in classes
- Operational issues: AIDC viewed as mostly a technical project, many operational issues not formally addressed
- Importance of test environment
- Scenarios: analysis of possible coordination cases
- Training

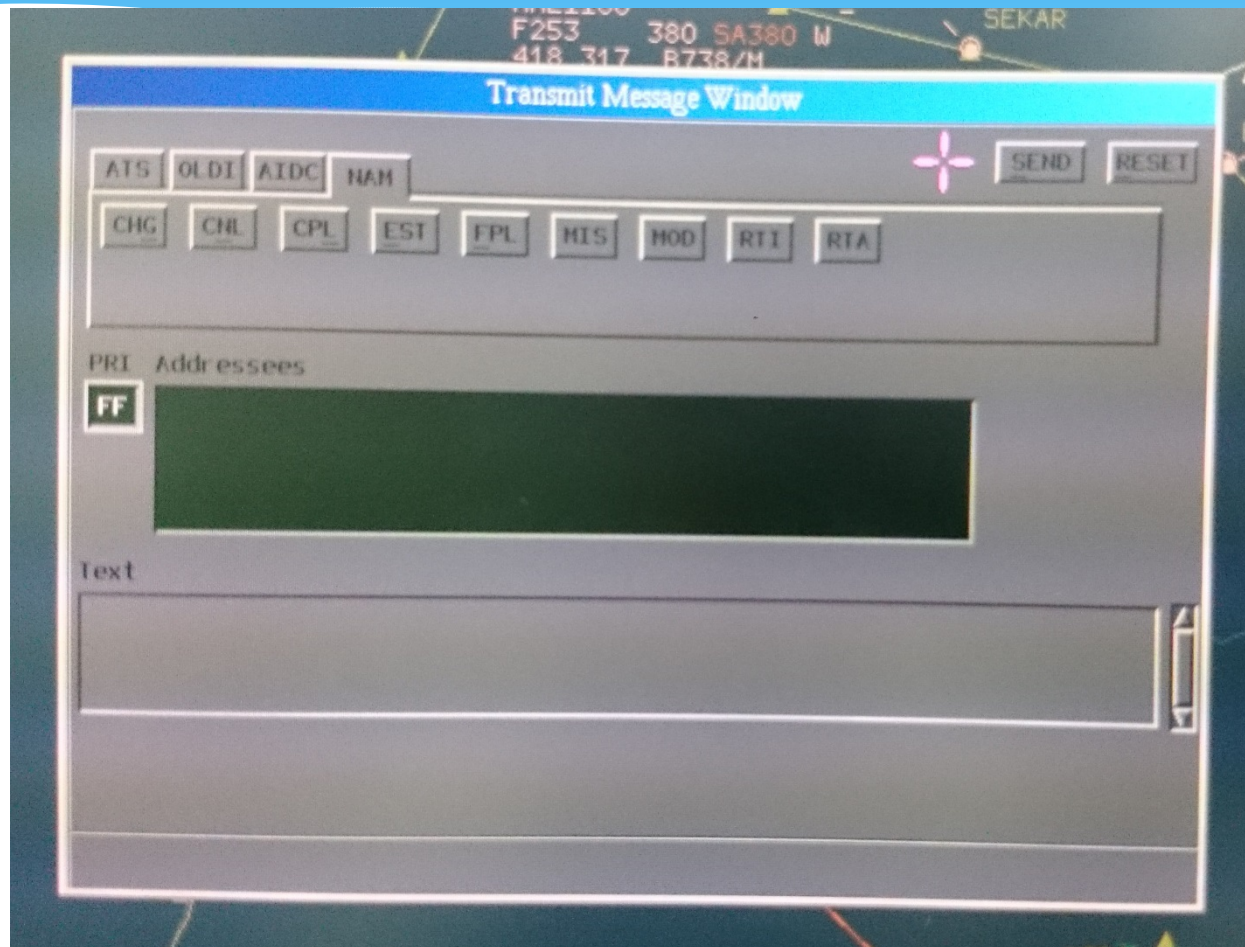
# Latest Accomplishments

- LOA draft with Miami FIR including automation interface (June 2015)
- Preliminary testing with FAA, October 6<sup>th</sup>, 2015
  - Class I
  - Technical issues identified (system configuration/errors)
- Interoperability test with FAA, February 2016
  - Up to Class II capability
  - More technical issues (message format/errors/compatibility)

# Lessons Learned

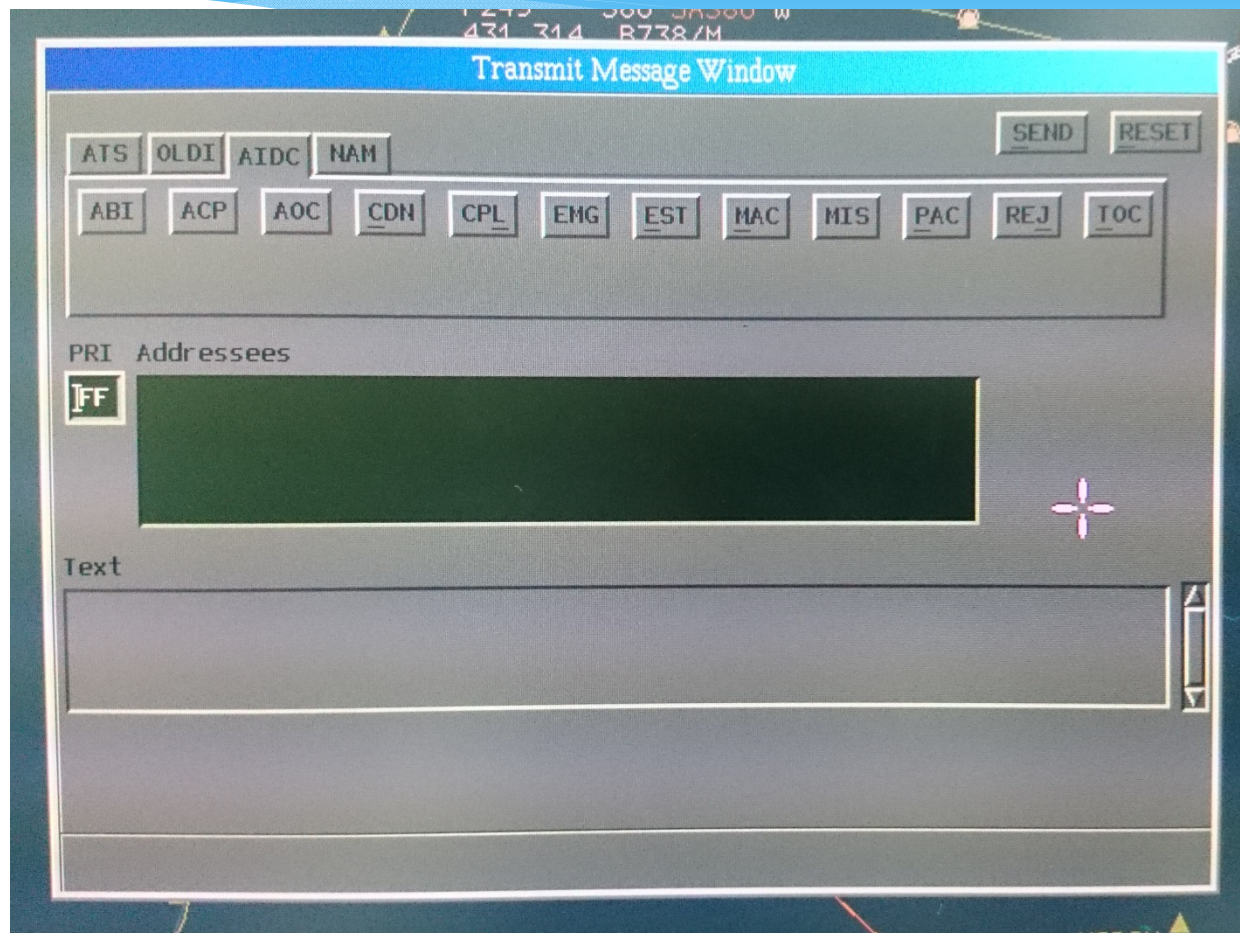
- As much an operational project as is a technical project.
  - Need total involvement from operational personnel.
- Need close cooperation from adjacent FIR as well as provider.
  - Need agreement with each FIR on how AIDC will work. Each FIR will be different.
  - Dynamic process with many adjustments
- Go step by step, implementation should be gradual.

# System Preparedness NAM messages

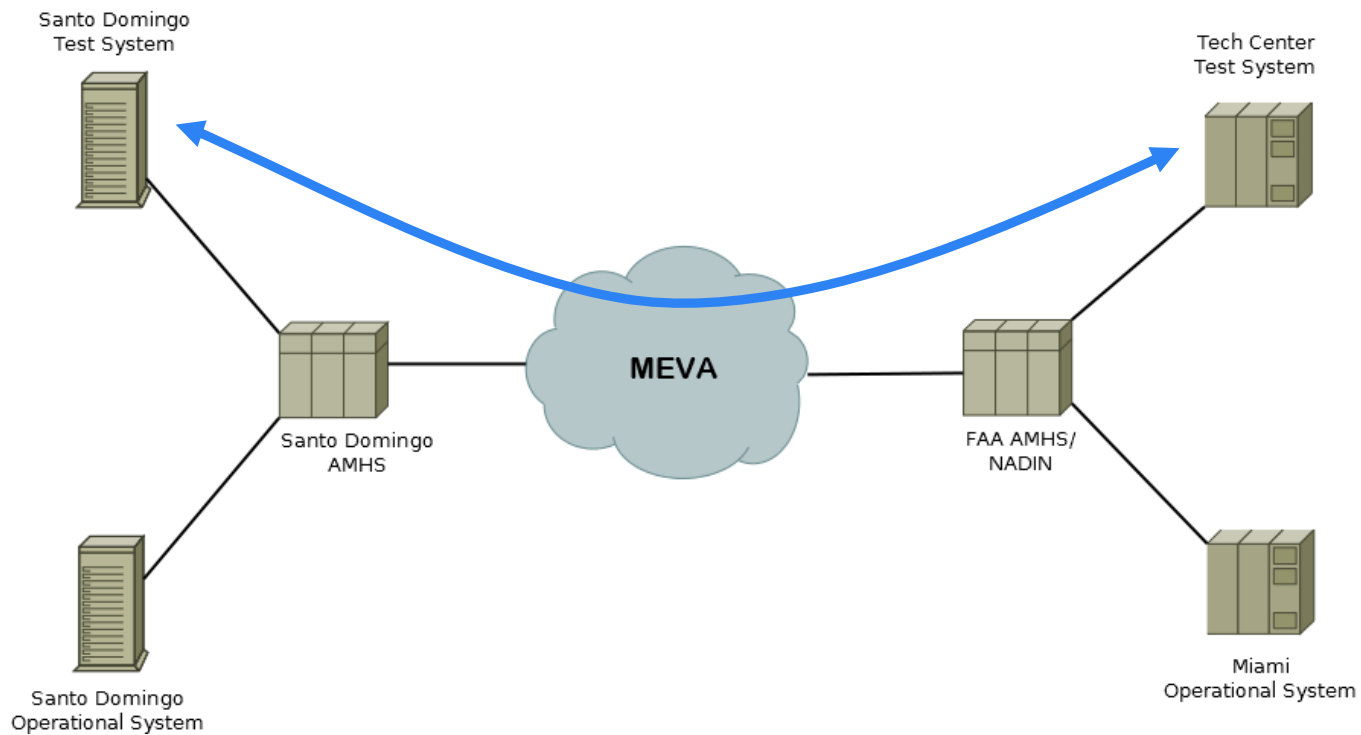




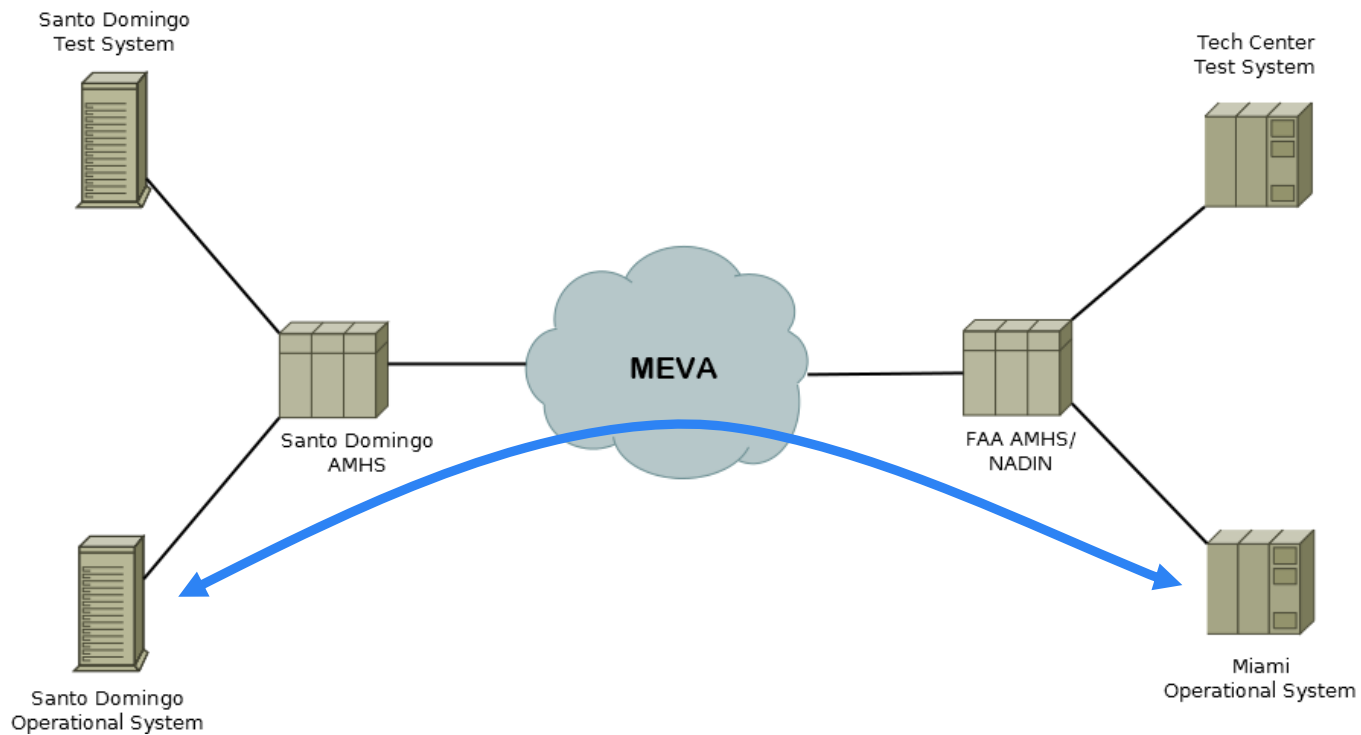
# System Preparedness AIDC (NAT/APAC) messages



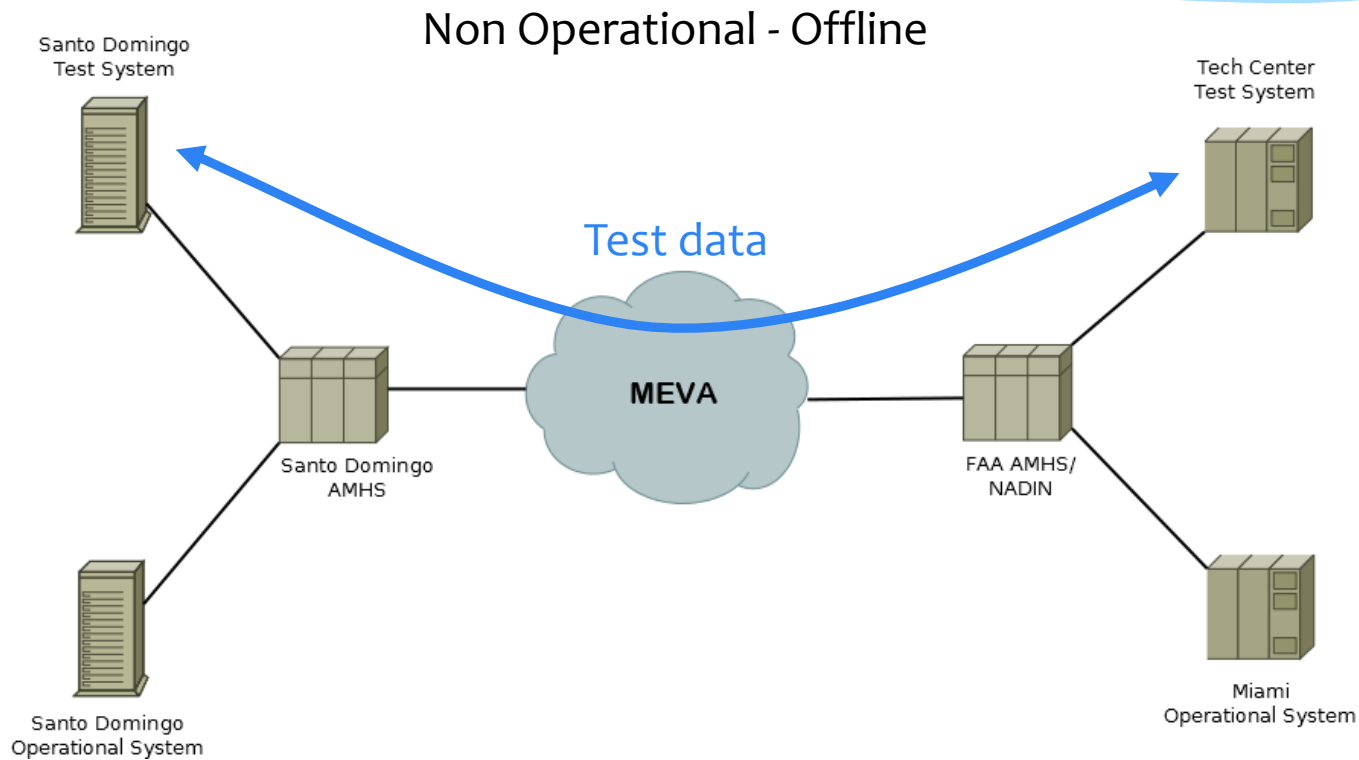
# Test Environment



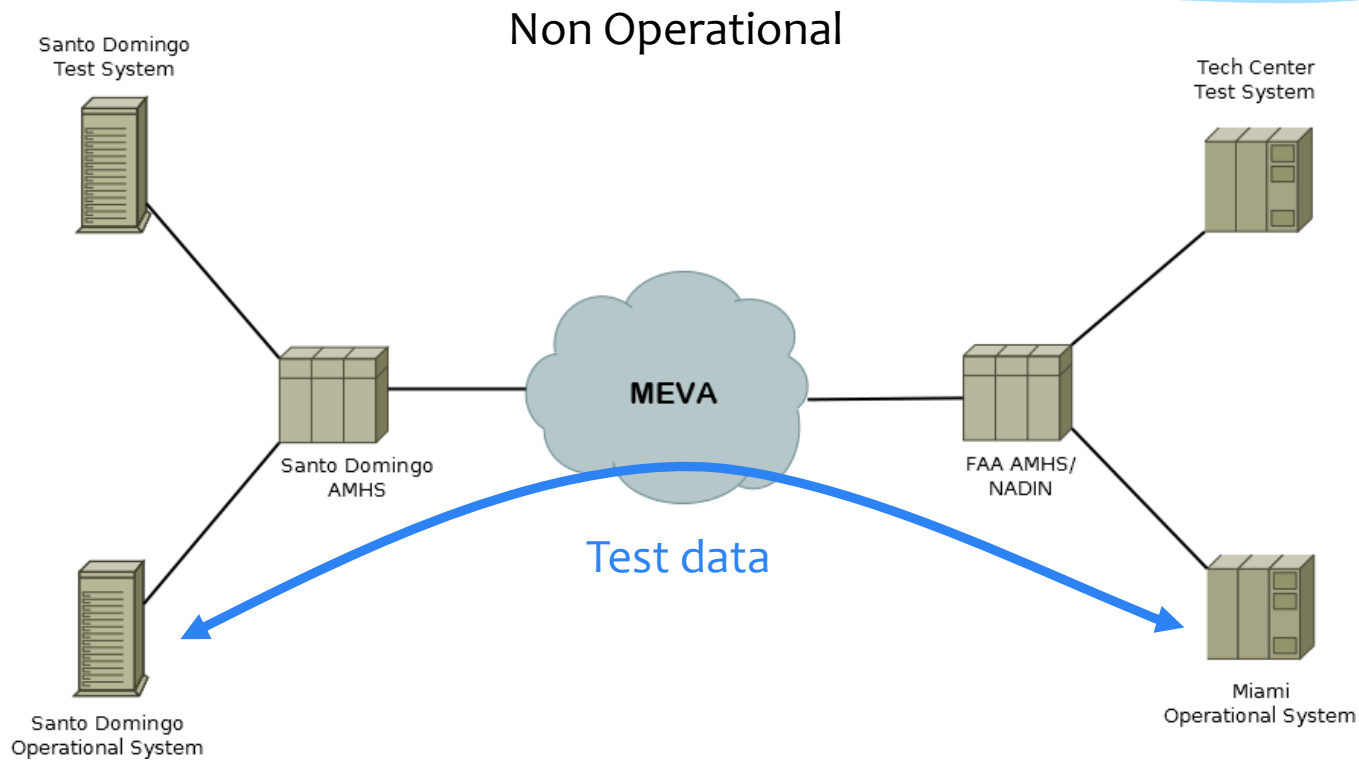
# Test Environment



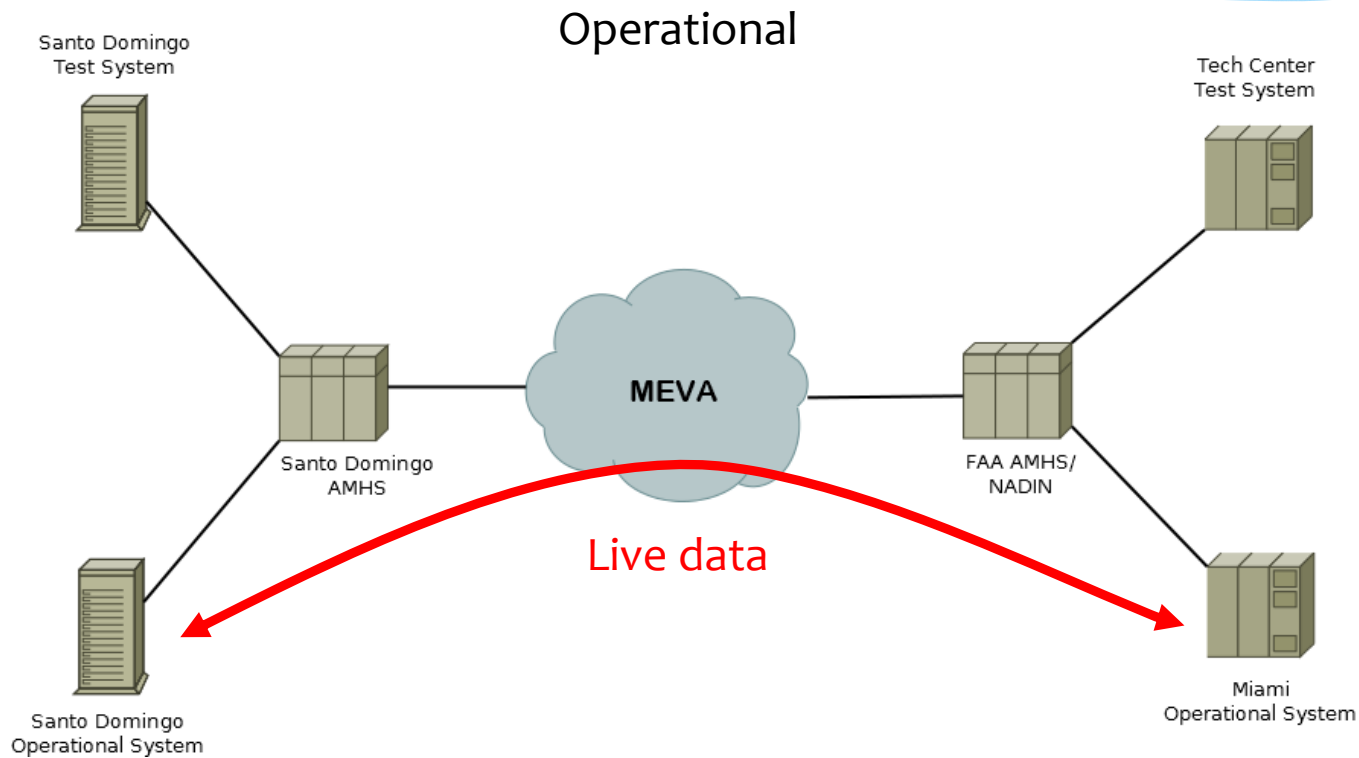
# Three phases of testing



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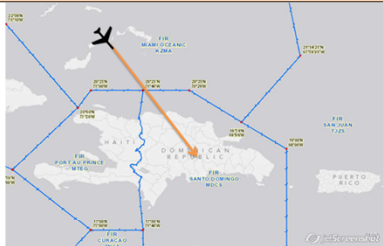
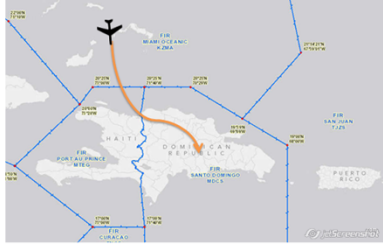
# Three phases of testing



# Scenarios


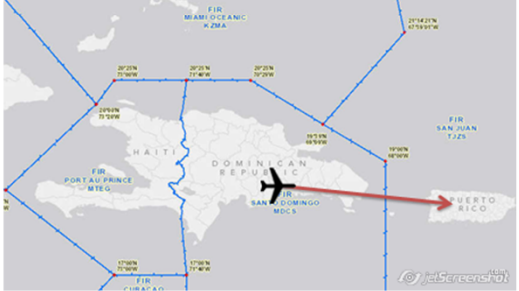
## Traffic flow analysis under different conditions

### EVALUACION DE ESCENARIOS PARA IMPLEMENTACION NAM ICD EN REPUBLICA DOMINICANA

Escenarios:	CPL	LAM	Ilustración	Observación
<b>Flujo entrante desde el Oeste</b>				
a) KZMA a MDCS	KZMA → MDCS	MDCS → KZMA		
b) KZMA a MDCS vía MTEG	KZMA → MDCS	MDCS → KZMA		<b>CPL con fin informativo/ Por acordarse RD-EUA</b>

# Scenarios

## Taking into account Punta Cana TCC

<p><b>a) MDCS a TJSZ via MDPC (abajo de FL150)</b></p>	<p>MDCS -&gt; KZMA (TJSZ)</p>	<p>KZMA (TJSZ) -&gt; MDCS</p>		<p>Procedimiento coordinación TJSZ-MDPC existe</p> <p>TBD: Coordinación automatización MDPC-MDCS</p>
<p><b>b) MDCS a TJSZ (arriba de FL150)</b></p>	<p>MDCS -&gt; KZMA (TJSZ)</p>	<p>KZMA (TJSZ) -&gt; MDCS</p>		



# Questions



# Contacts

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