AIDC IMPLEMENTATION

FACTORS TO TAKE INTO ACCOUNT BEFORE TO CONNECT A CHANNEL AIDC

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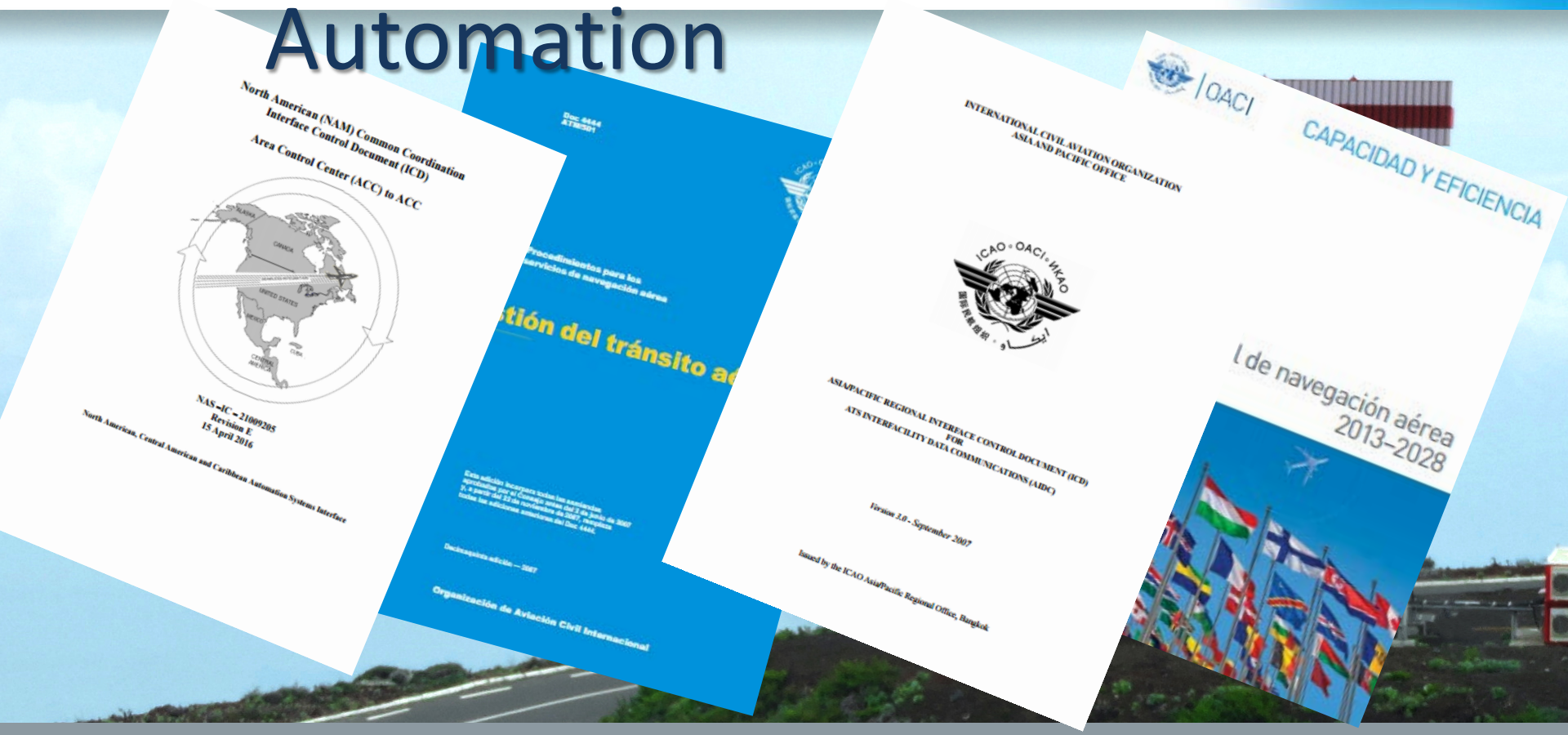
Automation


North American (NAM) Common Coordination
Interface Control Document (ICD)
Area Control Center (ACC) to ACC
NAS-IC – 21009205
Revision E
15 April 2016
North American, Central American and Caribbean Automation Systems Interface
Doc 4444
ATM/501
Organización de Aviación Civil Internacional
INTERNATIONAL CIVIL AVIATION ORGANIZATION
ASIA AND PACIFIC OFFICE
ASIA/PACIFIC REGIONAL INTERFACE CONTROL DOCUMENT (ICD)
FOR
ATS INTERFACILITY DATA COMMUNICATIONS (AIDC)
Version 3.0 - September 2007
Issued by the ICAO Asia/Pacific Regional Office, Bangkok
OACI
CAPACIDAD Y EFICIENCIA
de navegación aérea
2013–2028

Harmonization of Information

It is necessary that States work on a common, integrated and up-to-date information base, supports the harmonization, efficiency and safety of operations in the region.

NAM (North American (NAM) Common Coordination)
AIDC (ATS Interfacility Data Communications)

- They are functionalities (Software) of the system ATS that allows the automation of the coordinations of automatic air traffic control.
- Part of the Global Air Navigation Plan for land-to-ground applications.

Protocols in the Region

- Protocol NAM (NAS –IC – 21009205, Revision E, 15 April 2016)
- Protocol AIDC Version PAC (ASIA/Pacific Regional Interface for ATS Interfacility Data Communications Ver 3)

NAM		AIDC PAC	
United State	Cuba	COCESNA	Nicaragua
Cuba	COCESNA	COCESNA	Guatemala
Cuba	Mexico	COCESNA	El Salvador
Mexico	COCESNA		
Mexico	United State		
Canada	United State		

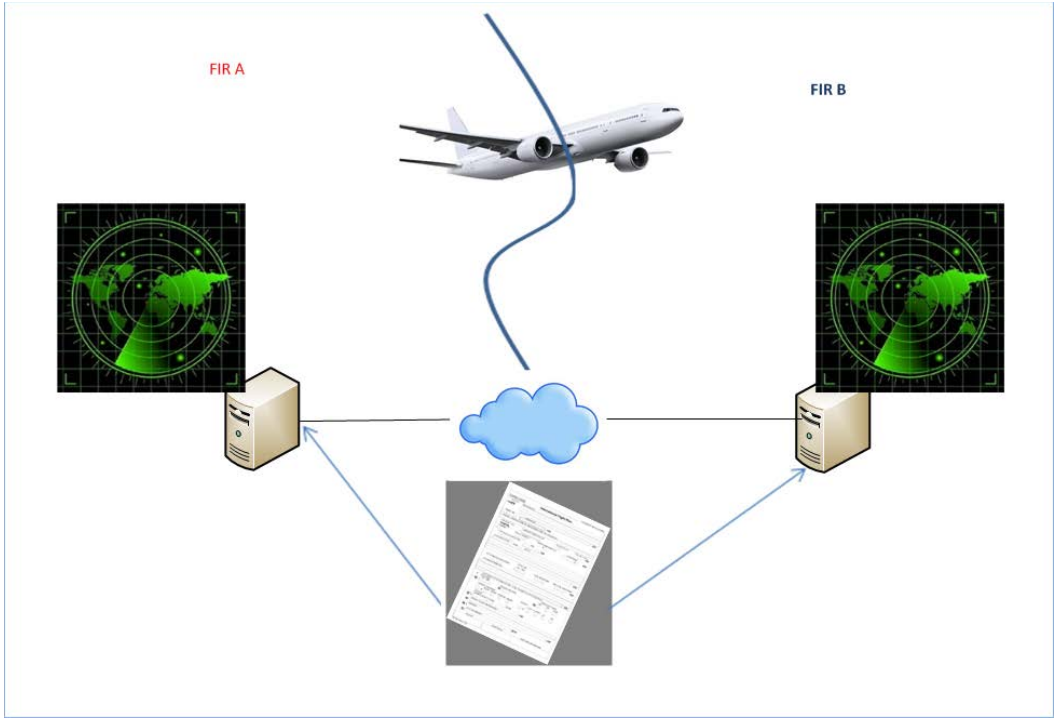
Benefits of NAM / AIDC Implementation

Benefits Automation	ICAO Strategic Objectives
Reduction of coordination errors of ATC operations: exist a reduction of the errors from manual operations because the automatization extract all the information from the FPL in automatically way.	Operational safety: Improve the safety of global civil aviation.
Reduction of the workload of the operational staff: reduction of oral communications and therefore more time to focus on the most important activities.	Air navigation capacity and efficiency: Increase capacity and improve the efficiency of the global civil aviation system.
Increased Efficiency: You can analyze the capacity of the sector and increase the number of operation in a control sector.	Aviation Security and Facilitation: Improving aviation security and facilitating global civil aviation.

The GANP explores the need for a more integrated aviation planning at the regional and state levels and examines the solutions that are required in introducing the consensus-based strategy for the modernization of systems engineering by Blocks of the aviation system (ASBU).

Factors to Consider Before Performing a NAM / AIDC Connection

- Technical / Operational Agreement among States wishing to Connect:
  - Study of the inflows of incoming and outgoing FIR aircraft.
  - Coordination fixpoints Should be established.
  - Maybe it will be necessary to change in the definition of airspace and make the aeronautical publication required.
  - Test protocol
  - Updating and configuring the database.
  - Operating Procedures.
  - Technical Procedures
  - Training
  - Testing, validation and commissioning.



- Same situational awareness (Flight plan information, configuration of air control center information, radar data, and others).
- Agreed operational procedures.
- Backup systems implemented.

Technical Aspects to Consider

- Aeronautical Messaging System (AFTN / AMHS).
- Structure of the ATC System Database
  - Type of software (Database).
  - Structure of the database.
  - Required operating information.
  - Maintenance and upgrade procedures.

Technical Aspects to Consider

- Need to Share Radar Data.
  - Implementation of a new communication channel to provide the radar data information.
  - Integration of radar data in control centers
    - Validation of radar data
    - Tests
    - Integration of the radar in the control center
    - Operating radar
  - Mechanisms to support operational procedures.
  - Alternative Communication Mechanism.

Important Operating Factors

- Experience of operational staff in the development of flows.
- Continuous ascents and descents air traffic operations.
- Coordination points to be implemented in procedures.
- Levels of coordination (when applicable).
- Coordination messages.
- Negotiation Messages.
- Transfer messages.
- Procedures in case of lack of automation.
- Modification of the letter agreement between two flight regions.

- It is important to indicate that the AIDC functionality can vary its operation according to the System provider. In that sense it is recommended:
  - Integrate the ICD (Interface Control Document) of the NAM and PAC part of the requirements of the new ATC System.
  - Validate the correct procedure of automated messages within the ATS system.
  - That integration with the adjacent FIR is a contractual requirement of the project.

- ICAO supports the States in the advice and management necessary to carry out a correct and successful implementation.

Grupos de Trabajo

- AIDC Task force
- AIDC/WG erroneous FPL.

ICAO CAPACITY & EFFICIENCY

NO COUNTRY LEFT BEHIND

THANK YOU!