



canso
civil air navigation services organisation

Air Navigation Services and Aerodrome Planning

12.9.2018
ICAO, Lima

TRANSFORMING
GLOBAL ATM PERFORMANCE

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1. Introducing CANSO



CANSO is the global voice of ATM



Members support over 85% of world air traffic



85 Full ANSPs Members and 79 Associate Members



Three programme areas (safety, operations, strategy and integration)



Local expertise across five regions



Observer status in ICAO and liaison office in Montreal

1. Introducing CANSO

➤ Key Activities:



Maintaining an international network for ANS experts to exchange information and ideas on the safe, efficient and effective management of airspace



Developing distinct policies, positions and guidance to promote best practice within ATM



Liaising with other air transport industry stakeholders, particularly regulators, airlines, industry suppliers and airports; and promoting the ANSP perspective across the range of contemporary issues in the industry

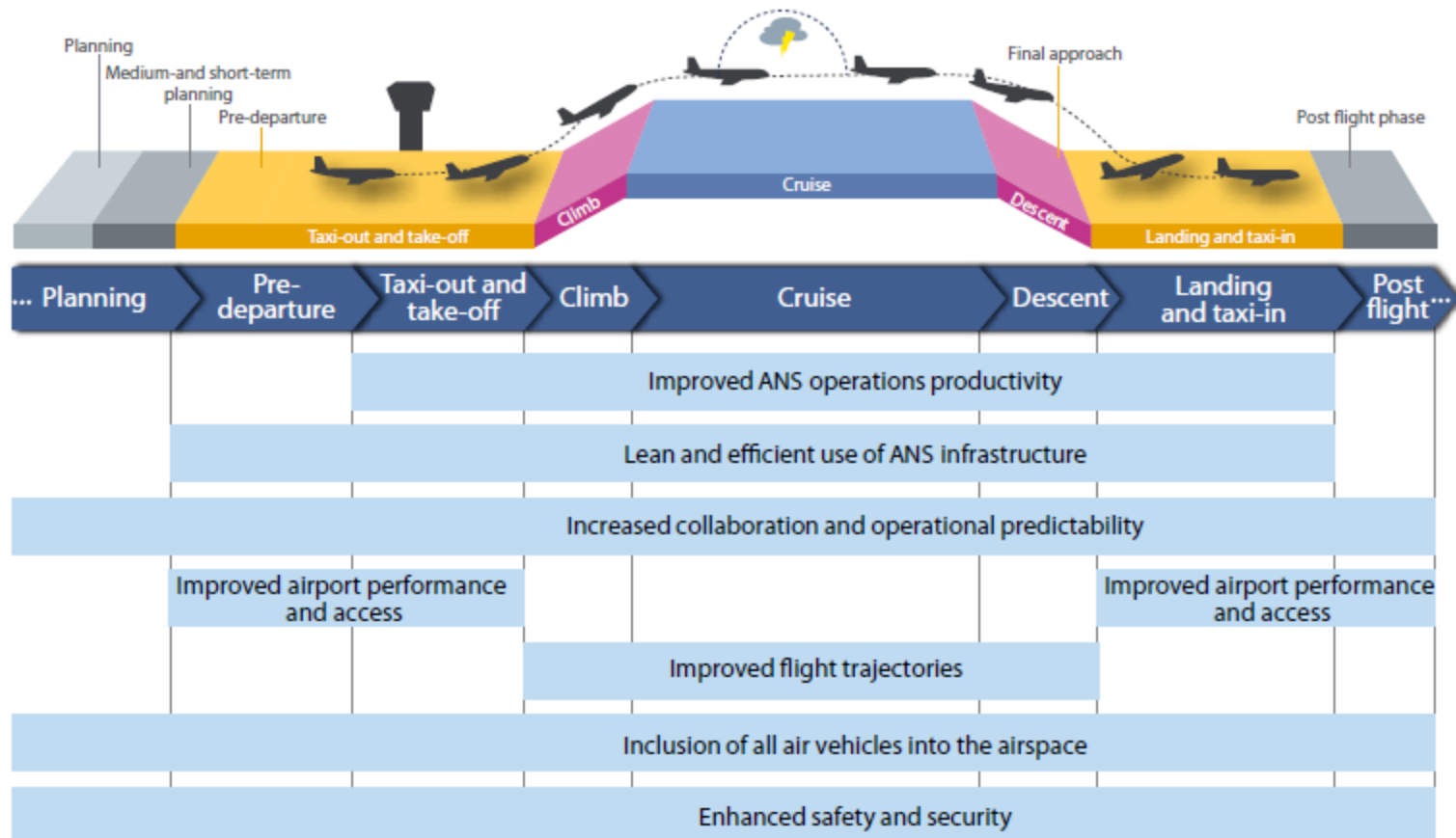


Representing the views and interests of Members at relevant international institutions, particularly the International Civil Aviation Organization (ICAO), and promote and support international legislation, regulations and agreements that strengthen the position of Members

2. ANS - An integral part of the air transport system

- Safety, capacity, efficiency and environmental sustainability of the air transport system can only be achieved through a collaborative effort of the operational stakeholders, particularly airspace users, airports and air navigation service providers (both civil and military).
- Collaboration starts at political/strategical level (i.e. planning of a State's transport system, transport policies and derived airport and airspace capacities)
- Down to the operational level
 - Optimise interfaces and processes, e.g.
 - SWIM - Systemwide Information Management
 - A-CDM - Airport Collaborative Decision-Making
 - TAM – Total Airport Management

2. ANS - An integral part of the air transport system



2. Examples for Collaboration in Europe and Germany

- At political level in Germany, the Federal Government develops a federal transportation plan and a Concept for Air Transport
- The air transport industry (Airlines, Airports and ANSP) are consulted during the development
- German air transport industry established a trade association to represent the joint interests of airlines, airports and ANSP
- Permanent dialogue between the main stakeholders leads to a well balanced and consolidated input at political level which has a higher impact than individual voices



2. Examples for Collaboration in Europe and Germany

- In Europe, the Network Manager together with the civil and military airspace users, airports and ANSPs develops a
 - Network Strategic Plan (time horizon about 5 years)
 - Network Operations Plan (6 months)
 - Air Traffic Flow and Capacity Management using Collaborative Decision-Making Processes for daily operations involving all operational stakeholders
- Another example for cooperation is the „SESAR Deployment Manager“ – a joint venture of airlines, airports and ANSPs to synchronise the implementation of major technology projects at European level

3. Dependency of airport and ATC capacity

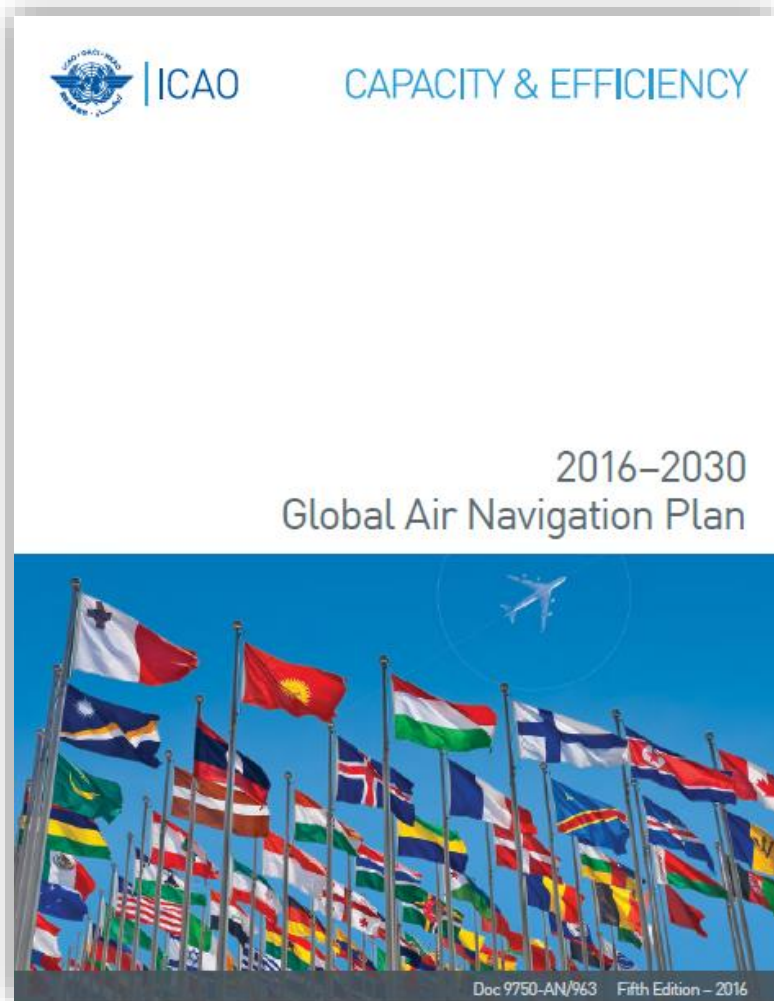
- Capacity of the overall system depends on the „smallest“ denominator
- Airport scheduling coordination to balance demand and capacity at strategic level (i.e. flight scheduling)
- ATFM to avoid overload situations (at airports and in the airspace)
- Imbalanced airport and ATC capacity result in
 - Delays
 - Inefficiencies (e.g. airborne holdings)
 - Unaccommodated demand

4. Optimizing capacity and efficiency

➤ Tools/technologies/procedures available to optimize capacity and efficiency, e.g.

- A-CDM
- ATFM
- Arrival Management
- Total Airport Management
- PBN
- GBAS
- SMGCS
- Time Based Operations
- Wake Turbulence Categorisation
- Digital/Remote Towers
- ...

4. Optimizing capacity and efficiency



- ICAO Global Air Navigation Plan includes all the optional measures
- Combines these in logically linked „Aviation System Block Upgrades“
- In each region we need to develop a common understanding about
 - what to implement and
 - synchronise the deployment

CANSO ATFM Data Exchange Network for the Americas

- A concrete example for cooperation in ATFM/CDM in the Americas (details in back-up)



5. Integrating Unmanned Aircraft Systems

- Unmanned aircraft systems (UAS) need to be integrated in the (air) transport system
- Safe, fair and efficient integration is particularly important in the vicinity of airports
- With the experience in airspace management, air traffic control and the surveillance infrastructure, ANSPs are well positioned to integrate UAS and provide the interface



6. Conclusions

- Air transport system needs to be planned balancing airport and airspace capacity with demand
- Close cooperation between all stakeholders concerned necessary
- High level (DG, Minister of Transport, Airline President...) support is a must
- Commitment from the respective CAA, ANSP, Airport, Airlines to develop the project
- Essential to start a dialogue and understand what needs to be resolved. We need to communicate, coordinate and cooperate first. Then look at purchasing technology or information sharing software.
- CANSO provides a platform for ANSPs and partnership with other stakeholders.

Thank You!



CANSO ATFM Data Exchange Network for the Americas



Why?

➤ Purpose and Objectives of CADENA

- Exchange operational information
- Promote common situational awareness
- Enhance operational safety
- Improve operational efficiency

CADENA ANSP Participants

- ANSA (Aruba)
- CGNA (Brazil)
- COCESNA (Cenamer)
- Colombia
- Costa Rica CAA
- DC-ANSP (Curaçao)
- EANA (Argentina)
- ECNA (Cuba)
- FAA (DCC, ZMA, SJU, ZNY, ZHU)
- IDAC (Dominican Republic)
- JCAA (Jamaica)
- SENAM (Mexico)
- Trinidad and Tobago CAA

CADENA Airline Participants

Current

- Aeroméxico
- American
- Azul Airlines
- Caribbean Airlines
- Copa
- Delta
- Jet Blue
- SKY Airline
- United Airlines
- UPS
- Spirit
- Volaris
- WestJet

CADENA Stakeholder Participants

Current

- ACI-LAC
- ALTA
- IATA
- ICAO (SAM – NACC)
- NBAA

CADENA Operational Information System

Browser tabs: CANSO Javier Vanegas - Ou, Cadena OIS

URL: https://www.cadenaois.org/

Language: Regional TMM 3 Español

Regional Operations Plan

SENEAM Mexico :13/Apr/2018 13:27

- Anticipated Demand Information** HIGH
- TMM Planned** MIT ADES MMUN, TRAFFIC FROM HAV / HOU. 14 - 22 UTC.
- Weather** NO SIGNIFICANT WEATHER
- Volcanic Ash** NONE
- Constraints** NO A766 ADES MMUN
- Special Events** NONE
- Equipment Outages** NONE
- Other** NONE

ECNA Cuba :13/Apr/2018 12:57

- Anticipated Demand Information** MEDIUM
- TMM Planned** NONE
- Weather** HIGH PRESSURES IN THE FIR. CONVECTIVE ACTIVITY BY DIURNAL HEATING FROM 1700Z WITH TCU AND CB FORMATION
- Volcanic Ash** NONE
- Constraints** IN HABANA TMA
MUR43 WILL BE ACTIVE FROM 2130Z TO 14/04/18 0600Z
- Special Events** NONE
- Equipment Outages** IN HABANA TMA NDB UPB U/S
- Other** NOTAMN 41106/18 DEFINES POSITION CANOA AS ELY BY

THE NEXT WEB CONFERENCE WILL BE HELD ON APRIL 13 2018 AT 1400 UTC

13/Apr/2018 14:02:02

1002 AM 4/13/2018

<https://www.cadenaois.org>

CADENA Operational Information System

CADENA OIS

IDAC Dominican Republic [Subscribe](#)

[Español](#) [ANSP Login](#)

Regional TMM

ATFM Daily Plan

EANA Argentina

COCESNA Cenamer

CGNA Brazil

ECNA Cuba

DC-ANSP Curaçao

IDAC Dom Rep

JCAA Jamaica

SENEAM Mexico

TTCAA T&T

FAA Miami

FAA Houston

FAA San Juan

Initiated By	Element	Type	Description	Start time	End time	Reason	NOTAM

ATFM Daily Plan Updated - 13/Sep 12:41

Anticipated Demand Information LOW

TMM Planned NONE

Weather SANTO DOMINGO FIR SCT015 SCT 070. OCNL BKN070 TOP FL 200. OCNL VIS 4SMBR INLAND
 TIL 13Z. SCT020 SCT-BKN070. OCNL BKN020. TOP FL200.WLY SCT TSRA. OTLK...VFR
 TSRA...VFR AFT 04Z.WTRS...SCT025 SCT060. OCNL BKN025.

Constraints NONE

Special Events NONE

Equipment Outages MDSD/NO.A0243/17 FROM AUG 04, 2017, 1430 UTC TO OCT 31, 2017, 2359 UTC I-CDO
 ILS GP RWY 17 ON FREQ 329.3 MHZ U/S DUE TO MAINT.MDPC/NO.A0232/17 FROM JUL 31, 2017, 1800 UTC TO SEP 15, 2017, 1200 UTC ALS RWY 26 U/S DUE TO MAINT

Volcanic Ash NONE

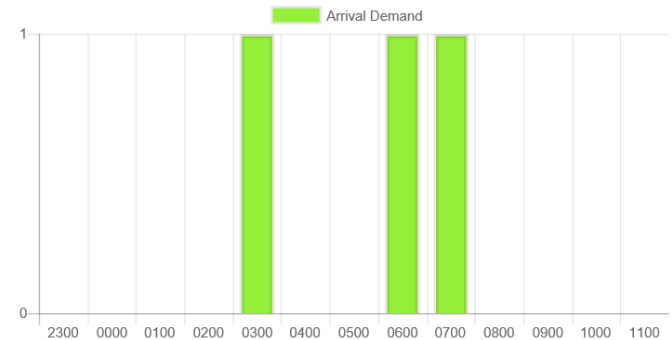
Other NONE

Airport Demand Information

Demand data is a static image and does not reflect current demand situation. All data are for informational purposes only

MDST-Cibao International Airport

NOTAM



Data received from FAA SWIM at: 13/Sep/2017 15:25 UTC

A CANSO Project.



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civil air navigation services organisation

**CADENA
OPERATIONS PLANNING
WEB CONFERENCE**

TRANSFORMING
GLOBAL ATM PERFORMANCE

Operational Planning Web Conference

- Staffing situation
- Combined / de-combined sectors
- Equipment outages
- Weather conditions
- Terminal constraints
- Route closures
- Anticipated air traffic demand / Special events
- Anticipated traffic management measures
- Airport arrival and departure rates