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BROUGHT TO YOU BY CANSO:

EXPLORING DATALINK IN LATIN AMERICA AND CARIBBEAN – THE ESSENTIAL EFFICIENT TOWER

Wednesday 19 October 2022

15:00 – 17:00 CEST



Mr. Javier Vanegas

Director Latin America and Caribbean Affairs

CANSO



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Inmarsat Aviation



DATA LINK IMPLEMENTATION TASK FORCE 2022 UPDATE

DLI TF TOR OBJECTIVE

Develop a series of webinars to aid ANSP Members in implementing data link operations (Controller-Pilot Data Link Communications (CPDLC) and Automatic Dependent Surveillance-Contract (ADS-C))

- Develop guidance, such as webinars and quick reference materials, that are available for Members to access at their convenience, to assist air navigation service providers (ANSPs) to implement data link operations (Controller-Pilot Data Link Communications (CPDLC) and Automatic Dependent Surveillance-Contract (ADS-C)) harmonized to ICAO initiatives and the ICAO ASBU framework.
- The series will highlight operational efficiencies and safety enhancements made available by data link, as well as assisting ANSPs to identify methods for reducing or eliminating FANS and ATN transfer failures.

DLI TF INITIATIVES

INITIATIVE 1: Assist ANSPs that have not yet implemented CPDLC, and where applicable, ADS-C:

- plan for implementation,
- ensure harmonization and interoperability with adjacent ANSPs,
- benefit from lessons learned by other ANSPs, and;
- plan for future enhancements.

INITIATIVE 2: Facilitate ANSPs in providing efficiency benefits through the use of data link:

- by implementing PBCS to achieve safe and efficient airspace management;
- by identifying strategies to improve efficiency in complex airspace, as well as improve arrival management/increase the arrival efficiency of long-haul flights

INITIATIVE 3: Determine interest in and topics for Regional webinars

- Assess results from CAN SO 2021 Data Link Survey for further action.
- Determine regional interest/focus areas

PROGRESS

Developed two initial webinars planned for Q1 2023

- Primary audience is ANSPs considering or planning to implement data link
- Webinar I: Introduction to Data Link Operations
 - Introduce ICAO Global Operational Data Link (GOLD) Manual ed2
 - Overview of data link operations, capabilities and benefits
 - CPDLC and data link message handling
 - Automatic Dependent Surveillance Contract (ADS-C)
- Webinar II: Data Link Planning and Implementation Readiness
 - ATSP Planning for Data Link Operations
 - Requirements and Interoperability Standards
 - Implementation Readiness
 - CAN SO Data Link Implementation Checklist

PROGRESS

Data Link Survey

- Low participation: 13 of 86 CANSO Member ANSPs
 - 11 ANSPs that are operating data link in oceanic and/or domestic airspace
 - 2 ANSPs that have not and are not planning to implement data link
 - No response from key ANSPs of interest, i.e., ANSPs that are considering or planning to implement data link
- Issues and suggestions are incorporated into webinars

NEXT STEPS AND CHALLENGES

Initial webinars to be scheduled

- Publication of unedited version of GOLD ed2 planned for Q4 2022

Begin development of PBCS webinar

Members needed

- Team members to plan and develop webinars and guidance materials
- Subject Matter Experts to present webinars

THANK YOU

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SITA



Mr. Javier Vanegas

Director Latin America and Caribbean Affairs

CANSO



Mr. Kaio Quinan

Head of Business Development ATC in the Americas

SITA

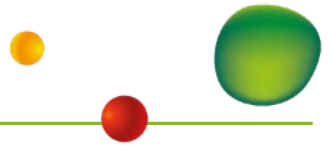
CANSO Webinar 2

Kaio Quinan

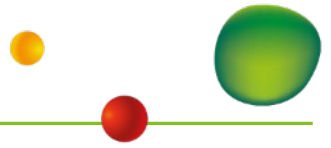
Head of Business Development ATC Americas



Agenda



1. SITA FOR AIRCRAFT
2. Some Customers
3. Focus Today
4. ATC Tower Challenges – Not Integrated systems and No Datalink
5. ATC Tower Challenges – Video
6. Solution
7. Benefits
8. Americas' Alignment of Data Link Services and Procedures



AIRCRAFT	Supporting 17,000+ commercial air transport and business aviation aircraft
CUSTOMERS	Serving over 400+ airlines and 80+ Air Navigation Service Providers worldwide
NETWORKS	Seamlessly connecting via VHF and multiple satellite networks

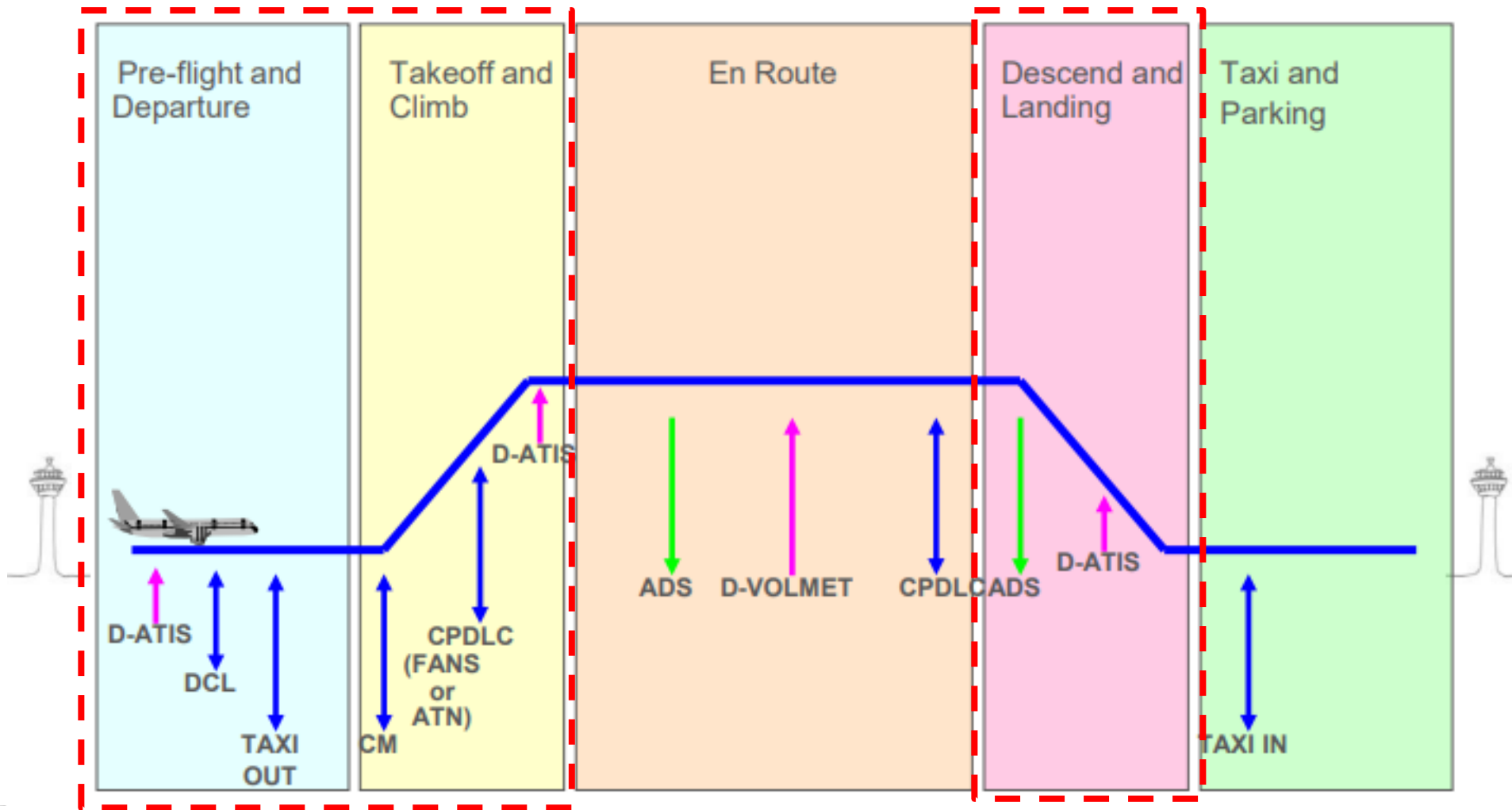
Creating Success with... our 450+ customers include



Creating Success with... our 450+ customers include



Focus Today





ATC Tower Challenges

Not Integrated Systems

No Datalink Capabilities

SITA

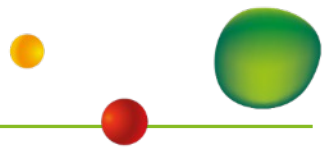
FOR AIRCRAFT

ATC Tower Challenges – Not Integrated & No Datalink

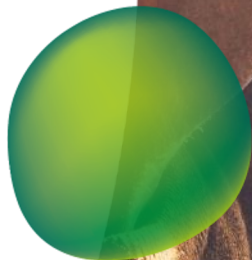
1. Controller Work Overload
2. Reduce situation awareness
3. Less Air Traffic Controller (ATCO) heads up
4. Difficulty in training new controllers in many systems and interfaces
5. Complexity to maintain many standalone systems
6. Complexity to buy spare parts for many different systems
7. Pre-Flight Frequency Congestions
8. Slow and/or no precise billing process



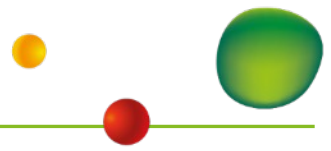
ATC Tower Challenges – Video



Solution

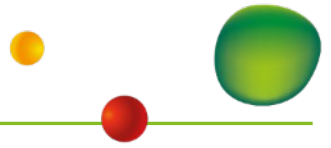


Solution - Integrated Systems for ATC Towers



System	Essential Efficient Tower Monitor 1	Essential Efficient Tower Plus Monitor 2
Electronic Flight Strips	X	
D-ATIS	X	
Departure Clearance (DCL)	X	
Datalink Connected	X	
Runway Lights		X
Cabin Blinders		X
Meteorological Station		X
Nav aids		X
Cabin Lights		X
Tower Access Control		X
Surface Movement Radar		X
Others		X

Essential Efficient Tower (EFS + D-ATIS + DCL + Datalink)



Electronic Flight Strips - Benefits



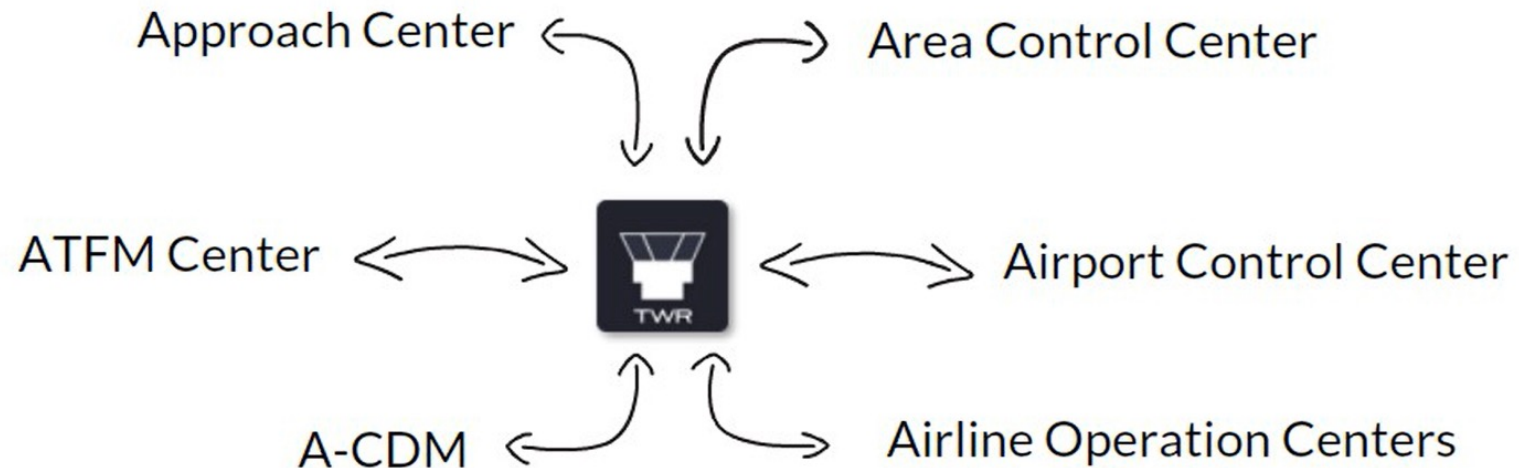
- Reduction of the air traffic controller workload
- Flight information can be updated and shared (coordinated) instantly
- Alerts throughout the operation to avoid security risks
- Cleaner and more effective view with highlighting
- Selective suppression of information according to flight status
- Precise information for billing, statistics and post-operations strategies.

Increase Process Efficiency and Safety

Electronic Flight Strips – Multiple Integrations



- Reduced voice coordination with airport operations, ATFM, ACC and Approach Control.



D-ATIS via Data Link – Operational Benefit Example

A Flight from Barcelona to São Paulo (GRU) can receive the GRU D-ATIS information from any location.



D-ATIS via Data Link – Operational Benefit Example

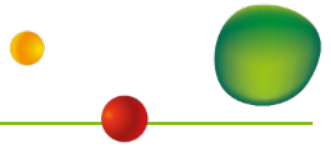
If there is an issue that requires a diversion to another airport, the flight does not need to get close to São Paulo (GRU) to listen to the D-ATIS Voice information.



D-ATIS via Data Link – Operational Benefit Example

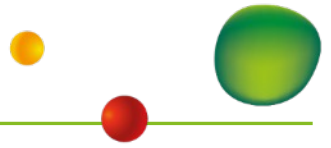
The Crew will have time to plan for the new destination and it will save fuel and reduce CO2 Emissions.





Avoid misunderstanding between Pilots and Air Traffic Controllers

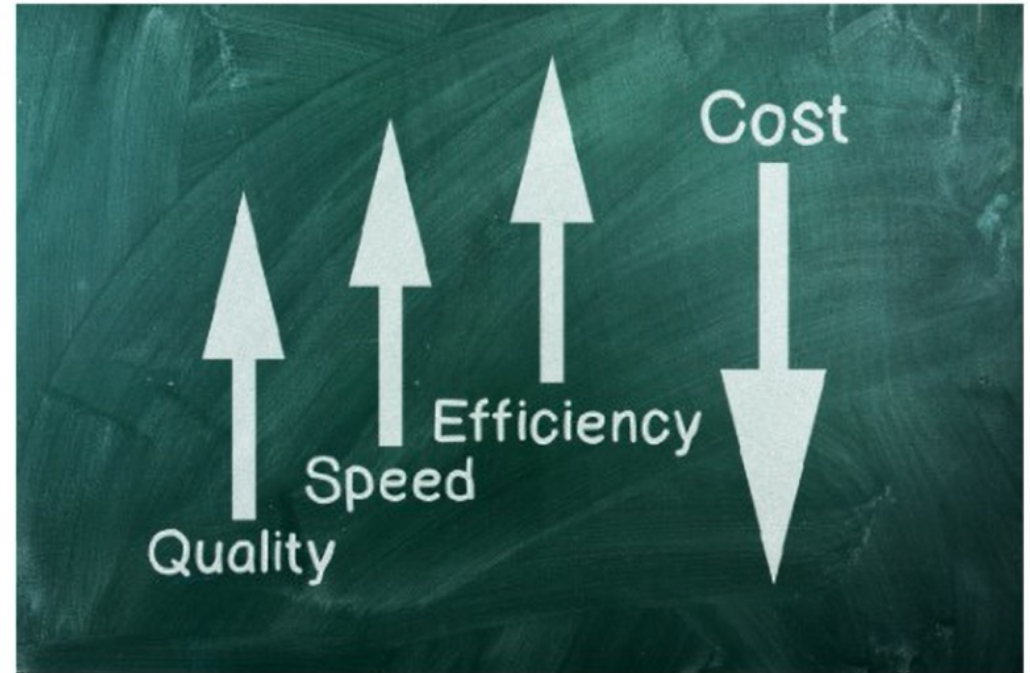




Waypoints inserted directly into
FMS (Flight Management System)



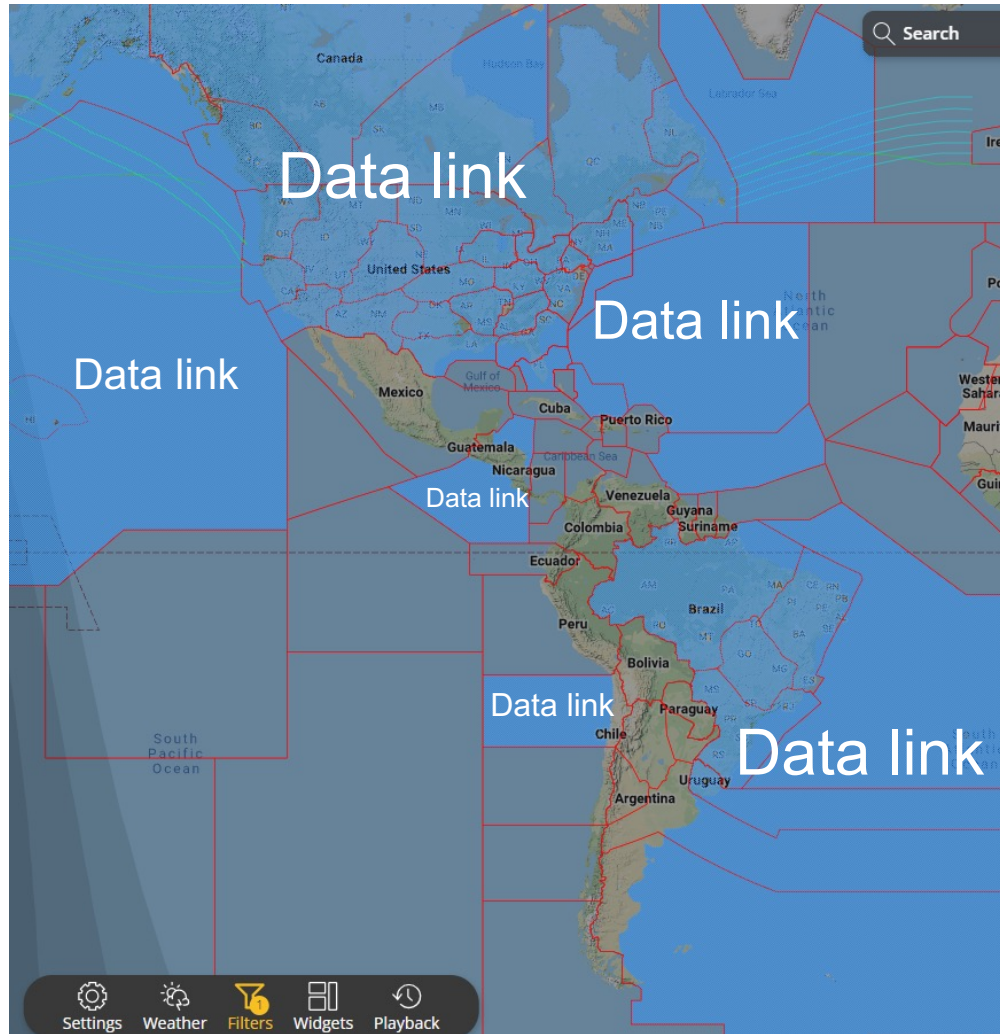
Departure Clearance time via Datalink
might be reduced up to 60%
compared with via Voice



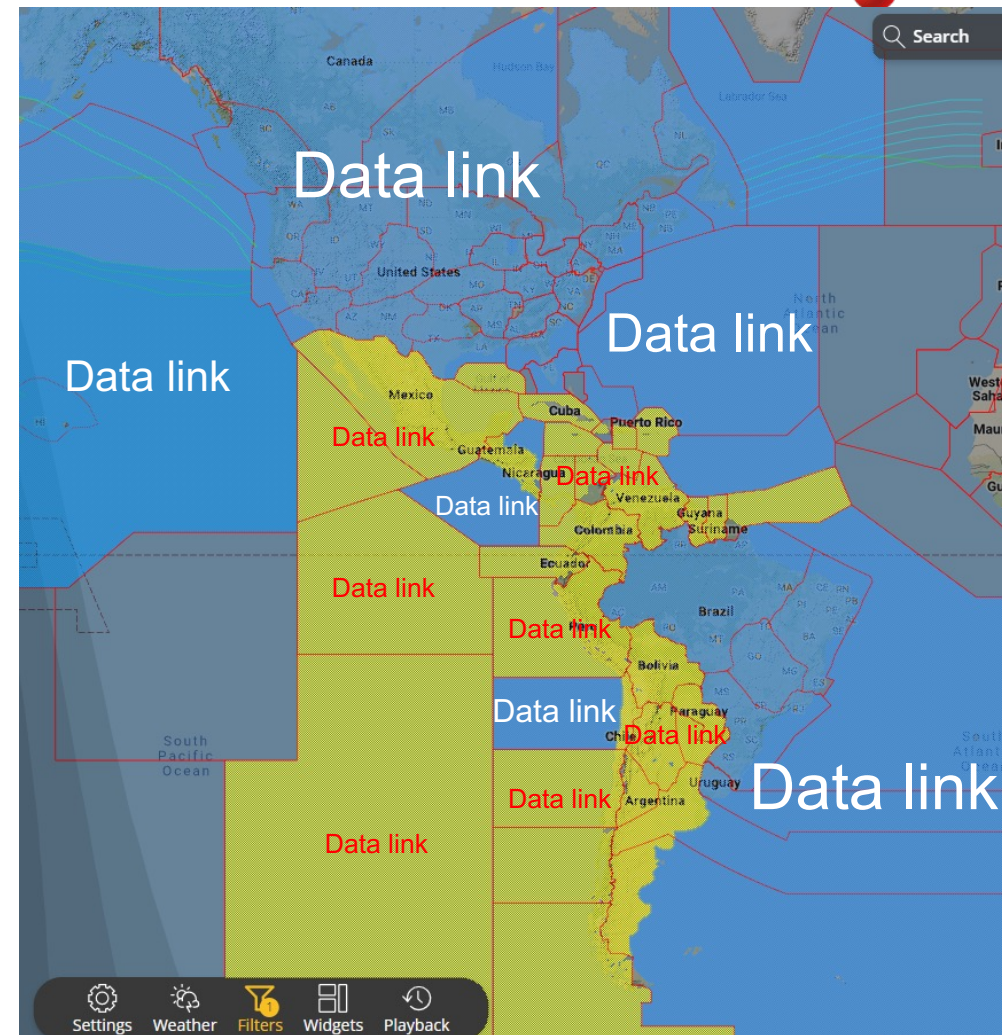
Americas' Alignment of Data Link Services and Procedures



Americas' Alignment of Data Link Services and Procedures



Operational or under implementation



Americas' Alignment of Data Link Services and Procedures

Datalink Connectivity and Services

FAA (USA):

- **D-ATIS 62 Airports**
- **DCL 62 Airports**
- CPDLC Oceanic & Domestic & ADS-C

DECEA (Brazil):

- **DCL 28 Airports**
- **D-ATIS/D-VOLMET 4 Airports + 1 Central System**
- CPDLC Oceanic & Domestic (Continental) & ADS-C

EANA (Argentina):

- **DCL 2 Airports**
- **D-ATIS 2 Airports (to be deployed)**
- CPDLC Oceanic & ADS-C

AEROCIVIL (Colombia):

- **D-ATIS/D-VOLMET for 27 airports**
- **DCL for 1 airport**

NAV CANADA

- CPDLC Oceanic & Domestic & ADS-C

COCESNA:

- CPDLC Oceanic & ADS-C

DGAC (Chile):

- CPDLC Oceanic & ADS-C

DINACIA (Uruguay):

- CPDLC Oceanic & ADS-C



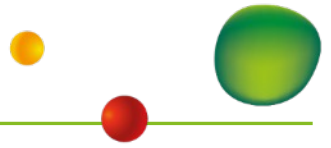
AERONÁUTICA CIVIL



Future View



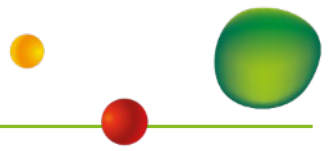
GREPECAS 2022 – Salvador, Brazil



GREPECAS/20 and Second GREPECAS–RASG-PA Joint Meeting
Salvador, Bahia, Brasil | 15-18 November 2022



ATC Portfolio Summary



Services:

- Datalink Connectivity & Managed Services:
 - ✓ CPDLC (Oceanic and Domestic/Continental)
 - ✓ ADS-C
 - ✓ D-ATIS, D-VOLMET
- SATVOICE for ATC
- MLAT as-a-service (on demand)

Systems (Hardware + Software):

- Essential Efficient Tower
- DCL System (Departure Clearance)
- D-ATIS System
- D-VOLMET System
- CPDLC Standalone





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Connected. Across Fleets. Between Solutions. Among People. Worldwide.

Thank you!

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QUESTIONS AND ANSWERS

THANK YOU

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