

Regional Focus



Introducing the CADENCE Operational Information System in Asia Pacific

Tuesday 4 May 2021

06:00 – 08:00 CEST



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Director Asia Pacific Affairs

CANSO



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Operations Programme Manager
CANSO



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Co-Chair CADENCE Task Force
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Mr. Stuart Ratcliffe

Co-Chair CANSO ATFM/CDM
Workgroup
Metron Aviation



Ms. Coleen Hawrysko

Operations Programme Manager

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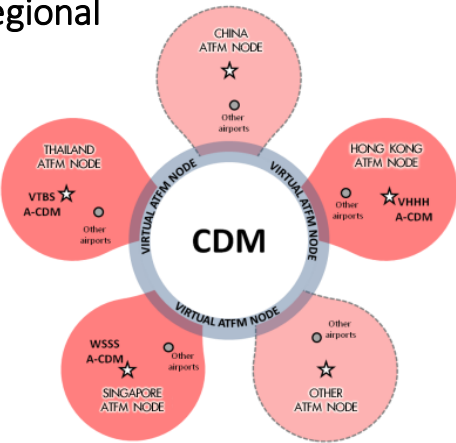
Metron Aviation

Evolution of Asia-Pacific ATFM

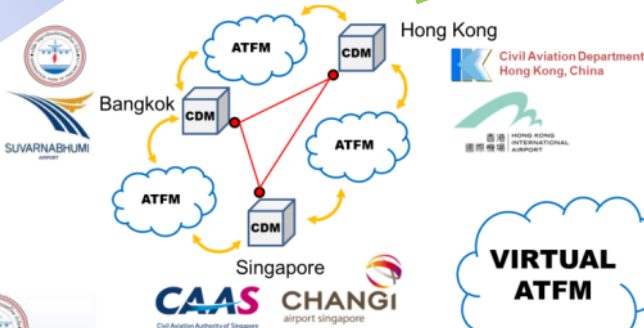
Research Collaboration on
Regional ATFM Concept
2013



Distributed Multi Nodal Regional
ATFM Concept
2014 -



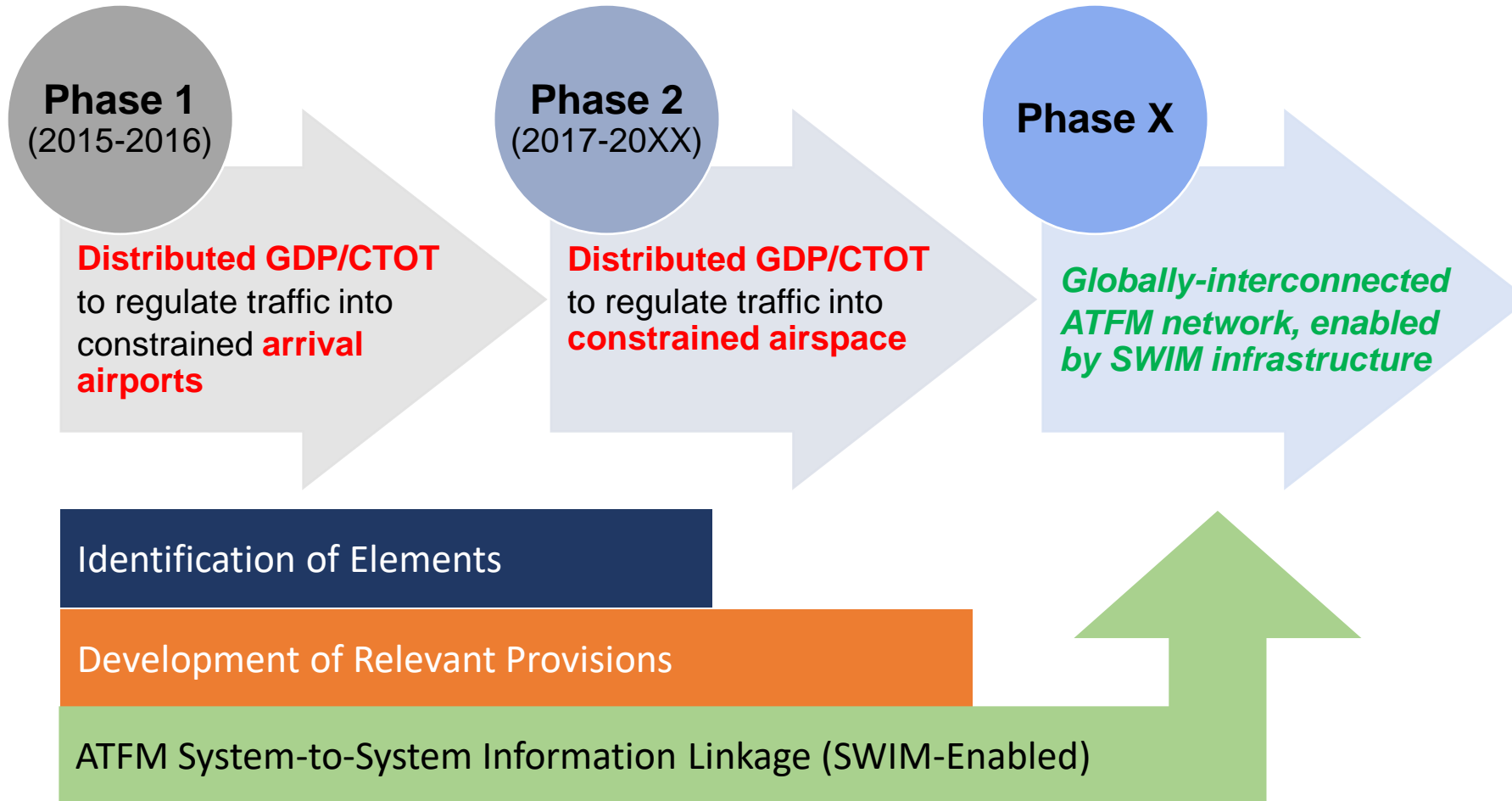
CANSO Whole-of-Flight CDM
Pilot Project between BKK-SIN
2011-2012



Tripartite CDM Project between
BKK-HKG-SIN
2012-2013



Phased Approach



Tiered Approach to Participation



11

ANSPs with airport and airlines partners



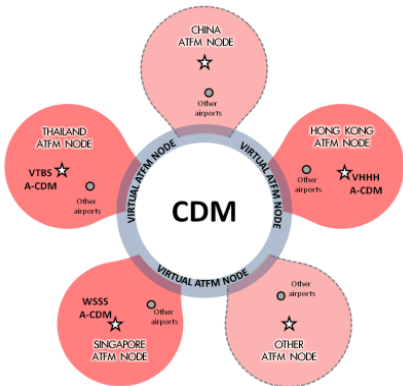
36

Int'l Airports



3

Tiers of ATFM Nodes

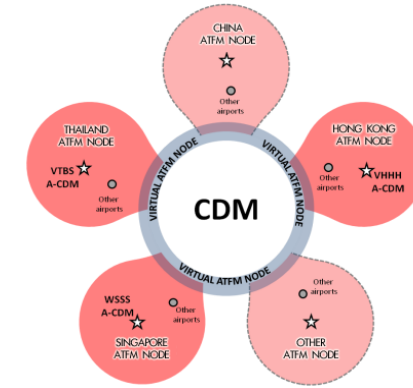


Tiered Approach to Participation

Level 3 ATFM Nodes

Generate, Distribute, Comply to CTOT

- ATMB
- HKCAD
- CAAS
- AEROTHAI
- CATS



Level 2 ATFM Nodes

Receive and Comply to CTOT

- AirNav
- CAAM
- CAAP
- VATM

Level 1 ATFM Nodes

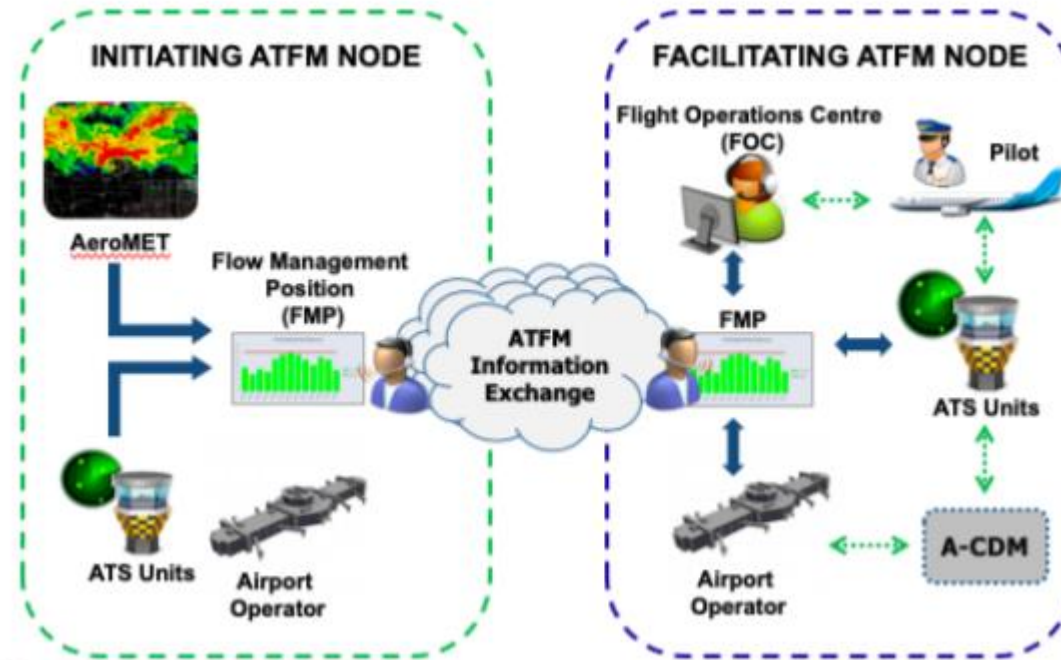
*Observers
(soon to upgrade)*

- LANS



What opportunities are there to enhance the ATFM process in APAC?

- Enhance the regional operational situational awareness among stakeholders
- Enhance the CDM processes



CDM

Why:

- CDM allows all members of the air traffic management (ATM) community to participate in ATM decisions that affect them.
- This is difficult if they do not have all the required information.

Who:

- ANSPs
- Airlines
- Associations (IATA)
- Military
- Meteorologists



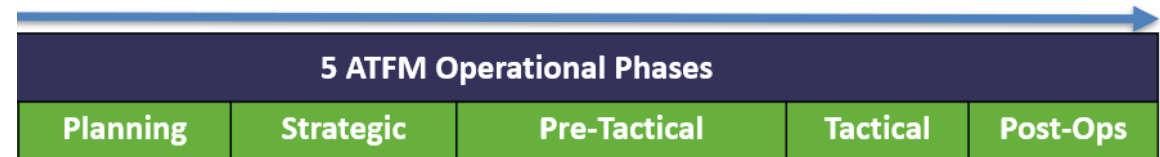
CDM

What:

- Demand prediction
- ATFM Solutions
- Weather Forecasts
- Procedures
- ATFM Daily Plan
- ATFM Measures
- Capacity
- Constraints
- Weather
- NOTAMS
- CNS Serviceability
- CDM Teleconference

When:

- All Phases of ATFM



CDM

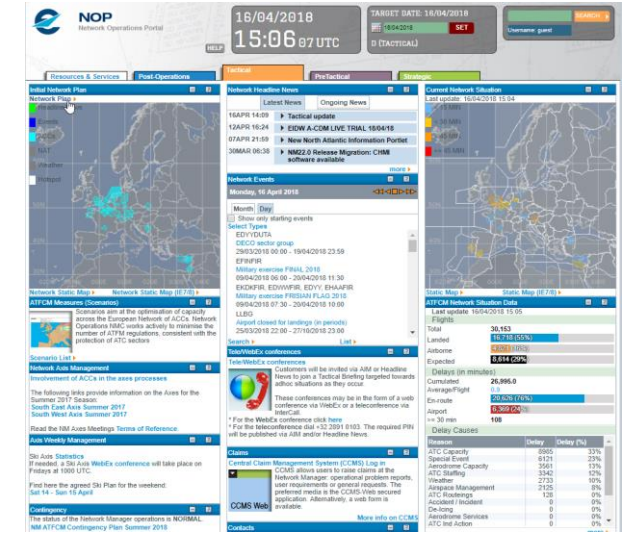
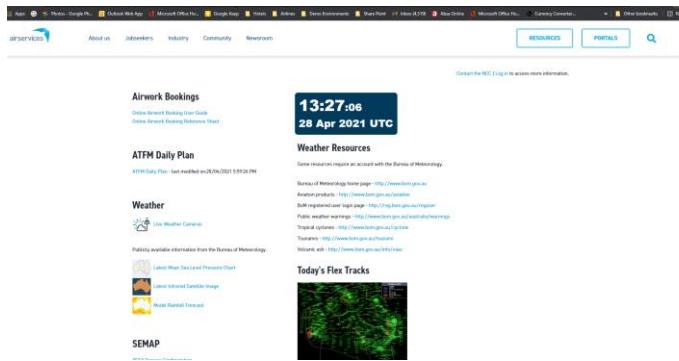
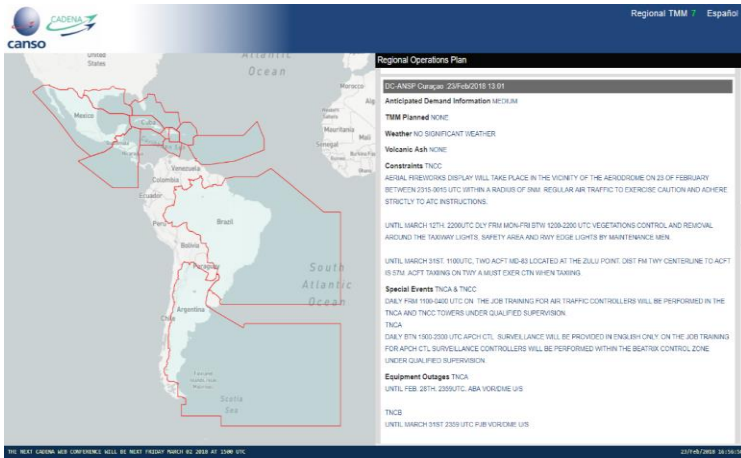
How:

- Person to Person calls
- E-MAIL
- CDM Platforms
- EUROCONTROL Messages
- ATFM stakeholder planning teleconferences:
- ATFM strategic, pre-tactical and tactical plans
- ADP
- WEB Pages Links to ATFM-related information:
- Weather websites

How can this information be easily shared - OIS



Operational Information System



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Qualitative Benefits - understood intuitively

More information sharing, better decision

Better coordination, better decision

Better decision, more benefits



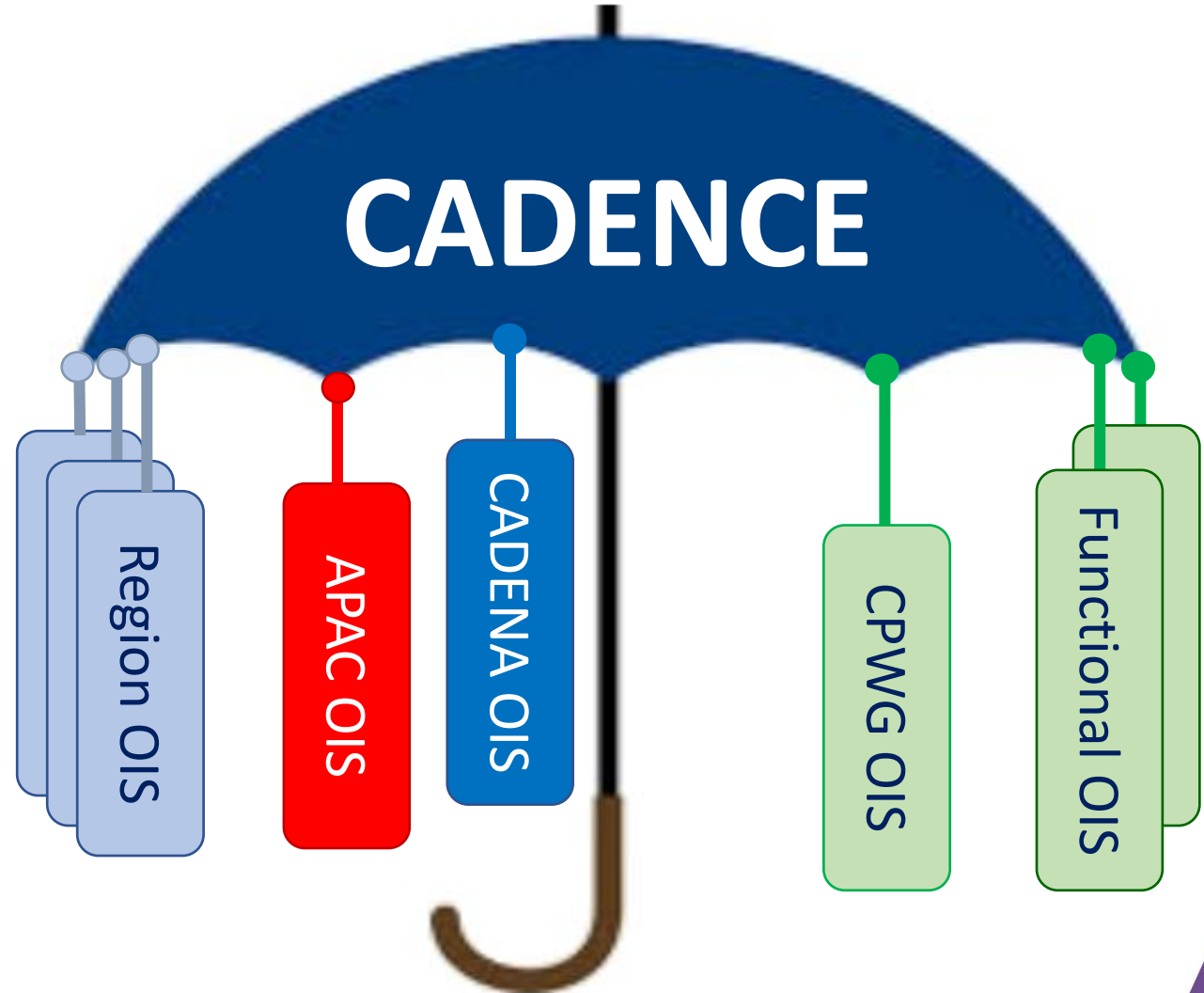
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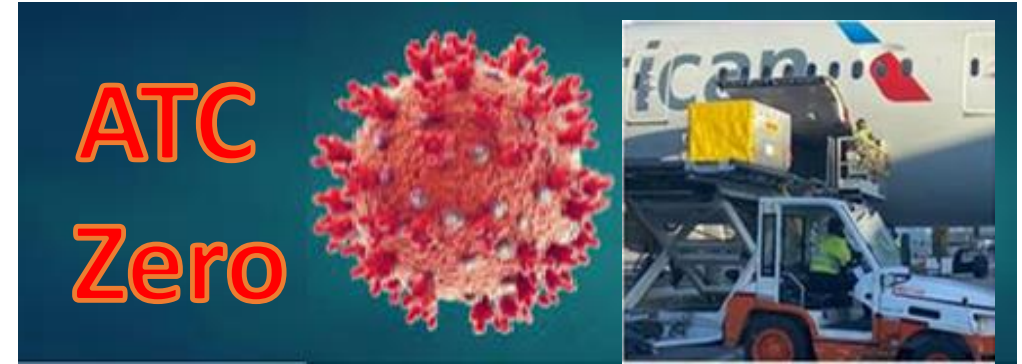
FAA

CADENCE Implementation Globally and in APAC

- CADANCE provides the base OIS capabilities to regions and functional groups
- Each region/functional group needs to its OIS implementation group
- The stronger the implementation group, the better OIS works



OIS Benefits – When



AA 957 Dec 31,2020 Santiago, Chile



OIS Benefits – Who

ANSPs Airlines

Passengers

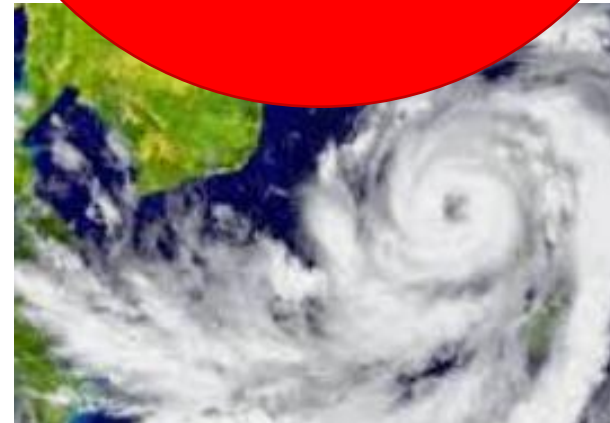
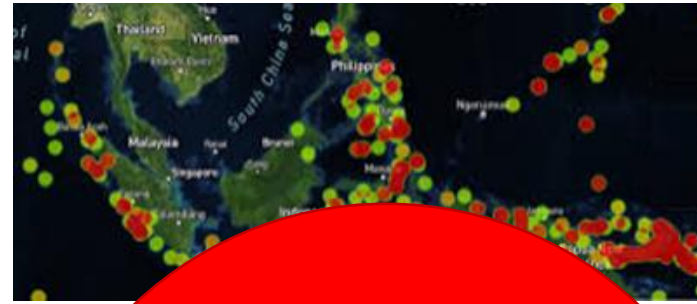
All Stakeholders

Cargo Operators

Airports

VS

Information



OIS Benefits – Example

Qualitative Benefits - understood intuitively

Quantitative (monetary) Benefits

- UAL - Hurricane Maria Recovery Operation Case Study – \$1.0M – \$5.4M
- JBU - Return Home from Hurricane Maria Case Study – \$182.0K
- AAL - Jamaica Loss of Radar Surveillance Case Study – \$225.0K
- CPA - Jamaica Loss of Radar Surveillance Case Study – \$175.5K
- UAL - Colombia Loss of Satellite Comm Case Study – \$192.0K




Numbers in this briefing should not be interpreted literally, however, the **savings achieved by stakeholders are real.**



OIS Benefits – COVID Situation

Information shared and Operation coordinated

- The COVID-19 caused operational limitations report
 - Alternate aerodromes information
 - Airline and ANSP Operational Outlook
 - ATC-Zero
 - Vaccine Flights
- 



Mr. Joe Hof
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CGH Technologies

ANSP Participation: What is asked of the ANSPs?



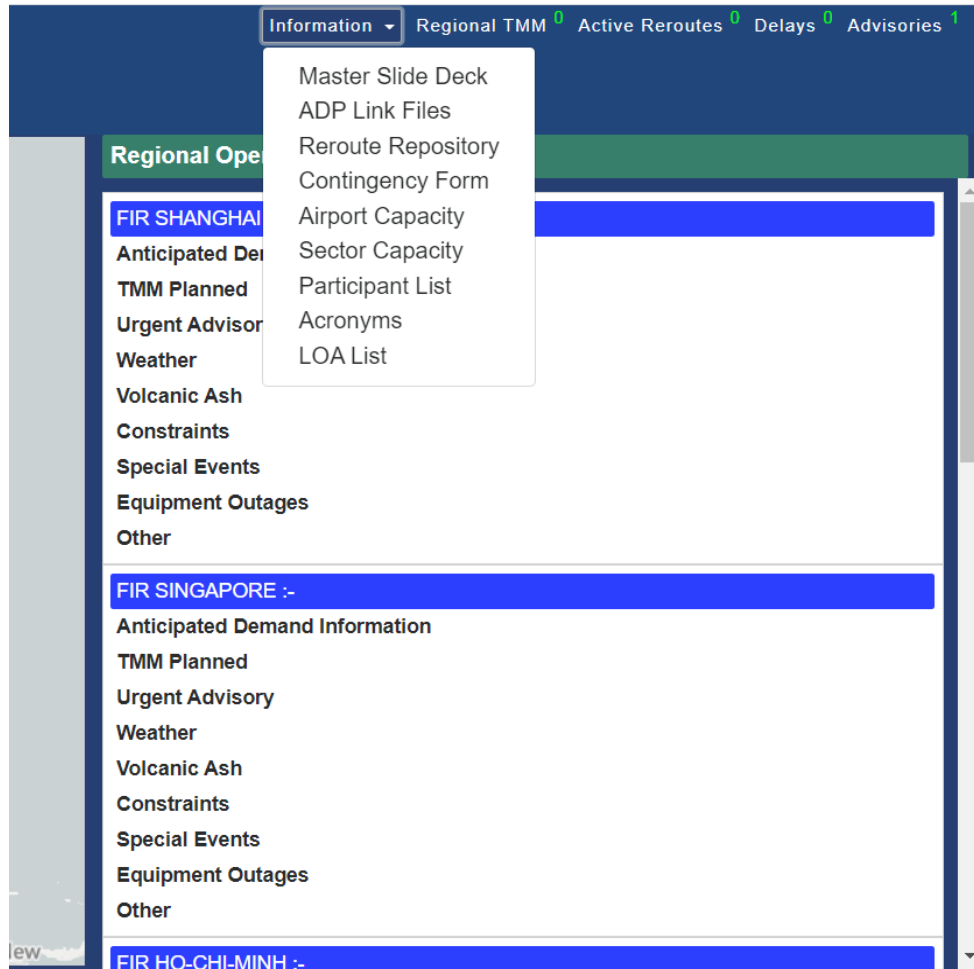
- It will begin with an opportunity to coordinate and work with CADENCE to determine the best approach for your region
- One approach could be via regional ATFM groups. For example, AMNAC/NARAHG

ANSP Participation: What information could be shared?




- **It depends !**
- The CADENCE OIS is capable of sharing a wide variety of operational information
- The decision on what operational information could be shared might best be determined by regional ATFM groups

ANSP Participation: How will info be shared and how frequently?



- The recommendation is to start using the **CADENCE OIS** to share operational information quickly and inexpensively
- The decision on the type of operational information to be shared, frequency, and other operational procedures might be best determined by the regional ATFM groups

Demonstration of the CADENCE OIS



CADENCE OIS

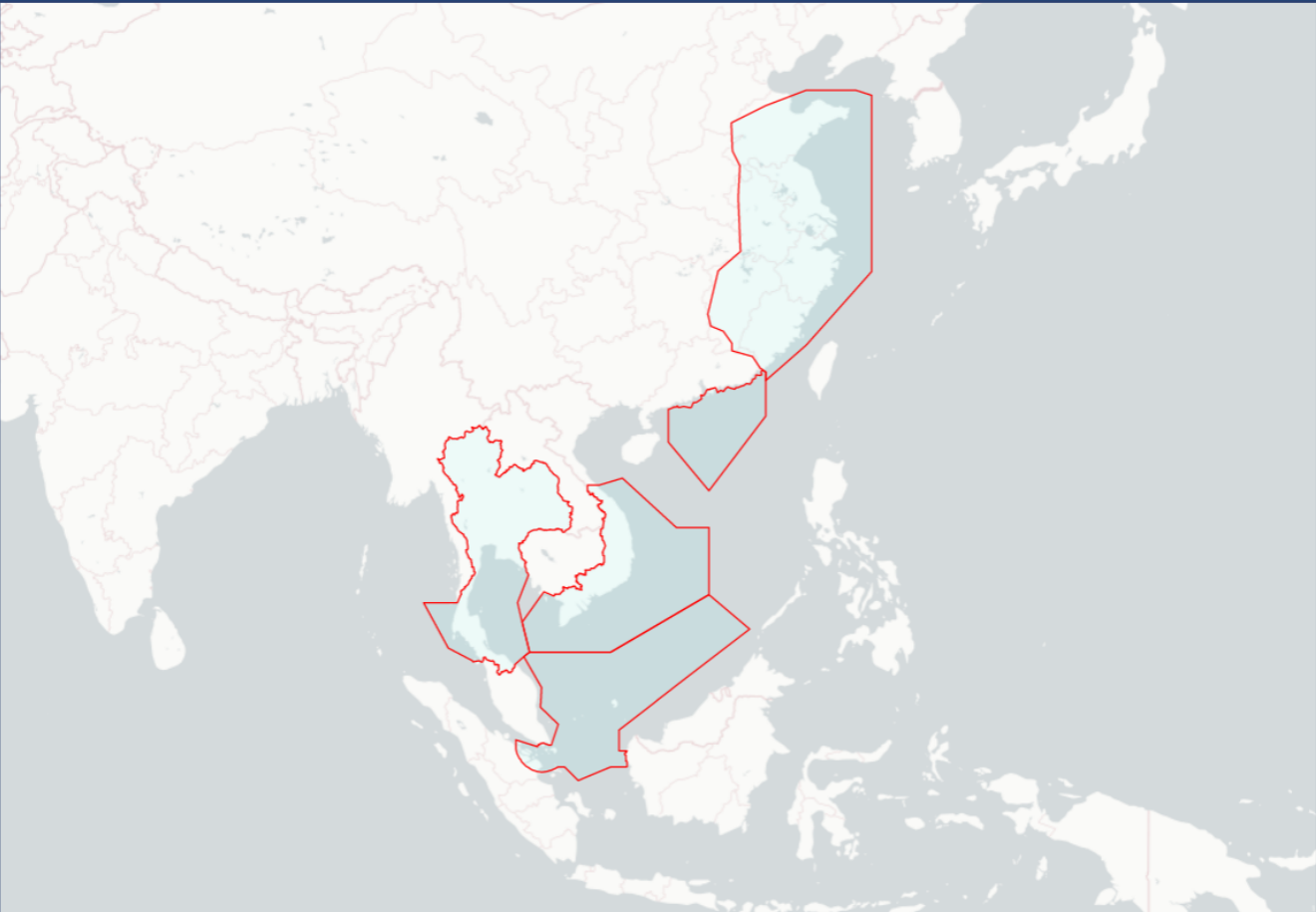
Information

Regional TMM0

Active Reroutes0

Delays0

Advisories0



Regional Operations Plan

FIR SHANGHAI :-

Anticipated Demand Information

TMM Planned

Urgent Advisory

Weather

Volcanic Ash

Constraints

Special Events

Equipment Outages

Other

FIR SINGAPORE :-

Anticipated Demand Information

TMM Planned

Urgent Advisory

Weather

Volcanic Ash

Constraints

Special Events

Equipment Outages

Other

FIR HO-CHI-MINH :-

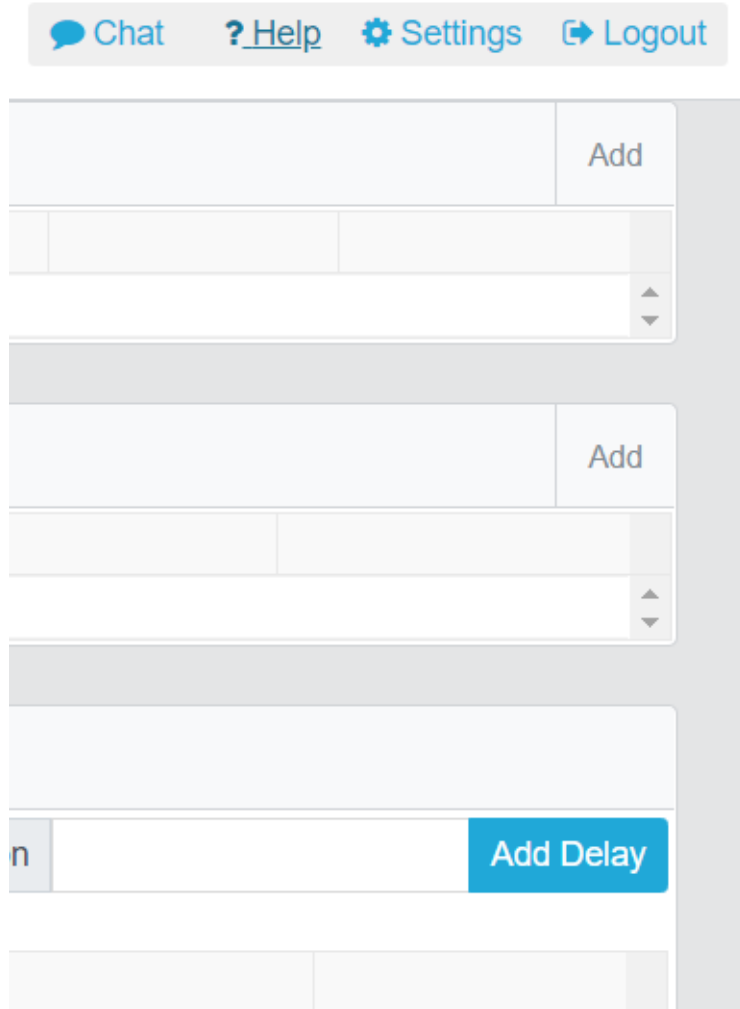
Anticipated Demand Information

TMM Planned

THE NEXT CADENCE PLANNING WEB CONFERENCE WILL BE HELD ON THURSDAY, MAY 4, 2021 AT 0400 UTC

30/Apr/2021 11:41:03

How is the CADENCE OIS supported?

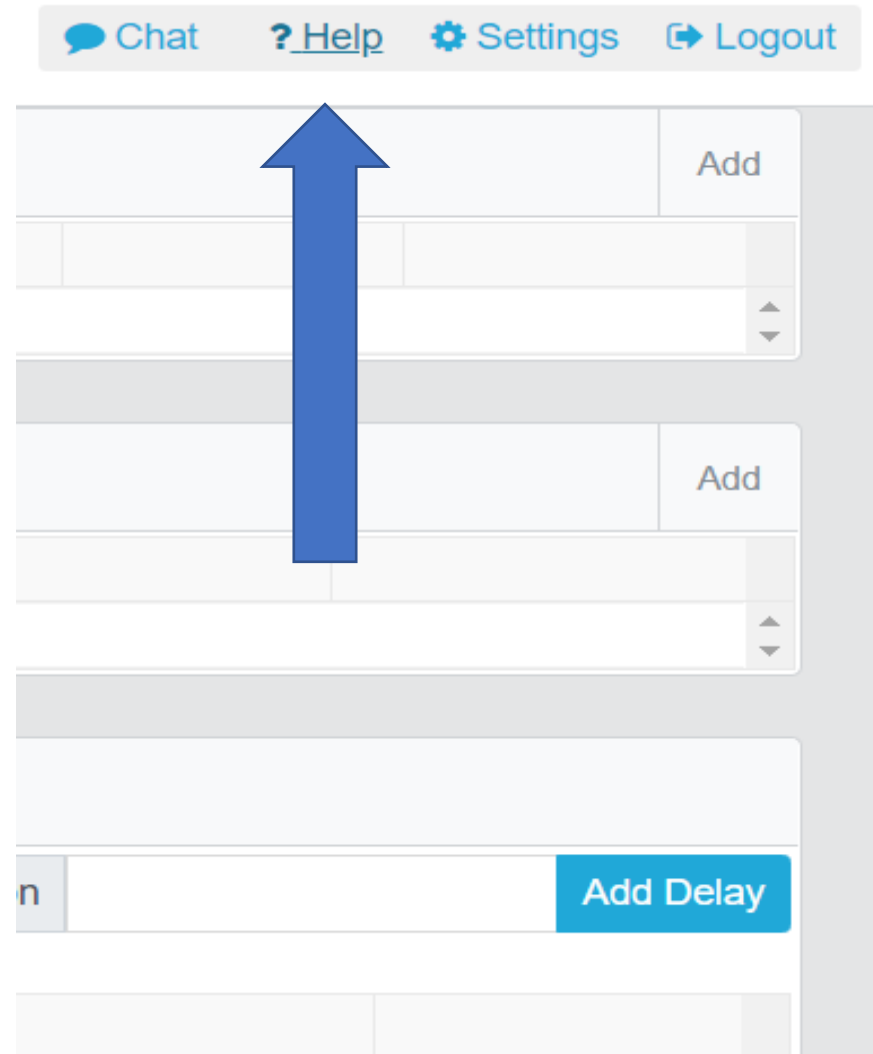


The screenshot shows a web interface for the CADENCE OIS. At the top, there is a navigation bar with links for Chat, Help, Settings, and Logout. Below this, the interface is divided into a sidebar and a main content area. The sidebar contains several sections, each with an 'Add' button. The main content area has a large input field, a smaller input field, and a blue 'Add Delay' button. The interface is designed with a clean, modern aesthetic using light gray and blue colors.

- The CADENCE OIS is supported by technical staff at CGH Technologies' offices in Herndon, Virginia, USA
- The technical staff is normally available from 1200 UTC to 0000 UTC

What to do if there are technical issues that need addressing?

- Click on the Help link after logging in to your homepage
- This will allow you to send an email to the Help Desk located in Herndon, Virginia





Questions and Answers



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Operations Programme Manager

CANSO



Mr. Hai Eng Chiang

Director Asia Pacific Affairs

CANSO

Contact details



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Thank you

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