



AEROTHAI SWIM JOURNEY

PRESENTED BY

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AEROTHAI SWIM JOURNEY

- Mini Global I & II

- Multi-Regional TBO Demonstration
- FIXM 4.2 APAC Extension
- SWIM Information Services Prototype

2014-2015

2016-2019

2020-2021

2022-2025

- SWIM Infrastructure Prototype
- SWIM in ASEAN Demonstration
- FIXM 4.1 APAC Extension

- FF-ICE/R1 Technical Trial
- AAI-AEROTHAI Test
- SWIM Implementation

2014-2015

2016-2019

2020-2021

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Mini Global I & II

What we did:

- Mini Global I & II Demonstration participation to gain firsthand experience on implementing SWIM
- Capabilities building, based on scenarios of interest, to exchange information in standardized information exchange models

Lessons Learned:

- SWIM able to support both current and future operational concepts
- Simplified system building using widely-used standards and tools
- Richer information exchange
- Unique flight identification using GUF1



2014-2015

2016-2019

2020-2021

2022-2025

SWIM Infrastructure Prototype

What we did:

- SWIM infrastructure services prototype
- PUB/SUB – AMQP ; REQ/REP – Web Service

Lessons Learned:

- Sustainability issue - Information routing and transformation without appropriate tools
- Challenge - Technical development without operational view

2014-2015

2016-2019

2020-2021

2022-2025

SWIM in ASEAN Demo & FIXM 4.1 APAC Ext

What we did:

- Co-host SWIM in ASEAN Demonstration with CAAS
- Global Enterprise Messaging Service (GEMS) network
- FIXM 4.1 APAC Extension, to support Distributed Multi-Nodal ATFM Operational Concept

Lessons Learned:

- Difference regions, difference requirements
- Interconnected EMS model - Viable solution for APAC
- Additional work required to process various information exchange model extensions



2014-2015

2016-2019

2020-2021

2022-2025

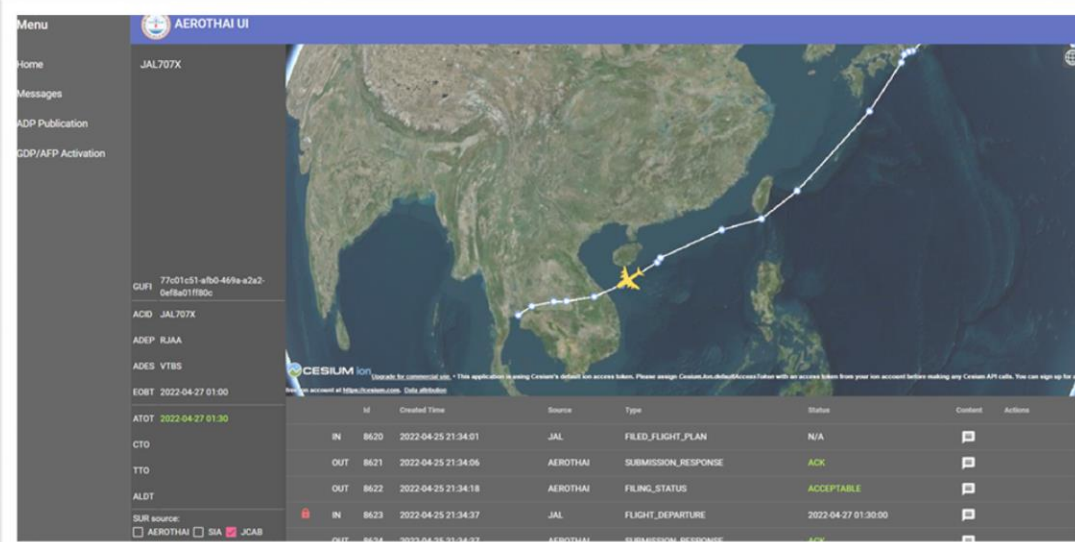
MR TBO Demo & FIXM 4.2 APAC Ext & FF-ICE/R1 Technical Trial

What we did:

- MR TBO Demo project participation
- FIXM v4.2 APAC Extension
- FF-ICE/R1 Technical Trial

Lessons Learned:

- Lack of FF-ICE/R2 message template
- Lack of clear definitions of FIXM data attributes



The screenshot displays the AEROTHAI UI interface. On the left, a menu lists 'Home', 'Messages', 'ADP Publication', and 'GDP/AFP Activation'. The main area features a map of East Asia with a flight path and a yellow star icon. Below the map, a table lists flight messages with columns for ID, Created Time, Source, Type, Status, Content, and Actions. The messages include flight plan filings, submission responses, and flight status updates.

ID	Created Time	Source	Type	Status	Content	Actions
IN 8620	2022-04-25 21:34:01	JAL	FILED_FLIGHT_PLAN	N/A		
OUT 8621	2022-04-25 21:34:06	AEROTHAI	SUBMISSION_RESPONSE	ACK		
OUT 8622	2022-04-25 21:34:18	AEROTHAI	FLIGHT_STATUS	ACCEPTABLE		
IN 8623	2022-04-25 21:34:27	JAL	FLIGHT_DEPARTURE		2022-04-27 01:30:00	
OUT 8624	2022-04-25 21:34:32	AEROTHAI	SUBMISSION_RESPONSE	ACK		

2014-2015

2016-2019

2020-2021

2022-2025

AAI-AEROTHAI Test

What we did:

- AAI SWIM integration support
- FIXM v4.2, AIXM v5.1, and IWXXM v3.0.0 information exchange

Lesson Learned:

- Different versions of information exchange model used



2014-2015

2016-2019

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2022-2025

SWIM Implementation

What we are doing:

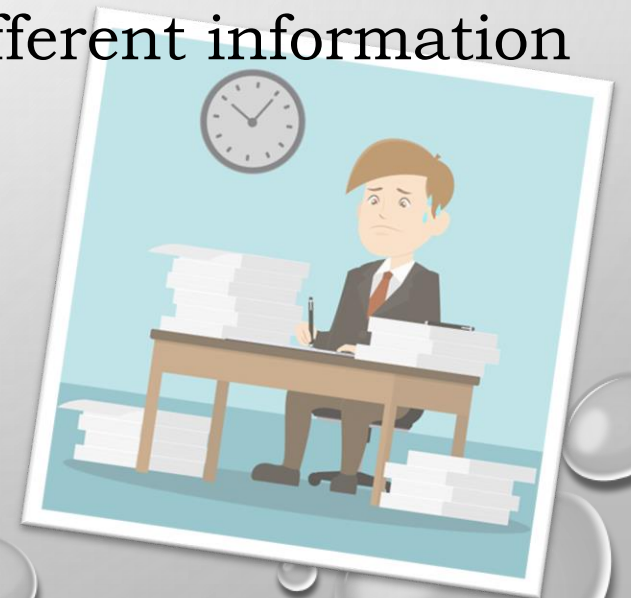
- SWIM Infrastructure and Governance implementation (Information services being implemented in parallel)
- FIXM version migration from v4.2 to v4.3

Lessons Learned:

- Technical development without operational perspective
- **SWIM Infrastructure alone is not SWIM**
- Unsettled Information Exchange Model version

EXPECTATION FROM SWIM TF

- Provide regional SWIM implementation guidance materials, including detailed technical specifications
- Approach to ensure interoperability and harmonization, e.g.
 - identify information exchange model version to be used across the APAC region
 - identify mediation method for SWIM users using different information exchange model versions
- Provide transition plan
- List of common Information Services
- Suggest framework to onboard other aviation stakeholders (not only ANSP)



The image features a light gray background with a subtle, circular, embossed-like pattern in the center. The corners of the image are decorated with several realistic water droplets of varying sizes, some appearing to be on the surface and others as if floating or about to fall. The droplets have highlights and shadows, giving them a three-dimensional appearance.

THANK YOU