

Civil Aviation Authority of Singapore



Agenda

- Past Validation Activities
 - Table Top Exercises
 - Technical Trials
- Implementation Plans

Overview of Past and Present Activities for FF-ICE/R1 Services

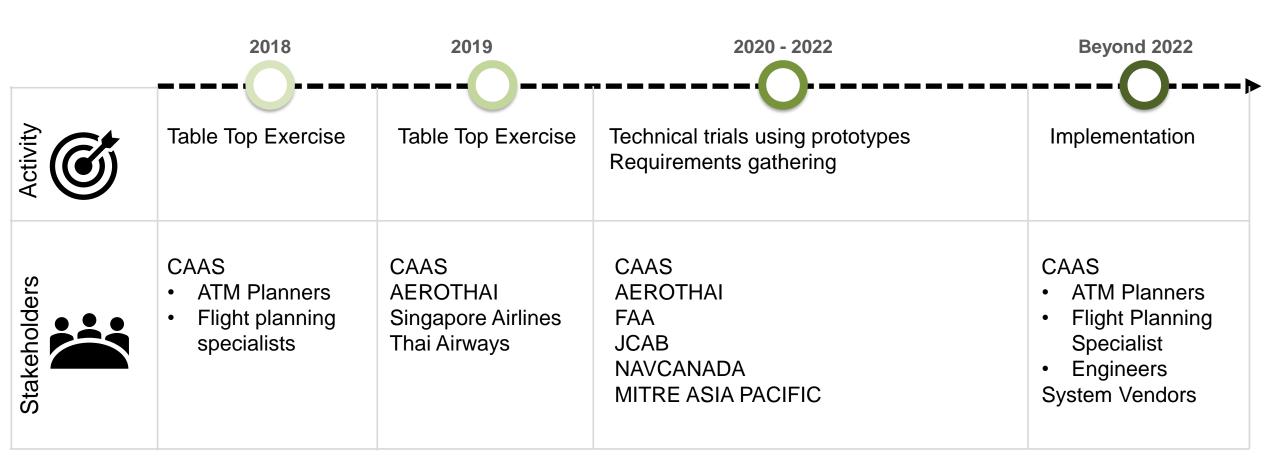


Table Top Exercises – 2018 and 2019

Key Objectives

- Verify operational interactions between ATM service providers and airspace users and identify potential operational feasibility challenges especially in a mixed mode environment
- Identify functional capabilities required to support FF-ICE
- Feedback to ICAO for further development of FF-ICE materials
- Provide operational participants an opportunity to familiarise with FF-ICE concept

Scenarios

- Full FF-ICE Mode (origin eASP, destination eASP, overflight eASP)
- Mixed Mode (origin eASP, destination eASP, overflight aASP)





Technical Trials Using Prototypes – 2020 to 2022

Key Objectives

- Improve understanding of FF-ICE integration and system needs
- Better understanding of SWIM implementation requirements for internal and external exchanges
- Test out exchange of messages in standardised data formats (FIXM, AIXM, IWXXM)

Trials Conducted

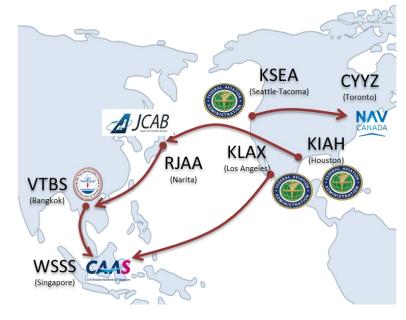
- Bilateral FF-ICE/R1 message exchanges with AEROTHAI
- FF-ICE/R1 message exchanges under the Multi-Regional TBO lab demonstration led by FAA





Multi-Regional TBO Lab Demonstration

- Scenarios designed to identify, mature, and demonstrate key TBO capabilities with international and industry partners
- FF-ICE/R1 services was one of the key technical capabilities developed for the MR TBO demonstration
- Participating partners linked up their prototypes to perform the message exchanges







FF-ICE/R1 Implementation – Beyond 2022

- 2020 2022 (in partnership with MITRE Asia Pacific Singapore)
 - Requirements gathering through technical trials
 - Develop system behaviour models
- 2022 to date
 - In discussion with vendor on FF-ICE operational and system requirements
- Early 2026
 - Target operationalising FF-ICE/R1 filing service and flight data request service
 - Phased approach to gain experience before implementing the rest of R1 services

Thank You

