INTERNATIONAL CIVIL AVIATION ORGANIZATION

First Meeting of the Africa - Indian Ocean Aviation System Planning and Implementation Group (AASPG/1)

Libreville, Gabon, 3 - 7 November 2025

Agenda Item 4: Implementation of air navigation goals, targets and indicators, including the priorities set in the regional air navigation plan

FF-ICE Project Rationalization

(Presented by IATA)

SUMMARY
This working paper presents IATA position on the implementation of FF-ICE, including the requisite enablers to support flight operations safety and efficiency. As is the case now, FPL2012 format is constrained by limited data fields, preventing submission of critical flight information such as aircraft performance, trajectory intent, operational constraints, advanced navigation capabilities. These limitations result in inaccurate trajectory calculations and unnecessary flight plan rejections. FF-ICE, supported by FIXM, and leveraging aeronautical and weather information exchange through AIXM, and IWXXM formats respectively, will enable more accurate trajectory planning. Airline Computer Flight Planning Systems (CFPS) must be SWIM-enabled to consume and share this data effectively. There is a need to address the transition challenges that include fragmented regional implementations, financial hurdles, and reliance on outdated networks like AFTN. IATA supports FF-ICE implementation contingent on SWIM infrastructure deployment, coordinated transition plans, ANSP automation upgrades, and robust contingency procedures. Action by the Meeting is to take note of IATA position and take the necessary steps to fast track the implementation of SWIM and FF-ICE in the region.

Strategic Objectives	Airspace efficiency, airspace capacity management

1 INTRODUCTION

1.1. The aviation industry is undergoing a significant transformation in flight planning and air traffic management that necessitates the transition from the legacy ICAO FPL2012 format to the Flight and Flow Information for a Collaborative Environment (FF-ICE) framework.

1.2. This transition is driven by the need for more dynamic, data-rich, and interoperable systems that support System Wide Information Management (SWIM).

1.3. The current limitations of FPL2012 in accommodating critical flight data have prompted stakeholders to explore FF-ICE as a solution to enable trajectory-based operations (TBO), improve airspace capacity management, and support real-time and data-driven decision-making.

2. DISCUSSION

2.1. ICAO FPL2012 lacks the capacity to include essential flight data such as actual aircraft performance, taxi time estimates, and climb/descent profiles. Manual processes and fragmented systems increase the risk of errors and operational inefficiencies. Tactical in-flight changes are often disconnected from broader ATM systems, limiting their utility for flow management.

2.2. FF-ICE: FF-ICE supported by FIXM for flight information exchange and leveraging aeronautical and meteorological data exchange through AIXM and IWXXM via SWIM, will enable richer data exchange to support more accurate trajectory calculations, planning, and pre-flight negotiation-FF-ICE/R1-. It facilitates SWIM-enabled operations, allowing seamless integration of aeronautical and meteorological data. Airlines benefit from improved schedule predictability, reduced delays, and enhanced coordination with ANSPs. The envisaged automated systems will enable seamless implementation of FRA.

2.3. Some of the challenges in implementation of FF-ICE is mixed-mode operations during transition may require airlines to file both FPL2012 and FF-ICE formats. Fragmented regional implementations and varying FF-ICE requirements pose risks to harmonization. Financial and infrastructure hurdles, including reliance on outdated networks like AFTN, must be addressed.

2.4. Airlines expect ANSPs to utilize FF-ICE data for airspace and ATFM planning. A coordinated regional transition plan is essential to avoid operational disruptions. ICAO's leadership is critical in driving the implementation of FF-ICE Release 1 and subsequent phases. IATA continue to engage with CFPS providers to ensure readiness of their computerized planning systems.

2.5. IATA supports FF-ICE conditional on the deployment of SWIM infrastructure, coordinated transition plans across regions, ANSPs translating FF-ICE to FPL2012 during interim periods, development of contingency procedures, and upgrades to ANSP automation systems to leverage FF-ICE data. IATA is planning to deliver workshops on FF-ICE implementation for airlines and ANSPs in 2026.

3 ACTION BY THE MEETING

3.1 The meeting is invited to:

a) Note the limitations of FPL2012 and the operational benefits of transitioning to FF-ICE.

b) Support the FF-ICE (and SWIM) PMT in the development of a regional implementation plan aligned with ICAO provisions and validated cost-benefit assessments.

c) Encourage States and ANSPs to invest in SWIM infrastructure and automation upgrades to enable FF-ICE capabilities.

d) Request ICAO to facilitate harmonized standards and provide guidance on contingency procedures during the transition.

e) Promote stakeholder collaboration to ensure a smooth and coordinated migration to FF-ICE, minimizing mixed-mode operations and enhancing global interoperability.