International Civil Aviation Organization

MIDANPIRG Air Traffic Management Sub-Group

Ninth Meeting (ATM SG/9)
(Sharm El Sheikh, Egypt, 14 – 16 November 2023)

Agenda Item 4:   **Planning and Implementation issues related to ATM/SAR**

FF-ICE: SUPPORTING FUTURE ATM OPERATIONS

(Presented by the United Arab Emirates)

SUMMARY
Discussions at the ICAO Air Navigation World 2023 in Singapore emphasized the shift from FPL2012 to FF-ICE, an essential advancement in air traffic management. FF-ICE is proposed for regional implementation by 2032, urging States and regions to commence preparations. Recognizing this need, the United Arab Emirates (UAE) proposes establishing a regional Task Force composed of ATM, CNS specialists, and industry experts for drafting the Middle East (MID) Region FF-ICE Implementation Plan. This paper draws from the FF-ICE concept, guided by ICAO Document 9854.   Actions by the meeting are in paragraph 3.

REFERENCES
- Doc 9854: Manual on Flight and Flow-information for a Collaborative Environment (FF-ICE)   - Doc 9882: Manual of Air Traffic Management System Requirements   - Doc 9750: GANP: Global Air Navigation Plan

1.   INTRODUCTION

1.1   Current flight planning provisions, rooted in outdated communication systems, require a fundamental change to align with the Global ATM Operational Concept (Doc 9854). The FF-ICE (Flight and Flow-Information for a Collaborative Environment) concept, endorsed by the Air Traffic Management Requirement and Performance Panel (ATMRPP) in 2010, addresses these limitations.

2.   DISCUSSIONS

2.1   What is FF-ICE: Flight and flow information necessary for notification, management, and coordination of flights between members of the ATM community within the collaborative environment envisioned in the Global ATM Operational Concept. FF-ICE can refer to a single instance (an individual flight) and an aggregation of flights (each with its own flight information in FF-ICE).

2.2   The FF-ICE concept provides a globally harmonized process for planning and delivering consistent flight information. The underlying methods for exchanging flight information may differ depending on local design considerations. Still, they must be cross-border compatible and able to exchange the necessary data at every flight planning stage.

2.3   A globally standardized and clear collection of information elements will serve as the foundation for the FF-ICE. Consistent information delivery does not mean that information needs will be the same everywhere. Although the definition of flight information will be standardized worldwide, each region will require specific extension data items. This suggests, practically speaking, that an infrastructure is needed to facilitate the transportation and distribution of this data.

2.4   The migration from FPL2012 to FF-ICE signifies a critical advancement in air traffic management. FF-ICE introduces advanced capabilities, streamlined data exchange, and fosters a collaborative environment, aligning with the dynamic requirements of the aviation industry.

2.5   FF-ICE supports all ATM Operational Concept components requiring flight information and refines Doc 9854 in flight information management. It aims to evolve towards a performance-based air navigation system. FF-ICE's guiding principles include flexibility, early intent indication, support for 4D management, and global standardization of machine-readable information.

2.6   Recognizing the importance of this transition, it is proposed to implement FF-ICE regionally by 2032. States are strongly encouraged to initiate preparations promptly to facilitate a smooth and harmonized transition, capitalizing on the myriad benefits of FF-ICE.

2.7   While FF-ICE's full implementation is expected in 2032 and beyond, there's an opportunity for early implementation of certain FF-ICE elements (FF-ICE step 1; ASBU Module B1- FICE, application before departure) and (Module B2- FICE, flight objective, SWIM). Proposed changes should be based on identified operational requirements and facilitate the transition to further FF-ICE steps. Early implementation areas include Global Unique Flight Identifier (GUFI), user preferences, and flight trajectory information.

2.8   In line with these objectives, the United Arab Emirates presents a constructive proposal. The UAE recommends the establishment of a regional Task Force composed explicitly of ATM and CNS specialists and airline representatives. The primary objective of this Task Force will be to draft a comprehensive and practical Middle East (MID) Region FF-ICE Implementation Plan. To ensure ANSPs and regional operators' readiness and smooth transition to FF-ICE, it will draw guidance and insights from ICAO Document 9854 provisions.

3.   ACTION BY THE MEETING

3.1   The meeting is invited to:

a) take note of the information presented in this Working Paper; and

b) agree to establish a Regional FF-ICE Task Force: to create a specialized regional Task Force comprised of ATM and CNS specialists and experts tasked with drafting the Middle East (MID) Region FF-ICE Implementation Plan, incorporating insights and best practices from ICAO Document 9854.

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