



**Agenda Item 4: Report of activities and deliverables of GESEA and Subgroups**

**CREATION OF GESEA’S SUBGROUP 4 – FICE IMPLEMENTATION**

(Prepared by GESEA Coordination)

**SUMMARY**

This paper proposes the establishment of GESEA Subgroup 4 (SG4 – IMPL FICE), with the objective of supporting the implementation of the FICE elements of the GANP ASBU in the SAM Region. These elements include components such as AIDC, FF-ICE, and information management services. The proposal is in line with **Action item GESEA/8/1**, which calls for the creation of SG4 IMPL FICE within the GESEA framework. This new subgroup would integrate the existing SG ATM AIDC and SG ATM FPL groups, aiming to consolidate related activities under a single regional coordination structure.

**References:**

- Global Air Navigation Plan (GANP) – FICE
- Meeting GESEA/8 (March 2025)
- Action GESEA/8/1

**1. Background**

1.1 At the Eighth Plenary Meeting of GESEA, held in Lima from 12 to 14 March 2025, Action GESEA/8/1 was approved. This action instructs the Coordinators and the Secretariat to establish a fourth subgroup—GESEA SG4 FICE IMPLEMENTATION (FICE IMPL)—to coordinate activities related to the GANP FICE module. These activities include the implementation of AIDC, the transition from the ICAO 2012 FPL format (scheduled for discontinuation in 2034), and other information management tasks.

1.2 As established by this action, the new SG4 will integrate specialists from the SG ATM AIDC and SG ATM FPL subgroups, while retaining the current rapporteurs, who will be formally incorporated into the GESEA structure. Additionally, the GESEA Terms of Reference (ToR) will need to be updated, thus, a draft of the revised ToR will be presented at the SAM/IG/33 in a separate file.

1.3 The subgroup will be responsible for supporting the coordination, standardization, and interoperability of key implementations—such as AIDC, FF-ICE/Release 1 and Release 2, and the modernization of flight management systems—in alignment with ASBU guidelines.

1.4 The FICE thread also encompasses the implementation of FF-ICE services, which aim to overcome the limitations of the current flight plan format (FPL2012) by enabling the exchange of large volumes of flight and flow information—essential for future Trajectory-Based Operations (TBO). These services allow for the early sharing of aircraft operators' intentions, incorporate data that facilitates more automated Collaborative Decision-Making (CDM), eliminate current information processing constraints by replacing legacy flight plan systems, and support trajectory-based air traffic management.

1.5 Finally, the FICE thread also includes planned implementations related to the provision of information management services to support high-altitude operations (HAO) and low-altitude operations in future advanced air mobility (AAM) environments. Additional focus areas include the global integration of information management and the real-time participation of operators in the generation and consumption of flight information.

## 2 Analysis

2.1 The importance of creating Subgroup 4 within the GESEA framework lies in coordinating the actions of the SAM Region States in implementing the GANP's FICE thread, to achieve the harmonization and interoperability, essential in the region to facilitate future TBO implementations.

2.2 The implementation of AIDC, one of the FICE thread implementations of the GANP, is underway in the SAM region. While the initial goal was to achieve 100% AIDC implementation by December 2016 in the SAM region's FIRs, implementation is still ongoing, and some challenges remain to be overcome to achieve this goal.

2.3 AIDC is already implemented and in use in the ATC systems of the five ACCs serving the Brazilian FIRs, with a total of nine connections. However, while AIDC is used throughout Brazilian airspace, adjustments to the system configuration and implementation of new requirements are necessary to maximize the benefits of this automation system.

2.4 The implementation of the AIDC interconnections between the Atlantic ACC and Dakar, between the Amazonica, Lima, Maiquetia, and Bogotá ACCs, and between the Curitiba and Asunción ACCs are underway. The interconnections closest to operational status are those established between the Amazon ACC, Maiquetia, Lima, and Bogotá, where pre-operational testing was successful, requiring minor adjustments and the establishment of a letter of operational agreement.

2.5 Regarding the connections established between the Curitiba ACC and Asunción, and between the Atlantic ACC and Dakar, operational tests are still ongoing. Once a series of necessary technical adjustments have been identified and addressed, it will be possible to establish operational and operationalization letters of agreement.

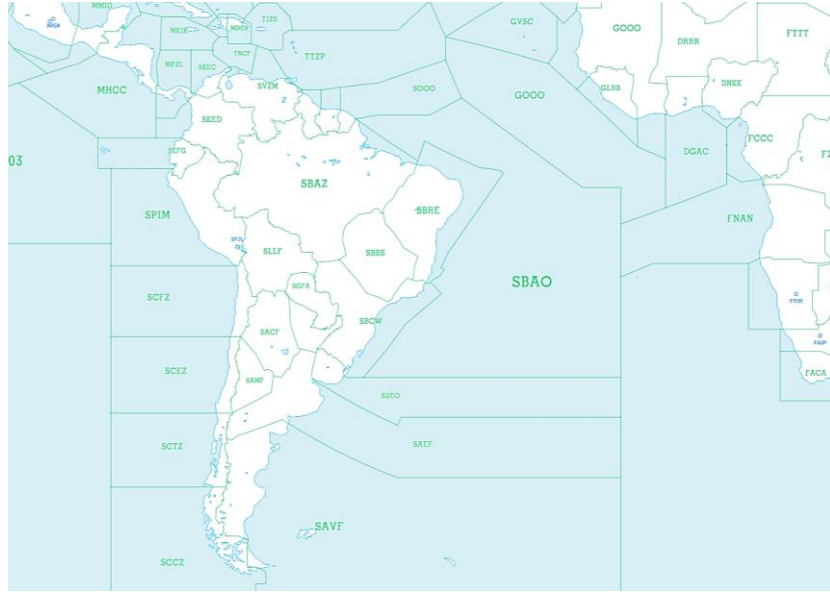


Figure 1– SAM Region FIR s

2.6 In 2023, during the Twentieth Meeting of the SAM Implementation Group (SAM/IG/29), Working Paper SAM/IG/29-WP/5.1 was presented to disseminate the concepts of FF-ICE, TBO among others and reported on the proposals developed by the ANC to amend the Annexes, PANS, the provision of guidance material to be adopted in subsequent years, in addition to information on the technical and operational validations of the implementation proposals in other ICAO regions. **See Appendix A.**

2.7 The importance of creating SG4 would also lie, in the short and medium term, in guiding the development of an FF-ICE operational concept for the SAM Region, which would guide the development of two-State projects for the implementation of FF-ICE Release 1 and Release 2 services.

FICE-B2/1	Planning Service	Information	  
FICE-B2/2	Filing Service	Information	  
FICE-B2/3	Trial Service	Information	  
FICE-B2/4	Flight Data Request Service	Information	  
FICE-B2/5	Notification Service	Information	  
FICE-B2/6	Publication Service	Information	  

Figure 2– FF-ICE services in the GANP’s FICE thread





**Agenda Item 5: Other business**

**FLIGHT AND FLOW INFORMATION FOR A COLLABORATIVE  
ENVIRONMENT (FF-ICE)**

(Prepared by Brazil)

**SUMMARY**

The Global Air Traffic Management Operating Concept – Doc. 9854 sets the vision for the development of the future ATM system. The main conceptual changes foreseen in the document mentioned have already become a reality in different parts of the world, with different levels of maturity. However, remains pending the evolutionary transformation towards the trajectory-based operating environment (TBO), through which the current and future positions of the aircraft will be known in greater detail, in terms of integrity, precision and precision of a trajectory point in the 4th dimension (lat, long and time). This study note presents the current developments of the FF-ICE in its capacity as one of the key enablers of the TBO.

**References:**

- ICAO *Global Air Traffic Management Operational Concept* (Doc 9854); and
- *Manual on FF-ICE Implementation Guidance* (Doc 9965).

**1. Introduction**

1.1 The Global Air Traffic Management (ATM) Operational Concept (GATMOC1, Doc 9854) presents the vision, at a high level, of the future ATM system.

1.2 The main conceptual changes foreseen in GATMOC have already become a reality in different parts of the world.

1.3 However, for the full realization of GATMOC's vision, the evolutionary transformation to a trajectory-based operations (TBO) environment, in which current and future aircraft positions will be known with more detail and precision, still needs to be structured.

1.4 To ensure that such transformation takes place in a consistent, harmonized and integrated manner, the global and regional ATM community, especially in the SAM region, identifies the need for a common structure that guides the development and implementation of the necessary individual capacities and processes in an interrelated manner and according to the needs of each State.

## 2. Analysis

2.1 The concept described in the Flight and Flow– Information for a Collaborative Environment (FF-ICE) (Doc 9965), is one of the main *enablers* of TBO, since it presents the necessary resources to allow the negotiation of the flight path between users and ATM service providers, thus operationalizing dynamic flight through the exchange of information between all stakeholders.

2.2 In other words, FF-ICE will support the definition of support processes for flight path planning and management, as well as flow.

2.3 It should be noted that for the initial implementation of FF-ICE, the ATM community agreed, at CNA/12.2012, to develop the necessary tools to mitigate the problems associated with the current flight planning mechanism and establish the basis for the transition that allows the implementation of the full FF-ICE. Six years later, it endorsed its implementation strategy at CNA/13.2018.

2.4 In this context, the Air Navigation Commission (CNA) has developed proposals to amend the Annexes, Procedures for Air Navigation Services (PANS) and guidance material, with an applicability date in the coming years (Q4 2024), and technical and operational validations of these proposals and the concept itself are underway in other Regions.

2.5 The proposals listed were and are being developed to allow the FF-ICE to be implemented in a voluntary, evolutionary and standardized manner by the regions.

2.6 The initial implementation of the FF-ICE will include, among others, the following changes presented by the CNA proposals:

- a) *Use of the Global Unique Flight Identifier (GUFID)*;
- b) use of an additional Service that allows pre-departure negotiation and coordination between the user and the ATM service provider;
- c) an expanded scope of Flight Plan information; and
- d) more flexible means of exchanging information on flight plans.

2.7 In this perspective, the current requirements and processes related to the "flight plan" or "flight planning" will remain in force until a proposed regional deadline of 2032 according to the corresponding amendment, thus having a mixed period contemplating the "FF-ICE" and "Non-FF-ICE" States.

2.8 To meet these deadlines, and with a view to contemplating the mixed-mode operation of the current flight planning mechanisms and the FF-ICE, it will be advisable to acquire sufficient experience with their initial implementation and to define, validate and test in the Region all the necessary tools for the implementation of the full FF-ICE.

2.9 Therefore, it will be necessary to develop a transition strategy supported also by a positive cost-benefit analysis to minimize any negative impact on the SAM region.

**3. Suggested actions.**

In view of the above, SAM/IG is invited to:

- a) Encourage States and industry stakeholders to consider proposed amendments to ICAO Annexes, PANS and guidance material in support of the initial implementation of the environmental citizens' initiative;
- b) carry out work related to the awareness needed by the SAM Region regarding the implementation and evolution of FF-ICE;
- c) suggest States to conduct a *simulation exercise* in their respective countries to obtain and provide results of the operational and technical "validation" of the FF-ICE;
- d) alert on the possible incompatibility of AMHS with FF-ICE and SWIM; and

*Note: For instance, a State without AMHS capability may elect a direct introduction to SWIM, as explained in Document 10039.*

- e) request ICAO Lima to develop a regional transition strategy to minimize any negative impact during mixed-mode operations with the mechanisms of the current flight plan and FF-ICE.