



**Agenda**

**Item 3:**

**Report of activities and deliverables of the Interop TF and Subgroups**

**ACTIVITIES EXECUTED BY THE ATM/FPL SUBGROUP**

(Presented by the Secretariat)

<b>SUMMARY</b>	
This working paper presents the activities carried out by the ATM/FPL Subgroup of the Interoperability Task Force (Interop TF), since the last Meeting of the SAM Region Implementation Group (SAM/IG) to date.	
<b>References</b>	
- Final Report of SAM/IG/26 Meeting (Virtual, 20 to 23 September 2021); and - Summary of Discussions of the INTEROP TF/3 Meeting (Virtual, 14 to 17 March 2022).	
<b>ICAO Strategic Objectives:</b>	<i>A – Safety</i> <i>B – Air Navigation Capacity y Efficiency</i>  <i>ASBU: AMET-B0/4 (IWXXM), ASUR-B0/1 (ADS-B), ASUR-B1/1 (SB ADS-B), COMI-B0/7 (AMHS) y FICE-B0/1 (AIDC)</i>

**1. INTRODUCTION**

1.1 The SAM Region Implementation Group (SAM/IG) has formed the Interoperability Task Force (Interop TF) to support and promote air navigation services modernization initiatives and ensure interoperability between automated systems used by AIM, ATM, ATFM, CNS and MET users, with a view to:

- a) facilitate the exchange of information between the systems implemented by the States, reducing the time and problems of interconnection between the systems;
- b) promote a coordinated and homogeneous transition to the new services and elements indicated in the GANP; and
- c) encourage the multidisciplinary participation of air navigation services professionals in support of the SAM Region Implementation Group (SAM/IG) for the planning and execution of the interconnection works of the systems implemented in the South American Region.

1.2 The ATM/FPL Subgroup aims to study and propose solutions for the centralization of flight plan management, in order to mitigate errors and duplication/multiplicity of flight plans, with the participation of interested States and Industry.

## **2. ANALYSIS**

### **2.1 ATM/FPL SUBGROUP**

#### **ATM/FPL Roadmap**

2.1.1 During the WG INTEROP/3 Meeting (Virtual, March 14-17, 2022), the ATM/FPL Roadmap document was updated to add the DOF (Day Of Flight) element to the ACK message. Version 2.2 of the ATM/FPL Roadmap can be accessed at the link below:

[https://www.icao.int/SAM/Documents/2022-RLA06901-GTINTEROP3/Roadmap%20ATM\\_FPL%20rev%2009%20Mar%202022%20VERSION%202.2.pdf](https://www.icao.int/SAM/Documents/2022-RLA06901-GTINTEROP3/Roadmap%20ATM_FPL%20rev%2009%20Mar%202022%20VERSION%202.2.pdf)

#### **Methodology for quantifying FPL errors**

2.1.2 The participants of the Subgroup have identified the need to establish a common methodology to quantify errors in flight plans and associated messages, in order to obtain indicators to measure the level of mitigation achieved, with the application of the measures indicated in the ATM/FPL Roadmap. The participants were invited to submit proposals to establish a common methodology.

#### **Standard procedure for publication in the AIP**

2.1.3 The Rapporteur of the Subgroup indicated that it is important to establish a standardized format to include the information in the Aeronautical Information Publication (AIP) of the States that adopt the measures recommended in the ATM/FPL Roadmap. The participants were invited to submit proposals for the adoption of a single format.

#### **Request for establishment of direct flights**

2.1.4 Likewise, the Rapporteur of the Subgroup has indicated that the Airlines, through the representatives of IATA, have requested more direct flights for fuel savings due to the high prices, caused by the recent crises of the pandemic and the conflict in Europe. This implies a challenge for the Subgroup, in the revision of the syntax of the routes by coordinates, to verify if it is accepted by the automated systems.

#### **Situation in the SAM States**

##### *Argentina*

2.1.5 Currently, the replacement of the AMHS system is in process, with its commissioning scheduled for April 2022. With the implementation of the new AMHS system, it is expected to reduce the number of errors in flight plans, according to the tools available to the new system. The updating of ATM systems is also contemplated in the planning, in order to be able to continue with the activities contained in the Roadmap approved in Conclusion SAM/IG/25-06.

2.1.6 At the moment, although it is not possible to implement the use of ACK and REJ messages in the short/medium term in Argentina, the service provider continues to work on the implementation of the service that allows the sending of ACK and REJ messages. As for the FPLs that enter with the SID and STAR encoded in 6 characters, work is being done on how the corrections of the flight plans with errors will be made.

2.1.7 The centralization of flight plan management is not yet contemplated in national planning.

#### *Bolivia*

2.1.8 Bolivia had indicated that there were changes in the Bolivian Air Navigation Service Provider and that, in due course, a representative for the ATM/FPL Subgroup would be indicated.

#### *Brazil*

2.1.9 Brazil has implemented, in 2021, an automated system for the centralized management of flight plans that complies with providing feedback messages to FPL originators, sending acceptance messages (ACK) or rejection (REJ) of the submitted flight plans. The Secretariat stressed that the format adopted in Brazil does not exactly comply with the format indicated in the document prepared by the ATM/FPL Subgroup, because the Brazilian system was developed before the publication of the ATM/FPL Roadmap. Brazil was urged to analyze the possibility of adapting the system to the format proposed in the ATM/FPL Roadmap.

2.1.10 By means of an email of April 29, 2022, the Brazilian representative of the Coordination Nucleus of the Interop TF, has expressed the intention to adapt the Brazilian systems to the ACK and REJ message formats approved by the SAM Region Implementation Group; as well as consulting the reference documents on the matter. In response, the CNS SAM Officer confirmed that the document adopted as a reference on the subject is the ATM/FPL Roadmap version 2.2.

#### *Chile*

2.1.11 The representative of Chile of the Coordination Nucleus of the Interop TF stated that Chile was in agreement with the adoption of the measures provided for in the ATM/FPL Roadmap. He also reported that since the migration of IATWin terminals to Frequentis CADAS-ATS terminals, an ATS messaging quality control system has been implemented, taking advantage of the capabilities of these terminals to automatically perform syntactic and semantic analysis, allowing to reduce errors in FPLs, in addition to detecting through message switching analysis, errors in message routing.

2.1.12 As a reporting mechanism, operational bulletins have been issued with analysis of FPLs and indications of improvement and compliance with FPL elaboration procedures. As a result, there is a decrease in errors by users.

2.1.13 A system of error reporting has been implemented to the ARO Offices of the country and an instruction plan is being carried out for all staff for the correct use of FPL forms.

#### *Colombia*

2.1.14 The representative of Colombia at the Workshop/Meeting INTEROP TF/3 stated that he had contacted the relevant sectors internally to designate representatives for the ATM/FPL Subgroup.

*Ecuador*

2.1.15 Representatives of Ecuador informed that they do not yet have an automated system, but they are directing the acceptance (ACK) and rejection (REJ) messages manually, they continue with the presentation of flight plans by the airlines, having a team to verify the correctness of all the fields, achieving a good result with this process. On the other hand, there are still difficulties with the duplication/multiplicity of flight plans, because other control centers or AIS sectors generate another flight plan.

2.1.16 Also, the increase of new structures and new exits with the PBN airspace that increased the SID and STAR codes, having cases of SID that immediately connect with STAR and, consequently, the FDP system does not validate this data. As a mitigation, those cases are corrected directly in the database so that the flight plan enters. In future updates of the automated system, the manufacturer will be asked to review the algorithm so that there is no error.

2.1.17 Ecuador has reported that when there is an LRM alert in the AIDC coordination, normally, the centers try to forward the flight plan, not looking at the LRM category (which are several). This practice causes more problems of flight plans duplication/multiplicity.

*Peru*

2.1.18 Peru will continue with the process started in 2020, reinforcing the talks for people who are returning after the pandemic period and promoting the creation of the centralized unit for the treatment of flight plans. Likewise, it will designate personnel to work on the syntax of the messages, as well as to make the statistics of errors/duplicity for the establishment of indicators, in order to have a comparative measure, to evaluate the results of the actions taken to mitigate the errors/duplication of the flight plans.

*Venezuela*

2.1.19 A representative of Venezuela recognized the importance of the work of the Subgroup and the need for a representative of Venezuela to be a member of the Subgroup. He informed that the Air Navigation Management will direct the data of the Venezuela's representative. He also commented that the creation of a flight plan treatment center, at the regional level, could be a more effective solution.

2.1.20 In this regard, the Secretariat reported that in 2021 two workshops were held with representatives of EASA and Eurocontrol, which presented the characteristics of the system implemented in Europe, with a regional approach. Likewise, the topic was discussed in the Workshop/Meeting GT INTEROP/2, but the indication provided is that each State will implement the centralized management of flight plans particularly.

**3. SUGGESTED ACTION**

3.1 The Meeting is invited to:

- a) Take note of the activities carried out in the Subgroup ATM/FPL; and
- b) Analyze other considerations that the Meeting deems pertinent.