



Agenda Item 4: SAM/IG Conclusions and Next Actions - Plenary

DELIVERABLES OF THE INTEROP TF AND PROPOSALS FOR CONCLUSIONS

(Presented by the Secretariat)

SUMMARY

This working paper presents the deliverables provided by the activated subgroups of the Interoperability Task Force (GT Interop) and proposes Conclusions to be adopted at the SAM/IG/26 Meeting.

References:

- Final Report of SAM/IG/23 Meeting (Lima-Peru, 20 to 24 May, 2019)
- Final Report of SAM/IG/24 Meeting (Lima-Peru, 4 to 8 November 2019); and
- Final Report of SAM/IG/25 Meeting (Virtual, 2 to 4 November 2020).
- Second Workshop/Meeting of the Interoperability Task Force Subgroups (GT Interop/2) (Virtual, 9 to 13 August 2021)

ICAO Strategic Objectives:

A – Safety
B – Air Navigation Capacity y Efficiency

*ASBU: AMET-B0/4 (IWXXM), COMI-B0/7 (AMHS),
FICE-B0/1 (AIDC), ASUR-B0/1 (ADS-B), ASUR-B1/1
(SB ADS-B)*

1. INTRODUCTION

1.1 The SAM Region Interoperability Task Force (GT Interop) was created at the SAM/IG/22 Meeting (Lima-Peru, 19 to 23 November, 2018) to support and promote initiatives to modernize the services of air navigation and ensure interoperability between automated systems used by AIM, ATM, ATFM, CNS and MET users.

1.2 At the SAM/IG/23 Meetings (Lima-Peru, 20 to 24 May, 2019) and SAM/IG/24 (Lima-Peru, 4 to 8 November, 2019) the following subgroups were activated: ATM/AIDC, ATM/FPL, CNS/AMHS, CNS/SUR and MET/IWXXM.

2. DISCUSSION

MAIN DELIVERABLES OF THE ACTIVATED SUBGROUPS OF THE INTEROP TF

ATM/AIDC Subgroup

2.1 The main objective of the ATM/AIDC Subgroup is to establish the 76 links for ATS Interfacility Data Communication (AIDC) by the States of the SAM Region.

2.2 To date, 16 intraregional AIDC communications and 2 interregional AIDC communications have been established.

2.3 This year the main deliverables and activities carried out by the subgroup were:

- Tests carried out in February 2021, to mitigate CRC errors in ABI Messages;
- Adaptations in the system implemented in Maiquetía (Atech), to accept one or two line breaks for the information in fields 13 and 16 of the ABI Message;
- Changes in the systems of Brazil, Paraguay and Venezuela to mitigate the LRM/62 problem and other already verified inconsistencies; and
- Interaction with GESEA ATM experts for analysis of ATS aspects outside the AIDC, for the signing of the Letter of Agreement between ACC Bogota and ACC Panama.

ATM/FPL Subgroup

2.4 The ATM/FPL Subgroup was activated to address issues related to the mitigation of errors and duplication/multiplicity of flight plans, as well as issues related to the centralization of the management of flight plans and associated messages.

2.5 From 29 to 31 March, 2021, the Seminar on Centralization of Flight Plan Management was held virtually, with the attendance of 64 participants. In this event, the participants were provided with clarifications on the ATM/FPL Roadmap (approved at the SAM/IG/25 Meeting); a presentation on the EUROCONTROL Centralized Flight Plan Management service and the functions of the Network Manager, its operation and support services; and a presentation on the initiative to centralize the management of flight plans in Brazil, within the framework of the Sirius Brazil Program.

2.6 Subsequently, EASA organized an event with EUROCONTROL and COCESNA, which was held from 1 to 3 June, 2021. In this occasion, the workshop provided perspectives on the benefits and potential of centralized approaches for services with a strong regional character, such as flight plan management and ATFM, as well as best practices and lessons learned from the European experience. Likewise, COCESNA has presented its initiative to centralize the management of flight plans that will be implemented this year.

2.7 During the SAM/IG/26 Meeting, representatives of Ecuador presented WP/3.3 - *Inclusion of the Date of Flight (DOF) field for the Acceptance message format (ACK)*, in order that there is correlation and correspondence with the flight plan submitted by the air operator. After deliberating on the matter, the Meeting agreed to adopt the proposal presented by Ecuador. The Rapporteur of the Subgroup will provide the necessary changes to the text of the **ATM/FPL Roadmap** document and will direct the Secretariat for dissemination among the participants of the Interop TF.

CNS/AMHS Subgroup

2.8 On 26 April, 2021, the pre-operational tests (POT) were concluded and the interconnection of the COM AMHS Centers of Caracas (Venezuela) and Piarco (Trinidad & Tobago) was established, through REDDIG II.

2.9 From 17 to 21 May, 2021, the Advanced Course on AMHS was held virtually, with the participation of personnel from 11 member States of the Regional Project RLA/06/901 (Argentina, Bolivia, Brazil, Chile, Colombia, Ecuador, Panama, Paraguay, Peru, Uruguay and Venezuela).

2.10 From 25 to 27 May, 2021, the Second Workshop/Meeting of Supervisors/Operators of COM AMHS Centers of the SAM Region was carried out, with the participation of 54 representatives of 13 States of the SAM Region (Argentina, Bolivia, Brazil, Chile, Colombia, Ecuador, Guyana, Panama, Paraguay, Peru, Suriname, Uruguay and Venezuela), 3 representatives from EASA and 2 officers from the SAM Office.

CNS/SUR Subgroup

2.11 The CNS/SUR Subgroup was activated to deal with interoperability issues of surveillance systems and, specifically, to carry out an analysis on an implementation of Space-based ADS-B through a Technical Cooperation Project, using the regional IP network (REDDIG II), as the distribution platform of surveillance data.

2.12 From 26 to 29 January, 2021, in coordination with the NACC Office, the FAA offered a workshop on ADS-B, which was attended by 250 people from 24 NAM/CAR States and 10 SAM States. Other participants connected from Europe and Africa.

2.13 As a final recommendation, the event identified opportunities for improvement that States can implement in their current and future surveillance projects, optimizing the use of ADS-B data to support the implementation of the different ASBU elements and taking into account future technology,

2.14 Also coordinated by the NACC Office, two virtual workshops on surveillance technologies (ADS-B and WAM/MLAT) were held, on 10 February, 2021 with the Thales company, and on 17 February, 2021 with the Indra company.

2.15 In compliance with Conclusion SAM/IG/25-7 *Implementation of Space-based ADS-B through a Regional Technical Cooperation Project*, Trinidad & Tobago was consulted and expressed interest in participating in a potential implementation of Space-based ADS-B, through of a Regional Technical Cooperation Project.

2.16 TCB (Technical Cooperation Bureau) has provided the information and costs that an implementation would involve through the Regional Technical Cooperation Project RLA/03/901 (REDDIG).

2.17 Within the framework of the Regional Technical Cooperation Project RLA/03/901, an Ad-hoc Group was created, made up of Chile, Panama and Trinidad & Tobago, to carry out the analysis and elaboration of the documents necessary for the implementation.

2.18 Up to now, a draft of technical specifications has been prepared and circulated for review by the 3 States interested in the implementation of Space-based ADS-B. Interested States are evaluating the administrative costs charged by ICAO and the draft technical specifications, a definition being awaited to give continuity to the process.

2.19 During the Workshop/Meeting GT INTEROP/2, the Aireon company presented a new specific proposal for an implementation through an ICAO Technical Cooperation Project. Below is a summary of the proposal:

- 1) The previous cost of USD 275,000.00 for each Service Delivery Point, would be reduced to USD 125,000.00 with 2 to 3 States participating in the Regional Project. If more than 3 States participate in the Project, the cost would drop to USD 50,000.00 for each SDP implemented.
- 2) The cost of the surveillance information for a 5-year contract would be according to the following table:

Service Volume	ICAO Prices (2021)	Prices 2022
High Density/Sole Source	\$42	\$44
Low Density/Sole Source	\$21	\$22
Low Density/ Augmenting existing surveillance/ Contingency	\$8.5	\$9
Medium Density/ Augmenting existing surveillance/ Contingency	\$5.25	\$5.50
High Density/ Augmenting existing surveillance/ Contingency	\$3.15	\$3.30
Ultra High Density/ Augmenting existing surveillance/ Contingency	\$1.05	\$1.10

- 3) The company would provide free 2 users of Aireon's situational awareness display in each State participating in the Project and one user for the SAM Regional Office.
- 4) One year (free) of information from the SAM Region for ATFM purposes.
- 5) The company provides (free of charge) 50 NM of adjacent airspaces for ATS planning purposes. This facility would solve surveillance data exchange issues, once the ANSP that contracts the services has the information from the adjacent centers close to its area of responsibility, increasing situational awareness.

MET/IWXXM Subgroup

2.20 Under the coordination of the MET Officers of the NACC and SAM Offices, the Workshop on the OPMET International Bank of Brasilia was organized, held virtually, from 13 to 14 April, 2021, with the aim of familiarizing MET personnel and CNS with the facilities and functionalities of the OPMET Data Bank of Brasilia.

2.21 Subsequently, the SAM Office organized the Seminar/Workshop on adapting Aeronautical Meteorology Systems to the new IWXXM format, virtually, from 18 to 19 May, 2021.

2.22 During the Workshop/Meeting GT INTEROP/ 2, the Rapporteur of the Subgroup reported that tests were carried out between the OPMET Regional Banks of Brasilia and Brussels, with satisfactory results so far. Testing will continue during the second half of 2021.

2.23 Likewise, Brazil reported that is in the process of preparing a letter to send the ICD of the system implemented in Brasilia (OPMET Regional Bank) to the SAM Office. He also highlighted that the feasibility of conducting tests for the use of the Webservice tool by only 1 meteorological center in the States is being analyzed.

ACTIVATION OF NEW SUBGROUP

CNS/ANP Subgroup

2.24 During the SAM/IG/26 Meeting, the Secretariat proposed the activation of a new subgroup of the Interop TF, to work on updating Lists COM 1, COM 2 and COM 3 of frequency assignments used in the aeronautical context.

2.25 The Meeting deliberated on the possibility of forming a subgroup with a broader responsibility, to support the review of the information contained in Vol II of the CAR/SAM Air Navigation Plan, as well as provide support in the preparation of Vol III of the CAR/SAM ANP, on CNS issues.

2.26 In this sense, the following conclusion was drawn:

Conclusión SAM/IG/26-XX Review of the CNS tables of Vol II of the CAR/SAM Air Navigation Plan and support in the preparation of Vol III of the CAR/SAM ANP, on CNS issues	
That:	Expected impact:
<ul style="list-style-type: none"> a) the CNS/ANP Subgroup, activated at the SAM/IG/26 Meeting, perform the review of the CNS tables contained in Vol II of the CAR/SAM Air Navigation Plan, regarding the information of the SAM States and provide support in the preparation of Vol III of the CAR/SAM ANP, on CNS issues; b) the Secretariat circulate a letter to the SAM States for them to nominate participants of the CNS/ANP Subgroup; and c) The SAM States nominate representatives in a sufficient number to carry out the tasks assigned to the CNS/ANP Subgroup. 	<ul style="list-style-type: none"> <input type="checkbox"/> Political / Global <input type="checkbox"/> Inter-regional <input type="checkbox"/> Economic <input type="checkbox"/> Environmental <input checked="" type="checkbox"/> Technical/Operational
Why:	
Update the information in Vol II of the CAR/SAM Air Navigation Plan and provide support in the preparation of Vol III of the CAR/SAM ANP, concerning the CNS planning aspects.	
When:	Status:
Immediately	Adopted in SAM/IG/26
Who:	
<input checked="" type="checkbox"/> Coordinators <input checked="" type="checkbox"/> States <input checked="" type="checkbox"/> Secretariat ICAO SAM <input type="checkbox"/> Other:	

WORK PLAN 2022

2.27 The Meeting approved the activities listed in the **Appendix** to this working paper, which presents the 2022 Work Plan of the Interoperability Task Force (GT Interop).

3. SUGGESTED ACTION

3.1 The Meeting is invited to:

- a) Take note of the deliverables provided by the activated subgroups of the Interop TF; and
- b) Discuss and approve the conclusion formulated, as deemed pertinent.

- END -

Appendix

Work Plan 2022

Activities	Objectives / Deliverables	Tentative Dates
Activities for the preparation of VOL III of the ANP CAR/SAM.	Preparation of VOL III, participation of all SAM and CAR States. Use of the AN SPA, and filling out forms and template.	TBD multiple meetings in virtual mode.
SAM/IG/27 Air navigation implementation priorities considered in GREPECAS programs, VOL III Regional ANP and Regional initiatives.	Continue with the activities of implementation, execution and optimization under the studies of GESEA and TF Interop. (5 days)	Lima, 23 to 27 May 2022
SAM/IG/28 Air navigation implementation priorities considered in GREPECAS programs, VOL III Regional ANP and Regional initiatives.	Continue with the activities of implementation, execution and optimization under the studies of GESEA and Interop TF. (3 days)	Virtual, 20 to 22 September 2022
INTEROP/3 TF Third Workshop/Meeting of the Interop TF Subgroups.	Provide a meeting of the participants of the Interop TF Subgroups, to consolidate the previous work carried out, in order to finalize the products and deliverables that will be presented to the SAM Region Implementation Group (SAM/IG). (4 days)	Virtual, 14 to 17 March 2022
COM AMHS/3 Third Workshop/Meeting of Supervisors/Operators of COM AMHS Centers of the SAM Region	This is an event for the exchange of information and experiences between the supervisors/operators of the COM AMHS Centers of the SAM Region. Review of routing tables. Review of Contingency Plans. (4 days)	Lima, 21 to 24 February 2022
Advanced AMHS Course	Training aimed at technical and operational personnel who maintain and operate the AMHS system and that are involved in the implementation of AMHS interconnections. (5 days)	Virtual, 15 to 19 August 2022