INTERNATIONAL CIVIL AVIATION ORGANIZATION
South American Office

Regional Project RLA/06/901

THIRTY FIRST WORKSHOP/MEETING OF THE SAM IMPLEMENTATION GROUP

(SAM/IG/31)

FINAL REPORT

Lima, Peru, 20 to 24 May 2024

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ii-1 PLACE AND DURATION OF THE MEETING

The Thirty First Workshop/Meeting of the SAM Implementation Group (SAM/IG/31) was held in the premises of the ICAO South American Regional Office in Lima, Peru, from 20 to 24 May 2024, under the auspices of Regional Project RLA/06/901.

ii-2 OPENING CEREMONY AND OTHER MATTERS

Mr. Oscar Quesada, Deputy Regional Director of the ICAO South American (SAM) Regional Office, welcomed the civil aviation authorities and representatives of organisations and industry attending the Meeting. Likewise, he reaffirmed his acknowledgment for the continuous support given to the activities undertaken by the Regional Office, particularly those of the SAM Implementation Group (SAM/IG).

ii-3 SCHEDULE, ORGANISATION, WORKING METHODS, OFFICERS AND SECRETARIAT

The Workshop/Meeting agreed to hold its sessions from 08:00 to 15:00 hours, with appropriate breaks.

The sessions from the first to the fourth day were devoted to the review of the activities and deliverables of the GESEA and the Interop TF, and to current air navigation priorities. On the fifth day, the session was held in plenary to validate and/or endorse the deliverables of the aforementioned technical groups, and to approve the conclusions of the Meeting.

Mrs. Rosanna Barú, delegate of Uruguay, and Mr. Jilmhar González, delegate of Bolivia, acted as chairman and vice-chairman, respectively, of the Workshop/Meeting.

Mr. Fernando Hermoza, ATM/SAR Regional Officer, and Mr. Francisco Almeida, CNS Regional Officer, served as the Secretariat, and were assisted by Mr. Roberto Sosa, ATM/SAR Regional Officer. Additionally Mr. Tomas Yentzch contributed with the Secretariat.

Likewise, the coordinators and rapporteurs of the GESEA and INTEROP and subgroups contributed to the preparation and analysis of the documentation.

ii-4 WORKING LANGUAGES

The working languages of the Meeting were English and Spanish.

ii-5 AGENDA

The following agenda was adopted:

Agenda Item 1: Review of the status of the Conclusions and Actions

Agenda Item 2: Global and regional context. Global Air Navigation Plan (GANP) seventh edition. Regional Plan (RANP) CAR/SAM. GREPECAS programs.

Agenda Item 3: Report on activities and deliverables of the GESEA and Subgroups.

Agenda Item 4: Report on WG activities and deliverables – INTEROP and Subgroups

a) Review of air navigation priorities in the CNS field.
b) CNS implementation. Progress of the Subgroups.
c) GREPECAS project for the management of aeronautical frequencies.

Agenda Item 5: Review of the 2024 Work Plan. Organization of the SAM/IG and contributing bodies

Agenda Item 6: Other matters

ii-6 ATTENDANCE

The Meeting was attended by 55 participants of 11 SAM States SAM (Argentina, Bolivia, Brazil, Chile, Ecuador, Panama, Paraguay, Peru, Suriname, Uruguay, and Venezuela); one State from the CAR Region (United States – FAA ATO) and three industry providers (ATTECH, COLLINS and FREQUENTIS). The list of participants is shown in page iii-1 of this report.

ii-7 LIST OF CONCLUSIONS

N°	Title of the Conclusion	Page
Conclusion SAM/IG/31-01	Implementation of SMS services in ATS and follow up to the implementation of basis constituent elements (BBB) in air navigation area	2-3
Conclusion SAM/IG/31-02	Implementation of FUA concept and Adoption of Domestic FUA Manual (Model)	3-4
Conclusion SAM/IG/31-03	Application of ICAO Circular 359 and PBN Regional Guidance for visual runway	3-7

ii-8 LIST OF ACTIONS

The last SAM/IG/29 Workshop/Meeting obtained consensus on 3 permanent actions for the Group. See List.

The status of the actions approved by SAMI/IG/29 and SAM/IG/30 was reviewed and it was determined that 13 actions are in progress. At the same time, 9 actions are not initiated, therefore they need to be advanced by the Secretariat and groups.

The SAM/IG/31 Workshop/Meeting agreed on 10 actions for the development and follow-up of the initiatives and work entrusted to the Secretariat and/or the contributing study groups and working groups. See details in the following list:

Number	Action	Who	When	Ref. Par.
Permanent Actions				
1st Permanent Action	Work with their CAA authorities to keep them informed of the progress of the implementation of the SAM/IG, and to follow up on the priorities in the ATM and CNS fields.	• SAM/IG Delegates	*Permanent*	2.5 SAM/IG/29 Report
1st Permanent Action	Promote women's participation in all areas of SAM/IG and its support groups.	• SAM/IG Delegates • Secretariat	*Permanent*	5.12 SAM/IG/29 Report
3rd Permanent Action	Observe peremptory deadlines for the submission of Notes and documents for the following SAM/IG meetings to the Secretariat.	• SAM/IG Delegates • Secretariat • States	*Permanent*	5.13 SAM/IG/29 Report
SAMIG/29 Actions				
~~Action S29/02~~	~~Study of the new Circular 359 and determine whether it meets the needs of the Region, and according to this study, cancel, adapt or update the Regional Guide on the implementation of PBN procedures for visual runways, issued in November 2020.~~	• ~~SG2 PANS OPS - GESEA~~	~~Report at SAM/IG/30~~ ~~Started~~ ~~Report at SAM/IG/31~~	2.47 SAM/IG/29 Report Replaced by Conclusion SAM/IG/31/03
~~Action S29/03~~	~~Promote the updating of flight procedure charts in the Region, at least every 5 years according to Doc 8168 parameters. This task~~	• ~~SG2 PANS OPS - GESEA~~	~~Report at SAM/IG/30~~ ~~**Started**~~	2.49 SAM/IG/29 Report

Number	Action	Who	When	Ref. Par.
	~~requires **mapping the age of IAC charts** (conventional and PBN) as well as planning priorities in each state.~~		~~Report at SAM/IG/31~~	*(*Note: Strictly speaking, it is required to map the age of the IFP designs, and also dates of lifting of obstacles).* Replaced by Conclusion SAM/IG/31/03
~~Action S29/04~~	~~The Meeting instructed the Secretariat to explore with RLA/06/901 the feasibility of an IFPP meeting to be held at the Regional Office by 2025.~~	• ~~Secretariat~~ • ~~GESEA coordination~~	~~Report at SAM/IG/30~~ ~~**Started**~~ ~~Report at SAM/IG/32~~	2.54 SAM/IG/29 Report Concluded lack of confirmation by IFPP
Action S29/06	That runway and ATS sector capacity measurements be executed or updated, considering the recovery in demand for operations expected for this year (to 2019 levels), and recognizing that ACCs are experiencing staff reductions after the pandemic phase.	• SG3 ATFM - GESEA • Secretariat	Report at SAM/IG/30 **Initiate** Report to SAM/IG	2.84 SAM/IG/29 Report Pending ATS capacity analysis by Peru
Action S29/08	On FF-ICE concept; Coordinate the execution of activities for SAM states, the first is a briefing on the progress in Brazil and secondly a table top exercise.	• Secretariat • SAM/IG delegates • States	SL before 15 August 2023 Activities before SAMI/IG/30 **Started** Report at SAM/IG/31	5.6 SAM/IG/29 Report *(first activity with Davi Monteiro in August 2023)*
Action S29/09	5G Interference. Study the practices of Brazil and other similar practices in the region, and monitor the mitigations implemented in the SAM states, considering that PANS OPS specialists understand the degree	• SG2 PANS OPS - GESEA	At SAM/IG/30 **Not started** Report at SAM/IG/31	5.9 SAM/IG/29 Report *(Note 5G interference)*

Number	Action	Who	When	Ref. Par.
	of impact that possible interference in onboard radio altimeters can have on the safety of an instrument flight procedure.			
Action S29/10	a) Restart the reports from the States to the SAM/IG regarding the progress in the implementation of the PBN, projects with TMAs, etc. b) Implement new reports on the status of LOA ATS, in order to facilitate the follow-up of the validity of these documents and generate the appropriate assistance from ICAO.	• SAM/IG delegates • Secretariat	At SAM/IG/30 **a) Not started** **b) Not started** Report at SAM/IG/31	5.10 SAM/IG/29 Report *(SAMIG30; separated into two actions a) and b)*
Action S29/11	Brazil and Paraguay will make the corrections, proposed by ATECH, in the databases of the automated systems of the ACC Asunción and ACC Curitiba. After the adjustments, they will conduct the pre-operational phase tests in the second half of 2023.	• Brazil; and • Paraguay.	Before SAM/IG/30 **Started** Report at SAM/IG/31	3.5 SAM/IG/29 Report *(SAMIG/30; started in August 2023)* 4.19 SAM/IG/31 Report
Action S29/12	Brazil and Venezuela agreed to restart AIDC tests between ACC Amazonico and ACC Maiquetia, with a view to establishing an operational connection by the end of this year.	• Brazil; and • Venezuela.	Before SAM/IG/30 **Started** Report at SAM/IG/31	3.7 SAM/IG/29 Report *(SAM/IG/30; started in August 2023)* 4.19 SAM/IG/31 Report
Action S29/14	States should take note of the changes made to the ATM / FPL Roadmap document version 3.0 and consider adopting the recommended format for feedback messages (ACK and REJ) for flight plan originators.	• SAM States	As from SAM/IG/29 **Started** Report at SAM/IG/31	3.17 SAM/IG/29 Report 4.20 SAM/IG/31 Report
Action S29/15	An Ad-hoc group of the ATM/FPL Subgroup constituted by the States using CADAS User	• Argentina • Chile • Colombia	Up to 30 June 2023	3.21 SAM/IG/29 Report

Number	Action	Who	When	Ref. Par.
	Agents (UA) will be formed to exchange information, share best practices and learn about the initiatives taken by each State to establish a centralized management of flight plans	• French Guyana • Peru; and • Venezuela	**Not started** Report at SAM/IG/31	28 May 2024 meeting to present terminal CADAS Ad-hoc group was organized
~~Action S29/17~~	~~The SAM States are encouraged to support the ICAO position regarding CMR-23 agenda item 1.7, as proposed to be presented by the Brazilian delegation at the CITEL Meeting (22-26 May, 2023), for allocation to the aeronautical mobile-satellite service (R) within the frequency band **117.975-137 MHz,** in order to support VHF aeronautical communications in the Earth-to-space and space-to-Earth directions.~~	• ~~SAM States~~	~~At the preparatory meetings and during WRC-23~~ **~~Started~~**	3.47 SAM/IG/29 Report *(in progress WRC-23 will be held in November 2023).* Concluded
Action S29/18	Chile and Peru must coordinate the exchange of surveillance data, establishing the necessary agreement documents, so that all internal instances are aware of the commitments assumed and promptly collaborate to establish the technical means for the exchange of aeronautical surveillance data	• Chile; and • Peru.	Before 31 May 2023 **Started**	3.51 SAM/IG/29 Report (in progress Peru will acquire equipment to enable the exchange of surveillance data with Chile).
~~Action S29/19~~	~~The participants of the Workshop/Meeting were informed that from July 17-21, 2023, the *Workshop on the development of the regulation for the implementation of ADS-B (ADS-B Imp)* will be held at the Regional Office in Mexico (NACC). A letter inviting the SAM States to the above~~	• Secretariat	Before 20 May 2023 **Concluded**	3.72 SAM/IG/29 Report *(workshop held)*

Number	Action	Who	When	Ref. Par.
	~~mentioned event will be sent no later than 20 May, 2023.~~			

Actions SAM/IG/30

Number	Action	Who	When	Ref. Par. *(Notes)*
Action S30/01	Job Card Development: SG1/PLAN EA/ 02/2023. Studies and implementation of ASBU FRTO B0/1 and B1/1 Airspace Optimization.	• SG1 PLANESPA - GESEA • Secretariat • SAM/IG delegates	**Started** Report SAM/IG	2.3 SAM/IG/30 Report *(replaces S29/01)*
~~Action S30/02~~	~~Manage and maintain a list of focal points (POC) for each State to coordinate FRTO and DTS implementation. They must have an operational profile and be responsible for coordination with the CNS area and other concerned areas of the ANSP. POCs will also be responsible for generating feedback to SG1 on the implementation.~~	~~• SG1 PLANESPA - GESEA~~ ~~• Secretariat~~ ~~• SAM/IG delegates~~	~~From SAM/IG/30~~	2.6 SAM/IG/30 Report Concluded List competed
Action S30/03	Coordinate with the States and execute publication of UPRs and DTS processes, through agile and easily accessible means, such as repositories, applications or websites.	• SG1 PLANESPA - GESEA • Secretariat • SAM/IG delegates	From SAM/IG/30 **Started**	2.7 SAM/IG/30 Report
Action S30/04	Approve and adopt the AIP amendment model proposed by GESEA's SG1 PLANESPA. Monitor the corresponding publication in each State.	• SG1 PLANESPA - GESEA • Secretariat • SAM/IG delegates	From SAM/IG/30 **Started**	2.9 SAM/IG/30 Report
~~Action S30/05~~	~~To commission a committee of specialists to revise/edit the SAM Airspace Planning Guidance Manual, Part I and II. The Texts will be submitted for approval to SAM/IG/31.~~	~~Bolivia, Brazil (rapporteur) Chile, Panama, Peru, Uruguay~~ ~~• IATA~~	~~1st virtual meeting, 14 November 2023 Report to SAM/IG/31~~	2.19 SAM/IG/30 Report Concluded See action S31/01

Number	Action	Who	When	Ref. Par. *(Notes)*
~~Action S30/06~~	~~Entrust a committee of specialists with the revision/editing of the national FUA Manual (model), prepared by the Workshop held in Lima in June 2023. The texts will be submitted for approval by SAM/IG/31.~~	~~Bolivia, Chile, Ecuador, Paraguay (rapporteur), Peru,~~ ~~• Suriname, Venezuela.~~	~~1st virtual meeting, 15 November 2023 1400 UTC~~ ~~Report to SAM/IG/31~~	2.26 SAM/IG/30 Report Concluded See action S31/02
Action S30/07	Development of Job Card: SG1/PLAN EA/ 01/2023. Regional Guidance Material for the ATM and strengthening of Contingency Plans	• SG1 PLANESPA - GESEA • Secretariat • SAM/IG delegates	**Started** Report to SAM/IG	2.28 SAM/IG/30 Report *(replaces S29/01)*
Action S30/08	Organize the preparation of technical documentation to update (if necessary, replace) the EC/SAM CONOPS, considering the 7th edition of the GANP (including KPA Safety) and the UTM CONOPS of the SAM Region.	• Secretariat	Report to SAM/IG/32 **Not stated**	2.40 SAM/IG/30 Report
Action S30/09	Optimize processes for BRISA sessions in the context of studies for the development of the ATFM crossborder service. Consider pre-tactical, strategic, post-operational BRISA, as well as extraordinary BRISA deployments.	• SG3 ATFM - GESEA – GT ATFM XB.	Report progress in SAM/IG/31 and SAM/IG/32 **Started**	2.65 SAM/IG/30 Report *(replaces S28/09)* SAM/IG/31: Coordination started in SG3, GT XB and GT PLAN DCB
Action S30/10	Job Card Development: SG1/PLAN EA/ 03/2023. Implementation of an Efficiency Program for selected airports in the SAM Region.	• SG1 PLANESPA - GESEA • Secretariat • SAM/IG delegates	**Not Started** Report to SAM/IG	2.72 SAM/IG/30 Report *(replaces S29/01)*
Action S30/11	Coordinate the presentation on IATA FDX data for the SAMIG/31 Meeting.	• IATA • Secretariat	SAM/IG/31	5.4 SAM/IG/30 Report
~~Action S30/12~~	~~Activation of an ad-hoc group (GADHOC CBT - ATCO) of the SAM/IG, under the Rapporteurship of Chile and the support of Brazil and Uruguay, to work collaboratively with the States and~~	~~• Chile (Rapporteur)~~ ~~• Secretariat~~ ~~• SAM States~~	~~From SAM/IG/30~~	5.10 SAM/IG/30 Report

Number	Action	Who	When	Ref. Par. *(Notes)*
	~~the CIAC group on initiatives to promote performance-based training for ATCO personnel and, in progressive development, for the operational technical personnel of the ANS services. The ad-hoc group will liaise with the Secretariat and report its progress to SAMIG/31.~~			Replaced by Action S31/10
~~Action S30/13~~	~~Activation of the CNS/VOIP Subgroup.~~	~~• SAM States and Secretariat~~	~~From SAM/IG/30~~	3.19 SAM/IG/30 Report Concluded Sub Group activated
Action S30/14	States should take note of the changes made to the ATM/FPL Roadmap document version 3.0 and consider adopting the recommended format for feedback messages (ACK and REJ) for flight plan originators.	• ATM/FPL Subgroup	From SAM/IG/30 **Started**	3.36 SAM/IG/30 Report
Action S30/15	Harmonization of the nomenclature to be used for SID and STAR routes.	• ATM/FPL Subgroup	From SAM/IG/30 **Not started**	3.37 SAM/IG/30 Report
~~Action S30/16~~	~~Review and adaptation of the ACK and REJ message format.~~	~~• ATM/FPL Subgroup • IATA~~	~~From SAM/IG/30~~	3.38 SAM/IG/30 Report Concluded
~~Action S30/17~~	~~Designation of a new Rapporteur, a specialist from Peru, for the CNS/SUR Subgroup.~~	~~• Peru • CNS/SUR Subgroup • Secretariat~~	~~From SAM/IG/30~~	3.50 SAM/IG/30 Report Concluded
Action S30/18	Preparation of a study in the CNS/SUR Subgroup, with the support of ATM experts, of the separation minima that could be used by applying the existing ADS-B avionics on board the aircraft, using	• CNS/SUR Subgroup	From SAM/IG/30	3.57 SAM/IG/30 Report 4.23 SAM/IG/31 Report

Number	Action	Who	When	Ref. Par. *(Notes)*
	the information provided in ICAO Circular 326 as a guide.			
Action S30/19	Coordination for an EASA Workshop/Seminar on the new European framework of ATM/ANS equipment conformity assessment.	• Secretariat	During 2024 Not started	6.23 SAM/IG/30 Report

Actions by SAM/IG/31

Number	Action	Who	When	Ref. Par. *(Notes)*
Action S31/01	That the proposal made by the working groups and the two PLANESPA Workshops on the Airspace Planning Guide Manual of the SAM Region, Parts I and II, be supported so that they can be circulated to the States, for the purpose of receiving final opinion and feedback.	States Secretariat	SAM/IG/32	WP/3.2 SAM/IG/31
Action S31/02	SG 1 PLANESPA, as part of the FRTO implementation, studies and plans the possible use of the DASA tool developed by the Brazilian Airspace Control Department (DECEA) to manage UPR routes and airspace analysis.	SG1 PLANESPA States Secretariat	2024/2025	WP/3.4
Action S31/03	A coordinated Letter be sent to States highlighting the requirements of Doc 8168 regarding the review (redesign) of instrument flight procedures, at least every 5 years, and the need to provide resources and personnel to the State's IFD services for the proper performance of their functions, which have a direct impact on operational safety.	Secretariat SG2 PANS OPS	Before July 2024	WP/3.5

Number	Action	Who	When	Ref. Par. *(Notes)*
Action S31/04	That Argentina and Uruguay work collaboratively on the operational implementation of the BAIRES TMA, with a view to supporting training on the new airspace for the ATCO personnel of the ACC Montevideo.	Uruguay and Argentina Secretariat	2024/2025	WP/3.8
Action S31/05	Coordinate and organize a face-to-face meeting of the INTEROP TF to be held before SAM/IG/33 (April or May 2025), to present and give continuity to the activities developed by the group to the person who assumes the Secretariat.	• Secretariat • Sub Groups Rapporteur and created Ad-hoc groups	Before SAM/IG/32	
Action S31/06	Upgrade automated air traffic control centers, in accordance with PAN AIDC ICD v1.0 - 2014.	• SAM States	Report in SAM/IG/32 SAM/IG/33	
Action S31/07	Adopt, when operationally relevant and possible to implement, the following AIDC messages: PCM, PCA, TRU, FAN and FCN.	• SAM States	During review of operational agreements	
Action S31/08	Brazil and Uruguay begin activities to connect the AIDC between ACC Curitiba and ACC Montevideo. These are ATECH and INDRA systems, respectively.	• Uruguay • Brazil • Secretariat	Report in SAM/IG/32 and SAM/IG/33	
Action S31/09	Presentation of the technical and operational measures adopted by DECEA during the natural disaster, which affected the provision of air navigation services in the state of Rio Grande do Sul-RS.	• Brazil	SAM/IG/33 meeting	

Number	Action	Who	When	Ref. Par. *(Notes)*
Action S31/10	Creation of an ad-hoc group (GADHOC CBTA – ATCO) of SAM/IG under the coordination of Chile and the support of Brazil, Uruguay, and Venezuela to work collaboratively with the Task Force - CBTA Air Traffic Controllers, of the RPEL Panel of Experts of the SRVSOP, within the framework of the work plan of said Panel. The Secretariat will convene a teleconference at the end of July 2024, to take cognizance of the studies underway at the RPEL. https://srvsop.aero/paneles_de_expertos/decima-octava-reunion-del-panel-de-expertos-en-licencias-y-medicina-aeronautica-rpel-18/	• Chile (Coord.) • Brazil, Uruguay, and Venezuela • Secretariat	From SAM/IG/31 Report to SAM/IG/32 SAM/IG/33	SAM/IG/31; examines progress of PEL and aeronautical medicine Experts Panel

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Agenda Item 1: Review of the status of Conclusions and Actions

1.1 Under this Item, the following notes were analyzed:

N°	Title	Presented by
NE/1.1	Review of the status of conclusions adopted by the SAM/IG Meetings	Secretariat
NI/1.1	Progress in the implementation of the SAM/GI conclusions and actions by the State of Chile	Chile
NI/1.2	Report on the progress of the State of Argentina in the activities of GESEA and GT-Interop	Argentina
NI/1.3	Progress and follow-up to the SAM/GI conclusions	Venezuela

Conclusions adopted by the SAM/IG meetings

1.2 The Meeting reviewed the valid conclusions as well as the outstanding activities of the workshops/meetings of the SAM Implementation Group (SAM/IG) which is presented in an updated manner in **Appendix 1A** of this Agenda Item. The list of findings includes:

a. the tasks to be developed and/or the corresponding conclusion in the areas under analysis;
b. the specific tasks that will lead to the fulfillment of the main task;
c. expected results in each task;
d. completion dates;
e. those responsible for its implementation;
f. the support members for the task; and
g. the implementation status and when necessary for a better understanding, some explanatory comment on the execution status is included.

1.3 It was noted that the repository has been available since 2021 in the MS Teams application on the ICAO platform (*SAM/IG* Implementation *Group*) so that each State can periodically update the follow-up of conclusions. States that were unable to submit their information were invited to update it directly in the repository. The link follows:

https://oaci.sharepoint.com/:f:/r/sites/SAMIG-Grupodeimplementacin/Shared%20Documents/REUNIONES%20SAMIG/REUNIONES%20SAM_IG/1%20TABLAS%20CONCLUSIONES%20SAMIG?csf=1&web=1&e=z8lovs

Information presented

1.4 States of Argentina, Chile and Venezuela presented Information Papers regarding the progress on the Conclusions. Other States provided the Secretariat with their information; Bolivia, Brazil, Chile, Ecuador, Panama, Paraguay, Peru, Suriname, Uruguay.

1.5 Several matters were highlighted in these notes, as well as other information provided to the plenary. Chile reported on maintenance works on a runway at Santiago International Airport, which involves restrictions on airport capacity, and coordination through the ATFM service with adjacent States.

1.6 Argentina informed its work on the implementation of PBN procedures on the visual runway, for example, in Cordoba, as well as the signing of letters of agreement, and the preparation of the National Air Navigation Plan.

1.7 Venezuela summarized its progress in the optimization of airspace, the implementation of the DTS, coordination for UPR routes in the FIR of Maiquetía, PBN procedures to the visual runway at Las Roques airport, runway capacity calculations and ATS contingency planning.

APPENDIX 1A

STATUS OF IMPLEMENTATION OF CONCLUSIONS AND/OR TASKS EMANATING FROM SAM/IG MEETINGS

(updated SAM/IG/31, May 2024)

NOTE.- Each State and the Secretariat will monitor the implementation of Conclusions in the Tables available in the Teams depository , at the following link:

https://oaci.sharepoint.com/:f:/r/sites/SAM/IG-Grupodeimplementacin/Shared%20Documents/REUNIONES%20SAM/IG/REUNIONES%20SAM_IG/1%20TABLAS%20CONCLUSIONES%20SAM/IG?csf=1&web=1&e=Ejh478

No.	Tasks to be developed	Specific tasks	Deliverables	Completion date	Responsible party	Members supporting the task	Status of implementation
1. Airspace optimisation and implementation of performance-based navigation (PBN) in the SAM Region							
1-1	**Conclusion SAM/IG/30-01: Optimization of the airspace in SAM Region based on the implementation of APTA and FRTO modules** The States, through actions of the Air Navigation Directorates/Managements/Headquarters, promote the implementation of GANP modules; Enhanced Arrival/Departure Operations (APTA) and Enhanced Operations through Optimized En-route Trajectories (FRTO), facilitating, within the scope of RLA/06/901: a) resources and specialists for activities and studies related to the implementation of these modules; b) support for the development of regional documents and technical materials; c) support for training and capacity building on APTA and FRTO implementations; d) shared data for the calculation of Regional KPI indicators; e) support to activities for the formulation and management of National Air Navigation Plans; f) support to the activities of the ANP CAR/SAM Regional Plan; g) and among other elements that may be required	Updating of Regional FRTO action plans and States' APTA action plans	APTA and FRTO plans implemented	Period 2024-2027	STATES	RO/ATM	**VALID**

No.	Tasks to be developed	Specific tasks	Deliverables	Completion date	Responsible party	Members supporting the task	Status of implementation
~~1-2~~	~~**Conclusion SAM/IG/25-04 Adoption of the Regional guide on the implementation of PBN visual runway procedures**~~ ~~SAM States adopt the Regional guide on the implementation of PBN visual runway procedures developed by GESEA and, on this basis, approve national regulations on the implementation of these procedures.~~	~~Adopt the Regional guide on implementation of PBN procedures for visual runways~~	~~Publish the national regulation on implementation of PBN procedures for visual runways~~	~~As soon as possible~~	~~STATES~~	~~RO/ATM~~	~~**VALID**~~ SUPERSEDED by Conclusion SAM/IG/31-03
1-3	**Conclusion SAM/IG/27-02 Adoption of the 2022–2026 Roadmap: Performance-based optimisation of SAM airspace** That States adopt the 2022–2026 Roadmap: Performance-based optimisation of SAM airspace, and align their national PBN implementation plan based on the metrics and deadlines set forth in the document	Adopt the performance-based optimisation roadmap	Use technical references and guidance for regional PBN implementation. Alignment with implementation metrics.	No later than October 2023	STATES	RO/ATM	**VALID**
1-4	**Conclusion SAM/IG/28-01 Improvements to the ATS letters of operational agreement, with regard to their content, implementation, validity and subscription process** That: a) SAM/IG and its contributory bodies promote studies and activities for the development of regional guidance material on criteria for the efficient and safe use of ATS LOAs, with regard to their content, implementation, validity and subscription process b) ATS service providers and/or competent ATS authorities, while implementing the recommendation of item a) above, coordinate and manage with their counterparts the review and update of inter-State ATS LOAs, if possible, once (01) a year.	Drafting of regional guidance material on the management of ATS operational agreements (ATS LOAs) Assistance and follow-up by the Secretariat for the review and updating of ATS LOAs.	• Regional guidance material on management of ATS LOAs • ATS LOAs reviewed and updated, if possible, once a year	SAM/IG/31	GESEA STATES		**VALID**

No.	Tasks to be developed	Specific tasks	Deliverables	Completion date	Responsible party	Members supporting the task	Status of implementation
	Conclusion SAM/IG/31-03 Application of ICAO Circular 359 and the Regional Guide PBN for Visual runway. States that require the implementation of PBN visual runway flight procedures and/or procedures for visual maneuvers with PBN prescribed tracks: a) Make use, as the case may be, of the technical guidance of ICAO Circular 359 and the PBN Regional Guide of the SAM Region for visual clue for their implementations; b) coordinate with the State regulatory body to harmonize the requirements for certification of aircraft/air operator for the implementation of these procedures; c) Incorporate these documents into the Operational Manual of the unit and/or processes of their IFPD services; and d) Arrange for the instruction and training activities required by the personnel of flight procedure designers.	Application of the technical documents CIRC 359 or Regional Guide PBN to Visual Runway.	• Flight procedures designed with VPT or PBN to visual runway.	Presenting progress for the SAM/IG/34.	STATES IF THEY REQUIRE THIS TYPE OF FLIGHT PROCEDURES	RO/ATM	**Approved by** **SAM/IG/31**
	2. Contingency plans and procedures						
2-1	**Conclusion SAM/IG/23-04: Procedure to be applied in case of radioactive clouds or accidental release of radioactive material** That the civil aviation authority and/or ATS authorities, in coordination with meteorological authorities and/or meteorological watch offices, implement procedures related to the production of SIGMETs in order to: a) Ensure that their ATS/MET cooperation agreements include the exchange of information on radioactive material in messages exchanged between ATS and MET units; b) Foresee training for ATS staff on procedures related to receiving information from the London VAAC concerning radioactive material; **c)** Coordinate the inclusion of the accidental release of radioactive material or the presence of radioactive clouds in their contingency plans.	Develop and sign ATS MET cooperation agreements, including information on radioactive material in messages exchanged.	ATS MET cooperation agreements signed.	SAM/IG/26	STATES	RO/ATM RO/MET	**VALID**

No.	Tasks to be developed	Specific tasks	Deliverables	Completion date	Responsible party	Members supporting the task	Status of implementation
2-2	**CONCLUSION SAM/IG/25-01 Implementation of strategic direct routing - EDE** SAM States analyse the guidance material prepared by GESEA SG1 on the strategic direct routing (EDE) concept, which has been made available to the administrations, and coordinate its implementation with IATA and international airlines, as well as with adjacent States.	Follow-up to EDE implementation Fuel savings analysis provided by airlines.	Issuance of AIC and/or SUP AIP on EDE by States	As soon as possible	STATES, AIRLINES, IATA	RO/ATM GESEA	**VALID**
2-3	**Conclusion SAM/IG/27-03 Adoption of amendment 1 of the SAM ATS Contingency Framework Plan (MCATS / SAM) and alignment of national plans** That States adopt the guidelines of the SAM ATS Contingency Framework Plan, incorporating Amendment 1 that includes Appendix E and Appendix I, in order to finalise and publish their national ATS contingency plans, and have that documentation available for regional events on optimisation of ATS coordination and contingency plans (SOUTH SAM and NORTH SAM), scheduled for the second half of 2022.	Follow-up to the harmonisation of ATS contingency plans	Issuance of national ATS contingency plans by States, aligned with MCATS.	No later than 31 July 2022	STATES	RO/ATM GESEA	**VALID**
2.-4	**Conclusion SAM/IG/25-03 Activities for the development of the SAM ATM/CNS contingency framework plan** That States support GESEA activities towards a second stage of the MCATS, with a view to developing guidance material for a “SAM ATM/CNS Contingency Framework Plan”.	Prepare document for harmonised implementation of ATM/CNS national contingency plans, with interfaces to AIM, MET, airport services, etc. duly agreed with neighbouring States, including CAR States, if applicable.	SAM ATM/CNS contingency framework plan	No later than October 2023	GESEA	RO/ATM	**VALID**

No.	Tasks to be developed	Specific tasks	Deliverables	Completion date	Responsible party	Members supporting the task	Status of implementation
	Conclusion SAM/IG/31-02 Implementation of the FUA Concept and Adoption of the National FUA Manual (model). States, through the corresponding regulatory harmonization, adopt; a) The recommended Action Plan for the management of the implementation of the concept of flexible use of airspace (FUA) included in Appendix 3-F of the SAM/IG/31 Report; and b) The Manual (Model) on Flexible Use of Airspace (FUA), included in Appendix 3E of the SAM/IG/31 Report.	Adopt/Adapt the Action Plan to implement the FUA. Adopt/Adapt the model FUA Manual.	Action plan executed. Implementation of FUA. FUA manual implemented.	Present progress for the SAM/IG/34.	STATES	RO/ATM	**Approved by** **SAM/IG/31**
	3. ATFM implementation						
3-1	**Conclusion SAM/IG/23-01: Implementation of ATFM measures in accordance with Doc 9971, and coordination in case of ATS contingencies** **That:** SAM States prioritise the following for their ATS and ATFM services**:** a) Strengthening the functions of flow management positions (FMPs) or units (FMUs), granting them powers to coordinate and support ATS services; b) Definition of the profile and skills of ATFM staff, and delivery of initial and recurrent training programmes for that staff; c) Mandating that ATFM measures be strictly based on Doc 9971 to address situations generating capacity/demand imbalances, especially in cases of ATS capacity degradation caused by unforeseen events; d) Establishment of instructions and H24 monitoring to ensure that ATFM measures have the least possible impact on international flights, and all ATFM measures are agreed with adjacent ATFM or ACC units; e) Mandating the correct application of the ATFM process, from ATM planning to the operational analysis and performance control phase; and **f)** Ruling out the use of flow control NOTAMs to deal with demand/capacity imbalances, with the only exception of the initial response that an ACC may require in the first 12 hours of an ATS contingency.	Comply with the provisions of ICAO Doc 9971 and SARPs contained in ICAO Annex 11	Support for ATFM and ATC	SAM/IG/25	STATES	RO/ATM	**VALID**

No.	Tasks to be developed	Specific tasks	Deliverables	Completion date	Responsible party	Members supporting the task	Status of implementation
3-2	**Conclusion SAM/IG/26-01 Adoption of the ATFM Operations Plan (OPSAM)** That States adopt the ATFM Operations Plan (OPSAM) and provide for the ongoing participation of their ATFM services in the sharing of data for the regional Dashboard of indicators and in BRISA operational teleconferences. Also, that each State encourage the participation of airlines, airports and users in OPSAM.	Adjust ATC and airport capacity to the gradual increase in demand, and contribute to the recovery and sustainability of the air transport system at regional and global level in the new projected scenario. Also, reinforce the use of KPIs in ATFM and ATM in general.	OPSAM implemented and KPIs generated.	SAM/IG/29	STATES	RO/ATM	**VALID**
3-3	**Conclusion SAM/IG/26-02 Adoption of the Guide for the implementation of ATFM in the SAM Region 2022- 2026** The States adopt the Guide for the implementation of ATFM in the SAM Region 2022-2026, harmonised with the objectives of regional integration of this service and taking into account the implementation phases and deadlines foreseen.	SAM States to implement national or cross-border ATFM services that are suited to the air traffic flow managed by their ATS services and that duly contribute to the solution of demand/capacity imbalances in the Region.	States applying the Guide and reaching Phase IV of implementation.	December 2026	STATES	RO/ATM	**VALID**
3-4	**Conclusion SAM/IG/27-04 Adoption of the Manual on Calculation of Runway and ATC Sector Capacity** States adopt the Manual on Calculation of Runway and ATC Sector Capacity, and carry out calculation activities at their airports and ATS units, recognising that it is essential to have updated data to provide efficient ATFM services.	Implementation of a common methodology for runway and ATC sector capacity calculation in the SAM Region	Runway and ATC sector capacity calculations updated.	December 2026	STATES	RO/ATM	**VALID**

No.	Tasks to be developed	Specific tasks	Deliverables	Completion date	Responsible party	Members supporting the task	Status of implementation
4. UAS Air Traffic Management (UTM)							
4.a.1	**Conclusion SAM/IG/30-02: Activities for the future implementation of Air Traffic Management for UAS (UTM)** That States, through actions of the Air Navigation Directorates/Managements/Headquarters, nominate groups of ATM/CNS specialists and define activities to: a) participate in the activities of the SRVSOP on the development of the CONOPS UTM and the regulatory set LAR 100 – 101 – 102; b) Support SAM/IG and its contributing bodies in the preparation of Manuals and Technical Guides for the UTM; c) conduct regional training activities on UTM, UAS/RPAS; d) and periodically report to SAM/IG on access to airspace by UAS/RPAS, as well as advances in the use of UAS/RPAS in the calibration of navigation aids and other aerial work applications.	Active participation in SRVSOP activities regarding CONOPS UTM development and LAR 100-101-102 set; support to SAM/IG and its contributing bodies in the elaboration of manuals and technical guides for UTM. Carry out training regional activities on UTM, UAS/RPAS.	Periodic reports on access to air space by UAS/RPAS, as well as advances in the use of UAS/RPAS in the calibration of navigation aids and other applications of aerial work.	SAM/IG/33	STATES	RO/ATM	**VALID**

No.	Tasks to be developed	Specific tasks	Deliverables	Completion date	Responsible party	Members supporting the task	Status of implementation
4.b.1	**Conclusion SAM/IG/30-03: Treatment of LHD events in ACCs, for mitigation and elimination of hotspot points** That the States, through actions of the Air Navigation Directorates/Managements/Headquarters, stipulate: a) Follow-up on the results of the meetings of the GREPECAS Scrutiny Group – GTE, and follow-up on the implementation of its recommendations and conclusions; b) Reinforce the training of ATS personnel and supervisors, and review the ATS/FPL procedures and manuals of the ACC sectors involved in the generation of LHDs; c) Establish by means of LOA ATS the preliminary investigation within 48 hours of the LHD events, involving the two ACCs, in order to provide for immediate mitigation if necessary; d) Implement, with high priority, all connections of the AIDC systems in the ACCs; e) Close VHF communications and ATS surveillance coverage gaps at all air traffic transfer points between ACCs; f) and promote a culture of safety.	Follow-up to the results of the GREPECAS GTE Scrutiny Group meeting and follow-up to the implementation of its conclusions and recommendations. ATS personnel and supervisors training and review , and follow-up to the implementation of its recommendations and conclusions. Training of ATS personnel and supervisors, and review of ATS/FPL procedures and manuals for the ACC sectors involved in LHD generation.	ATS LOAs implemented for the preliminary investigation within 48 hours of LHD events, involving the two ACCs, to provide for immediate mitigation if applicable. All connections of the AIDC systems in the ACCs, implemented. Full coverage of VHF communications and ATS surveillance at all air traffic transfer points between ACCs	SAM/IG/33	STATES	RO/ATM	**VALID**

No.	Tasks to be developed	Specific tasks	Deliverables	Completion date	Responsible party	Members supporting the task	Status of implementation
	Conclusion SAM/IG/31-01 Implementation of SMS in ATS services and monitoring of the implementation of Basic Building Blocks (BBBs) for air navigation services The States promote actions by the Air Navigation Directorates/Managements/Headquarters, in coordination with the bodies responsible for the Operational Safety Program (SSP), in order to: a) Strengthen, complete and maintain the SMS in the ATS; b) Monitor the status of the BBBs in terms of the effective implementation of critical elements 6 and 7 according to the questionnaire available on the GANP portal; c) Support, if applicable, the development and compliance of the State's Corrective Action Plan, derived from the USOAP Audits; and d) Support the activities of the Continuous Improvement Program (CIP), when received by the State, in accordance with the provisions of the RAAC/17 meeting ;	Support SMS implementation in the ATS Monitor BBB status Support corrective action plans for USOAP	SMS of the ATS implemented in the United States BBB Implementation Reports Corrective Action Plans, Completed for USOAP	SAM/IG/34	Air Navigation Directors STATES	RO/CNS y RO/ATM	**Approved by SAM/IG/31**
5. Operational implementation of new automated ATM systems and integration of the existing systems							
5-1	**Conclusion SAM/IG/25-06 Approval of the ATM/FPL Roadmap and of the format for flight plan acknowledgment (ACK) and rejection (REJ) messages and associated messages** That States: a) Approve the ATM/FPL Roadmap and the format for flight plan acknowledgment (ACK) and rejection (REJ) messages and associated messages; and b) Adopt the guidelines and procedures of the ATM/FPL Roadmap.	Adoption of the ATM/FPL Roadmap by States.	- Roadmap implemented - Mitigate the occurrence of errors and duplication /multiplicity of flight plans, also providing feedback to the originators of FPLs and associated messages.	SAM/IG/27	STATES	RO/CNS and RO/ATM Interop TF	**VALID**
5-2	**Conclusion SAM/IG/21-03: Activities required in the AIDC pre-operational phase to reduce migration times to the operational phase** **That**: SAM States currently in the AIDC pre-operational phase, in order to reduce time in this phase and migrate to the operational phase: a) operate AIDC for the period of time required to acquire the skills for its operation;	Follow-up and coordination via teleconferences and meetings	AIDC operational connection achieved	December 2019	STATES	RO/CNS and RO/ATM	**VALID**

No.	Tasks to be developed	Specific tasks	Deliverables	Completion date	Responsible party	Members supporting the task	Status of implementation
	b) monitor AIDC operation, recording errors made during the reporting, coordination and transfer stages; c) conduct statistical measurements based on the results of b), in order to identify the most frequent errors; d) based on the results of c), take the necessary action to mitigate errors; and **e)** report the results obtained in c) and d) and disseminate the lessons learned at events, teleconferences and AIDC implementation meetings of the SAM Region, so that they may serve as a reference for other AIDC implementations.						
5-3	**Conclusion SAM/IG/23-03: Adaptation of AMHS terminals of aeronautical meteorology users** That, pursuant to the requirement to implement the exchange of OPMET messages in IWXXM GML format by 5 November, States: a). Adapt AMHS terminals of aeronautical meteorology users so that they may transmit and receive OPMET messages in IWXXM GML format b). Implement the necessary AMHS interconnections in order to facilitate the transmission and reception of OPMET messages in IWXXM GML format **c).** If in a position to do so, conduct OPMET message exchange trials in IWXXM GML format	To comply with the provisions of Amendment 78 to ICAO Annex 3.	Conduct tests and share results	SAM/IG/26	SAM STATES	ICAO SAM OFFICE	**VALID**
5-4	**Conclusion SAM/IG/26-03 Revision of CNS tables of Vol. II of the CAR/SAM Air Navigation Plan and support in the drafting of Vol. III of the CAR/SAM ANP on CNS topics** a) That the CNS/ANP Subgroup, activated at the SAM/IG/26 meeting, review the CNS tables contained in Vol. II of the CAR/SAM Air Navigation Plan regarding information of SAM States, and provide support in the drafting of Vol. III of the CAR/SAM ANP on CNS topics; b) The Secretariat send a letter to SAM States for the nomination of participants in the CNS/ANP Subgroup; and **c)** SAM States nominate representatives in sufficient numbers to perform the tasks assigned to the CNS/ANP Subgroup.	Update the information in Vol. II of the CAR/SAM Air Navigation Plan and support the drafting of Vol. III of the CAR/SAM ANP concerning CNS planning aspects.	CAR /SAM ANP; Vol. II updated and Vol. III developed	SAM/IG/29	STATES	RO/ATM	**VALID**

Agenda Item 2: Global and regional context. Global Air Navigation Plan (GANP) seventh edition. Regional Plan (RANP) CAR/SAM. GREPECAS programs

2.1 Under this agenda item, the following papers were discussed:

N°	Subject	Presented by
WP/2.1	Fourteenth Air Navigation Conference Project 30/10	Secretariat
WP/2.2	GREPECAS/21 Meeting results	Secretariat
WP/2.3	Follow up to preparation of Air Navigation Regional Plan (RANP) VOL III Workshop	Secretariat
WP/2.4	Progress made in the SMS implementation in ATSP	Uruguay
WP/2.5	Follow up to the Effective Implementation of Basic Constitutive Elements (BBB)	Uruguay

2.2 Under this agenda item, the Secretariat recommended the participation of States in the Fourteenth AN-Conf/14 Air Navigation Conference (Montreal, Canada, August 26 to September 6, 2024). States commented that they are working on the preparation of Working Papers according to the processes set out in the ICAO headquarters convening letter.

2.3 The importance of the "30/10 Project" that will be part of the deliberations of the Conference on the optimization of longitudinal separation across FIR boundaries, referring to the implementation of longitudinal separation of 55.5 km (30 NM) in ocean and remote airspace, and in other airspaces of 19 km (10 NM), with the goal of implementation being 2030, was highlighted.

2.4 On this subject, the link to WP/10 Project 30/10 – Optimization of longitudinal separation across FIR Boundaries, of the Fourteenth Air Navigation Conference, in English (forthcoming publication in Spanish soon) was indicated:

https://www.icao.int/Meetings/anconf14/Documents/WP/wp_010_en.pdf

2.5 The results of the GREPECAS/21 Meeting (Santo Domingo, Dominican Republic, November 14-17, 2023) were presented and in particular the approval of the NEOSPACE-01 Project was reviewed. States were urged to provide maximum support to this project, working together with the industry, through GESEA's SG1 PLANESPA and the SAM/IG. Agenda Item 3 of this report presents a deeper analysis on this matter.

2.6 The Follow-up Workshop on the preparation of Vol. III of the Regional Air Navigation Plan was held virtually from April 24 to 26, 2024. The material and documentation of the Workshop are available at the following link:

https://www.icao.int/SAM/Pages/MeetingsDocumentation.aspx?m=2024-FU-RANP&t=1

2.7 The aforementioned Workshop was attended by delegates from Argentina, Bolivia, Brazil, Chile, Ecuador, Guyana, Panama, Paraguay, Peru, Suriname, Uruguay, and Venezuela. Mr. Eddian Mendez, ATM SAR Officer from ICAO NACC Office participated in the workshop, and provided feedback on the activities of the CAR Region on these matters. The SAM States provided a summary of the progress of their national plans. Difficulties are observed in several administrations in completing these tasks due to staff shortages.

2.8 Argentina presented its progress regarding KPI calculations from 2019 to date. EANA's specialized area has competent personnel and has optimized its methodology. ANAC presented a very didactic video about its activities to update the NANP.

2.9 Bolivia presented its very detailed study on the feasibility and management of KPI indicators, which recognizes the feasibility of having data to process KPIs, and also identifies some shortcomings. The importance of the DGAC working together with the supplier NAABOL was highlighted. States agreed to share the XLS tables developed and to maintain cooperation to scale up good practices.

2.10 The Workshop allowed the exchange of experiences and identified that there are up to 6 SAM States capable of including new KPI data in the Vol. III Planning Tables, or if applicable, to update the data already presented.

GANP & GASP

2.11 Under Working Paper WP/2.4, Uruguay reported that since November 2006 the requirements for the implementation of the SMS in the ATS were established, including them into LAR 211. SAM States have begun the process of harmonizing their national regulations with the LAR, however, a smaller number of States have been able to issue an acceptance to the systems and initiate their implementation. Overall, the ATS SMS remains *under development* in the Region.

2.12 in order to drive an integrated approach to performance management, it was identified that, providing a link between the GANP and the GASP, as well as a coordinated approach to safety performance measurement, the effective implementation of the MSS in the ATSPs in the SAM region should be boosted, through a continuous action to monitor the effective implementation.

2.13 Under Working Paper WP/2.5, Uruguay stated that the GANP provides a path to safe, orderly and efficient evolution through the BBB and ASBU frameworks. Obligations for the provision of essential air navigation services have been reflected in the BBB framework to ensure a solid baseline for developments.

2.14 In order to establish a baseline for the system envisaged in the GANP and to ensure a solid foundation for the global air navigation system, an effective process should be established to verify, in accordance with Article 37 of the Chicago Convention, that the essential air navigation services identified in the BBB framework are provided.

2.15 It was highlighted that this process should focus on verifying the implementation of the essential air navigation services described in the BBB framework, considering that, separately, the capacity of States to supervise these services is covered by the ICAO USOAP. In order to harmonize regional planning, the process of verifying the implementation of these essential services should be integrated into the Gap Identification Methodology (GANDD) for regional air navigation plans.

2.16 The Workshop/Meeting highlighted the presence of the Air Navigation Directors of the Region and reached a consensus to support the implementation of the SMS in the ATS Providers, focused on promoting actions of the Air Navigation Headquarters, and coordinated with the instances responsible for the Operational Safety Program (SSP). These actions foreseen reinforcing, completing and maintaining the SMS in the ATS, monitoring the status of the BBBs, supporting the State's Corrective Action Plan and supporting the Continuous Improvement Program (PMC).

2.17 In view of the above, the following conclusion was formulated:

<table>
<tr><td>CONCLUSION SAM/IG/31-01</td><td colspan="2">Implementation of SMS in ATS services and monitoring of the implementation of Basic Building Blocks (BBBs) for air navigation services</td></tr>
<tr><td colspan="2">That:

The States promote actions by the Air Navigation Directorates/Managements/Headquarters, in coordination with the bodies responsible for the Operational Safety Program (SSP), in order to:

a) Strengthen, complete and maintain the SMS in the ATS;

b) Monitor the status of the BBBs in terms of the effective implementation of critical elements 6 and 7 according to the questionnaire (ref. 1) available on the GANP portal;

c) Support, if applicable, the development and compliance of the State's Corrective Action Plan, derived from the USOAP Audits; and

d) Support the activities of the Continuous Improvement Program (CIP), when received by the State, in accordance with the provisions of the RAAC/17 meeting (ref. 2).</td><td>Expected Impact:

☐ Political / Global
☐ Inter-regional
☒ Economics
☒ Enviromental
☒ Technical/Operational

References:
1
https://www4.icao.int/ganpportal/BBBsUSOAPPQs
2
https://www.icao.int/SAM/Documents/2023-RAAC17/RAAC17%20Informe%20Final.pdf</td></tr>
<tr><td colspan="3">Why: To ensure the appropriate safety framework in the field of air navigation implementations, in line with the global air navigation plans (GANP and GASP), as well as regional and national plans.</td></tr>
<tr><td colspan="2">When: Present progress for SAMIG/34.</td><td>Status: Adopted by SAM/IG/31</td></tr>
<tr><td colspan="3">Who: ☐ Coordinators ☒ States ☒ Secretariat ICAO ☐ ICAO HQ ☐ Others:</td></tr>
</table>

Agenda Item 3: Report on activities and deliverables of the GESEA and Subgroups

3.1 Under this agenda item the following papers were discussed:

N°	Title	Presented by
WP/3.1	Activities of SG1 PLANESPA	Secretariat
WP/3.2	SAM Region Airspace Planning Guidance Manual	Secretariat
WP/3.3	Model Manual on Flexible Use of Airspace	Secretariat
WP/3.4	Digital Airspace System Analysis (DASA) Workshop – SAM Region	Brazil
WP/3.5	PANS OPS SG2 Activities	Secretariat
WP/3.6	Criteria for the advance RPN implementation (ARNP)	Brazil
WP/3.7	Brazilian Airspace optimization	Brazil
WP/3.8	Redesign of Uruguayan airspace and implementation of UPR routes with the aim of implement FRA airspace	Uruguay
WP/3.9	ATFM Activities by SG3	Secretariat
WP/3.10	ATFM Workshop carried out in Brazil	Brazil
NI/3.1	SAM ATFM Portal	Secretaria
NI/3.2	Update of EDE implementation in FIR Lima *(Spanish only)*	Peru
NI/3.3	Upgrade of the instrument approach to CAT IIIB at Carrasco International Airport (SUMU)	Uruguay
NI/3.4	Implementation of terminal monitoring area (TMA) Libertador *(Spanish only)*	Venezuela

3.2 Under this agenda item, the progress of activities of the Airspace Study and Implementation Group (GESEA) and its three contributing subgroups was analysed. The outcome of the GESEA discussion affects the identification and/or adjustment of the 2024 work program, which is presented in **Appendix 3A** of this part of the report.

SG1 Activities – Airspace Planning

Report of the FRTO TF

3.3 The IATA delegate, Coordinator of the FRTO Task Force (FRTO TF), was unable to attend this Workshop/Meeting. The Secretariat outlined the tasks involved in developing the Guide for Implementing Enhanced Operations through Optimized Enroute Trajectories (FRTO), sponsored by RLA/06/901. This guide was developed by a specialist from Brazil in Lima, Peru, from January 29 to February 9, 2024.

3.4 The key sections and approach of the Guide, which aims at the harmonized interregional implementation of selected elements from the FRTO module of the Global Air Navigation Plan (GANP), were presented. See the draft of the Implementation Guide in **Appendix 3B** of this part of the Report (Spanish only).

3.5 The contents of the draft Guide were analysed, the selection of applicable elements from the FRTO Module in Blocks 0 and 1 was reviewed, and opportunities for improving the Guide were identified. The need to continue expanding the study and defining new topics for implementation was also noted. The Workshop/Meeting discussed the timelines for this project in 2024, aiming to present a joint interregional material at the GREPECAS/22 Meeting, planned for November 2024, as part of the progress of the NEOSPACE-1 project.

FRTO Webinar

3.6 It was reported to the meeting that the FRTO Webinar was held on 13 – 15 March 2024, with the aim of disseminating the Guide for Implementing Enhanced Operations through Optimized Enroute Trajectories (FRTO), planning the FRTO implementation, and defining guidelines for the implementation roadmap.

ATS LOA TF Plan Activities

3.7 The ATS LOA Plan Task Force is advancing the development of the Guide for the preparation and updating of ATS LOAs in the Region. The Guide includes proposals for periodically processing the updates of the LOAs and discusses the feasibility of electronic signatures for these documents. The draft model of the ATS LOA was analysed in detail.

3.8 The task force will have additional meetings to incorporate the suggestions from GESEA/7. Various ways to begin applying the Guide in the SAM States were analysed, and it was identified that the most appropriate approach would be a progressive process as the ATS LOAs in the Region's States are updated in the coming years.

3.9 The availability of the SAM/IG website, which can serve as a repository for the Guide for the preparation and updating of ATS LOAs, as well as all the material being produced by GESEA and SAM/IG, was highlighted. See details in Issue 6.

3.10 Regarding Contingency Plans and the MCATS, the Secretariat updated the contact information in the Phone Tree. Additionally, it was emphasized that the SAM Regional Office has sent a letter to the States regarding the need to activate the Contingency Coordination Teams (CCT) with greater anticipation, not necessarily when the Plan has already been activated.

3.11 The CCT is formed by the Secretariat and the focal points of the potentially affected State and the adjacent States, with the purpose of exchanging data on the situation and the expected scenario in case the Plan is activated, as well as generating feedback from neighbouring States. For this, the nomination of two focal points from each administration, one from the Regulator and one from the ANSP, has been requested.

Orientation Manual for Airspace Planning of the SAM Region

3.12 According to the activities scheduled by SG1 of GESEA between 2022 and 2023, the development of the Guide Manual for Airspace Planning of the SAM Region has been completed, comprising two parts:

- Part I - Implementation of airspace concepts (See **Appendix 3C**)
- Part II - Planning techniques. (See **Appendix 3D**)

This document has gone through phases of preparation, dissemination through seminars, and feedback. SAM/IG/30 commissioned a review/editing work based on the drafts of the Manual presented in October 2023.

3.13 After the aforementioned review/editing was carried out, the Secretariat summarized the content of Part I (Version 3.0 - April 30, 2024) and Part II (Version 3.0 - May 6, 2024). The Workshop/Meeting observed an opportunity for improvement for section 4 of Part I, to clarify the scope of "Activity 5: Selection of performance criteria, safety policy, and related criteria," linked to the requirements of Annex 11, part 2.28, and Appendix 2 of ICAO Annex 19.

3.14 The Secretariat was tasked with adding a brief explanatory note about these requirements and circulating the texts for final review by SAM States. Therefore, the following action was agreed upon:

Action S31/01 - To support the proposal made by the working groups and the two PLANESPA Workshops on the Guide Manual for Airspace Planning of the SAM Region, Parts I and II, to circulate them to the States for final review and feedback.

Flexible Use of Airspace (FUA) and Civil-Military Cooperation in ATM

3.15 It was reported that SAM/IG/30 tasked a committee of specialists with the review/editing of the draft FUA Manual. This committee faced difficulties in meeting at the beginning of the year; therefore, the Secretariat proceeded internally to review it and identify some opportunities for improvement, as shown in the FUA Manual Draft 1.1 (May 2024, Spanish only) included in **Appendix 3E** of this part of the Report. The Workshop/Meeting observed the improvements introduced and considered that the Manual meets the initial objectives for harmonizing the implementation of FUA in the region.

3.16 Complementarily, two Action Plans have been developed to promote the Flexible Use of Airspace (FUA) Operational Concept (see **Appendix 3F**), including the benefits and contributions to the continuous improvement of airspace structure, fuel savings, and reduction of CO2 emissions into the atmosphere.

3.17 Additionally, an Action Plan is suggested (see **Appendix 3G**) to guide the adoption of the FUA Manual Model in the short term. This way, States can receive guidance on the required activities or adapt the Plan to their own situation and processes.

3.18 Based on the above, the following Conclusion was formulated:

<table>
<tr><td>CONCLUSION SAM/IG/31-02</td><td colspan="2">Implementation of the FUA Concept and Adoption of the National FUA Manual (Model).</td></tr>
<tr><td colspan="2">That:

States, through the appropriate regulatory harmonization, adopt:

a) The recommended Action Plan for the management of the implementation of the Flexible Use of Airspace (FUA) concept included in Appendix 3-F of the SAM/IG/31 Report; and

b) The (model) Manual on Flexible Use of Airspace (FUA), included in Appendix 3-E of the SAM/IG/31 Report.</td><td>Expected impact:
☐ Political / Global
☐ Inter-regional
☒ Economic
☒ Environmental
☒ Technical/Operational</td></tr>
<tr><td colspan="3">Why: To implement FUA in a way that enables the development of FRTO within the framework of the NEOSPACE-01 project of GREPECAS.</td></tr>
<tr><td colspan="2">When: Present progress for SAM/IG/34.</td><td>Status: Adopted by SAM/IG/31</td></tr>
<tr><td colspan="3">Who: ☐ Coordinators ☒ States ☒ ICAO Secretariat ☐ ICAO HQ ☐ Other:</td></tr>
</table>

Digital Airspace System Analysis (DASA)

3.19 The Workshop/Meeting was informed that DECEA Brazil has enabled the Digital Airspace System Analysis (DASA). This system was developed to meet the needs of both the State and users by integrating the facilities offered by DECEA. The main objectives of DASA are to enhance the capacity for airspace use planning, improve the analysis of airspace use requests, refine air traffic safety by identifying potential conflicts between areas and routes analysed, automate requested analyses, and disseminate information among those responsible for various processes.

3.20 The tool has been officially designated as the exclusive channel for User Preferred Route (UPR) requests in Brazil, which are more direct and cost-effective. The request process now takes place through this system, which has become the only accepted method as of April 1, 2024. DASA is integrated to avoid conflicts with Mandatory Preferred Routes (PREF) and also facilitates flight planning by reconciling UPR routes with Direct Routes (or DCT Routes).

3.21 Following the principle of horizontal cooperation, Brazil, through DECEA, proposed to host a DASA Workshop for the entire SAM Region, offering to facilitate efforts to extend the tool for use across South American airspace. The goal is to establish and connect common User Preferred Routes (UPR) for use by all operators. The Secretariat was tasked with analysing the feasibility of RLA/06/901 support for this event in 2025.

3.22 The following action was agreed upon:

Action S31/02 - SG 1 PLANESPA, as part of FRTO implementation, will study and plan the possible use of the DASA tool developed by the Brazilian Airspace Control Department (DECEA) to manage UPR routes and airspace analysis.

SG2 Activities – PANS OPS

3.23 The Subgroup 2 of GESEA (SG2 PANS OPS) is coordinated by Argentina and addresses activities to improve the application of flight procedure designs and strengthens the application of the criteria in ICAO Doc 8168, particularly the implementation of PBN in Departure-Arrival segments and approaches. During GESEA/7, the following agenda items were analysed for the respective Task forces (TF).

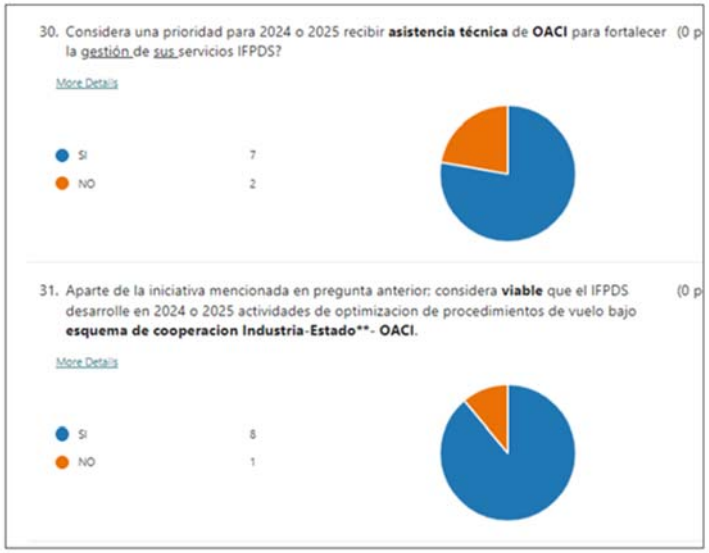
Activities of the PANS OPS Implementation TF

3.24 The TF is coordinated by Venezuela. This group works to develop the monitoring of the implementation of flight procedures, emphasizing the redesign (review) every 5 years according to Doc 8168. For this, the need for updated obstacle data for the redesign was identified, and it was found that this data source could be obtained from the results of the E-TOD implementation, which is progressing in several States.

3.25 The TF has analysed the feasibility of an assistance project for IFPDS units to strengthen processes for three or four SAM States. It was identified that some States could receive direct assistance to their flight procedure design units through various modalities available from ICAO, as well as the RLA/06/901 project.

3.26 Additionally, assistance and cooperation in the form of States - Industry - ICAO were discussed for the improvement and/or updating of flight procedures, focusing support on the IFPDS units of the States, with specific assistance for flight procedures for defined airports or TMAs. Regarding these assistance and cooperation initiatives, and to diagnose gaps in resources, equipment, and training, the TF prepared an anonymous 32-question survey via MS Forms, which was completed by delegates from 9 SAM States between the last week of February and early March. The results are included in **Appendix 3H** (Spanish only).

3.27 Below are the results of 2 questions related to the interest in receiving support from ICAO: 7 out of 9 States responded affirmatively about technical assistance, and 8 out of 9 States confirmed their willingness to develop flight procedure optimization tasks within the industry - State - ICAO framework.



3.28 The Secretariat will continue exploring technical assistance initiatives and capacity-building for IFPDS units, including training. It was noted that the RLA/06/901 project will provide scholarships for the recurrent PANS OPS (advanced PBN) course, which will be conducted in October 2024. These recurrent in-person courses are scarce in the Region, and therefore they are given the highest priority.

3.29 Based on the above, the following action was approved:

Action S31/03 - A letter will be coordinated to the States highlighting the requirements of Doc 8168 regarding the review (redesign) of instrument flight procedures at least every 5 years, and the need to equip State IFD services with resources and personnel to adequately fulfil their functions, which directly impact operational safety.

Information Presented

3.30 Peru presented an optimization for strategic direct routing (EDE) in the LIMA TMA. Based on the feedback received, a new supplement has been prepared that incorporates the creation of seven (7) waypoints in the EDE airspace and the elimination of the required waypoints 40 nautical miles before the transfer points between FIRs. A new SUP AIP on this matter will be issued soon.

3.31 Venezuela reported on the scope and importance of the implementation of the Libertador Terminal Area (TMA) in the Maiquetia Flight Information Region (FIR). The concept of FUA and Civil-Military cooperation is applied in this development. It will benefit both military and civil aviation using this airspace, employing it more efficiently and in compliance with the Venezuelan Civil Aeronautics Law. Coordination between both parties is maintained to contribute to the sustained and safe development of civil and military aeronautics in an area where the "El Libertador" Air Base, "Mariscal Sucre" Air Base, and "Arturo Michelena" International Airport operate.

PANS OPS DOCS TF Activities

3.32 The TF is under the coordination of Peru. This Group conducted a comparative study for ICAO Circular 359 (VPT) and the Regional PBN Guide for visual flight procedures, according to the conclusions presented below. The Regional Guide on the implementation of PBN procedures for visual flight runways indicates that these procedures are designed under the criteria of Doc 8168 and Doc 9905, based on RNP APCH, RNP AR APCH, or A-RNP navigation specifications, and are exclusively for visual flight runways, with operational minima of OCH equal to or greater than 500 ft and visibility equal to or greater than 3000 m.

3.33 On the other hand, the PBN procedures developed under Circular 359 mention that these procedures are developed following Doc 9905, without specifying the exclusive use of any type of runway and without defining predetermined operational minima. Both documents state that the operator must have aircraft and operator approval to perform these types of procedures, and the chart must clearly contain the NAVSPEC requirement.

3.34 Therefore, it was determined that the application of Circular 359 and the Regional Guide on the implementation of PBN procedures for visual flight runways are oriented towards two different purposes, so it was agreed to use both documents as needed by each State.

3.35 Based on the above analysis, the following conclusion was formulated:

<table>
<tr><td>CONCLUSION SAM/IG/31-03</td><td colspan="2">Application of ICAO Circular 359 and the Regional Guide PBN for Visual runway.</td></tr>
<tr><td colspan="2">That:

States that require the implementation of PBN visual runway flight procedures and/or procedures for visual manoeuvres with PBN prescribed tracks:
a) Make use, as the case may be, of the technical guidance of ICAO Circular 359 and the PBN Regional Guide of the SAM Region for visual clue for their implementations;
b) coordinate with the State regulatory body to harmonize the requirements for certification of aircraft/air operator for the implementation of these procedures;
c) Incorporate these documents into the Operational Manual of the unit and/or processes of their IFPD services; and
d) Arrange for the instruction and training activities required by the personnel of flight procedure designers.</td><td>Expected Impact:
☐ Political / Global
☐ Inter-regional
☒ Economics
☒ Environmental
☒ Technical/Operational</td></tr>
<tr><td colspan="3">Why: To facilitate the harmonized use of ICAO Circular 359 and the SAM Region PBN Regional Guide</td></tr>
<tr><td colspan="2">When: Present progress for SAM/IG/34.</td><td>Status: Adopted by SAM/IG/31</td></tr>
<tr><td colspan="3">Who: ☐ Coordinators ☒ States ☒ Secretariat ICAO ☐ ICAO HQ ☐ Others:</td></tr>
</table>

Criteria for Advanced RNP

3.36 It was noted that Doc 8168, Volume II, Construction of Visual and Instrument Flight Procedures, includes design criteria to assist States in the implementation of Advanced RNP (A-RNP) approach procedures.

3.37 A-RNP operations include the operations listed in the table below, and therefore, an aircraft must be capable of meeting all the criteria required by these operations. Additionally, capabilities for executing the RF leg segment and parallel offset functions are required.

Table - Navigation Specifications

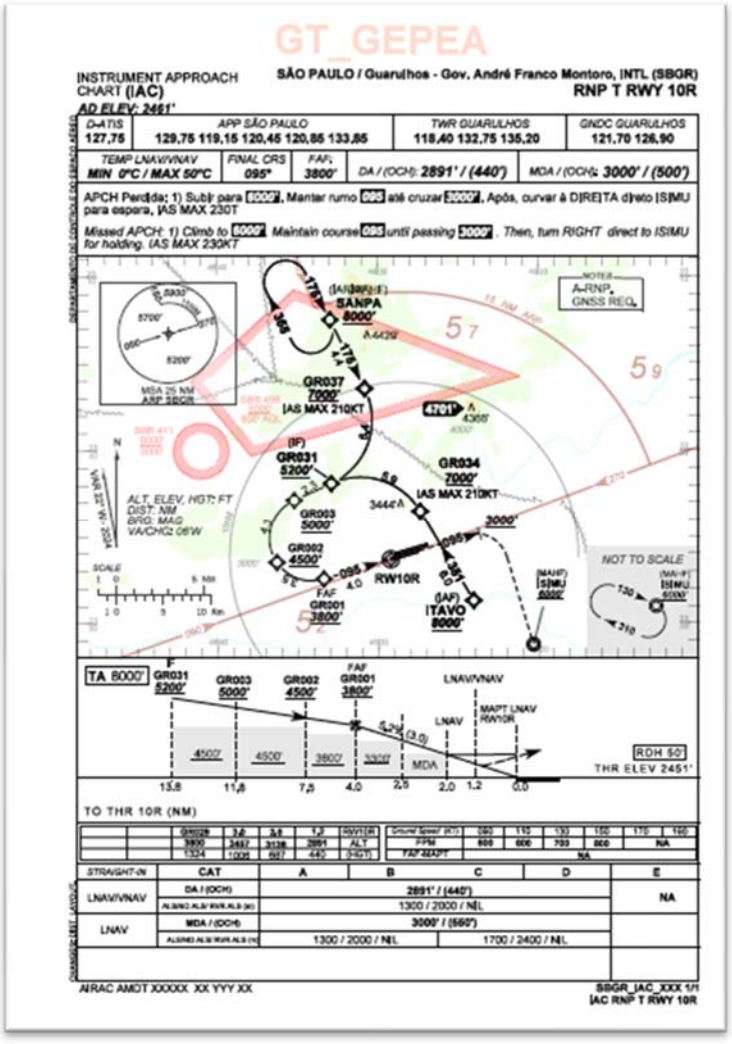
RNAV 5
RNAV 1 e 2
RNP 2
RNP 1
RNP APCH

3.38 A-RNP procedures offer significant operational and safety advantages over other Area Navigation (RNAV) procedures by incorporating navigation precision, integrity, and additional functional capabilities to enable operations that use reduced obstacle protection tolerances. The flexibility of A-RNP operations significantly reduces the number of authorizations (certifications) required for various existing navigation specifications.

3.39 For example, Chile has begun publishing A-RNP approach procedures to overcome difficulties in challenging terrain and to increase access to some airports. This is possible because A-RNP allows the exploitation of high-quality lateral and vertical navigation (VNAV) capabilities and provides improvements in operational safety and reduced risks of controlled flight into terrain.

3.40 Given the increasing demand from airspace users for more flexible procedures and based on the initial requirements developed by the PBN group, DECEA of Brazil, through an ad hoc group, decided to initiate studies for the design and charting of A-RNP arrivals, approaches, and departures.

3.41 This project began in 2023, and the airport chosen to be the first to receive an A-RNP approach was Guarulhos Airport (GRU). The decision was made for this airport because it is the greatest challenge to overcome in terms of obstacles and will bring the most benefits to the airlines operating at GRU. Below is a prototype of the SBGR chart.



3.42 Several States are already publishing A-RNP Procedures to achieve operational benefits at their airports, particularly in terms of accessibility. It was highlighted that the experiences of Brazil and Chile in this regard could help SAM States implement their own procedures and align with ICAO's intention to improve global PBN implementation. The Plenary took note and recommended that GESEA monitor this issue and incorporate it into its work plan as soon as possible, as resources permit.

Optimization of Brazilian Airspace

3.43 Brazil reported that it continues to produce IFR procedures (IFP) to (1) meet the needs of Airspace Concept projects, (2) incorporate NOTAMs related to procedures, (3) review those older than 5 years, and (4) develop new types of procedures, as explained below:

a) Permanent NOTAM (including procedures):

- 61 charts published up to May to incorporate NOTAM;

- Objective: NOTAM PERM no more than 90 days

b) The number of procedures published by AMDT:

- 60 IFP/AMDT (MAI/2024)

c) Removal of charts older than 5 years:

- 88 charts expired (5 years) between January 2024 and December 2024

- Objective: to maintain charts with a maximum age of 4 years

d) New identification of IAC RNP APCH - from RNAV(GNSS) to RNP (100% updated);

e) Publication of new types of procedures:

- A-RNP;

- IAC RNP APCH with RF LEG

- Published for 3 AD (SBGO; SBJH, SBBE, SBSG)

- IAC RNP APCH for visual runways:

- 33 AD VFR

- IAC VPT (Visual Prescribed Track):

- SBVT

3.44 The implementation of PBN in Brazil is at 100%. Based on the practices presented by Brazil, the Workshop/Meeting emphasized the importance of maintaining, in the IFPD or ATM planning units of the States, monitoring the age of flight procedure charts, and continuing the optimization of flight procedures with the inclusion of RF LEG segments, application of VPT, etc.

3.45 Additionally, Brazil was requested to provide SAM/IG with data on CO2 savings resulting from implementations in its TMAs on a semi-annual basis, if feasible. Data on Airspace Projects in Brazil is presented in **Appendix 3I**.

Uruguayan Airspace

3.46 Since 2020, Uruguay and Argentina have been working bilaterally to define the necessary changes in Uruguayan airspace due to the new design of the TMA Baires. This new design allows for substantial improvements in terms of safety, efficiency, and fuel savings regarding the trajectories to be followed within the Terminal.

3.47 Uruguay proposes that the trajectories within its airspace be adapted to this new scenario. Guided and supported by experts from DECEA Brazil, new trajectories were studied through meetings dedicated to the joint analysis of improvement opportunities. A proposal from DELTA AIRLINES was received for the study and subsequent implementation of a new UPR route for its daily flights to New York and Atlanta, aimed at reducing flight time and improving efficiency.

3.48 Uruguay is considering the possibility of implementing a Cross-border UPR route between FIR SBCW (Curitiba) and FIR SUEO (Montevideo) to offer users a direct trajectory option for the SBGR/SBGL – SAEZ flow, which represents nearly 66% of the air operations between Brazilian Airports and the Baires Terminal that cross Uruguayan airspace.

3.49 The enablers defined for the FRTO implementation are communications, navigation, ATS surveillance, ATS services, and automation with tools like AIDC, MTCD, AIM, FUA, ATFM, human factors, and training. Some deficiencies have been identified in the communications area, which are in the process of being addressed, including AIDC implementation, updating the automated ATS system, and, above all, human factors and training.

3.50 Additionally, Uruguay presented information on the progress of implementing ILS CAT IIIB at Montevideo Airport.

3.51 The Plenary analysed the interaction between the TMA Baires airspace, which is part of an improvement project, and the adjacent FIR Montevideo. It was highlighted that Argentina's project is advancing through validation and ATCO training stages. In this regard, the following action was agreed upon:

> **Action S31/04** - Argentina and Uruguay will work collaboratively on the operational implementation of TMA Baires, aiming to support training on the new airspace for ATCO personnel at ACC Montevideo.

SG 3 Activities – ATFM

DCB TF Plan Activities

3.52 The TF is under the coordination of Brazil. The group is working on improvements and innovations made to the ATFM Dashboard (Power BI), with an emphasis on the potential to develop traffic forecasts and indicators for the GANP. The characteristics of the new pages allowing the analysis of KPI9 and KPI10 and the “buttons” enabled for new functions were presented. The benefits of a comparative report on regional traffic were also analysed.

DOCS ATFM TF Activities

3.53 The TF is under the coordination of Argentina. The management of the surveys conducted by this group to monitor the progress of ATFM implementation was reviewed. The importance of including questions in the surveys regarding the effectiveness of the training developed in 2023 and 2024 on ATFM

topics, supported by RLA/06/901, was observed. Work for improvement was identified for the ATFM documents, the Implementation Guide, and the Capacity Calculation Manual. The initiative to describe the ATFM personnel job profiles was also analysed.

3.54 Planning is required for updating the ATFM Implementation Guide 2021–2025, if necessary, to issue a new Guide for the 2025–2030 horizon. More specific texts for Phase III of the cross-border implementation are being developed at the Cross border Workshop (see next paragraph).

XB TF: ATFM CROSSBORDER Workshop (Buenos Aires, 6-10 May 2024)

3.55 The TF is under the coordination of Argentina. The workshop held in Buenos Aires, hosted by EANA, included participants from Argentina, Bolivia, Brazil, Ecuador, Paraguay, Peru, and Uruguay. On Thursday, May 9, a teleconference was held with Chile, Colombia, Venezuela, and Panama. Extensive feedback on the status of ATFM services in the SAM Region and the recognition of cross-border ATFM work scenarios were conducted. Special aspects of airspace, cross-border interaction, and operation demands were discussed.

3.56 The workshop identified the maturity of the ATFM Cross-Border Manual. Next stages of work were analysed with a view to "completing" the first draft version by November 2024. The coordinator will drive a work plan for specific collaboration from delegates in drafting the text. Messaging and practices currently applied in the SAM Region were reviewed.

3.57 The progress of the TF concerning the manual and the ATFM MOU/LOA model was analysed. The LOA ATS TF Plan rapporteur from SG1 of GESEA presented the guide being developed for ATS. Progress on the ATFM portal was also presented. Opportunities for improvement identified by delegates in the BRISA Sessions were reviewed. A work plan was agreed upon for the next 5 meetings, with the goal of completing the TF deliverables by November 2024. The focal points from each State collaborating in the drafting of the documentation were confirmed.

ATFM Workshop conducted by CGNA of Brazil

3.58 The ATFM Workshop was conducted over three weeks, with two phases: virtual instruction from April 1 to 5, and in-person instruction from April 8 to 19 in Rio de Janeiro, Brazil.

3.59 The concepts established in Doc 9971 regarding collaborative decision-making (CDM), the strategic, pre-tactical, and tactical phases of the ATFM service, and post-operation analysis activities were discussed.

3.60 The workshop facilitated knowledge transfer. It encouraged interaction among participants from each State to strengthen our ability to address and understand intra-regional and inter-regional needs. The applied program confirmed the undeniable need for integration and cross-border coordination for ATFM.

ATFM Portal

3.61 It was reported that in October 2023, the GADHOC ATFM Portal was created within the TF ATFM CROSSBORDER for the development of the Portal, under the coordination of Brazil. The GADHOC continues working on the Portal's tools and will conduct a workshop with the States at the Lima Regional Office from June 3 to 7.

APPENDIX A

2024 Work Plan

Activities	Objectives / Deliverables	Tentative Dates
GESEA Plenary Meeting/7	Organization of the implementation of efficiency and capacity initiatives. 2023 Subgroup Deliverables Review and adjustments of the PTA for Subgroups SG1 – SG2 – SG3 and respective Task Groups. Follow up.	Virtual, March 5-8 **Carried out**
FRTO & SAM Airspace Optimization Webinar	Dissemination and studies on the regional guide material on the implementation of the FRTO module, and DTS and UPR concepts.	Virtual, March 13-15 **Carried out**
ATFM Workshop	ATFM in-service training, in accordance with ICAO Doc. 9971. Divided into Virtual Classroom Phase and Face-to-Face Phase.	Virtual Classroom (1 to 5 April) and face-to-face, Rio de Janeiro, Brazil from April 8 to 19 **Carried out**
Workshop/Meeting of the Working Group on ATFM Crossborder SAM (GT XB)	Planning of the implementation of the Cross-border ATFM, according to the SAM Implementation Guide, based on intra-regional scenarios. Analysis of GT XB deliverables.	Lima, May 6-10 **Carried out**
SAM/IG/31 Priorities for the implementation of air navigation considered in GREPICAS programs, vol III Regional ANP and Regional initiatives.	Continue with the implementation, execution and optimization activities under the studies of GESEA and GT INTEROP. (5 days)	Lima, 20 to 24 May 2024 **Carried out**
Workshop on the use of ATFM portal tools	Training of ATFM specialists in the use of the portal's features and tools for ATFM management. Implementation analysis.	Lima, Peru, June 3-7
Third ATFM Workshop: data management and calculation of GANP performance indicators	Standardization of ATFM data. Demand analysis – capacity and forecasts. Benchmarking. Generation of GANP performance indicators.	Virtual, July 8-11 1330 – 1630 UTC (4 days long) KPI and VOL III teams are invited
(Tabletop Exercise) TTX PLANCONT ATS - PERU	State PERU - ANSP ATS Contingency Plan	Virtual, July 24 (to be confirmed)

Activities	Objectives / Deliverables	Tentative Dates
GESEA SG3 ATFM Meeting	Follow-up of studies and activities for the implementation and optimization of the ATFM service.	Virtual, August 12, 13, 14 (dates revised)
NEOSPACE NACC WG x FRTO Mexico 12-16 August	Virtual Session CAR & SAM to agreed ROADMAP, CONNOPS. Joint Conclusion NAC WP + SAM/IG	Virtual, 15 August CAR/SAM Joint Session
GESEA SG2 PANS OPS Meeting	Follow-up of studies and activities of PBN implementation and optimization of the IFPD service.	Virtual, 11, 12 13 September
SAM/IG/32 Virtual	Follow-up and enrooting GESEA activities (3 sub groups) and GT INTEROP (7 groups)	Virtual 18, 19 and 20 September
Webinar on UTM	Dissemination and studies on CONOPS UTC. Regional regulation on RPAS UAS.	Virtual, 25 26 27 September
TTX PLANCONT ATS - ECUADOR	State ECUADOR - ANSP ATS Contingency Plan	Virtual, October 9
Recurrent PANS OPS - PBN Course	Recurrent PANS OPS course for designers with PBN design experience.	Lima, Peru, 21-25 October

APPENDIX 3B

Guide for Implementing Enhanced Operations through Optimized Enroute Trajectories (FRTO)

(Spanish only)

Provided in a separate file

APPENDIX 3C

Guidance Manual on Airspace Planning for the SAM Region

Part I : Implementation of airspace concepts

(Spanish only)

Provided in a separate file

APPENDIX 3D

Guidance Manual on Airspace Planning for the SAM Region

Part II: Planning techniques

(Spanish only)

Provided in a separate file

APPENDIX 3E

Manual on the flexible use of Airspace (MODEL)

(Spanish only)

APPENDIX 3F

FUA CONCEPT ACTION PLAN

(Spanish only)

Note: *This action plan should be considered a guide for the management of the implementation of the concept of flexible use of airspace, considering the particularities of each State of the SAM Region.*

No.	*Tarea a Desarrollar*	*Tarea Específica*	*Entregable*	*Fecha de Finalización*	*Responsable*	*Estado de Ejecución*	*Nota*
01	Socialización del Concepto FUA	Reunión informativa con la Alta Gerencia de la AAC. Reunión con Altos Miembros Militares del Estado.	1. Acta de Reunión, incluyendo lista de participantes con datos de contacto	Nn/xx/202n	Autoridad Aeronáutica		
02	Conformación de Equipo de Trabajo Cívico - Militar	Designación de especialistas de ambas partes. Conformación del Equipo Mixto de Trabajo	1. Manual de Funciones 2. Manual de Procedimientos 3. Plan de Acción para la Implantación del Concepto FUA	Nn/xx/202n	Autoridad Aeronáutica Autoridad Militar		Ver Plan de Acción para Implantar Manual FUA
03	Revisión del Borrador Manual FUA	Adaptación del Borrador Manual FUA	1. Revisión 2. Adaptación 3. Completar los Procesos Faltantes	Nn/xx/202n	Equipo Mixto de Trabajo		
04	Promulgar Manual FUA	Proceso administrativo para Validar el Manual FUA	1. Manual FUA aprobado y vigente	Nn/xx/202n	Autoridad Aeronáutica Autoridad Militar		
05	Elaboración de Estrategia	Plan de Acción para Implantación del Concepto FUA	1. Estrategia de implantación 2. Previsión Presupuestaria 3. Previsión de recursos tecnológicos 4. Previsión de recursos	Nn/xx/202n	Equipo Mixto de Trabajo		Ver Plan de Acción para Implantar Manual FUA

No.	*Tarea a Desarrollar*	*Tarea Específica*	*Entregable*	*Fecha de Finalización*	*Responsable*	*Estado de Ejecución*	*Nota*
			humanos capacitados 5. Socialización e instrucción de las partes afectadas (reguladores, proveedores y usuarios) 6. Validación				
06	Ejecución del Plan de Acción para Implantación del Concepto FUA	Implementar el Plan de Acción	1. Registro de monitoreo y avance del proceso	Nn/xx/202n	Autoridad Aeronáutica Autoridad Militar Equipo Mixto de Trabajo		
07	Toma de decisión	Implementar Concepto FUA	1. Publicación 2. Puesta en marcha	Nn/xx/202n	Autoridad Aeronáutica Autoridad Militar		
08	Seguimiento del proceso	Monitoreo Vigilancia Retroalimentación	1. Inspección 2. Plan de acciones correctivas 3. Mejora continua	Nn/xx/202n	Equipo Mixto de Trabajo		
09				Nn/xx/202n			
10				Nn/xx/202n			

APPENDIX 3G

"FUA MANUAL" ACTION PLAN

(Spanish only)

No.	*Tarea a Desarrollar*	*Tarea Específica*	*Entregable*	*Fecha de Finalización*	*Responsable*	*Estado de Ejecución*	*Nota*
01	Elaborar un Acuerdo Civil – Militar de Cooperación Mutua, donde se incluya el Concepto FUA	Elaborar borrador de Acuerdo Civil – Militar de Cooperación Mutua	1. Borrador de Acuerdo Civil - Militar	Nn/xx/202n	Equipo Mixto de Trabajo		En caso existiere, revisar y adecuar según sea necesario
02	Revisión y adecuación del Cap. 2 Manual FUA, parte 2.4 Atribuciones	Revisar y complementar las atribuciones del CAOM de conformidad a las particularidades del Estado	1. Cap. 2 del Manual FUA complementado y verificado	Nn/xx/202n	Equipo Mixto de Trabajo		
03	Definir y Establecer Política, objetivos ASM en Función al FUA	Revisar y complementar el ap. 2 parte 2.1 del Manual FUA introduciendo Política y Objetivos ASM en Función al FUA	1. Cap. 2 del Manual FUA complementado y verificado	Nn/xx/202n	Equipo Mixto de Trabajo		
04	Funciones y Procedimientos del CAOM para la implementación de la Política, objetivos ASM	Ver tarea 02 anterior	1. Cap. 2 del Manual FUA complementado y verificado	Nn/xx/202n	Equipo Mixto de Trabajo		
05	Evaluación de la Estructura del Espacio Aéreo (FIR)	Análisis de la actual estructura del espacio aéreo Optimización de la estructura para contribuir en rutas más directas	1. Plan de mejoramiento del espacio aéreo 2. Red de rutas mejoradas	Nn/xx/202n	Equipo Mixto de Trabajo		Ver Plan de Acción para Implantar Manual FUA

No.	*Tarea a Desarrollar*	*Tarea Específica*	*Entregable*	*Fecha de Finalización*	*Responsable*	*Estado de Ejecución*	*Nota*
		Reducción de emisiones de CO2 Gestionar los espacios aéreos segregados	3. Estimación de ahorro de combustible y de emisiones de CO2				
06	Evaluación de la inversión	Identificar y valorar los costes y su alcance	1. Estimar presupuesto de la implantación	Nn/xx/202n	Equipo Mixto de Trabajo		
07	Establecer plazos	Definir plazos por cada meta y objetivos Establecer indicadores	1. Calendario de actividades 2. Lista de indicadores	Nn/xx/202n	Equipo Mixto de Trabajo		
08	Revisar y actualizar Cap. 3 ASM Nivel 1 Estratégico	Revisión y adecuación	1. Capítulo chequeado	Nn/xx/202n	Equipo Mixto de Trabajo		
09	Revisar y actualizar Cap. 4 ASM Nivel 2 Pretáctico	Revisión y adecuación	1. Capítulo chequeado	Nn/xx/202n	Equipo Mixto de Trabajo		
10	Revisar y actualizar Cap. 5 Información FUA	Revisión y adecuación	1. Capítulo chequeado	Nn/xx/202n	Equipo Mixto de Trabajo		Parte 5.1.2; 5.2; 5.3; 5.4; 5.5
11	Revisar y actualizar Cap. 6 Zona de Identificación de Defensa Aérea	Revisión y adecuación	1. Capítulo chequeado	Nn/xx/202n	Equipo Mixto de Trabajo		
12	Revisar y actualizar Cap. 7 ASM Táctica	Revisión y adecuación	1. Capítulo chequeado	Nn/xx/202n	Equipo Mixto de Trabajo		Parte 7.1.3; 7.2*; 7.4; 7.5; 7.5.4;7.6.2;7.6.3 *Considerar el Doc. 4444
13	Toma de decisión	Implementar Manual FUA	2. Publicación Puesta en marcha	Nn/xx/202n	Equipo Mixto de Trabajo		

APPENDIX 3H

IFPDS SURVEY

(Spanish only)

APPENDIX I

Projects in Brazil

Brazil	Brasilia		NOV 2015 (implemented)
	Belo Horizonte		NOV 2015 **(**implemented**)**
	São Paulo (partial changes)		NOV 2015 **(**implemented**)**
	Salvador		ABR 2017 **(**implemented**)**
	Manaus		AGO 2017 **(**implemented**)**
	(PBN SUL)	Curitiba	OCT 2017 **(**implemented**)**
		Florianopolis	
		Joinville	
		Navegantes	
		Porto Alegre	
		São Paulo (partial changes)	
		Rede de rota FIR CW	
	São Paulo (TMA-SP Neo)		MAY 2021 **(**implemented**)**
	TMA Belém (CCO/CDO – RNP com RF LEG)		DIC 2021 **(**implemented**)**
	TMA Campo Grande (CCO/CDO)		DIC 2021 **(**implemented**)**
	FIR Recife (Proyecto Cardeal Nordeste)		OCT 2023 **(**implemented**)**
	FIR Brasilia (Proyecto Eficiencia de Rutas)		OCT 2023 **(**implemented**)**
	FIR Curitiba (CEA Curitiba)		NOV 2023 (implemented**)**
	FIR Amazónica (ECO NORTE)		ABR 2025
	FIR Atlántico (rutas)		JUN 2030

Some information related to the results obtained from the projects: Efficiency Route, Cardeal Norwest and Curitiba Airspace Concept (CEA).

Efficiency Route and Cardeal Norwest

NEW IAC/SID/STAR	187
NEW ENR-C	12
NEW ARC	5
AWY modified	127
Waypoints (new or modified)	1533
ATCO trained	672
evaluated city pairs	29
Number of operations/monthly (estimated)	6400
NM/monthly saved	7000
Fuel/monthly saved	36 TON
CO2 reduction/monthly	110 TON

CEA Curitiba

IAC/SID/STAR	65
ENR-C	04
ARC	01
TMA	02

Brazil has 1,442 IFR procedures (IAC, SID, STAR) published for 141 airports where IFR operations occur:

IAC		SID		STAR	
CONV	**PBN**	**CONV**	**PBN**	**CONV**	**PBN**
326	421	181	327	00	150
747		508		150	

OMNI 123 (compatible as conventional)*

Agenda Item 4: Report on WG activities and deliverables - Interop and Subgroups

a) Review of air navigation priorities in the CNS field
b) CNS implementation. Progress of the Subgroups
c) Work programmes

4.1 Under this agenda item the following documents were analysed:

No.	Title	Presented by
NE/4.1	CNS priorities and 2024 work plan	Secretariat
NE/4.2	Activities concluded by the Subgroups of the Interoperability TF (INTEROP TF)	Secretariat
NE/4.3	LRM 6 error mitigation	Rapporteur of the ATM/AIDC Subgroup
NE/4.4	Activities concluded in the CNS/SUR subgroup ADS-B CONOPS AD-HOC Group	IATA
NI/4.1	AIDC implementation status in Brazil	Brazil
NI/4.2	Brazil AMHS implementation	Brazil
NI/4.3	Brazil ADS-B implementation	Brazil
NI/4.4	ADS-C/CPDLC implementation in FIR Lima *(Spanish only)*	Perú
NI/4.5	Brazil VoIP implementation	Brazil
NI/4.6	Activities by Brazil for the Regional OPMET Database (RODB) IWXXM	Brazil

REVIEW OF AIR NAVIGATION PRIORITIES IN THE CNS FIELD

4.2 The Workshop/Meeting has noted the information provided in the working paper (NE/4.1) regarding the priorities established for the SAM Region concerning CNS implementations.

Network Infrastructure – National ATN

4.2.1 It is essential for SAM States to implement the national (domestic) communications network infrastructure in accordance with the provisions of Doc 9896 - *Manual on the Aeronautical Telecommunication Network (ATN) using Internet Protocol Suite (IPS) Standards and Protocol*, with the aim of ensuring interoperability of the implemented systems.

4.2.2 Likewise, States must plan the migration of the context of aeronautical information exchange from the current Messaging Service (AMHS) to the context of the SWIM (System Wide Information Management) concept; the network infrastructure is fundamental for the implementation of the new concept.

AMHS Implementation

4.2.3 The implementation of AMHS is well advanced and close to being 100% completed (see SAM/IG/30-WP/3.2). However, some relevant aspects must be taken into account by SAM States:

- Modernization of AMHS systems: some States operate old systems that lack new functionalities necessary in the current Aeronautical Messaging Service;
- Adaptation of user terminals for new message formats: the IWXXM format for OPMET messages is already in effect, and some States do not have systems that support this format;
- Migration of all AFTN users: all users (human and automated) must be migrated from the AFTN context to the AMHS context; and
- Definition of the strategy for implementing the AMHS/SWIM Gateway: SAM States must define which strategy they will take regarding the implementation of the AMHS/SWIM Gateway.

ADS-B Implementation

4.2.4 It is recommended that the implementation of ADS-B in each State be concluded by a multidisciplinary group that develops the technical, operational, safety, and other administrative, financial, and regulatory requirements for a successful ADS-B implementation, with a concise implementation roadmap and a clear definition of roles and responsibilities.

4.2.5 This multidisciplinary group should include representatives from various segments of the aeronautical context (Regulator, ANSP, aircraft operators, representatives of pilots and controllers, etc.) under the leadership of the civil aviation authority (CAA), establishing the main frameworks of the implementation process.

4.2.6 Additionally, some members of the multidisciplinary groups from SAM States should participate in the work of the CNS/SUR Subgroup and the activated Ad-hoc Groups, to contribute to the regional harmonization process of national ADS-B implementations.

AIDC Implementation

4.2.7 In 2013, the civil aviation authorities of the SAM Region signed a commitment document (Bogota Declaration), establishing objectives and goals to advance the implementation of systems necessary for providing safer air navigation services.

4.2.8 The goal set for ATS Interfacility Data Communication (AIDC) was to achieve 100% implementation by December 2016. Currently, out of the 77 planned communications, only 20 have been operationally established.

4.2.9 It is necessary for SAM States to take effective measures to advance AIDC implementation to obtain the operational and safety benefits provided by this functionality, available in automated ATC centres.

4.2.10 In 2023, the ATM/AIDC Subgroup adopted a strategy to conduct the work, seeking more effective participation from the Subgroup's Rapporteur and Secretariat, with visits to control centres establishing AIDC connections, aiming to promote the establishment of new connections, as well as provide closer support to the involved centres, collecting valuable information that will contribute to the

establishment of other AIDC connections.

VoIP ATM Implementation

4.2.11 The "Interoperability Standards for VOIP ATM Components" (EUROCAE ED-137) are already available, and some SAM States already use systems (VCCS, radios, and telephone exchanges) with the capability to use VoIP technology and protocols.

4.2.12 It is essential for SAM States to plan the modernization of the voice systems used in providing air navigation services, so that the old technologies are gradually replaced by systems compliant with EUROCAE ED-137 standards.

4.2.13 With the activation of the CNS/VOIP Subgroup of the INTEROP WG, it is crucial for SAM States to participate actively to ensure the interoperability of the systems/equipment to be implemented.

CNS Regional Officer Replacement

4.2.14 The Secretariat informed that the current Regional CNS Officer will retire on September 30, 2024, and that the SAM Office will likely be without a permanent holder in this role for some time.

4.2.15 In this regard, it is requested that the members of the INTEROP WG Subgroups support the Rapporteurs/Coordinators with Secretariat functions to avoid any discontinuity in the activities concluded by the subgroups. Each subgroup should have a member assigned to perform Secretariat functions within the subgroup. The future Regional CNS Officer will only play the role of Secretariat for the INTEROP WG, consolidating all information from the subgroups.

4.2.16 Additionally, the Meeting agreed to hold an in-person meeting of the INTEROP WG before the SAM/IG/33 Workshop/Meeting (likely in April or May 2025) to present and continue the activities developed by the group to the person assuming the Secretariat of the INTEROP WG. (Action S31/05)

CNS IMPLEMENTATION. PROGRESS OF THE SUBGROUPS

4.3 ATM/AIDC SUBGROUP

Mitigation of LRM6 Errors

4.3.1 The Rapporteur of the ATM/AIDC Subgroup presented a working paper (NE/4.3) on errors encountered in the notification, coordination, and transfer stages; specifically, the LRM6 error indicating the absence of the FPL in the flight plan processing system.

4.3.2 The working paper details the actions taken by the teams from Chile and Peru to mitigate the errors. Based on this experience, Peru’s administration will continue to work with adjacent centres in other States.

4.3.3 The Rapporteur encourages the participants of the ATM/AIDC Subgroup to carry out the coordinations and evaluations described in the working paper to enhance the efficiency of automated coordinations, to support the reduction of LHD errors, and to decrease the workload of controllers, thereby increasing the safety of operations in the States of the Region.

4.3.4 It is important for all States to advance with AIDC implementation and for centres that have not yet conformed to the provisions of the PAN ICD AIDC v1.0 (2014) document to do so as soon as possible. (Action S31/06)

4.3.5 Additionally, to increase operational safety, prevent LHDs in the identified hot spots at the regional level, and other operational benefits, it is recommended to implement and develop the use of other AIDC messages outlined in the PAN ICD AIDC v1.0 document, such as the following: (Action S31/07)

- PCM
- PCA
- TRU
- FAN
- FCN

AIDC Connection between ACC Asunción and ACC Curitiba

4.3.6 The Meeting noted that testing would resume on May 27, 2024, for a period of one month, after which the pre-operational phase would commence.

4.3.7 It is estimated that this connection will be operational in the second half of 2024.

AIDC Connection between ACC Amazonico and ACC Maiquetia

4.3.8 The Meeting was informed that the connection is already in the pre-operational phase, with 100% success in the coordination. The Letter of Operational Agreement (CAO/LOA) between SVMI and SBAZ is being updated, with AIDC as the main coordination method. This connection is expected to be operational as soon as the CAO/LOA is signed.

AIDC Connection between ACC Barranquilla and ACC Maiquetia

4.3.9 Representatives from Venezuela reported that this AIDC connection already shows 95% success in the coordination. An error occurs when Barranquilla requests a coordination (CDN), as the CDN message sent from the Indra system to the Atech system contains fields 15 and 18, while the Atech system (SAGITARIO) only handles CDN messages with fields 10 and 14. This situation indicates the need for system adjustments by Atech, in accordance with the current ICD guidelines.

4.3.10 Venezuela stated that it is already working with Atech on the adjustment of the SAGITARIO system, within the framework of a new contract that would cover other applications, such as ATFM.

4.3.11 The Letter of Operational Agreement (CAO/LOA) between SVMI and SKBQ is being reviewed, with AIDC as the main coordination method. It is expected that this connection will be operational as soon as the CAO/LOA is signed.

AIDC Connection between ACC Bogotá and ACC Maiquetia

4.3.12 The Meeting noted that Colombia and Venezuela will start testing between ACC Bogotá and Maiquetia, with the aim of making the AIDC connection operational in the second half of 2024.

AIDC Connection between ACC Amazonico and ACC Bogotá

4.3.13 The Secretariat informed that from April 15 to 19, 2024, a support visit was made to ACC Bogotá (April 15-16) and ACC Amazonico (April 18-19) to establish the AIDC connection between the two control centres. The visit included the Rapporteur of the ATM/AIDC Subgroup, the CNS Officer of the SAM Office, and an EASA expert.

4.3.14 During the visit, the ATM/AIDC Subgroup members toured the facilities, familiarized themselves with the operations, and met with the personnel involved in ATM services, including managerial, operational, and technical staff.

4.3.15 Starting April 29, 2024, testing began between ACC Amazonico and ACC Bogotá to identify the necessary adjustments in the system configurations, with the pre-operational phase starting on April 30. It is estimated that this connection will be operational in the second half of 2024.

AIDC Connection between ACC Curitiba and ACC Montevideo

4.3.16 During the SAM/IG/31 Workshop/Meeting, representatives from Brazil and Uruguay held discussions and agreed to initiate coordination for establishing the AIDC connection between the Curitiba and Montevideo ACCs.

4.3.17 In this regard, they requested that the ATM/AIDC 2024-2 activity planned in the 2024 Work Program of the INTEROP WG be concluded to establish the AIDC connection between the Curitiba - SBCW and Montevideo - SUMU control centres. (Action S31/08)

4.4 ATM/FPL SUBGROUP

4.4.1 The Meeting was informed that from April 2 to 4, 2024, the Second Workshop/Meeting of the ATM/FPL Subgroup of the INTEROP WG (SG ATM/FPL/2) was held. This event (online) addressed the following topics:

- Activation of the Ad-hoc Group composed of States using CADAS User Agents (UA) to share best practices and learn about the initiatives taken by each State to establish centralized flight plan management;
- Harmonization of the publication in AIPs of information related to FPLs and associated messages;
- Harmonization of the nomenclature to be used for SID and STAR routes; and
- Review and adjustment of the ACK and REJ message formats.

4.4.2 The CADAS Ad-hoc Group, consisting of representatives from Argentina, Chile, Colombia, Peru, and Venezuela, was activated. As the first activity, the Rapporteur of the ATM/FPL Subgroup has scheduled a virtual workshop (online) on May 28, 2024, with the following agenda:

- Module I – AMHS Context in the SAM Region;
- Module II – CADAS-ATS Central Terminal; and
- Module III – Filters, Data Extraction, and Q&A

4.4.3 Regarding the harmonization of the publication in AIPs of information related to FPLs and associated messages, in an email dated April 10, 2024, the Rapporteur of the ATM/FPL Subgroup requested participants to provide information on the indicators used in the ATS units of each State, specifically the following:

- ZTZX = Control Tower
- ZPZX = ARO/AIS Office
- ZAZX = Approach
- ZRZX = Area Control Centre

4.4.4 Information was received from the following States: Brazil, Ecuador, Peru, and Venezuela. It is requested that other members of the Subgroup provide the requested information.

4.4.5 Concerning the harmonization of the nomenclature to be used for SID and STAR routes, Subgroup participants agreed to gather more information to have better guidance for defining the nomenclature to be adopted.

4.4.6 On the review and adjustment of the ACK and REJ message formats, the Subgroup agreed that this is an ongoing activity and that any necessary changes identified will be proposed for approval by the SAM Regional Implementation Group (SAM/IG).

4.5 CNS/AMHS SUBGROUP

4.5.1 The Meeting noted that the progress of AMHS implementation by the States in the SAM Region is at 97%. Only two AMHS interconnections (P1) are pending:

- COM Centre Caracas (SVCA) – COM Centre Curaçao (TNCC); and
- COM Centre Georgetown (SYCJ) – COM Centre Piarco (TTPP).

4.5.2 The first interconnection is pending the implementation of the new CANSNET network by the NAM/CAR States, which will allow the connection with REDDIG through a Network-to-Network Interface (NNI) between the telecommunications providers of the two regional networks. The second interconnection is expected to be operational in the second half of 2024.

Fifth Workshop/Meeting of AMHS COM Centres Supervisors/Operators in the SAM Region

4.5.3 The Meeting noted that from April 23 to 25, 2024, the Fifth Workshop/Meeting of AMHS COM Centres Supervisors/Operators in the SAM Region (COM AMHS/5) was held with the specific objective of reviewing the AFTN/AMHS routing tables.

4.5.4 During the event, a routing scheme was proposed, and the Supervisors/Operators of the COM Centres in the SAM Region were requested to provide their comments and send the routing tables to the Rapporteur of the CNS/AMHS Subgroup (with a copy to the Secretariat).

4.5.5 **Appendix 4A** of this part of the Report presents the proposed routing scheme.

Workshop/Training (Online) on AMHS/SWIM Gateway

4.5.6 From May 6 to 10, 2024, a Workshop/Training on AMHS/SWIM Gateway was held with the participation of 2 representatives from each State involved in the Regional Technical Cooperation Project RLA/06/901. The Workshop/Training was contracted by CDI with resources from the RLA/06/901 Project and was provided by the company Merideam.

4.5.7 The instructor for the Workshop/Training was Mr. Manuel García, who kindly allowed the expansion of participants in the last 2 modules of the Workshop/Training. As a result, more than 80 people attended a demonstration of the AMHS/SWIM Gateway implementation (on May 9, 2024) and a review of concepts related to AMHS, SWIM, and strategies for implementing an AMHS/SWIM Gateway (on May 10, 2024).

4.6 CNS/ANP SUBGROUP

4.6.1 The CNS/ANP Subgroup was activated during the SAM/IG/26 Meeting (Virtual, September 20-23, 2021) to support the review of the information contained in Volume II of the CAR/SAM Air Navigation Plan (ANP), as well as to provide support in the development of Volume III of the CAR/SAM ANP on CNS topics. Additionally, after the activation of the GREPECAS Project for the Regional CAR/SAM Management of the Radio Frequency Spectrum for Aviation, the CNS/ANP Subgroup began supporting the activities developed under the GREPECAS Project.

4.6.2 Regarding the update of the information contained in Part III (CNS) of Volume II of the CAR/SAM ANP, a working paper was presented during the GREPECAS/21 Meeting proposing the consolidation of information with CAR States, the adoption of new formats (electronic templates) for CNS Tables, and publication on the ICAO iSTARS/SPACE application website, following approval by GREPECAS and completion of the Proposal for Amendment (PfA) process jointly by the Regional Offices (NACC and SAM).

4.6.3 The Meeting noted that, currently, the NACC Office is awaiting coordination with CAR States for the consolidation of the tables in order to request the corresponding amendment to the CAR/SAM Regional Air Navigation Plan (ANP CAR/SAM).

4.7 CNS/SUR SUBGROUP

4.7.1 The CNS/SUR Subgroup addresses issues related to aircraft surveillance data exchange and is also responsible for studying and proposing the necessary activities for the regional implementation of ADS-B in the SAM Region.

4.7.2 On February 15, 2024, a teleconference of the CNS/SUR Subgroup was held, during which 3 Ad-hoc Groups were activated:

- Ad-hoc Group CONOPS ADS-B
- Ad-hoc Group ADS-B Regulation
- Ad-hoc Group Technical Implementation

4.7.3 The proposal was sent to the members of the Ad-hoc CONOPS ADS-B Group for review (see NE/4.3, presented by IATA). The working group includes representatives from IATA as well as from the following States: Argentina, Brazil, Colombia, Peru, Uruguay, and Venezuela.

4.7.4 The proposal presented by IATA includes a new chapter (Chapter 7) to the existing NAM/CAR/SAM CONOPS text of 2022. Brazil has indicated that, through its representatives on the Ad-hoc CONOPS ADS-B Group, it will propose changes to the text of the included chapter.

4.7.5 During the SAM/IG/31 Workshop/Meeting, the Secretariat highlighted the importance of all States' participation to ensure that the CONOPS harmonizes all individual State initiatives for ADS-B implementation.

4.7.6 The Coordinator for the Ad-hoc ADS-B Regulation Group is Mr. Marcos Vignolo (Uruguay), and the working group includes registered representatives from the following States: Argentina, Bolivia, Brazil, Chile, Colombia, Ecuador, Paraguay, Peru, Uruguay, and Venezuela.

4.7.7 The Ad-hoc ADS-B Regulation Group is also supported by CNS experts who form the LAR 210 Ad-hoc Group, assigned to the activities of the Regional Cooperation System for Operational Safety Surveillance (SRVSOP). The Ad-hoc ADS-B Regulation Group will leverage the installed capacity of the LAR 210 Ad-hoc Group to effectively and uniformly advance tasks related to ADS-B regulation.

4.7.8 The Ad-hoc Technical Implementation Group for ADS-B is composed of registered representatives from the following States: Argentina, Bolivia, Brazil, Chile, Colombia, Paraguay, Peru, Uruguay, and Venezuela. A Coordinator has not yet been assigned to the Ad-hoc Technical Implementation Group.

4.8 CNS/VOIP SUBGROUP

4.8.1 The CNS/VOIP Subgroup was activated during the SAM/IG/30 Workshop/Meeting (Lima, October 23-27, 2023) with the following objectives:

- To assess the VoIP capabilities implemented by SAM States;
- To develop the syllabus for training on "Interoperability Standards for ATM VoIP Components (EUROCAE ED-137)"; and
- To coordinate the establishment of initial voice communications based on EUROCAE ED-137 Standards via REDDIG.

4.8.2 The First Workshop/Meeting of the CNS/VOIP Subgroup (SG CNS/VOIP/1) was held in Lima from February 26 to March 1, 2024, with the participation of 9 representatives from Bolivia, Brazil, Chile, Panama, Peru, Uruguay, and Venezuela.

4.8.3 Participants of the SG CNS/VOIP/1 Workshop/Meeting agreed to designate Mr. Leonardo Alfredo Rodríguez (Uruguay) as Rapporteur and Mr. Raúl Alfredo Contreras Fara (Chile) as Secretary of the CNS/VOIP Subgroup.

4.8.4 During the Workshop/Meeting, a syllabus proposal for training to be funded by the Regional Technical Cooperation Project RLA/06/901 was analysed and approved. The training is scheduled to take place from June 17 to 21, 2024. Appendix 4B of this report presents the syllabus for the Workshop/Training on Interoperability Standards for ATM VoIP Components (EUROCAE ED-137).

4.8.5 Brazil provided an information note (NI/4.5) on the status of operational VoIP implementation through the ATN-BR network deployed by DECEA.

4.8.6 Brazilian representatives informed participants at the SAM/IG/31 Workshop/Meeting that, during the natural disaster (intense rains) that occurred in the state of Rio Grande do Sul-RS in early May 2024, the versatility of the ATN network and VoIP technology systems allowed for rapid reconfiguration of the affected control centres, enabling operations from other locations and ensuring the continuity of air navigation services.

4.8.7 Brazil has committed to presenting, during the SAM/IG/33 Workshop/Meeting, on the technical and operational measures adopted by DECEA during the natural disaster (intense rains) that affected air navigation services in the state of Rio Grande do Sul-RS in early May 2024. (Action S31/09)

4.9 MET/IWXXM SUBGROUP

4.9.1 The MET/IWXXM Subgroup was established with the purpose of conducting tests and exchanging OPMET messages in the new IWXXM format via the Aeronautical Messaging Service (AMHS).

4.9.2 The following SAM States already have the capability to transmit information in the IWXXM format: Argentina, Brazil, Guyana, Paraguay, Uruguay, and Venezuela.

4.9.3 Brazil has provided an information note (NI/4.6) discussing the ongoing adaptations to the Regional OPMET Database, implemented by the Brazilian administration (DECEA), to address the amendments published in Annex 3.

4.9.4 In 2024, DECEA began the process of updating to the new versions of the IWXXM protocol, 2021-2 and 2023-1, in compliance with amendments 79 and 80. This update is expected to become operational in the second half of 2025. Table 1 presents the features of the third update of the Regional OPMET Database of Brasília.

Table 1 - IWXXM Versions to be Implemented in the Third Update of the RODB

IWXXM	METAR /SPECI	TAF	SIGMET	AIRMET	TCA	VAA	SWA	SIGWX	Requisito Anexo 3
2021-2	3.1.0	3.0.1	4.0.0	3.1.0	3.1.0	3.1.0	3.0.1	1.0.0	Amd 79 + Amd 80
2023-1	3.1.0	3.0.1	4.0.1	3.1.1	3.1.0	3.1.0	3.0.1	1.1.0	Amd 79 + Amd 80

4.9.5 Therefore, the update of the Regional OPMET Database (RODB), aiming for compatibility with the latest version of the ICAO IWXXM protocol, will ensure that the system complies with established international standards, maintaining the RODB's performance and efficiency.

4.9.6 Finally, Brazil stated that it remains available to conduct message exchange tests in the IWXXM format via AMHS, as well as tests via webservice (SWIM).

WORK PROGRAMMES

2024 Work Programme

4.9.7 The activities of the 2024 Work Program of the INTEROP Group are listed below, indicating those that have already been completed:

Activities	Objectives / Deliverables	Date
SG CNS/VOIP/1 First Workshop/Meeting of the CNS/VOIP Subgroup	• Assessment of the VoIP capabilities implemented by SAM States. • Definition of the syllabus for training on	Lima, 26 February to 1 March 2024

Activities	Objectives / Deliverables	Date
	"Standards of Interoperability for ATM VoIP Components (EUROCAE ED-137)". • Coordination for the establishment of the first voice communications based on EUROCAE ED-137 standards via REDDIG.	Concluded
SG ATM/FPL/2 Second Workshop/Meeting of the ATM/FPL Subgroup	• Activation of an Ad-hoc Group consisting of States using CADAS User Agents (UA) to share best practices and learn about each State's initiatives for establishing centralized flight plan management. • Harmonization of the publication in AIPs of information related to FPLs and associated messages. • Harmonization of the nomenclature to be used for SID and STAR routes. • Review and adjustment of the format for ACK and REJ messages.	Online, 2 to 4 Abril 2024 Concluded
COM AMHS/5 Fifth Workshop/Meeting of Supervisors/Operators of COM AMHS Centres in the SAM Region	• Exchange of information and experiences among the supervisors/operators of the COM AMHS Centres in the SAM Region. • Review of routing tables.	Online, 23 to 25 April 2024 Concluded
ATM/AIDC 2024-1 Local coordination for establishing AIDC communication between adjacent control centres	• Local coordination with control centres (ACC Bogotá and ACC Amazonico) to advance AIDC implementation. • Identification of limitations preventing progress to the operational phase of AIDC communication. • Preparation of a report with an action plan for the operational establishment of AIDC communication between the involved centres.	Place: Bogota Date: 15 - 16 April 2024 Place: Manaus Date: 18 - 19 April 2024 02 experts Concluded
Workshop/Training on AMHS/SWIM Gateway 2024	Train 2 representatives from the participating States of Project RLA/06/901, preferably members of the CNS/AMHS Subgroup and CNS Inspectors, with knowledge on the operation, specification, and development of systems implementing the AMHS/SWIM Gateway function.	En línea, 6 al 10 de mayo 2024 Concluded
SAM/IG/31 Air Navigation Implementation Priorities considered in GREPECAS programmes, Volume III Regional ANP, and Regional Initiatives	Continue with the implementation, execution, and optimization activities under the GESEA and GT INTEROP studies. (5 days)	Lima, 20 al 24 mayo 2024 Concluded

Activities	Objectives / Deliverables	Date
EUROCAE ED-137 2024 Workshop/Training on 'Interoperability Standards for ATM VoIP Components' – ED-137	Train 2 representatives from the participating states in Project RLA/06/901, prioritizing members of the CNS/VOIP Subgroup.	Online, 17 - 21 June 2024
ATM/AIDC 2024-2 Local coordination for establishing AIDC communication between adjacent control centres	• Local coordination with control centres (Curitiba and Montevideo) to advance AIDC implementation. • Identification of limitations hindering progress to the operational phase of AIDC communication. • Preparation of a report with an action plan for the operational establishment of AIDC communication between the involved centres.	Tentative August 2024
ADS-B CNS/SUR/1 Workshop/Training on obtaining, monitoring, analysing, and utilizing information from ADS-B sensors.	• Train representatives from SAM States, primarily members of the CNS/SUR Subgroup, with the ability to generate quality indicators and other parameters from ADS-B OUT sensors. (5 days)	Tentative September 2024 (Determine if face-to-face or virtual)
Virtual SAMIG/32 Air navigation implementation priorities considered in GREPECAS programs, VOL III Regional ANP, and regional initiatives.	• Monitoring and steering of GESEA activities (3 subgroups) and GT INTEROP activities (7 activated groups).	Virtual, 18, 19 20 September

2025 Work Programme

4.10 As indicated in item 4.2.16 of this part of the report, the meeting has identified an activity to be included in the 2025 Work Programme:

Activities	Objetives / Deliverables	Date
GT INTEROP Meeting	• Continue with the GT INTEROP activities before SAM/IG/33 • Present the Rapporteurs/Secretaries of the GT INTEROP Subgroups to the new CNS SAM Officer who will assume the Secretariat functions of the GT INTEROP	Tentative Lima, Peru, April or May 2025

APPENDIX A

ROUTING SCHEME FOR OTHER REGIONS

APAC Region

- Brasilia (SBBR), Caracas (SVCA) and Lima (SPIM) Centers – main route via Ezeiza (SAEZ), alternating via Atlanta (KATL).
- Panama Center (MPPC) – main route via Lima (SPIM), alternating via Atlanta (KATL).
- Ezeiza Center (SAEZ) – main route via Johannesburg (FAOR), alternating via Lima (SPIM).
- Bogotá Center (SKBO) – main route via Lima (SPIM), alternating Caracas (SVCA).
- Quito Center (SEQU) – main route via Lima (SPIM), alternating via Caracas (SVCA).
- Santiago Center (SCSC) – main route via Ezeiza (SAEZ), alternating via Lima (SPIM).
- La Paz Center (SLLP) – main route via Ezeiza (SAEZ), alternating via Lima (SPIM).
- Asuncion Center (SGAS) – main route via Ezeiza (SAEZ), alternating via Brasilia (SBBR).
- Montevideo Center (SUMU) – main route via Ezeiza (SAEZ), alternating via Lima (SPIM).
- Cayenne (SOCA), Paramaribo (SMJP) and Georgetown (SYCJ) Centers – main route via Brasilia (SBBR), alternating via Caracas (SVCA).

AFI Region

- Ezeiza Center (SAEZ) - main route via Johannesburg (FAOR), alternating via Brasilia (SBBR) to the following locations: FBSK; FLKK; FQBR; FVHA; FWLL; FYWH; FZAA; FZNA; HBBA; HKNA; HRYR; HTDA and HUEN.
- Ezeiza Center (SAEZ) – main route via Brasilia (SBBR), alternating via Madrid (LEEE) to all other AFI locations.
- Brasilia Center (SBBR) – main route via Ezeiza (SAEZ), alternating via Dakar (GOOO) to the following locations: FBSK; FLKK; FQBR; FVHA; FWLL; FYWH; FZAA; FZNA; HBBA; HKNA; HRYR; HTDA and HUEN.
- Brasilia Center (SBBR) – main route via Dakar (GOOO), alternating via Madrid (LEEE) to all other AFI locations.
- Caracas (SVCA) and Lima (SPIM) Centers - main route via Ezeiza (SAEZ), alternating via Brasilia (SBBR) to the following locations: FBSK; FLKK; FQBR; FVHA; FWLL; FYWH; FZAA; FZNA; HBBA; HKNA; HRYR; HTDA and HUEN.
- Caracas (SVCA) and Lima (SPIM) Centers – main route via Brasilia (SBBR), alternating via Ezeiza (SAEZ) to all other AFI locations.

- Bogotá Center (SKBO) – main route via Brasilia (SBBR), alternating via Lima (SPIM).

- Quito Center (SEQU) – main route via Lima (SPIM), alternating via Caracas (SVCA).

- Santiago Center (SCSC) – main route via Ezeiza (SAEZ), alternating via Lima (SPIM).

- La Paz (SLLP) Center – main route via Ezeiza (SAEZ), alternating via Brasilia (SBBR) to the following locations: FBSK; FLKK; FQBR; FVHA; FWLL; FYWH; FZAA; FZNA; HBBA; HKNA; HRYR; HTDA and HUEN.

- La Paz (SLLP) Center – main route via Brasilia (SBBR), alternating via Ezeiza (SAEZ) to all other AFI locations.

- Asuncion (SGAS) Asuncion – main route via Ezeiza (SAEZ), alternating via Brasilia (SBBR) to the following locations: FBSK; FLKK; FQBR; FVHA; FWLL; FYWH; FZAA; FZNA; HBBA; HKNA; HRYR; HTDA and HUEN.

- Asuncion Center (SGAS) – main route via Brasilia (SBBR), alternating via Ezeiza (SAEZ) to all other AFI locations.

- Montevideo Center (SUMU) – main route via Ezeiza (SAEZ), alternating via Brasilia (SBBR) to the following locations: FBSK; FLKK; FQBR; FVHA; FWLL; FYWH; FZAA; FZNA; HBBA; HKNA; HRYR; HTDA and HUEN.

- Montevideo Center (SUMU) - main route via Brasilia (SBBR), alternating via Ezeiza (SAEZ) to all other AFI locations.

- Cayenne (SOCA), Paramaribo (SMJP) and Georgetown (SYCJ) Centers – main route via Brasilia (SBBR), alternating via Caracas (SVCA).

EUR Region

- Brasilia (SBBR) and Caracas (SVCA) Centers – main route via Madrid (LEEE), alternating via Atlanta (KATL).

- Ezeiza Center (SAEZ) - main route via Madrid (LEEE), alternating via Brasilia (SBBR).

- Panama Center (MPPC) – main route via Caracas (SVCA), alternating via Atlanta (KATL).

- Bogota Center (SKBO) – main route via Caracas (SVCA), alternating via CENAMER (MHCC).

- Quito Center (SEQU) – main route via Caracas (SVCA), alternating via Lima (SPIM).

- Lima Center (SPIM) – main route via Caracas (SVCA), alternating via Atlanta (KATL).

- Santiago Center (SCSC) – main route via Lima (SPIM), alternating via Ezeiza (SAEZ).

- La Paz Center (SLLP) – main route via Lima (SPIM), alternating via Brasilia (SBBR).

- Asuncion Center (SGAS) – main route via Brasília (SBBR), alternating via Ezeiza (SAEZ).

- Montevideo Center (SUMU) – main route via Lima (SPIM), alternating via Brasilia (SBBR).

- Cayenne (SOCA), Paramaribo (SMJP) and Georgetown (SYCJ) Centers – main route via Caracas (SVCA), alternating via Brasilia (SBBR).

MID Region

- Brasilia (SBBR) and Caracas (SVCA) Centers – main route via Madrid (LEEE), alternating via Atlanta (KATL).

- Panama Center (MPPC) – main route via Caracas (SVCA), alternating via Atlanta (KATL).

- Bogota Center (SEQU) – main route via Caracas (SVCA), alternating via Bogota (SKBO).

- Lima Center (SPIM) – main route via Caracas (SVCA), alternating via Atlanta (KATL).

- Santiago Center (SCSC) – main route via Lima (SPIM), alternating via Ezeiza (SAEZ).

- La Paz Center (SLLP) – main route via Brasilia (SBBR), alternating via Lima (SPIM).

- Asunción Center (SGAS) – main route via Brasília (SBBR), alternating via Ezeiza (SAEZ).

- Montevideo Center (SUMU) – main route via Brasilia (SBBR), alternating via Lima (SPIM).

- Ezeiza Center (SAEZ) – main route via Brasilia (SBBR), alternating via Caracas (SVCA).

- Cayenne (SOCA), Paramaribo (SMJP) and Georgetown (SYCJ) Centers – main route via Brasilia (SBBR), alternating via Caracas (SVCA).

NAM/CAR Region

- Caracas Center (SVCA) – main route via Piarco (TTPP), alternating via Atlanta (KATL) to the following locations: TA, TB, TD, TF, TG, TK, TL, TQ, TR, TT and TV.

- Caracas Center (SVCA) – main route via Atlanta (KATL), alternating via Lima (SPIM) to the other NAM/CAR locations.

- Brasilia (SBBR), Lima (SPIM) and Panama (SKBO) Centers – main route via Caracas (SVCA), alternating via Atlanta (KATL) to the following locations: TA, TB, TD, TF, TG, TK, TL, TQ, TR, TT and TV.

- Brasilia (SBBR), Lima (SPIM) and Panama (SKBO) Centers – main route via Atlanta (KATL), alternating via Caracas (SVCA) for the other NAM/CAR locations.

- Bogota (SKBO) and Ezeiza (SAEZ) Centers – main route via Caracas (SVCA), alternating via Lima (SPIM).

- Quito Center (SEQU) – main route via Caracas (SVCA), alternating via Lima (SPIM).

- La Paz Center (SLLP) – main route via Lima (SPIM), alternating via Lima (SBBR). Santiago Center (SCSC) – main route via Lima (SPIM), alternating via Ezeiza (SAEZ).

- Santiago Center (SCSC) – main route via Lima (SPIM), alternating via Ezeiza (SAEZ).
- Asunción Center (SGAS) – main route via Brasília (SBBR), alternating via Ezeiza (SAEZ).
- Montevideo Center (SUMU) – main route via Lima (SPIM), alternating via Brasilia (SBBR).
- Georgetown Center (SYCJ) – main route via Piarco (TTPP), alternating via Caracas (SVCA) to the following locations: TA, TB, TD, TF, TG, TK, TL, TQ, TR, TT and TV.
- Georgetown Center (SYCJ) – main route via Brasilia (SBBR), alternating via Caracas (SVCA) to the other NAM/CAR locations.
- Cayenne (SOCA) and Paramaribo (SMJP) Centers – main route via Brasilia (SBBR), alternating via Caracas (SVCA).

APPENDIX B

Syllabus for the Training on Interoperability Standards for VOIP ATM Components (EUROCAE ED-137)

Basic Telecommunications Review and Overview of a Voice Communication System

- Introduction to Voice Communications;
- Description of the services of a voice communications system and HMI (Human Machine Interface);
- Telephony features;
- Characteristics of radio communication; and
- Operational functions for the operation of the VCS.

Overview of an ATS Ground Voice Network (AGVN)

- Concepts of an ATS Terrestrial Voice Network (AGVN);
- Analogue telephony signaling;
- Digital telephony signaling;
- Radio signaling; and
- Scenarios for AGVN implementation.

VoIP communication functionalities

- IP packet switching;
- Voice over IP;
- Real-Time Transport Protocol (RTP);
- Quality of Service (QoS);
- Session Initiation Protocol (SIP);
- Session Description Protocol (DSP); and
- Detail of the SIP call.

Architecture of an ATC Voice over IP Communication System

- VoIP Documentation and Working Groups (WG);
- Logical entities of a VCS;
- Physical architecture of a VCS;
- Telephone communications;
- Radio communications;
- IP Gateways;
- Recording.

ATC Voice (Legacy Systems and VoIP) in ATM Network Architecture

- Description of regional ATC IP network projects;
- Description of circuit emulation functionality that supports legacy ATC voice services;
- Voice services on ATC IP networks;
- Validation activities (SESAR 15.2.10);
- Native VoIP solution on ATC IP networks; and
- Case study for ATC Voice and Data integration.

Legacy ATC Voice System Migration to VoIP and ATC VoIP System Operation

- Migration from legacy ATC voice system (radio and telephony) to VoIP;
- IP VCS operation;
- Evolution of the current ATM application towards VCS integration;
- VoIP deployment status.

Agenda Item 5: Review of the 2024 Work Plan. Organization of the SAM/IG and contributing bodies

5.1 Under this agenda item, the following documentation was analysed:

No.	Title	Presented by
NE/5.1	List of actions and of conclusions adopted by the Meeting and working plan for 2024	Secretariat

5.2 The Workshop/Meeting analysed the progress of the SAM/IG/29 and SAM/IG/30 Actions, and also validated the new Actions and Conclusions formulated during the deliberations of the GESEA and GT Interop groups.

5.3 The History of this Report includes the SAM/IG Actions follow up Table, with the corresponding references.

5.4 The Report on Agenda Items 2 and 3 present three Conclusions approved by the Workshop/Meeting, presented individually.

5.5 The adjustment of the 2024 Work Plans for GESEA and GT Interop, as well as proposals for 2025, are shown in Item 3 and Item 4, respectively.

Agenda Item 6: Other matters

6.1 Under this agenda item, the following papers were presented:

No.	Title	Presented by
WP/6.1	Aeronautical aspects in the agenda items of WRC-27	Brazil
WP/6.2	Instructions and evaluation based on competencies for ATCO	Uruguay
IP/6.1	Objective of Sustainable Development (ODS) 5	Uruguay
IP/6.2	Training Programme of Air Navigation Services in Venezuela *(Spanish only)*	Venezuela
IP/6.3	Venezuelan Air Navigation Plan *(Spanish only)*	Venezuela
IP/6.4	Interferences in Global Navigation System (GNSS)	Secretariat

World Radiocommunication Conference 2027 (WRC-27)

6.2 Under Brazil's working paper WP/6.1, specific points (Table 1 of WP/6.1) were presented that have been included in the WRC-27 agenda, identifying those that pose direct and potential threats to the spectrum used by aviation and the implications for UIT meetings.

6.3 States and international organizations are requested to consider ICAO's Position, as much as possible, in their preparatory activities for WRC-27 at the national level, in events of regional telecommunications organizations, and in relevant UIT meetings.

Competency-Based Training

6.4 Uruguay reported that competency-based instruction is training and assessment characterized by an emphasis on performance standards and their measurement, and the design of training according to specific standards. SAM/IG/30 agreed to activate an ad-hoc group composed of Chile, Brazil, and Uruguay to work collaboratively with States and the CIAC group on initiatives that promote performance-based training for ATCO personnel and, progressively, for the operational technical staff of ANSPs. This group has faced difficulties in convening.

6.5 Additionally, it was identified that the Working Group - CBTA Air Traffic Controllers, from the RPEL Experts Panel of SRVSOP, has made progress in these studies (see the web link below), which allows SAMIG to focus its work through the SRVSOP initiative.

https://srvsop.aero/paneles_de_expertos/decima-octava-reunion-del-panel-de-expertos-en-licencias-y-medicina-aeronautica-rpel-18/

6.6 In light of the above, the following action was agreed upon:

Action S31/05 - Activation of an ad-hoc group (GADHOC CBTA – ATCO) under SAM/IG, coordinated by **Chile with the support of Brazil, Uruguay, and Venezuela**, to work collaboratively with the Working Group - CBTA Air Traffic Controllers from the RPEL Experts Panel of SRVSOP, within the framework of the Panel's work plan. The

Secretariat will convene a teleconference at the end of July 2024 to review the ongoing studies in RPEL.

Information presented

Gender Equality

6.7 Uruguay reported that its gender equality policy aligns with ICAO's standards and is based on relevant data and statistics. In 2023, the UN Gender Equality Tool WEP was used to collect information on gender equality from various aviation entities, including the Civil Aviation Directorate of DINACIA, the Concessionaire of Puertas del Sur S.A. Airport, Aeropuertos del Uruguay, and the Meteorological Service Provider INUMET.

6.8 Uruguay launched the "Women in Aviation, Travel & Tourism" program during Women's Month, offering training scholarships for women in the aviation, travel, and tourism industries. The program is designed to facilitate and encourage development opportunities for women in these exciting fields.

National Air Navigation Plan and Training Program of Venezuela

6.9 Venezuela reported on its progress with the National Air Navigation Plan based on Performance, Capacity, and Sustainability (2024 to 2032). This document has been developed by the Air Navigation Services (SNA) to establish state policies, strategies, and actions necessary for the sustainable and safe development of civil aviation in the country. These will form the basis for strategic planning in the short, medium, and long term.

6.10 The National Air Navigation Plan of the Bolivarian Republic of Venezuela for the period 2024-2032 reflects the application of the six-step method recommended by ICAO and was developed with the participation and collaboration of a multidisciplinary team of technical specialists in various areas.

6.11 The progress of the competency-based instruction methodology for the personnel of the Venezuelan Air Navigation Services was presented, aligned with the training requirements needed to achieve the guidelines established in the National Air Navigation Plan 2024-2032 of the Bolivarian Republic of Venezuela.

Interference in the Global Navigation Satellite System (GNSS)

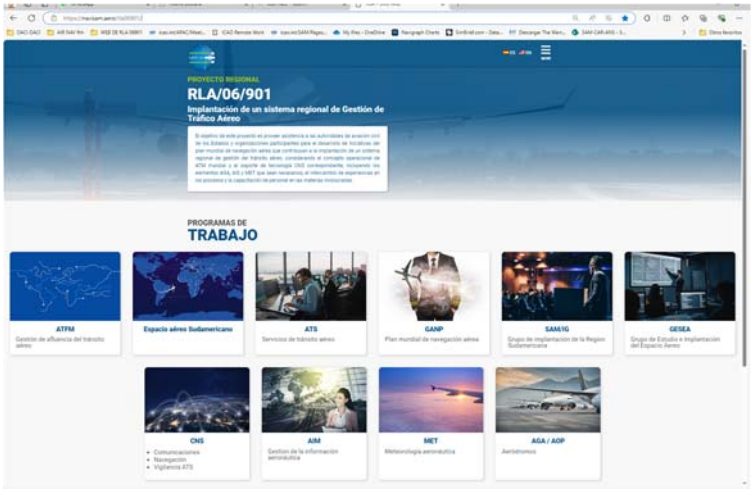
6.12 Since 2003, the International Civil Aviation Organization (ICAO) has been actively developing recommendations and guidelines related to radio frequency interference (RFI) in GNSS. Resolution A41-8 of the ICAO Assembly, Appendix C: Resilience of ICAO CNS/ATM Systems and Services, was reviewed as the most recent ICAO policy on GNSS resilience. Additionally, the recommendations from the ICAO EUR/MID Symposium on radionavigation (February 6-8, 2024, in Antalya, Turkey) were discussed, generating a list of recommendations concerning the ongoing efforts of stakeholders to ensure the operational safety, reliability, and resilience of air navigation. For full information, see the following link:

https://www.icao.int/MID/Pages/2024/EUR-MID%20Radio%20Navigation%20Symposium.aspx

SAM/IG website

6.13 The Secretariat presented the website of Project RLA/06/901 – SAM/IG, available at the following link:

https://navisam.aero/rla06901/



6.14 The features of the website were discussed, including the upcoming expansion of information, the use of English for users from other regions, and the interface with other applications and websites. The States appreciated the work of the Project and committed to promoting the site within their administrations. It was also agreed to provide continuous feedback on the website.

— END —