



**Agenda item 1: ANS Context (ATM/CNS) Global and Regional level**

**PROGRESS IN THE IMPLEMENTATION OF THE SAM/IG  
CONCLUSIONS BY THE STATE OF CHILE**

(Presented by Chile)

**SUMMARY**

This informative paper, presents a progress report on the implementation of the current conclusions of the SAM/IG carried out by Chile.

**References:**

- Final Report of the Twenty-sixth Workshop/Meeting of the SAM Implementation Group (SAM/IG/26)
- LN3/24.1 – SA6196. Lima, April 19, 2022

**1. Introduction**

1.1 The State of Chile participates through the General Directorate of Civil Aeronautics in the activities of the study and implementation of SAM airspace (GESEA) and interoperability (GT-Interop) groups.

1.2 This informative note describes, on behalf of the State of Chile, the progress and status of the conclusions of the SAM/IG that have been the input for the work of GESEA and GT Interop in general and of its subgroups in particular.

**2. Analysis**

Status of implementation of current SAM/IG conclusions:

Nope.	Conclusion	Specific tasks	Deliverables (Term provided for completion)	Situation of the implementation
B-1	Conclusion SAM/IG/13-9 - IATA safety event indicators for SAM States	Activities of the States with the Operators for the analysis of Operational Safety events	SMS analysis and mitigation measures (INFORM IN EACH SAM/IG)	REVIEW IN SAM/IG/28
B-2	Conclusion SAM IG/14-18 - Exception for the filling of destination alternate aerodromes	Exception application for alternate aerodrome filling in the FPL format by the airline.  Inclusion of the procedure in the AIP by the States	Procedure included in the AIP (DECEMBER 2015)	ON GOING
B-3	Conclusion SAM/IG/16-1 Model for the amendment of the letter of operational agreement for the operation of the AIDC between two centers	Use of the operational letter of agreement between the Lima ACC and the Guayaquil ACC for the operation of the AIDC (Appendix A agenda item 5 SAM/IG/16)	Template of operational letter of agreement (DECEMBER 2016)	REVIEW IN SAM/IG/28
B-4	Conclusion SAM/IG/18-01 -PANS-OPS recommendations for harmonization of instrument procedures in the SAM Region	Implementation of recommendations prepared by the PANS-OPS Group (Appendix B agenda Item 2 of the SAM/IG/18 Report)	Recommendations prepared by the PANS-OPS Group employed (SAM/IG/21)	ON GOING  In the last phase of updating and homologation of the Transition Altitude at 10,000 feet for Terminal Areas.  To date, all the TMAs in the country have been optimized and the implementation of parallel STARs to Santiago airport continues.
<b>1. Airspace Optimization and Implementation of Performance-Based Navigation (PBN) in the SAM Region</b>				
1-1	<i>Conclusion SAM/IG/14-6: Projects and/or Action Plans for PBN Redesign of the main TMAs</i>	Determination of the selected airspaces to be optimized with the implementation of PBN	Communicate airspaces selected for redesign or optimization. Communicate updates (SAM/IG/25)	COMPLETED

1-2	<b>Conclusion SAM/IG/21-01</b> : <i>Harmonized PBN implementation objectives at the regional and interregional levels</i>	Updating of Regional PBN Action Plans and Plans of action of State.  Monitoring of PBN implementation and specific assistance to States.	PBN implantation Plans completed.  (SAM/IG/26)	COMPLETED
1-3	<b>Conclusion SAM/IG/25-04</b> <i>Adoption of the Regional Guide on the implementation of PBN Procedures for visual flight runways and SAM/IG/25-05 Studies on RNAV Visual Flight Procedures - RVFP (RNAV Visual Flight Procedures )</i>	To adopt the Regional Guide on the implementation of PBN Procedures for visual flight runways	Issue national regulations on the application of PBN procedures for visual flight tracks.  (AT THE EARLIEST POSSIBLE OPPORTUNITY)	ON GOING  Chilean regulation DAP 11 137, "Criteria and requirements to implement and carry out RNAV (GNSS) approaches into visual flight runways at aerodromes outside controlled airspace", valid since 2017, is still in the process of updating.  The scope of the document will be for general aviation aircraft and CAT A, B and C wingspan.
1-4	<b>Conclusion SAM/IG/27-01</b> <i>Adoption of the document Operational concept for SAM airspace 2022- 2026 (CONOPS EC/SAM)</i>	To adopt the EC/SAM CONOPS	To achieve techniques references and guidance for ATM and ANS Regional planning  (NOT AFTER OCTOBER OF 2023)	APPROVED SAM/IG/27
1-5	<b>Conclusion SAM/IG/27-02</b> <i>Adoption of the 2022-2026 Roadmap: Performance-based optimization of SAM airspace</i>	To adopt the Performance Based Optimization Roadmap	Apply references techniques and guidelines for the implementation of Regional PBN. Alignment to implementation metrics  (NOT LATER THAN OCTOBER OF 2023)	APPROVED SAM/IG/27
<b>2. Contingency plans and procedures</b>				
2-1	<b>Conclusion SAM/IG/23-04</b> <i>Procedures for cases of radioactive clouds or accidental release of radioactive material</i>	To develop and subscribe ATS MET cooperation agreements, including, in the exchange messages, information related to radioactive material.	Agreements of ATS MET cooperation signed.  (SAM/IG/26)	COMPLETED

2-2	<b>Conclusion SAM/IG/21-02</b> : Consolidation of the implementation of the minimum longitudinal separation of 40 NM between adjacent FIRs of the SAM Region, and promotion of the action plan for the implementation of the 20 NM separation.	Monitoring of the implementation of the 40 NM separation, monitoring of the Action Plan to implement the 20NM separation minima and specific assistance to the States.	Implementation of the 20NM longitudinal separation minima in continental airspace.  (SAM/IG/25)	ON GOING  There are still areas with poor communications performance that have not allowed for a reduction in longitudinal separation. Plans are being worked on to improve VHF communications coverage. There is no estimated delivery time.
23	<b>Conclusion SAM/IG/25-01</b> Implementation of strategic direct routing – EDE.	Follow-up to the Implementation of the EDE. Analysis of gas savings data supplied by airlines.	Issue of AIC and/or SUP AIP of the state about EDE	COMPLETED  AIC No. 19 was published in October 2020 reporting the implementation of Strategic Direct Routing in the upper airspace of the Antofagasta FIR and the Santiago FIR. In accordance with the structure of the Chilean route network and considering that the optimization of the airspace has been completed, it is estimated that the benefit of the implementation of strategic direct routing in jurisdictional airspace will be minimal.
2-4	<b>Conclusion SAM/IG/27-03</b> Adoption of amendment 1 of the Framework Plan for ATS Contingencies of the SAM Region (MCATS /SAM) and alignment of National Plans.	Follow-up to harmonization of ATS contingency plans	Issuance by States of National ATS Contingency plans harmonized to MCATS.  (NO LATER THAN JULY 31, 2022)	APPROVED SAM/IG/27  Comment on the superseded SAM/IG/25-02 : With Bolivia: Confirmation of focal point is awaited. With Peru: Harmonized With Argentina: Harmonized Current and published National Contingency Plan. Pending publication of the English version.
2-5	<b>Conclusion SAM/IG/25-03</b> Activities to prepare the Framework Plan for ATM/CNS Contingencies in the SAM Region.	To develop a document to obtain a harmonized implementation of national ATM/CNS Contingency Plans, with interfaces to AIM, MET, Airports, etc. services. duly agreed with the neighbor states, even if applicable, with the CAR states.	ATM/CNS contingency Framework Plan of the SAM Region  (NO LATER THAN OCTOBER 2023)	IN PROCESS
<b>3. ATFM Implementation</b>				

3-1	<b>Conclusion SAM/IG/24-01:</b> <i>Procedures to prepare and disseminate Daily Plan, PDA, and development of ATFM Teleconferences.</i>	Elaborate PDA, coordinating its diffusion with SAM regional ATFM units and, if applicable, CAR.  Sign or update ATFM agreement letters to formalize the exchange and its processes.  To study media for ATFM teleconferences	PDAs exchanged between dependencies of region SAM and, if applicable, CAR  (SAM/IG/26)	COMPLETED  Chile is sending a PDA to ATFM recipients in the region, in accordance with the agreement established in the GESEA ATFM Subgroup 3. In the same way, Chile participates in the pre-tactical BRISA and the post-operational BRISA every Tuesday and last Thursday of each month, in which all the ATFM units of the region participate and under a standardized format, using the OPSAM Dashboard. Chile oversees the GADHOC BRISA of GESEA/SG3
3-2	<b>Conclusion SAM/IG/23-01 :</b> <i>Application of ATFM measures in accordance with Doc. 9971 and coordination in cases of ATS contingency.</i>	For comply the provisions of Doc. 9971 and SARPs of ICAO Annex 11	Support to ATFM and ATC  (SAM/IG/25)	ON GOING  a) Chile is in phase ATFM 2A and planning to transition to phase ATFM 2B during 2023. b) ATFM in Chile is based on DAP 11 136 <i>Air Traffic Flow Management</i> , published on August 08, 2022. c) Chile has excluded the use of Flow Control NOTAMs.
3-3	<b>Conclusion SAM/IG/26-01</b> <i>Adoption of the ATFM Operations Plan (OPSAM).</i>	For adjust the ATC and Airport capacity to the gradual increase in demand and contribute with the recovery and sustainability of the system of air transport at a regional and global level in the new projected scenario. Also, to enhance the use of indicators KPIs in ATFM .	OPSAM Plan implemented and generating KPIs.  (SAM/IG/29)	COMPLETED
3-4	<b>Conclusion SAM/IG/26-02</b> <i>Adoption of the Guide for the implementation of ATFM in the SAM Region 2022-2026.</i>	For SAM States to implement national ATFM Services or ATFM crossborder that fit to the magnitude of the air traffic flow managed by their ATS services, and that they respond correctly a the solution of demand/capacity imbalances in the Region.	States implementing the guidelines of the Guide and reaching the Phase IV of implantation.  (DECEMBER 2026)	COMPLETED  Adopted and gave rise to the national regulation DAP 11 136. The formation of the ATFM structure (FMP, FMU) was formalized through the respective institutional administrative acts for its implementation in ACC, APP and TWR units in the country.

3-5	Conclusion SAM/IG/27-04 Adoption of the Manual for Calculation of Runway and ATC Sector Capacity	Implementation of a common methodology for calculating runway and ATC sectors capacity in SAM	Updated calculations of runway and ATC sector capacity.  (DECEMBER 2026)	APPROVED SAM/IG/27
<b>5. Operational implementation of new automated ATM systems and integration of existing ones</b>				
5-1	<b>Conclusion SAM/IG/25-06</b> Approval of the ATM/FPL Roadmap and the format of acknowledgment of receipt (ACK) and rejection (REJ) messages of flight plans and associated messages.	Adoption of the ATM/FPL by the States.	<ul style="list-style-type: none"> <li>• Roadmap implemented</li> <li>• Mitigate the occurrence of errors and duplication/multiplicity of flight plans, providing also a feedback to the originators of the FPLs and associated messages.</li> </ul> (SAM/IG/27)	IN PROCESS  Errors in the FPLs have been minimized through reports and suggestions to users, achieving very good results.  <i>( Study note available for this conclusion )</i>
5-2	<b>Conclusion SAM/IG/21-03</b> : Activities required in the AIDC pre-operational phase to reduce migration times to the operational phase	Follow-up and coordination by teleconferences and meetings	AIDC operational Connection performed.  (DECEMBER 2019)	IN PROCESS  AIDC implemented in operational phase between ACC Iquique and ACC Lima, in testing phase between ACC Iquique and ACC Córdoba.  For Santiago and Oceanic ACCs, the implementation is planned to start in December 2022 and the measures indicated in the conclusion SAM/IG/21-03 during the pre-operational phase will be adopted
5-3	<b>Conclusion SAM/IG/23-03:</b> Adequacy of AMHS terminals for Aeronautical Meteorology users	To comply with the provisions of the Amendment 78 to ICAO Annex 3	Test and disseminate the results.  (SAM/IG/26)	IN PROCESS  AMHS terminals are being implemented throughout the entire ATS and MET network.

5-4	<b>Conclusion SAM/IG/25-07</b> : <i>Implementation of Satellite ADS-B through a Regional Technical Cooperation Project.</i>	provide states that manifested interest in the implementation of ADS-B Satellite support for necessary for contracting the service.	Support for concerned State and coordination with ICAO TCB  (SAM/IG/26)	IN PROCESS  The initiative to implement space-based ADS-B through the RLA 03/901 project has been considered within the budget draft for the year 2023. In the first instance and depending on the confirmation at the government level of the required funds, the implementation will be carried out in airspace bounded inside the Antofagasta FIR that is of interest for the safety and efficiency of flights.
5-5	<b>Conclusion SAM/IG/26-03</b> <i>Review of the CNS tables of Vol. II of the CAR/SAM Air Navigation Plan and support in the preparation of Vol. III of the CAR/SAM ANP, on CNS issues.</i>	Updating the information in Vol. II of the Navigation Plan aerial CAR/SAM and provide support in the preparation of Vol. III of the ANP CAR/SAM, concerning the CNS aspects of planning.	ANP CAR/SAM;  Vol. II updated.  (SAM/IG/29)	IN PROCESS  The State of Chile is represented in the CNS/ANP subgroup by professionals from the area of electronic engineering and, with the support of the States gathered at the Third Workshop/Meeting of the GT Interop Subgroups (GT Interop /3), Chile assumed the chair of the subgroup. On MAY 26, 2022, the first teleconference of the CNS/ANP Subgroup was held.