



ICAO

UNITING AVIATION

Agenda Item 4 : Other Business

# Follow-up to GREPECAS Projects

Secretariat

P/04

27 May 2020





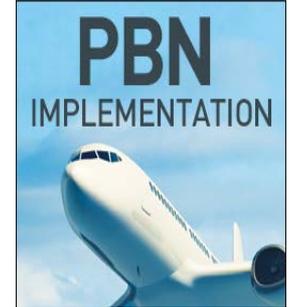
## ATM Projects – CAR Region :

### PBN

- Follow up implementation of the PBN airspace model concept
- Support Central American States airspace optimization
- Unfortunately the planned activities for 2020 have been suspended with no clear scenario to be reassumed
- Evaluation of agreement and implementation of a new upper airspace optimization initiative of the Regions by virtual meetings

### ATFM

- Continued working to define common ATFM elements and metrics
- Developed a proposal for ATFM Training programme to update the CAR/SAM ATFM CONOPS
- Conducted a NAM/CAR ATFM implementation survey to assess current levels of implementation and maturity
- Continued working on ATFM contingency planning and ATFM table top exercises to assess response of the Region to air traffic contingencies





## Current Status of ATM Projects in the SAM Region

- **Project A1; PBN Operational Implementation**

### PBN en Route

- For January 2020, five SAM states have 100% implemented RNAV-5 routes (or RNP-10 in the oceanic part) in their upper airspace
- For April 23, 2020 (effective June 18, 2020), the publication in the AIP of a third batch of 12 regional and interregional RNAV-5 routes was planned.

### PBN in TMA

- The States of the SAM Region work a set of 57 spaces of terminal control area - TMA of the Region under PBN design. As of January 2020, 26 have been implemented, that is, 45%



## Current Status of ATM Projects in the SAM Region

- **Project A2; Air navigation systems in support of PBN**
- On Ground Based Augmentation System - GBAS technology, the National Civil Aviation Administration (ANAC) of Argentina in conjunction with the technology company INVAP S.E. They have developed a GBAS precision approach and landing system. It is experimentally implemented at the San Carlos de Bariloche International Airport - SAZS.
- Regarding GBAS technology studied by Brazil, there has been no progress



## Current Status of ATM Projects in the SAM Region

- **Project B1; Improve the balance between demand and capacity (ATFM).**
- Of fourteen SAM States / Territories, the FMP / FMU - ATFM is not yet enabled in four of them. A percentage of 71% implanted remains



## Current Status of ATM Projects in the SAM Region

- **Project A1; PBN Operational Implementation**

### SID, STAR and CCO/CDO Implementation

Estados	Numero de THR IFR	SID PBN Numero de THR IFR Implementados	STAR PBN Numero de THR IFR Implementados
Argentina	34	21	22
Bolivia	6	2	0
Brazil	70	62	34
Chile	21	16	18
Colombia	22	14	17
Ecuador	6	3	2
Guyana	2	0	0
Panama	9	2	3
Paraguay	4	2	2
Peru	12	4	7
Suriname	2	0	0
Uruguay	11	2	2
Venezuela	16	14	2
<b>Total</b>	<b>215</b>	<b>142</b>	<b>109</b>



## Current Status of ATM Projects in the SAM Region

- **Project A1; PBN Operational Implementation**  
**PBN Approach Procedure**

Estados	Numero de THR IFR	Numero de THR IFR Implementados	Avance por Estado
Argentina	34	30	88.24%
Brazil	6	4	66.67%
Bolivia	70	68	97.14%
Chile	21	20	95.24%
Colombia	22	18	81.82%
Ecuador	6	4	66.67%
Guyana	2	2	100.00%
Panama	9	8	88.89%
Paraguay	4	4	100.00%
Peru	12	6	50.00%
Suriname	2	2	100.00%
Uruguay	11	7	63.64%
Venezuela	16	16	100.00%
Total	215	189	



## AIM Projects – CAR Region :

- **QMS** - It seeks to propose replacing the QMS Project with the creation of the new **AIM Project for Transition** supported by the Collaborative Plan for the Transition to AIM
- **eTOD** - The aim is to propose to replace the eTOD Project with the creation of the new AIM Project for Transition supported by the **AIM Collaborative Plan** for the Transition to AIM



## Status of AIM Projects – SAM Region

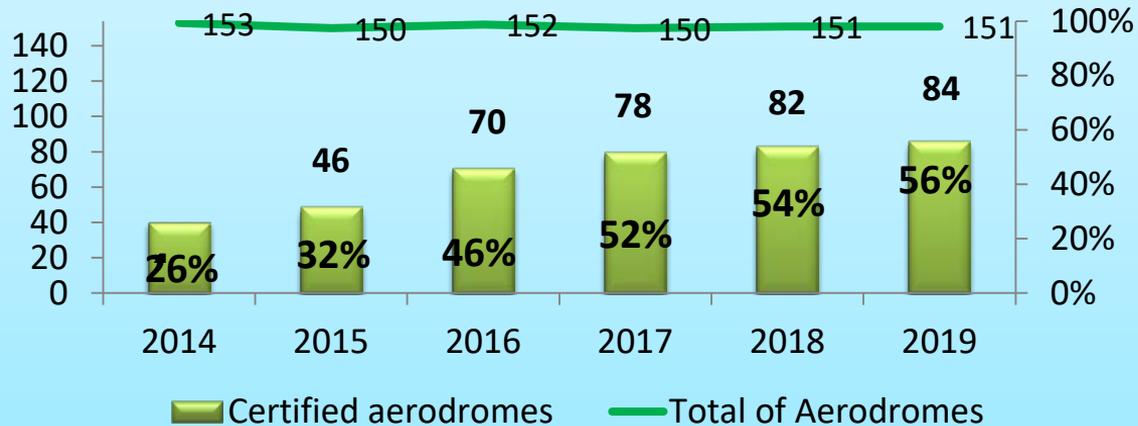
- **QMS** - Implemented by 10 States. Certified by 6 States.
- **eTOD** - Progress in Argentina, Brazil, Chile, Ecuador, Panama, Uruguay and Venezuela
- **AIXM:** Brazil and Panama already have an e-AIP. Progress in Argentina, Colombia, Paraguay, Peru and Venezuela



- **Project F1 AGA – CAR Region**

- As part of the F1 Operational Safety Implementation and Aerodrome Certification Project, guidelines are provided to states/airports:
  - **Reopening of operations at airports that expire their certificate**
  - **Coordination for the closure of the aerodrome or reduction of capacity**
  - **Resume of aerodrome operations**
- Participation with ACI-LAC in the webinar on the impact of COVID-19 in Latin America and the Caribbean (15 April 2020)
- First CAPSCA regional meeting for the CAR region (30 April)
- Webinar on GRF Implementation in the CAR/SAM regions jointly ACI and FAA, scheduled for 12 June 2020

- **Status of CAR Region aerodrome certification prior to COVID-19**
- In the graphic the status of aerodrome certification is shown; of a total of 151 international aerodromes, to date 85 aerodromes have been certified by the respective civil aviation authorities representing 56%, with an increase of 2% compared to the previous year 2018
- Status of Aerodrome Certification





- **Project F1: SAM Region Aerodrome Operational Safety and Certification Project**
- Certified aerodromes in the SAM Region: 47 out of 104 registered aerodromes, representing 45.19%. The list by States can be obtained at the address [https://www.icao.int/SAM/Pages/ES/eDocuments-v18\\_ES.aspx?area=AGA&cat=CERT](https://www.icao.int/SAM/Pages/ES/eDocuments-v18_ES.aspx?area=AGA&cat=CERT)
- Activities scheduled during 2020:
  - Virtual meeting on Aerodrome Certification under SRVSOP (4th quarter 2020)
  - Virtual meeting CAR / SAM and with the support of SRVSOP and ACI-LAC on the implementation of the Global Track Condition Report Format or GRF (first semester 2020)



- **Project F2: Aerodrome planning (approved in CRPP / 05)**
- **Data Collection for the construction of a Baseline:**
- The Letter to the States No. SA159 has been forwarded. It contains a survey on airport planning, which the States have as their deadline next May 29, 2020



## CAR - MET Projects Status

According Decision PPRC/05/08 Revision of the MET Programme and its Projects the following objectives are proposed:

1. Promote the implementation of MET Service for international air navigation as provided by Annex 3, included in the e-ANPs and under the BBBs and ASBU Frameworks.
  2. Ensure the continuous and coherent development of the MET component of the NAM and CAR/SAM e-ANPs and its harmonized implementation within adjacent regions.
  3. Develop effective methods to determine the implementation status of the ASBU Block-0 and Block-1 elements and BBBs, to monitor the performance of the MET Services on a cyclical annual basis.
  4. Enhance the State's capabilities for the safety oversight of Meteorological Service providers.
  5. Identify and support the resolution of air navigation deficiencies in the aeronautical meteorological (MET) services.
- A website to guide stakeholders and disseminate MET program activities is under development..



## **Current Status of MET Projects in the SAM Region**

### **Project H2: Implementation of meteorological surveillance for monitoring severe en-route phenomena, volcanic ash, tropical cyclones and release of radioactive material**

- Letters of Agreements for VONA implementation
- Review of the Table of Volcano Observatories of Vol. I of the e-ANP CAR / SAM.
- Follow-ups to the SIGMET on volcanic ash emitted by the Aeronautical Meteorological Watch Offices to verify format.
- Follow-ups to the implementation of Contingency Plans for the release of radioactive material
- Monitoring of SIGMET emissions due to severe phenomena. Format Corrected of OPMET message issued by 4 States



## Current Status of MET Projects in the SAM Region

- Project H3 - Implementation of the MET Information Quality Management System (QMS / MET)
- New certifications obtained by the States of Argentina, Colombia and Bolivia. With these new certifications, there are seven States that have certified, while other 5 States have implemented the QMS in their AIM procedure, but without certification.
- Brazil, has completed the implementation and awaits the certification audit for October 2020



## Current Status of MET Projects in the SAM Region

- Project H4 - OPMET exchange to introduce the point related to the implementation of the IWXXM with completion of this task by 2020
- Improvements in the availability of OPMET data on international network
- Regarding the IWXXM, the States of Brazil and Peru would be ready to transmit in the IWXXM format as of November 5, 2020
- Chile would be ready in the first quarter of 2021
- Argentina, Colombia, Panama, Paraguay and Venezuela would be ready in 2021



## CAR-Projects under the Automation and ATM Situational Awareness Programme (BO-RSEQ, BO-FICE, BO-SNET, BO-ASUR and BO-SURF)

### PROJECT C

RPO4 NAM/CAR RPBAIP/RSEQ- SURF-ASUR-SNET- TBO (Automation)	RPO4 NAM/CAR RPBAIP/RSEQ-SURF-ASUR- SNET-TBO (surveillance)	RPO4 NAM/CAR RPBAIP/RSEQ-SURF-ASUR- SNET-TBO (ADS-B implementation)	RPO4 NAM/CAR RPBAIP/RSEQ-SURF- ASUR-SNET-TBO	RPO4 NAM/CAR RPBAIP/RSEQ-SURF- ASUR-SNET-TBO
Flight plan <b>80%</b> AIDC <b>55%</b>	<b>61%</b> Surveillance data shared among CAR States.  <b>100%</b> Finalized documentation supporting radar data sharing.	Training and planned topics <b>100%</b> covered  Publishing of pertinent regulation in the CAR Region <b>20%</b>	On evaluation	Closed

PROYECTO





## CAR Region - Ground-Ground and Ground-Air Communications Programme (BO-FICE, BO-TBO) follow-up PROJECT D

RPO 4,5,6, 7 y 8 NAM/CAR RPBANIP RSEQ-SURF-ASUR- SNET-TBO-ACDM- FICE-DAIM-AMET (new MEVA phase)	RPO 6 NAM/CAR RPBANIP ACDM-FICE (AMHS address plan)	RPO 6 NAM/CAR RPBANIP ACDM- FICE (Implementation plan of Ground-ground applications (AIDC))	RPO 6 NAM/CAR RPBANIP ACDM-FICE (ADS-C/CPDLC)	RPO 6 NAM/CAR RPBANIP ACDM-FICE (XML y IWXXM Trials)
Process started on February 2020	Address Plan <b>100%</b> implemented and in operation	Implemented and in operation at <b>100%</b>	Two of the three planned FIRs have been implemented <b>67%</b>	In process. Planned results by April 2020. Basic test.



## Current Status of CNS Projects in the SAM Region

- **D1 - Ground-Ground / Air-Ground Communications Infrastructure - ASBU COMI-B0 / 7**

### IP Regional Network (REDDIG II)

- Fully implemented network with two redundant segments: one satellite and the other terrestrial (MPLS).

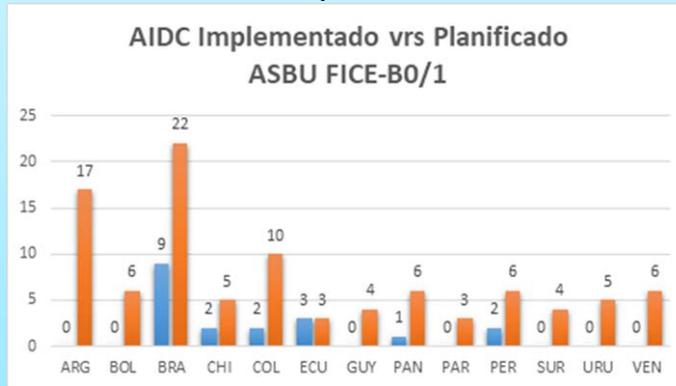
### AMHS Message Service

- All States implemented their systems in COM AMHS Centers.
- Of the 29 regional connections, 26 were established (89.65%), subtracting 03 to be established: Brasilia-Montevideo, Ezeiza-Montevideo and Bogotá-Panama



## Current Status of CNS Projects in the SAM Region

- **C1 - Automation (AIDC) - ASBU FICE-B0 / 1 Regional IP Network (REDDIG II)**
- States are working on the national centralization of flight plan management.
- Adopted an ACK and REJ feedback message format compatible with the format adopted by FAA.
- 16 AIDC communications of the 76 planned were established (21%).





## Current Status of CNS Projects in the SAM Region

- **C2 - Improvements in ATM situational awareness (ADS-B)**
  - ASBU ASUR-B0 / 1 (ADS-B terrestrial)
    - 11 States have carried out implementations of terrestrial ADS-B.
    - Operational utilization in TMA-Macaé (Brazil).
  - ASBU ASUR-10/1 (ADS-B satellite)
    - One State (Brazil) has carried out tests and must contract the service in 2020.
    - CNS / SUR subgroup analyzing a regional implementation of satellite ADS-B (space-based ADS-B), using REDDIG II as a means of distributing surveillance information.



# Projects Review

- ✈ A following specific CRPP Virtual Meeting is proposed for the detailed review of the Projects in relation to the new conditions in the aeronautical industry due to the restrictions of the COVID-19 and the estimated times for the recovery that the industry and the States will have once normalized the situation



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THANK YOU