



**Agenda Item 4: Review of the Phase 2 Transition Process from AIS to AIM and Preparation for SWIM**

**DIGITAL DATASET (DDS) IMPLEMENTATION MONITORING**  
(Presented by Secretariat)

<b>SUMMARY</b>	
This working paper presents the follow-up to the implementations of the Digital Data Sets	
<b>References:</b>	
<ul style="list-style-type: none"><li>• Communications from States on progress in the implementation of Phase 2.</li><li>• GREPECAS/21 Report</li><li>• Recommendations from the Workshop on Digital Data Sets</li><li>• Recommendations of the Workshop on Doc. 8126, Part I and the PANS-IM</li></ul>	
<b>Strategic objectives</b> <b>ICAO:</b>	<i>A – Operational Safety</i> <i>B – Capacity and efficiency</i>

**1. INTRODUCTION**

- 1.1 The implementation of Digital Data Sets (DSDs) is monitored by the Secretariat.
- 1.2 To support capacity building, the Secretariat has organized the Workshops on Doc. 8126 – Part I, the new PANS-IM and the Digital Data Set Workshop this year.
- 1.3 The Secretariat reports the status of implementation to the GREPECAS/21 meeting.
- 1.4 States are making progress in the implementation of the DDS and Phase 2 of the Roadmap for the transition from AIS to AIM.

**2. DISCUSSION**

Implementation of the TOD

- 2.1 The Secretariat, during SAM/AIM/16, updated the status of implementation of the Terrain and Obstacles (TOD) publication.
- 2.2 Regarding the report, detailed information can be found in **Appendix A**. States are invited to review and update the reports included therein.

Implementation of DDS (except TOD)

2.3 In **Appendix B** to this working paper, the States can find the implementation status of the Digital Data Sets requested in Doc. 10066, except for the TOD, as well as that of the e-AIP, the Data Catalog, the Aeronautical Information Exchange Model and the SLAs managed and signed with the providers and originators of data and information.

2.4 During SAM/AIM/16, the Secretariat reminded the Meeting of the importance of observing the GREPECAS Conclusion calling for the completion of the implementation of DDS by 2024. In this regard, Uruguay reported on the tender scheduled for December. In addition, Guyana is in contact with COCESNA to evaluate hosting Guyana's DDS in its system.

2.5 In addition, during SAM/AIM/16, Argentina and Venezuela, States that have experienced difficulties in updating their aeronautical information management systems, due to a problem with the system's license, reported on the efforts to regularize them. In this regard, Venezuela has resolved this point at the end of December, so it currently has its aeronautical information management system operational.

2.6 The Meeting may request States to review and update the data that are included in Appendices A and B in order to reflect the current status of implementations.

2.7 The GREPECAS/21 Meeting, through subparagraph (a) of Conclusion GREPECAS/21-18, has requested that States/Territories finalize the implementation of the digital datasets, the e-AIP and all steps of Phase 2 and notify their respective ICAO NACC and SAM Regional Offices no later than the third quarter of 2024.<sup>1</sup>

Preparing for the SWIM

2.8 States have plans for the implementation of SWIM. Brazil has made very important progress and Panama has a plan for this point.

2.9 The Secretariat invites States to share their progress and good practices in the implementation of the TOD, the DDS and the preparation for the SWIM.

**3. REQUIRED ACTIONS**

3.1. The Meeting is invited to:

- a) take note of the information contained in the working paper;
- b) revise and update the Tables included in Appendices A and B; and
- c) indicate other actions that they consider pertinent.

---

<sup>1</sup> [00-GREPECAS21-InformeFinal.pdf \(icao.int\)](#) page 55

**APPENDIX A**  
**Status of TOD implementation**  
**(Updated 07/18/2023)**

SAM STATE	ACTION PLAN	FOLLOW-UP
<i>Argentina</i>	<p style="text-align: center;">Estimated date: 27 November 2019  Subject to approval of the new budget.  Argentina publishes ground and obstacle data in the AIP.  Argentina will publish it in electronic format by October 2023.</p>	The Action Plan will be reviewed and corrections will be sent with more detailed information.
<i>Bolivia</i>	Corrective action start date: A plan was submitted in response to deficiency letter.	To be followed up in accordance with the dates shown in the deficiency response letter.
<i>Brazil</i>	<p style="text-align: center;">2017 - 8 AD  2018 - 8 AD  2019 - 8 AD  2020 - 7 AD  2021 - 7 AD  2022 - 7 AD  The process was completed</p>	Brazil has completed the process of TOD implementation
<i>Chile</i>	<p style="text-align: center;">Completion scheduled for 2022.  According to the report presented at the ePPRC/3 meeting, it would be delayed due to the pandemic.  No completion date for the two remaining airports.</p>	<p>Obstacles have been surveyed at 5 airports and one is in process, but due to the pandemic, it would be postponed. Likewise, they are working to make data available in a portal that they are preparing with ESRI, but this has no implementation date yet.  Chile has sent a reply to the deficiency letter stating that only two airports are missing.</p>
<i>Colombia</i>	Have not submitted a plan.	The area is managed by the Procedure Design Group.
<i>Ecuador</i>	<p style="text-align: center;">Have not submitted a plan.  No change.  Expected by 2023.</p>	<p>Work is ongoing to survey obstacles through the use of drones and with the advice of IFAIMA experts.  No fixed plan. They continue with the proposal to work with the drone. IFAIMA supported them in the abolition at the Lacatunga airport. In 2022, they will continue working with the drone. IFAIMA will support them with the methodology and they will work with their own resources.</p>

<i>French Guiana</i>	Have not submitted a plan.	
<i>Guyana</i>	<p>Estimated start date: April 2017.                      At this point, the first seven points of the Action Plan presented should have been completed.                      No definitive timeline on implementation</p>	<p>They are in the initial stage. The process started when one of its officers attended the ICAO CAR/SAM seminar on e-TOD in Mexico City in 2015. Last year (2019), COCESNA provided theoretical training on PANS/OPS and RNAV/RNP design procedures to various officers. Currently, the on-the-job training process is being discussed with the company.                      Pans-Ops on-the-job (practical) training to be conducted in first half of 2023. E-Tod Survey to be conducted after first half of the year but only for the two major international aerodromes (SYCJ and SYEC). There is no plan in place at the moment to capture and publish E-Tod data for the local aerodromes in the country.</p>
<i>Panama</i>	Have not submitted a plan.	<p>Tocumen S.A. has surveyed obstacles at the Tocumen and Panamá Pacific airports. These data have been sent to the civil aviation authority of Panama. Regarding the other international airports, no progress has been made.                      They still do not have the complete data for Tocumen S.A. For now, there is no date because it is in the hands of AGA.</p>
<i>Paraguay</i>	<p>Data collection for Areas 2a, b, c, d completed.                      Other activities related to e-TOD are planned for 2016 to 2019.                      They do not have an e-TOD module, but can rely on SRTM terrain data that meet the requirements for Area 1 but not for Area 2.                      For man-made obstacles, they have a process defined by DINAC, which has surveyed about 3000 obstacles. However, they do not have software to make them available in electronic format.</p>	<p>No progress reported.                      No progress. There are few technicians and most of them are focused on the implementation of AIXM.                      The obstacle survey process has been completed and a digital Terrain Model is now available.</p>
<i>Peru</i>	<p>No plan has been submitted.                      CORPAC is coordinating with Horizon to resume the obstacle removal project for the Cusco Airport.</p>	<p>The e-TOD Project in Cuzco could not be completed due the supplier’s non-compliance. A DGAC – CORPAC work team is being established, which will conduct, in this first phase, an analysis and assessment of the new</p>

		<p>implementation date, which will take until October. In a second phase, aerodrome operators will be summoned to draft the plan. The plan is expected to be ready by November and will be communicated to ICAO.</p> <p>The plan is foreseen to be ready by 2024. They have coordinated with aerodrome operators.</p>
<i>Suriname</i>	Have not submitted a plan.	
<i>Uruguay</i>	<p>Have not submitted a plan.</p> <p>Work is being done with respect to Area 1 with the company that is surveying all the terrain, and data is being requested for publication.</p> <p>For airports given in concession, they are working with the operators.</p> <p>Area 1 and TOD will be published by the end of 2023.</p> <p>Uruguay will publish all TOD Data in the next amendment in 2023 through a link to the Aerospace Infrastructure Service (IDE) of Uruguay.</p>	<p>They are having meetings with providers of raw (unprocessed) e-TOD data. Working groups have been established with the companies that are doing the obstacle survey and a tender process is being organized to acquire a system to process this data.</p> <p>No progress made because of the pandemic. They have an obstacle database.</p> <p>Processes completed. Only pending publication in the AIP.</p>
<i>Venezuela</i>	<p>In the second half of 2017, they will start with the corresponding terrain and obstacle data.</p> <p>They are working on Type A obstacle chart.</p> <p>Soon to be published on 29 December 2022 (Josefa Canejo – Paranejo)</p> <p>Maracaibo is ready and waiting for INAC's approval.</p> <p>The other international airports are expected to be published by 2023.</p>	<p>They reported having an automated, interoperable system with an obstacle and terrain database capable of being exported in AIXM, HTML or Shape File format if so required by the user.</p> <p>In this last quarter, in the amendment, they are planning to publish obstacles for SVMI, Puerto Ordaz, Valencia, Maracaibo, Barcelona, Paraguana, and Margarita. The amendment will be in December. It would be available in electronic format. Completion in 2024, 2022: 3 to 4 per year.</p>

**APENDIX B**

**Table: Monitoring of the implementation of the e-AIP, DDS, information exchange models, and data catalogues**

N°	State	Action Plan	Status of implementation				
			DDS (does not include TOD)	Exchange model	e-AIP	Data catalogue	SLA
1	<b>Argentina</b>	There is an action plan.			They have the licence. They have it published via website but is not digital (the electronic one depends on software maintenance payment).	Coordination with EANA S.E. They will send the information.	They signed again the SLAs with data providers.
2	<b>Brazil</b>	Implemented	100%	100%	100%	100%	They do not sign SLAs. They issue ICA with the rules to be followed by information providers (Agreements following meeting with providers)
3	<b>Bolivia</b>	No progress made on these issues due to the change of provider.			Not yet until automated systems are in place.	By 2024 (Q4)	They have the SLAs, but they do not include the data catalogues.
4	<b>Chile</b>	Project under discussion to see if it can be implemented by 2023.					They do not have them, because they are all included in the QMS.
5	<b>Colombia</b>	e-AIP and DDS processes (except for TOD) completed.	90% TOD no	90%	95%	80%	90%
6	<b>Ecuador</b>	Project submitted to the Planning Secretariat and waiting for approval by 2023.	Not available	Not available	At the moment, it is available in HTML and PDF format under Eurocontrol standard.	Available in Excel format. It is estimated that they will be available on the first semester of 2022; 75%	They are working with information providers to sign the SLAs.
7	<b>Guyana</b>	Budgetary Allocations for 2023 have been made by the Civil Aviation Authority to source transition AIS to AIM	Dependent on training. Will implement progressively as the training of staff in these areas are	Dependent on training. Will implement progressively as the training of staff in these areas	Dependent on training. Will implement progressively as the training of staff in these areas are done.	Dependent on training. Will implement progressively as the training of staff in these areas are	LOA's with our two major airports have been established for the provision of raw data for

		training. A national strategy for conducting workshops with all raw data originators will be done in the first quarter of 2023 through the AIS regulator.	done.	are done.		done.	promulgation by the AIS. All other raw data is provided through the Ministry of Public works which has national oversight of national civil aviation.
8	<b>Panama</b>	-DDS workshops are expected to start on Q3 2022. - Regarding data catalogues, they are waiting for the AISR to notify the dates of the seminar-workshop. No progress made because of the QMS certification process A meeting will be held on 16 January to plan DDS implementation. They are a little delayed with AIS regulations. The first workshop on data catalogues will be held on Q1.  SWIM project includes all DDS	No progress made	100%	100%	No progress made AIC of Advice on Data Set Submission (Book 29 - AIS). The AIC will be followed by a Service Provider Seminar - The AIC will be accompanied by the table. It will be published by the end of August.	
9	<b>Paraguay</b>	e-AIP in beta version	Database fully loaded but not yet available in digital format.	100%	100% in beta version	They are in a transition stage, understanding the data catalogue.	They are in the process of dissemination with internal and external users, but have not yet signed an SLA.
10	<b>Peru</b>	With the signing of the contract for the acquisition of the integrated aeronautical information system in June 2021, Peru, through the AISP, is in the process of implementing the eAIP, which will be made available on Q4 2022, meeting the requirements of our regulations, Annex 15, PANS AIM, and	10% They will send the information assessed for the four parameters. The system was assessed on the basis of one airport. Progress made in the uploading of data of the major	10%	10%	10 to 15% Included in the Regulation. The Provider already works with its data originators.	They have a review plan with information providers

		<p>their respective amendments. The integrated aeronautical information system was acquired in February (PER 20810). They will review all the data. The timeline from 2023 to 2024. (October or November 2024 initially but they will update it) (probably by the first quarter of 2025).</p>	<p>international airports of Peru, but there will be modifications, because loading will be modified in 2023.</p> <p>All planned for the first quarter of 2025 (SAM/AIM/16)</p>				
1	<b>Suriname</b>						
12	<b>Uruguay</b>	<p>Waiting for the results of discussions for the implementation of actions following the migration to AMHS (August 2022)</p> <p>Migration to AMHS completed. AIXM system acquisition in progress for 2023</p> <p>A call for bids for its implementation is being prepared. The call will probably be in the last quarter of 2023.</p>					Complete
13	<b>Venezuela</b>	<p>They will send the files at the end of the Meeting.</p>	<p>25% AIXM 5.1 100%</p>	<p>They are working on the implementation of the DDS (60%)</p> <p>Updated IDS license (end of 2023) (SAM/AIM/16)</p>	<p>100% implemented and updated. Published on the INAC website. The new tools to be published by Q1 2023</p>	<p>25% in the database</p>	<p>They are working on it and will meet with providers in Q1 2023 to sign the letters of agreement.</p>