



Agenda Item 2: Report of activities of the GESEA and Subgroups

b) ATM implementation. Progress of Subgroups

REPLACEMENT OF DUPLICATE POINTS IN BRAZIL

(Prepared by Brasil)

SUMMARY

This Information Paper presents the initiative of the Department of Airspace Control (DECEA) to replace duplicate waypoints in Brazil. This Paper describes the plan made in Brazil.

References:

- SAM/AIM/13 final report
- ICAO Annex 15
- GREPECAS/18 meeting

1. Background

1.1 Communication NA 11 / 45.5-17 / 101, of August 11, 2017, presented to the signatory States the completion of the initial implementation of the new ICARD platform, which manages the system and the database of codes and designators to be accessed by representatives authorized by the States.

1.2 In this same document, however, problems related to waypoints are presented that must be dealt with by States, worldwide, to guarantee the operational safety of air navigation. Among the problems mentioned, the following stand out:

- a) existence of 3,892 duplicate points registered;
- b) phonetic similarity between relatively close points;

1.3 existence of points in the AIP not inserted (or registered in a different way) in the ICARD platform.

1.4 Regarding the problem related to the duplication of points, an issue addressed in this Paper, it is highlighted that the solution requires the replacement of the identification of fixed points, which affects the subsequent modification of the Route Charts, Area Charts and Instrument Procedures Charts (SID, STAR, IAC and ATCSMAC).

1.5 The impact varies from state to state and is large in Brazil, given the extent of the airspace (23 million square kilometers), which comprises 5 FIRs, with 18 route charts and 18 area charts, in addition to 1,555 procedure charts.

1.6 At the end of 2019, it was verified that Brazil had 179 duplicate points registered and, in order to comply with ICAO recommendations, an Action Plan was drawn up to replace these points.

2. Analysis

2.1 According to portal.icao.int, through the ICARD platform, there are currently 146 duplicate points registered in the Brazilian Airspace. The Aeronautical Cartography Institute (ICA), responsible for the management of Aeronautical Information in Brazil and core organization for Planning and Design of Airspace Procedures, continues its efforts to replace these duplicate points and the consequent modification of the impacted charts. It should be mentioned that one of the premises of the work is to avoid the issuance of NOTAMs to replace duplicate points.

2.2 Of the 146 points, 29 are used exclusively on routes published in the charts ENRC, ARC and AIP BRASIL (in ENR part 3). Another 16 are exclusive to air navigation procedures (ATCSMAC, SID, STAR and IAC). The remaining 101 points are common to the publications indicated above.

2.3 To solve this problem, Brazil established an Action Plan to incorporate the changes in the AIRAC amendments and, as the new replacement points are in force, the gradual cancellation of the old point in the ICARD platform, so that it is no longer registered in Brazil.

2.4 First, all duplicate points registered on the ICARD portal were identified. Then, the impacts resulting from the replacement of the point were established, taking care to identify all the impacted charts, since a single point could be published both in the Route Chart, in the Area Chart and in more than one Instrument Procedure Chart (IFR).

2.5 Next, the approval and availability of new replacement names was requested when defining the AIRAC amendments.

2.6 The publications were grouped into a set of charts according to AMDT AIRAC, due to geographical proximity, and planning of changes in the Airspace in these areas was carried out. The following table presents an overview of the work in progress to replace the 146 duplicate points:

AMDT	Waypoints	CHARTS
AMDT AIRAC 26 MAR 20	12 duplicated waypoints	ENRC L7, L9 IFR Procedures Charts of all AD affected
AMDT AIRAC 23 ABR 20	08 duplicated waypoints	ENRC L2, L3, L4, L5 IFR Procedures Charts of all AD affected
AMDT AIRAC 20 MAY 21	90 duplicated waypoints	ENRC L1, L2, L3, L4, L5, L6, L7, L8, L9, H1, H2, H3, H4, H5, H6, H7, H8, H9 ARC Academia, Anápolis, Amazonica, Belem, Belo Horizonte, Brasilia, Curitiba, Fortaleza, Manaus, Natal, Recife, Rio Sao Paulo, Santa Maria, Foz IFR Procedures Charts of all AD affected
AMDT AIRAC 12 AUG 21	20 duplicated waypoints	ENRC H1, H2, H3, H4, H5, H6, H7, L1, L2, L6, L5, L8, L9 ARC Rio Sao Paulo, Academia, Anapolis, ARC Salvador, Recife, Belo Horizonte, Foz, Curitiba, Porto Alegre, Brasilia, Manaus IFR Procedures Charts of all AD affected
AMDT AIRAC 09 SEP 21	11 duplicated waypoints	IFR Procedures Charts of all AD affected

AMDT	Waypoints	CHARTS
AMDT AIRAC 30 DEC 21	5 duplicated waypoints	09 IFR Procedures Charts

2.7 During this work, coordination with Argentina and Suriname was carried out on duplicate points in the border regions.

2.8 Finally, it is important to highlight that the work of repositioning the points, renaming the Route and Area Charts and IFR Procedures, incorporating NOTAM, among others, was facilitated by the fact that the Airspace Planning, Cartography and Aeronautical Information management are centralized. at ICA.

2.9 Duplication of waypoints is an old problem and affects the navigation database of users. Brazil is doing its part, in coordination with neighboring states, and it is estimated that the work to replace the 146 duplicate points registered will be completed by December of this year (AMDT AIRAC 30 DEC 21).

3. **Suggested actions**

3.1 The Meeting is invited to:

- a) Take note and review the information provided in this information paper; and
- b) encourage other States to present their action plans to correct this problem throughout the SAM region.