



**Agenda Item 2: Optimization of the SAM airspace**

**AIRSPACE PLANNING STUDY GROUP (GEPEA)**

(Presented by Brasil and IATA)

**SUMMARY**

This working paper presents the initiative of the industry in Brazil for the creation of the Airspace Planning Study Group (GEPEA). The GEPEA is a permanent forum at the national level capable of bringing together the aeronautical community to discuss opportunities for improvement in the organization and management of Brazilian airspace, considering the particularities of the fleet of aircraft operating in Brazil.

**References:**

- Doc. 9750 – Global Air Navigation Plan
- Doc. 9854 - Global Air Traffic Management Operational Concept
- Doc. 9971 - Manual on Collaborative Air Traffic Flow Management (ATFM)

**1. Introduction**

1.1 Doc. 9854 - Global Air Traffic Management Operational Concept indicates that *“The planning process at the global, regional and national levels should provide a well-understood, manageable and cost-effective sequence of improvements that keeps pace with user needs, culminating in a system meeting safety, capacity, efficiency and environmental demands.”*

1.2 Doc. 9971 - Manual on Collaborative Air Traffic Flow Management (ATFM) shows that *“CDM process allows optimizing the participation of Airspace Users in the ATM process and mitigates the impact of airspace limitations and airport capacity. It also allows obtaining all the benefits of a better design integration and airspace management (ASM) and ATFM”*

1.3 Some requirements established in Doc. 9882 - Manual on Air Traffic Management System Requirements – indicates that to satisfy the expectations of the ATM community with respect to capacity, the ATM system must:

- a) Provide agreed capacity levels in collaboration [R196];
- b) Ensure that sufficient capacity is provided through collaborative decision-making (CDM) [R197];
- c) Ensure that the ATM community works collaboratively to plan and implement the necessary capacity to satisfy profitably projected demand [R198];

*Explanatory text: Through collaboration, members of the ATM community will determine the appropriate investments and related commitments to obtain the desired capacity of*

*ATM system resources. Investments and commitments include both users and service providers (eg, "appropriate" commitments include the expansion of infrastructure by service providers and equipment or instruction).*

## 2. Discussion

2.1 Taking into account the guidance provided by ICAO mentioned in the preceding paragraphs and the obvious benefits of the collaborative decision-making process for the organization and management of airspace, the industry has taken the initiative to create the Airspace Planning Study Group in Brazil, with the participation of the National Civil Aviation Agency (ANAC), Brazilian Association of Airlines (ABEAR), Department of Airspace Control (DECEA) and International Air Transport Association (IATA).

2.2 GEPEA will be established with a well-defined governance process, through the formalization of terms of reference and work program, which promote the sharing of work and responsibility among its members. The drafts of terms of reference and work program of the GEPEA (XLS format) are attached, respectively, as Appendices A and B to this working paper (Portuguese only). These documents will be formalized in a meeting among all stakeholders on December 18, 2018.

2.3 The main objectives of the GEPEA are the following:

- a) Introduction of new airspace concepts deemed of interest by the aviation community, including aspects related to safety;
- b) Introduction of new types of air navigation procedures deemed to be of interest by the aeronautical community, including aspects related to safety;
- c) Optimization of existing air navigation procedures;
- d) Improvement of the internal regulations of the regulators (DECEA and ANAC) on the airspace, within a collaborative decision process (CDM);
- e) Definition of airspace concepts that should be prioritized, in a collaborative decision process (CDM); and
- f) Definition of air navigation procedures that should be prioritized, in a collaborative decision process (CDM).

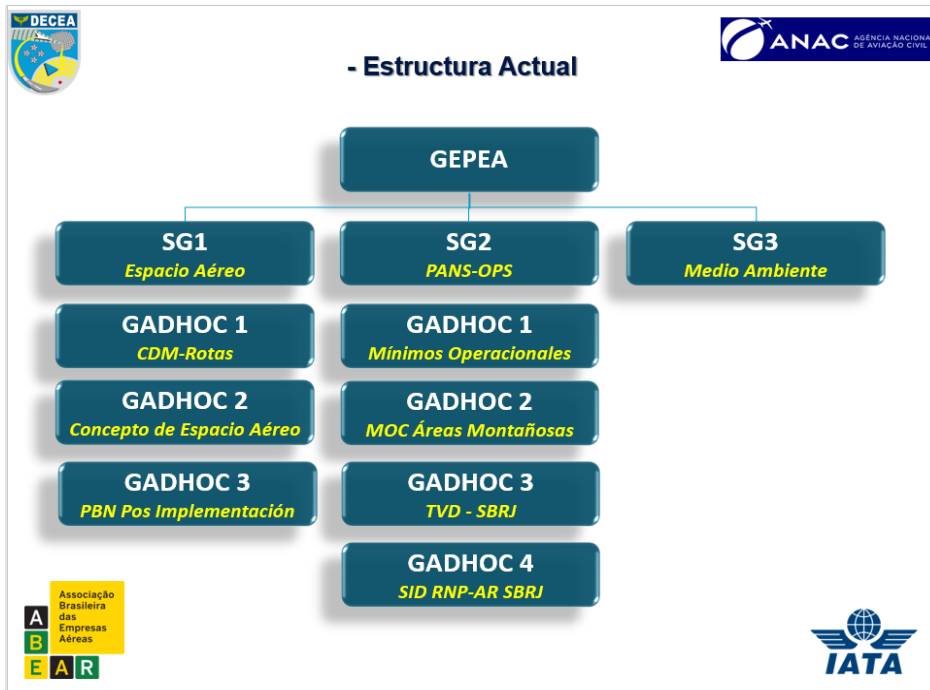
2.4 The professionals that participate in the GEPEA are the following:

- a) Air Space Planners;
- b) Procedure Designers;
- c) Civil Aviation Regulation Specialists (Operations Inspectors);
- d) Air Traffic Controllers;
- e) Pilots in the Flight Standards and Safety areas
- f) Operations Engineers;
- g) Data base specialists for navigation systems; and
- h) Specialists in risk analysis.

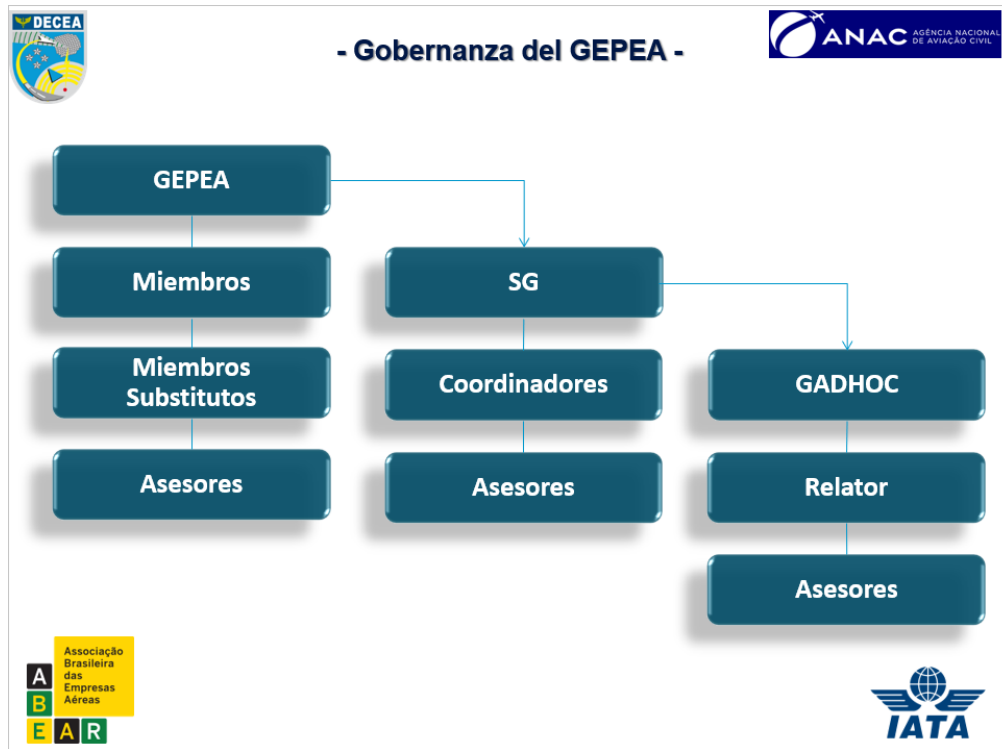
2.5 The structure of the GEPEA is shown in the figure below (Spanish only):



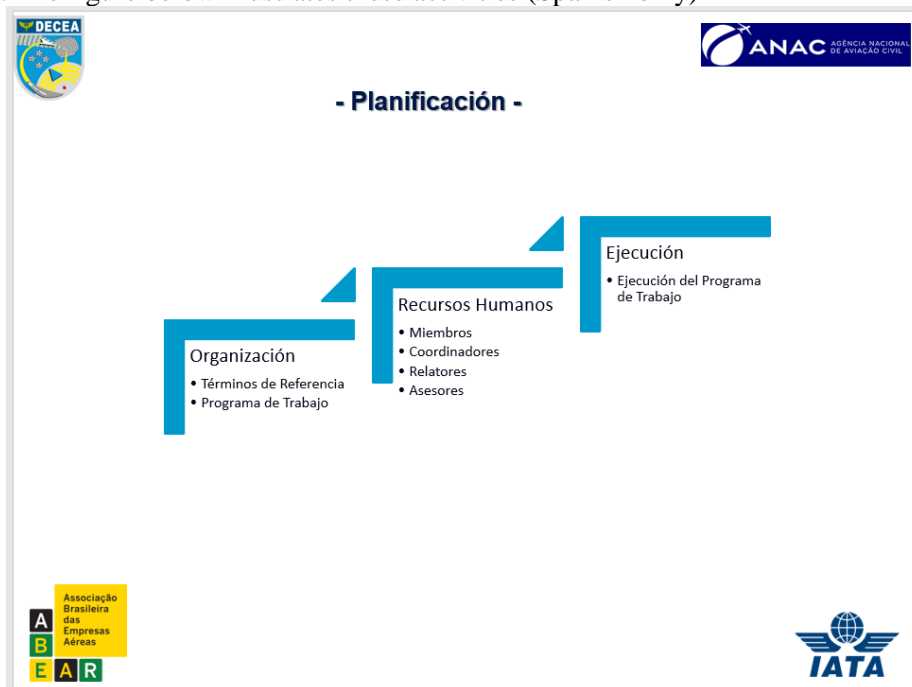
2.6 The structure currently used hair GEPEA, with the use of some ADHOC groups can be seen in the figure below (Spanish only):



2.7 The governance of the GEPEA is made up of Members, Coordinators and Rapporteurs, as can be verified in the figure below (Spanish only):



2.8 Currently, the GEPEA Working Group (GEPEA/WG) is working on the organization of the group (terms of reference and work program), the allocation of the necessary human resources of the organizations involved and the anticipated execution of some activities of the work program, before its formalization. The figure below illustrates these activities (Spanish only)



2.9

Main products already delivered by GEPEA:

- a) New airport operational minimums, aligned with Doc. 9365 and with the best international practices, which will improve efficiency in landing and takeoff operations at Brazilian airports.
- b) Suspension of the application of noise abatement procedures, which were being used unnecessarily, which will result in savings of approximately 2,300 tons of fuel per year (7,300 tons of CO<sub>2</sub>).
- c) Reduction of preferential routes in Brazilian airspace, with the application only in the essential trajectories for airspace management.

3.

**Suggested Actions**

3.1

The meeting is invited to:

- a) Take note of the information provided in this working paper;
- b) Discuss the adoption of similar initiatives in the SAM States, within the possibilities and needs of each one; and
- c) Discuss how the governance model, terms of reference and work program of the GEPEA could be used to reformulate the SAM PBN Implementation Group.

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