



**Fourth GREPECAS–RASG-PA Joint Meeting and
 Twenty-second Meeting of the CAR/SAM Regional Planning and Implementation Group
 (GREPECAS/22)**

Virtual Phase (Asynchronous, 16 September to 11 October 2024)

In-Person Phase (Lima, Peru, 20 to 22 November 2024)

Agenda Item 5: CAR/SAM Air Navigation Services (ANS) Implementation

5.1 Air Traffic Management (ATM), Airspace optimization, Air Traffic Flow Management (ATFM) and Search and Rescue (SAR)

ATFM WORKSHOP HELD IN BRAZIL

(Presented by Brazil)

EXECUTIVE SUMMARY	
<p>This working paper presents some results of the Workshop on Collaborative Air Traffic Flow Management (ATFM) held in Centro de Gerenciamento da Navegação Aérea (CGNA), the brazilian air navigation management center, in Rio de Janeiro, Brazil.</p>	
Action:	Suggested actions are presented in Section 3.
<i>Strategic Objectives:</i>	<ul style="list-style-type: none"> • Safety • Air Navigation Capacity and Efficiency • Economic Development of Air Transport • Environmental Protection
<i>References:</i>	<ul style="list-style-type: none"> • Guide for the implementation of ATFM in the SAM Region 2021-2025; • Plan de Operaciones para la Región SAM (OPSAM) 2021; • Doc 9971 - Manual on Collaborative Air Traffic Flow Management (ATFM) – Third edition; • SAM/IG/29-WP/2.6 – ATFM Workshop in Brazil; and • SA 7676 – Convening Letter.

1. Introduction

1.1 During the Twenty-ninth Workshop/Meeting of the SAM Implementation Group (SAM/IG/29), Brazil presented the WP/2.6 to invite the States of the Region to participate in the ATFM Workshop, offered to collaborate with the development of the processes foreseen in phase II-A of the Guide for the implementation ATFM in the SAM Region.

1.2 The workshop, provided for in the program of activities of the Regional Project RLA/06/901 adopted at the Seventeenth Meeting of the Coordination Committee (RCC/17, Lima, October 26, 2023), was planned with the objective of strengthening and/or consolidate the implementation of the ATFM service and provide learning experiences that will enable students to carry out activities related to the strategic, pre-tactical and tactical phases of the ATFM Service, in addition to post-operations analysis.

2. Analysis

2.1 Held in three weeks, the workshop had two phases: in the first phase, there was instruction in a virtual classroom, from April 1 to 5; in the second phase, in-person instruction from April 8 to 19, in Rio de Janeiro, Brazil.

2.2 During the first phase, some concepts established in Doc 9971 were revisited. Specifically, those regarding collaborative decision making (CDM); strategic, pre-tactical and tactical phases of the ATFM service; and activities inherent to post-operations analysis.

2.3 The second phase, carried out at CGNA, had some adjustments to its schedule. For the first day, IATA and GRU Airport – administrator of the Guarulhos International Airport, were invited to present their points of view regarding the ATFM Service. Thus, participants were able to hear from industry representatives how beneficial the ATFM Service can be.

2.4 Then the provisional agenda was followed, which provided that the participants, based on the operational scenario of their respective ATFM units (runway capacity, airspace and sectorization, demand requirements, imbalances, growth forecast, etc.), would provide an exposure to the beginning of the first week of in-person class at CGNA, in order to analyse solutions for situations of imbalance and/or capacity limitation, real or hypothetical.

2.5 The time initially planned for the task was extended so that the opportunity to know in detail the ATFM scenario of each State was not lost. One of the objectives of the exhibition was to guarantee a reliable exchange of information and, at the same time, reduce the distance between participants, providing them with greater trust, empathy, and a willingness to collaborate.

2.6 It is important to highlight that the collaborative environment that was sought was not designed exclusively for the workshop activities. One of the opportunities considered by the CGNA team would be beyond the period planned for the workshop: the integration between participants from each State could favor future coordination regarding capacity limitations, among other factors that sometimes affect international flights. Knowing the reality of other States could facilitate understanding of the operational scenario and optimize the search for ATFM solutions.

2.7 Considering that the time for the presentations of each State was extended, the schedule was adjusted to encourage debate on some specific topics that were, in some way, common to the operational scenario presented by each participant. This was done for work on ATFM phases and post-operations analysis. A great challenge, given that the specificities of each State play an important role – especially because the implementation of ATFM has different degrees of progress in each one.

2.8 Two aspects of the dynamics of the face-to-face phase of the course deserve to be highlighted: the roles played by the CGNA team and by the participants. From the first contact, it was clear that the entire structure and members of the CGNA were available to the participants. These, in turn, demonstrated a willingness to participate in the proposed activities, designed for such a diverse group and which, at the same time, knew how to achieve the level of cohesion necessary for the program to function. The interactions observed and the activities carried out could confirm this.

2.9 The strategic phase practices allowed participants to think about solutions for their operational scenarios. Some of them, already existing and applied in Brazil, were presented at GESEA meetings and in other editions of SAM/IG, such as vertical or lateral sectorization and the adoption of the High Intensity Runway Operations (HIRO) concept – optimizing, respectively, operations at the airspace and at the airports.

2.10 During the pre-tactical phase practices, after learning some examples of ATFM analysis related to events that may affect the capacity of the airspace sectors and/or airports, the participants carried out an analysis exercise considering the specificities of their own scenario. They also had the opportunity to test for the first time some of the resources of the ATFM Portal being developed for the SAM Region – highlighting how simple and practical it is to prepare the PDA with that tool.

2.11 The activities related to the tactical phase made the participants think about situations that, if they had not experienced them yet, they could have already experienced them. Some participants found themselves thinking for the first time about situations they had already gone through as traffic controllers, but now with an ATFM perspective. The importance of recording events (such as an occurrence sheet or a log) was also highlighted, especially those that affect the flow of air traffic, so that the recorded information could be used, for example, to better understand the results of some performance indicators.

2.12 Regarding post-operations analysis, a broad view was proposed for everything that can be produced to provide feedback to multiple stakeholders. Participants shared their experiences on the topic, indicating that some have weekly or monthly reports – sometimes with limited scope. A set of products developed in CGNA (daily, weekly, monthly, and annual) that serve various purposes and users was presented. In addition, the importance of data sharing was valued through some of the functionalities of the ATFM Operations Plan for the SAM Region (OPSAM) dashboard.

2.13 The knowledge generated in the course transcends the physical and temporal barriers of the applied program because it was promoted more than the transmission of knowledge. The course promoted exchange between participants from each State to strengthen our ability to approach and listen to the intra-regional and inter-regional needs that we have. With the program applied, the unavoidable need for integration and coordination at a cross-border level was seen.

2.14 It was clear, at the end of the course, that participants were able to understand and benefit from the training offered. We have already identified some opportunities for improvement and suggestions were made to improve the program. The general evaluation of the course by the participants who completed the form proposed for that purpose reached the maximum grade (“Excellent”) for 94% of those who answered it.

2.15 Brazil remains available to everyone to continue supporting the implementation processes and/or improvement of the ATFM Service.

3. Suggested actions

3.1 States participating in the Meeting are invited to:

- a) In coordination with ICAO Lima, assess the interest in having the course again in the future.