



Agenda Item 3: Implementation of the Air Traffic Flow Management (ATFM) and enhanced flow coordination procedures between ATC units.

TECHNICAL COOPERATION AGREEMENTS BETWEEN COUNTRIES OF THE SAM REGION

(Presented by Brazil)

EXECUTIVE SUMMARY

This working paper Note aims to analyze the various technical cooperation agreements signed by four States of the Region in order to increase the efficiency of the air service providers of the SAM Region.

1. Introduction

1.1 In April 2017, a technical cooperation agreement was signed between EANA (Argentina), DECEA (Brazil), DINAC (Paraguay) and DINACIA (Uruguay), known as ‘Declaración de Interés Fundacional’, in the city of Puerto Iguazu, Argentina.

1.2 The agreement aims to develop, through mutual collaboration, joint actions that provide for the exchange of information, promotion of new technologies, specialized technical assistance, consulting and advisory tasks, education and research, process development and evaluation, as well as other activities compatible with the purposes of the entities involved.

1.3 Cooperation between Brazil and Argentina, through their air navigation organizations, DECEA and EANA, was based on the concepts of Doc 9750 and was developed in three phases.

1.4 In the first phase, among other projects, an implementation plan for an FMP was drawn up and ATC capacity measures of the Ezeiza ACC and Baires ACC sectors were carried out.

1.5 The second phase was implemented through an ATFM Course for seven EANA professionals. The instruction was carried out in two stages, one in CGNA and the other in CINDACTA II.

1.6 The third phase consisted in the actual implementation of the ATFM service in Argentina.

2. Discussion

2.1 As previously seen, the Argentine ATFM implementation project was successfully completed. Therefore, increased efficiency in the provision of the air navigation service is felt not only in the country providing the service, but also in all adjacent FIRs.

2.2 Throughout the project phases, DECEA was able to improve its own processes and was further qualified to collaborate with the air navigation services of the Region.

2.3 As a result, Paraguay and Uruguay requested the support of Brazil to enhance their respective ATM systems, each with specific needs, but with the same aim: to develop collaboration in the regional ATM system.

Paraguay

Brazil's cooperation with DINAC is being developed in five areas: capacity building, development of the ATFM service, implementation of the Guarani APP, SARPAS and the AGA Portal.

The training of human resources is being carried out through a series of courses, which are being taught both in Brazil and in Paraguay.

The development of the ATFM service will be promoted by the deployment of a Flow Management Position (FMP) in the Asunción Area Control Center (ACC).

The operation of this position is only possible based on three pillars: ATCO training, capacity measurement of ATC sectors and runway systems, and finally ATFM management software.

In order to contemplate the last requirement mentioned above, the FMP will have the same operating system used by Brazil today, SIGMA (*Sistema Integrado de Gestão de Movimentos Aéreos*, Integrated System for Air Traffic Flow Management).

In addition, DECEA will provide the necessary support for the radar operation in the Guarani APP, training the ATCO with the ATS Surveillance course.

Brazil will also provide all necessary structure for the provision of services related to RPAS and AGA. The aforementioned structure consists of the normative support to the regulation and the IT support needed to meet the various requests of the users.

Uruguay

Cooperation between DECEA and DINACIA is taking place in four areas: Aeronautical Information Service, training, airspace restructuring (PBN) and implementation of the ATFM service.

DECEA enhanced the automation of the Uruguayan aeronautical information service by updating SISNOTAM, a project completed in August 2018.

With regard to training, DECEA will hold the ATM Supervision Course in Montevideo, Uruguay, from 10/29/2018 to 11/16/2018. The intention is to provide future supervisors with learning experiences that allow them to apply the fundamentals of supervision in the operational teams; to use the decision-making process as a decision-making tool and to value the functions of the supervisor in conducting the human and operational resources of the ATC unit. In addition to the training of supervisors, the Procedure Design Course (PANS-OPS) will also be taught, both in conventional procedures and in GNSS procedures. The location and date of this course will still be defined.

DECEA will also carry out the restructuring of Uruguayan airspace. By redefining the design of the FIRs, PBN concepts will be introduced, both for the routes and for the terminal areas. The completion of the project will be through the implementation of the ATMF, through FMP and the use of SIGMA, both of which are scheduled to take place in the first half of 2019.

3. Conclusion

3.1 Air navigation service providers should constantly seek to increase efficiency and ensure airspace safety. To this end, the ATM System must be constantly improved in all its components: ATS, ASM and ATFM.

3.2 Hence, when regionally integrated, efficiency in ATM system management increases with synergy and rationalization of airspace use among adjacent FIRs.

3.3 Therefore, Brazil is willing to cooperate with all Nations of the SAM Region, seeking to improve and develop air navigation, which is becoming increasingly integrated. And this cooperation consists in promoting the necessary training for professionals; implementing ATFM with the entire structure for the installation of an FMP; automating RPA and AGA services and, finally, redesigning the airspace.

3.4 As a result, this Meeting is invited to consider the following recommendations:

That the Meeting:

- a) Becomes aware of the implementations described in this document;
- b) That the States jointly with the ICAO SAM Regional Office support the implementation of the FMP as well as the implementation of the ATFM in the signatory countries; and
- c) That the ICAO SAM Regional Office encourages and coordinates the development of technical cooperation agreements among the countries of the Region in order to increase the efficiency of ATM services in South America.
