



- Agenda Item 2: Optimisation of SAM airspace**
- a) PBN regional implementation progress
 - b) Actions to standardize the longitudinal minimum separations between en-route aircraft
 - c) Results and recommendations of PANS-OPS workshops
 - d) Coordination for the SAM route network Version 04

ADVANCE IN THE IMPLEMENTATION OF PBN PROCEDURES IN THE TMA PANAMA

(Presented by Panama)

SUMMARY	
This information paper is intended to inform the actions taken by Panama in order to fulfill in a timely manner the PBN implementation program, as well as to present the procedures designed by Panama for the RNP AR approximations to the International Airport of Tocumen, as conceived by PBN National Plan of Implementation of the Civil Aviation Authority of Panama	
REFERENCES:	
<ul style="list-style-type: none">• Declaration of Bogota – December 06, 2013• ICAO Assembly resolution A37-11• Workshops PBN SAM	
ICAO strategic objectives:	<i>A - Safety</i> <i>B - Air navigation capacity and efficiency</i> <i>D - Economic development of air transport</i> <i>E - Environmental protection</i>

1. Introduction

1.1 ICAO has intensified its efforts to ensure that the improvement of operational safety and the modernization of permanent air navigation continue to move together and to meet global needs for the interoperability of airspace. In this sense and according to the Conclusion SAM/IG/14-4 (*monitoring of the PBN goals established in the Bogota Declaration*) the Republic of Panama is committed to fulfilling the established objectives by the States for the benefit of civil aviation.

1.2 Panama has participated in several workshops on PBN airspace design that were organized to support all States on the PBN implementation of airspace designs such as terminal areas (TMA), ATS routes, and instruct them in calculating the ATM/COM/NAV/South States capacities, analysis of volumes and traffic flows, combination of fleets and equipment to solve real operational problems in a selected airspace.

1.3 The result of our participation in the aforementioned workshops has provided results that were assessed in plenary and we hope the resulting designs will be taken into account.

1.4 Panama Civil Aviation Authority is committed to the reorganization of our airspace and implementation of performance-based navigation, given the significant increase in international operations (arrivals, departures and over flights), not only with the operational needs of airport users located in the TMA Panama, but also to reorganize the need of our airspace, analyze the capacity of ATS services and determine a more efficient sectorization in the Panama Control Center, ACC and other dependencies of the country, in response to the efficiency in the provision of air traffic services (ATS), as regards the optimization of Air Traffic Flow Management (ATFM) ensuring that this evolution is harmonious and integrated to ICAO planning.

2. **Scope of the Project**

2.1 It has been decided that the Project will be developed on the basis of the new National Air Navigation Plan of Panama, which will be reorienting under the Block Improvement methodology - ICAO ASBU.

2.2 The Project would consider the participation of the ATM community and the national industry, as well as international organizations, professional guilds and others users in general.

2.3 This reorganization must be concordant and harmonize with the improvement initiatives in the regional routes that are in progress and at the same time facilitate the progress in the implementation of PBN procedures in our aerodromes of the country that require it, as well as continuous descent/ascent (CDO/BCC) operations.

2.4 Finally, the project shall consider all the technical and operational aspects with the necessary changes in the procedures applied in the airspace to be controlled and transparent to the users; that results on a new structure of more efficient routes, reducing the pilots and controllers workload, seeking to reduce the supply of vector guides by RNAV trajectories, decongesting frequencies and giving more time to pilots and Controllers to manage their respective activities, increasing the situational awareness, by transferring navigation to the database coding of the optimal flight trajectories.

2.5 The Republic of Panama, through the Civil Aviation Authority, requires to evaluate exhaustively the current status of its PBN implementation and to define integrally a process that modernizes its airspace according to the demand and technology that allows improvement and reflects efficiency and operational safety in accordance with current regulations and the responsibility of protecting the environment.

2.6 As a result it was tendered the complete study of the Panama FIR (management of the volumes services of airspace procedures), TMA restructure and redesign of the PBN elaboration procedures which would be required according to the Regional Air Navigation Plan and other parameters established in the Region.

3. **Suggested action:**

3.1 The meeting is invited to take acquaintance of the information provided in this information paper.