



ICAO

International Civil Aviation Organization  
North American, Central American and Caribbean Office  
INFORMATION PAPER

ICAO/IATA/CANSO PBN/3 — IP/04  
26/06/18

**Third ICAO/IATA/CANSO Performance-Based Navigation (PBN) Harmonization, Modernization and Implementation Meeting for the North American, Caribbean and South American (NAM/CAR/SAM) Regions**

Mexico City, Mexico, 2 – 6 July 2018

- Agenda Item 4: Optimization of Longitudinal Separation**  
**4.1 Review the Letters of Agreement related to the application of 40 NM and 20 NM separation between adjacent Flight Information Regions (FIRs) in the CAR and SAM Regions**

**OPERATIONAL CONDITIONS IN FIR-AZ**

(Presented by Brazil)

<b>EXECUTIVE SUMMARY</b>	
This paper is set for present the operational conditions in FIR-AZ to support separation minima of 40 NM and 20 NM.	
<i>Strategic Objectives:</i>	<ul style="list-style-type: none"><li>• Safety</li><li>• Air Navigation Capacity and Efficiency</li><li>• Economic Development of Air Transport</li></ul>
<i>References:</i>	<ul style="list-style-type: none"><li>• Doc 7030 - Regional Supplementary Procedures</li><li>• Doc 8733 - Air Navigation Plan – CAR/SAM Regions</li></ul>

**1. Introduction**

1.1 Since August 17, 2017, new airways related to the PBN project of the NAM/CAR/SAM Regions have come into force, resulting in distance, fuel burn and greenhouse effect emissions important reductions.

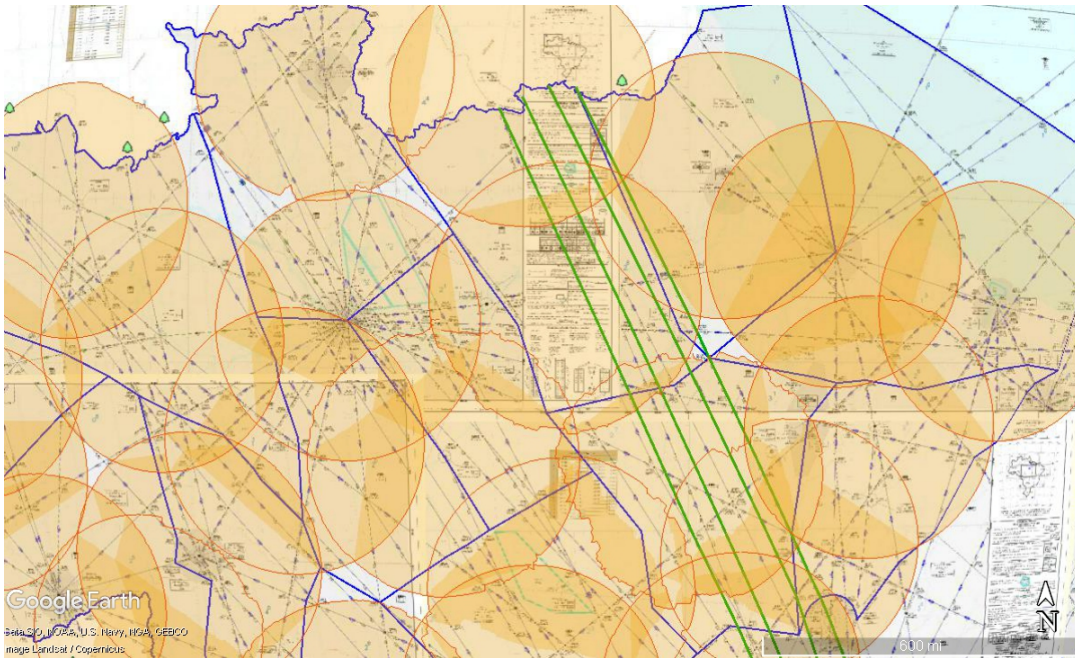
1.2 Brazil has entered in this project with changes in airways attending its major airports: Guarulhos International (SBGR), Galeão International (SBGL), Brasília International (SBBR) and Confins International (SBCF).

1.3 Such changes affected the Letters of Agreement between FIR-AZ and contiguous FIRs, especially regarding the separation minima applied between traffics flying on adjacent airways.

**2. Radar and VHF Coverage**

2.1 The ATS provided by ACC-AZ is supported using ATS surveillance systems and direct controller-pilot communication (DCPC) via VHF, which support the application of separation minima of 10 NM in FIR-AZ.

2.2 Currently, more than 90% of FIR-AZ is covered by VHF communication and ATS surveillance systems above FL200. This value approaches 100% over FL300 (Figure 1 and Figure 2).



**Figure 1 – ATS surveillance system coverage**



**Figure 2 – VHF coverage**