



SAM/IG/4  
WP/33  
15/10/09

**International Civil Aviation Organization  
South American Regional Office**

**FOURTH WORKSHOP/MEETING OF THE SAM IMPLEMENTATION GROUP  
(SAM/IG/4)  
REGIONAL PROJECT RLA/06/901**

**Lima, Peru, 19 to 23 October 2009**

**Agenda Item 4: Standards and procedures for performance-based navigation operations approval**

**Training programme on Advisory Circulars (AC) related to PBN approval**

(Presented by the Technical Committee of the SRVSOP)

Summary
This working paper presents a training programme proposal on Advisory Circulars related to PBN approval.
<b>References:</b> <ul style="list-style-type: none"><li>• Regional Project RLA/99/901</li><li>• SAM/IG/2 Report</li><li>• SAM/IG/3 Report</li><li>• CAR/SAM Region PBN roadmap</li></ul>

**1. Background**

1.1

1.2 In PBN roadmap approved by GREPECAS/14 Meeting, the implementation of the navigation based on PBN performance in CAR / SAM Regions in short term (until 2010) and medium term (2011-2015) was included.

**2. Analysis**

2.1

To provide support to the PBN implementation in SAM Region, the Technical Committee (TC) of the Regional Safety Oversight Cooperation System developed the criteria for the approval of aircraft and operators of different RNAV and RNP navigation specifications.

2.2 In this regard, the training of operations and airworthiness inspectors in SAM Region States on approval requirements contained in PBN Advisory Circulars is required to continue with the implementation agreed.

3. **Action suggested**

3.1 The Meeting is invited to:

- a) Take note of the information provided in this working paper and Appendix; and
- b) approved the proposed training programme on PBN Advisory Circulars for the first semester of year 2010.

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## Appendix A

### Training programme on Advisory Circulars (AC) related to PBN approval

<b>Course on PBN basic concepts and RNAV approvals</b>  Lima, Peru, from 15 to 19 March 2010	<b>Course on PBN basic concepts and RNP approvals</b>  Lima, Peru, from 17 to 21 May 2010
Instruction Modules	Instruction Modules
<ul style="list-style-type: none"> <li>➤ PBN regional planning</li> <li>➤ PBN implementation action plan</li> <li>➤ PBN basic concepts, application of PBN navigation specifications;</li> <li>➤ Infrastructure of navigation aids (GNSS, DME/DME, DME/DME/IRU, VOR/DME, INS/IRS, LORAN C);</li> <li>➤ Aircraft equipments (RNAV/RNP (FMS), multisensor equipment, self-contained equipments (INS/IRS);</li> <li>➤ GNSS, INS/IRS, DME, VOR/DME, LORAN C Principles;</li> <li>➤ RNP Performance, alert and monitoring of performance on board (differences between RNAV y RNP navigation specifications );</li> <li>➤ RNAV 10 approval (designated and authorized as RNP 10);</li> <li>➤ RNAV 5 approval; and</li> <li>➤ RNAV 1 and RNAV 2 approval.</li> </ul>	<ul style="list-style-type: none"> <li>➤ PBN basic concepts, application of PBN navigation specifications;</li> <li>➤ Infrastructure of navigation aids (GNSS, DME/DME, DME/DME/IRU, VOR/DME, INS/IRS, LORAN C);</li> <li>➤ Aircraft equipments (RNAV/RNP (FMS), multisensor equipment, self-contained equipments (INS/IRS);</li> <li>➤ GNSS, INS/IRS, DME, VOR/DME, LORAN C Principles;</li> <li>➤ RNP Performance, alert and control of performance on board;</li> <li>➤ RNP 4 approval ;</li> <li>➤ Basic-RNP 1 approval;</li> <li>➤ RNP APCH approval;</li> <li>➤ RNP AR APCH approval; and</li> <li>➤ APV/baro-VNAV approval.</li> </ul>