



INTERNATIONAL CIVIL AVIATION ORGANIZATION

**TWENTY SEVENTH MEETING OF THE ASIA/PACIFIC
AIR NAVIGATION PLANNING AND IMPLEMENTATION
REGIONAL GROUP (APANPIRG/27)**
Bangkok, Thailand, 5 to 8 September 2016
**Agenda Item 3: Performance Framework for Regional Air Navigation Planning and
Implementation**
3.4: CNS
PBN RNP CLOUD-BREAK PROCEDURE

(Presented by Bhutan)

SUMMARY

This paper presents the progress being made on the Feasibility Study of PBN-RNP Cloud Break Procedure Implementation Plan in Bhutan.

1. INTRODUCTION

1.1 At present, flights in and out of Paro International Airport is still under Visual Meteorological Rules (VFR). As per the two successive Studies carried out in the recent past by Airbus S.A.S, based on Airbus 319, flight in and out of Paro would be limited to PBN RNP AR (Performance Based Navigation and Required Navigation Performance Authorization Required) Procedure that would allow safely descending on a guided track to lower altitude and be guided on a miss approach “track”. As per the study report by Airbus, procedure has been tested in the simulator and result is positive for an implementation.

2. DISCUSSION

2.1 In view of the constraint in fully compliant of PBN plan in Bhutan, the interest of airlines pilots is to improve “minima” on approach. Current procedure allows descending to 12500ft, vertical of terrain to assess possibility to land’.

2.1.1 Currently, the locally developed cloud break procedure based on VOR/DME Nav-aid enables the flight to descend up to 12500ft, vertical of terrain, and continues further till touchdown on VFR condition. Bhutan’s closest Regional PBN Plan Compliant would mean the overlaying of RNP –AR Cloud break procedure over the local cloud break procedure, to supplement the current RNAV (Area Navigation) procedure.

2.2 The challenges that we face today is that so far we have been unable to incorporate the locally developed cloud break procedure in the Aeronautical Information Publication (AIP) officially in spite of it being regularly used in the absence of proper validation. We are in process of soliciting expert’s assistance through COSCAP/ICAO to study and further validate it through overlaying process of RNAV and RNP based Procedures.

3. ACTION BY THE MEETING

3.1 The Meeting is invited to:

- a) Note the information contained in this paper;
- b) Provide inputs and suggestions on the models involving expert's validations.

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