



International Civil Aviation Organization

**THE THIRD MEETING OF PERFORMANCE BASED NAVIGATION
IMPLEMENTATION COORDINATION GROUP (PBNICG/3)**

Bangkok, Thailand, 08 – 10 March 2016

Agenda Item 5: States' PBN Implementation Progress

b) Review and adoption of PBN Implementation progress report results

PBN IMPLEMENTATION PROCESS IN MONGOLIA

(Presented by Mongolia)

SUMMARY

This paper provides information on the latest progress of PBN implementation in Mongolia.

1. INTRODUCTION

1.1 In accordance with ICAO Assembly Resolution A37-11 and recognizing benefits of PBN, Mongolia has developed its own PBN Implementation plan in 2010 which outlined the phased implementation of PBN in Mongolia.

1.2 In November 2013, Civil Aviation Authority of Mongolia signed Memorandum of Cooperation with the ICAO Regional Sub Office relating to technical assistance and operational commitment regarding PBN and Flow Management implementation for Mongolia. A National PBN Working Group was established at CAA Mongolia. A short term action plan has been developed and is being implemented with assistance from ICAO APAC RSO and DFS Germany.

1.3 The implementation of RNAV air traffic services (ATS) routes and approach procedures have been carried out as specified in the ICAO PBN Manual (Doc 9613) and other related documents. The required training for ATM personnel was accomplished with the support of ICAO APAC RSO.

2. DISCUSSION

Terminal PBN Implementation Progress

2.1 With support of ICAO APAC RSO, Mongolia has successfully implemented RNP APCH in Chingis Khaan International Airport in 2015. RNP APCH for Muren Airport has been validated and will be implemented in June 2016. For other domestic airports, PBN flight procedures are being delayed due to fleet capability issues and low traffic density.

2.2 CAA Mongolia conducted a PBN Airspace Design Workshop under the supervision of ICAO APAC RSO in Ulaanbaatar in January 2016. One of the outcomes of the workshop was an initial design of PBN SIDs and STARs for Chingis Khaan International Airport. Mongolia is planning to implement the PBN SIDs/STARs by Sep 2016.

2.3 The New Ulaanbaatar International Airport expected to be operational in January 2017. CAAM is working on plans to publish conventional and PBN flight procedures for the new airport. RNP APCH and RNAV1 SIDs/STARs for the New Ulaanbaatar International Airport will be implemented by the end of 2016

Enroute PBN Implementation Progress

2.4 Since most of the traffic operating within the UB FIR (almost 94 %) are overflights, Mongolia is placing more consideration on PBN implementation in the enroute segment in order to improve flight efficiency and safety. Through the Memorandum of cooperation, the ICAO APAC RSO is supporting Mongolia in the implementation of PBN and a phased approach to Enroute PBN implementation for Mongolia.

2.5 The coming on-stream of ADS-B and new MSSR surveillance capabilities has reduced the necessity for implementing RNP10 routes. Currently Mongolia has chosen only RNAV 5 navigation specification for enroute application according to the Mongolian CNS infrastructure and fleet capability of overflight airliners. CAAM has also chosen Yxxx as route designators for Mongolian domestic RNAV 5 routes. It is anticipated that these designators and navigation specifications can be refined in line with PBN implementation in neighboring countries.

2.6 In Phase One of Enroute PBN implementation, Mongolia has implemented Y345, Y327 and Y520 as RNAV 5 domestic routes in the eastern portion of the FIR in November 2015.

2.7 More direct overflight routes between FIR entry to exit points and domestic city pairs using RNAV5 NavSpecs will be implemented by Sep 2016. Stakeholders have agreed on the route design and it is now ready for the validation stage.

3. ACTION REQUIRED BY THE MEETING

3.1 The meeting is invited to:

- a) note the information contained in this papers; and
- b) discuss any relevant matters as appropriate.
