



INTERNATIONAL CIVIL AVIATION ORGANIZATION

**TWENTY SIXTH MEETING OF THE ASIA/PACIFIC AIR NAVIGATION
PLANNING AND IMPLEMENTATION REGIONAL GROUP
(APANPIRG/26)**

Bangkok, Thailand, 7 – 10 September 2015

**Agenda Item 3: Performance Framework for Regional Air Navigation Planning and
Implementation**
3.2: ATM
RECENT ATM/CNS ACTIVITIES

(Presented by Mongolia)

SUMMARY

CAA of Mongolia is continuously moving forward to enhancing safety and efficiency of air traffic movement in Mongolian airspace.

This paper provides information on recent significant activities on air navigation services in Mongolia such as an implementation of 30 km longitudinal separation, PBN implementation, SSR and ADS-B installation.

Strategic Objectives:

A: **Safety** – Enhance global civil aviation safety

B: **Air Navigation Capacity and Efficiency**—Increase the capacity and improve the efficiency of the global aviation system

1. INTRODUCTION
1.1 30 km longitudinal separation

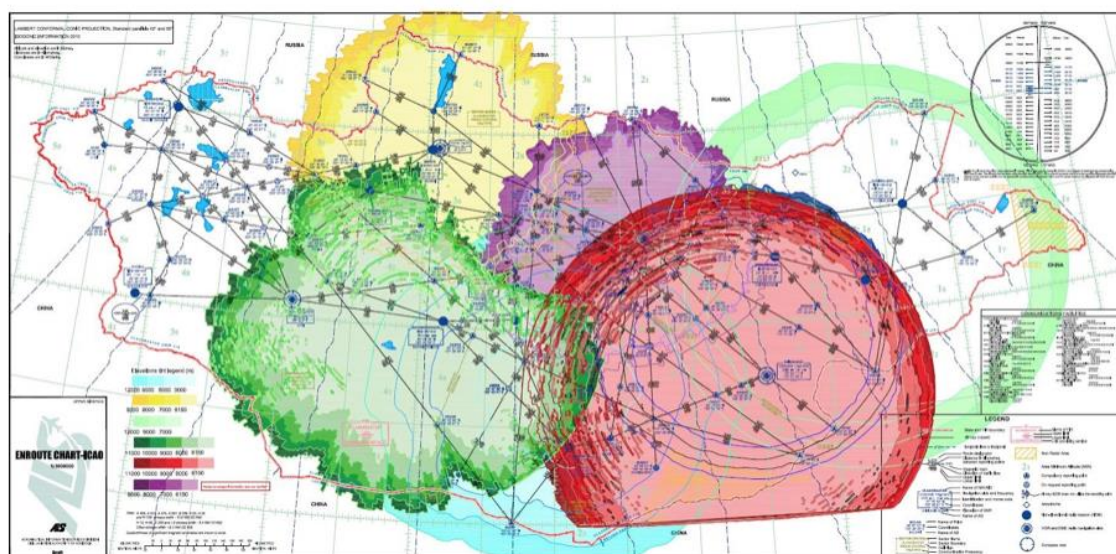
1.1.1. CAA of Mongolia has been installing contemporary ATM systems and secondary surveillance radar stations since 2010. Radar coverage allowed us to reduce enroute longitudinal separation minima step by step. In 2011, longitudinal separation at main trunk routes was reduced from 150 km /which is 10 minutes procedural separation/ to 90 km.

1.1.2. On 16th March, this year second step which enabled 30 km separation in all routes covered by radar was successfully completed. To implement this significant project, CAA of Mongolia has carried out research, intensive management and ATC training, safety assessment and ATC procedures.

1.2 New SSR-s

1.2.1. CAA of Mongolia recently has commissioned additional two radars in the eastern and southern sites of Mongolia to enhance radar coverage and accuracy. In 10th September, this year, these 2 radars will be in operation and will extend radar coverage to the 95% of the total en route flight over Mongolian airspace.

- 1.2.2. By the mid of September, there will be seven radar sites operating across Mongolia, covering 75% of upper airspace.



1.3 ADS-B installation

- 1.3.1. In order to extend the coverage of the surveillance system and to improve the safety, CAA of Mongolia is installing ADS-B system by systematically since 2013, along with the radar implementations. So far, 10 ADS-B are installed and are on trial process. These ADS-B are expecting to be operational within 2015.
- 1.3.2. According to the national ADS-B implementation plan, 6 more ADS-B stations will be installed and become operational by 2017 in order to extent to cover all Mongolian airspace including mountainous area in western part of the country.

1.4 PBN implementation

- 1.4.1. CAA of Mongolia has signed memorandum of cooperation with regional sub office, APAC, ICAO to get supervision and technical assistance in November, 2014. Based on the memorandum, CAA of Mongolia and RSO jointly conducted ATC training, PBN workshop in Ulaanbaatar, in 2015.
- 1.4.2. After CAA and RSO organized safety assessment and stakeholder consultation for enhanced enroute and terminal area structure, including RNP APCH and PBN Routes, planned RNAV, RNP10 routes and RNP APCH procedures were selected by national PBN working group. Selected new routes are Y520 between POLHO and SERNA, Y345 between POLHO-UDA-SERNA, Y327 between POLHO-SULOK. The lowest level of those routes is 8650 meters with RNAV5 specification.
- 1.4.3. Only aircraft with the appropriate airworthiness and operational approval for RNAV-5 and RNP-10 will be authorized to operate on RNAV-5 and RNP-10 routes within the Ulaanbaatar FIR. Aircraft without appropriate RNAV/RNP operational approval of the airspace may be instructed to fly along other conventional routes and/or at FL 8400 M and below or as instructed by air traffic controllers.

2. DISCUSSION

2.1 CAA of Mongolia aims to move forward to the modernization of civil aviation system undertaking several important projects as informed in this paper. Implementing advanced ATM/CNS systems, technology and procedures to enhance the safety and to improve efficiency of aviation operation in Mongolian airspace that would meet the interests of all the stakeholders is one of the CAA's important goals.

3. ACTION BY THE MEETING

3.1 The Meeting is invited to note information on ATM/CNS activities of CAA of Mongolia contained in this Information Paper.

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