



International Civil Aviation Organization

**EIGHTEENTH MEETING OF THE COMMUNICATIONS/NAVIGATION
AND SURVEILLANCE SUG-GROUP (CNS SG/18) OF APANPIRG**

Asia and Pacific Regional Sub-Office, Beijing, China
(21 – 25 July 2014)

Agenda Item 6: Navigation

6.2) Discuss issues related to implementation of GNSS and review developments that have taken place in the Region

Agenda Item 7: Surveillance

7.1) Review report of the Thirteenth Meeting of ADS-B Study and Implementation Task Force

**CURRENT STATUS OF ADS-B IMPLEMENTATION AND UPPER AIRSPACE
GNSS PREPERATORY PHASE OF MONGOLIA**

(Presented by Mongolia)

SUMMARY

This paper presents about current status of ADS-B implementation, and GNSS implementation planning in Mongolia.

1. INTRODUCTION

1.1 Currently, Mongolia has successfully planned the PBN RNAV5 airspaces management. Moreover, in some international and domestic airports, Mongolia is processing flight procedures regarding to the PBN based RNP, RNP-AR precision approaches. In this frame of work, Mongolia planned to research and monitoring of GNSS system since 2013.

1.2 In Implementation of ADS-B, Mongolia has chosen mode-S extended squitter technology for ATC service. The ADS-B implementation working group in Mongolia working on monitoring and trail of the 5 ADS-B which was installed in 2013. Another 5 ADS-B will be purchased end of 2014 including the central equipment with DO-260, DO-260A (NIC, NUC)The ADS-B is expected to be ready for ATC operation by 2015 in Mongolia.

2. DISCUSSION

2.1 GNSS implementation

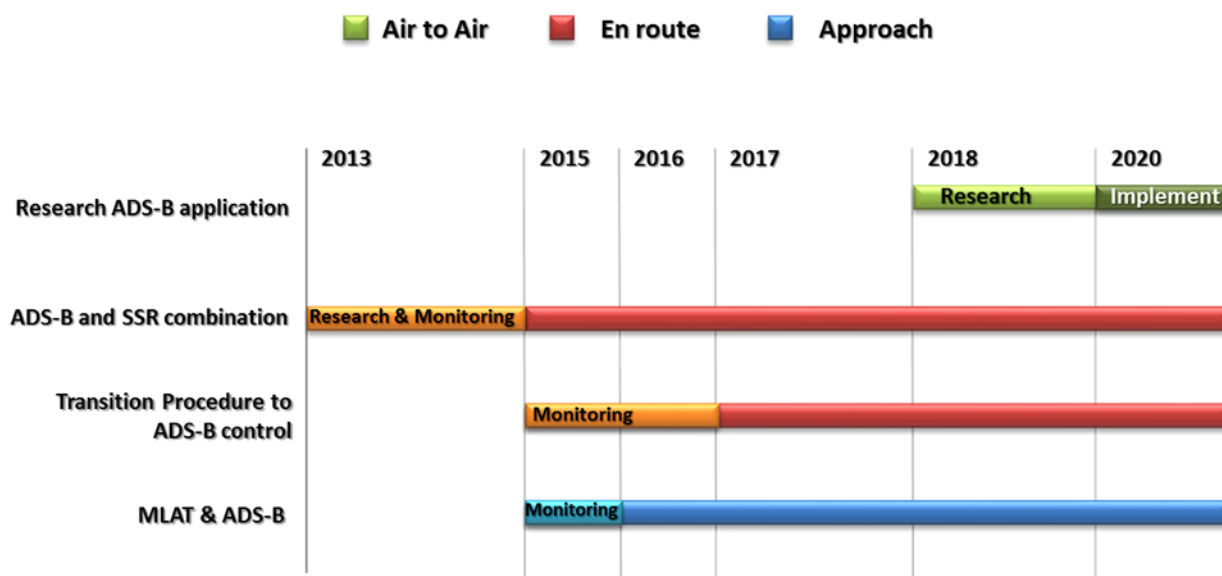
2.1.1 For GNNS implementation, GNSS monitoring system has been installed in Ulaanbaatar city, Mongolia so far. We are monitoring the GNSS system, and receiving data every

week. The data reports show that GPS satellites visibility is clear which leads the dilution of precision level 2-5 (Good result is shown). This positional measurement makes the reliable in-route navigation suggestion. The testing and monitoring will continue until end of 2014.

2.2 ADS-B implementation

2.2.1 The monitoring and testing of the ADS-B result shows 94% of tracking aircrafts. Mongolia concerns about the unexpected risk when connecting recent ADS-B to hot operating automation system in ATC. Therefore, for further monitoring process, we are planning to purchase and install 5 more ADS-B including the central equipment. We expect that the end of the 2014, we will be using 10 ADS-B with NIC NUC to monitor and receive appropriate results for the ADS-B implementation plan.

2.2.2 The ADS-B implementation plan schedule by Mongolia



3. ACTION BY THE MEETING

3.1 The meeting is invited to:

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