



ICAO

International Civil Aviation Organization

**Thirty-Second Meeting of the Asia/Pacific Air Navigation  
Planning and Implementation Regional Group  
(APANPIRG/32)**

Video Teleconference, 1 – 3 December 2021

Schedule: 10:00 – 13:15 Bangkok Time [UTC+7]

**Agenda Item 3: Performance Framework for Regional Air Navigation Planning and  
Implementation**

**3.4: CNS**

**ADS-B IMPLEMENTATION**

(Presented by Mongolia)

**SUMMARY**

Automatic Dependent Surveillance-Broadcast (ADS-B) will be used to provide ATS surveillance separation in the airspace of Mongolia.

*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 The Civil Aviation Authority of Mongolia has implemented the ADS-B system since 2014.

1.2 According to our implementation plan, the Automatic Dependent Surveillance-Broadcast (ADS-B) system was firstly introduced in 2016 for air traffic situational awareness. Since 2018, ADS-B has been used in combination with secondary surveillance radar without requiring ADS-B out from aircrafts. The official use of ADS-B equipage being mandatory in Mongolia was initially planned to be operational from June 17, 2021. However, due to the pandemic situation and to fulfill the requirements set forth by the Aviation Safety and Oversight Regulation Department of Civil Aviation Authority of Mongolia, the date was postponed until November 4, 2021.

1.3 Starting from 04 November 2021, the implementation of ADS-B in Mongolia is to be applied in Class A airspace within ADS-B coverage above FL290.

**2. DISCUSSION**

2.1 Currently, the secondary surveillance radar covers 75 percent and the ADS-B covers 95 percent of the whole territory of Mongolia.

2.2 GPS outage was the main concern when implementing ADS-B system for our ATS surveillance. Consequently, Air Accident Investigation Bureau and Aviation Safety and Oversight Regulation Department of Mongolia had issued a safety recommendation. In order to implement the safety recommendation set by Civil Aviation Authority of Mongolia, safety assessment and risk assessment were conducted.

2.3 Due to the pandemic, number of commercial flights has decreased considerably and in contrast, the number of cargo flights passing through Mongolian airspace has increased. As a result, the research data on the detection rate of the ADS-B system has decreased to some extent.

2.4 ADS-B equipment for flight is mandatory in the airspace of Mongolia. To alleviate the pressure on airlines to equip their aircraft with ADS-B out in the difficult times of a global pandemic and to ensure the safety of an aircraft without an ADS-B equipage, coordination has been set to allow them flexibility in the Mongolian airspace. Experience of other air navigation service providers such as Hong Kong China and Singapore was of great assistance in this matter.

2.5 The use of GNSS in aviation is greater than ever before and along with it, the reliable operation of GNSS is of utmost importance to us to provide aircrafts with safe and efficient operation. Furthermore, training and developing our staff and personnel are essential in line with the increasing development of GNSS.

2.6 Reliable operation of GNSS and developing staff to meet the needs of innovation were brought forward by Civil Aviation Authority of Mongolia in the joint virtual meeting organized by United Nations and Mongolia, a workshop on the applications of global navigation satellite systems.

### **3. ACTION BY THE MEETING**

3.1 The Meeting is invited to note the information contained in this paper.

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