



ICAO

International Civil Aviation Organization

**Thirty-Third Meeting of the Asia/Pacific Air Navigation
Planning and Implementation Regional Group
(APANPIRG/33)**

Bali, Indonesia, Hybrid Meeting, 22 to 24 November 2022

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

3.4 CNS

CNS-ATM SYSTEM UPGRADE IN ULAANBAATAR FIR

(Presented by Mongolia)

SUMMARY

The following document represents implementation of major projects and technological upgrades in the field of Air navigation services by Civil aviation authority 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 In 2022, Civil Aviation Authority of Mongolia have created our own strategic plan “Seamless aviation-2030”.

1.2 Within the framework of the "Seamless Aviation-2030" strategic plan, we have redesigned our airspace successfully.

1.3 Air navigation equipment upgrades and ANS infrastructure developments are progressing successfully.

2. DISCUSSION

“Seamless aviation-2030” strategic plan

2.1 CAAM have created and started implementing our “Seamless aviation-2030” strategic plan which have been developed in accordance with global documents such as ICAO GANP, ASBU, Seamless ANS as well as regional civil aviation development planning and long-term "Vision-2050" policy of Mongolia.

2.2 “Seamless aviation-2030” includes following programs.

- Organic legislation
- Easy & busy airspace
- Blue sky
- Meta generation
- Ride high
- Charming airport

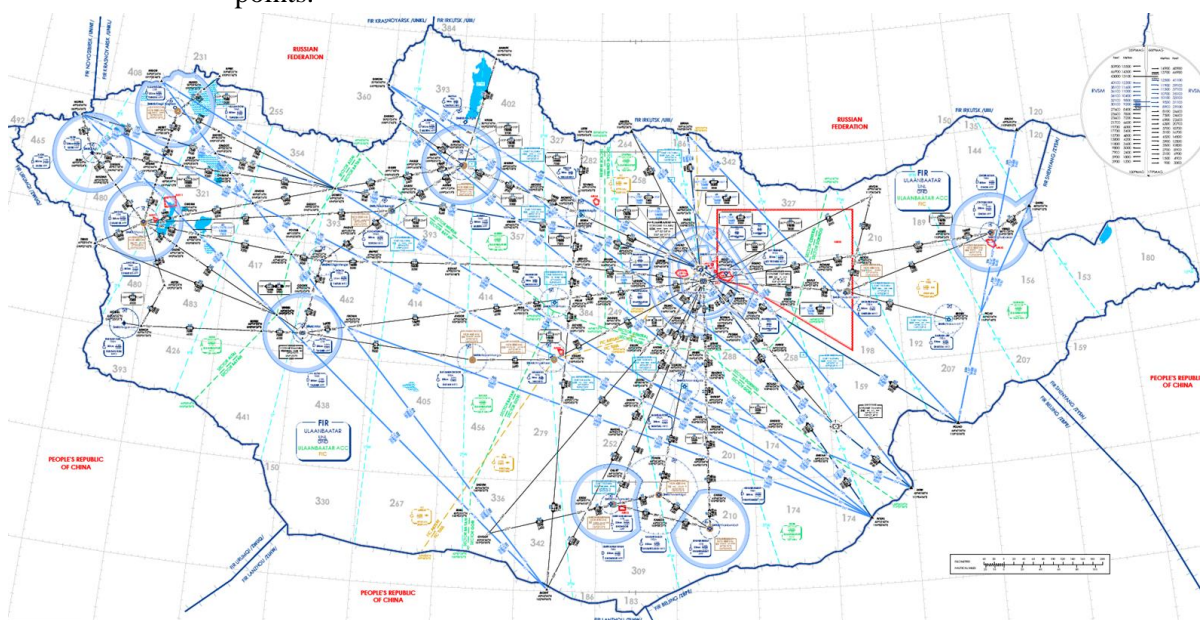


Redesign of Mongolian airspace

2.3 Within phase III of PBN, Mongolia redesigned its airspace with major changes.

2.4 Our new airspace design includes following upgrades and benefits:

- Based on the PBN, 6 new RNAV 5 routes are established.
- 84 conventional routes are reduced to new 33 direct conventional routes.
- As stated in Annex 11, Chapter 2, Appendix 2, we have Eliminated overlap of 5 letter name codes along the routes, and created a database of 98 new reporting points.

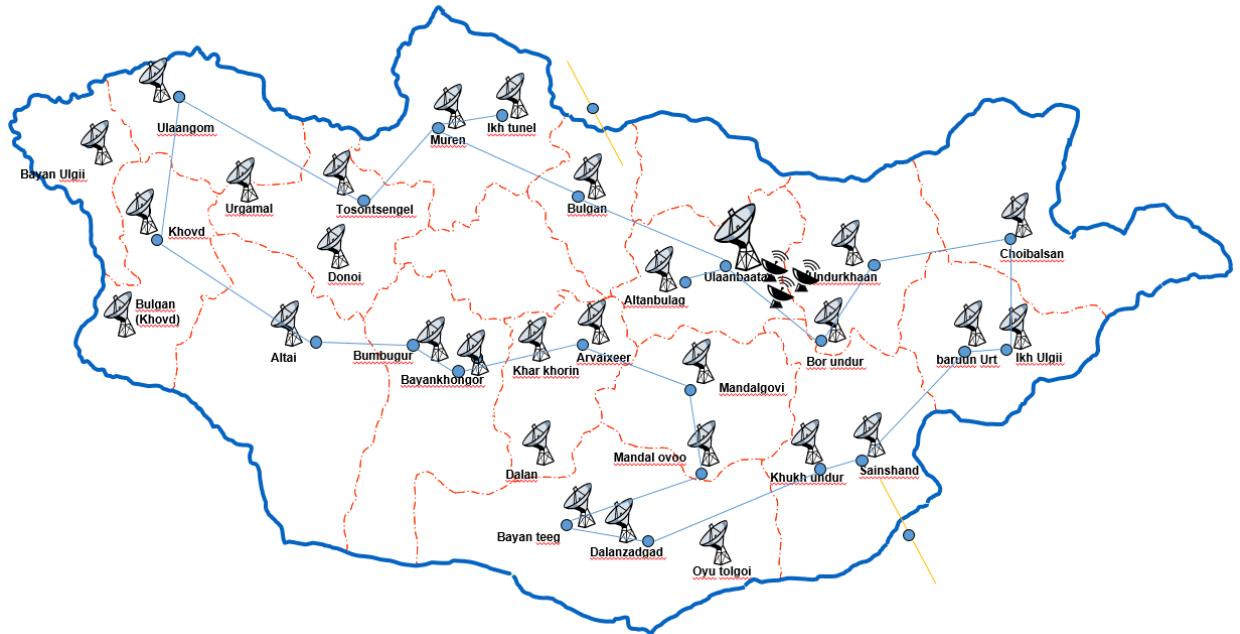


2.5 New routes and airspace design was effective of use from 6th of October this year.

Air navigation equipment upgrades and ANS infrastructure developments

2.6 The cooperation agreement was signed on October 5, 2022 with PCCW Global for CRV network connection. According to the contract, it has been agreed to start the service of package "D" offered by PCCW Global in the second quarter of 2023.

2.7 Due to intensive transition of air navigation service basic equipment to IP technology, the organization of the national VPN network of air navigation services in Mongolia has been started since 2021. Within the framework of this work, a total of 24 ground stations of space communication and a total of 23 remote stations of optical communication were fully transferred to IP technology.



2.8 Due to establishment of national VPN network for air navigation service of Mongolia, IP technology-based Voice communication switch (VCS) main equipment and air-to-ground IP technology-based remote controlled ultra-shortwave radio stations have been installed and using for operation.

2.9 Main stations of Aeronautical message handling system (AMHS) have been installed and technical trial has been successfully finished with Chinese side. In total there are 50 customers using AMHS locally we are working on the usage within 2022. AMHS has total of 50 domestic customers and we're working to start using it in operations by 2022.

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.

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