



ASSEMBLY — 37TH SESSION

PLENARY

Agenda Item 2: Statements by delegations of Contracting States and of Observers

OVERVIEW OF CIVIL AVIATION SECTOR ACTIVITIES IN MONGOLIA (Year covered: 2008-2010)

(Presented by Mongolia)

EXECUTIVE SUMMARY

This paper outlines the past three year overview of the aviation sector activity of Mongolia by presenting main development indicators of the sector and major projects implemented and the related actions taken.

1. INTRODUCTION

1.1 In preparation of the ICAO USOAP audit, a working group was appointed two years prior to the audit date. During the audit preparation period, MCAA worked closely with the related organizations including Civil Aviation Authority of New Zealand, Hong-Kong and Singapore for consultancy. Each protocol question was translated by a MCAA working group and was distributed to relevant departments for their review. An inspector in charge has created a file for each question and compiled all relevant materials for the report. About 80 percent of 61 rules, major operation manuals and technical documents in use were also amended accordingly.

2. ECONOMIC REGULATIONS

2.1 Mongolia's air transport industry focuses on passenger and cargo markets.

Activity volumes. Air passenger transport is the most important aviation activity and counts 88,400 passengers in the domestic market, and 450,000 in the international market. Traffic has actually declined in the domestic market since 1993 (in total 2.4% by 2009), but has been increased more than four times in the international market in the same period. Passenger travel is highly seasonal, with the summer months accounting for 43% of international traffic and a third of domestic traffic. International air cargo now amounts to about 3,000 MT, and has been growing fast (9.9% per annum since 1993), but from a very small base. Domestic air cargo volumes have greatly contracted since 1993 and are now only 34 MT per year (2009). International mail is about 500 MT per year.

Domestic Passengers. Mongolia's domestic passenger market is relatively small, and is actually shrinking over time as MIAT reduces service, as incomes decline. In 2009, small point-to-point destination-markets linking Ulaanbaatar with Aimag airports (e.g., Choibalsan, Mörön, etc.) made up the domestic market. The largest of these was Dalanzadgad, with 17,309 passengers (arrivals and departures) in 2009, and the smallest was Khara-Khorin (514 passengers). Only 5 destinations had over 10,000 passengers for 2009, and traffic has been declining in all destinations since the mid-1990's. Foreigners account for about 12% of domestic air passengers.

Air Transport Sector Policy Development. MRTCUD and MCAA have initiated a Mongolia Civil Aviation Sector Policy Development and Enhancement of Legal Environment Project, designed to establish a modernized policy and legal framework for the civil aviation industry. The overall purpose of the technical assistance is to assist the Government to develop a forward-looking policy environment to support the growth, sophistication and safety of civil aviation in Mongolia so that the sector may better serve the social and economic needs of the economy.

2.2 Trends in Mongolia's air transport services present opportunities and challenges for regulators, operators and policymakers. The international and domestic regulatory regime must be developed to maximize the industry's growth and development.

3. AVIATION SAFETY AND REGULATIONS

3.1 Actions related to the civil aviation safety and security

3.1.1 Within the reporting period, appropriate amendments to Civil Aviation Law of Mongolia have been made twice. Relevant amendments were made to the Civil Aviation Regulations in accordance with the identified differences between ICAO Annexes and national regulations to comply with SARPs.

3.1.2 In preparation of the ICAO USOAP audit, each protocol question was translated by a MCAA working group and was distributed to relevant departments for their review. An inspector in charge has created a file for each question and compiled all relevant materials for the report. About 80 percent of 61 rules, major operation manuals and technical documents in use were also amended accordingly.

3.1.3 SRD has introduced a Quality Management System in aviation safety and security in Mongolia. This system has been certified by the National Standardization Agency in accordance with ISO standard 9001:2000/ MNS 9001:2000. MCAA is the first government organization in Mongolia that is recognized by the National Standardization Agency in terms of the ISO standards compliance.

3.1.4 Upon implementation of the Quality Management System, an Internal Audit Unit was established in 2008. MCAA has successfully passed annual assessments that are performed by the National Standardization Agency.

3.2 Measures taken by civil aviation authority regarding civil aviation regulations and surveillance

3.2.1 Inspectors have conducted scheduled or unscheduled inspections on safety and security operations of all public and private aviation organizations in Mongolia.

3.2.2 Within the period given, SRD performed 200 scheduled, 100 unscheduled inspections respectively and has revealed 1,100 operational failures. It has also developed 2,000 safety

recommendations for air operators. Compared to past years, operational failures in civil aviation were declined by 1.6 percent in Mongolia.

3.2.3 With improved administration procedures, licensing and certification have been performed in accordance with relevant regulations. SRD responds to requests and comments submitted by air operators in a timely manner. Currently, there are 600 licensed personnel, 20 certified aerodromes and 20 air operators in Mongolia.

3.2.4 SRD has developed numerous regulations to encourage aircraft fleet renovations and expansions. During this reporting period, SRD registered Airbus A310-304 aircraft of MIAT Airlines; MI-171 helicopter of MAK Airlines; SAAB-340B aircraft of Eznis Airways and Fokker-50 aircraft of Aero Mongolia and issued airworthiness certificates to each aircrafts. Currently, 20 aircrafts are registered in the Mongolian Aircraft Registration and are operating within, to and from the Mongolian airspace.

3.3 **Miscellaneous**

3.3.1 In cooperation with ICAO COSCAP and BOEING company, MCAA jointly organized a “Ground Icing” seminar for air operators and other civil aviation related organizations within the framework of safety prevention actions.

3.3.2 In order for ensuring smooth professional services and improving safety surveillances, SRD has introduced advanced technology in its daily operations. For instance, integrated safety operation database, electronic library, “Digimaint”, “Hotline” and management program enable SRD to better regulate civil aviation safety operations and perform risk analysis at a professional level. In addition, SRD has modified its examination questions and computerized test procedures. As a result, quality of licensing and testing has been considerably improved. The number of mistakes, conflicts and any other incidents related to licensing has been declined. SRD is now able to use national regulations, documents and operational manuals of ICAO, FAA and EASE in DVD format.

3.3.3 Within the COSCAP-NA Program, SRD has been actively cooperating with other member countries. In compliance with ICAO safety recommendations, a “Pre-flight risk control checklist” was developed. SRD has updated and republished aviation certificates and licenses in accordance with ICAO safety amendments. An outdated typewriter for data entry was replaced with advanced equipment for fast and accurate services. With a “Non-punishment reporting system” in practice, operational failures and any other issues related to aviation safety have been decreased.

3.3.4 SRD has thoroughly studied the possibilities of introducing EASA standards and/or best practices which fit best into the Mongolian aviation legislation and safety conditions. Initial steps for further cooperations have been taken. In conclusion, in compliance with ICAO SARPs, SRD has been taking concrete actions to improve aviation safety and security in Mongolia. Thanks to a series of changes in administrative procedures and improvements in technology mentioned above, considerable progresses were made in the quality of safety regulations within the past three years.

4. AIR NAVIGATION PLANNING AND IMPLEMENTATION STATUS

4.1 Introduction

4.1.1 Major changes to ATM systems are necessary to cope with continued air traffic growth in Mongolian airspace and in the region.

4.1.2 Mongolia maintains its policy of increasing airspace capacity including the introduction of new technology surveillance systems, RVSM, RNAV, multiple tracks etc.

4.2 PBN implementation status in Mongolia

4.2.1 The ICAO Asia/Pacific Air Navigation Planning and Implementation Regional Group or APANPIRG adopted several conclusions to promote the use of Performance based Navigation (PBN) as the navigation element of CNS/ATM systems. This navigation technology and its specification have promising potentials to provide accurate, reliable and seamless position determination and navigation capabilities to airspace users.

4.2.2 Recognizing the benefits of PBN implementation prescribed in APAC PBN Implementation plan, Mongolia set up a Working group comprising relevant parties for studying on PBN Implementation.

4.2.3 The Working group is responsible for development of policy, implementation plans and implementation standards for the deployment of PBN procedures and operations in Mongolian airspace. It adopted three areas of responsibilities in regards to the PBN implementation as follows:

- Policy and Implementation Planning
- Development of Standards and Requirements in accordance with ICAO requirements
- Communication with Stakeholders

4.3 Status of RNAV operations and PBN implementation in Mongolia

4.3.1 The present ATS route network in Mongolia is generally connected by ground based navigation aids i.e. DVOR/DME and NDBs. Although a number of ATS routes have also been designated as RNAV routes, complete RNAV route network has not been set yet.

4.3.2 PBN Implementation Plan in Mongolian Airspace was approved by the Order A/85 of DC MCAA dated on 22nd May 2010.

4.3.3 According to PBN Implementation plan, 8 domestic airports (ZMBH, ZMCD, ZMDZ, ZMGT, ZMKD, ZMMN, ZMUG) and 1 Int'l Airport (ZMUB) will be RNAV1/RNAV2 operational by year 2014.

4.3.4 For the PBN arrival and departure operations basic RNP1 SID and STAR were planned to be implemented for 6 airports by year 2016.

4.4 RVSM implementation in Mongolia

4.4.1 The implementation of RVSM in Mongolian airspace is considered to be one of the most cost effective means to meet the air traffic need in shorter term. The expected benefits to be derived from the implementation of RVSM result include:

- Additional airspace capacity – more operational flexibility for ATC that they have the potential up to 20% more aircraft in some areas.
- En-route sector capacity increase – reduced in-flight delay
- Improved utilization of airspace for conflict resolution
- Fuel savings for airlines and air operators
- Environmental benefits from reduced fuel burn

4.4.2 Mongolia is situated between Russia and China, who have different Flight Level Allocation Systems. This situation requires from Mongolia careful study on FLAS, which could affect strongly on a day-to-day ATS operations and requires close coordination with neighbouring states and ICAO.

4.4.3 Initially, the Civil Aviation Authority of Mongolia has established the Working group on RVSM study and Implementation in 2009. Accessing the interim progress report of this group, MCAA concluded to activate implementation process and renewed the RVSM WG by the DG order on 20th August 2010. Mongolian RVSM Implementation plan was being developed by the RVSM WG. As it is noted in the plan, RVSM was intended to be implemented in Mongolian airspace by November 2011.

4.4.4 Major challenge of the RVSM implementation is on FLAS choice for Mongolia. Currently Mongolia has FLAS same with Russia. China and Russia use different flight levelling systems and they still have talks on harmonizing the FLAS between these two states. Mongolia is studying both FLASs and conclusion shall be made in October 2010.

4.4.5 Mongolia had contacted with MAAR, discussing issues of conducting safety assessment for RVSM implementation.

4.5 CNS/ATM Activities

4.5.1 Mongolia has installed three Monopulse-Secondary Surveillance Radars (MSSR) with Mode-S capability at Ulaanbaatar, Muren and Khentii positions. These radars will be served as a core surveillance system in congested areas to enhance surveillance capabilities and to increase airspace capacity.

4.5.2 For the enhancement of reliability of air navigation services, the Civil Aviation Authority of Mongolia developed a plan to install up to 12 DME stations and a number of VOR stations in Mongolia. According to this plan and for the enhancement of local airports' navaid services, 4 DVOR/DME stations were installed at Ulaanbaatar, Muren, Sainshand and Altai airports in 2009 for the airport and en-route flight operations. Two DVOR/DMEs are now fully operational which were installed along main routes.

4.5.3 Purpose of DVOR/DMEs is to use them as a reliable conventional navigation back-up system for the RNAV operations, as it will be a part of further DME network.

5. ACTION BY THE ASSEMBLY

5.1 The Assembly is invited to:

Note the materials presented in this paper.

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