



ASSEMBLY — 38TH SESSION

**ECONOMIC COMMISSION
TECHNICAL COMMISSION**

Agenda Item 38: Other issues to be considered by the Technical Commission

Agenda Item 43: Aviation Data — Monitoring and Analysis

OVERVIEW OF CIVIL AVIATION SECTOR IN MONGOLIA

(Presented by Mongolia)

EXECUTIVE SUMMARY

This information paper outlines the aviation sector activity of Mongolia by presenting the major developments and accomplishments in the sector and related actions taken by the Civil Aviation Authority (CAA) of Mongolia in addressing the challenges during the past triennium.

<i>Strategic Objectives:</i>	This working paper relates to the Safety, and Environmental Protection and Sustainable Development of Air Transport Strategic Objectives.
<i>Financial implications:</i>	Not applicable.
<i>References:</i>	

1. INTRODUCTION

1.1 This information paper outlines the aviation sector activity of Mongolia by presenting the major developments and accomplishments in the sector and related actions taken by the Civil Aviation Authority (CAA) of Mongolia in addressing the challenges during the past triennium.

1.2 The adoption of the State Policy on Civil Aviation in Mongolia up to the year 2020 for the first time was a major milestone for the civil aviation sector of Mongolia. The State Policy has outlined major objectives for the development of Mongolia civil aviation.

1.3 Mongolia remains committed to the strategic objectives of ICAO with respect to its goal of enhancing the global aviation safety and security, improving efficiency of aviation operations, minimizing adverse environmental impacts from air transport and strengthening the laws governing civil aviation.

2. ECONOMIC REGULATIONS

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

2.2 Activity volumes

2.2.1 Air passenger transport is the most important aviation activity and counts 340 024 passengers in the domestic market, and 781 000 in the international market. While air traffic has actually declined in the domestic market since 1993 (in total 8.6 per cent by 2012), it has increased more than seven times in the international market in that same period. Passenger travel is highest in the summer months accounting for 64 per cent of international traffic and 67 per cent of domestic traffic.

2.2.2 International air cargo now amounts to about 5 505 metric tonnes, and has been growing fast (11.9 per cent per annum since 1993), but from a very small base. Domestic air cargo volumes have greatly contracted since 1993 and are now only 204 metric tonnes per year (2012). International mail is about 905 metric tonnes per year.

2.3 Domestic passengers

2.3.1 Mongolia's domestic passenger market is relatively small, and is actually shrinking over time as MIAT Mongolian Airlines reduces its service, as incomes decline. In 2012, 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 Oyutolgoi, with 73 688 passengers (arrivals and departures) in 2012, and the smallest was Arbaiheer (23 passengers). Only sixteen destinations had over 340 024 passengers for 2012.

3. AVIATION SAFETY AND REGULATIONS

3.1 Introduction

3.1.1 In accordance with section 11.1 of the Civil Aviation Law of Mongolia 1999, civil aviation regulations shall apply in regulating civil aviation related services in conformity with international conventions and agreements to which Mongolia is a party.

3.1.2 Amendments have been made to the Civil Aviation Regulations in accordance with the identified differences between ICAO Annexes and national regulations to comply with Standards and Recommended Practices (SARPs)

3.1.3 The following amendments have been made to MCARs:

MCAR 65 "Air Traffic Service Personnel Licences and Ratings"

MCAR 12 "Air Transport Operation and High Capacity Aeroplanes"

MCAR 91 "General operation and Flight Rules"

MCAR 75 "Air Navigation Services Standards"

MCAR 67 "Medical Standards and Certification"

MCAR 141 "Aviation Training Organization and Certification"

MCAR 108 "Air Operator Security Programme"

MCAR 135 "Air Transport Operation and Helicopters and Low Capacity Aeroplanes"

3.1.4 The following forms have been adopted by the order of Director General of CAA:

CAA 301/01 “Request on Cargo Air Carrier Authorisation”

CAA 13101 “Request on Aeroplane Rental”

CAA 141/01 “Application for issue, renewal of Aviation Training Organization Certificate”

CAA 173/01 “Application for issue, renewal of Flight Procedure Service Organization”

CAA 174/01 “Application for issue, renewal of Aviation Meteorology Service Organization”

CAA 140/01 “Application for issue, renewal of Aviation Security Service Organization Certificate”

CAA 12/01 “Report on accidents and incidents”

CAA 91/01 “Application for approval, amendment of MEL”

CAA 138/01 “Registration of accident/incident reports”

3.1.5 The following advisory circulars have been developed, including:

AC 92-04 “Carriage of Dangerous Goods”

AC 43.09 “Modifications, repairs, and the Form CAA337”

AC 119.04 “Internal Quality Assurance”

AC 21.03 “Product certification Airworthiness certificates in the special category”

AC 171-01/02” Aeronautical telecommunication services- operation and certification”

AC 91.01-10 “Aviation events”

AC 103.01 “Micro light aircraft operating rules”

AC 119.01 “Air operator certification”

AC 61.07 “Pilot licences and ratings-Airline transport pilot licence”

AC 171.01/02 “Certification and management system of Air navigation Services Organization”

3.2 **Measures taken by the civil aviation authority with respect to surveillance**

3.2.1 Within the given period, Aviation Safety and Regulations Department (ASRD) of CAA of Mongolia performed 450 scheduled and 423 unscheduled inspections respectively, and revealed 1 043 non-conformities and findings. According to these non-conformities and findings, 1 404 inspection reports and 2 943 recommendations were forwarded to relevant organizations.

3.2.2 *Monitoring of chartered flights:* Based on the directives of the Director General of the Civil Aviation Authority of Mongolia (CAAM) and the Director of Aviation Safety Oversight and Regulations Department, the inspectors of ASRD conducted unscheduled inspections named after the Director General of CAAM.

3.3 **Licensing and certification**

3.3.1 *Aerodrome certification:* The Department of Aviation Safety Oversight and Regulations has performed inspections under MCAR 139 “Aerodromes certification and operation” at both international and domestic aerodromes and forty-two aerodrome certifications have been granted for a period of 6 to 12 months.

3.3.1.1 A total of fifteen aerodrome temporary permissions have been issued.

3.3.2 *Certification of air operators:* The Department of Aviation Safety Oversight and Regulations performed inspections in accordance with MCAR 119 and MCAR 129 and renewed air operator certificates to thirty-two air operators.

3.3.3 *Issuance of type acceptance certificate:* There have been thirteen type acceptance certificates issued.

3.3.4 *Issuance of new airworthiness certificate:* In total twenty-three airworthiness certificates have been issued.

3.3.5 *Airworthiness certificate renewal:* Seventy-nine airworthiness certificates have been renewed.

3.3.6 *Aircraft Radio Station and Noise Certification:* Twenty-three aircraft radio station and noise certifications have been issued.

3.3.7 *Certification of supply organizations:* A total of twenty-four supply organizations have been certified by the Department of Aviation safety, oversight and regulations.

3.3.8 *Personnel Licensing:*

No	License type	AMO personnel	Pilots	ATC-Flight service operator	ATC-Flight service operator	Total
1	Renewal	239	289	122	325	975
2	Issue of validation	22	73	-	-	95
3	Issue new license	67	41	67	43	218
	Total	328	403	189	368	1288

3.3.9 *Issuance of Certificate renewal and of Medical Certificate:*

No	License	Total
1	Class 1 medical certificate	332
2	Class 2 medical certificate	16
3	Class 3 medical certificate	486
	Total	834

3.3.10 *Certification of aviation training organizations:* A total of seventeen foreign training organizations and four local training organizations have been accepted and certified by CAAM.

3.4 **Documentation review and confirmation**

3.4.1 In total 631 (259 in 2011, 261 in 2012, and 111 in 2013) regulations, manuals and programs such as operational manuals, flight operations manuals, passenger and cargo manuals, dangerous goods manuals, technical maintenance manuals, technical maintenance programs, safety programs, emergency operation regulations, safety manual, MEL, training manuals of airline operators and service companies were reviewed and confirmed within the reporting period.

3.5 **Proficiency of English language used for radiotelephony communication**

3.5.1 National level of implementation

3.5.1.1 In accordance with the directives of the Director General, CAAM organized a task force in charge of implementing the ICAO language proficiency requirements. As the State oversight of aviation language training was established, the CAA of Mongolia has conducted the language benchmarking tests to define English language proficiency in pursuance with ICAO requirements in both 2010 and 2011. According to the benchmark test results, air traffic controllers and pilots were trained in appropriate language courses, and starting from February 2011, the licensing test was conducted.

3.5.2 Language proficiency training programmes

3.5.2.1 Within the reporting period the air traffic control services as well as airlines have conducted English language training for their air traffic controllers and pilots at local training centres, the Australian RMIT English worldwide language course and the aviation training centre at Florida Technological Institute, United States.

3.5.3 Language Proficiency Assessment (or Testing) for Licensing Purposes

3.5.3.1 A state oversight of aviation language assessment was established and the English language assessment for licensing purposes was conducted quarterly. In 2011 CAAM made a test contract with Anglo-Continental Educational Group (ACEG), Bournemouth, United Kingdom. As the Anglo-Continental Educational Group offers a test of English for aviation personnel (TEAP) which is widely used to assess the language competency of pilots and air traffic controllers in accordance with the ICAO Language proficiency rating scale the language proficiency assessment was developed by ACEG, but administered by the Civil Aviation Authority of Mongolia.

3.5.4 Compliance of ICAO language proficiency requirements

3.5.4.1 Mongolia is now fully compliant with the ICAO requirements for language proficiency. No differences exist between the national regulations and practices of Mongolia and language provisions in Annexes 1 — *Personnel Licensing*, 6 — *Operation of Aircraft*, 10 — *Aeronautical Telecommunications* and 11 — *Air Traffic Services*.

3.5.5 Internal audit

3.5.5.1 The plan of correction work of incompliance was developed and approved according to the results of the assessment audit work conducted by the National Standardization Measurement Centre and relevant works have been performed according to the plan.

3.5.5.2 The meeting of the quality management committee of the department discussed the auditing results and quality management committee's analysis and meeting conclusion were done.

3.5.6 Measures of eliminating ICAO differences discovered by ICAO audit

3.5.6.1 The plan of measures to be taken for eliminating the differences discovered as a result of the audit conducted by ICAO was approved and delivered to ICAO.

3.5.6.2 The report of the working group, which analyzed the law on use of air space for aviation and the law on civil aviation, and identified the duplications, omissions and violations, was submitted to the State Administrative Management Authority of the Ministry of Road and Transportation (hereinafter called as MORT).

4. AIR NAVIGATION PLANNING AND IMPLEMENTATION STATUS

4.1 Introduction

4.1.1 This section provides a summary of air traffic control (ATC) surveillance system planning and implementation in Mongolia.

4.1.2 The objective of ATC surveillance system implementation plan is to enhance flight safety and airspace efficiency through the modernization of Mongolian ATM system, its facilities and interacting systems, and the establishment and development of Mongolian Air Navigation System based on state-of-the-art equipment and technologies in accordance with ICAO SARPs.

4.1.3 Mongolia is using secondary surveillance radar (SSR) Mode S and automatic dependent surveillance — broadcast (ADS-B) and system (ES) technologies for ATC services, amongst other surveillance technologies suitable for the delivery of ATC services for aircraft separation.

4.1.4 Planned ADS-B system provides situational awareness and streamline for ATC operations which will provide radar-like aircraft separation in the future.

4.1.5 The training centre of the CAA of Mongolia became an associate member of the ICAO TRAINAIR PLUS programme in March 2013, opening up vast opportunities in training ATCs, employing international study training packages (STPs) and developing our own STPs. The training centre is seeking to obtain the full membership of the ICAO TRAINAIR PLUS program for the year 2014.

4.2 Secondary Surveillance Radar implementation and planning

4.2.1 At present, three SSRs have been installed and are being operated for ATC separation for en-route since 23 August 2012.

4.2.2 By 2013, CAAM plans to implement and operate two more SSRs to expand the airspace radar surveillance coverage. These two SSRs have been installed and are in the process of being integrated with the existing ATM automation system. By the end of 2013, Mongolia will be having five operational SSRs for en-route ATC services.

4.3 ADS-B implementation plan

4.3.1 ADS-B Mode-S ES technology is one of the most cost effective and fundamental technology in enhancing aviation safety and achieving the efficiency objectives.

4.3.2 Five ADS-B ground stations have been installed in the first quarter of 2013. These ADS-B ground stations will be covering the same surface area as the existing SSR.

4.3.3 Six ADS-B ground stations have been installed in the second half of 2013. ADS-B stations were installed in the existing VHF radio communication facilities.

4.4 **En-route ATC surveillance implementation strategy**

4.4.1 The table below illustrates the overall CAAM ATC surveillance implementation plan for en-route flights.

	2012	2013	2014	Operational
SSR	3	2		3 of 5
ADS-B		11	5	0 of 16

5. **AIRPORT SERVICES**

5.1 **Introduction**

5.1.1 This paper presents reports on airport services in Mongolia for the last three years, prepared by the Airport Services Department of Civil Aviation Authority of Mongolia.

5.2 **Airport system and statistics**

5.2.1 As of 2012, there are twenty-two airports in Mongolia, three of them are private airports and nineteen airports are owned and operated by the CAAM. Sixteen airports are considered operational and six others are no longer functional for regular flights. Only eight airports have paved runways and runway lighting systems. Chinggis Khaan International Airport is the only international airport in Mongolia. It is the largest international air facility in the country and the only facility to offer scheduled international flights.

5.2.2 The airport statistics for the last three years are shown below;

		2010		2011		2012	
		International	Domestic	International	Domestic	International	Domestic
Passenger Volume		531 804	138,979	660 853	231 539	758 841	340 024
		670 783		892 392		1 098 865	
Cargo Traffic	Freight	3 855	67	5 250	202	5 505	204
		3 921		5 452		5 709	
	Mail	443	116	654	118	781	124
		559		772		905	
Aircraft movements		5 052		6 101		6 354	

5.2.3 The airport passenger numbers had reached in 2012, 1 098 865 and increased by 23.1 per cent from the previous year. The cargo traffic increased by 4.7 per cent and aircraft movement has increased 7 per cent upper that previous year.

5.2.4 Over the last years, constantly is observed the annual traffic growth rates between 25 to 30 per cent with regards to passenger and cargo volumes.

5.3 **Measures taken by civil aviation authority for airport development and its infrastructure**

5.3.1 The Civil Aviation Authority of Mongolia has implemented the airport development projects to modernize and upgrade airports of Mongolia for the last three years and the Airport Services Department has put under control the following airport projects;

5.3.2 New Ulaanbaatar International Airport Construction in Hushigiin Hondii, Sergelen soum of Tov aimag, is funded by a loan from Japan Bank for International Cooperation (JICA). JICA has completed technical and financial studies, as well as on loan terms and justification since November of 2006 and reported the final analysis. The construction of the new airport officially started on 12 June 2013. It will be operational in 2016.

5.3.3 Constructing two new domestic terminals; Deglii Tsagaan Airport in Uvs province and Altai Airport in Gobi-Altai province. Both terminals were completed in 2012.

5.3.4 The paved runway construction in four western domestic airports; Donoi, Altai, Ulgii and Ulaangom. Priority was given to providing paved runways, taxiways and aprons, and installing airfield lighting systems in the four top priority domestic airports in Mongolia. Two of the constructing paved aerodromes Ulgii and Ulaangom were completed in 2012 and other two are ongoing.

5.3.5 Extending the international passenger terminal and cargo terminal at Chinggis Khaan International Airport

5.4 **Customer satisfaction**

5.4.1 Two airports Chinggis Khaan International Airport, Murun airport and also Ground Handling Service of Civil Aviation of Mongolia had received ISO 9001-2000 certification within the reporting period.

6. **ACTION BY THE ASSEMBLY**

6.1 The Assembly is invited to note the information presented in this paper.

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