International Civil Aviation Organization

WORKING PAPER

ASSEMBLY — 37TH SESSION

ECONOMIC COMMISSION

Agenda Item 53: Economic Analysis

AVIATION STATISTICS INFORMATION MANAGEMENT SYSTEM: INDIAN CONTEXT

(Presented by India)

EXECUTIVE SUMMARY	
This paper gives details of the civil aviation related data collected and maintained in India, its sources and dissemination in accordance with ICAO prescribed forms pertaining to civil aviation. The data is utilized for planning and policymaking in India including research.	
Strategic Objectives:	This working paper relates to Strategic Objectives D — Efficiency — Enhance the efficiency of aviation operations.
Financial implications:	Not applicable.
References:	

1.   **INTRODUCTION**

1.1   *Aviation Statistics* describes the development of the air transport sector with regard to infrastructure, aircraft, traffic and transport, accidents and environmental effects. Statistical database on International Air Transport was incorporated under the statutory provisions (Articles 54, 55 and 67) of the Chicago Convention (1944) on *International Civil Aviation* to foresee the need for countries to have reliable and complete data. Since then the aviation statistical database system has continued to evolve in collection, processing and analyzing the key performance pertaining to airlines, airport and air navigation system (ANS) for an efficient, safe and secure development and growth of the civil aviation industry.

1.2   In India, the Ministry of Civil Aviation is responsible for the formulation of national policies and programmes for development and regulation of civil aviation and for devising and implementing schemes for orderly growth and expansion of civil air transport. Its functions also extend to overseeing the provision of airport facilities, air traffic services and carriage of passengers and goods by air. Two major organizations maintaining data on civil aviation in India are the Directorate General of Civil Aviation and the Airports Authority of India.

2.   **DATA COLLECTED BY DIRECTORATE GENERAL OF CIVIL AVIATION (DGCA)**

2.1   The Directorate General of Civil aviation is the principal regulatory body in the field of civil aviation. The Statistics Division of the Air Transport Directorate in DGCA is responsible for maintaining data on aviation parameters. Schedule XI of the Aircraft Rules, 1937 lays down that every person to whom a permit has been granted by DGCA under the Schedule shall submit to the DGCA the following:

        a) monthly returns regarding the operations of the permitted air transport services; and

        b) annual returns showing the financial results of the services or operations during each calendar year.

2.2   In compliance of the regulations, the Statistical Division collects data pertaining to Civil Aviation from various sources viz. National Carriers, Private Operators – both scheduled and non-scheduled, Foreign Airlines and airports. About 3600 returns are received every year.

2.3   At present 11 airlines are operating (four public carriers and 7 private carriers). Of these, three national carriers and three private carriers operate on international routes also. Data from the scheduled air carriers is collected as per ICAO Forms A, AS, B, C, D and EF. In addition, monthly data is also collected pertaining to on-time performance and average rate of flight cancellations from the scheduled domestic airlines.

2.4   Besides the Indian carriers, there are more than seventy airlines operating to and from India. Monthly data on flights operated, number of passengers and amount of freight carried is collected from these foreign airline. Passenger and freight traffic for the country as a whole as also city-pair and country wise are published annually.

2.5   There has been a steady growth of non-scheduled operators in India from 36 in 2000 to 122 as on date. Monthly information on the number of flights operated and the passengers carried by these non-scheduled operators is collected. From the financial year 2008-09, data is also being collected as per ICAO prescribed forms A, D and EF.

2.6   India, currently, has 81 Domestic Airports, 24 Civil Enclaves, 8 Custom Airports, and 17 International Airports. Data is collected every month from each airport on the aircraft movement, passengers embarked and disembarked and freight & mail loaded and unloaded.

2.7   Besides the Statistics Division of DGCA, directorates of Air Safety and Airworthiness maintain data on incidents/accidents and Civil Aircraft Register respectively. Directorate of Air Safety maintains for each incident and accident, information on type of aircraft, date and time and location of the accident, damage to aircraft, persons on board and injury index. Accident data is also maintained airlinewise for the 11 scheduled domestic operators (4 National Carriers and 7 private operators) and by the nature of flight. Directorate of Airworthiness maintains an Aircraft Register with details like registration number, type and other details of the aircraft, date of registration or de-registration, details of owner/operator etc. This data is compiled in Form H of ICAO and forwarded every year by the Statistics Division of DGCA.

3.   DATA COLLECTED BY AIRPORTS AUTHORITY OF INDIA (AAI)

3.1   Corporate Planning and Management Services Division of Airports Authority of India (AAI) is responsible for collection and compilation of airport statistics. It, in turn collects data from the statistical units of the various airports, both domestic and international. AAI also collects data on aircraft movements, passengers embarked, disembarked and in transit and cargo loaded and unloaded from each airport. Review of traffic data is brought out monthly, quarterly and annually.

3.2   Air Navigation System is provided by Airports Authority of India (AAI), who has the primary responsibility of managing en-route facility services. Data on over flying traffic is maintained and sent to the Air Traffic Management (ATM) Unit of AAI. Radar data is also being collected by the ATM unit from 12 airports currently on international and over-flying traffic. Parameters like date and time of departure, flight identification, type of aircraft, destination, flying level in 100 ft, exit point from India and the time of exit are being collected. Aircraft data through radar is stored for 30 days only, after which it is deleted from the system.

4.   DATA DISSEMINATION

4.1   Data collected and compiled by DGCA and Airports Authority of India is widely disseminated through publications as well as electronically. The various publications brought out are:

    a)   India Air Transport Statistics brought out Annually by DGCA;

    b)   Civil Aviation Aircraft Accident Summary brought out Annually by DGCA;

    c)   Review of Traffic at Indian Airports brought out Annually by AAI;

    d)   Quarterly Review of Traffic by AAI; and

> e) Traffic Reporter brought out Monthly by AAI.

4.2   Reports prepared by DGCA are available on DGCA's website http://dgca.nic.in. The air transport statistics reports are available on the website from the year 1997-98 onwards while aircraft accident reports are available since year 1990. Besides the reports, monthly statistics collected as per ICAO Form A from the Indian carriers is also posted on this website.

5.   **NEW INITIATIVES**

5.1   A proposal on IT-led solution for DGCA activities is under preparation. The proposed system is expected to fully automate collection and entry into the system database of the periodic data being gathered. It would provide facilities to the entities for downloading data form as and when required and upload their data file as per the format provided by DGCA. Software to include preliminary data analysis and graphical representation of data would also be developed.

5.2   AAI has been following the ICAO forecasting methods to forecast aircraft movements and passengers and freight handled at airports. The office of DGCA has set up a Committee of Experts on Air Transport Forecasting/Planning in India to bring quality and reliable forecasting of Air Traffic and to act as a Think Tank of Civil Aviation Industry. The committee has representatives of AAI, Central Statistical Organisation, Planning Commission, CAPA, Airbus, Private Airports, Cargo Association and Indian Statistical Institute as its members.

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