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WORKING PAPER

TENTH SESSION OF THE STATISTICS DIVISION

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Agenda Item 4: Airport traffic data

COLLECTION AND COMPILATION OF CIVIL AVIATION STATISTICS — INDIA CONTEXT

(Presented by India)

SUMMARY

ICAO has prescribed various forms to collect data pertaining to civil aviation. This Working Paper attempts to give details of the civil aviation related data collected and maintained in India, its sources and dissemination. The data so collected is used by the Ministry in planning and policymaking. This data is also used by other related departments and researchers. It also talks about the various gaps in the data being collected. Some of these gaps are based on the requirements of other Ministries/Departments.

Action by the division is in paragraph 7.

1. INTRODUCTION

1.1 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.

1.2 Two major organizations maintaining data on civil aviation in the country are 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. It is responsible for regulation of air transport services to/from/within India; formulation

[1] Provided by India

and enforcement of civil air regulation; air safety and airworthiness standards; and coordination of all regulatory functions with International Civil Aviation Organisation (ICAO). This organization is headed by the Director General Civil Aviation who is assisted by Joint Director Generals and Deputy Director Generals. The Director General has ten Directorates under him. The Statistics Division of the Air Transport Directorate is responsible for maintaining data on aviation parameters.

2.2 Besides the Chicago Convention, 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.

In compliance of the Chicago convention and the Aircraft Rules, the Statistical Division collects data pertaining to Civil Aviation from various sources viz. National Carriers, Private Airlines – both scheduled and non-scheduled, Foreign Airlines and airports.

2.3 Up to late 1980s, the Air Transport Sector was the monopoly of Government owned airlines namely Indian Airlines for domestic sectors and to neighbouring countries and Air India for International Operations. Later as a result of Economic reforms, Air Transport Sector was thrown open to private airlines also. In the early 1990s, two private companies took to commercial operations. Air Transport Sector took a big leap with the arrival of low cost carriers (LCC) in 2003. At the moment 12 scheduled airlines are operating (four public carriers and 8 private carriers). Of these, two national carriers and three private carriers transport international passengers as well. Data from these scheduled air carriers is collected as per ICAO forms A, AS, B, C, D and EF. In addition, data is also collected on on-time performance and average rate of flight cancellations from the scheduled domestic airlines on a monthly basis.

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

2.5 The number of non-schedule operators has been steadily growing and has increased from just 36 in 2000 to 122 as on date. Number of flights operated by each as also the passengers carried is collected monthly. 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 92 Airports in operation, of which 17 are International Airports. Data is collected every month from each airport on the aircraft movement, passengers embarked and disembarked and freight & mail loaded and unloaded. Airport Authority of India (AAI) also forwards data to ICAO in their Form I. Besides, Airport Financial Data, data on Air Navigation Services and En-route Services are also collected as per forms J, K and L of ICAO from AAI by DGCA and forwarded to ICAO.

2.7 Volume of data managed by the Statistical Division: About 3700 returns are received every year. The details of the various returns are given in table below:

TABLE-1: Break-up of Returns Received Every Year

S.No	Name of FORM	Classification	Frequency	Total No. of Returns received
1	A	Traffic Data	12 every month	144
2	B	Origin-Destination	12 every month	144
3	C	Traffic by Flight Stage (Only International Operations)	5 ever year	5
4	D	Fleet & Personnel	12 every year	12
5	EF	Financial Data	12 every year	12
6	H	Civil Aircraft on Register	Annually	1
7	I	Airport Traffic (International Airport)	17 every year	17
8	I	Airport Traffic (Domestic Airport)	80 every month	960
9	J, K & L	Airport Financial data, Air navigation services, En-route services by AAI	3 every year	3
10	I-S	Airport Summary	Annually	1
11	Foreign Airlines	Monthly returns	70 every month	840
12	NSOP (Form A)	Monthly returns	120 every month	1440
13	NSOP (Form B)	Annual Returns	120 every year	120

2.8 Besides the Statistics Division of DGCA, other Directorates viz., Air Safety and Air Worthiness 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 airline wise for the 12 scheduled domestic operators (4 National Carriers and 8 private operators) and by the nature of flight. The data so maintained is brought out annually in their Report titled "Civil Aviation Aircraft Accident Summary". Directorate of Air Worthiness 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 to them every year by the Statistics Division of DGCA.

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

3.1 Airports Authority of India (AAI) was constituted by an Act of Parliament and came into being on 1st April, 1995 by merging erstwhile National Airports Authority and International Airports Authority of India. AAI manages all the airports in the country including international airports, domestic airports and civil enclaves at Defence airfields. AAI also provides Air Traffic Management Services over entire Indian Air Space and adjoining oceanic areas with ground installations at all airports and 25 other locations to ensure safety of aircraft operations. All major air-routes over Indian landmass are Radar covered (24 Radar installations at 11 locations).

3.2 Corporate Planning and Management Services Division of 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.

3.3 Air Navigation System is controlled by the Air Traffic Controller (ATC), 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 & 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.

3.4 Airports Authority of India prepares traffic forecast for all Indian Airports and review it as per needs. AAI also publishes traffic forecast viz-a-viz airport capacity for all Indian Airports at an interval of two-and-a-half years. AAI maintains data on capacity of passenger and cargo terminals at each of the Indian Airports. AAI also carries out traffic potential studies for green field airports and expansion of existing airports besides conducting Operations Research Studies and other economic studies of the Indian Airports. AAI also carries out periodic customer satisfaction and bench marking surveys of Indian Airports.

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.

Both the Reports of DGCA are uploaded on the website of DGCA www.dgca.nic.in. Besides the Reports, monthly statistics collected as per ICAO Form A from the Indian carriers is also put on this website.

5. NEW INITIATIVES

5.1 In July 2009, an All India Committee on Air Transport Experts was set up under the chairpersonship of the Director General of Civil Aviation to bring quality and reliable forecasting of Air Traffic and to act as a Think Tank of Civil Aviation Industry. The objective of the Committee is to develop a model to forecast air traffic in the country, both domestic and international, to support air navigation system planning. The committee, besides forecasting would also look into the following aspects:

a) growth trend of the industry comparing with other regional corridors;

b) growth trend of Air Trade Services Bilateral Agreement;

c) economic Oversight of Airlines;

d) airport Infrastructure Capacity Building; and

e) impact of tourism on Air traffic.

5.2 Efforts are also being made to automate collection of data from the airlines and airports in the proforma as prescribed by ICAO/DGCA and develop software to include preliminary data analysis and graphical representation of data which is so far lacking in the DGCA's annual Reports. Program to enable users to retrieve data as required by them is also under consideration.

6. DATA GAPS

6.1 Office of the Director General of Civil Aviation is the main source of civil aviation statistics. But DGCA is dependent on the airlines and the airports for primary data. Whenever data is to be collected from different sources, there is always a time lag. However, due to persistent efforts this time lag has been narrowed down to a great extent. The time lag is only up to two months in respect of operation statistics but as regards financial data, there is still a lag of almost a year.

6.2 On the freight carried, there is a demand for classification of cargo carried by the type of goods carried. This is required both for the domestic as well as the international flights to study the pattern of trade within the country and among countries. National Statistical Commission set up by the Government of India to strengthen the statistical system in the country also recommended collection of commodity-wise details of Domestic Cargo on the pattern of International Cargo.

6.3 The airports statistics need to be strengthened by including data on airports origin/destination, capacity vis-à-vis demand at airports, terminal side, airside and air space and cargo terminals, terminal area and employees at airports.

6.4 As of now, data collected in the civil aviation sector pertain to the airports' and airlines' operating and financial statistics only. Data on passenger profile and the purpose of travel is not compiled. There is a demand for this data from the tourism sector. This data is also useful in forecasting. Further,

data segregated by sex on passenger traffic and civil aviation personnel is also becoming important in the light of increasing stress on Gender Mainstreaming by all sectors of the economy.

7. ACTION BY THE DIVISION

7.1 The division is invited to consider if any of the gaps identified in this paper can be included in the data being collected by the Statistics Division of ICAO.

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