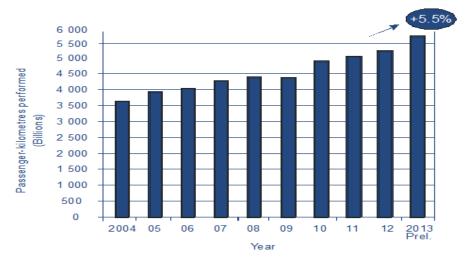
CHAPTER 23 CIVIL AVIATION

- 23.1 The World of Air Transport 2013: As per International Civil Aviation Organization,ICAO, Global air traffic has doubled in size every 15 years since 1977 and, between now and 2030, it is poised to double again. The 3.1 billion airline passengers carried in 2013 are expected to grow to about six billion by 2030, and the number of departures is forecast to grow from 32 million in 2013 to some 60 million in 2030. Overall air traffic growth in 2013 was supported by positive economic prospects worldwide, based on a 2.5 per cent increase in the world real Gross Domestic Product (GDP) according to IHS Global Insight estimates. In 2013, world total scheduled passenger-kilometres performed increased by about 5.5 per cent over 2012 international and domestic services combined according to preliminary traffic statistics compiled by ICAO. The number of passengers carried rose to 3.1 billion, which is 4.5 per cent higher than last year, while the number of departures reached 32 million globally in 2013, a 1.2 per cent increase compared to 2012.
- 23.2 In terms of total scheduled passenger-kilometres performed international and domestic services combined Asia/Pacific remains the largest Region with 31 per cent of the world traffic, posting 7.7 per cent growth in 2013. Europe ranks second with 27 per cent of the world traffic and grew at 4.6 per cent over 2012. North America accounts for 26 per cent and grew at 2 per cent year-on-year. The Middle East Region recorded once again the highest growth rate with 11.2 per cent and represents 9 per cent of the world traffic. The Latin America/Caribbean Region accounts for 5 per cent of the world traffic and grew at 6.7 per cent. The rest of the world traffic (2 per cent) is performed by airlines of the African Region, growing at 4.4 per cent in 2013.
- 23.3 Specifically, in terms of passenger-kilometres performed, international scheduled traffic grew by 5.7 per cent in 2013. The largest increase was registered by airlines of the Middle East, with 11.1 per cent growth, followed by those of the Latin America/Caribbean Region (8.2 per cent), the Asia/Pacific Region (6.3 per cent) and Africa (4.7 per cent). International traffic of Europe and North America grew by 4.5 and 2.8 per cent, respectively. These relatively low growth figures of Europe and North America compared to the world average relate, however, to more than 50 per cent of the world international traffic and therefore still represent a significant increase in absolute terms.
- 23.4 In terms of domestic scheduled air services, all Regions experienced an increase in traffic and markets overall grew by 5.1 per cent in 2013. North America is still the world's largest domestic market with 45 per cent of the world domestic scheduled traffic. The Asia/Pacific Region benefited from an increase of 11.8 per cent in the domestic Chinese market.

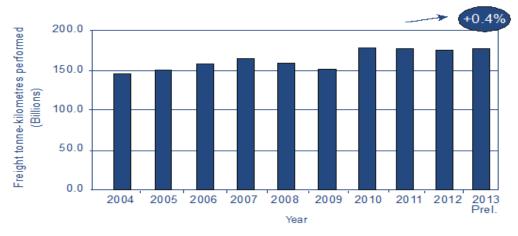
Total scheduled traffic passenger kilometres performed worldwide



23.5 Capacity offered by the world's airlines, expressed as available seat-kilometres, increased globally by 4.8 per cent. While capacity growth ranged from 1.7 per cent in North America to 11.7 per cent in the Middle East, the average global load factor increased by 0.5 percentage points compared to 2012, ranking from 69 per cent for Africa to 83 per cent for North America. The average global load factor reached 79.4 per cent in 2013. The total number of departures on scheduled services grew slightly at 1.2 per cent compared to 2012. This small increase of the number of flights compared to traffic growth, coupled with the improvement in the passenger load factors reflects a more efficient management of airline operations.

23.6 Air freight, expressed in terms of freight tonne-kilometres performed, posted an increase of 0.4 per cent with approximately 49.3 million tonnes of freight carried in 2013. The carriers of the Middle East recorded overall double digit growth rates. Africa grew at 4 per cent while Latin America/Caribbean increased by 2.7 per cent. Asia/Pacific and Europe remained almost stable with 0.2 per cent and -0.1 per cent growth, respectively. North America experienced a -4.9 per cent decrease compared to 2012.

Total scheduled freight traffic worldwide



23.7 Based on available figures, ICAO is estimating an operating profit of about 3.5 per cent of operating revenues, for scheduled airlines of ICAO Member States.

Development of Civil aviation in India:

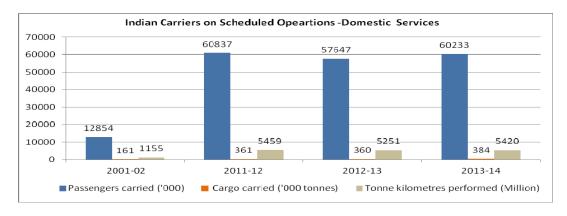
- 23.8 In December 1912, the first domestic air route was unwrapped between Delhi and Karachi by the Indian State Air Services (in collaboration with Imperial Airways of the UK). This marked a new beginning in India. Then countries' first air mail service was started by the Tata Airlines in 1912. Although Tata Airlines was started as an air mail service but later it endeavored in carrying scheduled passenger traffic. Tata Airlines was renamed as Air India in 1946. In early 1948, a joint sector company, Air India International Ltd., was established by the Government of India and Air India (earlier Tata Airline). There were eight companies in service within and outside the country at the time of independence, namely Tata Airlines, Indian National Airways, Air service of India, Deccan Airways, Ambica Airways, Bharat Airways and Mistry Airways.
- 23.9 In wake of worsening financial conditions of airlines, in 1953, the government nationalized the airlines via the Air Corporations Act, 1953. This gave birth to Indian Airlines and Air India. Indian Airlines came into being with the merger of eight domestic airlines to operate domestic services, while Air India International was to operate the overseas services. Furthermore, the Act gave monopoly power to Indian Airlines to operate on domestic scheduled services ruling out any other operator. Air India became the single Indian carrier to operate on international itinerary excluding some routes to the neighboring countries which were given to Indian Airlines.
- 23.10The second phase of the sector began in the year 1986. In this period, the private sector players were granted permission to operate as air taxi operators. In 1994, government of India revoked the Air Corporation Act.
- 23.11 By 2003, only two private carriers survived to see the sunrise of the new century, i.e. Jet and Sahara. But the duopoly of **Jet and Sahara** as private carrier was challenged in 2003 by Air Deccan. **Air Deccan gave India its first Low Cost Carrier (LCC) or no frills Airline** which was a turning point in the history of Indian Aviation Sector. It marked a shift from the stereo type economy fares & business fares to the era of check fares; web fares; APEX fares; internet auctions; Special discounts; Corporate plans; last day fares; promotional fares etc. With the arrival of Deccan, reformation and innovation began in the aviation sector. Air traffic since then had tremendous growth rates. On witnessing the success of LCC Model, other airlines also started to operate in the sector

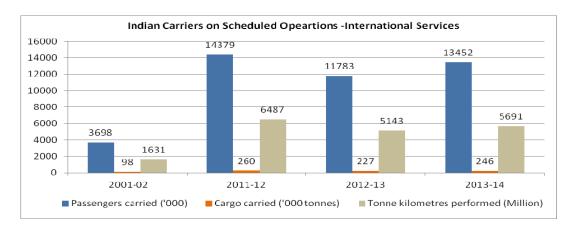
and opted for No-Frill Model. These airlines included; **Kingfisher**; **Indigo**; **Paramount**; **Go Air** which began operations in India. Some new carriers such as Star Airlines, Skylark, Magic Air, Air One and some others were given license to operate in the sector.

- 23.12 Another milestone in the history of the Indian Aviation sector came in the year 2007. This was the year of mergers and collaborations in the Indian skies. In the year 2006, the merger of Jet-Sahara & IA-AI was announced but it materialized only in 2007. After this, the Indian aviation sector has witnessed a series of M&A of airlines namely: Indian-Air India; the Jet-Sahara Deal; the Kingfisher-Deccan Deal.
- 23.13 FDI in domestic airlines by international carriers, to help airlines making sustained losses, is expected to be another landmark in the aviation history.

Performance of Civil Aviation Industry in India: Indian carriers on Scheduled Operations (domestic and international)

- 23.14 Since 2001-02, passengers carried by indian scheduled operators (domestic services) increased by about 369 per cent from 12.8 million to 60.2 million whereas that in international services it increased by about 264 per cent from 3.7 million to 13.4 million. Increase in cargo carried from 161 thousand tonnes & 98 thousand tonnes in 2001-02, for domestic & international services respectively to 384 & 246 thousand tonnes during 2013-14 has been less spectacular with about 138 & 151 percent growth respectively.
- 23.15 Though the performance figures during 2013-14 shows an improvement compared to previous year(in terms of air traffic increase), they are somewhat lower than the all time high levels reached during 2011-12 and also less favourable in terms of capacity utilization compared to 2012-13 (except for WLF of international opertaions).





23.16 **Capacity Utilization**: Capacity utilization has increased since 2001-02 in domestic services with both passenger load factor (increase from 55 % to above 70 % since 2009-10) and weight load factors (from 52 % to around 65-70 % since 2009-10) recording impressive increase. However, in the international services the increase, during the same perios, was lesser in case of PLF (from about 70 % in 2001-02 to about 77 % in 2013-14) and weight load factor recording a decrease from 66% during 2001-02 to 55 % in 2007-08 increasing thereafter to 67 % in 2013-14. However 1-2 % decrease in PLF & WLF was observed during 2013-14 compared to 2012-13 both for domestic & international operations except in the case of WLF for international operations which increased by about 2.5 %.

23.17 Industry forecast suggests that India will be the fastest growing civil aviation market in the world by 2020 with about 420 million passengers being handled by the Indian Airport System as against 140 million in 2010.

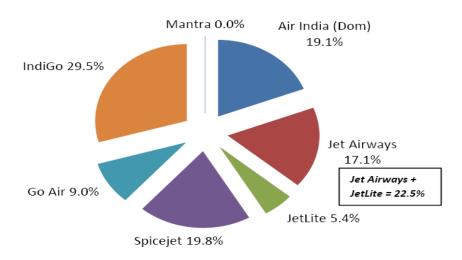
23.18 **Non scheduled services** of national carriers saw better capacity utilization (about 69 %) during 2012- 13 (it has been usually been in the range of 27-36% during 2000-01 to 2009-10, crossed 60% thereafter to reach 62 % in 2010-11 and about 64 % in 2011-12). Compared to 2011-12, the number of passengers carried on non scheduled services dropped in 2012-13 whereas there was significant increase in freight carried and total tones kilometers performed also saw a decrease.

Market Share:

Compared to initial days of aviation, marked by ubiquitous Air India, several private airlines have not only entered the domestic market but have gained sizeable market share in the same. Presently, Indigo

leads with about 29.5 per cent market share, followed by Spicejet (19.8% share) and Air India (domestic) with 19.1% market share.

Market Share Of Scheduled Domestic Airlines



23.20 Challenges before Indian Aviation Industry: Recent news of flight cancellations, cash shortages & survival fears of Kingfisher airlines mirror, to a lesser extent the concerns of its peers as well. High aviation fuel prices and depreciating rupee, policy issues, like high sales tax on aviation fuel and airlines having to fly unviable routes to develop connectivity in the country, is causing them hardship. But it is the inability of Indian airlines to hike ticket prices that is hitting them the hardest. It's the way the market is structured that prevents any airline in India from raising prices. No airline owns a significant chunk of the market, which means that if one airline does try to hike fares and others don't follow suit, its fliers will be easy business to its competitors. This means that no airline raises prices until it knows that others are likely to do the same. Airlines can merely hope for another consolidation -like Jet Airways buying Air Sahara and Kingfisher buying Air Deccan to get some control over the market. Or they can hope for some relief in terms of economic conditions or policy changes.

23.21 **High airport (aeronautical) charges**: The airport charges levied by the Indian airports are amongst the highest in the Asian and the Gulf countries. India at present does not have any secondary airports for Low Cost Carriers (LCCs) and the Indian LCCs have to shell out comparatively higher airport charges than its international peers.

23.22 **Congestion**: Congestion at airports is another issue that irks the aviation industry in India. It not only influences the turnaround time of the aircraft and reduces the average aircraft utilization but also adds to

the costs significantly in form of fuel wastage as the aircraft has to hang around in the sky.

- 23.23 **Governance & Infrastructure**: The **Ministry of Civil Aviation** is the authority responsible for policy formulation, development and regulation of the Civil Aviation industry in India. The Ministry oversees the planning and implementation of growth and expansion programmes in the civil aviation sector, airport infrastructure and air navigation services.
- 23.24 Air Transport Directorate, of Office of The Director General of Civil Aviation under the Ministry of Civil Aviation governed the Air Transport Services in the country by the Rule 134 and Schedule XI of Aircraft Rules 1937. Besides this, the Civil Aviation Requirements (CAR) Section 3 Series C Part I to VI deal with the minimum requirements and procedures for issue/renewal of Scheduled/Non-Scheduled Operators Permit in different categories like passenger/cargo/charter.
- 23.25 **Airports Authority of India (AAI)** is an organization working under the Ministry of Civil Aviation that manages most of the airports in India. It is entrusted with the responsibility of creating, upgrading, maintaining and managing civil aviation infrastructure both on the ground and air space in the country.
- 23.26 During last few years, some of the airports have been privatized under revenue sharing agreement ,despite protests from AAI. The chief purpose behind privatization was to modernize the airports & upgrading their facilities. Amongst the major airports, Chennai & Kolkata airports are under the purview of privatization , after initial experiences of privatization of Delhi and Mumbai airports. Phase–1 of the development work of the Indira Gandhi International Airport ,Delhi has already been completed with the operationalization of Terminal-3.
- 23.27 **Source of information on Civil Aviation Statistics**: The **Statistics Division** of the **Air Transport Directorate** is responsible for maintaining data on aviation parameters governed by Aircraft Rules. 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:
 - Monthly returns regarding the operations of the permitted air transport services

- Annual returns showing the financial results of the services or operations during each calendar year.
- 23.28 In compliance of above convention and Aircraft Act, 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 managed by Airports Authority of India.
- 23.29 At the moment 10 airlines are operating (four public carriers and 6 private carriers). Data from these scheduled air carriers is collected as per ICAO prescribed forms A, AS, B, C, D and EF, details of which are given in the table below.

ICAO Prescribed Forms for Collection of Civil Aviation Statistics		
Form No.	Subject	Frequency
Form-A	Traffic- Commercial Air Carriers	Monthly/Quarterly/Annual
Form-AS	Summary Forms (Traffic)	Annual
Form-B	On-Flight Origin and Destination (Scheduled Services (Rev.)- International operations	Quarterly
Form-C	Traffic by Flight Stage (Scheduled Services (Rev.)- International operations	Annual
Form-D	Fleet & Personnel- Commercial Air Carriers	Annual
Form-EF	Financial Data- Commercial Air Carriers	Annual

- 23.30 Besides the Indian carriers, foreign airlines also carry passengers 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 and from 2010, this data is also being uploaded quarterly.
- 23.31 From the non-scheduled operators, data on number of flights operated 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. Data is collected every month from each

airport on the aircraft movement, passengers embarked and disembarked and freight & mail loaded and unloaded.

23.32 The Statistics Division in DGCA Division collects data pertaining to Civil Aviation from various sources viz. Air India, Indian Airlines, Private Operators, Foreign Airlines and various airports managed by Airports Authority of India. The data thus collected are compiled and are then published annually in a publication entitled " India Air Transport Statistics." The publication includes traffic statistics in respect of scheduled and non-scheduled air services of domestic as well as foreign carriers; detailed information on fleet strength, aircraft utilization, staff strength, financial results of Air India, Indian Airlines and Airport statistics for both international and domestic airports. Further, it includes statistics in respect of international traffic to/from India to various countries, domestic traffic carried by scheduled, non-scheduled and air taxi operators and traffic carried on tourist charter flights and flights operated under Open Sky Policy for all-cargo services. Some graphic charts are also given along with the tables. The data on passengers, freight & mail in this publication relates to revenue traffic only.

References:

- Annual Report of the Council 2013, International Civil Aviation Organisation
- Website of Directorate General of Civil Aviation.