

## MODES OF AIR TRANSPORTATION

Air transport is one of the quickest means of public transport across worldwide boundaries. Air transport allows people and businesses from different nations to cross global boundaries and travel to other nations for personal, trade, medical, and tourism purposes. Despite the fast that air transport offers the fastest means by saving voyage time, another feature of air transportation is that it enhances the comfort level of the passengers and business. There are several air transportation in India. Besides the airline sector there are different types of air transport air transport available in India including comercial airecraft, helicopters, private planes, blimps, glider, rocket, zeppelin, parachute and competitive environment. Every company offers a variety of amenities to attract passengers and business. Few years ago, it was difficult to recognize the requirements and desires of passengers and business. But with the rise of social media, passengers and organisations are sharing their opinions on social media platforms about different modes of airline amenities. This is when they travel or send their commodities through such airlines. As a result, sharing these sorts of information plays an enormous role in increasing the competitiveness between the airline industries. Travelers and traders will also be able to benefit from these services and amenities.

### LEARNING OUTCOMES

After studying this lesson the learner:

- defines the air transportation;
- classifies various air transportation systems;
- identifies the importance of air transport;
- identifies top airlines in India;
- describes valuable solutions for airlines.

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#### 9.1 AIR TRANSPORTATION – INTRODUCTION

Air transport is a significant enabler of economic growth and development. It facilitates the integration into the world economy and offers very significant connectivity on a national, regional, and international scale.



Fig. 9.1: Air Transportation

It generates trade, promoting tourism, and sector employment opportunities. This transport is considered one of the most modern approaches to transport. Further, it is the gift of the 20th century to the globe. The World has given tremendacy force to air trasport development in almost all nations. Air transport does not require a specific location track for operations. Further more political borders are also irrelevant, despite observing the requirements of international law. The most significant benefit of air travel is its speed. It is one of the fastest forms of transport but the price of its operation is extremely high. Therefore, it is appropriate for only wealthy passengers, mail, light and expensive cargo. However, in sophisticated nations like the U.S.A., Germany, etc. It provides a tough opposition to the railways.

#### 9.1.1 Characteristics of air transport

- 1. Air transport has the following characteristics:
- **A. Unbroken Journey:** An unbroken journey over land and sea. It is considered the fastest and quickest mode of transport.
- **B.** Speed: All modes of trasportation, air transport has the highest speed.
- **C. Expensive:** Air transport is the most costly mode of transport and it requires huge investment in procuring air planes and constructing airports.

- D. Special Preparations: Air transport needs special grounding like
  - a) motor links,
  - b) meteorological stations,
  - c) flood lights, and
  - d) searchlights etc.



#### Fig. 9.2: Characteristics of Air transport

#### 9.1.2 Development of Air Transport

Air transport is the modest means of transport; this refers to the fact that this transport was introduced in 1903 but converted into full modes of transporting the passengers and freights in the 1930s. The use of air transportation began after the Second World War (WW11) and was used by both national and international flights.

Of all the trasport developments which took place during the 20<sup>th</sup> century, air transport has been the main striking ones. Who would have imagined that?

- When did the Wright brothers make their historic aeroplane in 1903?
- The aeroplane would become one of the most imperative modes of passenger transport within merely three generations?

Moreover these improvements have been rapid : jet engines with recovered propellers, introduction of radar systems, the size of aeroplane which has been



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converted to jumbo proportions; supersonic speeds have been attained and vertical take-off is now feasible.

At present, across the world, air transport is havily used by both passengers and freight. Generally, there are two types of services: those which operate for particular considerations on an ad hoc basis and those which operae on regular programs. During the summer it will be used for tourists and mineral deposits in inaccessible mines and manufacturing areas. However, the latter category would include services operated by top world airlines. The route of both kinds would also radiate from developed provinces and especially from the worlds laregest capital and manufacturing centres. As much as possible, they mark the shortest distance among places and thus utilise the large Circle routes to economise both time and fuel. Several cities, including London, New York, Cairo and Bangkok have acquired major international airports and numerous others are developing their own global airport facilities. In low locations, where there is complex terrain, air transport makes communication feasible and has a correspondingly significante. Offers very pronounced connectivity on a national, regional, and international scale.

# **INTEXT QUESTIONS 9.1**

- 1 On a national, regional and international scale \_\_\_\_\_ Provides a very important level.
- 2. Air transport is the \_\_\_\_\_means of transport.
- 3. Air transport is the smallest means of transport; this refers to the fact that it was introduced in the year \_\_\_\_\_.
- 4. Air transport is the most costly mode of transport and requires huge\_\_\_\_\_

#### 9.2 **DEFINITION**

Air transport is one of the greatest modes which help to transport passengers as well as freight through the air using aeroplanes, jets, rockets, helicopters, and drones. Each of these kinds of air transport has a specific way of achieving speed and the sustainability of its voyage. However there are other categories of air transport which may or may not be utilised for conveying goods, but could be used for recreational considers, they comprises of, hot air balloons, hang gliding, blimps, gliders, parachuting etc.

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**Transportation-2** 



S. No.	DEFINITION
1.	Air transportation means the trade of transporting natural persons, property, goods and mail by aircraft.
2.	Air transportation refers to the carriage by aircraft of passengers, baggage, goods, and mail, separately or in mixture, held out to the public for payment or hire, which, shall comprise of both scheduled and non-scheduled services.
3.	Air transportation means the carriage of persons, property, cargo, express, or mail by aircraft.
4.	Air transportation means domestic or international air transportation or the transportation of mail by aircraft.
5.	Air transportation means inter- state or foreign air transportation
6.	Air transportation means "foreign air transportation, interstate air transportation, or the transportation of mail by aircraft.
7.	Air transportation means the operation of a transportation system by aircraft for the carriage of persons, property and mail, including activities reasonably necessary to such operation.
8.	Air transportation means inter- state air transportation, foreign air transportation, or the transportation of mail by aircraft

### **INTEXT QUESTIONS 9.2**

- 1. Air transportation means the carriage of persons, property, \_\_\_\_\_, express, or mail by aircraft.
- 2. Air transportation means \_\_\_\_\_ air transportation.

- 3. Air transport is used extensively across the world by both passengers and
- 4. Air transportation means the trade of transporting natural persons, property, goods and mail by \_\_\_\_\_.





#### 9.3 TYPES OF AIR TRANSPORTATION

#### The types of air transport are as follows

A. Commercial aeroplanes : These are the common routes passengers take through the air. Commercial planes offer a fast means of transportation compared to other forms of transport such as road, rail and ocean transport. Aeroplanes can carry hundreds of people from one spot to another at a time; the seating can sometimesbe divided into two or four classes. For instance, most national flights usually have two categories First Class and Economy Class. Global flights may have up to four classes such as First Class, Club Class, Business Class, Premium Economy and Economy Class. There are separate cargo planes operated by leading airlines.



Fig. 9.3: Types of air transport

- **B.** Helicopters: Helicopters are another quicker means of air transport; they shift people and cargo through the air. When compared with other commercial aircraft, helicopters are much more limited in nature. When it comes to passenger divisions it can only transport a few people at a time, whereas some economic aeroplanes can carry hundreds of people at a time.
- **C. Private planes**: Private planes are designed to offer transportation service for a single person or at most a maximum of five (5) people at a time. Private planes range from the smallest Cessna to comfort jets such as the Citation CJ1, which can to carry around five people in leather-seated comfort. These planes provide comfort and privacy during the journey from one location to another for business or pleasure.

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Fig. 9.4: Private planes

- **D. Blimps**: Blimps and hot air balloons are utilized to transport people for recreationally. They cover a limited area which prepares tourists to glance at a location on a larger scope. This is than if they tried to see the area from the ground. Blimps used to be a form of commercial transport but they are no longer used.
- **E. Glider**: A glider, is a type of glider aircraft utilised in the sport of gliding or for recreational purposes. Sailplanes by nature are aerodynamically streamlined and one competent at gaining altitude when flown in rising air. Some gliders are made of the aluminium, alloy or composite frame covered with synthetic sailcloth which forms the wings.
- **F. Rocket:** A rocket is any type of vehicle that utilises a rocket engine. It comprises a missile, spacecraft or air crafter. Rockets have been used since the 13th century for small-scale armed applications and recreational displays. Rockets perform more in space than in the atmosphere; the engines perform by action and reaction of pushing the rockets upward by expelling their exhaust in the opposite direction, and can therefore work in the vacuum of space.
- **G.** Zeppelin: A Zeppelin was a form of rigid airship named after the German Count Ferdinand von Zeppelin. It comprises a cigar-shaped, trussed, and covered structure supported by internal gas cells. Count Ferdinand von Zeppelin designed the Zeppelin in the early 20th century. Zeppelins resemble blimps, but they differ in two ways: Zeppelins consist of a metal skeleton with a rigid covering, and they utilize hydrogen gas to float. These two ingredients make zeppelins taller them to blimps.
- **H. Parachute**: This is a fabric canopy that is filled with air and permits a person, package or heavy object affixed to it to descend slowly when dropped from an aeroplane, or which is freed from the rear of an aeroplane on landing to act as a

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brake. Back then, the military had developed parachuting technology as a way of saving aircrews from the emergencies aboard balloons and aircraft in flight, and later as a means of delivering soldiers to the battlefield. Currently, parachuting is one of the most successful activities and as a spirited sport in various locations.

### INTEXT QUESTIONS 9.3

- 1. \_\_\_\_\_ planes are designed to offer transportation service for a single person or at most a maximum of five (5) people at a time.
- 2. A Zeppelin was a form of rigid airship roned after the German Count \_\_\_\_\_
- 3. A \_\_\_\_\_, which is also called a sailplane.
- 4. \_\_\_\_\_ and hot air balloons transport people recreationals.

#### 9.4. IMPLICATION OF AIR TRANSPORTATION

Organisations in the aviation industry are looking for employers with a diverse range of professional qualifications. Beyond this, air transportation also secures employment and value generation in developed nations as a business location. This is because air transport links people and markets worldwide.

Aviation is of great importance to developed nations as a trade location. Aviation organisations provide employment for hundreds of thousands of workers with wide diversity of professional qualifications. However, the real importance of air transport moves far beyond jobs in aviation. Air transport contributes significantly people's individual mobility and thus enhances international understanding and cultural exchange. Moreover, aviation links developed nation companies with key vendors and sales markets all over the globe. Air cargo plays a crucial role in trade with almost all countries in the world.

- **A. Economic growth:** Air travel, the world's fastest transport network, are critical for trade, tourism and economic growth. Every day, around 128,000 aeroplanes take off, carrying 12.5 million passengers and \$18 billion in trade.
- **B.** Social development: From the USA to Fiji, aviation connects people together which permits all to visit friends and family, experience the Globe's cultures and offers access to better healthcare and education. Employment in the air shipment sector ranges from technical and engineering positions to customer service work, and requires a variety of diverse skills. Several roles in the aviation industry are need of highly qualified employees with significant training.

**C.** Environmental efficiency: Around 2% of human- generated  $CO_2$  emissions arrive from aviation. The entire sector is dedicated to combating climate change, by investing in sophisticated technology and infrastructure, improving effectiveness, and improving sustainable aviation fuels. Aviation is directing the way with efforts to enhance its environmental performance. It was considered as one of the first businesses to have ambitious worldwide goals and a strategy for decreasing its impact on climate change.



*Fig. 9.5:* Environmental efficiency

The aviation industry has made significant progress in term of fuel and  $CO_2$  efficiency, halving the amount of fuel utilised per flight compared to 1990. In other words, an airplane today would create just 50%  $CO_2$  compared to a same flight back in 1990. This has been achieved through technological development and executions and infrastructure improvements. Even though, aviation emission have increased, as the quantity of air traffic (both passenger and goods) has increased. Most development has occurred in emerging economies, as they began to reap the benefits of air travel.

Trade and tourism are imperative drivers of global economic growth. As more people become wealthy, their appetite for the journey in the world would increase. The organisation's climate action structure is designed to help find the balance among the two goals - economic development through connectivity, and decrease of climate impact.

**D.** Employment: For hundreds of thousands of men and women, airlines, airports and air traffic control are attractive employers. They offer secure employment throughout

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the globe is far beyond our own industry. Aviation generates a diverse working environment for several professions. Both fresh entrants to the job market as well as people changing their careers from other divisions find an expanded range of job opportunities in the sectors of airlines, airports and air traffic control. A multitude of aviation experts regularly rank among the most admired professions in surveys of young people about their career ambition. Many already dreamed of careers as pilots or air traffic controllers. The aviation industry supports 87.7 million jobs around the globe. Some of these functions are within the business itself, at airports, for airlines, and in civil aerospace and air navigation services. Other jobs are supported by air travel's economic movement.

#### E. Tourism



Fig. 9.6: Tourism

Developed nations travel to other nations by plane, and large numbers of overseas tourists also come to India by air. This generates employment both here in India and in the tourist destination nations. Air transport makes a decisive contribution to people's individual mobility. Even long journeys can be covered fast and safely with air travel, which is why aeroplanes are indispensable in private and business travel. Air transport equips millions of people to connect in cultural exchange. It also improves the tourism industry, which is a major economic feature both in India and in tourist destination nations.

**F.** Foreign Trade: Air transport links India with international markets. Air freight transport connects the Indian economy to global cargoes flows, and trade travel in order to prepare companies to maintain contacts with consumers and vendors. Aviation's economic inference moves far beyond employment in several companies,

because air cargo links India to global manufacturing and distribution chains around the clock organisations can transport time-sensitive and fragile cargoes quickly and safely anywhere.

**G** Humanitarian Aid: Over extensive distances, there is no faster method tham air transportation. For this reason, relief cargoes are shipped by air to conflict and disaster locations. Rapid action is generally in normal disasters, armed conflicts and comparable circumstances stances. Aid related cargoes such as food, medicines, drinking water and tents must reach those affected as soon as feasible. As transport to several areas cannot be carried out by trucks and ships fast enough, air transport is critical for humanitarian aid in crisis regions.

### **INTEXT QUESTIONS 9.4**

- 1. The Aviation industry has made significant progress in fuel efficience and \_\_\_\_\_ competence.
- 2. Air transport links India as a \_\_\_\_\_ spot with international markets.
- 3. Over long distances, there is no quicker shipment method than the airplane
- 4. For hundreds of thousands of men and women, airlines, airports and air traffic control are as attractive employers.

#### 9.5 MERITS AND DEMERITS OF AIR TRANSPORTATION

#### 9.5.1 The merits of Air Transport are as follows:

- 1. **High Speed:** Air transport is ultimate merits is its high speed. It is the fastest mode of transport and thus the most appropriate means where time is a critical factor.
- 2. Comfortable and Quick Services: It offers a regular, comfortable, sufficient and quick service.
- **3.** No Investment in Construction of Track: It does not need huge capital investment in the construction and preservation of the track in the area.
- 4. No Physical Barriers: It moves via the shortest and direct path and seas, mountains or forests do not arrive in air transport parth.
- 5. Easy Access: Air transport can be used to carry goods and people to locations not accessible by other modes of transport.

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- 6. Emergency Services: It can be executed even when all other means of transport cannot be managed owing to floods or other related natural calamities. Thus, at that time, it is the only mode of transport which can be used to do relief work and deliver the essential goods of life.
- 7. Quick Clearance: In air transport, custom formalities can be completed very quickly preventing delay in receiving clearance.
- 8. Mainly appropriate for carrying Light Cargoes of High Value: It is most appropriate mode for carrying cargoes of a perishable nature which need quick delivery and light cargoes of high value such as diamonds, bullion etc., towards long distances.
- **9.** National Defence: Air transport plays a significant role nation defence. Approaching wars are fought mostly by aeroplanes. It in destroys the enemy in a short period of time. It further supports a nations defence wings.
- **10. Space Exploration:** Air transport has facilitated the world in exploration.

#### Other merits

- i. Air transport is a quick and adequate system which is generally suited to passenger traffic, providing comfort and high quality service
- ii. Air transport comprises the use of direct routes.
- iii. It is suitable to high quality, luxurious and perishable goods for which speed is essential
- iv. It can perhaps reach the areas inaccessible to other modes of transport.
- v. It provide complete freedom of movement and this offers potentially flexible routes and services

#### 9.5.2 Demerits of Air Transport

#### In spite of several advantages, air transport has the subsequent limitations:

- 1. Extremely Costly: It is the costliest method of transport. The charges of air transport are so high that it is further than the reach of the common man and small companies.
- 2. Small Carrying capability: Its carrying capability is very small and therefore it is not appropriate to carry cheap and bulky cargoes.
- **3.** Uncertain and untrustworthy: Air transport is unsure and unreliable as it is controlled to an immense extent by weather conditions. Adverse weather conditions such as

fog, snow or heavy rainfall etc. may cause cancellation of certain scheduled flights and suspension of air service.

- 4. Breakdowns and Accidents: There is a possibility of breakdowns and accidents that seem to be more as compared to other forms of transport. Consequently, it comprises comparatively greater risk.
- 5. Large Investment: It needs a large amount of capital venture in the construction as well as maintenance of aero planes. Further, they expect trained and skilled persons to operate the air service.
- 6. Specialised Skill: Air transport needs a specialised skill and high degree of training for its functions.
- 7. Unsuitable for Cheap and Bulky Goods: Air transport is not suitable to carry cheap, bulky and heavy cargoes because of its limited capacity and high price.
- 8. Legal Restrictions: There are several legal restrictions imposed by various nations in the interest of their own national harmony and peace.

#### **Other demerits**

- Aircraft are costly to build and operate;
- As aircraft become bigger, the number of airports competent to be used is declining. It reflects in reducing the flexibility.
- Few airports are far away from city centres and this offsets the merits of speed and convenience.
- It provides no access among termini and therefore minimum possible for intervening opportunity.
- Airports use up precious land and aircraft create a lot of noise as well as air pollution.

# INTEXT QUESTIONS 9.5

- 1. The ultimate merit of air travel is its \_\_\_\_\_.
- 2. Air transport is carrying capacity \_\_\_\_\_\_.
- 3. Air transport is not suitable for carrying cheap, bulky and \_\_\_\_\_ cargoes.
- 4. In air transport, custom formalities can be completed very \_\_\_\_\_.

#### TRANSPORTATION & WAREHOUSE MANAGEMENT



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#### 9.6 TOP TRUSTABLE ON TIME AIRLINE COMPANY IN INDIA

The airlines in India are mainly fuelled by the fast developing Civil aviation in industry India. As per the data of 2018 November, India's domestic airline market is positioned as the third biggest in the world. It is expected to reach the top in next 10 to 15 years. This can be attribuded to the competition among domestic carriers in India. For the past couple of years, the country's air carriers have consistently provided low prices for air travel while maintaining and enhancing their services. The outcome is the influx of consumers who opt for air travel which is gradually rising with every successive year. Domestic airlines are also aggressively trying to push out airline schedules, more package agreements and convenient booking structures to keep their consumer base happy. But due to heavy competition and choices, which one should a firm or individual choose for the best flying experience? To assist ease of making decisions, below is a comprehensive record of some of the most excellent airlines in India which a firm can consider for their next air transport.

Airlines of the highest quality in India 2022

#### 1. Air India

Despite its current struggles, Air India continues to be one of the most sought-after airlines by India's cargo and people for local as well as worldwide journeys. It provides some of the cheapest charges while also offering the most luggage capacity (25 kg for the economy class) among all airlines, which of greatly appreciated by flyers with its mascot, 'The Maharajah' Airlines is regarded as one of the first airlines in India becouse of its cononitnent to providing the warmest of hospitality in India.



Fig. 9.7: Air India

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#### Table 9.2: Cargo Airlines of India

S. No.	Cargo Airlines
1	Air India Cargo
2	Blue Dart Aviation
3	Deccan 360
4	Quikjet Airlines
5	VRL Group



#### Table 9.3: Top Cargo Airlines in the World

S.No	Cargo Airlines			
1	Federal Express			
2	Qatar Airways			
3	United Parcel Service			
4	Emirates			
5	Cathay Pacific Airways			
6	Korean Air			
7	Lufthansa			
8	Cargolux			
9	Turkish Airlines			
10	China Southern Airlines			

## **INTEXT QUESTIONS 9.6**

- 1. \_\_\_\_\_ is renped as first in the directory of greatest airlines in India.
- 2. Air India Express headquarters are located in \_\_\_\_\_.
- 3. Deccan 360 is a \_\_\_\_\_ airline in India
- 4. \_\_\_\_\_Air is a subsidiary of Air India.





#### 9.7 CURRENT CHALLENGES IN THE AIRLINE INDUSTRY

The aviation industry is a world encompassing a massive work force and contributing an important percentage to the global economy. This division was set for major development, challenges notwithstanding, till the pandemic hit, post which it plummeted to a significant extent. Yet, it is reasonable to state that in spite of the economic impact of COVID-19 on airline business, it has been on the path to recovery, and may very well be back to normal in a couple of years. During the year 2018, the Air Transport Action Group (ATAG had released a research report stating that the global aviation market viewpoint had been quite optimistic over a couple of years earlier. The report mentioned that at the time, the global air transport division supported more than 65.5 million jobs and was accountable for a mammoth USD 2.7 trillion in economic activity. Additionally, the statement claimed that a free-trade approach will assist further the growth in air shipping, and it will come to record USD 5.7 trillion in financial activities by 2036, while supporting approximately 97.8 million jobs.

The airline segment does, therefore, play a basic role in today's society, but it is also imperative to spotlight that it has its own fair share of conflicts. From battling downturn to government guidelines and terrorism to labour scarcity, there are countless issues this division has been facing.

The paragraphs underneath enlist some of the challenges of the aviation business previous to the pandemic:

- 1. Fuel Efficiency: For nearly three decades, the availability of aviation Fuel as well as costs has stayed as one of the major economic features affecting the airline industry. High prices of jet fuel have a straight impact on the airline's monetary portfolio. With the number of airline organisations rising year-on-year, fuel charges were on an all-time high, generating a vicious circle. Substitutes for fuels haven't actually been that impactful, thereby, maintaining fuel effectiveness falls among a battery of main challenges of the aviation business.
- 2. Global Economies: The state of the global economy is one of the main challenges of the airline division. The economic recession which took place in 2008 had a disastrous force on the aviation business size. As the world economy collapses, the travel and fuel charges also increase and lead to decrease in passenger numbers. The effect of the recession on the tourism segment is also one of the main economic features affecting the airline business. As air transport companies seek development across several nations and explore new paths, they must bear in mind the market scenarios and volatility in the provincial zones. Also, various countries have different economic

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conditions for development, a factor which airline organisations must remember when they look for global expansion.

- **3.** Passenger Comfort and Experience: The aviation business is service-driven; and its success is purely dependent enormously on the satisfaction of passengers and clients. The cause of the passenger comfort creates the crux of challenges faced by the airline segment is that no passenger is alike and at some point; a division of customers might always be dissatisfied. Yet, this is what has pushed airline firms to ensure seamlessness all through the actual air travel, tremendous security, less/no difficulties in airport lines, handy baggage claim, consumer care and more. To attain these in a flawless way is a consistent tussle of methods. The client surveys and feedback always describe that not all the passengers or clients have immense travel experiences. For example, during 2017, the Global Passenger Survey of IATA portrayed that only approximately 56% of North American consumers were pleased with their previous travel experience. To that end, there's forever space for bettering the client's comfort, which airline firms will carry on to battle with.
- 4. Airline Infrastructures: Airports must constantly upgrade their infrastructure, especially the runways, terminals, public spaces, hotels, shopping malls, lounges, and more. There is foremost competition in this sector; to maintain the status of the airline and stay ahead of competition, onsite facilities such as aircraft ground handling structures will require to be periodically renovated. While doing so periodically is advantageous no doubt, heading towards the increasing passenger numbers, repeating the promotion every now and then will have an important impact on the airline firm's finances. Aircrafts required to be periodically upgraded and administered as well and this in fact, is even more vital, as passenger safety is dependent on the same. Having damaged aircraft doors or aircraft seating is accountable to obtain the airline sued. Airline infrastructure is one of the most imperative challenges of the aviation segment, as carriers require maintaining their current fleet and also making sure to purchase new, approaching ones, while making sure of fuel effectiveness and lowered charges.
- **5. Global Congestion:** A few years back, air travel had been considered as a luxurious affair; playthings of the wealthy, especially in the developing nations. This situation has changed drastically, and most of the airports operating around the world are so congested that it has led to pointless flight delays. Most flights seem to be full, terminals are always crowded, and more significantly, the skies are overcrowded with an extreme number of aircraft. Air transport and airport congestion are main challenges faced by the airline business, which seem to have no realistic solution, at least in the instant future. Carriers carry on to make seamless trips for flyers and cargoes, yet, this will continue to stay a practical challenge.







- 6. Technological Advancements: The sophisticated technological developments are also considered as one of the challenges of the airline industry may come as a surprise. Technology, though, is a double-edged sword, and in spite of the revolution it has brought about, increasing dependence on the same can create the whole industry vulnerable. For example, in case of a software problem, the operations of the airline might remain crippled till it is resolved. In case of inadequate funding, upgrading vital infrastructure such as aircraft communication structure may be impossible, creating the whole system to collapse.
- 7. Terrorism: Tragic events which took place in the past have generated ripples of fear not only amongst the masses, but also airport employees. Even though terrorist activities have decreased down in recent times, but still it is very much considered as a threat, as airline firms must remain every time vigilant. Rising fear of terrorism directs to stringent check-ins and as a result longer lines and delays. It also forces airline firms to come up with extremely secure state-of-the-art screening processes and equipment. On a connected note, even political scuffles among two nations can pose as one of the main challenges of the aviation segment. After all, airlines are the linkage between two nations, and unreasonable government guidelines due to strife among two nations can make it very complicated for carriers to conveniently ship passengers and cargo in and out of worldwide borders.
- 8. Climate Change: Without a shred of doubt, climate change and environmental issues have remained among the key challenges faced by the airline market for a very long time. Since commercial aviation is responsible for a considerable percentage of carbon emissions, the airline industry is under tremendous pressure to undertake measures that will reduce the environmental impact of air travel. As part of a response to this challenge, the IATA had suggested a multi-faceted, four-pillar strategy, including enhanced technology, adequate aircraft operations, improved infrastructure, and a single global market-based measure. Until these are completely and seamlessly met, climate change will continue to be one of the current challenges of the airline industry.

The aviation business creates an important part of the worldwide economy. Pre-COVID, airline firms had to deal with substantial challenges, the remedies of which were being thought out and reviewed by industry professionals periodically. The effect of the pandemic, though, brought forth a set of ground breaking challenges for the airline business that it hadn't encountered in any of the earlier global disasters such as the attack of 9/11 or the 2008 economic recession. It has not only brought regarding a complete 180-degree change in the way earlier challenges were perceived, but a latest set of risks that will at present create the base of how the industry will operate in the forthcoming decades.



- 1. The state of \_\_\_\_\_\_ is one of the main challenges of the airline division.
- 2. \_\_\_\_\_required to be periodically upgraded and administered.
- 3. The aviation industry employs a large number of people and contributes a significant percentage to the \_\_\_\_\_\_ economy.
- 4. \_\_\_\_\_ change and environmental issues remain among the key challenges faced by the airline market.

# WHAT YOU HAVE LEARNT

- Air transport is a significant enabler of economic growth and development. It facilitates the integration into the world economy and offers very significant connectivity on a national, regional, and international scale.
- Air transport is one of the greatest modes which help to transport passengers and freight through the air using aeroplanes, jets, rockets, helicopters, and drones. Each kind of air transport has a specific way of achieving speed and sustainability.
- The types of air transport are 1.Commercial aeroplanes 2.Helicopters 3.Private planes 4.Blimps 5.Gliders 6.hang gliders 7.Zeppelin and 8.Parachute.
- Organisations in the aviation industry provide employment for hundreds of thousands of workers with an expanded diversity of professional qualifications. However, the real importance of air transport moves far beyond jobs in aviation. Air transport contribution greatly to people's individual mobility and thus enhances international understanding and cultural exchange.
- The airlines in India are mainly fuelled by the fast developing civil aviation industry in India. As per the data of 2018 November, India's domestic airline market is positioned as the third biggest in the world. It expected to reach the top rank in the next 10 to 15 years.
- The merits of air travel are 1. High speed 2. Comfortable and quick services 3. No Investment in Track construction 4. No physical barriers 5. Easy access 6. Emergency services 7. Quick Clearance 8. Mainly suitable for carrying light cargoes of high value 9. National Defence and 10. Space exploration.

# Notes

MODULE - 2

**Transportation-2** 





KEY TE	RMS	
Transport	Air	Speed
Perishable	Airlines	Cargo
Planes	Trade	High value
Track	Travel	Carrier



#### TERMINAL EXERCISE

- 1. Define air transport.
- 2. What do you mean by gliders?
- 3. Explain about Vistara airline.
- 4. What is Zeppelin?
- 5. Define the Blimps.
- 6. Air transport plays a crucial role in economic development.
- 7. State the various definitions of air transport.
- 8. Spotlight the air travel.
- 9. List out the demerits of air transportation.
- 10. Mention the top cargo airlines in India and the world.
- 11. Point out air transport characteristics.
- 12. Explain the various types of air transport.
- 13. Highlight the implication of air transportation.
- 14. Sketch the merits of air transportation.
- 15. State the airline industry challenges.

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MOG	es of A	ir Tran	isporta	ation



#### 9.1

- 1. Air transport
- 2. Modest
- 3. 1903.
- 4. Investment

#### 9.2

- 1. Cargoes
- 2. Inter-state
- 3. Freight
- 4. Aircraft

#### 9.3

- 1. Private
- 2. Ferdinand von
- 3. Glider
- 4. Blimps

#### 9.4

- 1. CO<sub>2</sub>
- 2. Business
- 3. Aeroplane
- 4. Employers

#### 9.5

- 1. High speed
- 2. Very small



**MODULE - 2** 

TRANSPORTATION & WAREHOUSE MANAGEMENT





3. Heavy

4. Quickly

- 9.6
  - 1. Indigo
  - 2. Kochi
  - 3. Cargo
  - 4. Alliance

#### **9.7**

- 1. Global economy
- 2. Air craft
- 3. Global
- 4. Climate



Learners can undertake their activity work in the areas of different air transportation / airlines / air consolidators / IATA organisations .