

AIR TRANSPORT CHARACTERISTICS

- Air transport is an aircraft design for transporting passengers and freight from one location to another in the air using airplanes, jets, rockets, helicopters, and drones.
- Each of these types of air transport has a unique way of achieving speed and the sustainability of its voyage,

Types of Air Transport

- Commercial airplanes
- Helicopters
- Private planes
- Hot air Balloons
- Hang gliders
- Zeppelin
- Parachute

Advantage of Air Transport

- High Speed
- Comfortable and Quick Services
- No Investment in Construction of Track
- No Physical Barriers
- Easy Access
- Emergency Services
- Quick Clearance
- Most Suitable for Carrying Light Goods of High Value
- National Defense
- Space Exploration

Limitation of Air Transport**• Very Costly:**

- It is the costliest means of transport.
- The operating cost of aero-planes are higher and it involves a great deal of expenditure on the construction of aerodromes and aircraft.
- The fares of air transport are so high that it is beyond the reach of the common man.

• Small Carrying Capacity:

- Its carrying capacity is very small and hence it is not suitable to carry cheap and bulky goods.

• Uncertain and Unreliable:

- Air transport is uncertain and unreliable as it is controlled to a great extent by weather conditions.
- Unfavorable weather such as fog, snow or heavy rain etc. may cause cancellation of scheduled flights and suspension of air service.

• Breakdowns and Accidents:

- Air transport is the most risky form of transport because a minor accident may put a substantial loss to the goods, passengers and the crew.
- The chances of breakdowns and accidents are high as compared to other modes of transport.
- Hence, it involves comparatively greater risk.

• Large Investment:

- It requires a large amount of capital investment in the construction and maintenance of aero-planes.
- Further, very trained and skilled persons are required for operating air service.

• Specialized Skill:

- Air transport requires a specialized skill and high degree of training for its operation.

- **Unsuitable for Cheap and Bulky Goods:**
 - Air transport is unsuitable for carrying cheap, bulky and heavy goods because of its limited capacity and high cost.
- **Legal Restrictions:**
 - There are many legal restrictions imposed by various countries in the interest of their own national unity and peace.

Airport Layout

Airport

An airport is a location where aircraft such as fixed-wing aircraft, helicopters, and blimps take off and land. Aircraft may be stored or maintained at an airport. An airport consists of at least one surface such as runway for a plane to take off and land, a helipad, or water for takeoffs and landings, and often includes buildings such as control towers, hangars and terminal buildings.

Characteristics of good airport layout

- **Landing, Take off and taxiing – Independent operations**
- **Shortest taxiway**
- **Safe runway length**
- **Safe approaches**
- **Excellent control tower visibility**
- **Adequate apron space**
- **Terminal building facilities**
- **Land area for future expansion**
- **Cost effective construction, maintenance and operation**

Components of An Airport Layout

1. Runway
2. Terminal area
3. Apron
4. Taxiway
5. Hangar
6. Control Tower
7. Parking

