**CHAPTER FOUR**

**AIR TRANSPORTATION**

**4.1. Historical Development of Air Transportation**

**N**avigating the air to transport passengers and cargo has been possible, practically speaking, only in the last 60 years. But, human beings have dreamed of flying since ancient times. Subsequent experiments with hot-air balloons led to the development of the airship, a lighter- than-air craft. Early experiments with airplanes were to prove of much greater significance in the development of air transportation. The earliest planes were gliders-aircraft without engines. The first successful manned glider flights were made during the 1890s by pioneers such as Otto Lilienthal of Germany and Octave Chanute of the United States. Their achievements inspired American Orville and Wilber to turn their attention from manufacturing bicycles to building gliders. The Wright brothers developed a glider that could be controlled in flight, and then added a 12- horse power gasoline to create the first airplane (the Flyer).

The historic first flight, lasting just 12 seconds, was made on December 17, 1903, at Kitty Hawk, North Carolina. By 1905, the Wright brothers had developed a fully maneuverable biplane (a plane with two pair of wings) that could stay in flight for more than half an hour. Experiments in other countries led to the development of monoplanes (with on pair of wings).

WW-I greatly advanced the development of airplane, as warring nations manufactured fighter planes and bombers equipped with more powerful engines and are metal bodies. WW-II played a major role in promoting the growth of the commercial airline industry. As in WWI, warfare accelerated the research in to and development of more advanced airplanes that could fly faster, higher and further without refuelling. After the war, these improvements were applied to commercial planes. The war also increases public confidence in the airplane as a means of transportation.

The expansion of jet service signalled the decline of ocean-going passenger ships as a means of point-to- point international travel. Improvements in jet performance and comfort led to the development of huge, wide bodied jets in the early 1970s. These includes jumbo jet (put into service in 1970), Airbus (1974 by Europe) and Supersonic Transport (SST- Concord by Britain and France. These developments further increased the growth of air transportation. Domestic and international airline industries began to grow rapidly following WWII. The development of bigger, faster, and, more comfortable planes increased the popularity of air travel.

**4.2. Types of aircrafts:**

Passenger air craft vary greatly in terms of length, wing span, configuration of engines, velocity and range. Most aircraft use jet engine for propulsion. Jet aircraft can be divided in to two major categories.

1. Turbojets–(including the turbofans, an improved version of the turbojet)- which are operated by the major carriers
2. Turboprops( propjets)-a major category of aircraft that uses a jet engine to return the propeller and is operated by small regional airlines( that provide air services between smaller cities and connect these small communities with major airports, i.e. operate between points within a specific area of the country) or commuter airlines( are smaller versions of regional airlines and fly routes of 400 miles or less with seat less than 24 passengers)

**4.3. Classes of services**

The seating arrangement on an airplane is known as *configuration.* Themost common configuration shows a plane divided in to two or three major compartments or seat sections. Class of service can be defined as a separate compartment on an aircraft that determines the location of passenger seating, level of in-flight service, and price you pay for your ticket. The walls or partitions that separate compartments on an aircraft are called *Bulkheads*

There are three major classes of services and are: First, Business/Executive, and Coach/Economy Class. Many of the major carriers offer all three on their long distance and transcontinental routes. On shorter routes the carriers offer the two classes of services.

1. **First class**:

Is the most expensive seating accommodation on board on aircraft and located directly behind the cockpit. Compared to other compartments, first class seats are the widest and the most comfortable with heavier padding. There is also more legroom in first class because there are fewer seats. Seat pitch in first class is the widest on an airplane (40-60 inches). A pitch is the front-to- rear measurement of space between seats. Special services for first class passengers include;

* They can watch in flight entertainment (movies and video games) on longer flights
* Can get more personalised services because there are more flight attendants per passenger
* In flight meal service is more elaborate with a great variety of choices and also served free alcoholic beverages and do not pay for head sets
* Separate and speedier check-in counters
* Can use special airline lounge facilities at selected airports to wait and relax before boarding the aircraft

1. **Business or executive class:**

It is somewhere between first class and coach class in terms of comfort and level of service. It was introduced in the 1970s for passengers who wanted upgrade service and more comfort than the coach class without paying the high cost of a first class ticket. It was called as business class because aimed towards the frequent traveller/business traveller. This compartment is not available on all flights. It is available on most long distance domestic and international flights. Services offered for pax in this compartment includes:

* Alcoholic beverage free of charge
* There is a choice of meals(though not as many as in first class)
* Separate check-in counters and lounge facilities which is similar to first class

Seats are wider with a quieter atmosphere than in the coach compartment

1. **Coach/economy class**

It is the location of the greatest number of seats on an aircraft. Most passengers who are paying discounted ticket prices are sitting in this class. Seats are set closer together and are narrower (narrow pitch) than those in first and business class cabins. The average seat pitch is between 31 inch and 34 inches. Services offered include:

* Beverage and meals are served at no extra charge but liquor, beer, and wine must be purchased
* On shorter flight, passengers served a lighter snack but a full meal for first or business class passengers

Each class of service has a designated one-letter code. These classes of service codes are used in airline schedules to donate the type of seating on board a specific flight. They are used to identify the type or level of airfare on the passenger’s airline ticket. There are codes for the three primary classes of services: F ( First Class) C (Business/Executive Class,) and Y :( Coach/Economy Class)

|  |  |  |
| --- | --- | --- |
| **Booking Code** | **Class of service** | **Description** |
| F,P | First | The carriers highest level of service |
| C,J | Business /Executive Class | The carriers superior service level( lower than f or p) |
| Y,S | Standard coach class | The carriers standard level of service |
| B,Q,K,L,M,H,V | Discounted coach class | Discounted fares for the carriers standard level of service |

Table1. Booking codes used by airlines to indicate the class of service

**4.4. Air line passenger services**

* **Baggage:**
* Thenumber and size of bags that passengers can check in and carry on board the aircraft free of charge is called *baggage allowance.* There are two methods of measuring baggage allowance;

1. ***The piece method***- considers the number and the size of each pieces of luggage. Usually passenger is allowed up to 2 pieces of standard luggage and one or two small bags. Generally no piece of luggage can exceed a total dimension of 80 inches and determined by (length+height+width).
2. ***The weight method-*** used on most international fights over the ocean. The normal free baggage allowances are 66 pounds for first class and 44 pounds for economy class.

* Airlines have the right to refuse baggage for any of the following reasons:
* Baggage is not marked with the passenger’s name outside
* The passenger refuses to allow the airline to examine baggage
* Airline deems the baggage is unsuitable
* Baggage is to be transported on a flight other than the one on which the passenger is travelling
* If the passenger exceeds the free baggage allowance, an *excess baggage fee* is charged and the charge varies depending on the size and weight of the baggage. The average excess baggage fee is $50 per person.
* **Unaccompanied children:-**children travelling without their parents

Unaccompanied children under the age of five are not accepted under any circumstances. For children between 5 and 11 years, the following policies generally apply for all airlines:-

|  |  |
| --- | --- |
| **Age of children** | **Unaccompanied general policy** |
| Less than 5 years of age | Will not be accepted under any circumstances |
| Ages 5,6 and 7 | May be accepted on a flight that involves no change of plane |
| Ages 8-11 | May be accepted on a flight, with or without change of plane |

So, in all cases an adult must accompany the child until the child has boarded the plane. Unaccompanied children can not be booked on the last flight of the day. Children under the age of two are considered ***lap children***. On domestic flight, lap children travel for free but are not assigned a seat. On international flight, lap children require air line tickets and the cost of the ticket is 10 % of the applicable adult fare. It is important to inform the airline that an adult is travelling with an infant even though the infant does not need an airline ticket.

* **Special in flight services**

The domestic airline carriers offer special services in addition to standard in flight services (free meal, snacks, headsets for music and movies) that travel agents often have to arrange for their clients:

1. **Special meals:**

* Special meals such as those for children, diabetics, seafood, and vegetarian, for religious preferences as well as diet requirements are offered on many airlines.
* Special meals must be requested at least 24 hours before flight departure. So travel agents request such services for their clients via CRS or directly over the telephone. For international flight, the following codes are used:

|  |  |
| --- | --- |
| **Booking code** | **Meal Service** |
| B | Full Breakfast |
| C | Continental Breakfast |
| L | Lunch |
| S | Light meal or Snack |
| D | Dinner |

1. **Assistance for the Disabled:**

* The 1986 *Air Carriers Access Act* requires airlines to provide assistance to all passengers with disabilities, i.e., helping passengers who need such assistance to board/ exit the aircraft. For instance airlines may offer *wheel chair assistance* and also other medical assistance such as *oxygen* for travellers when required. The travel agent should request the airline such assistance for his clients two weeks before the date of departure.

1. **Pet transport:**

* Pet transportation varies depending on the carrier and type of aircraft
* Some passengers carriers will accept small pets(dogs, cats or domesticated bird..), if they are properly crated and transported in the cargo compartment but after obtaining approval from airline
* On some carriers, a passenger who is blind may be accompanied by his/her especially trained dog.

**4.5. Freedom of Air**

**The Chicago Convention:**  The Chicago convention on international civil aviation was concluded at an international meeting between governments in Chicago in 1944 at which 80 governments were represented in discussions designed to promote world air services and to reach agreement on standard operating procedures for air services between countries. There were two outcomes of this meeting: *the founding of ICAO*, now a specialized agency of the UNs; and the establishment of the so called *five freedoms of the air*. It governs relations between states on both technical and commercial subjects concerning international air transport, such as,

* Flying over territory of contracting states (air services, customs, rules of the air, spread of disease, charges, discrimination)
* Nationality of aircraft, facilitations (customs, accident, investigation etc.)
* Documents (recognition of certificates and licenses etc.)
* International standards and practices, including those for carriage of dangerous goods)
* Statistics, finance, technical assistance etc.

This convention in 1947 founded a permanent international authority known as The International Civil Aviation Organization (ICAO) as a part of UNO and its current membership is 187 states.

This convention does not itself grant rights to operate international air services, but makes provision for the manner in which such rights may be granted.

It draws a distinction between scheduled and non-scheduled services as:

* Scheduled international air services may be operated by agreement between two countries known as **Bilateral Agreement.**
* For non-scheduled air services, the convention states that each country may impose such regulations and conditions, as it may consider desirable.

**Bilateral Agreements:** Under these bilateral agreements each states or country designate its scheduled air carrier. It may be one or sometimes more than one.

* The agreement specifies the right (importing spare parts, supplies free of duty but under custom bond for use in maintaining and provisioning the aircraft) that such designated carrier will enjoy in the other country.
* A bilateral agreement also specifies the *CITIES* which may by served by the designated airlines as intermediate points or pickup or set down points.

Traffic rights bilaterally arranged between two countries are known as **Freedom of the Air.** A special authorization is required not only in bilateral between the country of airline or aircraft and each of the countries where the intermediate points or point beyond that are situated. If any of the agreement is missing, the carrier may not have full traffic right and may loose revenue.

All regular air carriers are filed for 6-12 months with air office of the government of the concerned country, where flight will be landing and taking off and vice versa.

## Examples of freedom of the Air:

## The examples are concerned with operations of an airline of country “A’’.

**1st Freedom:**

This is the right of an airline of a country (country A) to fly across the territory of another country (country “B”) without landing i.e. over fly.

**Over fly**

B

C

A

Example: **Flight:** LH 3512

**Airline:** Deutsche Lufthansa (from Germany)

**Origin:** Frankfurt (Germany)

**Destination:** Milan (Italy)

**Right for LH:** To over fly Switzerland

**2nd Freedom:**

The right of an airline of a country (country A) to land in the territory of another country (country “B”) for non traffic purposes, for instance refueling.

A

C

B

**Technical stop**

Example: **Flight:** JL 068

**Airline:** Japan Airlines (from Japan)

**Origin:** Tokyo (Japan)

**Destination:** Rio de Janeiro (Brazil)

**Right for JL:** To make a non traffic stop in Los Angeles

(For refueling purpose only on its way to Rio de Janeiro)

**3rd Freedom:**

The right of an airline of a country (country A) to set down in another country (country “B”) for passenger mail and cargo coming from the home country of the airline (country A)

B

A

## Pick up Set down

Example: **Flight:** NZ 006

**Airline:** Air New Zealand (from New Zealand)

**Origin:** Auckland (New Zealand)

**Destination:** To set down pax, mails and cargo from the

home country in a foreign country. Switzerland

**4th Freedom:**

The right of an airline of a country (country A) to pick up in another country (country “B”) passengers, mails and cargo destined for the home country of the airline (country “A”).

B

A

**Set Down Pick up**

Example: **Flight:** AR 147

**Airline:** Aerolinas Argentina (from Argentina)

**Origin:** London (UK)

**Destination:** Buenos Aires (Argentina)

**Right for AR:** To pickup pax, mails, and cargo from

foreign country to the home country.

**5th Freedom:**

The right of an airline of a country (country A) to carry pax., mails, and cargo from a point of origin in a foreign country (country “B”) to a point of destination in another foreign country ( country C).

B

A

C

**Pick up Set Down**

Example: **Flight:** QF 005

**Airline:** Qantas (Australia)

**Origin:** Bangkok (Thailand)

**Destination:** Amsterdam (The Netherlands)

**Right for QF:** To carry pax. Mails and cargo between two foreign countries

**6th Freedom:**

A term applies to then type of 5th freedom in which pax, mails, and cargo are carried from point of origin in a foreign country (country “:B”) to a point of destination in another foreign country (country “C”) VIA the home country of the airline ( country “Ä”).

A

C

B

## Pick up VIA Set Down

Example: **Flight:** CO 004

**Airline:** Continental (USA)

**Origin:** Mexico City (Mexico)

**Destination:** London (UK)

**Right for CO:** To carry pax, mails, and cargo between two foreign countries, but via the home country of the airline (normally with a change of aircraft)

**7th Freedom:**

This implies Carrying passengers, mail, or freight directly between two countries on an airline with neither of the two countries.

For example- a British aircraft carries passengers between Vienna and Budapest on a shuttle service

British Air Craft

AUSTRIA HUNGARY

N.B. Reference is also made to the possibility of an 8th freedom

**8th Freedom:**

This implies a foreign aircraft operate on a *cabotage route* (carriage on routes within the national territory of a country).

Example: Kenyan airways is permitted to operate a shuttle service between Lalibela and Bahir Dar

Kenyan Airways

Ethiopia Ethiopia

These privileges were designed to provide the framework for bilateral agreements between countries and to ensure that carriage of passengers, mail and freight between any two countries would normally be restricted to the carriers of those countries

* **The Warsaw Convention:**

It established common agreement on the extent of liability of the airlines in the event of death or injury of the passenger, or loss of passenger baggage.

* **IATA (International Air Transport Association)**

It is the global organization for virtually all international air carriers. Its principal function is to facilitate the movement of persons and goods from any point on the world air network to any other by any combination of routes. This can be accomplished by a single ticket bought at a single price in one currency and valid everywhere for the same amount and quality of service. The same principle applies to the movement of freight and mail.

**Functions:**

* Planning of global time table
* Giving training for travel agents and tour operators on how to make computerised reservation system
* Giving single formula for tickets and airway bills
* Examine and solve problems of tourism and flow of passenger, and goods at the airport

**IATA has:**

* **IATA’S Operational Task**:-to ensure the airlines are able to continue with maximum speed and efficiency with one universally understood regulation
* **IATA Commercial Objective**:-to ensure the safety of passenger, mail, cargo can move in the world as though they are in a single airline within a single country.
* **Financial Committee of IATA**:-handles all aspects of accounting and settlement among all airlines
* **Legal Committee of IATA**:-handles legal matters that come under IATA from different international air carriers.
* **Technical Committee of IATA**: - it has a strong relationship with ICAO i.e. it guides planes on air. Its major task is cooperation of technical and operational aspects
* **IATA Air Traffic Conference** -To make air travel easier to describe and organize, IATA has divided the global airline community in to three areas:

1. Traffic conference 1—[north and south America, Greenland, pacific islands of midway, Guam, Canton and Wake ]
2. Traffic conference 2—[Europe, USSR east of Ural mountains, Africa, middle east through Iran]
3. Traffic conference 3—[south west Asia east of Iran, Asia , Australia and all other pacific islands]

**4.6. Airline Geography and Terms**

Airline geography is concerned with the various cities, airports, and countries served by air carriers. Airline geography is based on the *standards* set by the International Air Transport Association /IATA/. The definitions, codes, and spellings used by IATA are created by the International Standards Organization /ISO/, based in Geneva, Switzerland.

**City, airport and airline codes:**

Inairline geography, each city and airport is given a three letter ISO code**.** City coderefers a three-letter designation of a city that is served by one or more airports. Airport code is a three-letter abbreviation that designates a specific airport that serves a city.

For example; SFO the city code for San Francisco

ORD the airport code for the Chicago O’Hare airport

If a city is served by multiple airports, each airport is referred to by a different code. For example: - multi-airport cities such as London, Paris and Rome

City City code airport name airport code

**LONDON** LON Heathrow LHR

Gatwick LGW

Stansted STN

Each Airline is represented by two letter code and 3 digit numeric code. The numeric codes are mainly given for the purpose of ticket accounts and air fares. Here are examples of some countries airlines with their respective code.

**Airline name** **Letter Code**

American airlines AA

Air France AF

Air Canada AC

Air India AI

Aeromexico AM

Aerolinas Argentina AR

Alaska airlines AS

British airways BA

China airlines CI

Continental airlines CO

Cuban airlines CU

Avianca (Colombia) AV

FinnAir(Finland) AY

Alitalia (Italy) AZ

Cathay pacific airways (Hong Kong) CX

Aer lengus (Ireland) EI

Iberia airlines (Spain) IB

Japan airlines JL

KLM Royal Dutch airlines(Netherlands)KL

LanChile LA

Lufthansa German airlines LH

El Al Israel airlines LY

Air New Zealand NZ

Olympic Airways (Greek) OA

Austrian airways OS

Philippine airlines PR

Quantas airways QF

Air Afrique (Coted’vore) RK

South African airways SA

Sahsa (Honduras) SH

Air Jamaica JM

SAS Scandinavian airlines (Sweden) SK

Sabian Belgian world air SN

Swiss air (Switzerland) SR

Aeroflot (Russia) SU

Tap air (Portugal) TP

UTA French airlines UT

Nigerian airways WT

Korean air KE

Egypt air MS

Mexicana MX

Singapore airlines SQ

AeroPeru PL

Varig (Brazil) RH

Thai international (Thailand) TG

North West airlines NW

Pakistan international PK

Royal Jordanian RJ

SaudiArabianairlines SV

United airlines UA

Us airways US

Pan American world airways PA

Bahamas air UP

Delta airlines DL

Canadian pacific air (Canada) CP

Trans world airlines AW

Viasa(Venezuela) VA

**National airport codes of Ethiopia:**

Shire SHC

Axum AXU

Lalibela LLI

Dessie DSE

Mekane Selam MKS

Gambela GMB

Jijiga JIJ

Mekelle MQX

Robe GOB

Addis Ababa ADD

Kebridar ABK

Shilavo HIL

Gode GDE

Arbaminch MMH

Teppi TIE

Jinka (Baco) BCO

Jimma JIM

Gore GOR

Gondar GDQ

Bahir Dar BJR

Dembi dollo DEM

Assossa ASO

Mizan Teferi MTF

Dire Dawa DIR

**Phonetic Alphabets**

|  |  |  |
| --- | --- | --- |
| A – Alpha | J - Juliet | S - Sierra |
| B- Bravo | K - Kilo | T – Tango |
| C - Charlie | L - Lima | U – Unicorn |
| D - Delta | M - Mike | V - Victor |
| E – Echo | N – Nancy | W - Whisky |
| F - Foxtrot | O - Oscar | X – X-ray |
| G – Golf | P - Papa | Y - Yankee |
| H – Hotel | Q – Quebec | Z – Zebra |
| I – India | R – Romeo |  |

**Abbreviations:**

Miscellaneous abbreviations are used to express requirements of customers which include:

Acknowledge ACK

Advice ADV

Arrival ARR

Alternative ALTN

As soon as possible ASAP

Authorize/authority AUTH

Child CHD

Commercially important person CIP

Very important person VIP

Connect/connecting CONX

Clarify message not understood CFY

Depart/departing/ DEP

First available FRAV

Inadmissible passenger INAD

Name/names to be advised NTBA

No show NOSH

Origin/original ORIG

Repeat RPT

Passenger name recorder PNR

Request REQ

Stopover STVR

Ticket number TKNO

Travel agent AGT

Unaccompanied minor UM

Passenger PSGR/PAX

Do all possible DAPO

**Special service requirement codes**

These codes are used in airlines that use automated registration system.

Asian vegetarian meal AVML

Bassinet\*\* BSCT

Blind passenger BLND

Cabin baggage CBBG

Child meal CHML

Deportee (accompanied by escort) DEPA

Deportee (unaccompanied) DEPU

Diabetic meal DBML

Fragile baggage FRAG

Medical case MEDA

Meet and assist MAAS

No smoking aisle seat NSSA

No smoking window seat NSSW

Other service information OSI

Seat request RQST

Specify language spoken LANG

Stretcher passenger STCR

Transit/transfer without visa TWOV

Unaccompanied UNMR

\**Bassinet refers* to a basket used to carry small children in an airline and also called carry coat

\*\**unaccompanied minor* implies the minor needs special treatment

**Flight and routing terms /itinerary terms/**

Travel and airline agents must be familiar with various terms that describe flight itineraries in order to price air itineraries and complete airline tickets correctly. Here are those important itinerary terms.

* ***Ticketed point of travel***:-a flight itinerary term that includes all cities through which the airline passenger travels and that appear o the airline ticket. We use special terms to identify ticketed point of travel such as; origin, destination, outward destination, stopover, and connecting city. Example of a typical air itinerary:
* From Los Angeles to Dallas/fort worth
* From Dallas/Fort Worth to Baltimore
* From Baltimore to Chicago
* From Chicago to Los Angeles
* ***Origin***:-a flight itinerary term that identifies the city where travel begins.( in the above example, Los Angeles)
* ***Destination***:-a flight itinerary term that identifies the city where the itinerary ends.( in the above example, Los Angeles)
* ***Stopover city***: a city in which the passenger makes a voluntary and prolonged stop. For international trips, a standard definition for stopover is a deliberate stop for more than 24 hrs. For domestic travel in USA, a city is stop over if the passenger makes deliberate stop for more than4 hours. If a passenger makes stopover on a domestic airline ticket, a fare is charged to that city.
* ***Out bound and inbound sectors***:-
* *Outbound sector of travel*-the part of itinerary measured from the origin to and including the outward destination.( Los Angeles, Dallas, Baltimore)
* *Inbound sector of travel*- the part of itinerary measured from the outward destination to the final destination.( Baltimore, Chicago Los Angeles)
* ***Connecting city***: - a city on the routing in which the passenger makes an involuntary stop. For domestic travel, a city is connecting city if the passenger stops for less than 4 hours. If a passenger travels through the connecting city, a fare is not charged to the city.

**4.7. Types of Flight Services**

There are three types of flight services:

**1. Direct flight service/through flight/-**

Is a flight that contains one or more intermediate stops at which the passenger does not change planes. It also means single plane service because there is no change in flight number. On the intermediate stops (Chicago and Minneapolis), the passenger stays on the plane all the way through the final destination (Dallas).

Example: the passenger is flying on American airlines flight 214 from Cleveland to Dallas AA 214

(CLE) (ORD) (MSP) (DFW)

(ORIGIN) (DESTINATION)

**2. Nonstop flight service:**

Contains no intermediate stops; the passengers are carried through directly to their intended destination. It is also a single plane service because there is no change of flight number. This is the most desirable type of flight service

Example: the passenger is flying on American airlines flight 837 which is nonstop flight from Cleveland to Dallas/Fort Worth.

AA 837

(CLE) (DFW)

(ORIGIN) (DESTINATION)

**3. Connecting Flight:**

Has one or more intermediate stops that require the passenger to change aircraft and flight number. There are two types of connections:

* **On-line connection:-**a connection with change of aircraft and flight number within the same airline

**Example**: the passenger is flying from Atlanta (ATL) to Denver (DEN) on united 733. He will change planes and flight number in Denver. The connecting flight is on another united flight, number 161, which will fly to Portland (PDX)

UA 733 UA 161

(ATL) (DEN) (PDX)

(ORIGIN) (CONNECTION) (DESTINATION)

* **Off-line Connection/interline connection/:-**is a connection with a change of aircraft and flight number between two different airlines.

**Example**: the passenger is flying from Nashville (BNA) all the way to San Francisco (SFO). He will first fly on American airlines flight 163 to the connecting city of Memphis (MEM). He will change to North West flight 935, which will fly to SFO. This is an offline connection because two airlines are used: American and North West

AA163 NM 935

(BNA) (MEM) (SFO)

(ORIGIN) (CONNECTION) (DESTINATION

**4.8. Types of Air Journeys**

Air line passengers take four types of journeys:

1. **One way:-**

Is a trip in a continuous direction from the origin to the final destination without a return to the origin .Example, a passenger flying from Denver to Los Angeles. On united 123. A one way trip can be made on more than one flight, as in Dallas via Salt Lake City to Los Angeles.

2. **Round Trip:-**

Is a trip from the origin to the outward destination with a return to the origin. A round trip uses the same route and airline in each direction of travel. In other words, the routing to the outward destination is exactly the same as the return routing back to the origin. Such a trip might be Boston to New York to Boston by American airlines. Buying round trip ticket is often cheaper than buying two one- way tickets.

Delta 223 Delta 422 Delta 557 Delta 601

Example: RIC ATL MEM ATL RIC

**3. Circle trip:-**

It is of a round-trip nature because the passenger returns to the origin city; however the outbound journey differs from the return journey, either in terms of routing (connecting cities /stopovers) or the class of service or airlines. A circle trip usually involves two or more stopovers.

Example: 1.Routing: From Chicago to Atlanta by delta airlines

From Atlanta to New Orleans on delta airlines

From New Orleans to Chicago on united airlines

Example: 2. Routing: Minneapolis via Chicago to St. Luis and returning from St .Luis to Minneapolis nonstop. Class of service: Minneapolis to St .Luis first class, return trip economy class.

**4. Open Jaws Trip:**

Is a trip of a round –trip or circle-trip nature except it is ‘interrupted’ by a surface or non air segment in the itinerary. An open jaw occurs when any of the following happens:

* The passenger’s outward destination is different from the departure city for the return trip( the trip is open-ended on the outbound portion of the trip)

Example:

United Airlines Surface Segment United Airlines

DEN LAX SFO DEN

* The passenger departs from the origin city and returns to a different city (the trip is open ended at the return portion of the trip.)
* EXAMPLE:

Us Airways Delta Airlines

NYO YTO BOS

**4.9 Airports and their facilities and formalities**

Airports: Transportation terminals for the skies

According to Doganis (1992), airports can be defined as “*a complex industrial organization which acts as a forum in which disparate elements and activities are brought together, to facilitate from both passengers and freight, interchange between air and surface transportation”.*

On the basis of physical terms, Doganis also defined airport as *“is essentially one or more runways for aircrafts together with buildings or terminals where passengers are processed”.*

The world’s major airports are international crossroads, handling thousands of passengers and hundreds of flights each day to every corner of the globe. For instance, at Chicago’s O’Hare International air port, the world’s busiest airport, a plane takes off or lands every 23 seconds.

**The Layout of an airport**

Airports vary in layout depending on their size and the time they were built. Generally airports (major ones) have the following parts (layout):

1. **The terminal building:** It is the heart of the airport complex. It is also a place where passengers purchase or present their tickets, check in or retrieve baggage, and board an airplane or deplane. The terminal building includes: ticket counters, waiting areas, a weather station, briefing room for pilots, dispatch office for communicating with ticket counters and planes and office of the airport manager. The terminal buildings at major airports also offer the services of car rental agencies, shops, restaurants, cocktail lounges and banks.
2. **The cargo terminal:** It refers to one or more separate buildings where mail or freight is processed.
3. **The control tower:** It is the nerve centre of the airport, usually adjacent to the passenger terminal. From the glass-enclosed top level, or cab, air traffic controllers use radar, radio, and signal lights to direct traffic in the air and on the ground.
4. **Hangar:** It is the place where planes are stored and repaired. The hangars must be far enough and wide enough from the runways to avoid interference.
5. **Runways:** It refers to the strips of land on which airplanes land and from which they takeoff. Runways must be long enough and wide enough to accommodate the airplanes using them. There must also be a clear zone at either end of the runway.
6. **The loading apron:** It is the parking area at the terminal gate where the airplane is refuelled, loaded and boarded.
7. **Taxiways:** It refers to lanes for the airplane to use when going from the apron to the runway or from the runway to the hangar.

**Activities at the airport**

* Baggage handling
* Passenger terminal operation
* Airport security
* Cargo operation
* Air traffic control
* Aircraft scheduling
* Airport and aircraft emergency services

**Airport facilities and procedures**

1. Turn around arrangement –

* It is the 1st facility given by airport to passenger such as training how to open, close doors and windows.
* Refers to the whole procedures of different services that happen in and around aircraft between arrival and departure at airport terminal. The standard time for turnaround arrangement is 40 minutes.

1. Transit arrangement

* If the aircraft is on the way to final destination(on an intermediate stop)
* Both turn around and transit arrangement is made by a person called *RED CAP/ Ramp Coordinator*

**CHECK IN PROCEDURE**

These are airport procedures undertaken by passengers: Here are types of check in procedures:

1. First class check in

* Also known as business class or airline club membership check in
* It is speedier and personalized check in
* Given priority while the baggage is packed

1. Express check in

* Is a type of check in if the passenger who has cabin baggage only and has just checked in off premises
* Passenger has only cabin baggage

1. Automated self check in

* Is a type of check in if the passenger has a baggage but do not carry of premises

1. Economy class check in

* Slower than other check in procedures and is time consuming

**Steps in check in procedures**

* Security check- at airport gate terminal
* X-ray baggage/scanning/
* Check in counter- airport tax will be paid
* Custom and immigration check- visa, passport, health card
* Waiting lounge
* Security gate and security check
* Boarding lounge
* Boarding –the passenger will be transferred to connecting bridge
* Boarding pass check
* Entering the aircraft

**Post landing procedures:**

* Custom and immigration check
* Baggage claim area
* Custom clearance check: red paper- for edible items and green paper- for non edible items, for example souvenirs
* Welcome desk
* Security
* Exit

**Voluntary upgrading**

A passenger can be up graded voluntarily from economy class to first class on the following occasions;

* When ordering the ticket
* When making the reservation
* At any stopover- by making extra payment
* At air port check in counter – during the time of check in, the passenger can ask for upgrading
* Within the aircraft- by making an extra payment to the extra cabin
* Generally voluntary upgrading is done by making an extra payment and it should also be notified for the ticket issuing agent.

**Involuntary upgrading:**

A passenger can be upgraded involuntarily from economy class to first class on the following occasions:

* When there is last minute configuration of change of aircraft (if in case the plane which is scheduled for passengers is in problem, another plane will be ordered for them, so passenger from economy class will be transferred to first class.
* When economy class is overbooked
* Weight problem- to keep the balance of the aircraft, sometimes passengers will be upgraded from economy class to first class.
* Involuntary upgrading is done without an extra payment because it is done involuntarily

**Voluntary down grading:**

* It should not be notified for the ticket issuing agent
* The money of the passenger will not be paid back/refunded/ because it is voluntarily done

**Involuntary down grading:**

Passengers may be downgraded involuntarily from 1st class to economy class in the following occasions;

* When there is last minute configuration of change of aircraft
* When first class is overloaded
* Since it is done involuntarily, the passenger’s money will be paid back/refunded. When the passengers go to the airline to ask for the refund, they should bring the following things with them: the airline ticket, boarding pass, written proof and it should have a stamp on the ticket.

**4.10 Elapsed flying time**

Elapsed flying time is an important concept in both domestic and international air travel it is especially important when booking international passenger for long distance travel.

There are many different methods to calculate elapsed flying times. To find the elapsed time for any flight schedule, change the departure and arrival tie what time it would be in GMT (GMT time). Then just figure the number of hours and minutes to obtain the actual travel time or elapsed flying time.

**Example**: a flight departs New York at 1800 (local time). It arrives in Munich at 0730 the next morning (local time)

Step 1- Find out the relationship of both the departure and arrival cities to the GMT zone.

New York is GMT (-5)

Munich is GMT (+1)

Step 2- Change each local time to what it would be in GMT

1800 (New York time at -5)

1800 + 5= 2300 GMT

0730 (Munich time at +1)

0730-1 = 0630 GMT

Step 3- Count the number of hours and minutes using the converted GMT times.

From 2300 GMT to 0630 GMT (the next morning) = 7 hours and 30 minutes elapsed flying time.

**Calculation on flight time**

1. ET 801 leaves Nairobi at 1300 on 20 July and arrives in Addis Ababa at 1500. so how long is the journey?

**Step 1**

Nairobi is GMT +3 and

Addis Ababa is GMT +3 as well

**Step 2**

Counting from 1300 to 1500 or

1500-1300= **2 hours**

1. ET 601 leaves Dubai (United Arab Emirates) at 2300 on 20 July and arrives in Addis Ababa at 0230 on 21 of July, so how long was the journey?

**Step 1-** Dubai is GMT +4

Addis Ababa is GMT +3

**Step 2 -** 2300-4= 1900 GMT

0230-3= 2330 GMT

**Step 3**

Counting from 1900 to 2330 or

2330-1900= **04 hours and 30 minutes**

1. ET 600 Departs from Dubai at 1600 on the 26th of march and the flight will take 6 hours till it reaches Addis so what time will it arrive in Addis Ababa?

**Step 1**

Dubai GMT + 4 so 1600-4=1200 GMT

Addis Ababa +3

**Step 2-** Adding the flight time to GMT

1200 GMT + 6 hr=1800 GMT

**Step 3-** converting the GMT to Addis Ababa local time

1. +3= **2100**
2. What is the duration of a journey for a passenger leaving Istanbul at 0910 on Friday, and arriving in Singapore on Saturday 7th January at 1450?

Istanbul GMT+2 so 0910-2= 0710 on Friday

Singapore GMT +8 so 1450-8=0650 on Saturday

Then we have to calculate the difference

2400-0710= 1650 hours on Friday

0650 hours on Saturday

1650+0650= **23 hours 40 minute**