

# AVIATION



# AVIATION

APART FROM AIRCRAFT OPERATIONS, THE FOLLOWING ARE ALSO PART OF THE AVIATION INDUSTRY COVERED BY INSURANCE::

1. CATERING CONTRACTORS
2. CONSTRUCTION CONTRACTORS AT AIRPORTS
3. SECURITY SERVICE PROVIDERS
4. FUEL PROVIDERS
5. AIRPORTS AND AIR NAVIGATION SERVICE PROVIDERS
6. MAINTENANCE REPAIR AND OVERHAUL (MRO) ORGNS
7. LESSORS AND FINANCIERS OF AIRCRAFT
8. COMPONENT AND PART SUPPLIERS TO AIRCRAFT MFGRS.

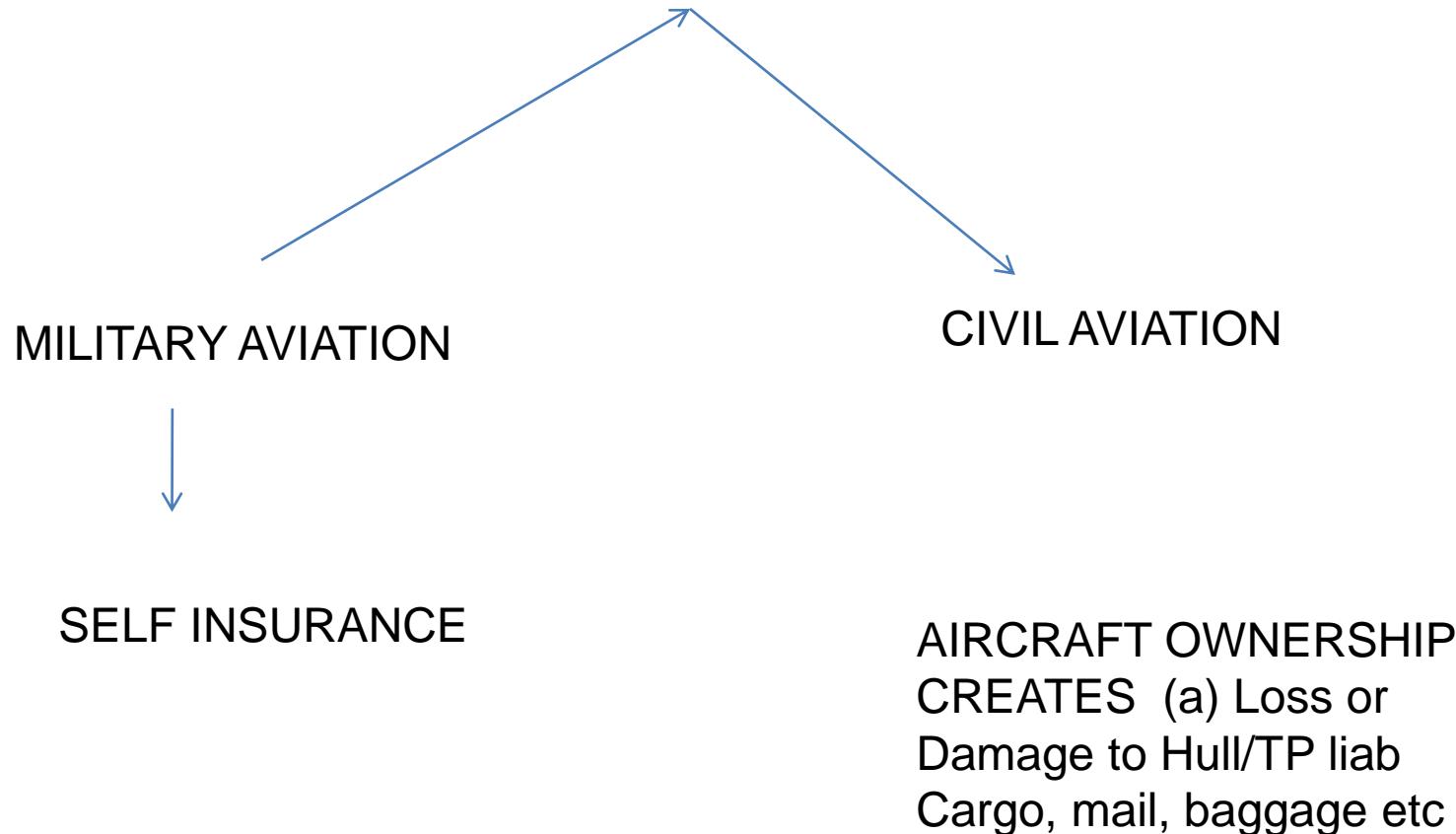
# AVIATION

1. LOSS OR DAMAGE TO HULL OF AIRCRAFT
2. LEGAL LIAB TO PASSENGERS AND BAGGAGE
3. LEGAL LIAB TOWARDS OWNERS OF CARGO
4. LEGAL LIABILITIES IN RESPECT OF CARRIAGE OF MAIL
5. LEGAL LIABILITIES TOWARDS PERSONS AND PROPERTY ON THE GROUND
6. PERSONAL ACCIDENT OF CREW/PASSENGERS
7. LOSS OF LICENCE OF AIRCREW ON MEDICAL GROUNDS

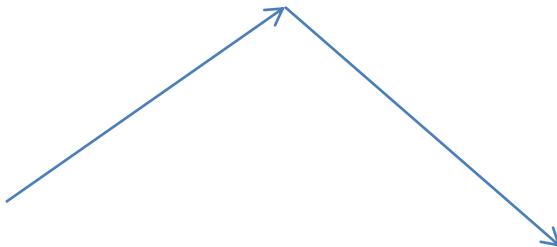
# AVIATION

8. LEGAL LIABILITIES OF AIRPORT OWNERS AND OPERATORS
9. STELLITE INSURANCE
10. PRODUCTS LEGAL LIABILITY OF MANUFACTURERS
11. LOSS OF USE OF AIRCRAFT FOLLOWING DAMAGE

# CATEGORIES OF AVIATION INDUSTRY



# AIRCRAFT OPERATIONS



AIRLINE OPERATION

GENERAL AVIATION  
OPERATIONS

# GENERAL AVIATION

\* SCHEDULED OPERATIONS INVOLVING SMALLER AIRCRAFT UPTO 60 SEATS ARE GENERAL AVIATION

61 OR MORE SEATS - AIR LINES

# AEROSPACE SEGMENT

Comprises of::

- a) Airport operators
- b) Refuellers
- c) Maintenance repair and Overhaul Organisations and
- d) Such other organisations supporting aircraft operations

# CHARACTERISTICS OF AVIATION INSURANCE CLASS

## 1. Law of Large Numbers ::

Weak in comparison to other classes or segment.

2. **Insurance placement on subscription market basis (i.e a single risk is uw by a no of underwriters, each subscribing a percentage line of the risk).**
3. **Smaller aircraft risk are written by local insurance cos.**
4. **Airline placements:**
  - combination of subscription /auction basis **(verticalisation)**

# CHARACTERISTICS OF AVIATION INSURANCE CLASS

5. Aviation class is relatively reinsurer driven.
6. Significant underwriter judgment in rating aviation risks.
7. Extensively regulated industry.
8. Civil aviation authorities and aircraft financiers are two major forces propelling demand for aviation insurance.
9. Aviation insurance market remains concentrated in London.

# CHARACTERISTICS OF AVIATION INSURANCE CLASS

## 10 . Important organisations playing an active role in the aviation industry worldwide ::

### a) International Air Transport Association (IATA)::

- It is an international trade body of airlines, headquartered in Montreal, Canada and executive office at Geneva.
- World leading passenger and cargo airlines are members.
- **Mission :: Represent, lead and serve the Airline industry.**
- compliance with safety standards under IATA Operational Safety Audit(IOSA) is pre-requisite for becoming an IATA membership.

# CHARACTERISTICS OF AVIATION INSURANCE CLASS

## 10 . Important organisations playing an active role in the aviation industry worldwide ::

### b. International Civil Aviation Organisation (ICAO):

- An agency of UN established under Chicago convention 1944 which came into effect in 1947.

### c. International Union of Aerospace Insurers(IUAI):

- Founded in 1934, represents voice of insurance & reinsurance community in regard to aviation industry matters.

# OPERATIONAL CONTROL FUNCTIONS

1. CREW AND AIRCRAFT SCHEDULING
2. ACCEPTING CHARTER FLIGHTS FROM THE PUBLIC
3. REVIEWING WEATHER AND NOTICES TO AIRMEN
4. FLIGHT PLANNING

# AVN I C POLICY WORDING

## SECTION I :: **LOSS OR DAMAGE TO AIRCRAFT HULL)**

- replace, repair accidental loss or damage to the aircraft from the risks covered including disappearance if the aircraft is unreported for 60 days.
- In addition, pay reasonable emergency expenses by the insured for the immediate safety of the aircraft consequent upon damage or forced landing upto 10% of the amount insured.

**(HULL POLICIES ARE PREDOMINENTLY ON  
AGREED VALUE)**

**Exclusions::** a) Wear and Tear,deterioration,breakdown, defect b)progressive or cumulative damage  
**c) WAR etc.,**

# AVN I C POLICY WORDING

## SECTION I :: **LOSS OR DAMAGE TO AIRCRAFT**

### - **Conditions ::**

- a) No dismantling or repairs without the consent of insurers
- b) pay for repairs and transport of labour and materials by most economical methods
- c) If on replacement, insurer may take the salvage
- d) Replacement aircraft shall be of same make and type and in reasonably like condition.
- e) deductible
- f) No abandonment

# AVN I C POLICY WORDING

## SECTION II:: Legal Liability to Third Parties :

indemnify the insured for all sums which the insured is legally liable to pay in respect of accidental bodily injury and damage to property caused by aircraft or by any person or object falling therefrom.

### Exclusions ::

- injury / loss sustained by the employee, member of crew to property in care, custody and control of the insured.
- noise & pollution
- Deductibles.

# AVN I C POLICY WORDING

## SECTION III:: **LEGAL LIABILITY TO PASSENGERS ::**

-Compensatory damages in respect of bodily injury to passengers, loss or damage to baggage.

## SECTION IV :: **GENERAL EXCLUSIONS APPLYING TO ALL**

- outside geographical limits
- piloted by any other person other than mentioned in the schedule.
- no. Of pass exceeding declared no. Of pass stated in the schedule.
- Nuclear risks,was, SRCC, terrorism, malicious act, Hijacking.

# AVN I C POLICY WORDING

## SECTION IV :: **GENERAL CONDITIONS::**

- Due diligence
- Compliance with Air navigation orders etc
- Claims procedure

# AVN I C POLICY WORDING

## STANDARD DEDUCTIBLES::

### FIXED WING AIRCRAFT::

- Deductible is NOT applicable to any form of Total Loss.

### ROTOR WING AIRCRAFT::

- Deductible is applicable for all losses.

NARROW BODIED: USD 500,000

WIDE BODIED : USD 1,000,000

BUSINESS JETS :: 1% OF AGREED VALUE

HELICOPTERS :: 5% OF AGREED VALUE

FOR HIGH DEDUCTIBLES, OPERATORS MAY TAKE OUT A HULL DEDUCTIBLE POLICY .

# LSW 555D WAR POLICY WORDING

SECTION I LOSS OR DAMAGE TO AIRCRAFT IS COVERED WHICH ARE EXCLUDED IN AVN I C(a to g except b) UNDER AVN 48 B.

( EXCEPT ANY HOSTILE DETONATION OF .....EMPLOYING ATOMIC OR NUCLEAR FISSION OR FUSION ..). AS FOLLOWS :::

- 1) War, 2)SRCC 3) TERRORISM, 4) MALICIOUS DAMAGE
- 5) CONFISCATION, ....6) HIJACKING

SECTION II : COVERS EXTORTION AND HIJACK EXPENSES UPTO A LIMIT OF 10% OF MAV OF WHICH 10% OF SUCH PAYMENT WILL REMAIN UNINSURED.

# LSW 555D WAR POLICY WORDING

## SECTION 3 ::EXCLUSIONS ::

- 1) WAR AMONGST FIVE COUNTRIES(USA,UK,FRANCE, RUSSIA, CHINA)
- , 2) DETONATION OF ANY WEAPON OF WAR EMPLOYING ATOMIC OR NUCLEAR FISSION

## SECTION 4 : GEN CONDITIONS::

## SECTION 5 : TERMINATION CONDITIONS

# AVIATION PA POLICIES

1. GIVEN TO CREW AS WELL AS TO PASSENGERS.
2. WHILE ENTERING, ALIGHTING AN AIRCRAFT  
& ALSO ON 24 HOUR BASIS.

# STANDARD CLAUSES IN AVN1C

1. LSW 617G KILN GEOGRAPHIC AREAS EXCLUSION CLAUSE  
CONTAINS EXCLUDED COUNTRIES - LOSS OR DAMAGE  
OCCCURING WITHIN THE GEOGRAPHICAL LIMITS  
EXCLUDED.
2. AVN 38B NUCLEAR RISKS EXCLUSION CLAUSE
3. AVN 46B NOISE AND POLLUTION EXCL CLAUSE
4. AVN 48B WAR HIJACKING AND OTHER PERILS EXCL CLAUSE
5. AVN 52E EXTENDED (AVN LIAB) ENDT:(50 TO 250 MLN)

# STANDARD CLAUSES IN AVN1C

6. ASBESTOS EXCLUSION CLAUSE
7. NON AVIATION LIABILITY CLAUSE
8. DATE RECOGNITION CLAUSE
9. AVN 60A PERSONAL INJURY EXTN
10. AVN 61 AGREED VALUE CLAUE
11. AVN 6A PREMIUM PAYMENT CLAUSE  
In case of non payment of premium, 30 days notice to broker.

# STANDARD CLAUSES IN AVN1C

## 12. AVN 76 SUPPLEMENTARY PAYMENT CLAUSE ::

Cover for reasonable expenses for

a)Search & Rescue

b) Runway foaming

c)removal/destruction of wreckage

d)expenses for any public inquiry by Civial Aviation Authority..

with a cap of 10% of agreed value.

## 13. AVN 26A Aircrafts Laying up Returns Clause

## 14. AVN 19A Additions and deletions

## 15. AVN 34A Passenger Voluntary settlement Endt

- Insurers offer settlement to passengers irrespective of  
legal liability

# LOSS OF LICENCE

- COMPENSATION PAID TO PILOTS FOR LOSS OF LICENCE /CANCELLATION DUE TO BODILY INJURY, ILLNESS
- WAITING PERIOD 90 DAYS
-

# OTHER AVIATION COVERS

1. Ariel Airport Owners and Operators Liability Insurance  
(3 sections - bodily injury or property damage, loss or damage to aircraft or aircraft equipment in care, custody and control of insured whilst on the ground, being serviced etc., and product liability)
2. Hull Deductible covers

# LOSS OF LICENCE

- COMPENSATION PAID TO PILOTS FOR LOSS OF LICENCE /CANCELLATION DUE TO BODILY INJURY, ILLNESS
- WAITING PERIOD 90 DAYS
-

# GEN AVIATION OPERATIONS

1. COMMERCIAL AIR TRANSPORT SERVICES
2. AVIATION TRAINING
3. MAINTENANCE AND OVERHAUL
4. AERIAL WORK
5. INSTRUCTIONAL FLYING
6. AGRI, PHOTOGRAPHY, SURVEYING ETC.,

# GEN AVN OPERATIONS

1. PRIVATE PLEASURE
2. BUSINESS
3. COMMERCIAL
4. RENTAL
5. CORPORATE AVIATION
6. PRIVATE TRAVEL
7. SPORTS, ETC.,

# AUTO ROTATION

IN CASE OF ENGINE FAILURES WHILE FIXED WING AIRCRAFTS TEND TO GLIDE OVER A LONG DISTANCE GIVEN THE AERODYNAMIC SHAPE OF AIRCRAFT, ROTOR WING AIRCRAFT CANNOT GLIDE. INSTEAD, UTILISING THE INERTIA IN THE ROTOR BLADES, IS ABLE TO UTILISE THE ENERGY TO LAND.

# PILOT CERTIFICATION

1. PILOTS START WITH GENERAL AVIATION OPERATIONS,  
AND GRADUALLY WITH EXPERIENCE AND FURTHER  
TRAINING GRADUATE TO AIRLINE PILOTS.

2. CERTIFICATE LEVELS::

i)Student, 2) Private 3) Commercial and 4) Airline Transport  
LICENCES.

# PILOT EXPERIENCE AND TRAINING

- a) TOTAL FLYING HOURS - FIXED & ROTOR
- b) TOTAL FLYING HOURS ON SINGLE/MULTI ENGINE/PISTON TURBINE ENGINES
- c) FLYING HOURS ON MAKE AND MODEL
- d) HOURS AS PILOT IN COMMAND
- e) HOURS ON SIMILAR TYPE OF AIRCRAFT
- f) HOURS OF NIGHT FLYING
- g) FREQUENCY AND TYPE OF TRAINING
- h) RECENCY OF EXPERIENCE
- i) EXPERIENCE IN CARRYING SP OP - OFFSHORE FLYING/ SLUNG CARGO HANDLING

# AIRCRAFT ACCIDENTS - MAJOR CAUSES

- 1) THE PILOT
- 2) THE AIRCRAFT
- 3) CAUSES EXTERNAL TO THE AIRCRAFT

# HAZARDS - GENERAL AVIATION

1. MOUNTAIN FLYING
2. HELICOPTER EMERGENCY MEDICAL SERVICES
3. HELICOPTER SLUNG CARGO OPERATIONS
4. NIGHT FLYING

# PRIORITISATION

1. AVIATE : KEEP THE AIRCRAFT FLYING
2. NAVIGATE :: KEEPT IT FLYING AVOIDING TERRAIN  
AND IN THE DESIRED DIRECTION.
3. COMMUNICATE:: ASCERTAIN LOCATION,  
SEEKING INFO ON WEATHER,  
APPROACH BRIEFING FROM ATC

# SPEACIAL USAGES IN G.A

1. AERIAL CRANE OPERATIONS
2. ADVERTISING
3. AGRI
4. GEOGRAPHICAL SURVEY
5. GLIDER TOWING
6. PILOT TRAINING
7. MEDICAL EVAC
8. OFFSHORE DRILLING
9. SEARCH AND RESCUE
10. SIGHT SEEING
11. TV REPORTING
12. WEATHER RESEARCH ETC,

\* FLIGHT DATA RECORDER ::(FDRs)

- known as black box.
- Bright yellow in colour.
- located in the tail of the aircraft,designed to withstand crash impacts so that the data can be preserved and accessed, facilitating study of the accident.
- Two components :: a) Flight Data Recorder  
b) Cockpit Voice Recorder

\*ENHANCED GROUND PROXIMITY WARNING SYSTEM

\*TRAFFIC ALERT AND COLLISION AVOIDANCE SYSTEM(TCAS)

\*WINDSHEAR::

Defined as a sudden change of wind velocity and or direction.

# INTERLINE AND CODESHARING

## INTERLINE AGREEMENTS::

BETWEEN AIRLINES FACILITATE TRAVEL FOR PASS WHEN THERE IS NO DIRECT FLIGHT AND TWO FLIGHTS WITH A STOP OVER ENABLING THE PASS TO REACH HIS DESTINATION IS OPERATED BY TWO SEPARATE AIRLINES.

HERE A PASSENGER HAS TO BOOK A TICKET WITH ONLY ONE AIRLINE WHO WILL ISSUE TICKETS FOR BOTH THE LEGS OF TRAVEL.

## CODE SHARING::

BOTH LEGS WILL BE UNDER ONE CODE SHARING,  
EX - MUMBAI ABUDHABI BY 9W & ABUDHABI LONDON BY EY  
- BOTH WILL BE UNDER 9W in CODE SHARING.

- \* SAFETY MANAGEMENT SYSTEM.
- \* CREW RESOURCE MANAGEMENT(CRM)
  - which endeavours to make optimum use of all resources - equipment procedures and people through managing inter - personal aspects of flight crew.
- \* LINE OPERATIONS SAFETY AUDIT (LOSA)
  - is a data driven methodology to assess crew performance from technical as well as human performance angles.
- \* UNIVERSAL SAFETY OVERSIGHT AUDIT PROGRAMME(USOAP):
  - ICAO launched USOAP, for auditing and evaluating ICAO member States capability to provide safety oversight and implementation.

# AEROSPACE SEGMENT

1. AIRPORTS
2. MFGS AND SERVICE PROVIDERS (ATC)
3. REFUELLERS
4. CATERERS
5. MAINTENANCE REPAIR AND OVERHAUL(MRO)

NOTAM::

-NOTice to AirMan

is a notice or advisory containing information concerning the establishment, conditions or change in any aeronautical facility, service, procedure or hazard, the timely knowledge of which is essential to personnel and systems concerned with flight operations.

# AVIATION FUELING LIABILITY INSURANCE

## SECTION I ::

Insurers agree to pay on behalf of insured - damages for bodily injury or property damage caused by an occurrence at any airport arising out of the insureds business of storage and supply of fuel and or lubricants, hydraulic fluids for use in connection with the aircrafts.

## SECTION II::

damages for bodily injury or property damage caused by an occurrence arising out of Products Hazard.

# AVIATION LAWS

## 1. THE WARSAW CONVENTION 1929::

- It covers air carrier liability arising out of accident in regard to Passengers, baggage & cargo.
- Article 17 imposed liability for delay of passengers, baggage and cargo.

Liab per Pass: 125,000 francs  
luggage and goods: 250 francs per kg.

## 2. HAGUE PROTOCOL 1955::

- Fine tunes the provisions of Warsaw Convention , made changes increased Liab per Pass from 125,000 francs to 250,000 francs.

- GUADALAJARA SUPPLEMENTARY CONVENTION 1961
- MONTREAL INTER- CARRIER AGREEMENT 1966
- GUATEMALA CITY PROTOCOL 1971
- ADDITIONAL MONTREAL PROTOCOLS 1975

# MONTREAL CONVENTION 1999

## ARTICLE 24:

- provides for automatic revision of liability limits every five years based on review of inflation factor, if the same is more than 10%
- 19 SDRs - loss or damage or delay in relation to cargo
- 1,131 SDRs - baggage
- 4694 SDRs - delay in carriage of persons
- 113100 SDRs - Death and bodily injury of pass.

**\*SDR - SPECIAL DRAWING RIGHTS**

created by IMF in 1969. Its a value based on five currencies - USD, Euro, Chinese renminbi, yen,pound.

# LAW GOVERNING THIRD PARTY

1. Rome Convention 1933
2. Brussels Insurance Protocol 1938
3. Rome Convention 1952
4. Montreal protocol 1978
5. General Risks Convention 2009
6. Unlawful interference convention 2009

# LAW GOVERNING THIRD PARTY - 2009 CONVENTION

- OPERATORS WHO OPERATE INTO INTL TERRITORIES TO MAINTAIN INSURANCE COVERING THEIR LIABILITY
- DAMAGE CAUSED BY FOREIGN AIRCRAFT TO THIRD PARTIES
- THE LIABILITY DEPENDS ON THE MASS OF AIRCRAFTS.

For example, aircrafts having a mass of a) 500kgs or less - 750,000 SDRs to more than 500,000 kgs, - their liability is 700,000,000 SDRs!!

# LIABILITY LIMIT FOR DOMESTIC AIR TRAVEL UNDER CARRIAGE BY AIR ACT 1972

1. Liability for passenger :: carrier cannot exclude liability upto  
INR 20 LAKHS
2. FOR DELAY :: INR 80,000 PER PASS.
3. for Baggage :: INR 20,000
4. CARGO :: INR 350 PER KG

FORUM SHOPPING ::

EFFORT BY THE CLAIMANT TO CHOOSE THE MOST  
FAVOURABLE JURISDICTIONAL FORUM.

## 1. HOT START::

- occurs when temperature limitations are exceeded during starting the engine, possibly damaging the engine.

THE STATE OF A TURBINE ENGINE ABANDONED BECAUSE OF AN OVER TEMPERATURE INDICATION.

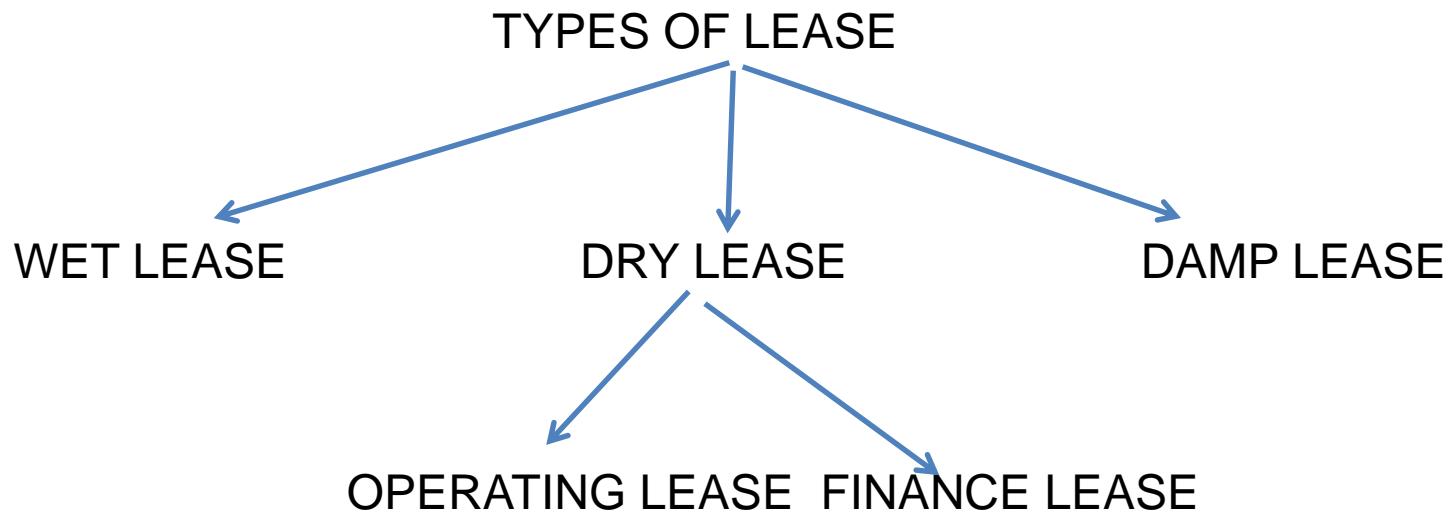
## 2. HUNG START::

- occurs when the engine starts but doesn't accelerate to idle speed.

# CLAIMS DOCUMENTATION

1. POLICY
2. CLAIM BILL
3. STATEMENT OF PILOTS,
4. PILOT DEFECT REPORT
5. INCIDENT REPORT AS SUBMITTED BY CIVIL AVIATION AUTH
6. QUALITY CONTROL FUNCTION
- 7 PASSENGER MANIFEST
8. POST MORTEM REPORTS
- 9 . FINAL REPAIR BILLS
10. COPY OF CERTIFICATE OF REGN
11. CERTIFICATE OF AIRWORTHINESS
12. FLIGHT RELEASE CERTIFICATE
- 13.DTLS OF LAST MAINTENANCE INSPECTION
14. COPY OF SNAG REGISTER

# AVIATION FINANCE



WET LEASE ::

THE LESSOR PROVIDES CREW, INCLUDING PILOTS, ENGINEERS, AND FLIGHT ATTENDANTS TO THE LESSEE.

DRY LEASE ::

INVOLVE JUST TRANSFERRING AN AIRCRAFT FOR OPERATION WITHOUT ANY SUPPORT LIKE MAINTENANCE, CREW, OR INSURANCE.

IT CAN BE A) OPERATING LEASE - FOR A SHORT PERIOD, AFTER THE PERIOD, LESSEE RETURNS THE AIRCRAFTS.

B) FINANCE LEASE ::

- FOR LONGER PERIOD, LESSEE HAS A RIGHT TO PURCHASE THE AIRCRAFT AFTER THE EXPIRY PERIOD

DAMP LEASE ::::

SIMILAR TO WET LEASE BUT WITHOUT CREW.

INTERCHANGE AGREEMENT::

A PERSON LEASES HIS AIRPLANE TO ANOTHER IN EXCHANGE OF EQUAL TIME, WHEN NEEDED ON THE OTHER PERSONS AIRPLANE - NO CHARGE IS MADE EXCEPT FOR THE DIFFERENCE BETWEEN THE COST OF OWNING , OPERATING AND MAINTAINING THE TWO AIRPLANES.

## TIME SHARING AGREEMENT::

A PERSON LEASES HIS AIRPLANE WITH FLIGHT CREW TO  
ANOTHER PERSON AND NO CHARGE IS MADE FOR THE  
FLIGHTS CONDUCTED EXCEPT FUEL, FOOD AND  
LODGING.