Operational Procedure

General

Annex 6 part l, ll, lll
JAR Ops requirements
Navigational requirements for long range flights

Special operational procedures and hazards

Minimum Equipment List (MEL)
Airplane de-icing - anti-icing
Bird strike risk and avoidance
Noise abatement
Fire-smoke
Decompression of pressurized system
Windshear and microburst
Wake turbulence
Security
Emergency and precautionary landings
Fuel jettisoning
Transportation of dangerous goods by air
Contaminated runways

General
Annex 6 part l, ll, lll

What is the minimum number of life saving jackets and individual floatation devices, required on board of an aircraft:

A) One for each crew member and each seat fitted.
B) One for each woman and child.
C) One for each crew member and one for each passenger on board.
D) One for each person that does not have a seat in a life raft.

The number of extinguishers which must be conveniently located in the passenger compartment when the maximum approved passenger seating configuration is between 501 and 600 is:

A) 3
B) 7
C) 1
D) 9

The determination of the aerodrome minimum operating conditions must take the following into account:

1. equipment available for navigation
2. dimensions and characteristics of the runways
3. composition of the flight crew
4. obstacles in the vicinity of approach and missed approach areas
5. facilities for determining and communicating the weather conditions

The combination regrouping all the correct statements is:

A) 2, 3, 5.
B) 1, 2, 4, 5.
C) 2, 4, 5.
D) 1, 2, 3, 4, 5.

A flight may be conducted under VFR only if:

A) the maximum take-off mass does not exceed 5700 Kg.
B) an IFR flight plan has previously been filed and the flight conditions are VMC.
C) a VFR flight plan has been filed and a VFR clearance was received.
D) VMC exists along the route to be flown under VFR.

An operator must ensure that the lowest MDH for a non-precision approach procedure which is based upon the use of a VOR is not lower than:

A) 300ft.
B) 150ft.
C) 200ft.
D) 250ft.

When a destination alternate is not required for a turbojet engined aeroplane, the fuel and oil carried must be at least sufficient to:

A) fly 30 minutes at holding speed at 1500ft above the flight planned aerodrome at standard conditions and to have an additional amount of fuel to cater for increases consumption due to any of the contingencies specified by the operator.
B) take into account all the contingencies specified by the operator.
C) fly to the flight planned destination and then remain airborne for 45 minutes.
D) fly to the aerodrome of destination specified in the operational flight plan.

It is recommended that first aid kits should be positioned:

A) out of sight to prevent panic.
B) in the galley area accessible to cabin staff only.
C) near exits.
D) under passenger seats.

A destination alternate aerodrome must be specified for:

A) any flight where a take-off diversion has been planned.
B) any IFR flight unless there is reasonable certainty that at the ETA a visual approach can be made.
C) any flight for public transport over 40km.
D) an IFR flight, if enroute VMC conditions are expected.

An aeroplane with one passenger deck, is configured with 61 seats. The required number of megaphones on board is:

A) 1.
B) 0.
C) 2.
D) 2 if the seating capacity with one passenger deck is 31.

An aeroplane with one passenger deck, is configured with 61 seats. The required number of megaphones on board is:

A) 1.
B) 0.
C) 2.
D) 2 if the seating capacity with one passenger deck is 31.

From the flight deck you observe an aeroplane in the forward left position on an opposite parallel track. What Nav light will be observed:

A) Green.
B) All of the above.
C) Red.
D) White.

Before any flight is commenced, forms have to be completed certifying that the aeroplane is airworthy. Who has to be satisfied that the aeroplane is airworthy?

A) A JAA authorised person.
B) The operator.
C) The maintenance supervisor.
D) The commander.

For the flight crew members, quickly-fitted oxygen masks are compulsory on board any pressurized aircraft flying at a pressure altitude greater than:

A) 13000 ft
B) 10000 ft
C) 25000 ft
D) 29000 ft

Mach meters are required to be carried in aeroplanes:

A) when there is only one airspeed indicator installed.
B) when the critical Mach-number is low.
C) where speed limitations are expressed in Mach-number.
D) for flights above FL 100.

Mach meters are required to be carried in aeroplanes:

A) when the critical Mach-number is low.
B) for flights above FL 100.
C) when there is only one airspeed indicator installed.
D) where speed limitations are expressed in Mach-number.

The standby power supply powering the standby artificial horizon must be operable on board any aircraft of more than 5.700 kg or more than 9 passengers during at least:

A) 15 minutes.
B) 2 hours.
C) 30 minutes.
D) 60 minutes.

Flight Data Recorder is required in aeroplanes over:

A) 5700kg.
B) 20000kg.
C) 10000kg.
D) 7000kg.

An operator must ensure that the lowest MDH for a non-precision approach procedure which is based upon the use of an NDB is not lower than:

A) 150ft.
B) 300ft.
C) 250ft.
D) 200ft

For GPWS, a specified number of warnings is to be given for hazardous conditions. The number is:

A) 5.
B) 6.
C) 3.
D) 8.

When calculating the length of the runway available (TODA):

A) the runway slope has to be taken into account.
B) the clearway has to be taken into account.
C) the distance lost in lining up the aircraft does not have to be taken into account.
D) the stopway has to be taken into account.

---

21. When you have been unlawfully interfered with the commander is required to inform certain people:

i. State of the Operator.
ii. ICAO
iii. State of registration of aircraft.
iv. JAA.

A) (i), (ii) and (iii)
B) all of the above
C) (i), (iii) and (iv)
D) (ii), (iii) and (iv)

An operator shall not operate an aeroplane with a maximum approved passenger seating configuration of more than ... seats unless a public address system is installed.

A) 111
B) 19
C) 75
D) 7

When a destination alternate is required to be nominated for a propeller driven aeroplane, the fuel and oil carried must be at least sufficient to:

A) land at the destination with the unusable fuel in the tanks.
B) fly to the alternate destination without performing an approach and missed approach at the destination aerodrome.
C) fly to the aerodrome of intended landing, then to the most fuel consumption critical alternate specified in the operational flight plan, and then remain airborne for a further 45 minutes.
D) fly to the flight planned destination and then remain airborne for 45 minutes.

Which of the following limitations are included in the aircraft flight manual?

A) Flight crew limitations.
B) Equipment and system limitations.
C) Power plant, airspeed, equipment and system limitations.
D) Power plant and airspeed limitations.

A life jacket is mandatory for any passenger on board an aircraft flying away from the shore by more than:

A) 50 NM.
B) 100 NM.
C) 200 NM.
D) 400 NM.

When is a flight navigator required as part of the flight crew?

A) If the MEL indicates that the necessary navigational system is inoperative.
B) If the authority of the State of the operator deems that the safe navigation of the aeroplane cannot be adequately accomplished from the pilots station.
C) When flying over remote areas.
D) Where precise navigational procedures (i.e. grid navigation) are mandatory.

Who is responsible for approving methods of calculating minimum flight altitudes?

A) The State of the Operator.
B) The JAA.
C) The ICAO Council.
D) The Operator.

The recent experience conditions of a captain assigned to a flight on an aircraft by an operator must not be less than:

A) 6 take-offs and 6 landings as pilot in command on this type of aircraft during the last 6 months.
B) 3 take-offs and 3 landings as pilot in command on this type of aircraft during the last 90 days.
C) 6 take-offs and 6 landings as pilot in command on this type of aircraft during the last 90 days.
D) 3 take-offs and 3 landings as pilot in command on this type of aircraft during the last 6 months

Aeroplanes being operated over a specified altitude are required to carry equipment. which continuously monitors the dose rate of cosmic radiation. This specified altitude is:

A) 36090 ft.
B) 49000 ft.
C) 66000 ft.
D) 15000 ft.

For turbo-jet aircraft, in the flight preparation stage, the landing distance at the scheduled destination aerodrome shall be less than the available landing distance multiplied by a factor of:

A) 0.6
B) 0.8
C) 0.5
D) 0.7

The ... is responsible for reporting all known or suspected defects in the aeroplane to the operator, at the termination of the flight.

A) State of registration.
B) JAR 145 maintenance organisation.
C) flight dispatcher.
D) pilot in command.

For a turbo-propeller aircraft, at the flight preparation stage, the landing distance required at the alternate aerodrome must be less than the landing distance available multiplied by a factor of:

A) 0.5
B) 0.8
C) 0.6
D) 0.7

Which of the following statements correctly describes the construction and location of a flight data recorder?

A) The flight data recorder is painted a distinctive red colour and is powered from the essential bus bar.
B) The flight data recorder is painted in red and is located in the main wheel well.
C) The flight data recorder is power by the batteries at all times.
D) The flight data recorder is fitted with a floatation device and an underwater location aid.

When refuelling is being performed while passengers are boarding or disembarking the aircraft, it is necessary that: (Annex 6, Part I)

A) The aircrafts stairs be completely extended.
B) Communications be maintained between ground personnel and qualified personnel on board.
C) Refuelling is prohibited while passengers are boarding and/or disembarking.
D) All the flight crew be on board.

During a night flight, an observer located in the cockpit, seeing an aircraft coming from the right, will first see the:

A) white steady light.
B) green flashing light.
C) green steady light.
D) red steady light.

The number of extinguishers which must be conveniently located in the passenger compartment when the maximum approved passenger seating configuration is between 201 and 300 is:

A) 7
B) 8
C) 4
D) 2

Who checks, before flight, that the aircrafts weight is such that flight can be safely made, and that any transported cargo is properly distributed and secured? (Annex 6, Part I)

A) The mechanic on board, or in his absence the co-pilot.
B) The companies cargo technicians.
C) The operator.
D) The captain

A category A aircraft can carry out an indirect approach followed by a visual manoeuvre only if the horizontal visibility is higher than or equal to:

A) 1500 m.
B) 2400 m.
C) 3600 m.
D) 1600 m.

A Ground Proximity Warning System (GPWS) is required to be carried in:

A) all turbine engine aeroplanes of max. take-off mass equal to or greater than 5700 kg or authorised to carry 9 or more passengers on or after 1 Jan 99.
B) aeroplanes with turbine-engines with max take-off mass greater than 15000 kg or authorised to carry more than 30 passengers with a COA first issued before I Jul 79.
C) all turbine engine aeroplanes with a max. take-off mass not exceeding 5700 kg or authorised to carry 9 or more passengers on or after 1 Jan 99.
D) aeroplanes with turbine-engines with max. take-off mass greater then 15000 kg or authorised to carry more than 30 passengers with a COA first issued on or after 1 Jul 79.

For a GPWS, which of the following combinations correctly identifies the hazards for which warnings are given:

A) Excessive descent rate, excessive terrain closure rate, excessive altitude loss after take -off or go around, unsafe terrain clearance when not in landing configuration, excessive descent below the instrument approach glide path.
B) Excessive descent rate, mach trim warning, excessive altitude loss after take-off or go around, unsafe terrain clearance when not in landing configuration, excessive speed decay during a CAT III instrument approach.
C) Excessive climb rate, excessive terrain closure rate, excessive speed loss after take-off or go around, unsafe terrain clearance when in landing configuration, excessive descent below the obstacle clearance altitude.
D) Excessive climb rate, excessive terrain closure rate, excessive altitude loss after take - off or go around, unsafe terrain clearance when not in landing configuration, rapid speed loss towards stalling speed.

---

41. All aeroplanes which individual certificates of airworthiness were issued after 1 April 1998 must be fitted with a flight data recorder when their maximum certificated take-off mass is greater than:

A) 20000 kg
B) 5700 kg
C) 27000 kg
D) 14000 kg

When must a radiation indicator be carried?
A) For flights above 39000ft.
B) For flights above 29000ft.
C) For flights above 49000ft.
D) For flights above 59000ft.

Which of the following statements correctly describes the operation of a cockpit voice recorder?
A) It must be switched off after engine shutdown.
B) It must be switched on and checked for correct operation during the pre-flight checks, then switched to stand-by until the aeroplane is ready to taxi so that the ATC clearance and read-back are recorded.
C) It must be on at all times when the doors are closed.
D) It must be switched off after an accident and not reactivated until recordings have been transcribed.

What is the requirement regarding the carriage of a CVR for aircraft registered before April 1998?
A) Record last 30 mins of flight.
B) Record for the duration of the flight.
C) Record the last 25 hours of operation.
D) Record the last 48 hours of flight

FDRs must keep data and parameters for at least the last:
A) 30 hours of operation.
B) The whole flight.
C) 48 hours of operation.
D) 25 hours of operation.

A category D aircraft can carry out an indirect approach followed by a visual manoeuvre only if the horizontal visibility is higher than or equal to:
A) 1600 m.
B) 2400 m.
C) 3600 m.
D) 1500 m.

GPWS must be carried on all turbine engined aircraft where the C of A was first issued on or after the 1 July 1979 if:
A) it is authorised to carry more than 30 passengers.
B) Both a & b.
C) the maximum certificated take-off mass is in excess of 15.000 kg.
D) Neither a nor b.

Who compiles the MEL and where does it go?
A) The operator and in the Flight Manual.
B) The manufacturer and in the Flight Manual.
C) The manufacturer and in the Operations Manual.
D) The operator and in the Operations Manual.

On board a non-pressurized aircraft, the crew and all the passengers must be fed with oxygen throughout the flight period during which the pressure altitude is greater than:

A) 10000 ft
B) 11000 ft
C) 12000 ft
D) 13000 ft

Which is the most complete list of documents that are to be carried on each flight:

A) certificate of registration, certificate of airworthiness, AOC, aircraft radio license, crew licences, third party liability insurance certificates and a noise certificate (if applicable).
B) certificate of registration and certificate of airworthiness.
C) AOC, aircraft radio license, crew licences and third party liability insurance.
D) certificate of airworthiness, AOC, aircraft radio license, maintenance records and JAR-145 maintenance program.

First Aid (therapeutic) oxygen is carried for which of the following:

A) 30% of passengers between 10,000ft and 13,000ft.
B) All crew and passengers in the event of an unexpected rapid depressurisation.
C) The crew in the event of noxious fumes entering the flight deck.
D) Any passengers who require it for pathological respiratory disorders.

Who shall provide the flight operations personal with a operations manual and also issue the amendments to keep it up to date?

A) Owner of the aircraft.
B) ATS authority of the state of registry.
C) Aircraft operator.
D) Aircraft producer.

Where minimum navigation performance is prescribed by Regional Air Navigation Agreements, an aeroplane shall be fitted with equipment which:

A) has been authorised by the regional air traffic control unit.
B) has been authorised by the pilot-in-command.
C) has been authorised by the State of the operator.
D) has been authorised by the operator.

For twin-engined aircraft, the take-off alternate shall be located at a distance that: (Annex 6, Part I)

A) Does not exceed the equivalent of one hour of flight time, at cruising speed with only one engine operative.
B) Does not exceed the equivalent of two hours of flight time, at cruising speed with only one engine operative.
C) Does not exceed the equivalent of one hour of flight time at cruising speed all engines operating.
D) Does not exceed the equivalent of two hour of flight time at cruising speed all engines operating.

An aircraft has a threshold speed of 135kts. Into which ICAO aircraft approach category is such an aircraft designated?

A) B
B) A
C) D
D) C

Who makes up the MMEL?

A) The operator.
B) The state of registry.
C) The authority.
D) The manufacturer and it must be approved by the state of certification.

What is not taken into account when establishing aerodrome operating minima?

A) Dimensions and characteristics of the runway to be used.
B) Obstacles in the approach, missed approach and climb out areas.
C) The number of runways parallel runways.
D) Type, performance and handling characteristics of the aeroplane.

A Type 2 FDR shall be capable of recording at least:

A) 15 parameters and the last 30 minutes of operation.
B) 15 parameters and the last 25 hours of operation.
C) 32 parameter and the last 30 minutes of operation.
D) 32 parameters and the last 25 hours of operation.

To operate an aircraft as commander a pilot must have:

A) Carried out at least 3 take-offs and 3 landings in an aeroplane of the same type or a flight simulator in the preceding 60 days
B) Carried out at least 5 take-offs and 3 landings in an aeroplane of the same type or a flight simulator in the preceding 60 days
C) Carried out at least 5 take-offs and 3 landings in an aeroplane of the same type or a flight simulator in the preceding 90 days
D) Carried out at least 3 take-offs and 3 landings in an aeroplane of the same type or a flight simulator in the preceding 90 days

A take-off alternate shall be located within a distance from the aerodrome of departure of:

A) not more than a distance equal to 3 hours of flying time at the one-engine-out cruising speed.
B) not more than 2 hours flying distance with only 1 engine operating.
C) not more than 1 hour flying distance with only one engine operating.
D) not more than 3 hours flying distance with only 1 engine operating.

61. One shall not initiate any flight made in accordance with instrument flight rules unless the available information indicates that the conditions at the aerodrome of predicted destination or, at an aerodrome of alternative destination, are: (Annex 6, Part I)

A) At the predicted time of arrival, and for a reasonable period before and after such a predicted time, equal to or better than the minimum conditions required for aerodrome use.
B) At the predicted time of arrival better than the minimum conditions required for aerodrome use.
C) At the predicted time of arrival equal to or better than the minimum conditions required for aerodrome use.
D) At the predicted time of take-off equal to or better than the minimum conditions required for aerodrome use.

A type 1 Flight Data Recorder (FDR) must be able to:

A) record the last 30 minutes of operation.
B) be fitted to aeroplanes with a max take-off mass greater than 5700 kg.
C) record the last 8 days of operation.
D) record 32 parameters in total to determine flight path, speed, engine power, altitude, configuration, ...

Operators must have available at all times the following information for immediate communication to rescue coordination centres:

A) Personal details of the crew and passengers.
B) MEL limitations affecting the aeroplane at take-off.
C) Technical performance details of the aeroplane.
D) Emergency equipment carried on the aeroplane.

the operator will include in the operations manual a list of minimum required equipment approved by: (Annex 6, Part I)

A) The country where the aircraft is operated.
B) It is not mandatory that such a book be approved by aviation authorities.
C) The country of the operator.
D) The country where the aircraft was manufactured.

What is the number of crash axes or crowbars located on the flight deck for aeroplanes with a maximum take-off mass exceeding 5.700kg or a passenger seating configuration of more than nine.

A) 6
B) 1
C) 2
D) 3

Who is responsible for notifying the nearest appropriate authority by the quickest means possible of any accident involving an aeroplane resulting in serious injury or death of any person or substantial damage to the aeroplane or property?

A) A JAR-OPS l approved person or a federal police officer.
B) The pilot in command.
C) The operator.
D) The State of registration.

Flight crew members on the flight deck shall keep their safety belt fastened:

A) only during take off and landing.
B) while at their station.
C) only during take off and landing and whenever necessary by the commander in the interest of safety.
D) from take off to landing.

What requirement must be fulfilled before a pilot is appointed pilot-in-command by the operator?

A) He/She must have been a co-pilot on the aircraft type for at least 13 months.
B) He/She must have made at least 3 take-offs and landings on the same aircraft type in the preceding 90 days.
C) He/She must have flown a total of not less than 3 000 hours on type.
D) He/She must have flown a total of not less than 1000 hours on type and have held a first officers position on type with the current operator for 3 months.

A modern aircraft must be provided with a flight data recorder when its certified take-off gross weight is greater than:

A) 5700kg.
B) 27000kg.
C) 14000kg.
D) 20000kg.

Who accepts the MEL?

A) The country where the flight takes place.
B) The country of the designers.
C) The country of the manufacturers.
D) The country of the operator.

The aircraft is of Category A. The runway has edge lights and high intensity centre line lights. There is an accessible alternate aerodrome and the two pilot crew is IFR qualified on type. The minimum horizontal visibility required for take-off is:

A) 200 m.
B) 150 m.
C) 150 m if a threshold RVR is available.
D) 300 m.

The term decision height (DH) is used for?

A) a conventional approach followed by a visual manoeuvre.
B) a precision approach.
C) a conventional approach.
D) an indirect approach.

The MMEL (Master Minimum Equipment List) is drawn up by:

A) the aircraft state of registry.
B) the operator.
C) the manufacturer.
D) the aircraft manufacturers list.

The minimum time track is a track defined for:

A) a period of 12 hours.
B) a period of 24 hours.
C) aircraft flying in MNPS airspace.
D) a given travel.

An operator must ensure that the lowest MDH for a non-precision approach procedure which is based upon the use of a VDF is not lower than:

A) 250ft.
B) 300ft.
C) 150ft.
D) 200ft.

At the planning stage for a Class B performance aircraft, what minimum climb gradient do you use?

A) 500ft min climb speed with all engines operating.
B) 300ft min climb speed with one engine out.
C) 300ft min climb speed with all engines operating.
D) 500ft min climb speed with one engine out.

For turbo-propeller aircraft, in the flight preparation stage, the landing distance on at alternate aerodrome shall be less than the available landing distance multiplied by a factor of:

A) 0.6.
B) 0.8.
C) 0.5.
D) 0.7.

The minimum equipment list (MEL) gives the equipment which can be inoperative when undertaking a flight and the additional procedures to be observed accordingly. This list is prepared by:

A) the manufacturer, and it is inserted in the operations manual.
B) the operator, and it is inserted in the operations manual.
C) the manufacturer, and it is appended to the flight manual.
D) the operator, and it is appended to the flight manual.

If a turbo-jet engined aeroplane has a nominated destination diversion aerodrome and the commander decides to attempt a landing at the nominated destination, the aeroplane must carry sufficient fuel to fly to the destination alternate after:

A) flying an approved instrument approach procedure.
B) flying an approach and a missed approach.
C) making a straight in approach, descending to MDH/A and then one circling approach before diverting.
D) carrying out an instrument approach to DH/A and then climbing to the nominated cruising level en-route to the diversion aerodrome.

Selecting an alternate aerodrome the runway of this facility must be sufficiently long to allow a full stop landing from 50 ft above the threshold (jet type aircraft, dry runway) within:

A) 80% of the landing distance available.
B) 70% of the landing distance available.
C) 60% of the landing distance available.
D) 50% of the landing distance available.

---

81. At the alternate aerodrome, the commander of a turbojet engine aeroplane should have a fuel quantity (final reserve) sufficient for flying during:

A) 45 minutes at cruising speed.
B) 45 minutes at holding flight speed at 1.500 ft.
C) 30 minutes at cruising speed.
D) 30 minutes at holding flight speed at 1.500 ft.

When is MDH referenced to the threshold as opposed to the aerodrome elevation?

A) The threshold is less than 2m below the ARP.
B) The threshold is more than 2m below the ARP.
C) The threshold is less than 2m above the ARP.
D) The threshold is more than 2m above the ARP.

The number of extinguishers which must be conveniently located in the passenger compartment when the maximum approved passenger seating configuration is between 61 and 200 is:

A) 1
B) 2
C) 3
D) 6

In the ICAO standard atmosphere, the temperature at FL360 is equal to:

A) 217 Kelvin.
B) -65 degrees Celsius
C) 0 Kelvin.
D) 0 degrees Celsius.

ICAO Annex 6 is applicable to operators authorised to conduct:

A) only military operations.
B) scheduled and non-scheduled international commercial air transport operations.
C) private and commercial operations.
D) only Air Transport operations.

For a category D aeroplane, the indicated airspeed at threshold (Vat) is:

A) from 141 - 165 knots.
B) from 121 - 140 knots.
C) from 91 - 120 knots.
D) from 166 - 210 knots.

For GPWS fitted after 1 Jan 99 a specified number of warnings is to be given for hazardous conditions. The number is:

A) 3.
B) 8.
C) 6.
D) 5.

The regulatory green navigation light is located on the starboard wing tip, with a coverage angle of:

A) 70° .
B) 110° .
C) 140° .
D) 220° .

On board a pressurized aircraft, a flight shall be undertaken only if the aircraft is provided with an oxygen reserve enabling all the crew members and part of the passengers to be supplied with oxygen in the event of a cabin depressurization, throughout the flight period, during which the pressure altitude is greater than:

A) 12000 ft.
B) 13000 ft.
C) 10000 ft.
D) 11000 ft.

An aeroplane whose maximum approved passenger seating configuration is 7 to 30 seats must be equipped with at least:

A) 3 hand fire-extinguishers conveniently located in the passenger compartment.
B) 2 hand fire-extinguishers conveniently located in the passenger compartment.
C) 1 hand fire-extinguisher conveniently located in the passenger compartment.
D) 4 hand fire-extinguishers conveniently located in the passenger compartment.

Aircraft using a VFR flight plan in controlled airspace shall be equipped: (Annex 6, Part I)

A) Only as is necessary for aircraft that make VFR flights.
B) As is necessary for aircraft that operate in accordance with instrument flight rules.
C) With more anti-icing and/or de-icing devices (if one expects icy conditions).
As is necessary for aircraft that make VFR flights, and such aircraft must also possess indicators of attitude and course, along with a precise barometric altimeter.

Passengers are required to be briefed about the location and use of lifejackets...
A) if the carriage of life jackets in the aeroplane is required.
B) where flight over water (including lakes and rivers) is likely.
C) when required by the Operator.
D) when the commander authorises the use of life jackets.

The number of extinguishers which must be conveniently located in the passenger compartment with a maximum approved passenger seating configuration of 601 or more is:
A) 8
B) 6
C) 5
D) 7

ICAO Annex 6 states that operators are to ensure that all their employees:
A) comply with ICAO SARPS and PANS.
B) comply with the law of the State of Registration.
C) are JAA qualified.
D) comply with the laws of the State in which operations are being conducted.

A recent aircraft must be provided with a flight data recorder when its certified take-off gross weight is greater than:
A) 5700 kg.
B) 27000 kg.
C) 20000 kg.
D) 14000 kg.

On board a non-pressurized aircraft, 10% of the passengers must be supplied with oxygen throughout the period of flight, reduced by 30 minutes, during which the pressure altitude is between:
A) 11000 ft and 13000 ft.
B) 10000 ft and 12000 ft.
C) 10000 ft and 13000 ft.
D) 11000 ft and 12000 ft.

Speech on the flight deck, voice communications transmitted to of from the aircraft radios or by interphone are recorded by the:
A) video recorder.
B) cockpit voice recorder.
C) flight data recorder.
D) flight management computer.

Oxygen should be supplied for all crewmembers and some passengers above which altitude:
A) 13000ft.
B) 10000ft.
C) 12000ft.
D) 11000ft.

Medical equipment is to be carried on aircraft usually in the form of first aid kit. On aeroplanes certified to carry more than a specified number of passengers, a kit for use by medically qualified personnel is to be carried (emergency medical kit) if any point on the planned route is more than 60 minutes flying time from an aerodrome at which qualified medical assistance could be expected to be available. The specified number of passengers is:

A) 100.
B) 30.
C) 21.
D) 51.

Is it necessary to carry the entire Operations Manual on each flight?

A) No, only the parts concerning crew duty.
B) No, only the parts required for the conduct of the flight and those concerning crew duty.
C) No, only the parts required for the conduct of the flight.
D) Yes.

---

101. How many fire extinguishers must be carried in the cabin for a seating configuration of 300 passengers?

A) 5.
B) 4.
C) 3.
D) 2.

A copy of which of the following documents must be kept on the ground by an operator for the duration of each flight?

A) The journey log.
B) The ATC (Air Traffic Control) flight plan.
C) The meteorological forecast.
D) The operational flight plan.

A transport category aircraft suffers an unserviceability on the ground prior to take-off. What document do you refer to?

A) Operations Manual - relevant chapter.
B) Minimum Equipment List.
C) Aircraft Operating Manual.
D) JAR OPS 1.

Who has the responsibility to take adequate measures for the safety of passengers and crew of an aircraft which is subjected to an act of unlawful interference until their journey can be continued?

A) JAA
B) Aeroplanes operator.
C) Contracting State in which the unlawful interference occurs.
D) Commander of the aircra

The validity period of a certificate of airworthiness varies with the conditions under which the aircraft is maintained. If the maintenance is carried out according to an approved programme and done in a maintenance shop approved by the Minister of Civil Aviation, the validity period is:

A) three years if the aircraft has not undergone major modifications.
B) three years for public transport aircraft and one year for the others.
C) three years.
D) three years for public transport aircraft and five years for the others.

The coverage angle of the regulatory white position lights, continuously lit in flight and located at the rear of the aircraft, is:

A) 110° .
B) 220° .
C) 70° .
D) 140°

If an aeroplane is flying over water more than 120 minutes flying time or 400 NM from land suitable for an emergency landing (whichever is the least) additional sea survival equipment is to be carried. This must include:

A) life saving rafts and distress pyrotechnics.
B) fire hoods and additional oxygen storage bottles.
C) additional fuel.
D) ELTs.

Where an aeroplane is dry leased out to a non-JAA operator who is an operator certified by an ICAO contracting State, responsibility has to be assumed for the maintenance of the aeroplane. Who is responsible for assuming the responsibility?

A) A JAR-145 approved maintenance operation.
B) The operator who is to operate the aeroplane.
C) ICAO.
D) The Authority of the State of the Operator who is receiving the aeroplane.

To act as co-pilot for take-off or landing you must have:

A) acted as PIC or co-pilot on type in the last 90 days.
B) acted as PIC or co-pilot on type in the last 30 days.
C) acted as PIC or co-pilot on type in the last 60 days.
D) been at the controls for landing in the same type recently.

The number of extinguishers which must be conveniently located in the passenger compartment when the maximum approved passenger seating configuration is between 31 and 60 is:

A) 2
B) 5
C) 1
D) 3

Who is responsible for authorising the method of calculation of AOM?
A) The Commander.
B) The Operator.
C) The ICAO Council.
D) The State of the Operator.

Following an accident, for what period must an operator retain FDR recordings:
A) 90 days.
B) 2 months.
C) 30 days.
D) 60 days.

The coverage angle of the regulatory red position light, continuously lit in flight and located at the tip of the left wing is:
A) 110° .
B) 220° .
C) 70° .
D) 140° .

A copy of the following is to be left on the ground?
A) The aeroplane noise certificate.
B) The operations manual.
C) Parts of the operations manual relevant to the flight.
D) Operational flight plan.

The number of extinguishers which must be conveniently located in the passenger compartment when the maximum approved passenger seating configuration is between 301 and 400 is:
A) 5
B) 6
C) 3
D) 4

A category B aircraft can carry out an indirect approach followed by a visual manoeuvre only if the horizontal visibility is higher than or equal to:
A) 2.400 m.
B) 3.600 m.
C) 1.500 m.
D) 1.600 m.

For aircraft operated in accordance with 5.2.9 or 5.2.10 (2 or 3-4 engined powered aircraft): On over water flights, an operator shall not operate an aeroplane at a distance away from land, which is suitable for making a emergency landing greater than that corresponding to:
A) 100 NM or 30 minutes at cruising speed.
B) 400 NM or 120 minutes at cruising speed.
C) 300 NM or 90 minutes at cruising speed.
D) 200 NM or 45 minutes at cruising speed

The number of extinguishers which must be conveniently located in the passenger compartment when the maximum approved passenger seating configuration is between 7 and 30 is:
A) 3
B) 4
C) 2
D) 1

An aeroplane flying at 39.000ft would be required to provide oxygen dispensing units in the passenger cabin for:
A) the total number of passengers + 10%.
B) the total number of passengers.
C) the total number of seats.
D) the total number of seats + at least 10% additional units.

What is the oxygen requirement for the crew and 100% of the passengers in an unpressurised aircraft?
A) 12000 ft.
B) 10000 ft.
C) 13000 ft.
D) 11000 ft.

---

121. A category D aeroplane can carry out a circling approach only if the meteorological visibility is higher than or equal to:
A) 2400 m
B) 1500 m
C) 3600 m
D) 1600 m

The number of extinguishers which must be conveniently located in the passenger compartment when the maximum approved passenger seating configuration is between 401 and 500 is:
A) 6
B) 5
C) 3
D) 4

The mass of an aeroplane at the start of take-off shall not exceed the relevant maximum masses at which compliance with the applicable noise certifications standards of ICAO Annex ... can be achieved.
A) 16
B) 9
C) 13
D) 4

JAR Ops requirements:

The minimum MDH and meteorological visibility for a category B aircraft circling are respectively:
A) 600 ft; 2400 m
B) 400 ft; 1500 m
C) 500 ft; 1600 m
D) 700 ft; 3600 m

If information indicates that at ETA a landing at the destination would not be possible in accordance with the established aerodrome operating minima, then:
A) the flight shall not be continued towards the intended destination.
B) the flight may commence providing sufficient holding fuel (2 hours plus 15 percent of cruising fuel) is carried as a contingency load.
C) the flight may commence if the operator authorises reduced minima.
D) the flight can continue provided the destination aerodrome remains open throughout the duration of the flight.

Before any flight is commenced, forms must be completed certifying, amongst other things, that the aircraft is airworthy. Who must be satisfied that all the pre-flight requirements have been complied with?
A) The Flight Operations Manager.
B) The Operator.
C) The Flight Dispatcher.
D) The Commander.

Regarding the issue of an AOC, the Authority must be satisfied that:
A) the organisation has a management structure approved by the ICAO Council.
B) the organisation is financially well managed.
C) men and women are equally treated.
D) the organisation is staffed by JAR-145 personnel only.

The Cat I minimum decision height is:
A) No decision height.
B) 200 feet.
C) 50 feet.
D) 100 feet.

A visual approach is defined as:
A) an approach when either part or all of an instrument approach procedure is not completed and the approach is executed with visual reference to the terrain.
B) a take-off where the RVR is less than 800m.
C) the visual phase of an approach to bring an aeroplane into a position for landing on a runway which is not suitably located for a straight-in approach.
D) a procedure applied at an aerodrome for the purpose of ensuring safe operations during CAT II and CAT III approaches.

The lessor of an aircraft is:

A) is the person or Company that owns the aeroplane (or other equipment) and rents or leases it to another person or Company.
B) The aeroplane and a full crew.
C) The person or Company that contracts to hire the use of the aeroplane (or equipment).
D) None of the above.

An operator shall not select an aerodrome as a take-off alternate unless the:

A) appropriate weather reports or forecasts or any combination thereof indicate that, during a period commencing 1 hour before and ending 2 hour after the estimated time of arrival at the aerodrome, the weather conditions will be at or above the applicable l
B) appropriate weather reports or forecasts or any combination thereof indicate that, during a period commencing 2 hour before and ending 1 hour after the estimated time of arrival at the aerodrome, the weather conditions will be at or above the applicable l
C) appropriate weather reports or forecasts or any combination thereof indicate that, during a period commencing 2 hour before and ending 2 hour after the estimated time of arrival at the aerodrome, the weather conditions will be at or above the applicable l
D) appropriate weather reports or forecasts or any combination thereof indicate that, during a period commencing 1 hour before and ending 1 hour after the estimated time of arrival at the aerodrome, the weather conditions will be at or above the applicable l

In the event of a critical power unit failing during the take-off run, the aeroplane must be able to:

A) abort the take-off and stop within the ASDA.
B) continue the take-off and clear all obstacles along the flight path by an adequate margin.
C) abort the take-off and stop within the ASDA or continue the take-off and clear all obstacles along the flight path by an adequate margin.
D) abort the take-off and stop within the ASDA.

When establishing an instrument approach procedure, 5 aircraft categories according to their speed at the threshold (Vat) are established. This speed is equal to the stalling speed in the landing configuration at the maximum certified landing weight multiplied by a factor of:

A) 1.15
B) 1.5
C) 1.3
D) 1.45

Flight data recorders must keep the data and parameters recorded during at least the last:
A) 30 hours of operation.
B) 48 hours of operation.
C) 25 hours of operation.
D) flight.

The operator is responsible for the provision of a(n) ... for flight operations staff and flight crew for each ... operated.
A) aircraft flight manual, type of aircraft
B) training manual, aircraft type.
C) aircraft flight manual, approach category.
D) maintenance organisation exposition, type of aircraft.

Crew Resource Management (CRM) Training deals principally with:
A) Situational Awareness.
B) Technical expertise and interaction.
C) Accident statistics and review.
D) Human Factors and behaviour.

Which of the following documents are to be carried on each flight?
A) certificate of registration and certificate of airworthiness.
B) certificate of registration, certificate of airworthiness, AOC, aircraft radio license, crew licences, third party liability insurance certificates and a noise certificate (if applicable).
C) AOC, aircraft radio license, crew licences and third party liability insurance.
D) certificate of airworthiness, AOC, aircraft radio license, maintenance records and JAR-145 maintenance program.

Proficiency checks are to be demonstrated:
A) twice within a period of one year.
B) once every six months.
C) twice within a period of a year providing both checks are not carried out within a 4 month period.
D) annually.

In accordance with JAR-OPS 1.430 (Aerodrome Operating Minima), the lowest minima to be used by an operator in a category B aeroplane for circling are:
A) MDH=700 ft and visibility=2.600 m.
B) MDH=500 ft and visibility=1.600 m.
C) MDH=600 ft and visibility=2.400 m.
D) MDH=400 ft and visibility=1.500 m.

Who should sign an Operational Flight Plan (OFP)?
A) The Commander and the Chief Engineer.
B) The Commander and the Operations Officer.
C) The Commander and the Operations Officer/Flight Dispatcher (where applicable).
D) Only the Commander.

Who should sign an Operational Flight Plan (OFP)?

A) Only the Commander.
B) The Commander and the Operations Officer/Flight Dispatcher (where applicable).
C) The Commander and the Chief Engineer.
D) The Commander and the Operations Officer.

For a standard straight-in approach, what do you take account of?

1. RVR.
2. Ceiling
3. MDH
4. DH.

A) 1, 2 and 3.
B) 1 and 3.
C) 1 and 4.
D) 1, 2 and 4.

MDA is:

A) referenced to the Runway Threshold (THR) elevation.
B) a specified height in a Non-precision Approach or Circling Approach below which the descent must not be made without the required visual reference.
C) b & c are correct
D) a specified altitude in a Non-precision Approach or Circling Approach below which the descent must not be made without the required visual reference.

---

21. The load sheet must be signed before take-off by:

A) the loading supervisor and the aircraft commander.
B) the loading supervisor only.
C) the aircraft operator and the aircraft commander.
D) the aircraft commander only.

If more than 2 pilots are carried the second officer may fly the aeroplane:

A) above FL 100 if he holds an ATPL.
B) above FL 200.
C) above FL 100.
D) above FL 100 if he holds a CPL.

When are NO SMOKING signs put on in a turbojet aircraft?

1. At all times
2. During Refuelling
3. Take-off
4. Landing
5. When climbing and descending
6. When ordered by the Pilot In Charge

A) 3-6
B) 2-6
C) 2-5
D) 1-6

If a door is fitted to the flight crew compartment:

A) It should be unlocked at all times during flight.
B) It must remain closed at all times during flight.
C) It shall be locked after engine start and not unlocked until the aeroplane has become stationary again.
D) It must be lockable from inside the flight crew compartment only.

If an AOC post holder changes the authority must be notified within:

A) 10 days.
B) 15 days.
C) 5 days.
D) 20 days.

The JAR-OPS document is based on:

A) ICAO Annex 6.
B) A JAA guide line.
C) Federal Aviation Requirements. (FAR).
D) Rules of the Air.

Persons of reduced mobility (PRM) should not occupy seats which?

A) Have an in-flight entertainment facility.
B) Impeded the movement of the meal service.
C) Increase the MTOW above 5.700 kg
D) Obstruct access.

For the Steep Approach procedures the Authority may approve screen heights of:

A) 50 feet but not less than 35 feet.
B) 150 feet but not less than 100 feet.
C) 2000 feet but not less than 150 feet.
D) 35 feet but not greater than 50 feet.

A pilot is not able to operate as pilot-in-command unless:

A) He has completed 3 take-offs and landings in an aeroplane or approved simulator of the same type to be used within the previous 90 days.
B) He has completed 3 flights as pilot-in-command in an aeroplane or approved simulator of the type to be used in the previous 90 days.
C) He has completed 3 take-offs and landings in any aircraft or approved simulator within the previous 60 days.
D) He has completed 3 flights as pilot in an aeroplane or simulator of the same type to be used within the previous 30 days.

The North Atlantic system is based on:

A) Canadian territory since it has the largest territorial waters.
B) States Common Rules 7050 Doc.
C) ICAO 7030 Doc.
D) States Bordering Rules 6530 Doc.

In the event of total HF radio failure enroute:

A) VHF or extended VHF should be used.
B) the pilot should land as soon as possible.
C) visual signals should be used.
D) every effort should be made to relay messages through other airplanes.

What organization or body determines the minimum age that a person has to have a seat on an aircraft?

A) State authorities of the departure aerodrome.
B) Aircraft commander.
C) Aircraft operator.
D) State authorities of the aircraft operator.

Which of the following information relevant to the flight and type of operation is retained on the ground?

A) Route specific NOTAM' s.
B) All of these are to be retained on the ground, unless it is carried on board in a fire-proof container.
C) A copy of the operational flight plan and copies of the relevant parts of the technical log.
D) Mass and balance documentation and special load notification.

What is the system minimum for an NDB approach?

A) 200 ft.
B) 350 ft.
C) 300 ft.
D) 250 ft.

Which of the following statements is true:

A) MDH is referenced to MSL.
B) MDH is referenced to threshold elevation if that is more than 2 m or 7 feet below the aerodrome elevation.
C) MDA for a circling approach is referenced to the aerodrome elevation.
D) MDA is referenced to aerodrome elevation.

A CAT II operation is a precision instrument approach and landing using ILS or MLS with:

A) a DH below 200ft but not lower than 100ft, and a runway visual range of not less than 350m.
B) a DA below 200ft but not lower than 50ft, and a runway visual range of not less than 150m.
C) a DA below 200ft but not lower than 100ft, and a runway visual range of not less than 300m.
D) a DH below 400ft but not lower than 100ft, and a runway visual range of not less than 150m.

A flight control system is fail-operational if, in the event of a failure below alert height, the ..., ... and ..., can be completed automatically.
A) initial approach, intermediate approach, final approach
B) final approach, flare, missed approach
C) approach, flare, landing
D) intermediate approach, final approach, missed approach

Operators are to ensure that VFR flights must be conducted:
A) In accordance with the Visual Flight Rules.
B) Only in airspace where VMC exists.
C) In accordance with the procedures in the Operations Manual.
D) Only in airspace where VFR is permitted.

The minimum longitudinal separation between aeroplanes in supersonic flight shall be ... minutes. This separation can be reduced to ... minutes if certain criteria are met.
A) 10, 5
B) 5, 3
C) 15, 10
D) 25,15

Which of the following are not to be operated on board of an aeroplane?
A) Electronic calculators.
B) Mobile phones.
C) Electric razors.
D) Hand-held electronic games.

---

41. The recent experience conditions of a commander assigned to a flight on an aircraft by an operator must not be less than:
A) 6 take-offs and 6 landings as pilot flying on the same type of aircraft or approved simulator
B) 6 take-offs and 6 landings during the last 6 months
C) 3 take-offs and 3 landings as pilot flying on the same type of aircraft or approved simulator in the preceding 90 days
D) 3 take-offs and 3 landings on this type of aircraft during the last 6 months

In categorising aeroplanes for the determination of operating minima, how is the indicated airspeed at threshold Vat calculated?
A) Vat = Vso x 1,2
B) Vat = Vso x 1,25
C) Vat = Vso x 1,3
D) Vat = Vso x 1,35

The RVR for a Category IIIB operation with roll out guidance or control systems that fail passive the minimum RVR is:
A) 75 m.
B) 50 m.
C) 125 m.
D) 200 m.

For a flight above 10.000 ft the stored breathing oxygen carried must be sufficient for:

A) the crew and passengers for any period that the atmospheric pressure in compartments occupied by them will be more than 620 hPa.
B) the crew and passengers for any period that the atmospheric pressure in compartments occupied by them will be less than 48 hPa.
C) all crew members and 15 per cent of the passengers for any period in excess of 30 minutes that the pressure in compartments occupied by them will be between 700 hPa and 620 hPa, 4.000m/13.000ft
D) all crew members and 10 per cent of the passengers for any period in excess of 30 minutes that the pressure in compartments occupied by them will be between 700 hPa and 620 hPa, 4.000m/13.000ft.

Where is the number and composition of the flight crew specified?

A) In ICAO Annex 6 part 2.
B) In JAR-OPS 1.
C) On the C of A.
D) In JAR-FCL.

Which of the following is not considered when establishing AOM?

A) The frequency of meteorological reports.
B) Adequacy and provision of ground aids.
C) The competence and experience of flight crews.
D) Dimensions and characteristics of runways.

Where a flight is above 15.000m:

A) The operator shall maintain records of the total cosmic radiation dose received by each crew member over a period of 12 consecutive months
B) The operator shall maintain records of the total cosmic radiation dose received by each crew member and passenger
C) The operator shall maintain records of the total cosmic radiation dose received by each crew member
D) The operator shall maintain records of the total cosmic radiation dose received by each crew member and passenger over a period of 12 consecutive months

Each pilot must undertake a proficiency check:

A) Twice within any period of one year.
B) Twice within a period of four consecutive months.
C) At regular intervals as laid down by the authority who issued the pilot licence.
D) Once within a calendar year.

The minimum crew for all turbo propeller aeroplanes is 2 when:

A) The seating configuration is more than 19.
B) There are 9 or more passengers carried.
C) There are more than 19 passengers carried.
D) The seating configuration is more than 9.

With reference to cabin crew seats, they must be:

1. Close to Floor level exits.
2. Give a good view of the cabin area.
3. Facing forwards.
4. Evenly distributed through the cabin.
5. Facing fore or aft within 15 deg.

A) 1, 2, 3
B) 1, 2, 4, 5
C) 2, 3, 4
D) 1, 2, 3, 4

A category 1 precision approach (CAT 1) is an approach which may be carried out with a runway visual range of at least:
A) 500 m
B) 550 m
C) 800 m
D) 350 m

Commanders of aircraft are to have on board all the essential information concerning:
A) landing and navigation fees applicable.
B) customs and Excise regulations for all destinations and diversion aerodromes.
C) search and rescue service in the areas over which the aeroplane will be flown.
D) agreements (multi-lateral or bi-lateral) relating to International Air Transport.

During a night flight, an observer on the flight deck first sees an aircraft coming in from the front right. The light observed would be a:
A) Steady green light.
B) Steady red light.
C) Steady white light.
D) Flashing green light.

Which of the following statements is false?
A) An applicant for an AOC must have his principal place of business in any JAA state, it does not have to be the state responsible for the issuing the AOC.
B) An operator may only hold an AOC from one authority unless specifically approved by the authorities concerned.
C) An operator must register his aeroplane in the state responsible for issuing the AOC.
D) An applicant for an AOC must satisfy the authority that he is able to conduct safe operations.

An Air Operators Certificate (AOC) is required by any operator operating aeroplanes for which of the following purposes?
A) Carriage of passengers and cargo with aeroplanes of maximum take-off mass greater than 5700 kg.
B) Commercial air transport.
C) Public transport when more than 21 passengers are carried.
D) Public transport of passengers only.

No persons other than flight crew are allowed on the flight deck. Which of the following correctly identifies permitted exceptions?
A) Cabin Crew members, police officers and personnel permitted by the Operations Manual.
B) Invited passengers, Cabin Crew members and JAA approved persons.
C) Operators employees, Cabin Crew members and JAA approved persons.
D) Cabin Crew members, JAA approved persons and personnel permitted by the Operations Manual.

What is a dry lease?
A) Where the aeroplane is operated under the AOC of the person to whom it is leased.
B) Where the leased aeroplane comes complete with flight crew.
C) Where the person leasing the aeroplane is responsible fuel etc.
D) Where the aeroplane is operated under the AOC of the person from who it is leased.

For single-pilot operations, an RVR of less than ... is not permitted except when using a suitable autopilot coupled to an ILS or MLS, in which case the normal minima apply.
A) 1500m
B) 350m
C) 500m
D) 800m

An operator must ensure that for the duration of each flight, be kept on the ground, if required:
A) a copy of the calculated take-off performances.
B) a copy of the weight and balance sheet.
C) the calculation of the airborne fuel quantity.
D) the aircraft equipment report (logbook).

If an operator specifies a minimum flight altitude for a route, it must be:
A) Equal to or higher than the minimum flight altitudes specified by the State for the same route.
B) higher than the MEA.
C) the transition level.
D) equal to or lower than the minimum altitude specified by the State over which the flight is being flown.

---

61. What is the minimum required RVR for CAT IIIB operations?
A) 150m.
B) 75m.
C) 100m.
D) 200m.

What is the circling minima for a Cat A aeroplane?
A) 2400 m.
B) 1500 m.
C) 1600 m.
D) 3600 m.

Subject to the approval of the authority and provided that other requirements are satisfied (e.g. LVP are in force, ...), an operator of an aeroplane using an approved lateral guidance system for take-off may reduce the take-off minima to an RVR less than...

A) 75m for category A,B and C aeroplanes or 125m for category D aeroplanes but not lower than 25m.
B) 125m for category A,B and C aeroplanes or 150m for category D aeroplanes but not lower than 75m.
C) 50m for category A,B and C aeroplanes or 75m for category D aeroplanes but not lower than 25m.
D) 250m for category A,B and C aeroplanes or 125m for category D aeroplanes but not lower than 75m.

Which of the following statements are correctly describes what an operator must demonstrate before the issue of an Air Operators Certificate (AOC)?

1. Organisation, method of control and supervision of flight operations
2. Training programmes
3. Maintenance arrangements

A) 1 and 3
B) 1 and 2
C) 2 and 3
D) 1, 2 and 3

In calculating Aerodrome Operating Minima, which of the following obstacles are taken into consideration?

A) Obstacles in the climb-out areas over 495ft AGL.
B) All obstacles within 15 km of the threshold over 495ft AMSL.
C) Obstacles 8 km on either side of the approach track.
D) Obstacles in the approach and missed approach area.

A destination alternative (diversion) aerodrome must be specified for:

A) Any flight for public transport over 40km.
B) Any flight where a take-off diversion has been planned.
C) A flight to a remote aerodrome where no local diversion exists.
D) Any IFR flight unless there is reasonable certainty that at the ETA a visual approach can be made.

Pilots and members of flight crews are to be familiar with the laws, regulations and procedures applicable to:

A) the national civil aviation authority of the State of Registration.
B) the airspace of all JAA states.
C) Customs, health and Immigration of all ICAO Contracting States.
D) the aerodromes they are using and the procedures applicable to the airspace in which they are flying.

Typical subjects which can be found in the aircraft flight manual are:

A) emergency procedures and navigation documentation.
B) normal and abnormal operating procedures, checklists and aircraft system details.
C) emergency procedures, normal procedures, checklists and maintenance records.
D) checklists and first aid procedures.

An incident report should be submitted to the authority:

A) within 48 hours of the event.
B) within 72 hours of the event.
C) within 24 hours of the event.
D) within 7 days of the event.

A windshield wiper is to be fitted to each pilot station on aeroplanes with maximum take-off mass more than...

A) 5.700kg.
B) 5.000kg.
C) 3.750kg.
D) 2.500kg.

What is the minimum RVR for a CAT IIIC approach?

A) 100 m.
B) 50 m.
C) 75 m.
D) No minimum.

Where there are no facilities at an aerodrome the minimum take-off RVR is:

A) 400 m.
B) 700 m.
C) 500 m.
D) 600 m.

A person qualified to taxi an aeroplane must have received instruction from a competent person concerning which of the following:

1. aerodrome layout
2. signs
3. markings
4. ATC signals and instructions

A) 1 and 4 only.
B) 2, 3 and 4 only.
C) 4 only.
D) all of the above.

For a medium then a light aeroplane on the approach, what is the required separation?

A) 1 min
B) 3 mins.
C) 2 mins.
D) 4 mins.

DH is used in a:

A) Centred approach.
B) Precision approach.
C) Non precision approach.
D) Uncentred approach.

Circling is defined as:

A) the visual phase of an visual approach to bring an aeroplane into a position for landing on a runway which is not suitably located for a straight-in approach.
B) a procedure allied at an aerodrome for the purpose of ensuring safe operations during CAT II and CAT III approaches.
C) the visual phase of an instrument approach to bring an aeroplane into a position for landing on a runway which is suitably located for a straight-in approach.
D) the visual phase of an instrument approach to bring an aeroplane into a position for landing on a runway which is not suitably located for a straight-in approach.

What is the minimum horizontal visibility for a Cat D aircraft on a circling approach?

A) 1500m.
B) 2400m.
C) 1600m.
D) 3600m.

When must the No Smoking Sign be illuminated:

A) When oxygen containers are carried in the passenger compartment.
B) Take-off and landing.
C) None of the above.
D) When oxygen is being supplied to the cabin.

An aircraft flies a VOR/DME direct approach for which the operational minima are: MDH = 360 feet, horizontal visibility = 1 500 metres: Visibility given by ATC and received by the crew is 2 500 metres. The pilot may start the final approach:.

A) whatever the ceiling given by ATC.
B) if the ceiling transmitted by ATC and received by the crew is higher than 360 feet.
C) if the ceiling transmitted by ATC and received by the crew is higher than 240 feet during the day and 360 feet at night.
D) if the ceiling transmitted by ATC and received by the crew is higher than 240 feet.

During a night flight, an observer located in the cockpit, seeing an aircraft coming from the front left, will first see the:

A) green flashing light.
B) red steady light.
C) white steady light.
D) green steady light.

---

81. Which of the following general statements are applicable for CAT II and CAT III operations?

A) each aircraft is certified for operations with DH below 200ft, the RVR must be less than 150m and medium intensity approach lights are available.
B) the operations are approved by the operator, the MDH determined by a radio altimeter and the flight crew consists of at least two pilots.
C) the flight crew consist of at least two pilots, the operations are approved by the authority and the DH is determined by the radio altimeter.
D) the aerodrome is approved for low visibility operations and the pilots are at least CAT I qualified.

Which of the following is not an area designated as one requiring the carriage of special emergency equipment:

A) Desert.
B) Maritime.
C) Equatorial.
D) Jungle.

What is the angle of the red navigation light?

A) 140° .
B) 90° .
C) 70° .
D) 110° .

Above what height must equipment to measure the dose rate of cosmic radiation be carried:

A) 55.000 ft
B) 49.000 ft
C) 30.000 ft
D) 60.000 ft

When no reported meteorological visibility or RVR is available, a take-off may only be commenced if the ... can determine that the RVR/visibility along the take-off runway is equal to or better than the required minimum.

A) commander
B) aerodrome control tower
C) meteorological office
D) operator

Regarding the FDR and CVR, which of the following statements is true:

A) All commercial aircraft above 15.000 kg have to carry both a FDR and CVR.
B) A Type I recorder retains information recorded during the last 30 minutes of operation.
C) A FDR shall be capable of retaining recorded information for at least the last 24 hours of operation.
D) The CVR monitors all human voice exchanges on the flight deck throughout the flight keeping the last 30 minutes as a hard copy.

Which of the following is not required to be certified by the pilot before a flight commences?

A) A maintenance release has been issued for the aeroplane.
B) The mass and centre of gravity position are such that the flight can be conducted safely.
C) The number of meals is at least equal to the number of boarded passengers.
D) The load is distributed and secured properly.

For a flight conducted under IFR the pilot must request and receive a clearance form ATC this request for clearance must include the following basic items:

A) the departure aerodrome, the departure aerodrome alternate, the route, destination, destination alternate.
B) the departure aerodrome, the departure aerodrome alternate, the route and cruise altitude and speed, destination, destination alternate.
C) the departure aerodrome, the departure aerodrome alternate, destination, destination alternate.
D) None of the above.

What allows a pilot to act as co-pilot for take-off and landing?

A) Performed at least 3 landings and take-offs in the previous 90 days.
B) Performed at least 9 landings and take-offs in the previous 90 days.
C) Performed a flight in the previous 90 days.
D) Operated as PIC or as co-pilot at the controls for a take-off and landing in the previous 90 days.

What is the requirement for the issue of an AOC?

A) Have facilities for all maintenance.
B) Have registered offices in all countries of operations.
C) Not already hold an AOC issued by another authority.
D) Have a fleet of serviceable aeroplanes.

What is the minimum recent experience for an aircraft commander?

A) Two simulator flights in the last 12 months.
B) One take-off and landing in the preceding 90 days.
C) Three take-offs landings in the preceding 90 days .
D) Three simulator flights in the preceding 90 days.

Actions taken by the flight operations officer or flight dispatcher shall not conflict with procedures established by:

A) ICAO.
B) ATC.
C) ATC, meteorological service or communication service.
D) operator.

Who is responsible for completing the journey log or the general declaration?

A) The pilot in command.
B) The purser.
C) The operator.
D) The flight engineer.

In accordance with JAR-OPS 1, the minimum required recent experience for a pilot engaged in a single-pilot operation under IFR or at night shall be:

A) 5 IFR flights, including 3 take-off and 3 landings carried out during the preceding 90 days on the type or class of aeroplane in the single-pilot role.
B) 3 IFR flights, including 3 instrument approaches, carried out during the preceding 90 days on the type class of aeroplane in the single-pilot role.
C) 5 IFR flights, including 3 instrument approaches, carried out during the preceding 90 days on the type class of aeroplane in the single-pilot role.
D) 5 IFR flights, including 3 take-off and 3 landings carried out during the preceding 30 days on the type or class of aeroplane in the single-pilot role.

Passengers can be accommodated only in:

A) areas of the aeroplane designed for the purpose.
B) areas in which access is not permitted on the ground.
C) areas in which cargo is not carried.
D) parts of the aeroplane in which dangerous cargo is not carried.

A lifejacket must be provided for each person on board:

A) when flying over water and at a distance of more than 93 km away from the shore in the case of engine failure on a single engined aircraft.
B) when taking-off and landing at an aerodrome where, in the opinion of the State of the Operator, the take-off path is over water and in the event of a mishap there would be a likelihood of ditching.
C) when flying en-route over water beyond gliding distance from the shore in the case of all other landplanes.
D) all of the above.

Among the requirements to be satisfied for the issue of an Air Operators certificate are:

1. Aeroplanes operated must have a Certificate of Airworthiness.
2. The maintenance system has been approved by the authority.
3. The authority is satisfied that the operator has the ability to:
    i. Establish and maintain an adequate organisation
    ii. Establish and maintain a quality system in accordance with JAR
    iii. Comply with required training programmes
    iv. Comply with maintenance requirements
    v. Comply with the conditions of the said AOC.
4. All flight crew have licences issued by an ICAO contracting state.
5. The operator has submitted the appropriate fees to the responsible authority.

A) 1, 2, 3
B) 1, 2, 4, 5
C) 2, 3, 4, 5
D) 1, 2, 3, 4, 5

For a fail-passive flight control system...

A) the automatic landing system will operate as a fail-operational system in the event of a failure.
B) the approach, flare and landing can be completed automatically in the event of a failure below alert height.
C) the autopilot must be switched after a primary system failure.
D) the pilot assumes control of the aeroplane after failure.

What is required for navigation in IMC?

A) Radio equipment and equipment for guidance until the visual point.
B) One VHF box and one HF box.
C) A serviceable weather radar.
D) Anti-icing equipment.

A category A aircraft can carry out an indirect (circling) approach followed by a visual manoeuvre only if the horizontal visibility is higher than or equal to:

A) 3600m.
B) 2400m.
C) 1600m.
D) 1500m.

---

101. The applicability of the JAR-OPS within JAA member countries:

A) Applies to legislation and dictation of aviation rules, regulations and procedures.
B) Is an addition to the rules set out in ICAO Annex 6.
C) Applies to Flight Crew Licensing (FCL) only.
D) Is an addition to local rules and procedures.

An aerodrome is suitable as a take-off alternate if:
A) The OCH must not be less than that of the aerodrome of departure.
B) Weather conditions must be at or above the aerodrome minima at the time of take-off.
C) For IFR flights the aerodrome minima must be greater than that approved by the operator or the State of registration and no approach is permitted to have a visual element (i.e. no circling approaches).
D) It must be capable of CAT IIIA operations.

When are passengers briefed on the use of oxygen for a flight that is planned to operate at FL 290.
A) Before T/O.
B) Before reaching 14.000ft.
C) Before reaching 29.000ft.
D) Before reaching 10.000ft.

When an aircraft is dry leased by operator A to operator B the subsequent flights are conducted under the AOC of operator:
A) B
B) A
C) A and B[AFT2]
D) B whilst complying with any specific requirements of A

A category A aerodrome should not have a circling minima above:
A) 2000 ft
B) 500 ft.
C) 1500 ft.
D) 1000 ft.

For a twin-engine aeroplane, the standard operational take-off minimums may be used provided an alternate aerodrome is accessible at less than:
A) 30 minutes at cruising speed all engines running.
B) 60 minutes at cruising speed with one engine unserviceable.
C) 60 minutes at cruising speed all engines running.
D) 30 minutes at cruising speed with one engine unserviceable.

Information concerning evacuation procedures can be found in the:
A) flight manual.
B) journey logbook.
C) operation manual.
D) operational flight plan.

Passengers are to be secured in their seats by means of seatbelts or harnesses during take-off and landing, turbulence and an emergency. When also must they be secured?
A) Whenever it is considered necessary.
B) Whilst asleep with the seat fully reclined.
C) During a practice emergency.
D) During climb and descent.

According to JAR-OPS 1.430 (Aerodrome Operating Minima) a Category IIIA approach has a Decision Height of less than 100 feet and a minimum RVR (Runway Visual Range) of:
A) 300 m.
B) 250 m.
C) 230 m.
D) 200 m.

An aeroplane shall carry:
A) the maintenance manuals and wiring diagrams.
B) World-wide chart coverage.
C) the maintenance records of the aeroplane.
D) the flight manual for the aeroplane, unless the performance data is contained in the ops manual.

Who is responsible for ensuring that all passengers are briefed before take-off?
A) The Senior Flight Attendant.
B) The Operator.
C) The State of the Operator.
D) The Commander.

Which of the following forms or information are NOT required to be carried on all flights?
1. The Operational Flight Plan (OFP)
2. Mass and balance Documentation
3. NOTAMS
4. The Technical Log
5. Maps and Charts
6. Passenger and cargo manifests.

A) All are required except 6.
B) All are required except 1.
C) All are required except 3.
D) All are required except 4.

Any operator is required to grant the Authority access to the organisation and the aeroplanes. What is the purpose of this?
A) To ensure continued compliance with JAR23.
B) To ensure continued compliance with JAR-145.
C) To ensure the restrictions of the AOC are being complied with.
D) To ensure continued compliance with JAR-OPS.

SVFR may not be commenced when the visibility is less than:
A) 3 km
B) 1.5 km
C) 6 km
D) 5 km

Which of the following is valid criteria for a take-off diversion aerodrome:
A) 2 hours or less flying time at one engine out cruise speed for a 4 engined aeroplane.
B) Not less than 2 hours flying distance for 3 engined aeroplane with one engine out.
C) Not less than 1.5 hours flying distance for 3 engined aeroplane with one engine out.
D) Not more than 2 hours flying distance for a twin engined aeroplane.

The operator may not operate aircraft that do not conform to the ditching requirements over water further away from a suitable landing field than:
A) 400nm or 120min at cruise speed.
B) 200nm or 45min at cruise speed.
C) 100nm or 30min at cruise speed.
D) 300nm or 90min at cruise speed.

During a flight, the captain is informed that a passenger is using a portable electronic device, which is adversely affecting the aircrafts electrical avionics. The captain must:
A) Stop the passenger from using the device.
B) Allow the device to be used at take-off and landing.
C) Allow the device to be used from take-off to landing.
D) Allow the device to be used for certain exceptions.

Position reports from aeroplanes flying organised routes are to be made:
A) every 150 NM.
B) whenever dangerous meteorological conditions are experienced.
C) at the designated reporting points.
D) every hour.

When calculating the length of the runway available:
A) the clearway has to be taken into account.
B) the stopway has to be taken into account.
C) the runway slope has to be taken into account.
D) the distance lost in lining up the aircraft has to be taken into account.

An AOC may be revoked, suspended or varied if the Authority deems it necessary. On what grounds can this action be taken?
A) If the Quality System is not ISO 9000 approved.
B) If the operator is unable to comply with the safety requirements.
C) After an accident with serious injuries.
D) If the operator is no longer a member of IATA.

---

121. An operator must ensure that the lowest MDH for a non-precision approach procedure which is based upon the use of a VOR/DME is not lower than:
A) 150ft.
B) 250ft.
C) 200ft.
D) 300ft.

An Operational Flight Plan (OFP) must specify the take-off alternate (diversion) aerodrome for use in the event of a flight emergency shortly after take-off when:

A) The RVR and cloud ceiling at the departure aerodrome are below minima.
B) The aircraft is carrying dangerous goods.
C) There is insufficient time to jettison fuel.
D) The length of runway at the departure aerodrome is not long enough for landing.

The operator must nominate post holders, acceptable to the authority for:

A) flight operations, maintenance, personnel training, ground operations.
B) flight operations, maintenance, crew training, ground operations.
C) flight operations, maintenance, crew training, administration.
D) flight operations, crew training, administration, corporate finance.

The completed Journey Log Book should be retained for a period of at least:

A) Six months.
B) Three Months.
C) Twelve months.
D) Two years.

To taxi an aeroplane, the person at the controls must be:

A) checked out on the aircraft type.
B) a qualified ATPL holder.
C) a JAR l45 qualified engineer.
D) authorised by the operator.

Airborne weather radar is required on the following aircraft:

1. All piston powered aircraft.
2. All pressurized aircraft.
3. All turbo-prop powered aircraft.
4. If the aircraft mass is greater than 5700kg or has more than 9 seats.
5. All jet engined aircraft.

A) 2, 4
B) 1, 2, 3, 5
C) 2, 4, 5
D) 2, 3, 4, 5

With reference to the retention of documents how long must command course records be kept by the operator:

A) 3 years.
B) 15 months.
C) 24 months.
D) 3 months.

A category III B precision approach (CAT III B) is an approach which may be carried out with a runway visual range of at least?
A) 200 m.
B) 150 m.
C) 250 m.
D) 75 m.

A flight operations officer (or flight dispatcher) when on duty, is responsible for:
A) passenger assistance during disembarking.
B) compiling the operational flight plan.
C) loading the aeroplane.
D) assisting the pilot in command in flight preparation, and provide required information.

During a flight, the chief steward informs the crew that a passenger is using a portable device suspected to disturb the aircraft electronic systems. The captain:
A) authorizes its use except during take-off and landing phases.
B) authorizes its use during the whole flight phase.
C) may authorize the use of this device, as an exception.
D) must not authorize any person to use such a device on board.

The NO SMOKING sign must be illuminated:
A) when oxygen is being supplied in the cabin.
B) in each cabin section if oxygen is being carried.
C) during take off and landing.
D) during climb and descent.

Where can you carry safety matches?
i. On your person
ii. Hand baggage
iii. Checked in luggage
A) (i) & (ii)
B) (ii) & (iii)
C) (i), (ii) & (iii)
D) (i) & (iii)

Who is responsible for ensuring that no person acts recklessly or negligently, so as to endanger an aeroplane or the persons on board, or to permit an aeroplane to endanger persons or property?
A) The Operator.
B) The Authority of the State of the Operator.
C) The Commander.
D) The Authority of the State of Registration.

For a category E aeroplane, the indicated airspeed at threshold (Vat) is:
A) from 121 - 140 knots.
B) from 91 - 120 knots.
C) less than 91 knots.
D) from 166 - 210 knots.

A CAT IIIB operation is a precision instrument approach and landing using ILS or MLS with:
A) a DH lower than 100ft, and a runway visual range of not less than 200m.
B) a DH lower than 200ft, and a runway visual range of not less than 100m.
C) a DH lower than 50ft or no DH, and a RVR lower than 200m but not less than 75m.
D) a DH lower than 25ft or no DH, and a RVR lower than 50m but not less than 15m.

A wet lease out to a non-JAA member organisation means:
A) A JAA operator provides the aeroplane complete while retaining all the functions and responsibilities as the operator of the aeroplane.
B) A JAA operator provides the aeroplane plus Cockpit Crew.
C) A JAA operator provides the aeroplane plus Cockpit Crew and the non JAA organisation provides the Cabin Crew.
D) A JAA operator provides the aeroplane plus Cabin Crew.

What is an ATC System Loop Error?
A) An error caused by a misunderstanding between the pilot and the controller regarding assigned flight level.
B) An error caused by a misunderstanding between the pilot and the controller regarding assigned Mach- number.
C) All of these statements are true.
D) An error caused by a misunderstanding between the pilot and the controller regarding assigned route to be followed.

Commanders of aircraft are to have on board essential information for the route to be flown which covers:
A) Search and Rescue.
B) Agreements (multi-lateral or bi-lateral) relating to International Air Transport.
C) Customs and Excise regulations for all destinations and diversion aerodromes.
D) Landing and navigation fees applicable

According to JAR OPS, a transport aircraft carrying passengers with a door to the flight deck must:
A) Be lockable from the outside.
B) Have distinctive red or yellow access marks in case of blockage.
C) Be lockable from the inside to prevent unauthorised access.
D) Have a pressure seal to maintain pressure in event of cabin pressure loss.

JAR OPS 1.465 (VFR Operating minima), establishes that, the operator shall ensure about VFR flights, that:
A) for conducted VFR flights in airspace E, flight visibility at and above 3 050 m. (10 000 ft) is 5 km at least (clear of cloud).
B) for conducted VFR flights in airspace B, horizontal distance from clouds is 1000 m at least.
C) for conducted VFR flights in airspace F, vertical distance from clouds is 250 m at least.
D) special VFR flights are not commenced when visibility is less than 3 km.

---

141. It is recommended that the journey log book should he retained:
A) only if required by the authority.
B) to provide a continuous record of the last 6 months operations.
C) for 2 years.
D) for one month.

On an ILS, you are told that the weather has dropped below company minima. When must you abort the approach?
A) Start of the glide-slope descent.
B) FAF.
C) Outer Marker.
D) Inner Marker.

When may the operating minima for an aerodrome be exceeded?
A) In an emergency.
B) When authorised by the operator.
C) When authorised by the aerodrome control tower.
D) When authorised by the authority of the State in which the aerodrome is located.

Passengers are required to be briefed about the location and use of life jackets on what occasions:
A) If the carriage of life jackets in the aeroplane is required.
B) When the Commander authorises the use of life jackets.
C) Where flight over water (including lakes and rivers) is likely.
D) When required by the Operator.

In accordance with JAR-OPS 1.430 (Aerodrome Operating Minima), an operator must ensure that system minima for non-precision approach procedures, which are based upon the use of ILS without glidepath (LLZ only), VOR NDB, SRA, and VDF are no lower than MDH following value with:
A) VOR/DME facility, lowest MDH-300 ft.
B) ILS facility without glidepath (localizer) lowest MDH-200 ft.
C) NDB facility, lowest MDH-300 ft.
D) VOR facility, lowest MDH-250 ft.

Smoking on board of an aeroplane:
A) is always allowed.
B) is only allowed in the toilets and in the aisle.
C) is never allowed.
D) is not allowed in those areas of the cabin where oxygen is being supplied and outside designated smoking areas.

When are all flight crew members required to be at their duty stations?
A) In IMC.
B) For routine take-offs and landings.
C) In case of cabin fire.
D) During an instrument approach where the RVR is well below the minimum RVR required.

An aircraft landing mass shall be such that .... and .... criteria can be met.
A) structural, meteorological.
B) structural, performance.
C) physiological, performance.
D) noise abatement, meteorological.

The content of an OFP is detailed in which document?
A) ICAO Annex 6.
B) The AIP of the State of registration.
C) The operations manual.
D) JAR-OPS 1.

Passengers are to be briefed before take-off on safety matters and also receive a demonstration of certain items. Which of the following must be demonstrated?
1. Location and use of oxygen equipment.
2. Emergency door opening.
3. Use of safety belts.
4. Emergency lighting.
5. Use and location of life jackets.
6. Location and use of medical equipment.

A) 1, 2, 3
B) 4, 5, 6
C) 2, 4, 6
D) 1, 3, 5

Navigational requirements for long range flights

Flying to Europe in MNPS at 1000UTC crossing 0300W:
A) In random airspace.
B) Out of organised route track system.
C) In flight route night system.
D) In flight route day system.

In MNPS Airspace between FL285 and FL410 inclusive, what is the vertical separation?
A) 2000ft.
B) 1000ft.
C) 1500ft.
D) 500ft.

A pilot whose aircraft does not have MNPS certification has to fly via the SHANNON-GANDER great circle. The flight must be planned to take place:
A) at flight level FL 280 or less.
B) outside scheduled flight times.
C) at a Mach number of 0.70 or less.
D) at a constant airspeed of 480 kt.

A jet-powered aircraft, flying above the optimum altitude will have:
A) reduced range.
B) increased flight envelope.
C) increased manoeuvring limits.
D) increased Mach number stability.

On a polar stereographic chart whose grid is parallel with the Greenwich meridian in the direction of the true North pole, the true orientation of the great circle linking point 62° N 010° E to point 66° N 050° W is 305° . The grid route at the starting point of this great circle is:
A) 301° .
B) 292° .
C) 298° .
D) 295

What is the required RVR for CAT IIIA operations?
A) 1500m
B) 200m
C) 150m
D) 1.000m

When flying above optimum altitude:
A) range reduces.
B) flight envelope increases.
C) range increases.
D) mach number stability increases.

Which combination of the following documents relevant to a flight, are to be retained in a file on the ground?

1. Mass and balance documentation.
2. Company NOTAM Documentation.
3. Relevant parts of the Aircraft Technical log.
4. Appropriate meteorological information.
5. Performance calculations.

A) 1, 2, 4
B) 2, 3, 5
C) 1, 3, 4
D) 1, 2, 3

When the weather conditions require an alternate aerodrome to be available on take-off, the latter shall be located, for aircraft with three or more engines, at an equivalent distance not exceeding:

A) 1 hour of flight at cruising speed with all engines operating.
B) 2 hours of flight at cruising speed with all engines operating.
C) 1 hour of flight at cruising speed with all engine inoperative.
D) 2 hours of flight at cruising speed with 1 engine inoperative.

In the Area where the MNPS is applicable, the vertical separation that can be applied between FL 290 and FL410 inclusive is:

A) 2000ft.
B) 1500 ft.
C) 1000 ft.
D) 500 ft.

RNP 4 represents a navigation accuracy of plus or minus ... NM on a ... percent containment basis.

A) 4, 95
B) 2, 90
C) 6, 95
D) 4, 90

Which combination of the following correctly details the factors that should be considered by an Operator when determining MFA:

1. Possible inaccuracies in charts for the route.
2. Characteristics of the terrain to be over-flown.
3. The composition of the flight crew.
4. The likelihood of encountering unfavourable weather.
5. Altimeter inaccuracies.
6. Airspace restrictions.
7. Navigation inaccuracies.

A) All except 1, 3 and 5.
B) All except 1 and 3.
C) All the above.
D) All except 3.

Contingency at FL410 necessitates diversion to an alternate against NAT traffic without ATC clearance but able to maintain altitude:
A) Descend 500ft.
B) Turn left or right and climb 1.000ft/descend 500ft.
C) Climb 500ft.
D) Climb or descend 500ft.

The chart is a South polar stereographic projection of the Antarctic regions. A grid, printed over it, its aligned with meridian 180° , the grid North in the direction of the geographic North (non standard grid). The grid course followed by the aircraft is Rg-280° , the position is 80° S 100° E. The true course followed at this moment is:
A) 080°
B) 260°
C) 100°
D) 000°

The current standard for RNP in Europe is:
A) RNP 5 where an aeroplane must not be flown more than 5 km from the centre line of the route at all times.
B) RNP 5 where an aeroplane must not be flown more than 5 nm from the centre line of the route at all times.
C) RNP 1 where an aeroplane must not be flown more than 5 nm from the centre line of the route at all times.
D) RNP 1 where an aeroplane must not be flown more than 5 km from the centre line of the route at all times

In category I operations when an aerodrome is said to have intermediate facilities these:
A) intermediate facilities comprise runway markings, 720 m or more of HI/MI approach lights, runway edge lights, threshold lights and runway end lights. Lights must be on.
B) intermediate facilities comprise runway markings, 420-719 m of HI/MI approach lights, runway edge lights, threshold lights and runway end lights. Lights must be on.
C) intermediate facilities comprise runway markings, 420 m or less of HI/MI approach lights, runway edge lights, threshold lights and runway end lights. Lights must be on.
D) intermediate facilities comprise runway markings, HI/MI approach lights, runway edge lights, threshold lights and runway end lights..

An aircraft operating within MNPS Airspace is unable to continue flight in accordance with its air traffic control clearance (due to degradation of navigational performance requirements), but is able to maintain its assigned level, and due to a total loss of communications capability, could not obtain a revised clearance from ATC. The aircraft should leave its assigned route or track by turning 90° (90 degrees) to the right or left whenever this is possible, and the subsequent action will be, turn to acquire and maintain in either direction a track laterally separated by 30 NM from its assigned route and climb 1.000 ft or descend 500 ft, if:
A) at FL 430.
B) below FL 410.
C) at FL410.
D) above FL 410.

Which equation relates to transport wander in polar and trans-oceanic areas? (Where gm = ch long, Lm = mean lat, Lo = tangent of mean lat)

A) 15 x sin Lm.
B) 15 x 2(Lo - Lm).
C) gm x 2(Lo - Lm).
D) gm x sin Lm.

The frequency designated for VHF air to air communications when out of range of VHF ground stations in NAT region is:

A) 123.45 MHz.
B) 118.5 MHz.
C) 121.5 MHz.
D) 243 MHz.

In the event of communication failure in an MNPS (Minimum Navigation Performance Specification) airspace, the pilot must:

A) join one of the so-called special routes.
B) change the flight level in accordance with the predetermined instructions.
C) return to his flight plan route if its different from the last oceanic clearance received and acknowledge by him.
D) continue his flight compliance with the last oceanic clearance received and acknowledge by him.

---

21. What is PTS?

A) Polar Transmission System.
B) Polar Track System.
C) Pacific Track System.
D) Pacific True System.

Which of the following factors affect aircraft performance:

A) temperature, wind and water density.
B) mass, temperature, wind.
C) mass, pressure altitude, density of birds.
D) runway gradient and airfield opening hours.

A polar stereographic chart has a grid printed over it which is parallel to the meridian 054° W, with Grid North in the direction of the North geographic pole. An aircraft is following a true course of 330° . At position 80° N 140° E, its grid heading (GH) with this system will be:

A) 316° .
B) 276° .
C) 164° .
D) 136° .

An air traffic control unit may request an aircraft to report its position when flying east-west north of 700N between 100W and 500W, every:

A) 15° of longitude.
B) 10° of longitude.
C) 20° of longitude.
D) 5° of longitude.

What is the number of long range navigation systems to be carried on board for unrestricted operations in the MNPSA?

A) 1
B) 2
C) 3
D) 4

Regarding ETOPS what additional points should be considered compared to a non-ETOPS aircraft?

A) The availability of an ATC facility only.
B) Handling services.
C) Performance requirements.
D) The availability of an ATC facility and one let down aid?

The North Atlantic MNPS is based on:

A) States Common Rules 7050 Doc.
B) Canadian territory since it has the largest territorial waters.
C) States Bordering Rules 6530 Doc.
D) ICAO 7030 Doc.

What is the lowest decision height for CAT II operations?

A) 200ft
B) 100ft
C) 150ft
D) 50ft

The minimum lateral separation in the NAT region is:

A) 60 NM between aircraft operating below MNPS airspace.
B) 90 NM between aircraft flying above FL285.
C) 60 NM between aircraft flying above FL285.
D) 90 NM between all aircraft flying in the NAT region.

During a flight to Europe, scheduled in MNPS (Minimum Navigation Performance Specification) airspace, you expect to cross the 30° W meridian at 1000 UTC; you will normally be:

A) in random airspace.
B) in a day flight route system.
C) out of the organised route system.
D) in a night flight route system.

In accordance with JAR-OPS 1, an operator shall ensure that all relevant operational and technical information for a individual flight is preserved on ground for a predetermined period of time. Consequently, if practicable, a copy of the operational flight plan shall be retained, during at least:

A) 24 months.
B) 15 months.
C) 12 months.
D) 3 months.

The longitudinal separation minima currently used in the NAT MNPSA are based on:

A) clock minutes.
B) kilometres.
C) nautical miles.
D) degrees.

Astronomic precession:

A) is zero at the South pole.
B) causes the gyro axis to spin to the right in the Southern hemisphere.
C) is zero at the North pole.
D) causes the gyro axis to spin to the left in the southern hemisphere.

The take-off alternate has to be within which of the following distances from the aerodrome of departure:

A) For an aeroplane with two engines, a distance equivalent to a flight time of 30 minutes at the one engine inoperative engine cruise speed.
B) For an aeroplane with three or more engines, a distance equivalent to a flight time of four hours at the one engine inoperative engine cruise speed.
C) For an aeroplane with two engines, a distance equivalent to a flight time of two hours at the one engine inoperative engine cruise speed.
D) For an aeroplane with three or more engines, a distance equivalent to a flight time of two hours at the one engine inoperative engine cruise speed.

An aircraft flying in unrestricted MNPS requires:

A) 2 INS.
B) 2 INS + Decca.
C) 3 INS.
D) 1 INS.

When a course is plotted at minimum time route, one passes from the air isochrone to the corresponding ground isochrone by applying to point K (original spot) a vector KK which is equal to:

A) mean wind from the preceding ground isochrone.
B) none.
C) wind at K.
D) mean wind up to the next ground isochrone.

Penetration into the North Atlantic ocean airspace is:
A) subject to a mandatory clearance.
B) not subject to a clearance, since the flight is already controlled.
C) subject to an optional clearance depending on the type of flight (scheduled or not).
D) subject to a clearance only if the flight route is changed.

Which separation will be provided if Reduced Vertical Separation Minimum (RVSM) is used when operating in MNPS airspace?
A) 90 NM lateral and 1.000 ft vertical.
B) 60 NM lateral and 500 ft vertical.
C) 90 NM lateral and 500 ft vertical.
D) 60 NM lateral and 1.000 ft vertical.

A pilot is using a polar stereographic chart whose grid is parallel to the zero meridian, with Grid North in the direction of the North geographic pole. In polar regions, the pilot stops navigation in free-gyro mode after leaving the 6 microteslas zone, and the grid heading controlled by information from the inertial navigation system (INS) is 045° . After switching to magnetic mode, the compass heading is 220° . The INS position at this moment is 76° N 180° W. The magnetic variation on the chart is 10° E. The compass shift on this heading at this point in time is:
A) +5° .
B) -5° .
C) -15° .
D) +15° .

How do you calculate Conversion Angle?
A) Ch long x cos lat.
B) 1/2 Ch long x cos lat.
C) 1/2 Ch long x sin lat.
D) Ch long x sin lat.

---

41. The net flight path gradient in the event of an engine failure must be:
A) 1500 feet negative above the aerodrome.
B) 1300 feet positive above the aerodrome.
C) 1000 feet positive above the aerodrome
D) 1500 feet positive above the aerodrome.

In MNPS airspace, the speed reference is the:
A) Mach number.
B) indicated airspeed.
C) ground speed.
D) true airspeed.

On reaching the Shanwick OCA to fly in MNPSA, you have not yet received your clearance:
A) Maintain your flight plan track but 500ft above or below your planned flight level.
B) Maintain a track 30nm laterally spaced from your flight plan track.
C) Stay outside controlled airspace until you have received your clearance.
D) Enter on your flight planned track and flight level and await a late clearance.

The chart being used is a polar stereographic chart and grid north is aligned with the Greenwich Meridian. The gyro is aligned with grid north, heading 120° , at 1400UTC at latitude 600N. Take-off is delayed until 1630UTC, gyro not corrected for rate pre:

A) -73.50
B) +32.50
C) -32.50
D) +130

An aircraft operating within MNPS Airspace is unable to continue flight in accordance with its air traffic control clearance (due to degradation of navigational performance requirements), but is able to maintain its assigned level, and due to a total loss of communications capability, could not obtain a revised clearance from ATC. The aircraft should leave its assigned route or track by turning 90° (90 degrees) to the right or left whenever this is possible, and the subsequent action will be, turn to acquire and maintain in either direction a track laterally separated by 30 NM from its assigned route and climb or descend 500 ft, if:

A) below FL 410.
B) at FL 410.
C) at FL 430.
D) above FL 410.

The MNPS (Minimum Navigation Performance Specification) airspace extends from:

A) 30° North to 70° North.
B) 30° North to 90° North.
C) 27° North to 90° North.
D) 27° North to 70° North.

What is the minimum required vertical separation in MNPS Airspace?

A) 1000ft.
B) 500ft.
C) 4000ft.
D) 2000ft.

What are the vertical limits of MNPS Airspace?

A) FL290 to FL410.
B) FL285 to FL410.
C) FL245 to FL450.
D) FL285 to FL420.

An aircraft leaves point P (60° N 030° W) on a true heading equal to 090° while the gyro compass, which is assumed to be operating perfectly and without an hourly rate corrector unit, indicates 000° . The aircraft arrives at point Q (62° N 010° W) on a true heading equal to 095° . On the journey from P to Q the gyro compass remains in free gyro mode. If the flight lasted 1 hour 30 minutes, the gyro heading at Q will be:

A) 345° .
B) 334° .
C) 003° .
D) 328° .

Contingency in MNPSA but cannot maintain assigned flight level.
A) Descend below FL275.
B) Descend whilst turning off track to take up a separation of 60nm.
C) Descend whilst turning off track to take up a separation of 30nm.
D) Descend whilst turning off track to take up a separation of 90nm.

Posit: g, the longitude difference Lm, the average latitude Lo, the latitude of the tangent The transport precession is equal to:
A) g.sin Lm.
B) g/2.sin Lm.
C) 15° /h.sin Lm.
D) g.(sin Lm-sin Lo).

For a long-range four-jet aircraft in cruising flight, the optimum altitude and the lock-on altitude increase. The most cost-effective flight plan will consist of choosing cruising levels which increase during the flight in order to fly:
A) about the lock-on altitude.
B) about the optimum altitude.
C) between the lock-on altitude and the optimum altitude.
D) just below the optimum altitude.

On a polar stereographic chart with a grid based on the Greenwich meridian, a track is drawn from 620N 0100E to 660N 0500W. If the initial True track was 305° , what was the initial grid track.
A) 305° .
B) 315° .
C) 285° .
D) 295° .

Flights within NAT region shall be conducted in accordance with IFR when:
A) Operating more than 100 NM seaward from the shoreline within uncontrolled airspace.
B) Operating at or above FL 60 or 2000 ft whichever is higher.
C) Flying above 3000 ft.
D) Operating more than 100 NM seaward from the shoreline within controlled airspace.

During a transoceanic and polar flight, the transport precession is the rotation in degrees of the gyro North with respect to the:
A) compass North.
B) magnetic North.
C) grid North.
D) true North.

At which levels may Reduced Vertical Separation Minimum (RVSM) be used within NAT region?
A) Below FL290.
B) Between FL290 and FL410.
C) Between FL245 and FL410.
D) Between FL275 and FL400.

The chart in question is of the polar stereographic type with its grid parallel to the zero meridian, and Grid North in the direction of the North geographic pole. The gyro does not comprise a rate correction device. The gyro- magnetic compass of an aircraft standing at an aerodrome located at 59° 57N 010° 30E is switched to free gyro mode at 14.00 UTC, with gyro North being aligned with Grid North and the gyro heading reading 120° . A technical problem delays take off until 16.30 UTC. The gyro, whose mechanical precession is zero, was not reset prior to take off. The error (E) at the time of alignment on this runway will be:

A) +13° .
B) +73.5° .
C) +32.5° .
D) -32.5° .

When in MNPS and the final LRNS fails, the pilot should:

A) Contact ATC and await a reply within a reasonable period of time.
B) Ask ATC for permission to follow another aeroplane.
C) Turn left or right through 90° and parallel track by 30nm.
D) Climb/descend 1.000ft.

If the whole flight is in MNPSA on the organised track system, what should be entered on the flight plan?

A) PTS plus daily code.
B) Position at every 10 deg latitude.
C) OTS plus daily code.
D) NAT plus daily code.

When leaving MNPS airspace and you have lost communications, what Mach No do you select?

A) The TAS as submitted on your flight plan.
B) The Mach No to make good the next EET.
C) Your last cleared Mach No.
D) Your flight plan Mach No.

---

61. The minimum longitudinal spacing of two aircraft flying in MNPS airspace at the same Mach number is:

A) 5 minutes.
B) 15 minutes.
C) 20 minutes.
D) 10 minutes.

On landing on an isolated field, the captain of a turbojet engined aircraft must mandatory have a minimum quantity of fuel and lubricant sufficient for flying during:

A) 2 hours with normal cruising consumption.
B) 30 minutes at holding flight speed and 1500 ft.
C) 2 hours at holding flight speed and 1500 ft.
D) 30 minutes with normal cruising consumption.

For a propeller driven aeroplane, sufficient fuel must he carried to cater for flight to:

A) the nominated destination and then to the most fuel consumption critical alternate and then remain airborne for a further 45 minutes.
B) the nominated destination and then to the most fuel consumption critical alternate and then remain airborne for a further 15 minutes.
C) the nominated destination and then to the most fuel consumption critical alternate and then remain airborne for a further 60 minutes.
D) the nominated destination and then to the most fuel consumption critical alternate and then remain airborne for a further 30 minutes.

A check on the operation of the SELCAL equipment during a transatlantic flight using the OTS (Organised Track System) must be done:

A) At or prior entering the NAT region.
B) When crossing the oceanic airspace boundary.
C) As soon as possible after entering the NAT region.
D) Prior entering the NAT region.

Considering additional take off requirements regarding aeroplane mass:

A) The wind effect on any adjacent runways to see if they would be more suitable for take-off in the event of wake turbulence being encountered.
B) The performance Take off distance required shall be considered.
C) The published full length of the runway shall be considered.
D) In determining the runway length available account shall be taken of any loss encountered due to the alignment of the aeroplane.

If, during a flight, the Commander wishes to change the profile of a cleared flight plan, he must:

A) Do nothing until ATC clears the change.
B) Inform ATC.
C) Inform the Authority within 10 days.
D) Inform the Operator.

For optimum performance for an aeroplane, a step cruise climb is performed. What is the best level to climb to?

A) Below lock on level.
B) Around optimum level.
C) Between lock on and optimum levels.
D) Around lock on level.

According to the JAR-OPS rules, the route of a twin-engined aircraft with a maximum certificated take-off mass exceeding 8.618 kg or a maximum approved seating configuration of more than 19 passengers must be planned in such a way that on one engine an appropriate aerodrome can be reached within:

A) 60 minutes at the cruise speed, one engine inoperative.
B) 120 minutes at the cruise speed, one engine inoperative.
C) 30 minutes at the cruise speed, one engine inoperative.
D) 90 minutes at the cruise speed, one engine inoperative.

You plan to fly from point A (60° N 010° E) to point B (60° N 020° E). The gyro North of the gyro compass, assumed to be operating perfectly, with no rate correction device, is aligned with the true North of point A. The constant gyro heading to be followed when starting from A given that the flight time scheduled is 1h30 min with a zero wind, is equal to:

A) 085° .
B) 076° .
C) 066° .
D) 080° .

What is the maximum time from an adequate aerodrome that a two-engined aeroplane without ETOPS approval, with more than 19 seats and MTOM of 6.813 kg, may fly?

A) 90 mm flying time at a one engine inoperative cruising speed in still air conditions.
B) 120 mm flying time at a one engine inoperative cruising speed in still air conditions.
C) 60 min flying time at a one engine inoperative cruising speed in still air conditions.
D) 180 mm flying time at a one engine inoperative cruising speed in still air conditions.

What is WATRS?

A) West Atlantic Reduced Separation.
B) West American Transition service.
C) West Atlantic Route System.
D) Weight for Altitude and Temperature Requirements.

The VHF frequency for communication between aeroplanes flying in the MNPSA to facilitate exchange of aeronautical information is:

A) 121.500 MHz.
B) 108.000 MHz.
C) 131.800 MHz.
D) 131.150 MHz.

Astronomical (earth rate) precession is:

A) Zero on the ground.
B) Independent of latitude.
C) Dependent on chart being used.
D) Valid whether the aircraft is on the ground or in the air

An aircraft is scheduled to operate to a destination where the weather reports and forecasts indicate the runway likely to be used at the expected time of arrival may be wet. The landing distance available compared to the required landing distance on a dry runway is to be:

A) the same.
B) 150%.
C) 200% greater.
D) at least 115%.

What is meant by the abbreviation RNP5?

A) Rules for non-standard route planning.
B) A mandatory maximum across track mileage allowable deviation for 5% of the Total flight time.
C) In-flight ways of fixing the position of the aeroplane.
D) As dictated in the ATC clearance.

If information indicates that at ETA a landing at the destination or one of the destination alternates would not be possible within the established minima, then:

A) The flight may commence providing sufficient holding fuel (2 hours plus 15% of cruising fuel) is carried as a contingency load.
B) The flight may not commence.
C) The flight may commence provided an en-route alternate (diversion) aerodrome will remain open throughout the duration of the flight.
D) The flight may commence if the operator authorises reduced minima.

The validity period of a flight track system organized in MNPS (Minimum Navigation Performance Specification) airspace during an Eastbound flight normally is:

A) 01H00 UTC to 08H00 UTC
B) 00H00 UTC to 08H00 UTC
C) 10H30 UTC to 19H00 UTC
D) 11H30 UTC to 19H00 UTC

In MNPS, at FL 370, you need to change your clearance but have no communications with ATC. You turn left or right and get a 30 nm. separation from your assigned track. Do you then:

A) Climb 1.000 ft or descend 500 ft
B) Climb or descend 500 ft.
C) Climb or descend I.000 ft.
D) Maintain your flight plan level.

In the event of an en-route HF communication failure in an MNPS (Minimum Navigation Performance Specification) airspace, the appropriate VHF frequency for air-air communications is:

A) 128.800 MHz.
B) 121.800 MHz.
C) 118.800 MHz.
D) 123.450 MHz.

The WARS is the area to the east of ... extending eastwards to ... and south to...

A) New York, 60W, 27N
B) Shanwick, 60W, 27N
C) San Francisco, 60W, 27N
D) Gander, 27W, 60N

81. During the flight of two aircraft in MNPS airspace with a leading aircraft flying at higher speed, the longitudinal spacing must be at least:
A) 5 minutes.
B) 20 minutes.
C) 15 minutes.
D) 10 minutes.

When planning a minimum time route, the air isochrone is taken over the ground isochrone and wind vector KK is plotted from point K (original point) to K to achieve heading and ground speed. What is the wind used?
A) Wind at K.
B) None of the above
C) Mean wind from proceeding ground isochrone.
D) Mean wind from the next isochrone.

A minimum altitude is to be calculated to cater for the engine inop case such that the net flight path gives a vertical clearance of ... above all terrain obstacles within ... on either side of the intended track.
A) 1000 ft, 9 NM.
B) 2000 ft, 9 NM.
C) 2000 ft, 5 NM.
D) 1000 ft, 5 NM.

What is the true bearing of sun from an aeroplane at the North Pole using a grid track of 315° at 1840Z?
A) 325° .
B) 000° .
C) 180° .
D) 035° .

In the Southern Hemisphere (1300E, 800S), grid is aligned with the Greenwich Meridian, aircraft is heading 110° T, what is the grid heading?
A) 110°
B) 080°
C) 240°
D) 340°

How far from an en route alternate airfield can a 2-engined aeroplane with more than 20 seats and a MTOM of 8.600 kg be flown?
A) 60 minutes at the one engine out speed.
B) 90 minutes flying time.
C) 120 minutes flying time.
D) 60 minutes flying time.

In determining Aerodrome Operating Minima, what of the following needs to be considered?
1. Crew composition.
2. Ability to communicate/receive meteorological information.
3. Significant obstacles in the missed approach area.
4. Dimensions and characteristics of the runway.
5. Navigation equipment in the aeroplane.

A) All of the above.
B) 2, 3, 4, 5.
C) 1, 2, 4, 5.
D) 1, 2, 3.

Due to demands of passengers, time zone differences and airport noise limitations, much of the North Atlantic air traffic is made up of two major flows:

A) a eastbound flow departing Europe in the morning, and an westbound flow departing North America in the evening.
B) a eastbound flow departing Europe in the evening, and an westbound flow departing North America in the morning.
C) a westbound flow departing Europe in the morning, and an eastbound flow departing North America in the evening.
D) a westbound flow departing Europe in the evening, and an eastbound flow departing North America in the morning.

Flying under VFR rules, an SSR unit is required:

A) Only in the aerodrome control zone.
B) Sets out how the equipment functions.
C) Only in controlled airspace.
D) As required by the route being flown.

If the grid datum is 0540W, position 800N 1400E and true heading of 330° , what is the grid heading?

A) 316° .
B) 136° .
C) 276° .
D) 164° .

In the event of a contingency which required an en-route diversion to an alternate aerodrome across the direction of the prevailing NAT traffic flow and if prior ATC clearance cannot be obtained an aircraft not able to maintain its assigned flight level should:

A) Start its descent while turning to acquire a track separated by 30 NM from its assigned route or track.
B) Start its descent while turning to acquire a track separated by 60 NM from its assigned route or track.
C) Start its descent while turning to acquire a track separated by 90 NM from its assigned route or track.
D) Descend below FL275.

During a flight to Europe, planned in MNPS (Minimum Navigation Performance Specification) airspace, you expect to cross the 30° W meridian at 00H30 UTC, you will then normally be:

A) in a random space.
B) within the organized daytime flight track system.
C) within the organized night-time flight track system.
D) out of the organized flight track system.

In MNPSA north of 70° N, how frequently can ATC ask for you to report your position?

A) Every 10 degrees of longitude.
B) Every 20 degrees of longitude.
C) Every 5 degrees of latitude.
D) Every 10 degrees of latitude.

For an operation in MNPS airspace along notified special routes unless otherwise specified, an aircraft must be equipped with at least:

A) One Long Range Navigation System (LNRS).
B) Two independent Long Range Navigation Systems (LRNS).
C) One Inertial Navigation System (INS).
D) Two Inertial Navigation Systems (INS).

A) 50 FPM
B) 100 FPM
C) 150 FPM
D) 450 FPM

You are the captain of a commercial airplane and you notice, after take-off, a flock of birds which may present a bird strike hazard, you must:

A) draft a bird strike hazard report upon arrival and within at most 48 hours.
B) inform the appropriate ground station within a reasonable period of time.
C) inform the other aircraft by radio.
D) immediately inform the appropriate ground station.

Which of the following documents contain information related to All Weather Operations (AWO)?

A) ICAO Doc1193, JAR-AWO and JAR-FCL.
B) ICAO Doc8168, JAR-AWO and ICAO Annex 6.
C) ECAC Doc17, JAR23, JAR-APU.
D) JAR25, ICAO Doc9365 and quality manual.

At 600N 0300W, the true heading is 090° and the Gyro is 000° . At 620N 0100W, the True heading is 095° and it has taken 1.5 hours to travel the distance. What will the Gyro read assuming no Latitude Nut correction:

A) 0030
B) 3280
C) 3340
D) 3450

Routing from Shannon to Canada, when not MNPS equipped, how are you able to fly:

A) Outside the times of OTS.
B) You cannot fly the route.
C) At FL280 or below.
D) Laterally displaced from the OTS.

Which errors in estimates minutes shall be reported by aircraft over flying the North Atlantic?

A) 2 or more.
B) 3 or more.
C) 5 or more.
D) 10 or more.

101. The minimum RVR requirement for CAT I ILS approach is:
A) 350m
B) 800m
C) 500m
D) 550m

In the absence of wind and without the astronomic precession effect, an aircraft would, at a constant gyro heading, follow a:
A) rhumb line.
B) spherical flight segment.
C) straight map line.
D) great circle line.

An operator must select at least one destination alternate for each IFR flight unless:
A) the duration of the planned flight from take-off to landing does not exceed 9 hours.
B) the duration of the planned flight from take-off to landing does not exceed 12 hours.
C) the duration of the planned flight from take-off to landing does not exceed 6 hours.
D) the duration of the planned flight from take-off to landing does not exceed 3 hours.

An operator shall use Air Traffic Services:
A) At his/her discretion.
B) Always whenever available.
C) Only if required by the AOC.
D) Need not use if the weather is VFR

For a performance Class C aeroplane, the minimum rate of climb (ROC) with all engines shall be:
A) 500 feet per minute.
B) 1.500 feet per minute.
C) 300 feet per minute.
D) 400 feet per minute.

You are at a latitude of 59057 N with a heading of 120° showing on a gyro compass. You experience a delay of 2hrs 30mins; what is the effect on your compass?
A) -18.5° .
B) 18.5° .
C) 32.5° .
D) -32.5° .

According to the JAR-OPS regulations, an IFR flight with no alternate airfield can be undertaken only if the minimum weather conditions stipulated in the regulations are effective for at least:
A) 3 hours before to at least 1 hour after the expected time of arrival.
B) 2 hours before to at least 2 hours after the expected time of arrival.
C) 1 hour before to at least 1 hour after the expected time of arrival.
D) 3 hours before to at least 3 hours after the expected time of arrival.

An air traffic units may request the aircraft to report position when flying east-west north of 70° N between 10° W and 50° W, every:

A) 15° of longitude.
B) 10° of longitude.
C) 5° of longitude.
D) 20° of longitude.

The validity period of a flight track system organized in MNPS (Minimum Navigation Performance Specification) airspace during a Westbound flight normally is:

A) 11H30 UTC to 19H00 UTC.
B) 01H00 UTC to 08H00 UTC.
C) 00H00 UTC to 08H00 UTC.
D) 10H30 UTC to 19H00 UTC.

A flight to Europe is expected to be at 0300W at 0030UTC. Where will you be?

A) Outside the organised track system.
B) Random airspace.
C) Inside the night time organised track system.
D) Inside the daytime organised track system.

The validity period of a flight track system, organized in MNPS (Minimum Navigation Performance Specification) airspace during a westbound flight normally is:

A) 0100 UTC to 0800 UTC at 30 degrees West.
B) 1130 UTC to 1900 UTC at 30 degrees West.
C) 0000 UTC to 0800 UTC at 30 degrees West.
D) 1030 UTC to 1900 UTC at 30 degrees West.

While approaching a mountainous airfield, the captain of a transport aircraft notices a fast and high increase in the indicated airspeed without any change in the preselected engine and attitude parameters. The preceding crews had reported the occurrence of windshear in final phase you must:

A) take a level flight attitude to reduce speed, then come back to glide path from above.
B) maintain aircraft on the glide path, accept a positive speed deviation, monitor the speed evolution.
C) reduce rapidly the selected thrust in order to reach 1.2 Va and try a precision landing.
D) reduce rapidly the selected thrust, maintain on the glide path.

A flight crossing 0300W in MNPSA at 1100UTC will be:

A) in night time OTS.
B) in daytime OTS.
C) outside OTS.
D) in random airspace.

During a transoceanic and polar flight, the chart precession is a rotation in degrees, for a moving aircraft, of the gyro North with respect to the:

A) grid North for a given chart.
B) true North for any chart.
C) true North for a given chart.
D) grid North for any chart.

What are the VFR operating minima in class E airspace?

A) 1500m horizontal and 300m vertical distance from cloud, flight visibility of 8km above 10000ft AMSL and 5km below 10000ft AMSL.
B) 300m vertical distance from cloud, 8 km flight visibility.
C) Clear of cloud and in sight of the surface.
D) VFR flights are not allowed in clas

During a flight to Europe, planned in MNPS (Minimum Navigation Performance Specification) airspace, you expect to cross the 30° W meridian at 11H00 UTC; you will then normally be:

A) within the organized daytime flight track system.
B) within the organized night-time flight track system.
C) in a random space.
D) out of the organized flight track system.

Astronomic precession is:

A) independent of the latitude.
B) existing whether the aircraft is on the ground or flying.
C) depending on the chart used.
D) zero when the aircraft is on the ground.

A polar track is a track part of which is included in an area where the horizontal component of the earth magnetic field is less than:

A) 38 micro tesla.
B) 17 micro-tesla.
C) 10 micro-tesla.
D) 6 micro-tesla.

Which of the following control areas are included in the MNPSA.

A) Santa Maria Oceanic (north of 27N).
B) all these control areas.
C) Reykjavic (to the North pole) and New York Oceanic (north of 27N, but excluding the area west of 60W and south of 38.30N).
D) Shanwick and Gander Oceanic.

What is the minimum longitudinal separation between 2 aeroplanes flying at the same Mach number in MNPS Airspace?

A) 15 minutes.
B) 10 minutes.
C) 20 minutes.
D) 5 minutes.

121. Ignoring astronomical effects, wind and drift, what route will a constant gyro (in free mode) heading follow?

A) Spherical route.
B) Rhumb line.
C) Loxodrome.
D) Great circle.

When a destination alternate is not required for aeroplanes with turbine power units, the fuel and oil carried must be at least sufficient to:

A) fly to the aerodrome of destination specified in the operational flight plan.
B) take into account all the contingencies specified by the operator.
C) fly 30 minutes at holding speed at 1500ft above the flight planned aerodrome at standard conditions and to carry additional fuel for 15 minutes holding at 1500ft above aerodrome elevation in standard conditions.
D) fly to the flight planned destination and then remain airborne for 45 minutes.

When flying gyro on a transoceanic or polar flight near the North Pole, what is the precession due to:

A) Magnetic north.
B) True North
C) Compass north.
D) Grid North.

The pilot of a category A aircraft is flying a non-precision direct IFR approach with the following operational minimums: MDH 250 feet and visibility 750 metres. RVR for threshold, mid and end of the runway are given by the controller:

A) the pilot may start the final approach if the three RVR are higher than 750 metres.
B) the pilot may start the final approach if the threshold RVR is higher than 750 metres.
C) flying a non-precision approach, the pilot may start the final approach only if he has a meteorological visibility higher than 750 metres. RVR are to be taken into account only for precision approaches.
D) the pilot may start the final approach if the threshold and mid-runway RVR are higher than 750 metres.

The ascent or descent through MNPS (Minimum Navigation Performance Specification) airspace of a non MNPS certified aircraft is:

A) authorized only if the aircraft is in radio contact with the aircraft present in this space.
B) forbidden in all cases.
C) authorized under radar control if the aircraft is in VHF contact with the MNPS controller.
D) authorized when the aircraft has two precision navigation systems.

A minimum time track is a:
A) rhumb line.
B) track determined according to weather conditions.
C) great circle track.
D) spherical capable flight segment.

A flight under IFR should not be commenced unless the weather conditions at destination and a nominated alternate are on:
A) departure equal to or above the operating minima for aerodrome use.
B) arrival equal to and above the operating minima for aerodrome use.
C) or above the minima between departure and the ETA.
D) arrival equal to or above, within a reasonable period of time before and after the nominated time, the operating minima for aerodrome use.

How far away can a take-off alternate be for a 2-engined aeroplane?
A) 120 mins at normal cruise speed.
B) 60 mins at one engine cruise speed.
C) 120 mins at one engine cruise speed.
D) 60 mins at normal cruise speed.

Posit: g, the longitude difference Lm, the average latitude Lo, the latitude of the tangent The correct formula of the conversion angle applied, during a transoceanic and polar navigation, is equal to:
A) 15° /h.sin Lm.
B) g/2.sin Lm.
C) g.(sin Lm-sin Lo).
D) g.sin Lm.

An airline operator shall make sure that if the aircraft planned for the flight is a performance class B aeroplane, it will be able, throughout its flight route or its alternate route scheduled from this initial route, to reach a climb rate of at least:
A) 500 ft/min with one engine inoperative and all the others operating at maximum continuous power.
B) 500 ft/min with all engines operating at maximum cruise power.
C) 300 ft/min with one engine inoperative and all the others operating at maximum continuous power.
D) 300ft/min with all engines operating at maximum continuous power.

A minimum time track is defined as:
A) the shortest distance between two points.
B) a NAT track established between two reporting points.
C) the route that takes the shortest time between two points.
D) a great circle route between two points.

When leaving the MNPS oceanic control area for a domestic controlled area, the pilot has to:
A) take the Mach number specified in this initial flight plan.
B) maintain the Mach number previously assigned up to the last position shown in the oceanic clearance.
C) take any Mach number.
D) take the Mach number provided for this type of flight by his airline.

On a polar stereographic chart, with a grid referenced to true north on the Greenwich meridian and convergency of 30° W, true heading of 250° , what is the grid heading:
A) 220[AFT4].
B) 280.
C) 250.
D) 010.

For an aircraft which is not capable of continuing flight to an aerodrome with the critical power unit becoming inoperative at any point along the planned route will not be operated at a distance away from land greater than that corresponding to:
A) 120 minutes at cruising speed or 100 nm whichever is the lesser.
B) 30 minutes at cruising speed or 400 nm whichever is the lesser.
C) 120 minutes at cruising speed or 400 nm whichever is the lesser.
D) 30 minutes at cruising speed or 100 nm whichever is the lesser.

When considering Wind Component for landing distance calculation the limits are:
A) Not more than 60% head and 70% tail.
B) Not more than 30% head and 60% tail.
C) Not more than 50% head and 150% tail.
D) Not more than 60% head and 120% tail.

At 18h40min UTC, a complete failure of the inertial systems of an aircraft flying on the LONDON- ANCHORAGE line occurs in the geographic North pole region. The wind is nil, the grid heading at this moment is 315° . The crew then uses the Sun to continue the flight. The bearing of the Sun on occurence of the failure is:
NOTE:
The time equation is nil. The chart used is a polar stereographic chart whose grid is parallel with the zero meridian, the Grid North is in direction of the geographic North pole.
A) 035° .
B) 180° .
C) 000° .
D) 325° .

If your ETA at a significant point on a NAT track changes by how much must you inform ATC?
A) 10min or more.
B) 3min or more.
C) 1min or more.
D) 5min or more.

The minimum lateral separation applied in the NAT region is...
A) 15 NM.
B) 30 NM.
C) 5 NM.
D) 60 NM.

MNPS is the abbreviation for:
A) Maximum North-Atlantic Precision System.
B) Minimum Navigation Positioning System.
C) Military Network Performance Structure.
D) Minimum Navigation Performance Specification.

A polar track is a route which part of the length crosses an area where the horizontal component of the earths magnetic field is less than:
A) 6 micro-teslas.
B) 17 micro-teslas.
C) 10 micro-teslas.
D) 38 micro-teslas.

---

141. The primary method of communications in the MNPSA between aeroplanes and the controlling authority is by:
A) GSM.
B) VHF SSB.
C) HF SSB.
D) LF SSB.

On a polar stereographic chart with grid aligned with the prime meridian; you are heading 045° T; your position is 760N 1800W, what is your grid heading?
A) 135°
B) 045°
C) 225°
D) 315°

Posit: g, the longitude difference Lm, the average latitude Lo, the latitude of the tangent
The correct formula expressing the travel precession applied during a transoceanic and polar navigation, is equal to:
A) g.(sin Lm-sin Lo).
B) g.sin Lm.
C) 15° /h.sin Lm.
D) g/2.sin Lm.

The WATRS is the area to the east of ... extending eastwards to ... and south to ...
A) New York, 60W, 27N.
B) Gander, 27W, 60N.
C) San Francisco, 60W, 27N.
D) Shanwick, 60W, 27N.

In calculating AOM which of the following is/are taken into consideration:
A) All obstacles within 15km of the threshold over lSOm (495ft AMSL).
B) The height of obstacles in the missed approach area.
C) Obstacles 8km either side of track.
D) Obstacles in the climb-out areas over 1 50m (495ft AGL).

On a polar stereographic chart, with a grid referenced on the Greenwich meridian and convergency of 10° W, true heading of 300° , what is grid heading?

A) 290° .
B) 310° .
C) 300° .
D) 010° .

En-route in a 3 or more engined aircraft and with 2 engines inoperative the maximum time the aeroplane shall be away from an aerodrome is:

A) 60 minutes.
B) 300 nautical miles.
C) 120 minutes.
D) 90 minutes

In the MNPS (Minimum Navigation Performance Specification) area, a pilot should first of all take the following action in the event of a failure of the last inertial navigation system:

A) set a different heading approximately 45° from the previous one.
B) request authorization from Control to track another aircraft.
C) notify Control and wait for a reply within a reasonable time.
D) immediately climb or descent 1 000 ft.

When considering obstacle data to be calculated the situations to be reviewed are:

A) Take off and landing only.
B) Take off, en-route, landing and go around.
C) Go round and minimum circling altitude
D) Take off, Landing and go around.

Special operational procedures and hazards
Minimum Equipment List (MEL)

The master minimum equipment list (MMEL) is established by:
A) the operator of the aircraft, and accepted by the authority.
B) the manufacturer of the aircraft, and accepted by the authority.
C) the manufacturer of the aircraft, but need not to be accepted by the authority.
D) the operator of the aircraft, and accepted by the manufacturer.

Who issues and updates the MEL?
A) The operator.
B) The authority.
C) The manufacturer.
D) The designer.

The MEL (Minimum Equipment List) is drawn up by:
A) the aircraft state of registry.
B) the aircraft manufacturers list.
C) the manufacturer.
D) the operator.

The Master Minimum Equipment List (MMEL) defines the equipment on which certain in-flight failures can be allowed and the conditions under which this allowance can be accepted. This MMEL is drawn up by:
A) the operator and is specified in the operation manual.
B) the operator and approved by the certification authority.
C) the operator from a main list drawn up by the manufacturer.
D) the manufacturer and approved by the certification authority.

What is the purpose of the minimum equipment list (MEL):
A) To list all normal and non-normal check-lists.
B) To list all the necessary flight documents which are required on board.
C) To enable the pilot to determine whether a flight may be commenced or continued from any intermediate stop should any instrumentation, system or equipment becomes inoperative.
D) To enable the pilot to find out what the minimum crew occupation should be for a particular flight.

The minimum equipment list (MEL) gives the equipment which can be inoperative when undertaking a flight and the additional procedures to be observed accordingly. This list is prepared by:
A) the operator, and it is appended to the flight manual.
B) the manufacturer, and it is inserted in the operations manual.
C) the operator, and it is inserted in the operations manual.
D) the manufacturer, and it is appended to the flight manual.

The Minimum Equipment List (MEL) defines the equipment on which certain in-flight failures can be allowed and the conditions under which this allowance can be accepted. The Mel is drawn up by:

A) the manufacturer and may be less restrictive than the Master Minimum equipment List (MMEL).
B) the operator and may be more restrictive than the Master Minimum Equipment List (MMEL).
C) the operator and may be less restrictive than the Master Minimum equipment List (MMEL).
D) the manufacturer and may be more restrictive than the Master Minimum Equipment List (MMEL).

The Minimum Equipment List (MEL) is established by:

A) the airline operator.
B) the Civil Aviation Authority of the European states.
C) the manufacturer.
D) the aeronautical authority the airline operator depends on.

Following an indication of an unserviceability whilst taxiing to the holding point, what do you consult first?

A) Flight manual.
B) State of registration.
C) MEL.
D) Operator.

The purpose of the Minimum Equipment List (MEL) is to enable the .... to determine whether a flight may commence or continue from any intermediate stop, should .... become inoperative.

A) Commander, any instrumentation or system.
B) Operator, any aircraft safety system.
C) Chief steward, the galley equipment.
D) Maintenance supervisory, any system.

Who is responsible for the establishment of the MMEL?

A) the organisation responsible for the type design in conjunction with the State of design.
B) the State of registration.
C) the operator.
D) the pilot-in-command.

A piece of equipment on your public transport airplane fails while you are still parked. The reference document you use to decide on the procedure to follow is:

A) the minimum equipment list.
B) the operation manuals chapter Abnormal and Emergency procedures.
C) the JAR OPS.
D) the flight manual.

The minimum equipment list of a public transport airplane is to be found in the:

A) flight record.
B) JAR OPS.
C) flight manual.
D) operation manual.

Which of the following statements concerning the MEL is correct?

A) The final responsibility for acceptance of any unserviceability within the MEL rests ultimately with the Operator.
B) The MEL is required by ICAO and must be approved by the pilot.
C) The MEL allows aeroplanes to be flown with unserviceability which would otherwise require immediate rectification.
D) It draws attention to the possibility of further failures and their effects.

A piece of equipment on your public transport airplane fails while taxiing to the holding point. The reference document you use in the first place to decide on the procedure to follow is:

A) the minimum equipment list.
B) the operation manuals chapter Abnormal and Emergency Procedures.
C) the JAR OPS.
D) the flight record.

The purpose of the Master Minimum Equipment List (MMEL) is:

A) To permit one MEL to exist for the operators entire fleet of aeroplanes.
B) Not to be used as an Operators MEL.
C) To permit the Authority to specify what equipment must be carried in an aircraft with max take off mass greater than 5 700 kg.
D) To permit the operator to change the content of the MEL whilst keeping a master copy in an unammended state

Airplane de-icing - anti-icing

Without wind, the tip vortices created by an airplane at take-off:
A) separate to the right side.
B) stagnate on the runway.
C) separate to the left side.
D) separate on each side of the runway.

The accumulation of snow or ice on an aircraft in flight induces an increase in the:
A) value of the stall angle of attack.
B) stalling speed.
C) roll rate.
D) tuck under

In icing conditions, the pilot in command must:
A) ensure holdover time has not exceeded the time since de-icing started.
B) ensure sufficient anti-ice is still present on surfaces.
C) ensure surfaces are free from build-up of ice within constraints allowed by the operations manual.
D) ensure no ice more than 5mm in depth is on surfaces.

Ice accretion depends on many factors including ambient temperature and type of precipitation. Which of the following would give the longest holdover time?
A) Freezing fog.
B) Frost.
C) Steady snow.
D) Rain on a cold soaked wing.

What effect does snow and ice contamination have on aircraft performance?
1. Increase take-off run.
2. Decrease take-off run.
3. Increase stall speed.
4. Decrease stall speed.
5. Reduce climb gradient.

A) 1, 2, 3.
B) 2, 4, 5.
C) 2, 3, 4.
D) 1, 3, 5.

Anti-icing hold-over times are affected by:
1. Ambient temperature.
2. Temperature of the skin.
3. Type and intensity of precipitation.
4. Relative humidity.
5. Windspeed and direction.

A) 2, 3, 4.
B) All of the above.
C) 1, 2, 3, 5.
D) 1, 3, 5.

What is the worst case for hold over time following de-ice/anti-ice?
A) Freezing fog.
B) Frost.
C) Snow.
D) Freezing rain.

The terminal VOR transmits the following weather data. When do you expect carburettor icing?
A) Outside Air Temperature (OAT): +25° C Dew Point (DEWP): +5° C.
B) Outside Air Temperature (OAT): +10° C Dew Point (DEWP): +7° C.
C) Outside Air Temperature (OAT): +15° C Dew Point (DEWP): -5° C.
D) Outside Air Temperature (OAT): -10° C Dew point (DEWP): -15° C.

The anti-icing fluid protecting film can wear off and reduce considerably the protection time:
A) when the airplane is into the wind.
B) when the temperature of the airplane skin is close to 0 ° C.
C) when the outside temperature is close to 0 ° C.
D) during strong winds or as a result of the other aircraft engines jet wash.

If the EPR probe becomes covered with ice, EPR indications will be:
A) Less than the actual.
B) Greater than the actual.
C) Dependent on the temperature.
D) Equal to the actual.

If after anti-icing has been completed a pre-departure inspection reveals evidence of freezing, the correct action is to:
A) complete departure provided that the recommended anti-icing holdover (protection) time for the prevailing conditions and type of fluid used has not been exceeded.
B) complete departure as soon as possible to reduce the possibility.
C) carry out a further de-icing process.
D) switch on all the aeroplane anti-icing and de-icing systems and leave on until clear of icing conditions when airborne

In high ambient temperatures (30° C) and at relative humidity as low as 40%, in air free from cloud, fog and precipitation, serious carburettor icing
A) Can occur at any power settings.
B) Cannot occur.
C) Can occur, but only at full power and cruise settings.
D) Can occur but only at low power settings.

When anti-icing has been applied, when must you make sure it is still active?
A) On rotation.
B) At brake release for take-off.
C) Until one can use ones own anti-icing equipment.
D) When clear of icing conditions.

The greatest possibility of ice build-up, while flying under icing conditions, occurs on:
A) The aircraft front areas.
B) The upper and lower wing surfaces.
C) Only the pitot and static probes.
D) The upper and lower rudder surfaces.

How long is holdover time for Type II anti-icing fluids?
A) 3 hours.
B) 24 hours.
C) A certain time independent of skin temperature.
D) A certain time dependent on concentration.

When an aircraft, having already undergone an anti-icing procedure, must be protected again?
A) First, you must de-ice again the surface of the airplane, then apply the new layer of anti-icing fluid.
B) You can apply directly the new layer of anti-icing fluid without previous de-icing.
C) You must operate the aircraft de-icing/anti-icing devices before applying the new layer of anti-icing fluid.
D) You must wait until the protection time of the anti-icing fluid is over before applying the new layer of anti- icing fluid.

At a high ambient temperature (30° C) and with a relative humidity as low as 40%, in air free of cloud, fog and precipitation, serious carburettor icing:
A) can occur, but only at full power or cruise settings.
B) can occur, but only at a low power setting.
C) cannot occur.
D) is possible at any setting.

During a de-icing/anti-icing procedure carried out in two stages, the waiting time starts:
A) at the end of the second stage (anti-icing stage).
B) at the beginning of the second stage (anti-icing stage).
C) a the end of the first stage (de-icing stage).
D) at the beginning of the first stage (de-icing stage).

Under which conditions will ice form on the airframe?
A) Water in a liquid state, ambient air temperature below 0° C and airframe temperature below 0° C.
B) Ambient air temperature below 0 degrees Celsius and airframe temperature below 0 degrees Celsius.
C) Ambient air temperature below 0 degrees Celsius and airframe temperature below -10 degrees Celsius.
D) Water in a liquid state.

The holdover time following an anti-icing procedure being carried out will vary considerably depending on the ambient temperature and the weather conditions. For a given ambient temperature, the longest protection will be in weather conditions of:
A) freezing fog.
B) frost.
C) steady snow.
D) rain on a cold soaked wing.

---

21. When taking-off, in winter conditions, the wing contamination by ice or frost will cause the following effects:

1. An increase in the take-off distance.
2. A decrease of the take-off run.
3. An increase in the stalling speed.
4. A decrease of the stalling speed.
5. A decrease of the climb gradient.

The combination regrouping all the correct statements is:
A) 1, 3, 5
B) 2, 3, 5
C) 2, 4, 5
D) 1, 2, 3

The reference document dealing with air transport of hazardous materials is:
A) ICAO Appendix 18.
B) ICAO Appendix 8.
C) the Washington Convention.
D) Instruction No. 300 of June 3, 1957.

The protection time of an anti-icing fluid depends on:
1. The type and intensity of the showers.
2. The ambient temperature.
3. The relative humidity.
4. The direction and speed of the wind.
5. The temperature of the airplane skin.
6. The type of fluid, its concentration and temperature.

The combination regrouping all the correct statements is:
A) 1, 2, 3, 4, 5, 6
B) 1, 3, 5, 6
C) 1, 2, 4, 6
D) 2, 3, 4, 5

During an aircraft de-icing/anti-icing procedure:
A) the anti-icing and de-icing fluids are applied hot.
B) the anti-icing and de-icing fluids are applied cold.
C) the anti-icing fluid is applied without heating and the de-icing fluid is applied hot.
D) the de-icing fluid is applied without heating and the anti-icing fluid is applied hot.

In icing conditions and after the application of an anti-icing fluid on your airplane, you are waiting to take-off by:

1. avoiding positioning yourself in the engine jet wash of the preceding aircraft
2. avoiding positioning yourself in the turbo-props wash of the preceding aircraft
3. positioning yourself in the engine jet wash of the preceding aircraft
4. positioning yourself in the turbo-props wash of the preceding aircraft The combination regrouping all the correct statements is:

A) 2, 3
B) 1, 2
C) 1, 4
D) 3, 4

The effective time during which the process of de-icing/anti-icing of a type fluid is active is called the...
A) type fluid clearance time.
B) holdover time.
C) change-over time.
D) fluid effective time.

An aircraft having undergone an anti-icing procedure must be anti-icing fluid free at the latest when:
A) releasing the brakes in order to take-off.
B) it is rotating (before taking-off).
C) it is implementing its own anti-icing devices.
D) leaving the icing zone.

For a given ambient temperature and type of de-icing fluid used, in which one of the following types of weather condition will the holdover (protection) time be shortest?
A) Steady snow.
B) Freezing rain.
C) Frost.
D) Freezing fog.

Which of the following requirements should be met when planning a flight with icing conditions:
A) the aircraft shall be equipped with approved ice-protection systems.
B) a meteorologist shall decide whether the flight may be performed without ice-protection systems.
C) the flight should be planned so that a change of cruising level can be initiated rapidly.
D) the aircraft shall before flight be sprayed with anti-icing fluid.

What happens to the EPR if the probe is blocked by ice?
A) Over reads.
B) Nothing.
C) Under reads.
D) Depends on temperature.

In public transport, prior to take-off in icing conditions, the captain must check that:
A) external surfaces are free from any ice accretion which may impede the airplane performance and manoeuvrability, except within the limits specified by the flight manual.
B) external surfaces are free from any ice accretion greater than 5 mm.
C) possible ice accretions do not cause to exceed weight and balance limits.
D) external surfaces are still covered with anti-icing fluid.

The application of a type II de-icing fluid on an aircraft on ground will provide a:
A) certain time of protection depending on its concentration.
B) 24 hours protection time.
C) 3 hours protection time.
D) certain time of protection independent of the outside temperature.

For stable clouds:
1. The most favourable temperatures for icing are between 0° C and -10° C.
2. The most favourable temperatures for icing are between 0° C and -15° C.
3. Icing becomes rare at t < -18° C 4- icing becomes rare at t < -30° C.
4. The diameter of water droplets is between 0.002 and 0.03mm.
5. The diameter of water droplets is between 0.004 and 0.2mm.

Which of the following combinations contains all the correct statements?
A) 2, 4, 6
B) 2, 3, 5
C) 1, 3, 5
D) 1, 4, 6

Holdover time can be considerably reduced by:
A) air temperature being slightly below 0 deg C.
B) effect of headwind.
C) strong winds and effect of jet blast from other aeroplanes.
D) airframe temperature being slightly below 0 deg C.

The terminal VOR transmits the following weather data. When would you expect carburettor icing to occur?
A) Outside Air Temperature (OAT): +25 deg C, Dew Point (DEWP): +5 deg C.
B) Outside Air Temperature (OAT): +15 deg C, Dew Point (DEWP): -5 deg C.
C) Outside Air Temperature (OAT): -10 deg C, Dew Point (DEWP): -15 deg C.
D) Outside Air Temperature (OAT): +10 deg C, Dew Point (DEWP): +7 deg C.

Which of the following requirements should be met when planning a flight with icing conditions:
A) A meteorologist shall decide whether the flight may be performed without ice-protection systems.
B) The flight should be planned so that a change of cruising level can be initiated rapidly.
C) The aircraft shall before flight be sprayed with anti-icing fluid.
D) The aircraft shall be equipped with approved ice-protection systems.

An aircraft having undergone an anti-icing procedure and having exceeded the protection time of the anti-icing fluid:
A) need not to undergo a new anti-icing procedure for take-off.
B) must undergo a de-icing procedure before a new application of anti-icing fluid for take-off.
C) must only undergo a new anti-icing procedure for take-off.
D) must only undergo a de-icing procedure for take-off.

Operators are not to allow aeroplanes to fly in conditions where icing is expected unless...
A) 1 and 2.
B) the aircraft is de-iced on the ground.
C) the pilot-in-command is certificated accordingly.
D) the aeroplane is certificated accordingly.

Bird strike risk and avoidance

As regards the detection of bird strike hazard, the pilots means of information and prevention are:

1. ATIS.
2. NOTAM' s.
3. BIRDTAMs.
4. Weather radar.
5. The report by another crew.

The combination regrouping all the correct statements is:

A) 2, 5.
B) 1, 2, 3, 4, 5.
C) 1, 3, 4.
D) 1, 2, 5.

Which habitat is the least favourable for birds?

A) Short grass cut by gang mowers.
B) Long grass.
C) Areas that flood.
D) Rubbish tips

What is the most effective method for scaring birds?

A) Shell crackers.
B) Land rover with loudspeaker.
C) Scarecrow.
D) Making movement.

Which one of the following sets of conditions is most likely to attract birds to an aerodrome?

A) A modern sewage tip in close proximity.
B) A refuse tip in close proximity.
C) The extraction of minerals such as sand and gravel.
D) Mowing and maintaining the grass long.

90% of bird strikes occur:

A) under 500 m.
B) between 500 and 1 000 m.
C) above 1 000 m.
D) between 500 and 1 500 m.

A analysis of the bird strikes shows that the highest risk is encountered in a layer from:

A) from 100 to 800 m.
B) from 200 to 500 m.
C) from 0 to 150 m.
D) from 500 to 1.200 m.

90% of bird strikes happen at:

A) Under 500ft.
B) 500-1.000m.
C) Over 1.000ft.
D) 500-1.500m.

After take-off the pilot of a commercial aeroplane notices a flock of birds which could pose a bird-strike risk.
Does the pilot:

A) contact the ground station immediately.
B) ignore the problem and hope someone else will make a report.
C) inform other aircraft by radio.
D) inform the appropriate persons in a reasonable time.

The observations and studies conducted on the behaviour of birds on the ground, ahead of an aircraft taking off and having reached an average speed of 135 kt, show that birds fly away:

A) as soon as they hear the engines noise.
B) about two seconds beforehand.
C) about ten seconds beforehand.
D) from the beginning of the takeoff roll.

During take-off an aircraft hits a bird. Due to control vibrations a landing must be made immediately. Following this incident the pilot:

A) must file a airworthiness report.
B) must file an AIR PROX report: the Control Tower having given no warning.
C) must file a Bird Strike report.
D) is not obliged to report this incident.

What would be most likely to attract birds near an airfield?

A) Mineral extraction.
B) A refuse tip.
C) Mowed grass kept long.
D) Modern sewerage plant.

Which one of the following sets of conditions is the least likely to attract flocks of birds?

A) Edible rubbish.
B) Long grass.
C) Short gang-mown grass.
D) An area liable to flooding.

Noise abatement

According to ICAO Document 8168 Part V, when using Procedure A for noise abatement, when must you reduce power:

A) 2000 ft.
B) 3000 ft.
C) 1500 ft.
D) 1000 ft.

In accordance with (ICAO) DOC 8168 - OPS, noise preferential routes are established to ensure that departing and arriving aeroplanes avoid over flying noise-sensitive areas in the vicinity of the aerodrome as far as practicable. In establishing noise preferential routes:

A) turns during take-off and climb should not be required unless the bank angle for turns is limited to 28° (climbing at V2 + 10 to 20 Kt).
B) turns during take-off and climb should not be required unless the bank angle for turns is limited to 20° (climbing at V2 + 10 to 20 Kt).
C) turns during take-off and climb should not be required unless the aeroplane has reached and can maintain throughout the turn a height of no less than 100 m above terrain and the highest obstacle.
D) no turns should be required coincident with a reduction of power associated with a noise abatement procedure.

Noise preferential runways are to be chosen so that flight paths avoid... during initial departure and...

A) noise sensitive areas, final approach phases.
B) crossing other runways, missed approach phase.
C) populated areas, final approach phases.
D) noise sensitive areas, missed approach phase.

Noise abatement for landing:

A) Stop use of thrust reverse before the threshold.
B) Precludes the use of thrust reverse.
C) Allows limited use of thrust reverse.
D) Should not preclude the use of thrust reverse.

Noise abatement procedures are established in accordance with:

A) JAR-FCL.
B) JAR-145.
C) ICAO Doc8168.
D) ICAO Annex 1.

According to the recommended noise abatement take-off and climb procedure A established in ICAO, DOC 8168 Volume I part V, Chapter 3, thrust reduction to climb power, has to be done as soon as the aircraft reaches:

A) 1500 ft.
B) 1000 ft.
C) 2000 ft.
D) 3000 ft.

About procedures for noise attenuation during landing:
A) They prohibit the use of reverse thrust .
B) They are applied in the case of an instrument approach only.
C) Such procedures will not involve the prohibition of using reverse thrust .
D) Such procedures do not exist.

In order to comply with noise abatement requirements, the mass at take-off must not exceed the stated relevant maximum unless:
A) The use of a runway with no noise problem has been authorised.
B) The commander decides that compliance with noise abatement procedures will endanger his aircraft and the passengers.
C) In an emergency and the authority is informed within l0 days.
D) The operator has authorised non-compliance.

According to the recommended noise abatement procedures contained in the ICAO, DOC 8268 Volume I part V, data available indicates that the procedure which results in noise relief during the part of the procedure close to the airport:
A) is procedure B.
B) depends on the wind component.
C) is either procedure A or B, because there is not difference in noise distribution.
D) is procedure A.

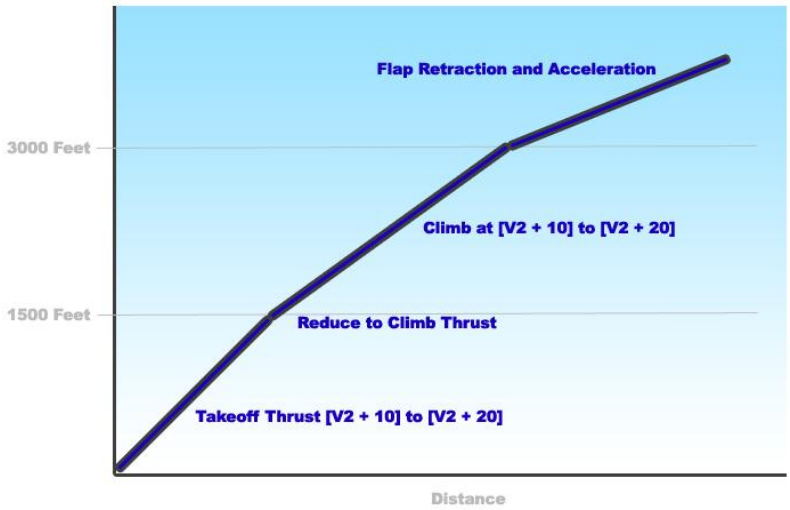
In which of the following cases, you should preclude consideration of noise abatement?
A) Extreme delay in schedule
B) The crosswind component exceeds 9 kts.
C) The crosswind component exceeds 15 kts
D) The cloud ceiling is 1.500ft for landing, or horizontal visibility is less than 3.5 km for take-off or landing

What precludes a runway being used for noise abatement procedures if landing in VMC?
A) Tailwind up to 3kts.
B) Any tailwind.
C) Crosswind including gusts of 10kts.
D) No ILS or visual guidance.

When setting up a minimum noise climb, the minimum height at which a power reduction shall be allowed is:
A) 150 m (500 ft).
B) 300 m (1.000 ft).
C) 450 m (1.500 ft).
D) 600 m (2.000 ft).

Who has the responsibility for establishing operating procedures for noise abatement purposes during instrument flight in compliance with ICAO PANS OPS the:
A) state in which the aeroplane is operating.
B) state of the operator.
C) operator.
D) commander.

Which noise abatement take-off climb procedure is presented in the following figure?



A) Procedure B.
B) Procedure C.
C) Procedure A.
D) Procedure D.

Which statement is correct concerning turns on noise abatement procedures?
A) Turns of a bank angle of up to 28 deg are allowed maintaining VAT + 10-20kts.
B) Turns of a bank angle of up to 20 deg are allowed maintaining VAT + 10-20kts.
C) All turns must give at least 100m obstacle and terrain clearance.
D) No turns should be coincident with a reduction in power.

During an approach procedure which involves noise abatement, the aeroplane is to be in the final landing configuration at any point after passing the ... or at a point ... from the threshold of the landing runway, whichever is earlier.
A) inner marker, 4NM
B) outer marker, 5NM
C) final marker, 6NM
D) middle marker, 5NM

Following take-off, the noise abatement climb procedures specified by the operator is:
A) for the same airplane type, the same for all airports.
B) different for a same airplane type, according to airports.
C) for all airplane types, the same for a specific airport.
D) different according to airports and airplane types.

Noise attenuation shall not be the determining factor in the designation of a runway, under the following circumstances:

1. When cross wind component, including gust, exceeds 15 knots.
2. When the tail wind component, including gust, exceeds 5 knots.
3. When the runway is not clear or dry.

The combination regrouping all the correct statements is:
A) 1, 2, 3
B) 2, 3
C) 1, 3
D) 1, 2

Which one of the following factors should prevent a runway being chosen as the preferential landing runway for noise abatement purposes in visual meteorological condition (VMC)?
A) It has no ILS or visual approach slope guidance.
B) Cross-wind component, including gusts, is 10 kt.
C) It has a tail wind component of 3 kts and a cross wind, including gusts, of 12 kt.
D) It has a tail wind component of any value.

According to ICAO Document 8168 Part V, when using Procedure B for noise abatement, when must you reduce power?
A) 3000ft.
B) 1000ft.
C) when flap retraction is complete.
D) 1500ft.

Fire-smoke

The number of hand fire extinguishers which must be conveniently located in the passenger compartment when the maximum approved passenger seating configuration is between 501 and 600 is:
A) 7.
B) 3.
C) 1.
D) 9.

The system which must be switched off in case of a belly compartment fire is generally the:
A) ventilation of the cargo compartment.
B) pressurization.
C) trim air.
D) total air-conditioning.

A class A fire is a fire:
A) involving flammable liquids, greases, paints, etc. ,where a flame-interrupting effect is essential.
B) involving gases whether cylinder contained or natural gas issuing through a fissure in the earths surface.
C) involving ordinary combustible materials where extinguishment is best obtained by using a fire extinguisher.
D) involving combustible metals.

A class B fire is a fire of:
A) electrical source fire.
B) liquid or liquefiable solid.
C) special fire: metal, gas, chemical product.
D) solid material usually of organic nature.

A class C fire is a fire:
A) involving ordinary combustible materials where extinguishment is best obtained by using a fire extinguisher.
B) involving flammable liquids, greases, paints, etc., where a flame-interrupting effect is essential.
C) involving combustible metals.
D) involving gases whether cylinder contained or natural gas issuing through a fissure in the earths surface.

A water fire extinguisher can be used without restriction for:
1. a paper fire
2. a hydrocarbon fire
3. a fabric fire
4. an electrical fire
5. a wood fire

The combination regrouping all the correct statements is:
A) 2, 4, 5.
B) 1, 2, 3, 4, 5.
C) 1, 3, 5.
D) 2, 3, 4.

What type of fire extinguisher do you use on a magnesium fire?
A) Foam.
B) Halon.
C) Sand.
D) Water.

Beneath fire extinguishers the following equipment for fire fighting is on board:
A) crash axes or crowbars.
B) a hydraulic winch and a big box of tools.
C) water and all type of beverage.
D) a big bunch of fire extinguishing blankets.

You will use a powder fire-extinguisher for:
1. a paper fire
2. a plastic fire
3. a hydrocarbon fire
4. an electrical fire

The combination regrouping all the correct statements is:
A) 1, 4
B) 1, 2, 3, 4
C) 2, 3
D) 1, 2, 3

Which of the following may a Halon fire extinguisher be used for:
1. A paper fire.
2. A plastic fire.
3. A hydrocarbon fire.
4. An electric fire.

A) 2, 3.
B) 1, 2, 3, 4.
C) 1, 2, 3.
D) 3, 4.

For a flight deck fire which of the following do you use?
1. BCF.
2. Halon.
3. Dry Powder.
4. Water.

A) 1, 2 & 3.
B) 3 & 4.
C) 1, 2, 3 & 4.
D) 1 & 2.

To fight a fire in an air-conditioned cargo hold:
A) You turn off the cargo hold ventilation and extinguish fire.
B) Extinguish fire and reduce air conditioning.
C) Fire-fighting is not necessary, since the transport of combustible goods in an air-conditioned cargo hold is forbidden.
D) Extinguish fire only.

What class of fire would require use of a H20 extinguisher?
A) CLASS A.
B) CLASS B.
C) CLASS C.
D) CLASS E.

CO_2 type extinguishers are fit to fight:

1. class A fires
2. class B fires
3. electrical source fires
4. special fires: metals, gas, chemical product

Which of the following combinations contains all the correct statements:
A) 1, 2, 3
B) 2, 3
C) 1, 3, 4
D) 1, 2, 4

To extinguish a fire in the cockpit, you use:

1. a water fire-extinguisher
2. a powder or chemical fire-extinguisher
3. a Halon fire-extinguisher
4. a CO2 fire-extinguisher

The combination regrouping all the correct statements is:
A) 1, 2
B) 2, 3, 4
C) 1, 2, 3, 4
D) 3, 4

A class D fire is a fire:
A) involving flammable liquids, greases, paints, etc. ,where a flame-interrupting effect is essential.
B) involving gases whether cylinder contained or natural gas issuing through a fissure in the earths surface.
C) involving ordinary combustible materials where extinguishment is best obtained by using a fire extinguisher.
D) involving combustible metals.

The number of hand fire extinguishers which must be conveniently located in the passenger compartment when the maximum approved passenger seating configuration is between 201 and 300 is:
A) 8.
B) 2.
C) 7.
D) 4.

The total number of Oxygen dispensing units in an aircraft must:
A) exceed the number of passenger seats by at least 10%.
B) Neither a & b.
C) exceed the number of passenger and crew seats by at least 10 %.
D) Both a & b.

A 1211 Halon fire-extinguisher can be used for:
1. a paper fire
2. a fabric fire
3. an electric fire
4. a wood fire
5. a hydrocarbon fire

The combination regrouping all the correct statements is:
A) 2, 4, 5.
B) 2, 3, 4.
C) 1, 3, 5.
D) 1, 2, 3, 4, 5.

An aircraft is configured for seating 61 to 200 passengers. What is the requirement for hand held fire extinguishers.
A) 3 conveniently located in the passenger compartment.
B) 2 conveniently located in the passenger compartment.
C) 4 conveniently located in the passenger compartment.
D) 5 conveniently located in the passenger compartment.

---

21. The number of hand fire extinguishers which must be conveniently located in the passenger compartment when the maximum approved passenger seating configuration is between 301 and 400 is:
A) 4.
B) 3.
C) 6.
D) 5.

After a landing, with overweight and overspeed conditions, the tyres and brakes are extremely hot. The fireguards should approach the landing gear tyres:
A) only from left or right side.
B) only from front or rear side.
C) under no circumstances.
D) from any side.

You will use a CO2 fire-extinguisher for:
1. a paper fire
2. a plastic fire
3. a hydrocarbon fire
4. an electrical fire

The combination regrouping all the correct statements is:
A) 3, 4
B) 1, 2, 3
C) 2, 3
D) 1, 2, 3, 4

In case of an engine nozzle fire while on ground you:
A) pull the fire shut off handle and trigger the engines fire-extinguishers.
B) fight the nozzle fire with a water fire-extinguisher.
C) carry out a damp cranking.
D) carry out a dry cranking.

The number of hand fire extinguishers which must be conveniently located in the passenger compartment when the maximum approved passenger seating configuration is between 401 and 500 is:
A) 5.
B) 3.
C) 4.
D) 6.

Where the use of oxygen is prescribed, flight crew members are to:
A) use oxygen for 10% of the time.
B) use oxygen at all times providing the equipment does not impair operational performance.
C) only use oxygen at night.
D) use oxygen continuously.

Fire fighting in the toilets must be performed with:
A) only the extinguisher corresponding to the toilets.
B) all available extinguishers in sequence.
C) all available liquids.
D) all available extinguishers simultaneously.

Where the maximum approved seating capacity of passengers is greater than 31 but less than 60, how many Halon fire extinguishers are required?
A) At least two.
B) None.
C) At least three.
D) At least one.

Water fire extinguisher with a directed spray can be used on which fires?
A) Gas fires.
B) Liquid fires.
C) Special fires.
D) Solid fires.

You will use a Halon extinguisher for a fire of:
1. solids (fabric, plastic, ...)
2. liquids (alcohol, gasoline, ...)
3. gas
4. metals (aluminium, magnesium, ...)

The combination regrouping all the correct statements is:
A) 1 ,2, 4
B) 1, 2, 3, 4
C) 1, 2, 3
D) 2, 3, 4

Fire extinguishers should be located in the pilots compartment and...
A) at each passenger compartment that is separate from the pilots compartment and not readily accessible to the flight crew.
B) in the passenger cabin.
C) at each door.
D) in the galley

When does the fire handle warning light go out?
A) When fire detected as being out.
B) When fire handle is pulled
C) When all bottles to that engine are discharged.
D) When that fire bottle has been fired.

A class B fire is a fire:
A) involving ordinary combustible materials where extinguishment is best obtained by using a fire extinguisher.
B) involving combustible metals.
C) involving gases whether cylinder contained or natural gas issuing through a fissure in the earths surface.
D) involving flammable liquids, greases, paints, etc. ,where a flame-interrupting effect is essential.

In case of an engine jet pipe fire while on the ground you:
A) carry out a dry motoring cycle.
B) carry out a wet motoring cycle.
C) fight the jet pipe fire with a water fire extinguisher.
D) pull the fire shut off handle and trigger the engines fire extinguishers.

The fire extinguisher types which may be used on class B fires are:
1. H_2O
2. CO_2
3. dry-chemical
4. halogen

Which of the following combinations contains all of the correct statements:
A) 2, 3, 4
B) 2
C) 1, 2, 3, 4
D) 3, 4

An engine fire warning will switch on the relevant fire shut off-handle. The fire shut-off handle will be switched off when:
A) the fire shut-off handle has been pulled.
B) fire is no longer detected.
C) the fire-extinguisher has been triggered.
D) all the fire-extinguishers connected to this engine have been triggered.

Which fires can a water fire extinguisher be used on?

1. Wood.
2. Plastic.
3. Electric.
4. Furnishings.

A) 1, 2, 3, 4.
B) 1, 2, 4.
C) 2, 3, 4.
D) 1, 3, 4.

A CO2 fire extinguisher can be used for:

1. a paper fire
2. a hydrocarbon fire
3. a fabric fire
4. an electrical fire
5. a wood fire

The combination regrouping all the correct statements is:
A) 2, 4, 5
B) 2, 3, 4
C) 1, 3, 5
D) 1, 2, 3, 4, 5

If smoke appears in the air conditioning, the first action to take is to:
A) Cut off all air conditioning units.
B) Put on the mask and goggles.
C) Begin an emergency descent.
D) Determine which system is causing the smoke.

After landing, in case of high temperature of the brakes you:
A) release the parking brake and you approach the wheels either from aft or fore.
B) release the parking brake and you approach the wheels side wards.
C) apply the parking brake and approach the wheels side wards.
D) apply the parking brake and you approach the wheels either from fore or aft.

---

41. You will use a water fire-extinguisher (straight jet) on a fire of:

1. solids (fabric, carpet, ...)
2. liquids (ether, gasoline, ...)
3. gas
4. metals (sodium, ...)

The combination regrouping all the correct statements is:
A) 3 and 4
B) 2
C) 1
D) 3

The number of hand fire extinguishers which must be conveniently located in the passenger compartment when the maximum approved passenger seating configuration is between 7 and 30 is:
A) 3.
B) 4.
C) 2.
D) 1.

After landing heavy and fast, an engineer should approach the landing gear from:
A) only when the gear has cooled down.
B) neither.
C) the front or rear.
D) the sides.

The fire extinguisher types which may be used on class A fires are:
1. H_2O
2. CO_2
3. dry-chemical
4. halogen

Which of the following combinations contains all of the correct statements?
A) 1, 2, 3, 4
B) 2, 3, 4
C) 1
D) 3, 4

The correct statement about extinguishing agents on board aeroplanes is:
A) Halon is an effective extinguishing agent for use in aeroplanes.
B) Water may only be used for minor fires.
C) A powder extinguisher is suitable for extinguishing a cockpit fire.
D) Burning cargo in a cargo-aeroplane is usually extinguished by using carbon dioxide.

Portable fire extinguishers fitted to aeroplanes must be of such a type, that when discharged within the aeroplane, the extinguishant:
A) will not dangerously contaminate the air in the cabin.
B) is electrically inert.
C) is not corrosive.
D) is not inflammable.

If you have a fire in a toilet, what fire extinguishers would you use:
A) All available liquids.
B) All available in sequence.
C) All available simultaneously.
D) Only toilet extinguishers.

To use passengers oxygen in case of severe cabin smoke is:
A) useless because the oxygen units do not operate under smoke conditions.
B) useless because breathing oxygen would explode under smoke conditions.
C) possible and recommended.
D) useless because the toxic cabin smoke is mixed with the breathing oxygen.

A dry-chemical type fire extinguisher is fit to fight:

1. class A fires
2. class B fires
3. electrical source fires
4. special fires: metal, gas, chemicals

Which of the following combinations contains all of the correct statements?
A) 2, 4
B) 1, 2, 3, 4
C) 1, 2, 3
D) 3, 4

A Halon fire extinguisher is should preferably be used on which of the following types of fire:
A) Plastic.
B) Brake.
C) Hydrocarbon.
D) Paper.

In case of a fire due to the heating of the brakes, you fight the fire using:

1. a dry powder fire extinguisher
2. a water spray atomizer
3. a water fire-extinguisher
4. a CO2 fire-extinguisher to the maximum

The combination regrouping all the correct statements is:
A) 2, 3, 4.
B) 3, 4.
C) 1, 2.
D) 1, 4.

CO2 type fire extinguishers are usable on:

i. Class A fires.
ii. Class B fires.
iii. Electrical fires.
iv. Special fires - metal, chemical.

A) (ii), (iii) and (iv)
B) (i), (ii) and (iii)
C) (i), (iii) and (iv)
D) (i), (ii) and (iv)

For a flight deck fire which of the following do you use?

i. CO2.
ii. Halon
iii. Dry Powder.
iv. Water.

A) (i) & (ii)
B) (iii) & (iv)
C) (i), (ii) & (iii)
D) (i), (ii), (iii) & (iv)

H2O extinguishers are fit to fight:
A) Class A fires.
B) special fires: metals, gas, chemical products.
C) electrical source fires.
D) Class B fires.

The principle of operation of a fire loop detector is as the temperature increases, the:
A) resistance decreases.
B) pressure decreases.
C) pressure decreases.
D) reference current decreases.

What action is required in flight for a fire in an air conditioned cargo hold?
A) Turn off the ventilation and put out the fire.
B) Put out the fire.
C) Reduce the airflow and put out the fire.
D) Don' t do anything because it is not permissible to have flammable or toxic materials in modern aeroplane holds.

The use of passenger oxygen in the case of severe smoke in the cabin is:
A) Possible and recommended.
B) Useless because breathing oxygen would explode under smoke conditions.
C) Useless because the toxic cabin smoke is mixed with the breathing oxygen.
D) Useless because the oxygen units do not operate under smoke conditions.

A fire occurs in a wheel and immediate action is required to extinguish it. The safest extinguishant to use is:
A) CO2 (carbon dioxide).
B) water.
C) dry powder.
D) foam.

Why should you not use oxygen masks when the cabin is affected by smoke?
A) Because the chemical oxygen generator does not work in smoky conditions.
B) Because the oxygen would spontaneously combust.
C) Because the mask allows the smoke to mix with the oxygen.
D) You should use the oxygen masks in smoky conditions.

A class A fire is a fire of:
A) metal or gas or chemical (special fires).
B) liquid or liquefiable solid.
C) electrical origin.
D) solid material, generally of organic nature.

---

61. The types of fire extinguisher that may be used on a class B fire are:
    1. H2O.
    2. BCF.
    3. Dry-chemical.
    4. Halon.

Which answer includes all types?
A) 3, 4.
B) 2, 3, 4.
C) All of the above.
D) 2 only.

Decompression of pressurized system

During an explosive decompression at flight level 370 (FL 370), your first action will be:
A) to comfort your passengers.
B) to warn the ATC.
C) to put on the oxygen mask.
D) to set the transponder to 7700.

A fast decompression is recognizable by the following elements:
1. mist in the cabin
2. blast towards the exterior of the aircraft
3. expansion of body gases
4. blast of air released violently from the lungs

The combination regrouping all the correct statements is:
A) 1, 2, 3
B) 1, 4
C) 2, 3, 4
D) 1, 2, 3, 4

Due to a cabin pressurisation defect the maximum differential pressure is limited to 2 psi. Assuming the oxygen masks will be deployed at 14.000 feet, the maximum achievable flight altitude is approximately:
A) 12000 ft.
B) 8600 ft.
C) 20750 ft.
D) 2900 ft.

We would know that the automatic pressurization system has malfunctioned if:
1. There is a change in environmental sounds.
2. The cabin barometer indicates a sharp rise.
3. The differential pressure between the exterior and the interior becomes equal.

The combination regrouping all the correct statements is:
A) 1, 2
B) 1, 2, 3
C) 2, 3
D) 1, 3

What is supplementary oxygen used for?
A) Protect crew when combating a fire.
B) To passengers in an aircraft, following a loss of pressurisation.
C) For passengers with breathing difficulties.
D) For passengers who may require it, following a loss of pressurisation.

For an oxygen diluter demand system, the regulator controls the amount of pure oxygen mixed with air.
Following explosive decompression with the regulator set to normal, at what approximate altitude will pure oxygen be supplied:
A) 24000 ft.
B) 14000 ft.
C) 8000 ft.
D) 32000 ft.

The required minimum supply of oxygen that is required for a constant rate of descent from the aeroplanes maximum certificated operating altitude to 15000ft should be available for:
A) 60 percent of the passengers.
B) 80 percent of the passengers.
C) 100 percent of the passengers.
D) 30 percent of the passengers.

Following an explosive decompression, the maximum altitude without oxygen at which flying efficiency is not impaired is:
A) 25000ft.
B) 8000ft.
C) 2500ft.
D) 14000ft.

What is the maximum cabin altitude at which an aeroplane can he flown without provision of breathing oxygen for crew and passengers?
A) 620hPa (13000 ft).
B) 700hPa (10000 ft).
C) 376hPa (25000 ft).
D) 500hPa (18000 ft).

A ... is the failure of the pressurisation system to maintain cabin pressure where there has not been a failure of the airframe.
A) slow decompression
B) explosive decompression
C) rapid decompression
D) structural decompression

A slow decompression may be caused by:
1. a slight air tightness defect
2. a bad functioning of the pressurization
3. the loss of a window 4. the loss of a door

The combination regrouping all the correct statements is:
A) 1, 2, 3, 4
B) 3, 4
C) 1, 2, 3
D) 1, 2

Following a rapid decompression, above what height does a lack of 02 affect performance:
A) 2500 ft
B) 25000 ft.
C) 8000 ft.
D) 14000 ft.

Following an explosive decompression, if you are using an oxygen diluter demand system, the regulator controls the amount of air that is mixed with pure oxygen when the supply selector is at the normal position. At what approximate altitude will the regulator supply to the mask become pure oxygen only?
A) 25000 ft.
B) 32000 ft.
C) 8000 ft.
D) 14000 ft.

In a pressurisation malfunction:
1. Noise increases.
2. Change in RCDI.
3. Pressure differential decreases

A) 1, 3.
B) 2, 3.
C) 1, 2, 3.
D) 1, 2.

An aeroplane suffers an explosive decompression at an altitude of 31.000 ft. What is the initial action by the operating crew?
A) Place the seat belts sign to ON.
B) To put on oxygen masks.
C) Disconnect the autopilot.
D) Transmit a MAYDAY message.

Flying at FL 390, before what cabin altitude must the Oxygen drop out masks be automatically presented?
A) 13000 ft.
B) 14000 ft.
C) 15000 ft.
D) 12000 ft.

After decompression and descent, there will be enough supplementary oxygen available for flight crew for all flight time above:
A) 15000ft.
B) 13000ft.
C) 14000ft.
D) 25000ft.

Oxygen should be used after rapid decompression in an emergency descent until what altitude?
A) 10000ft.
B) 15000ft.
C) 13000ft.
D) 14000ft.

The time of useful consciousness in case of an explosive decompression at an altitude of 40.000 ft is:
A) 30 seconds.
B) 12 seconds.
C) 1 minute.
D) 5 minutes.

An aeroplane suffers cabin decompression at 31.000ft, what is the crews initial reaction:
A) Put FASTEN SEAT BELTS sign on.
B) Declare MAYDAY.
C) Disconnect autopilot.
D) Don O2 masks.

21. If cabin altitude increases during level flight, the differential pressure:
A) decreases.
B) remains constant.
C) attains its maximum permitted operating limit.
D) increases.

The minimum requirements for Supplemental Oxygen to be supplied in pressurised aeroplanes during and following an emergency descent are that for pilots it shall be available for the entire flight time that the cabin pressure altitude exceeds a minimum of X feet. That minimum of X feet is:
A) 14000 ft.
B) 13000 ft.
C) 15000 ft.
D) 25000 ft.

Due to a cabin pressurisation defect the maximum differential pressure is limited to 3 psi. Assuming the oxygen masks will be deployed at 14.000 feet, the maximum achievable flight altitude is approximately:
A) 22500 ft.
B) 27000 ft.
C) 29000 ft.
D) 24500 ft

Gradual decompression is caused by:

i. Window leak.
ii. Door leak.
iii. Window blown.
iv. Emergency escape hatch open.

A) (ii), (iii)
B) (iii), (iv)
C) (i), (ii), (iii), (iv)
D) (i), (ii)

When flying in straight and level flight at FL 290 for some considerable time a small leak develops in the cabin which causes a slow depressurisation, this can be seen on the cabin rate of climb indicator which will indicate:
A) zero.
B) a rate of climb.
C) a rate of descent dependent upon the cabin differential pressure.
D) a rate of descent of approximately 300 fpm.

When the pressurisation system fails, the differential pressure:
A) remains the same.
B) falls.
C) fluctuates
D) rises.

Windshear and microburst

In case of an unexpected encounter with windshear, you will:

1. set the maximum take-off thrust
2. increase the pitch-up attitude up to the limit actuating the stick shaker
3. pull in the drag devices (gear and flaps)
4. keep the airplanes current configuration
5. try to reach the maximum lift-to-drag ratio

The combination regrouping all the correct statements is:

A) 1, 2, 4.
B) 2, 3.
C) 1, 3, 5.
D) 3, 5.

In windshear associated with a microburst, you experience a 40kts headwind. Coming out of the microburst, you will experience a windshear of:

A) -40 kts.
B) -20 kts.
C) -60 kts.
D) -80 kts.

After take-off, an aircraft is subjected to windshear with a decreasing head wind. In the absence of a pilot action, the aircraft will:

A) flies above the climb-out path.
B) has an increasing true airspeed.
C) flies below the climb-out path.
D) has a decreasing true airspeed.

In a mountainous region you encounter windshear and see an increase in airspeed. You:

A) allow speed to increase while staying on the glidepath and monitoring speed.
B) reduce power to 1.2VS and make a precision landing.
C) bring to level flight, allow speed to fall and intercept the glidepath from above.
D) reduce power to stay on the glidepath.

During a landing approach, the aircraft is subjected to windshear with a decreasing head wind. In the absence of a pilot action, the aircraft:

1. Flies above the glide path.
2. Flies below the glide path.
3. Has an increasing true airspeed.
4. Has a decreasing true airspeed.

The combination of correct statements is:

A) 2,4.
B) 1,4.
C) 2,3.
D) 1,3.

What are the characteristics of windshear?

A) It can occur at any altitude only in the horizontal plane.
B) It occurs at any altitude in the horizontal and vertical plane.
C) It occurs only below 2.000ft and never in the horizontal plane.
D) It only occurs below 2.000ft and never in the vertical plane.

When an aircraft flies into a horizontal tail wind gust the aircraft tends:

A) to descend.
B) to climb or descend, depending on the gust strength.
C) not to change its trajectory.
D) to climb.

One of the main characteristics of windshear is that it:

A) occurs only at a low altitude (2.000 ft) and never in the horizontal plane.
B) occurs only at a low altitude (2.000 ft) and never in the vertical plane.
C) can occur at any altitude and only in the horizontal plane.
D) can occur at any altitude in both the vertical and horizontal planes.

On the approach you hit wind shear and have to go around. Do you:

A) Do nothing to your gear and flaps.
B) Take gear and flap in.
C) Pitch up to the stick shaker.
D) Avoid excessive attitude manoeuvres.

On the approach, you experience a decrease in tailwind, what happens to the aeroplane without any corrections being applied?

1. Climbs above glide path.
2. Descends below glide path.
3. TAS increases.
4. TAS decreases.

A) 2, 4.
B) 2, 3.
C) 1, 3.
D) 1, 4.

Wind shear is:

A) a vertical wind velocity variation over a short distance.
B) a vertical or horizontal wind velocity and / or wind direction over a short distance.
C) a horizontal wind velocity variation over a short distance.
D) a vertical or horizontal wind velocity and / or wind direction over a large distance.

If an aircraft hits windshear with an increasing tailwind:

i. TAS increases.
ii. TAS decreases.
iii. Aircraft descends below glideslope.
iv. Aircraft climbs above glideslope.

A) (ii) & (iii)
B) (i) & (iii)
C) (ii) & (iv)
D) (i) & (iv)

Which one of the following magnitudes will be the first to change its value when penetrating a windshear?

A) Groundspeed.
B) Indicated airspeed.
C) Vertical speed.
D) Pitch angle.

During a landing approach, the aircraft is subjected to windshear with a decreasing tail wind. In the absence of a pilot action, the aircraft:

1. Flies above the glide path.
2. Flies below the glide path.
3. Has an increasing true airspeed.
4. Has a decreasing true airspeed.

The combination of correct statements is:

A) 2,3.
B) 1,4.
C) 2,4.
D) 1,3.

If you encounter a microburst just after taking-off, at the beginning you will have:

1. a head wind
2. a strong rear wind
3. better climb performances
4. a diminution of climb gradient
5. an important thrust drop

A) 1, 4
B) 2, 4
C) 4, 5
D) 1, 3

A change to a horizontal tail wind causes:

A) a climb.
B) increase in TAS.
C) a descent or climb depending upon the strength of the gust.
D) a descent only.

In final approach, you encounter a strong rear wind gust or strong down wind which forces you to go around.

1. maintain the same aircraft configuration (gear and flaps)
2. reduce the drags (gear and flaps)
3. gradually increase the attitude up to triggering of stick shaker
4. avoid excessive attitude change

The combination of correct statements is:

A) 1, 4
B) 2, 4
C) 2, 3
D) 1, 3

During a landing approach, the aircraft is subjected to windshear with an increasing tail wind. In the absence of a pilot action, the aircraft:

1. Flies above the glide path.
2. Flies below the glide path.
3. Has an increasing true airspeed.
4. Has a decreasing true airspeed.

The combination of correct statements is:

A) 1, 4
B) 2, 4
C) 1, 3
D) 2, 3

How can the direction of wing tip vortices be described?

A) From above the wing to below the wing.
B) From below the wing to above the wing.
C) Both counter clockwise.
D) Both clockwise.

A change to a horizontal tailwind will cause:

A) A descent only.
B) An increase in TAS.
C) A descent or climb depending upon the strength of the gust.
D) A climb.

---

21. On the approach you experience an increasing headwind. What happens to the aircraft:

1. Descends below the glide path.
2. Climbs above the glide path.
3. TAS increases.
4. TAS decreases

A) 1 and 3.
B) 2 and 4.
C) 1 and 4.
D) 2 and 3

During a landing approach, the aircraft is subjected to windshear with an increasing head wind. In the absence of a pilot action, the aircraft:

1. Flies above the glide path.
2. Flies below the glide path.
3. Has an increasing true airspeed.
4. Has a decreasing true airspeed.

The combination of correct statements is:

A) 2, 4.
B) 1, 4.
C) 2, 3.
D) 1, 3.

What is the first indication of windshear? A change in:

A) indicated airspeed.
B) vertical speed.
C) ground speed.
D) pitch angle.

While approaching the outer-marker, the tower informs you about the presence of a microburst. You will expect to encounter:

A) supercooled water.
B) wake turbulence .
C) windshear (vertical and horizontal).
D) convection motion of air mass.

An aircraft which experiences a headwind of 40 kt while making its way towards the centre of a microburst may expect, when crossing the microburst, to face a windshear of:

A) 80 kt.
B) 60 kt.
C) 40 kt.
D) 20 kt.

Windshear may be described as a change in wind direction and/or speed in space, including updraughts and downdraughts. To counter the effects of windshear the amount of control action that is required is:

A) null.
B) substantial.
C) small.
D) medium.

A horizontal tailwind gust may cause an aeroplane to:

A) climb or descend depending on gust strength.
B) have no effect on the flight path.
C) climb.
D) descend.

On the approach you hit wind shear and have to go around; do you:

A) do nothing to your gear and flaps.
B) pitch up to the stick shaker.
C) take gear and flap in.
D) avoid excessive attitude manoeuvres.

Wake turbulence

When taking-off after a wide body aircraft which has just landed, you should take-off:

A) beyond the point where the aircrafts wheels have touched down.
B) in front of the point where the aircrafts wheels have touched down.
C) at the point where the aircrafts wheels have touched the ground and on the under wind side of the runway .
D) at the point where the aircrafts wheels have touched down and on the wind side of the runway .

The greatest wake turbulence occurs when the generating aircraft is:

A) Small, light, at low speed in clean configuration.
B) Large, heavy, at maximum speed in full flaps configuration.
C) Small, light, at maximum speed in full flaps configuration.
D) Large, heavy, at low speed in clean configuration.

Wake turbulence should be taken into account when:

A) when just before the landing a much lighter aeroplane has landed with a strong crosswind on a long runway.
B) a preceding aeroplane has performed low altitude high roll rate rolling manoeuvres over the runway.
C) a much heavier aeroplane has landed just previously on the same runway, a light crosswind condition exist and all high-lift devices are being used.
D) during cruise the vertical separation is reduced to 1000 ft.

According with DOC 4444 (ICAO), a wake turbulence non-radar separation minima of 3 minutes shall be applied to:

A) LIGHT aircraft taking-off behind a MEDIUM aircraft from a parallel runway separated by less than 760 m. (using whole runway)
B) LIGHT aircraft taking -off behind a MEDIUM aircraft when aircraft are using the same runway.
C) MEDIUM aircraft landing behind a HEAVY aircraft.
D) LIGHT aircraft landing behind a MEDIUM aircraft.

What flying conditions give the worst wake turbulence?

A) Large, heavy, fast and full flaps.
B) Large, high power, slow and full flaps.
C) Large, high powers fast and clean.
D) Large, heavy, slow and clean.

The wake turbulence is greater when the aircraft has a:

A) high weight, low speed, gear and flaps up.
B) low weight low speed, gear and flaps down.
C) high weight, high speed, gear and flaps up.
D) low weight, high speed, gear and flaps up.

For the purpose of wake turbulence separation, what is the ICAO minimum radar separation distance if a heavy aeroplane is following directly behind another heavy aeroplane on the approach to the same runway?
A) 3.7 km (2 NM).
B) 7.4 km (4 NM).
C) 11.1 km (6 NM).
D) 9.3 km (5 NM).

Where is the best position following a heavier aeroplane?
A) Below its flight path and downwind.
B) Below its flight path and upwind.
C) Upwind and above its flight path.
D) Above its flight path and downwind.

The tip vortices circulate about each wing tip:
A) from the underwing toward the upper side of the wing.
B) counter clockwise.
C) from the upper side of the wing toward the underwing.
D) clockwise

An airplane creates a wake turbulence when:
A) generating lift.
B) flying at high speed.
C) flying with its gear and flaps extended.
D) using a high engine R.P.M.

The wake turbulence caused by an aircraft is mainly the result of:
1. An aero dynamical effect (wing tip vortices).
2. The engines action (propellers rotation or engine gas exhausts).
3. The importance of the drag devices (size of the landing gear, of the flaps, etc.).

The combination regrouping all the correct statements is:
A) 1.
B) 1, 2 and 3.
C) 2 and 3.
D) 3.

An aeroplane with a maximum certificated take-off mass of 131.000 kg is classified as ... according to the ICAO wake turbulence categories.
A) extreme
B) heavy
C) light
D) medium

To avoid wake turbulence, when departing behind a larger aircraft, the pilot should manoeuvre:
A) Below and upwind from the larger aircraft.
B) Below and downwind from the larger aircraft.
C) Above and downwind from the larger aircraft.
D) Above and upwind from the larger aircraft.

An aeroplane with a maximum certificated take-off mass of 4.500 kg is classified as ... according to the ICAO wake turbulence categories.
A) Light
B) Heavy
C) Medium
D) High

ICAO defines wake turbulence categories of aeroplanes based on:
A) maximum take-off mass.
B) Vref.
C) the number of passengers.
D) wing span.

For purpose of wake turbulence separation, what is the ICAO minimum radar separation distance and minimum time if a medium aeroplane (less than 136.000 kg and more than 7.000 kg) is following directly behind a heavy aeroplane on the approach to the same runway?
A) 7.4 km (4 NM) and 2 minutes.
B) 9.3 km (5 NM) and 2 minutes.
C) 9.3 km (5 NM) and 3 minutes.
D) 11.1 km (6 NM) and 3 minutes.

In accordance with ICAO and PANS RAC procedures, which letter should be entered into a flight plan to denote an aeroplane which has a weight of less than 136.000 kg but greater than 7.000 kg:
A) M
B) S
C) H
D) L

For purpose of wake turbulence separation, what is the ICAO minimum radar separation time if a light aeroplane (7000 kg or less) is following a medium aeroplane (less than 136000 kg but more than 7000 kg) on the approach to landing?
A) 4 minutes.
B) 2 minutes.
C) 5 minutes.
D) 3 minutes.

The wake turbulence is the most severe when the aircraft is:
1. slow
2. heavy
3. in a clean configuration
4. flying with a high thrust

The combination of correct statement is:
A) 1, 4
B) 1, 2, 3
C) 2, 3, 4
D) 1, 2, 3, 4

In a 5 kt right crosswind component behind a taking off aircraft:
A) The left wake turbulence stays approximately on the runway.
B) The right and left wake turbulence stays approximately on the runway.
C) The right wake turbulence stays approximately on the runway.
D) The runway will be clear of any hazard turbulence.

---

21. A strongly swept back wing stalls. If the wake of the wing contacts the horizontal tail, the effect on the stall behaviour can be:
A) nose up tendency and/or lack of elevator response.
B) tendency to increase speed after initial stall.
C) nose down tendency.
D) increase sensitivity of elevator inputs.

According with DOC 4444 (ICAO), a wake turbulence non-radar separation minima of. 3 minutes shall be applied:
A) to an arriving LIGHT aircraft following a MEDIUM aircraft departure when operating on a runway with a displaced landing threshold, if the projected flight paths are expected to cross.
B) between a LIGHT aircraft and a MEDIUM aircraft making a missed approach and the LIGHT aircraft utilizing an opposite-direction runway for take-off.
C) to LIGHT aircraft taking-off behind a MEDIUM aircraft from an intermediate part of parallel runway separated by less 760 m.
D) to a departing MEDIUM aircraft following a HEAVY aircraft arrival when operating on a runway with a displaced landing threshold.

To which situation is 3 mins wake turbulence separation applied?
A) A medium landing after a heavy aircraft.
B) A light taking off after a heavy has taken off in the opposite direction.
C) A light aircraft departing after a heavy on the same runway.
D) Light following a medium departing from a runway intersection on a parallel runway less than 760m apart.

To which situation is 3 mins wake turbulence separation applied?
A) Light following a medium departing from a runway intersection on a parallel runway less than 760m apart.
B) A medium landing after a heavy aircraft.
C) A light taking off after a heavy has taken off in the opposite direction.
D) A light aircraft departing after a heavy on the same runway.

In accordance with DOC 4444 (ICAO) when a MEDIUM and a LIGHT aircraft are using the same runway, or parallel runways separated by less than 760 m, (in approach or departure phases of flight), shall be applied a wake turbulence radar separation minima of:
A) 2 NM.
B) 5 NM.
C) 3 NM.
D) 4 NM.

The time needed for the dissipation of a turbulent wake created by a wide-body aircraft during take-off is about:

A) 1 minute.
B) 3 minutes.
C) 30 seconds.
D) 10 minutes.

When is 3 minutes separation applied?

A) A medium aeroplane landing following a heavy aeroplane.
B) A light aeroplane landing following a medium aeroplane.
C) A light aeroplane departing after a heavy aeroplane from the same position.
D) A medium aeroplane departing after a heavy aeroplane has made a missed approach in the opposite direction.

For a light aircraft departing after a medium what is the minimum time for wake turbulence separation?

A) 3 min.
B) 2 min.
C) 1 min.
D) 5 min.

For the purpose of wake turbulence separation, what is the minimum separation time that is permitted when a light aircraft is taking off behind a heavy aircraft from an intermediate part of the same runway?

A) 5 minutes.
B) 2 minutes.
C) 4 minutes.
D) 3 minutes.

According with DOC 4444 (ICAO), a wake turbulence radar separation minima of 9.3 Km (5.0 NM) shall be applied when a:

A) LIGHT aircraft is crossing behind a MEDIUM aircraft, at the same altitude or less than 300 m (1.000.ft).
B) HEAVY aircraft is crossing behind a HEAVY aircraft, at the same altitude or less than 300 m (1.000 ft).
C) LIGHT aircraft is crossing behind a HEAVY aircraft, at the same altitude or less than 300 m (1.000 ft).
D) MEDIUM aircraft is crossing behind a MEDIUM aircraft, at the same altitude or less than 300 n (1.000 ft).

For a light aircraft taking off after a medium what is the minimum time for wake turbulence separation:

A) 2 min[AFT8].
B) 1min.
C) 3 min.
D) 5 min.

When is wake turbulence worst?

1. Heavy.
2. Slow.
3. Clean.
4. High power.

A) 1, 3 and 4.
B) 2, 3 and 4.
C) All of the above.
D) 1, 2 and 3.

Wake turbulence starts:

A) as soon as the aeroplane is commencing the take-off run and stops as soon as it has come to a stop after landing.
B) when selecting the drag devices and stops when retracting the drag devices.
C) when the airplane reaches a height of 300ft above the ground and stops when it crosses this height before landing.
D) during rotation and stops as soon as the airplanes wheels touch the ground.

The wake turbulence:

A) starts when pulling out the drag devices and stops when retracting the drag devices.
B) starts as soon as the aeroplane is running for take-off and stops as soon as it has come to a stop at landing.
C) starts when the airplane reaches a height of 300 ft above the ground and stops when it crosses this height before landing.
D) starts during the rotation and stops as soon as the airplanes wheels touch the ground.

An airplane creates wake turbulence when:

A) generating lift.
B) using a high engine RPM.
C) flying with its gear and flaps extended.
D) flying at high speed.

Wake turbulence risk is highest:

A) following a preceding aircraft at high speed.
B) if, just before landing a much lighter aircraft has landed at the same runway with heavy crosswind.
C) when a preceding aircraft has briefly applied take-off thrust just prior to take off.
D) when a heavy aircraft has just performed a take-off at a closely situated parallel runway with a light crosswind.

When taking-off behind a wide-body aircraft, with wind coming from the right side, you adopt a path, whenever possible?
A) distinct from the preceding airplane, by remaining on the right of and above its path.
B) distinct from the preceding airplane, by remaining on the left of and under its path.
C) different from the preceding airplane, by remaining behind it and under its path.
D) identical to the one of the preceding airplane.

What is the major factor causing wake turbulence?
1. Wing Tip Vortices.
2. Engines.
3. High Lift Devices.
4. Size of the landing gear.

A) 1, 4.
B) 2, 3.
C) 1.
D) 3.

An aeroplane with a maximum certificated take-off mass of 137.000 kg is classified as ... according to the ICAO wake turbulence categories.
A) heavy
B) medium
C) light
D) severe

DOC 4444 (ICAO) establishes, that wake turbulence separation minima shall be based on a grouping of aircraft types into three categories according to the maximum certificated take-off mass. Heavy (H) Category, are all aircraft types of:
A) 136.000 Kg or more.
B) 146.000 Kg or more.
C) less than 136.000 Kg but more than 126.000 Kg.
D) 135.000 Kg or more.

---

41. When a LIGHT aircraft is landing behind a MEDIUM aircraft, the wake turbulence non-radar minimum time approach separation, according with DOC 4444 (ICAO), shall be:
A) 2 min.
B) 4 min.
C) 3 min.
D) 1 min.

When taking-off behind a wide-body aircraft, with wind coming from the left side, you adopt a path, whenever possible?
A) distinct form the preceding airplane, by remaining behind it and under its path.
B) distinct from the preceding airplane, by remaining at the left of and above its path.
C) identical to the one of the preceding airplane.
D) distinct from the preceding airplane, by remaining at the right of and under its path.

Tip vortices which are responsible for wake turbulence appear as soon as the following is established:
A) lift destruction.
B) spin up.
C) drag.
D) lift.

You are a heavy aeroplane behind a heavy aeroplane on the approach. What is he required separation?
A) 5.5km, 3nm.
B) 7.4km, 4nm.
C) 3.6km, 2nm.
D) 9.2km, 5nm.

Under what conditions is a radar separation of 5nm required for wake turbulence spacing:
A) Heavy following a medium.
B) Heavy following a heavy.
C) Medium following a heavy.
D) Light following a heavy.

In a microburst combined with a violent storm the winds at:
A) low altitude converge on the center of the phenomenon and the atmospheric pressure decreases by a few hectopascals.
B) high altitude converge on the center of the phenomenon and the atmospheric pressure increases by a few hectopascals.
C) low altitude diverge from the center of the phenomenon and the atmospheric pressure increases by a few hectopascals.
D) low altitude diverge from the center of the phenomenon and the atmospheric pressure decreases by a few hectopascals.

According DOC 4444 (ICAO), a wake turbulence non-radar separation minima of 2 minutes shall be applied to:
A) MEDIUM aircraft landing behind a HEAVY aircraft.
B) LIGHT aircraft taking-off behind a MEDIUM aircraft from an intermediate part of the same runway.
C) MEDIUM aircraft taking-off behind a HEAVY aircraft from an intermediate part of a parallel separated by less than 760 m.
D) LIGHT aircraft landing behind a MEDIUM aircraft.

Security

The flight deck door should be capable of being:
A) locked from, within the compartment.
B) remotely locked from either inside or outside the compartment.
C) remotely locked by cabin crew operation from outside the compartment.
D) directly locked from outside the compartment.

Following an act of unlawful interference on board an aeroplane, to whom the commander should submit a report of the act to:
A) the local authority only.
B) the Authority of the State of the operator only.
C) the Authority of the State within which the aeroplane is operating at the time of the unlawful interference.
D) both the local authority and the Authority of the State of the operator.

According to the JAR OPS, when a commercial transport passenger airplane is equipped with a door in the flight crew compartment area, this door must include:
A) a locking system to prevent any unauthorized access.
B) distinctive red or yellow coloured markings indicating the access area (in case of a blocked door).
C) a sealing system allowing the maintenance for as long as possible of the pressure in the cockpit in case of a depressurization in the compartment area.
D) a device preventing the flight crew from being locked in the cockpit.

What transponder code should be used to provide recognition of an aircraft which is being subjected to unlawful interference:
A) code 2000.
B) code 7500.
C) code 7700.
D) code 7600.

When flight crew members are at their duty stations they must:
A) wear a communications head set.
B) keep the seat belts fastened.
C) fully raise the seat.
D) keep the safety harnesses fastened.

Following a heavy mass landing on a short runway, you should check the:
A) temperature of the brakes.
B) pressure of the pneumatic tyres.
C) pressure of the hydraulic fluid.
D) temperature of the hydraulic fluid.

What is the transponder code to be used by an aircraft that is subject to unlawful interference (hijacked) is:

A) 7700.
B) 7800.
C) 7600.
D) 7500.

In the event of unlawful interference in flight, the pilot-in-command shall endeavour to set the transponder to ... unless the situation warrant the code A-7700.

A) A-4500.
B) A-7500.
C) A-7600.
D) A-5500.

In addition to informing each State, whose citizens are known to be on board an aircraft, the State of the country in which an aircraft has landed after an act of unlawful interference must immediately notify the:

A) State of Registry of the aircraft and the State of the operator only.
B) State of Registry of the aircraft, the State of the operator and ICAO.
C) State of the operator, the J.A.A. and ICAO.
D) State of Registry of the aircraft and the J.A.A.

In case of a hi-jack, the squawk code is:

A) 7500.
B) 7600.
C) 7700.
D) 2000.

In case of a serious threat based on the presence of a bomb on board a pressurized aircraft and disregarding any fuel considerations:

A) you climb to the maximum flight level which does not need the us of pressurization.
B) you descend to the flight level corresponding to the indicated cabin altitude or the safety altitude if higher and take preventive steps by putting yourself in a landing approach configuration.
C) you go down to the level corresponding to the indicated cabin altitude and keep the airplane in a clean configuration until the final approach.
D) you carry out an emergency descent to reach the safety altitude.

When you have been unlawfully interfered with, the state in which you land is required to inform certain people:

1. State of the Operator.
2. ICAO
3. State of registration of aircraft.
4. JAA.

A) All of the above.
B) 1, 2, 3.
C) 1, 2.
D) 2, 4

Emergency and precautionary landings

In the event of a precautionary landing, who is responsible for alerting the emergency services?

A) the commander.
B) the local constabulary.
C) ATC.
D) the operations dispatcher.

Normally, in the event of ditching, it is recommended that the gear is... and the flaps are...

A) up, up.
B) up, down.
C) down, up.
D) down, down.

The safety position for adults looks like: seat belts fastened:

A) head down as far as possible, grasp the legs with your arms.
B) cross the arm in front of the face.
C) head down as far as possible, grasp the passenger in front of you.
D) head placed on a knee cushion, arms around the thigh.

For aeroplanes having a seating capacity of more than 44 passengers, it must be shown by actual demonstration that the maximum seating capacity, including the required number of crew members, can be evacuated from the aeroplane to the ground in:

A) 90 seconds.
B) 132 seconds.
C) 120 seconds.
D) 60 seconds.

In case of a ditching, the cabin attendants will:

1. evacuate women and children first.
2. have the passengers embark directly in the life rafts.
3. prevent passenger movements which may impede the airplanes flotation ability.
4. ensure the complete evacuation of the airplane.

The combination regrouping all the correct statements is:

A) 2, 3
B) 1, 2, 3, 4
C) 1, 4
D) 2, 3, 4

An aircraft is flying in heavy rain. To carry out a safe approach, it is necessary to:

A) increase its approach speed, because the rain affects the lift by deteriorating the boundary layer.
B) carry out an approach with flaps up, in order to avoid exposing too much lifting surface to the rain.
C) maintain the normal approach speed up to landing.
D) reduce the approach speed, because the runway may be very slippery on landing.

What are the tasks to be undertaken by cabin crew when evacuating passengers?

i. Women and children first.
ii. Ensure no movement of passengers for flotation,
iii. Direct into life rafts.
iv. Ensure aircraft evacuated.

A) (ii) and (iv)
B) (iii) and (iv)
C) (ii), (iii) and (iv)
D) (i), (ii), (iii) and (iv)

During a ditching:

A) it is inevitable that the nose will dig in and the aeroplane will immediately strat to submerge.
B) the main effect will be rapid deceleration and preparation in the cabin will be to counter the effects of this deceleration.
C) there will be once or two minor skips after the main impact.
D) as sea-state increases, the effect of the initial high rotation will be reduced and the accompanying uncontrolled roll will disappear.

Mist in the cabin, pressure and temperature drop characterize:

A) an electrical fire.
B) a plastic fire.
C) a slow depressurization.
D) a fast depressurization.

If ditching is inevitable:

A) life jackets are to be inflated before leaving the aeroplane.
B) passengers should be briefed that even if they successfully evacuate the aeroplane it is inevitable that some of them will die from drowning.
C) non swimmers are to be evacuated first.
D) the use of life jackets is to be reiterated before the ditching.

What is the evacuation time for an aeroplane with more than 44 seats?

A) 120secs.
B) 132secs.
C) 90secs.
D) 60secs.

The correct definition of a safe forced landing is:

A) an inevitable landing on land or sea from which one may reasonably expect no injuries on board.
B) an inevitable landing on land or sea from which one may reasonably expect no injuries on board or on the surface.
C) a voluntary landing on land or sea carried out by the crew in order to protect the aircraft and its occupants.
D) a landing on land or sea from which it is guaranteed no injuries will result to the occupants.

After ditching, when must a passenger inflate the life jacket?

A) After leaving the aeroplane.
B) Before leaving the aeroplane.
C) If the water is deep.
D) On entering the water.

The attitudes to be adopted by the passengers, sitting in the travelling direction, in case of an emergency landing are:

1. legs together and feet flat on the floor
2. head resting against the back of the front seat
3. forearms on the armrests
4. seat belt very tightly fastened
5. head resting on the forearm

The combination regrouping all the correct statements is:

A) 2, 4, 5
B) 2, 3, 4
C) 1, 2, 3, 4
D) 1, 4, 5

Following an emergency landing which will need an escape from the aircraft, you will:

1. Remain on the runway.
2. Clear the runway using the first available taxiway.
3. Keep one engine or the APU running in order to maintain the electrical power supply on.
4. Turn off all systems.

The combination regrouping all the correct statements is:

A) 2, 4
B) 2, 3
C) 1, 3
D) 1, 4

Fuel jettisoning

Pilots of aircraft in flight are permitted to jettison fuel...

A) under no circumstances since dropping or spraying of materials from airplanes is prohibited (Rules of the air).
B) in an emergency.
C) if extra fuel is no longer required.
D) at all times to reduce landing distance required.

Fuel jettison should be carried out:

A) anywhere if unavoidable.
B) all answers are correct.
C) over the sea.
D) above 10.000ft AGL.

Once the fuel jettison is complete:

A) food distribution is allowed.
B) the NO SMOKONG light is to be extinguished.
C) ATC is to be informed that jettison is complete.
D) it is essential that the fuel remaining is balances in the tanks and a revised endurance calculated.

A four-jet aircraft must be equipped with an in-flight fuel jettisoning system in order to reduce the aircraft weight in an emergency:

A) unless it is capable of meeting the climb requirements : 2.7% in approach configuration with 1 engine inoperative and 3.2% in landing configuration with all engines operative.
B) until the central tank is empty in order to cope with the wing and landing gear constraints at landing touchdown.
C) in order to reduce the landing distance to 60% of the effective runway length.
D) in order to reach the maximum structural landing weight in less than 15 minutes after activation of the jettisoning system.

In what period of time must a fuel jettisoning system be capable of jettisoning sufficient fuel to meet the precise climb and discontinued approach requirements:

A) 90 minutes.
B) 15 minutes.
C) 60 minutes.
D) 30 minutes.

If obliged to jettison part of the fuel in flight, it would be better to do so:

A) under flight level 50 (FL50).
B) in a holding stack, after control clearance.
C) during final phase of approach.
D) in a straight line and at a relatively high flight level.

In what minimum time must sufficient fuel be jettisoned in order to comply with approach/climb gradient specifications?

A) 60 minutes.
B) 90 minutes.
C) 15 minutes.
D) 30 minutes.

When a fuel jettison system is required, the system must be capable of jettisoning enough fuel in ... minutes (starting at MTOW) to reduce the aeroplane weight to the MLW.

A) 10
B) 15
C) 20
D) 5

Once jettison has begun:

A) normal operation of flaps/gear is permitted.
B) fuel flow from the vents is to be visually monitored (where possible).
C) radio may be used but limited to essential transmissions only.
D) passenger are restricted to their seats and strapped in.

Fuel jettison:

A) may authorised by ATC to reduce delays by protracted holding procedures.
B) may be ordered by ATC to reduce aeroplane mass in an emergency situation.
C) is a procedure to reduce mass in an emergency only.
D) is a normal operational procedure that may be employed to reduce aeroplane mass where an overweight landing may result in damage to the aeroplane.

From the following list:

1. Fuel jettisoning system and its operation are free from fire hazard.
2. The fuel discharges clear of any part of the aeroplane.
3. Fuel fumes do not enter any part of the aeroplane.
4. The jettisoning operation does not adversely affect the controllability of the aeroplane.

Which of the above are requirements that must be shown to exist during fuel jettisoning tests:

A) 1, 4.
B) 1, 2, 3, 4.
C) 1, 3, 4.
D) 2, 3.

Transportation of dangerous goods by air

In addition to the languages required by the State of Origin, what language should be set for the markings related to dangerous goods:

A) English, French or Spanish.
B) Spanish.
C) English.
D) French.

Dangerous goods are defined as:

A) any items which has the capability to be used for purposes other than that intended.
B) articles or substances which are capable of significant risk to health, safety or property.
C) any item which contains toxic liquids or solids.
D) guns, ammunition, explosives, toxic waste, or chemical, biological or nuclear agents or reagents.

Carriage of dangerous goods is allowed, provided that:

A) government permission has been granted.
B) the airline complies with the Technical Instructions.
C) no passenger is carried on the same flight.
D) national aviation administration permission has been granted.

In compliance with the JAR OPS, in order to carry hazardous materials on board a public transport airplane, they must be accompanied with a:

A) system to warn the crew in case of a leak or of an abnormal increase in temperature.
B) representative of the company owning the materials.
C) specialized handling employee.
D) transport document for hazardous materials.

Which ICAO Annex details the SARPS for the carriage of articles or substances which are capable of posing significant risk to health, safety or property when transported by air.

A) 9
B) 18
C) 16
D) 6

ICAO (International Civil Aviation Organization) Appendix 18 is a document dealing with:

A) the safety of the air transport of hazardous materials.
B) the noise pollution of aircraft.
C) the technical operational use of aircraft.
D) the air transport of live animals.

Can dangerous goods be carried in the passenger cabin or on the flight deck?
A) No.
B) Yes, if authorised by the authority.
C) Yes, but only goods specified in the technical instructions.
D) Yes, provided they are non toxic.

The dangerous goods transport document, if required, shall be drawn up by:
A) the captain.
B) the handling agent.
C) the shipper.
D) the operator.

If dangerous goods are to be carried, the commander is to be given information as specified in the technical instructions. Who is responsible for the provision of this information?
A) The shipper.
B) The Authority.
C) The Loading Supervisor.
D) The Operator.

Who is responsible for ensuring that dangerous goods are packed, labelled and carried in accordance with the regulations?
A) The commander.
B) The operator.
C) The shipping agent.
D) The consignee.

The authorization for the transport of hazardous materials is specified on the:
A) registration certificate.
B) insurance certificate.
C) airworthiness certificate.
D) air carrier certificate.

Where is permanent approval for the carriage of dangerous goods given?
A) Certificate of Airworthiness.
B) Aircraft registration.
C) Air Operators Certificate.
D) Insurance certificate.

Regarding the carriage of dangerous goods, the transport document, if required, is drawn up by:
A) The captain.
B) The shipper.
C) The handling agent.
D) The operator.

A passenger is allowed to carry match-boxes:

1. on himself/herself
2. in his/her hand luggage
3. in his/her checked luggage

The combination regrouping all the correct statements is:

A) 1, 2
B) 1
C) 2, 3
D) 1, 2, 3

Who is responsible for ensuring that the regulatory procedures for the transportation of dangerous goods is complied with?

A) Station Manager.
B) Captain
C) Sender.
D) Aerodrome Manager.

A list of dangerous goods, which may not be transported by air, can be found in:

A) Annex 18 to the Chicago convention.
B) the technical instructions for the safe transport of dangerous goods by air.
C) Annex 6 to the Chicago Convention.
D) the shippers declaration for dangerous goods.

Operators are to establish dangerous goods trainings programmes. Where are details of the training required, published?

A) In the Technical Instructions.
B) In the Operations Manual.
C) In the Training Manual.
D) In ICAO Annex 18.

ICAO (International Civil Aviation Organisation) Appendix 18 is a document dealing with the:

A) technical operational use of aircraft.
B) safety of the air transport of hazardous materials.
C) air transport of live animals.
D) noise pollution of aircraft.

The information concerning dangerous products that passengers may carry, are listed in the:

A) ICAO document named Technical safety instructions for the air transportation of dangerous products.
B) IATA document Dangerous products transportation.
C) JAR-OPS documentation.
D) aircrafts flight manual.

Products or materials are considered to be dangerous goods if the products or materials in question are defined as such by:

A) The IATA document entitled Regulations governing the transportation of dangerous goods by air.
B) The directives of the Community Union.
C) The UNO document entitled Dangerous Goods Regulations.
D) The ICAO document entitled Technical Instructions for the safe transport of dangerous goods by air.

---

21. The general information, instructions and recommendations on the transport of hazardous materials are specified in the:

A) operation manual.
B) air carrier certificate.
C) AIP (Aeronautical Information Publication).
D) flight manual.

Who makes sure that the air transportation of an item of dangerous goods is not prohibited?

A) The operator.
B) The shipper when completing the shippers declaration for dangerous goods.
C) The captain, always using the list of prohibited aircraft items.
D) It is not specified.

Which of the following statements is correct concerning the marking of cut-in areas?

A) Must be painted either red or white on a yellow background.
B) Must be painted either red or yellow, on a white background if necessary.
C) Must be painted red on a white background with the comers more than 1m apart.
D) Intermediate lines are to be painted if the corner markings are more than 1m apart.

When carrying hazardous dangerous air cargo on an aeroplane with passengers, what must you have?

A) A company representative.
B) Details on procedures if spilt during an emergency.
C) A trained person accompanying the goods.
D) Transport documentation.

From the following list:

1. Fire extinguishers
2. Portable oxygen supplies
3. First-aid kits
4. Passenger meals
5. Alcoholic beverages

Which are classed as Dangerous Goods that are required to be on the aeroplane in accordance with relevant JAR for operating reasons:

A) 3, 4 and 5 only.
B) 1, 2 and 3 only.
C) 2, 3 and 4 only.
D) 1, 2 and 5 only.

Technical instructions for the safe transport of dangerous goods by air are published in:

A) ICAO document 9284.
B) ICAO document 8168.
C) JAR-APU.
D) ICAO document 4444.

The carriage of dangerous goods in aeroplanes is the subject of specific rules and regulations. Operators are specifically required to:

A) ensure that the relevant regulations (e.g. ICAO doc9248) are complied with.
B) specify what materials constitute dangerous goods.
C) inspect the content of any consignment to ensure that the consignee has correctly labelled the contents.
D) specify the manner in which dangerous goods are to be labelled.

In the hazardous materials transportation act, the freight compliance with the regulatory arrangements is the responsibility of the:

A) station manager.
B) sender.
C) captain.
D) aerodrome manager.

Contaminated runways

If airworthiness documents do not shown any additional correction factor for landing performance determination on a wet runway, the landing distance shall be increased by:
A) 10%.
B) 15%.
C) 20%.
D) 5%.

For an airplane with a tyre pressure of 12 bars, there is a risk of dynamic hydroplaning as soon as the:
1. Water height is equal to the depth of the tyre grooves.
2. Speed is greater than 114 kt.
3. Water height is equal to the half of the depth of the tyre grooves.
4. Speed is greater than 83 kt.

The combination regrouping all the correct statements is:
A) 1 and 2.
B) 3 and 4.
C) 1 and 4.
D) 2 and 3.

For how long is a SNOWTAM valid?
A) 6 hours.
B) 2 hours.
C) 24 hours.
D) 12 hours.

In the JAR-OPS, a runway is considered wet when:
1. It is covered with a quantity of water or loose or slushy snow less than or equal to the equivalent of 3 mm of water.
2. The amount of surface moisture is sufficient to modify its colour but does not give it a shiny appearance.
3. The amount of surface moisture is sufficient to make it reflective, but does not create large stagnant sheets of water.
4. It bears stagnant sheets of water.

The combination regrouping all the correct statements is:
A) 1, 3
B) 1, 2, 3
C) 4
D) 1, 2

In the JAR OPS, a runway is considered wet when:
1. it is covered with a quantity of water or loose or slushy snow less than or equal to the equivalent of 3 mm of water.
2. the amount of surface moisture is sufficient to modify its colour but does not give it a shiny appearance.
3. the amount of surface moisture is sufficient to make it reflective, but does not create large stagnant sheets of water.
4. it bears stagnant sheets of water.

The combination regrouping all the correct statements is:
A) 1.2
B) 4
C) 1.2.3
D) 1.3

The presence of dynamic hydroplaning depends primarily on the:
A) depth of the standing water on the runway.
B) amount of the lift off speed.
C) aircrafts weight.
D) strength of the headwind.

If a runway is contaminated with dry snow, the depth that will preclude operations is:
A) 3 mm
B) 60 mm
C) 10 mm
D) 15 mm

The braking efficiency is a piece of information presenting itself in the form of a:
A) letter falling between A and E.
B) combination of the terms: poor, medium, good.
C) zero followed by two decimals.
D) percentage varying from 10 % to 100 %.

In the JAR OPS, a runway is referred to as contaminated when more than 25 % of the required runway surface is covered with the one of the following elements:

1. a water film sufficiently thick to give a shiny appearance to the runway.
2. a water film or loose or slushy snow equivalent to more than 3 mm of water.
3. compacted snow (a solid mass which may not be compacted further).
4. ice, including wet ice. 5. moist grass.

The combination regrouping all the correct statements is:
A) 1, 3, 4.
B) 1, 3, 4, 5.
C) 1, 2, 3, 4.
D) 2, 3, 4.

A dry runway is one which:
A) can be wet if it has specially prepared grooved or porous surfaces, which maintain effectively dry breaking action.
B) Can be wet if it has sufficient camber to allow the water to drain quickly off the surface therefore maintaining an effective dry braking action.
C) is wet but not to a depth of water greater than 3mm.
D) is not contaminated.

In a SNOWTAM information is given concerning friction measurements (breaking co-efficient x 100) in which field of the message?
A) F
B) N
C) G
D) H

A runway covered with 4 mm thick water, is said to be:
A) flooded.
B) damp.
C) contaminated.
D) wet.

The tire pressure of an aircraft main landing gear is 10,8 bars. The speed at which the hydroplaning phenomenon will appear is approximately:
A) 56 kt.
B) 145 kt.
C) 112 kt.
D) 87 kt.

An aeroplane with a tyre pressure of 10 Bar is in danger of dynamic hydroplaning if:

1. The aeroplane speed is in excess of 107 kts.
2. The water depth is equal to the tyre tread depth.
3. The aeroplane speed is in excess of 95 kts.
4. The water depth is equal to half the tyre tread depth.

A) 2, 3
B) 1, 2
C) 3, 4
D) 1, 4

If a runway is covered with water which is less than 3mm deep, or where the surface appears reflective but without standing water patches, it is said to be:
A) wet but not contaminated.
B) damp.
C) wet.
D) dry.

Which combination of statements describes a wet runway?

1. The surface has a shiny appearance.
2. The runway surface has a darker appearance.
3. The runway has 25% or less of the runway surface covered by water less than 3mm deep.
4. The runway has more than 25% of the runway surface covered by water less than 3mm deep.

A) 1, 3
B) 2, 4
C) 1, 4
D) 2, 3

Your flight manual does not include specific supplementary information on landing distances on wet runways and the service bulletins or weather reports indicate that the runway may be wet at the estimated time of arrival.
The required landing distance on a dry runway must be increased by:
A) 20 %.
B) 18 %.
C) 15 %.
D) 17,6 %.

In the JAR OPS, a runway is considered damp when:
A) surface moisture gives it a shiny appearance.
B) its surface is not dry, and when surface moisture does not give it a shiny appearance.
C) it is covered with a film of water of less than 1 mm.
D) it is covered with a film of water of less than 3 mm.

Assuming contaminated runway conditions, if an aeroplanes main wheel tyre pressure is 206 psi, the approximate speed above which dynamic hydroplaning may occur in the event of applying brakes is:
A) 129 kt.
B) 80 kt.
C) 114 kt.
D) 100 kt.

Viscous hydroplaning occurs primary if the runway is covered with a thin film of water and:
A) is rough textured.
B) the tyre treads are not in a good state.
C) is very smooth and dirty.
D) is very smooth and clean.

---

21. The effect whereby a tyre is lifted from the runway due to aeroplane speed along the runway is known as:
A) surface water effect.
B) aqua-skimming.
C) hydroplaning.
D) surface tension.

If a runway is contaminated with wet snow, slush or water, the dept that will preclude operations is:
A) 60 mm
B) 15 mm
C) 3 mm
D) 10 mm

For any given contaminant by (specific gravity), the aquaplaning speed is given by:
A) nine times the square root of the tyre pressure (lbs\sq in).
B) nine times the square of the tyre pressure (lbs\sq in).
C) the tyre pressure (Bars) divided by nine.
D) the square root of the tyre pressure (Bars) multiplied by nine.

When braking action is good, the measured braking coefficient is:
A) 0.25 or lower.
B) between 0.26 and 0.29.
C) between 0.30 and 0.35.
D) 0.40 or higher.

Item D of a SNOWTAM gives the cleared length of a runway in metres. If this is less than the published length, how is this reported:
A) in plain language at item T (the final paragraph) of a SNOWTAM.
B) it is not reported.
C) as a percentage of the total length of the runway available as the final item of a SNOWTAM.
D) by a four figure group added to item D, which gives the length in metres.

An aircraft with a tyre pressure of 14 Bar will be subject to hydroplaning when:
i. The water depth is equal to the tyre tread depth.
ii. The speed is greater than 123 kts.
iii. The water depth is equal to half the tyre tread depth.
iv. The speed is greater than 95 kts.
A) (ii) and (iii)
B) (iii) and (iv)
C) (i) and (iv)
D) (i) and (ii)

How is braking efficiency presented?
A) Sequentially from A to E.
B) Poor, medium, good.
C) Decimal followed by two significant figures.
D) As a function of the length of the runway.

In a SNOWTAM, if the cleared length of runway is less than the published length, what and where would the information be displayed?
A) Box D with the cleared length in metres.
B) Box T explained in plain English.
C) Box D with the cleared length expressed as a percentage.
D) Box C with the runway designator.

For an airplane with a tyre pressure of 14 bars, there is a risk of dynamic hydroplaning as soon as the:
1. water height is equal to the depth of the tyre grooves.
2. speed is greater than 123 kt.
3. water height is equal to the half of the depth of the tyre grooves.
4. speed is greater than 95 kt.

The combination regrouping all the correct statements is:
A) 1 and 2.
B) 1 and 4.
C) 2 and 3.
D) 3 and 4.

For an airplane with a tyre pressure of 8 bars, there is a risk of dynamic hydroplaning as soon as the:

1. Water height is equal to the depth of the tyre grooves.
2. Speed is greater than 96 kt.
3. Water height is equal to the half of the depth of the tyre grooves.
4. Speed is greater than 127 kt.

The combination regrouping all the correct statements is:

A) 1 and 4.
B) 3 and 4.
C) 2 and 3.
D) 1 and 2.

Braking action is described as 0.25 or below. Is it good/medium/poor?

A) Good to medium.
B) Poor.
C) Medium to Poor.
D) Medium.

If the surface of a runway is not dry, but the moisture on it does not give a shiny appearance, the runway is:

A) wet but not contaminated.
B) damp.
C) wet.
D) dry.

In case of landing on a flooded runway and in heavy rain:

1. you increase your approach speed
2. you land firmly in order to obtain a firm contact of the wheels with the runway and immediately land your nose gear
3. you decrease your approach speed
4. you use systematically all the lift dumper devices
5. you land as smoothly as possible
6. you brake energetically

The combination regrouping all the correct statements is:

A) 3, 5.
B) 1, 4, 5, 6.
C) 1, 2, 4.
D) 2, 3, 4.

When braking action is poor, the measured braking coefficient is:

A) 0.40 or higher.
B) between 0.26 and 0.29.
C) between 0.30 and 0.35.
D) 0.25 or lower.

When braking action is medium, the measured braking coefficient is:
A) between 0.30 and 0.35.
B) 0.25 or lower.
C) between 0.26 and 0.29.
D) 0.40 or higher.

Your aircraft flight manual does not include specific supplementary information on landing distances on wet runways and the service bulletins or weather reports indicate that the runway may be wet at the estimated time of arrival. The required landing distance on a dry runway must be increased by:
A) 18 %.
B) 15 %.
C) 20 %.
D) 17,6 %.

What is the definition of a wet runway?
A) Water standing on a runway with water depth less than 3mm. appearing non-reflective.
B) 25% contamination of the runway with water depth less than 3mm.
C) More than 25% coverage of water greater than 3mm deep.
D) Water standing on a runway without grooves or a porous pavement.

The maximum validity of a SNOWTAM is:
A) 3 hours.
B) 12 hours.
C) 6 hours.
D) 24 hours.

For a given aircraft and runway contamination, increased pressure altitude will:
A) decreases the hydroplaning speed.
B) maintains or increases the hydroplaning speed.
C) maintains the hydroplaning speed.
D) increases the hydroplaning speed.

Apart from aquaplaning and reduced breaking efficiency, what other hazards are associated with heavy rain contamination of runways:
A) the efficiency of jet engines is reduced by the ingress of water diluting the fuel.
B) the refraction of light from landings lights causes visual impairment.
C) water ingress into engines can cause flame-out.
D) wet aeroplanes do not perform as well as dry ones.

---

41. The touch down areas located at both ends of the runways are typical for the appearance of:
A) rubber steaming hydroplaning.
B) viscous hydroplaning.
C) dynamic hydroplaning.
D) rubber reversion hydroplaning.

Viscous hydroplaning is caused by:

A) a smooth & clear runway surface.
B) a smooth and dirty runway surface.
C) a rough runway surface.
D) bald tyres.

A braking action of 0.25 and below reported on a SNOWTAM is:

A) poor.
B) medium.
C) good.
D) unreliable.

For an airplane with a tyre pressure of 16 bars, there is a risk of dynamic hydroplaning as soon as:

1. Water height is equal to the depth of the tyre grooves.
2. Speed is greater than 132 kt.
3. Water height is equal to the half of the depth of the tyre grooves.
4. Speed is greater than 117 kt.

The combination regrouping all the correct statements is:

A) 1, 2.
B) 2, 3.
C) 1, 4.
D) 3, 4.

For an airplane with a tyre pressure of 10 bars, there is a risk of dynamic hydroplaning as soon as the:

1. water height is equal to the depth of the tyre grooves.
2. speed is greater than 104 kt.
3. water height is equal to the half of the depth of the tyre grooves.
4. speed is greater than 96 kt.

The combination regrouping all the correct statements is:

A) 1, 4
B) 1, 2
C) 2, 3
D) 3, 4

A runway is considered damp:

A) when the surface is not dry, but when the moisture on it does not give a shiny appearance.
B) if more than 25 percent of the surface area is covered by ice.
C) when the surface is neither wet or contaminated.
D) if more than 25 percent of the surface area is covered by surface water more than 3 mm deep.