



CHAPTER 2

FLIGHT OPERATIONS

2.1 Operating facilities

2.1.1 An operator shall ensure that a flight will not be commenced unless it has been ascertained by every reasonable means available that the ground and/or water facilities available and directly required on such flight, for the safe operation of the helicopter and the protection of the passengers, are adequate for the type of operation under which the flight is to be conducted and are adequately operated for this purpose.

Note.— “Reasonable means” in this FOR is intended to denote the use, at the point of departure, of information available to the operator either through official information published by the aeronautical information services or readily obtainable from other sources.

2.1.2 An operator shall ensure that any inadequacy of facilities observed in the course of operations is reported to the authority responsible for them, without undue delay.

2.2 Operational certification and supervision

2.2.1 The Air Operator Certificate

2.2.1.1 An operator shall not engage in commercial air transport operations unless in possession of a valid Air Operator Certificate issued by the DG, CAAN.

2.2.1.2 The Air Operator Certificate shall authorize the operator to conduct commercial air transport operations in accordance with the Operations Specifications.

Note.— Provisions for the content of the Air Operator Certificate and its associated operations Specifications are contained in 2.2.1.5 and 2.2.1.6.

2.2.1.3 The issue of an Air Operator Certificate by the DG, CAAN shall be dependent upon the operator demonstrating an adequate organization, method of control and supervision of flight operations, training programme as well as ground handling and maintenance arrangements consistent with the nature and extent of the operations specified.

Note.—CAAN AOCR contains guidance on the issue of an Air Operator Certificate.

2.2.1.4 The continued validity of an Air Operator Certificate shall depend upon the operator maintaining the requirements of 2.2.1.3 under the supervision of the DG, CAAN.

2.2.1.5 The Air Operator Certificate contains at least the following information and shall follow the layout of as mentioned in the Air Operator Certificate Requirements (AOCR):



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- a) the State of the Operator and the issuing authority;
- b) the Air Operator Certificate Number and its expiration date;
- c) the operator name, trading name (if different) and address of the principal place of business;
- d) the date of issue and the name, signature and title of the authority representative; and
- e) the location, in a controlled document carried on board, where the contact details of operational management can be found.

2.2.1.6 RESERVED

2.2.1.7 Air Operator Certificates and their associated Operations Specifications shall follow the layouts of the AOCCR.

2.2.1.8 Systems for both the certification and the continued surveillance of the operator have been established by the DG, CAAN in accordance with ICAO Annexes to ensure that the required standards of operations established in 2.2 are maintained.

2.2.2 Surveillance of Operations by a Foreign Operator

2.2.2.1 DG, CAAN shall recognize as valid an Air Operator Certificate issued by another Contracting State provided that the requirements under which the certificate was issued are at least equal to the applicable Standards specified in this FOR(H) and in Annex 19.

2.2.2.2 The Flight Safety Standards Department has established a programme with procedures for the surveillance of operations in Nepalese territory by a foreign operator and for taking appropriate action when necessary to preserve safety.

2.2.2.3 An operator shall meet and maintain the requirements established by the States in which the operations are conducted.

Note.— Guidance on the surveillance of operations by foreign operators may be found in the Manual of Procedures for Operations Inspection, Certification and Continued Surveillance (Doc 8335).

2.2.3 Operations manual

2.2.3.1 a) An operator shall make available, for the use and guidance of operations personnel concerned, an Operations Manual divided in four parts and constructed using the guidance contained in Appendix 1.

b) The operations manual shall be amended or revised as is necessary to ensure that the information contained therein is kept up to date. All such amendments or revisions shall be notified to all personnel that are required to use this manual. The Helicopter to which such amendment or addition applies shall not fly for the purpose of commercial operations until such amendments or addition are made effective.



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2.2.3.2 The operator shall provide a copy of the Operations Manual together with all amendments and/or revisions, for review and acceptance and, where required, approval. The operator shall incorporate in the operations manual such mandatory material as the DG, CAAN may require. All training programs require an approval.

Note 1.— Guidance for the organization and contents of an operations manual is provided in Appendix 1.

2.2.3.3 RESERVED

2.2.3.4 The Operations Manual shall not conflict with any Act, Regulation or Flight Operations Requirements or other directives issued by the Director General and in the case of an operator engaged in international operations, shall also not conflict with the laws, regulations and procedures of the countries into and over which the operator's helicopters are operated.

2.2.3.5 The holder of an Air Operator Certificate issued by the Director General shall establish and maintain a ground and flight training programme to ensure that each flight crew member, and each Flight Operations Officer employed for operational control duties, is adequately trained to perform his assigned duties. The facilities and the qualifications of the instructors, and the ground and flight training programmes shall be subject to the approval of the Director General.

2.2.3.6 The holder of an Air Operator Certificate shall furnish to the DG, CAAN a copy of every operations manual and engineering manual, and of all other written instructions to his operating staff concerning the operation of the Helicopter under this certificate.

2.2.3.7 Every flight under this certificate shall be conducted in accordance with the relevant provisions of the aforesaid operations manual and instructions.

2.2.4 Operating Instructions — General

2.2.4.1 An operator shall ensure that all operations personnel are properly instructed in their particular duties and responsibilities and the relationship of such duties to the operation as a whole.

2.2.4.2 A helicopter rotor shall not be turned under power, for the purpose of flight, without a qualified pilot at the controls. The operator shall provide appropriately specific training and procedures to be followed for all personnel, other than qualified pilots, who are likely to carry out the turning of a rotor under power for purposes other than flight.

2.2.4.3 RESERVED

2.2.4.4 Only a qualified pilot designated by the Operator as a Pilot-in-Command of a particular type, shall be permitted to hover a helicopter for maintenance check purposes. A "hover" during such checks shall not be considered a part of flight time if it is part of an engine run-up and for which a Flight Plan is not required.



2.2.5 In-flight simulation of emergency situations

An operator shall ensure that when passengers or cargo are being carried, no emergency or abnormal situations shall be simulated.

2.2.6 Checklists

The checklists provided in accordance with 4.1.4 shall be used by flight crews prior to, during and after all phases of operations, and in emergency, to ensure compliance with the operating procedures contained in the Aircraft Operating Manual, the Aircraft Flight Manual or other documents associated with the Certificate Of Airworthiness and otherwise in the operations manual. The design and utilization of checklists shall observe Human Factors principles.

Note.— Guidance material on the application of Human Factors principles can be found in the Human Factors Training Manual (Doc 9683).

2.2.7 Minimum flight altitudes (operations under IFR)

2.2.7.1 An operator shall be permitted to establish minimum flight altitudes for those routes flown for which minimum flight altitudes have been established by the State flown over or the responsible State, provided that they shall not be less than those established by that State, unless specifically approved.

2.2.7.2 An operator shall specify the method by which it is intended to determine minimum flight altitudes for operations conducted over routes for which minimum flight altitudes have not been established by the State flown over, or the responsible State, and shall include this method in the operations manual. The minimum flight altitudes determined in accordance with the above method shall not be lower than specified in ICAO Annex 2.

2.2.7.3 *RESERVED.*

2.2.7.4 *RESERVED*

2.2.8 Heliport or landing location operating minima(operations under IFR)

2.2.8.1 An Operator shall require that the operator establish operating minima for each heliport or landing location to be used in operations and shall approve the method of determination of such minima. Such minima shall not be lower than any that may be established for such heliports or landing locations by the DG, CAAN, except when specifically approved by that State.

Note.— This Standard does not require the State of the Aerodrome to establish operating minima.

2.2.8.1.1 DG, CAAN may approve operational credit(s) for operations with helicopters equipped with automatic landing systems, a HUD or equivalent displays, EVS, SVS or CVS. Such approvals shall not affect the classification of the instrument approach procedure.

Note 1.— Operational credit includes:



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- a) for the purposes of an approach ban (2.4.1.2), a minima below the heliport or landing location operating minima;
- b) reducing or satisfying the visibility requirements; or
- c) requiring fewer ground facilities as compensated for by airborne capabilities.

Note 2.— Guidance on operational credit for aircraft equipped with automatic landing systems, a HUD or equivalent displays, EVS, SVS and CVS is contained in Attachment I and in the Manual of All-Weather Operations (Doc 9365).

Note 3.— Information regarding a HUD or equivalent displays, including references to RTCA and EUROCAE documents, is contained in the Manual of All-Weather Operations (Doc 9365).

Note 4.— Automatic landing system — helicopter is an automatic approach using airborne systems which provide automatic control of the flight path, to a point aligned with the landing surface, from which the pilot can transition to a safe landing by means of natural vision without the use of automatic control.

2.2.8.2 The DG, CAAN shall require that in establishing the operating minima for each heliport or landing location which will apply to any particular operation, full account shall be taken of:

- a) the type, performance and handling characteristics of the helicopter;
- b) the composition of the flight crew, their competence and experience;
- c) the physical characteristics of the heliport, and direction of approach;
- d) the adequacy and performance of the available visual and non-visual ground aids;
- e) the equipment available on the helicopter for the purpose of navigation and/or control of the flight path during the approach to landing and the missed approach;
- f) the obstacles in the approach and missed approach areas and the obstacle clearance altitude/height for the instrument approach procedures;
- g) the means used to determine and report meteorological conditions; and
- h) the obstacles in the climb-out areas and necessary clearance margins.

2.2.8.3 Instrument approach operations shall be classified based on the designed lowest operating minima below which an approach operation shall only be continued with the required visual reference as follows:

- a) Type A: a minimum descent height or decision height at or above 75 m (250 ft); and
- b) Type B: a decision height below 75 m (250 ft). Type B instrument approach operations are categorized as:
 - 1) Category I (CAT I): a decision height not lower than 60 m (200 ft) and with either a visibility not less than 800 m or a runway visual range not less than 550 m;
 - 2) Category II (CAT II): a decision height lower than 60 m (200 ft), but not lower than 30 m (100 ft) and a runway visual range not less than 300 m;



- 3) Category IIIA (CAT IIIA): a decision height lower than 30 m (100 ft) or no decision height and a runway visual range not less than 175 m;
- 4) Category IIIB (CAT IIIB): a decision height lower than 15 m (50 ft), or no decision height and a runway visual range less than 175 m but not less than 50 m; and
- 5) Category IIIC (CAT IIIC): no decision height and no runway visual range limitations.

Note 1.— Where decision height (DH) and runway visual range (RVR) fall into different categories of operation, the instrument approach operation would be conducted in accordance with the requirements of the most demanding category (e.g. an operation with a DH in the range of CAT IIIA but with an RVR in the range of CAT IIIB would be considered a CAT IIIB operation or an operation with a DH in the range of CAT II but with an RVR in the range of CAT I would be considered a CAT II operation).

Note 2.— The required visual reference means that section of the visual aids or of the approach area which should have been in view for sufficient time for the pilot to have made an assessment of the aircraft position and rate of change of position, in relation to the desired flight path. In the case of a circling approach operation the required visual reference is the runway environment.

Note 3.— Guidance on approach classification as it relates to instrument approach operations, procedures, runways and navigation systems is contained in the Manual of All-Weather Operations (Doc 9365).

2.2.8.4 Category II and Category III instrument approach operations shall not be authorized unless RVR information is provided.

2.2.8.5 *RESERVED*

2.2.8.6 The operating minima for 2D instrument approach operations using instrument approach procedures shall be determined by establishing a minimum descent altitude (MDA) or minimum descent height (MDH), minimum visibility and, if necessary, cloud conditions.

Note.— For guidance on applying a continuous descent final approach (CDFA) flight technique on non-precision approach procedures refer to PANS-OPS (Doc 8168) Volume I, Part I, Section 4, Chapter 1, paragraph 1.7.

2.2.8.7 The operating minima for 3D instrument approach operations using instrument approach procedures shall be determined by establishing a decision altitude (DA) or decision height (DH) and the minimum visibility or RVR.

2.2.9 Fuel and oil records

2.2.9.1 An operator shall maintain fuel and oil records to enable the CAAN to ascertain that, for each flight, the requirements of 2.3.6 have been complied with.

2.2.9.2 Fuel and oil records shall be retained by the operator for a period of three months.



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2.2.10 Crew

2.2.10.1 *Pilot-in-command.* For each flight, the operator shall designate one pilot to act as pilot-in-command.

2.2.10.2 *Flight time, flight duty periods and rest periods.* An operator shall formulate rules to limit flight time and flight duty periods and for the provision of adequate rest periods for all its crew members. These rules shall be in accordance with the regulations established by the DG, CAAN and included in the operations manual.

Note.— Guidance on the establishment of limitations is given in Attachment B.

2.2.10.3 An operator shall maintain current records of the flight time, flight duty periods and rest periods of all its crewmembers.

2.2.11 Passengers

2.2.11.1 An operator shall ensure that passengers are made familiar with the location and use of:

- a) seat belts or harnesses;
- b) emergency exits;
- c) life jackets, if the carriage of life jackets is prescribed;
- d) oxygen dispensing equipment, if the provision of oxygen for the use of passengers is prescribed; and
- e) other emergency equipment provided for individual use, including passenger emergency briefing cards.

2.2.11.2 The operator shall ensure that the passengers are informed of the location and general manner of use of the principal emergency equipment carried for collective use.

2.2.11.3 In an emergency during flight, passengers shall be instructed in such emergency action as may be appropriate to the circumstances.

2.2.11.4 The operator shall ensure that, during take-off and landing and whenever considered necessary by reason of turbulence or any emergency occurring during flight, all passengers on board a helicopter shall be secured in their seats by means of the seat belts or harnesses provided.

2.2.12 Over-water flights

All helicopters on flights over water in a hostile environment in accordance with 4.5.1 shall be certificated for ditching. Sea state shall be an integral part of ditching information.

2.3 FLIGHT PREPARATION

2.3.1 A flight, or series of flights, shall not be commenced until flight preparation forms have been completed certifying that the pilot-in-command is satisfied that:



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- a) the helicopter is airworthy;
- b) the instruments and equipment prescribed in Chapter 4, for the particular type of operation to be undertaken, are installed and are sufficient for the flight;
- c) a maintenance release as prescribed in 6.7 has been issued in respect of the helicopter;
- d) the mass of the helicopter and centre of gravity location are such that the flight can be conducted safely, taking into account the flight conditions expected;
- e) any load carried is properly distributed and safely secured;
- f) a check has been completed indicating that the operating limitations of Chapter 3 can be complied with for the flight to be undertaken; and
- g) the Standards of 2.3.3 relating to operational flight planning have been complied with.

Note.— Series of flights are consecutive flights that:

- (a) begin and end within a period of 24 hours; and*
- (b) are all conducted by the same pilot-in-command.*

2.3.2 Completed flight preparation forms shall be kept by an operator for a period of three months.

2.3.3 Operational flight planning

2.3.3.1 a) An operational flight plan shall be completed for every intended flight and lodged with the appropriate authority for international operations. The operator shall determine the most efficient means of lodging the operational flight plan.

b) An operational flight plan is not required when the aerodrome of departure and landing is the same.

2.3.3.2 a) The operations manual shall describe the content and use of the operational flight plan.

b) Records of the operational flight plan shall be kept for a minimum period of three months.

2.3.4 Alternate heliports

2.3.4.1 *Take-off alternate heliport*

2.3.4.1.1 A take-off alternate heliport shall be selected and specified in the operational flight plan if the weather conditions at the heliport of departure are at or below the applicable heliport operating minima.

2.3.4.1.2 For a heliport to be selected as a take-off alternate, the available information shall indicate that, at the estimated time of use, the conditions will be at or above the heliport operating minima for that operation.

2.3.4.2 *Destination alternate heliport*

2.3.4.2.1 For a flight to be conducted in accordance with IFR, at least one destination alternate shall be specified in the operational flight plan and the flight plan, unless:



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- a) the duration of the flight and the meteorological conditions prevailing are such that there is reasonable certainty that, at the estimated time of arrival at the heliport of intended landing, and for a reasonable period before and after such time, the approach and landing may be made under visual meteorological conditions, or
- b) the heliport of intended landing is isolated and no suitable alternate is available. A point of no return (PNR) shall be determined by the operator.

2.3.4.2.2 For a heliport to be selected as a destination alternate, the available information shall indicate that, at the estimated time of use, the conditions will be at or above the heliport operating minima for that operation.

2.3.4.2.3 For a flight departing to a destination which is forecast to be below the heliport operating minima, two destination alternates should be selected. The first destination alternate should be at or above the heliport operating minima for destination and the second at or above the heliport operating minima for alternate.

2.3.4.3 Suitable offshore alternates shall be specified subject to the following:

- a) the offshore alternates shall be used only after a PNR. Prior to a PNR, onshore alternates shall be used;
- b) mechanical reliability of critical control systems and critical components shall be considered and taken into account when determining the suitability of the alternates;
- c) one engine inoperative performance capability shall be attainable prior to arrival at the alternate;
- d) to the extent possible, deck availability shall be guaranteed; and
- e) weather information must be reliable and accurate.

Note.— The landing technique specified in the flight manual following control system failure may preclude the nomination of certain helpdesks as alternate heliports.

2.3.4.4 *RESERVED*

2.3.5 Weather conditions

2.3.5.1 A flight to be conducted in accordance with VFR shall not be commenced unless current meteorological reports or a combination of current reports and forecasts indicate that the meteorological conditions along the route or that part of the route to be flown or in the intended area of operations under VFR will, at the appropriate time, be such as to render compliance with these rules possible.

Note.— When a flight is conducted in accordance with VFR, the use of night vision imaging systems (NVIS) or other vision enhancing systems does not diminish the requirement to comply with the provisions of 2.3.5.1.



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2.3.5.2 A flight to be conducted in accordance with IFR shall not be commenced unless the information is available which indicates that conditions at the heliport of intended landing or, when an alternate is required, at least one alternate heliport will, at the estimated time of arrival, be at or above the heliport operating minima.

2.3.5.3 A flight to be operated in known or expected icing conditions shall not be commenced unless the helicopter is certificated and equipped to cope with such conditions.

2.3.5.4 A flight to be planned or expected to operate in suspected or known ground icing conditions shall not be commenced unless the helicopter has been inspected for icing and, if necessary, has been given appropriate de-icing/anti-icing treatment. Accumulation of ice or other naturally occurring contaminants shall be removed so that the helicopter is kept in an airworthy condition prior to take-off.

Note.— Guidance material is given in the Manual of Aircraft Ground De-icing/Anti-icing Operations (Doc 9640).

2.3.6 Fuel and oil supply

2.3.6.1 *All helicopters.* A flight shall not be commenced unless, taking into account both the meteorological conditions and any delays that are expected in flight, the helicopter carries sufficient fuel and oil to ensure that it can safely complete the flight. In addition, a reserve shall be carried to provide for contingencies.

2.3.6.2 *VFR operations.* The fuel and oil carried in order to comply with 2.3.6.1 shall, in the case of VFR operations, be at least the amount sufficient to allow the helicopter:

- a) to fly to the heliport to which the flight is planned;
- b) to fly thereafter for a period of 20 minutes at best-range speed; and
- c) to have an additional amount of fuel, sufficient to provide for the increased consumption on the occurrence of any of the potential contingencies specified by the operator to the satisfaction of the DG, CAAN.

2.3.6.3 *IFR operations.* The fuel and oil carried in order to comply with 2.3.6.1 shall, in the case of IFR operations, be at least the amount sufficient to allow the helicopter:

2.3.6.3.1 When an alternate is not required, in terms of 2.3.4.2.1 a), to fly to the heliport to which the flight is planned, and thereafter:

- a) to fly 30 minutes at holding speed at 450 m (1 500 ft) above the destination heliport under standard temperature conditions and approach and land; and
- b) to have an additional amount of fuel, sufficient to provide for the increased consumption on the occurrence of any of the potential contingencies specified by the operator to the satisfaction of the DG, CAAN.

2.3.6.3.2 When an alternate is required, to fly to and execute an approach, and a missed approach, at the heliport to which the flight is planned, and thereafter:



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- a) to fly to the alternate specified in the flight plan; and then
- b) to fly for 30 minutes at holding speed at 450 m (1 500 ft) above the alternate under standard temperature conditions, and approach and land; and
- c) to have an additional amount of fuel, sufficient to provide for the increased consumption on the occurrence of any of the potential contingencies specified by the operator to the satisfaction of the DG, CAAN.

2.3.6.3.3 When no suitable alternate is available, in terms of 2.3.4.2.1 (e.g. the destination is isolated), sufficient fuel shall be carried to enable the helicopter to fly to the destination to which the flight is planned and thereafter for a period that will, based on geographic and environmental considerations, enable a safe landing to be made.

2.3.6.4 In computing the fuel and oil required in 2.3.6.1, at least the following shall be considered:

- a) meteorological conditions forecast;
- b) expected air traffic control routings and traffic delays;
- c) for IFR flight, one instrument approach at the destination heliport, including a missed approach;
- d) the procedures prescribed in the operations manual for loss of pressurization, where applicable, or failure of one engine while en route; and
- e) any other conditions that may delay the landing of the helicopter or increase fuel and/or oil consumption.

Note.— Nothing in 2.3.6 precludes amendment of a flight plan in flight in order to replan the flight to another heliport, provided that the requirements of 2.3.6 can be complied with from the point where the flight has been replanned.

2.3.6.5 The use of fuel after flight commencement for purposes other than originally intended during pre-flight planning shall require a re-analysis and, if applicable, adjustment of the planned operation.

2.3.7 Refuelling with passengers on board or rotors turning

2.3.7.1A helicopter should not be refueled when passengers are embarking, on board, disembarking or when the rotor is turning unless the operator is granted specific authorization by the State of the Operator setting forth the conditions under which such fuelling may be carried out.

Note 1.— Provisions concerning aircraft refuelling are contained in ICAO Annex 14, Volume I, and guidance on saferefuelling practices is contained in the Airport Services Manual (Doc 9137), Parts 1 and 8.

Note 2.— Additional precautions are required when refuelling with fuels other than aviation kerosene or when refueling results in a mixture of aviation kerosene with other aviation turbine fuels, or when an open line is used.



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2.3.8 Oxygen supply

Note.— Approximate altitudes in the Standard Atmosphere corresponding to the values of absolute pressure used in the text are as follows:

Absolute pressure	Metres	Feet
700 hPa	3 000	10 000
620 hPa	4 000	13 000
376 hPa	7 600	25 000

2.3.8.1 A flight to be operated at flight altitudes at which the atmospheric pressure in personnel compartments will be less than 700 hPa shall not be commenced unless sufficient stored breathing oxygen is carried to supply:

- a) 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; and
- b) the crew and passengers for any period that the atmospheric pressure in compartments occupied by them will be less than 620 hPa.

2.3.8.2 A flight to be operated with a pressurized helicopter shall not be commenced unless a sufficient quantity of stored breathing oxygen is carried to supply all the crew members and passengers, as is appropriate to the circumstances of the flight being undertaken, in the event of loss of pressurization, for any period that the atmospheric pressure in any compartment occupied by them would be less than 700 hPa.

In addition, when the helicopter is operated at flight altitudes at which the atmospheric pressure is more than 376 hPa and cannot descend safely to a flight altitude at which the atmospheric pressure is equal to 620 hPa within four minutes, there shall be no less than a 10-minute supply for the occupants of the passenger compartment.

2.4 IN-FLIGHT PROCEDURES

2.4.1 Heliport operating minima

2.4.1.1 A flight shall not be continued towards the heliport of intended landing, unless the latest available information indicates that at the expected time of arrival, a landing can be effected at that heliport, or at least one alternate heliport, in compliance with the operating minima established in accordance with 2.2.8.1.

2.4.1.2 An instrument approach shall not be continued beyond the outer marker fix in case of precision approach, or below 300 m (1 000 ft) above the heliport in case of non-precision approach, unless the reported visibility or controlling RVR is above the specified minimum.

Note.— Criteria for the final approach segment is contained in PANS-OPS (Doc 8168), Volume II.



2.4.1.3 If, after entering the final approach segment or after descending below 300 m (1 000 ft) above the heliport elevation, the reported visibility or controlling RVR falls below the specified minimum, the approach may be continued to DA/H or MDA/H. In any case, a helicopter shall not continue its approach-to-land at any heliport beyond a point at which the limits of the operating minima specified for that heliport would be infringed.

2.4.2 Meteorological observations

Note.— The procedures for making meteorological observations on board aircraft in flight and for recording and reporting them are contained in Annex 3, the PANS-ATM (Doc 4444) and the appropriate Regional Supplementary Procedures (Doc 7030).

2.4.3 Hazardous flight conditions

Hazardous flight conditions encountered, other than those associated with meteorological conditions, shall be reported to the appropriate aeronautical station as soon as possible. The reports so rendered shall give such details as may be pertinent to the safety of other aircraft.

2.4.4 Flight crew members at duty stations

2.4.4.1 *Take-off and landing.* All flight crew members required to be on flight deck duty shall be at their stations.

2.4.4.2 *En route.* All flight crew members required to be on flight deck duty shall remain at their stations except when their absence is necessary for the performance of duties in connection with the operation of the helicopter or for physiological needs.

2.4.4.3 *Seat belts.* All flight crew members shall keep their seat belt fastened when at their stations.

2.4.4.4 *Safety harness.* Any flight crew member occupying a pilot's seat shall keep the safety harness fastened during the take-off and landing phases; all other flight crew members shall keep their safety harness fastened during the take-off and landing phases unless the shoulder straps interfere with the performance of their duties, in which case the shoulder straps may be unfastened but the seat belt must remain fastened.

Note.— Safety harness includes shoulder straps and a seat belt which may be used independently.

2.4.5 Use of oxygen

All flight crew members, when engaged in performing duties essential to the safe operation of a helicopter in flight, shall use breathing oxygen continuously whenever the circumstances prevail for which its supply has been required in 2.3.8.1 or 2.3.8.2.



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2.4.6 Safeguarding of cabin crew and passengers in pressurized aircraft in the event of loss of pressurization

2.4.6.1 Cabin crew should be safeguarded so as to ensure reasonable probability of their retaining consciousness during any emergency descent which may be necessary in the event of loss of pressurization and, in addition, they should have such means of protection as will enable them to administer first aid to passengers during stabilized flight following the emergency. Passengers should be safeguarded by such devices or operational procedures as will ensure reasonable probability of their surviving the effects of hypoxia in the event of loss of pressurization.

Note.— It is not envisaged that cabin crew will always be able to provide assistance to passengers during emergency descent procedures which may be required in the event of loss of pressurization.

2.4.7 Instrument flight procedures

2.4.7.1 One or more instrument approach procedures to serve each final approach and take-off area or heliport utilized for instrument flight operations shall be approved and promulgated by the State in which the heliport is located, or by the State which is responsible for the heliport when located outside the territory of any State.

2.4.7.2 All helicopters operated in accordance with IFR shall comply with the instrument approach procedures approved by the State in which the heliport is located, or by the State which is responsible for the heliport when located outside the territory of any State.

Note 1.— Operational procedures recommended for the guidance of operations personnel involved in instrument flight operations are described in PANS-OPS (Doc 8168), Volume I.

Note 2.— Criteria for the construction of instrument flight procedures for the guidance of procedure specialists are provided in PANS-OPS (Doc 8168), Volume II. Obstacle clearance criteria and procedures used in certain States may differ from PANS-OPS, and knowledge of these differences is important for safety reasons (see Section II, Chapter 1, 1.1.1).

2.4.8 RESERVED

2.4.9 In-flight fuel management

2.4.9.1 An operator shall establish policies and procedures, approved by the State of the Operator, to ensure that in flight fuel checks and fuel management are performed.

2.4.9.2 The pilot-in-command shall monitor the amount of usable fuel remaining on board to ensure it is not less than the fuel required to proceed to a landing site where a safe landing can be made with the planned final reserve fuel remaining.

2.4.9.3 The pilot-in-command shall advise ATC of a minimum fuel state by declaring MINIMUM FUEL when, having committed to land at a specific landing site, the pilot calculates that any change to the existing clearance to that landing site, or other air traffic delays, may result in landing with less than the planned final reserve fuel.



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Note 1.— The declaration of MINIMUM FUEL informs ATC that all planned landing site options have been reduced to a specific landing site of intended landing, that no precautionary landing site is available, and any change to the existing clearance, or air traffic delays, may result in landing with less than the planned final reserve fuel. This is not an emergency situation but an indication that an emergency situation is possible should any additional delay occur.

Note 2.— A precautionary landing site refers to a landing site, other than the site of intended landing, where it is expected that a safe landing can be made prior to the consumption of the planned final reserve fuel.

2.4.9.4 The pilot-in-command shall declare a situation of fuel emergency by broadcasting MAYDAY MAYDAYMAYDAY FUEL, when the usable fuel estimated to be available upon landing at the nearest landing site where a safe landing can be made is less than the required final reserve fuel in compliance with 2.3.6.

Note 1.— The planned final reserve fuel refers to the value calculated in 2.3.6 and is the minimum amount of fuel required upon landing at any landing site. The declaration of MAYDAY MAYDAYMAYDAY FUEL informs ATC that all available landing options have been reduced to a specific site and a portion of the final reserve fuel may be consumed prior to landing.

Note 2.— The pilot estimates with reasonable certainty that the fuel remaining upon landing at the nearest safe landing site will be less than the final reserve fuel taking into consideration the latest information available to the pilot, the area to be over flown (i.e. with respect to the availability of precautionary landing areas), meteorological conditions and other reasonable contingencies.

Note 3.— The words “MAYDAY FUEL” describe the nature of the distress conditions as required in ICAO Annex 10, Volume II, 5.3.2.1.1, b) 3.

2.5 DUTIES OF PILOT-IN-COMMAND

2.5.1 The pilot-in-command shall be responsible for the operation and safety of the helicopter and for the safety of all crew members, passengers and cargo on board, from the moment the engine(s) are started until the helicopter finally comes to rest at the end of the flight, with the engine(s) shut down and the rotor blades stopped.

2.5.2 The pilot-in-command shall ensure that the checklists specified in 2.2.6 are complied with in detail.

2.5.3 The pilot-in-command shall be responsible for notifying the nearest appropriate authority by the quick estavailable means of any accident involving the helicopter, resulting in serious injury or death of any person or substantial damage to the helicopter or property.

Note.— A definition of the term “serious injury” is contained in ICAO Annex 13.

2.5.4 The pilot-in-command shall be responsible for reporting all known or suspected defects in the helicopter, to the operator, at the termination of the flight.

2.5.5 The pilot-in-command shall be responsible for the journey log book or the general declaration containing the information listed in 9.4.1.



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Note.— By virtue of Resolution A10-36 of the Tenth Session of the Assembly (Caracas, June–July 1956) “the general declaration, [described in ICAO Annex 9] when prepared so as to contain all the information required by Article 34 [of the Convention on International Civil Aviation] with respect to the journey log book, may be considered by Contracting States to be an acceptable form of journey log book”.

2.6 DUTIES OF FLIGHT OPERATIONS OFFICER/FLIGHT DISPATCHER

2.6.1 A flight operations officer/flight dispatcher in conjunction with a method of control and supervision of flight operations in accordance with 2.2.1.3 shall:

- a) assist the pilot-in-command in flight preparation and provide the relevant information;
- b) assist the pilot-in-command in preparing the operational and ATS flight plans, sign when applicable and file the ATS flight plan with the appropriate ATS unit; and
- c) furnish the pilot-in-command while in flight, by appropriate means, with information which may be necessary for the safe conduct of the flight.

2.6.2 In the event of an emergency, a flight operations officer/flight dispatcher shall:

- a) initiate such procedures as outlined in the operations manual while avoiding taking any action that would conflict with ATC procedures; and
- b) convey safety-related information to the pilot-in-command that may be necessary for the safe conduct of the flight, including information related to any amendments to the flight plan that become necessary in the course of the flight.

Note.— It is equally important that the pilot-in-command also convey similar information to the flight operations officer/flight dispatcher during the course of a flight, particularly in the context of emergency situations.

2.7. CARRY-ON BAGGAGE

2.7.1 The operator shall ensure that all baggage carried onto a helicopter and taken into the passenger cabin is adequately and securely stowed.

2.7.2 No person may carry cargo, including carry-on baggage, in or on any aircraft unless:

- (i) it is carried in an approved cargo rack, bin or compartment installed in or on the aircraft.
- (ii) it is secured by an approved means, or
- (iii) it is carried in accordance with the following:
 - (1) for cargo, it is properly secured by a safety belt or other tie-down having enough strength to eliminate the possibility of shifting under all normally anticipated flight and ground conditions, or for carry-on baggage, it is restrained so as to prevent its movement during air turbulence.
 - (2) it is packaged or covered to avoid possible injury to occupants.
 - (3) it does not impose any load on seats or on the floor structure that exceeds the load limitation for those components.



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- (4) it is not located in a position that obstructs the access to, or use of any required emergencies or regular exit, or the use of the aisle between the crew and the passenger compartment, or located in a position that obscures any passenger's view of the "seat belt" or "no smoking" sign, or any required exit sign, unless an auxiliary sign or other approved means for proper notification of the passengers is provided.
- (5) it is not stowed directly above seated occupants.
- (6) for cargo only operations, paragraph (iii) (4) does not apply if the cargo is loaded so that at least one emergency or regular exit is available to provide all occupants of the aircraft a means of unobstructed exit from the aircraft if an emergency occurs.
- (iv) Each passenger seat under which the baggage is stowed shall be fitted with a means to prevent articles of baggage stowed under it from sliding under crash impacts severe enough to induce injury to the occupants.
- (v) When cargo is carried in cargo compartments that are designed to require the physical entry of a crewmember to extinguish any fire that may occur during flight, the cargo must be loaded so as to allow a crewmember to effectively reach all parts of the compartment with the contents of a hand fire extinguisher.

2.8 RESPONSIBILITIES OF AIR OPERATOR-HELICOPTERS

2.8.1 Crew Member Requirements

- (a) No air carrier may assign a person as a flight crew member unless that person holds a valid license issued by the Director General.
- (b) No air carrier shall operate an aircraft with less than the minimum flight crew specified in the Certificate of Airworthiness or the Aircraft Flight Manual.
- (c) No air carrier shall operate an aircraft without a second in command if that aircraft has a passenger seating configuration, excluding any pilot seat of ten seats or more.
- (d) No air carrier shall carry passengers and operate a single engine helicopter:
 - i) in IFR flight conditions,
 - ii) at night.
 - iii) for a published schedule flight.
- (e) No air carrier shall operate a multi engine helicopter under IFR in an air transport operation unless the flight crew includes at least two pilots one of them shall be designated by the air carrier as pilot in command and the other as second in command.



- (f) Unless the flight crew uses sufficient required oxygen during the flight, no person shall operate a helicopter when carrying passengers;
 - i) for more than 30 minutes at an altitude between 10,000 and 13,000 feet above mean sea level, or
 - ii) at an altitude above 13,000 feet above mean sea level.
- (g) No air carrier shall let the pilots have an endorsement on more than two types of helicopters for commercial operations.
- (h) No air carrier shall let the pilot have an endorsement on both aeroplanes and helicopters for commercial operations.
- (i) No air carrier may use a pilot to act as pilot in command or second in command of a turbine engine operated rotorcraft and multi engine rotorcraft unless he holds a commercial pilot license with the classification of helicopter from an approved school of a contracting state.

2.8.2 Pilot-In-Command Qualification

- (a) No air carrier may use a person to serve as pilot-in-command in commercial air transportation in any helicopter certificated for two-pilot operation unless that person holds an Airline Transport Pilot License with classification of helicopter and type rating.
- (b) No air carrier may use a pilot to act as Pilot In Command of a helicopter certificated for single pilot operation unless that pilot:
 - i) holds a valid pilot license with type rating;
 - ii) has at least 50 hours of flight time as Pilot-In-Command on that helicopter with an Instructor Pilot; and
 - iii) if the flight is to be operated under IFR condition, holds an instrument rating endorsed by CAAN, valid for type of helicopter.
- (c) No air carrier may use a pilot to act as pilot in command of a helicopter certificated for two-pilot operations, unless that pilot;
 - i) holds an Airline Transport Pilot License.
 - ii) holds a valid pilot license with type rating;
 - iii) has at least 50 hours of flight time as pilot-in-command on that helicopter with an Instructor Pilot
 - iv) if the flight is to be operated under IFR condition, holds an instrument rating endorsed by CAAN, valid for the type of helicopter.



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2.8.3 P-I-C Clearance (Helicopter)

2.8.3.1 A pilot will not be designated as Pilot-In-Command, unless he has completed the experience in flight as specified below;

1) Helicopter with Single Pilot Operation

- a) To act as a solo PIC for all the domestic airports and normal helipads at or below 7,000 ft. AMSL.
 - i) shall fly minimum of 100 hours on type as a PIC with Instructor Pilot.
 - ii) shall have minimum of 600 hours experience on helicopter as P1.
 - iii) Co-pilot experience on turbine engine helicopter shall be credited with not more than 50 percent of the co-pilot flight time towards the total flight time required as mentioned in above (ii).
- b) To act as a solo PIC for all the helipads above 7,000 ft. AMSL including landing in a congested area and difficult field with slope.
 - i) shall fly at least 50 hours as a PIC with instructor pilot and required briefing is to be provided for each mission in such fields.
 - ii) shall have at least 800 hours as PIC on helicopter.
- c) To act as a solo PIC for all the helipads above 10,000 feet AMSL and including landing in a congested area and difficult field with slope,
 - i) must have minimum of 1,000 hours of experience as PIC on Helicopter.
 - ii) successful high altitude training must be completed.

2) Helicopter with Two Pilots Operation

- a) To act as a PIC for all the domestic airports and normal helipads at or below 7,000 ft. AMSL, he shall fly minimum of 50 hours on type as a PIC with Instructor Pilot.
- b) To act as a PIC for all the helipads above 7000 ft. AMSL including landing in a congested area and difficult field with slope shall fly minimum of 150 total hours as a PIC with instructor pilot and required briefing is to be provided for each mission in such fields.
- c) To act as a solo PIC for all the helipads above 10000 feet AMSL including landing in a confined area and difficult field with slope:
 - i) must have minimum of 200 total hours experience as PIC with experience on all the helipads above 10000 ft. AMSL including landing in a congested area and difficult field with slope.
 - ii) successful high altitude training must be completed.



2.8.4 Copilot Qualification

- (a) No air carrier may use a pilot to act as copilot of a helicopter under VFR, unless that person holds a commercial pilot license with appropriate category and class ratings and an appropriate type rating.
- (b) No air carrier may use a pilot to act as copilot of an aircraft under IFR unless that person:
 - i) holds a valid pilot license with appropriate category and class ratings and an appropriate type rating.
 - ii) holds an instrument rating endorsed by CAAN, valid for the category, class and type of helicopter.

2.8.5 Record of Flight Crew Licenses

- a) The holder of an Air Operator Certificate issued by the DG, CAAN shall maintain a record containing details of the licenses held by each of his flight crew members together with details of the ratings included in those licenses. He shall record details of the ground and flight training undertaken by his flight crew members together with the results of any proficiency checks and shall record the route and aerodrome qualifications (including High Altitude heliport clearance) of pilot-in-command.
- b) In helicopter operation the record detail of qualification achieved progressively and qualification gained by each crew member on solo piloting to high altitude fields, fields of confined area, fields of confined and congested nature used by helicopters for landing.

Note: for the purpose of this document, "High Altitude" helipads shall be considered those that are located above an elevation of 8,000 feet above mean sea level.

- c) Records shall be retained throughout the period of the employment of each flight crew member and for a further period of three months. Notification to CAAN of changes in employment of key operational personnel, is necessary.

2.9 PROVING FLIGHTS OF NEW HELICOPTER

- 2.9.1 An Helicopter of a new type shall not be used to carry passengers on a commercial air transportation service until it has undergone proving tests under the supervision of, and in accordance with the requirements of, the Director General.
- 2.9.2 In the case of major changes to an Helicopter previously in operation on commercial air transportation services, the Director General may require it to undergo such proving tests as he/she considers necessary.