



GOVERNMENT OF INDIA

**OFFICE OF DIRECTOR GENERAL OF CIVIL AVIATION**  
TECHNICAL CENTRE, OPP SAFDARJANG AIRPORT, NEW DELHI

**CIVIL AVIATION REQUIREMENTS**  
**SECTION 4 – AERODROME STANDARDS**  
**& LICENSING**

**SERIES 'B' PART V**  
**4<sup>TH</sup> AUGUST, 2011**

**EFFECTIVE: FORTHWITH**

**Subject: Minimum Safety Requirements for Helicopter Landing Areas used on Regular basis.**

**1. INTRODUCTION**

- 1.1 Rule 78 of the Aircraft Rules, 1937 requires licensing of such aerodromes that are used as regular place of landing and departure by a scheduled air transport service or for a series of landings and departures by any aircraft carrying passengers or cargo for hire or reward. Further, sub rule (4) of the said rule stipulates that no person shall operate or cause to be operated any flight from a temporary aerodrome or an aerodrome which has not been licensed or approved, as the case may be, under these rules unless it meets the minimum safety requirements laid down by the Director-General.
- 1.2 Helicopter is a versatile machine which can be used to provide transportation without requiring an elaborate infrastructure like airport/airstrip. Because of this reason, the helicopter landing area and facilities are ensured by the helicopter operators for safety of helicopter operations, depending on quantum of operation. Therefore, minimum safety requirement for helicopter landing area on temporary basis has already been laid down separately in CAR on the subject.
- 1.3 There are certain helicopters landing areas which are not constructed as Heliport, however, are being used for regular operation for passenger transportation. Such helicopter landing areas are generally located and used extensively at places where helicopter transportation is preferred mode over the other modes of transportation due to geographical and other constraints. Such sites are normally owned by state government or other entities which are having their limited use. However, such owners extend its use on regular basis to helicopter operator without assuming the responsibility for operational aspects/ facilities at the landing area. Regulatory oversight cannot be

performed over such areas due to various factors e.g. periodicity of operation, geographical location, large number of such areas.

- 1.4 Such usage of helicopter landing site is permitted by the owner with or without assuming any responsibility regarding the availability of minimum facilities. Therefore it is imperative on part of Helicopter operator to ensure that minimum facilities required for safe helicopter operations are available at site. Due to this reason it has been made obligatory in CAR, Section 8, Series 'O' Part IV & V, Operation of Commercial Air Transport/ General Aviation – Helicopters, on part of operator/ Pilot-in-Command, to 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.
- 1.5 In pursuance to sub rule (4) of Rule 78 and in order to address operation in aforesaid conditions this CAR lays down the minimum safety requirements for helicopters operating to/from helicopter landing areas within the Indian Territory outside an licensed aerodrome/ heliports and procedures to be followed by Helicopter operators for such operations.
- 1.6 This CAR is issued under the provisions of Rule 133A of the Aircraft Rules, 1937.

## **2. Applicability**

- 2.1 This CAR provides the minimum safety requirement considered necessary for helicopter landing areas located outside a licensed aerodrome/heliport and used on regular basis by helicopters engaged in carrying passengers or cargo for hire or reward under day VFR conditions and is applicable for operations which are beyond the purview of Civil Aviation Requirement for temporary helicopter landing areas.
- 2.2 The helicopter operations from landing sites used for private operations on regular basis may also follow the requirement laid in this CAR for ensuring safety of helicopter operations.
- 2.3 This CAR is applicable to the helicopter operator carrying out such operations and also to organization which are assigned with the responsibility by the helicopter operator to ensure minimum safety requirement for their operations.

## **3. Minimum Facilities at the Helicopter landing sites**

The following facilities shall be provided for a surface level helicopter landing site for the type of helicopter intended to be operated as described in CAR Section 4 Series B Part III on 'Heliport' for the information of the flight crew;

**3.1 Landing area**

- a) Final approach and take-off area — type of FATO, length, width, slope, surface type;
- b) Touchdown and lift-off area — with dimensions, surface type, bearing strength; when surface is different from FATO;
- c) safety area — length, width and surface type;
- d) Rejected take-off area, suitable for helicopters if operating in performance class 1 to complete a rejected take-off.
- e) Parking area, if provided shall be clear from FATO as per the requirement and if not shall be suitably addressed through operational mitigation measures.

**3.2 Visual Aids:**

The landing sites shall be provided with following visual aids;

- a) At least one wind direction indicator.
- b) Helicopter landing area identification marking 'H'
- c) Final approach and take-off area marking
- d) A touchdown and lift-off area marking shall be provided if the perimeter of the touchdown and lift-off area is not self-evident.

**3.3 Approach and Take off climb surface**

At least one Approach and Take-off climb surface in an inclined plane sloping upwards (8%) from the end of the safety area with 10% divergence centered on a line passing through the centre of the FATO, should be available for a distance of at least 245 meters.

**3.4. Rescue and Fire fighting facilities**

The level of protection to be provided for rescue and fire fighting shall be based on the over-all length of the longest helicopter normally using the heliport and in accordance with the heliport fire fighting category determined from Table 6-1 and 6-2 of CAR Section 4 .

**4 Protection of site**

4.1 The operator shall take necessary measures to protect the landing site by cordoning, fencing etc., to prevent entry of unauthorized persons, vehicles or stray animals.

4.2 Where required the aspect of crowd control, security of operation and separation of crowd from flying operations shall also be ensured.

**5. General Safety Requirements**

5.1 Subject to the number of movements, system for communicating with Helicopters from ground to inform sequence/ availability of FATO for landing,

- communicating essential information, either through walkie-talkie/VHF/ aldes lamp/ hand signals, as considered appropriate may be established.
- 5.2 Helicopter operator shall designate or assign the responsibility to a person for safety of helicopter operations, passengers and people on ground.
  - 5.3 When such place is used by helicopters carrying VIP, all instructions issued from time to time in this regard shall be complied with by the operator.
  - 5.4 Approach and departure shall be performed in a way that forced landing can be carried out on a suitable emergency landing area at any time, unless a helicopter with One Engine in Inoperative (OEI) is capable of clearing any obstacle in the sector with a clearance of at least 35 ft.
  - 5.5 Proper procedure for filing the flight plan and obtaining FIC/ADC number shall be specified in the SOP and record of the same shall be maintained.
  - 5.6 Proper arrangement shall be made for obtaining the weather reports/ forecast from the nearest Met establishment. In addition, arrangements for observation on local weather at the intended landing areas and their communication to flight crew particularly in hilly terrain, are preferred to ensure safety of operations.
  - 5.7 If the helicopter landing area is situated within aerodrome traffic zone or aerodrome control zone of a public aerodrome, the coordination procedure with the air traffic control at the concerned aerodrome shall be specified in the SOPs.
  - 5.8 Helicopter parking areas normally should not lie under an approach/departure surface and preferred under the transitional surfaces.
  - 5.9 The parking position must be located to provide a minimum distance between the tail rotor arc and any object, building, safety area, or other parking position shall be according to the requirement laid down in para 3 of the CAR Section 4, Series B, Part-III.
  - 5.10 Necessary arrangement for picketing /mooring of helicopter shall be made for night parking as well as at helipads located in the hilly terrain, likely to be affected by strong winds/weather.
  - 5.11 First aid facility as minimum medical requirement may be provided at the landing site and also arrangements with locally available medical facilities should be made to deal with emergencies.
  - 5.12 The requirements laid down in other CARs/ circulars depending on the type of operations shall also be complied for the safe operation of the helicopter.
  - 5.13 In case the landing site is used by more than one operator, necessary arrangement for coordination of arrival/departure of flight shall be done amongst the operators and in such case establishment of two way

communication is preferred. Daily briefing of all aircrews must be ensured prior to commencement of flying and record to this effect shall be maintained.

- 5.14 At sites used by multiple operators, helicopter operators either individually or jointly shall designate or assign the responsibility to a person, for monitoring helicopter operations and ensuring safety.

## **6. Preparation of SOP**

- 6.1 An SOP shall be prepared indicating the facilities, operational procedures and other requirement applicable to the helicopter operations from/to the site in accordance with the guidelines provided in the subject and approved by Helicopter Division/FSD. The SOP shall be made available on board during operation for use by the flight crew and they will be familiarized with the SOP before commencement of operation.

- 6.2. The SOP shall also include;

- i. Emergency Response Plan of the helicopter operator defining duties and responsibilities of individuals engaged in helicopter operation. The emergency plan shall include the telephone numbers and persons required to be contacted in case of emergency within the organisation and outside the organization shall also be identified. List of such numbers shall be provided to all concerned.
- ii. Information concerning the search and rescue services in the area over which the helicopter will be flown, nearest Alert Post and Rescue Coordination Centre and procedure for co-ordinate with them.
- iii. Safety assessment of operating environment at landing sites, en-route, and terrain and mitigation measures required thereto.

- 6.3 The SOP shall be updated to include any changes in the operating environment.

## **7. Passenger services facilities and Security requirements**

- 7.1 The Operator shall ensure arrangement for minimum facilities/ amenities for the passenger facilitation.

- 7.2 Necessary arrangements shall also be made available for escort of passengers to and from the helicopter landing site.

- 7.3 The weighing machine shall also be made available for accurate calculation of pay load in to the helicopter before each flight.

- 7.4 The helicopter operator shall ensure that security and anti-hijacking arrangements are made as per his approved Security Manual and norms issued by BCAS from time to time in this regard.

**8. Procedures to be followed by the Operator**

- 8.1 The Helicopter operator before commencing the operation from such place shall ensure that the minimum facilities and other requirement laid down in the CAR are available at the landing site.
- 8.2 The Helicopter operator when assigning the responsibility for ensuring availability of minimum safety requirements partially or in-toto to any other agency, shall ensure that the facilities required at landing sites for the operation purpose are made available by such agency on continuous basis during the operation.
- 8.3 Helicopter operator shall ensure that the agency assigned with the responsibility has adequate qualified persons to maintain the facilities in desirable manner.
- 8.4 Operator shall carry out periodic audit/ inspections to ensure compliance of minimum facility during the period of operations as part of his Safety Management System.
- 8.5 The flight crew shall also monitor availability of facilities during operation and in case of non-availability/unserviceability, shall initiate action for its compliance.

**9. Action by DGCA**

- 9.1 The helicopter operator may initiate operations to such areas without prior approval of DGCA after ensuring the requirement contained in this CAR.
- 9.2 In case an NOC is required for such operation by local authority from DGCA for operations at such sites, the operator shall submit compliance report on all aspect contained in the CAR, for issue of NOC.
- 9.3 If required, such operations may be inspected by DGCA during the course of operation subject to the availability of resources. Facilitation for the inspection and transportation to such remote locations shall be provided by the operator.
- 9.3 The helicopter operator shall be liable for action if there are sufficient reasons to Indicate non-compliance of regulatory provisions.
- 9.4 Helicopter Cell shall be nodal agency for the purpose in DGCA.



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