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HELICOPTERS AND MICROLIGHT AIRCRAFT SITE APPROVAL REQUIREMENTS

(1) <u>HELICOPTERS</u>

Helicopters operating into heliports, may be classified into two categories:

Normal category helicopters – up to 2700 kgs MTOW or less, operated in the private, business, charter, or commercial flying other than Air carrier operations.

Transport category – helicopters, single or multi engine, of unlimited weight operated on schedule or unscheduled passenger service.

Civil Heliports are classified in accordance with their intended use as follows:

Public use heliports – open to general public, and do not require prior permission to operate.

Private use heliports – used by the owner or authorized by the owner. Includes hospital and police.

Personal use heliports - exclusive use by owner.

These heliports are grouped as follows:

- 1. Operating "On shore".
- 2. Operating on "Platforms and ships".

The requirements for "on shore" operation, are as follows:

1. Heliports must be conveniently situated with regards to ground support access, parking facilities and minimize noise disturbance.

2. Heliport design and location should be such, that crosswind and downwind operations are avoided, must ideally have two approaches of 180 degrees apart, or when a heliport is located in an urban setting, due to the high-rise buildings, schools, etc. the approaches should not be less than 90 degrees apart.

3. For single engined helicopter, there must be an emergency landing provision, along the inbound and outbound routes, including climb out and descend paths.

4. If a site is in proximity to buildings, it may be necessary to conduct suitable tests, to establish whether any adverse turbulence will exist, and if so determine possible remedial action.

5. If located within an airport, it is preferable to establish adequate separation from airplane traffic patterns to avoid creating a conflict in T.O and landing operations.

6. For final approach and take-off areas, the dimensions for a particular heliport should be decided after consideration of rotor diameters and the dimensions for the helicopter to be served. The performance characteristics of the helicopter to be served, i.e. whether landing and T.O are made

vertically or along a sloping path, and whether the approaches are cleared from obstacles. As a general guide, dimensions have been set as 120m length, and 60m width, which however will vary with OAT and site elevation.

7. The surface of the ground, should be level, with appropriate drainage, clear from loose stones, shall be of sufficient strength to accept loads likely to be imposed by the heaviest helicopter using the heliport. For taxiways, also, consideration shall be given to surface, strength, and width.

8. <u>Heliport Dimensions:</u>

Length/width of landing area	- 1.5 x overall helicopter length
Length/width of touchdown pad	- One rotor diameter
Width of peripheral area	- ¼ overall helic. L or 3m min.

9. When operating on VFR conditions, and cover areas to be protected for both the T.O climb and final approach. The following surfaces should be established at a heliport to control obstacles.

- (a) Obstacle limitation surfaces An inclined plane extending upwards at a slope of 12.5%, starting from the final approach and TO area. This will cover landing and climb out paths.
- (b) Transitional surfaces Extends upwards and outwards, parallel to final approach and T.O area at a slope of 50%.

Any extension to the above limitations, shall be regarded as obstacles and should be removed.

- 10. The following visual aids shall be needed for operation by day:
- (a) Wind direction indicator, to indicate direction and velocity of wind. The cone should be orange or white, or combination of two colours,

orange+white, or red+white, or black+white, and be visible from helicopters flying at a height of 200.

- (b) The following marking aids will be proved useful, such as heliport identification, final approach & T.O area marking, final approach and T.O area designation marking, touch down and lift off area marking, aiming point and prohibited touchdown markings touch down marking, air taxi route marking, heliport name marking, obstacle markings, and taxiway markings.
- 11. The following lighting aids are needed when operation by night:

Heliport beacon, approach lighting system approach slope indicator, final approach and T.O area lights, aiming point and prohibited touchdown lighting, touch down and lift off area perimeter lights, taxiway lighting, air taxi route lighting, and obstacle lighting.

12. Except at an unattended heliport with low movement rate, rescue and fire fighting services and equipment should be based at the heliport. The level of protection must be based on the overall length of the longest helicopter normally using the heliport.

13. There are three heliport fire fighting categories when considering the helicopter overall length, i.e. H1 upto 15m, H2 and upto 24m, and H3 upto 35m.

- (a) In the case of H1 Heliport, the principle agent to be used will be aqueous film forming foam, or fluoroprotein foam, (both of which have quicker fire suppression capabilities than protein foam) with a quantity of 500 L Water, at a discharge rate of 250 L/min, and
- (b) Complimentary agents consisting of dry chemical powder, 23 kgs, or halons 23 kgs, or CO2 45 kgs.

14. Rescue equipment must be available, at each heliport, consisting of:

Adjustable wrench, Axe, Cutters, Hooks, Hacksaw, Blanker fire resistant, ladder, lifeline, pliers, set of assorted screwdrivers, harness knife complete with sheath, gloves fire resistant and power cutting tool.

<u>Note</u>

For elevated heliports (platforms and ships), as well as for any detailed information required, please refer to the ICAO Annex 14 – Aerodromes, Volume II – Heliports.

Compliance with the above shall be confirmed by an Inspector to be appointed by the DCA.

(2) MICROLIGHT AIRCRAFT

- 1. The permission of the landowner must be obtained before the site is used and it should not be within any controlled airspace.
- 2. The site should be well clear of villages, housing estates, residential or other buildings, power lines and high trees.
- 3. There should be a minimum length into wind of 250 meters with boundary obstructions on the take-off and landing not exceeding a height of 2 meters – that of a normal hedge.
- 4. There should be enough clear ground surrounding the site to allow a safe landing to be made following engine failure at any stage in the circuit.
- 5. One or more windsocks or streamers should be used to indicate wind direction to enable take-offs and landings to be made into wind.

- 6. If the obstructions are higher than the require length of the take-off and landing run must be longer as appropriate.
- 7. There should be no obstacles (trees, pylons, etc) within 50 meters either side of the take-off or approach path.
- 8. The site should be reasonably level, smooth and well drained. If it slopes, is saucer shaped or has soft ground then the size of the operational part of the site must be larger to allow for these factors.
- 9. The position of the nearest available telephone should be known to all concerned at the site.
- 10. Access for emergency vehicles should be known and clearly marked if not obvious.
- One or more fire extinguishers should be available in the aircraft or a car or accessible in a nearby building. It is that Halon (BFC) extinguishers are provided of 1.5 kg size on the aircraft or 3 kg (or 2 x 1.5 kg) on the ground.
- 12. A first aid kit should be available on site and the minimum contents should be as follows:
 - 6 x Emergency dressing BFC 9 or equivalent
 - 6 x Emergency dressing BFC 12 or equivalent
 - 2 x Triangular bandage
 - 2 x Eye dressing
 - 1 pr Scissors
- 13. The means of obtaining up to date weather forecasts.
- 14. Proper control of public access must be exercised.

- 15. The factors that can affect performance as laid down in the criteria for a private microlight site are equally applicable to a training site especially operating in wind directions other than normal.
- 16. At the completion of the above, shall be subjected to inspection by an Inspector to be appointed by the DCA.