

SECTION 7

PARACHUTE LANDING AREAS / DROPPING ZONES

1. BASIC DEFINITIONS

1.1. Parachute Landing Area (PLA)

A PLA is a suitable area where it is intended skydivers will land.

1.2. Dropping Zone (DZ)

A DZ is a notified portion of airspace within which skydiving/parachute descents are made. The normal radius is 1.5 nautical miles and up to the altitude notified.

1.3. PLA/DZ Indicator

This is a PLA/DZ location marker, which can be a cross, an arrow or some other suitable indicator and is normally placed in the centre of the PLA but may be offset to one side as dictated by wind direction and/or other safety considerations, providing that it is clearly visible from whatever height skydivers are dropping.

1.4. Overshoot Area

This is an area largely free of Major Hazards where skydivers may land if they are unable to land on the PLA.

1.5. Minor Hazard

This is any object, either natural or artificial, which should be easily avoided but which if struck by a skydiver may result in injury (i.e. hedges, fences, ditches etc.).

1.6. Major Hazard

This is any obstacle, either natural or artificial, which because of its size may be difficult to avoid and which, if struck by a skydiver, may result in injury (i.e. large hangars, buildings, small wind turbines up to 15 metres to a blade tip at its highest point, woods etc.).

1.7. Temporary Hazard

This is a hazard on the PLA such as an aircraft landing or taking off, other aircraft with turning propellers or rotors on the ground or moving vehicles or agricultural machinery which may cause injury if struck by a skydiver and is not a permanent fixture on the PLA.

1.8. Special Hazard

This is a hazard, which could carry a special risk to skydivers and if skydivers were to come in contact with may result in serious, or fatal injury. Special Hazards include stretches of open deep water and deep rivers (see para 5- below), electricity power lines (see para 6- below), large wind turbines of a height greater than 15 metres to a blade tip at its highest point (see para 7 - below), densely built up areas, cliffs and quarries. All of them require greater attention to safety and special consideration should be given to their presence in the neighbourhood of PLAs.

1.9. Aerial Hazard

This is a hazard, which could carry special risks to skydivers and other aviators. Obstacles in excess of 90 metres AGL, such as large wind turbines or radio masts, which protrude into airspace, are classified as aerial hazards. These hazards are not permitted within the PLA and if located within the DZ, restrictions would likely be placed on the skydiving operation.

2. APPROVAL

All PTOs, including their PLA/DZs intended for regular skydiving use must initially be inspected by the STO, COO, or an STO/COO nominated IE. Some operations may require operational restrictions, which will require STC approval. Once British Skydiving Approval has been given, a Parachuting 'Permission' must be obtained from the Civil Aviation Authority (CAA), who will require the following before the 'Permission' is issued:

- 2.1. The signed permission of the landowner(s), or the landowner(s) agent(s).
- 2.2. If the proposed skydiving operation is to be based at an aerodrome, a copy of the relevant sections of the operational instructions applicable to that aerodrome (at a licensed aerodrome; the Aerodrome Manual) showing the procedures to ensure non-conflict of aircraft and skydivers in the air and on the ground, and procedures for aircraft landing, taking off, or manoeuvring within or close to the designated PLA or the DZ.
- 2.3. A copy of the PTO's SOPs. In the case of a PTO based at an aerodrome it is essential that these instructions are compatible with the instructions mentioned in 2.2. above, and at a licensed aerodrome, these procedures and the instructions of the Aerodrome Manual and the Manual of Air Traffic Services (MATS) part 2 must be in accord.
- 2.4. A copy of any agreements which have been made with other users of the site or in connection with the use of airspace.
 - 2.4.1. The above 2.1.-2.4. are to be sent to the British Skydiving HQ together with completed CAA Form SRG1313, who will then forward same to the CAA.
 - 2.4.2. Notwithstanding any review of the above items by the CAA, PTOs remain responsible for ensuring the ongoing validity of their Landowner(s) Permission, other agreements, and instructions to their operating staff, including pilots and skydivers.

3. PARACHUTE LANDING AREAS

- 3.1. PLAs to be used by all designations of skydivers should provide a large open space of reasonably level ground, which can contain a circle of 500 metres diameter free from Major Hazards, and largely free from Minor Hazards. These PLAs should be bordered on at least three sides by suitable overshoot areas.
- 3.2. PLAs which do not comply with the above, may require restrictions on operational procedure and/or may not be suitable for all designations of skydivers. These PLAs will need the approval of the Safety and Training Committee (STC) of British Skydiving. This does not apply to display PLAs (see Section 13 - Display Skydiving).
- 3.3. **High Performance Landing Area (HPLA)**

High performance landings with a final turn over 90 degrees are only to be carried out onto designated High Performance Landing Areas (HPLAs) cleared by the PTO Chief Instructor following a risk assessment, details of which should be included within the PTO SMS. Clearing these areas, the following will need to be considered and SOPs written for their control:

- 3.3.1. Size of area.
- 3.3.2. Proximity to hazards.
- 3.3.3. De-confliction with other jumpers.
- 3.3.4. Qualification and currency of jumpers using that area.

N.B.(1) The Guidelines for High Performance Landing area may be found on Form 331.

4. SPLIT PARACHUTE LANDING AREA

A split PLA is where the centre is more than 2,000 metres from the control/manifest or organisation point. In addition to normal requirements for PLAs, when Student Skydiving is taking place, split PLAs must operate under the following conditions:

- 4.1. The DZ controller must be at least a CSI with a minimum of two assistants. If more than four Student Skydivers are being dropped on any one lift, an extra assistant will be needed for each additional two Students.
- 4.2. The CI must be present whenever Student Skydivers are jumping.

5. OPEN WATER AND DEEP RIVERS

Where open water and deep rivers (excluding minor rivers and small shallow ponds) exist within 1,200 metres of the centre of PLAs, all skydivers, unless otherwise agreed by STC, must be equipped with suitable flotation aids.

6. ELECTRICITY POWER LINES

Routine skydiving will not take place on PLAs where power lines are within 800 metres of the centre of the PLA without prior approval of STC. Where a PLA is approved when power lines run within 800 meters of the PLA centre, restrictions may be imposed.

7. NATIONAL GRID AND WIND TURBINES

- 7.1. Special hazards over 15m in height (i.e. national grid pylon supported electric power lines) are not normally acceptable within 1,200m of the PLA/DZ centre without restrictions applying to, or curtailment of the skydiving activity.
- 7.2. Wind turbines are not normally accepted within the DZ (minimum 2.4 km from the centre) without severely restricting or curtailing all skydiving activities.

8. AIR PHOTOGRAPHS

All PLAs/DZs used for routine skydiving will be equipped with an aerial photograph on which Major and Special Hazards on the overshoot areas are marked.

9. RUNWAY AND OBSTACLE MARKING

- 9.1. Any obstacle that, because of its height or position, could be a hazard to an aircraft landing or taking off, and which cannot be removed, should be conspicuous and marked if necessary.
- 9.2. The boundaries of unlicensed unpaved runways used for skydiving operations should always be delineated by end markers. The runway edges should be delineated by edge markers unless the runway edges are clearly distinguishable from the bordering terrain.

N.B.(1) Guidance on markings on unpaved runways and marker dimensions is available in CAP 793 (Safe Operating Practices at Unlicensed Aerodromes), Chapter 4, paras 3.11. & 3.12.