

OT SHE 006
Climbing & Working at Height on Masts & Towers

1. Introduction

This document details the requirements that contractors, site sharers and tenants must follow when climbing and working at height on On Tower UK structures.

2. Purpose

The purpose of this document is to set out the policy and the minimum standards to be applied by employees, contractors, consultants and others carrying out work at height on structures for or on behalf of On Tower UK, or as site sharers.

3. Risk Assessment

Companies planning works on structures, must undertake a risk assessment to determine the most appropriate means for access and working at height, whilst taking account of the 'work at height hierarchy' as per Regulation 6 & 7 of the Work at Height Regulations. Contractors must record this risk assessment to assist in articulating and justifying the use of climbing techniques over the selection of other work at height equipment.

4. Training and Competency

The minimum training requirements for accessing structures is climbing, mast rescue, RF awareness and first aid. Except for the first aid course, only courses reviewed and listed on the accepted training provider list are acceptable.

5. Certification

The minimum training requirements for all climbers are climbing, mast rescue, first aid and RF awareness. Climbers must ensure these courses are maintained and refresher training is undertaken at the following intervals:

- **Climber** **1 Year**
- **Mast Rescue** **1 Year**
- **RF** **3 Years**
- **First Aid** **3 Years**

6. Non-Authorised climbers

From time to time other persons who are not authorised climbers may need to climb structures for short periods of time to undertake an activity. Examples of these could be specialist designers, climbing assessments or charity activities. Where these situations occur

then the On Tower UK SHE Team must be informed before they can climb. The following rules will then apply:

- A medical questionnaire must be completed before climbing.
- When on the structure two climbers must always directly supervise them.
- They must be adequately briefed as to any hazards and emergency procedures.
- They may only climb using the fixed access route and must not leave any protected areas such as platforms.
- Where fitted a fixed fall arrest system must be used.
- They are not permitted to climb any external steelwork or undertake any lifting or lowering operations.

7. Minimum Age

The minimum age for climbing is 18. Between the ages of 18-21 On Tower UK will require further evidence of competency.

8. Medical Assessment

All climbers must be subject to a regular medical assessment. The Mast and Tower Safety Group document 'Medical Requirements for Climbing Masts and Towers- GN005' details what should be covered in a medical.

9. Minimum Safe Standards

These must be followed for any work at height on a structure at all times:

- Climbers must be attached at all times.
- All work at height must be planned.
 - You should consider avoiding work at height it where possible and following a hierarchy of control.
 - A risk assessment must be carried out by a competent person.
 - A method statement should then be written to take account of the control measures.
- Only authorised climbers may ascend a mast or tower.
- The minimum number of climbers in a climbing team is two.
 - Climbers must not ascend any structure unless a second person, competent and equipped to climb either accompanies that person or remains in contact at the base of the structure. A climber must not climb above 75m alone.
- One climber must take the role of team leader.
- A risk assessment and method statement must be in place.
- An emergency plan must be in place

10. Fixed Fall Arrest Systems

Where a fixed fall arrest system is installed i.e. latchway (hooped ladders are not fixed fall arrest systems) it must be used if in a serviceable condition. Users must check the latchway system pre-tension before use at the correct cable pre-tension, the unit's indicator disc at the bottom anchor will spin freely. If the fluorescent red shaft is observed to extend from the energy absorber at the top bracket, the system must not be used as this indicates that it may have arrested a fall.

11. Pole Access Ladders

Pole Access ladders are used to access certain types of Cardioid antennas, permissible sizes are 140mm – 1000mm. Only authorised climbers are permitted to use pole access ladders who have received additional training on how to erect and use the ladder. The ladders will be used in accordance with the manufacturer's instructions.

12. Climbing with Employees from other companies

All climbers in a climbing team should be part of the same company. The only exception to this is when a specialist company is required to undertake a survey work (No intrusive tasks), or a Telecoms representative is undertaking a survey/snagging visit, incident investigation or quality inspection in conjunction with another organisation.

13. Dropped object protection

When work at height is taking place on structures there is a risk that objects may be dropped and that persons at ground level could be struck. Contractors, site sharers and tenants must take a two-pronged approach to mitigating this risk when working at height on all sites: -

- Prevent objects from falling
- Control access into areas where objects could fall

A Person in Charge of Works (PICW) must be established before work at height commences and this person will be responsible for ensuring that the necessary control measures are implemented. Unless otherwise agreed and documented, the Person in Charge of Works (PICW) will be the person that holds the most senior role within the climbing party.

Further information on dropped object control measures can be found in Appendix A.

14. Capstan winches

Capstan winches are used within the industry for lifting and lowering equipment from structures, capstans are a mechanical device which is powered, and they are used with a fibre rope which is fed by hand. The rope is not permanently attached to the drum of the capstan and there may be no braking mechanism (Models vary).

When using a capstan to lift an item the winch will be undertaking the effort putting little strain on the operator.

Capstans must be marked with a working load limit.

14.1 Responsibilities for the use of Capstan Winches

- Project Manager
 - Selecting and appointing a competent contractor.
 - Obtaining and reviewing RAMS provided by contractors.
- SHE Team
 - Reviewing RAMS provided by site sharers and their contractors. A Structure representative should be consulted where appropriate.
- Site Access
 - Obtaining RAMS from site sharers and their contractors and passing to the SHE team for review.
 - Only authorising a site access permit when RAMS have been approved.

Appendix A - Dropped Object Protection

A1. Preventing Objects from Falling

The following precautions must be taken to prevent objects falling from height:

- Remove tools and equipment that are not required to complete the task from bolt bags or harnesses.
- Ensure that dedicated tool tethering equipment is available before climbing and that all objects to be carried aloft (apart from nuts, bolts and washers) can be tethered.
- Tether hand-tools and other objects that will be handled aloft (e.g. radios) at all times.
- Report any equipment at height that is loose or is deteriorating to the extent that it could become unsecured from the structure.
- Only using lifting equipment that is rated for the load to be lifted and has been subject to thorough examination within the last 6 months.
- Know the weight of any object to be lifted to ensure lifting equipment working load limits will not be exceeded.
- Ensure that risk assessments and method statement include clear and concise communications plans so that lifting operations are carried out safely and works at height can be ceased if there is a breach of the drop zone or exclusion zone.

The following precautions should be considered to prevent objects falling from height:

- Use a 'back-up' or 'safety-sling' where lifting accessories supporting the load could be compromised.
- Ensure that bolt bags, tool frogs etc have 'closures' to prevent objects from falling.

A2. Size of Drop Zones

Whilst the above measures will reduce the likelihood of falling objects there is still a possibility. Therefore drop zones should be imposed around the working at height area. For work on masts and towers a high risk and medium risk drop zone should be established. The high risk drop zone is the area in which there is evidence to suggest the majority of falling objects from masts and towers land. The medium risk drop zone is the area in which objects could foreseeably land under certain conditions.

Drop zones must be sized in accordance with the table below unless a robust site-specific risk assessment has been carried out by the person in charge of works which demonstrates that the risks can be adequately controlled with smaller zones e.g. where work is taking place only at lower levels of the structure. Zones must be extended if risk assessment deems it necessary.

Size of Structure	Size of high risk drop zone	Size of mediudm risk drop zone
30m - >200m	10m	20m
20m - >30m	7.5m	15m
10m - >20m	5m	10m
0m - >10m	2.5m	5m

The above guidance assumes work at height is carried out at the maximum height on the structure. A site specific risk assessment should be carried out prior to work which may identify that the risks can be adequalty controlled with smaller dropzones for example where work is carried taking place only at lower levels of the structure .

For intermediate heights a site specific risk assesmmnt can be conducted to deterime the size of the drop zones.

A3. Controlling Access

The Person in Charge Of Works (PICW) is responsible for ensuring that a risk assessment is in place which specifically covers the establishment of Drop Zones.

It is the responsibility of the PICW to determine what is appropriate and to record the rationale and chosen controls within their risk assessment before commencing work.

For significant, planned works. Marked up drawings must be included within method statements in order that the working party can properly define the zones and communicate (through induction) the required control measures to all workers, visitors and third parties that attend site.

A4. High Risk Drop Zone

The following controls must be adhered to:

- Work within the zone shold be minimised as far as possible.
- When wokring at height is taking place access should be restricted to those people who are actively involved with the work a height activity.
- Persons entering the zone should be authorised by the person on site in charge of the work at height. (PICW)
- Welfare facilites, vehicle and delveries should not be situated witin the zone
- Hard hats should be worn at all times.

- The zone must be physically protected by fencing or pedestrian control barriers.
 - Cones or spikes with red and white warning tape are acceptable only where the authorising person has designated a 'grounds-person' to remain at ground level at all times, patrol the zone and prevent unauthorised access.
 - Where tape barriers may pose an increased risk i.e. On National Grid sites, with high winds threatening to blow tape onto the pylon or transmission lines then a heavy more secure material method is to be used.
- Signage prohibiting unauthorised access into the area should be displayed, prominently displayed prominently every 90° around the perimeter of the zone and must contain the name and contact details of the authorising person. Unless natural barriers provide the function of prohibiting access.
 - Natural barriers such as well-established hedgerows which are the requisite distance from the structure may be an acceptable form of barrier instead of installing pedestrian barriers/fences etc.
- Signage should be considered to be displayed at:
 - At any gate or entrance that leads into the respective zone.
 - On the inside of all doors that are used to exit buildings that are located within the respective zone.
 - Where any public footpath/access track intersects the perimeter of the respective zone.
- Where lifting activities (either materials or man-riding) take place, a lifting lane (High risk drop zone), commensurate with the height of the structure should be defined and persons excluded from accessing it.

A5. Medium Risk Drop Zone Controls

Members of the public should not be permitted to enter the zone (where Farmers and other members of the public have rights over adjoining land, arrangements must be made to co-ordinate work and avoid conflict).

- Where there are roads and footpaths within the zone, these must be controlled appropriately. If they need to be restricted or closed then the appropriate authority must be contacted in order to obtain closures or diversions. Where this is not possible, other controls must be implemented e.g:
 - Use of ground sentries to warn public of risks and to stop work at height where necessary
 - Netting the structure
 - Scaffold overhead protection systems
 - Carrying out lifting etc on the opposite side of the structure to the road or footpath

- Use of alternative timings
- Where the drop zone is not within a locked fenced compound and members of the public could foreseeably gain access, the authorising person must:
 - Install fencing or pedestrian barriers, or
 - Designate a 'grounds-person' to remain at ground level at all times to patrol the drop zone and prevent access.
- The drop zone must be defined by signs which include either of the triangular 'hazard' signs below warning of the overhead danger as well as the blue 'mandatory' sign below designating the drop-zone a hard-hat area. The signs must be prominently displayed around the perimeter of the drop-zone such that the detail is visible when the drop zone is approached from any direction.
- Signage should be considered to be displayed at:
 - At any gate or entrance that leads into the respective zone.
 - On the inside of all doors that are used to exit buildings that are located within the respective zone.
 - Where any public footpath/access track intersects the perimeter of the respective zone.
- Hardhats must be worn at all times

The information in this document does not absolve contractors or suppliers from their responsibility to identify and comply with all relevant legislation, regulations and legal standards nor does it take precedence over laws, regulations and external standards