Work at Height Training
MATS Group Guidance Note

Work at Height Training

1 Purpose
The purpose of this Guidance Note is to set out commonly used requirements for Work at Height training for work on broadcast and communications antennas and equipment.

2 Scope
This Guidance Note relates to training provided for mast and tower climbing, rescue from mast and towers, roof top work and radio frequency (RF) awareness. It is recognised that training should be tailored to the scope of work being undertaken, but also that some site providers may have specific minimum requirements that must be met prior to access being granted.

3 Initial Training Requirements
For each type of training common minimum requirements for the course content are set out below along with the elements that should be tested and successfully completed to pass the overall course.

4 Mast and Tower Climbing

4.1 Advanced Climber
The climber is not subject to a height restriction and can access any point on the structure including the outer faces.

Course Requirements
- Legislation
- Hazards, risks and control measures associated with working at height
- Safe systems of work – method statements, risk assessments, access permits, supervision, dual-person working
- Personal protective equipment (PPE), minimum standards, inspection, maintenance, familiarisation and use of etc
- Work methods – work positioning, climbing methods, fall arrest devices
- Emergency procedures or planning for emergencies
- Work at height policies or procedures.

Competence Requirements
- Ability to demonstrate the identification and use of climbing PPE (e.g. safety harnesses, fall arrest and work positioning lanyards, latchway trolleys etc)
- Ability to use an RF monitor and identify its alarm regime
- Ability to demonstrate safe climbing method utilising the double hooking technique during ascent and descent
- Ability to climb away confidently from the access ladder whilst remaining attached at all times
- Ability to move around the external face of a structure confidently whilst remaining attached at all times
- Confidently access the structure at all times during the training session.

4.2 Basic Climber
The climber is restricted to 60m or less and can access the ladder and protected areas such as work platforms only.
Course Requirements

- Legislation
- Hazards, risks and control measures associated with working at height
- Safe systems of work – method statements, risk assessments, access permits, supervision, dual-person working
- Personal protective equipment (PPE), minimum standards, inspection, maintenance, familiarisation and use of etc
- Work methods - points of attachment on platforms, climbing methods, fall arrest devices
- Emergency procedures or planning for emergencies
- Work at height policies or procedures.

Competence Requirements

- Ability to demonstrate the identification and use of climbing PPE (e.g. safety harnesses, fall arrest and work positioning lanyards, latchway trolleys etc)
- Ability to use an RF monitor and identify its alarm regime
- Ability to demonstrate safe climbing method utilising the double hooking technique during ascent and descent
- Confidently access the structure at all times during the training session.

5 Mast and Tower Rescue

Course Requirements

- Explanation for the need for rescue training - legislation requirement
- Rapid response, first action in an emergency
- Procedure for casualty recovery
- Rescue kit familiarisation, what does the kit contain and how is it used
- Familiarisation with common knots
- Review of common rescue techniques (ground based) - remote lower and snatch rescue
- Setting up of rescue equipment for remote lower and snatch rescue
- Demonstration and use of descent using rescue kit
- Demonstration of rescue techniques - remote lower and snatch rescue
- Practical exercise of remote lower and snatch rescue.

Competence Requirements

- Demonstrate competence in the ability to set up and descend using the rescue equipment
- Demonstrate competence in undertaking a remote lower and snatch rescue
- Demonstrate the physical ability to undertake a rescue.

6 Roof Top Access and Work

6.1 Roof Worker

The roof worker has to climb vertical access ladders of 5m or more to access the roof and is required to use fall restraint or arrest equipment whilst working on the roof.

Course Requirements

- Legislation - in particular the Work at Height Regulations
- Hazards, risks and control measures associated with working on rooftops (e.g. access and egress, falls, falling objects, biological hazards, unprotected roof edges, radio frequency (RF), 3rd parties, weather, sharps, hazardous substances etc)
Safe systems of work – method statements, risk assessments, access permits
Personal protective equipment, minimum standards, inspection, maintenance, familiarisation and use of etc
Ladder access and associated equipment e.g. safety harnesses, fall arrest devices.
Work methods – fall arrest, work restraint, distance, exclusion zones
Emergency procedures or planning for emergencies
Rooftop policies or procedures
Communications.

Competence Requirements
- Demonstrate competence in the ability to inspect and use a safety harness
- Demonstrate competence in accessing a fixed ladder utilising double hooking climbing methods
- Demonstrate competence in setting up a fall restraint system
- Identify common rooftop hazards and control measures to be employed
- Competence in selection and use of anchorage systems, fixed and portable.

6.2 Roof Access
The individual does not have to utilise climbing equipment to access the roof and is not required to use fall restraint or arrest equipment whilst working on the roof.

Course Requirements
- Legislation – in particular the Work at Height Regulations
- Hazards, risks and control measures associated with working on rooftops (e.g. access and egress, falls, falling objects, biological hazards, unprotected roof edges, radio frequency, 3rd parties, weather, sharps, hazardous substances etc)
- Safe systems of work – method statements, risk assessments, access permits
- Personal protective equipment, minimum standards, inspection, maintenance, familiarisation and use of etc
- Ladder access
- Work methods – distance, exclusion zones
- Emergency procedures or planning for emergencies
- Rooftop policies or procedures
- Communications.

Competence Requirements
- Demonstrate competence in accessing a fixed ladder
- Identify common rooftop hazards and control measures to be employed.

7 Radio Frequency (RF) Awareness

Course Requirements
- Awareness of RF and its effects, including: electromagnetic fields, electric fields, magnetic fields, alternation fields, frequency and wavelength, electromagnetic spectrum, RF and microwave bands, ionising vs non-ionising radiation, typical power outputs and sources
- Effects of RF on the human body including: biological effects, direct and indirect effects, tissue geometry and size, penetration depth vs frequency, dielectric composition, non-thermal effects
- National and international guidelines
- HPA, ICNIRP, US FCC, ANSI etc
- RF policies and procedures
- Source characteristics including antenna types
- Low and medium frequency antennas and precautions
- Near field and far field
- Measurement equipment
- Survey and personal monitors.

**Competence Requirements**
- Knowledge of how RF is generated
- The effects of RF on the body
- What to do in the event of an alarm
- Understanding safe levels of exposure
- Identification of common antenna systems and areas for exclusion.

**8 Certificates**
All attendees who have successfully completed and passed the test elements of the course should be provided with a certificate that gives as a minimum the following information:
- Full name
- Identification that ties the individual to the certificate e.g. NI number, employee number
- Title of the course
- Date course was completed
- Date certificate expires.

**9 Maintaining Competence**
It is recommended that each company sets a standard for maintaining competence, in particular for climbers, by specifying the minimum number of climbs to be undertaken per year to ensure competency levels are retained.

**10 Refresher Training**
All training should be re-taken at least every three years and meet the initial course and test requirements detailed above. Rescue training should be practised annually.

**11 Other Considerations**
Other factors that should be considered in relation to work at height training are:
- The requirements for medicals
- First aid training

**12 Related Documents**
- MATS Group Guidance Note GN-005 - Medical requirements for climbing masts & towers
- MATS Group Guidance Note GN-006 - Principles for Access to Radio Sites
- MATS Group Guidance Note GN-007 - Lifting Equipment onto Roof Tops
- MATS Group Guidance Note GN-008 - Mast and Tower Rescue - Guidance for Radio and Rigging Teams working on Radio Structures
- MATS Group Guidance Note GN-009 - First Aid Guidance
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.