



HAMLET WOOD SCOUT CAMPSITE
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CLIMBING TOWER OPERATIONS MANUAL
AUTO-BELAY

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Appendix 1 – Operational Risk Assessment



1. Introduction

Welcome to the Hamlet Wood Scout Campsite Climbing Tower.

This manual provides detailed instructions for operating the climbing tower equipped with auto-belay systems. The primary goal of the manual is to ensure the safety of all participants and staff.

Please read and follow the manual carefully.

After reading the manual and prior to your first operation, please email us to confirm that you have read, understood and agreed to the content within.

1.1 General Operation

This manual is related to the use of the auto-belay systems only. Under no circumstances does this manual relate to traditional top or bottom rope belaying nor abseiling as these are covered within The Scout Association's permit scheme.

There are two primary functions covered within this manual:

1. Operations
2. Maintenance

This manual requires that those wishing to operate the auto-belay systems must have undertaken training approved by the County Assessor team and have read, understood and agreed with the content within this manual.

People maintaining the asset must hold the relevant qualification, experience and expertise as outlined within the maintenance section of this manual.

After reading the manual and prior to your first first operation, please email us to confirm that you have read, understood and agreed to the content within.

2. Equipment

2.1 Auto-Belay System

The Auto-Belay system at Hamlet Wood Scout Campsite comprises:

- 2no. TRUBLUE Auto-Belay (AB), including retractable lanyard / webbing line
- 2no. triple lock carabiners (TLC)
- 2no. tracer ropes (TR)
- 4no. steel Maillons with associated anchors

2.2 Harnesses

- 6no. Adult Full-Body Harnesses (AFBH)
- 6no. Child Full-Body Harnesses (CFBH)

2.3 Climbing Wall

- Climbing holds

2.4 Helmets

Helmets are never to be worn on the auto-belay system and are therefore not provided by Hamlet Wood. Due to no head protection being provided, activities operating above climbers (including abseiling or access to the top of the tower) is not permitted during use of the auto-belay system.

2.5 Equipment Limitations

2.5.1 Minimum Weight

Minimum weight for equipment users is 10kg.

2.5.2 Maximum Weight

Maximum weight for equipment users is 150kg.

3. Training

3.1 Pre-requisites

- All trainees must be sufficiently able to operate in a manner that allows them to offer basic physical support to participants, including fitting harnesses.
- Trainees who are unable to personally climb must understand they shall only be allowed to operate the auto-belays where they have an adult in attendance and on standby for emergency purposes. However, trainees themselves do not necessarily need to be able to physically climb.
- All trainees must be members of The Scout Association (TSA) and all TSA training applicable to this role must be completed.

3.2 Standards

- Training shall only be carried out by the County Assessor Team or by whom they delegate to.
- Training shall cover, as a minimum, the following:
 - Contents of this manual
 - Safety
 - Harness fitting and information
 - Pre-operation checks for auto-belay system
 - Operation of auto-belay
 - Emergency scenarios
 - Physical demonstration and practice by all trainees

3.3 Accreditation

Successful trainees shall be added to a list held both by the County Climbing Assessor Team and Hamlet Wood. For the purposes of this manual, successful candidates will be referred to as 'Operators'.

Note that undertaking this training shall not allow Operators to run any climbing activities elsewhere, including auto-belays.

4. Operation

At no point are Operators, participants or unqualified persons to ascend the ladder or structure, including to reach the top. This is restricted to Scout Association Permit Holders or equivalent, and professional maintenance teams.

4.1 Weather

The auto-belay system can be operated in both wet and dry conditions. However, it must not be used where there is any chance of lightning or high winds.

If operating through rain then additional consideration should be given to ensure participants are safe and welfare is appropriately considered in accordance with Scout Association guidelines.

4.2 Pre-Activity Procedure

4.2.1 Access

- Obtain keys for the climbing kit store and climbing tower area as required.
- Take required harnesses from climbing kit store to climbing tower area and ensure store is locked.
- Once the climbing tower area is opened, an Operator or appropriate adult must be within the area at all times to supervise.
- During operation, the gate must be closed (but not locked) to limit the opportunity for access from third parties.

If there is no Operator or appropriate adult within the climbing area, please ensure all young people are out of the area and the gate is locked closed.

4.2.2 Visual Inspection

Upon entering the venue, operators must check the condition of the equipment including:

- Harnesses – specifically trying to identify any fraying of materials, changes in colour from possible chemical damage.
- Auto-belay system and lanyard / webbing line – specifically trying to identify any fraying of material, obvious breaks or poor attachment of the auto-belay system.
- Carabiners – specifically trying to identify any breaks, that the gate and locking mechanism works correctly.
- Wall, including holds – specifically trying to identify any issues with the wooden structure, missing holds, spinning holds within reach, etc.

Should Operators identify any issues with equipment they should not use that particular element, set the equipment aside if possible and notify Hamlet Wood at the earliest opportunity.



4.2.3 Function Testing

The auto-belay system should be tested prior to use. The following procedure should be adhered to:

1. Pull the tracer rope down from the top until the carabiner is knee height.
2. Slowly release the line back until the carabiner reaches the auto-belay unit.
3. Repeat steps 1-2 at least 3 times.
4. It is likely that you'll feel a change in resistance after the first pull. If you don't and there is limited resistance, then compare against the other line. If there is an obvious difference, do not use the unit and line with poor resistance and report to Hamlet Wood.
5. After the final pull, clip the carabiners into the anchors at knee level.
6. Remove tracer ropes from the carabiners and set aside, below the tower.

4.3 Activity Procedure

4.3.1 Pre-Activity Safety Briefing

Operators must lead a safety briefing for all participants, leaders, helpers and spectators covering, as a minimum, the following:

- Advise all persons of the safe zones within the climbing area:
 - Only climbers and Operators to stand on the black matted area(s).
 - All participants, leaders, helpers and spectators to stand/sit near/on the bench.
 - No persons should walk to the rear of the wall where the abseiling area is located.
 - Participants are only to approach the black matting (climbing zone) when requested to do so by an Operator.
- Gate should remain shut at all times.
- All long hair should be tied back. It is suggested that Operators bring spare hairbands or similar.
- All pockets are to be emptied and placed in baskets provided or given to leaders/helpers.
- Jewellery including, but not limited to, necklaces, hooped earrings, rings, etc. should be removed.
- Footwear must be worn and must be closed toed and free of excessive mud/dirt. Laces are not totally necessary but the footwear must be fitted in such a way that they could not fall off.

4.3.2 Harnessing

- Check harnesses for any damage prior to use.
- Ensure harnesses used are appropriate for size of person. Age is not necessarily a defining factor but, there are harnesses that should be more appropriate for young people and adults respectively.
- Lay harnesses out on the floor, ensuring all leg loops, waist loops and shoulder straps are untwisted and fully extended.
- Request participants step into the leg loops.
- Request participants pull waist loop up to their waist (usually near to belly button and above the hips).



- Operators can either choose to tighten harnesses themselves or allow participants to do so. However, the following should be considered:
 - Waist loop should be tightened first
 - Leg loops should be tightened next
 - Shoulder straps should be tightened last
 - All features should be tight, with an ability to slide one or two fingers into the side. Operators should encourage participants to check how tight harnesses are with the Operator's supervision to avoid any safeguarding concerns. However, if an Operator needs to carry out the check then they should do so within full view of another adult.

4.3.3 Activity Briefing

Brief all participants on the operation of the auto-belay:

- When climbing, avoid holding on to the webbing / lanyard.
- Only hold on to designated climbing holds.
- When descending, grip the lanyard with two hands, lean backwards and walk down the wall. Climbers must not jump down the wall.
- Climbers must not touch the carabiners at any time, and should wait for an Operator to attach them and de-attach them from the system.
- Climbers must not start climbing until the Operator has confirmed it is safe to do so.
- Lastly, brief all participants that on their first climb you will require them to practice a descent.

4.3.4 Activity

1. Only Operators and 2no. climbers should be within the 'climbing zone' (black matted area).
2. Attach carabiner to harness, checking it has locked appropriately.
3. For every first climb a participant has:
 - a. Request that they climb so their feet are no higher than the Operator's shoulders to ensure the Operator can assist with control.
 - b. Ask the participant to lean backwards with both hands on the rope. Assist the participant with their descent if required to increase their confidence.
 - c. Give appropriate feedback to ensure they are safe for a full climb. If they are clearly unsafe, consider the appropriateness of their participation.
4. Following descent practice, allow climber to proceed for a full climb.
5. Detach carabiner and clip into wall anchor or next participant.
6. Repeat steps accordingly.

4.3.5 Unharnessing

At the end of the activity:

- Request all participants remove their harnesses and loosen them fully.
- The Operator should check all harnesses for any issues.
- If harnesses are ok, place them back in the store.
- If there are any issues with harnesses or equipment, the defective item should be placed in the store on the floor to the left of the door and Hamlet Wood notified immediately.



4.4 Emergency Procedures

The nature of auto-belays limits the opportunity for incidents to arise.

To operate the auto-belay system, an adult first aider must be present. The level of first aid qualification should be in accordance with the Scout Association Rules.

In any real emergency scenario, follow the Scout Association Guidelines including calling 999 and requesting specialist assistance if absolutely necessary.

Foreseeable events and their procedure have been identified below:

4.4.1 Spinning Holds

Holds may spin which could lead to minor injury.

1. Ask climber to descend, holding on to the lanyard if they can.
2. Perform appropriate first aid if required.
3. Follow Scout Association Rules for incident escalation or reporting as required.

4.4.2 Stuck Climber

This is the most probable 'emergency' that an Operator may come across. The following should be the most appropriate approach:

1. Encourage the climber to hold on, lean back and descend safely.
2. Request a fellow climber supports the stuck climber to carry out step 1.
3. Request an adult within the group ascends and supports the stuck climber to carry out step 1.
4. If the climber will not hold on to the lanyard then ask them to climb down slowly. Although this may become necessary it should be avoided where possible given that climbing down can lead to poor support from the auto-belay which could lead to the participant feeling unsupported.

In reality, it is very unlikely that the climber will be totally stuck and it is most likely that it will be a result of fear. Thus, eventually the climber will come down when tired so do not panic where it is a fear factor.

If you are the only operator, you should not ascend the wall yourself.

At no point are Operators, participants or unqualified persons to ascend the ladder or structure, including to reach the top. This is restricted to Scout Association Permit Holders or equivalent, and professional maintenance teams.

4.4.3 Injuries

The nature of climbing activities means that injuries including those to the head or limbs can occur. In these scenarios, ensure the participant descends and then follow Scout Association guidelines for first aid and emergency response.

4.5 Post-Activity Procedure

4.5.1 Unharnessing

At the end of the activity:

- Request all participants remove their harnesses and loosen them fully.
- The Operator should check all harnesses for any issues.
- If harnesses are ok, place them back in the store.
- If there are any issues with harnesses or equipment, the defective item should be placed in the store on the floor to the left of the door and Hamlet Wood notified immediately.

4.5.2 Auto-Belays

The auto-belay system should be assembled back to the position it was in prior to use. The following procedure should be adhered to:

If wet:

1. Pull down the webbing/lanyard and attach carabiner to knee-height anchor.
2. Tie tracer rope onto carabiner.
3. Leave in situ.
4. Report to Hamlet Wood that it was a wet event and that the system is drying.

If dry:

1. Pull down the webbing/lanyard and attach carabiner to knee-height anchor.
2. Tie tracer rope onto carabiner.
3. Un-attach carabiner from knee-height anchor.
4. Slowly release lanyard back into the auto-belay system, holding onto the tracer rope at all times.
5. Leave tracer rope in situ once lanyard is fully within auto-belay system.

4.5.3 Visual Inspection

Prior leaving the venue, operators must check the condition of the equipment including:

- Harnesses – specifically trying to identify any fraying of materials, changes in colour from possible chemical damage.
- Auto-belay system and lanyard / webbing line – specifically trying to identify any fraying of material, obvious breaks or poor attachment of the auto-belay system.
- Carabiners – specifically trying to identify any breaks, that the gate and locking mechanism works correctly.
- Wall, including holds – specifically trying to identify any issues with the wooden structure, missing holds, spinning holds within reach, etc.

Should Operators identify any issues with equipment, set the equipment aside if possible and notify Hamlet Wood at the earliest opportunity.

4.5.4 Egress

- Shut and lock gate, turning off any lighting that may be on.



- Return harnesses to store, ensuring they are hung up unless damaged.
- Ensure store is shut and locked.
- Return keys as required.

If there is no Operator or appropriate adult within the climbing area, please ensure all young people are out of the area and the gate is locked closed.

5. Maintenance

It is likely that the auto-belay system will be maintained by professional third parties and by Hamlet Wood. This manual is limited to the maintenance of the auto-belay system and associated equipment. Any maintenance of the tower structure, including wooden wall sections, should be in accordance with the appropriate standards.

5.1 Professional Maintenance

Any maintenance company instructed by Hamlet Wood to carry out maintenance to the tower, including the auto-belay systems, must be appropriately qualified and insured. Should guidance be required on this matter, the Scout Association should be consulted.

5.2 Hamlet Wood Maintenance

5.2.1 Limitations

This manual is limited to the maintenance of the auto-belay system and associated equipment. Any maintenance of the tower structure, including wooden wall sections, should be in accordance with the appropriate standards.

Only third-party professional teams can maintain the auto-belay system itself. This section only clarifies how Hamlet Wood can access the top of the tower safely and attach/de-attach and lift/lower the auto-belay system.

The authors, checkers or approvers of this manual cannot accept liability for this process given that it should be led by appropriately qualified people and the risks assessed on each and every occasion. However, the guidelines below should be considered minimum requirements.

5.2.2 Appropriate Persons

- Scout Association climbing permit holder (who do not have associated restrictions) or equivalent Access
- Permit holders may seek assistance from an appropriate adult member of the Scout Association if the In-situ and appropriately installed and rated cable traveller with ascent and protection system is in place. The permit holder will be responsible for ensuring any persons assisting are fitted appropriately with PPE and shall be responsible for their safety.

A permit holder must have prepared a risk assessment, be present, taking lead, and working within the limits of their training and associated permit.

5.2.3 Access

Access to the top of the tower should first be made by a Scout Association climbing permit holder (who do not have associated restrictions) or equivalent.



Access to the top of the tower should be via the in-situ ladder only. Permit holders should make themselves safe by attaching to the ladder via:

- Cow's Tail or equivalent approved.
- In-situ and appropriately installed and rated cable traveller with ascent and protection system.
- A top-rope belay system can be temporarily installed on the climbing side for access for an assistant to ascend.

Permit holders should make themselves safe at the top of the tower by attaching themselves to one of the central crossbars through a methodology approved through the Scout Association permit scheme or equivalent.

Permit holders may seek assistance from an appropriate adult member of the Scout Association if the In-situ and appropriately installed and rated cable traveller with ascent and protection system or temporary top-rope belay is in place. Non-permit holders are not permitted to ascend via any other means.

5.2.4 Lifting and Lowering Auto-Belay System

Ideally, the lifting and lowering of the Auto-Belay system will be carried out by a professional team. However, where there is a necessity, these guidelines should be adhered to.

- A Scout Association Climbing Permit Holder should rig a lifting system at the top of the tower with a pulley and safety measure such as Italian hitch or belay. All equipment should be appropriately rated.
- It is suggested that this should be rigged on the abseil side to avoid any snagging with climbing holds.
- The auto-belay should be attached to the lifting system through a locking carabiner which is appropriately rated.
- No persons should be below the abseil wall or within the vicinity.
- The auto-belay can be lifted and lowered accordingly.
- When attaching the auto-belay to the wall, the in-situ maillons must be used.
- Any equipment used at height must be secured to avoid any falling objects.

5.2.5 Risk Assessment

A risk assessment must be prepared by the relevant Scout Association Permit Holder or equivalent for each and every occasion. No generic risk assessment has been provided with this manual as the process shall be the responsibility of the Permit Holder.

Appendix 1 – Operational Risk Assessment

Risk Assessment – Hamlet Wood – Auto-Belay Operations

Name of activity, event, and location	General Auto-Belay Operations Hamlet Wood Campsite	Date of risk assessment	01/05/2025	Name of person doing this risk assessment	Jack Moss (CWI, CWIA, RCI)
		Date of next review	01/05/2026		
				Reviewer	Stuart Knowles (RCI)

What could go wrong? What hazard have you identified? What are the risks from it?	Who is at risk?	What are you going to do about it? How are the risks already controlled? What extra controls are needed? How will they be communicated to young people and adults and remain inclusive to all needs?	Review & revise What has changed that needs to be thought about and controlled?
Inappropriate use of climbing equipment.	Operators & Participants	Appropriate training is to be provided and a list of successful trainees held by Hamlet Wood at all times. Only those trained (herein called Operators) should be operating the auto-belay systems, unless an appropriate climbing permit operating through the Scout Association Permit Scheme is held, or National Governing Body award (CWI, RCI, or higher) with appropriate insurance. All operatives are to refer to the operations manual that defines the correct use, process and equipment limitations.	
Strangulation	Participants	Strangulation could occur through items worn by participants catching on climbing holds or similar. All items of clothing or jewellery that could result in strangulation including, but not exclusively, necklaces, Scout 'neckers/scarves' should be removed. Any hoodie ties/strings should be untied. Helmets must not be worn under any circumstances. Should prospective participants be deemed unsafe to climb without a helmet, they must not participate as the risk of strangulation outweighs the benefits.	
Falls from Height	Participants	All participants are to be harnessed in accordance with the operations manual. No participants are to climb the wall without being connected to the auto-belay system.	
Impact from falling items	Operators, Leaders, participants, observers	Participant pockets are to be free from all belongings and should be removed prior to fitting harnesses. All footwear is to be fitted correctly and must have laces, Velcro or similar for secure fitting. Loose footwear such as sandals, crocs, etc is not permitted. All persons other than two people climbing and operators are to remain out of the matted area during operation.	
Slips, trips & falls	Operators, Leaders, participants, observers	Suitable secure footwear with closed toes to be worn by all participants. Instruction and supervision to not run. No spare equipment or property left on the floor – stored in designated areas. Routes around the activity identified and instructed to participants.	
Stuck Climber	Operators, Participants	There is limited risk of a climbing becoming physically stuck, it is more likely psychological. Thus, the climber will very likely come down due to fatigue. However, all climbers should be shown how to descend and given the opportunity to have a dummy descent as defined within the operations manual to limit the opportunity for become stuck due to psychological reasons. In the unlikely event that a climber becomes stuck, Operators should encourage them to lean back and hold on to the auto-belay line. If they are unable to achieve this, consider utilising a peer to encourage them at height. If this does not help, consider utilising another operator to climb up and support or, lastly, a leader. Operators must not leave the ground if they are the only Operator.	

You can find more information in the Safety checklist for leaders and at scouts.org.uk/safety

Risk Assessment – Hamlet Wood – Auto-Belay Operations

Slips / Impact during a climb / descent	Participants	Participants should be briefed on keeping their distance from the sides of the tower and follow the prescribed climbing routes to limit the opportunity of swinging and colliding with the structure. In addition, all participants should be shown how to descend and given the opportunity to have a dummy descent as defined within the operations manual to limit the opportunity, stressing the importance of ‘walking down the wall’ rather than bouncing; limiting the opportunity for swinging and colliding with the structure.	
Weather: Adverse weather – rain, sun, wind, thunder and lightning	Operators, Leaders, participants, observers	Monitoring of weather forecast reports before activity. Activity to not run if adverse weather impacts on safety. Participants to prepare for the weather conditions with instruction to apply sunscreen and bring a raincoat. Under no circumstances is the activity to proceed if there is any risk of lightning or high winds.	
Young People: Horseplay	Participants	Correct ratio of leaders to provide adequate supervision of young people at all stages of the activity. Expectations of behaviour to be set in briefing and activity to stop if not met.	
Climbing equipment: Failure of equipment Entrapment in equipment	Operators & participants	History of all equipment e.g., harness, auto-belay systems to be known and appropriately recorded. Visual inspection of equipment before use by trained operators. Operators to be familiar with operation of all equipment. Double checking of harness before being connected into the system. Long hair to tied back. Loose items of clothing e.g., scarves, removed or tucked in. Sharp objects to be stowed in bags, back in preparation area. Auto-belay system to be maintained in accordance with manufacturer’s recommendations. Climbing wall to be maintained in accordance with relevant standards.	
Welfare: WC First Aid	Operators, Leaders, participants, observers	First aid kit to be available at activity, carried by leaders. At least one leader present must hold a suitable first aid qualification. Toilet arrangements to be communicated to the group before activity	
Infectious diseases such as COVID-19	Leaders, Young Leaders, Scouts, Public	Everyone instructed to wash hands before and after activity, suitable antibacterial gel and wipes to be used as required. Anyone displaying symptoms of an infectious disease should not attend the activity If anyone reports contracting an infectious disease after the activity in the following three weeks all participants to be informed so they can be tested as required by national health England	

Don't forget, as part of your programme planning, you should have contingency activities in reserve just in case you can't do what was planned or you need to stop halfway through. Make sure this is shared with those involved, so everyone knows how to respond. You should have risk assessed contingency activities prior to them taking place and communicated key information to those involved as with all activities.

Any defects with equipment, accidents or near misses must be report to Hamlet Wood immediately following any actions required by the current rules of the Scout Association.

You can find more information in the Safety checklist for leaders and at scouts.org.uk/safety

Risk Assessment – Hamlet Wood – Auto-Belay Operations

The following are left blank to enable dynamic risk assessments prior to and during activities.
