



Cambridge University Bowmen Master Risk Assessment 2022-23

ACTIVITY AND EQUIPMENT

The club participates in target archery.

This occurs indoors at distances up to 25m (usually 18m/20yds) at the University of Cambridge Sports Centre four times a week during the indoor season (September to March).

Shooting also occurs outdoors at distances up to 100yds on the Churchill College Playing Fields during the outdoor season (March to September). This usually occurs three to four times per week, but it may occur daily at the discretion of the club committee.

Some club members may additionally attend tournaments approximately once per fortnight, which may be hosted at one of the venues listed above or at an external location.

The equipment used is predominantly modern recurve bows and aluminium/carbon arrows, shooting at straw or foam targets. A minority may use compound bows or traditional-style bows (such as longbows). Archers also make use of a number of accessories, such as quivers, tabs, arm-guards/bracers, finger slings, and chest guards.

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Category of Risk/Hazard	Specific Risks/Hazards Assessed
Risks/hazards applicable to all sites	<ol style="list-style-type: none">1. Equipment failure2. Bowstring3. Bow assembly4. Boss/stand5. Short arrows6. Heavy bows7. Collection of arrows8. Shooting control

	<ul style="list-style-type: none"> 9. Range layout 10. Arrows shot outside safety area 11. People/animals straying into safety area 12. Travel to external competitions 13. Social activities 14. Infectious disease
Risks/hazards uniquely applicable to University Sports Centre Sports Hall site	<ul style="list-style-type: none"> 1. Non-members entering the safety area (site-specific) 2. Access to storage locations
Risks/hazards uniquely applicable to Churchill College Playing Fields	<ul style="list-style-type: none"> 1. Weather 2. Members of public gaining access to the site during play 3. Injury to members due to uneven ground 4. Personal injury due to arrows in ground

Risk/Hazard	Nature of Risk/Hazard	Persons at Risk	Control Measures	Assessment of Risk	
<i>All locations</i>					
1	Equipment failure	String may snap, bow limbs or riser may fail while shooting. Arrows may break on release.	Archer, those in the immediate vicinity.	<p>Regularly (monthly) inspect strings and bows for wear. Replace equipment deemed to be unsafe.</p> <p>Regularly (weekly) check arrows for loose or damaged nocks, loose points. Replace damaged or loose components. Check carbon arrows for splintering, discard if deemed unsafe.</p> <p>Instruct new archers against “dry firing” bows, as this can lead to early limb failure. Do not use Fastflight strings or carbon arrows on wooden bows, as these can overstress the riser.</p>	<p>Before measures: Severity - 2 Likelihood - 2 Total - 4</p> <p>After measures: Severity - 2 Likelihood - 1 Total - 2</p>
2	Bowstring	Bowstring may become caught on loose hair or clothing or hit the arm on release. Shooting without suitable finger protection (e.g. tab, glove) can cause injury to the fingers. Drawing a compound bowstring without	Archer.	<p>Ensure that archers tie back long hair and remove jewellery or loose outer garments, which could become caught.</p> <p>Require archers to wear arm protection to minimise possible injury and instruct in proper release technique.</p> <p>Require non-compound archers to shoot with a tab/glove at all times. Require compound archers to use a release aid.</p>	<p>Before measures: Severity - 2 Likelihood - 3 Total - 6</p> <p>After measures: Severity - 1 Likelihood - 1 Total - 1</p>

		a release aid can cause the string to derail from the cams, leading to equipment damage and the potential for severe injury.			
3	Bow assembly	Bow is assembled or disassembled incorrectly, and may come apart while in use (consequences as per failure of bow limb or riser).	Archer.	<p>Instruct archers in correct assembly of equipment, including limb assembly and stringing/de-stringing.</p> <p>Annually inspect limb bolts and nuts for signs of excess wear, replacing where necessary.</p> <p>Check novices' bow setups before allowing them to shoot.</p>	<p>Before measures: Severity - 2 Likelihood - 2 Total - 4</p> <p>After measures: Severity - 2 Likelihood - 1 Total - 2</p>
4	Boss/stand	<p>Target boss and/or stand mishandled, possibly resulting in boss falling on archer and causing injury.</p> <p>Target boss/stand not secured, possibly resulting in injury to archer and/or</p>	Those in the immediate vicinity of the boss/stand.	<p>Instruct archers in the correct handling of bosses/stands.</p> <p>Instruct archers not to lift bosses alone, and advise as to correct technique for mounting boss to stand. At Churchill College, make use of a trolley to transport bosses long distances. See Manual Handling risk assessment.</p> <p>Instruct archers in method for securing bosses to stand/ground.</p>	<p>Before measures: Severity - 1 Likelihood - 2 Total - 2</p> <p>After measures: Severity - 1 Likelihood - 1 Total - 1</p>

		<p>damage to arrows.</p> <p>Potential for injury when lifting and carrying bosses due to improper lifting technique, obstructions while carrying, or splintering of wooden stands.</p>		<p>Do not allow shooting to commence until all targets are appropriately secured and cease shooting if targets become insecure.</p>	
5	Short arrows	<p>Arrows too short for the archer may be drawn off the arrow rest and loosed into the back of the riser or the bow hand.</p>	Archer.	<p>Check arrow length for all new archers using prescribed technique, issuing only arrows of required minimum length.</p> <p>Do not allow archers to shoot if arrows of the required minimum length are unavailable.</p>	<p>Before measures: Severity - 3 Likelihood - 2 Total - 6</p> <p>After measures: Severity - 3 Likelihood - 1 Total - 3</p>
6	Heavy bows	<p>Use of an inappropriate draw-weight bow may result in muscular or other soft tissue injury.</p>	Archer.	<p>Instruct beginners using lightweight bows, ensure they employ correct draw technique before graduating to heavier bows.</p> <p>Ensure archers who purchase their own equipment receive appropriate advice.</p>	<p>Before measures: Severity - 2 Likelihood - 3 Total - 6</p> <p>After measures: Severity - 2 Likelihood - 1 Total - 2</p>

7	Collection of arrows	<p>Arrows which land in/on the ground may cause injury if walked/run into.</p> <p>Arrows in target represent various hazards, in approaching the target, or when being removed from the boss.</p> <p>Carbon arrows tend to splinter when broken, and the resulting pieces are known to be highly sharp.</p>	All those in the immediate vicinity.	<p>Instruct archers in these hazards and of the importance of approaching the target with caution.</p> <p>Instruct new archers in correct technique for drawing arrows from boss, including the importance of standing away from boss when others are pulling arrows. Do not allow anyone to run on the range, or to wear open-toed shoes/sandals. Ensure all lost arrows are reported and that every effort has been made to locate them. Do not allow anyone to shoot 'pure carbon' arrows outdoors, as these can be very hard to locate. Aluminium-carbon composite arrows are acceptable.</p> <p>Carbon arrows may only be pulled with an arrow puller tool. Broken carbon arrows should be removed from the range with great care, and all efforts should be made to collect missing pieces.</p>	<p>Before measures: Severity - 2 Likelihood - 2 Total - 4</p> <p>After measures: Severity - 2 Likelihood - 1 Total - 2</p>
8	Shooting control	Inadequate control of shooting may result in personal injury to an archer or spectator.	All those in the immediate vicinity.	<p>Shooting must always be under the control of an experienced archer acting as the Range Captain, or a qualified Judge.</p> <p>All archers must understand that this person is in charge of the shoot and must obey their commands.</p> <p>New archers are instructed as to the role of the Range Captain/Judge, and the commands they are likely to give.</p>	<p>Before measures: Severity - 3 Likelihood - 2 Total - 6</p> <p>After measures: Severity - 3 Likelihood - 1 Total - 3</p>

9	Range layout	Incorrect range layout may result in personal injury to spectators or archers.	All those in the immediate vicinity.	<p>The range must be secure and laid out in accordance with the Archery GB Rules of Shooting. Shooting must not begin until this is the case.</p> <p>Spectators and participants are advised where they may and may not stand whilst shooting is in progress.</p>	<p>Before measures: Severity - 3 Likelihood - 2 Total - 6</p> <p>After measures: Severity - 3 Likelihood - 1 Total - 3</p>
10	Arrows shot outside safety area	Arrows inadvertently shot outside of the safety area may result in personal injury to spectators or archers.	All those in the immediate vicinity.	<p>Archers must be made familiar with and adhere to Archery GB Rules of Shooting. Any archer deemed by the Field Captain or Judge not to be doing so should be asked to stop shooting and leave the field.</p> <p>In particular archers must not be allowed to use any form of “over-arm draw” and should ensure that the bow is not pointed at too extreme an angle.</p>	<p>Before measures: Severity - 3 Likelihood - 2 Total - 6</p> <p>After measures: Severity - 3 Likelihood - 1 Total - 3</p>
11	People or animals straying into safety area	A person or animal straying into the safety area may receive personal injury from arrows or other equipment projected towards the target.	Those in the safety area.	<p>Ensure that the range is laid out in accordance with the Archery GB Rules of Shooting and that the safety area is observable at all times during shooting.</p> <p>Ensure that access past the shooting line to indoor ranges is secured before shooting commences.</p> <p>The Field Captain and all archers must remain vigilant and suspend shooting immediately if the safety area is violated.</p>	<p>Before measures: Severity - 3 Likelihood - 2 Total - 6</p> <p>After measures: Severity - 3 Likelihood - 1 Total - 3</p>

				<p>People must not be able to enter the shooting area without passing a suitable barrier warning that beyond which a danger exists.</p> <p>All grounds are deemed accessible to the public even if this involves trespass.</p> <p>Ensure that spectators and those waiting to shoot remain behind the waiting line.</p> <p>Ensure all participants are familiar with the commands to start and stop shooting. Do not allow anyone to cross the shooting line except when instructed to do so by the Field Captain/Judge.</p>	
12	Travel to external competitions	<p>Club members are at risk of serious injury due to traffic accidents, caused by reckless or inattentive driving by members of the club or by other members of the public.</p> <p>Accidents may also be caused by driving in adverse weather conditions, or by</p>	Drivers and all passengers.	<p>Anybody driving club members to external competitions must possess a valid drivers license and appropriate insurance, and must not drive if under the influence of alcohol or drugs. Drivers should avoid distractions while driving, such as loud music or the use of mobile devices. If a driver feels tired, they must stop at the nearest rest station.</p> <p>Drivers deemed to be dangerous should be reported to the captain and prevented from driving again. Drivers who are not confident in their abilities are not to be pressured into driving for the club.</p> <p>See the club's Code of Conduct for further details.</p>	<p>Before measures: Severity - 3 Likelihood - 2 Total - 6</p> <p>After measures: Severity - 3 Likelihood - 1 Total - 3</p>

		improper vehicle maintenance.			
13	Social activities	Social events may include shared meals with the club or visits to local pubs. These carry the usual risks associated with the consumption of alcohol and club members may risk exposure to allergenic foods.	All attendants at club social events.	<p>Restaurant or college staff should be made aware of any severe allergies.</p> <p>No club members are to be pressured to do something against their will. Excessive drinking should not be encouraged, and medical attention should be sought out immediately if any club members show signs of alcohol poisoning. The use of illegal drugs is forbidden at all social events.</p>	<p>Before measures: Severity - 2 Likelihood - 2 Total - 4</p> <p>After measures: Severity - 1 Likelihood - 1 Total - 1</p>
14	Infectious disease	Illness may spread between members. Of particular concern is covid-19.	All attendants at club events.	<p>All sessions have a sign-up system, to allow for track and trace to be implemented if necessary.</p> <p>Club members are encouraged not to attend events if they are unwell/likely to be contagious.</p>	<p>Before measures: Severity - 1 Likelihood - 2 Total - 2</p> <p>After measures: Severity - 1 Likelihood - 1 Total - 1</p>
Risk/Hazard		Nature of Risk/Hazard	Persons at Risk	Control Measures	Assessment of Risk

1	Non-members entering the safety area: site-specific	<p>There are two doors that allow physical access to the safety area: one midway down the right hand side of the range (leading from a training room), and one behind the target line on the left hand side of the range (leading from the other side of the hall).</p> <p>Individuals accessing the safety area through these doors may be injured by arrows or other equipment.</p>	Non-members accessing the safety area through these doors.	<p>Doors should be locked where possible. Where this is not possible, signage should be placed on the outside of the door to warn individuals that archery is in progress.</p> <p>The club may inform other users of the hall that it is not safe to enter the range, particularly the safety area, during the club's sessions.</p> <p>All club members must be aware of the need to call a halt to shooting (FAST) if a person is inside the safety area. Archers, and particularly the range captain, should be aware of these specific access locations and remain attentive throughout in case there is a need to cease shooting.</p>	<p>Before measures: Severity - 3 Likelihood - 2 Total - 6</p> <p>After measures: Severity - 3 Likelihood - 1 Total - 3</p>
2	Access to storage location	<p>Personal injury may occur when accessing the onsite storage location.</p> <p>Equipment may fall or slip if</p>	Individuals accessing the storage location.	Individuals accessing storage should be familiar with the site and/or supervised by someone familiar with the site, both when removing and replacing equipment. Care should be taken at all times to ensure that equipment is stored such that it will not fall.	<p>Before measures: Severity - 2 Likelihood - 2 Total - 4</p> <p>After measures: Severity - 1</p>

		stored incorrectly; this includes equipment belonging to other clubs who share the storage location. Additionally, some items of equipment - particularly target bosses - do not fit easily through the doorway, and may harm those carrying them if not done correctly.		<p>No individuals should attempt to remove equipment on their own, particularly heavy equipment such as target bosses. Those accessing the cupboard should also be aware of other equipment stored near the club's own, and be attentive in case it is not safely secured.</p> <p>When exiting the storage area with heavy or large equipment, members should be aware that some equipment - in particular, target bosses - may need to be manipulated or carried carefully in order to fit safely through the doorway.</p>	<p>Likelihood - 1 Total - 1</p>
Risk/Hazard	Nature of Risk/Hazard	Persons at Risk	Control Measures	Assessment of Risk	
Churchill College Playing Fields					
1	Weather	Competitors/officials/spectators are at risk from elements when shooting outdoors; fog may reduce visibility of the	All those in the immediate vicinity.	<p>Shooting must be suspended if the safety overshoot distance is not visible. Shooting must be suspended at the first sign of a thunderstorm in the immediate vicinity and not resumed until the danger is past. Archers must be prepared for extreme weather conditions, and medical attention must be sought out if</p> <p>Before measures: Severity - 3 Likelihood - 1 Total - 3</p> <p>After measures: Severity - 1 Likelihood - 1</p>	

		<p>safety area, or an archer or their equipment may be struck by lightning and electrocuted. Archers are at risk of hyper/hypothermia in extreme weather conditions.</p>		<p>there are signs that a club member is suffering from heat stroke or a similar ailment.</p>	<p>Total - 1</p>
2	<p>Members of public gaining access to the site during play</p>	<p>Due to the open-access nature of the site, it is possible for individuals to gain entry, where they are in danger of receiving personal injury from arrows or other equipment if they cross into the shooting area.</p> <p>This may include via the site's main entrance, or via the nearby public footpath.</p>	<p>Personal injury to individuals, which may range from mild to severe.</p>	<p>The range should be set up in accordance with Archery GB rules of shooting, including overshoot, signage, and barriers demarcating the shooting area. Barriers and signage must be visible at all times.</p> <p>It should be impossible for individuals to enter the shooting area without passing a physical barrier with signage warning them that access is restricted for safety reasons.</p> <p>The range captain and all archers must remain vigilant and suspend shooting immediately if any individuals cross into the shooting area, by calling "fast" or "stop". All participants must be familiar with these commands before shooting.</p> <p>The range captain should be strategically positioned on site to notice members of the public arriving through the open-access site entrance.</p>	<p>Before measures: Severity - 3 Likelihood - 3 Total - 9</p> <p>After measures: Severity - 2 Likelihood - 2 Total - 4</p>

		All grounds are deemed accessible, including through trespass.		Signage will be specifically deployed near the open-access site entrance. All archers will be briefed on the site layout before shooting at the range.	
3	Uneven ground	Due to use of the field by other sports teams, there may be uneven ground on site.	Personal injury following a fall or trip after standing on uneven ground.	Members should proceed with caution when moving across the grounds (such as when moving towards targets to collect arrows). All participants should be briefed before shooting at the site, so that they are aware of other activities taking place on the grounds and how this may affect the surface of the range. When setting up the range, designated committee members should make note of any areas of significant damage, to provide participants with ongoing information about the state of the site for that session.	Before measures: Severity - 2 Likelihood - 2 Total - 4 After measures: Severity - 2 Likelihood - 1 Total - 2
4	Arrows in ground	Arrows left in the ground may be a trip hazard and cause personal injury to individuals traversing the grass.	Personal injury to individuals, which may range from mild to moderate.	Archers are responsible for their equipment and should ensure that after each end, all arrows shot have been collected. Shooting will not continue unless all arrows are accounted for, or substantial loss of shooting time occurs. A metal detector will be on-site for use to locate all "lost" arrows. Only carbon arrows with an aluminium core or fully metal arrows may be shot to facilitate location with metal detectors. Archers are encouraged to shoot at distances at	Before measures: Severity - 2 Likelihood - 2 Total - 4 After measures: Severity - 2 Likelihood - 1 Total - 2

			<p>which they are confident they will not miss, and those archers who have not shot outdoors before and are using club-loaned equipment will be required to shoot at no further than 30m. If an archer repeatedly misses, the range captain will ask them to retire for the session, and to shoot at a shorter distance in future.</p> <p>In the case that an arrow has not been located by the end of the session, archers will be responsible for remaining on site and attempting to locate the arrow for as long as feasible. If the arrow can still not be located, the property owner will be notified of the incident, including the approximate location of the arrow. Should the archer realise a counting mistake was made and there is no lost arrow, the property owner will be notified. Searching will resume after the subsequent shooting session.</p>	
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COMPLETION AND APPROVAL

	Name	Signature	Date
Safety Officer	Vicki Hodgson		27/09/2022
Club Captain			
Senior Treasurer			