

Archery

Area: Dry Activities **Category:** Operations

Introduction

Archery is the practice or skill of using a bow to shoot arrows. It can be considered both a competitive sport and recreational activity. There are four main types of archery practiced in the UK; target, field, clout and flight. This guidance note aims to provide some key points and information provided by GB Archery to assist operators in awareness and implementing best practice associated with archery.

How to use the guidance notes

Operators have a legal requirement to manage health and safety. Employers must protect the 'health, safety and welfare' at work of all their employees, as well as others on their premises. This guide has been produced to help operators do this.

This guidance can be used when developing risk assessments, policies, procedures (including normal and emergency operating procedures) and identifying training requirements. The guidance provided is not intended to be exhaustive and will be reviewed and added to from time to time by CIMSPA. CIMSPA and their contributors provide no warranty as to its accuracy or completeness.

This guidance should be considered in conjunction with other guidance provided for the relevant area.

Should you wish to seek further understanding or justifications for the information covered additional associated resources are listed at the bottom of this guidance note.



RD Docs for Guidance

This guidance note covers:

- Hazards and Risks
- Safe Set Up - Shooting range layouts
 - Outdoor
 - Indoor
 - Backstop netting
 - Storage
 - Shooting range layouts for different forms of archery
- Operating Standards
 - Shooting rules
 - Crossbow safety
 - Archery club accreditation
- Maintenance, checks and inspections
- Supervision and training
 - Supervision
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Hazards and Risks

Archery is an inherently dangerous sport. There are many hazards and risks. Hazards include projectiles flying through the air, removing arrows, slips, trips and falls, arrows on the range and the bow string causing injury.

As with all activities, a suitable and sufficient risk assessment should be undertaken before archery sessions take place. Archery GB provide support documents on completing risk assessments.

Considerations as part of this risk assessment process should include:

- Number and age of participants
- Area layout and isolation of shooting area, including consideration of adjacent activities, other persons etc.
- Lighting
- Equipment suitability for age and standard of participant
- Coaching qualifications
- Implementation of safe shooting rules.

Safe Set Up - Shooting range layouts

On a target archery range, one or more targets are erected. Their location determines the place archers stand to shoot their arrows. The area between the archer and the target is called the shooting range. To enable shooting to commence, the range must be free of people, animals and obstacles. Ideally a shooting range will be set up so that more than one archer can shoot close alongside each other at the same time. When designing or setting up an archery shooting range, GB Archery recommend the following principles should be adopted:

- A visible straight line on the ground. This forms a shooting line which archers must shoot their arrows either on or behind. **No-one should be allowed to stand ahead of the shooting line. In target archery there must only be one shooting line for all archers, even if they are not shooting the same distances. Targets may be placed at different distances from the shooting line for different target lanes.**

- Before the shooting line, Archery GB guidelines stipulate three zones before the shooting line; they allow for equipment, waiting and shooting. Ideally each of the areas should be 5m in depth, although for many clubs this is impractical given other space considerations.
- Archers must shoot at the target directly opposite their shooting position, in one direction only.
- There should be a definite timeslot for shooting and a definite time slot for archers to go to the targets, score and collect arrows. This pattern should be repeated throughout the session. To create and ensure these timeslots for shooting are clear, sound signals such as whistles or an electronic timing system may be used. There should be one sound signal to go to the shooting line and to start shooting and two sound signals to stop shooting and to collect the arrows.

Outdoor

Outdoor archery operating standards contribute to the creation of a safe environment. They include minimum spatial standards, site orientation, backstop, overshoot area, grass length, public access, changing facilities and secure storage - all described in Archery GB and World Archery guidelines.

The minimum outdoor archery standards recommended by Archery GB are:

- A grass sports field at least 113.75m long and 37.62m wide, where a back stop net is not used. Where a back stop net is used, at least 40m and 20m wide.
- Grass that is flat, not sloped, short, well-kept and well-drained. The grass should be no longer than 5cm high.
- A field that does not allow access to the general public except at specific and defined points. Access must not be allowed other than at specific defined points. Normally, sites with a public right of way should be avoided.
- Overshoot areas - The overshoot plus target area must be a minimum of 100.1m (110yds) with a target distance of up to 54.5m (60yds). For shooting distances of greater than 54.5m (60yds) the overshoot area should be an additional 50m (55.3yds) beyond the target line.
- Orientation - The range should ideally face due North, with a +/- 200 variance. In practical terms the orientation may be determined by the size and shape of the ground, the access point, buildings and the like. This may preclude shooting at certain times of day depending on lighting conditions. If possible, the field orientation should prevent the archers from shooting with the sun in their eyes.
- The spacing between the targets should be 8ft or more, allowing space for 2 archers to shoot comfortably side by side.
- The exclusion areas each side of the range must be kept clear from all obstacles which could obscure any potential danger.
- Suitable barriers and signage shall be placed around the course, wherever necessary, to keep spectators at a safe distance. Only those persons having obtained permission shall be allowed on the course inside the barriers.
- A fully accessible changing room, or club house which has toilets. This should be heated.
- A notice board or sign post where the archery club can advertise their activities. Site details may affect insurance premiums as their primary concern is to meet safety regulations.
- Extended length shooting mechanical release aids can enable archers to shoot longer distances and require the length of the range to be increased by a further 36.50m
- High level competition - specific guidance about the facilities and related accommodation needed for high level competition is available from Archery GB and/or World Archery etc. (see AGB's Rules of Shooting).

Indoor

An archery club can use a gymnasium or any similar convenient hall for their practice. The usual advantage of an indoor venue is the comfort of the archers during the winter, although once established, the area can be used any time.

In keeping with the competition distance as stipulated by Archery GB and World Archery, 18m is the appropriate length for a range. Shooting distances are not, however, fixed and the broad view among archers is that 'further is better' – ideally to 25m or more.

Despite these ideals many clubs shoot at distances that fall below 18m and will do so if it guarantees indoor shooting time.

In summary, there are three main indoor target archery shooting distances:

- **Recreational 15m.**
- **World Archery/AGB Standard 18m.**
- **Extended 25m+ space around the range.**

In addition to the target distance there should be an allowance for three 3m to 5m spaces, before the 'shooting line', for equipment, waiting and shooters.

Behind the targets there should be a safe arrow stop device to the rear of targets, normally special backstop netting, with a space of 3m.

This totals 30-36m for a target distance of 18m and equates well to existing standard 33m x 18m four court sports halls and Sport England guidelines (2012) for 34.5m x 20.0m x 7.5m halls.

A three court hall (typically 27m x 18m) can enable the 15m shooting distance and meet Archery GB minimum guidelines.

The minimum GB recommended indoor standards are a:

- **Heated and well-lit hall at least 23m long and 20m wide.**
- **Fully accessible, ideally heated, changing room or clubhouse which has access to toilets.**
- **Secure storage where archery equipment can be kept overnight.**
- **Notice board or signpost where the archery club can advertise its activities.**

Information on bespoke facilities set ups can be found in British Archery - Archery Facilities: Guidance & Specifications. Further details can be found in the resources section of this guidance.

The following safety recommendations for an indoor venue should be observed:

- **Access to the range must only be possible from behind the shooting line. Any other access should be locked during practice.**
- **There must be access to all emergency exits, but if some are in front of the shooting line entrance into the hall these must be controlled to prevent persons crossing the shooting line whilst archery is taking place. Warning signage should be put in place.**
- **There should be no windows or glass in the wall behind the target line that can be hit by an arrow missing the target.**
- **An appropriate arrow stop can cover these windows. In some multi-sport venues areas are separated by divisional curtains. It is unlikely that these would stop an arrow.**
- **Each archer will need a minimum of 80cm of space when on the shooting line. The normal target faces used indoors have diameters of 40cm and 60cm. The target butt should be bigger than the target face, so that any arrows that just miss the face will still land in the target butt**
- **Under no circumstances should there be any human activity taking place behind the target area even if backstop netting is being used.**

Backstop netting

Backstop netting is mainly used indoors but can never guarantee to stop all arrows. Netting will only slow arrows down, never is it guaranteed to stop arrows. Backstop netting is hung loosely behind the targets and in front of walls. The netting will act as a cushion to prevent arrows from impacting on the wall behind. It should not be relied upon as the only safety precaution and therefore under no circumstances can additional activity take place behind netting. Outdoors, netting can be erected to aid with the collection of arrows when taking part in beginners or taster sessions. Once again, activity should not take place in the overshoot area behind the targets.

Storage

Bows and arrows must always be securely stored (and preferably separately). Archery GB recommends facilities that can keep the equipment overnight.

Facility operators should be aware that modern archery butts are lightweight, do not shed straw and are easy for their own staff or club volunteers to move and assemble. Archery facilities are now easy to set up/demount quickly and efficiently.

Shooting range layouts for different forms of archery

Field, Clout and Flight archery have different, specialist requirements and those needing to set up ranges for these disciplines are strongly recommended to consult archers with appropriate experience.

General guidance includes:

- The shooting lanes must be set so that any up arrows that miss the target will not travel into areas that could be populated with other archers or spectators.
- Targets should not be placed on top of a rise where an arrow that misses the target can travel to an area that is not readily in view of the archer when they are standing in the shooting location.
- The course must have safe paths to allow the officials and working staff to be able to move around the field of play with safety.
- Only those persons who have been given permission will be allowed on the course when shooting is taking place and they must keep to the safe paths at all times.
- Field archery offers wonderful opportunities for archery, when there is no level terrain available. An archer should have some moderate experience of shooting at a close target set on level ground before turning to Field archery. Field archery clubs should have a safe and well-defined practice area.
- Clout archery has some similarities with target archery, however the side safety and overshoot distance requirements can be up to 75 yards
- With Flight archery the intention is simply to shoot an arrow as far as possible. This naturally requires a large controlled area, such as might be found in enclosed rural estates or inactive airfields. If specialist flight bows are to be used, the range must be over 1000 yards long

Operating Standards

It is important archers are aware and can refer to safety rules associated with shooting. Archery GB recommend:

Shooting rules

- Archery should be supervised. Never shoot alone. There must be a minimum of two people present being a minimum of 18 years of age, one of whom may be a non-archer to act as a lookout.
- When junior archers (ie archers under 18) are shooting individually or in groups, they must be supervised by an adult member of Archery GB and a second adult must be present.
- Ensure that indoor halls conform to health and safety regulations on target positioning. Layouts can be found in Archery GB standards.
- Never allow people to stand ahead of the shooting line (be aware of, for example, the location of sports hall balconies). Never cross it until the instructor gives a clear command for everyone to stop shooting.
- People must shoot in one direction only at the designated target.
- People can only shoot when permitted. If the command "HOLD," is given do not shoot an arrow even if it's already nocked and the bow is drawn
- Do not attempt to retrieve anything which has passed over the shooting line, until the command has been given for everyone to stop shooting, even if the object appears within reach. Never run while retrieving arrows.
- If arrows travel beyond the target, seek permission from an instructor to go and retrieve them. Any lost or missed arrows should be considered within the risk assessment of the operator with a recording process in place.
- Ensure that people always handle bows correctly and responsibly.
- Never point a bow at anyone, even if there's no arrow drawn.
- Never fire an arrow high into the air as it is difficult to predict where it's going to land, with the exception of flight archery.
- Do not nock or draw an arrow unless positioned at the shooting line and unless the instructor has given everyone the command to do so.
- An archer should keep their arrows aimed towards the ground as they nock them.
- Ensure no-one is standing immediately behind the person pulling arrows from a target.
- It is strongly recommended that archers wear a bracer.
- An arrow must never be drawn if there are people situated between the archer and the target.
- Never over-draw a recurve bow (over-drawing is when the string is pulled further than the actual length of the arrow). This can result in serious injury and damage to equipment.
- Whilst archers are waiting to go to the shooting line they must stay behind the waiting line until the signal is given to advance to the shooting line.
- When the archers have shot their required number of arrows they must return back behind the waiting line. They wait there until the signal is given to advance to the targets to retrieve their arrows.
- Always use a bow-stringer to string a bow.
- Check all wooden arrows for cracks or splintering before shooting.
- Never dry fire a bow (pulling and releasing the string without an arrow seated); this is dangerous to both the bow and archer.
- Always check the bow limbs for any damage before shooting.
- If signs of wear are noticed on the string (for example separation of the string serving), it should be replaced immediately.
- Jewellery and watches should be removed before shooting.
- Ensure strings are waxed regularly.
- Recurve bows should be un-strung at the end of each session.

Crossbow Safety

- A crossbow may NOT be drawn or cocked except on the shooting line and in the direction of the targets, after the arbalist has ensured that the field is clear both in front of and behind the targets.
- If shooting is interrupted for any reason, crossbows shall be lowered immediately so that they are directed at the ground immediately in front of the shooting line and the bolt removed.
- No person less than 12 years of age may shoot or manipulate a crossbow.

More details on Archery shooting standards can be found within the Archery GB guidelines.

Archery club accreditation

Archery GB has a club development programme, OnTarget. Through this programme, OnTarget will provide clubs with three main benefits – Recognition, Rewards, Development. All Archery GB affiliated clubs are eligible to join at any time.

Maintenance, checks and inspections.

While checking the equipment, don't handle the bow by its grip in case your hands are greasy or sweaty. Checks should be completed by setting up the bow while shooting and when a bow is taken down.

Manufacturer's guidance should be followed when identifying the checks required. General checks to consider are:

- **Bow** - check for damage, cracks, bends, screws, set up (bracing height, tiller, limb alignment).
- **String** - check the servings, twists, wear and tear, fraying.
- **Pressure Button** - check centre-shot, stiffness, tip wear and smoothness of movement.
- **Arrows** - check fletchings, nocks, condition (splinters etc), and straightness.
- **Sight** - parallel tracking, all screws and block mounting, condition of sight pin and light catchers.
- **Bracer** - check for wear and tear.
- **Tab** - check for wear and tear.
- **Peripherals** - check generally for overall condition looking in particular at anything that might impact on the bow and shot.

Checks and inspections should be considered for aspects of Archery such as making sure back stop netting is in good condition before each session.

Supervision and Training

Supervision

Archery should be supervised. Never shoot alone. There must be a minimum of two people present being a minimum of 18 years of age, one of whom may be a non-archer to act as a lookout. When junior archers (ie archers under 18) are shooting individually or in groups they must be supervised by an adult member of Archery GB and a second adult must be present.

To deliver fun and safe introductory archery sessions for beginners, an Archery GB Instructor Award is recommended.

Qualifications

Archery GB Instructor Award

The course is designed for learners with little or no prior experience of archery. Learners must be at least 17 years old by the first day of the course. The course is held over two days and includes a practical assessment. The successful learner will gain an Archery GB Instructor licence which lasts for three years. After this it can be renewed by successfully completing an online renewal module. The licence does not provide the instructor with insurance.

Additional coaching requirements

All coaches should be suitably trained through qualifications aligned to the CIMSPA professional standards and provide evidence of the following:

- The Instructor Award licence needs to be renewed every third year following the original course completion date.
- A satisfactory check if working with children or adults at risk, through the Disclosure and Barring Service (DBS), Disclosure Scotland or Access NI, depending on location.
- Safeguarding training (in the last 3 years)
- Appropriate First Aid Training (in the last 3 years)
- Appropriate public liability insurance of £10m.

Emergency procedures and first aid

It is important to ensure that emergency situations are dealt with in a manner which minimises the risk to customers and staff members. Emergency procedures provide a systematic approach to addressing medical, environmental, and security emergencies. Plans should be tailored to an organisation's specific venue, resources, and personnel. Emergency plans should assign roles and designate a chain of command. Relevant staff must be trained and competent to deal with them. Emergency procedures to consider:

- Injury (first aid accident procedures)
- Ensure there is means of escape in the event of an emergency such as a fire
- Adverse weather.

For guidance on Adverse weather conditions refer to CIMSPA Adverse Weather guidance.

Useful Resources

Beginners Guidebook:

<https://www.archerygb.org/shoot-compete/shoot/beginners-guidebook/>

Useful resources, Archery GB: <https://www.archerygb.org/useful-resources/>

Setting up an Archery Range, Archery GB:

<https://www.archerygb.org/wp-content/uploads/2017/05/AGuidetosettingupanArcheryRange-13375.pdf>

Archery Facilities: Guidance & Specifications

www.archerygb.org/wp-content/uploads/2017/06/FacilityrequirementsandspecificationsFinalLOWRES-16543.pdf

Introduction to Officiating Archery:

https://www.archerygb.org/wp-content/uploads/2017/05/Intro_to_Judging_Archery_-_Final.pdf

CIMSPA professional standards library:

<https://www.cimspa.co.uk/education-training/professional-standards/professional-standards-library/>

These guidance notes have been produced by Right Directions in partnership with CIMSPA.

For more information on archery or any other topics, please email Right Directions: info@rightdirections.co.uk or give us a call for a chat: (01582) 840098



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