

# RISK ASSESSMENT

## STEP 1: The Nature of the Activity

### Activity

Archery

### Brief Description of Activity and Equipment used

Indoors: Kelsey Kerridge Sports Centre twice a week, Elizabeth Way Rifle Range up to three times a week  
Outdoors: Christ's and Sidney Sussex Sports Ground up to three times a week.  
Tournaments approximately once per fortnight.  
Equipment used: Predominantly recurve bows, shooting at straw or foam targets.  
Distances shot: 20yd indoor, 40-100yd outdoor

## STEP 2: List Hazards

1. Equipment failure
2. Bowstring
3. Bow assembly
4. Boss/stand
5. Short arrows
6. Heavy bows
7. Collection of arrows
8. Shooting control
9. Range layout
10. Arrows shot outside safety area
11. People/animals straying into safety area
12. Weather

## STEP 3: Assess each Hazard and determine Risk

### Hazard 1: Equipment Failure

Nature of Hazard: Equipment failure – string may snap, bow limbs or riser may fail while shooting. Arrows may break on release.

Persons at Risk: Archer, those in immediate vicinity.

#### Control Measures:

Regularly (monthly) inspect strings and bows for wear. Replace equipment deemed to be unsafe.

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.

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.

### Assessment of risk

	Likely	Probable	Possible	Remote	Improbable
Fatal Injury					
Major Injury					
Minor Injury					
Env / Plant					

Is this risk acceptable? Yes

### Hazard 2: Bowstring

Nature of Hazard: Bowstring may become caught on loose hair or clothing or hit arm on release.
Persons at Risk: Archer
Control Measures: Ensure that archers tie back long hair and remove jewellery or loose outer garments, which could become caught. Require archers to wear arm protection to minimise possible injury and instruct in proper release technique.

### Assessment of risk

	Likely	Probable	Possible	Remote	Improbable
Fatal Injury					
Major Injury					
Minor Injury					
Env / Plant					

Is this risk acceptable? Yes

### Hazard 3: Bow Assembly

Nature of Hazard: Bow is assembled or disassembled incorrectly, may come apart while in use (consequences as per failure of bow limb or riser).
Persons at Risk: Archer
Control Measures: Instruct archers in correct assembly of equipment, including limb assembly and stringing/de-stringing. Annually inspect limb bolts and nuts for signs of excess wear, replacing where necessary. Check novices' bow setups before allowing them to shoot.

### Assessment of risk

	Likely	Probable	Possible	Remote	Improbable
Fatal Injury					
Major Injury					
Minor Injury					
Env / Plant					

Is this risk acceptable? Yes

**Hazard 4: Boss/stand**

Nature of Hazard: Target boss and/or stand mishandled, possibly resulting in boss falling on archer and causing injury.  
 Target boss/stand not secured, possibly resulting in injury to archer and/or damage to arrows.

Persons at Risk: Those in immediate vicinity of the boss/stand.

Control Measures:  
 Instruct archers in the correct handling of bosses/stands; a boss weighs more than twice the permitted HSE “per person load”.  
 Instruct archers not to lift bosses alone, and advise as to correct technique for mounting boss to stand.  
 Instruct archers in method for securing bosses to stand/ground.  
 Do not allow shooting to commence until all targets are appropriately secured.

Assessment of risk

	Likely	Probable	Possible	Remote	Improbable
Fatal Injury					
Major Injury					
Minor Injury					
Env / Plant					

Is this risk acceptable? Yes

**Hazard 5: Short Arrows**

Nature of Hazard: 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.

Persons at Risk: Archer

Control Measures:  
 Check arrow length for all new archers using prescribed technique, issuing only arrows of required minimum length.  
 Do not allow archers to shoot if arrows of the required minimum length are unavailable.

Assessment of risk

	Likely	Probable	Possible	Remote	Improbable
Fatal Injury					
Major Injury					
Minor Injury					
Env / Plant					

Is this risk acceptable? Yes

**Hazard 6: Heavy Bows**

Nature of Hazard: Use of inappropriate draw-weight bow may result in muscular or other soft tissue injury.
Persons at Risk: Archer
Control Measures: Instruct beginners using lightweight bows, ensure they employ correct draw technique before graduating to heavier bows. Ensure archers purchasing own equipment receive appropriate advice.

Assessment of risk

	Likely	Probable	Possible	Remote	Improbable
Fatal Injury					
Major Injury					
Minor Injury					
Env / Plant					

Is this risk acceptable? Yes

**Hazard 7: Collection of Arrows**

Nature of Hazard: Arrows which landed in the ground may cause injury if walked/run into. Arrows in target represent various hazards, in approaching the target, or when being removed from the boss.
Persons at Risk: All in immediate vicinity
Control Measures: Instruct archers in these hazards and of the importance of approaching the target with caution. Instruct new archers in correct technique for drawing arrows from boss, including 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.

Assessment of risk

	Likely	Probable	Possible	Remote	Improbable
Fatal Injury					
Major Injury					
Minor Injury					
Env / Plant					

Is this risk acceptable? Yes

### Hazard 8: Shooting Control

Nature of Hazard: Inadequate control of shooting may result in personal injury to an archer or spectator.

Persons at Risk: All in vicinity.

Control Measures:

Shooting must always be under the control of an experienced archer acting as the Field Captain, or a qualified Judge.

All archers must understand that this person is in charge of the shoot and must obey his/her commands.

New archers are instructed as to the role of the Field Captain/Judge, and the commands they are likely to give.

Assessment of risk

	Likely	Probable	Possible	Remote	Improbable
Fatal Injury					
Major Injury					
Minor Injury					
Env / Plant					

Is this risk acceptable? Yes

### Hazard 9: Range Layout

Nature of Hazard: Incorrect range layout may result in personal injury to spectators or archers.

Persons at Risk: All in vicinity.

Control Measures:

The range must be secure and laid out in accordance with the Grand National Archery Society (GNAS) Rules of Shooting. Shooting must not begin until this is the case.

Spectators and participants are advised where they may and may not stand whilst shooting is in progress.

Assessment of risk

	Likely	Probable	Possible	Remote	Improbable
Fatal Injury					
Major Injury					
Minor Injury					
Env / Plant					

Is this risk acceptable? Yes

**Hazard 10: Arrows Shot Outside Safety Area**

Nature of Hazard: Arrows inadvertently shot outside of safety area may result in personal injury to spectators or archers.
Persons at Risk: All in vicinity
Control Measures: Archers must be made familiar with and adhere to GNAS 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. 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.

Assessment of risk

	Likely	Probable	Possible	Remote	Improbable
Fatal Injury					
Major Injury					
Minor Injury					
Env / Plant					

Is this risk acceptable? Yes

**Hazard 11: People/Animals Straying into Safety Area**

Nature of Hazard: A person or animal straying into the safety area may receive personal injury from arrows or other equipment projected towards the target.
Persons at Risk: Those in the safety area.
Control Measures: Ensure that the range is laid out in accordance with the GNAS Rules of Shooting and that the safety area is observable at all times during shooting. Ensure that access past the shooting line to indoor ranges is secured before shooting commences. The Field Captain and all archers must remain vigilant and suspend shooting immediately if the safety area is violated. People must not be able to enter the shooting area without passing a suitable barrier warning that beyond which a danger exists. All grounds are deemed accessible to the public even if this involves trespass. Ensure that spectators and those waiting to shoot remain behind the waiting line. 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.

Assessment of risk

	Likely	Probable	Possible	Remote	Improbable
Fatal Injury					
Major Injury					
Minor Injury					
Env / Plant					

Is this risk acceptable? Yes

**Hazard 12: Weather**

Nature of Hazard: Competitors/officials/spectators at risk from elements when shooting outdoors; fog may reduce visibility of safety area, or an archer or his/her equipment may be struck by lightning and electrocuted.

Persons at Risk: All in vicinity.

Control Measures:  
 Shooting must be suspended if the safety overshoot distance is not visible.  
 Shooting must be suspended at the first sign of thunderstorm in the immediate vicinity and not resumed until the danger is past.

Assessment of risk

	Likely	Probable	Possible	Remote	Improbable
Fatal Injury					
Major Injury					
Minor Injury					
Env / Plant					

Is this risk acceptable? Yes

**a) Risk Assessment completion and approval**

Name:	Signature:	Date
Club Officer Completing Form:		
Club President:		
Senior Treasurer:		

**STEP 4: Review**

Date of Review	Describe changes to the equipment or state 'none'.	Assessor Signature	Next review due

**Notes:**