

| RISK ASSESSMENT | | TARGET SPORTS | | Ref No. A03 | |
|----------------------------------------------|-----------------------------------------------------|-------------------------------------------------|----------------------|--------------------------------------------|--|
| Baseline <input checked="" type="checkbox"/> | | Site Specific <input type="checkbox"/> | | Vulnerable Person <input type="checkbox"/> | |
| Temporary <input type="checkbox"/> | | | | | |
| Activity Covered by this assessment: | | Aeroball, Archery, Fencing, Laser, Orienteering | | Hazard References: A03/01 – A03/06 | |
| Assessors: | John Robson (Kingswood H&S Advisor) | | Reviewers: | | |
| References: | Target Sports BRA, issued February 2010 (withdrawn) | | | | |
| Date of issue: | Jan 2012 | | Planned review date: | End Jan 2013 | |

HAZARDS

| Hazard Ref. | Hazard description | Activities giving rise to risks | Control Measures | |
|-------------|--------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------|------------------------------------|
| | | | Static | Dynamic |
| A03/01 | Aeroball – General participation | Wear, deterioration or accidental dis-assembly of the aeroball scaffold and netting | S020, S021, S022, S023 | D013 |
| | | Climbing into or out of the aeroball can be awkward and risks a fall, and can bring participants into contact with the trampoline springs | S024, S025, | D019 |
| | | Bouncing on the trampoline can cause ankle injury or spinal discomfort, particularly if poor posture is adopted by the participant. | S026, S027 | D020, D021, D008 |
| | | Contact with the surrounding netting can lead to skin abrasions or entanglement of long hair or loose jewellery. | | D022, D024 |
| | | Participants when bouncing on the trampoline may collide with other participants in adjacent courts. | | D025, D026 |
| A03/02 | Archery – Range layout and fixtures | Arrows rebounding from targets when they either fail to penetrate the boss sufficiently to be held, or when the arrow strikes the stand or boss frame. | S029 | |
| | | Instructor retrieving arrows after each shooting detail that are protruding from the ground or targets can cause leg or eye injuries. | | D008, D028 |
| | | Bosses can fall from stands, or stands fall over, when arrows are withdrawn from them, or if there are high winds, causing injury to anyone next to them. | S030 | |
| | | Manual handling of bosses requiring periodic turning or replacement risks musculoskeletal injury. | | D029 |
| A03/03 | Archery – Shooting arrows | Participants shooting arrows, either towards the targets or into the over-shoot areas. | S028, S031, S032, | D027, D062 |
| | | Poor shooting technique, causing muscle strains, bruising etc. | S033 | D008, D022, D031 |
| | | Overdrawing the bow, causing the arrow point to be pulled back beyond the support of the arrow rest | | D030 |
| | | Entanglement of clothing, hair, jewellery, etc. in the bow causing cuts, grazes or eye injury. | | D024 |
| | | Equipment failure, either bow string snapping or bow limbs breaking. | S034, | D013 |
| A03/04 | Fencing – Foil use | Unsupervised access to bows and arrows by individuals outside of the scheduled activity. | S035 | D127 |
| | | Participants involved in swordplay/foil use, or the deliberate misuse of foils by participants causing bruising, cuts and potentially eye injury | S036 | D008, D022, D024, D032, D033, D035 |
| | | Spectators or other non-participants entering the fencing area when foils are in use, causing bruising, cuts and potentially eye injury. | S037, S038, S039, | D063 |
| | | Equipment failure; either blade breaking, loss of end button or poorly fitting protective clothing. | S040 | D013, D034 |
| | | Fencing activity taking place near to vulnerable property risking damage to windows, etc. | S041 | |
| A03/05 | Laser – General participation | Unsupervised access to foils by individuals outside of the scheduled activity. | S035 | D127 |
| | | Participants inside the arena can collide with or trip over one another, with partitions/features of the arena or with laser blasters that are waved or held at arms length, causing cuts, bruises and potential eye/facial injury. | S042, S043, S044, S045, | D008, D022, D024, D013, D036 |
| | | For outdoor arenas running through woodland or rough ground, tree roots and other vegetation present a trip hazard | S044, | D013 |
| | | Laser blasters operate using laser beams, which may be shone into participants' eyes. | | D037 |
| A03/06 | Orienteering – General participation | Low ambient light levels inside the arena increase risk of participant collision and general slips and trips. | S046, | D013 |
| | | Participants moving over rough or open areas causing slips, trips, sprains and strains | | D008 |
| | | Participants may stray into out of bounds areas or into other activity areas, not realising their mistake. | S047, S048, | D038 |
| | | Vehicle movements on internal driveways and access roads in close proximity to participants raises the possibility of a collision. | S048, | D038 |

Parent document: H&S-PRO-006, Risk assessment and management

Owner: John Robson

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| | Participants may become disorientated at larger or complicated sites, separated from the rest of the group or lost. | | D039, D040 |
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RISK ANALYSIS

| Ref | Hazard | Who may be harmed | Likelihood | Severity | Risk |
|--------|--------------------------------------|---------------------------------------------|------------|----------|------------|
| A03/01 | Aeroball – General participation | Participants | Medium | Serious | Marginal |
| A03/02 | Archery – Range layout and fixtures | Participants, Teachers, Instructors | Medium | Serious | Marginal |
| A03/03 | Archery – Shooting arrows | Participants, Teachers, Instructors, Public | Medium | Serious | Marginal |
| A03/04 | Fencing – Foil use | Participants, Teachers, Instructors | Medium | Serious | Marginal |
| A03/05 | Laser – General participation | Participants | Medium | Minor | Acceptable |
| A03/06 | Orienteering – General participation | Participants | Medium | Minor | Acceptable |

RISK CONTROL

| Control Ref. | Static Risk – Operational Controls |
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| S020 | The aeroball structure must be placed on a firm level surface and secured if vulnerable to high winds. |
| S021 | The components of the scaffold must be checked 4 weekly to ensure they are fitted together securely and are free of excessive corrosion. |
| S022 | The fabric components (side netting and trampoline base) must be checked 4 weekly to ensure they are intact. |
| S023 | The springs holding the netting and trampoline base in place must be checked 4 weekly to ensure they are sufficient in number and are evenly distributed. |
| S024 | A cover should be in place over the trampoline springs to prevent fingers being nipped as participants climb in and out of the aeroball. If such a cover is not fitted, the instructor must brief the participants to take care and avoid touching the springs. |
| S025 | Access steps provided to aid participants entering and exiting the aeroball are subject to a 4 weekly inspection. |
| S026 | Explanation, demonstration and ongoing coaching are to be provided by an instructor trained in activity core skills and who is familiar with the aeroball session plan. Each instructor can supervise up to 16 participants (15 students + 1 teacher), with a maximum 4 playing at any one time. |
| S027 | The aeroball structure must be secured against casual access during the evenings or extended periods when not in use, or the trampoline bases partially removed to prevent unsupervised use. |
| S028 | Archery range laid out to ensure spacing of waiting line, shooting line, target line and any overshoot areas conform to specified 'GNAS' standards. |
| S029 | Hard surfaces in the immediate surroundings of the archery targets must be covered with impact absorbing materials to prevent/reduce arrow rebounds |
| S030 | Archery target stands must be stable and bosses securely placed on them, using additional anchors as necessary. Both are checked on a 4 weekly basis and repaired or replaced as necessary |
| S031 | Arrow-stop netting or other suitable barrier must be provided on ranges that do not have an adequate over-shoot area to the rear or sides of the target line |
| S032 | Access points to the archery range must be marked with warning notices whose design and wording conform to specified 'GNAS' standards. |
| S033 | Explanation, demonstration and ongoing coaching are to be provided by an instructor trained and assessed to a proficient foundation standard in archery and who is familiar with the session plan. Each instructor can supervise up to 16 participants (15 students + 1 teacher), with a maximum 4 shooting at a time. An additional adult must be in attendance to help supervise those at the waiting line. |
| S034 | All bows, arrows and braces are subject to a weekly or 4 weekly inspection and repaired or replaced as necessary. |
| S035 | Secure storage must be provided for equipment when not in use. |
| S036 | Explanation, demonstration and ongoing coaching are to be provided by an instructor qualified to English Fencing Association Activity Leader Award standard and who is familiar with the session plan. Each instructor can supervise up to 16 active participants (15 students + 1 Teacher), with up to 12 using foils. |
| S037 | The fencing activity must take place in an area designated for the purpose that is separated from other functions. |
| S038 | An area of the fencing facility must be set aside which is either screened or distant from the duelling area, such that spectators waiting within it are protected from the risk of being accidentally struck by a foil in play. |
| S039 | Entrances to the fencing facility must be secured from the inside or otherwise guarded to prevent casual access. If this is not possible a prominent sign must be displayed indicating that fencing is in progress and non-participants must not enter. |
| S040 | All foils, masks, jackets, gloves and chest protectors are subject to 4 weekly inspection and repaired or replaced as necessary. |
| S041 | Any glazing (windows, mirrors) likely to be struck should be protected or of robust construction able to withstand being hit |
| S042 | Explanation, demonstration and ongoing coaching are to be provided by an instructor trained in activity core skills and who is familiar with the laser session plan. Each instructor can supervise up to 16 active participants (15 students + 1 Teacher). An additional adult must be in attendance to help supervise those waiting. |
| S043 | All laser arena fixtures, partitions, etc. which present sharp or protruding faces must be padded with a suitable impact absorbing material. This padding should be checked on a weekly basis. |
| S044 | Trip hazards should, where possible, be removed, access restricted or made highly visible. |
| S045 | Electrical facilities and equipment such as effect lighting, sound systems and cabling must be suitably mounted such that it is out of the way of participants, with the condition of chargers, cabling and other components checked on a 4 weekly basis. |

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| S046 | Feature and effect lighting must be positioned in the laser arena so as to remove any completely dark areas. If any specific trip hazards are identified which cannot be moved or isolated, these must be illuminated. |
| S047 | Explanation, demonstration and ongoing coaching are to be provided by an instructor trained in activity core skills and who is familiar with the orienteering session plan. Each instructor can supervise up to 16 active participants (15 students + 1 teacher). |
| S048 | Orienteering course design should avoid taking participants into out of bounds areas and areas where vehicles may be moving. |
| Control Ref. | Dynamic Risk – Instructor Controls |
| D008 | Check that all participants are wearing low heeled or flat shoes. |
| D013 | Check the condition of activity area and equipment before you begin using it, and report defects that arise during the activity. |
| D019 | Brief participants to enter and exit the aeroball head first through the designated access points and to take care not to touch the springs. |
| D020 | Begin the aeroball activity with a brief warm-up exercise to minimise later muscle strains, and again before each participant's turn. Brief all participants to lean forward and bend their knees while bouncing. |
| D021 | Only 1 ball is permitted inside the aeroball during gameplay. |
| D022 | Check that all participants are wearing long sleeves and long trousers |
| D024 | Check that long hair is gathered up and tucked away, large or prominent jewellery and neckwear is removed and large pocket items are removed |
| D025 | Brief participants not to deliberately bounce against the aeroball side netting, and to remain aware of other players in the adjacent aeroball courts. |
| D026 | Participants of significantly different sizes (i.e. adults and children) must not participate together on the single-base aeroball units. |
| D027 | Explain the location and purpose of range features as part of the safety briefing. |
| D023 | Explain the 'STOP' command to participants as part of their safety briefing |
| D062 | Visually check that the areas behind and beside the targets are clear before each shooting detail. |
| D028 | No-one except the instructor is allowed across the shooting line to collect arrows, and only then when it is safe to do so. Scan the ground in front for protruding arrows, and approach the target from the side. |
| D029 | Wear protective gloves when lifting/carrying targets, and all targets must be handled/carried by two people. |
| D030 | Give each participant a bow whose draw-weight and arrows whose lengths conform to specified standards, and perform a basic visual/functional check of each before issuing. |
| D031 | Give each participant an arm brace which must be worn during shooting. |
| D032 | Ensure all participants are wearing correctly fitted masks, jackets and gloves before swords are used. Separate chest protectors should be worn if the jackets do not incorporate additional chest protection. Instructors must also wear jackets and masks when coaching from within the duelling area when foils are in use. |
| D127 | Ensure dangerous equipment is accounted for and stored securely at the end of the activity. |
| D033 | Brief participants on the location and purpose of the safe waiting area, and the requirement for everyone to wear masks outside it during sword use. |
| D063 | Ensure entrances to the fencing area are guarded against accidental entry by non-participants. |
| D034 | Check that the end button is in place on all foils before you hand them out. |
| D035 | Insist on correct technique, especially the placing of the participants' free arm behind their backs |
| D036 | Brief participants that there must be no physical contact. They must not run or crouch down, and must keep their laser blaster close to their chest. |
| D037 | Brief participants not to shine the lasers directly into other players' eyes or aim at their faces. |
| D038 | Brief participants on boundaries and any out of bounds or hazardous areas (such as adjacent activities), and watch for participants straying during the session. |
| D039 | Establish a defined meeting point and meeting time to ensure that participants know where and when they have to meet back. |
| D040 | Brief participants that they must remain together in groups of no less than three. |