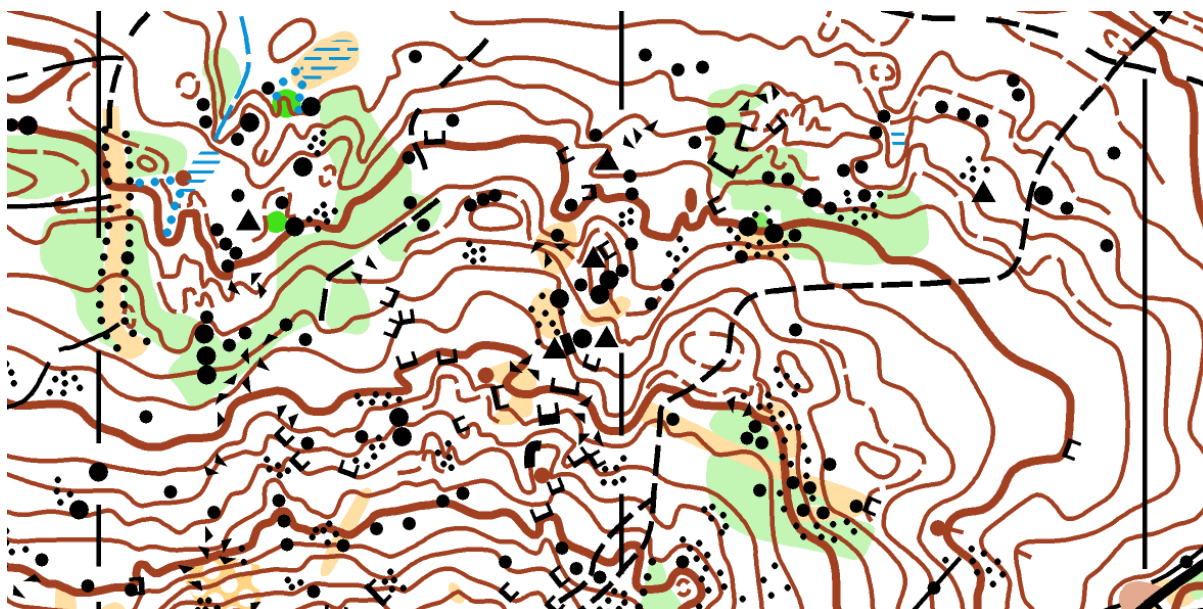


# Orienteering and Access in Scotland



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### **Appendix A Orienteering: A Guide for Land Managers**

### **Appendix B Access Agreement**

### **Appendix C Use of Drones for Orienteering**

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The Scottish Orienteering Association is a charitable body, registered in Scotland, with registration number SC043563

Date: January 2019 (revision)

## 1 Introduction

This document supplements the Scottish Orienteering Association's "Good Practice Guide to Orienteering and the Environment in Scotland" which also contains information about access. Orienteering clubs in Scotland usually contact land managers to seek permission for orienteering, but for major events this role may fall within the remit of the Scottish Orienteering Association's events manager. The events manager will provide advice where possible and may contact land managers on behalf of clubs if requested. Sections include details about land ownership, potential limitations to access, permissions and agreements and staging the event.

## 2 Background

Orienteering in Scotland has been taking place for over 50 years, and the sport has enjoyed access to urban, dune, forest and moorland areas for the staging of events ranging from a handful of orienteers to many thousands of competitors.

Access to Scotland's outdoors takes place under Scottish access rights, which apply to most land and inland water, subject to responsible behaviour as described in the Scottish Outdoor Access Code (SOAC). The Code states that you can exercise access rights for recreational purposes, and though recreational purposes are not defined in the legislation they are taken to include "active pursuits" including orienteering. The website <http://www.outdooraccess-scotland.com/> is an excellent source of information including links to SOAC.

The National Access Forum has developed supporting guidance on Outdoor events in Scotland. An extract from the publication [Outdoor events in Scotland, guidance for organisers and land managers](#) states: "All events are organised to some degree, and their scale and timing can sometimes raise safety concerns, hinder land management operations or harm the environment. If you are organising an event, it is good practice to liaise with the relevant land managers. You need to obtain the permission of the relevant land manager(s) if your event: • needs new or temporary facilities and services (such as car parking, fencing, signs, litter bins, marked courses or toilets); or • due to its nature or to the number of participants or spectators, is likely, to an unreasonable extent, to hinder land management operations, interfere with other people enjoying the outdoors or affect the environment.

Informal training activities involving small groups are not regarded as organised events and do not normally require contact with land managers. The SOA does however recommend that it is good practice to contact land managers where practicable.

## 3 Land Ownership

Information about land ownership is often held within the orienteering clubs but in many situations, it is very difficult (and even impossible) to determine who to contact. There has been a consultation by the Scottish Government aimed at "improving transparency in land ownership in Scotland" but it is unlikely that any definitive source of information identifying ownership will be available for some time.

Access officers are a potential source of land manager contact information and they are listed at <http://www.outdooraccess-scotland.com/contact/local-authority-access-contacts>.

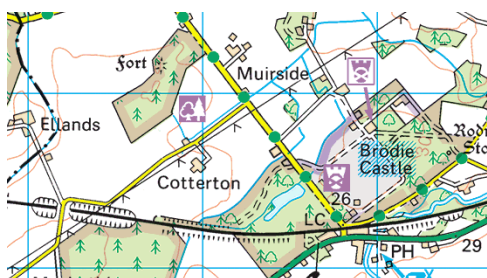
Ordnance Survey (OS) maps show outlines of "Forestry Commission land". This covers 9% of Scotland's total land area, including more than 32% of the country's woodland. Terminology relating to what has been known as the National Forest Estate and Forest Enterprise Scotland (FES) is due for

change in 2019 as a new Forestry and Land Agency comes into being. The “Concordat” with Forestry Commission Scotland signed in 2013 will be reviewed and renewed if applicable. This Concordat expressed a mutual interest in promoting the use of FES land for orienteering.

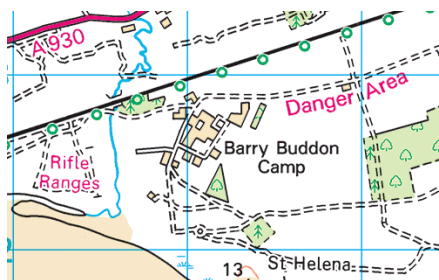
An interactive on-line map viewer is available at:

<http://scotland.forestry.gov.uk/supporting/communication-consultation/map-viewer-guidance>

National Trust for Scotland (NTS) sites can be searched on <https://www.nts.org.uk/Home/> and are represented on the OS maps by a purple boundary line and NTS castle/thistle logo.



Ministry of Defence property can be inferred by map interpretation. For details on military training areas (the Defence Training Estate part of the MOD’s Defence Infrastructure Organisation) see <https://www.gov.uk/government/publications/dte-scotland-public-information-leaflet>.



Boundaries of the National Parks (Loch Lomond & the Trossachs and Cairngorms) are also marked on OS maps.

The SOA Events Manager can advise on other sources of information on land ownership and subscribes to the website Who Owns Scotland (maintained by Andy Wightman) which though incomplete and out-of-date is currently one of the few sources of information on private land ownership in Scotland.

ScotLIS (Scotland’s Land Information Service) from Registers of Scotland currently seems to be of limited value (post code search) but map-based search for business users has not been fully researched by the author.

Scottish Land & Estates <http://www.scottishlandandestates.co.uk/> is a member organisation that uniquely represents the interests of both land managers and land-based businesses in rural Scotland. Scottish Land & Estates promotes the wide range of benefits land-based businesses provide: the tourist attractions, leisure facilities and landscapes enjoyed by the public, as well as, housing, employment, tourism & enterprise and farming opportunities.

Orienteers have had good relationships with many landowners including Lord Moray (Darnaway); Spencer-Nairn (Strathfarrar); Invercauld Estates; Dunecht Estates; Drummond Estates and many more over recent years.

“Urban” orienteering events typically take place on or near public roads or spaces and there is a general presumption that there is no need to identify ownership. However within the urban environment access rights do not extend to all areas – for example houses and gardens, and non-residential buildings and associated land; land next to a school and used by the school; sports or playing fields when these are in use and where the exercise of access rights would interfere with such use; land developed and in use for recreation and where the exercise of access rights would interfere with such use; golf courses (but you can cross a golf course provided you don’t interfere with any games of golf) and visitor attractions or other places which charge for entry.

In many cases the only way to determine ownership is through a site visit, which may involve stopping estate or farm vehicles and knocking on doors. Estate managers or factors are often the main point of contact and will act on behalf of the landowner in most cases.

#### 4 Potential Restrictions to Access

In addition to determining ownership it is helpful to have knowledge about potential restrictions to access.

There are several designations of protected areas e.g. Sites of Special Scientific Interest (SSSI), Special Protection Area (SPA) but the designation of a protected area **does not necessarily mean that orienteering cannot take place**. There may however be limitations, for example at certain times of year the area is sensitive and should or must be avoided. Examples of sensitive areas include coastal habitats, dune grassland, coastal roosting and foraging areas for wintering wildfowl and waders.

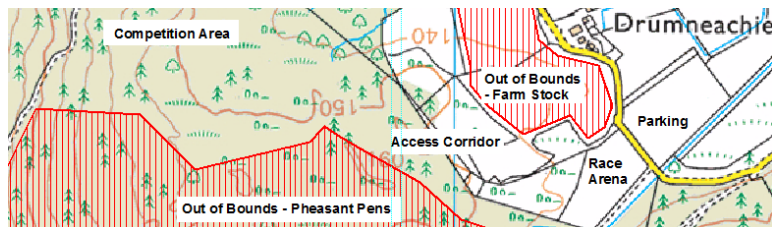
Seeking local specialist advice in the run-up to any event is recommended, typically through the land manager. If other suitable but less sensitive sites can be identified there may be fewer issues seeking permissions.

Most orienteers are aware that there are seasonal restrictions due to capercaillie leks or broods, and a biennial Agreement is in place with the Scottish Capercaillie Group. The Agreement **does not advise a blanket ban on orienteering in capercaillie woods**. Maps showing areas subject to restrictions are held by the Events Manager but are not published to protect this endangered species.

The Good Practice Guide referred to at the start of the document contains more information on protected areas, and Scottish Natural Heritage (SNH) is supportive of orienteering even in areas with multiple designations e.g. Glen Affric, Forvie though there may be limitations on access at certain times.

The experience of land managers who have hosted events on their land shows that early involvement with event planning pays dividends. Guidance developed by SNH encourages event organisers to liaise with land managers from the earliest stages of event planning. Shooting interests, including deer stalking and rearing of pheasants, have been prime reasons for refusal of access. Many events **have** been successfully staged on sporting estates, and if agreement can be reached as to timings or defining out-of-bounds areas it is not unreasonable to seek permission. Other restrictions may be imposed through aspects of the farming year – for example cows with calves or lambing periods.

The Scottish Gamekeepers website <http://www.scottishgamekeepers.co.uk/> has full details of shooting, stalking and fishing seasons. Land managers may seek to minimise disturbance outside these periods, but measures can be put in place such as restricted corridors near pheasant pens or farm stock e.g. Scottish 6 Days 2017 at Birsemore (Dunecht Estate). See example below:



Main restrictions may be as follows:

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Pheasant												
Partridge												
Grouse												
Capercaillie <sup>1</sup>												
Capercaillie <sup>2</sup>												
Red stags												
Red hinds												
Nesting birds <sup>3</sup>												

<sup>1</sup>Leks <sup>2</sup>Nesting and broods <sup>3</sup>Ground nesting birds

It is general practice not to shoot birds or deer on Sunday. Stalking of sika, fallow and roe deer can take place throughout the whole year. Other restrictions, often of a localised nature, can include badger setts, otters (bridge site), ospreys and other raptors such as goshawks. It is stressed that **these restrictions do not necessarily mean that orienteering cannot take place**, but measures may have to be taken to avoid or restrict access to parts of the area.

Orienteering events may require access to open land including farmers' fields. Certain times of the year access may be restricted by farming activity. In the farming year lambing in Scotland usually takes place late-February to mid-April but can extend either side of these dates e.g. hill lambing traditionally starts in mid-May. Calving also takes place in Spring and in some herds in Autumn. Livestock do not only influence the timing of events –there are disturbance and safety issues to be considered in aspects of mapping, planning and controlling events.

Land managers should be able to advise on possible restrictions, and building up a good working relationship is essential, especially for larger events. Additional advice has on occasion been sought from SNH, RSPB, Countryside Rangers, local raptor groups and others.

Orienteering takes place every week throughout the year – events simply must be in the right place at the right time.

## 5 Permissions and Agreements

Organisers have on occasion been denied permission to stage events which could be interpreted as having significant impacts and are therefore outside access rights. It is very difficult if not impossible

to contest or challenge a decision by a land manager to deny access. At best it may be possible to get an agreement to stage a smaller orienteering event or to determine a date when the land manager might be more agreeable to orienteering taking place. Seeking an alternative location may be the only option.

Most small events take place without any written permissions or formal agreements in place. Ideally when committing significant expense to an event having something in place is desirable, but in many cases a “gentleman’s agreement” must suffice. Normal communication through phone calls and emails is best backed up with face-to-face meetings if possible. This is an opportunity to explain what the sport is all about and to discuss measures which might need to be put in place e.g. planning courses to avoid sensitive sites or areas. Copies of a previous orienteering map (of the same or similar area) such as an “all controls map” or maps showing the difference between Junior (non-technical) and Senior/Veterans (technical) can be useful. A guide to orienteering aimed at land managers is included as Appendix A and includes map extracts.

Contacts with the land manager should give an indication of the expected number of competitors likely to attend, and the time the event will be taking place. Ensure you mention that no litter will be left, any requests regarding the exclusion of dogs will be adhered to, toilets will be provided if required, fences and walls will be crossed via stiles or gates if requested, public liability insurance will be provided via British Orienteering, etc.

Always enclose a copy of the OS map with a request for access showing the exact boundary of the area you are proposing to use along with other information if known, such as the location of the car park, start, assembly and finish. If possible, mark on the area you understand that they own and the whole area you wish to use. Land owners generally do not understand orienteering maps. Maps can be extracted from websites such as [www.streetmap.co.uk](http://www.streetmap.co.uk) or [www.bing.com/maps](http://www.bing.com/maps).

Remember that officials will require occasional access into the area before and possibly after the event. Check whether they require officials to give notice that they are accessing the area.

Where permission is required to park vehicles in the area a fee may have to be negotiated. It is worth pointing out that in many cases land managers may choose to donate to a local charity, or they may seek some compensation for disturbance and additional work such as the moving of stock from the area. The cost of reinstatement of a badly damaged field is around £200 per hectare (Source: SAC Consulting). Insurance against such damage is unlikely to be available.

In the “Outdoor Events” guidance previously referenced it states that “where a land manager’s permission is required, they may choose to make an appropriate charge. For events that are not commercial, this will often be closely tied to the cost of drawing up any written agreements, management time or facilities that the land manager will need to provide. Land managers could co-ordinate this process through a permit system in places where there is concentrated demand for events which require permission”.

Low key events organised under access rights do not attract charges.

Around 25% of all orienteering events in Scotland take place within urban areas (including town parks). Out of the remaining 75% some 20% of events take place on the National Forest Estate. FES introduced a permit system <http://scotland.forestry.gov.uk/managing/get-involved/permissions-and-permits> and along with triathlon, running, mountain biking and dogsports a Master Agreement is in place for orienteering (also available on the SOA website). There is no charge for access but

there is an administrative charge. A few other land managers may also choose to make such a “cost recovery charge”, and with these Agreements in the public domain there may be an expectation that the event pays similar charges. The SOA is a Registered Charity (SC043563) and it is worth reiterating that we are non-commercial. Many land managers do however take an altruistic view and want to be seen to be assisting the development of the sport and/or benefitting the local community and choose not to make any charge.

Access to the Defence Training Estate is problematic, and the SOAC does not apply. The Defence Infrastructure Organisation (DIO) states “Not all parts of the training estate are required for training purposes every day of the week. If proposed activities do not interfere with any of the armed forces’ vital training activities, this spare capacity can be hired out for private or commercial use. The income generated helps to reduce the financial burden on the taxpayer”. No central agreement has yet been established with the DIO, and the matter has been pursued at length by British Orienteering and the SOA without resolution.

Whereas an exchange of emails or letters may suffice for permission, for major events a more formal Agreement may have to be reached. An example of a typical Agreement is included as Appendix B. Agreements may only cover access to the competition area, but in many cases will also include a request to use fields for parking and as a race arena/assembly.

Even where some of the larger estates may have their own standard Agreements in place, providing a copy of our own Agreement in the first instance is a positive move. Anticipate producing and providing additional documents including completed Risk Assessments, Rescue Plans, Condition Plans e.g. fence and wall crossings and Proof of Insurance.

Restrictions may apply with regards to photography including use of headcams e.g. GoPro as well as the use of drones. The wishes of landowners must be respected, especially where there are sensitive sites or installations. Appendix C includes a short guide to the use of drones for orienteering. Dronesafe.uk provides a Drone Code and is published by the Civil Aviation Authority to assist drone users in flying safely. Note that some land managers add their own requirements to the Drone Code and either prohibit hobby flying e.g. FES or insist you seek permission e.g. National Trust for Scotland. The SOA does not seek to restrict the usage of drones without reasonable cause, but if there is any doubt about use of drones, permission from the land manager should be requested. This should not be unreasonably withheld.

## **6 Orienteering Embargoes**

Embargoes i.e. “restricted access to orienteers” apply to certain levels of event. Major events (previously Level A) and National events (previously Level B) have embargoes in place by default. The Scottish Orienteering League (SOL) events are classified as National events and the SOL rules state: “An embargo shall be observed by those wishing to score points in the SOL. The embargo period is one year, or from the date on which the venue is announced if this is less than a year.” Two year embargos apply to Major events and should be notified through the British Orienteering embargo pages [https://www.britishorienteering.org.uk/embargoed\\_areas](https://www.britishorienteering.org.uk/embargoed_areas).

The Scottish Orienteering Championships can be classified as Major or National Events, the Scottish Relays as National or Regional events. In practice an unofficial embargo should apply to Scottish Relays.

If an area is embargoed access through the area is normally only allowed on public roads. In the urban environment different rules will generally apply, for example running through the area with an orienteering map is forbidden.

## 7 Staging the Event

Advance publicity for orienteering e.g. local newsletters is advantageous in terms of trying to attract new members but also to give notice to local communities that there may be an impact, often beneficial e.g. additional trade for local cafés and businesses. For major events a postcard drop warning of additional traffic is helpful, as is actual knocking on doors if possible. Posting up advance notices in the competition area shortly before the event (week?) is helpful to give advance warning to other users such as horse riders, dog walkers or mountain bikers who may choose to change their “normal” routine. Orienteering rarely, if ever, seeks exclusive use of an area and other users must be taken into consideration.

The event organiser may have to deal with issues at the event – even with all the best planning and intentions unforeseen issues can and will arise. Land managers are particularly welcome, to see for themselves how orienteering is staged, and hopefully endorse orienteering for the future.

Orienteering enjoys an excellent reputation for leaving areas litter free and “as found” or better. Lord Moray, of Moray Estates (Darnaway) commented on completion of the World Orienteering Championships 2015 *“It's amazing how quickly everything returned to normal after last year's event; within a week you couldn't tell that all those thousands of people had been tearing about the estate - a great tribute to everyone, orienteers and organisers alike”*.

## 8 Further Information

The Scottish Orienteering Association website includes further information and links to appropriate documents e.g. Capercaillie Agreement, FES Concordat and Master Agreement.

The British Orienteering website has a Resource Library including information on Access & Permissions. Note that some of this information may only be applicable to England & Wales e.g. Forestry Commission Agreement.

Links to websites given in this document may change over time, but Google searches should assist. Further information of interest and relevance includes:

E.coli and ticks <https://www.nhsinform.scot/bugs-and-germs>

Top ticks for fighting ticks <https://www.youtube.com/watch?v=tqLlp-zJJKQ>

Lyme Disease and Ticks <https://youtu.be/Quoh5YFVsX0>

Lyme Disease and Ticks <https://checkforticks.wordpress.com/>

Royal Society for the Protection of Birds <https://www.rspb.org.uk/>

Scottish Natural Heritage <http://www.snh.gov.uk/>

Keep It Clean (fight against tree pests & diseases) <http://scotland.forestry.gov.uk/keep-it-clean>

## 9 Contact

The SOA Events Manager can provide additional help and advice if requested. Please contact the Events Manager, Scottish Orienteering Association at the National Orienteering Centre, Glenmore Lodge, Aviemore PH22 1QZ. Email: [colin.matheson@scottish-orienteeing.org](mailto:colin.matheson@scottish-orienteeing.org)

## **Appendix A Orienteering: A Guide for Land Managers**

Orienteering is a competitive, running sport which generally takes competitors off paths and tracks and into unfamiliar terrain. The sport does not involve vehicles of any description, although permission may be sought from the land owner by event officials to take on or two of their own vehicles into an area to allow equipment to be placed at starts, finishes etc.

The preferred terrain types for orienteering are: mature forest and woodland which competitors can run through, dune areas and open moorland. The more undulating and broken the ground the better.

The sport is a running sport at its competitive level with the top competitors undertaking a significant amount of training to enable them to race competitively.

The Scottish Orienteering Association does not manage the 'mountain marathon' type of running sport and similar 'adventure' type events or Mountain Bike Orienteering.

Special orienteering maps are produced of suitable areas for competitions. Ordnance Survey maps are unsuitable as they do not show the required level of detail for accurate navigation.

As orienteering maps are expensive to produce and update, permission is always requested from land managers for orienteering competitions to take place, and then for each individual event or organised activity such as training.

Should there be any areas deemed out of bounds due to nature conservation or land management operations such as lambing or ground nesting bird then these can be marked on competitors' maps and the courses planned to avoid them. These areas can also be marked off on the ground with tape and competitors advised before the competition. Similarly if there are any boundaries which should only be crossed at gates or stiles then existing ones can be used or temporary structures built. This can also be marked on the competitors' maps if requested.

Natural hazards such as dangerous crags are also marked on the competitors' maps, and if necessary, taped off on site with warning tape.

A variety of courses are planned to provide a technical (map reading) as well as physical challenge. The courses and competitors spread out over the area during the competition thus avoiding excessive impact on any particular part of the area. The courses can be from more than 12km for senior men to 1.5km for younger juniors.

The course involves navigating from the start, round a series of checkpoints which are marked on the map, to the finish, in the fastest possible time. The checkpoints are marked on the ground with a red and white flag on a metal post and are located on mapped features such as boulders and knolls. Competitors may take whichever route they chose to get between the checkpoints as long as they avoid any out of bounds or other restricted areas marked on their map.

Courses are planned to comply with the appropriate technical standards and also to follow environmental good practice. In environmentally sensitive areas, Scottish Natural Heritage and other environmental organisations such as the RSPB are consulted, and their advice acted upon, to ensure the sport has minimal impact on the environment.

In order to stop competitors becoming familiar with areas, areas tend to be used at varying intervals and / or have different start and finish locations used at each event so that different courses can be planned for each event.

A variety of courses are planned of different length and technical standard which as well as providing an appropriate challenge for the competitor, can if necessary, spread the competitors out and reduce the impact on any specific compartments.

Numbers attending orienteering competitions can vary from 20 for a local evening training event, to around 600 for a Championship event and as many as 3,000 for the biennial Scottish International 6-Day Orienteering Event.

Except for urban orienteering the sport is not very spectator friendly - spectators are not allowed into the competition areas (forest) but are kept in the finish arena.

Unlike cross-country or hill races, competitors do not start together. Each competitor is allocated a start time over a period of time, usually 2 hours, when they start. This prevents following during the competition and also reduces the volume of traffic trying to get to the car park for a specific start time.

All competitions organised in Scotland by the SOA and its member clubs are registered with the British Orienteering Federation in order that their public liability insurance covers the competition.

Most organised competitions are scheduled well in advance to allow time for the map to be produced, the courses planned and the event publicised.

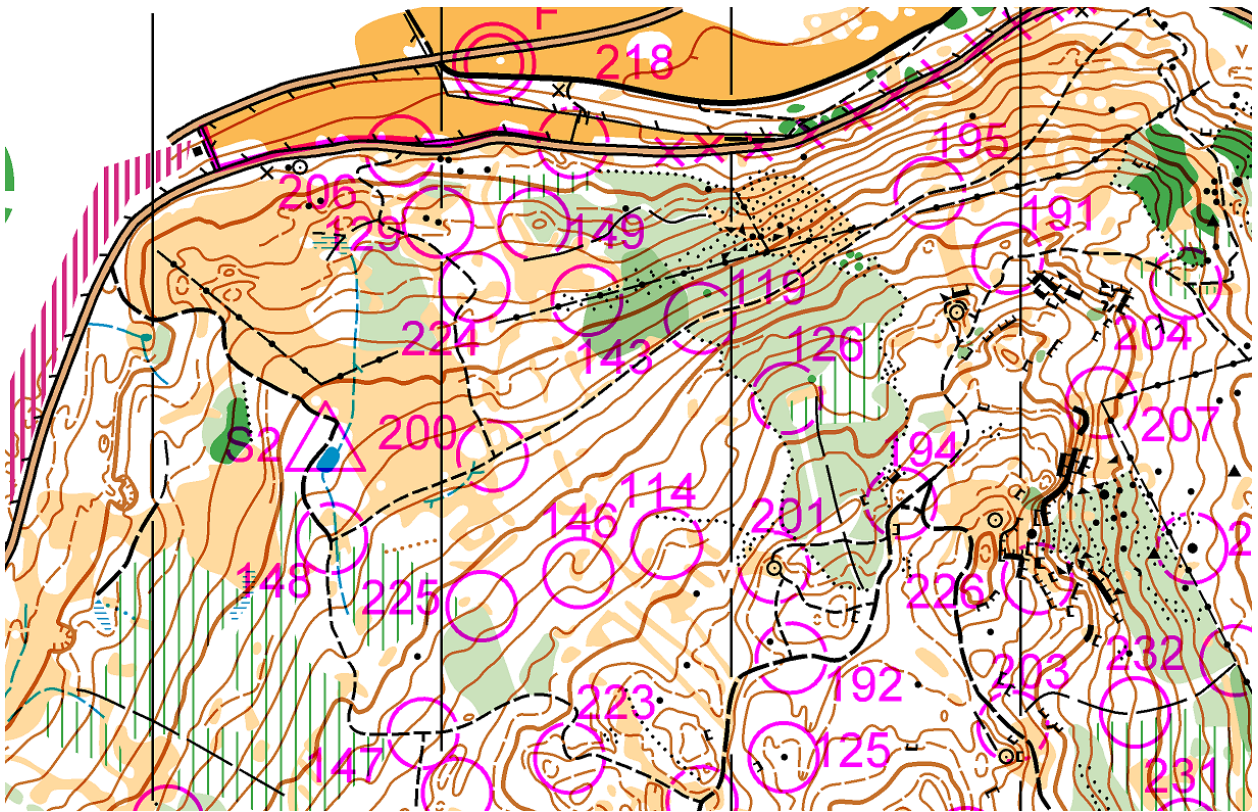
For all events there has to be some thought given to facilities. For a small evening training event a small area for parking will suffice. For larger events a field or similar area for parking, toilets and a finish arena are usually provided. The provision of these and other facilities can be agreed between the land manager and event organiser.

Orienteers have an excellent record in clearing up after events.

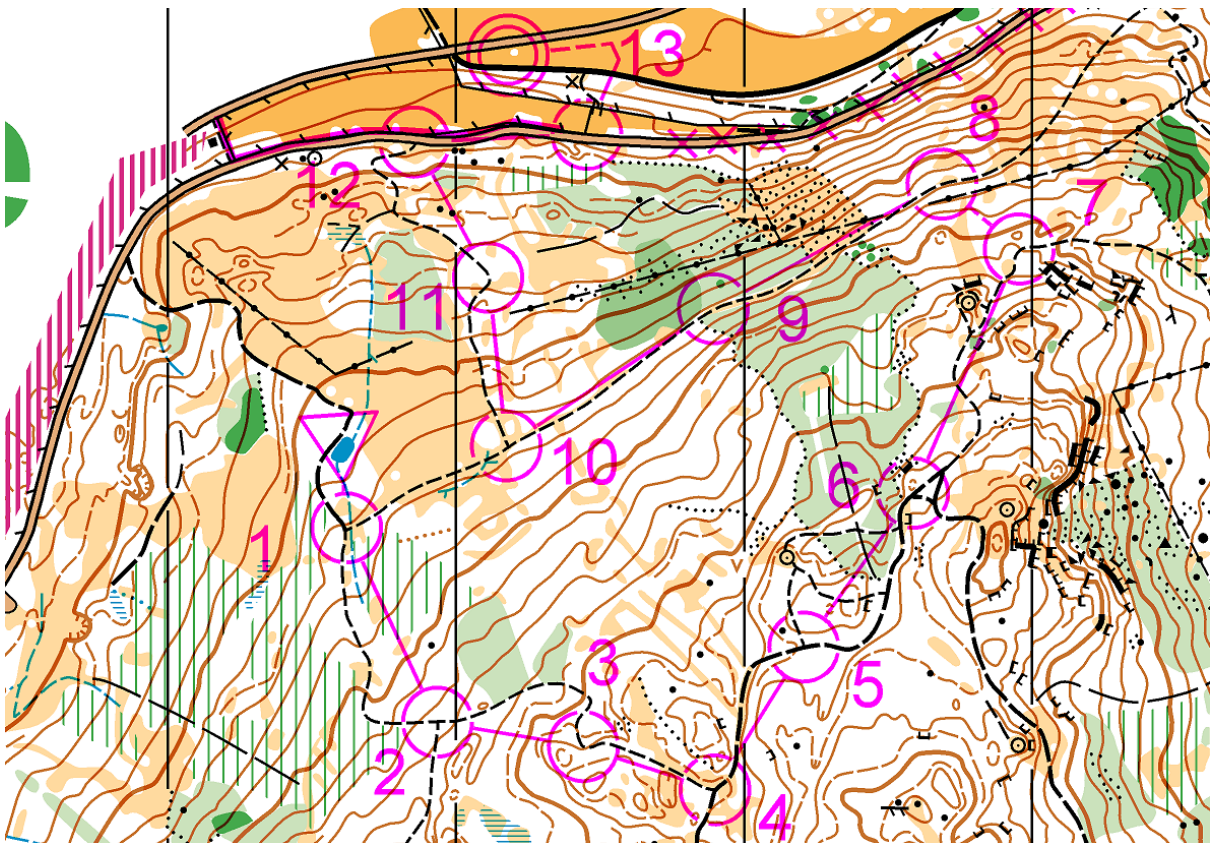
Land managers should ensure that the event organiser fully understands any restrictions or concerns on other factors such as where dogs may go and under what conditions, what happens if damage is inadvertently caused to a parking field, etc.

Major orienteering competitions, especially those over 2 or more days can bring visitors, often outwith the summer period, into an area with the resultant economic benefit.

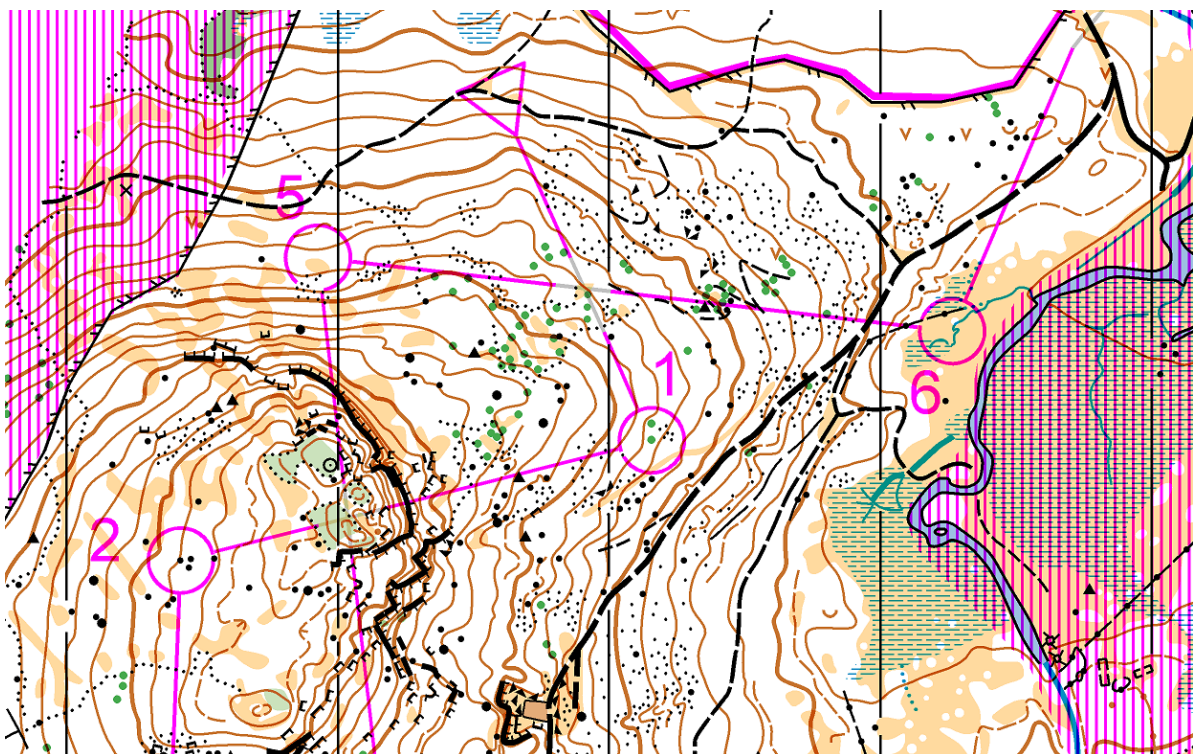
The SOA encourages its member clubs to enter discuss access to areas for orienteering full with land owners and managers. Organisers and course planners are always happy to meet and discuss event infrastructure, course design, location of checkpoints and any other matters concerning the use of the area.



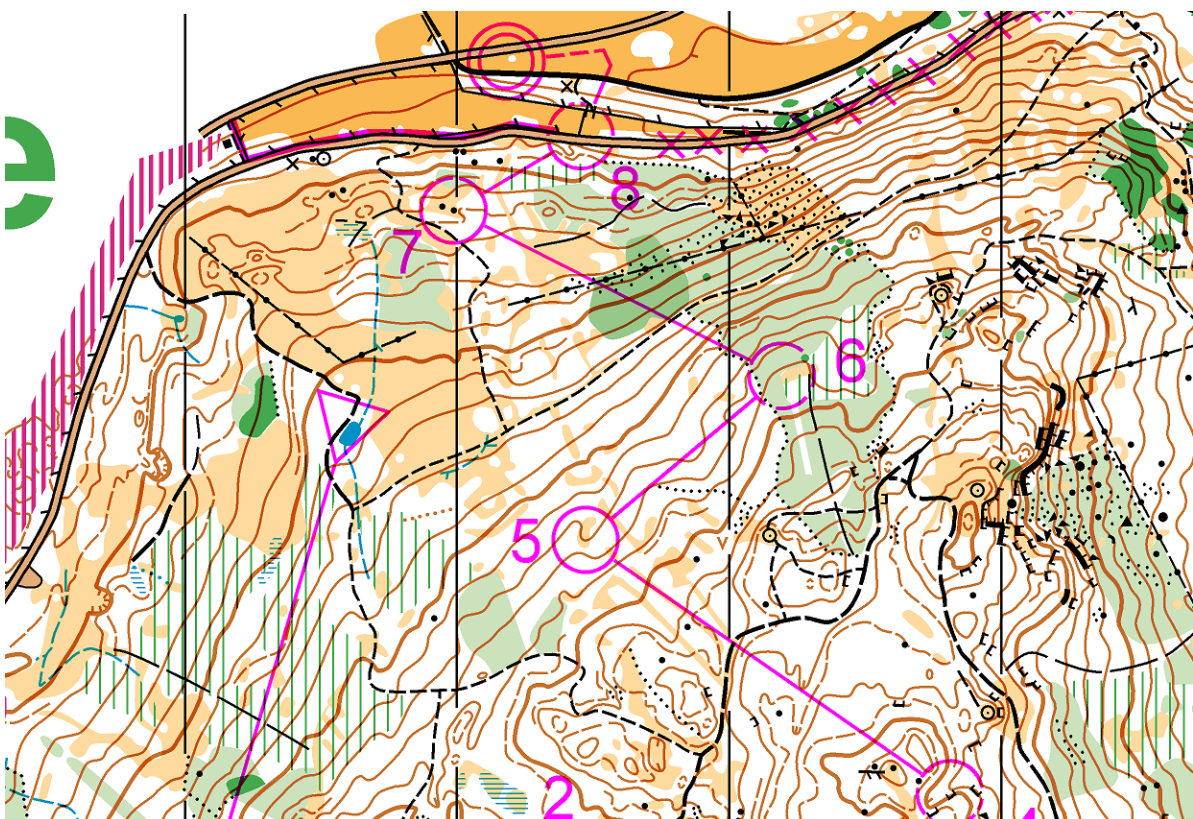
All Controls map extract



Junior Course (line features such as paths and tracks)



Senior Course (small part of course, no line features, difficult navigation, any terrain)



Veteran Course (most of course, no line features, difficult navigation, more forgiving terrain)

## Appendix B Access Agreement

between

Scottish Orienteering Association (Company Number SC334748) having its Registered Office at National Orienteering Centre, C/O Glenmore Lodge, Aviemore, Inverness-shire PH22 1QZ ("the Company")

and

xxxx ("the Land Manager"), Estates Office, xxxx, xxxx, xxxx

- In this Agreement the "Event" means the orienteering competition to take place on Sunday xx July at xxxx as part of the series of orienteering events being organised by the Company.
- The Land Manager hereby grants permission to the Company to use the area(s) of ground shown coloured pink on the maps annexed (A) and signed as relative hereto ("the Arena" and "Competition Area") for the purposes of the Event including (but not limited to)
  - a. Staging of an orienteering event held under the auspices of British Orienteering's Rules of Orienteering in the Competition Area
  - b. Access to the Arena to include:
    - I. Vehicle parking (including use of access tracks and roads)
    - II. Traders' area (including set up of temporary display and sales areas including food vending caravans, temporary placing of generators and parking of traders' vans and trucks)
    - III. Provision of toilet facilities (chemical toilets)
    - IV. A tented village for administration of the Event
    - V. An area within the Arena for erection of Club tents
    - VI. A Results display area including erection of results display boards, electronic displays and fencing
    - VII. A commentary van with supporting generator and loudspeakers
    - VIII. A string course and off-string course area
    - IX. A run-in from the Competition Area through agreed access corridors to final control markers
- Access will be granted to the Arena by the Land Manager, for the installation and removal of infrastructure including trackway, chemical toilets and tentage within a reasonable period before and after the Event.
- Reasonable access for all officials in advance of the Event will be allowed for the purposes of planning, controlling and organising. All access to be with prior approval of the Land Manager, not to be unreasonably withheld or delayed.
- The Company agrees to pay a parking fee of £x per vehicle (inclusive of any VAT) for use of the Arena.

- The parking fee is intended to cover any minor damage and reseeding costs. Recovery of a well-maintained and well-drained grass field after an event with light traffic is normally rapid. In the event of a dispute as to whether reseeding is necessary a mutually chosen third party will be appointed to resolve this. In the event it is agreed that ploughing and re-seeding is necessary, the costs will be borne by the Company
- The Land Manager undertakes to permit the Company to widen gates, install new gates, build stiles and lower fences to permit access by vehicles and pedestrians to and from the Arena, subject always to the Company reinstating such works after the Event where requested.
- The Company undertakes to:
  - a. To comply with all statutory requirements regarding the conduct of the Event, and to procure any consents or permissions required from any public authority to hold or in connection with the Event.
  - b. To provide appropriate facilities for competitors including adequate toilet facilities.
  - c. To remove any infrastructure, to reinstate the Arena to its condition prior to the Event, including clearing litter, and to make good any damage other than minor damage and minor reseeding.
  - d. To provide marshals to supervise and (so far as permitted by law) direct traffic when accessing the Arena.
  - e. To instruct competitors to ensure all dogs are kept only in the car parking area and on leads. Dog faeces is to be collected, bagged and taken off site for proper disposal and a fenced area for exercising dogs is to be provided if requested. Competitors are discouraged to bring dogs and dogs are forbidden in the Competition Area.
  - f. To advise competitors to wear clean shoes i.e. clear of mud and other debris. In the event of a significant biosecurity threat the Land Manager has the right to deny access to the Arena and Competition Area without penalty or notice.
  - g. To bind traders and other contractors in our contracts with them to comply with similar obligations.
  - h. If requested to prepare in advance of the Event a full photographic record of the fields, fences and access roads for the Land Manager's prior approval.
  - i. To take all reasonable measures to prevent competitors entering the area marked as out of bounds
- The event is registered with British Orienteering who have Public Liability Insurance Cover with an indemnity of £10,000,000.00. Copies of the current insurance cover are available on request. Events are subject to safety procedures laid out in the British Orienteering Rules of Orienteering and associated manuals e.g. Scottish 6 Days Organiser Manual. Risk assessments will be carried out for the Event and exhibited to the Land Manager at least 14 days prior to the event.

Agreed by:

.....

NAME:.....

for and on behalf of Land Manager

Date:.....

.....

NAME:.....

for an behalf of the Company

Date:.....

Witnessed by:

.....

NAME:.....

ADDRESS:.....

.....

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Date: .....

.....

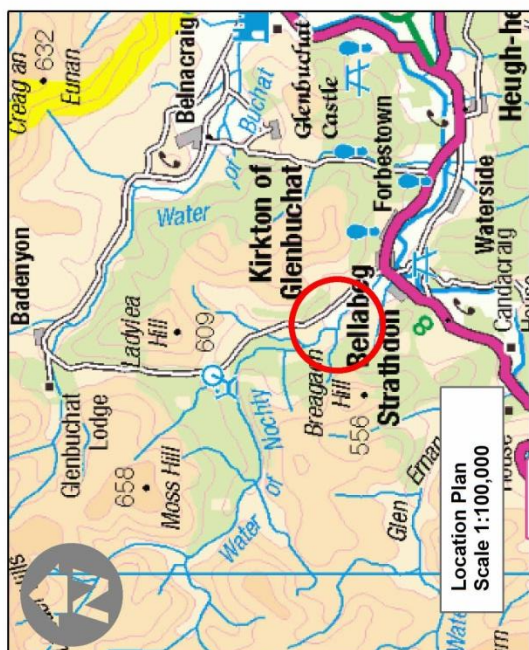
NAME:.....

ADDRESS: .....

.....

.....

Date: .....



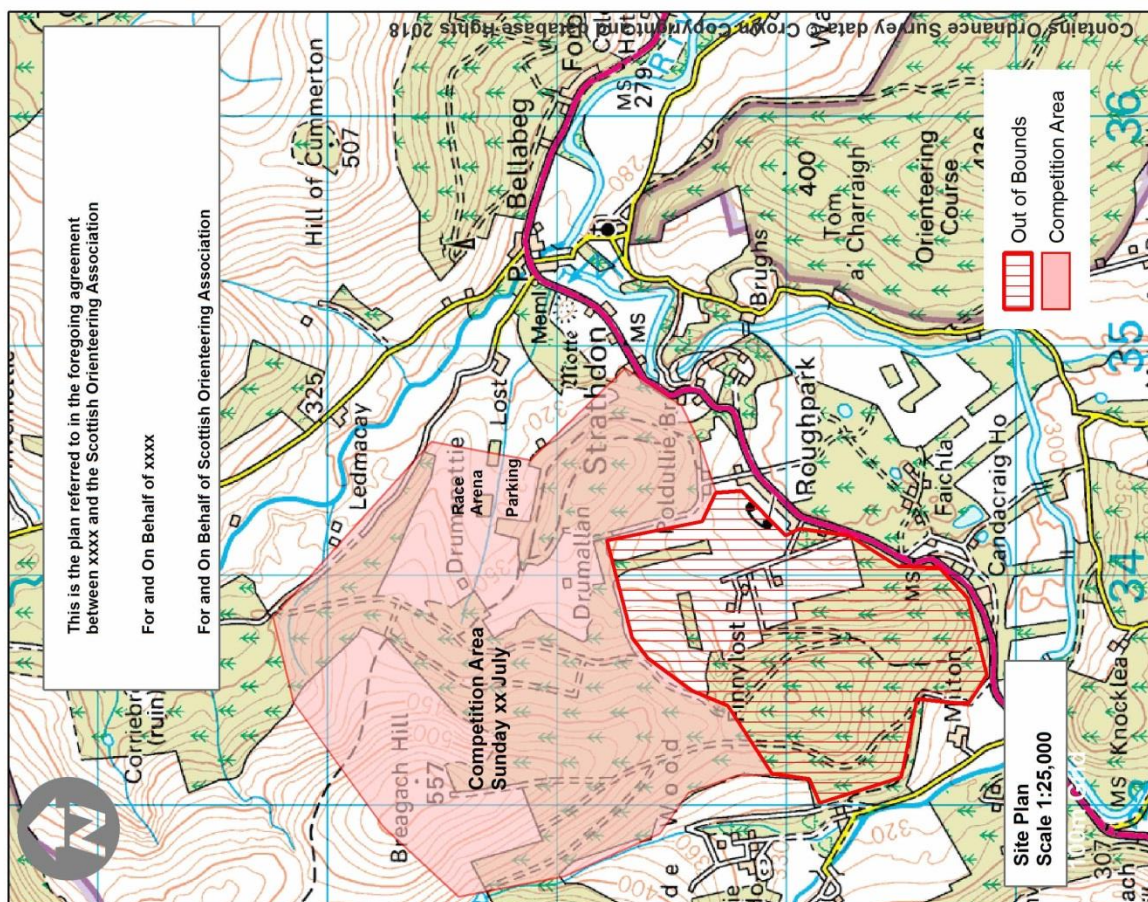
Example only [not actual area]

This plan is published for convenience only.  
Although it is thought to be correct its  
accuracy cannot be guaranteed.

Do not scale from this plan.

Scottish Orienteering Association (Company Number SC334748)  
The Scottish Orienteering Association is a charitable body,  
registered in Scotland, with registration number SC043563

Registered office - National Orienteering Centre, Glenmore Lodge, Glenmore PH22 1QZ



## Appendix C Use of Drones for Orienteering

### Introduction

A drone, in a technological context, is an unmanned aircraft. Drones are also known as unmanned aerial vehicles (UAVs) or small unmanned aircraft (SUAs). The flight of UAVs may operate with various degrees of autonomy: either under remote control by a human operator or autonomously by on-board sensors and GPS. All drones are treated as “an aircraft”, and information about all types of unmanned aviation can be found on the UK Civil Aviation Authority (CAA) website <https://www.caa.co.uk/Consumers/Unmanned-aircraft-and-drones/> and <http://dronesafe.uk/>

Multicopters include devices ranging from tens to many thousands of pounds, with excellent quality quadcopters such as the DJI Phantom around £1,000. Many drones can be fitted with cameras, and it is the use of these drones which is of most relevance and possible concern to land managers. The stability and quality of images from multicopters is impressive – they have a downside in that flying time tends to be limited to about 15 minutes before they return to the operator for a new battery. They have to be kept in sight (about 500 metres) and height restriction is 400 feet. Hand-launched fixed wing drones (that look like model aircraft) are also available.



Light Detection and Ranging or Lidar is a remote sensing technology where the environment is usually scanned with a pulsed laser beam and the reflection time of the signal from the object back to the detector is measured. LiDAR sensors mounted on UAVs are now available, and it is anticipated that there will be rapid advances in the development and usage of these systems.

## Drones for Filming

Producing quality film footage of orienteering events can be restricted by the terrain – often forested or urban areas and the ability to take a “birds-eye” view of competitors, possibly in real time or edited for later display on a monitor or big screen is attractive to event organisers. For example the Scottish 6 Days (Royal Deeside 2017) used drone footage produced by an aerial media company (Rotorworx) as part of a daily video production promoting the sport:<https://www.youtube.com/watch?v=s6GsO-FRcsU&feature=youtu.be> The company involved was asked to provide proof of insurance as well as confirmation of authority from the CAA for permission to fly a UAS (with conditions defined).

A number of orienteers may wish to “fly for fun” and if users follow the drone code the Scottish Orienteering Association (SOA) would not seek to restrict their usage without reasonable cause. Land managers may specifically prohibit use of drones e.g. Forestry Enterprise Scotland states:

*Flying drones (unmanned aircraft) as an informal activity or hobby is not allowed on Scotland's National Forest Estate. This is because this activity is often incompatible with responsible access under the Scottish Outdoor Access Code, particularly in a working forest environment, instances where people are enjoying quiet recreation, or where it may impact on people's privacy.*

If there is any doubt about use of drones, permission from the land manager should be requested.

Permissions to use drones for filming should not be unreasonably withheld but Forestry Enterprise Scotland state that you should contact the relevant Forest District Office if you want to fly drones for professional reasons (such as commercial photography, film-making or surveying).

## Drones for Mapping

Aerial photography and more recently LiDAR data (Digital Terrain Models and Digital Surface Models) has been used extensively to produce base maps for orienteering mapping at large scales. SportScotland, with a back-to-back agreement with the Scottish Government, allowed the SOA free access to all LiDAR data for orienteering development purposes (flown by fixed wing aircraft over recent years, primarily for SEPA and Scottish Water). The Scottish Government is currently planning to make all this data available in the public domain.

Coverage is however limited, and many areas of interest to orienteering, either new areas or revisions of existing maps, would benefit greatly if LiDAR was available. The possibility of LiDAR capture from UAVs (and associated lower costs) means that the SOA is actively pursuing use of this technology. The cost of LiDAR sensors (at present) will effectively restrict the SOA to using appropriate insured and licensed providers.

Data captured would be used for the production of orienteering maps and the SOA would seek ownership and copyright of the data. This data could potentially be sold or licensed to third parties e.g. renewable energy developers, archaeologists to help recover costs.