Participant's Handbook

Orienteering is a sport that combines both a physical and a mental element.

The basic idea in orienteering is to proceed from course start to finish by visiting a number of control points in a pre-determined order, using only a detailed map and a compass.

In order to choose the best possible route, orienteers look at the characteristics of the terrain, and the winner is the person who completes the course in the fastest time.

Orienteering is unique in that an orienteer must navigate and make quick decisions while running at high speed.

EQUIPMENT

Map

Orienteering uses a special map made to specific orienteering standards. The course is printed in purple on top of the map. Maps are given to you at the start.

Compass

A simple compass would be suitable for beginners. It is primarily used to line the map up with North. Advanced orienteers can use a compass attached to their thumb, some may use a magnifier attachment.

SI Stick or Control Card

To record you have visited the right controls you will have to use a Sport Ident Stick or control card.

Control Description Holder

Some orienteers like to use a control description holder attached to their forearm to provide easy viewing of the control descriptions.

Protective clothing

It is important to dress according to the weather and environment, especially bush terrain (whistle, leg protection, glasses, taping, water…)

SKILLS

Map

Orienteering maps have BOLTSS *(Border, Orientation, Legend, Title, Scale, Source)*

Triangle = Starting point.

Circles = control point, marked in the terrain with a white and orange flag.

Double Circle = Finish.

Compass

Compasses can be used for:

- Orientating *(lining the map with North)*
- Bearings *(travelling in a specific direction using the compass)*
- Thumbing *(pointing to your current location on the map)*

Orientating the map

The most important skill in orienteering is to orientate your map.

Orientate your map by **terrain features** – *Map matches the ground*. This is done without using a compass and requires you to look at large features around you to align your map.

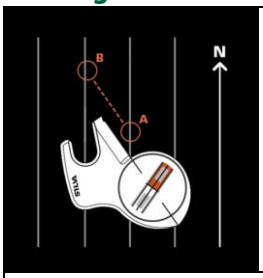
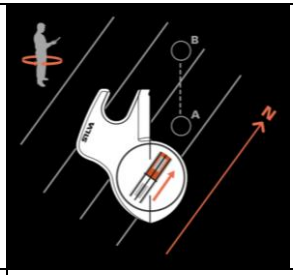
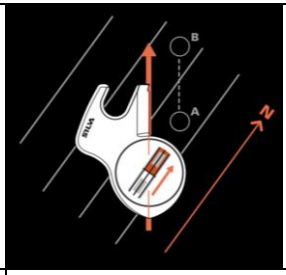
Orientate your map by **compass** – *North to North*. North on the map lines up with North on the compass.

Figuring out what direction to travel

These two steps can be used to quickly and simply point you in the right direction.

1. Turn the map so the direction of travel faces out from your bellybutton (typically from where you are to the next control - often marked with a pink line on the map).
2. Rotate yourself and map as a unit until the map is oriented. The direction you are facing is the direction you want to go.

Bearing

		
1 – Place your compass on the map and use the baseline to make a straight line between your current position and your destination.	2 – Turn yourself and the compass until the compass needle is parallel with the map north lines.	3 – Now the sighting line will point towards your destination. Take a landmark and start moving.

Holding the Map

Fold and hold the map so it isn't flapping around. Use your thumb to point to your position on the map (***thumbing***).

Following a Handrail

Handrails are features that you can easily follow. Tracks, roads and fences are the most obvious, but you can follow streams, ditches, the edges of fields, and other long features just as easily.

Following a “handrail” takes much less concentration than following a compass bearing.

Attack points

An attack point is an obvious feature located near the control that can be easily located on the map and in the terrain. It is used as a ‘jumping-off’ point to locate the control with careful navigation.

Checking Off / Collecting Features

Features you mentally “check off” along a route that tell you you’re on track. This is often referred to as “staying in contact with the map.”

Using Catching Features

A catching feature is a noticeable feature beyond the control that indicates you have gone too far.

Contours

Contours show how step the land is. The height difference between two contours is recorded on the map; usually 2m or 5m. Contours close together means the land is step. The further apart contours are, the gentler the slope. No contours represent flat land.

Identifying **land going up** = smallish oval areas surrounded by larger ones indicate a high point

Identifying **land going down** = look for streams, marshes, or other bodies of water). Often gullies have more undergrowth, so look for green on the map.

Note: Tags on a contour or cliff show downhill.

Hills, peaks, knolls, mountains: A hill, peak, knoll or mountain is an area of high ground. From a hilltop, the ground slopes down

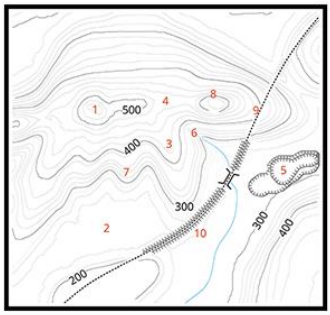
in all directions. A hill is shown on a map by contour lines forming concentric circles. The inside of the smallest closed circle is the hilltop.

Ridge: a ridge is a sloping line of high ground.

Gully: a gully is a stretched-out groove in the land, usually formed by a watercourse, and has high ground on three sides.

Spur: A spur is a short, continuous sloping line of higher ground, normally jutting out from the side of a ridge. A spur is often formed by two roughly parallel streams cutting down the side of a ridge. The ground will slope down in three directions and up in one.

Saddle: A saddle is a dip or low point between two areas of higher ground.



Route choice

Some key questions to consider when choosing a route are:

1 - How runnable is the terrain?
2 - Are there available handrails?
3 - Where are good attack points?
4 - Is there a good catching feature?
5 - Should you choose a safe or riskier navigation option?
6 - How can I avoid any unnecessary steep terrain or climb?

Visualisation
Mentally visualise a map of the terrain.

Mentally visualise the terrain from the map.

Simplification
Use big and/or obvious features to navigate by. This can permit the orienteer to choose routes that they can navigate more quickly. It also can reduce the potential risk of making an error.

Aiming off
To intentionally aim to one side (or 'off') of a feature or control so that you know which way to turn to find it, rather than searching back and forth.

Red-lining
Navigating straight towards a control by trying to keep close to the red line that connects the two controls. This would be the shortest route, but may be the most challenging. It relies on a compass bearing, collecting features and distance judgement and requires close contact with the map.

Rough vs Precision (Traffic Light)
Traffic Light orienteering refers to using three speed zones.

Green = run without much attention to the map.

Orange = slow down and give some attention to the map. Getting close to the attack point.

Red = the slowest and may even require stopping as you put a lot of attention to navigating. Getting close to the control.

Error Recovery Process
Relocation is the process of determining again where you are on the map.

STOP – Save time and stop as soon as you feel lost.
Terrain – Identify unique features in the terrain.
Orientate – Make sure the map is orientated.
Proceed – Continue with caution.

Safety Bearing

A compass bearing that will bring a participant to a road or other easily recognisable feature in the case that they get lost or encounter some other emergency during the event. e.g. South to the sealed road.

NAVIGATION

Navigation is using the orienteering skills to travel from one control to another. Here are two procedures that will help your navigation.

THE 5 FOUNDATIONS OF ORIENTEERING

As a beginner, it is important to get used to a clear and safe method of navigating. The following steps can be used for each control.

- *Orientate your map*
- *Understand where you are on the map and where you are going*
- *Choose and plan your route*
- *Going from A to B*
- *Find the control*

CARE

To speed up your orienteering navigation you could use the CARE strategy for each control.

- **C**ontrol– What is the control description?
- **A**ttack Point – What will my attack point be?
- **R**oute – Which route option will I take?
- **E**xit – What direction will I leave the control in?

https://orienteering.asn.au/

https://act.orienteering.asn.au/

https://onsw.asn.au/

https://oq.orienteering.asn.au/

https://www.sa.orienteering.asn.au/

https://tasorienteering.asn.au/

https://www.vicorienteering.asn.au/

https://wa.orienteering.asn.au/

Orienteering Learning Centre – Orienteering Australia's online education portal featuring both orienteering specific and sport wide courses.

LEGEND

IOF Sprint Orienteering Map Symbols - ISSprOM 2019

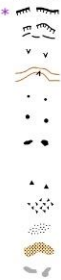
Land forms

Contour
Index contour
Form line
Slope line
Contour value
Earth bank
Small earth wall
Erosion gully or trench
Small erosion gully
Small knoll
Small elongated knoll
Small depression
Pit or hole
Broken ground
Prominent land form

Water and marsh

* Uncrossable body of water
Crossable body of water
Waterhole
Small crossable watercourse
Minor/seasonal watercourse
* Uncrossable marsh
Marsh
Narrow marsh
Indistinct marsh
Small fountain or well
Spring
Prominent water feature

Rock and boulders

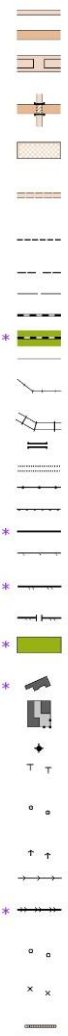


* Impassable cliff
Passable rock face
Rocky pit
Cave
Boulder
Large boulder
Gigantic boulder or rock pillar
Boulder cluster
Boulder field
Stony ground
Open sandy ground
Bare rock

Technical symbols

Magnetic north line

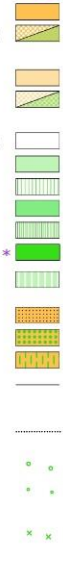
Man-made features



Paved area (light traffic)
Paved area (heavy traffic)
Step or edge of paved area
Paved area in multilevel area
Paved area with scattered trees
Unpaved footpath or track
Small unpaved footpath or track
Less distinct small path
Narrow ride
Railway
* Railway (uncrossable)
Tramway
Power line, cableway or skilift
Major power line
Bridge
Underpass or tunnel
Passable wall
Passable retained wall
* Impassable wall
Passable fence or railing
* Impassable fence or railing
Crossing point
* Area that shall not be entered
* Building
Canopy
Pillar
High tower
Small tower
Cairn, memorial, small monument or boundary stone
Fodder rack
Prominent line feature
* Prominent impassable line feature
Prominent man-made feature
Prominent man-made feature
Stairway

* IOF Rule 17.2: Competitors shall not enter, follow or cross areas, routes or features drawn with these symbols.

Vegetation



Open land
Open land with scattered trees/bushes
Rough open land
Rough open land with scattered trees/bushes
Forest: easy running
Vegetation: slow running
Undergrowth: slow running
Vegetation: walk
Undergrowth: walk
* Impassable vegetation
Forest runnable in one direction
Cultivated land
Orchard
Vineyard or similar
Distinct cultivation boundary
Distinct vegetation boundary
Prominent large tree
Prominent bush or small tree
Prominent vegetation feature

Overprinting symbols

Map issue point
Start
Course line
Control point
Control number
Marked route
Finish
* Out-of-bounds boundary
* Out-of-bounds area
Crossing point
Crossing section
* Temporary construction or closed area

LEARN TO ORIENTEER

Orienteering Australia
www.orienteering.asn.au

Event Calendar and Registration
eventor.orienteering.asn.au

Information in this booklet has been gathered from a range of websites. There is a lot more info out there to explore. In particular:

https://orienteering.sport

www.learnorienteering.com

www.silva.se/guides/navigation-guide

https://act.orienteering.asn.au/resources/skills

ORIENTEERING AUSTRALIA