

## **COURSE PLANNING GUIDELINES**

### **1.0 PLANNING ORIENTEERING COURSES**

For further discussion of course setting please see Appendix 2 of the Orienteering Australia (OA) Competition Rules.

The aim of a course is to safely provide a FAIR test of physical and technical orienteering skills.

Other considerations include:

- a) Competitor enjoyment
  - b) Protection of wildlife and the environment (see OA Rules Appendix 7)
  - c) The needs of media and spectators
- Courses should be set so that skill alone (not chance) determines outcome of competition. Safety of competitors is paramount. You must review 2.10 Event Safety Policy.

### **1.1 FEATURES TO AIM TO ACHIEVE IN A COURSE**

A successful course will test as many skills as possible and keep the competitor thinking.

This is achieved by presenting as many technical problems as possible by providing a:

- a) Variety of terrain
- b) Variety of control sites
- c) Variety of leg lengths
- d) Frequent changes of direction
- e) As much route choice as possible

### **1.2 STEPS IN PLANNING COURSES**

- 1.2.1 Obtain an up to date copy of the map from the Mapping Officer.
- 1.2.2 Where are suitable assembly, finish and parking areas? Good access for two wheel drives must be available. Also enough parking for about 50 cars.
- 1.2.3 Where can children's courses be set? Need linear features (fences, tracks etc)
- 1.2.4 Where can start be located? It is OK to use two starts if required (usually one for children and one for adults).
- 1.2.5 Calculate course lengths based on prescribed winning times (see Event Types Rules and Awards) and km rates (number of minutes to travel one kilometre) previously experienced on area. You will need to adjust for increased/decreased vegetation or steeper/flatter courses if different for previous events. If you need help calculating your course lengths please speak to the Technical Director or an experienced course planner as it is VERY important to get these right.
- 1.2.6 CONDES software provides a 'measuring tape' tool which is useful in planning the outline of courses before they are finalized.
- 1.2.7 Plan shorter courses first.
- 1.2.8 Look for good "legs" (route choice and/or navigation from one control to the next is difficult) and incorporate these into a number of courses.
- 1.2.9 Each course should have at least a different first control. It is preferable to introduce common legs only after the first few controls to avoid competitors "following" each other out of the start region.
- 1.2.10 Don't forget water controls.

## 2.0 SETTING EASY AND MODERATE NAVIGATION COURSES

### 2.1 VERY EASY NAVIGATION COURSES

#### 2.1.1 Course setters should aim to:

- a) Provide an introduction to basic orienteering skills (map orientation, understanding map skills).
- b) Ensure that all competitors complete the course successfully.

#### 2.1.2 The courses must:

- a) Use handrails (distinct linear features) or if not possible use tapes or streamers (combination of yellow and blue tapes is best for the colour blind)
- b) Be navigable without a compass.
- c) Require no contour recognition nor accurate distance estimation.
- d) Be safe and secure.
- e) Offer good visibility and runnability.
- f) Have short legs and a large number of controls with NO route choice
- g) Have control sites as part of the handrail or obvious point features on or beside handrail, and visible from the handrail.
- h) Have a control on every track junction with control situated to lead orienteer in correct direction.
- i) Have the controls clearly visible.
- j) Be very safe. Do not cross difficult obstacles or have legs on busy roads.
- k) Preferably err on the side of being too easy.

### 2.2 EASY NAVIGATION COURSES

#### 2.2.1 Course setters should aim to:

- a) Introduce skills such as:
  - i) basic contour recognition,
  - ii) simple distance estimation,
  - iii) basic route choice (cutting the corner variety),
  - iv) feature recognition.
- b) Avoid wanting to “test” the orienteer.
- c) Enable the better orienteer to use their skills while the less experienced should not get lost.

#### 2.2.2 The courses must:

- a) Be built around handrails but may include strong contour features (well defined gullies and spurs) in conjunction with good catching features (an obvious feature that “catches” the orienteer if they run past the control. E.g. a road).
- b) Have good runnability and visibility.
- c) Allow the orienteer to orient the map from the linear features without the use of a compass.
- d) Allow the orienteer to change direction or change line features without a control at the turning point.
- e) Have controls on handrails or on large visible point or line features no further than 50m from them with an obvious attack point (an obvious point from which to “attack” the control. (E.g. a track junction) on the handrail and a good catching feature behind the control.
- f) Allow occasional cutting of corners (elementary route choice).
- g) Have controls visible from the approach side.

- h) Be very safe. Do not cross difficult obstacles or have legs on busy roads.

### 2.3 MODERATE NAVIGATION COURSES

#### 2.3.1 Course setters should aim to:

- a) Provide technical challenge without allowing serious errors to occur.

#### 2.3.2 The courses should:

- a) Go cross country.
- b) Offer handrail route choices but they should be the least attractive option.
- c) Have legs that enable the orienteer to have good map contact by following or crossing well defined contour features and passing prominent features.
- d) Provide route choices.
- e) Include rough compass running and fine compass navigation of up to 100m.
- f) Require distance estimation of up to 100m.
- g) Have good attack points into the control and a strong catching feature behind it.
- h) Have boundary catching features (if possible).
- i) Have control sites on easier point features that stand up (boulders) rather than those that are depressed (pits). Control sites that are located by reading fairly easy contour detail are OK.
- j) Avoid areas of low visibility.
- k) Have controls on the far side of point features.
- l) Give orienteers a challenge but keep them safe.

### 3.0 SETTING HARD NAVIGATION COURSES

#### 3.1 Hard navigation courses should test all orienteering skills

- a) Map reading
- b) Route choice
- c) Compass skills
- d) Distance estimation
- e) Terrain running
- f) Concentration
- g) Ability to adapt and optimise running speed to different conditions and situations

#### 3.2 GUIDELINES THAT WILL IMPROVE HARD NAVIGATION COURSES

- a) Direction to first control should be hidden.
- b) Set long legs early, short intensive legs near end.
- c) Finish leg should be as short as possible.
- d) Every control and leg should have a purpose. Would a leg be better if shortened slightly? lengthened?, moved?
- e) Keep courses within most detailed area to increase technical problems.
- f) Locate long legs through 'easy' terrain as faster running increases errors.
- g) Always look for route choice within legs. Most difficult navigation should be on fastest route. Look at leg. If a middle control is taken out, will the leg be improved? The number of controls doesn't matter - quality of the leg does.
- h) A minimum of 2 controls in every patch of detail is better than 1.
- i) When there are several features in a row, use furthest. The poor orienteer will search all.
- j) Diagonal legs up hills are not as physical and provide more difficult navigation.
- k) After looking at a course for a while it appears easy and in the field, control sites are easy when walking slowly. Don't worry about this. DO NOT hide controls.
- l) If in doubt about control sites, don't use them. Make courses or control sites easier if necessary.

- m) If you have difficulty locating a feature in the field, don't use it.

#### 4.0 FEATURES TO AVOID ON A COURSE

- a) Same first control for different courses.
- b) Creating too much work by using more than about 60 controls for event. Share controls between courses.
- c) Don't make courses unnecessarily physical. 4% climb (based on climb/distance for optimum route choice) should be the maximum.
- d) Dog Legs (in and out of a control in the one direction) - Where could Orienteers run? Do other courses share the control from different directions?
- e) 'Dead running' with no navigational challenge.
- f) 'Bingo' Controls that rely on chance rather than orienteering skills to be found. For example, a single, small boulder on the side of a steep hill covered with rocky ground.
- g) Controls where presence of other orienteers helps.
- h) Controls near map edge.
- i) Route choices that could easily allow an orienteer to run off the map edge.
- j) Controls close to each other on similar features.
- k) Controls with similar codes in close proximity.
- l) Tricks! (hidden controls, controls in a maze of detail, controls in dark green).
- m) Chances for cheats (or unwary) to punch control out of order. (Not a problem with Sportident.).
- n) Don't use poorly mapped areas or control locations that cannot be clearly described (if in doubt, don't use them).

#### 5.0 REVIEW OF COURSES

Provide your draft courses to an experienced orienteer for feedback. Often this person will be the Controller for your event. The reviewer should check your courses against the above checklists!