



## **NATIONAL ORIENTEERING LEAGUE**

# **ORGANISER'S GUIDELINES**

**January 2009**

**These Rules constitute OA Operational Manual 2.2**

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## 1 Introduction

### 1.1 Aims of the National Orienteering League

The aims of the National Orienteering League are to:

- Offer elite and junior elite competitors well-organised and technically demanding races against quality fields;
- Develop elite and junior elite orienteering in all States/Territories of Australia;
- Prepare elite and junior elite orienteers for international competition;
- Provide high profile orienteering events that will attract media attention and sponsorship;
- Give National League organisers, course-planners and controllers experience with national elite events.
- Showcase Australia's elite to the public and media and determine the best in the country over an orienteering season.

The National Orienteering League is primarily a teams competition.

### 1.2 Definitions

**National League:** The National Orienteering League, for teams, conducted in four divisions.

**National Series:** The National Orienteering Series, for individuals, conducted in four divisions, that underpins the National League

**Event:** A competition held as part of the National League.

**Round:** One or more events held in the same general location, with consecutive events separated by not more than six days. There are typically four rounds in a calendar year.

### 1.3 Manager High Performance

Orienteering Australia's Manager, High Performance, is the first point of contact for organisers. This person's duties include:

- Liaison with the Orienteering Australia Board and event organisers to ensure that the aims of National League are met;
- Updating these guidelines when required;
- Processing event applications for following season;
- Ensuring prompt publication of results; and
- Helping to arrange media coverage in conjunction with event organisers and the Orienteering Australia's Director, Development.

Some of these duties are provided with assistance from the High Performance Management Group.

## 2 National League Rules

The conduct of National League events is governed by the Competition Rules for Orienteering Australia Foot Orienteering Events (Operational Manual 2nd Ed Leaflet 2.1). These guidelines are supplemental to those Rules, and are intended to provide additional details to facilitate the smooth organisation of National League events. Where possible, pointers to the relevant rules are included below.

### 2.1 Participation

National League events are open, and all individual competitors (both Australian and overseas) are eligible to score points in the National Series; see clause 2.2 below.

To be eligible to score points for a National League team, competitors must be Australian residents under (Operational Manual 2nd Ed Leaflet 2.1 rule 6.3) or likely to be, in the opinion of the Head Coach, legally resident in Australia for at least six months in that calendar year. The team of a competitor is determined by the State/Territory association of their club, and competitors may only run for one team in a given year (Operational Manual 2nd Ed Leaflet 2.1 rule 6.11).

## **2.2 Divisions**

There are four divisions of the **National League**:

- Men
- Women
- Junior Men
- Junior Women

Underpinning the National League is a **National Orienteering Series** which is an individual based competition:

- **Men:** Conducted in the M21E class. Where M17-20E runs the same course as M21E, junior competitors will also be eligible for points in the Men's division.
- **Women:** Conducted in the W21E class. Where W17-20E runs the same course as W21E, junior competitors will also be eligible for points in the Women's division.
- **Junior Women:** Conducted over the W17-20E class. In most Sprint and Middle Distance races (and in some Long Distance races) W17-20E will run the same course as W21E.
- **Junior Men:** Conducted over the M17-20E class. In most Sprint and Middle Distance races (and in some Long Distance races) M17-20E will run the same course as M21E.

## **2.3 Teams**

National League teams may be formed by:

- Individual State/Territory Associations;
- A combination of State/Territory Associations;
- National and State/Territory academies or institutes of sport.

The intention to participate must be advised to the Manager, High Performance by 1 January each year. In addition the design of the official team uniform must be submitted by this date.

Each team shall appoint a manager who will be the point of contact between the team, the Manager, High Performance and event organisers.

Team managers shall provide the Manager, High Performance a list of team members who will form the team for each race in that round of the National League not less than three weeks before that round. Changes after this time may be permitted subject to the Manager, High Performance being advised immediately such a change occurs. The nominated team members shall be required to wear the team uniform for that team in order to score points for their team in races that constitute the round of the National League.

Note that the Australian Sports Commission logo should be displayed prominently on team uniforms.

## **2.4 Application and Allocation of Events**

Applications to host National League events should be submitted to the Manager High Performance by February 15 of the preceding year. Applications should include the following information:

- General location;
- Map and terrain details;
- Proposed format;
- Organising body and contact details;
- Key personnel including the course-setter and controller.

## **2.5 Event Schedule**

The annual schedule of National League events is prepared by the High Performance Management Group, and ratified by the Orienteering Australia Board. The following criteria are considered in deciding the schedule:

- There should be at least ten events;
- The annual program should have approximately equal distributions of the four primary foot orienteering disciplines, i.e. Sprint, Middle Distance, Long Distance and Relay;

- Every State/Territory should be given the opportunity to hold an event at least once every two years;
- A National League event should not be held within 48 hours of a State/Territory Championship in a different State/Territory;
- All Australian Championships shall be part of the National League (unless prohibited by the above criteria) and the Australian Relay Championships should normally be the final event;
- Other factors to be considered include:
  - Quality of the map and terrain;
  - Experience of the organisers; and
  - Variation in the type of terrain and the type of events over the National League season.

The final event schedule for each National League season should be approved by the Orienteering Australia Board by the Annual General Meeting of the previous year.

**2.6 Point Scoring System**

**2.6.1 Team Point Scoring System**

Team point scores are awarded as follows:

<b>Placing</b>	<b>Points Awarded</b>
1st	9
2nd	7
3rd	5
4th	4
5th	3
6th	2
7th	1

After each event, points from each of the four divisions are added to give the National League Team scores.

For individual events, teams in each of the four divisions are ranked according to the sum of the times of their best three competitors in each division, with the following provisos:

- Teams with less than three finishers are awarded points on the basis of the next best results. That is in order, the sum of the best two competitors or one competitor;
- Teams which have no finishers receive no points;
- Teams with an equal total time are placed according to the results of the highest placed competitors in each team;
- Teams still equal shall be considered to have tied.

For relay events, teams shall be ranked according to their placing:

- Teams which fail to complete the course receive no points.
- In the Australian Relay Championships points in both the Teams and Junior Teams divisions are doubled.

### 2.6.2 National Series Point Scoring System

Points in the National Series are awarded as follows:

Placing	Points	Placing	Points	Placing	Points
1st	30	10th	16	19th	7
2nd	27	11th	15	20th	6
3rd	24	12th	14	21st	5
4th	22	13th	13	22nd	4
5th	21	14th	12	23rd	3
6th	20	15th	11	24th	2
7th	19	16th	10	25th	1
8th	18	17th	9	Others	0
9th	17	18th	8		

**In addition:**

If two or more competitors are tied in an event, they shall each be awarded the points for the place for which they are tied.

An additional 3 points are awarded for each placing in the final individual event of the National Series (usually the Australian Long Distance Championships), with points extending down to 28th place.

### 2.6.3 Cumulative Scores for the Season

The total team scores in the Senior divisions of the National League is the sum of Team points scored at all events. Teams which score an equal number of points during the season shall be placed according to the number of points scored in the final event. Teams which are still equal shall be considered to have tied.

The total score for individuals in the Senior divisions of the National Series is the sum of their best 8 event scores.

The total scores for the Junior divisions of the National Series & National League is the sum of the best 50%, or 50% plus one in the event of an odd number of events, point scores over the season respectively. (This rule is designed to allow teams to register full team scores even if juniors are not able to travel to all events.) Teams which are equal shall be considered to have tied.

Scoring is the same in all four divisions for both the National League and National Series, as set out in clauses 2.6.1 and 2.6.2, and will be used to decide overall placings for the season. Competitors with an equal total score shall be considered to have tied.

### 2.7 Ceremonies

After the final race of the season the Manager, High Performance, shall organise a presentation ceremony. The winners of each division shall be presented with the perpetual trophies. Winners of the individual competitions will also receive mementos.

### 2.8 National League Event Administrator

The role of the National League Event Administrator is to provide pre-event advice in conjunction with the OA Manager, High Performance, to the Event Controller and to perform the post-race administration of the event.

The National League Event Administrator could be a person who had competed in the supporting event, if held in conjunction with the National League event, but not in the National League.

The primary post-race role of the National League Event Administrator would be to ensure the timely confirmation of results. When the National League Event Advisor has determined that all results were official, a notice should be put at the head of the results and, if a public address system is available, an announcement should be made that the results were official.

Following the declaration of the results being official, if a competitor wishes to lodge a complaint it shall be through the National League Event Administrator within 15 minutes in accordance with Operational Manual 2nd Ed Leaflet 2.1 rule 27.5.

**3 Time Schedule**

The schedule below is indicative only:

Date	Action
February 15, previous year	Applications to hold events sent to Manager, High Performance
March 15, previous year	HPMG recommends event schedule to OA Board for approval.
OA AGM, previous year	OA Board announces final event schedule
January 1	Team managers to provide Manager, High Performance, with intention to compete and design of full team uniform
3 months before event	Invitation posted on OA website
1 month before event	Entries close
3 weeks before event	Team managers to provide list of individuals competing in divisions of the National League for that event for their team.
2 weeks before event	Event program posted on OA website
within 1 day of event	Results posted on OA website

**4 Pre-Event Information**

The minimum information required before the event is set out in the Operational Manual 2nd Ed Leaflet 2.1 Appendix 8. These rules require an invitation, which includes information competitors need to know before entering, and an event program which should include information needed immediately before the event.

**4.1 Invitation**

The organiser is required to issue an invitation as per Operational Manual 2nd Ed Leaflet 2.1 rule 8.4. The invitation should include, as a minimum, the following information:

- Organiser and the names of the event director and Controller(s) address, telephone/fax number, website and email address for information;
- Sponsors;
- Approximate venue;
- Dates;
- Classes offered;
- Entry forms, entry procedure and fees;
- Latest date and address for entries;
- Accommodation available;
- Course format and winning times;
- Opportunities for training;
- Embargoed areas, and information about how to obtain copies of any previous orienteering map(s) of the embargoed area(s);
- Other information of interest.

This information must be posted on the OA website a minimum of 3 months before the event. Remember that competitors may be unfamiliar with the area of the event, so that recommendations for accommodation alternatives and local restaurants will always be appreciated.

## **4.2 Event Program**

The organiser should post the event program on the OA website a minimum of two weeks before the event. (There is no need to send out hard copies of this information to competitors – website is sufficient). The required information, as per Operational Manual 2nd Ed Leaflet 2.1 rule 8.5 includes:

- Full details of venues and travel directions;
- Scale, contour interval of maps and any other relevant mapping information;
- Start and finish procedures;
- Distances from parking to finish and finish to start(s);
- Registration times, venue and procedure;
- Facilities available (changing, refreshments, etc);
- Full start lists.

Information such as venue and travel directions must be comprehensive for interstate visitors, and should be posted as soon as practical.

## **5 Competition**

### **5.1 Disciplines**

The National League should be composed of a roughly equal number of events of the four orienteering disciplines: Sprint, Middle Distance, Long Distance and Relay. The difference between disciplines, as defined in Operational Manual 2nd Ed Leaflet 2.1 Appendix 8, is not simply the length of the race – a number of key points about the course-setting style required for each discipline should be noted (see Section 7 to these Guidelines for example courses):

**Sprint** orienteering is a fast, visible format allowing orienteering to be staged within or close to urban areas:

- Very high speed requiring the athletes' full concentration throughout the race.
- Difficult route choice, requiring high concentration with an emphasis on making decisions at high speed.
- Finding controls should not be the challenge; rather the ability to choose and complete the best route to them (e.g. the most obvious way out of a control should not necessarily be the most favourable one).
- The start should be at the finish/competition area.
- Areas so complex that it is doubtful whether a competitor can interpret the map at high speed should be avoided (e.g. complex 3-dimensional structures).
- Typically 12-15 controls.
- Park, forest or streets.
- Map scale 1:4000 or 1:5000.
- Start interval 1 minute.
- Winning time 12-15 minutes.

**Middle Distance** orienteering is technical over the whole course and demands fast, accurate orienteering:

- Emphasis on detailed navigation requiring constant concentration on map reading with many changes of direction out from controls.
- High speed, but runners are required to adjust speed.
- Legs may involve route choice but not at the expense of technically demanding orienteering – all routes should involve demanding navigation.
- Competitors should be seen by spectators during the race; the start can be at the finish/competition area.
- Typically 15-20 controls.
- Technically complex terrain, mostly forested.
- Map scale 1:10 000.
- Start interval 2 minutes.
- Winning time 30-35 minutes.

**Long Distance** orienteering places a high emphasis on physical endurance, but the course should require a mix of all orienteering skills: route choice, technical orienteering and physical fitness.

- Aims to test the athletes' ability to make efficient route choices, read and interpret the map and plan the race for endurance.
- Significant route choice including some large scale route choices – the control is the end point of a long leg and is not necessarily difficult to find.
- May include elements characteristic of the Middle Distance with sections of more technically demanding legs.
- Typically 15-30 controls.
- Tough, mostly forested terrain allowing good route choice possibilities.
- Map scale 1:15 000.
- Start interval 2 or 3 minutes.
- Winning time Men 75-90 minutes (60-70 for M17-20E), Women 60-70 minutes (50-55 for W17-20E).\*

\*If the junior divisions are competing over the same course as senior divisions, then winning times must be shortened to 50 minutes for women and 65 minutes for men. This may occur in non-championship Long Distance competitions only. If winning times are longer than this, then the junior divisions must run separate courses.

In addition, when there are a series of races in one weekend, winning times may also be reduced. As such, target winning times for each Long Distance race should be specified in the NL Schedule, the event invitation and event program.

**Relay** orienteering is a competition for teams of three runners running on head-to-head with a first-past-the-post winner. The race should be exciting for spectators and competitors.

- A mixture of technical difficulties with some small and medium scale route choice possibilities, similar to the Middle Distance.
- High speed, often in close proximity to other runners.
- Complex terrain.
- Map scale 1:10 000.
- Mass start.
- Winning time 40 minutes per leg for Women (35 for W17-20E) and 45 minutes per leg for men (40 for M17-20E).
- The courses should be split, with maximal splitting on the first part of the course and less on the middle and last part of the course. The final 1-2 kilometres of the final leg should be the same for all teams.
- The differences in leg length (i.e. all 1st legs, all 2nd legs etc) should be no more than a 1 minute difference in order to give a reasonable indication of the standing after each leg.

### **Loop Races**

NOL races may also provide the opportunity for alternative race formats such as multi-loop races. Such races may involve a mass-start, with runners completing the loops in a different order. In addition, the loops should be split into parts, allowing additional permutations and thus further limiting the possibility for following. For example, a race with 2 loops, and each loop divided into 3 parts will allow a total of 8 course permutations; while a 3-loop race with 2 parts per loop enables 36 permutations. Course-setters should aim for a minimum of 16 permutations for National League events.

Courses that involve looping must be fair to all competitors and provide a useful picture of the progress of the race. The expected fastest times for each loop should be equal (within 1 minute).

**The final loop or last 1-2 kilometres should be common for all competitors.**

### **ASC Galaxy Format**

The ASC Galaxy was introduced in March 2001 to meet a number of objectives, to:

- Recognise the support provided by the Australian Sports Commission (ASC). This was a requirement of Funding and Service Level Agreements between the ASC and Orienteering Australia during the 2001-05 funding quadrennium;



- Provide Australian orienteers with experience in competing in Sprint Distance Finals which were introduced at the World Championships in 2001. Hence the starting order, in the reverse of current rankings, is used to simulate the starting in finals at World Championships;
- Provide Australian orienteers with experience in competing in the World Games head to head looped format which was introduced in 2001. [The format was used in 2001, 2002 and 2003 and again in 2008]; and
- Have at least one National League event that met the best practice model for such races in offering awards such as prize money and medals. The awards are funded from the ASC sponsorship.

The name 'Galaxy' was chosen as a catchy title based on a contraction of 'Galaxy of Stars'.

### **Special Rules for the 2008 ASC Galaxy**

The special rules for the 2008 ASC Galaxy are:

- Men's and women's divisions have separate age classes, Senior and Junior, but there will be one start list based on national rankings as at first day of the preceding month. This means that highly ranked juniors will have the benefit of starting amongst orienteers of similar ability, irrespective of age;
- Courses will be looped roughly through two loops with a spectator control (there will be no map change) with a final common loop of a few controls. All competitors will start in pairs with lowest ranked competitors starting first. Women will start first. Should there be uneven numbers, the first runners will start alone;
- Competitors will wear specific ASC Galaxy running number bibs, numbered in reverse to the starting order, ie the last men's competitor will wear number one and the last women's competitor will wear number 101; and
- Medals will be presented to placegetters in all four age classes, and cash prizes will be presented to the fastest three competitors on each course.

## **5.2 Maps**

The map shall conform to the "International Specification for Orienteering Maps" or "International Specification for Sprint Orienteering Maps", as applicable, and be of good national standard. It is permissible to use maps that have been previously used, provided that they are accurate, with no major changes that affect the courses. Minor map corrections may be overprinted with the courses with the controller's approval.

If an area has been previously used the organiser must make a copy of the previous map available at registration on the day of the event. Otherwise, on the day of the event no map of the competition area shall be used by competitors nor by team officials.

If no other embargoes are current, the map should be embargoed to all National League competitors for three months prior to the competition.

The competition map should be sealed in a transparent plastic bag of at least 0.20 mm thickness.

## **5.3 Training and Model Events**

The organiser should be able to inform competitors of suitable training areas and how to obtain maps. Model events are not usual for National League events but may be appropriate in some circumstances, e.g.:

- Previously unused map or terrain
- Particularly difficult or unusual terrain
- In situations where some competitors are likely to have an advantage due to familiarity with the terrain.

It is acceptable to hold a model event on the day of the competition (e.g. a map of the warm up area).

## **5.4 Course Planning**

The prime requirement for courses is fairness. There must be

- No questionable control locations

- No elements of luck in determining the best route choices
- No controls where the presence of another runner can give away the location of the control
- No elements of surprise with regards to map symbols
- No map errors which might influence the race

The second requirement for the courses is a balanced orienteering challenge. The courses should be as difficult as the terrain permits.

A National League course planner has to balance the need for a fair, challenging race with the needs of the public and media.

Course planners should note the Leibnitz Convention (Operational Manual 2nd Ed Leaflet 2.1 Appendix 9). This convention outlines ways in which the IOF believes orienteering can become more attractive to spectators and the media, including the layout of the assembly area, the provision for spectator controls and spectator viewing of both start and finish.

National League events require the appointment of Level 3 OA Controllers. In exceptional circumstances, special dispensation may be given to the organising State/Territory if a Level 3 Controller cannot be found. The organising State/Territory should request permission from the Orienteering Australia's Director, Technical in such circumstances.

In addition to the controller there is a National League controller, who will vet all courses for the year. This will simply involve a paper copy of an early draft to be sent to that person for comment. The National League controller will be appointed by the High Performance Management Group in the preceding year and organisers of rounds advised.

Courses shall be pre-marked on the map for all National League events and competitors shall not be permitted to view the course before their allocated starting time.

### **5.5 Start Draw**

The start draw shall be made according to Operational Manual 2nd Ed Leaflet 2.1 Section 12.

- For interval starts, the start draw should be performed to give random start positions, as per Operational Manual 2nd Ed Leaflet 2.1 rules 12.5 to 12.7, with competitors seeded according to prior performance. Reverse-ranking starts are allowed (as per rule 12.17), only when specified in the National League schedule.
- For mass-start multi-loop individual races the top-seeded runners should be placed on separate permutations.
- Qualification races should not be used for National League races.
- A Red Start Group (see rule 12.17) may be used, in which the top 10 ranked runners are randomly allocated the last 10 start positions, only when specified in the National League schedule.

### **5.6 Start**

As per the Leibnitz convention it is recommended that the start, as well as the finish is included within the assembly area, in view of both the commentator and spectators. It is acceptable to have a pre-start (as per Operational Manual 2nd Ed Leaflet 2.1 rule 22.3). Note that competitor's names should be called at the start or pre-start as (rules 22.4 and 22.5).

### **5.7 Competition Numbers**

The first 200 competition numbers for individual events that include a National League race shall be reserved for National League competitors. The individual competition numbers for the whole year shall be based on national rankings as at 31 December of the preceding year, with the top 50 competitors being allocated numbers in accordance with their ranking. Competitors who are not in the top 50 will be allocated numbers on a race-by-race basis. The Men's and Junior Men's numbers will run from 1 to 100 and the Women's and Junior Women's from 101 to 200.

The first 50 team numbers for relay events that include a National League race shall be reserved for National League competitors. Relay team numbers will be based on the final Team division standings of the previous year. The numbers will be awarded firstly to the Men's teams with

number 1 being allocated to the top team in the Team division, number 2 to the second top team, and so on until all men's teams have been allocated a number. The Women's teams will be allocated a number on the same basis starting with the next available number, followed by Junior Men, and then Junior Women.

**Competitors' Numbered Bibs.** Competitors' numbered bibs are an important tool in projecting the image of professionally managed sport, in recognising sponsors, and in identifying competitors in photographs, and should be worn by all competitors in all National League events. Where competitors' numbered bibs are supplied for all general competitors, e.g. the Australian Championships carnival, the Australian 3-Days, etc. the organiser will be responsible for providing the competitors' numbered bibs. Where they are not provided for all general competitors, the competitors' numbered bibs will be provided by Orienteering Australia. Arrangements for the provision of such bibs are to be made through the Orienteering Australia Manager, High Performance, and Director (Development).

### **5.8 Controls and Punching Systems**

Punching systems are outlined in Operational Manual 2nd Ed Leaflet 2.1 Section 20. Electronic punching should be used for all National League events.

### **5.9 On-Course Refreshments**

Water should be provided at 25 minute intervals on all races longer than 30 minutes, and must be situated at control points (see Operational Manual 2nd Ed Leaflet 2.1 rule 19.8).

### **5.10 Finish**

The finish should be within the assembly area, and should be prominent so that spectators have a good view of competitors as they punch the final control, and finish the race.

### **5.11 Timing**

It is acceptable to use the electronic punching system for finish timing. It is recommended that competitors start exactly at their allotted time, and are not required to punch a control at the start.

### **5.12 Results Display**

In the assembly area, a results display should be provided in a prominent place.

Before the start of the race, the results display should show the cumulative teams and individual point scores. During the race the final times of all runners should be displayed continuously. In addition it is desirable to have intermediate times from one or two split controls displayed with the results.

As soon as practical after the finish of the race, the team and individual point scores should be calculated, and added to the cumulative scores on the display. Remember that the primary interest for many spectators will be the team standings; these standings should be prominently displayed and updated as soon as possible.

### **5.13 Commentary**

Commentary is important for the atmosphere at the finish. The progress of the National League race should be the central concern. Commentary should continuously transmit intermediate times, finish times, announce competitors as they start, draw attention to competitors just coming in, interview competitors, comment on the results and the overall National League standings.

### **5.14 Media and Spectators**

Every effort should be made to make National League events interesting for the media and spectators without jeopardising the fairness of the event.

The finish should be set up with photographers and media in mind; noting that the best direction for taking photographs of runners in a finish chute is for them to be running towards the sun, i.e. where possible, a finish chute should be from south to north, with photographers being able to

get clear shots of competitors at the last control, in the finish chute and crossing under the finish banner.

Sponsorship banners should be displayed so that they will feature in any media coverage of the event. Examples of well-presented finish chutes and displays of banners are in the Attachment.

On arrival, printed start lists should be made available for the media and spectators.

If course-setting constraints allow a spectator control near the finish is an excellent way to increase spectator excitement. Immediately after the last start the race map should be available at the finish for competitors, media representatives and spectators.

A display of the map with winners' routes drawn in is a good special attraction.

A printed copy of the results together with access to an electronic version of the results (including split times) should be made available to the Orienteering Australia media officer and any other media personnel present.

### **5.15 Jury**

The organising State/Territory Association shall appoint a jury according to Operational Manual 2nd Ed Leaflet 2.1 rule 29.10 or rule 29.11, as applicable. The makeup of the jury shall be made public on the day of the event at the latest.

### **5.16 Complaints and Protests**

Complaints and protests shall be handled in accordance with Operational Manual 2nd Ed Leaflet 2.1 Sections 27 and 28.

## **6 After the Event**

### **6.1 Results**

Results of all National League events and an update of the cumulative team and individual standings should be posted on the OA website on the day of the event where practical.

### **6.2 Reports**

The organiser of each National League event shall present a brief report to the Manager High Performance within 6 weeks of the event. The report should contain:

- One copy of the map and courses
- A copy of the results
- Any comments or recommendations

The Manager, High Performance, shall make a written report to the Orienteering Australia Council for the Annual Conference.

**7 Example Courses**

In this section we show several example courses for different disciplines. These maps are intended as a guide to point out key aspects of each discipline. The maps are scaled to fit onto the page, and resolution has been reduced to limit file size for this document.

**7.1 Sprint Courses**



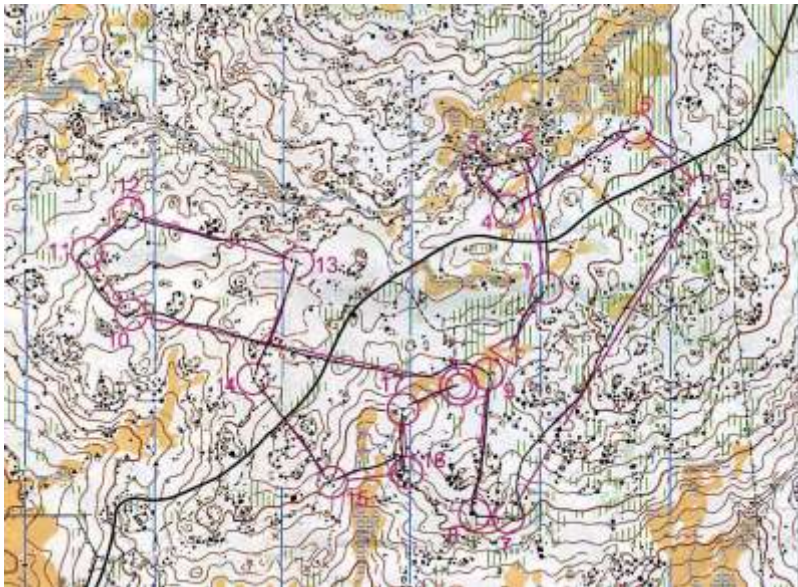
Sprint orienteering emphasises the role of decision making at high speed. This course, from the Eureka Challenge in 2001, is an example of a forest Sprint race which makes good use of intricate gold-mining terrain to create both route choice opportunities and navigational challenge. The long route choice leg (3-4) gives the runner only a small prior opportunity to read ahead, and route choices on some of the shorter legs are achieved using natural obstacles such as earth banks. Changes of direction and variation in leg length enhance the navigational challenge.

Many Sprint events are held in urban areas, such as this Sprint race from the 2004 World Cup in Denmark. This course is again dominated by one long route choice leg, but numerous smaller route choices created by obstacles (buildings, green and ponds) ensure that the runner is constantly required to make decisions. Direction changes and spectator controls are again prominent.





7.2 Middle Distance Courses



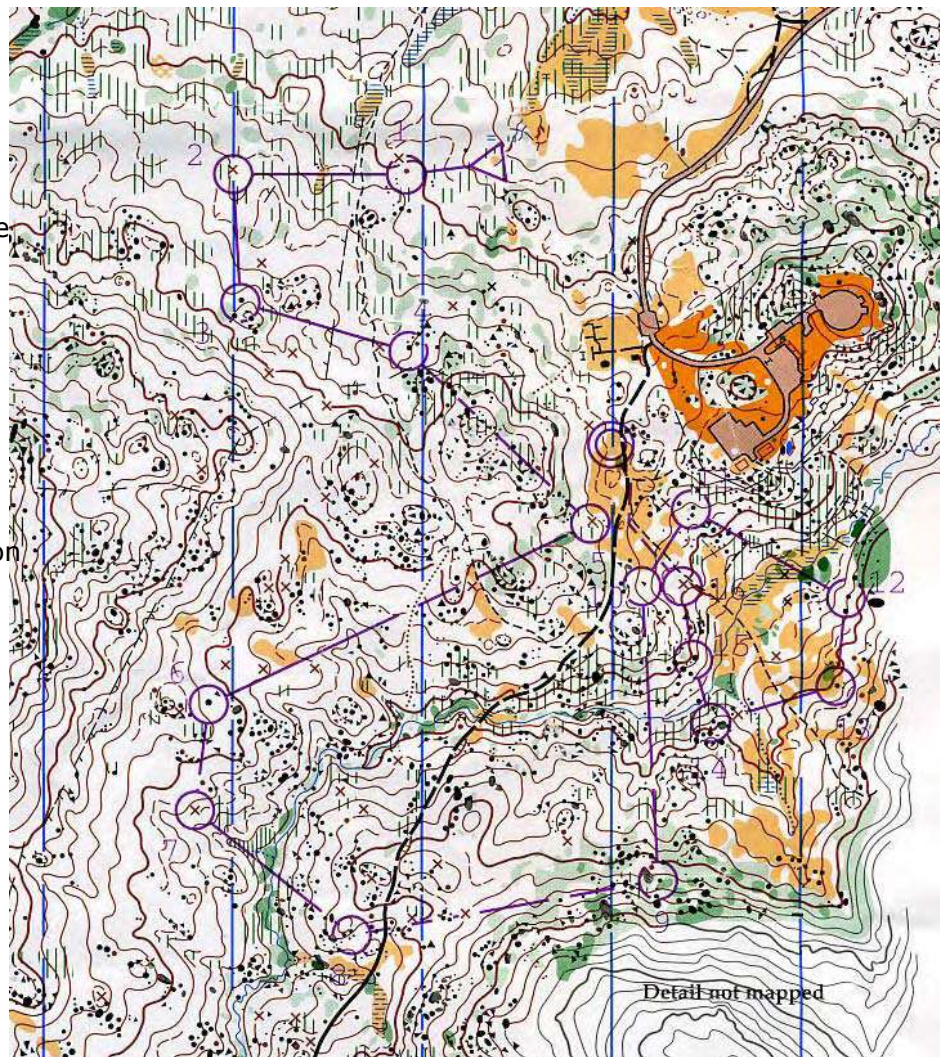
This course an excellent example of a Middle Distance race from the Australian Middle Distance Championships held at Big Badja in 2001.

Note the use of small loops to increase the number of directional changes, and that high levels of concentration are required for the entire course. The longer legs, such as 6–7, have some route choice while still requiring intense concentration. There is also a spectator start, spectator control (9) and finish all in close proximity.

This is the World Cup Middle Distance race held at Honeysuckle Creek South in 2001.

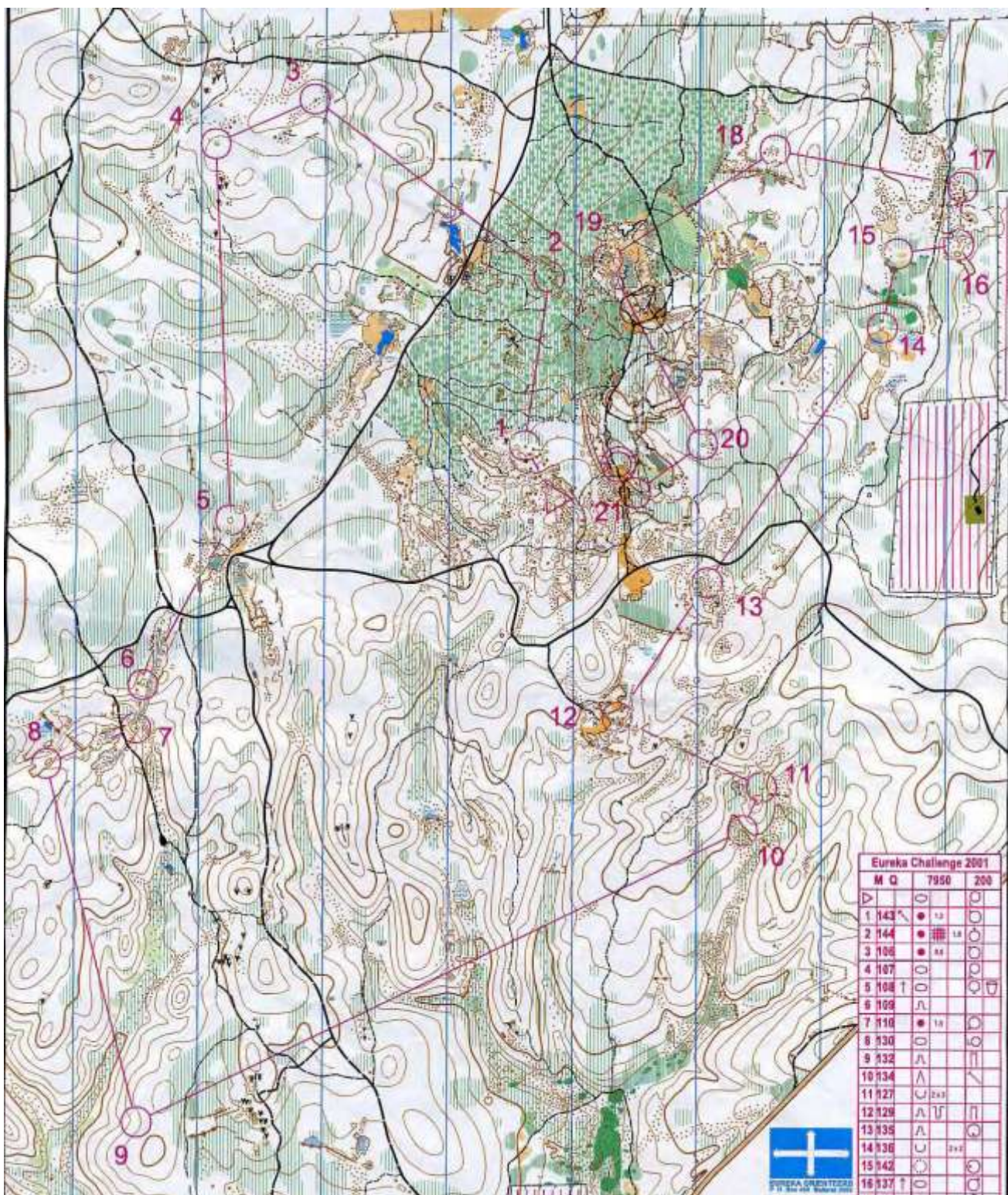
The orienteer is required to change direction and speed frequently – and there are no easy sections.

There are two spectator controls on this course (5 and 11) – this is achieved without Compromising the standard of Navigation by careful consideration of the position of the finish and assembly area.





7.3 Long Distance Courses



This map shows the Long Distance race from the Eureka Challenge 2001. Note that the course setter has used significant variation in both leg direction (i.e. a change of direction is required at most controls) as well as leg length (varying from 100 m to over 1 km). Route choices are offered for most longer legs, and sections of short legs are often grouped, requiring intense concentration over short periods.



7.4 Relays

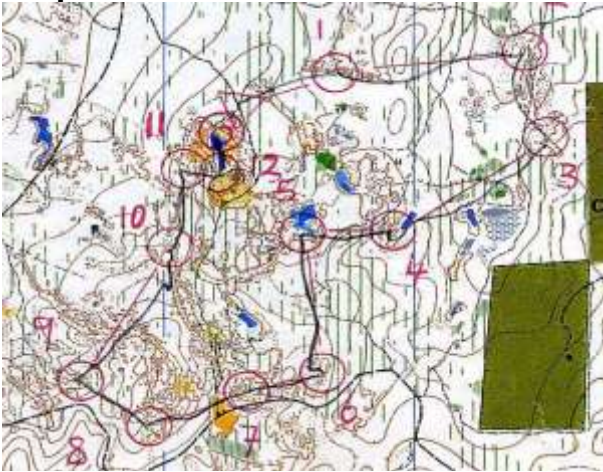


This relay from the 2002 World Cup in Hungary shows how the setters used a number of split controls to create a fair, yet navigationally challenging course. Relay races are closest to Middle Distance races in style, although they do involve a little more route choice. Relays should not be technically easier than individual races – they should be as technically difficult as possible. Another feature of this relay is the use of a small final loop to give runners warning of their approaching teammate. There are splits on this final loop, however in relay races **the last leg runners from each team must have the same split over the last 1.5km of the course.**



7.5 Multi-loop Courses

Loop 1



Loop 2



The maps shown here were used for a Long Distance Multi-Loop race at the Eureka Challenge in 1999. Loops 1 and 2 are shown above and Loop 3 below. The first two (short) loops were used to split competitors up, while the third included a long common section. Controls 3, 7 and 8 (15 on the 3rd Loop) were common to each loop, creating a total of  $(3!)^3 = 216$  permutations, ensuring that no runners had the same course. The short loops were technically intensive, with the longer section involving route choice, including a 2.5 km leg (8-9).

