

# Canadian Orienteering Federation

## Course and category guidelines for:

North American Orienteering Championships  
 Canadian Orienteering Championships  
 Western Canadian Orienteering Championships  
 Eastern Canadian Orienteering Championships

Approved October, 2006

Amended by the COF Board of Directors March 2009 (Sprint: moved M45 to course 5 and W21E to course 4)

Amended by the COF Board of Directors January 2011 (Middle and long: moved W65 to course 5 and added M80 and W80 to course 4. Sprint: added W80 and M80 to course 2)

Middle and Long Course	1	2	3	4	5	6	7	8	9	10
Categories	W12 M12	W13-14 M13-14	W15-16 M15-16	W75-79 W80+ M80+	W55-64 W65-74 M75-79	W45-54 M65-74	M45-54 M55-64	W35-44 W17-20	M17-20 W21-34E M35-44	M21-34E
RWT for Long	30	30	50	45-50	45-50	45-50	55	55	70-80	90-100
RWT for Middle	20	20	25	25	25	25	25	30	30-35	30-35

Sprint Course	1	2	3	4	5
Categories	W12 M12 W13-14 M13-14	W55-64 W65-74 W75-79 M75-79 W80+ M80+	W45-54 M55-64 M65-74	W15-16 M15-16 W17-20 W21-34E W35-44	M17-20 M21-34E M35-44 M45-54
RWT for Sprint	10-12	12-15	12-15	12-15	12-15 (15+ for M45)

RWT = recommended winning time

Keep in mind that this ‘course/category’ structure is only one of three components to “getting it right” – the other two being “getting the course lengths right according to the structure” and “designing the courses in accordance with the terrain and course criteria for that specific discipline”.

We recommend that the organizers put the non-championship level W21-34 on course 6 and M21-34 on course 7 for the middle and long and both on course 3 for the sprint.

The rationale for these changes can be read at:

[www.orienteering.ca/pdfs/2006/2006agm/Course\\_Category\\_guidelines\\_withAGMamendments.pdf](http://www.orienteering.ca/pdfs/2006/2006agm/Course_Category_guidelines_withAGMamendments.pdf)

The following pages includes the IOF course planning considerations for the various race formats.

**Appendix : Competition Formats (From IOF Competition Rules 2004)**

<b>SUMMARY TABLE</b>	<b>Sprint</b>	<b>Middle Distance</b>	<b>Long Distance</b>	<b>Relay</b>
<b>Controls</b>	Technically easy.	Consistently technically difficult.	A mixture of technical difficulties.	A mixture of technical difficulties.
<b>Route Choice</b>	Difficult route choice, requiring high concentration.	Small and medium scale route choice.	Significant route choice including some large-scale route choices.	Small and medium scale route choice.
<b>Type of Running</b>	Very high speed.	High speed, but requiring runners to adjust their speed for the complexity of the terrain.	Physically demanding, requiring endurance and pace judgment.	High speed, often in close proximity to other runners who may, or may not, have the same controls to visit.
<b>Terrain</b>	Very runnable park, streets or forest. Spectators are allowed along the course	Technically complex terrain.	Physically tough terrain allowing good route choice possibilities.	Some route choice possibilities and reasonably complex terrain.
<b>Map</b>	1:4000 or 1:5000	1:10000 (or sometimes 1:15000)	1:15000	1:10000 (or sometimes 1:15000)
<b>Start Interval</b>	1 minute	2 minutes	3 minutes (2 minutes WOC & WCup)	Mass start
<b>Timing</b>	0.1 second (if suitable timing equipment is used)	1 second (0.1 seconds at WOC)	1 second (0.1 seconds at WOC)	Mass start so the finish order is the order across the line.
<b>Winning Time</b> (for Senior Elite competition)	12-15 minutes	30-35 minutes Qualification races are shorter.	Men 90-100 minutes Women 70-80 minutes Qualification races are shorter	30-60 minutes per leg Men Total 135 minutes Women Total 120 minutes
<b>Summary</b>	Sprint orienteering is a fast, visible, easy-to-understand format, allowing orienteering to be staged within areas of significant population.	Middle distance orienteering requires fast, accurate orienteering for a moderately long period of time. Even small mistakes will be decisive.	Long distance orienteering tests all orienteering techniques as well as speed and physical endurance.	Relay orienteering is a competition for teams of three runners running on a virtually head-to-head basis with a first-past-the-post winner. Exciting for spectators and competitors.

## **COMPETITION FORMAT DESCRIPTIONS**

### **1. SPRINT**

#### **1.1 The profile**

The Sprint profile is high speed. It tests the athletes' ability to read and translate the map in complex environments, and to plan and carry out route choices running at high speed. The course must be planned so that the element of speed is maintained throughout the race. The course may require climbing but steepness forcing the competitors to walk should be avoided. Finding the controls should not be the challenge; rather the ability to choose and complete the best route to them. For example, the most obvious way out from a control should not necessarily be the most favourable one. The course should be set to require the athletes' full concentration throughout the race. An environment that cannot provide this challenge is not appropriate for the Sprint.

#### **1.2 Course planning considerations**

In Sprint spectators are allowed along the course. The course planning shall consider this, and all controls must be manned. It may also be necessary to have guards at critical passages alerting spectators of approaching competitors and making sure that competitors are not hindered. The start should be at the Arena and spectator sites may be arranged along the course. The spectator value could be enhanced by building temporary stands and by having an on-course announcer. Both spectator sites and sites for media/photographers shall be announced at the Arena. The course must be planned to avoid tempting competitors to take shortcuts through private property and other out-of-bound areas. If there is such a risk, a referee should be at such locations to prevent possible attempts. Areas so complex that it is doubtful whether a competitor can interpret the map at high speed should be avoided (e.g. when there are complex three-dimensional structures).

#### **1.3 The map**

The ISSOM specification shall be followed. The map scale is 1:4000 or 1:5000. It is crucial that the map is correct and possible to interpret at high speed, and that the mapping of features that affect route choice and speed are accurate. In non-urban areas, the correct mapping of conditions reducing running speed, both to degree and extent, is important. In urban areas, barriers hindering the passage must be correctly represented and drawn to size.

#### **1.4 Winning time, start interval and timing**

The winning time, for both women and men, shall be 12 – 15 minutes, preferably in the lower part of the interval. In WOC and World Cup there is no difference between qualification and final races. The start interval is 1 minute and a time-trial, individual format is used. Timing is to 0.1 second by using electronic means of timing with start gates and a beam finish line. The competitor shall have passed the start gate before having access to the map.

## **2 MIDDLE DISTANCE**

### **2.1 The profile**

The Middle distance profile is technical. It takes place in a non-urban (mostly forested) environment with an emphasis on detailed navigation and where finding the controls constitute a challenge. It requires constant concentration on map reading with occasional shifts in running direction out from controls. The element of route choice is essential but should not be at the expense of technically demanding orienteering. The route in itself shall involve demanding navigation. The course shall require speed-shifts e.g. with legs through different types of vegetation.

### **2.2 Course planning considerations**

The course should be set to allow competitors to be seen by spectators during the course of the race as well as when finishing. The start should be at the Arena and the course should preferably make runners pass the Arena during the competition. The demand on selection of Arena is subsequently high, providing both suitable terrain and good possibilities to make runners visible to spectators. Spectators are not allowed along the course except for parts passing the Arena (including controls at the Arena).

### **2.3 The map**

The standard ISOM specification shall be followed. The map scale is 1:10 000. The terrain shall be mapped for 1:15 000 and then be strictly enlarged as specified by ISOM.

### **2.4 Winning time, start interval and timing**

The winning time, for both women and men, shall be 30 – 35 minutes. In WOC and World Cup the winning time in qualification races shall be 25 minutes. The start interval is 2 minutes and a time-trial, individual format is used. At WOC timing is to 0.1 seconds by using electronic means of timing with start gates and a beam finish line. The competitor shall have passed the start gate before having access to the map.

## **3 LONG DISTANCE**

### **3.1 The profile**

The Long distance profile is physical endurance. It takes place in a non-urban (mostly forested) environment, and aims at testing the athletes' ability to make efficient route choices, to read and interpret the map and plan the race for endurance during a long and physically demanding exercise. The format emphasizes route choices and navigation in rough, demanding terrain, preferably hilly. The control is the end-point of a long leg with demanding route choice, and is not necessarily in itself difficult to find. The Long distance may in parts include elements characteristic of the Middle distance with the course suddenly breaking the pattern of route choice orienteering to introduce a section with more technically demanding legs.

### **3.2 Course planning considerations**

The course should be set to allow competitors to be seen by spectators during the course of the race as well as when finishing. Preferably, the start should be at the Arena and the course should make runners pass the Arena during the competition. A special element of the Long distance is the long legs, considerably longer than the average leg length. These longer legs may be from 1.5 to 3.5 km depending on the terrain type. Two or more such long legs should form part of the course (still requiring full concentration on map reading along the route chosen). Another important element of the Long distance is to use coursesetting techniques, which breaks up grouping of runners. In particular when using a 2-minute start interval, butterflies and other break-up methods should be used. It is also essential to use the terrain as a break-up means, drawing the course through areas with limited visibility. Spectators are not allowed along the course except for parts passing the Arena (including controls at the Arena).

### **3.3 The map**

The standard ISOM specification shall be followed. The map scale is 1:15 000.

### **3.4 Winning time, start interval and timing**

The winning time shall be 70 – 80 minutes for women and 90 – 100 minutes for men. In WOC and World Cup the winning times in qualification races shall be 45 minutes for women and 60 minutes for men. The start interval is 3 minutes, but 2 minutes at WOC and World Cup. A time-trial, individual format is used. At WOC timing is to 0.1 seconds by using electronic means of timing with start gates and a beam finish line. The competitor shall have passed the start gate before having access to the map.

## **4 RELAY**

### **4.1 The profile**

The Relay profile is team competition. It takes place in a non-urban (mostly forested) environment. The format is built on a technically demanding concept, more similar to the concept of the Middle than the Long distance. Some elements characteristic of the Long distance, like longer, route-choice legs should occur, allowing competitors to pass each other without making contact. Good Relay terrain has characteristics that make runners lose eye contact with each other (such as denser vegetation, many hills/depressions etc.). Terrain with continuous good visibility is not suitable for the Relay.

### **4.2 Course planning considerations**

The Relay is a spectator friendly event in offering a competition between teams, head-to-head, and with the first to finish being the winner. The Arena layout and the course setting must consider this (e.g. when forking is used, the time difference between alternatives should be small). The competitors should, on each leg, pass the Arena, and if possible runners should be visible from the Arena while approaching the last control. An appropriate number of intermediate times (possibly with in-forest commentators) should be provided (as well as TV-controls shown on screen in the Arena). The mass start format requires a course planning technique separating runners from each other (e.g. forking). For fairness reasons the very last part of a leg shall be the same for all runners on that particular leg. Spectators are not allowed along the course except for parts passing the Arena (including controls at the Arena).

### **4.3 The map**

The standard ISOM specification shall be followed. The map scale is 1:15 000 or 1:10 000. The decision on map scale shall be based on the complexity of the course design (e.g. short legs with controls close to each other may require the larger map scale). When 1:10 000 is used the terrain shall be mapped for 1:15 000 and strictly enlarged as specified by the ISOM.

### **4.4 Winning time, start interval and timing**

The winning time (the total time for the winning team) shall be 120 minutes for the women's relay and 135 minutes for the men's relay. Within the total time, the time for different legs may vary. No leg should be longer than 60 minutes or shorter than 30 minutes. The Relay is a mass start format and consists of three legs for both women and men. In WOC timing shall preferably be made by electronic means, but manual systems may be used. At the finish line there shall be photo-finish equipment to assist in judging the correct placings.