

Orienteering Canada

Course and class guidelines for Canada Cup and Championship Events

- This revised document was approved by the Orienteering Canada (OC) Board in April 2017
- See page 12 for revision history

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1 Championship Events and Large Canada Cup Events

The following course and class guidelines should be used for larger Canada Cup events, as well as:

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

Long	1	2	3	4	5	6	7	8	9	10	11
Technical Difficulty	1	2	3 ⁹	3	4	5	5	5	5	5	5
Classes	M10 F10	M11-12 F11-12	F13-14 M13-14 F15-16S ³ M15-16S ³	F15-16 M15-16	M75+ F75+ F80+ M80+ F85+ M85+ M90+ F90+	F55+ F65+ F17-20S ³ M17-20S ³	F45+ M65+	M55+ F35+ F21S ³ F17-18	F19-20 * M45+ M21S ³ M17-18	M19-20 F21E M35+	M21E
Map Scale ⁷	7500 ⁵	7500 or 10000 ⁵	10000 ⁵	10000 ⁶	7500 or 10000	7500 or 10000	7500 or 10000	10000	10000 * 15000 ¹⁰	15000 ¹⁰	15000 ¹⁰
RWT Long ¹	30-35	30-35	30-35	50-55	45-50 ⁸	50-55 ⁴	50-55	55-60	55-60	90-100 ²	90-100

Middle	1	2	3	4	5	6	7	8	9	10	11
Technical Difficulty	1	2	3 ⁹	3	4	5	5	5	5	5	5
Classes	M10 F10	M11-12 F11-12	F13-14 M13-14 F15-16S ³ M15-16S ³	F15-16 M15-16	M75+ F75+ F80+ M80+ F85+ M85+ M90+ F90+	F55+ F65+ F17-20S ³ M17-20S ³	F45+ M65+	M55+ F35+	M45+ F21S ³ F17-18	F19-20 F21E M35+ M21S ³ M17-18	M19-20 M21E
Map Scale ⁷	7500 ⁵	7500 or 10000 ⁵	10000 ⁵	10000 ⁶	7500 or 10000	7500 or 10000	7500 or 10000	10000	10000	10000	10000
RWT Middle ¹	20-25	20-25	20-25	25-30	30-35 ⁸	30-35 ⁴	30-35	30-35	30-35	30-35	30-35

Sprint	1	2	3	4	5	6
Classes	M10 F10	M11-12 F11-12	F75+ M75+ F80+ M80+ F85+ M85+ M90+ F90+	F45+ F55+ M65+ F65+ F17-20S ³ M17-20S ³	F15-16 M15-16 F17-18 F19-20 F21E F35+ M55+ F21S ³	M17-18 M19-20 M21E M35+ M45+ M21S ³
Map Scale 1:4000 ⁷ or 1:3000			F13-14 M13-14 F15-16S ³ M15-16S ³			
RWT Sprint ¹	12-15	12-15	12-15	12-15	12-15	12-15 (15+ for M45)

Note: This table for sprint events is to be used for the Smaller Canada Cup Events as well
See next page for footnotes...

2 Smaller Canada Cup Events

The Smaller Canada Cup Event format is intended for events like Provincial or Territorial Championships. Organizers of Championship Events and Large Canada Cup Events may ask the Technical Committee to switch to the Smaller Canada Cup Event format when low registration numbers warrant. All registrants must be informed of any change (note that this is not recommended for national and international championships).

Middle and Long	1	2	3	4	5	6	7	8
Technical Difficulty	1	2	3 ⁹	3	4	5	5	5
Classes	M10 F10	F11-12 M11-12	F13-14 M13-14 F15-16S ³ M15-16S ³	F15-16 M15-16	M75+ F75+ F80+ M80+ F85+ M85+ F90+ M90+	F17-18 F45+ F55+ M65+ F65+ F17-20S ³ M17-20S ³ F21S ³	M17-18 F19-20* F21E* F35+ M45+ M55+ M21S ³	M19-20 M21E M35+
RWT for Long ¹	30-35	30-35	30-35	50-55	45-50 ⁸	50-55+	60-70	80-90
Map Scale ⁷ for Long	7500 ⁵	7500 or 10000 ⁵	10000 ⁵	10000 ⁶	7500 or 10000	7500 or 10000	10000 * 15000 ¹⁰	15000 ¹⁰
RWT for Middle ¹	20-25	20-25	20-25	25-30	30-35 ⁸	30-35	30 for Elite; 35 for others	30 for Elite, 35 for others
Map Scale ⁷ for Middle	7500 ⁵	7500 or 10000 ⁵	10000 ⁵	10000 ⁶	7500 or 10000	7500 or 10000	10000	10000

- 1 Since there are multiple classes on each course, it can be difficult to meet the Recommended Winning Time (RWT) for all classes. Course designers should use their best judgement and aim to have all winning times within the specified range.
- 2 For F21E on a WRE long course, default to the IOF RWT (70-80 minutes as of 2017).
- 3 Non-competitive "S" (short) classes for which medals are not awarded, but for which public recognition of achievement is expected (e.g. keepsake and/or called onto the podium).
- 4 Design the RWT for the older age classes, not for the S classes.
- 5 If allowing young competitors (course 3 and under) to preview the map under OC rules, unused portions of their map should be removed so as to mask the competition terrain from older competitors.
- 6 Although permitted by OC rules, it is not recommended that course 4 participants be permitted to preview the map.
- 7 Approval by the Orienteering Canada Technical Committee is required for map scale deviations other than those listed here. See Item 10 for the exception to this.
- 8 Given the wide age range on this course, and to better match the RWTs, organizers may wish to consider splitting the course in two.
- 9 An easier TD3 – the transition from TD2-TD3 represents significant off-trail navigation. See Appendix A: Technical Difficulties
- 10 Effective 2020 IOF Event advisors or Event Controllers can approve scale changes from 1:15000 to 1:10000 for the Long event. The Technical Committee is to be advised of these changes.

Keep in mind that this course & class 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".

Following IOF principals, Recommended Winning Times are specified for Canadian and/or North American competitors.

2.1 Open and Group Classes

Open classes may be established at the discretion of the organizers.

Additional beginner and group classes may be established at the discretion of the organizers.

2.2 Who should compete in which class?

2.2.1 Background

Orienteering is a sport for life and therefore should be accessible to participants of all ages and abilities.

Some orienteers are interested in the competitive aspect of the sport, and others simply enjoy a run in the woods. Canadians also begin orienteering at different ages. Unlike in some countries, orienteering is not uniformly part of the elementary school curriculum, so we have youth and adults entering the sport at a variety of ages and skill levels.

There has been a longstanding issue that junior orienteers in Canada have faced a large step in course length and technical difficulty as they progress from the 15-16 class to the previous 17-20. The sport risked losing competitors at an age where other interests compete for youth's attention (an issue by no means unique to Canada).

Orienteering Canada's Technical Committee (TC) examined the technical difficulty vs class guidelines from the UK, Norway, and Sweden. In general, junior orienteers in these countries are progressing through skill levels and getting off-trail at an earlier age. In some cases, this was supported by rules that allowed young participants to examine the map either in the minute before their start, or to review the competition map with their parents or coach well before their start.

In 2016, the TC undertook a review of the Course and Class Guidelines and the OC competition rules in order to address these issues. The TC made several significant changes:

- changes to the technical difficulties for the junior classes
- introduction of new M/F10 classes
- splitting the M/F17-20 classes in two (M/F17-18 and M/F19-20)
- introduction of new S (short) classes
- options to allow junior competitors to examine their map before the start of the race.

The TC modified the technical difficulty designations for the junior classes to "step up" a level. The new M/F10 class has a technical difficulty similar to the old M/F11-12 class.

Splitting the M17-20 class in two allowed for shortening the length of courses run by M/F17-18 (although the technical difficulty does not change), while at the same time increasing the technical difficulty of the M/F15-16 classes. The goal of these changes is to make the transition from 16 to 17 smoother.

Splitting the old M17-20 class also allows accommodation of a request by Canadian F21E competitors to have the same recommended winning time (RWT) as M21E (as of 2018, IOF has a shorter RWT for F21E and this shorter time applies for IOF-sanctioned World Ranking Events). Historically, Canadian competitors in the M19-20 age range have demonstrated the ability to race at a pace comparable to Canadian F21E competitors, and to sustain that pace for 90-100min in international competition. M17-18 has a shorter RWT.

The 2017 OC Competition Rules allow competitors up to age 16 to examine their map before the race. Implementation of this rule is recommended for courses 1-3, but is not recommended for course 4 (M/F15-16) in order to encourage skills progression to the next age class.

The rationale for earlier changes can be read at:

www.orienteering.ca/pdfs/2006/2006agm/Course_Category_guidelines_withAGMamendments.pdf

2.2.2 Choosing the correct class

The new "S" (short) non-competitive classes are designed for youth who are new to the sport, who are less interested in the competitive aspects of the sport, or who do not yet have the technical skills to compete with their peers, yet want to participate.

For example, an inexperienced 15-year old has the physical capabilities to run longer distances, but might lack the technical skills to complete against her peers in the M/F15-16 class. This orienteer might have a more satisfying and positive experience running in the S class until they gain the confidence to move into

M/F15-16 or M/F17-18.

The M/F21S class is intended for adult orienteers aged 21-35 who do not feel comfortable (technically or physically) competing at the Elite level, yet who enjoy the sport and want to participate at a level more comfortable for them. This class is also appropriate for younger adults new to the sport.

See the tables in sections 2.3 and 2.4 for a graphical representation of possible progressions through the competition classes.

2.2.3 Running up

It is not possible to appropriately challenge all junior competitors owing to different experience levels and physical development. Some advanced juniors may choose to "run up" by competing in older age classes. This is permitted, but OC rules require the approval of the event organizers for 16-and-under participants to run up more than one class.

2.3 Course Progression

The table below shows the progression through the courses, as skill and age advance. The columns represent **physical difficulty**.

	LTAD §	Short & Easy	Short	Medium	Long and Difficult	Extra Long & Difficult
TD1 ‡	"FUNdamentals"	M/F10				
TD2	"Learn to Train"		M/F10, M/F12			
TD3	"Train to Train 1", "Train to Train 2"			M/F13-14 M/F15-16		
TD4	"Active for Life"		M/F75+			
TD5	"Learn to Compete", "Train to Compete", "Train to Win"			M/F55+, M/F65+	F17-20 M17-18 M/F35+	M/F21E M19-20

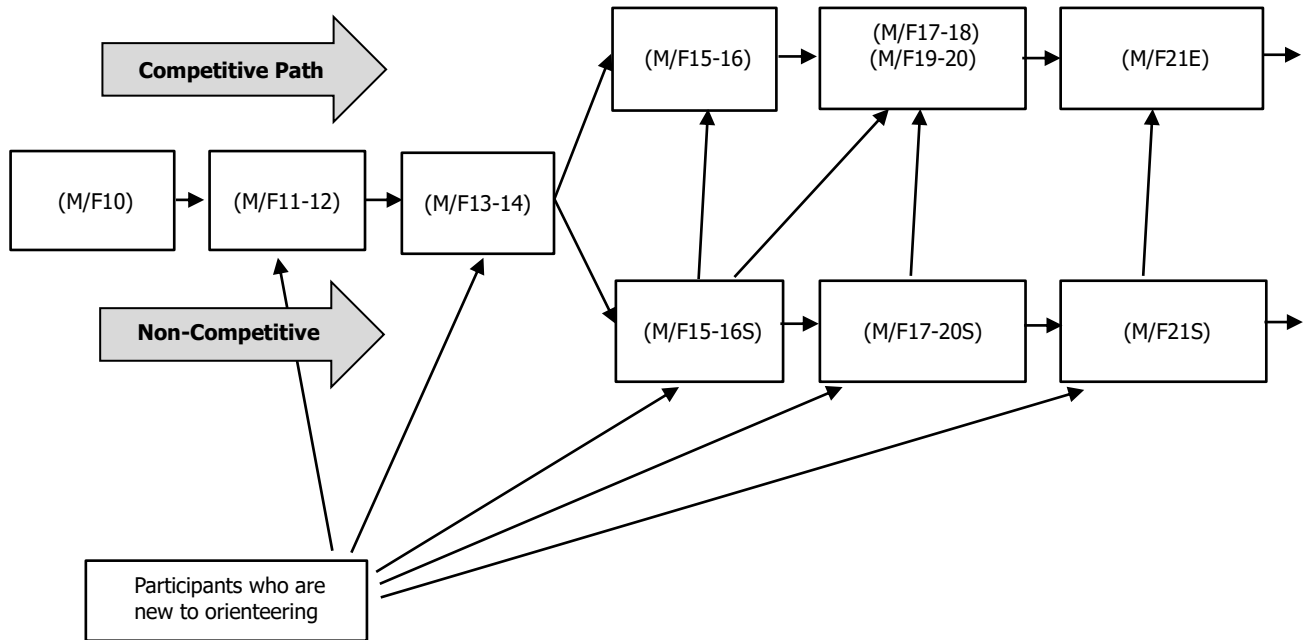
‡ TD = Technical Difficulty

§ LTAD = Long-term Athlete Development – see "Appendix A: Technical Difficulties" for more information on the relationship between the LTAD model and TD levels.

2.4 Orienteering Classes Development Path

This flowchart is an alternative way to show how people can move through the classes, and progress from non-competitive to competitive classes.

Age:



3 Appendix A: Technical Difficulties

The technical difficulty levels do not have a direct correspondence to the LTAD model. Nevertheless, the table includes information about the relationship between the two to assist course planners and coaches.

Technical Difficulty Description	Participants/LTAD	Terrain & Map	Legs	Skills Required
<p>TD1 – Beginner <i>This course can never be <u>too</u> easy!</i></p> <ul style="list-style-type: none"> • Controls on distinct line features - roads, tracks, paths (and walls and fences where they are better e.g. in some open areas) • Controls 2-5m beyond, and visible from, junctions rather than on the junctions themselves so that they automatically put competitors onto the right path for their next leg • Routes between controls follow line features; no junctions to negotiate between controls • Controls close together • No route choice problems - line features follow virtually the straight line between controls. <p>Beginners will have more than enough problems with the map itself - trying to relate all those colours and funny symbols to the ground. For TD1, the course must not add to their problems - it should serve as a guided tour, allowing them to learn how to read the map.</p> <p>The controls are used to keep them on route (hence the idea of putting the controls just beyond a junction where necessary, guiding them into the 'exit') - they should almost fall over them, not have to search for them. If in doubt, make the course too easy – everybody should be successful. Failure on a course at this stage may mean the loss of that competitor to orienteering.</p>	<p>The beginner course is most often used by beginners, families, and children aged 10 and under.</p> <p>The course should be planned with easy legs and control locations that will ensure successful course completion.</p> <p>LTAD: “FUNdamentals” – <i>Note that the FUNdamentals stage corresponds to 6 to 8/9 year-olds (8 for girls and 9 for boys) but that the technical/navigation skills represent a progression that is independent of age. Someone starting orienteering at 10 years old will be learning the FUNdamentals skills when they are 10 and 11 and should therefore be on TD 1 courses at least to start with.</i></p>	<p>Beginner courses must follow simple, linear features, such as roads, trails, fields, fences, and streams. If it is not possible to create a complete course along handrails, flagging may be used to direct participants on some legs. Detailed contours, dense forest and vegetation, and dangerous areas should be avoided. Dangerous pits and ruined fence wire on the ground should be taped with bright flagging tape.</p> <p>Refer to tables above regarding map scale.</p>	<p>The legs on a beginner course, including the start, should have no route choice and a minimum of orienteering problems. The legs should utilize cart tracks, trails, small trails, edges of fields, and fences. The legs should not be longer than 300m and a control should be placed at every decision point to prevent participants from going past important turns.</p>	<p>To successfully complete the beginner course, participants should understand the basic map colours and commonly used symbols. A compass can be used to orient the map and participants must make decisions at each control point.</p>

Technical Difficulty Description	Participants/LTAD	Terrain & Map	Legs	Skills Required
<p>TD2 – Novice</p> <p>Controls on distinct line features (i.e. not on linear marshes, vague vegetation boundaries, streams in areas of other, smaller, unmarked streams, etc.), or on raised point features immediately visible from an adjacent line feature</p> <ul style="list-style-type: none"> • Routes between controls follow line features; no more than two junctions to negotiate between consecutive controls. Try for a variety of line features to make the course more interesting. • Controls close together • No route choice problems. <p>TD2 courses should be TD1 for the first two or three legs, allowing confidence to be built up. Anyone competing on a TD2 course should already have done some TD1 courses.</p> <p>The TD2 courses should then be starting the process of teaching them how to use the information on the map - for instance in deciding which path to follow out of a junction.</p>	<p>The participants on a novice course are often adult beginners, families, and experienced children aged 11 and older.</p> <p><i>LTAD: “Learn to Train” – TD2 will be challenging for someone just entering the Learn to Train stage (in terms of the LTAD skills progression). Young athletes that are ready to move to “Train to Train 1” will find these courses fairly easy. Towards the end of the Learn to Train stage, athletes should be learning to make decisions about simple route choice problems.</i></p>	<p>The terrain and map requirements for a novice course are the same as for a beginner course.</p> <p>Refer to tables above regarding map scale.</p>	<p>The legs of a novice course may be slightly longer than the legs on a beginner course. Some legs may require participants to make simple route choice decisions on linear features (e.g. trails and fences). Controls do not have to be placed at every decision point but there should be no more than two decision points per leg.</p>	<p>To successfully complete a novice course, participants should be able to follow a variety of line features (handrails), make decisions at decision points that are not identified by a control.</p>
<p>TD3 – Intermediate</p> <ul style="list-style-type: none"> • Controls may be on prominent point features: <ul style="list-style-type: none"> ○ raised features (knolls, boulders etc.) reasonably close to an attack point on a line feature ○ sunken features (pits, depressions etc.) adjacent to attack points on line features • 'Catching' line features behind those controls which are not themselves on line features • Simple route choice problems, with the quickest routes being direct through runnable terrain to good catching features; but slightly longer alternatives using line features must be available • legs vary in length <p>Now the competitors should be able to read much of the information on the map, so the courses are teaching them the techniques of the sport - route choice, running direct to a catching feature instead of following line features, using contours for navigation, etc.</p> <p>At TD3, the planner should encourage simple use of contour detail - contouring, following ridges/valleys - on the quickest routes whilst not requiring the use of contour features as attack points. These routes should also require simple compass work - map orientation, and the following of rough compass bearings (e.g. heading NW) but not accurate bearings nor compass and pacing.</p>	<p>The participants on an intermediate course include experienced young teenagers, families, and recreational adults.</p> <p><i>LTAD: “Train to Train 1” and “Train to Train 2” – As of 2018, young athletes are expected to spend significant time learning compass bearings and contour features at the Train to Train 1 stage. They also learn to incorporate attack points into their set of techniques. In Train to Train 2 athletes will spend significant time consolidating all they have learned in earlier stages and start to think bigger picture about how it all fits together including simplifying and visualising the terrain from the map. Advanced athletes will be ready to begin trying TD 5 courses in Train to Train 2.</i></p>	<p>The intermediate course should provide participants with the opportunity to get comfortable leaving major handrails for short periods. Participants can be made to feel more secure off-trail by having a catching feature just past the control site to keep participants from over-shooting. Navigation using large, distinct contour features may be introduced but areas with detailed contours should still be avoided.</p> <p>Refer to tables above regarding map scale.</p>	<p>The legs of an intermediate course should contain simple route choices utilizing major handrails leading to distinct attack points. Complex off-trail handrails such as ridges, re-entrants, distinct vegetation boundaries, etc. should be introduced. Routes should be planned so that participants may attempt a shorter overland route or a longer route with many handrails depending on their level of confidence. The legs of an intermediate course should vary in length and may have multiple decision points.</p>	<p>To successfully complete an intermediate course, participants should be able to use a compass bearing from an attack point to a control, use a compass to take short cuts between two line features, read prominent contour features, and make simple route choice decisions.</p>

Technical Difficulty Description	Participants/LTAD	Terrain & Map	Legs	Skills Required
<p>TD4 – Veteran The technical difficulty of TD 4 is the same level as TD5 with the exception that the courses should not pass through highly detailed areas, traverse steep hills or cross fences where there are no crossing points. Courses are shorter than all the TD5 courses, and depending on terrain, may also be shorter than TD2 and TD3.</p>	<p>The participants on the veteran course are very experienced, but older orienteers, ages 75+. Running speeds may be slow.</p> <p><i>LTAD: “Active for Life” – The Active for Life stage encompasses a vast range of participants in terms of age, physical and technical ability, and orienteering experience. In terms of course setting TD4 is intended for the 75+ category of older but experienced orienteers who can handle the technical challenge but have problems with eyesight and travelling through the terrain.</i></p>	<p>Same as TD5, but care should be taken to avoid overly complex map areas that maybe difficult to read.</p> <p>Refer to tables above regarding map scale.</p>	<p>Same as TD5, however avoid traversing steep hills or other excessively rugged terrain. Legs should not be straight up or down hills, and should avoid steep traverses. Avoid areas with tricky footing (slippery or rocky).</p>	<p>Same as TD5, however consideration should be given to physical limitations of veteran competitors.</p>
<p>TD5 – Expert & Elite</p> <ul style="list-style-type: none"> • Controls on any features particularly those demanding careful map reading to locate • Controls far from obvious attack points or catching features, so that errors are expensive; but with the map permitting accurate navigation into the control • Course as a whole contains legs demanding a range of different techniques. <p>Hard, but fair - competitors should be pushed to the limits of navigational skill, not into the realms of chance (e.g. trying to find a pit on a compass bearing, the pit and marker being visible from 10m and the reliability of the bearing being 20m). The technical difficulty of the course as a whole is the same as the technical difficulty of its hardest leg, although most of its legs should be of the required technical difficulty.</p>	<p>The participants on these courses are experienced, physically fit orienteers.</p> <p><i>LTAD: “Learn to Compete”, “Train to Compete”, and “Train to Win” – There is a large range of experience between athletes entering Learn to Compete and those in the Train to Win stage. Essentially all technical and navigation skills have been learned, so this difference in experience manifests itself primarily in confidence executing skills, tactical decision making, and mental and physical skills and capacity. Athletes with more experience will be better able to handle complex route choices, required changes in technique, focus, and speed, and recovering from errors. Courses for the M/W 21-34 should require more of these demands compared with courses for those for M/W 17-18 and M/W 19-20.</i></p>	<p>Theses course should use detailed terrain that requires the utilization of precision and rough map reading skills.</p> <p>Refer to tables above regarding map scale.</p>	<p>The legs on these courses should provide the maximum number of route choice problems. Vary the legs to force the participants to change techniques and running speed. Some climb is desirable, although the total amount of climb should not exceed 4% of the course length. Avoid legs that go up a hill and then straight back down on the next one. The reward of having the fastest route on a leg should go to those who challenge their skills and execute them to the highest degree</p>	<p>To successfully complete a long course, participants should be able to navigate over long distances using only contours, precision orienteer using map reading or compass skills, use the appropriate skills for the leg, concentrate over long periods of time and while physically tired.</p>

4 Appendix B: Competition Formats

- Adapted from IOF Competition Rules 2018
- These descriptions apply to TD5 – refer to Appendix A for TD1-TD4.

	Sprint	Middle Distance	Long Distance	Relay
Controls	Technically easy.	Consistently technically difficult.	A mixture of technical difficulties.	A mixture of technical difficulties.
Route Choice	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.
Type of Running	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.
Terrain	Predominantly in very runnable park or urban (streets/buildings) terrain. Some fast runnable forest may be included. 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.
Start Interval	1 minute	2 minutes	3 minutes	Mass start
Summary	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.

4.1 Sprint Distance

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.

Course planning considerations

In Sprint spectators are allowed along the course. It may 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 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).

The map

The current ISSprOM specification shall be followed. The map scale is as specified above. 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.

4.2 Middle Distance

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.

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).

The map

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

4.3 Long Distance

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.

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 course setting techniques, which breaks up grouping of runners.—Butterfly loops are on such technique. (Butterfly loops are one such technique for breaking up a group of runners. The terrain itself should be used as a break-up method by putting 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).

The map

The standard ISOM specification shall be followed. The map scale is as specified above.

5 Revision History

- 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 M/W 80 to course 4. Sprint: added M/W 80 to course 2)
- Amended by the Orienteering Canada Board of Directors June 2013 – (Added M/W85+ class – on same course as M/W 80-84)
- Amended by the Orienteering Canada Technical Committee February-June 2015 – (for middle distance moved M20 to course 10. W20 to Course 8 as per request from High Performance Committee)
- Approved May 2017 – addition of new TD1 plus changes to many Recommended Winning Times
- Amended by Orienteering Canada Technical Committee, February 2018 (added M/F90+ class and expanded explanatory text; changed W to F so that class labels are sensible in both English and French; added map scales; added LTAD information).
- Amended June 2018 to allow 1:7500 map scale for Small event Middle, courses 5 and 6.
- Amended March 2020 for changes to map scales for sprint and deviations in map scale for the Long event.