

Guidelines and Instructions for
Controllers

O300 Controller

Orienteering Canada

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Table of Contents

O300 CONTROLLER'S Module	4
1.0 Introduction	4
1.1 Pre-requisites	4
1.2 O300 Requirements to be Certified	4
1.3 For Event Director Stream	5
1.4 For Course Planner Stream	5
1.5 For Controller Stream	5
2.0 Long Term Athlete Development (LTAD)	5
3.0 B Event Organization	5
3.1 Courses	5
3.2 Ageless Courses	6
4.0 Controller Duties	6
4.1 Timetable	7
4.2 Courses	7
4.3 Course Planning	7
4.3.1 COC's and NAOC's	7
4.3.2 The Map	7
4.3.3 Course Review	8
4.3.4 Site Visit	8
4.3.5 The Terrain	8
4.3.6 Control Sites	8
4.3.7 Start	9
4.3.8 Finish	9
4.3.9 Final Review	8
5.0 Electronic Timing	9
6.0 Printing	10
7.0 Day before the event	10
7.1 Synchronizing of Control Units	10
7.2 Control Units	10
8.0 On the day	11
8.1 Placing Control	11
8.2 Control Placing Issues	11
8.3 Registration	11
8.4 Start	11

8.5	Finish	12
8.6	Complaints and Protests	13
8.7	Safety	13
8.8	Punching Start	13
8.9	Control Unit Failure	13
8.10	Late Starts	13
8.11	Disputes Between Controller and Course Planner	13
8.12	Cancellation of Events	14
9.0	Sprint Races	14
9.1	Control Placing	14
9.2	Course Planning	14
9.3	Distance Measurement	15
9.4	Sprint Safety	15
9.5	Out of Bounds and Forbidden Symbols	15
9.6	Doors and Gates	16
10.0	Reports	16
11.0	Rules	16

O300 Controller's Module

1.0 Introduction

Please note the Division of Responsibilities of the 3 Principal Officials, the Course Breakdown, and Type of Events at the start of the Event Director Module.

At the O300 level, officials may begin to specialize into one of three streams – Event Director, Course Planner or Controller. At this level, separate theory courses and practicum will be offered for those officials who wish to specialize in timing and map printing.

On completion of O300 an official can act as a Course Planner or Event Director for Canada Cup events up to National and IOF Regional Championships. An official who qualifies in all three modules, Course Planning, Event Directing and Controlling, will be able to act as a Controller for these events.

1.1 Pre-requisites:

- Acted as an Event Director and Course Planner for a B event, beyond the O 100 practicum
- Participated in two Canada Cup events.
- Served as a volunteer at two Canada Cup events in any capacity
- Be qualified as an O200 official

1.2 To become a certified O300 Level Event Director or Course Planner or Controller, the candidate must complete the following requirements.

Attend all sessions of the O300 Level course

Pass the O300 Level exam – 80% or better

For Course Planner plan six courses -- two sprint, two middle and two long -- to Canada Cup event standards. In middle and long, one course should be from Courses 1-3, and

one from Courses 4-10. In sprint, one course should be from Courses 1-2 and one from Courses 3-5.

1.3 For the Event Director Stream, act as an Event Director at a Canada Cup event up to a regional championship, under guidance of an experienced official qualified at O300 or O400.

1.4 For Course Planner stream, act as a Course Planner at a Canada Cup event up to a national championship, under guidance of an experienced official qualified at O300 or O400.

1.5 For the Controller stream, act as an Event Director and a Course Planner at a Canada Cup event up to a national championship, under guidance of an experienced controller qualified at O300 or O400.

AND act as a Controller for at a Canada Cup Event up to a national championship, under guidance of an experienced official qualified at O300 or O400.

2.0 Long Term Athlete Development (LTAD)

LTAD is a program developed by Sport Canada to provide a scientific structure for the development of sporting skills and fitness. We would encourage all officials to read the details of the program at the following website:

<http://www.canadiansportforlife.ca/sites/default/files/resources/CS4L%20Resource%20Paper.pdf>

An LTAD program specific to orienteering has been developed, and is available on the Orienteering Canada website. It is essential that O300 Course Planners and Event Directors and O300 Controllers be familiar with the progression of skill training outlined so that the event organization and course planning can provide the opportunities for newcomers, both children and adults, to have FUN and at the same time move up the ladder of skill and fitness.

3.0 B Event Organization

3.1 Courses: In the past a B Event had, at a minimum, four courses, a beginner, an intermediate, a short expert and a long expert. However to improve the transition in skills from Beginner to Expert, we are now suggesting that there be a minimum of 5 courses,

by including an Easy Intermediate between the Beginner and Intermediate courses. This is being suggested, as it was felt that the jump in skill levels from Beginner to Intermediate was too high, particularly for juniors. Of course, when numbers are significant the organizing club can increase the selection of courses.

3.2 Ageless courses: Orienteering Canada is encouraging clubs to make their B and C events ageless, (i.e. no classes should be used) so that participants can pick their course based exclusively on length and technical difficulty. Age classes should only be used for Canada Cup events (the old A events) and above.

4.0 The Controller's Duties:

The controller is responsible for ensuring that the competition is fair, and in accordance with Orienteering Canada rules. These fall into two major areas, the course planning and the event organization. The first is of primary importance, but the second should not be overlooked, as a wrongly sited Start, for example, can lead to many irate competitors.

After agreeing to control a Canada Cup event event, the Controller should:

Determine whether the club or provincial organization has sufficient manpower to run Registration, Start and Finish, Parking, snacks and water etc.

Ensure that the Event Director and Course Planner have prepared a timetable for the Event for the Controller's approval.

Ensure that all competitors have access to the any event notes via the website, and by a copy, which should be made available at Registration. Do not assume that all this information will be downloaded by the competitor from the website. Not all competitors have computers, so if the event information is web only they are at an unfair disadvantage. The event notes should inform competitors about procedures, using the pin punch when an electronic control does not work, safety bearings, map scale, contour interval, distance, climb and time to the Start and any out of bound areas. The time to the Start should be for a mother with a small child walking, not an elite runner going at warm up speed.

Ensure that land permission has been obtained.

4.1 Timetable

When appointed the Controller should ask the Course Planner for a timetable for the major tasks. This is very, very important. Course planning is a complex business and mistakes are inevitable, hence all the checks. Mistakes are more likely to be made if the

planning is under time pressure. It is also very important that good communication between the Course Planner, and for that matter, the Event Director, is established right from the beginning. It should also be noted that the Controller is not a helper, he/she is, if you will, a quality control officer, overseeing all technical areas to ensure a fair event. Prior to the first visit the host organization should have received land permission to use the area.

4.2 Courses. Next would be the receipt of the number of courses to be offered, either the full 10 courses or the condensed 7 course version. For regional championships and above 10 course will be mandatory, but for regular Canada Cups and provincial championships, the condensed version may be used.

4.3 Course Planning

4.3.1 COC's and NAOC's. This manual covers controlling for Canada Cup events up to regional championships. If the controller is working on the COCs or NAOCs , he/she should refer to the Guidelines for Major Championships, which will provide additional requirements for this level of events.

4.3.2 The Map. The Controller is responsible for ensuring that the map meets Orienteering Canada standards, and is appropriate for the technical standards required by the various courses. For instance, a map without an adequate network of line features that prevents the design of a suitable course for beginners should not be used or if marginal, should have routes between controls flagged where appropriate. The controller should receive a copy of the map showing the location of the Assembly Area, parking, start and finish as soon as the Event Director and Course Planner have agreed on this. During the site visit, the controller should check that the map is adequate for the event, and note any changes on the ground (for example new fences) and ensure that they are added to the map prior to the event.

4.3.3 Course Review. Several weeks before the event, the course planner should forward the courses to the Controller. On receipt of the courses the Controller will review and make any suggestions or corrections to the courses, and return to the Course Planner. The controller should check that the courses designed by the Course Planner are suitable in distance, technical ability and climb for the various skill levels. For example, the controller should ensure that the planner avoids “bingo” controls where there is an element of luck in finding them. The same applies to “doglegs” where competitors can be led into a control by the outgoing runner. It is important for the controller to insist

that the course planner have visited the terrain before finalizing the courses. Armchair courses should not be used. The distance between the controls should also be checked to ensure that they meet with Orienteering Canada Rules, 30 metres of separation for controls on different features and 60 metres for controls on similar features for Long and Middle courses, 15 metres and 30 metres for Sprint. The Controller should also check the amount of climb to ensure that it is kept to no more than 4% of the length of the courses unless the course planning is compromised by this limitation. A flat or uphill finish is preferable to a downhill.

4.3.4 Site Visit. The Controller should then make the first site visit with the Course Planner and the Event Director to check the suitability of the Assembly Area, the Start and Finish before going out into the terrain to check the courses and control placements. Before going out, s/he should make sure that the course planner has a list of control codes to be used for the actual event.

4.3.5 The Terrain. During this process, the Controller should be looking at how the mapper has interpreted the area, particularly the vegetation, and checking the quality of the mapping. He/she should also be on the lookout for mistakes or omissions in the mapping. If the map has not been used for a while this is highly likely. While in the forest, once the control locations have been approved by the Controller, they should be marked with orange tape, and a control code marked on the tape.

4.3.6 Control Sites. Check that all control sites are fair, which includes checking that the map area around the control is accurate. If there is any doubt about the control

location do not use it. Controls should not be visible to competitors until they are close to the feature.

Check that all controls are sited correctly with numbers corresponding to the control descriptions.

The control description should be noted and corrected if necessary.

4.3.7 Start. The start location should be visited and a decision made about the number of lanes, the direction and whether a remote start is required. A ribbon should be placed at the proposed start line, and if a remote start, one at the start triangle.

4.3.8 Finish. Keep in mind that it is safer to have an uphill or flat finish. The finish line should be marked with another orange ribbon. If the download station is not located at the Finish, remind the event director that flagging will be required to direct competitors.

4.3.9 Final Review. The Course Planner will then make any corrections and forward the courses to the Controller for a final review, which should include a check of the control descriptions to ensure that the control locations and the Start are correctly described, including the course lengths, and amount of climb, Once any revisions or changes have been made to the courses, the Planner should provide the Controller with a master map of all the controls, with codes and control descriptions, and a copy of each of the courses. There should be a list of controls with their descriptions and the number of courses using each control. This is easily done from the course planning software.

5.0 Electronic Timing. 0300 event directors, course planners and controllers are not expected to have a detailed knowledge of electronic timing and punching. Usually one of the club experts is asked to handle that part of the event. However, the course planner is responsible for getting the entries and course information into the event computer, and ensuring that the controls have been synchronized. It is up to the controller to make sure that has been done accurately.

6.0 Printing. At this point if the revised courses are correct, the Controller can approve the printing. However, the Controller should make sure that the quality is high enough to provide a fair event. Another important issue is making sure that there are adequate numbers of maps for each course. There is nothing worse than running out of maps, and asking competitors, who have finished, to recycle their maps. Pre-registration helps but

if you are having entry on the day, a conservative estimate of how many competitors will show up is required.

7.0 Day before the event.

7.1 Synchronization of Control Units

As the internal clocks of the units can drift between events, the Controller must ensure that the units have been synchronized with either the event computer's clock or using a Time Master station. This is also to check that the internal number in the unit is the same as on the label. The Controller should also check the event computer for the correct date, and if the event occurs over the weekend of the spring and fall time changes, making sure that the event computer is showing the correct time. If it is decided to add an additional start or finish control at a later time, please note that all the start and finish units must be re-synchronized, as the clocks in the units can drift.

7.2 Control Units

The most popular units in use are the BSF-8, which are the smaller units, and the BSF-7, which is the old rectangular style. Both have lithium batteries with a life of 3-5 years. Some clubs are still using the old models (BSF-6 and earlier), which are powered by a removable battery pack. 7 and 8 can be started on the day of the event by inserting an SI card, and as this process takes longer than a normal punch, it should be carried out by the Course Planner and his or her assistants, and not the first competitor at the control. The 6 and earlier units can be programmed to turn on at a specified time, or turned on using a magnet.

8.0 On the Day

8.1 Placing Controls. If practical, it is a good idea to place the stands the day before the event, and it is even better if the stands are labeled with the control code for that location. If not, the stands, control flags and units are put out on the day of the event. It is the course planner's responsibility to do this with the help of some veters if necessary. When the control units are placed they should be turned on by punching, or if older units

turned on with a magnet. The controller and an assistant, if required, should make a final visit of all controls prior to the first start.

8.2 Control Placing Issues

Where the ground allows it, a stand should be used with a flag and punch connected to it, and the control unit should have the control code stuck to it horizontally. The number should only be visible when the competitor is on top of the control. If a stand cannot be used the control flag can be hung from a branch with the control unit lying on the ground underneath, but attached to a fixture nearby. Control units that are hung vertically with a control number are unfair, as the approaching competitor will see the code some distance away, and, if it is not his/her control, will not waste the time to approach the control to check the code.

8.3 Registration. If there are to be entries on the day there must be a system to get the competitor's details into the event computer and to the start. This should also apply to any changes by registered participants.

8.4 Start Approving the organization of the Start, and checking that the Start is at the location corresponding to that on the map. Ensuring the Pre-start is correctly sited with the start line at right angles to the line of travel for the Beginner's course. Make sure that the control (no control unit) in the centre of the start triangle is correctly sited. A taped triangle in the ground is okay but it must have a flag on a stand in the centre.

Double checking that the correct course map and numbers are in each Start Box. There should also be adequate spare maps in each box in case a runner picks up the wrong map, and for runners who decide to change courses at the last minute. If there is to be entries on the day then there must be an adequate supply of maps for them. It is far better to overestimate the number of maps required. Get the official on the start line to give you the spiel that s/he intends to pass on to the competitor. For example:

"there is a punching start, don't forget to punch after the whistle goes"

If a remote start "the distance to the start triangle is x metres. You must follow the tapes to the start triangle before you start your course."

"There is no control unit at the start triangle."

8.5 Finish Check the Clear, Check, Start and Finish SI units, and that the first three are handed over to the Start Chief, and that they have all been synchronized together prior

to the first start. The finish banner should be erected at the finish line. Make sure that there are adequate directions to the Download Station if it is not adjacent to the Finish. Check the timing equipment, look at the Finish chute to ensure it agrees with the control descriptions, (taped or not). If download is at the finish, make sure that there is plenty of room between the finish line and the download station, as queues can form from time to time. If the download station is not at the finish, check the directions for competitors. Check the procedure for getting results out.

8.6 Complaints and Protests. The controller should ensure that the Event director has created an Event Committee to handle any complaints, and that there is a procedure for handling them, which would consist of directing the complainant to an official away from the download area. The best approach at this point is to suggest that the competitor go and get changed and have something to eat and then bring the written complaint to the event director. If the event director cannot settle things to the competitor's satisfaction, then the Event Committee should be formed consisting of the event director, the course planner and the controller to adjudicate the complaint. If the complainant rejects to Event Committee's decision, then it should go to the jury. The controller leads the jury, but cannot vote. The jury consists of 3 experienced officials at O300, and should be picked by the event director before the event. The jury's decision is final.

8.7 Safety. The safety of the competitors is also a concern of the Controller, so checking that the terrain and courses are safe for participants with respect to hazards, dangerous locations, such as uncrossable cliffs and marshes, and poisonous plant life. If a feature is particularly dangerous, it should be marked with a purple cross hatch (710). When checking courses the Controller should be aware of the expected weather, and problems such as cold and hypothermia or heat and dehydration should be considered when determining the course lengths

8.8 Punching Start

For Canada Cup events below national championships, a punching start can be used for all competitors, and as some of the competitors may be inexperienced, the Controller should point out to the Start Team that they must make sure that all competitors punch. Often beginners are not aware they have to, and enthusiastic juniors may race off as soon

as the start signal goes. Of course a timed start can also be used, but this is usually reserved for the COCs and NAOCs.

8.9 Control Unit Failure

All control units should have a pin punch backup attached to the control stand. In the event that a control unit fails, competitors can then punch their maps or boxes that may have been provided on the map. It is very important that the Controller ensures that the competitors are advised in the event notes that they must punch their maps in the event of not getting a light or beep from the control unit. A failed unit should not be changed during the event, as circumstances should be the same for all competitors. However, if a flag, stand and control unit is removed, it should be replaced.

8.10 Late Starts

At Canada Cup events below National Championships, if there is pre-registration and assigned start times, late starts are treated leniently with late competitors being slotted into gaps in the start order with no penalty. The Controller should just ensure that the Start team knows what to do with late starters.

8.11 Disputes between the Controller and Course Planner

On occasion, a disagreement will arise between the Controller and the Course Planner over the planning of the courses. As a first step, the Controller should have a meeting with the Course Planner to discuss his/her concerns referring to the guidelines in the Orienteering O300 Manuals and Orienteering Canada Rules. If there is no resolution, the Controller should make his/her concerns known to the Event Director

8.12 Cancellation of Event

The Controller has the authority to cancel a meet if the competitors' safety is at risk. An example of this might be an early snowfall where the weight of snow is bringing down trees and branches.

9.0 Sprint Races

9.1 Control placing

At the COF AGM in August, 2009 the spacing of controls in Sprint Races was established at no closer than 15 metres for controls on dissimilar features, and 30 metres for controls

on similar features. As of the start of 2014, distances between controls must be measured in a straight line.

9.2 Course Planning

When checking sprint courses, keep in mind that the courses are technically easy (up to TD3), so the main emphasis should be on difficult route choice with lots of decision points along the route. The distance on each of the alternative routes should be checked to ensure that one route is not immediately obvious as the best route. At times an easy leg with only one decision point is required to set up a good route choice leg. Good planning requires that the obvious is not necessarily the best route especially if it requires the competitor to reverse direction out of the control. Long legs are allowed, but they should also have multiple decision points. If the terrain is limited or if there are areas of particular complexity, crossovers can be used, although competitors should be advised of this as collisions have occurred. While forest terrain can be used for sprints, they are inherently unfair due to the variability of the vegetation, so are discouraged.

9.3 Distance Measurement

If on any leg there is an uncrossable object (such as a building) then the deviation by the competitor should be added to the distance on the control description instead of the straight-line distance.

9.4 Sprint Safety

Controls: If the event is to be held in an urban setting where the public may be unfamiliar with orienteering controls, they may have to be monitored.

Competitors: Avoid routes that cross busy roads. Juniors should have courses that do not cross any busy roads.

9.5 Out of Bounds and Forbidden Symbols

The Controller should make sure that the event notes refer to the out of bounds areas, particularly the olive green "settlement" colour, which can range from housing to flower beds, noting that crossing these areas is forbidden, and will lead to disqualification. If a landowner is particularly sensitive to the flower beds, for example, then an additional sign at the start is a good idea. If an OOB area is not immediately obvious to competitors, such as a line of hedges with the odd opening, then it should be taped off. Unlike ISOM (maps for middle and long races), in Sprint Races using ISSOM, objects marked

uncrossable (heavy black line), such as ponds, marshes, fences, and walls, are forbidden to cross, and competitors doing so will be disqualified.

9.6 Doors and Gates

If these are shown as open on the map, the Controller should check that this is the case. If not there should be a map at the start showing the correction.

10.0 Reports

If the Controller wishes, he/she can provide the organizing club with a report containing any reflective thoughts on the terrain, maps and courses, special problems, and any ideas for future events.

11.0 Rules. Make sure that you are up-to-date on the Orienteering Canada Rules, as they do get revised from time to time. It is also a good idea to bring a copy with you to the event.