

**COMPETITION RULES
FOR
INTERNATIONAL ORIENTEERING FEDERATION (IOF)
TRAIL ORIENTEERING EVENTS**

*(Rules for the World Trail Orienteering Championships)
(Rules for Regional Trail Orienteering Championships)*

This version of the competition rules is valid from 1 January 2013.
Subsequent amendments will be published on the official IOF web
site at <http://www.orienteeing.org/>

*A vertical line in the left margin indicates a major
change to the previous printed version (1 February 2011)*

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1. Definitions

1.1 Trail Orienteering is a sport involving map and terrain interpretation. Competitors visit control points marked in the terrain usually in a set sequence. Using the map provided, with aid of a compass, they choose which of a number of markers represents the one in the centre of a printed circle as defined by the control description. This decision must be recorded. The term competitor means an individual or a team.

1.2 The mode of movement may be:

- *on foot*
- *by wheelchair, either manual or electric*
- *on bicycle, tricycle or handcycle*
- *other modes, any recognised mobility aid.*

No combustion-engined vehicle, nor any battery driven vehicle designed for more than one occupant is permissible.

1.3 Types of trail orienteering competition may be distinguished by:

- the time of the competition
 - *day* (in daylight)
 - *night* (in the dark)
- the nature of the competition
 - *individual* (the individual performs independently)
 - *team* (the scores for two or more individuals are combined)
- the way of determining the competition result:
 - *single-course competition* (the result of one course is the final result)
 - *multi-course competition* (the combined results of two or more courses, held during one day or several days, form the final result)
 - *qualification race competition* (the competitors qualify for a final race through one or more qualification races in which they may be allocated to different heats. The competition's result is that of the final only. There may be A- and B-finals and so on, with the placed competitors of the B-final placed after the placed competitors of the A-final and so on)
- the order in which the controls are to be visited:
 - *in a specific order* (the sequence is prescribed)
 - *in no specific order* (the competitor is free to choose the order)
- the format of the course:
 - *PreO* (Precision Orienteering - course consists mainly of untimed controls, sometimes with a few timed controls)
 - *TempO* (course consists of timed controls only).

1.4 The term *Federation* means a member Federation of the IOF.

1.5 The term *event* embraces all aspects of an orienteering meeting including organisational matters such as start draws, team officials' meetings and ceremonies. An event, e.g. the World Trail Orienteering Championships, may include more than one competition.

WTOC 1.6 *The World Trail Orienteering Championships (WTOC)* is the official event to award the titles of World Champions in Trail Orienteering. It is organised under the authority of the IOF and the appointed Federation.

- RTOC 1.7 *The Regional Trail Orienteering Championships (RTOC)* are the official events to award the titles of Regional Trail Orienteering Champions for each IOF Region. They are organised under the authority of the IOF and the appointed Federation.
- 1.8 *The IOF Event Adviser* is the person appointed to control an IOF event. In the case of World Championship and Regional Championship events the title *IOF Senior Event Adviser* is used.

2. General provisions

- 2.1 These rules, together with the Appendices, shall be binding at the *World Trail Orienteering Championships* and all other *IOF International Trail Orienteering Competitions*. Every rules point with no event abbreviation before its number is valid for all these events. A rules point valid only for the *World Trail Orienteering Championships* is marked with WTOC in the margin beside the rules point number. Such specific rules take precedence over any general rules with which they conflict.
- 2.2 These rules are recommended as a basis for national rules.
- 2.3 If not otherwise mentioned these rules are valid for individual trail orienteering competitions.
- 2.4 Additional regulations which do not conflict with these rules may be determined by the organiser. They need the approval of the IOF Event Adviser.
- 2.5 These rules and any additional regulations shall be binding for all competitors, team officials and other persons connected with the event organisation or in contact with the competitors.
- 2.6 Sporting fairness shall be the guiding principle in the interpretation of these rules by competitors, organisers and the jury.
- 2.7 The English text of these rules shall be taken as decisive in any dispute arising from a translation into any other language.
- 2.8 For team competitions the rules for individual competitions are valid, unless otherwise stated.
- 2.9 The IOF Council may decide special rules or norms which shall be followed, e.g. *IOF Anti-Doping Rules, International Specification for Sprint Orienteering Maps, International Specification for Orienteering Maps, Trail Orienteering Technical Guidelines, Principles for Course Planning, Leibnitz Convention* and *IOF Control Descriptions*.
- 2.10 The IOF Council may on occasion allow deviations from these rules and norms. Requests for permission to deviate from them shall be sent to the IOF Secretariat at least 6 months prior to the event.

3. Event programme

- 3.1 The event dates and programme are proposed by the organiser and approved by the IOF Council.
- WTOC 3.2 The World Trail Orienteering Championships (WTOC) are organised in every year ideally as part of the (FootO) World Orienteering Championships programme.
- WTOC 3.3 The programme shall include a two-day PreO competition with one course on each day, and a TempO competition. The TempO competition will have a qualification and final on the same day. The second day of the PreO competition is also the World PreO Team Championship competition.
- WTOC 3.4 The programme shall include opening and closing ceremonies, adequate rest and model event(s). The programme shall be kept within no more than 5 days.

- WTOC 3.5 An associated public competition with no limit on numbers, unless specified by the organiser, shall be offered on as much of the championship course as possible. The public competitors should start after, and be kept separate from, the championship competitors.

4. Event applications

- 4.1 Any Federation may apply to organise an IOF event.
- 4.2 Applications shall be forwarded by the Federation to the IOF Secretariat. The official application form shall be used, and the applications shall contain all requested information and guarantees.
- 4.3 The IOF Council may impose a levy on any IOF event. The amount of the levy shall be announced at least six months before the closing date for applications for that event.
- 4.4 The IOF Council may void the sanctioning of an event if the organiser fails to comply with the rules, the norms, the IOF Event Adviser's directions or the information submitted in the application. The organiser cannot claim damages in this case.
- WTOC 4.5 Applications shall be received no later than January 1st four years prior to the championship year. The organising Federation is appointed the same year. Prior to the appointment, the applicant must sign a contract with the IOF.

5. Classes

- WTOC 5.1 In the PreO competitions (individual and team) there is one Open class and one Paralympic class. Competitors may only be entered for one class. In the TempO competition there is a single Open class.
- WTOC 5.2 All competitors, regardless of sex, age or physical ability/disability are eligible to be entered for a World Championship Open class competition.
- WTOC 5.3 Only competitors who have a permanent disability that significantly reduces their mobility are eligible to be entered for a World Championship Paralympic class competition.
Competitors for the Paralympic class shall submit to the IOF, at least eight weeks before the competition, an eligibility form (available at www.orienteering.org) completed by a doctor. When approved, a certificate authenticating their Paralympic status will be issued. The eligibility certificate must be sent to the event organiser with the final entry form.

6. Participation

- 6.1 A competitor may represent only one Federation during any one calendar year.
- 6.2 Competitors who are representing a Federation shall have full passport-holding citizenship of the country of that Federation.
- 6.3 Each participating Federation shall appoint a team manager to act as a contact person between the team and the organiser. It is the team manager's duty to see that the team receives all necessary information.
- 6.4 Competitors participate at their own risk. Insurance against accidents shall be the responsibility of their Federation or themselves, according to national regulations.
- I WTOC 6.5 All competitors represent a Federation. Each Federation may enter a team of up to 8 competitors.

- I WTOC 6.6 Each Federation may enter up to a maximum of three competitors of any physical ability for the PreO competition in the Open class, a maximum of three eligible competitors for the PreO competition in the Paralympic class and a maximum of four competitors for the TempO competition. The current World Champions may be entered by their Federations in their respective classes in addition to the normal maximum of three per class provided they are members of the Federation's team.
- I WTOC 6.7 In the TempO competition only the 36 best placed competitors from the qualification may participate in the final; if there is just one qualification heat they will be the top 36, if there are two qualification heats the top 18 from each heat qualify for the final etc.
- I WTOC 6.8 For the PreO Team competition, a team shall consist of three competitors with at least one competitor from the Paralympic class. Each Federation may only nominate one team.
- WTOC 6.9 Disabled competitors requiring physical assistance from an able-bodied escort shall inform the organiser when registering for the event. The organiser shall make arrangements for such assistance. It is not permitted for competitors to be accompanied by their personal or national team escorts in the competition area. However, in exceptional cases with the agreement of the IOF Event Adviser, competitors may be accompanied by their own medical attendant or, for those with restricted communication, an 'interpreter' familiar with their speech. Escorts must not assist in any way with the map reading, control site identification, analysis or selection process, nor disturb the concentration of any competitor.
- WTOC 6.10 Each Federation may have a number of officials in the team, in addition to the competitors and required escorts. The organiser shall fix the number of officials in accordance with the available facilities, but the maximum number shall be at least four. The maximum number shall be the same for each team.

7. Costs

- 7.1 The costs of organising an event are the responsibility of the organiser. To cover the costs of the competition(s), the organiser may charge an entry fee for competitors and an accreditation fee for non-competitors (team officials, media etc). This fee shall be kept as low as possible and shall be approved by the IOF Event Adviser.
- 7.2 Each Federation or individual competitor is responsible for paying the entry fee as specified in the invitation. The time limit for paying the entry fee shall not be earlier than 6 weeks prior to the event.
- 7.3 Late entries may be charged an additional fee. The amount of the additional fee shall be approved by the IOF Event Adviser.
- 7.4 Each Federation or individual competitor is responsible for defraying the expenses of travel to the event, accommodation, food and transport between the accommodation, event centre and competition sites. If the use of official transport to the competition sites is mandatory, the entry fee shall include these costs.
- 7.5 The travelling costs of the IOF appointed Event Adviser and Assistant/s, to and from the venue, shall be paid by the IOF. Local costs during controlling visits and the event days are paid by the organiser or the organiser's Federation according to national agreements.
- 7.6 All costs of IOF Event Advisers and Assistants appointed by a Federation shall be paid by the organiser or the Federation according to national agreements.
- WTOC 7.7 Different standards of wheelchair accessible accommodation and food shall be offered, allowing competitors a choice of price groups. The fees for the competition, the food and accommodation must be shown as separate amounts. It is not obligatory to use the accommodation arranged by the organiser.

- 7.8 If the event (or part of the event) has to be cancelled due to reasons outside of the organiser's control – e.g. weather conditions, destruction of terrain, the organiser may retain a minimum proportion of the entry fee in order to cover committed costs.

8. Information about the Event

- 8.1 All information and ceremonies shall be at least in English. Official information shall be given in writing. It may be given orally only in urgent cases and in response to questions at team officials' meetings.

- WTOC 8.2 Information from the organiser or the IOF Event Adviser shall be given in the form of bulletins. Bulletins shall be published on, or by being linked to, the IOF Web Site. Notification that Bulletin 3 has been published shall be sent by e-mail to all participating Federations. If further information is necessary, it shall be given to all appropriate Federations.

- WTOC 8.3 Bulletin 1 (preliminary information) shall include the following information:
- organiser and names of the event director, IOF Event Adviser(s), national controller(s)
 - telephone number/e-mail address/web page for information
 - venue
 - dates and types of the competitions
 - classes and any participation restrictions
 - opportunities for training
 - general map of the region
 - embargoed areas
 - any peculiarities of the event
 - a colour copy of the most recent version of any previous orienteering map(s) of the embargoed areas.

- WTOC 8.4 Bulletin 2 (invitation) shall include the following information:
- all information given in Bulletin 1
 - official entry and accommodation forms
 - latest date and address for entries
 - entry fee for competitors, escorts/medical attendants and team officials
 - latest date and address for the payment of the entry fees
 - types and cost of accommodation and food
 - accessibility of entrance hall, bedrooms, sanitary facilities and public rooms
 - provision for recharging electric wheelchairs
 - latest date for reservation of official accommodation
 - description of any transport offered, including that adapted for wheelchairs with cost
 - latest date for booking and payment of transport
 - directions for obtaining entry permits (visas)
 - details of opportunities for any training
 - description of terrain, climate and any hazards
 - accessibility for mobility impaired competitors
 - provision of escorts, or need for them
 - standard of the map (ISSOM or ISOM)
 - scales and contour intervals of the maps
 - event programme
 - notes on competition clothing, if necessary
 - approximate length and climb of each course

- address, telephone/fax number and e-mail address of the official responsible for the media
- a recent sample map showing the type of terrain
- the exact location of each competition area and finish arena (if they have been decided)
- maximum number of officials per team (if necessary)
- directions for registration of media representatives and any extra representatives of the Federations.

- WTOC 8.5 Bulletin 3 (event information) shall include the following information:
- latest date for sending the exact number of participants
 - latest date for submitting medical certificates to IOF for required eligibility
 - latest date for sending the names of participants and confirmation of eligibility for Paralympic participants
 - details of provision of escorts by organisers or unusually the need for participants to do so
 - detailed programme of the event, including timetable for final name entries and for the allocation of start times
 - details of the terrain, especially accessibility
 - summary of entries received
 - any permitted deviations from the rules
 - address, telephone and e-mail address of the competition office
 - details of accommodation and food, access perimeters
 - transport schedule, availability of vehicles booked to take wheelchairs
 - the length (measured along the route to be followed), total climb, number of controls and number of refreshment controls on each individual course
 - team officials' meetings
 - the exact location of each competition area and finish arena.
- WTOC 8.6 Bulletin 4 (additional event information) shall be given on arrival of the competitors and shall include final details of event information including:
- any anti-doping requirements
 - all Special Rules relevant to the event
 - any additional regulations and any Rule Deviations that have been granted
 - the time limits for complaints
 - the location for making complaints
 - maximum time allowed for each course
 - names and Federations of jury members
- WTOC 8.7 Bulletin 1 shall arrive 24 months before the event, Bulletin 2 shall arrive 12 months before the event and Bulletin 3 shall arrive 2 months before the event.

9. Entries

- 9.1 Entries shall be submitted according to the instructions given in Bulletin 2. At least the following details shall be supplied in order for each competitor: family name and first name, gender, Federation. The names of team officials shall be supplied. Late entries may be refused.
- 9.2 The organiser may exclude competitors or teams from starting if their entry fee is not paid and no agreement has been reached about payment.
- 9.3 Reservations and reservation fees for accommodation shall reach the organiser at the times specified in Bulletin 2.

- WTOC 9.4 No competitor may be replaced within one hour of the first start.
- WTOC 9.5 Competitors may only be selected and entered by their Federation.
- WTOC 9.6 Entries giving the number of competitors, the number of escorts/medical attendants, the number of team officials and the team manager's name, address, e-mail address and phone/fax numbers shall reach the organiser no later than 2 months before the event.
- WTOC 9.7 Each competitor's name, any required medical certificate and the names of escorts and the team officials shall reach the organiser no later than 10 days before the event. Changes are possible up to 12 noon on the day before the event.
- | WTOC 9.8 Names of the competitors shall reach the organiser no later than 12 noon on the day before an individual competition.
- WTOC 9.9 Entries for the Team competition, including the names of the three competitors who will make up the scoring team, shall reach the organiser by 18.00 hours on the day before the second course.
- | WTOC 9.10 Between 12 noon on the day before the competition starts and 1 hour before the first start, a competitor may be replaced for a valid reason (eg accident or illness). No replacement for the individual competitions is possible after 1 hour before the first start of the competition.
- WTOC 9.11 Between 18.00 hours on the day before the second course and 1 hour before the first start, the competitors nominated for the team may be changed for a valid reason (eg accident or illness).
- | WTOC 9.12 Replacement of a competitor after 12 noon on the day before the event may only be made from within the entered team.

10. Travel and transport

- WTOC 10.1 Each Federation is responsible for organising its own travel.
- WTOC 10.2 On request, the organiser shall, on behalf of a Federation, arrange provision of adapted vehicles to transport teams from the nearest international airport or railway station to the event centre or accommodation. The Federation will pay for this service.
- WTOC 10.3 Transport between the accommodation, event centre, competition sites, etc may either be arranged by the organiser or by the teams. On request and with agreed payment, the organiser shall arrange all necessary transport during the event, including transport with hoist for electric wheelchair users, on behalf of the teams.
- 10.4 The use of official transport to a competition site may be declared mandatory by the organiser.

11. Training and model event

- 11.1 Training opportunities may be offered before the competition.
- WTOC 11.2 On the day prior to the first competition of an event, the organiser shall put on a model event to demonstrate the terrain type, map quality, control features and the set-up of the controls, including a Timed Control, a Tempo Control, refreshment points and marked routes. If the terrain for the two days of competition is very different, a second model event shall be put on.
- 11.3 Competitors, team officials, IOF officials and media representatives shall be offered the opportunity to participate in the model event.
- 11.4 If deemed necessary by the IOF Event Adviser, further model events shall be organised.

- 11.5 If deemed appropriate by the IOF Event Adviser, the model event may be organised on the day of the competition prior to the first start.

12. Starting order

- 12.1 In an *interval start*, the competitors start singly at allocated start intervals.
- 12.2 The starting order shall be approved by the IOF Event Adviser. The start draw may be public or private. It may be made by hand or by a computer.
- 12.3 The start list shall be published on or before the day prior to the competition and before any team officials' meeting which must be held according to Rule 13.1.
- 12.4 The names of all competitors and teams correctly entered shall be drawn, even if a competitor has not arrived. Entries without names (blanks) are not considered for the draw.
- 12.5 For an interval start, the start interval shall normally be 2 minutes, but may be varied with the approval of the IOF Event Adviser.
- WTOC 12.6 For an interval start for all competitors on the same course, the starting order drawn at random shall be adjusted, as necessary, to allow for a separation of at least 8 minutes between competitors from the same Federation on the same course. The mechanism of adjustment is to bring forward the next available competitors in the draw to provide the required separation. If competitors are still to be separated at the end of the draw, the same process takes place in reverse from the bottom of the list to provide the necessary separations.
- WTOC 12.7 The starting order for the second day of the PreO competitions shall be the reverse of the placings from the first day of competition, with the best competitor starting last, but adjusted, where necessary, to allow for a separation of at least 8 minutes for competitors from the same Federation. The mechanism of adjustment is as detailed in 12.6, beginning with the last starter.
- I WTOC 12.8 The starting order of the TempO final shall be the reverse of the placings in the qualification race heats; the best competitors shall start last. Ties shall be decided by drawing lots. E.g. if two competitors tie for 6th place in heat 1, a coin shall be tossed to determine who has placing 6 and who has placing 7 in heat 1 for the purposes of this rule. Competitors with the same placing in the different parallel heats shall start in the sequence of the number of their heat, ie. 1, 2, 3...; the winner of the highest numbered heat therefore starts last.

13. Team officials' meeting

- WTOC 13.1 The organiser shall hold a team officials' meeting on the day prior to the competition. This meeting shall normally start no later than 19.00 hours. The IOF Event Adviser shall lead or supervise the meeting.
- WTOC 13.2 The competition material (start number bibs, control cards or E-cards, start lists, transport schedule, latest information, etc) shall be handed out before the start of the meeting.
- WTOC 13.3 Team officials shall have the opportunity to ask questions during the meeting.

14. Terrain

- 14.1 The terrain shall be suitable for setting competitive trail orienteering courses of the appropriate standard. The objectives of the Leibnitz convention shall be considered.
- 14.2 The terrain must be chosen so that the least mobile competitors, the person confined to and propelling a low fixed wheelchair and the person who walks slowly and with difficulty, can negotiate the course within the maximum time limit, using official assistance where provided.

- 14.3 The competition terrain shall not have been used for orienteering for as long as possible prior to the competition, so that no competitor has an unfair advantage.
- 14.4 The competition terrain shall be embargoed as soon as it is decided.
- 14.5 Permission for access into embargoed terrain shall be obtained from the organiser if needed.
- 14.6 Any rights of nature conservation, forestry, hunting, etc in the area shall be respected.

15. Maps

- 15.1 Maps, course markings and additional overprinting shall be drawn and printed according to the IOF *International Specification for Sprint Orienteering Maps* or the IOF *International Specification for Orienteering Maps*. Deviations need approval by the IOF Council.
- 15.2 The map scale shall normally be 1:5000 or 1:4000. All maps for a competition, including those for the timed controls, shall use the same scale.
- 15.3 Errors on the map and changes which have occurred in the terrain since the map was printed shall be corrected on the map if they have a bearing on the event.
- 15.4 Maps shall be protected against moisture and damage.
- 15.5 If a previous orienteering map of the competition area exists, colour copies of the most recent edition must be displayed for all competitors on the day prior to the competition.
- 15.6 On the day of the competition, the use of any map of the competition area by competitors or team officials is prohibited until permitted by the organiser.
- 15.7 In TempO the shape and size of the maps shall be either circular or square. A circular map shall have a diameter between 5 cm and 12 cm and a square map shall have sides between 5 cm and 12 cm. Each map shall be centred on the control circle. All maps at all stations must have the same form and size. The map shall be fixed on stiff material which is larger than the map.
- WTOC 15.8 The IOF and its member Federations shall have the right to reproduce the event maps with courses in their official magazines or on their websites without having to pay a fee to the organisers.

16. Courses

- 16.1 The IOF *Principles for course planning for Trail Orienteering* (see Appendix 1) shall be followed, with reference to the current published issue of the IOF *Technical Guidelines for Trail Orienteering*.
- 16.2 The standard of the courses shall be worthy of an international trail orienteering event. The skills of map reading and terrain interpretation and the concentration of the competitors shall be tested, together with, at the timed controls, speed of decision making. The courses shall call upon a range of different orienteering techniques.
- 16.3 The course lengths shall be given as the length from the start, along the route to be followed, to the finish and should not normally exceed 3500m.
- 16.4 Any route not passable by all wheelchair users, because of width, protruding roots, fallen trees or other unsuitable surface must be banned to all and marked in the terrain by tapes.
- 16.5 The total climb shall be given as the climb in metres along the route.
- 16.6 The climb of a course should normally not exceed 14% for more than 20 metres. The cross slope should be no more than 8%.

- 16.7 At least pure water shall be offered as refreshment.
- | WTOC 16.8 In the PreO courses, at least two timed controls where the decision time is recorded should be included. These may be located at any part of the course; but it is desirable that at least one occurs both before the official start and another after a pre-finish. A separate, specially prepared map is used for each timed control. For the PreO courses, timed controls shall not have a None/Zero answer.
- | WTOC 16.9 A TempO qualification course shall consist of at least 4 control stations and 20 timed controls. A TempO final course shall consist of at least 5 control stations and 25 timed controls. There should be at least three timed controls at each control station. A separate, specially prepared map is used for each timed control and the competitor is given the complete ordered set of maps for the control station as a stack with a cover sheet on top.

17. Timed Controls

- | 17.1 The number of control markers for each timed control shall be 5 or 6.
- 17.2 The terrain detail at a timed control shall not be shown on the competitor's maps, where this may be studied by competitors before they are called to the timed control.
- | 17.3 At timed controls the competitor shall be seated in a position so that all the control markers are visible. A map unit, or a set of maps, containing a segment of the map oriented in the direction of view of the control, with clear indication of the direction of magnetic north above the map segment and description below the segment, shall be handed to, or placed for, the competitor.
- | 17.4 Timing starts when the order "time starts now" is given at which point the competitor may look at the first map. Timing can be with two stopwatches or electronic units, in which case the map is handed over on the feedback signal as the competitor punches.
- | 17.5 At timed controls timing is stopped when the final clear answer is stated. Answers are given either by the use of a pointing board or orally using the International Phonetic Alphabet (Alpha, Bravo, Charlie, Delta, Echo, Foxtrot and Zero). With electronic units both the choice and time are automatically recorded as the competitor punches.
- | 17.6 At each timed control station in a PreO competition, the maximum total time is 60 seconds multiplied by the number of timed controls. The total time and the individual answers for each timed control are recorded.
- | 17.7 At each station in a TempO competition, the maximum total time is 30 seconds multiplied by the number of timed controls. The total time and the individual answers for each timed control are recorded.
- | 17.8 A competitor must give the answer while the relevant map is visible. If the competitor turns over to the next or previous map before an answer is given for the current map, then the answer must be recorded as incorrect for the current map.
- | 17.9 Any timed controls which have not been answered within the maximum time are recorded as incorrect.
- 17.10 Unless electronic recording is used there shall be 2 timekeepers with the times from both recorded. The times shall be rounded down to whole seconds.

18. Restricted areas and routes

- 18.1 Rules set by the organising Federation to protect the environment and any related instructions from the organiser shall be strictly observed by all persons connected with the event.

- 18.2 All terrain off the tracks (trails) in the competition area is out-of-bounds unless otherwise indicated in the information, marked on the map and, where necessary, marked on the ground. Additionally, certain normally permitted routes and areas may be declared out of bounds, as described in the information and, where necessary, marked on the map and the ground. Competitors who deliberately enter a forbidden area will be disqualified.
- 18.3 Compulsory routes, crossing points and passages shall be marked clearly on the map and on the ground. Competitors shall follow the entire length of any marked section of their course.

19. Control descriptions

- 19.1 The precise location of the control point in the terrain shall be correctly defined by the centre of the circle on the map and the control description.
- 19.2 The control descriptions shall be in the form of symbols and in accordance with the *IOF Control Descriptions*.
- 19.3 In column B, the number of control markers in any cluster, will be indicated by letters (e.g. A-C for 3 markers).
- 19.4 Where necessary, to indicate the approximate direction to view a control cluster, a standard compass direction arrow shall be placed in column H.
- 19.5 The control descriptions shall include the maximum time allowed for the course.
- 19.6 The control descriptions, given in the right order for each competitor's course, shall be fixed to or printed on the front side of the competition map.

20. Control set-up and equipment

- 20.1 The control point given on the map shall be clearly marked on the ground by a cluster of control markers in the vicinity of the circle.
- 20.2 Control markers shall consist of three squares 30 x 30 cm arranged in a triangular form. Each square shall be divided diagonally, one half being white and the other orange (PMS 165).
- 20.3 The control markers shall be hung so that they are all visible (at least one third of any marker) to competitors from the close vicinity of the decision point. Normally a marker is positioned at the feature at the centre of the circle on the map and correctly described but it is permitted to have no marker so located in Elite class competitions.
- 20.4 The control markers shall be hung at a standard height in any one cluster.
- 20.5 A decision point will be marked in the terrain along the route, but not shown on the map. For timed controls, the location where the competitor is seated must be on the map but is not marked on the map.
- 20.6 Control markers are designated from left to right, regardless of depth of view, 'A', 'B'...'F' from a decision point. The decision as to which marker is which is made from this point.
- 20.7 All controls for which there are security concerns shall be guarded.

21. Control cards and marking devices

- 21.1 Either an IOF licensed electronic punching system or the traditional manual pin punch with control card may be used.

- 21.2 If a non-electronic punching system is used, the control card must satisfy the following specifications:
- it must be made of resistant material, or be protected
 - each punch box must have a minimum side length of 13 mm
 - a duplicate must be marked automatically with the main card.
- 21.3 If a non-electronic punching system is used, competitors shall be issued with a double card. The complete card shall be handed to officials at the finish, the second part being returned, after the last start time, to the competitor for reference.
- 21.4 If a non-electronic punching system is used, the whole card may be protected by reinforcing it or by putting it into a bag, but not by cutting-off parts of the control card.
- 21.5 In a PreO competition, competitors record their choices at a punching station a short distance beyond each decision point. If a non-electronic punching system is used, a single punch shall be provided. If electronic punching is used, a backup punch must be provided. In both cases a different pin pattern to those at adjacent controls must be used.
- 21.6 Competitors shall record their choice at each control before moving on to the next control. With non-electronic punching the control card must be punched in the chosen box. With electronic punching, the choice is recorded in the chosen unit and the confirmation signal observed. If, after waiting, there is doubt that the punch has been recorded, the back-up pin punch should be used on blank boxes supplied with the map unit. See Appendix 4.
- 21.7 Competitors are responsible for the correct recording of their choice, whether doing so themselves or through an intermediary.
- 21.8 Any control with more than one, or no, selection recorded is deemed to be incorrect. Subject to confirmation by the Event Adviser.
- 21.9 No change in recorded selection is permitted.
- 21.10 Checks by the organiser to confirm that competitors are completing the controls in the correct order may be made either by scrutiny of control cards within the competition area or by interrogation of electronic units.
- 21.11 Competitors who lose their control card or electronic recording device (e-card) shall be disqualified.
- WTOC 21.12 The control cards or e-cards shall be handed out before the team officials' meeting except that, if qualification and finals are organised on the same day, those for the finals shall be handed out at least one hour before the first start.
- WTOC 21.13 If electronic punching is used, provision for competitors to punch in privacy shall be provided.

22. Equipment

- 22.1 The choice of clothing and footwear shall be free.
- 22.2 Start number bibs shall be clearly visible and worn as prescribed by the organiser. The bibs shall not be larger than 25 x 25 cm with figures at least 10 cm high. The number bibs may not be folded or cut.
- 22.3 During the competition the navigational aids that competitors may use are only the map and control descriptions provided by the organiser, and a compass.
- 22.4 No mechanical or electronic aids, other than an odometer and a watch are allowed.

- 22.5 Telecommunication equipment may not be used in the competition area, except in an emergency by marshals. Any other use of telecommunication equipment during the competition period may result in disqualification of the competitor and team.

23. Start

- 23.1 In individual competitions, the start is normally an interval start.
- 23.2 In qualification race competitions, the first start in the finals shall be at least 2.5 hours after the end of the qualification races.
- 23.3 All competitors shall have at least 20 minutes for undisturbed preparation at the start area. Only competitors who have not started and team officials shall be allowed into the start area.
- 23.4 The start may be organised with a pre-start before the time start. If there is a pre-start, a clock showing the competition time to team officials and competitors shall be displayed there, and the competitors' names shall be called or displayed. Beyond the pre-start, only starting competitors, with their escorts and media representatives guided by the organiser are allowed.
- 23.5 At the start, a clock showing the competition time to the competitors shall be displayed. If there is no pre-start, competitors' names shall be called or displayed.
- 23.6 Competitors are responsible for checking that they have the right map. If there is variation in the course, the competitor's start number or name shall be indicated on the map so as to be visible to the competitor before starting.
- 23.7 The point where orienteering begins shall be shown on the map with the start triangle and, if it is not at the time start, marked in the terrain by a control marker.
- 23.8 Competitors who are late for their start time through their own fault shall be permitted to start. The organiser will determine at which time they may start, considering the possible influence on other competitors. They shall be timed as if they had started at their original start time.
- 23.9 Competitors who are late for their start time through the fault of the organiser shall be given a suitable new start time.

24. Finish and time-keeping

- 24.1 The course ends for a competitor after crossing the finish line.
- 24.2 The time taken by the competitor over the timed section(s) of the course, unless over the declared time limit for the course, is not relevant to the competition result.
- 24.3 The finishing time may be measured either when the competitor crosses a pre-finish line, or at the finish line. Times shall be rounded down to whole seconds. Times shall be given in either hours, minutes and seconds or in minutes and seconds only.
- 24.4 The lead-in to the finish may be bounded by tape or other means.
- 24.5 The exact position of the finish line shall be obvious to approaching competitors.
- 24.6 After crossing the finish line competitors shall hand in control cards or download recorded data. If required by the organiser, they shall also hand in their competition maps.
- 24.7 For a PreO course, the organiser shall set a maximum time for each course, calculated as 3 minutes for each control plus 3 minutes for each 100 metres of the course. At the discretion of the Event Adviser an extended time may be set to allow for exceptional climb, difficult surfaces or other factors. The Event Adviser may decide on an additional time allowance for competitors with eligibility certificates.

- 24.8 Any delays to the competitor, at any point along the route, which are not the competitor's fault must be recorded and deducted from that competitor's overall time.
- 24.9 If, after taking into account any recorded delay, the competitor has exceeded the time limit a penalty will be incurred. This shall be a deduction of one point for any part of each five minute unit.
- 24.10 There is no maximum time for a TempO course.
- 24.11 There shall be first aid facilities and personnel at the finish, who are also equipped to work in the forest.

25. Results

- 25.1 In a PreO competition, each correctly identified control (including Timed Controls) scores one point.
- 25.2 At the Timed Controls in a PreO competition a correct answer in 0-60 seconds scores one point. A wrong answer scores no points and a penalty of 60 seconds which is added to the time taken to answer. No answer in 60 seconds scores no points and a penalty of 120 seconds.
- 25.3 The average of the two recorded times at each timed control is calculated with half seconds preserved. If electronic punching is used, the time is rounded down to the nearest second.
- 25.4 The recorded times for all timed controls in any one competition are cumulative. With manual timing the total times should show half seconds.
- 25.5 In a PreO competition, competitors are ranked according to their points scores, with competitors on equal points being ranked according to their accumulated times at the timed controls.
- 25.6 In a TempO competition, competitors are ranked according to their total corrected time, which is the sum of the times taken at each control station plus 30 seconds penalty for each wrong answer.
- 25.7 Any control that is deemed to be unfair and voided by the IOF Event Adviser is deleted from the competition for all. The reason for voiding must be displayed on the results board. If a timed control in a TempO competition is voided, then the entire control station shall be voided.
- 25.8 Provisional results, consisting of points scored and accumulated times, shall be announced and displayed in the finish or assembly area during the competition. In a TempO competition, the results shall not be shown until the last competitor has started.
- 25.9 The official results, including the correct and competitor selections for each control, shall be published no more than 5 hours after the latest allowable finishing time of the last starter. They shall be handed out on the day of the competition to each team manager and to accredited media representatives.
- 25.10 The official results shall include the point scores and accumulated times of all participating competitors. A shortened version may be made available for the media.
- 25.11 Two or more competitors having the same score and time at the timed controls shall be given the same placing in the results list. The position(s) following the tie shall remain vacant.
- WTOC 25.12 Every competitor, team official and accredited media representative shall be given an official results list and a competition map, together with the solution map.
- WTOC 25.13 In the individual World PreO Championship competitions, the competitors are ranked according to their total point score and total accumulated time from the two courses.

- WTOC 25.14 In the World PreO Team Championships competition, the points of the three team members for the second day are added together to give the team points score, and the times of the three team members at the timed controls on the second day are added together to give the team time.
- I WTOC 25.15 In the individual World TempoO Championship competitions, the competitors are ranked according to their placing in the final course.
- 25.16 The results shall be published on the internet and electronically submitted to the IOF on the day of the competition.

26. Prizes

- 26.1 The organiser shall arrange a dignified prize-giving ceremony.
- 26.2 If two or more competitors have the same placing, they shall each receive the appropriate medal and/or certificate.
- WTOC 26.3 The title of World PreO Champion Open class shall be awarded to the competitor with the highest score (and the shortest accumulated time at the timed controls in the event of a tie for highest score) in the World Championship Open class.
- WTOC 26.4 The following prizes shall be awarded in the World PreO Championship Open class:
- 1st place Gold medal (plated) and certificate
 - 2nd place Silver medal (plated) and certificate
 - 3rd place Bronze medal and certificate
 - 4th-6th place Certificate
- Medals and certificates shall be supplied by the IOF.
- WTOC 26.5 The title of World PreO Champion Paralympic class shall be awarded to the competitor with the highest score (and the shortest accumulated time at the timed controls in the event of a tie for highest score) in the World Championship Paralympic class.
- WTOC 26.6 The following prizes shall be awarded in the World PreO Championship Paralympic Class:
- 1st place Gold medal (plated) and certificate
 - 2nd place Silver medal (plated) and certificate
 - 3rd place Bronze medal and certificate
 - 4th-6th place Certificate
- Medals and certificates shall be supplied by the IOF.
- WTOC 26.7 The title of World PreO Team Champion shall be awarded to the team with the highest total score (and the shortest total accumulated time at the timed controls in the event of a tie for the highest score).
- WTOC 26.8 In the World PreO Team Championship competition, the three members of the team shall receive: -
- 1st place Gold medal (plated) and certificate
 - 2nd place Silver medal (plated) and certificate
 - 3rd place Bronze medal and certificate
 - 4th-6th place Certificate
- Medals and certificates shall be supplied by the IOF.
- I WTOC 26.9 The title of World TempoO Champion shall be awarded to the competitor with the shortest total time in the World TempoO Championship.

- I WTOC 26.10 The following prizes shall be awarded in the World Tempo Championship:
- 1st place Gold medal (plated) and certificate
 - 2nd place Silver medal (plated) and certificate
 - 3rd place Bronze medal and certificate
 - 4th-6th place Certificate
- Medals and certificates shall be supplied by the IOF.
- WTOC 26.11 The prize-giving ceremonies shall be performed by representatives of the organising Federation and the IOF.
- WTOC 26.12 During the prize-giving ceremony, the national flags of the first 3 competitors shall be flown and the national anthem of the winner shall be played.

27. Fair play

- 27.1 All persons taking part in an orienteering event shall behave with fairness and honesty. They shall have a sporting attitude and a spirit of friendship. Competitors shall show respect for each other, wheelchair users must have priority to the side of the track nearest to the controls and access to decision points in front of ambulant competitors. The competitors shall be as quiet as possible in the terrain.
- 27.2 Seeking to obtain or obtaining technical assistance from other competitors or escorts, or providing such assistance to other competitors during a competition is forbidden. However, it is the duty of all competitors to help any injured competitor, or anyone with physical need in the case of an accident.
- 27.3 Doping is forbidden. The *IOF Anti-Doping Rules* apply to all IOF events and the IOF Council may require doping control procedures to be conducted. The organiser may require information on prescribed medication. It is the responsibility of competitors to obtain any required TUE (therapeutic use exemption) certificate.
- 27.4 All officials shall maintain strict secrecy about the competition area and terrain before they are published. In any case, strict secrecy about the courses must be kept.
- 27.5 Any attempt to survey or train in the competition terrain is forbidden. Attempts to gain any information related to the courses, beyond that provided by the organiser, is forbidden before and during the competition.
- 27.6 The organiser shall bar from the competition any competitor who is so well acquainted with the terrain or the map, that the competitor would have a substantial advantage over other competitors. In case of doubt, the matter shall be decided by the IOF Event Adviser.
- 27.7 Team officials, competitors, media representatives and spectators shall remain in the areas assigned to them.
- 27.8 Officials and others (e.g. media representatives) in the terrain shall neither disturb nor assist competitors, other than with legitimate physical assistance over difficult sections.
- 27.9 Having crossed the finish line, a competitor may not re-enter the competition terrain without the permission of the organiser. A competitor who retires shall announce this at the finish immediately and hand in the map and control card. That competitor shall in no way influence the competition nor help other competitors.
- 27.10 A competitor who breaks any rule, or who benefits from the breaking of any rule, may be disqualified.
- 27.11 Non-competitors who break any rule are liable to disciplinary action.
- 27.12 The organiser must stop, and postpone or cancel a course if at any point it becomes clear that circumstances have arisen which make the course dangerous for the competitor, officials or spectators.

27.13 The organiser must void a course if circumstances have arisen which make the course significantly unfair.

28. Complaints

28.1 A complaint may be made about infringements of these rules or the organiser's directions.

28.2 Complaints may only be made by team officials or competitors.

28.3 Any complaint shall be made in writing to the organiser as soon as possible. A complaint is adjudicated by the organiser. The complainant shall be informed about the decision immediately.

28.4 There is no fee for a complaint.

28.5 The organiser may set a time limit for complaints. Complaints received after this time limit will only be considered if there are valid exceptional circumstances which must be explained in the complaint.

29. Protests

29.1 A protest may be made against the organiser's decision about a complaint.

29.2 Protests may only be made by team officials or competitors.

29.3 Any protest shall be made in writing to a member of the jury no later than 15 minutes after the organiser has informed the complainant of the decision about the complaint. Protests received after this time limit may be considered at the discretion of the jury if there are valid exceptional circumstances which must be explained in the protest.

29.4 There is no fee for a protest.

30. Jury

30.1 A jury shall be appointed to rule on protests.

30.2 The IOF Council decides for which events it shall appoint the jury. If the IOF is not appointing the jury, the Federation of the organiser shall appoint the jury.

30.3 The jury shall consist of 3 voting members, if possible from different Federations. The IOF Event Adviser shall lead the jury but has no vote.

30.4 A representative of the organiser has the right to participate in the jury meetings but has no vote.

30.5 The organiser shall act according to the jury's decisions, e.g. to reinstate a competitor disqualified by the organiser, to disqualify a competitor approved by the organiser, to void the results in a class approved by the organiser or to approve results declared invalid by the organiser.

30.6 The jury is competent to rule only if all members are present. In urgent cases preliminary decisions may be taken if a majority of the jury members agree on the decision.

30.7 If a jury member declares him- or herself prejudiced or if a jury member is unable to fulfil his or her task, the IOF Event Adviser shall nominate a substitute.

30.8 Arising from its ruling on a protest, the jury — in addition to instructing the organiser — may recommend that the IOF Council excludes a person from some or all future IOF events in the case of a major violation of the rules.

30.9 Decisions of the jury are final.

WTOC 30.10 The jury is appointed or approved by the IOF Council. No jury member shall come from the organising Federation. The jury members shall be from different Federations.

31. Appeals

31.1 An appeal may be made against infringements of these rules if a jury is not yet set up, or if the event is over and the jury has dispersed.

31.2 An appeal may only be made by Federations.

31.3 An appeal shall be made in writing to the IOF Secretariat as soon as possible.

31.4 There is no fee for an appeal.

31.5 Decisions about an appeal are final.

31.6 The IOF Council shall deal with the appeal.

32. Event control

32.1 All events, for which these rules are binding, shall be controlled by an *IOF Event Adviser*. The IOF Event Adviser shall be appointed within 3 months of the appointment of an organiser.

32.2 The IOF Council shall decide for which events it will itself appoint the IOF Event Adviser.

32.3 If the IOF Event Adviser is appointed by the IOF, he or she is the official representative of the IOF to the organiser, is subordinate to the IOF Council and communicates with the IOF Secretariat.

32.4 The Federation of the organiser shall always appoint an independent national controller. This controller shall assist the IOF Event Adviser appointed by the IOF. If the IOF does not appoint an IOF Event Adviser for the event in question, the controller appointed by the Federation will be the IOF Event Adviser. The controller appointed by the Federation need not come from the same Federation.

32.5 All IOF Event Advisers shall hold the IOF Event Adviser's licence. No IOF Event Adviser or IOF Event Adviser's Assistant may have any responsibility for a participating team.

32.6 The IOF Event Adviser shall ensure that rules are followed, mistakes are avoided and that fairness is paramount. The IOF Event Adviser has the authority to require adjustments to be made if he or she deems them necessary to satisfy the requirements of the event.

32.7 The IOF Event Adviser shall work in close collaboration with the organiser, and shall be given all relevant information. All official information sent to the Federations, such as bulletins, shall be approved by the IOF Event Adviser.

32.8 As a minimum, the following tasks shall be carried out under the authority of the IOF Event Adviser:

- to approve the venue and the terrain for the event
- to look into the event organisation and assess the suitability of the proposed accommodation, food, transport, programme, budget and training possibilities
- to assess any planned ceremonies and suitable access to them
- to approve the organisation and layout of start, finish and changeover areas
- to assess the reliability and accuracy of the time-keeping and results producing systems
- to check that the map conforms with the IOF standards
- to approve the courses after assessing their quality, including degree of difficulty,

control siting and equipment, chance factors and map correctness

- to assess arrangements and facilities for the media
- to assess arrangements and facilities for doping tests
- to approve the official results

32.9 The IOF Event Adviser shall make as many controlling visits as he or she deems necessary. The visits shall be planned in agreement with the appointing authority and the organiser. Immediately after each visit, the IOF Event Adviser shall send a brief, written report to the IOF Event Adviser appointing body with a copy to the organiser.

32.10 One or more assistants may be appointed by the IOF Event Adviser appointing body to help the IOF Event Adviser, particularly in the fields of mapping, courses, financing, sponsoring and media.

32.11 The IOF Event Adviser appointing body has the authority to revoke the appointment of the IOF Event Adviser.

WTOC 32.12 The IOF Event Adviser shall make 3 visits as a minimum: one early on with an associated technical clinic if required, one a year before the championships and one 3-4 months before the championships.

33. Event reports

33.1 No more than 3 weeks after the event, the organiser shall submit a short report to the IOF Event Adviser along with complete result lists.

33.2 No more than 4 weeks after the event, the IOF Event Adviser shall send a report to the IOF Event Adviser appointing body. The report should include any significant features of the event and details of any complaints or protests.

I WTOC 33.3 No more than 3 weeks after the event, the Organiser shall forward two sets of maps with course details and solution maps, and a complete results list to the IOF.

WTOC 33.4 One copy of every bulletin, the final programme including start lists, a plan of the organisation and a final statement of accounts shall be sent to the IOF Secretariat for the archives no more than 6 months after the event.

34. Advertising and sponsorship

34.1 Advertising of tobacco and hard liquor is not permitted.

34.2 Advertising on track suits or other clothing which are worn by team members during the official ceremonies shall not exceed 300 cm². There is no restriction to the amount of advertising on the runners' competition clothing or equipment except for the start number bibs.

35. Media service

35.1 The organiser shall offer the media representatives attractive working conditions and favourable opportunities to observe and report on the event.

35.2 As a minimum, the organiser shall make available to media representatives the following:

- hotel accommodation of medium standard, to be paid for by the users
- start lists, programme booklet and other information on the day prior to the competition
- opportunity to take part in the model event
- weather-protected, quiet working space in the finish area
- result lists and maps with courses immediately after the competition
- internet access to be paid for by the users.

35.3 The organiser shall make every effort to maximise media coverage as long as this does not jeopardise the fairness of the event.

Appendix 1: Principles for course planning for Trail Orienteering

1. Introduction

- 1.1 Purpose
- 1.2 Application of these principles

2. Basic principles

- 2.1 Definition of orienteering
- 2.2 Aim of good course planning
- 2.3 Course planner's golden rules

3. The orienteering course

- 3.1 Terrain
- 3.2 Definition of an orienteering course
- 3.3 The start
- 3.4 The course
- 3.5 The controls
- 3.6 The finish
- 3.7 The elements of map reading
- 3.8 Route choices
- 3.9 The degree of difficulty
- 3.10 Competition types
- 3.11 What the course planner should aim for

4. The course planner

5. Additional information and examples

1. Introduction

1.1 Purpose

These principles aim to establish a common standard for the planning of trail orienteering courses in order to ensure fairness in competition for people with widely differing physical abilities.

1.2 Application of these principles

Courses in all international trail orienteering events must be planned in accordance with these principles. They should also serve as general guidelines for the planning of other competitive trail orienteering events.

Developed for those unable to run in rough terrain, the need for speed is replaced by the need to relate the map to the terrain.

1.3 Technical Guidelines

Reference shall be made to the current edition of the IOF Technical Guidelines.

2. Basic principles

2.1 Definition of Trail Orienteering

Trail Orienteering is a sport in which competitors follow a navigable route passing a number of decision points marked on the ground, in a set sequence. At each point they interpret the map to choose which, if any, of a number of control markers in a cluster in the terrain represents the one defined by the centre of the printed circle and

the control description. Both must be correct.

Mappers, Planners and Controllers of major Foot Orienteering competitions have, in effect, experienced Trail Orienteering in preparing for such events. Trail orienteering takes these skills and makes them into a formal competition.

2.2 Aim of good course planning

The aim of course planning is to offer competitors courses correctly designed for their expected abilities. Results must reflect the competitors' technical ability.

2.3 Course planner's golden rules

The course planner must keep the following principles in mind:

- the unique character of trail orienteering as map interpretation
- the answer at each control must be indisputable
- the fairness of the competition
- competitor enjoyment
- to work closely with other officials
- to achieve integration with other orienteering disciplines
- the protection of wildlife and the environment
- the needs of the media and spectators

2.3.1 Unique character

Every sport has its own character. The unique character of trail orienteering is to interpret the map and relate it to unknown terrain. This demands orienteering skills: accurate map reading, compass handling, concentration under stress, quick decision making, interpretation of natural terrain, and distance judgement.

2.3.2 Indisputable answer

The answer at each control must be indisputable! It must always be possible to determine the solution to the problem by interpreting the map and the terrain. The solution may not be based on what "I feel" or "I believe".

2.3.3 Fairness

Fairness is a basic requirement in competitive sport. Unless the greatest care is taken at each step of course planning and course setting, luck can easily become significant in trail orienteering competitions. The course planner must consider all such factors to ensure that the contest is fair and that all competitors face the same conditions on every part of the course.

2.3.4 Competitor enjoyment

The popularity of orienteering can only be enhanced if competitors are satisfied with the courses they are given. Careful course planning is therefore necessary to ensure that courses are appropriate in terms of length, physical and technical difficulty, control siting, etc. In this respect it is particularly important that each course is suitable for the competitors doing that course, whatever their physical ability.

2.3.5 Close co-operation of officials

The planner must work closely with the mapper and controller. As such a degree of integration is required it is recommended that the mapping, planning and controlling is best carried out on site at the same time. Communication with the organiser too needs to be increased due to the higher 'in the forest' involvement.

2.3.6 Integration with other orienteering disciplines

The enjoyment of the competitors is greatly enhanced when the Trail O competition is associated with a Foot Orienteering event. Co-operation between the planners of the different courses can ensure that no conflict of interest occurs and that all competitors are informed of the others' presence. Blue tapes can be added to the Trail O control markers to alert any lost foot orienteers that they are in the wrong place.

2.3.7 Wildlife and the environment

The environment is sensitive: wildlife may be disturbed and the ground as well as the vegetation may suffer from overuse. The environment also includes people living in the competition area, walls, fences, cultivated land, buildings and other constructions, etc.

It is usually possible to find ways to avoid interference with the most sensitive areas without damage. Experience and research have shown that even large events can be organised in sensitive areas without permanent damage if the correct precautions are taken and the courses are well planned.

It is very important that the course planner ensures that there is access to the chosen terrain and that any sensitive areas in the terrain are discovered in advance.

As Trail O competitors remain on tracks it is often acceptable during times and in areas when and where Foot O competition is not allowed for reasons of ecological sensitivity.

2.3.8 Media and spectators

The need to give a good public image of the sport of orienteering should be a permanent concern for a course planner. The course planner should endeavour to offer spectators and the press the possibility to follow as closely as possible the progress of a competition without compromising sporting fairness.

3. The trail orienteering course

3.1 Terrain

The terrain must be chosen so that the least mobile competitors, the person confined to and propelling a low fixed wheelchair and the person who walks slowly and with difficulty, can negotiate the course within the maximum time limit with ease.

Consideration must be given to the condition of the route to be followed and any route that is not accessible to all without a viable alternative must be banned to all. For example a path with steps or a fallen tree would not be passable by the majority of wheelchair users, but if an alternative parallel route is available the competitor may be left to choose. Paths must be checked for excessive mud, sand, roots and rocks, and built up if necessary to give a reasonably free surface for all.

In general the acceptable path width is 1m, (some plants may encroach on short sections but hands could be badly scratched by thorns or stung by nettles and these plants must be removed) however, it is essential that there is space for all possible wheelchairs/handcycles. They must be able to pass and to manoeuvre at control sites and if necessary areas of up to 3m wide must be created at intervals. Any unsuitable path can be indicated as out of bounds on the map, by overprinting hatching or crosses and/or, in the terrain by indicative tapes. In either case they must be observed by all competitors.

The maximum slope for unassisted wheelchairs is 14% for no more than 20 metres. The cross slope should be no more than 8%. Any route exceeding these limits must have assistants positioned to give help. The use of ropes, pulleys and a spare wheelchair for ambulant competitors unable to negotiate steep sections should be considered.

The course planner should be fully acquainted with the terrain before he or she plans to use any control site or route.

The planner should also be aware that on the day of the competition the conditions regarding map and terrain could be different from those which exist at the time the courses are planned.

3.2 The start

The start area should be so situated and organised that:

- there is a waiting area
- waiting competitors cannot see the detail of any control clusters

The point from which orienteering begins is marked in the terrain by a control marker and on the map by a triangle.

3.3 The Course

The problems are the most important elements of a trail orienteering course and will largely determine its quality.

Good ones offer competitors interesting map-reading challenges.

Within the same course different types of problem should be offered.

It is preferable for a course to have a few (not less than 10) very good sites rather than a larger number of lesser quality ones.

3.3.1 Control sites

The centre of any control circle shall be on a mapped feature that can be accurately described in the control descriptions. Except in the case of a zero answer a control marker will be placed on this feature in the terrain. It should be visible, or its position inferred by other features and the height of control markers, from the route to be followed. The false control markers need not be on mapped features.

It is particularly important that the map portrays the ground accurately in the vicinity of the controls, and that the direction and distances from all possible angles of visibility are correct, including that behind the competitor.

3.3.2 Decision points

The decision points must be visited by the competitors in the given order

Decision points will be marked in the terrain, but not shown on the map.

No competitor must be tempted forward of this marker towards the control cluster, if deemed necessary tapes should be placed in the terrain.

Ambulant competitors must not be able to get closer to the marker than wheelchair users, nor should they be able to get a better view by climbing any feature behind the decision point. Such a feature should be taped off as out of bounds to enforce the rules.

It is most important that everything relevant to decision making for a control is visible to someone sitting in a low wheelchair and that this is tested.

3.3.3 Timed controls

At least two timed controls where the decision time is recorded should be included in the competition. No control circle giving information as to the location of these should be on the competitor's map. Additionally, all detail of the area in the vicinity of these controls should be removed from the map if they are located along the competition route.

Ideally for Elite level experienced competitors, this should be organised at both the beginning and the end of the competition, outside the maximum time allowance.

3.4 The control marker

The control equipment must be in accordance with the rules for IOF events.

The position of all markers in the cluster must be carefully planned. It is not acceptable to choose the one in the centre of the circle and then just place the others randomly in the vicinity.

A control marker should be placed in such a manner that competitors can see at least one third of it.

In the terrain the markers must be hung at a standard height (the bottom of the marker at knee level or 0.5m is suggested) to show the ground shape as depicted on the map.

When hung, the planner and controller must be in complete agreement as to which of the markers is in the circle centre, and fits the control description. If, from the viewing point on the track there is any doubt as to which of the number of markers is correct, consensus must be obtained by moving one, or more, marker(s).

Enlarged versions of the 'solution maps' can be a valuable aid when placing the control markers.

3.4.1 Fairness of control sites

The control cluster must be equally visible for those sitting low on the ground (0.8m) or standing (up to 2.2m) and not obscured by vegetation. Planners should assess the site by getting down to ground level.

As a general rule the relative positions of the markers must not change when viewed from within a window, 1m x 1m, round the decision point post. The answer must remain the same when taking a step either side of the post and one pace backwards to allow for the positioning of wheelchairs.

Checks must be made on the effect on visibility of sun or rain at the same time of day as the competition is to be held. At timed controls it is essential for all the markers and relevant terrain features to be visible without movement along the track. At other controls movement along the track may be necessary to interpret the terrain; indeed it may be essential to solve the problem.

3.4.2 Proximity of controls

Where control markers from adjacent clusters can be seen from a decision point, these are separated by tapes in the terrain or a taped viewing angle at the decision point.

There is no defined minimum separation distance for control markers. Where two or more markers have the same description, it must be possible, by reference to other features, to distinguish between them with precision.

3.4.3 The control description

The position of the control with respect to the feature shown on the map is defined by the control description.

The precise position of the control feature on the ground, as defined by the centre of the circle on the map and the control description, must be indisputable. Controls that cannot be clearly defined by the IOF control symbols are unlikely to be suitable. Control descriptions should not be more detailed than necessary. It is not permitted to use compound descriptions with extra symbols which cannot be accommodated within allocated columns of the description list (for example, cliff face top, west part).

In Column B, the number of control markers in any cluster, will be indicated by letters (e.g. A-C for 3 markers).

If the route is not obvious, an arrow in column H shall indicate the direction to view the control cluster. [An arrow pointing north indicates that the competitor shall view the cluster to their north and therefore travel on a route to the south of the circle]. The arrow should not be a bearing from the DP to the centre of the circle. In open terrain where several control sites may be in view from the route travelled, or when control sites are very close to each other, an arrow in column H shall indicate the relevant cluster for the control.

3.5 The finish

At least the last part of the route to the finish line should be a compulsory marked route.

3.6 The degree of difficulty

For any terrain and map, a course planner can plan courses with a wide range of difficulty.

With attention to the positioning of the control markers in a cluster and the decision point, courses of differing standard can be set.

Attention should be paid to the competitors' expected skill, experience and ability to read or understand the fine detail of the map. It is particularly important to get the level of difficulty right when planning courses for novices and children.

4. The course planner

The person responsible for course planning must have an understanding and appreciation of the qualities of a good course gained from personal experience. He or she must also be familiar with the theory of course planning and appreciate the special requirements when dealing with competitors with widely differing mobility.

The course planner must be able to assess, on site, the various factors which can affect the competition, such as the conditions of the terrain, the quality of the map, the presence of participants and spectators, etc.

The course planner is responsible for the courses and the running of the competition between the start and the finish line. Because of the numerous opportunities for error, which could have serious consequences with Trail Orienteering it is best that the planning, mapping and controlling are carried out on site at the same time, ideally when vegetation is low. Essential pruning for improved visibility and access can be carried out in the days prior to the competition.

The course must be incorporated into the map prior to printing. Circles should be 6mm and the centring must be to 0.2mm or better to allow for the placing of a marker to within 1m or better in the terrain. With a map scale of 1:5000 or 1:4000 drawn to ISOM specification the symbol dimensions are 50% greater than for 1:15,000 foot O maps.

5. Additional information and examples

Much additional information applicable to all Officials and Competitors involved in Trail Orienteering competitions can be found on the websites www.orienteering.org and www.trailo.org

Appendix 2: IOF resolution on good environmental practice

At its meeting on 12/14 April 1996, the Council of the International Orienteering Federation, acknowledging the importance of maintaining the environmentally friendly nature of orienteering, and in accordance with the GAISF Resolution on the Environment of 26 October 1995, adopted the following principles:

- to continue to be aware of the need to preserve a healthy environment and to integrate this principle into the fundamental conduct of orienteering
- to ensure that the rules of competition and best practice in the organisation of events are consistent with the principle of respect for the environment and the protection of flora and fauna
- to co-operate with landowners, government authorities and environmental organisations so that best practice may be defined
- to take particular care to observe local regulations for environmental protection, to maintain the litter-free nature of orienteering and to take proper measures to avoid pollution
- to include environmental good practice in the education and training of orienteers and officials
- to heighten the national Federations' awareness of worldwide environmental problems so that they may adopt, apply and popularise principles to safeguard orienteering's sensitive use of the countryside
- to recommend that the national Federations prepare environmental good practice guidelines specific to their own countries

Appendix 3: The Leibnitz Convention

We, the Members of the IOF, attending the 20th IOF General Assembly in Leibnitz, Austria, on the 4 August 2000, hereby declare that

"It is of decisive importance to raise the profile of the sport to further the spread of orienteering to more people and new areas, and to get orienteering into the Olympic Games. The main vehicles to achieve this are:

- to organise attractive and exciting orienteering events which are of high quality for competitors, officials, media, spectators, sponsors, and external partners
- to make IOF events attractive for TV and Internet

We shall aim to:

- increase the visibility of our sport by organising our events closer to where people are
- make our event centres more attractive by giving increased attention to the design and quality of installations
- improve the event centre atmosphere, and the excitement, by having both start and finish at the centre
- increase television and other media coverage by ensuring that our events provide more and better opportunities for producing thrilling sports programmes
- improve media service by better catering for the needs of media representatives (in terms of communication facilities, access to runners at start/finish and in the forest, continuous intermediate time information, food and beverages, etc)
- pay more attention to promoting our sponsors and external partners in connection with our IOF events

We, the Members of the IOF, expect that these measures shall be considered by all future organisers of IOF events."

Appendix 4 - Approved Punching Systems

Only IOF approved electronic punching systems may be used. Details of currently approved versions are shown on the IOF web pages.

The systems and versions approved for Trail Orienteering are:

- the Emit Electronic Punching and Timing system with the Version 3 e-card.
- the SportIdent system, all versions. However for TempO the e-card holding 64 recordings is preferred.

For both the Emit and SportIdent systems, it is the competitor's responsibility to ensure that the electronic punch is in the e-card by:

- with respect to the Emit system, checking that the visual display on the e-card shows that the punch has been transferred. Note that it is important that the e-card is placed on the selected unit from exactly in front of that unit without passing over any other unit.
- with respect to the SportIdent system, not removing the e-card until the feedback signals have been received.

If after a repeated attempt, it appears that the punch has not transferred to the e-card, the competitor must use the backup pin punch. A card with some punch boxes will be issued with the map.

The e-card must clearly show that the competitor has made a selection at each of the controls. A competitor with a control punch missing or unidentifiable, and without a back-up punch, shall not score a point for that control, unless it can be established with certainty that the punch missing or unidentifiable is not the competitor's fault and that the competitor's selection can be retrieved by other means and confirmed as correct. In this exceptional circumstance, it may be possible to interrogate the control unit to obtain the competitor's selection, if present.

Appendix 5 - European Trail Orienteering Championships

The European Trail Orienteering Championship (in short ETOC) is the official event to award the titles of European Champion in Trail Orienteering. It is organised under the authority of the European Working Group (in short EWG), the IOF and the appointed Federation.

The event shall follow the IOF Competition Rules, as they would apply for the World Trail Orienteering Championships, unless otherwise stated in these Rules.

1. Principles for ETOC

The championship shall be organised in accordance with the following principles:

- The participants shall be offered competitions of the highest technical quality.
- The organiser shall follow the design of a compact championship model in order to minimise transport time and cost, and give competitors, leaders and other representatives of orienteering a possibility to meet outside the forest.
- The costs of participation shall be kept low and accommodation of different standard and prices shall be offered.
- There shall be the possibility to introduce new competitors to international competition.

2. Event programme

The event is organised every second year (in even years). The programme shall be no longer than 5 days and include the following classes: Competition for those of any physical ability and competition for those eligible for the Paralympic class; together with a team competition on one of the days.

The dates of the ETOC shall be co-ordinated with other international events and when possible be included in the programme with the EOC of other disciplines and finally approved by IOF.

3. Event application and appointment of organiser

Any European Federation that is a member of IOF may apply to organise ETOC. Applications shall reach the IOF Secretariat before January 1st three years prior to the championship. The Annual Meeting of EOF appoints the organiser. The appointment is subject to approval by the IOF and the signing of an organiser's agreement. The Senior Event Adviser shall be appointed by the IOF.

4. Participation

Competitors representing member Federations of the IOF, defined by the International Paralympic Committee as belonging to the European continent, can compete in ETOC.

Competitors representing other member Federations of the IOF can participate in ETOC but will not be eligible for European titles, medals or diplomas.

In the individual events a Federation may enter a maximum of 6 persons in each class.

In the team competition a Federation may enter 2 teams each consisting of 3 competitors with at least one competitor from the Open class and at least one competitor from the Paralympic class. Only the better-placed team will count in the prize list.

5. Results lists

If any non-European competitors participate in the competition two separate results lists shall be published. One results list showing the results of the European Orienteering Championship excluding any non-European competitors and a second showing the results of the competition including non-European competitors.

6. Prizes

The organiser shall pay for specially designed medals provided by the EWG for the individual events (3 medals in each class) and the team competition (3 medals for each team) and diplomas for places 1-6.

Representatives of the organising Federation and a representative of the EWG (preferably) or the IOF shall perform the prize-giving ceremonies.

7. Jury

IOF Council appoints the jury. It shall consist of 3 voting members from different orienteering federations, one of whom is eligible for the Paralympic class.

Significant changes to the previous printed version (Feb 2011)

TempO rules incorporated and previous format named PreO
WTOC 6.8 A PreO team shall consist of three competitors with at least one competitor from the Paralympic Class
8.3/8.5 No need for fax number in Bulletins (or address in early Bulletin)
29.3 Time limit for protests reduced from 1 hour to 15 minutes.
32.8 Extra point: To approve the official results
33.3 Three week time limit added
Appendix5 New version of European Championship Rules