

ABRIDGED RULES OF ORIENTEERING

SOUTH AFRICAN ORIENTEERING FEDERATION (SAOF)

This version of the Rules of Orienteering is valid from 24 September 2023.
Subsequent amendments will be published on the official SAOF website at

<http://www.orienteering.co.za>

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These Rules have been unanimously accepted and have been ratified by the Delegates of the Members of the South African Orienteering Federation at the Annual General Meeting held in Lydenburg, Mpumalanga on 24 September 2011 and are therefore applicable from this date.

The modification to rule 4.3 was approved at the AGM held at Maretlwane, Northwest Province on 24 September 2023.

1. Definitions

- 1.1 Orienteering is a sport in which the competitors visit a number of points marked on the ground (controls) in the shortest possible time aided by map and compass. The term competitor means an individual of either gender or a team, as appropriate.
- 1.2 Types of 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)
 - relay (two or more team members run consecutive individual races)
 - team (two or more individuals collaborate)
 - the way of determining the competition result:
 - single-race competition (the result of one single race is the final result)
 - multi-race competition (the combined results of two or more races, held during one day or several days, form the final result)
 - the order in which controls are to be visited:
 - in a specific order (the sequence is prescribed) – competitors are disqualified if they do NOT visit the controls in the correct order
 - in no specific order (the competitor is free to choose the order) – designated as a score event.
 - the control set-up:
 - traditional (the controls have codes and the competitor is disqualified for mispunching)
 - micr-o (the controls have no codes, there are extra nearby dummy controls, and the competitor receives a penalty for mispunching – see the separate IOF Micr-O rules on the IOF web site)
 - the length of the race:
 - Long distance
 - Middle distance
 - Sprint
 - other distances
- SAOC 1.3 *The South African Orienteering Championships* are the official events to award the titles of South African Champions in Orienteering. They are organised under the authority of the SAOF and the appointed Member. Any individual member of any Member club is entitled to participate in the events.
- GOC 1.4 *The Gauteng Orienteering Championships* are the official events to award the titles of Gauteng Champions in Orienteering. They are organised under the authority of the SAOF and the appointed Member. Any individual member of any Member club is entitled to participate in the events.

- WCOC 1.5 *The Western Cape Orienteering Championships* are the official events to award the titles of Western Cape Champions in Orienteering. They are organized under the authority of the SAOF and the appointed Member. Any individual member of any Member club is entitled to participate in the events.
- 1.6 The SAOF Ranking Scheme is a system to rank South African Orienteers based on their performances in the SA Championships, Gauteng Championships, Western Cape Championships, and regional colour coded events.
- There is a separate ranking scheme for short course events.

2. General provisions

- 2.1 These rules, together with the Appendices, shall be binding at the *South African Orienteering Championships*,
Every rules point with no event abbreviation before its number is valid for all these events. A rules point valid only for one or more of these events is marked with the specific abbreviation(s) 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 all Orienteering competitions organised by Members of the SAOF.
- 2.3 If not otherwise mentioned these rules are valid for individual day orienteering competitions on foot.
The word 'shall' means imperative and the word 'should' means it is recommended.
- 2.4 Additional regulations which do not conflict with these rules may be determined by the organiser. They need the approval of the Event Controller.
- 2.5 These rules and any additional regulations shall be binding for all competitors, team officials and other persons connected with the 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 In relays the rules for individual competitions are valid, unless otherwise stated.
- 2.8 The SAOF Committee may decide special rules or norms which shall be followed, e.g.
IOF Anti-Doping Rules, International Specification for Orienteering Maps, International Specification for Sprint Orienteering Maps, Principles for Course Planning, Leibnitz Convention and IOF Control Descriptions.
- 2.9 The SAOF Committee may allow deviations from these rules and norms. Requests for permission to deviate from them shall be sent to the Vice-President, Administration, SAOF at least 3 months prior to a Championship event.
- 2.10 The SAOF Guidelines for each event type should be followed. Significant deviations require the consent of the Event Controller.

3. Classes at South African, Gauteng and Western Cape Orienteering Championships

- 3.1 Competitors aged 20 or younger belong to each class up to the end of the calendar year in which they reach the given age. They are entitled to compete in older classes up to and including 21.
- 3.2 Competitors aged 21 or older belong to each class from the beginning of the calendar year in which they reach the given age. They are entitled to compete in younger classes down to and including 21.
- 3.3 The following classes shall be offered: W12, W16, W20, W21, W21B, W35, W45, W55, W65, M12, M16, M20, M21, M21B, M40, M50, M60, M70.

4. Participation

- 4.1 Participation at orienteering events is open to all members of the public subject to event specific event notices and the points 4.2 – 4.5 below.
- 4.2 Participation on the championship courses at the South African National Championships and Provincial Championships is open to paid up members of a Member Club and paid-up members of other IOF Member organisations.
- 4.3 In light of point 4.2 all competitors that are South African Citizens or Residents, competing on the Championship courses at the above-mentioned events, are eligible for trophies and medals. The one exception is visiting (overseas) orienteers or recent arrivals in South Africa (less than 3 months) who may compete on championship courses, but who are not eligible for trophies/medals.
- 4.4 Eligibility for medals and trophies in relay events at South African National Championships and Provincial Championships is subject to all members of a Club relay team having been paid up members of that Club for at least 6 months. No residential time frame or nationality restrictions apply to members of relay teams.
- 4.5 All competitors participate at their own risk. Insurance against accidents shall be the responsibility of competitors themselves. The SA Orienteering Federation and Member clubs accept no responsibility for injuries incurred whilst competing in or attending SAOF events.

5. Terrain

- 5.1 The terrain shall be suitable for setting competitive orienteering courses and shall match the criteria described in Appendix 6. The objectives of the Leibnitz convention shall be considered when choosing the terrain and event arena, and in designing the courses.
- 5.2 The competition terrain shall normally be embargoed as soon as it has been published in the official SAOF fixture list or a notice to such effect has been circulated all Members.
- 5.3 Permission for access into embargoed terrain shall be requested from the Event Controller or organising club if a Controller has not yet been appointed, if needed.
- 5.4 Any rights of nature conservation, forestry, hunting, etc. in the area shall be respected.

6. Maps

- 6.1 Maps, course markings and additional overprinting shall be drawn and printed according to the IOF *International Specification for Orienteering Maps* or the IOF *International Specification for Sprint Orienteering Maps*. Deviations need approval by the SAOF Committee.
- 6.2 The map scale for events shall usually be 1:10000. The map scale for Sprint events shall usually be 1:5000 or 1:4000. Maps with a scale of 1:15000 may be used but in such cases, 1:10000 maps should be provided for all classes W/M16 and below and W45/M50 and above.
- 6.3 Errors on the map and changes which have occurred in the terrain since the map was printed shall be overprinted on the map or available as map corrections if they have a bearing on the event.
- SAOC/
GOC/
WCOC 6.4 The SAOF 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 organiser.

7. Courses

- 7.1 The IOF *Principles for Course Planning* (see Appendix 2), the competition format descriptions (see Appendix 6) and the Leibnitz Convention (see Appendix 5) shall be followed.
- 7.2 The standard of the course shall be worthy of a national orienteering event. The navigational skill, concentration and running ability of the competitors shall be tested. All courses shall call upon a range of different orienteering techniques.
- 7.3 The course lengths shall be given as the length of the straight line from the start via the controls to the finish deviating for, and only for, physically impassable obstructions (high fences, lakes, impassable cliffs, etc.), prohibited areas and marked routes.
- 7.4 The total climb shall be given as the climb in metres along the shortest sensible route.

8. Restricted areas and routes

- 8.1 Rules set by the SAOF to protect the environment and any related instructions from the organiser shall be strictly observed by all persons connected with the event.
- 8.2 Out-of-bounds or dangerous areas, forbidden routes, line features that shall not be crossed, etc shall be marked on the map. If necessary, they shall also be marked on the ground. Competitors shall not enter, follow or cross such areas, routes or features.
- 8.3 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.

9. Control descriptions

- 9.1 The precise location of the controls shall be defined by control descriptions.
- 9.2 The control descriptions shall be in the form of symbols and in accordance with the IOF Control Descriptions.

10. Control set-up and equipment

- 10.1 The control point shown on the map shall be clearly marked on the ground and be equipped to enable the competitors to prove their passage.
- 10.2 Each control shall be marked by a control flag consisting of three squares, about 30 cm x 30 cm, arranged in a triangular form. Each square shall be divided diagonally, one half being white and the other orange (PMS 165).
- 10.3 The flag shall be hung at the feature indicated on the map in accordance with the control description. The flag should be visible to competitors when they can see the described position.
- 10.4 Controls shall not be sited within 30 m of each other (see also Appendix 2, #3.5.5).
- 10.5 A control shall be sited so that the presence of a person punching does not significantly help nearby competitors to find the control.
- 10.6 Each control shall be identified with a code number, which shall be fixed to the control so that a competitor using the marking device can clearly read the code. Horizontally-displayed codes shall be underlined if they could be misinterpreted by being read upside down (e.g. 161).
- 10.7 If the estimated winning time is more than 30 minutes, water shall be available at least every 25 minutes at the estimated speed of the winner.

11. Punching systems

- 11.1 EMIT electronic punching or manual punching systems may be used. At training events controls requiring the competitors to write down a code or symbol may be used.
- 11.2 Competitors shall be responsible for punching their own card at each control using the punching device provided.
 - 11.3 The control card must clearly show that all controls have been visited.
- 11.4 A competitor with a control punch missing or unidentifiable shall not be placed unless it can be established with certainty that the punch missing or unidentifiable is not the competitor's fault. In this exceptional circumstance, other evidence may be used to prove that the competitor visited the control, such as evidence from control officials or cameras or read-out from the control unit. In all other circumstances, such evidence is not acceptable and the competitor must be disqualified.
- 11.5 The organiser has the right to have the control card checked by officials at appointed controls.
- 11.6 Competitors who lose their control card, omit a control or visit controls in the wrong order shall be disqualified.

12. Equipment

- 12.1 The choice of clothing and footwear shall be free.
- 12.2 During the competition the **ONLY** navigational aids that competitors may use are the map and control descriptions provided by the organiser, and a magnetic compass.
- 12.3 Telecommunication equipment may only be used in the competition area with the permission of the Controller.

13. Start

- 13.1 In individual competitions, the start is normally an interval start. In relay competitions, the start is normally a mass start.
- 13.2 At the start, a clock showing the competition time to the competitors shall be displayed.
- 13.3 The start shall be organised if possible so that later competitors and other persons cannot see the map, courses, route choices or the direction to the first control. If necessary, there shall be a marked route from the time start to the point where orienteering begins.
- 13.4 If pre-marked maps are used, competitors take their map at or after their start time. The competitor is responsible for taking the right map. The competitor's start number or name or course shall be indicated on or near the map so as to be visible to the competitor before he/she starts.
- 13.5 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 flag but no marking device.
- 13.6 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.
- 13.7 Competitors who are late for their start time through the fault of the organiser shall be given a new start time, considering the possible influence on other competitors.

14. Finish and time-keeping

- 14.1 The competition ends for a competitor when crossing the finishing line.
- 14.2 The run-in to the finish shall be bounded by tape or by rope. The last 20 m shall be straight.
- 14.3 The finish line shall be at right angles to the direction of the run-in. The exact position of the finish line shall be obvious to approaching competitors.
- 14.4 When a competitor has crossed the finish line, the competitor shall hand in the control card and the competition map (if required).
- 14.5 The finishing time shall be measured when the competitor's chest crosses the finish line, or when the competitor punches at the finish line. Times shall be given in hours, minutes and seconds or in minutes and seconds only.
- 14.6 The timekeeping systems shall measure times of competitors in the same class or on the same course, relative to each other, with an accuracy of 1

second or better.

- 14.7 With the approval of the event Controller, the organiser may set maximum running times for each class.
- 14.8 It is recommended that there shall be first aid facilities and qualified personnel at the finish, who are also equipped to work in the forest.

15. Results

- 15.1 Provisional results shall be announced and displayed in the finish area or the assembly area during the competition.
- 15.2 Competitors or teams who exceed the maximum time, shall not be placed.

16. Fair play

- 16.1 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, for officials, spectators and the inhabitants of the competition area. The competitors shall be as quiet as possible in the terrain.
- 16.2 In an individual interval start race, competitors shall navigate and run through the terrain independently.
- 16.3 Except in the case of an accident, obtaining assistance from other runners or providing assistance to other competitors during a competition is forbidden. Yet it is the duty of all competitors to help injured runners.
- 16.4 Doping is forbidden. The IOF Anti-Doping Rules apply to all SAOF events and the SAOF Committee may require doping control procedures to be conducted.
- 16.5 Any attempt to survey or train in the competition terrain is forbidden, unless explicitly permitted by the organiser. Attempts to gain any information related to the courses, beyond that provided by the organiser, is forbidden before and during the competition.
- 16.6 The organiser shall declare as 'non competitive' 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.
- 16.7 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.
- 16.8 A competitor who breaks any rule, or who benefits from the breaking of any rule, may be disqualified.
- 16.9 Non-competitors who break any rule are liable to disciplinary action.
- 16.10 The Controller's discretion he/she shall void a competition if at any point it becomes clear that circumstances have arisen which make the competition unfair or dangerous for the competitors.

17. Complaints

- 17.1 A complain may be made about infringements of these rules or the organiser's directions.
- 17.2 Complaints shall only be made by competitors.
- 17.3 Any complaint shall be made in writing to the Controller as soon as possible. (See 17.5) A complaint shall be adjudicated by the Controller. The complainant shall be informed about the decision immediately.
- 17.4 There is no fee for a complaint.
- 17.5 The Controller may set a reasonable time limit for complaints. This time limit will be at the Controller's discretion. Complaints received after this time limit will only be considered if there are valid exceptional circumstances which must be explained in the complainant.

18. Protests

- 18.1 A protest may be made against the Controller's decision about a complaint.
- 18.2 Protests shall only be made by competitors.
- 18.3 Any protest shall be made in writing to the event Controller no later than one hour after the event Controller has announced the decision about the complaint.
- 18.4 There is no fee for a protest.

19. Jury

SAOC/
GOC/
WCOC

- 19.1 A jury shall be appointed to rule on protests. The jury shall consist of the Controller, the most Senior Committee member from the Organising Club and the most Senior Member available from the SAOF Committee.
- 19.2 The Controller shall act according to the jury's decisions, e.g. to reinstate a competitor disqualified by the Controller, to disqualify a competitor approved by the Controller, to void the results in a class/course approved by the Controller or to approve results declared invalid by the Controller.
- 19.3 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.
- 19.4 If a jury member declares him- or herself prejudiced or if a jury member is unable to fulfil his or her task, the event Controller shall nominate a substitute.
- 19.5 Arising from its ruling on a protest, the jury — in addition to instructing the organiser — may recommend that the SAOF Committee excludes a person from some or all future SAOF events in the case of a major violation of the rules.
- 19.6 Decisions of the jury are final.

20. Appeals

- 20.1 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.
- 20.2 An appeal may only be made by Members.
- 20.3 An appeal shall be made in writing to the SAOF Vice-President, Administration as soon as possible.
- 20.4 There is no fee for an appeal.
- 20.5 Decisions about an appeal are final.
- 20.6 The SAOF Committee shall deal with the appeal.

21. Event control

- 21.1 As a minimum, the following tasks shall be carried out under the authority of the event Controller:
- to approve the venue and the terrain for the event
 - to look into the event organisation and assess the suitability of the proposed programme and budget
 - to assess any planned ceremonies
 - 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 sitings and equipment, chance factors and map correctness
 - to check any course splitting method and course combinations
 - to assess arrangements and facilities for the media (if required)
 - to assess arrangements and facilities for doping tests (if required)

22. Advertising and sponsorship

- 22.1 Advertising of tobacco and hard liquor is not permitted.

Appendix 1: Rule for Following on South African Orienteering Federation National and Provincial Championship Events.

1. The aim of this rule is to provide a measure of security to Children who participate in any under 12 years of age category at any National or Regional Championships in terrain where their physical security is of a concern to the parent.
2. **Should a parent deem** it necessary to have a Child Followed during a National or Provincial Championship event, the parent of that child shall inform the Controller of the Event of this requirement upon entering.
3. The Controller shall approve of the nominated Follower, alternatively take all reasonable steps to ensure that an impartial and competent person is available to follow the Child if the Controller deems the Parent's choice inappropriate. Such person shall;
 - a. not be allowed to assist the Child in any manner whatsoever,
 - b. proceed no closer than 25 metres behind the Child, except where the Follower's vision of the child might be obscured.
 - c. take all reasonable steps necessary to ensure the physical safety and security of the Child.
4. The Controller will ensure that the Parent signs a disclaimer waiving any right he, or she might have against the negligence, whether gross or otherwise, of the Follower, against any harm that the Child may suffer whilst being Followed.
5. The Child shall be deemed to be non-competitive in the case where;
 - a. the Parent refuses to sign a waiver and the Parent chooses to accompany the Child on the course,
 - b. the Child had required and was given the assistance of the Follower with the orienteering of that Child,
 - c. a family member of the Child is the Follower,
 - d. the Follower has been found breaking any rule contained in sub-rule 3 above, and fails to disclose same to the Controller.
6. Should a Child being followed complete his or her course successfully on their own and without orienteering input from anybody else, the Child shall be deemed competitive as an individual and his or her result shall be reflected in the results accordingly.
7. An Observer may be placed anywhere on a course with the purpose of observing and

reporting any transgressions in terms of the Rules of Orienteering or of this Following Rule.

8. Any Member of an Orienteering Club may request a Follower for security reasons. Such request shall be directed to the Controller before registration. The Controller has discretion to allow the following of such a Member, if over the age of 12, by another Member. The Controller shall take into consideration the age, health, capability and chosen course of the Member before coming to his or her decision.
 9. Any Member or Child that is Followed, will carry a whistle with them and will agree to a signal blast with the Follower before starting. This signal blast will indicate that the Member or Child requires assistance. A Controller may prevent any Member or Child, who requires to be followed, from starting on a course, without a whistle.
- The Rule on Following will be applicable from points 2 to 9 above, both included to any person being allowed to be Followed.

Appendix 2: General competition classes

1. Age classes

- 1.1 Competitors are divided into classes according to their gender and age. Women may compete in men's classes.
- 1.2 Competitors aged 20 or younger belong to each class up to the end of the calendar year in which they reach the given age. They are entitled to compete in older classes up to and including 21.
- 1.3 Competitors aged 21 or older belong to each class from the beginning of the calendar year in which they reach the given age. They are entitled to compete in younger classes down to and including 21.
- 1.4 The main competition classes are called W21 and M21, for women and men respectively.
- 1.5 For competitors younger than 21, the classes W20 and M20, W16 and M16 and so on with intervals of 4 years are used. For older competitors, the classes W35 and M40, W45 and M50 and so on with intervals of 10 years are used.
- 1.6 Each class may be divided into subclasses according to the difficulty and/or length of the courses. Subclasses according to difficulty and course lengths are named E (elite)—if applicable, A, B, C and N (novice). Subclasses according to course lengths only are named S (short) and L (long).
- 1.7 Elite (E) classes may only be provided for age classes 18, 20 and 21. They shall be restricted to competitors classified as elite competitors by their Federation or who are selected for the class based on their position in a Federation's ranking scheme.

Appendix 3: Principles for course planning

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 legs
- 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

4. The course planner

1. Introduction

1.1 Purpose

These principles aim to establish a common standard for the planning of foot orienteering courses in order to ensure fairness in competition and to safeguard the unique character of the sport of orienteering.

1.2 Application of these principles

Courses in all international foot orienteering events must be planned in accordance with these principles. They should also serve as general guidelines for the planning of other competitive orienteering events. The term 'orienteering' is used throughout to refer specifically to 'orienteering on foot'.

2. Basic principles

2.1 Definition of orienteering

Orienteering is a sport in which competitors visit a number of points marked on the ground controls, in the shortest possible time aided only by map and compass. Orienteering on foot may be characterised as running navigation.

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 and physical ability.

2.3 Course planner's golden rules

The course planner must keep the following principles in mind:

- the unique character of foot orienteering as running navigation
- the fairness of the competition
- competitor enjoyment
- 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 orienteering is to find and follow the best route through unknown terrain against the clock. This demands orienteering skills: accurate map reading, route choice evaluation, compass handling, concentration under stress, quick decision making, running in natural terrain, etc.

2.3.2 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 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.

2.3.3 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.

2.3.4 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.

2.3.5 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 orienteering course

3.1 Terrain

The terrain must be chosen so that it can offer fair competition to all competitors.

To safeguard the character of the sport, the terrain should be runnable and suitable

for testing the orienteering skills of the competitors.

3.2 Definition of an orienteering course

An orienteering course is defined by the start, the controls, and the finish. Between these points, which are given precise locations in the terrain and correspondingly on the map, are the course legs over which the competitor must orienteer.

3.3 The start

The start area should be so situated and organised that:

- there is a warm up area
- waiting competitors cannot see route choices made by those who have started

The point from which orienteering on the first leg begins is marked in the terrain by a control flag with no marking device and on the map by a triangle.

The competitors should be faced with orienteering problems right from the start.

3.4. The course legs

3.4.1 Good legs

The course legs are the most important elements of an orienteering course and will largely determine its quality.

Good legs offer competitors interesting map-reading problems and lead them through good terrain with possibilities for alternative individual routes.

Within the same course different types of legs should be offered, some of them based on intense map-reading and others containing more easily run route choices. There should also be variations with regard to leg length and difficulty to force the competitor to use a range of orienteering techniques and running speeds. The course planner should also endeavour to give changes in general direction for consecutive legs as this forces the competitors to reorient themselves frequently.

It is preferable for a course to have a few very good legs joined by short links designed to enhance the legs rather than a larger number of even but lesser quality legs.

3.4.2 Fairness of legs

No leg should contain route choices giving any advantage or disadvantage which cannot be foreseen from the map by a competitor under competitive conditions.

Legs which encourage competitors to cross forbidden or dangerous areas must be avoided.

3.5 The controls

3.5.1 Control sites

Controls are placed at features in the terrain that are marked on the map. These must be visited by the competitors in the given order, if the order is specified, but following their own route choices. This demands careful planning and checking to ensure fairness.

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 approach are correct.

Controls must not be sited on small features visible only from a short distance if there are no other supporting features on the map.

Controls must not be sited where the visibility of the control flag for runners coming from different directions cannot be evaluated from the map or control description.

3.5.2 The function of the controls

The main function of a control is to mark the beginning and end of an orienteering leg.

Sometimes controls with other specific purposes need to be used as, for example, to funnel runners around dangerous or out of bounds areas.

Controls can also serve as refreshment, press and spectator points.

3.5.3 The control flag

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

As far as possible, a control flag should be placed in such a manner that competitors first see it only when they have reached the described control feature. For fairness, the visibility of the control should be the same whether or not there is a competitor at the control site. On no account should the control flag be hidden: when competitors reaches the control they should not have to search for the flag.

3.5.4 Fairness of control sites

It is necessary to choose control sites with great care and notably to avoid the 'acute angle' effect where incoming competitors can be led into the control by outgoing runners.

3.5.5 Proximity of controls

Controls on different courses placed too close to one another can mislead runners who have navigated correctly to the control site. According to Rule 19.4, controls shall not be sited within 30 m of each other. Furthermore, where the map scale is 1:10000 or 1:150000, only when the control features are distinctly different in the terrain as well as on the map, should controls be placed closer than 60 metres.

3.5.6 The control description

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

The exact control feature on the ground, and the point marked on the map, must be indisputable. Controls which cannot be clearly and easily defined by the IOF control symbols are usually not suitable and should be avoided.

3.6 The finish

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

3.7 The elements of map-reading

On a good orienteering course, competitors are forced to concentrate on navigation throughout the race. Sections requiring no map-reading or attention to navigation should be avoided unless they result from particularly good route choices.

3.8 Route choices

Alternative routes force competitors to use the map to assess the terrain and to draw conclusions from it. Route choices make competitors think independently and will split up the field, thus minimising 'following'.

3.9 The degree of difficulty

For any terrain and map, a course planner can plan courses with a wide range of difficulty. The degree of difficulty of the legs can be varied by making them follow line features more or less closely.

Competitors should be able to assess the degree of difficulty of the approach to a control from the information available on the map, and so choose the appropriate technique.

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.

3.10 Competition types

Course planning must account for specific requirements of the type of competition considered. For instance, course planning for Sprint and Middle distance orienteering must call on detailed map reading and on a high degree of concentration throughout the entire course. Course planning for relay competitions should consider the need for spectators to be able to follow closely the progress of the competition. Course planning for relays should incorporate a good and sufficient forking/splitting system.

3.11 What the course planner should aim for

3.11.1 Know the terrain

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

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.

3.11.2 Get the degree of difficulty right

It is very easy to make courses for novices and children too difficult. The course planner should be careful not to estimate the difficulty just on his or her own skill at navigating or on his or her walking speed when surveying the area.

3.11.3 Use fair control sites

The desire to make the best possible legs often leads a planner to use unsuitable control sites.

Competitors seldom notice any difference between a good and a superb leg, but they will immediately notice if a control leads to unpredictable loss of time due to a hidden control site or flag, ambiguity, a misleading control description etc.

3.11.4 Placing controls sufficiently far apart

Even though the controls have code numbers they should not be so close to each other as to mislead competitors who navigate correctly to the control site on their course.

3.11.5 Avoid over-complicating the route choices

The planner may see route choices which will never be taken and thereby may waste time by constructing intricate problems, whereas the competitors may take a 'next best' route, thus saving time on route planning.

3.11.6 Courses that are not too physically demanding.

Courses should be set so that normally fit competitors can run over most of the course set for their level of ability.

The total climb of a course should normally not exceed 4% of the length of the shortest sensible route.

The physical difficulty of courses should progressively decrease as the age of the competitors increases in Masters classes. Special care must be taken that the courses for classes M70 and over and W65 and over are not too physically demanding.

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 of different classes and different types of competition.

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. The course planner's work must be checked by the controller. This is essential because of the numerous opportunities for error, which could have serious consequences.

Appendix 4: 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 5: Approved punching systems

[Competition Rule 20.1 states that 'Only IOF licensed electronic punching systems may be used'.]

- The only licensed control punching systems (January 2007) are:
 - the Emit Electronic Punching and Timing system
 - the SportIdent system
- Details of the currently licensed versions are shown on the IOF web pages
- The use of any other control punching system requires prior approval of the IOF Rules Commission.
- With respect to the Emit system, the label attached to the competitor's electronic control card for back-up marking must be such that it will survive the conditions likely to be encountered during a competition (including immersion in water). It is the competitor's responsibility to ensure that the back-up card is marked so that it can be used if the electronic punch is missing.
- With respect to the SportIdent system, a backup needle punch must be present at each control. It is the competitor's responsibility to ensure that the electronic punch is in the e-card by not removing the e-card until the feedback signal has been received. If, and only if, no feedback signal is received, the competitor must use the backup punch.
- The control card must clearly show that all controls have been visited. A competitor with a control punch missing or unidentifiable shall not be placed unless it can be established with certainty that the punch missing or unidentifiable is not the competitor's fault. In this exceptional circumstance, other evidence may be used to prove that the competitor visited the control, such as evidence from control officials or cameras or read-out from the control unit. In all other circumstances, such evidence is not acceptable and the competitor must be disqualified. In the case of SportIdent, this rule means that:
 - If one unit is not working, a competitor must use the backup provided and will be disqualified if no punch is recorded
 - If a competitor punches too fast and fails to receive the feedback signals, the card will not contain the punch and the competitor must be disqualified (even though the control unit may have recorded the competitor's card number).

Appendix 6: 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 7: Competition Formats

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

1. SPRINT

1.1 The profile

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

1.2 Course planning considerations

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

1.3 The Map

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

1.4 Winning time, start interval and timing

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

2 MIDDLE DISTANCE

2.1 The profile

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

2.2 Course planning considerations

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

2.3 The Map

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

2.4 Winning time, start interval and timing

The winning time, for both women and men, shall be 30 – 35 minutes. In WOC and World Cup the winning time in qualification races shall be 25 minutes. The start interval is 2 minutes and a time-trial, individual format is used. The competitor shall have passed the start gate before having access to the map.

3 LONG DISTANCE

3.1 The profile

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

3.2 Course planning considerations

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

3.3 The Map

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

3.4 Winning time, start interval and timing

The winning time shall be 70 – 80 minutes for women and 90 – 100 minutes for men. In WOC and World Cup the winning times in qualification races shall be 45 minutes for women and 60 minutes for men. The start interval is 3 minutes. A time-trial, individual format is used. The competitor shall have passed the start gate before having access to the map.

4 RELAY

4.1 The profile

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

4.2 Course planning considerations

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

4.3 The Map

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

4.4 Winning time, start interval and timing

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