

Competition Rule S: The Ranking Scheme

CHANGE SHEET			
TITLE: Competition Rule S: The Ranking Scheme			
DESCRIPTION OF CHANGE			
ISSUE	DATE	SECTION	DESCRIPTION
2.6	01/01/2019		Rule S updated to match the change in the points calculation algorithm

Competition Rule S: The Ranking Scheme

These Rules must be read in conjunction with the British Orienteering Rules of Orienteering. Where these Rules vary or supplement British Orienteering Rules of Orienteering, then these Competition Rules will take precedence.

1. General information

1.1 Purpose

- 1.1.1 The aim of the British Orienteering Ranking Scheme is to rank regular orienteers in order of orienteering ability. The Ranking list may also be used for International selection purposes as well as for seeding competitors at Competitions.

2. Eligibility

- 2.1.1 All Events at levels A, B and C are part of the ranking scheme except for Relay, score, chasing start and other mass start events.
- 2.1.2 All British Orienteering members who gain points at ranked events will have their points stored in one ranking list.
- 2.1.3 Only competitors who are members of British Orienteering and will be 16 or over on 31st December of the year of the event will have their results included in the ranking calculations and score ranking points at Ranking events.
- 2.1.4 Membership numbers are used to link results from different events for a given runner. Only runners who provide their British Orienteering Membership number at the time of entry will have their results carried forward for ranking.
- 2.1.5 The total of a runner's best six scores over the past 12 months determines a runner's ranking.

3. Administration

- 3.1.1 The ranking list is accessible from the British Orienteering website and may be filtered.
- 3.1.2 The system is written in such a way that it can accept results data from both age-based courses (e.g. Area Championships) and also "ageless" courses, e.g. colour coded courses and Urban series courses and produce valid rankings points.
- 3.1.3 When a competitor is to be ranked as a member of a new club or under a change of name, the member must inform British Orienteering so that the membership records can be updated. This will then update the information in the ranking lists.

4. Submission of results

- 4.1.1 Final results must be submitted electronically to the results page in the British Orienteering website within 7 days of the event. Results not uploaded within this period may be excluded from rankings calculations.
- 4.1.2 Rankings points will then be calculated and displayed automatically.
- 4.1.3 Results must be submitted in the British Orienteering [file format](#) (see 'User Guide' available on the British Orienteering website to registered Results Secretaries).
- 4.1.4 Organisers must carry forward competitors' British Orienteering membership numbers with their results and must submit them as soon as possible after the event.
- 4.1.5 Other mandatory data is defined within the 'User Guide' available on the British Orienteering website.

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5. Calculation of ranking points

5.1 Background

- 5.1.1 The full specification of the algorithm used to maintain the ranking list is given in a [separate document](#).
- 5.1.2 All competitive runners at all qualifying events are awarded points on a scale in which 1000 represents the average performance of the average orienteer, with a standard deviation of 200 points.
- 5.1.3 Although all results may contribute to individual's ranking, the algorithm is devised to automatically exclude abnormal runs from the background statistical analysis.
- 5.1.4 If a course, after outliers (as defined by 5.2.3) have been discarded, has fewer than 8 counting runners remaining, it is deemed to be statistically unreliable and is not ranked.

5.2 Definitions

- 5.2.1 *Scores*: Each runner has a set of “scores”, one for each event that they complete. These are published in the event results and do not change subsequently.
- 5.2.2 *Ranking scores*: Each runner has a “ranking”, which is the sum of their best six scores in the previous 12-month period. This is published on the website but is not used in any calculation.
- 5.2.3 *Outlier*: Outliers are regarded as performances that are inappropriate to include in the calculation of Ranking points and may arise for several reasons. These might include exceptional results, incorrect results, results attributed to the wrong BOF member etc. An “outlier” is any score which is more than 100 different from a runner’s current score and is ignored in all calculations.
- 5.2.4 *Current scores*: Each runner has a current score (CS), which is the average of all their scores obtained during the previous 12 months. It is the best predictor of their performance at an event in which they are included in the statistics. Current scores are not published. They are continually rebased to ensure that the mean of all current scores is 1000, and the standard deviation is 200. Only runners with non-zero current scores are used to determine new scores.

5.3 Calculation of scores for a course

- 5.3.1 For each qualifying course, at each ranking event, the following quantities are required:
- SP* is the standard deviation of current scores of the non-outlier runners
- MP* is the mean of current scores of the non-outlier runners
- ST* is the standard deviation of times of the non-outlier runners
- MT* is the mean time of the non-outlier runners
- 5.3.2 Each runner’s points are then given by

$$RP = MP + \frac{SP \times (MT - RT)}{ST}$$