How to estimate your World Ranking Points

Although TrailO enthusiasts will have been used to the previous World Ranking scheme, it did have some rather unusual features which set it apart from the schemes used by the other orienteering disciplines. It was therefore decided to try and modify the scheme so as to make it more consistent - or at least, appear more consistent. This article is not looking back at the old scheme but is hoping to provide an abbreviated account to enable competitors to estimate their likely scores when looking at preliminary results.

The scheme is based on two formulae that now appear in the new June 2023 version of the IOF World Ranking Scheme Rules. This is the relevant item where '**RP**' is a competitor's ranking points at the event.

- For PreO: RP = M6R – (M3P – CP + PBW x 0.05)/35 x 1000 where CP is each competitor's scored points at the event
- For TempO: RP = M6R – (5 x (CT – M3T) / M3T + PBW x 0.05)/35 x 1000 where CT is each competitor's scored time at the event

Notice that the first item in both formulae for PreO and TempO is '**M6R**'. This is a mean ('**M**') which uses the current scores of the 6 ('**6**') best ranked ('**R**') competitors at the event . It represents an 'event quality measure'. Without going into details, depending upon who attends the event, this is likely to be something close to 1000 although possibly down to about 950. Each competitor's score is then derived by subtracting elements from this 'event quality measure'. The elements are different for the two forms of TrailO.

Taking first the PreO formula, this can be considered to have two elements, one based on the points scored and one based on a competitor's position:

- *Points element*: This is represented by '**M3P - CP**' which is the mean of the top 3 points, '**M3P**', less a competitor's points, '**CP**'. From the formula, this is then multiplied by 1000/35 or 28.6. So, **for each point a competitor is below the value of M3P, a competitor's ranking points will drop by 28.6 ranking points** (*in the example, this is approximated to 30*).
- *Position element*: This is represented by '**PBW x 0.05**' where '**PBW**' is the **P**laces **B**ehind the **W**inner. The PBW is then multiplied by 0.05 and by 1000/35 or, combined, 1.43. So, **for each place behind the winner a competitor's ranking points will drop by 1.43 ranking points** (*in the example, this is approximated to 1.5*).

For TempO, there are also two elements, one based on the final time taken and one based on a competitor's position:

- *Time element*: This is represented by **(CT - M3T)/M3T** which needs a bit of deciphering. TempO results are usually a time in seconds with the quickest time being the winner. The top part of the formula is the extra time a competitor takes compared to the mean of the 3 fastest ('**CT-M3T**'). However this is then divided by **M3T** so giving a ratio. This is also then altered by x5 and x1000/35 which, together, make x143. So, **for each % that a competitor's time is longer compared to the mean of the best 3, the competitor's ranking points will drop by 1.43 ranking points** (*in the example, this is approximated to 1.5*).
- *Position element*: This is identical to the PreO position element. So **for each place behind the winner a competitor's ranking points will drop by 1.43 ranking points** (*in the example, this is approximated to 1.5*).

It is worth noting that the '**5**' in the TempO formula and the '**35**' in both are simply designed to provide an appropriate spread of scores.

It could be argued that the position element is not needed in the TempO calculation but it does make it consistent with the PreO version.

PreO Example

- Consider a high quality field with lots of competitors (perhaps a regional championships).
- The event quality measure (M6R) will be good: 1000.
- With 35 controls, all top 3 competitors get them all correct (M3P=35).
- A competitor who gets 29 correct (CP=29) will have 'M3P-CP' equal to 6. They will lose about 6x30 = 180 points.
- If they come in 41st position (PBW=40) they will also lose about 40x1.5 = 60 points
- Points scored = 1000 - 180 - 60 = 760 points

TempO Example

- Consider a lower quality field with fewer competitors.
- The event quality measure (M6R) will be a bit down: 950.
- The top 3 competitors have times of 145, 150 and 155 giving a mean of 150 (M3T=150).
- A competitor has a time of 225 (CT=225) which gives a time difference of 75 (CT-M3T). Divided by M3T gives 0.5. (or 50%) They will lose about 50x1.5 = 75 points.
- If they come in 21st position (PBW=20) they will also lose about 20x1.5 = 30 points
- Points scored = 950 - 75 - 30 = 845 points

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