Know your sport: Orienteering Relays

Orienteering is usually a very individual sport. With start times spread over 2 or 3 hours and with numerous courses, it can often feel that you are on your own competing against the clock and the planner. And it can be only later at home that you discover how you performed compared to others. So how can this sport be made into a team activity? Competing as part of a relay team adds this additional excitement!

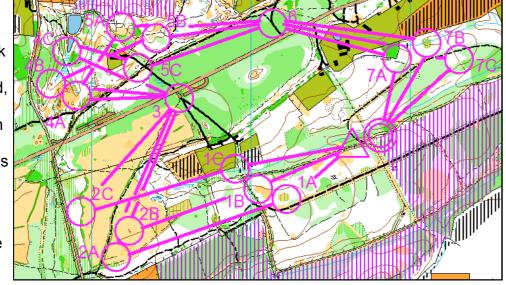
Overview

Although there are some variations, the majority of orienteering relays are based on teams of 3 members. Usually there is a mass start with all first leg runners starting together. This does mean that the first leg tends to feel more like a cross-country race than standard orienteering but, to make it more interesting and ensure that competitors don't simply just follow the fastest runner, different courses are provided. The simplest way of doing this is to provide 3 similar shaped courses but with different controls. Each team would take the 3 courses in a different order (e.g. A-B-C or C-A-B or A-C-B). Although everyone heads off in the same direction, no one knows which control all the others are heading towards. Over the whole event, each team would cover the same combination but in a variety of orders. This can be made more complex by the introduction of 'gaffling' - derived from the Swedish word meaning "forking".

Gaffling

By having 3 separate courses (A, B and C), competitors will soon work out which others are on the same course. Instead, a course is split into sections and each section had 3 options. These are linked by common controls (which all competitors visit).

A fictitious example is shown in the figure on the right. All competitors will start from the same place



whether as the first leg runner (from a mass start) or as second or third leg runners (after the hand over).

Some will go Start-1A-2A-3, others Start-1B-2B-3 and the remainder Start-1C-2C-3. At control 3 competitors will then be mixed up again with 3 different options (3-4A-5A-6, 3-4B-5B-6 and 3-4C-5C-6). In the example there is then a third section with 3 options (6-7A-Finish, 6-7B-Finish and 6-7C-Finish). This then creates 27 (3 x 3 x 3) possible courses. Careful planning and map allocation will ensure that each team of 3 runners will cover all the 9 different sections but the order will vary. In practice, except at very large events, not all 27 combinations will be used as the printing would be a very complex task. However enough combinations are used to make it confusing to the competitors.

It is important to realise that each competitor only has their specific course (with their controls) marked on their map. Remember also that the competitors do not know which are the common controls and so will need to be navigating and in contact with the map throughout.

Men's World Championships Relay 2015 - Complex gaffling!

This 3-man relay took place in Darnaway in Scotland and the structure of the courses and the gaffling is shown in the figure. Note that the courses twisted and turned around the forest but is shown here diagrammatically as a sequence from top to bottom.

This has 5 different sections of gaffling (marked A-E). However 2 of them (B and C) appear to have 6 different courses. Careful reading of the control numbers will make it apparent that in fact the control at the start of sections B and C are the same and B and C represent the same options. In this case

the planner had also used 'butterfly loops' returning competitors to control 67 to be given a second choice from the 6 options. The planner ensured that every team covered all the various elements of the course. One reason for having this complexity was to give the television cameras maximum coverage of the competitors out in the forest - a camera at control 67 therefore saw every competitor twice on their course.

Relay Events

As well as some smaller events, there are three major opportunities to take part in important relays in the UK each year. These are the British Relay Championships (BRC), the JK and the 'Harvester Trophy'.

British Relay Championships (BRC)

• This is usually held on the Sunday after the individual long distance championships (BOC). There are different classes based on ages - in fact the rules allow for a total of 18 different classes. As with any age-based event, several of these classes will however run the same course making perhaps 9 different courses (most then include gaffling). Although for the 'Championship' a team must consist of members from the same club, there are two 'ad hoc' courses allowing people to make up teams from various clubs. These 'ad hoc' courses also usually have different length legs (with no gaffling) allowing teams of mixed age to be made.

JK Relay

• The final event of the Easter weekend festival is a relay held on Easter Monday. Although this is organised in a similar manner to the BRC, in fact there are two important differences. For the JK, the classes are based on a combination of the age class of the team members. For example, one class is M165+. This means that the age classes of the team members must add up to at least 165 (e.g. M55 + M70 + M45 = 170). The second difference is that for most classes there are two 'long' legs with the middle leg being 'short'. This makes the selection policy rather different and more complicated for the Club Captain.

The Harvester Trophy

Rather different is the 'Harvester Trophy' which involves teams of 7 competing through the night and finishing after dawn (and an alternative handicap class with teams of 5). This usually takes place around midsummer so as to give a combination of both night and day legs for all teams. The event is based on the world's most famous orienteering relay event which takes place in Sweden every year - the Tiomila. This actually involves teams of 10 (for the men) and attracts over 300 teams starting at 9.30 in the evening.

Links:

- British Relay Championships / JK Relay Rules:
 - See: https://www.britishorienteering.org.uk/page/rules
- Tiomila website: http://www.tiomila.se/index.php/en/

