

## Appendix H: Mapping

### 1. Map Production

#### 1.1 General Information

- 1.1.1 Any map used for a competition shall be drawn according to 'International Specification for Orienteering Maps 2000' (ISOM 2000), subject to any specific British Orienteering amendments described in this Appendix. The map should be up to date and reflect the current state of the terrain at the time of the competition.
- 1.1.2 The mapped area shall be registered under the British Orienteering Map Registration scheme before surveying commences.
- 1.1.3 The mapper is responsible for the surveying and drawing (if relevant) of the map to the appropriate specification.
- 1.1.4 The mapper shall obtain the permission of all holders of copyright of any map or map information before using such map or map information in the preparation of a new map.
- 1.1.5 All maps should carry the following information:
- (i) name of area
  - (ii) grid reference of the centre of the mapped area
  - (iii) scale and scale bar; north lines and date when applied
  - (iii) colour check, register crosses (on litho printed maps)
  - (iv) contour interval;
  - (v) date of last revision and the date of magnetic north;
  - (vi) names of surveyor(s) and cartographer(s)
  - (vii) name and address of printer;
  - (viii) holder of copyright;
  - (ix) acknowledgement of the source material;
  - (x) British Orienteering Map Registration number.
- 1.1.6 Any 'special feature' symbols, or symbols that are additional to or different from those recommended by the IOF, shall be shown in the legend on the map.

#### 1.2 Additional Symbols

- 1.2.1 The approved British Orienteering variations to the IOF Specifications are listed below. Dimensions are specified as for 1:15,000 scale.
- 1.2.2 Symbol 119: Platform - a flat area originally used for charcoal burning is represented by a brown triangle 0.8mm each side (the same size as the boulder cluster 209).
- 1.2.3 Symbol 526.1: Stile - a crossing point over a wall or fence suitable only for foot passage is represented by a black line 0.18mm wide and 0.5mm long.

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- 1.2.4 Symbol 602.1: Control number dimensions shall be 4.5mm Arial Bold (18pt) colour purple.
- 1.2.5 British Orienteering Map Group has issued a set of symbols for use with OCAD 5, 6 and 7 in accordance with the latest ISOM 2000 specifications. Copies may be obtained from British Orienteering Office.

### 1.3 Generalisation

- 1.3.1 Features that are smaller than the IOF Specifications, i.e. less than 1m, (pit, dot knoll, boulder, small depression) may, in less well-featured, smoother terrain be mapped if they are prominent. The lower value may increase in rougher terrain with more or larger features. It is the task of the surveyor to be consistent.

### 1.4 Map Scales

- 1.4.1 For Level 1 and 2 Events, the map should be at a scale of 1:15,000 with 5m or 2.5m contours. A scale of 1:10,000 may be used where the area is of exceptional detail, subject to permission being obtained from the British Orienteering Map Group before the map is printed.
- 1.4.2 If the Planner and Controller are in agreement then a 1:15,000 map may be enlarged to 1:10,000 for use by classes M/W45 and above and M/W14 and below. The enlargement should be such that the symbols are 150% of those on a 1:15000 map. Permission for any variation to the 150% must be obtained from the British Orienteering Map Group before the map is printed.
- 1.4.3 For Level 3, 4 and 5 Events, the map should normally be at a scale of 1:15,000 or 1:10,000 with 5m or 2.5m contours. For maps of scales 1:10000 or larger the symbols shall be 150%. Other scales and contour intervals may be used for small areas, but care should be taken that this does not result in over-mapping.
- 1.4.4 For levels 1 and 2 the survey scale shall normally be 1:7500 to ensure that too much detail is not put on the map. For areas of exceptional detail the survey scale may be 1:5000, subject to permission from a suitably qualified British Orienteering Map Adviser.
- 1.4.5 For level 3,4 and 5 events the survey scale of 1:7500 should be used if the final scale is to be to be 1:15000 or 1:10000. For other scales survey may be at final scale.

### 1.5 Variations

- 1.5.1 Approval to vary any of the British Orienteering/IOF specifications or details in this Appendix should be sought in good time from the British Orienteering Map Group.
- 1.5.2 Maps of small areas, usually at a larger scale such as school grounds or outdoor adventure centres, may need to adapt the IOF symbols.

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### 1.6 Ordnance Survey Copyright

- 1.6.1 The Ordnance Survey has copyright on all material produced by them so any map based, however indirectly, on OS material will be in breach of copyright unless it is licensed by them and the appropriate royalty is paid. This is likely to apply to most orienteering maps including orienteering maps based on previous orienteering maps.
- 1.6.2 Orienteering maps can be licensed under British Orienteering's agreement with the OS by registering the map with British Orienteering and completing the form OS1. Royalties, payable to British Orienteering, are based on the number of copies of the map printed in any one year. The cost is considerably cheaper and the procedure, considerably simpler, than obtaining a separate licence directly from the OS.
- 1.6.3 The British Orienteering Ordnance Survey license number is 43423U, which must be printed on the map together with the British Orienteering registration number, using the following wording:
- Based upon the Ordnance Survey mapping with the permission of the Controller of Her Majesty's Stationery Office. © Crown Copyright.  
License No. 43423U. British Orienteering Registration No. AB-XX-ZZZ*
- 1.6.4 OS maps older than 50 years are not subject to copyright.

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### 2. Map Printing

- 2.1.1 Map Group has produced advice on map production for mappers. This will be periodically circulated to all mappers.
- 2.1.2 The preferred method of printing maps for Level 1 and 2 Events is spot coloured ink printing.
- 2.1.3 Laser or digitally printed maps are allowed for Level 1 and 2 events if Map Group give approval. This will be given if:
- 1) a) The maps are produced at a minimum of 600 dots per inch with colours as close to those in the IOF/British Orienteering Specifications. This will be raised as better equipment becomes available.  
b) They are produced by an approved printer.
  - 2) Map Advisers and Controllers ensure that there has been no loss of quality in the production of the maps.
  - 3) Event details should contain the information that laser printed maps will be used.
- 2.1.4 To gain approval the club requesting the use of laser maps should send samples of the printer's work the Map Group. This should be done by producing the map to be used for the competition. They will be asked to provide information about the machine to be used including its resolution and the operator of the machine.
- 2.1.5 Laser printed maps for Level 3, 4 and 5 Events should show the same care in preparation as described above.
- 2.1.6 Colour photocopies shall not to be used for Level 1 and Level 2 events. Great care should be taken if photocopied maps are used at any event below level 2, since this has been the cause of numerous complaints in the past.

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### 3. Mapping Administration

#### 3.1 Map Group

3.1.1 The British Orienteering Map Group is a specialist sub-group responsible for maintaining and improving mapping standards within British Orienteering. It reports to the Event Standards Committee. Any issues associated with mapping or with any of the details in this Appendix should first be referred to British Orienteering Map Group.

#### 3.2 The Map Adviser Scheme

3.2.1 A Map Adviser is appointed to give advice and support on all aspects of map production.

3.2.2 It is expected that Map Advisers will keep up to date with current mapping trends through their own mapping and by attendance at the National Mapping Conference(s) at least once in three years.

3.2.3 The British Orienteering Map Group shall periodically publish in British Orienteering Focus a list of Map Advisers. These will be active mappers with current experience.

3.2.4 The Map Adviser's expenses should be charged to the event.

#### 3.3 Appointment of Map Advisers to Events

3.3.1 Map Group will appoint a Map Adviser for events of Level 1 and 2. The Major Events Co-ordinator will be advised of the appointment.

3.3.2 For any events with a new map a Map Adviser is highly desirable and British Orienteering Map Group will appoint an Adviser if one is requested.

3.3.3 As far as is possible the Adviser should come from a club other than that which is organising the event.

#### 3.4 Map Advisers' Responsibilities

3.4.1 The Map Adviser should give advice to the mapper(s) and the Organiser to ensure that the map is of a proper standard for the event.

3.4.2 This advice should aim to ensure that:

- a) Adequate manpower and time are available for the task.
- b) Appropriate methods and materials are used.
- c) The appropriate Rules, Specifications and Guidelines are applied, in both survey and cartography and approval from the British Orienteering Map Group is sought for any proposed deviations from them.
- d) Time scales are maintained.

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- e) The survey and cartography are properly checked for completeness, accuracy and consistency.
  - f) The cartography is properly complete, accurate and consistent.
  - g) Arrangements for printing are appropriate. Where a laser-printed map is to be used the mapper should follow the current British Orienteering policy.
- 3.4.3 The Map Adviser should keep close liaison with the event officials and advise what steps need to be taken if serious inadequacies are discovered.
- 3.4.4 Unresolved technical problems shall be referred to the Map Group Chairman.
- 3.4.5 Brief reports should be provided periodically for Level 1 and 2 Events for the Map Group meetings and after the event.

### 3.5 Map Registration And Assessment

- 3.5.1 Since 1998 British Orienteering has operated a Map Registration scheme. This covers the mapped area and may actually include a number of maps, perhaps of different scales. The system is designed to be as simple as possible whilst producing the maximum amount of information.
- 3.5.2 The scheme has a number of functions:
- it collects mapping statistics in support of Sports Council funding
  - it is used to monitor quality through the Map Assessment Scheme
  - it permits the use of OS copyright material through British Orienteering's licence with the OS
  - it provides third party insurance cover under the British Orienteering insurance policy for mappers who are working on the map.
- 3.5.3 Maps are registered by individuals or clubs using the form MR1. British Orienteering issues all the subsequent forms automatically. Maps not registered with British Orienteering are not covered by the OS licence agreement, and the mapper is not protected by British Orienteering insurance. Any orienteering map produced by a British Orienteering member may be registered with British Orienteering, including e.g. school maps and permanent course maps.
- 3.5.4 It was envisaged that all new maps would be registered and that older areas would be registered when they are remapped or redrawn.
- 3.5.5 Map Group issued a detailed document 'British Orienteering Map Registration System' to all Clubs and mappers in January 2002. Further copies may be obtained from British Orienteering Office or from the Map Group web page.
- 3.5.6 Map assessments are made on all maps. Those where it is felt that the mapper would benefit from advice are sent a detailed report.