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INTRODUCTION

1. **Purpose.** This Manual provides:
   a. Guidance on Orienteering within the context of Military training within the Army
   b. Details of the organisation and structure of orienteering within the Army
   c. The Rules to be used for Orienteering within the Army
   d. Details of inter-unit and individual competitions sponsored by the AOA
   e. Guidance for organising, controlling and planning Army orienteering events
   f. Details of the British Army Orienteering Club (BAOC) and the role it plays in support of Army orienteering in general

2. **Authority.** This Manual is issued under the authority of the Director of Individual Training (Army) (DI Trg (A)). These guidelines should be applied as far as possible to the planning, organisation and conduct of all AOA-sponsored competitions. The Rules are mandatory for all Army competitions covered paragraph 15. Requests for dispensations to the Rules must be made through AOA channels at least 3 months prior to the event. For unit level training and Divisional league events, the Rules may be used as guidelines only, however for Divisional Championship events, the Rules should be applied as for an AOA-sponsored event.

3. **Use.** Any personnel planning orienteering courses or organising events within the Army must obtain a copy of this Manual and follow the guidelines and Rules as appropriate. Instructors on AOA-sponsored orienteering courses are to use this Manual as their primary reference source and must ensure that pupils each have their own copy while on the course.

4. **Amendments.** Proposals for amendment to this Manual (including Chapter 8 – Army Orienteering Association Rules) must be forwarded through AOA channels to the Secretary AOA. Amendments to this Manual can only be made with the authority of the Executive Committee of the AOA.

5. **Distribution.** This Manual is to be widely distributed in accordance with Part II of the Catalogue of Army Publications and should be readily available in all units, formations HQs and online resources. Every unit orienteering officer and all AOA officials must hold a copy.
ABOUT ORIENTEERING

6. General. Orienteering in the Army is classified as normal military training and is a distinct form of navigation training, which is now reflected in the new Military Annual Training Test (MATT 5 – Land Navigation), which is an annual test for all Army personnel. Orienteering is also a fun sport, which allows a competitor to test their cross country navigation skills aided only by a map and compass. Orienteering is neither an Army recognised sport, nor an approved sport, but is a sport officially classified by the Army as individual/collective military training, in the same way as shooting.

7. The challenge of orienteering is that it makes simultaneous, sometimes conflicting, demands on the physical and mental capacity of participants as they try to maintain a good pace whilst navigating. It requires not only a high level of physical fitness, but also a good level of co-ordination, stamina and an ability to make quick decisions whilst moving at speed over difficult terrain.

8. The simplest orienteering activity provides an opportunity to maintain or improve navigation skills at the same time affording an effective way of maintaining fitness. There is however a well defined progression of activities and events requiring both finer navigation and more robust fitness to challenge the most able soldier.

9. Participation. All Army Orienteering competitions and training are open to Regular and Territorial Army personnel of all ranks, embracing the One Army Concept. Whilst men and women do compete in separate competitive classes where appropriate, women are eligible to run in any team.

10. Benefits. At its peak orienteering provides challenges of navigating over complex and rough terrain whilst running at speed. This can be in a competitive environment ranging from Divisional League events to the Army Championship. At the highest level of Army, and civilian, competition, orienteering is one of the most demanding of all sports, requiring the same dedicated approach to mental and physical training as any other athletic activity.

11. To be competitive an orienteer must train regularly, not only to build up physical speed and stamina, but also to improve navigation skills. The technical skills required of a good navigator such as using a compass, distance estimation and contour interpretation must be mastered and regularly practiced. During a typical event an orienteer must develop confidence in themselves and their ability, practice their concentration under stressful conditions, make decisions under pressure, and acquire a single-minded determination to overcome any setbacks. Individuals taking part in orienteering gain improved;
   a. Fitness and stamina
   b. Confidence
   c. Ability to make rapid decisions whilst under physical duress
   d. Understanding of terrain and movement through it
   e. Map reading skills
   f. Determination
   g. Co-ordination and balance

12. Orienteering, therefore, can be used to develop many of the qualities, both personal and technical, that are essential in a good soldier.

ORIENTEERING IN THE ARMY

13. Development. Orienteering in the British Army began in the mid-1960s and in 1967 the
first Army Championships were held. The popularity of orienteering grew steadily within the Army during the 1970s with the result that in 1976, the British Army Orienteering Club (BAOC) was formed so that Army orienteers could compete in civilian competitions for their own club.

14. The most significant development within Army orienteering occurred in 1981 when the Army Orienteering Association (AOA) was formed to develop and administer orienteering as a recognised military training activity within the Army.

15. Activities. There is a range of different events and activities that are undertaken by orienteers within the Army. These are all covered by the rules in this manual and are governed by the AOA:

a. **Unit Military Training.** Units throughout the Army use orienteering as a regular part of their military training programme. This type of training requires very little additional resources and can be conducted within a barracks or local training area. The AOA is often able to help units with mapping barracks for such a purpose and approaches should be made to the secretary for further details.

b. **Military Inter-Unit League Events.** Many units enter teams in the increasingly popular Military league competitions; these are open to all units and form the lowest level of inter-unit competition. Generally each league provides individual and team results and ranking and end each season with a championship. Details of these leagues are published on the BAOC website1.

c. **Army Team Championships.** The AOA organises a number of inter-unit events annually:

i. **Army Inter Unit Championships.** Generally takes place in May each year, run over two days as a combination of relay events.

ii. **Army Inter Unit Night Championships.** Generally takes place in March each year, run as a Harris relay.

iii. **TA Championships.** Run in May each year, often in conjunction with the Army Championships, but over a weekend.

iv. **Army Sprint Championships.** A new format aimed at testing new techniques in terms of very rapid route choice and sprint speed. It also provides for a better spectator experience and can take place on small urban areas. The event will take place in conjunction with the Army Inter Unit Championships.

d. **Individual Championships.** The AOA organises the following Individual events:

i. **Army Individual Championships (day and night).** Run in conjunction with the Inter-Corps Championships and based on a night and a day event. Generally run in late Nov each year.

ii. **Army Individual Short Course Championships.** Run as a series of heats over short courses (typically 2km) with a final based on heat results. Generally run in Mar each year.

e. **Other events.** The AOA also runs the following:

i. **Army Inter-Corps Championships.** Run each year, generally in late Nov over two days with a night event followed by a day event.

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1 The BAOC website can be found at: http://www.baoc.org.uk/
ii. **Combined Services Challenge Match.** Run in conjunction with a major civilian event against a representative BO team or a major civilian club or a representative universities or Police team.

iii. **Inter Services Championships.** Run in conjunction with a major civilian event and organised by the three services on rotation.

iv. **The Young Army Orienteering Challenge.** Designed to develop interest in orienteering amongst junior soldiers and officers.

v. **Regular Army v TA Match.** Organised in rotation with the TA and generally in parallel with the Inter-Services event.

g. **AOA sponsored exercises.** The AOA runs several sponsored exercise each year, these are generally to major UK or overseas events such as the Scottish 6 Days, World Championships, Belgian 3 days, French 5 days or to the BO orienteering centre of excellence in Aviemore. The aims of these exercises are to encourage participation in international events, develop junior officers and soldiers and to represent Great Britain at high profile events. The exercises are called Ex Running Deer and Ex Running Compass.

h. **AOA Development Squad.** The AOA maintains a squad of promising juniors and relative novices and provides training, advice and coaching with the aim of developing future champions.

i. **Centre of Excellence.** The AOA has developed a centre for excellence at Longmoor training camp. This is used for running courses and coaching including (details from BAOC website or AOA secretary):

   i. Planners and Controllers courses
   ii. Skills camps
   iii. Ladies Skills camps
   iv. OCAD and mapping courses
**ORIENTEERING ORGANISATION**

16. **Introduction.** The organisation needed to administer orienteering within the Army has developed considerably over the years into an extensive, well-defined structure. As a military activity, orienteering is controlled by the MOD through the chain of command with guidance from the AOA, which is composed of experienced Army orienteers. Orienteering as a sport is administered by BAOC, through which its members can compete in civilian events. Although the purpose and aims of AOA and BAOC are compatible, they are not the same, and the differences need to be clearly understood. This chapter defines the respective roles and organisations of AOA and BAOC, and describes how they interface with other military and civilian orienteering organisations. The chapter ends with a brief description of the roles and activities of British Orienteering (formally known as BOF).

17. **Sponsorship and Control.** As military training, orienteering is sponsored by DITrg (A) and controlled by G3 Trg staff at Formation Headquarters. The AOA is organised to assist the staff in the administration of orienteering training and competitions within the Army, and to help formulate policy.

18. **Policy.** MOD policy on orienteering is laid down by DITrg (A) and the AOA and is disseminated to the chain of command in the form of DINs. In brief, DITrg(A)’s policy statement provides the following:

   a. Defines orienteering as a military training activity.
   b. Instructs G3 Trg staff to exercise control of Army orienteering.
   c. Gives authority for AOA and unit sponsored orienteering.
   d. Gives authority to use Service transport for orienteering purposes.
   e. Gives entitlement to claim travel and other expenses for orienteering activities.
   f. Gives authority for representative Army teams to partake in overseas military and civilian competitions and training.
   g. Gives approval to use civilian organised events in the UK for Army competitions and training.

**ARMY ORIENTEERING ASSOCIATION (AOA)**

19. **Role.** The AOA provides advice and assistance to G3 Trg staff on matters relating to orienteering policy, training and competitions, for the Regular Army, Junior Army, TA and Cadets. The AOA has specific responsibilities for:

20. **Courses.** The AOA opened a new orienteering centre at Longmoor Training Camp in 2006. The Courses are prand instructors to train unit orienteering officers, controllers, mappers, coaches and individuals (skills) are arranged by the AOA. A small budget provides for selected students to attend civilian courses for specialist training, where it is not feasible for the AOA to run a course. Courses are advertised by DIN.

21. **Competitions.** The annual round of Army Championships and other major competitions, as described in Chapters 7 and 10, are managed by the AOA Committee and the events are arranged by G3 staff, with the assistance of local AOA officials. (NOTE: G3 staffs are responsible for nominating a Co-ordinator, Controller and the Administering unit to organise and run major events).

22. **Maps.** The AOA has a budget for map making and each year arranges for several new areas to be surveyed, drawn into maps and printed. Maps have been produced for Hong Kong, Cyprus and BAOR, as well as the UK. Mapping suitable Defence land is the main priority, but many other areas have also been mapped.

23. **Army Teams.** The AOA selects and manages trams to represent the Army in
competition against teams from the other Services and foreign Armies, notably Sweden, Germany, Belgium and France, as well as the BOF and other civilian organisations, such as Police and the Civil Service.

24. **Executive Committee.** DAIT is the President of the AOA, which is controlled on his behalf by an Executive Committee, comprising a Chairman and Secretary, DAIT’s representative, several specialist advisers and representatives from UKLF, BAOR and the TA. The Committee meets three times a year to discuss policy matters, finance and competitive fixtures, and to progress numerous routine matters. In the absence of both the President and the Chairman, the Committee can be chaired by either the Secretary or the Technical Adviser. Both UKLF and BOAR must be suitably represented on the Committee.

25. **Structure.** The structure of the AOA is shown in Annex A. At command level, a Chairman, Secretary and Technical Adviser must be nominated to be responsible for administering orienteering within their own geographical areas. Commands should hold their own committee meetings, at least once each year, and maintain an account of their funds, to be audited in time for presentation at meetings.

26. **Responsibilities.** With the exception of the President, AOA officials are appointed on a voluntary basis. The responsibilities of the principal appointments are as follows:

   a. **AOA President.** The appointment of AOA President is tied to the post of DAIT. The President is responsible, through DGT & D(A), to CGS for ensuring that orienteering training and competition are provided to a high standard throughout the Army. This is achieved through the chain of command (G3 Trg staff) assisted by officials of the AOA. The technical aspects of Army orienteering are overseen on behalf of the President by the AOA Executive Committee.

   b. **AOA Chairman.** The Chairman is responsible for advising the President on Army orienteering matters and for the day-to-day administration of the AOA. He monitors the workings of AOA policy and makes recommendations to the President for any changes. He chairs all AOA executive meetings and attends, where possible, all major orienteering functions and competitions.

   c. **AOA Secretary.** The principal task of the Secretary is to arrange meetings of the Executive Committee and record the minutes. In the absence of the Chairman, he chairs the meetings. The Secretary assists the Chairman by dealing with all routine administrative matters of the AOA that do not affect policy.

   d. **Technical Adviser.** The Technical Adviser assists the Chairman with non-administrative orienteering matters. He may be given specific tasks by the Chairman, to investigate and advise, or himself bring noteworthy matters to the Chairman’s attention. To be effective, the Technical Adviser needs to be a very active orienteer, able to frequently attend Army events and competitions.

   e. **Specialist Advisers.** There are a number of specialist AOA advisers covering specific aspects of importance to Army orienteering. Their responsibilities to the Chairman are broadly similar to those of the technical Adviser, but directed at their specific areas (viz Mapping Adviser, Team Manager and Fixtures Secretary).

27. **The BAOC.** The British Army Orienteering Club is the club that has been set up to provide a focal point for orienteers within the Army. It is also open to spouses and those that have left the services. It is one of the BO clubs and is classed by them as a ‘closed’ club, i.e. membership is restricted. The main aims of the club are to promote orienteering as a sport, provide a social forum for members and to organise events. The club also takes part in many
civilian events and enters teams for these. Not all those taking part in orienteering join the BAOC and it is not mandatory to do so, although it is encouraged for those who compete regularly. Participation in many civilian events is restricted to BO members and membership of BAOC is a good way to gain this access. Details can be found on the website: www.baoc.org.uk

28. **British Orienteering**. The British Orienteering Federation has recently changed its name to 'British Orienteering' this is the governing body for the sport in Great Britain. It is comprised of a number of associations and a wide variety of clubs and is responsible for all aspects of the sport, from selection of a GB team to drug testing. Further details can be found on the website at http://www.britishorienteering.org.uk/

29. **AOA Organisation** The structure of the AOA is as follows:
AOA RULES

30. **General.** These rules are to be adhered to by all those organising or taking part in Army orienteering. They have been produced to reflect the rules of British Orienteering and are designed to ensure that events and courses are fair to competitors, well run and organised and the meet guidelines for distance and technical difficulty.

31. **Scope.** These rules cover:
   a. **Orienteering events as per Chapter 1**
   b. **Orienteering training courses**
   c. **Orienteering training and coaching**
   d. **AOA exercises**

32. All of these are referred to as ‘events’ in the rules.

33. **Definition of Terms.**
   b. **BO.** British Orienteering, formally know as the British Orienteering Federation (BOF), the governing body for orienteering in Britain. Website: [http://www.britishorienteering.org.uk/asp/homepage.asp](http://www.britishorienteering.org.uk/asp/homepage.asp)
   c. **Organising Body.** The unit, Division, or grouping that has accepted responsibility for organising the event.
   d. **Other Services.** Any member of the other organisations within the MOD.
   e. **Juniors.** Individuals under the age of 21 on 31 Dec of the year in question.
   f. **Young.** Those under the age of 25 on 31 Dec of the year in question.
   g. **To Compete.** Means to take part in an event in which the runners result is used to determine the final position of other competitors in the results.
   h. **Non-competitive** applies to a person who takes part in an event, but whose result is not included when determining the final position of other competitors in the results. Examples might include those running in pairs, those with a role in the organising or those running twice.

34. **Specific Rules.** Details of the specific AOA rules governing orienteering are at Annex A to this Handbook.

CONCLUSIONS

35. Orienteering is a physically and mentally demanding activity which offers great benefits to officers and soldiers and should therefore be encouraged at all levels. This handbook should be made available to anyone organising orienteering events.
ARMY ORIENTEERING ASSOCIATION ORIENTEERING RULES

GENERAL

1.1. Definition of Terms

1.1.1. ‘IOF’ means the ‘International Orienteering Federation’.
1.1.2. ‘BO’ or ‘BOF’ means the ‘British Orienteering Federation’.
1.1.3. ‘Organising body’ means the Unit, Division or grouping of individual servicemen which has accepted the responsibility for organising the event.
1.1.4. ‘Other Services’ means any member of the organisations within the MOD.
1.1.5. ‘Juniors’ are individuals who will not have reached the age of 21 on 31st December of the year in question.
1.1.6. ‘Young’ means any serviceman who is under the age of 25 at the time of a qualifying competition.
1.1.7. To ‘compete’ means to take part in an event in which the runner’s result is used to determine the final position of other competitors in the results.
1.1.8. ‘Non-competitive’ applies to a person who takes part in an event, but whose result is not included when determining the final position of other competitors in the results.
1.1.9. ‘Control card’ refers both to a card marked by pin punches or other suitable means, and to an electronic device marked in some electronic manner.

1.2. Basic Characteristics of Orienteering

1.2.1. These rules apply to those events where competitors take part on foot, termed Foot-O by the IOF. Separate events may be organised specifically for people with disabilities, or using modes of transport such as skis, bicycles, canoes or horses.
1.2.2. Competitors take part singly and independently, unless entered as pairs or groups in competitions that permit such entry.
1.2.3. In orienteering both the speed and navigational skill of the competitor shall be tested, but in such a way that the test of map reading and navigational skills should be decisive.
1.2.4. The element of luck involved in solving the set orienteering problems shall be minimised. Problems should not be deliberately set to catch out competitors.

1.3. Applicability

1.3.1. These Rules shall apply to all Foot-O events held on behalf of the AOA.
1.3.2. These Rules shall be binding on all competitors and their guests, team officials and all other persons connected with the organisation or in contact with the competitors. Competitors, whether or not members of the British Army, taking part in events to which these Rules apply shall be deemed to have accepted them.
1.3.3. A competitor who is demonstrated to have broken any Rule shall be disqualified unless there are sufficient extenuating circumstances.
1.3.4. Ignorance of these Rules, or of any other instructions issued by the Organiser whether with pre-race information, prominently displayed at the event or by any other reasonable means, shall not be accepted as a satisfactory explanation for any infringement.
1.3.5. For Army wide events, the Organiser may only vary or supplement existing Rules to meet particular local requirements, if approval has been given from the AOA via the organising Division.
1.3.6. For Divisional events, the Organiser may only vary or supplement existing Rules to meet
particular local requirements, if approval has been given from the Divisional Chair via the
Divisional secretary.

1.3.7. The Organiser shall ensure that due notification is given to competitors of any agreed Rule
variations or additions.

1.4. Interpretation

1.4.1. The word ‘shall’ is to be treated as a command in all circumstances.
1.4.2. The word ‘should’ is a recommendation which competitors and officials will endeavour to
comply with.
1.4.3. Any dispute as to the interpretation of these Rules shall be decided by the AOA committee.

1.5. Fairness

1.5.1. The spirit of fairness and good fellowship shall be the guiding principle in all aspects of the
sport, including the interpretation of these Rules.
1.5.2. Competitors shall not seek to obtain any unfair advantage over other competitors.
1.5.3. Spectators and team officials shall remain in the areas assigned to them.
1.5.4. No person shall enter the competition area unless authorised by the Organiser.
1.5.5. Any search for the competition course or inspection of the competition area before the race is
forbidden.
1.5.6. Race officials shall not help, hinder or distract a competitor in any way.

1.6. Respect for Property and the Public

1.6.1. Nothing shall be done to prejudice the goodwill of landowners, their tenants or agents.
Competitors and officials shall comply with all requests made by such persons or notified to
them by the Organiser.
1.6.2. Competitors and officials shall make every effort to ensure that no damage is done to the
environment, and shall co-operate wherever possible with those statutorily responsible for
environmental conservation.
1.6.3. The existence of an orienteering map does not in itself give the right of access to any area for
orienteering or any other purpose.
1.6.4. Prior to the date of the event the Organiser shall obtain full permission for orienteering
(preferably in writing) from the landowners for any land likely to be used in the event.
1.6.5. Competitors shall not enter ‘out of bounds’ areas.
1.6.6. Competitors shall take care to avoid doing any damage, and shall report to a responsible
official any damage done or seen to have been done.
1.6.7. Respect and consideration shall be shown to all members of the public in or near the
competition area.
1.6.8. Event officials and competitors shall comply, so far as is reasonably possible, with the
guidance given in Appendix F (Environmental Good Practice).
1.6.9. There shall be no smoking in the competition area.
1.6.10. Dogs shall not be permitted in the competition, assembly or car parking areas except when
the Organiser indicates into which areas they may be brought and under what conditions.

1.7. Event Safety

1.7.1. All competitors in any event to which these Rules apply take part entirely at their own risk.
Competitors shall take into account their own ability to compete safely.
1.7.2. All competitors who start the event shall report to the finish and / or download (as
appropriate), whether or not they have completed their course.
1.7.3. The Organiser shall ensure that appropriate first aid is easily available.
1.7.4. The Organiser shall ensure that sufficient help and equipment is either available, or can be
easily summoned, to mount a search for a missing competitor.
1.7.5. The Organiser shall take responsibility for deciding what action should be taken (e.g.
delaying or cancelling the event, shortening the courses) in exceptional circumstances such
as adverse weather conditions, total loss of the car park, etc.
1.7.6. The Planner shall take responsibility for all safety aspects of the course planning. The course shall be planned so that ‘out of bounds’ areas and dangerous features can be avoided easily.

1.7.7. Dangerous features should be marked with yellow or yellow and black tape if they are likely to be visited by any competitors and are not already clearly marked as dangerous. Such tape shall not be used for any other purpose.

2. EVENT STRUCTURE

2.1. Event Programme

2.1.1. For the purpose of these Rules, events shall be classified as being at one of 3 levels:

2.1.2. Army Level – e.g. Army Team or Individual Championships, UK Championships, inter-Corps Championships etc

2.1.3. Divisional Level – e.g. Inter-Unit events held within a Divisional or regional boundary.

2.1.4. Unit Level – e.g. Inter-Coy, Bty, Sqn etc; these are generally used to prepare for the levels above but could be used for training for MATT 5.

2.1.5. Classes and courses shall be provided as defined in the relevant Event Guideline for each event.

2.1.6. Where no relevant Event Guideline exists then the Organiser of the event shall be responsible for determining the required format of the event, and for informing competitors about this format.

2.2. Registration of Events

2.2.1. All events and other orienteering activities shall be registered with the Divisional fixtures secretary who will register the event with BO.

2.3. Financial Responsibility

2.3.1. For all events the organising body shall take financial responsibility unless prior agreement has been reached with the AOA.

2.3.2. For all events the Organiser or a person appointed by the organising body shall keep accounts of all income and expenditure.

2.4. Age Classes

2.4.1. Competitors’ orienteering ‘ages’ are defined as their age on the 31st December of the year of the event. Competitors therefore change from one age group to the next on the 1st January of the calendar year in which they reach the youngest age included in the next age group.

2.4.2. At events where British Orienteering age classes are used they shall be as follows, unless defined otherwise within the relevant Event Guideline. For some Army level competitions an under 25 age class may be used.

**Men and Women Age as at 31st December**

- M18 W18 18 and under
- M20 W20 20 and under
- M21 W21 Open
- M35 W35 35 and over
- M40 W40 40 and over
- M45 W45 45 and over
- M50 W50 50 and over
- M55 W55 55 and over
- M60 W60 60 and over
- M65 W65 65 and over
2.4.3. Women may compete in Men’s classes but Men may not compete in Women’s classes.
2.4.4. A competitor may only compete in one class at any one event.

3. ELIGIBILITY AND ENTRY

3.1. Eligibility
3.1.1. Any Serviceman or Officer may compete in an event to which these Rules apply, subject to any eligibility restrictions in the relevant Event Guideline.
3.1.2. At Army Events, competitors shall declare themselves non-competitive if their acquaintance with the terrain would give them substantial advantage over other competitors. Nothing that occurred more than 24 months before the date of the event shall be taken into account.
3.1.3. At Army events, competitors from other Services and civilians will be non-competitive when they are able to enter these events.

3.2. Unit Representation
3.2.1. A competitor shall only compete for the Unit to which they are on the established and posted strength at the time of the competition.

3.3. Entry
3.3.1. At Army level events the Organiser shall have discretion to refuse or revoke an entry.
3.3.2. At no event shall a competitor take part under an assumed name.
3.3.3. At Army level events an entry may only be assigned to another competitor with the agreement of the Organiser.
3.3.4. Competitors from other Services entering Army Level events will be non-competitive.
3.3.5. Civilian individuals and teams are welcome to enter AOA events, however they:
3.3.6. must be members of BO to ensure insurance cover.
3.3.7. they will be non-competitive
3.3.8. may have to be refused entry to some events because of security considerations. In such cases the decision of the Organiser shall be final.

4. OFFICIALS

4.1. Organiser(s)
4.1.1. The organising body shall appoint an Organiser who shall take responsibility for the organisation (or cancellation) of the event in accordance with these Rules (noting particularly Event Safety) and any relevant Event Guidelines.
4.1.2. The Organiser shall ensure that all the necessary officials are appointed.
4.1.3. The Organiser shall take responsibility for completing the Risk Assessment for the event.

4.2. Planner(s)
4.2.1. The Planner shall plan the courses in accordance with these Rules (noting particularly Event Safety), Appendix B (Course Planning) and any relevant Event Guidelines.
4.2.2. The Planner shall be responsible for:
4.2.3. preparing the overprinted maps or master maps;
4.2.4. preparing the control description lists;
4.2.5. preparing the map corrections, if needed;
4.2.6. the correct placing of the control banners and marking devices in the competition area.

4.3. Controller(s)
4.3.1. The Controller shall be responsible for confirming that the event is organised fairly and in accordance with these Rules.
4.3.2. A Controller who becomes aware that any breach of these Rules has occurred, or is likely to occur, shall take whatever action considered necessary.
4.3.3. The Controller may require the Organiser to cancel the event if necessary.
4.3.4. The Controller’s decision in all matters shall be final, with the exception of items referred to a Jury as outlined in Rule 9.

5. MAPS AND COURSE MARKINGS ON THE MAP

5.1. Maps
5.1.1. Any map used for an event shall be drawn according to the ‘International Specification for Orienteering Maps 2000’ (ISOM 2000), or the ‘International Specification for Sprint Orienteering Maps 2007’ (ISSOM 2007), subject to any specific British Orienteering amendments as described in Appendix H (Mapping).
5.1.2. Any ‘special feature’ map symbols, or map symbols that are additional to or different from those defined above, shall be notified and fully described in pre-race information made available to all competitors.
5.1.3. Any map used for an event shall be registered under the British Orienteering Map Registration system as described in Appendix H (Mapping).

5.2. Course Markings on the Map
5.2.1. All course markings on the map shall be drawn according to the ‘International Specification for Orienteering Maps 2000’ (ISOM 2000), or the ‘International Specification for Sprint Orienteering Maps 2007’ (ISSOM 2007), subject to any specific British Orienteering amendments as described in Appendix B (Course Planning).

5.3. Pre-Marked Maps
5.3.1. Competitors at Army level events shall receive maps with their courses and map corrections pre-marked.

5.4. Master Maps and Map Corrections
5.4.1. If pre-marked maps are not used, competitors may copy their course from master maps either before or after they have been timed as having started.
5.4.2. Each master map shall show:
5.4.3. the course;
5.4.4. all relevant map corrections;
5.4.5. the control description list appropriate to the course.

6. THE COURSE, CONTROL SITES AND CONTROL DESCRIPTIONS

6.1. The Course
6.1.1. The course shall be planned in accordance with the requirements set out in any relevant Event Guideline, and shall be appropriate to the age, sex and standard of competitors expected to take part.
6.1.2. The course length 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.), ‘out of bounds’ areas and marked routes.
6.1.3. The total climb shall be given as the climb in metres along the shortest sensible route. (See Appendix B for guidance.)

6.2. Control Sites
6.2.1. Features used as control sites shall be clearly defined, distinct from the surrounding terrain, and shall be marked on the map.
6.2.2. Control sites shall be chosen so that the competitor can locate them with an accuracy consistent with the scale of the map and the amount of detail shown near the control.
6.2.3. Controls should not be sited within 30 metres of each other. (See Appendix B for guidance.)
6.2.4. Controls within 60 metres of each other should not be positioned on similar features or on features that appear similar in the terrain. (See Appendix B for guidance.)

6.3. The Control Banner
6.3.1. The control site shall be identified on the ground by a three sided banner with each side vertical and around 30 cm square, divided diagonally bottom left to top right, the top left half being white, the bottom right half normally being orange (preferably PMS165).
6.3.2. The control banner shall be hung at the feature indicated on the map in accordance with the control description. The control banner shall be visible to competitors when they can see the described position.

6.4. Control Codes
6.4.1. The control code shall be clearly displayed near the control banner and visible from the marking devices.
6.4.2. The control code shall be a number greater than 30 or two letters. Numbers and letters easily confused (e.g. 66, 99; 68, 89; AE, AF) should not be used.
6.4.3. If the control code is positioned horizontally, letters or numbers that may be confused if read upside down shall be underlined.
6.4.4. The numbers or letters shall be black, 5 to 10 cm high, and have a line width of 5 to 10mm.

6.5. Punching Systems
6.5.1. Only approved punching systems shall be used. The approved punching systems are:

6.5.2. The traditional control card system;
6.5.2.1. The Emit system;
6.5.2.2. The SportIdent system;
6.5.3. The AOA has chosen to use the Emit system for use at events run under their authority but some events run on their behalf by civilian clubs may use the SportIdent system.
6.5.4. The control card, electronic or otherwise, must clearly show that all controls have been visited. A competitor with a control punch missing or unidentifiable shall be disqualified unless it can be established with certainty that the punch missing or unidentifiable is not the competitor’s fault and that the competitor visited the control. 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.
6.5.5. For events with a prescribed sequence of controls to be visited (such as most events other than score events), competitors who visit a control site out of the prescribed sequence, and who deliberately mark their control card whilst doing so, shall be disqualified.
6.5.6. Competitors who are judged by the Organiser to have attempted to gain advantage by inaccurate marking of the control card shall be disqualified.

6.6. Control Descriptions
6.1.1. Control descriptions shall comply with the specifications set out in Appendix A (Control descriptions).
6.1.2. The control description list shall be printed on the map and/or provided as a separate sheet to
7. THE COMPETITOR

7.1. Dress and Equipment
7.1.1. Subject to the next Rule, clothing shall fully cover the torso and legs. In other respects the choice shall be free. Competitors not complying with this Rule shall not be allowed to start.
7.1.2. If the competition area contains little or no undergrowth likely to cause leg abrasions, the Organiser may give notice that competitors are not required to wear clothing which fully covers the legs.
7.1.3. The Organiser, having regard to the nature of the terrain or weather conditions, may give notice that a cagoule or similar weatherproof garment shall be carried throughout the race by all competitors. In such circumstances a competitor not carrying a cagoule or similar weatherproof garment shall not be permitted to start the race, and a competitor finishing the race without a cagoule or similar weatherproof garment shall be disqualified.
7.1.4. A whistle should always be carried, but must only be used in an emergency. The Organiser, having regard to the nature of the terrain or weather conditions, may give notice that a whistle shall be carried by all competitors. In such circumstances a competitor not carrying a whistle shall not be permitted to start the race.
7.1.5. Competitors shall wear any numbers provided, in the position and manner specified by the Organiser. The name of any sponsor shown on the number shall not be obliterated.
7.1.6. Only the map provided by the Organiser shall be used during the event.
7.1.7. The use of any artificial navigational aid other than a compass is prohibited.

7.2. Conduct During the Event
7.2.1. It is the duty of competitors to give help to an injured competitor even if this means abandoning their run.
7.2.2. Competitors shall not deliberately draw attention to themselves. Shouting and calling are prohibited.
7.2.3. Competitors shall not collaborate in any way unless members of a pair or group competing together.
7.2.4. Individual competitors shall not intentionally run with, or behind, other competitors in order to profit from their skill.
7.2.5. Competitors shall follow any reasonable instructions given by race officials and behave in a courteous manner towards such officials.
7.2.6. Competitors shall not enter ‘out of bounds’ areas and shall be liable to disqualification if they do so. Competitors finding that they have inadvertently entered an ‘out of bounds’ area shall immediately leave that area.
7.2.7. Competitors whose right to be in an area is challenged shall stop, explain their presence, comply with any reasonable request (even if this means abandoning a race) and inform the person making the challenge of the location of a responsible official. Competitors shall give an account of the occurrence to a responsible race official as soon as possible.
7.2.8. It is the responsibility of the competitor to check that they receive the correct map when pre-marked maps are used.
7.2.9. Competitors shall not examine, or attempt to examine, their pre-marked map until permitted to do so by a race official.
7.2.10. Competitors shall be responsible for the clear marking of their own control card at each control site using the marking device provided in the defined manner, even if at some control sites the marking is made by an official.
7.2.11. When a pin punching system is used, a competitor who mispunches at a control site should repunch either in a reserve box provided for this purpose, or in the highest numbered box if this is not used on that course. The competitor is responsible for reporting the facts to the finish officials.
7.2.12. Competitors shall make use of any crossing points that have been notified to them as
mandatory by the Organiser.

7.2.13. Competitors shall follow in its entirety any compulsory route, including that leading from the start or to the finish of the course.

7.2.14. Competitors who have finished are not entitled to re-enter the competition area.

8. THE EVENT

8.1. Start Times

8.1.1. At Divisional level events and above no competitor shall be timed to start within one minute of another competitor on the same course and five minutes between competitors from the same unit or team, with the exception of:

8.1.2. mass start events such as relays;

8.1.3. chasing start events, where start times are determined by previous results.

8.1.4. At Army level events, competitors late for their starts through no fault of the Organiser shall be permitted to start. The start official shall determine at what time they may start, giving due consideration to the possible influence on other competitors (such as any requirement for seeding). The competitors shall be timed as if they had started at the time given on the start list. However, their actual start times shall be noted for use in any possible subsequent complaint.

8.1.5. At other events, the Organiser may change the start times of competitors late for their starts through no fault of the Organiser. In such cases Rule 7 shall be observed.

8.1.6. Competitors who are late for their start time through the fault of the Organiser shall be given a new start time.

8.2. The Start

8.2.1. The position of the centre of the start triangle (including the start triangle on second and subsequent maps) shown on the map shall be on a mapped feature and identified on the ground by a control banner.

8.2.2. If pre-marked maps are used, copies of the map showing no information other than any map corrections essential to the event should be displayed and available for study before the start line.

8.2.3. At individual events, competitors should receive their pre-marked maps not more than 10 seconds before their start time.

8.3. Out of Bounds

8.3.1. Any area for which permission for orienteering has not been obtained, or has been refused, shall be clearly notified as ‘out of bounds’ to the competitor, or shall be clearly avoided by all courses.

8.4. Crossing Points and Compulsory Routes

8.4.1. Organisers shall notify competitors of any relevant crossing points, and whether their use is compulsory or optional.

8.4.2. Compulsory routes shall be marked:

8.4.3. in day events with distinctive markings of colours other than yellow and yellow/black.

8.4.4. in night events with white markings or lights.

8.5. The Finish

8.5.1. The precise location of the finishing line or point shall be clear to all competitors approaching it.

8.5.2. The finishing time shall be measured when the competitor’s chest crosses the finishing line or when the competitor punches at the finish point.

8.5.3. Finish times shall be rounded down to the completed second.
8.6. Results
8.6.1. If an individual start is used (i.e. not a mass start or chasing start) two or more competitors having the same elapsed time shall be given the same placing in the results.
8.6.2. At events with a mass start or chasing start the order in which the competitors cross the finishing line shall determine their position (or their team’s position) in the results.
8.6.3. Participation in a ‘mini mass start’ at relay events shall not disqualify a team unless previous notice has been given that this will be the case. The total aggregate time of the runners shall decide the results of teams involved in ‘mini mass starts’, rather than the finish position as defined in Rule 7.

9. COMPLAINTS, PROTESTS AND APPEALS

9.1. Complaints
9.1.1. Any competitor or official may lodge a ‘complaint’ with regard to any competitor or any aspect of the organisation or planning thought to have materially contravened these Rules or other instructions issued by the Organiser.
9.1.2. A complaint shall be made to the Organiser either orally or in writing.
9.1.3. There is no fee for a complaint.
9.1.4. The Organiser is the adjudicator of a complaint. The Organiser may need to consult other members of the organising team before reaching a decision.

9.2. The Jury
9.2.1. The Jury shall be appointed and act in accordance with Appendix G (Protests, Juries and Appeals).

9.3. Protests
9.3.1. A ‘protest’ can only be made against the Organiser’s decision with regard to a complaint.
9.3.2. A protest shall be made to the Controller, in writing, and shall be accompanied by a fee of £5. The fee shall be returned if the protest is upheld.
9.3.3. Any protest shall be made as soon as possible after the occurrence that forms the subject of the protest. If such protest concerns a matter arising from the publication of the final results, a postal protest may be made within 21 days of the results being posted.
9.3.4. On receipt of a protest the Controller shall notify the Organiser. If they agree with the protest they shall take the appropriate action.
9.3.5. If they do not agree with the protest they shall convene the Jury, or in the case of a postal protest, notify the Jury members of the protest together with any other relevant information.
9.3.6. The Jury shall deal with any protest referred to them in the appropriate manner.
9.3.7. The Jury shall meet as soon as possible after receipt of a protest except in the case of a postal protest when they should consult together as they see fit and notify the Organiser as soon as possible.

9.4. Appeals
9.4.1. An ‘appeal’ can be made against the Jury’s decision with regard to a protest.
9.4.2. All appeals shall be made within fourteen days of the decision of the Jury being announced or communicated to the persons making the protest.
9.4.3. For Army level events, the appeal shall be made to the AOA Committee.
9.4.4. For Divisional level events, the appeal shall be made to Divisional Chair via the secretary. It may be referred to the AOA Committee for a decision.
9.4.5. The appeal shall be heard and decided by the appeal body at the earliest opportunity.
9.4.6. The decision of the appeal body shall be final.
GUIDANCE FOR EVENT PLANNERS

1. **Introduction** This Annex provides guidance to planners, and defines the levels of technical difficulty which are used to specify course standards. It includes advice on best practice that was previously incorporated in the Rules.

2. The key planning objective can be seen as producing demanding yet enjoyable courses that meet the defined requirements for a given event.

3. This Annex does not attempt to replace proper training and previous experience. All planners are encouraged to read relevant literature (such as the BOF Course Planning Handbook) and to attend the AOA Planners courses in order to gain the experience an understanding necessary to plan suitable courses.

**PLANNING COURSES**

4. **Technical Difficulty** The technical difficulty of a course is based on the skills needed to successfully complete it. The aim of Planners should be that the courses at an event show clearly the progression of technical difficulty, with each course providing the correct level of technical and physical challenge. The specification of each level of technical difficulty is included in section 4.

5. A course of a specified technical difficulty should satisfy the criteria in each of the areas shown in this Annex.

6. The technical difficulty of a course is that of its hardest component. For example, a course is of technical difficulty 3 even if it has just one element at that difficulty, even though the rest may be easier. However, a well-designed course of technical difficulty 3 will have most, if not all, of its elements at that difficulty.

7. It is recognised that many orienteering areas in Great Britain do not allow courses of the higher technical difficulties to be planned on them. In order to allow events to take place whilst still adhering to the Guidelines a compromise has therefore to be accepted. In such areas Planners must plan at the correct level as far as the terrain allows. For example, if the area only allows courses with a technical difficulty up to 4 to be planned, then those courses requiring technical difficulty 1, 2, 3 and 4 can be planned exactly to the Guidelines. Those courses specified as requiring technical difficulty 5 should then be planned at technical difficulty 4, accepting the fact that they will be less than ideal but the best that the terrain will allow.

8. **Physical Difficulty** The nature of the terrain over which the competitors will be running should be considered for all age groups. Areas of dense undergrowth (e.g. rhododendrons) or which are difficult underfoot (e.g. boulder fields), do not test the orienteering skills of 'running navigation' and so should be avoided. Steep descents, whilst acceptable for M/W21, should be kept to a minimum for juniors and seniors. Features such as fences which may provide significant obstacles for younger competitors or less agile age groups should be taken into account.
9. All courses should avoid offering route choices that may tempt competitors into physical danger.

10.**Deciding how long the courses should be** For Army Level events and Divisional Championships, the required lengths of courses are defined in terms of competitors' times. In general, the most reliable approach is:

a. Decide on an appropriate length for a theoretical M21L course as a base;

b. Use the course length ratios given in Table 1 to calculate the required lengths of all the other courses. (The course length ratios have been calculated from the results of a large number of events over several years.)

11. Various methods for deciding on the length of the base course are available; all have their pitfalls. The main methods are:

a. Comparison with previous events. Often the most reliable method - most British areas have already been used for orienteering; even new areas usually have similar terrain locally with which they can be compared. Points to watch:

   i. was the entry representative, or were all the good runners elsewhere?
   
   ii. runnability changes as vegetation matures;
   
   iii. undergrowth has more effect in the summer/autumn;
   
   iv. was the planning for the previous event unusual in e.g. the amount of climb or track running required? If the problem is climb, calculate a 'corrected' (i.e. flat equivalent) length by adding 1 km to the length for every 100 m of climb – and remember to remove it again when you plan your own courses.

b. Test running – planning a course and then running it. This is often difficult to interpret, as

   i. navigating to a feature is generally much easier in an event, when there is a flag on it;
   
   ii. running solo tends to be slower than running competitively.

12. Applying the course length ratios – points to watch for:

a. M21 probably uses the whole area. The shorter courses use only part of it, and this might be more or less runnable, or steeper/flatter, than the average;

b. rough terrain has a greater effect on the running speed of younger and older competitors than of M21s;

c. older competitors are significantly affected by steep terrain, particularly downhill

d. older competitors find dense tree growth more of an obstacle – suppleness decreases with age;

13. There is no magic formula for allowing for these variables.
14. Do **not** try to adjust the course length to cater for the expected quality of the competitors, e.g. by making a particular course longer because you know that some top orienteers will be entering. Similarly, if the running times on a particular course turn out to be longer than intended simply because the quality of the entry was low, this does not mean that the course was planned too long!

15. For Divisional and Unit Level events, the normal lengths of courses are as given in the table below. Whilst it is possible to go through the above exercise for choosing course lengths based on M21L, it is usually sufficient simply to plan within the range of normal lengths given in the guideline.

<table>
<thead>
<tr>
<th>Army League Course</th>
<th>Civilian Course (Colour-coded)</th>
<th>Technical Difficulty (TD)</th>
<th>Time for Most Competitors (minutes)</th>
<th>Normal Length (km)</th>
<th>Course Length Ratio (M21L = 1.00)</th>
</tr>
</thead>
<tbody>
<tr>
<td>- White</td>
<td>1</td>
<td>15-35</td>
<td>1.0-2.0</td>
<td>0.14</td>
<td></td>
</tr>
<tr>
<td>- Yellow</td>
<td>2</td>
<td>25-45</td>
<td>1.5-2.5</td>
<td>0.24</td>
<td></td>
</tr>
<tr>
<td>D Orange</td>
<td>3</td>
<td>35-60</td>
<td>2.5-3.5</td>
<td>0.28</td>
<td></td>
</tr>
<tr>
<td>- Red</td>
<td>3</td>
<td>45-75</td>
<td>3.5-5.0</td>
<td>0.50</td>
<td></td>
</tr>
<tr>
<td>C Light Green</td>
<td>4</td>
<td>35-60</td>
<td>2.5-3.5</td>
<td>0.29</td>
<td></td>
</tr>
<tr>
<td>- Green</td>
<td>5</td>
<td>45-75</td>
<td>3.5-5.0</td>
<td>0.41</td>
<td></td>
</tr>
<tr>
<td>B Blue</td>
<td>5</td>
<td>55-90</td>
<td>5.0-7.5</td>
<td>0.60</td>
<td></td>
</tr>
<tr>
<td>A Brown</td>
<td>5</td>
<td>65-105</td>
<td>7.5-10.0</td>
<td>0.88</td>
<td></td>
</tr>
</tbody>
</table>

**Table 1 - Course Details for Planning**

**PLANNING AND THE MAP**

16. **Overprinting and Course Drawing** Rule 5.2.1 applies: course markings on the map are to be as laid down in the 'International Specification for Orienteering Maps 2000', section 4.7 (booklet available from BOF Office or to download from the IOF website at [http://www.orienteering.org](http://www.orienteering.org) (go to “Publications: Rules and Guidelines”).

17. The courses and map corrections should be overprinted in transparent PMS purple (red/violet) colour. All line thicknesses should be 0.35mm.

18. The starting point of the course shall be marked by an equilateral triangle of side 7mm which points towards the first control. The centre of the triangle shows the precise position of the start point.

19. The site of each control shall be shown as the centre of a circle of 6mm diameter. The circle should be broken to avoid obscuring important detail. There should not be a dot marking the central point.

20. If the control feature is shown on the map symbolically rather than to scale, the circle should be drawn so that the symbol lies exactly at the centre. For example, this means that if you use the east side of a dot knoll as a control site then the circle should be drawn around the middle of the symbol, not the east side of it.
21. The position of the finish shall be shown as the centre of two concentric circles of diameter 5mm and 7mm. Where a course uses two or more maps with map exchanges then the finish should be shown on all maps.

22. If the controls are to be visited in a prescribed order they shall be numbered in that sequence. The numbers shall be printed on a north-south axis, with the top north, and should be positioned so that they do not obscure any important detail. 4.5mm Arial Bold (18pt) is the preferred font.

23. Control numbers should be positioned so as to obscure as little map detail as possible but close enough to the circle as to avoid ambiguity.

24. If the controls are to be visited in a prescribed order they shall be joined by straight lines. These lines should be broken to avoid obscuring important detail, diverted to meet up with compulsory routes, broken or diverted to indicate compulsory crossing points, and broken or diverted to avoid lakes, ‘out of bounds’, or other areas that cannot be crossed by competitors.

25. Any part of the course where the competitor is obliged to follow a compulsory route shall be clearly and precisely indicated on the map by a dashed line.

26. Forbidden routes (e.g. busy roads, railways) shall be shown by a chain of crosses.

27. Uncrossable boundaries (ones which it is forbidden to cross) can be indicated by overprinting the mapped feature with a solid line.

28. Crossing points shall be indicated by curved brackets.

29. The dimensions of the course overprint symbols on 1:10,000 (or larger scale) maps should be as defined in 3.1.3, 3.1.4, and 3.1.5. However, for competitions in which both 1:10 000 and 1:15 000 maps are used, the size of the symbols on the 1:10 000 maps may be 150% greater than on the 1:15 000 maps. Factors to consider:
   a. Symbol enlargement allows the control descriptions to be the same on the 1:15,000 and 1:10,000 maps if both are used at the same event.
   b. Some courses, such as White, and some types of event, such as Sprint races, may have controls relatively close together. Enlarged circles might overlap to an unacceptable degree.
   c. Hand overprinters generally do not offer the option of enlarged symbols.

30. Editing, which will also include the breaking of control circles and connection lines, should be an important part of the process of preparing the overprints. Time should be allowed for this in the planning timetable. It is important that competitors should be able to identify their courses.

31. If pre-marked maps are not printed on waterproof paper they should be protected by a sealed plastic covering of at least 250 gauge (or a heavier gauge if the map unit size exceeds A4) prior to issue to competitors.

32. Map Corrections. If corrections have to be made to the map, an adequate number of maps detailing the ‘map corrections’ shall be made available.

33. Map corrections shall be shown in a colour contrasting with the rest of the map, and
shall include a written indication of the type of correction. The total number of corrections shall be stated, and the corrections serially numbered.

34. Competitors shall have the opportunity to receive their maps, and make any necessary corrections to them, at least 30 minutes before their start times.

35. If pre-marked maps are used, copies of the map showing no information other than any map corrections essential to the competition should be displayed and available for study before the start line.

36. **Master Maps** Rule 5.4 applies.

37. If the master maps are displayed in the open, both the master maps and the area in which they are copied should be adequately protected from the weather.

38. Each master map should be mounted on a board or other firm surface large enough to provide a base for the competitor's map.

39. The number of master maps provided should be sufficient to cope with the likely number of competitors copying them at any one time.

40. Master maps for different courses should be clearly distinguishable by approaching competitors.

41. **The Start** The position of the centre of the start triangle shown on the map shall be on a mapped feature and identified on the ground by a control banner. For TD1 and 2 courses this feature will need to be a path or similar feature; also it should not be at a junction, as this would require the beginners to decide which way to go without knowing where they have just come from.

42. Where a map exchange or a 2nd set of master maps are used the position of the start of the next section of the course shall be marked on the ground by a control banner if it is a significant distance away from the previous control site.

43. The position of the start and the map issue point or master maps should be such that competitors waiting to start cannot see the route taken by competitors who have started.

44. The courses should be designed so that competitors are unlikely to return past the timed start on their way to the first control site.

45. **Control Site Layout** The control banner should be visible from all directions of approach unless the control description indicates otherwise. Control banners should be sited so that the absence or presence of another competitor does not affect the difficulty of locating the control.

46. Sufficient marking devices should be clearly visible and easily accessible from the control banner.

47. Marking devices should be positioned in such a way that competitors may endorse a control card attached to any reasonable part of their clothing.

48. At competitions of Divisional Level and above, the layout of the control banner, control code and marking devices should be the same for all controls. A model control should be displayed at the pre-start.

49. **Measurement of Distance and Height Climb** Course length is measured as defined in
rule 6.1.2, and quoted to ± 0.1km (e.g. 5.5km, not 5.50km). This is the shortest route which a competitor could possibly take, irrespective of whether or not the competitor would be sensible to do so.

50. Height climb is measured as defined in rule 6.1.3, and quoted to ± 5m. That is, it is measured "along the shortest sensible route", which may well be longer than the route used for measuring the course length. This is not necessarily the "optimum route", nor is it necessarily the route which the planner would take: it is simply the course length route extended to avoid those hills/valleys etc which all competitors will also avoid. The intention is to give a figure which is representative of the climb which a competitor could actually undertake. As a rule of thumb, if a competitor will go over it, count it in; if you're not sure whether they'll go over it, count it in – only discount it if you are certain that all the competitors will go around it.

51. **Proximity of Controls** Rules 6.2.3 and 6.2.4 allow some flexibility in how close together controls can be sited. This should be used with caution, it must always be possible for a competitor to decide from the map which control to go to without needing to rely on the control code, and to do so quickly. If you are going to infringe either limit, you will need a good reason which you are able to justify to competitors. Remember also that it may be necessary to allow for a little drift in the positioning of the circle on the overprint, and that in a detailed part of the map there may be some distortion in order to fit the symbols into the space available – if in doubt, measure the distance on the ground.

52. There is usually little point in putting controls closer than 30m apart – competitors are, in effect, navigating to the same point. An exception might be e.g. when one control is on a point feature, used by a technical course, the other on a path junction on a yellow course.

53. The 60m limit will be breached more often, e.g. when two successive decision points come close together on a white course (but this will require the circles to overlap even at 1:10 000, so consider taking the course elsewhere particularly if the course is not being overprinted).

54. Be pessimistic when interpreting 'features which appear similar in the terrain', e.g. paths and rides are obvious ones not to mix, but some vegetation boundaries have faint paths along them (or develop them as an event takes place). 'Similar features' does not just mean those mapped with the same symbol: it is not fair, for instance, to use both a fence and a ruined fence. Neither is it acceptable to claim that e.g. 'boulder (2 m) NE side' and 'boulder (1 m) SW side' are different: they are both **boulders**. Other combinations to avoid include

   a. • stream/ditch/linear marsh

   b. • depression/pit/shallow re-entrant

   c. knoll/spur

   d. re-entrant/side of a spur

   e. re-entrant/a feature (e.g. a marsh) in a re-entrant

55. Essentially, do not use any close combination of controls which could be confused by competitors.

**DEFINITION OF TECHNICAL DIFFICULTY**

56. **Definitions of Terms**
a. **ROUTE CHOICE**: The option of taking more than one (sensible) route between two controls. This may, for example, be a choice of two different path routes, or one of a long path route versus a direct cross-country route.

b. **DECISION POINT**: A point at which you can no longer continue in the same direction, for example being required to turn right at a path junction. A decision point on a leg does not imply a route choice. There may only be one obvious route between controls, but this could require the ability to change direction at a number of decision points.

c. **CATCHING FEATURE**: A large feature beyond a control which, when reached, confirms to the competitor that he has completely passed through an area of ground. (A catching feature is usually a line feature).

d. **RELOCATING FEATURE**: A distinct feature that may be used by a competitor to relocate his position on the map.

57. **Tables**  
Tables defining the planning requirements for each level of technical difficulty ('TD'), together with the orienteering skills which are to be tested are at Appendix 1 to this Annex.

**COURSE PLANNING**

58. **Introduction.** This chapter describes the principles and method of planning courses for cross-country orienteering events, which constitute the majority of competitions organised within the Army. Although the details may differ, the principles of good course planning are equally applicable to all other types of orienteering event. In every case, the duty of the course planner is to set appropriate, fair challenges for all competitors and take responsibility for every aspect of planning and setting the courses.

59. **The Planner’s Responsibilities.** The Planner is responsible for all aspects of an event between the start and finish lines, including the provision of all equipment necessary for the courses. The Planner designs and lays the courses and prepares the control markers, maps, and control description sheets.

60. **Principles of Course Planning.** The task of the course planner is to create continuous navigational problems for the running orienteer, whilst minimising the part luck plays in any competition. The 4 guiding principles for good course setting, which every planner must keep in mind, are;

   a. To maintain the unique character of orienteering.

   b. To ensure fairness for all competitors.

   c. To provide courses of the appropriate standard.

   d. To protect wildlife and the environment.

61. **Uniqueness.** Every sport has its own character. The unique character of orienteering is the challenge of finding and following the best route through unknown terrain, under conditions of mental and physical stress. This calls for a combination of quick and accurate map-reading, clever route selection, precise navigation, concentration, speed and stamina.

62. **Fairness.** Optimal fairness is demanded in all competitive activities. Orienteering competitions have to contend with more than the average number of ‘fairness factors’. The
course planner must do everything possible to eliminate the element of luck and try to ensure that all competitors meet the same conditions at every stage of the course.

63. **Appropriate Standards.** As with all sports, the purpose of orienteering is enjoyment. Well planned courses will provide enjoyment and encourage participants to try again at other events, but the long-term interest may wane or disappear if courses are not carefully planned. Courses with an inappropriate degree of physical/technical challenge can be off-putting, whether they bore the expert or dishearten the novice.

64. **Wildlife and the Environment.** Wildlife and the environment are sensitive to abuse and must be protected. The planner has the prime responsibility for ensuring that conservation needs are met. Provided that the right precautions are taken and courses well planned, the biggest of events can be organised in sensitive areas without damage to the environment or disturbance to wildlife.

**COURSE DESIGN CONCEPTS.**

65. **The Course.** An orienteering course is defined by the start, the controls and the finish. Between these points, which are marked precisely on the ground and correspondingly identified on the map, are the legs, along which the competitors must orienteer as individuals. The legs are the most important element of an orienteering course and largely determine its quality as a whole. Controls simply identify the beginning and end of the legs. Planners (and controllers) must appreciate, however, that the ‘quality’ of a leg is of relative importance, whilst control siting is an absolute. A single leg that is less than ideal is of little consequence, but a control out of position or wrongly coded spells disaster! The Planner and Controller are ultimately responsible for everything on all courses, good and bad, between the start and the finish.

66. **Legs.** Good legs offer orienteers interesting map-reading problems and lead them through suitable terrain with possible alternative routes. Because good legs are a prerequisite for good courses, the Planner’s strategy should always be to first identify the best possible legs and from them shape suitable courses. The following points should be considered when selecting legs:

   a. **Navigation.** On a good orienteering course the competitors are forced to concentrate on navigation throughout the race. Sections of a course that require no map-reading or attention to navigation should be avoided. The most technically demanding legs require natural, non-linear features to be navigated, especially across intricately contoured land.

   b. **Length.** Provided that the need for careful navigation is retained, long legs are usually the most demanding. A course should contain several long legs which together account for between 30% to 40% of the course length. On a 10km course for example, 3 legs, each in excess of 1km, could be expected. These key legs should traverse some of the most navigationally demanding terrain and provide considerable route choice.

   c. **Variety.** Within the same course, different types of leg should be offered, some based on intense map-reading, others more on route choice. Variations in length of legs and degree of difficulty forces the competitor to use different orienteering techniques and running speeds. Sharp variations in terrain and marked changes in course direction can also be challenging.

   d. **Route Choice.** The course planner should set legs that offer the competitors various alternative routes from which to select those best suited to their skill
and physical ability. No leg should contain route choices that give any advantage or disadvantage which the competitor cannot discern from studying the map. Without route choice, a course of 10 legs has only one route, however if each leg has but two choices, 1024 routes are possible.

67. **Controls.** A control is a compulsory, marked point on the course to be visited by runners who have a free, personal choice of routes to that point. The main function of the control is to form the beginning and end of orienteering legs. Sometimes additional controls are needed, in order to create a better starting point for the next leg, to channel runners around dangerous or out of bounds areas, or to serve as spectator points. The following points should be observed by planners when selecting control sites and positioning markers:

a. **Map Accuracy.** The map must accurately represent the ground in the vicinity of the control, and the direction and distances from all likely attack points should be correct.

b. **Control Features.** Small or indistinct features that are remote from more prominent features should not be selected as control sites.

c. **Siting Markers.** Siting markers where the vegetation or ground shape unfairly restricts their visibility to runners approaching from different directions should be avoided.

d. **Description.** The position of the marker on the ground, with respect to the feature shown on the map, must be indisputable and correctly defined by the control description.

e. **Proximity.** Only when control features are distinctly different on the ground and on the map, may controls for different courses be placed closer together than 50 metres. On no account should more than one marker be placed at the same control site.

68. **The Start.** The following factors influence the choice of the start site:

a. **Observation.** Waiting competitors must not be able to observe the routes chosen by those starting ahead of them. This is sometimes achieved by means of a ‘pre-start’ or by a short taped route from the start line to the ‘start triangle’. The correct use of terrain or vegetation is the best way of masking routes from the start point.

b. **The First Leg.** Except for elite competitors, the first leg should not be too demanding, physically or technically. The competitor should have the opportunity to become acquainted with the map and terrain, whilst navigating to the first control.

c. **Siting.** The Planner must advise the Organiser of the position of the start site, its approximate layout and routes from the assembly area to avoid crossing any courses.

69. **The Finish.** Many activities under the direction of the Organiser (e.g. timing, card checking, downloading ecard, competitor marshalling) must take place near the finish and this influences the choice of the finish site. The planner must ensure the following:

a. **Final Control.** Navigation usually ends when the final control is reached. The last leg and control may be easier than the rest of the course, but should
not be more difficult than the average for the course.

b. **Run In.** The last control should be as close to the finish as possible, but sufficiently far to allow the finish officials to observe and prepare for approaching competitors.

c. **Spectators.** Spectators in the finish area should not be allowed near to the final control, nor should they be able to see the competitors approaching the last control.

d. **Marked Routes.** A marked route to the finish should not unfairly assist competitors to find the last control.

### COURSE PLANNING STRATEGY.

70. **How To Plan.** The secret of good course planning is an ordered sequence of activities. Some jobs can and must be done as soon as the Planner is appointed, others cannot be done until a late stage or until the Controller has completed checking a previous stage. A proper procedure will ensure economy of effort. The novice planner can be deterred by the amount of work involved in course planning. This can be minimised by good organisation and close co-operation with the event Controller.

71. **Outline Of Tasks.** The broad sequence of activities is similar to that for other military tasks. The breakdown of activities, described in the paragraph below, should follow this sequence:

   a. Reconnaissance.
   b. Analysis and outline planning.
   c. Detailed planning.
   d. Event preparation.
   e. Course setting.
   f. The event.
   g. After the event.

### RECONNAISSANCE.

72. **Initial Reconnaissance.** Ideally, the initial recce should be done jointly with the event organiser. The Planner’s aims are to ensure that the area selected is suitable, access to it is assured, the map is going to be adequate and that the possible locations of start and finish are agreed. Until all these are done, it is a waste of time to move on to the next phase. Several areas and several start/finish options may need to be considered within an area, but the Planner should not spend any time planning individual courses until the likely start and finish areas are agreed. Normally, the Planner should propose sites for both areas, and the Organiser needs good logistic reasons to reject the Planner’s choices.

73. **Selection of Terrain.** Assuming that access to the area has been or will be granted, the Planner’s recce should identify the best terrain, i.e. ‘appropriate for the competition’. For novices and juniors, superbly technical, Scandinavian-type terrain is probably not suitable. The terrain should offer the target competitor (the average, not the best, expected at the event) good orienteering with variety, interest and challenge. The Planner should also
consult land managers such as the Forester, Defence Land Agent and Conservation Officer at the earliest stage to anticipate changes to the terrain or restrictions in its use that might require map corrections.

74. **The Map.** The Planner is responsible for ensuring that an existing map of an area is suitable for the event. Map corrections can be over-printed with the courses, but if there are too many corrections it will make the competition map hard to read. The Planner must conduct the recce with the latest map available and not proceed to plan until confident that a suitable map can be obtained in time (at least a month before the event). As much of the competition area as possible should be traversed as early as possible, and it is well worth spending 2 or 3 hours with the map in the terrain at an early stage. Planning courses through terrain which has changed greatly since the map was drawn (e.g. through felling, fire, range construction, fencing, etc.) is futile unless it is known that the map will be revised.

**OUTLINE PLANNING.**

75. **Armchair Planning.** The term ‘Armchair Planning’ describes the work of the Planner, away from the area, to draft initial thoughts on possible courses. This is an extremely important stage of course planning but is not a substitute for field reconnaissance. Armchair planning ensures that time spent on site is used profitably, to confirm or adjust course plans which are already theoretically sound. The work described in the following paragraphs can largely be carried out in comfort, before the Planner revisits the area.

76. **Outline Course Plans.** Before finalising the start and finish locations, it is advisable to make a rough plan of the longest and shortest (easiest) courses. Taking control areas as no more than chunks of terrain at this stage, the general shape of the courses should be sketched out to give confidence that planning guidelines can be met within the useable terrain and the general areas selected for the start and finish. Two or three attempts are usually sufficient to complete the outline course plan. Where possible, the Planner should avoid repeating the outlines of courses from previous events held on the area. For this reason, it is useful to obtain overprinted course maps of previous events.

77. **Initial Course Selection.** When the general shape of the longest and shortest courses appears satisfactory, the Planner should consult the Controller before proceeding with detailed planning of controls. None of the initially selected control sites should be given permanent status for an event until they have been visited by the planner.

78. **Control Sharing.** It is sometimes thought that every course has to have its own controls; in general, the opposite is true. Although at national events most control sites will be used by only one course, there is no reason why planners should not let suitable controls and possibly legs be shared by more than one course. The following guidelines are suggested:

   a. Novices should not share controls with courses for experienced orienteers. The tendency for novices to loiter around controls can result in an unfair advantage for those fortunate enough to be attracted by the crowd.

   b. Courses sharing a control should all enter and leave it in approximately the same direction.

   c. No more than two successive legs should be common to two different courses.

   d. Control loading’ should not exceed an average rate of more than two competitors per minute (except for first and last controls, drinks points, map
exchanges and road crossings).

DETAILED PLANNING.

79. **Provisional Course Design.** Bearing in mind the above guidelines on control sharing and proximity, and the general principles of course design, the next and most valuable set of guidelines for detailed course planning are those for different standards of target competitor. BOF have published sets of guidelines for all classes of competitor for their Badge and Colour-coded events. The standards of AOA Championships are set out at Annex A to Chapter 7, and relate directly to BOF course guidelines and standards. Planners should follow these guidelines for physical and technical difficulty to design courses for a set winning time for the target competitor, rather than set course distances that seem ‘appropriate’. BOF colour-coded standards should be used as a guide for Army league and training events. (See Annex C to Chapter 7).

80. **Height Versus Distance.** A major factor determining the competitor’s time on a course is the amount of climb. The BOF Guidelines states that the height gain (measured by the optimum, not the straight-line route) should not be more that 5% of the straight-line course distance. Military competitions may, where justified, exceed this, but enforced climbing is not good orienteering and a quick count of contours at the detailed course design stage is essential. As a rule of thumb, every 10 metres of climb adds one minute to the time for a fit competitor on a senior course. Continuous climbing of more than 50 metres should be avoided.

81. **Detailed Control Siting.** Although it is impossible to conduct Armchair Planning and provisional course design without tentatively identifying control circles on the map, final control siting can only be done on the ground. Almost the last and most essential task in the detailed planning stage is to visit every provisional control site. Sites should be approached as would the competitors, which can mean several different approaches from all likely attack points on all courses that use the control. The control feature on the ground must be equally obvious from every approach, unless the control description says otherwise, and the feature should be visible to the competitor without the aid of a control marker. Controls must not be sited on unmapped or badly mapped features. If the Planner is unsure whether a feature on the ground is the one centred in the circle on the map, then it is likely that the competitor will be less sure. If in doubt, the control must be moved to a more positive feature nearby and, provided that the leg is good, it is usually possible to do this without loss of quality. When thoroughly satisfied with the site selected, it should be taped so that it can be found again easily by the Controller or another member of the Planner’s team. A list of control features with written descriptions is given at Appendix 1 and symbols at Appendix 2.

82. **The Controller’s Preliminary Check.** When all the control sites and other fixed points on the courses, such as the pre-start, start, finish and compulsory crossing points, have been visited and taped by the planner, a clean, carefully drawn set of preliminary maps for each course must be done on the ground. Each course should come complete with a draft description list, and it is advisable that the Planner keeps a copy of all drawings and lists. For events with few courses, control codes may not be required at this stage, but qualifying description (e.g. ‘south side of …’) should always be included. To assist the Planner and Controller, it is advisable to prepare a ‘master control map’ and ‘control matrix’. A master control map shows all controls of all the courses and the control matrix lists all controls with their descriptions. These aids are virtually indispensable on the day of the event and most useful during the preparation of controls. The Planner’s request for the Controller to carry out the first independent check should include some general notes, highlighting particular aspects on which the Planner may need advice.

EVENT PREPARATION.
83. **General.** While the Controller is checking the preliminary courses on the ground, the Planner can turn his thoughts to technical administrative matters. Assuming that the Controller will require few changes, the following jobs can be started, which will save time during the busy period close to the event:

   a. Order the equipment needed for course setting.

   b. Prepare controls.

   c. Write terrain and course descriptions.

   d. Recruit assistant planners.

84. **Stores for Course Planning.** The list of stores needed by the course planner will vary from one event to another. Although it is the Organiser’s duty to obtain all stores (except maps, controls and description lists), the Planner must advise on many items that are needed. (See Annex F to Chapter 5). The Planner is wise to obtain control numbers as soon as possible, i.e. as soon as the detailed planning is completed. The Planner and Organiser should go through the equipment list together at least a month before the event. The following points deserve particular attention:

   a. **Control Codes.** Controls that are close to one another, but on different courses, should have distinctly different codes, especially if the control features are similar (e.g. ‘BD’ and ‘BO’ or 151 and 121 can be mistaken for one another, when viewed upside-down). Unmarked flags, with codes on separate cards attached to the flag post, are best because siting controls is quicker with plain, interchangeable flags.

   b. **Electronic Controls.** If using an electronic system such as EMIT or SI then ascertain where the system is being provided from and what the control numbers will be. If EMIT controls are used be aware they should be placed with the open end facing the feature, or away from the optimum approach route. If using SI be aware that the control numbers will need to be programmed along with the wake up and switch off times, the batteries will need to be fully charged and arrangements must be made to put out the batteries on the morning of the event if controls have been sited the day before. EMIT control numbers are fixed and can be placed out days before, if the area is secure. The planner and controller should carry ecards to check controls in situ. The control flag is usually hung from the control, which will also be displaying the control number.

   c. **Conventional Punches.** Punches are purchased in sets of 10, each with a different code. Two different sets are available, giving 20 possible control codes. The Planner must ensure that punches are allocated to controls in such a way that adjacent controls all have different punch codes. Controls may be vandalised or stolen on the day and one punch code should be held in reserve as a replacement. Every control should have 2 identical punches, but busy controls (i.e. shared by 2 or more courses) may need 3 or more identical punches.

   d. **Control Hanging.** Flags and punches can be hung in several ways; whatever method is used, the rules for control hanging given in Chapter 10 must be observed. When taping a control site it is advisable to note the site conditions (e.g. overhanging branches, fence posts), because it may be possible to hang the control flag and/or punches without bringing in posts.
e. **Preparing Control Sets.** Valuable time can be saved by the careful preparation of stores for control sites so that each site can be marked quickly and correctly. The strings carrying punches have a maddening way of entangling themselves in knots and punches can easily be detached during carriage through the woods. Cold hands combine to further exacerbate a planner’s frustration and cause more delays. The solution simply involves the use of adhesive tape or elastic bands to hold the punches onto the flag stakes. It is essential that the markers on each control are identical and the codes are correct, as per the master list. This work can begin as soon as the Controller has approved the list and the Organiser has supplied the stores.

f. **Pre-event Details.** Competitors need to be given certain information in advance of the event day and which the Controller will expect the Planner to provide for pre-event publicity. The following will be required:

- **Map.** Scale, size, whether bagged and/or sealed, year of survey, number of colours and any unusual specification features (i.e. special symbols).

- **Terrain.** General nature, ruggedness, runnability, visibility, seasonal variations (e.g. ‘water features are mainly dry’).

- **Courses.** Type and length (approximate).


85. **Description List.** The rules for preparing the description list are given in Chapter 10, paras 1044 and 1045. For all Championships and most league events, IOF pictorial (i.e. not written) should be used, and also when non-English speaking guest competitors are taking part. A typical written description list is shown at Appendix 1, and Appendix 2 shows the full IOF specification for pictorial description list, with examples. The final description lists cannot be prepared for duplication until the Controller has approved the courses and checked the control descriptions. Control descriptions may be overprinted with the courses, but they are usually provided separately because competitors like to be able to either transfer the descriptions onto their control card before they start, or secure them on their wrists if electronic punching. This is the case for most Army events.

86. **Computer-assisted Course Planning.** Computer applications such as OCAD, Picover and Condes are now available which can assist the Planner in many aspects of event preparation. These include description sheets (written or IOF), stores lists, punch code allocation and control set preparation. Details are available from BOF or the AOA Technical Advisor.

87. **Map and Course Printing.** With the modern use of computers map overprinting does not generally take place anymore as maps are printed with courses overlaid. Map printing should be done by local reprographic resources where possible at public expense, otherwise by one of the many civilian printing firms that exist at non-public expense. Computer-generated maps and courses are now normal for BOF Regional events and above and for all AOA championships, and their production is a valid charge to the competition budget. The Planner will need to find out entry numbers from the Organiser so that the correct number of maps are prepared. The planning schedule must allow time for the Controller to check every competition map, ideally before the maps are bagged and sealed. Chapter 10, Para 1036 refers.

88. **Map Bagging.** Non-waterproof maps must be bagged and sealed with the description
sheets before issue to the competitors at the start. This is a time-consuming task, best carried out by a production line team, which should include the Planner and those assistants not intending to compete in the event. A heat sealer or non-magnetic staples have to be used to seal the bags or attach description sheets to maps, so as not to affect lightweight orienteering compasses.

89. **Map Corrections.** If applicable the Planner must prepare maps with corrections for competitors to see before they start (Chapter 10, Rule 42). Copies of the competition map should be made available in the pre-start area, showing those corrections essential to the competition (Chapter 10, Rule 39).

**COURSE SETTING**

90. **Course Laying.** Although the Controller will have previously checked all courses and controls, the Planner, Controller and any assistants should between them visit every control site the day before the event. Recent changes to the terrain can then be included in a ‘final details’ sheet for issue to competitors. While visiting sites it will be possible to put out most of controls, thus saving a great deal of time on the morning of the event. Only those controls on paths or near habitation should be left until event day.

91. **Control Hanging.** It is the Planner’s duty to ensure that every control is hung in accordance with the rules. The precise position and height of all control flags must be checked the day before or, for the final few, on the morning of the event before any competitor starts. The control must be on the feature precisely as described in the control description and visible from all directions of approach, unless the description indicates otherwise (e.g. for ‘knoll north side’, the flag need not be visible from the south).

92. **Taping.**

93. Out-of bounds areas, dangerous crags, mandatory road crossing and other parts of the competition area that require marking, should be taped the day before the event.

94. Tape used to mark control sites, etc for the Controller’s preliminary check should be removed at the same time that controls are hung out.

**THE EVENT**

95. **Final Checks.** Every control must be visited before the start of the competition, not just to confirm that the flag is hung correctly, but to check that control codes are clearly visible, easily accessible, secure and serviceable. The Planner must report to the Organiser and Controller when this is complete, which should be at least half an hour before the first start.

96. **Course Checking.** A more time-consuming, but optional means of checking the whole competition area can be achieved by test-running the courses. Providing that all of the control markers have been sited and checked the day before the event, the Controller, Planner and assistants can each run one or more of the courses. The main advantage of this method is that the terrain between controls is given an up-to-the-minute check and, as a spin-off, if using conventional punches the master control cards are produced for use by the results team.

97. **Start and Finish Areas.** The Planner should supervise the setting up of the start and finish areas by the Organiser’s team. If the start triangle does not coincide with the start line, streamers must be led between the two locations. Streamers from the last control(s) to the finish line, and to any other points on the course, such as road crossings, should not give unfair advantage to competitors who happen to approach from a particular direction.
98. **Patrolling the Event.** Having reported to the Organizer and Controller that the courses are ready for the competition to commence, the Planner must remain alert and be prepared for the possibility that controls may be vandalised. This risk should have been discussed in advance with the Organizer and counter-measures considered, especially for championship events. Mischiefous local children, family groups collecting curios, antagonistic local residents and even disgruntled competitors, have all been known to damage or remove controls during the course of an event. The most vulnerable controls are those nearest paths and habitation, but vandals sometimes deliberately stalk the Planner or competitors to a control site. The best counter to the threat on vandalism is active patrolling. Non-competing soldiers can be a useful deterrent to vandals, especially if in uniform. Controls are most vulnerable early and late in the competition, when there are few runners to disturb vandals. At championships, patrols and key event officials should be equipped with portable radios. The Planner should keep with him a few spare control flags and punches in order to provide a rapid response to stolen items. For this reason, the Organizer and Controller must know the Planner’s whereabouts at all times.

**POST-EVENT ACTIONS.**

99. **Collecting In.** In conjunction with the Organizer, who should supply vehicles and personnel, the Planner is responsible for collecting in all stores from the competition area as soon as possible after the courses close. Equipment should then be sorted, cleaned and returned to the Organizer, notifying him of any losses.

100. **Planner’s Report.** For any event, but especially a championship, it is essential that the Planner writes a ‘PXR’ for the file. A report provides invaluable help to future planners wishing to use the same area for a similar competition. The report should include a full set of courses and as many helpful tips as possible, covering what went right and what did not. A brief report should also be given to the Organizer for the final results brochure.

**SPECIAL SITUATIONS**

101. **Crossing Restrictions.** Courses must sometimes pass through or around restricted areas, such as road or stream crossing points, private or protected land, dangerous areas or impenetrable terrain. These areas are best catered for by placing a control just before the restriction and taping a route around for the competitors to follow. Sometimes it is possible to avoid a taped route by using an obvious handrail such as a path, fence or stream, but there must be no likelihood of competitors crossing into the restricted area.

102. **Small Areas.** If large areas of suitable orienteering land are scarce, it is not necessary to resort to repeatedly using them for events. Small areas of land can provide good orienteering, suitable for championship events, given imaginative curse planning employing cross-overs, manned controls, map exchanges or second master maps. By these means, small areas can produce courses of sufficient length and challenge, provided that the requirement for good navigation is maintained. With the advent of electronic punching this has been made a lot easier, but if still using conventional controls the following tips may help:

a. **Crossovers and Manned Controls.** When a course has legs which cross or when the natural route between successive controls passes close to other controls on the same course, competitors may be tempted to cheat, by taking controls out of order, thereby reducing the length of the course. Sometimes a minor change to re-position one control or insert an extra control can prevent this, otherwise it will be necessary to man one or more control. The mere threat of a manned control is normally enough to deter cheats, but, if the
advantage is great and the competition important, the cheat must not be
given the opportunity to try and bluff the Jury. The official assigned to this
duty must be properly briefed to check control cards of all competitors before
they punch at that control and must know what constitutes an invalid card and
what action to take. Usually, the official will punch the competitor’s card after
checking its validity.

b. **Map Exchange.** Where a course of suitable length can only be fitted into an
area by twice employing the same piece of terrain, numerous controls would
need to be manned and the competitor’s map would become cluttered and
confusing. The answer is to deny competitors knowledge of the second part
of the course by either exchanging pre-marked maps at a map exchange or
employing a second master map when a master map system is operating.
The map exchange solution is preferable for championships, but involves
preparing twice as many sets of pre-marked, bagged maps. Usually, a short
taped route is laid out from the last control of ‘part 1’ to the map exchange or
second master map site. The Planner should ensure that this site is not
visible to competitors approaching the control. Alternatively, a large
depression can double as the map exchange point and control site. The ‘part
2’ description sheet can either be combined with ‘part 1’ and issued at the
start, or issued at the second master maps. The Organiser is responsible for
the manning of this point, not the Planner, and control cards need not be
checked. Full details of the procedures to be followed must be provided by
the Planner for inclusion in the event ‘final details’.

103. **Night Orienteering.** Orienteering at night was once the preserve of military
orienteers but is now equally popular with civilian clubs. The AOA encourages night events
at unit, league, formation and Army level. For the Planner it is usually necessary to make
some concessions to night conditions, such as:

a. **Terrain.** At night, orienteers become far more dependent on accurate pacing
and compass work, therefore open, featureless terrain must not be used.

b. **Easier Legs.** Increased use of line features for navigation and shorter leg
through intricate terrain.

c. **Obvious Control Features.** Small features, far away from line features,
should not be used for control sites.

d. **Control Flags.** Luminous strips and/or red lights can be used if semi-tactical
conditions are desired, although normally the control markers are the same
as for daytime orienteering, but may be hung higher.

e. **Safety.** More care has to be taken with taping of hazards and avoiding roads
or other dangerous obstacles.

104. **Relay Events** Relay events are designed for teams of 3 or 4 competitors, who in
turn run one of a number of similar, cross-country courses. The courses are set short and
run close to one-another, with many shared controls, in order to create an exciting, racing
tempo for the competitors and spectators. The competitive nature of the courses forces
competitors to run faster than usual, stretching their navigational skills and increasing the
risk of errors. To achieve the sense of racing, Planners of relay events need to produce
‘punchy’ courses, with shorter legs and more controls, preferably sited in intricate terrain.

105. **Harris Relay.** The Harris Relay is a solely military event and requires that the team
successfully plans and executes a strategy for collecting all of the controls on the map. The concept is that all of the team members must collect all of the mandatory spine controls in any order. The spine will normally be between 7 and 12 controls in a circular route from he start back to the finish. There will be another 20-30 controls placed at varying distances from the spine. The rest of these controls are allocated amongst the team members as part of the planning process after the start but before departing the start area. Stronger orienteers will collect more controls and the less competent orienteer will only collect the spine controls and a few more that are close to the spine. If any spine controls are missed the team is normally disqualified and if any other controls are missed a time penalty is awarded.

106. **Spectators.** Spectator appeal is an essential ingredient of relays and must be planned for at the outset. A suitable ‘arena’ must be selected, that provides spectators and waiting competitors a grandstand view of the mass starts, approaching finishers and the change-over area. A ‘spectator’ control, shared by all courses, close to the admin area but 2 or 3 kms from the end of each course, will further add to the excitement of the race and provide greater warning to waiting team members of their impending change-over. Radio contact with a control on the courses and with the final control can also help raise the level of excitement and improve the control of the event. When designing relay courses and especially the hand-over area, it is important that the Planner keeps in close liaison with the Organiser, who will be responsible on the day for making the Planner’s ideas work.

107. **Systems.** There are many relay systems from which to choose and each has it’s advantages and draw-backs. Simple systems are less problematic for the Planner and Organiser, but lead to competitors following one-another; as the complexity is increased, following is reduced, but the probability of organisation/planning mistakes increases. Described below are examples of the two extremes based on teams of 3 runners:

   a. **Simple Relays.** The planner lays 3 separate courses and sorts the maps into different orders for each team of runners, i.e. ABC, BCA, CAB etc. In this way, only one-third of the teams run on each course leg. This simple arrangement is suitable for unit events, but is likely to involve excessive following and should not be employed at major events. By simply placing one common control at approximately the half-way point, the planner can increase the permutation of course combinations from 6 to 9. With more common controls the permutations increase, but so does the risk of an error in map over-printing, etc.

   b. **Complex Relays.** Here the Planner sets one basic course, but at the same end of most of the legs several controls are laid, not one. This system obviates incessant following, but makes course planning very difficult because slight variations in control sighting can make legs easier of harder. The only way around this is to ensure that all teams cover all legs within the courses. The most complex relays involve both multiple and common controls in combinations, which though difficult to plan, provide race appeal with minimal following.
## Technical Difficulty Levels

<table>
<thead>
<tr>
<th>TD</th>
<th>AOA &amp; BO Courses</th>
<th>Routes and route choice</th>
<th>Numbers of controls</th>
<th>Control sites</th>
<th>Relocation and cost of errors</th>
<th>Skills required (letters refer to the ‘BO Step by Step’ skill categories)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>AOA – NA BO - White</td>
<td>Route all along tracks and paths. No route choice, including at the start banner.</td>
<td>Controls reasonably close together (200m maximum). A control at every Decision Point.</td>
<td>Paths, tracks – junctions, crossings and bends. Features on paths e.g. bridges, gates, to give variety to the control descriptions. The banner and punches at a control should be sighted in the direction of the next control.</td>
<td>Should not be required.</td>
<td>Understand map colours and commonly used symbols. (A) Orient the map using compass and terrain. (A) Orienteer along tracks and paths. (B) Make decisions at ‘Decision Points’ identified by a control site. (B)</td>
</tr>
<tr>
<td>2</td>
<td>AOA – NA BO - Yellow</td>
<td>Route all along obvious line features such as tracks, paths, fences, walls, rivers, large ditches and very distinct vegetation boundaries. No route</td>
<td>Controls fairly close together (350m maximum). Leg lengths should not vary greatly. A control is not needed at every Decision Point, but</td>
<td>On the line feature along which the competitor is travelling. Obvious other features close to, with the banner visible from, the line feature, e.g. knolls,</td>
<td>Generally should not be needed, but can be done by retracing the route along line features.</td>
<td>Orienteer along obvious line features (handrails). (C) Make decisions at a ‘Decision Point’ without the assistance of a control to identify it as such. (C) Leave a line feature to go to a visible control site near to it, then return to that line feature. (D)</td>
</tr>
<tr>
<td></td>
<td>AOA – D</td>
<td>BO – Orange/Red</td>
<td>For controls not on a line feature then a route along line features to an obvious attack point should be possible. Simple route choices.</td>
<td>Relatively frequent controls on short courses, less so on longer ones. Legs of different lengths.</td>
<td>Any line feature. Prominent point or contour features, but these should be easily found from an attack point on a line feature.</td>
<td>There should be a catching feature close behind all controls that are not on a line feature.</td>
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</tr>
<tr>
<td>3</td>
<td>AOA – C</td>
<td>BO – Light Green</td>
<td>Significant route choices.</td>
<td>As few as necessary for good planning based on the length of the course. Legs of different lengths.</td>
<td>Any feature which does not require map reading through complex contour detail.</td>
<td>Catching features behind all controls. Errors should not be expensive in terms of time lost.</td>
</tr>
<tr>
<td>4</td>
<td>AOA – A &amp; B</td>
<td>BO – Green,</td>
<td>Significant route choices. Course should force</td>
<td>As above.</td>
<td>Any feature, particularly those demanding careful map-reading to</td>
<td>Control sites far from obvious relocating features.</td>
</tr>
<tr>
<td>5</td>
<td>AOA – A &amp; B</td>
<td>BO – Green,</td>
<td>Significant route choices.</td>
<td>As above.</td>
<td>Any feature, particularly those demanding careful map-reading to</td>
<td>Control sites far from obvious relocating features.</td>
</tr>
<tr>
<td>Blue, Brown</td>
<td>regular changes in technique, e.g. long route choice followed by short intricate legs.</td>
<td>locate – but the banner must not be hidden, nor the control excessively isolated (no Bingo controls).</td>
<td>Errors can result in a large time loss.</td>
<td>spurs. (L) Read and interpret complex contours. (M) Concentration over long distances. (O) Recognition of indistinct features. (O) Use all the different skills and adapt speed and technique to changes in the terrain and orienteering difficulty.</td>
<td></td>
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</tbody>
</table>
CONTROLLERS GUIDE

1. Controllers Role. The Controller is responsible for all aspects of the event and is there to ensure that it is well planned and organised and is also the final authority for all aspects of the planned courses and administration. In particular the Controller is responsible for:

   a. Standards. Ensuring that courses are planned in accordance with this manual and with the guidelines issued by BO. This is particularly important for major events and for events involving juniors and novices. This relates to:
      i. Technical difficulty
      ii. Length
      iii. Physical aspects of the courses
      iv. Aesthetic aspects of the courses

   b. Accuracy. Checking all aspects of the planners work to ensure that:
      v. Course details are correct
      vi. Course descriptions are correct
      vii. Maps are correctly printed
      viii. Controls are correctly placed (location and sighting)
      ix. Courses are checked before the event

   c. Safety. The Controller should confirm that the Organiser has completed a risk assessment and that the Planner has taken safety into consideration when planning the courses. It is the Controllers responsibility to decide on matters of clothing relating to weather.

   d. Preparation. Ensuring that all aspects of the event preparation are adequately covered and completed in good time.

   e. Resolve Disputes. The Controller should be able to resolve most disputes and issues raised by competitors. If not then the Jury will need to be convened.

2. Activities. The Controller should liaise with the Planner and Organiser from the earliest stages to ensure smooth planning. In particular the Controller should:

   a. Agree the outline courses, including the assembly, start and finish locations. Make recommendations for changes and improvements to the course at this stage where necessary.

   b. Agree the confirmed courses and physically check each control site, including the description and approaches. If necessary run each course to confirm guideline times are met. Place (or check) markers at each control site. If necessary ask the Planner to make changes and then go back and check these on the ground.

   c. Confirm that the printing of the maps and description sheets is completed to the required standard and at the right time.
d. Agree the administrative plans.
e. Check the courses once laid to ensure controls have been placed in the correct places, with the right descriptions.
f. Be available on the day to resolve disputes, react to problems and provide feedback for competitors on route choice etc.
g. Write a PXR and ensure that copies of courses are kept for future reference.

3. If all of these guidelines are followed, each aspect of the event will have had at least one additional individual checking them and so there should be no room for error.
1. **The organiser’s role.** The Organiser is one of three main officials appointed by the Unit or AOA to stage an event. From the outset the Organiser will have to co-operate with the Planner and the Controller, but the Controller will spend more time overseeing the efforts of the Planner than the Organiser. The Controller will need to be satisfied that attention is being paid to the safety aspects of the event. However, responsibility for safety issues lies ultimately with the Organiser.

2. Most of the Organiser’s work is done before or after the event. On the day, after satisfying him/herself that the helper teams have no problems, the Organiser should not have any specific job, and must be free to deal with any problem that may arise. It follows that you may need to step in to a vacant role if there is a shortage of helpers! You should try to avoid this by ensuring that you have a few unassigned helpers available on the day.

3. **First Things to Do.**
   a. Ensure that you or the BAOC (on behalf of the AOA) has obtained permissions for the use of the area. Remember that not all land belongs to the MOD and so you may need to approach landowners directly.
   b. Check if there are there any new restrictions/conditions on use? Liaise with the planner about any restrictions.
   c. If you are parking off the area you will need to get permission for this. Remember that even when Permission has been granted owners and locals do like to be kept informed of plans.
   d. Ensure that the BAOC Fixtures Secretary has registered the event with BO and that it does not conflict with any others on the programme.

4. Once permissions are in place, but only then, confirm with the landowner(s) any arrangements already made - YOU are the organiser now. Are there any out of bounds areas, dog bans, tenant farmers, taped routes, shooting interests, lambing? etc. REMEMBER to let the planner know!

5. Publish dog bans in advance, enforce them without exception

6. **Teams of Helpers.** Consider the need for teams to help with:
   a. Car parking
   b. Registration and enquiries
   c. Start
   d. Finish
   e. Results
   f. String course
   g. EMIT registration, download and results
   h. Control collection/search +rescue

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2 Much of the content for this chapter was produced by Harlequins Orienteering club and is included by kind permission of Brian Hughes.
7. Delegate where you can and give plenty of notice to those required to help, particularly in terms of the EMIT and results support.

8. **Finance and Budget.**

9. The AOA Committee has agreed that where possible entry fees for league events will be fixed at £2 per competitor and EMIT hire will be set at £1. For larger events the AOA secretary should be asked to agree entry fees after the organiser has considered known/projected expenses.

10. Financial responsibilities of the organiser are:
   - Administration of car park fees where required
   - Collection of entry fees
   - Payment for First Aid service if required
   - Payment for publicity printing costs

11. The following items are normally funded through units UIN on the basis of military training status:
   - Squash and plastic cups (via unit QM)
   - Additional equipment hire, if any e.g. Toilets
   - Administration of entry fees and results envelopes
   - Payment for printing results
   - Settlement of Controller's, Planner's, Organiser's and Team Leaders' expenses (If required use AOA UIN, details from Secretary.

12. After the event a completed balance sheet and the balance of monies taken should be passed to the unit accountant and a copy sent to the AOA secretary as necessary.

13. The AOA Secretary will settle any BOF event levy.

14. **Publicity and ‘Flyers’**. The BAOC Club Fixtures Secretary will register the Event with BO through the Regional Fixtures Secretary. This ensures that the event is insured (for the non military runners) and will be publicised by appearing in the BO National Fixtures List, where relevant. The event should be included on the BAOC website. In addition it is the organiser’s responsibility to produce handouts, ‘flyers’, for distribution at other events during the run-up to the Event. Flyers should give the following details:-
   - Event description/type (i.e. league/summer series, etc.)
   - Date
   - Area name, location of the nearest town and map reference of car park
   - Travel directions (including where ‘O’ signed from)
   - Map details, e.g. scale, special details, date
   - Type of Terrain
   - Whether electronic punching will be used and if so arrangements for hiring dibbers.
   - Whether pre entry will be possible and how.
   - Courses offered in outline
   - Whether there is entry on the day (if relevant)
   - The closing date for pre entries (if relevant).
1. Registration open from/Start times
2. Course closing time.
3. Entry fees
4. Facilities - toilets, first aid, refreshments, etc. (optional)
5. Whether dogs are allowed
6. If there are dangerous or environmentally sensitive areas to avoid, that these will be taped.
7. Safety statement: "Orienteering in the army is classed as military training and all others take part at their own risk"

15. For Major events, with pre-entry, it would be appropriate to add the following information to the flyer:
   a. “The unit reserves the right to retain all or part of the fees if the event has to be cancelled, to cover committed costs.”
   b. Officials – Controller, Planner and Organiser - name, unit address, telephone number and e-mail address.

16. Maps. The BAOC has a stock of maps of training areas and has contact details for local clubs who have maps of areas that can be used for events. The main POC for maps is the AOA Mapping Officer Hugh Drummond (Tel 01256850199). Increasingly new maps are laser printed for each event rather than large stocks being held. The Organiser should confirm with the planner and the Mapping Officer that sufficient maps will be available and decide who will be responsible for providing them on the day. If maps need printing, such arrangements for printing are usually made by the planner, with advice from the Mapping Officer.

Safety

17. Risk Assessment. A Risk Assessment Form is to be completed by the Organiser as a matter of course. Some landowners or the Training Estate may require a risk assessment form to be provided to them as a condition of access. This is your responsibility but should be done in consultation with the Planner and Controller. An example is given at Annex A.

18. First Aid. The Organiser must arrange for effective First Aid to be available at some suitable location, and a First Aid team to provide appropriate cover. It is usual to use the unit RMO and medical centre, or follow Training Area SOPs, but it may be appropriate to ask the St. John Ambulance to provide first-aid cover for an event, note that St John’s are organised on a county basis, and don’t like upsetting other groups by going out of area.

19. Dangerous Features. These should be taped off with yellow tape: this is the responsibility of the Planner in the competition area and the Organiser elsewhere. Where roads are crossed warning signs for motorists should be put out by the Car Park Team. Traffic marshals may be required.

20. Clothing. The Rules provide for full body cover, but exceptions can be made. If shorts are to be allowed a notice should be put up. On the other hand, extreme weather conditions and/or exposed terrain may require cagoules to be worn or carried, and advance notice of this possibility should be given. In any case checks for correct clothing and whistles should be made before the Start. For a large event only, if the Start is some distance away a clothing dump should be provided or clothing transferred to the Finish or Assembly area, depending on the geography and size of the event. If clothing has to be transferred, carrier bags, appropriate pens and numbered plastic sacks should be provided and the job must be done properly. It can be an arduous task. The Organiser should liaise with other officials to decide who will take responsibility for clothing dump and transfer.
21. **Whistles/cagoules.** The Organiser should decide whether or not to enforce "No whistle, no go" for competitors. If so, this should be clearly indicated to competitors on arrival (information sheet), in the assembly area, and at the point where competitors set out for the start. Whistles should be available for purchase in the assembly area if traders are not present. This can be done by map sales or "Information". If cagoules are made necessary, this should be stuck to even if the weather improves, in order to be fair to all competitors. It is the decision of the organiser whether cagoules are required, or not, though it is sensible to take advice from the controller and planner before making a ruling.

22. **Missing Competitors.** Although people take part at their own risk, efforts must be made to ensure no one is left in the forest. At events with manual punching it is usual to collect stubs at the Start and match them with the control cards of people finishing. At events using electronic punching, a list of competitors who have not reported to the finish can be produced by the Finish Team. Neither system is foolproof - both depend on everyone who starts reporting to the finish. The requirement to go through the Finish is printed on control cards (if used) but also should be emphasised by notices. An additional safety check is to use the "buddy system", with people being reported missing by their travelling companions and people on their own invited to leave car keys etc., clearly labelled, at Registration to ensure they report back.

23. If it seems likely that someone is left in the forest enquiries must be made to get as much information about the person as possible with a view to mounting a search. Be prepared for this (with torches in winter) and ensure sufficient help is available. This might be delegated to the Planner and combined with the team who would collect in controls after the event.

**Links with the Planner**

24. The Planner and/or Organiser need to keep in touch with the Landowner(s) to check on changes which might affect the event, e.g. felling, new tracks, new planting, clash with other activities or other restrictions on use of (parts of) the area. It is the responsibility of the Organiser to liaise with the Planner regarding access to the land for ambulances e.g. provision of keys for gates, suitable roads for vehicles to use, and to tell the first aid team these details.

25. The Planner provides details of the courses and terrain for the advance publicity, and the master maps, map corrections and control description sheets on the day of the event. If the courses cross roads the Planner or Controller may ask for road crossing marshals. Helpers may also have to be recruited for manned controls (Start Team), or drinks points (Finish Team) on long courses in hot weather. These requirements should be passed by the Organiser to the respective Team Leaders.

26. **Police.** Where the event is not on military land, or where large numbers are expected to participate, it is important that you contact them to let them know about the event. The details they will require, which should be confirmed in writing, are: date, location of car park and access routes, likely number of vehicles and competitors, the time frame of the activity, and whether or not there are any road crossings and their location.

27. **Toilet facilities.** If you are fortunate the area being used may have toilet facilities available for our use, most of the Country Parks will have toilets somewhere and many training areas now have permanent sites, however all events will require at least some toilets and these need to be booked well in advance. Remember to give clear location details to the supplier and that most will put them where they choose, not where you want them!

28. **Traders.** For certain events, you may wish traders to attend. The AOA does not maintain a list of accredited traders, however Ultrasport have provided a valuable service to Army orienteering and should be considered in the first instance. Please also check the area details to ensure that there will be no objection to them attending, certain of our areas have restrictions on refreshment sales.
29. **Cancellation.** IMPORTANT!!! If the event has to be cancelled, please advise the following ASAP:
   a. The AOA Secretary
   b. The BAOC Secretary
   c. The BAOC Webmaster

30. **Car Parking.** Arranging parking is one of the most critical jobs in organising an event, and must be done at an early stage in discussion with the Planner. Its siting may influence the start and finish. Car parking fees should be included in advance publicity if they are required. Forest roads can be used, in which case agreement of the Forester will be required.

31. At all times consider telling the "locals" either directly or through the parish council, particularly if the car park is in a village or near to houses. The car park must be looked at to see if:
   a. It is big enough for the expected entry
   b. Whether there is an overflow area for use if more cars than expected turn up.
   c. What will the car park be like in wet weather?
   d. Is there an alternative to fall back on if the first choice is unusable?
   e. Materials should be on hand to deal with mud at the exit.
   f. Will it be better to separate cars from mini-buses?
   g. Is there a need for special arrangements for coaches?
   h. If it can be approached safely from only one direction, travel directions and sign posting will have to be arranged to ensure correct arrival and departure.
   i. If there is only one entrance and exit, which will need to be controlled by a marshal.
   j. Is police help needed if this entrance is from a main road?
   k. Whether competitors will have to use the same gates as the cars: Try not to mix people and cars
   l. What services will be sited in the car park. Decide where registration, first aid, shops will be located.

32. The Team Leader should know the name of the landowner and of any conditions imposed by him, or the police, on the use of the area for parking. He and his helpers should know where the toilets, start and finish etc. are located. They should be prepared for very early arrivals and "nose-to-tail" situations. On the day, people start arriving surprisingly early. Have the direction and other signs out in good time!

33. **Drinks.** Provision of drinks is also the responsibility of the Organiser but can usefully be delegated, depending on where drinks are to be placed (preferably near the Finish), to either the Finish, Enquires or Car parking teams. Two people will need to set it up for a major Army event, one person should be able to keep supplies going after this. Allow a 5 gallon container per 100 competitors in average weather, but 5 gallons container per 80 competitors in hot weather. Usually 20 gallons suffice, fewer if there is an adjacent tap.

34. Put at most 4 litres of squash in 5 gallons and fill with water. Don't mix too much in advance - start with 2 containers. Also provide water only. Cups are available from the store or Equipment Officer. Large plastic bags are needed for the "empties". Note; Keep containers and cups high off the ground - dogs have been known to urinate on them In very
hot weather it may be advisable to provide a water refreshment point on the longer courses.
This will need agreement with the Planner and Controller.

35. **Electronic Punching.**

36. Most technical matters will be dealt by with the EMIT Team Leader. The following
remain the organizer's responsibility

   a. Positioning of the stats caravan/tent, the registration tent and registration car
   (s).
   
   b. Signing clearly the route for competitors through the registration system.
   Check procedures before the event with the Registration Team Leader.
   
   c. Taping the route from the Finish to the download tent.
   
   d. Signing the vehicle exit with a “Have You Downloaded” sign to minimise the
   chance of competitors leaving without downloading.
   
   e. Ensure, by consulting with the EMIT Team Leader, whose responsibility it is
to provide:

      i. EMIT tent
      
      ii. Generator

      iii. Generator repair kit

      iv. Alternative power source, on the day.

   f. Positioning of the EMIT should be as near as possible and integrated with
Registration. Ideally it should also be close to the Finish, to minimize the
possibility of finishers not downloading.

37. **Registration.** The Registration Team are responsible for map sales, EMIT hire,
entries, and enquiries. Registration should be open for business well before the first start
time, especially if there is a long walk to the start. Map sales are usually conducted from a
tent and will need a cash float and supply of maps. They must know the entry fees for
seniors and juniors, and the price of extra maps. They must also know the approximate
distance and time to the start.

38. Do consider the arrangements for helpers, especially those who will be leaving the
registration area early to go to a far distant start or finish. They may want to start their runs
without returning to the registration area. Try and arrange for them to get control
descriptions, cards and maps before they go. They can be allocated available start times at
the start itself. The same principle applies to late shift helpers, who must have the earliest
possible runs, before the main body of competitors.

39. **Liaison with the Planner.** This is probably a good place to emphasise the need to
make sure you get the control descriptions (and the master maps and map corrections, for
that matter) from the Planner. It is no use discovering at this stage that the descriptions are
securely locked in the Planner’s car, but he is in a mad panic putting out controls at the far
end of the area! Yes - it has happened!

40. **Start.** For large events three helpers can normally run the Start quite easily (this can
be reduced to one for league events). One on call-up, another on checking control cards or
checking EMIT dibbers have cleared and whistles (if compulsory) and a third pointing out the
start kite, layout of master maps (if present) and announcing when competitors can start.)
Two shifts are needed if everyone is to get a run. However, if the Start is some distance from
the Finish you will also need a "runner" to periodically take the control card stubs to the
Finish, you may find a few willing juniors who would like this job!

41. For events with master maps you will need a master map layout board displayed. If
the weather is likely to be wet then some sort of shelter should be erected above the master
maps to offer some protection for those marking their maps. The team leader will need to know when the first starts are (and when the last ones are), and whether or not helpers may have an early start.

42. It is the responsibility of the Start Team Leader to mark clearly the approved route from the car park using signs and tapes as appropriate. Ideally this route should not pass through the competition area, but if it has to "OUT OF BOUNDS" signs should be displayed.

43. The start grid can consist of one or two boxes (though some people prefer three) about 3m. square, marked out with tape and with the flip-over clock at one end and the ‘beeping’ start clock at the other.

44. Tapes must lead from the start line to the master map area, and a diagram of the layout of that area must be displayed at the start line. The Planner will have provided 3 or 4 master maps for each course; they should be laid out in groups each clearly marked by course. Most events now however use pre-marked maps and these need to be available in boxes which are marked with the course number. The layout of these boxes must be shown on a diagram at the start box. Blank maps will also be on display in the start lanes, and these can also show any late changes to the map. Ensure whether you or the Planner is responsible for positioning these on the day. Competitors will be called up one, two or three minutes before their start times, depending upon whether one, two or three start boxes are used, with the call-up time being shown on the flip-over clock. Where stubs are being used they will be collected, checked and kept in time order for each course separately. Stubs will be taken to the finish tent at regular intervals.

45. Whistles should also be checked if a "no whistle no go" system is in operation.

46. Times on the control cards should be checked, and a check made that the other details such as name, etc, have been recorded on card and stub - together with car registration number on the stub. On the final start line the starter should indicate the location of the start kite. Where a punching start (electronic) is used, this should be explained to the competitors. It is usual for the starter to advise competitors to 'step over the line' at -10 seconds. The danger periods for the start team are at the beginning and end of the event. At the beginning they will be unfamiliar with the system and so it is a good idea to send 'dummy' competitors through the grid at times leading up to the first proper start time, to help sort out the synchronisation of call-up and start times. Towards the end there will be so few starters that it is easy to lose concentration.

47. Late starters are dealt with by the Team Leader at his discretion, usually passing them through as quickly as possible without disturbing the proper running of the start. The Team Leader should discuss with the Organiser, prior to the event, whether it is practicable to alter competitors start times. If so the control card and stub should be altered using a suitable waterproof pen.

48. Finish and Results. These are critical areas and needs an experienced orienteer as Team Leaders to run them. One of the BAOC tents is usually used as the finish and results and will need one or two small tables and some chairs for the results team. The finish area is approached by a funnel of tape on posts, with the finish line marked on the ground with well secured tape or the EMIT Inflatable banner.

49. Results Team. The Organiser is responsible for producing final results, though this may be delegated. Control cards must

50. For events using electronic punching, results are produced by the system and provisional results can be produced at regular intervals. Extra manpower will be needed to post or paste them for display.

51. Final results. The system should allow provisional results to be posted on the web page within hours of the end of the event. Ask the EMIT Team leader to post a copy of final results on the BAOC web site. Results need to be produced as soon as possible after the
event and should include length, climb and number of controls for each course. It is not standard policy anymore to send out printed results, but the organiser may wish to consider having some envelopes available for competitors to fill in.

52. Regardless of the system (manual or EMITI) used, the Organiser must ensure that results production is not delayed. This may well involve cajoling the Planner and Controller to deliver their comments. As well as getting the results to the webmaster as soon as possible, it is equally important to complete the results presentation by getting all comments on the results web pages.

53. **Other Jobs/Helpers.** Control collection/Search and rescue The Planner is responsible for organising a team to collect in control after the event. These individuals should also stand by to act as a search party if needed. Remember to advise them to bring warm clothing, food and torches.

54. **Spare/Emergencies** Ideally have a couple of people not specifically assigned to a particular task who can be directed by you as/when problems arise.

55. A String course should be provided at any major event involving lots of civilian runners if at all possible. Discuss with and then delegate to the String course team Leader. Ideally it should be close to the Car Park, and in easy walking terrain. The area should be chosen in consultation with the Planner. Encourage BAOC juniors to plan this and draw a simple map. No charge is made and second runs are encouraged. Course length - 600 - 1000 metres. Controls - 8 - 10 in number A single sheet of paper with map on it should also show control descriptions, and have boxes for punching along one edge. It is best to provide a suitable map bag in case of bad weather. Prizes: It is usual to provide all finishers with a small reward (sweets or similar value) Results: Preferably in alphabetical or registration order.

**The Organiser’s Jobs Closer To the Event**

56. **Equipment.** Liaise with the BAOC club Equipment Officer, Planner and Team Leaders to determine your equipment requirements and the location of all that you need - most equipment will be in the club store and you will need to arrange for the key with the Equipment Officer. You may also have to liaise with the organiser of the preceding BAOC event to ensure that you get the equipment back in time.

57. **Map stocks are obtained from the AOA Mapping Officer or will need to be professionally laser printed. Check that you have enough to cover the expected turnout, plus some extra**

58. **Finances.** Remember a float for the day. Make sure that you have enough change to cover that affluent orienteer who comes with a £20 note. All land access charges or donations for land access should be documented (e.g. photocopy of letter plus details of donation) as these costs can be deducted from the BO levy but only if we provide written evidence of these costs.

59. **Signs and Notices.** Get all relevant notices written or prepared - e.g. course details (delegate this to the Planner, but check he/she has done it), toilet directions, string course directions. Use prepared signs from the store or cover the areas with talc and write on this using a water-based pen - this ensures that signs can be re-used.

60. Certain of our areas may require a notice displayed warning about dangerous crags. The equipment store has various types of signs, including the new BO design ones. Always try to use signs with the word "Orienteering" to help newcomers to find us, and place large signs at the entrance to the event, to advertise our activity to the public.

61. You might consider delegating this job to the car parking team leader. Fix up road direction signs. These can take up to 10 minutes each - with parking the car, tying the string, knots, etc. so to do 6 signs will take 1 hour!! If possible do this late on the day before to save
time on the actual day of the event. Especially during the winter months when there is not much daylight before 9 am!! The signing must be done from the pre-nominated road junctions to the car park. Remember the ‘Rumford’ principle, warn, turn, confirm. So that at a change of direction, e.g. a right or left turn, there should be a warning sign, a sign at the junction and a confirmatory sign 20 to 30 metres after the turn. Give plenty of warning for the car park. Also note the need for “Runners crossing” signs if a course crosses a road. You can save much time by preparing neat, unknotted strings on the signs beforehand. But do be warned, this job always takes much longer than you think.

62. **Equipment.** Make sure that all the equipment is in the right place for the appropriate team to assemble, ready for their jobs. It will save time if you put all the items required for each area in a separate box ready to transport to that area.

63. **Start and Finish Layouts.** Make it clear to your team leaders if they are to set up the start, finish, etc., so that they arrive in time. Make it clear how and when you will transfer equipment to the Teams. The Organiser must know beforehand from discussion with the Planner EXACTLY what Start and Finish layouts are required, so that instructions (preferably with diagrams) can be given to team leaders. The information must include the position of the start boxes, start flag (placed by planner), taping to start flag and taping of any OOB restrictions. For the finish, it is necessary to know the positions of the final controls so that all possible directions of approach can be accommodated by the finish funnel.

64. Make it clear to your team leaders if they are to set up the start, finish, etc., so that they arrive in time. Make to clear how and when you will transfer equipment to the Teams.

65. **Registration.** EOD (Entry on the Day) registration is usually done from the EMIT tent. Each registration point will need Start Time lists on clipboards, pen, control cards of appropriate colour and control descriptions for the course. You will also need to display a notice or inform the registration team of the distance to the start (usually the time taken to walk to the start) and from the finish, if they are not in the assembly area.

66. Map sales are usually done from a separate desk, which may also double up as an information/enquiry point. The publicity flyer should confirm the prices to be charged. N.B. At some events, where second master maps are in use, a second map is issued at no extra cost. If juniors wish to go together or be "shadowed", a second map may be purchased for 50p.

67. Make sure that the registration team understands the timing system so that information on the control cards is correct and consistent and this will enable the results team to process the results more quickly.

68. Events using EMIT electronic punching: You need to make provision for entry on the day, as well as for the hire of e-cards. Normally the EMIT tent is used for this function.

69. **First aid.** The Car Parking Team Leader and the Finish Team Leader will check with the Organiser the following:

   a. Sitting of First Aid vehicle, near the finish.
   b. Times of arrival and departure of First Aid Team.
   c. Location of nearest hospital.
   d. Vehicle access points to the event area, including grid references and key holders.
   e. Roads that take vehicles in the event area.
   f. Communications including use of mobile phones and numbers, location of public phones. First Aiders
   g. Should bring mobile phones if possible.
h. Use of First Aiders in search procedures, and provision of concurrent First Aid cover at the Finish.

i. Provision of master maps for First Aid Team and ambulance.

j. Location of emergency first aid boxes.

70. In the event of accident/treatment The Team Leaders and Organiser will keep a record of all casualties treated and advise club officers after the event. It is MOST IMPORTANT that an incident form be filled in and sent to the AOA and BO.

71. First Aiders will remain with the First Aid vehicle unless called away to an emergency.

**Afterwards**

72. **Equipment.** Make sure that all the equipment is cleared away and either returned to the store in clean condition or handed on to the next event organiser. If any item is lost or damaged remember to inform the club equipment officer, so that it can be repaired or replaced before the next club event. Also let the equipment officer know if anything is running low e.g. squash, results envelopes, control cards, cups, etc. It may be too late when the next organiser notices some items missing!

73. **Miscellaneous.** Check the car park for litter and lost property.

74. Make sure that you keep the washing line stubs, and the registration sheets, somewhere safe just in case you need to refer to these when sorting out the results.

75. Remove the road signs on the way home.

76. **Results.** The EMIT team should produce the results and publish them on the day of the event. Don't forget to get the comments of the Planner and Controller to add to yours for the results. Attempt to get their comments on "the day". The results need to be passed to the various league secretaries.

77. **Thank you.** Remember to write and thank the landowners, any estate agents, managers, tenants, wardens, etc.

78. **Checksheet.** These tasks are summarised in the checklist at Annex B
MILITARY TRAINING – ORIENTEERING – RISK ASSESSMENT

1. **Introduction** In common with other forms of military training, a certain risk is involved in orienteering. Indeed, if the aims expressed at Paragraph 1 are to be achieved, the training needs to be physically and mentally demanding. This may lead to poor decision-making and physical exhaustion, which can result in difficulties that would not be encountered, were these stresses not present. In order to minimise the risks involved, all military training is to be subject to a Hazard Survey and Risk Assessment.

2. Organisers are to be aware of the various risks involved and take the appropriate actions to minimise these, or reduce the severity of any incident. Some of the safety measures that should be considered are given at Annex A. Similarly, competitors have a duty to reduce the risk to themselves.

3. It should be emphasised that the risk inherent in military orienteering is generally very low. Historically, serious difficulties have normally only arisen with older age groups, M/W 65+; poorly planned courses, particularly the run-in, and elite competitors, whose regular demands on their bodies may exceed those to be expected in military training. As a general principle, the quality of the training should not be compromised, given the low risk assessment, as long as the appropriate safety measures are taken.

4. Individual events are to be subject to a specific risk assessment. A generic assessment and a specific Hazard Survey and Risk Assessment, which was conducted for participation in CROESO 2004 are included with this handbook for information.

5. For large or multi-day events a separate list of event officials should be supplied.

6. **Safety Measures** The term "organiser" below applies to all those with responsibilities when organising an orienteering event, particularly the Event Organiser, the Planner and the Controller. Ultimate authority and responsibility is, however, vested in the Event Organiser.

7. **Risk Assessment** The organiser should conduct a risk assessment for each event, taking into account the specific circumstances of that event and the terrain. Depending on the results of that risk assessment, the organiser should consider implementing the appropriate safety measures, examples of which are given below. Note that this list cannot be comprehensive:

- Publish a warning of the general risks inherent in orienteering.
- Publish details of specific dangers to be encountered in this event.
- Remove specific hazards.
- Mark specific hazards on the ground and/or the map.
- Ensure that courses avoid specific hazards.
- Establish safe areas, not visited by courses, for wild animals.
- Provide safe crossing points over linear hazards.
- Ensure that crossing points are used, either by siting controls nearby, or by patrolling.
• Provide refreshment points at the finish and/or on courses.
• Provide first aid facilities/personnel at the finish, assembly area and/or in the terrain.
• Provide shelter at the assembly area, start, finish and/or in the terrain.
• Have static or roving patrols in the terrain.
• Provide washing/showering facilities.
• Ensure that courses are appropriate to the level of ability expected to take part.
• For championships, discourage those without the necessary skills from entering difficult courses, either by seeding, or by providing easier courses in addition.
• Ensure that competitors carry/wear appropriate safety equipment/clothing.
• Encourage competitors to warm-up correctly and provide an area in which to do so.
• Ensure that competitors can be easily accounted for.
• Have a warning system for competitors that have exceeded expected completion times.
• Consider separate starts and finishes, or starting and finishing lanes, for older and younger competitors.
• Avoid ground with concealed holes, especially for the run-in.
• Avoid having a downhill run-in.
• Have mountain-rescue teams on stand-by.
• Ensure communications with emergency services are in place.

8. **Competitors' Duties** All competitors have a duty to avoid injuring themselves, or others. These duties are amplified below:

• Only enter courses appropriate to your level of ability and fitness.
• Ensure that you are aware of any safety information given by the organiser.
• Obey the organiser's safety instructions.
• Wear suitable protective clothing – full body cover is the norm.
• If injured, do not aggravate the injury by continuing.
• Use refreshment points, even if not hungry/thirsty.
• Always report to the finish, or otherwise let the organiser know that you are no longer on the course.
• Stop if you feel unwell.
• Assist other competitors in difficulties.
• Retire if conditions dictate.
• Bring to the organiser's attention any hazards encountered on the course.
• Inspect yourself for and remove ticks as soon as possible.
• Do not train or compete when ill or injured.
• Do not enter areas marked as out-of-bounds.
• Be aware of your physical limitations.
• Try to avoid making decisions, particularly those involving the assessment of physical risks, when in oxygen debt.
## Example Specific Risk Assessment – CROESO 2004 – 14-21 Aug 04

<table>
<thead>
<tr>
<th>Hazardous Activities within the overall Activity/Process</th>
<th>Priority</th>
</tr>
</thead>
<tbody>
<tr>
<td>Traversing rough or broken terrain</td>
<td>✓</td>
</tr>
<tr>
<td>Negotiating cliffs, mineshafts and rock faces</td>
<td>✓</td>
</tr>
<tr>
<td>Running through low-hanging bushes and trees</td>
<td>✓</td>
</tr>
<tr>
<td>Exposure to ticks</td>
<td></td>
</tr>
<tr>
<td>Heat injuries</td>
<td>✓</td>
</tr>
<tr>
<td>Negotiating rivers and streams</td>
<td></td>
</tr>
<tr>
<td>Cold injuries</td>
<td>✓</td>
</tr>
<tr>
<td>Drinking contaminated water</td>
<td></td>
</tr>
<tr>
<td>Contact with animals</td>
<td></td>
</tr>
<tr>
<td>Insect, reptile or animal bites</td>
<td></td>
</tr>
<tr>
<td>Prolonged exposure to the sun</td>
<td>✓</td>
</tr>
</tbody>
</table>
Specific Risk Assessment – CROESO 2004 – 14-21 Aug 04

Introduction

1. This risk assessment covers participation by any orienteer or official in the 2004 CROESO 6 Day Orienter Event. Further details of the event are given in the event instruction\(^3\). This risk assessment only covers those days of CROESO 2004 (Days 1, 2 & 6) that are to be held on military training areas within SENTA. Travel and accommodation matters are for the individuals and not relevant for the purposes of this assessment. The Exercise Organiser will investigate any hazards, fire procedures, etc relevant to the hosting of the event on military land. Individual activities during rest periods are not covered. Any activity conducted during these periods will be at the personal discretion and risk of the individual concerned.

General Description

2. **Competitors’ Training.** Most individuals will have participated regularly in orienteering events and have displayed the level of competence consistent with the course they have entered for. All should, therefore, be capable of completing the courses entered under anything other than exceptional circumstances. The individual nature of orienteering and the terrain mean that each competitor has a duty to withdraw from a particular race at any time, if he/she feels that the demands are beyond his/her capability to complete safely.

3. **Competition Level.** The competition is designed to be physically and mentally challenging to even the most capable orienteers. The terrain is technically and physically as hard as is possible to find in the area. Competitors should have entered in a class appropriate to their age, physical and orienteering ability. Course lengths and the height gain will have been planned accordingly. Recommended winning times are as per BOF guidelines. The mental and physical demands can be expected to be hard. However, these demands will reduce considerably, if a competitor slows down or walks. Furthermore, individuals may retire from the course at any time and are encouraged to do so if in physical difficulty. Route choice is, ultimately, the individual's responsibility. If crossing points, voluntary or otherwise, are ignored, the individual accepts responsibility for the consequences of so doing.

4. **Terrain and Vegetation.** Each race takes place on a different area, although the terrain for day 1, 2 & 6 is very similar. However, each area will have most of the features to be expected of typical Welsh terrain: steep hills, streams, small areas of woodland of varying runnability and visibility and rock outcrops. The Event Organiser will now of any specific hazards applicable to each area before each race and brief the competitors accordingly. Vegetation can be expected to be heavy at this time of year, but this is not unfamiliar and neither should it present a serious hazard to the participants. Rivers and streams are not expected to be in spate at this time of year. However, this can change quickly in poor weather. Deep shafts may be present in some areas and these should be marked by tape and competitors are to avoid them.

5. **Weather.** The weather can be variable on the training area and the competitors’ equipment list reflects the need to cater for extremes. The organiser will dictate if protective clothing needs to be carried or worn. If necessary a basic shelter will be provided for the competitors to use whilst waiting at the Start Areas. Temperatures could be high and care should be taken accordingly, alternatively if the cloud cover is low the area could be shrouded in mist and temperatures will also be low.

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\(^3\)Issued under separate cover.
6. **Equipment and Clothing.** An equipment and clothing list is available if required. Items of safety equipment are mandatory for all participants. Team protective and medical equipment will also be taken. The equipment list has been based on many years' experience of participating in multi-day orienteering events, often in terrain less hospitable than that in Wales. It should be noted that water is limited and competitors should take sufficient with them each day.

7. **Medical Facilities.** The organiser has arranged for medical cover at each race. In addition, rescue teams will be present. Casualty evacuation will be as arranged by the organiser in serious cases, or by the team's vehicle, for less serious injuries. Full details of the medical arrangements will be provided nearer the date by the event co-ordinator.

8. **Communications.** All officials should have a mobile telephone and a list of numbers will be provided for all officials. The AOA will also provide military radios for the event officials on each day. In the event of poor coverage, communication will have to be by runner or vehicle. A whistle will be carried during races for use in an emergency. The distress signal is six short whistle blasts, wait one minute and then repeat.

9. **Wild-life.** Poisonous/potentially vicious insects, reptiles and/or animals may exist in some of the race areas. These are normally shy and will hide or retreat, rather than attack. It is highly unlikely that competitors would see a snake, although it is more likely when allocated an early start time. Competitors should treat all animals, insects and reptiles as potentially dangerous and avoid them. In the event of a bite, medical assistance should be sought immediately. Poison should not normally be removed from the wound, as this can delay identification of an antidote. If it can be done safely, the creature should be killed and taken to the medical support. Participants should be aware that any domestic or wild animal could be infected with disease.