

CHAPTER 1



INSTRUCTORS GUIDE

INITIAL EXPEDITION TRAINING

Page 31.4.1-1 Para 1Adventure Training - General Policy - (ACP 17 Chapter 1)

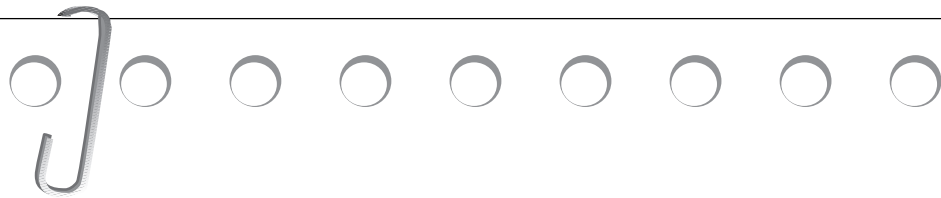
1. The purpose of adventure training in the Air Training Corps is to encourage and foster the development of character, leadership, initiative and physical qualities among cadets.
2. Whilst it is not possible to list the great variety of exercises carried out by the Air Training Corps under the general heading of adventure training, such activities include:
 - a. Expeditions on foot similar to those required to qualify at various stages of the Duke of Edinburgh's Award.
 - b. Escape and evasion exercises.
 - c. Initiative exercises such as:

Bridging of streams, ravines etc - scaling of obstacles and assault courses.
 - d. Canoeing, Sailing, Rock Climbing, Caving, Skiing, Snorkelling etc.
 - e. Endurance tests such as the Pennine Way, Ten Tors etc.
3. Adventure training is normally to be carried out in the United Kingdom (except for overseas squadrons). The prior approval of HQ Air Cadets is required for training overseas (UK squadrons) or outside national boundaries (overseas squadrons) in accordance with ACP 20A, ACT1 No 1D. Instructions for the Duke of Edinburgh's Award Scheme are given in ACP20A, ACT1 No 74.

Page 31.4.1-1 Para 2HILL AND FELL WALKING

1. Normal Country. Supervision of expeditions undertaken in normal country may be carried out by an adult experienced in the normal techniques of walking, navigation and camping.
2. Wild Country. For expeditions in wild country, it is suggested that the standards laid down by the British Mountaineering Council (BMC) should be regarded as the minimum required of supervisors. These are:
 - a. They should have acquired the Mountain Rescue Committee's Handbook "Mountain and Cave Rescue", and the BMC booklet "Safety on Mountains", and should have read and understood both of them.
 - b. They should have spent at least 3 weeks on mountains previously. Preferably this period should have been spread over at least a year, with one week under some form of instruction, eg from experienced friends, a mountain guide, on a Sports Council or climbing school course (or successfully attended the RAFVR(T) Mountain Activities Course. (See ACP 20A, Instruction No 96)).
 - c. They should have had some experience of the conditions likely to be encountered, especially cold, mist, rain and high winds.
 - d. They should be competent in the use of a compass and in map reading, and have experience of navigation in difficult conditions such as rain or mist.
 - e. They should have done some easy rock climbing or difficult scrambling, in case they

CHAPTER 1



become involved in elementary rescue work.

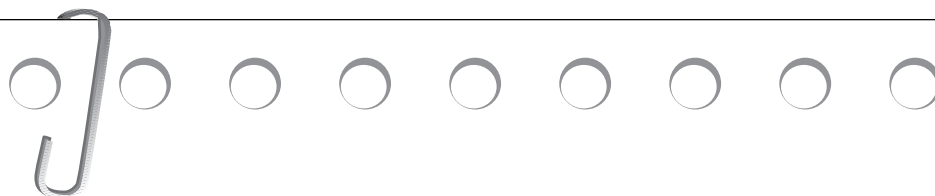
f. They should have a knowledge of first aid, treatment of hypothermia and elementary survival techniques in case of emergency.

3. This is the minimum experience required, and could be multiplied many times with advantage to the leaders concerned. It does not fully qualify them for their task. It is rather the minimum, without which they should not venture at all. Possession of a Mountain Leader Training Board (MLTB) Mountainwalking Leaders Summer Assessment (full pass) gives a good indication of a leader's technical competence to conduct parties into mountainous or remote country.

Wild Country Areas in the UK



CHAPTER 1



Page 31.4.1-2 Para 4

USE OF PRIVATE LAND OR WATER

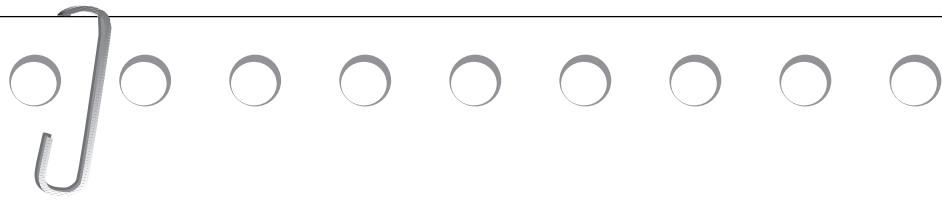
Adventure training is not to take place on private land or water unless permission of the owners/occupiers and/or Army District headquarters has first been obtained. Private land in this context is defined as all land including recognised military training areas owned or leased by the Ministry of Defence. It includes National Trust, Forestry Commission, common and unfenced land, and land in National Parks, as well as land owned by private individuals and farmers. Private land or water is made available only with the cooperation and consent of the owners, and it is therefore most important to foster and retain good relations and to avoid damage and inconsiderate behaviour.

Since Army units need to use private land and water for training more frequently than the other Services, Army District Headquarters will coordinate all applications for the use of private land or water that arise in all 3 Services, including cadet organisations. Applications should be made through Wing Headquarters to the appropriate Army District Headquarters in which the exercise area is situated, at least 2 months before the date of the proposed exercise. The application should define the general area to be used, the type of training, the period of use, the number of personnel and types of vehicles to be used. The addresses of the Army District Headquarters can be found in ACP17 Chapter 1 Annex D from which copies of the rules and orders governing training in each area can be obtained. It is the responsibility of ATC wing Headquarters to ensure that they hold up-to-date copies of these publications.

STANDING INSTRUCTIONS FOR MILITARY UNITS TRAINING ON PRIVATE LAND

1. ALL gates are to be properly closed and fastened after use.
2. Cadets on training are on no account to climb over fences and hedges, and every endeavour is to be made to avoid damage to private property.
3. Arable and hay crops are out of bounds but, in the event of permission being given to traverse such land, boundary fences must always be followed to obviate damage to growing crops.
4. Farmhouses and buildings are out of bounds.
5. Farm implements and machinery must never be handled or moved without the owner's consent.
6. Where slit trenches and latrines are authorised to be dug, they must be properly filled in and turf relaid when the sites are finally vacated.
7. Timber must not be cut or damaged, and no nails etc are to be driven into growing trees. Foliage must not be used for camouflage etc.
8. Every possible precaution must be taken against fire and in no circumstances are fires to be lit in the vicinity of timber.
9. All defence works, eg barbed wire, must be moved from the land on termination of training.
10. Sites are to be completely cleared of rubbish and litter, including tin-cans, broken glass, razor blades etc which, in addition to contravening the Litter Act 1958, constitute a danger to livestock.
11. Care is to be taken at all times to reduce noise and interference to an absolute minimum, particularly in the lambing season, and after winter when ewes are in a weak condition.

CHAPTER 1



12. All special conditions imposed by private owners and tenants of the land are to be strictly observed.
13. Any damage occasioned to private property, including livestock, must be reported to the Defence Land Agent, in the area concerned. At the same time, the owner of the property is to be informed of the damage and of the action taken.

Page 31.4.1-7 Para 19

SAFETY PRECAUTIONS AND EQUIPMENT

INTRODUCTION

1. All ATC personnel participating in adventure training are to comply with the instructions on safety precautions and equipment detailed in ACP 17 Chapter 3, which are intended to help standardise safety principles throughout the Corps. Further information required on any aspect of safety or equipment can be obtained from HQ Air Cadets (Attn PEDO).

GENERAL SAFETY PRECAUTIONS

2. The following general safety precautions are to be read in conjunction with those relating to a specific type of activity included as Annexes to ACP 17 Chapter 3.

COMMAND

3. It cannot be too strongly emphasised that it is the direct responsibility of Squadron Commanders to select as adult supervisor for any particular activity, an individual whose personal qualities, training and experience meet the necessary requirements. Such supervisors are to be experienced in the activity they organise: and are to be responsible for all training and safety decisions. (ACP 17 Chapter 1, paras 4 and 6 refer).

EQUIPMENT

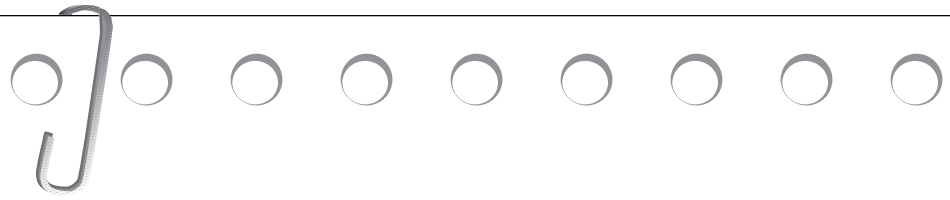
4. The equipment required for any particular activity is to be listed: and each item, including personal clothing, is to be checked for serviceability before the activity starts. Equipment should be sub-divided for checking into 3 groups:
 - a. Activity equipment, ie: specialist equipment such as ropes, canoes, caving helmets, life-jackets etc.
 - b. Personal equipment; anoraks, boots, etc.
 - c. Emergency equipment. Depending on the type of activity and the length of time to be spent travelling each day, certain items are essential for the safety of the group. Supervisors are to give careful consideration to the equipment that would be required if the group became endangered by injury or weather. Each main party is to carry a First Aid pack, to be augmented by a personal First Aid Kit carried by each member.

Page 31.4.1-9 Para 23

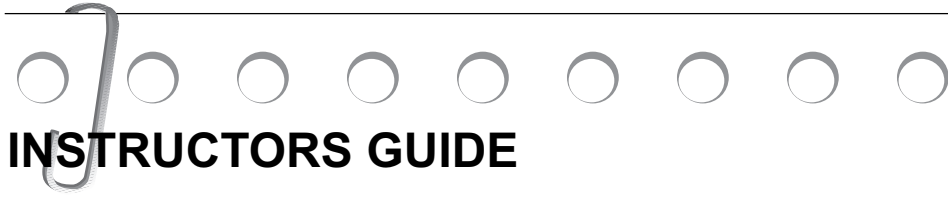
GENERAL ADMINISTRATION

1. Supervisors of cadet expeditions must be fully conversant with the contents of ACP17 Chapter 4, dealing the administration and finance.

CHAPTER 1



2. Adventure training is an official activity and therefore attracts assistance from public funds. It is vital that administration of the scheme should be meticulous, particularly since those engaged on hazardous training are entitled to expect that their interests are being adequately protected. A secondary reason is that only by the submission of accurate and meaningful returns can higher authority determine the level of support from public funds needed in future years.
 3. To substantiate any award following injury or death, it is most important that all adventure training receives prior approval at the correct administrative level. Therefore squadrons are to be discouraged from pursuing such activities on an unofficial basis. In the event of injury or death resulting from participation in an authorised adventure training activity, members of the Corps will be considered for awards under the terms of AP 1919, Chap 12.
 4. To exercise initiative and resource, it is appreciated that commanding officers will wish to see that projects contain some challenging features. Nevertheless, it is incumbent upon those concerned with the supervision of adventure training that they ensure all aspects of safety are properly covered. These are to be amplified in Squadron/Wing training orders, using appropriate authoritative publications as sources of information.
 5. Adventure Training Officers are to maintain a detailed record of all adventure training activities carried out by personnel from their squadrons, including those on training sponsored by other organisations (eg RAF Sailing Association, Joint Services Adventure Training Centres etc).
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INSTRUCTORS GUIDE

CAMPCRAFT AND EXPEDITIONS

Page 31.4.2-1 Para 1

AIR CADET ADVENTURE TRAINING CENTRES

INTRODUCTION

1. The Air Cadet Adventure Training Centres at Windermere and Llanbedr provide facilities for cadets to participate in adventure training in countryside more demanding than that normally to be found in their local areas. The Centres, however, are bases from which training is undertaken and are not intended to provide the facilities of a holiday hostel. The Centres are open each year from March to November.

DUKE OF EDINBURGH'S AWARD SCHEME – EXPEDITIONS

2. Although not directly associated with the Duke of Edinburgh's Award Scheme, the Centres can provide the type of training appropriate to Silver and Gold awards. They also provide the opportunity for cadets to qualify in the relevant phases of Silver and Gold award expeditions.

LOCATION OF CENTRES

3. The Windermere Centre is located within a mile of Windermere BR Station. Its postal address is:

The Air Cadet Adventure Training Centre

Park Road

Windermere

Cumbria

LA23 2BJ

Tel: Windermere (STD 05394) 43660 (Visitors)

(STD 05394) 44946 (Office)

4. The Llanbedr Centre is located opposite the main gate to the Royal Aircraft Establishment Llanbedr and is within half a mile of Llanbedr BR Station on the Shrewsbury to Pwllheli line on the Welsh coast. Its postal address is:

The Air Cadet Adventure Training Centre

RAE Llanbedr

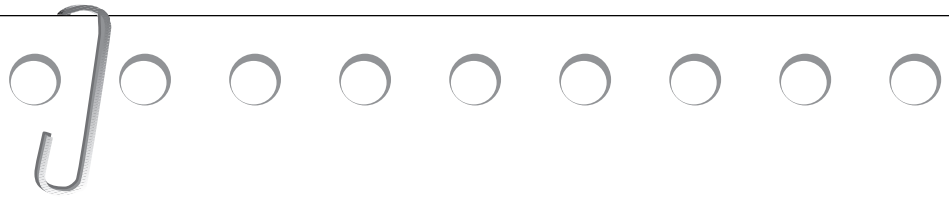
Gwynedd

LL45 2PX

Tel: Llanbedr (STD 034123) 594 (Visitors)

(STD 034123) 554 (Office)

CHAPTER 2



ELIGIBILITY FOR ATTENDANCE

5. Cadets. To be eligible for attendance, an ATC cadet must be 14 years of age or over and have taken part in progressive and comprehensive training commensurate with the environment and terrain of the Lake District and Snowdonia.
6. Adults. All ATC officers, warrant officers, honorary chaplains and civilian instructors who have had experience of leadership in adventure or expedition training are eligible to attend. There is no age limit for adults, however, since they will be responsible for controlling adventurous activities, they are to be able to undertake two or three days fell-walking and camping under adverse weather conditions and other strenuous activities.

CENTRE INTAKE ALLOCATION

7. Each Centre intake will normally consist of 6 adult ATC personnel and 30 ATC cadets. All Wings will be invited to apply for places and allocations will be made by HQ Air Cadets. Separately contained facilities are available for 2 female staff and 10 girl cadets included in each Centre intake.
8. On 1 November each year HQ Air Cadets will call for wing applications for places. In order to economise on travel costs, wings should apply for a complete Centre intake, rather than Squadrons submitting for separate dates, and also use the Centre nearest their location. Wherever possible, applicants should give alternative dates in order of priority. Where courses are over-subscribed allocations will be made by ballot. Places on under-subscribed courses will be offered to Wings on a first come, first served principle.

REGIONAL/WING ADVENTURE TRAINING CENTRES

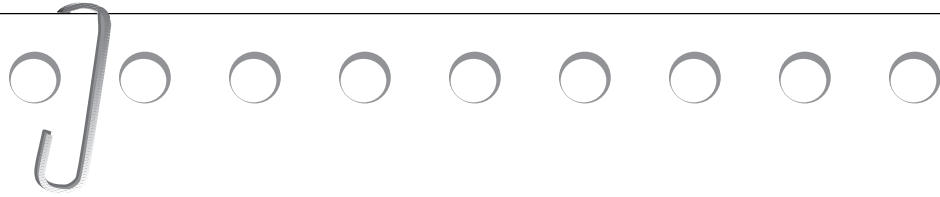
GENERAL

1. In addition to the Corps Adventure Training Centres at Llanbedr/Windermere, which are administered by HQ Air Cadets (PEdO) there are a number of Regional/wing Adventure Training Centres. Regional/wing Headquarters controlling these Centres have indicated their willingness to allow ATC groups from anywhere in the country to use them provided they are not being used by their own Wings/Squadrons. Details of these centres are published periodically in Routine orders and "Air Cadet": and applications to use them should be sent direct to the Regional/Wing headquarters concerned.
2. Adult supervisors and cadet groups who are given permission to use any of these Centres must comply with the regulations of ACP 17, and with all orders and instructions issued by the controlling Regional/Wing headquarters.

BETHESDA

3. The Bethesda Centre is located in Snowdonia and provides facilities for cadets to participate in expedition type activities over countryside more demanding than that normally found in their local areas. Command and control is exercised by ACRHQ (Wales) through The Regional Adventure Training officer. Administrative and organisational control is delegated to HQ No 2 Welsh Wing.

CHAPTER 2

CROWBOROUGH

4. The Crowborough Centre is a partially staffed permanent Army Camp situated one mile from the small residential town of Crowborough, Sussex; and, although the surrounding countryside is not as demanding as the Lake District or North Wales, the Centre provides facilities for cadets to perform a variety of outdoor activities of a progressive nature, leading up to major exercises in hazardous country. The Centre is controlled by ACRHQ (L & SE), to whom application for reservations is to be made.

THE JOINT SCHOOL FOR ADVENTUROUS TRAINING INSTRUCTORS, LLANRWSTGENERAL

1. All courses at the Joint School for Adventurous Training Instructors (JSATI) provide training for instructors and leaders of outdoor activities, ranging from a general introduction to the basic skills in a wide range of activities to specialist training for instructors and leaders in all the activities. Information about the JSATI can be found in ACP 17 at Annex A to Chapter 6.
2. The JSATI is recognised by the Mountain-Walking Leader Training Board (MLTB) as an agency for the assessment of candidates for the Mountain-walking Leader Training Scheme (MLTS) (Summer). Details of the MLTS, and the syllabus requirements, are given in ACP 17 Chapter 7.
3. Since all courses at the Centre are essentially practical in nature and therefore physically demanding, all officers, warrant officers and civilian instructors selected to attend at JSATI are expected to arrive well prepared, in good physical condition, and sufficiently fit to undergo strenuous activity. The majority of courses include one or two nights living in wild country under canvas.
4. In addition to being physically fit, personnel selected should be strongly motivated towards achieving instructional qualifications whenever possible, and should possess a genuine interest in group leadership.

Page 31.4.2-5 Para 13

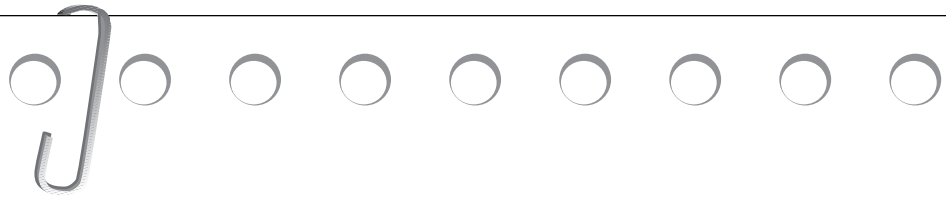
CONSERVATION

1. The mountains are a sensitive environment, and under constant pressure from a whole host of activities and interests. Hillwalking and Mountaineering contribute to that pressure and both can be damaging to the physical environment. They can cause disruption to the interests of those who own and manage the land, and can mar the enjoyment of those who follow. There is a very real danger that the more popular areas will become so degraded that either the potential for enjoyment will be severely reduced, or owners or authorities will seek to impose controls to reduce the impacts. If such situations are to be avoided and freedoms maintained, there is a real need for people to take responsibility for and respect the environment.
2. The following notes offer some advice on ways to minimise the impact associated with mountaineering without any major limitation or curtailment of activity.

PARKING

3. Mountaineers frequently approach the hills by private transport and there is a temptation to drive, as close as possible to one's chosen objective. Car parking spaces are however, not always conveniently available. Farmyards, lanes and gateways are often in use, and bulky farm

CHAPTER 2



machinery needs considerable space for manoeuvring. For a farmer, an inconsiderately parked vehicle can cause great inconvenience and annoyance.

4. Vehicles should not be driven away from public roads on to bridleways, private roads or open country. (It is an offence to drive more than 15 yards from a highway without the landowner's permission.) You should always park with forethought and consideration.

PATHS AND EROSION

5. The most popular paths are suffering serious erosion. Heavy soled boots easily trample and break up the surface vegetation which dies to reveal a generally unstable soil. Heavy rainfall on steep slopes will wash the material away resulting in the formation of gullies. The eroded section becomes unpleasant for walking on and small detours will lead to the path widening. Eroded sections on some popular hill paths have measured as much as 50 metres in width.

6. Expensive reinstatement schemes are underway in some areas but financial and practical constraints limit such work to the lower paths. When walking on the hills you should always:

- a. Tread Carefully, and where possible walk on boulders or stony ground.
- b. Resist the temptation to cut corners on zig-zag descents.
- c. Avoid running screens.
- d. Co-operate with diversions while repair work is in progress.

WALLS, FENCES, GATES AND STILES

7. Dry stone walls and fences are extremely important in containing animals. They can be easily damaged by people climbing over them and are extremely time-consuming and expensive to repair. As a consequence, broken walls are often quickly and cheaply secured by unattractive fencing materials rather than rebuilding.

8. You should always use gates or stiles, even if it entails a short diversion and make sure that you close and fasten all gates.

9. If it is absolutely necessary to climb a wall, then do so carefully, and replace any dislodged stones.

10. Always keep to footpaths across enclosed land.

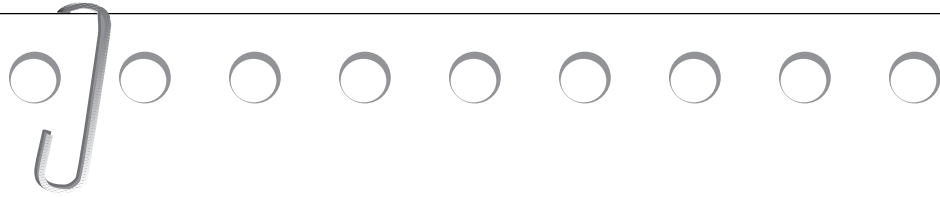
LITTER

11. The problem of litter is not unique to the hills, but there are many examples of severe litter problems that can only be attributed to hillwalkers or climbers. Vast quantities of litter have already been removed from some of the worst spots. Litter looks unpleasant, it can be harmful to stock, and attracts scavenging animals and birds such as rats, sea gulls and crows. These animals then prey on and displace the natural species of the area.

12. A considerate walker will aim to minimise rubbish, particularly on overnight trips. Carry all litter down the hill - it is useful to carry a plastic bag for this. Never bury rubbish or throw it behind rocks as animals will dig it up.

13. Don't bury it in the snow because it soon reappears in spring.

CHAPTER 2

ACCIDENTAL FIRES

14. Accidentally started fires can cause extensive, expensive and long-term damage to areas of moorland or woodland. Concern over fire is a significant reason for landowners not wishing to allow public access to areas of open country. It can take between 10 and 20 years for a burned heather moorland area to recolonise and more than 30 years for the full establishment of the original level of growth. Common causes of fires are:

- a. Discarded cigarette ends and matches.
- b. Camp fires and stoves.
- c. Bottles and broken glass.

Take special care not to risk starting a fire, particularly during dry periods. Never light a fire without the landowner's permission.

CAIRNS

15. The proliferation of cairns on many paths is an unsightly 'urbanisation' of the hills, and as a form of signposting, they diminish the wilderness quality. Those venturing into the hills should be competent at navigating by map and compass and not rely too heavily on cairns for directions. Cairns can give a false sense of security. Don't build or enlarge cairns.

PLANTS AND ANIMALS

16. Wild animals and birds can be disturbed by human presence. During the nesting season birds may desert a nest if disturbed, or may be frightened away for so long that the eggs will chill or the chicks die. Animals can be worried by dogs not kept under the strictest control. Sheep are particularly at risk during the lambing season and nothing should be done to disturb or frighten ewes in lamb. Dogs will also scent out ground nesting or sitting birds.

17. All wild plants are protected by law and it is illegal for anyone to uproot any wild plant without the permission of the landowner.

18. If you require a record of the wild plant, then take a photograph.

CAMPING

19. Camping, bivouacking or staying in a primitive shelter can be a most rewarding experience. The use of additional equipment for shelter and cooking can however have a great impact on the environment unless great care is taken.

20. Without attention to detail, an idyllic campsite in the hills can easily degenerate into an unsightly and unhygienic mess.

21. To avoid vegetation damage, tents should not be pitched on the same spot for more than 2 or 3 days. On existing sites try to avoid pitch marks to allow the vegetation time to recover.

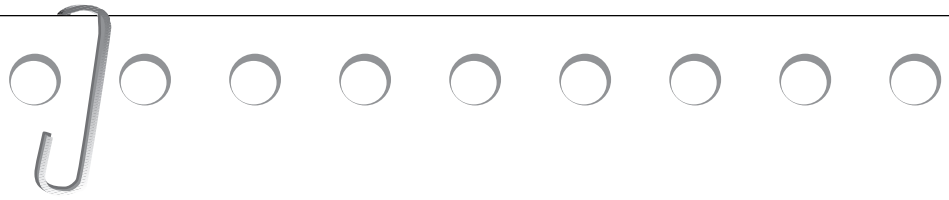
22. Don't dig drainage ditches around tents. If the site is too wet, look for somewhere else.

23. If boulders are used to hold down pegs or valances, replace them where they were found.

BIVOUACS

24. If it is necessary to build a shelter wall, take it down in the morning.

CHAPTER 2

BOTHIES

25. These rudimentary shelters provide excellent accommodation in remote areas. Most are not regularly maintained and it is the responsibility of visitors to leave a bothy as they would wish to find it.

26. Leave the bothy clean, and secure doors to keep out sheep and deer. Avoid going to bothies with a party large enough to fill it, others may want to use it also.

FIRES

27. Fires can be very enjoyable, but they can also cause local damage and so need to be monitored very closely. In the first instance you must seek the landowner's permission before lighting a fire. Although a good fuel source, dead wood is an important part of natural cycles, so keep fires small to conserve it. Never cut live wood for fires.

28. Select a non-flammable, non-scarring site such as a dry stream bed. Completely extinguish a fire before leaving the site. Tidy up by dismantling and replacing the rocks in natural locations.

POLLUTION

29. A certain amount of personal and equipment washing is necessary, so care should be taken to minimise water pollution.

30. All washing should be done well away from any water source and foul water must be allowed to drain into an absorbent soil - it should not be returned to the water source.

31. Toilet waste should be buried in a hole at least 15 cm (6 in) deep, well away from a water source, and the soil and turf replaced and trodden in.



INSTRUCTORS GUIDE

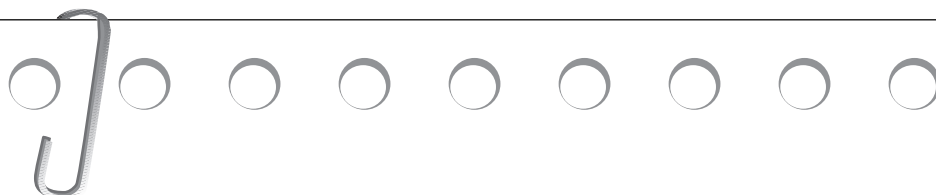
EXPOSURE

Page 31.4.3-1 Para 1

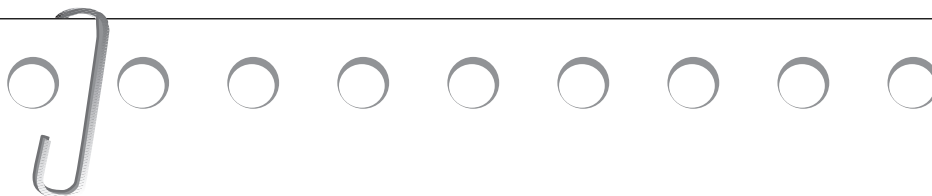
NOTES ON EXPOSURE

1. Definition. "Exposure" is not a strict medical term: in general usage, however, it describes the serious effects which result from exposure to climatic hazards. In general, it is limited to the effects of cold environments: phrases frequently used include 'suffering from exposure', 'death of exposure', 'risk of exposure'. The essential feature of conditions described in this way is a reduction in the heat content of the body, which becomes serious when deep body temperature begins to fall. A definition of exposure to meet the current use of the term is "Severe chilling of the body surface leading to a progressive fall of body temperature, with the risk of death from hypothermia.
2. The Dangers of Exposure.
 - a. There appears to be an increasing number of cases of exposure amongst people engaged in outdoor activities in the mountains or at sea, probably due both to the increasing numbers who are at risk and to improved knowledge leading to recognition of its symptoms. Ignorance on the part of helpers and rescuers has often led to dangerously incorrect treatment being given to those suffering from exposure. The main purpose of these notes is to increase the knowledge and understanding of the signs, symptoms and correct treatment of exposure among those who may be called upon to deal with people suffering from this condition. In trying to set out the basic facts it is hoped they may assist in a greater understanding of a condition which has been the cause of far too many unnecessary deaths. But it is emphasised that the subject remains complex; and that, in these notes, only a brief and superficial answer is given: and that continuing and detailed research is needed.
 - b. It is the combination of fatigue, cold, anxiety or mental stress which is specially dangerous. The elements in this combination will vary greatly with the individual, as will the individual's susceptibility to some or all of these factors. In considering exposure to cold, it is well to bear in mind what has been written by Mr D G Duff FRCS, himself a mountaineer and rescuer of long experience. "It is, I consider, the additional factor of physical exhaustion over and above cold which kills quickly. Death has overtaken whole parties who, thinking they must keep moving at all costs, have 'bashed on, instead of resting in some shelter before exhaustion supervened. The essential is always to preserve a sufficient reserve of energy in severe conditions of cold and high winds".
 - c. A rider may be added that, with an injured and immobilised climber in the mountains, whilst cold may kill a person who is not physically exhausted, death will not normally occur so rapidly: and it should be possible to put in hand rescue operations before a casualty dies of cold. In general, however, it is emphasised that the risk of death from exposure is a real and often unrecognised danger among those, and particularly by the young, who undertake mountain expeditions in bad weather conditions.
3. Signs and Symptoms of Exposure. It is not always easy to decide early enough that you have a mild case of exposure on your hands. It is very important to do so, since it may be possible to avoid a crisis if, at the onset, you are aware of the symptoms and can begin to treat them. The following are among the most usual symptoms:
 - a. Unexpected and apparently unreasonable behaviour, often accompanied by complaints of coldness and tiredness.
 - b. Physical and mental lethargy, including failure to respond to or to understand questions and directions.

CHAPTER 3



- c. Failure of, or abnormality of vision. It should be noted that some failure of vision is a very usual symptom: and, when this does occur, the conditions should be regarded with extreme seriousness.
- d. Some slurring of speech. There is not necessarily early failure of speech, and the victim may speak quite strongly until shortly before collapse.
- e. Sudden shivering fits.
- f. Violent outbursts of unexpected energy, possible physical resistance to succour, and the use of violent language.
- g. Falling. Note: It should be stressed that not all of these symptoms may be noticed: and not necessarily in this order given above. Other symptoms which may sometimes be observed are muscle cramp: extreme ashen pallor: light-headedness: and, occasionally, a fainting fit.
4. General Considerations.
- a. Whilst under normal conditions, the inner 'core' (Trunk and brain) of the body remains constant at 37°C (98.4°F), the temperature of the outer shell is always lower. This outer shell consists of the skin, underlying fat and muscle: and extremities (arms and legs, ears, nose). These comprise almost half of the body. It is VITAL to preserve the deep core temperature. A shift in this leads directly to MENTAL DETERIORATION; the loss of MUSCULAR CO-ORDINATION: and, eventually, to UNCONSCIOUSNESS, HEART AND RESPIRATORY FAILURE AND DEATH.
- b. The body itself acts to maintain core circulation and temperature by restricting the flow to the exposed periphery so that core blood is not cooled at the surface.
- c. IN ANY TREATMENT, THEREFORE, THE IMPORTANCE MUST BE REALISED OF NOT INCREASING PERIPHERAL CIRCULATION UNLESS THERE IS MINIMAL LOSS OF HEAT AT THE SKIN SURFACE. FURTHER HEAT LOSS FROM THE CORE MUST BE AVOIDED AT ALL COSTS. SUDDEN SURFACE WARMING THEREFORE IS WRONG.
- d. when the symptoms of exposure are clearly established, any further exertion, such as forcing the victim to go on walking (even downhill) must be avoided. The party must stop and proceed to treatment. IT IS IMPOSSIBLE TO OVER STRESS THE IMPORTANCE OF THIS.
5. Methods of Treatment.
- a. Immediate Treatment in the Field. As already indicated, the risk of precipitating a sudden surge of circulation to the surface, such as may be produced by hot water bottles, rubbing or the intake of alcohol, SHOULD BE AVOIDED.
- b. Experts differ on the degree to which individuals or peoples can become genuinely acclimatised to cold. For those undertaking mountain courses a programme of habitation to cold conditions can be very useful. Many of the students attending these courses will never have been exposed to similar conditions before, and many of them too lead sheltered and 'centrally-heated' lives. So even if the degree of physiological acclimatisation which they may achieve during the course may be very small, habitation to conditions of cold will lessen the degree of fear and apprehension which some may feel when they meet them on a big mountain for the first time. Learning to live normally comfortably in the cold should be the aim.



c. Instructors should see to it that, in conditions of cold and bad weather students put on their waterproof anoraks, and their windproof over-trousers. It is perhaps worth adding that they should also ensure that students do not wear all the extra clothing when they are at base. It is almost as important for instructors to make certain that students have with them and do actually eat a sufficient quantity of carefully balanced foodstuffs during the whole course of an expedition. Bad conditions on the mountain should not cause the party to omit eating small quantities of energy giving food during the mountain day.

d. It is obvious that it is nevertheless important to ensure that the loads carried by individual students particularly on long expeditions, are not too heavy for them. Carrying too heavy a load is a potent cause of early exhaustion. As a rough guide, a load even when wet, should never exceed one-third of his personal weight. As a rougher guide still, loads in excess of 30lbs are to be avoided.

e. We emphasise finally that the detection of incipient exposure is not easy, and that the need to detect its earliest stages throws a heavy responsibility on instructors. In this, as in so much of the rest of their work, they need to possess an unusual combination of training skill and alert awareness of what is happening to their charges.

NOTES ON THE EFFECTS OF HEAT

INTRODUCTION

1. Heat generated in the body by strenuous exercise has to be dissipated to keep the body temperature normal. The body does this by allowing a lot of blood to come to the surface into the skin, where the heat is lost by the evaporation of sweat. To avoid extreme dehydration, the water must be replaced by drinking. Failure to do so means the eventual breakdown of the cooling process, resulting in a rapid rise of body temperature. This can quickly reach dangerous proportions, and can be fatal unless remedial measures are taken. In hot sunshine, the body absorbs more heat by radiation from the sun and surrounding land. Sunburn adds to the problem.

HEAT EXHAUSTION

2. Heat exhaustion is due mainly to dehydration and leads to a shocked condition, delirium and coma. The patient should be placed out of the sunshine in a shaded place. Give him lots of cool water to drink.

HEAT STROKE

3. Heat stroke is caused by a breakdown of the body temperature control system. It is usually preceded by heat exhaustion: and is evident by high body temperature, hot dry skin, little sweating and lack of coordination by the patient. The onset of convulsions, coma and death will follow unless effective treatment is immediate. The patient must be cooled down rapidly by loosening clothes to fresh air; fanning; applying cold, wet cloths: and making him rest and take cool drinks.

CONCLUSION

4. A sensible attitude must be adopted to combat the effects of heat. Avoid strenuous exercise in the heat of the day, have frequent rest periods, wear loose, light clothing as a protection against direct heat absorption particularly wear something on the head and protect the back of the neck from the sun, drink as much water as you can. In the winter sunshine with snow on the ground protection from glare is essential by using sunglasses and reputable 'glacier creams' on the exposed skin.