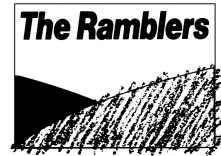


# Ramblers' Association Factsheet

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## Leading group walks in remote areas or demanding conditions

Routes through high-level or remote country, or those undertaken in winter, or bad weather conditions in summer, may present severe challenges for the leader and party members alike. The leader's judgment and decision-making skills may be critical in ensuring the safe return of the party. Additional skills to those required for walking under 'normal' conditions are essential. Some hints are given below of the range of considerations which apply at this level of difficulty, but these notes are not intended to be in themselves a tutorial. Further details may be found in Langmuir's *Mountaincraft and Leadership*, and in the British Mountaineering Council's booklet and video *Safety on mountains*. Leaders for this type of walk should ensure they have the necessary skills and experience. Where appropriate, specialist training may be advisable. Above all, leaders should be realistic about their experience and capability, and that of their party, and plan their walk accordingly.

### Reasons for increased risks

Here are some of the factors which may increase the difficulty or potential hazards of walks in remote or demanding terrain:

- Increased complexity of navigation because of lack of distinctive features, confusing terrain and visibility reduced by mist
- Distance from safety and lack of escape routes
- Slow progress because of difficult conditions underfoot and lack of defined paths
- Steep or rocky terrain, perhaps with considerable exposure
- Possibility of weather deteriorating rapidly
- Weather hazards include difficulty in keeping party warm, dry and in good spirits, slippery conditions underfoot, streams in spate, rain and/or strong winds, low temperatures, reduced visibility or 'white-out', snow and ice
- Loss of daylight because of progress being slower than anticipated
- Inexperienced or fatigued party members

All of the above risks may be reduced by thorough planning of a route matched to the conditions and the party.

### Route planning

Route selection for this type of walking needs particular care to ensure it is suitable for the ability of the party, to guard against over-committing the party and to make certain of a return before nightfall. The walking time must be calculated carefully using a conservative walking speed and allowing for height gain using a modern variation of Naismith's rule (see

below). Adjust the time for special factors such as those listed above and make a contingency allowance. Note should be taken of hazards that might be present and, if relevant, highlighted in the programme description for the benefit of members. Account should be taken of grading systems where they are used, but noting that these can vary in interpretation according to geographical location, terrain and weather. Furthermore, parties may vary considerably in their ability to tackle any given route.

The line of the route should be chosen with an eye on (for example) the steepness of ground, rock features, streams which might become swollen in heavy rain, exposure to high winds, the effect of winter conditions if forecast. Escape routes should be available in case of deteriorating weather or the party's progress being slower than expected, and should be equally carefully planned as the main route. An alternative low-level route is useful in case of bad weather from the outset. Leaders should be under no pressure to stick to the originally planned route in case of poor conditions, and this possibility should be made clear in programme notes.

When planning a potentially hazardous outing, an assessment of the risks involved should be carried out. If a significant level of risk becomes apparent, a full risk assessment is carried out. The Health & Safety Executive state that a risk is the chance, high or low, that somebody will be harmed by a hazard; a hazard is anything that can cause harm; and a risk assessment is nothing more than a careful examination of what could cause harm to people, so that precautions can be weighed up and, if necessary, more steps taken in order to avoid possible harm. The HSE's five-step procedure is as follows:

- Look for the hazards
- Decide who might be harmed, and how
- Evaluate the risks and decide whether the existing precautions are adequate or whether more should be done
- Record your findings
- Review your assessment and revise it if necessary

An assessment should consider the location and conditions, the participants, and equipment, and the degree of risk weighed against possible outcome. After the recce it may be decided to avoid a particular part of the original chosen route, to choose an entirely new route, or to have alternative routes for decision on the day when conditions can be confirmed, or it may be possible, if another leader is available, to offer two walks of differing difficulty. However, on a walk the assessment of risk will be ongoing throughout, and decisions may need to be taken to abandon or shorten the walk, to take shelter, to adjust the pace, to introduce more rest stops, or take any other action that will maintain the safety, comfort and enjoyment of the party. For more information see *Mountain Safety Manual 27: Managing Risks in Outdoor Activities*, ISBN 0 90893 103 4, New Zealand Mountain Safety Council 1993.

When routes could be at all demanding a written route plan should be prepared. This will document the decisions taken, the location of telephones, and will be useful on the day (for example by having critical bearings recorded). A copy can be left with a responsible person at base in case of non-return after an incident and rescue services can then be alerted quickly if necessary. Base should always be advised promptly of a safe return.

For action on the walk in the event of a route change being needed, see Managing a change of route below.

## Competence in navigation

The party leader should have at least two copies of the relevant map(s), weather protected, and two compasses, and at least one other responsible member of the party should carry their own navigational aids. A GPS might serve as a useful back-up device, provided its user is experienced in its operation. Most compasses now have a romer or other scale for measuring distance. A protractor

compass (Silva-type) is preferable to a sighting compass. It is important to wear an accurate watch.

Poor visibility not only tests conventional navigation skills but demands special techniques for navigating over short distances where absolute accuracy is critical.

The prime skills needed by the leader and at least one other person include the following abilities:

- Choosing a line which you will be able to walk: also a line you can navigate whatever the conditions, including thick mist, maximising use of linear features, and the ability to follow the line on the ground maintaining contact with position on the map as you go.
- Interpreting contours to build up a clear picture of the shape of the land.
- Pinpointing position by relating map to the countryside, using a compass and /or land features, which may include gradient and aspect of slope.
- Walking whilst accurately following a bearing, using pacing and timing as a means of measuring distance; and other micronavigational skills.
- Devising a strategy for taking a safe route off the hill in poor conditions.
- Selecting the most appropriate techniques for the particular situation.
- Applying all these skills in the worst weather conditions likely to prevail on the planned route.

## Party composition

The number of walkers in a party should be at the discretion of the leader who will take into account the terrain, experience of the party (if known), and the probable weather conditions throughout the duration of the walk.

It is desirable that parties should contain a proportion of walkers experienced in this kind of walking so that novices can be properly supported by other party members. In order to limit the party size, and to ensure an adequate level of competence in party members, it is strongly recommended to have a booking system, and to vet the experience of intending party members who are not known to the leader. This could be done by suppressing information given in the programme about the meeting-point and requiring those wishing to participate to contact the leader in advance.

The leader should decide, in view of the known or potential hazards of the route, on the appropriate standard of fitness, experience and equipment required to complete the day safely, and should not hesitate to make it clear if, in his/her judgement, that standard would not be met by an intending participant. Those whose skills in winter conditions are lacking should be advised to attend a "winter skills" course and to practise them until they are

confident. It may seem harsh to turn people away, but the safety and success of the expedition may depend upon it.

## Equipment

All members of the party need warmer clothing including a warm hat and gloves, heavier duty waterproofs and boots than for lowland walking, but a flexible (layered) clothing system is best. All party members also need emergency food rations including plenty of water / hot drinks and a torch, preferably a headtorch, plus spare batteries and bulb. The leader should not be afraid to turn away anyone who is not adequately equipped.

The leader should take a first aid kit, the contents of which should be checked and, if necessary renewed, prior to the walk and, before setting out, should ensure that sufficient emergency shelter is being carried by the party. All equipment should be stowed in a completely waterproof inner stuff bag. All members should be advised to carry a first aid kit.

## Weather

Leaders should make a careful assessment of the anticipated local weather and avalanche conditions prior to the walk should be made and monitored during the course of the walk. Advance planning should be sufficiently flexible to allow for the abandonment or adjustment of the planned route if the forecast is poor. However, mountains create their own microclimates, and the forecast cannot be trusted implicitly.

## Ground conditions

Take into account the likely effects of recent and expected bad weather on the state of the ground and, in particular, on hazardous areas noted on reconnaissance, for example steep slopes, streams liable to rapid rises in water level, and avalanche risk. Avoid these areas wherever possible and try to plan alternative routes. Assessments of the weather, and the impact this will have on water levels and snow conditions should be maintained and monitored during the course of the walk. Unplanned river/stream crossings should only be undertaken as an absolute last resort and only by small parties led by suitably trained leaders.

## Winter conditions

Winter conditions (which may occur in mountainous areas almost throughout the year) intensify the hazards of bad weather. The ground may be covered in snow and ice, landmarks familiar from summer conditions may look quite different or be obscured, high winds may make walking difficult and exhausting and visibility may deteriorate rapidly. The hours of daylight are shorter, and this will reduce the length of expedition which can be safely completed.

Where snow is present, leaders should be aware of the prevailing avalanche risk through the understanding of published forecasts and personal observation.

Where snow and ice are likely to be encountered, ice axes and crampons will often be needed, and sometimes a rope. All members of the party must bring their own equipment, and must be competent in its use, preferably having attended a winter skills course. Ski sticks or trekking poles may be useful in soft snow.

## Briefing the party

Emphasise in your briefing any risks that might be involved in what is being undertaken. All those participating need to understand that all walks of this kind carry an element of risk. Point out also that the party should keep together if bad visibility is encountered; that in the event of a necessary change of route because of weather deterioration or other emergency the party must follow the leader's instructions, and everyone should remain sensitive to the needs and difficulties of other party members. The leader should encourage participants to express any concerns they may have before setting off.

## Safety during the walk

The leader should regularly check numbers and keep the party together, particularly in worsening visibility, making full use of a nominated back-marker. The leader should be aware of how well the party is coping with the demands of the route in terms of fitness and mobility and adjust the walking speed accordingly. There should be regular, brief rests, enabling people to eat and drink, and for the leader to check the general wellbeing of the party.

Leaders should be aware that the majority of accidents occur towards the end of the walk when members are tired or relaxed. In the event of an incident, no person should be left on their own. Leaders should be aware of the procedures to be adopted for summoning help (for example from the Mountain Rescue Team) and of the information that may be required in such an event. Mobile phones can be useful but never rely on them because you may not be able to get a signal. But if you do use one, make sure you leave it on in order to receive incoming calls from rescue services.

## Managing a change of route

Where conditions force a change of route, after discussion with experienced party members, the most feasible should be chosen, ideally from amongst those included on the route card.

Leaders should explain to the party why they are now going to follow a different route. They should then

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take care to follow the alternative route accurately. Greater care must be exercised when alternatives are taken.

## Naismith's Rule

To calculate the walking time of a planned route (excluding rest stops) allow time for horizontal distance travelled and for vertical height gained:

**Horizontal distance.** A reasonably fit active party might make a speed of 4kph (kilometres per hour), or 15 minutes per kilometre. However walking speed can vary greatly depending on the ability of the party, aim/type of walk, prevailing conditions (underfoot, weather), and steep descents. The allowance could range from 12 to 20 minutes per km or even more. Planners need to know their party's basic speed and use their judgement to make an adjustment for any special factors.

**Vertical height gained:** Hills slow you down. Allow 10 minutes extra for each 100m of height gain. The fact that speed reduces also on descents is covered in this allowance. Extra time for very steep descents is covered above. In undulating lowland country this height gain element can be ignored by basing the

horizontal speed on the time typical walks take in practice, including any hill climbing.

If leading where the capability of your party and/or the terrain is unfamiliar, it helps to use your Naismith calculation to time your arrival at a checkpoint about one hour into the walk. By comparing your time of arrival there with that calculated you discover whether a time adjustment for the whole walk is necessary.

## Further information

- *Leading group walks (FS6)* for a brief general introduction to walk leading
- *Maps and navigation (FS2)*: a general overview with extensive bibliography and list of course providers
- *Clothing, equipment and safety (FS3)*: a general overview with extensive bibliography and list of course providers

All these factsheets are free from Ramblers main office or can be viewed on the Ramblers website.

- *Navigation and Leadership: a manual for walkers.* The official Ramblers guide, £4 + p&p from Ramblers main office.

The information above is accurate to the best of our knowledge. The Ramblers' Association cannot be held responsible for any inaccuracies, and the listing of any organisation does not imply that the RA in any way recommends or endorses them.

For more information on all aspects of walking in Britain, please visit our website at [www.ramblers.org.uk](http://www.ramblers.org.uk) or contact **The Ramblers Information Service** by post, phone, fax or email: see front page for details.