Winter mountaineering media pack

Information resource for reference
in mountaineering incidents

Produced by Mountaineering Scotland

www.mountaineering.scot

Mountaineering Scotland

In cooperation with Scottish Mountain Rescue

www.scottishmountainrescue.org

SCOTTISH MOUNTAIN RESCUE

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Purpose

This media pack is prepared to assist journalists with terminology and definitions used in the sport of mountaineering, with particular reference to winter, to enable more accurate and informed reporting of mountain sport issues.

The definitions and explanations given are brief and simple for ease and speed of reference.

It is hoped you will find this a useful resource, which can be developed as required for continued use. If you have queries about any mountain sport subject in this guide, please get in touch with Mountaineering Scotland through the Communications Officer, Neil Reid, at neil@mountaineering.scot

Where deadlines are pressing, he can usually be contacted on his mobile at 07788871803, although you are asked to remember we cannot offer a 24-hour service and the information we can provide is general.

All requests for information regarding Scottish Mountain Rescue should be directed to: Andy Rockall generalmanager@mountainrescuescotland.org or by calling the Scottish Mountain Rescue Office on 01479-861370. Please note the office is only staffed part-time and – other than emergencies – Scottish Mountain Rescue cannot offer a 24-hour service.

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What is mountain safety?

Mountain safety is about being aware of your surroundings and having the knowledge and skills to interact safely with them.

What is the ethos of the Mountaineering Scotland mountain safety programme?

Mountaineering Scotland recognises that climbing, hill walking and mountaineering are activities with a danger of personal injury or death. Participants in these activities should be aware of and accept the hazards involved and be responsible for their own actions and for the level of risk they are prepared to undergo. We foster an ethos of self-reliance.

What role does the Mountaineering Scotland Mountain Safety Adviser (MSA) play?

The MSA – Heather Morning – is employed by Mountaineering Scotland, her post is funded by sportscotland. Her primary role is to promote awareness of mountain safety, to provide relevant education and training, and to provide individuals and clubs with the skills they need to be more self-reliant in the mountains. This is delivered through a programme of subsidised training events on the hill, a series of mountain safety lectures, and work with the media, including radio, TV and articles for news, on-line and magazines.

How is mountain safety promotional activity funded?

Mountain Safety work is funded from multiple sources. These include sportscotland funding, Scottish Mountaineering Trust, the Mill Cottage Trust, and Mountain Aid.

What Mountaineering Scotland is and who it represents

Mountaineering Scotland acts to represent, support and promote Scottish mountaineering.

Mountaineering Scotland is the only recognised representative organisation for hill walkers, climbers, mountaineers and ski-tourers who live in Scotland or who enjoy Scotland's mountains.

Mountaineering Scotland provides training and information to mountain users to promote safety, self-reliance and the enjoyment of our mountain environment.

Mountaineering Scotland is a non-profit membership organisation with 14,000 members. It is funded through a combination of membership subscriptions, non-governmental grants and investment from sportscotland, and supports public initiatives and services in mountain safety, mountain weather forecasting, mountain training and the development and promotion of mountaineering activities.

Scottish Mountain Rescue, what it is and who it represents

Scottish Mountain Rescue is the representative body of the 23 voluntary, civilian Mountain Rescue Teams (MRTs), plus 3 police teams & 1 RAF teams. These teams have a total of over 850 members.

Which sport?

What are summer conditions and winter conditions?

Summer and winter conditions are determined by the weather and conditions on the hill, not by the month of the year. The presence of snow is the primary factor. So, for example, in the Pentland Hills a hill walker may experience summer conditions in January, with no snow underfoot and temperatures above zero. However, in the Cairngorms a hill walker could experience blizzard conditions even in May, with frozen snow underfoot; this would constitute winter conditions and require the skills and expertise appropriate to winter in order to travel safely.

What is summer hill walking?

Hill walking is carried out in the glens and mountains of Scotland. It ranges from there being no technical terrain such as crags or steep ground, with undulating or grassy terrain where the result of a simple slip would not be too serious, to mountains where the terrain is more challenging and the result of a slip could be a fall with serious consequences. As the difficulty and seriousness increases, participants require a greater level of experience and judgment in route finding.

What is summer scrambling?

Summer scrambling takes the participant into progressively more serious terrain. The use of a guide book is advisable alongside a map in order to find the correct route. Scrambles are graded, generally from 1 to 3, grade 3 being the most difficult. On the more difficult grade of scrambles most people will be using a rope to ensure safe travel. Helmets would be highly recommended. An example of a classic scramble would be Curved Ridge on Buachaille Etive Mor.

What is summer climbing?

Summer climbing takes place on the outcrops, crags and buttresses of the Scottish landscape. This could range from a single pitch crag (where only one rope length is required) – for example the sea cliffs at Reiff which are only 10-15m in height – to a big multi-pitch mountain route (where it will be necessary to climb many rope lengths)– such as on Ben

Nevis, where a route could be 500m in length. Climbing ropes are generally either 50 or 60 meters in length. 'Traditional' rock climbing involves the use of technical equipment, including ropes, harnesses, helmets and a climbing rack, and the participant requires a good level of training in the techniques associated with safe climbing.

What is winter mountaineering?

There is no such thing as hill walking in winter conditions. Even the simplest of terrain covered in an icy layer poses some risk. Winter mountaineering takes participants onto ice and snow-covered terrain, where the consequences of a simple slip may be very serious. Additional skills and equipment are required in addition to those used in summer to travel safely. For example, to enjoy the Scottish mountains safely in winter requires proficient use of ice axe and crampons. The level of navigation skill also needs to be higher, and participants must be able to navigate in conditions which may include high winds, low temperatures and very poor visibility (white out).

What is winter climbing?

Winter climbing takes place on frozen waterfalls, frozen crags and gullies in the Scottish landscape. There are many different climbing mediums, including pure water ice, snow gullies, frozen turf, and rock, as well as mixed routes on rock/ice/snow. The length of route varies from one rope length, to multiple rope lengths on high mountain routes. Winter climbing requires specialist equipment and skill and stamina over and above that required for summer climbing.

Why do people take part in all of the above?

The reasons for participation are as varied as the individuals themselves: personal achievement, emotional and spiritual wellbeing, socialising with friends, health and fitness benefits, enjoyment of nature, facing physical and mental challenges, competition, aesthetics, research, to 'get away from it all', and to experience a contrast to our modern, sanitised society.

How many people take part?

A survey by Scottish Natural Heritage in 2011 recorded 7.2 million individual visitor days to the hills for mountaineering and hill walking by Scottish residents alone. A significant number of visitors from the other parts of the UK and overseas come to Scotland for hillwalking and climbing. There is, however, a lack of accurate research data available.

How many fatalities have there been?

From 2013 Police Scotland collate the statistics for all land-based search and rescue activity. For information on this contact Stephen Hunter at stephen.hunter@scotland.pnn.police.uk

Of the 23 voluntary Mountain Rescue Teams in Scotland, many routinely help in non-mountaineering incidents, such as searches for vulnerable missing persons, remote area workplace accidents etc. As some of these non-mountaineering incidents involve fatalities, a look at only the headline statistics for any year can give a very false impression.

Each year Scottish Mountain Rescue publishes an annual report. These reports are publicly available at www.scottishmountainrescue.org/member-page/mrcos-documents/statistics/

How are the civilian, voluntary Scottish Mountain Rescue teams funded?

The majority of the funds the 23 voluntary Mountain Rescue teams require in order to continue to deliver their world class service are sourced via public donation and bequests. The Scottish and UK Governments both provide some grant assistance, which equates to approximately 10% of the annual running costs of the service. Scottish MR has also received significant support over many years from the Order of St John. All Scottish civilian mountain rescue teams in Scotland are made up of unpaid volunteers, who are mountaineers in their own right.

You can learn more about Scottish Mountain Rescue and can contribute financially to the teams by accessing the following website: www.scottishmountainrescue.org

What about helicopter rescues?

The lead agency for the delivery of Search and Rescue Helicopters in the UK is Bristows. Additional air assets for casualty transfer are provided by the Scottish Ambulance Service and the NHS medical retrieval service. The helicopter search and rescue service is not solely for mountaineers, and routinely attends road accidents and search incidents in remote areas, coastal and shipping incidents and any incident where access is problematic for the normal emergency services.

Should climbers pay for being rescued?

The policy position of Mountaineering Scotland is No. There is no reason to differentiate between climbers/walkers and anyone else who requires rescue. To say there is no need to go climbing and that they put themselves at risk voluntarily is a false argument. Many car journeys are purely recreational. And there are huge costs to the NHS and Ambulance Service in dealing with people who choose to live a sedentary, unhealthy lifestyle. Climbing and walking reduces the risk of ill health and so provides savings to the health service.

Further, the mountain rescue service is provided free of charge by the Mountain Rescue Teams, who require no payment.

Should mountain climbers require to be insured against rescue?

For a number of reasons, no.

1. Insurance policies will have no effect on safety.

2. Who would require insurance? There are no identifiable dividing lines in the spectrum of people using the outdoors, from picnickers walking a few hundred yards at one extreme to winter mountaineers and climbers at the other.

3. A requirement for insurance would put a significant barrier in the way of less well-off people accessing the mental, social and health benefits of hill walking and climbing. People should not be discouraged from adopting a healthy lifestyle.

4. A system of mandatory insurance cover would be virtually impossible and certainly hugely expensive to enforce.

Hazards and risk

For many, the element of risk is one of the attractions of taking part in activities in the mountains. In the mountains (particularly in winter) people have to make decisions that have very real consequences for their personal safety. This is a very different culture to the environment that people normally live and work in, where many decisions regarding our personal safety have been taken away from us and regulated, and returns responsibility to the individual.

However, risk is relative to ability and experience. The hazards of any particular route or mountain are the same for everyone but, while an experienced and able mountaineer may tackle them with little or no risk, they could be unjustifiably risky for a less experienced or less able climber. It's the same as any activity: a car journey through London contains many hazards, but the same journey is far less risky for an experienced driver than it would be for an unaccompanied beginner.

Taking the progressive approach to mountaineering recommended by the Mountaineering Scotland allows climbers to retain far more control of the level of risk they face.

Risk should also be placed in context and balanced against benefits. Given that the biggest threat to health in Scotland is inactivity, that risk is surely outweighed by the fact a mountaineer is far more likely to live a healthy life than someone who chooses to stay on the couch.

Should people be allowed to take these risks?

Yes. Risk is an inherent part of life.

Dealing with risk is an important skill, which improves self-esteem and self-confidence. Entrepreneurs are risk takers. But with risk comes responsibility. No one should be taking needless risk and putting themselves and others in the line of danger irresponsibly. Hazards in the mountains should be approached with knowledge and experience. Challenges should be sought in a progressive manner and the level of risk assessed through knowledge and experience. Mountaineering Scotland aims to provide opportunities for individuals to enhance this knowledge and experience through courses, lectures and published advice in order to minimise exposure to unacceptable or unwitting risk.

How can people mitigate against mountaineering hazards?

- By taking things one stage at a time, adopting a progressive learning approach
- By attending events provided through Mountaineering Scotland mountain safety programme or other reputable safety courses
- By carrying out good preparation and planning before heading out onto the hill
- By employing an experienced professional mountaineering instructor until your own skills and experience are suitable for the planned activity

An apprenticeship approach is essential. For example, in order to become a competent winter climber, a person should first become a proficient a winter mountaineer, developing skills in the use of axe, crampons, navigation, avalanche awareness etc. Only then should they venture onto easy Grade 1 climbs prior to progressing onto harder, more technical climbs

What are the benefits of hill walking and mountaineering for the individual and for Scotland?

Personal benefits include:

- An improvement in physical, social and mental health
- The feeling of 'belonging' when an activity is carried out in a club environment
- Expansion of knowledge and appreciation of our natural environment
- An opportunity to visit and enjoy parts of Scotland which would otherwise not be visited

There are also benefits to wider society:

- Economic benefits. Income generation in remote areas through accommodation, service and catering providers, from both Scottish nationals and visitors from other parts of the UK and overseas
- Health and welfare benefits for the population, which save money for the NHS. A report from The Ramblers and MacMillan Cancer Support in October 2013 (http://www.walkingforhealth.org.uk/get-walking/walking-works) said tens of thousands of lives could be saved each year if people walked more, not to mention other improvements in people's health

The benefits that the media don't report

Exercise adds up to a longer, healthier life. There is no doubt, based on medical evidence and reports such as the Ramblers/MacMillan report above, that exercise reduces the risk of disease and early death. Instead of focusing on the small risk of injury or death, the media could focus on the far bigger positive outcome to being active.

The terminology

Avalanche

An avalanche is a flow of snow down a mountainside. It can take many forms: perhaps the most common is often referred to as a ‘slab avalanche’, where a snow slope fragments into large blocks, which may break up as the avalanche flows downhill.

An avalanche may occur naturally or be triggered by a person. Loud noises do not trigger an avalanche, but the weight of one person walking across an avalanche-prone slope may be enough to start one. Many factors influence how avalanche-prone a slope may be, including depth of snow, type of snow, wind speed and direction, and temperature.

Terrain Trap

A terrain trap is a part of the mountain which is shaped in such a way that the results of being caught in an avalanche will be even more serious than normal and are more likely to lead to the victim being buried under the snow. On an open mountainside an avalanche will tend to spread its load of snow over a wide area; however, where there is a terrain trap – a dip in the ground, a corrie basin, a gully, or even a level ‘step’ in a steeper slope – snow will tend to pile up deeply instead of flowing away downhill. Anyone caught here is highly likely to become buried, with a greatly increased risk of death. When there is a high avalanche risk, mountaineers or off-piste skiers should take note of these areas in the planning stages and plan their route to avoid them.

Classic examples of terrain traps would be Coire na Ciste on the north side of Ben Nevis, Coire na Tulaich on Buachaille Etive Mor, or the Chalamain Gap in the Cairngorms.

Avalanche forecast

Avalanche forecasts are issued for different parts of the country and range in five categories from ‘low risk’ to ‘very high risk’. A danger level indicating the middle category, ‘considerable risk’, is common in winter, however, it does not mean people should avoid the mountains.

The headline category in an avalanche forecast is supplemented with other relevant information, which will allow people to plan their route to avoid areas of the mountain at the aspect and elevation which are at risk. A good rule of thumb is to stick to ridge lines and scoured areas on the windward side of the mountain. Clear guidance related to which side of a mountain is at most risk is provided in the forecast but it is not as simple as black and white: in-depth interpretation of an avalanche forecast is a skill which can be acquired through education and improved through experience.

White-out

A white-out occurs in snow-covered terrain where the sky and the ground appear to merge and there is significantly reduced visibility, whether due to low cloud or heavy snow. It is impossible to differentiate between the sky and the ground because of the lack of horizon, or to make out landscape features due to everything visible being white. Visibility can be reduced to such an extent that a person may be unable to see anything more than a few feet away.

Cornice

A cornice is an overhanging edge of snow on a ridge or the crest of a mountain and along the sides of gullies. Cornices are formed by wind-blown snow accumulating on the leeward side of features and can build out to form considerable overhangs. They present a danger to the unwary as it is possible to fall through to the steep slope or cliff below, or for the whole cornice to collapse under the weight of a person.

Hills and mountains

These words are often used interchangeably by walkers and climbers. In general, however, a hill is more rounded and poses no technical difficulty. An example of a hill would be any of the Ochils range north of the Forth. A mountain would generally be of higher altitude than a hill and more rugged in nature. An Teallach or Buachaille Etive Mor are two well-known examples.

Corrie

A corrie (also spelled choire or coire) is a basin-shaped terrain feature created by glaciation in the mountains, like a scoop out of a hill or mountainside.

Ridge

A ridge can refer to several things depending on the context. It may be a long, narrow mountain top or a range of mountains arranged in a chain. It may also refer to a narrow spur leading to the top of a mountain, such as might present a safe route when gully routes are prone to avalanche.

Bothy

A bothy is a basic shelter in the mountains. It may be an old cottage or disused farmhouse converted and maintained by volunteers for use as an open shelter to walkers and climbers.

Equipment

Winter boots

Winter boots differ from summer boots in that they have a rigid sole, which is essential for kicking steps into hard snow. Winter boots are also suitable for fitting crampons to.

Crampons

Crampons are frameworks of metal spikes temporarily attached to the sole of a boot. They give grip on hard snow and ice and reduce the risk of a walker or a climber slipping.

Ice axe

An ice axe is a lightweight hand tool with an adze and a pick head. Walkers use one axe to aid stability and security on the mountains in winter. It may also, with practice, be used to halt a slip or fall. Climbers may use two axes – one in each hand – to help them ascend steep snow, ice or rock.

GPS (Global Positioning System)

The mountaineer's equivalent of SatNav. It uses information received from orbiting satellites to pinpoint the user's position. Most models can now be programmed with routes and can give directions from one waypoint to the next.

PLB (Personal Locator Beacons)

A Personal Locator Beacon is a distress beacon, which, when triggered, will transmit a position via satellite to the emergency services.

Partner organisations

Scottish Mountain Rescue www.scottishmountainrescue.org

MWIS – Mountain Weather Information Service www.mwis.org.uk

SAIS – sportscotland Avalanche Information Servicewww.sais.org.uk

MTS – Mountain Training Scotland www.mountain-training.org.uk

Glenmore Lodge, National Outdoor Training Centre – www.glenmorelodge.org.uk

AMI – Association of Mountaineering Instructors www.ami.org.uk

BMC – British Mountaineering Council www.thebmc.co.uk