



## Winter skills webinar Q&A

As Ben was not able to answer all the questions during the live winter skills webinars, we've answered more of them below. If you have any additional questions about mountain skills or safety please email [ben@mountaineering.scot](mailto:ben@mountaineering.scot)

Visit the #ThinkWINTER section of the Mountaineering Scotland website for more information about heading to walk, climb or ski in the Scottish hills in winter: <https://www.mountaineering.scot/safety-and-skills/thinkwinter>

### Avalanche awareness

#### Why are avalanches infrequent at steeper angles?

Above 45° large avalanches become less frequent and smaller loose snow and sluff avalanches can occur. The higher risk angles are 30-45°. The risks for larger avalanches start to decrease after this, but avalanches can still occur in certain places. There are exceptions where larger accumulations can build in certain places for example, tops of gullies or corrie headwalls and where large cornices can potentially collapse onto steep slopes triggering avalanches.

#### Does the SAIS pizza diagram mean the N/E/S/W faces of any mountain in the area, or the mountains in the N/E/S/W of that area?

Yes, the hazard rose indicates where (aspect) and what altitude on any mountain the avalanche hazards are. For example, if Cairngorm mountain was showing considerable (Orange) risks on Northerly aspects, you can presume that northerly aspects of the surrounding mountains (Ben Macdui, Cairn Toul for example) will be the same.

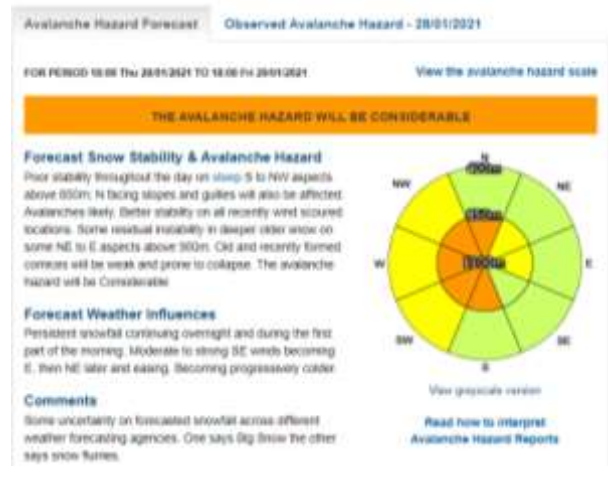
#### If you see an avalanche crack in the snow under your feet is it best to move upslope, down slope, continue, or descend?

There is no real easy answer to this but, if you see a crack shooting out from your feet (Propagation) on a slope, chances are it will avalanche! You have managed to put yourself into avalanche terrain. However, if seeing these signs on lower angle slopes on your journey it is a warning sign from the snow letting you know that the aspect (N, S, E, W) of that slope are at risk of avalanching. So, you will need to think where your planned journey is going and change it to avoid those slopes higher up and on the steeper angles. Always keep in mind the 3 A's (Angle, Aspect, Altitude).

#### Is there still much risk of avalanche on the southern Munro's that aren't covered by SAIS reports?

The simple answer is **YES!** Avalanches can happen anywhere in Scottish hills. The forecasts are done for the areas, which are most frequently visited and popular. If you intend on visiting mountains outside of the 6 forecast areas, it is a good idea to look at what areas are closest to the other surrounding mountains and use those forecasts to make your own forecast and presume that you will find the same avalanche conditions there. It is important to use this with the weather forecast of the area being visited, as this will give an idea of where snow is being moved around the mountainsides.

How much influence or effect would a change of wind direction have? NE all week, changing to SW for example?



You can see in these 2 forecasts for the same area that they have changed within a 24-hour forecast period. The wind has moved from being S/SW (Moderate forecast) to a more Easterly (Considerable forecast) wind. If out on the mountains on a blustery day and you can see large amounts of snow being blown around and being deposited as slab, things can change very quickly within a few hours! It is a good idea to bear this in mind if the weather forecast is suggesting winds and snowfall together or change of wind throughout the day.

**Do the avalanche forecasts consider risks of larger avalanches from above coming down through lower elevations, or just the risk of one starting at a given elevation?**

Yes, they will take a Holistic approach to forecasting and consider what other slopes are connected to the surrounding areas, which can present the avalanche dangers. This can be read in the Observed Avalanche Conditions section of a forecast, which is also part of the overall forecast. It is always important to think of the whole mountain area with avalanche hazards, rather than just one specific slope.

**Avalanche transceivers: Recommended for winter walkers rather than just for skiers?**

I would say not really. As hill walkers we want to actively avoid steeper terrain where it increases in hazard and avalanche risks. Avoidance is better than cure and good decision making, and judgement is cheaper and last forever.

**When skiing there are often severe avalanche warnings but the pistes are open. Am I right in assuming you should still be safe on an open piste?**

It is always good to know what the avalanche forecast, and hazards are for that day are when in a ski resort. Steeper slopes that may have higher risks can be above ski runs and present dangers if in a potential avalanche path.

Ski patrol are very good at helping to manage and reduce avalanche dangers around a resort by informing skiers/snowboarders of where they can go within the ski boundary. However, avalanche danger will still be there outside of the ski boundaries, which can catch people out as they can sometime think they are still in the ski area.

## Weather

### **Do MWIS deliberately make forecast worse to prepare people in advance?**

The MWIS forecasting is given for a larger mountain area at a height of around 900m, which will give a more accurate picture of what is happening higher up on the mountain instead of at sea level. I think if there is low confidence in the forecast details, they may err on the side of caution to help hill walkers make better informed decisions.

## Navigation

### **Any recommendations for watches to assist navigation?**

There are any number of watch companies that have navigation capabilities to aid in giving you the ability to re-locate. The two biggest competitors on the market are between Suunto and Garmin. There is also Casio and Polar. It can be a very personal choice with what features you are after, but I would suggest something that is user friendly, simple to use when wearing gloves and has good battery life. An alternative to watches would be something like the Garmin InReach mini-series GPS.

## Kit/equipment

### **Would a B2 Gore-Tex boot be recommended for winter walking?**

Yes, I would recommend a good stiff soled B2 boot that is fully waterproof for winter mountaineering. Getting cold wet feet in winter can become a problem if out for a longer day. Comfy warm and dry feet are happy feet!

### **With technology nowadays would you consider replacing old leather winter boots with a synthetic lighter winter boot?**

Pretty much all winter mountaineering boots nowadays are made of lightweight, robust and waterproof synthetic materials. These are better insulated and more comfortable than the older traditional leather boots. I would consider shopping around for a more modern stiff-soled winter mountaineering boot; one which suits your foot shape, works for you and is comfortable.

### **How to you know what class boots are B1, B2 or B3?**

In a simple sense, if you can make the boot bend and flex in your hands easily, it will be a summer weight B0 boot, which will not be compatible with crampons. The harder it is to make the boot twist, bend, and flex in your hands the higher the B rating.

Other design features, such as the Heel and Toe piece will have plastic lips to accommodate crampons, which help determine the boot rating and the crampon compatibility.

Check out the Mountaineering Scotland You Tube video regarding winter kit.

<https://www.youtube.com/watch?v=6E8Kq1JQ-vw>

### **Are the old silver bivvy/survival bags as good as the orange plastic ones you referenced? Or should we replace them?**

Yes, I would suggest buying some of the brighter heavy duty orange bivvy bags. They are inexpensive and will stand up to harsh weather better than the lightweight silver ones. Silver space blankets are like kites and will blow away! Having a bag to get into is much better protection from the elements.

## Mountain skills/safety general

**Appreciate weather is key..... but are there recommended 'beginner' mountains that you'd suggest for winter walking?**

The best hills to start on would be any that are smaller in scale, a bit more 'rolly polly' and have easy access and escape routes to roads and populated areas. Areas like the Pentland hills, the Ochils and Campsie Fells are a good place to start. Regardless of any mountains you visit its always a good idea to use the ThinkWinter checklist and Be Avalanche Aware process to help build experience and confidence to then explore bigger mountain areas.

**As a novice hill walker (just moved to the Borders from Sussex) what are the most basic things to watch out for in planning and on the journey for a day in the hills in the winter (hills rather than mountains!)?**

I think the best thing to do is follow the ThinkWinter checklist (<https://www.mountaineering.scot/safety-and-skills/thinkwinter>) and the Be Avalanche Aware process (<http://beaware.sais.gov.uk/>). These will aid in your decision making from looking at weather, snow conditions, what to pack and how to plan a safe journey. It is always a good idea to look what the wind is doing and how strong it is. This will help give an idea where snow will be lying around the mountains. Also, the visibility and cloud cover are good to help if you know that maybe your navigation is not to a high level to cope in poor conditions.

**Is there a recommended First Aid kit for Winter Mountaineering?**

One that is simple and easy to use with winter gloves one. A priority in winter emergencies is to get people out of any wind and keep them warm. Having a group shelter and an orange bivy bag or Blizzard bag should be a good addition to a first aid kit. Other items to add to a first aid kit for winter would be more triangular bandages and Duct tape!

**To register your phone with the emergency text service do you text 'register' to 999?**

Yes, text the word REGISTER to 999 and then follow the prompts in the returned text message. It is a useful extra safety measure to have if someone is hard of hearing or mountain conditions are very challenging to speak over the phone.

**At what stage of climb do you switch to crampons?**

If travelling on terrain, where the consequences of a slip are serious and underfoot conditions are limiting your travel, then it's time to consider putting them on.

You have to use your judgement on this based on your knowledge and experience of the terrain and conditions on that day. Ask yourself, what if? What are the consequences if I do not put them on now?

If you ask this question in the middle of an icy slope that has serious consequence, you have already answered it! Crampons should have been put on earlier.

*Published February 2021*



*Mountaineering Scotland - the representative body for hill walkers, climbers and snowsport tourers in Scotland.*