#### **IBSC Kit List and Guidance**

## **Essential Equipment Checklist**

Personal Kit			
	Skis & Skins & Poles		Hardshell jacket/salopettes
	Boots & Socks		Gloves + spares
	Ski Crampons		Warm Hat/Balaclava
	Ice Axe & Boot Crampons		Buff
	Transceiver, Shovel, Probe (TSP)		Warm layers (mid fleece, down
			jacket)
	Survival Bag & Personal First Aid Kit		Suitable rucksack (32L plus carrying
			straps) & ski strap
	Head Torch & Whistle		Food and liquids (inc flask)
	Goggles		Sunglasses & suncream
	Helmet		Map, mapcase and compass
Group Kit			
	Group Shelter/s		First Aid Kit
	Assured Emergency Comms (PLB		Basic Repair Kit
	etc)		

# Essential Kit for Touring: general advice

With Snowsports Touring, 'light is right' is a good rule of thumb as there can be a lot to carry and skiing with a heavy pack is no fun. Consider each item carefully and by shaving of the grams here and there, you can soon shave off the kilos. But it will depend on your budget and how much you plan on getting out. You should never compromise on key safety equipment and if you don't have the essential items specified here or by the Trip Contact, you may not be able to participate. The club has some kit that can be borrowed and many members can offer kit to loan for the day. Skis, boots, skins & poles can also be hired from many specialist outdoor retailers throughout Scotland.

You will also need to know how to use your kit - this is where you need to check out other club resources available on the website, do some reading, speak to more experienced club members or friends and get yourself booked on a training course or event. But be wary of advice offered on the various internet groups - there is often as much nonsense said as sound advice and it can be hard to tell which is which if you are starting out.

Remember to be flexible: What you wear and carry will always be dependent on the nature of the trip planned and the weather forecast: an ascent of the Saddle via Forcan Ridge on a wild January day will need very different considerations from a cruisy tour around Cairngorm in April sunshine!

## Essential Personal Backcountry Kit (you should always carry)

**Skis/Board** with touring bindings, **climbing skins** and **poles**. Poles should have powder baskets. Consider 'cheat-sheets' or 'skin socks' for storing skins when not in use. Or just do old-school glue-to-glue. You should also have a ski strap - you will need this when carrying the skis on your pack.

**Boots** (with bindings properly adjusted and set to fit them)

**Ski Crampons/Harscheisen.** These are essential in the icy conditions often found in Scotland. They are specific to the type of bindings you have.

**Rucksack** with method for carrying skis/board. The bag should be big enough to carry what you will need on the day. Ski-touring specific ones have much to recommend them as they will let you organise your kit and access it quickly. 28-36L will usually suffice for a normal day. If you haven't carried skis before then practice attaching them to the rucksack before heading out the first time.

**Avalanche transceiver**. Preferably a digital one with a 3-axis antenna with a fresh battery in it at the start of the season and a check prior to each trip to ensure the battery strength hasn't fallen below 50%.

**Avalanche Probe.** Ideally about 280cm. The shorter ones that come in shovel handles are less effective.

**Snow Shovel**. This must have a metal blade and ideally with an extendable handle.

**Survival Bag.** There are a range of options from the simple heavy plastic, very compact plastic and foil bags, through to 'blizzard bags' that are akin to an emergency sleeping bag. Foil 'space blankets' are not appropriate for mountain use.

**Headtorch**, with spare batteries (or a spare torch). There are many models available. Look for ones which are compact and easy to operate with gloves on. Modern head torches use LEDs which do not fail and offer excellent battery life. If using a rechargeable one, make sure to charge it the night before.

Whistle. Usually built into most rucksack chest straps now.

**Map**. OS Map at 1:50,000 or greater, suitably waterproofed and folded down to cover the area of the day's trip and small enough to fit in a chest pocket and with a lanyard to attach it to your jacket or rucksack to prevent it blowing away.

**Compass.** There are many models, but the Silva Mk4 expedition is and remains the best compass for mountain navigation. Avoid 'refracting' compasses. Compasses are precision instruments, so protect it with a carrying case and keep it well away from anything with a magnet. Do not allow your mobile phone to sit in close proximity with numerous reported instances of compasses being ruined by phones.

**First aid kit.** A personal first aid kit should include any personal medication and the usual dressings etc. Duct tape can go a long way solving many problems. The most common issue will be blisters, so make sure to take Compeed and zinc oxide tape. A chemical heat pad can be a good addition (like a handwarmer or two). Self-adhesive wrap is excellent for securing sprains but otherwise standard outdoor first aid kits provide basic requirements. If a group first aid kit is carried then this item may not be necessary.

**Mobile phone.** Charged with a 'power bank' if necessary. Carried at least 20cm from your transceiver, it can be left on or put in airplane mode if you want to save battery. It is recommended you Register your mobile phone with the emergency SMS service. Simply text 'Register' to 999. Wait for the reply so you know you are registered. If it's a smartphone, recommended apps include: Be Avalanche Aware, OS Locate and What3Words apps. You should consider one of the off-line digital mapping apps such as Anquet, ViewRanger or MemoryMap. FatMap is good too.

**Sun cream and lip balm**. The sun has been known to shine in Scotland!

**Sunglasses/Ski Goggles.** Goggles are especially vital if it's forecast to be windy -without them you may find it impossible to face into the wind or navigate or do anything much.

**Pen knife or multi tool.** To de-ice or adjust bindings.

**Spare clothing.** See below for more information about what to wear, but it is always a good idea to have a warm synthetic-fill insulated jacket you can put on for when you stop for any length of time.

Waterproof rucksack liner/stuff sacks. To keep your kit dry. Even when it isn't wet, spindrift can get inside packs and soak dry clothing and in winter it can be a good idea to keep groups of items in separate smaller bags rather than one big one so individual things aren't left out on the snow to blow away as you root through your pack....

**Helmet.** Your brain-box is valuable - protect it! If getting a helmet make sure it's rated for use when skiing - pure climbing helmets do not protect from side impact. Grivel, Salomon and Petzl all do excellent very lightweight helmets that are rated for both climbing and skiing.

**Food and Water.** Ski-touring is high energy. Make sure you take enough food for the day plus some for emergencies. Food that can be eaten on the go is good. Remove fiddly plastic wrappers beforehand. Camelbacs are great, but hoses need to be insulated. Even then it will inevitably freeze up on cold days and leave you thirsty, so you may be better off with a simple water bottle. How much water to take depends on the length of the trip planned -don't take too much though. More than 1L is rarely necessary, especially if you also take a **flask** of hot drink. Again the flask should be fairly small - between 0.3 and 0.5L.

**Ice Axe.** Although not always necessary to bring an ice axe it is recommended one is brought on all trips. It shouldn't be longer than 50-55cm and not be an ice climbing tool (unless you plan on ice climbing...). The specialised ski-touring axes are very light weight and excellent.

**Boot Crampons**. Certain club trips will necessitate the climbing or traversing of known areas of steep ground and which will require boot crampons (no ifs, no buts). Without them you may never be able to safely retrieve a lost ski, or extricate yourself from an unexpectedly icy gully.

If it's only for 'just in case' use, then the specialised ski-touring light-weight aluminium alloy crampons are ideal - tiny to pack and no extra weight. But they are no good for tromping around when you are hillwalking - they will break. If your plan involves something steep and rocky then you will need more general purpose steel alloy crampons, perhaps with 12 points. Make sure they are fitted properly for your boot in the comfort of your home and that the crampon binding system is compatible with your boot. If buying some, don't do it on the internet - take your ski boot with you to one of the good outdoor shops and make sure they fit your boot well. Perhaps the ideal are the 'hybrid' crampons - all business with a steel section up front and party at the back with a light-weight alloy heel section. Remember the very best crampons in the world are the ones in your bag and not in your car.

More technical climbing equipment is beyond the scope of this guide and would be decided between trip participants.

## **Essential Clothing**

Deciding what clothes to wear and take is very personal and dependent on what the weather is doing. If starting the day with a skin up or hike in, start off feeling a bit cold - you will soon warm up and it stops mid-layers getting soaked with sweat. With ski-touring you only have so much flexibility with clothing as there is so much other necessary kit to carry, so make smart choices and accept that at times you may be a bit warmer or colder than ideal.

**Base layers.** There is a huge range to choose from, merino wool, synthetic yarn or blends of both. How heavy should depend on how much you feel the cold and the time of year. Tops should be long sleeved and have a neck zip rather than a crew neck to help venting when on a climb. Bottoms can be ¾ length to avoid your ski socks.

**Ski socks**. Well-fitting merino wool seems best.

**Mid-layers.** There is a vast choice, but you should have at least one mid-layer like a micro fleece. Ideal are some of the lighter-weight 'softshell' insulated jackets or smocks, especially if they have an under-helmet hood. But any mid-weight fleece or wool pullover will do. A soft-shell or insulated gilet can be good to go on directly over your base-layer.

**Outer shell.** For the top this should be a hard-shell, fully waterproof jacket with a good selection of pockets and a proper mountain hood. You will probably be wearing it most of the day, so underarm zips are a good feature to help temperature regulation on the up. On

your legs should wear either soft-shell or hard-shell ski pants or salopettes, usually with braces to help keep them up. Ski specific ones are best, with an internal gaiter and side vents good features to look for. If using soft-shell pants then you will also need to bring hard-shell over-trousers to keep your legs dry in bad weather.

**Gloves/Mitts.** Two pairs - a thin pair for the up and a warmer pair for the summits and going down. If you expect to be doing a lot of digging in the snow, climbing or its a big powder day then a second warm pair might be a good idea as your first pair will get soaked. Mitts are warmer, but harder to use a compass with or do many other tasks.

Warm hat/beanie. Close fitting and preferably without a big bobble (so you can wear it under your hood/helmet).

**Buff/snood.** To help keep your neck warm and can be pulled up over the face to protect you from painful spindrift. Some folk take several, or a thin one and a fleece one depending on the forecast.

**Insulated Jacket.** As mentioned above. Having a warm duvet jacket is great for longer stops and an absolute life-saver if immobile after an accident. Sometimes referred to as a 'belay jacket', you pull it on over the top of your shell when stopped. Down is warmer, lighter and packs smaller, but soon becomes useless if wet. Synthetic fills will stay warm even when wet and usually better suited to Highland dankness. Even if you are a racing snake and like to skimp on the mid-layers because you usually wear a lycra ski-mo suit, you should have one of these in your pack.

## Group Kit (for when you want to share to load)

**Group Shelter.** Also known as bothy bags. They come in various sizes and weights from 2 up to 10 person, but there should be enough to accommodate the whole group.

**Personal Locator Beacon/Satellite tracker**. Not essential, but a real lifesaver if out in the wilds away from a mobile signal and a serious problem arises. A PLB is a relatively inexpensive one-shot device with a long life, maintenance-free, battery, that will quickly alert the search and rescue authorities with a high degree of accuracy that you are in serious trouble and need help. Satellite trackers and pagers allow live tracking of your position by a trusted person and also allow two-way communication. But they also have a recurring subscription charge and need charging.

**Team repair kit.** A wee bag of bits, including duct tape, strong cord, zip ties, skin wax like 'glop-stopper'. Base scraper for removing ice from skins. A multitool with pliers and screwdriver bits attachements is a very useful thing to have too.

**VHF Radios.** Not essential, but very handy for coordinating a big group when practicing safetravel techniques in avalanche terrain.