

South Pole Clothing & Equipment List – Ski

Purchasing new clothing & equipment for a polar expedition is a challenge in itself. There are so many new products on the market that it is easy to become overwhelmed by the options. Our recommendations we are based on clothing & equipment that we have personally used on Polar expeditions. **Do not hesitate to contact us if you have any questions.**

In the list below we emphasis “*systems.*” An excellent one-piece wind suit or a great ski boot is worthless if not used in a proper *system*. All your “systems,” whether they are clothing, sleeping or skiing, must be tested to insure that all items are compatible.

NorthWinds will supply:

- Pulk (sled) with trace & harness: Acapulka or Fjelpulken
- Tents: Hilleberg tent customized with snow flaps, vents, drying lines
- MSR stoves mounted on stove board, pots, & cooking items, and stove fuel
- Navigation: guide will have GPS, compass and watch
- Communication: Iridium phone & solar recharging panel
- First Aid kit
- Repair kit

NorthWinds supplies the following items for you to keep:

- 2 pairs of goggles with wind-stopper nose guards
- 1 fur ruff to be sewn onto your wind jacket
- 2 Nalgene water bottles with insulated covers
- 2 neck gaiters (fleece neck tube to protect lower face). (neoprene face masks are not recommended)
- 2 quick dry washing cloth (1 for re-supply)

Clothing System

On an expedition to the South Pole you can expect temperatures to be around -20°C at the start, with days of 15°C as we near the summer solstice, and colder -30°C as we near the South Pole. We will be working hard, pull pulks uphill into katabatic winds. We can expect wind-chills up to -50°C! Your clothing system needs to wick away perspiration, protect you from the wind and insulate you from the cold.

Body

- 2 sets of top & bottom long underwear; 1 pair light-weight, 1 pair mid-weight. (You may want to bring a 3rd set to be sent to re-supply). Capilene polyester is excellent; untreated polyesters, wick-able polyesters (polypropylene) and the new smart wool are good. Look for Patagonia capilene underwear or Lifa by Helly Hansen.
- 1 set of top & bottom expedition-weight fleece, 100 – 200 wt.
- 1 fleece jacket or pull-over 200 – 300 wt.
- 1 windproof jacket & pants (or one piece suit) made of Gortex or other windproof breathable fabric such as Ventile, suplex or a nylon blend. Look for good ventilation such as full side zips on pants and underarm zips. The hood needs a wire support around the rim to be stiff enough to hold a fur ruff. A ruff is extremely important for the constant headwinds. We will supply you with a fur ruff. If you choose bib pants or a one-piece suit we recommend a through-the crotch zipper; this will necessitate that the under layers also work with this system with crotch zips or slits.
- Please add zipper tabs to all zippers (about 2" long) to enable you to operate zippers with mitts.
- 1 mid-weight down parka with insulated hood.

Other Options:

- Vest: down, fleece or fiberfill
- light weight fiber fill pull over (like a Patagonia puffball pullover)
- If you are prone to cold feet bring 1 pair of insulated pants with full side zippers to enable you to put them on or off without removing your ski boots. Pants can be quilted down, fiberfill or a fleece lined shell.

Head

- 2 hats; must offer insulation, wind protection and cover ears. A fleece with a wind-shell cover is great. Lowe makes a good one.
- 1 pair of sun glasses that block side light such as glacier glasses or wrap around glasses. Eye protection must block 90% of UV rays.

Other Options:

- 1 polypro or fleece balaclava
- 1 wind-stopper head band (can double as eye cover to block out the 24 hour light)

Hands

- 2 pairs of polypropylene glove liners; one thick, one thin

- 2 pair insulated ski glove or wind-stopper glove, large enough to fit over your liners
- 1 pair expedition over mitts; down or fiberfill, large enough to fit over any of the above gloves.

Feet

- 2 pair polypropylene sock liners
- 2 pair thick socks; smart wool or synthetic blend to fit over liner
- 2 pair medium-thick socks

Other Options:

- 1 pair of camp booties, down or fiber fill
- 1 pair VBL (vapor barrier liner) socks

Ski System

Boots & Bindings

Many ski boot & binding systems have been tried, many have failed, none are fail proof. The two systems that have proven the best are as follows.

Option #1: If you are a serious skier you may prefer the stiff, back-country ski boot, such as the Afta or Alpina with a Rotefella NNN BC ski binding. You will need an insulated over-boot to insure warm feet. Over-boots need to be glued and screwed into the side of the boot sole. The weakness in this system is that the boot pin that clips into the ski binding, has been known to failure. Bindings also ice up and break if not thawed & dried out. Solutions: take a spare pr. of boots (that can be shared with same foot size persons) and 2 extra bindings.

Option #2 The other system is a soft boot system that uses a Sorel or Acton boot (rubber soled with nylon upper to the knee) with a Berwin binding (a plastic strap on binding). These boots are easy to walk in, but do not offer good ski control or ankle support. The weakness is that the Berwin bindings are notorious for breaking. Solution take: take 4 bindings. Make sure that you get the newer Grey-blue Berwin bindings.

Skis, Skins & Poles

- Skis: You need a back-country (BC) cross country ski with full metal edges. We can recommend: Fischer Europa 99 or 109, Asnes BC, or Black Diamond Aurora (indestructible but heavy).

- Skins: To pull a heavy pulk you will need ½ ski skins, screwed into the mid section of the base of your ski. No matter what they tell you in the store, skins do not stick in extreme cold.
- Poles: Ski poles must be strong but not heavy, handle straps should be adjustable to fit your large expedition mitts (you may need to modify the straps to make them large enough.) Some prefer adjustable poles like the Black Diamond “Traverse” or “Expedition.” If poles are not adjustable we recommend they be shorter than your standard length as you will be leaning forward when pulling your pulk.

Sleeping System

Although wind-chill temperatures can be -50°C it is surprisingly warm in the tent due to a greenhouse effect caused by 24 hours of sunlight. We also place in fully insulated floor in the tents (made of thin evizote pads). You will need:

- 1 Sleeping bag rated to -25 °C
- 2 full length sleeping pads: either a Z-rest or a Ridge Rest (closed celled foam) with a self-inflating Therm-a-Rest (with repair kit)

Personal Items

Bring the minimum that you will need!

- personal toilet kit: tooth brush, small tube of tooth paste, comb, hair elastics for long hair, nail file or nail clippers....etc.
- 2 chap stick (1 for re-supply) recommend Dermetone
- 2 skin cream (1 for re-supply) the dry polar conditions causes skin to crack on hands and flake off body like dandruff
- 1 small sun screen (face is covered most of the time)
- women - tampons
- small personal repair kit for your Therm-a rest, skis...etc.
- small personal first aid kit for blisters, minor aches and pains
- vitamins (optional)
- 2 duffle bags, one to be left at base camp, one to be sent to re-supply

Other optional items:

- camera, film & spare batteries (lithium batteries last longer in the cold).
- your own Iridium phone (or Simm card for Iridium phone. We can arrange rental of phone and Simm cards.
- Mini disc player (music) & spare batteries
- 2 paperback reading books (1 for re-supply)

- 1 expedition journal pen or pencil