



NZ SUMMER MOUNTAINEERING EQUIPMENT NOTES

Please see the equipment list for full details of what you will personally need to bring along for your course or climb. We hold a quantity of good quality rental equipment for your convenience in addition to a retail purchase service.

Due to the nature of the mountain environment equipment and clothing must be suitable for its intended purpose. It must be light, remain effective when wet or iced and dry easily. It is important that the product will not become redundant before it wears out. These notes will help you make informed choices so you save time and money.

Bring your own clothing and wet weather gear, and if you already have your own equipment that is on the list then we suggest you bring it along as well to learn how to use it best.

We want to ensure you get the best products on the market - the same gear that is used and recommended by our guides – so we can arrange for you to order that equipment directly through us. You can then pick it up when you arrive at our office in New Zealand or we can ship it to you. We offer great deals on equipment packages – come to us with your wish list for favourable pricing! Adventure Consultants is able to offer clients up-to-date information regarding the range of products available so if you need assistance making your selection, or purchasing any item, then please feel free to contact us for advice.

CLOTHING OUTER LAYER / SHELL CLOTHING

There are numerous fabrics, which are both water resistant and breathable such as Gore-Tex, Reflex, Membrain, Entrant etc. These fabrics are expensive but can last for years if well looked after. Shell clothing should be seam sealed during the manufacturing process or it will leak through the stitching. It also should be easy to move in and easy to put on and take off when wearing gloves or mitts. Shell clothing made of PVC, or similar 100% waterproof but non breathable material, is not suitable as moisture cannot escape when you are exerting energy and you become damp from the inside out! So fabric breathability is just as important as water resistance when you are active in the mountains.



Marmot Spire Jacket

JACKET / WATERPROOF SHELL: Gore-Tex or similar waterproof breathable material. Look for a model with a full front zipper, a good attached hood with draw cord etc for good adjustability so it will fit over a helmet. Preferably, the jacket should be long enough to allow a generous overlap with your overpants when you bend over. Obviously a technical mountaineering jacket is ideal but many general purpose jackets are also suitable.

We recommend: Marmot Spire Jacket or Marmot Minimalist Paclite Jacket

OVERPANTS: Gore-Tex or similar waterproof breathable material. These must have full length zips down the legs so they can be put on and taken off when you are wearing boots

and crampons. The bib or salopette types are warmer as they extend above the lower back / kidney area giving a good overlap with your jacket. Make sure they have sufficient movement to enable you to lift your legs high and enough room to wear your climbing pants underneath.

We recommend: Mountain Hardwear Pinnacle Pants or Berghaus Paclite Pants

MOUNTAINEERING GLOVES: a pair of waterproof-breathable mountaineering gloves with removable fleece liners. A good model will also have abrasion resistant palms, shaped fingers.

We recommend: Black Diamond Prodigy or Element Gloves



BD Element Glove

GAITERS: Full calf-length gaiters keep the snow out and need a good tie down system under the in-step to stop them creeping up at the heel and allowing snow in. A Velcro or zip closure at the front is best for putting them on and removing them easily.

We recommend: Cactus Instigaiters or Black Diamond FrontPoint GTX Gaiter



Cactus Instigaiters

MID LAYER or INSULATING LAYERS



Marmot Super Hero Jacket

FLEECE/SOFTSHELL JACKET: A 200 weight Polartec, windstopper or Softshell with a full front zip to allow ventilation. Zip up pockets help avoid losing items which are stored there. A hood is also a bonus.

We recommend: Marmot Super Hero Jacket



Marmot Reactor Half Zip

LIGHTWEIGHT FLEECE: A lighter weight mid layer (Equivalent to 100 weight Polartec) can be worn as your top layer when it is warm, then add your fleece jacket when it gets colder

We recommend: Marmot Reactor Half Zip



Marmot Scree Pants

CLIMBING PANTS: A stretchy quick drying pair of pants that have water and wind resistant qualities and can be used independently of your Gore-Tex pants in fine weather but do not replace Gore-Tex overpants.

We recommend: Marmot Scree Pant



Black Diamond Skull Cap

HAT: Made of either wool, windstopper or fleece, it must extend over the ears and should not have a tendency to fly off in a strong wind. A close fitting model that can be worn under a helmet is best. A polypropylene or silk balaclava is good to carry as a spare or to use as a neck warmer.

SOCKS: Have at least two complete sets with you for a trip. Wool or a mix of fibres with good thermal properties are a good choice. Some people wear combinations of thicker (wool socks) and thin socks (polypropylene liner socks) rather than just one thick pair. Others prefer the simplicity of a single sock. Do not be tempted into thinking a really thick sock is best. Modern boots provide the thermal qualities and the sock is predominantly a comfort layer. Try your socks out with your boots if before buying if you can.

We recommend: Bridgedale, Thorlo, Smartwool or Icebreaker socks

GLOVES: In addition to your mountaineering gloves. An extra pair of fleece or windstopper gloves and also a couple of pair of polypropylene or silk gloves.

We recommend: Marmot Powerstretch Fleece and Driclime Base Layer Gloves

GLACIER SHIRT: A long sleeve cotton shirt in a light colour is useful for those hot days on the glacier. An old office shirt is fine

We recommend: Adventure Consultants Glacier Shirts

THERMAL OR BASE LAYER



Marmot Midweight Zip Neck

LONG SLEEVE TOP: Long sleeve thermal tops made of polypropylene, silk weight driclime or a silk / wool mix are excellent. A high neck with a zip gives good temperature control. Bring two tops (one for climbing in and one for wearing in the evenings or to double up if you are really cold).

We recommend: Earth Sea Sky Incredible Long Sleeve or Marmot Midweight Zip Neck



Marmot Midweight Bottom

LONG-JOHNS: Thermal long-johns made of the same materials as thermal tops are lightweight and provide a change if your climbing pants are wet or too warm. They also provide lots of additional warmth if worn under your climbing pants, though this would generally only be required in winter.

We recommend: Earth Sea Sky Merino Long Johns or Marmot Midweight Bottom

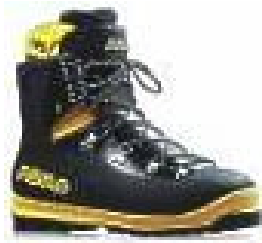
UNDERWEAR: Bring sufficient changes of your regular underwear. It is possible to buy polypropylene, silk or merino briefs and singlets, which are warmer and dry faster if you get wet however, most people use their normal, most comfortable underwear.

FOOTWEAR

RUNNING SHOES: Lightweight shoes or lightweight trekking boots are handy for walking around in at the end of the day and for the walk out down the valley.



BOOTS: Leather mountaineering boots are the style favoured by all of our New Zealand guides. These boots should have a full shank and come up high around the ankle for optimum support. They are often lined with Goretex, making them waterproof and breathable, and a material such as Duratherm to provide adequate insulation. Although leather boots are more comfortable and lighter than plastic boots it is important to get the correct fit and to break them in before your first big trip. Different brands suit different foot shapes so try out a few different models. The fit should be snug with room to wriggle your toes, either tighten or loosen the laces to adjust for different circumstances. They need to be comfortable to walk and climb in for many hours.



An alternative to leathers are plastic rigid soled boots with removable inner boots. These are produced by several manufacturers and are hardwearing and stable. They tend to be warmer than leather boots and the inners are removable so can be dried out at night. The hard shell accepts only the foot shape it was designed for so you may need to try on a few different brands to get the right fit. Different brands use different foot lasts. Some shells can be heat moulded by ski shops to ease out any minor pressure points.



Either boot must have a reasonable sized welt at the back accept 'clip on' crampons. There are many different models designed for different kinds of use from glacier walking to steep ice climbing. As they don't wear out that quickly it's worth thinking about what your end use is going to be before buying a pair. For example if you are planning to extend your climbing career in the Himalaya a plastic boot would be more suitable as they are warmer and the liners can be dried out easily – this is of utmost importance when climbing at altitude. It is important to identify any pressure spots and if you are trying boots on for size, do it later in the day when your feet have had a chance to swell a little. It is also best to get used to walking in them before you head off on your first big trip as they do require a slightly different style of walking and the inner boot becomes more comfortable with use.

We recommend: La Sportiva Nepal EVO

OTHER

SUN HAT: A baseball cap is commonly used but it won't protect your ears from the sun. A cotton or silk scarf is a sensible addition for ear and neck protection. A wide brim hat offers extra protection but it will need to have a chin cord to stop it from blowing away.

SCARF/BANDANA/BUFF: useful for sunprotection.

HARDWARE EQUIPMENT

All of the following hardware items are available for hire from Adventure Consultants if necessary.



Grivel G12 New-Matic

CRAMPONS: We recommend the clip-on type as they are the quickest to put on and take off which can save an appreciable amount of time on a mixed climb. Strap-on crampons are suitable if you are planning on doing mainly trans-alpine tramping trips with leather boots which don't accept a clip-on crampon. If you do have strap-ons then the 'scottish' system is much faster to use (it has a ring on a strap over the toe).

The front points of your crampons should stick out from the front of the boot about 2.5cm. Be sure to check the heel piece of the clip on crampon is compatible with your boots and stays in place when in the up position. If possible practice putting on your crampons before your trip.

We recommend: Petzl Charlet Vasak or Grivel G12 New-Matic

ICE TOOLS: A wide range of good ice tools are available so it pays to know what you will be using it for when purchasing one. Some tools are brilliant for vertical ice and useless for climbing snow and vice versa. Some tools are acceptable for both.

ICE AXE: For general alpine climbing you need a straight shafted axe between 60 cm to 70 cm long depending on your height. A longer tool is more practical on moderate ground and even the most difficult climbs have approaches and descents for which this is useful. Short axes with curved shafts and moulded hand grips are fine on hard technical ice climbs but not so suited to most alpine climbing.

The head of the axe should be comfortable to hold when using the axe as a walking stick and not have any protrusions which will dig into your hand.

The pick can be a normal curve or a 'reverse curve'. The steep picks and reverse curves hold better on steep ice, although they are more difficult to self arrest with. Many tools come with replaceable picks so check that the bolts are tight before each climb.

The adze is still used a lot for chopping steps in ice and snow and must be of a good angle to do so. Some adzes are too dropped to chop steps easily and instead are designed for climbing steep unconsolidated snow.

Shafts are either metal or glass composites and some have rubber hand grips. A rubber grip at the base of the shaft makes it easier to hold when self arresting or climbing steeper ground as well as keeping your hand warmer. The shaft must be smooth enough to be forced into the snow and should not have protrusions which can get caught up on a crusty snow surface.

The spike at the bottom of the tool should be sharp enough to penetrate hard snow.

A wrist loop is needed for support when climbing on steeper ground. The correct length allows you to hold the bottom of the shaft with the sling tight.

We recommend: Grivel Air Tech EVO Axe and Petzl Aztar Axe

ICE HAMMER: This can be a shorter than the axe (45 cm to 60 cm) as it is often only used on the steeper sections of a climb and for hammering in stakes and ice screws. Some people find it easier to have axe and hammer the same length when climbing on steep ice but for most mountaineering terrain a walking axe with a short hammer is the best combination. The head of a hammer receives quite a lot of abuse on a climb and must be very secure with a good striking surface. The pick is generally a reverse curve at a steeper angle. Most climbers opt for a short technical tool with a bent shaft to protect the knuckles on steeper climbs.

We recommend: Petzl Charlet Aztar Hammer



Grivel Air Tech EVO Axe



Petzl Charlet Aztar Hammer

HELMET: Plastic helmets designed for climbing are lightweight and designed to deflect falling ice and rocks. They also protect the head in the case of a fall. 'Construction' style helmets are not designed for sideways protection so are not suitable. Plastic becomes brittle as it ages so if you are borrowing a plastic helmet then it should not be more than 4 years old. Composite (fibreglass/carbonfibre) helmets are also available but are generally quite heavy or else expensive.

Check the harness size and make sure that it is easily adjustable for when you are wearing your hat or balaclava underneath.

We recommend: Petzl Elios Helmet



Petzl Elios Helmet



Petzl Corax Harness

HARNES: The sit harness type is used for most mountaineering situations. These should be lightweight, comfortable and adjustable around the waist and legs. A specially designed alpine harness is easier to get in and out of (which is important when nature calls) and can be put on even when you have boots and crampons on. Many rock-climbing harnesses have fixed leg loops and hence cannot be adjusted for different clothing layers. Wear your mountaineering layers when trying on a harness to ensure it fits over the clothing layers. **We recommend: Petzl Corax Harness or Petzl Calidris Harness**



Petzl Ascension

JUMAR/ASCENSION DEVICE (For Alpine Expedition Course Participants Only): For use ascending fixed lines. Bring one if you have one, but there is no need to purchase one just for this course.
We recommend: Petzl Ascension

CARABINERS: (3 x Screw-gate & 5 x Snap-gate carabiners)

Bring 1-2 'Pear' and 1-2 'Oval' shaped locking carabiners and 5 snap-gate carabiners if possible.

We recommend: Petzl Charlet William Screwgate Carabiner (Pear) and Petzl Charlet Am'D locking carabiner (D) & Petzl Spirit Snappgate Carabiners



Petzl Charlet Spirit Snapgate Carabiner



Petzl Charlet William Screwgate



Black Diamond Turbo Express Ice Screw

ICE-SCREWS: These range in quality and price. The two things to avoid are cheap screws and titanium screws. The rest are good quality strong ice screws. Ice-screws are available in a range of different sizes. From 12cm to 22cm in length. Make sure you have one to two long screws 22cms in length, these will be used for anchors. Some ice screws have winders for fast placement, which are fantastic for quick placement but be aware some winders can take up room on your harness

We recommend: Black Diamond Turbo Express Screws

PRUSSIC LOOPS: Generally 6 mm kernmantel cord. You will need at least 3 of these. Two shorter prussics 1.6m untied length and one longer at 3.2m untied is a good combination. A double or triple fisherman's knot is generally used to join the ends and create the loop. If in doubt bring 7m of cord and your guide will teach you how to tie them.

We recommend: Bluewater Ropes, sling and cord

SNOW STAKE/PICKET: Again these range in quality and price. The most commonly used stakes are the T shaped stakes and the V shaped angle aluminium with a tape sling at the top. They are commercially available some with a wire anchor point at mid length which provides more versatility.

We recommend: MSR Coyote Snow Picket

BIVVY BAG: The best types are made from Gore-Tex or a similar waterproof breathable fabric. Some models use non-breathable fabrics or ripstop nylon on the bottom and these tend to cause some moisture build up. Some designs are intended for use in the bush so will have mosquito netting built-in. These are still suitable, just a little heavier.

We recommend: Black Diamond Winter Bivvy or Hooped Bivvy



Marmot Never Summer Bag

SLEEPING BAG: A down filled sleeping bag is preferable as they are extremely warm, light and compact. It is a good idea to store your sleeping bag in a plastic bag inside a stuff sac in your pack to avoid it getting wet as down loses its insulating qualities when wet. A sleeping bag rated as 3 season or better (approx -5 degrees Celsius and containing anything from 550gms – 740gms down fill) is ideal for New Zealand mountaineering conditions.

We recommend: Marmot Never Summer or if you really desire a synthetic bag, Mountain Hardwear Lamina 20 Sleeping Bag



Thermarest Prolite 4

SLEEPING MAT: You will need a sleeping mat when camping on snow. A full-length closed-cell foam mat and a medium lightweight thermarest are warmest.

We recommend: Thermarest Prolite 4



Petzl MYO XP

HEADLAMP: Petzl make the best headlamps available. Avoid the 'micro' or simple LED models as they have problems with battery life and light levels. The new Petzl MYO XP provides the ultimate combination of lightweight yet powerful and long-lasting lighting. The combination LED & Halogen bulb headlamps (eg Petzl MYO3) are another excellent alternative. Bring two sets of batteries for the trip.

We recommend: Petzl MYO XP Headlamp

BACKPACK: There are many models available which are suitable. Your pack should have at least a 65 litre capacity but no more than 100 litres in volume and have an expandable lid & compression straps. Make sure the pack has attachment points for your ice axe, hammer and crampons and a top pocket.

We recommend: Cactus Deepwinter



Cactus Deepwinter

BITS `N' PIECES



SUN GLASSES: Preferably the glacier glasses style with side protection, or good 'wrap around' ones. Light reflecting in from the side can cause lots of damage with the high levels of sunlight in the mountains. The lens should be dark enough to withstand the intense reflection from the snow, and must filter 100% of UV light. Goggles are also required for stormy or winter conditions.

We recommend: Smith Sunglasses and Goggles

POCKET KNIFE: The Swiss Army style, Leatherman, or other equivalent.
We recommend: Victorinox Climber or Mountaineer Swiss Army Knives

STUFF BAGS: Lightweight nylon bags with draw cords to store spare clothes etc. Very useful for organising gear in your pack or when you're in a hut. Bring 2 or 3.
We recommend: Sea to Summit Dry Bags and Stuff Sacks

TOILET BAG: Bring a small toilet kit - flannel, wet wipes, small towel, some soap, toothpaste and toothbrush. If you are going on a week long trip, a small bottle of liquid soap/shampoo can be nice.

SUN BLOCK: New Zealand conditions are extreme so you will need a bottle or tube of maximum protection sun block. In addition, lip balm (with SPF 15 or higher) is worth carrying in your pocket for application during the day.
We recommend: Aloe Up Superblock or Piz Buin Sunscreen

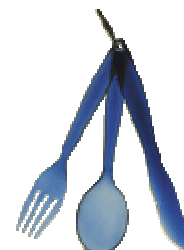


WATER BOTTLE: The wide mouth plastic bottles are good. It pays to have sufficient capacity to carry two litres. You dehydrate easily in the dry mountain air.
We recommend: 2 x Nalgene 1 Litre Wide Mouth Bottles

PLASTIC BOWL, CUP and SPOON: A light non-breakable bowl and spoon. The cup can be stainless steel, tin or non breakable plastic, though hot drinks in stainless steel/tin burn your mouth easily. A thermal mug with a lid is ideal.
We recommend: Lexan Bowl, Lexan Cutlery Set & Lexan Fairshare Mug.



Lexan Fairshare Mug



Lexan TEKK Cutlery



FIRST AID KIT: A basic personal first aid kit is necessary. Blister tape, 2nd skin (optional), gauze pads, crepe and triangular bandages, painkillers. Also any personal medication required. *(Please remember to inform your guide if you are on prescription medicine).* Store the first aid kit in a waterproof container, a plastic bag inside a stuff sack is often adequate.
We recommend: Aide First Aid Kits



Silva Ranger 3

COMPASS: Any compass which is suitable for orienteering will do. Remember that the magnetic declination is different in the Southern Hemisphere so compasses designed for the Northern Hemisphere will stick if you try to use them here.
We recommend: Silva Compasses

MAP: Generally 1:50,000 topographical maps. Wait until you arrive to get the map specific to your climbing destination; maps can be purchased from our office along with guidebooks on these and other areas.

NOTE BOOK and PENCIL: Preferably waterproof paper notebook or wrapped in plastic bags.



A CLIMBERS GUIDE TO NEW ZEALAND MOUNTAINEERING TECHNIQUES by Adventure Consultants Guides Guy Cotter & Mark Sedon: To practice skills already attained and to ensure you are using the right techniques on the right terrain. All course participants receive a copy of our book and this can also be purchased at our office for NZ\$25.

PLEASE CHECK YOUR EQUIPMENT LIST. THERE MAY BE OTHER REQUIREMENTS NOT LISTED HERE. PRICES MAY CHANGE FROM THOSE ADVERTISED.

Please do contact us if you have any queries at all about the climb or your course. We look forward to meeting and climbing with you in the summer of 2009 / 2010.



Marmot



Black Diamond



BlueWater Ropes

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