



EQUIPMENT NOTES MOUNTAINEERING IN NEW ZEALAND

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.

As you know, Adventure Consultants is able to offer clients good prices on a range of clothing and equipment and up to date information regarding the range of products available. If you need assistance with making a purchase or making your selection, then please feel free to contact us.

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 (tape sealed on the seams) 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 totally 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 very important when you are active in the mountains.



Macpac Prophet 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 sufficient.

We recommend: Macpac Prophet Jacket NZ\$765.00
or **Macpac Zone Jacket** \$297.00

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 type 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 light

fleece pants underneath. **We recommend: Macpac Mountain Bibs** NZ\$679.00, **Macpac Mountain Pants** NZ\$424.00, **Marmot Oracle Pants** NZ\$254.00 or **Mountain Hardware Tenacity Bibs** NZ\$600.00.

OVER MITTS or SHELL GLOVES: There are several glove combinations that work. We generally use waterproof-breathable mitts or gloves with removable fleece liners. It is best to have a model where the liners can be removed to make drying easier. A pair of polypropylene or Driclime gloves as an additional liner to these also allows some dexterity without exposing the fingers. As an alternative to mittens the 'ski' type finger glove can be handy when handling equipment, though many models are not waterproof and can be difficult to dry. **We recommend: Marmot Apex Mountain Gloves** NZ\$152.00 or **Marmot Crestline Glove** NZ\$110.00



Marmot Apex Gloves

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: Macpac Snow Gaiters NZ\$85.00



Macpac Snow Gaiters

MID LAYER or INSULATING LAYERS



Macpac Zen Women's

FLEECE JACKET: A 200 weight Polartec or windstopper 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: Macpac Zen Windstopper Jacket** NZ\$314.00, **Macpac Vapour Windstopper Jacket** NZ\$254.00 or **Marmot ATV Jacket** NZ\$340.00



Macpac Flipside Jumper

FLEECE SWEATER/JUMPER: A lighter weight mid layer (Equivalent to 100 or 200 weight Polartec) is a good addition if you need extra warmth to combine with your other jacket or if it is not cold enough for your regular jacket (above). **We recommend: Macpac Flipside Jumper** NZ\$110.00



Macpac Mission Pants

FLEECE PANTS: Preferably not too heavy a fabric as they can cause overheating. These can be loose or tight fitting. There are a variety of softshell pants available 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: Macpac Mission Pants NZ\$297.00 or Macpac Bees Knees NZ\$85.00



Macpac Hot-Hed

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 polypropylene or silk balaclava is good to carry as a spare or to use as a neck warmer.

We recommend: Macpac Maverick Hat NZ\$42.50, Macpac Hot-Hed NZ\$25.50 and Silkbody Puresilk Balaclava NZ\$20.00

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. Often people wear combinations of thick (wool socks) and thin socks (polypropylene liner socks) rather than just one thick pair. Try your socks out with your boots if possible beforehand.

We recommend: Bridgedale Socks & Silkbody Puresilk Liner Socks NZ\$16.50

GLOVES: In addition to your waterproof mitts or gloves. A light pair of fleece or windstopper gloves are ideal. Otherwise wool or a couple of pairs of polypropylene or silk gloves.

We recommend: Marmot Windstopper Gloves NZ\$64.50, Marmot DriClima Base Layer Gloves NZ\$24.50, Marmot Powerstretch Gloves NZ\$45.00 & Silkbody Puresilk Base Layer Gloves NZ\$16.50.

GLACIER SHIRT: A long sleeve cotton shirt in a light colour can be useful for those hot days on the glacier. **We recommend: Adventure Consultants Columbia Glacier Shirts NZ\$89.95**

THERMAL OR BASE LAYER



Macpac Interwool Mid Zip

LONG SLEEVE TOP: Long sleeve thermal tops made of polypropylene, silk weight driclima 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: Marmot Silkweight Driclima Long Sleeve Top or Macpac Interwool Mid Zip or Mid Crew Tops



Macpac Interwool Mid Longs



Macpac Interwool Boxers

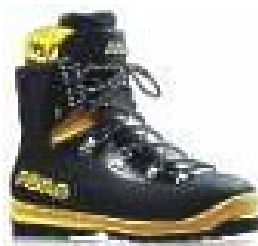
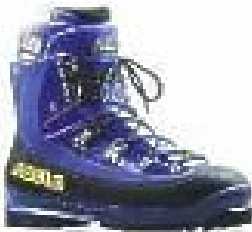
LONG-JOHNS: Thermal long-johns made of the same materials as thermal tops are lightweight and provide a change if your fleece pants are wet or too warm. They also provide lots of additional warmth if worn under your fleece pants, though this would generally only be required in winter. **We recommend: Macpac Interwool Mid Longs NZ\$77.00 or Marmot Silkweight Driclime Long Johns NZ\$76.00**

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.

We recommend: Macpac Interwool and Marmot Silkweight Driclime Mens & Womens Boxers and Mens & Womens Silkbody Finespun Tank Tops

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. **We recommend: Salomon's light weight trekking boots: Extera Mid or Salomon trekking or running shoes Extera Low or XA Pro 2**



BOOTS: Plastic rigid soled boots with removable inner boots are the status quo. These are produced by several manufacturers and are lightweight and stable. 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. 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. Some shells can be heat moulded by ski shops to ease out any minor pressure points.

The boots must have a reasonable sized welt at the back and front to 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. 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: Koflach Degre Boots NZ\$612.00, Asolo Evoluzione Boots NZ\$489.00**

OTHER

SUNHAT: 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.

HARDWEAR EQUIPMENT

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



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 Crampons (*Pictured*) NZ\$265.00

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 helpful on moderate ground and even the most difficult climbs have approaches and descents for which this is helpful. 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, wood 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: Petzl Charlet Guide Axe NZ\$260.00 and Petzl Aztar Axe NZ\$337

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 NZ\$337.00



Petzl Charlet Guide Axe



Petzl Charlet Aztar Hammer

HELMET: The 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 NZ\$99.50



Petzl Elios Helmet



Petzl Corax Harness

HARNESS: 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 soon 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. **We recommend: Petzl Corax Harness NZ\$160.00 or Petzl Calidris Harness NZ\$173.00**

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 Carabiners NZ\$34.50 & Petzl Spirit Snapgate Carabiners NZ\$24.50



Petzl Charlet Spirit Snapgate Carabiner



Petzl Charlet Laser Ice Screw



Petzl Charlet William Screwgate

PRUSSIC LOOPS: Generally 6 mm kermantel cord. You will need at least 3 of these. They should be tied from a 2.75m length, a 2.25m length and a 1.5m length. A double or triple fisherman's knot is generally used to join the ends and create the loop. If in doubt bring 8m of cord and your guide will teach you how to tie them.

We recommend: Bluewater Ropes, sling and cord

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: Petzl Charlet Laser Ice Screws NZ\$106.00 & Black Diamond Express Screws NZ\$119.50

SNOW STAKE: 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 NZ\$44.00

BIVVY BAG: The best type 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: Macpac Alpine Cocoon NZ\$297.00



SLEEPING BAG: A down or synthetic filled sleeping bag can be used. Down bags are usually less bulky but harder to dry when wet. It is a good ideal to store your sleeping bag in a plastic bag inside a stuff sac in your pack to avoid it getting 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: Macpac Sanctuary 700XP Sleeping Bag NZ\$680.00**



THERMA-REST
THE ORIGINAL SELF-INFLATING MATTRESS™

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 NZ\$200.80 and Thermarest Z-Rest Mat \$80.00



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 combination LED & Halogen bulb headlamps (eg Petzl MYO3 or MYO5) are excellent and provide a low level light for use in the hut, which doesn't chew through your batteries as well as good light for climbing with. Bring two sets of batteries for the trip.

We recommend: Petzl MYO3 Headlamp NZ\$106.00

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: Macpac Classic Ascent Pack NZ\$340.00 or the Macpac Ascent XPD Pack NZ\$424.00



Macpac Classic Ascent

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 Swiss Army Knife NZ\$39.00 or Mountaineer Swiss Army Knife NZ\$49.00

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.

TOILET BAG: Bring a small toilet kit - flannel, small towel, some soap, toothpaste and toothbrush. If you are going on a week long trip, a small bottle of liquid soap 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 NZ\$25.95

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.** NZ\$10.00 - 26.00



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.

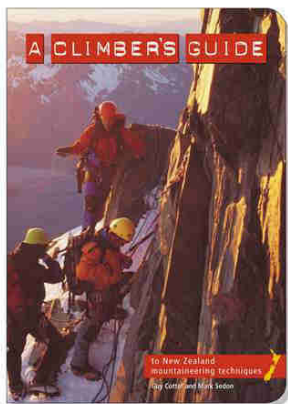


COMPASS: Any compass which is suitable for orienteering will do. Remember that the magnetic declination is different in the Southern Hemisphere so compasses designed for the Northern Hemisphere will stick if you try to use them here. Dangerous. **We recommend: Silva Ranger 3 LUM Compass NZ\$32.00**

MAP: Generally 1:50,000 topographical maps.

We recommend: Terralink Topographical Maps – Mt Aspiring, Westland & Mt Cook
Wait until you arrive as 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. This can also be purchased at our office.

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 2004 / 2005.*



BlueWater Ropes

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