

# **2018/19 VINSON EXPEDITION EQUIPMENT LIST**

## **Equipment Checklist**

1.0 Body Wear	C O Compine Cos:
·	6.0 Camping Gear
<ul> <li>□ Waterproof shell jacket</li> <li>□ Waterproof shell pants</li> <li>□ Expedition down parka</li> <li>□ Insulated pants</li> <li>□ Midweight insulated jacket</li> <li>□ Lightweight fleece top</li> <li>□ Softshell Jacket/wind shirt</li> </ul>	<ul> <li>□ Down sleeping bag (-30C/-22F to -40 C/-40F)</li> <li>□ Foam sleeping mat</li> <li>□ Inflatable sleeping mat</li> <li>□ Water bottles x 2</li> <li>□ Insulated water bottle covers x 2</li> <li>□ Cup, bowl and cutlery</li> </ul>
□ Softshell climbing pants	7.0 Accessories
<ul> <li>□ Base layer top and leggings x 2 sets</li> <li>□ Underwear</li> <li>□ Change of clothes for Union Glacier</li> </ul>	□ Personal first aid kit and medication □ Personal toiletries □ Sun block and lip balm □ Moist wipes □ Hand sterilising gel □ Lighter □ Thermos flask (optional) □ Pee bottle □ Small camping towel □ Ear plugs and eye mask (optional) □ Stuff sacks and large plastic bags □ Pocket knife/Leatherman/tool kit (optional) □ Chemical hand and toe warmers
2.0 Head Wear	
□ Warm hat □ Sun hat □ Balaclava (optional) □ Buff or neck gaiter □ Face mask □ Sunglasses (and spares) □ Nose guard (optional) □ Ski goggles	
3.0 Hand Wear	<ul><li>□ Camera (optional)</li><li>□ Personal entertainment (optional)</li></ul>
<ul> <li>□ Liner gloves x 2 pairs</li> <li>□ Fleece gloves x 2 pairs</li> <li>□ Mountaineering gloves with removable liners</li> <li>□ Expedition mittens</li> </ul>	8.0 Climbing Equipment    Ice axe   Crampons
4.0 Foot Wear	<ul> <li>□ Climbing harness</li> <li>□ Locking carabiners x 2</li> <li>□ Non-locking carabiners x 5</li> <li>□ Mechanical ascender</li> <li>□ 4m of 8mm cord or 16mm webbing tape</li> <li>□ 120cm sewn slings x 2</li> <li>□ Prusiks - 1 x long and 1 x short</li> <li>□ Collapsible ski poles with powder baskets</li> </ul>
<ul> <li>□ Socks x 5 pairs</li> <li>□ High altitude mountaineering boots</li> <li>□ Down bivvy boots</li> <li>□ Winter/snow boots (optional)</li> </ul>	
5.0 Packs & Bags	
<ul> <li>□ XL-XXL lockable duffel bag x 1 (130-150 litres)</li> <li>□ Small lockable duffel bag x 1 (30-40 litres)</li> <li>□ Carry-on daypack (30-40 litres)</li> <li>□ Expedition mountaineering pack (70-90 litres)</li> </ul>	9.0 Other
	<ul> <li>Copy of passport, travel agent contact details, insurance policy details, etc.</li> <li>Casual city clothes</li> </ul>

☐ Exercise gear (optional)

## **Packing Lists**

Pack the above items into the following bags ready for your flight to Antarctica.

Punta Arenas Duffel Bag	
This will be left in Punta Arenas and contains everything you will not need during the expedition.	
<ul><li>□ Small lockable duffel bag (30-40 litres)</li><li>□ Casual city clothes</li></ul>	□ Exercise gear (optional)
Daypack/Daywear	
Daypack to carry on flight from Punta Arenas to Antarctica – inclin Antarctica.	udes clothing to put on prior to stepping off the aircraft
□ Sunglasses □ Nose guard (optional) □ Ski goggles □ Expedition down parka □ Warm hat □ Liner gloves x 1 pair □ Fleece gloves x 1 pair □ Mountaineering gloves with removable liners	<ul> <li>□ Insulated pants</li> <li>□ Medication plus spare</li> <li>□ Copy of passport, travel agent contact details, and insurance policy details, etc.</li> <li>□ Camera (Optional)</li> <li>□ Personal entertainment (optional)</li> <li>□ Sun block and lip balm</li> </ul>
Wear your thermal top and bottom, softshell pants and midweig your mountaineering boots with integrated gaiters and socks.	ght insulated jacket. On your feet you will have to wear
Hold Luggage	
This includes your personal equipment as well as the group gear passport, credit cards or cash. Your duffel bag does need to be t company, which your guide will be able to assist with. Hold lugg and you will not have access to these items prior to or during the anything in this luggage that you will require when in Punta Aren	agged with your name, programme code and guide age is loaded the days prior to departure for Antarctica, e flight. As weather delays are common, please do not put
□ XL-XXL lockable duffel bag x 1 (130-150 litres) □ Expedition mountaineering pack (70-90 litres) □ Down sleeping bag (-30C/-22F to -40 C/-40F) □ Foam sleeping mat □ Inflatable sleeping mat □ Water bottles x 2 □ Insulated water bottle covers x 2 □ Cup, bowl and cutlery □ Thermos flask (optional) □ Pee bottle □ Ear plugs and eye mask (optional) □ Stuff sacks and large plastic bags □ Waterproof shell jacket □ Waterproof shell pants □ Softshell Jacket/windshirt □ Base layer top and leggings x 1 set □ Underwear □ Change of clothes for Union Glacier □ Ice axe □ Collapsible ski poles with powder baskets □ Crampons □ Climbing harness □ Locking carabiners x 2	□ Non-locking carabiners x 5 □ Mechanical ascender □ 4m of 8mm cord or 16mm webbing tape □ 120cm sewn slings x 2 □ Prusiks - 1 x long and 1 x short □ Moist wipes for personal hygiene □ Hand sterilising gel □ Pocket knife/Leatherman/tool kit (optional) □ Chemical hand and toe warmers □ Camera (optional) □ Socks x 4 pairs □ Down bivvy boots □ Sorel boots (optional) □ Sun hat □ Balaclava (optional) □ Buff or neck gaiter □ Face mask □ Spare liner gloves □ Spare fleece gloves □ Expedition mittens □ Spare sunglasses □ Personal first aid kit and medication □ Personal toiletries

## **Clothing and Equipment Information Guide**

The following information is a guide to assist you in securing the required clothing and equipment for climbing on Vinson Massif, along with recommended brands. You may have equipment you have used which is different to what is on the list, so please read thoroughly and get back to us with any questions you may have.

We all differ slightly with our clothing preferences and this will depend on our own ability to tolerate the cold. Because we carry all our own gear (as well as our share of group equipment) it is vital you do not take superfluous items.

Generally, one would wear one or two layers of thermal clothing under Gore-Tex shells on the lower route and add layers as we ascend higher on the mountain. It is common that climbers wear less on the legs and 'hot blooded' people tend to wear only one pair of thermal or softshell pants with Gore-Tex shells for the entire trip, putting on down pants on the colder days. The upper body requires more insulation and one would wear an additional layer to keep warm.

The upper mountain is usually very cold and your clothing systems must be well fitted to ensure no skin is exposed to the wind and cold, as this can cause frostbite very quickly.

## **Fabrics/Garment Designs and Selection**

Today there is a bewildering and ever changing array of modern technical fabrics and garments on the market. Accordingly, suitable mountain attire can be derived from a wide variety of garments utilized in varying combinations. The clothing on our gear list can be creatively substituted according to your preferences, but ensure your choices are functional and adequate. For example, a functional and often utilised garment that does not appear on our list is a vest.

A basic principle in selecting clothing and equipment is to minimise weight and bulk, while still ensuring adequate warmth and functionality. It can be difficult to find a brand that has all the features you prefer, which means you must make prudent compromises. In the description below and for certain items, we suggest brands and specific products that we have found to be suitable; this is by no means definitive. In some cases, there are multiple suitable brands on the market and hence we do not make specific suggestions.

Appropriate fabrics used in thermal underwear include polypropylene, silk and merino wool. The only cotton garment worn during the climb is your glacier shirt. Warmer insulating materials can be made from fleece, softshell or Primaloft. Varieties of fleece include Windstopper, Wind Pro, Power Shield, Windbloc, Power Dry and Power Stretch. Be aware that fleece garments that incorporate stretch fabric take longer to dry. Softshell garments integrate stretchy nylon fabrics to increase freedom of movement, while also providing various degrees of wind and water resistance in a 'softshell'. They are often lined with a microfleece for increased insulation. Synthetic insulation materials such as Primaloft are advantageous as they are warm even when damp, are water-resistant and quick-drying.

You can read Guy Cotter's thoughts on the ultimate lightweight layering system at <a href="http://adventureconsultantsblog.com/optimum-layering/">http://adventureconsultantsblog.com/optimum-layering/</a>

## 1.0 Body Wear

#### **Waterproof Shell Jacket**

A Gore-Tex Jacket is used in combination with Gore-Tex pants, instead of a windsuit. The jacket should be of Gore-Tex or similarly breathable fabric with a good storm hood and zip closings. Chest pockets are useful places to store bits and pieces during the day. The jacket should provide a good overlap with your pants but should not be too long. Underarm 'pit zips' allow for increased ventilation.

We recommend The North Face Summit L5, Arc'Teryx Alpha SV, Montane Endurance Pro or the Rab Latok Waterproof Shell Jackets.

#### **Waterproof Shell Pants**

Gore-Tex Pants are used in combination with a Gore-Tex jacket, instead of a windsuit. The pants should be of Gore-Tex or similar fabric and full-length leg zips are essential. Ensure there is room for bulky clothing beneath while still retaining a full range of movement. A salopette style can be warmer as it has a greater range of overlap, although you will need to choose a model that allows you to attend to bodily functions easily.

We recommend The North Face Summit L5 Fuse GTX, Arc'teryx Alpha SL, Montane Alpine Pro or the Rab Latok Alpine Waterproof Shell Pants.

#### **Expedition Down Parka**

Having a separate down jacket and pants instead of a down suit allows increased versatility for temperature regulation, as the jacket can be taken on and off more easily than a suit. For the down pants and jacket to be worn as 'stand-alone' outer garments, they must have Gore-Tex or equivalent storm-proof outer fabric. You will still have to carry a Gore-Tex jacket and pants. Your jacket should be of expedition quality, rated to about -40C/-40F with an integral adjustable hood that does not restrict vision.

We recommend The North Face Himalayan Parka, Marmot 8000m, Montane Deep Cold or the Rab Expedition Down Parkas.



## **Insulated Pants**

Bring a pair of down or synthetic insulated pants. Please ensure that these have full-length side zips, so they can be put on or removed without taking boots/crampons off. Also, the pants must have a functional opening system for when attending to calls of nature. When it comes to toilet function, you will have to choose between a 'dropped seat' or an 'under and over' zip. Ensure that the zip system you choose is compatible with your underlying garments and over pants and will work! Importantly, make sure there is a sufficient and well-sealed overlap between jacket and pants. Avoid large 8000m type down pants.

We recommend the Mountain Hardwear Compressor, Rab Photon, Montane Extreme Salopettes or the Montbell Tec Down Insulated Pants.

#### Midweight Insulated Jacket

This can be a synthetic insulated jacket (Primaloft etc), insulated softshell or thick fleece with a full front zip for ventilation. Zip up pockets help avoid losing items which are stored in there and a hood is also a bonus.

We recommend The North Face Thermoball Hoodie, Rab Xenon X, Montane Prism or the Arc'teryx Atom LT Jackets.

#### **Lightweight Fleece Top**

A lightweight (100-weight) fleece or expedition weight top is a good addition for when you need extra warmth. Wear it as your top layer when warm and then put your midweight jacket over it, when it gets colder. It can be a light fleece pullover or have a short or full zip. A zip chest pocket is useful for keeping sun cream and snack bars accessible.

We recommend The North Face TKA 100 Glacier ¼ Zip, Marmot Rocklin Half Zip, Rab Power Stretch Pull-on, Patagonia R1 Hoody, Montane Allez Micro Hoodie or the Arc'Teryx Konseal Hoody.

#### Softshell Jacket/Windshirt

These jackets are ideal for aerobic activity in light weather conditions. They are wind-resistant, water repellent and highly breathable. They can be used either alone or as an insulating layer under a waterproof shell jacket. Models that feature a hood are best.

We recommend the Marmot ROM, Arc'Teryx Gamma MX and Psiphon FL Hoodies, Rab Kinetic Plus and the Torque Softshell Jackets. Windshirts that we recommend include the Marmot Ether DriClime Hoody and Rab Vapour-rise Alpine Jacket.

## **Softshell Climbing Pants**

Stretchy, comfortable, non-insulated softshell pants which should fit comfortably with or without your base layer bottoms. These can be loose or tight fitting. There are a variety of insulated softshell pants available that have water and wind-resistant qualities, and can be used independently of your waterproof shell pants in fine weather, but do not replace waterproof shell pants.

We recommend The North Face Summit L4, Marmot Scree, Rab Vantage or the Montane Champex Pants.

## Base Layer Top and Pants x 2 Sets

Bring one set of lighter weight thermals (150-200gm/m² merino wool, Capilene Lightweight or Midweight or equivalent) and one set of medium or expedition weight (230-260gm/m² merino wool, Capilene Thermal Weight or Power Stretch fleece). Shirts should have long sleeves and we recommend a high neck top with a zip to allow some ventilation. Long underwear are worn as a single layer on hot days and are used under your Gore-Tex, softshell or insulated pants when additional warmth is required.

You may take one set of thermals for the mountain and save the spares for your return to Base Camp after the climb. Some climbers prefer to use 2 thermal tops (of differing weight) for the climb as they are a light item that can dramatically increase your warmth.

We recommend the Patagonia Capilene, Icebreaker, The North Face Warm, Rab Merino+, Earth Sea Ski First Layer, Montane Primino or the Smartwool Base Layer Ranges.

#### Underwear

We recommend polypropylene underwear instead of standard cotton as they wick away sweat from your skin, working with your other layers to keep you dry. They also dry extremely quickly when washed.

We recommend the Smartwool, Earth Sea Sky Merino, Montane Primino or the Rab Merino+ Underwear Ranges.

## **Change of Clothes for Union Glacier**

Bring a change of clothes as there may be the chance for a shower at Union Glacier following the climb. Keep this as lightweight as possible; a clean t-shirt or shirt, socks and underwear would suffice. Bring a stuff sack to keep these items in at Union Glacier while you are on the climb.



## 2.0 Head Wear

#### **Warm Hat**

Your hat can be wool, merino, Windstopper or a fleece hat. It should extend over the ears and be snug enough not to fly off in a strong wind.

We recommend The North Face Redpoint Wool and Rab Logo Beanies.

#### Sun Hat

A wide-brimmed soft hat or baseball cap in conjunction with a bandana to protect you from the sun. The sun is extremely strong at altitude, especially as there is less pollution in the air.

We recommend The North Face Breeze Brimmer Sun Hat, available from our office.

#### **Balaclava** (optional)

Not everyone likes a balaclava but if you do, we recommend either a light or heavier weight balaclava depending on your preference.

We recommend Smartwool and Rab Power Stretch Balaclavas.



## Buff

A Buff is a useful and versatile addition to protect your face and back of your neck from the sun. A Polar Buff is also an option if you like a warmer one.

We recommend the Adventure Consultants Branded Buff, available from our office.

#### OR

#### **Neck Gaiter (optional)**

These are excellent for stopping draughts around the neck, as are balaclavas. By breathing in the very cold air while climbing at altitude can precipitate the infamous Khumbu cough (even though you are in Antarctica!). A neck gaiter, buff or balaclava can be used to cover your mouth and nose and thereby protect your throat against cold air.

We recommend the Rab Power Stretch Neck Shield.

#### **Face Mask**

Neoprene face masks are imperative for the bitterly cold Antarctic winds. This must cover all skin and have good breathing holes so that your goggles do not steam up.

We recommend the Talus Outdoor 'ColdAvenger', Seirus Neofleece Combo Scarf (neck gaiter & face mask combination), the Seirus Neofleece Headliner (balaclava & face mask combination) or the Outdoor Research Windstopper Face Mask.

#### Sunglasses (and spares)

Preferably a "glacier" style with side protection, although some wraparound glasses provide enough protection from reflected light. The lens should be dark enough to withstand the intense reflection from the snow and MUST filter 100% of UVA, B and C radiation. Snow reflects up to 85% of solar radiation and the UV index increases 10% with every 1,000m gain in altitude so it is of utmost importance you protect your eyes. We recommend a photochromic or Category 4 polarised lenses with an anti-fog coating.

If you wear prescription glasses, we recommend you get prescription sunglasses with the above specifications. If you wear contact lenses, it is advisable to bring a pair of prescription glacier glasses as a backup. Leashes are essential and nose guards are optional.

We recommend Julbo, Smith, Bollé, Oakley and Adidas Sunglasses.

#### **Nose Guard (optional)**

Nose guards are optional but can be useful for those with extra-sensitive noses in lieu of constant sunscreen application.

We recommend the Bēko Classic Nose Guard.

#### **Ski Goggles**

High-quality goggles for sun and wind protection when at altitude. The lens should offer visible light transmission (VLT) of no more than 30% and have 100% UV protection. Those with light-sensitive eyes may wish to use a darker lens. Photo chromatic models are ideal for use in changing conditions. If you wear prescription glasses, please ensure they fit comfortably underneath your goggles and do also ensure that these work well with your face mask to prevent fogging.

We recommend Julbo, Smith, Bollé, Oakley and Adidas Goggles.

#### 3.0 Hand Wear

#### Liner Gloves x 2 Pairs

These form a base layer and are worn under the other layers by some people. Lightweight comfortable liner gloves can be silk, power stretch or polypropylene and can be worn under heavier gloves and mittens on cold days. Wearing finger gloves will prevent cold injuries in situations requiring full finger dexterity. They can also be worn doubled up.

We recommend the Montane Power Dry or Primino 140, Rab Stretch Knit or Flux Liner Gloves or the Budget Polypropylene Gloves (Available from Hardware, Safety, Army Surplus or Outdoor Retail Stores).

#### Fleece Gloves x 2 Pairs

Fleece finger gloves are what you will wear most of the time for protection against the cold. They should fit comfortably over liner gloves and inside your expedition mittens.

We recommend The North Face Power Stretch, Montane Power Stretch Pro or the Rab Power Stretch Pro Fleece Gloves.



## **Mountaineering Gloves with Removable Liners**

This glove system is very versatile, as you can wear them with or without liners, depending on temperature. A good model will have abrasion resistant palms, shaped fingers, a waterproof outer and an insulating removable liner. Please ensure that you can fit your liner gloves underneath your mountaineering gloves. Mountaineering gloves are not as warm as expedition mitts but have the advantage of being more dextrous. Please be aware that cheaper models are not waterproof. We recommend you attach wrist loops to these gloves to prevent them being blown away by the wind.

We recommend The North Face Vengeance, Rab Alliance or the Outdoor Research Alti Mountaineering Gloves.

#### **Expedition Mittens**

Choose expedition mittens with a down or synthetic (i.e. Primaloft) fill and a Gore-Tex or similar outer. When buying mittens, it is very important to ensure that while wearing your liner gloves and fleece gloves, your hand slides easily into the mitten. Wrist loops are also important to prevent your mitts blowing away in the wind.

We recommend The North Face Himalayan, Marmot Expedition and the Rab Expedition Mitts.

#### 4.0 Foot Wear

#### Socks x 5 Pairs

Various combinations suit different people. Some people prefer to wear just one pair of socks in their boots while others wear two; a thicker pair over a pair of thermal liners. Some people also wear ankle stockings to help prevent blisters. You will need 5 pairs.

In very cold conditions, a neoprene sock can add warmth and act as a vapour barrier to keep your inner boots from getting wet, however, these are not required if you are using high altitude triple boots. Be very careful with neoprene socks that they are not too tight and constrict your circulation. You can also use Gore-Tex socks for this purpose. Oversize boots may be necessary to fit the extra bulk of these kinds of socks. Test your combinations beforehand!

We recommend Smartwool, Bridgedale and Thorlos Socks.

#### **High Altitude Mountaineering Boots**

Bring a high altitude triple boot with an integrated gaiter and a removable liner. These are the warmest, most comfortable option available. Make sure the boot is a comfortable fit and you have extra room to wiggle your toes on cold mornings.

**PLEASE** check that your crampons can be adjusted to fit to your boots. It is quite common for crampon bars or straps to be too short. Sewing on an extension to your straps simply will **not suffice**, so you will need to purchase longer straps that are purpose built. Some brands also require a little modification to allow 'clip on' crampons to work.

We recommend La Sportiva Olympus Mons, Millet Everest, Lowa Expedition 8000 Evo Rd and the Scarpa Phantom 8000 High Altitude Mountaineering Boots.

#### **Bivvy Boots**

Lightweight down bivvy boots or down socks are for wearing in your sleeping bag and tent. Synthetic could be okay but only from certain brands, so please do check with us first. Ideally the shell should be made of a water-resistant material and you may choose a model with a reinforced sole, although they can be heavier and if they get wet, they are useless inside your sleeping bag.

We recommend the Rab Down Expedition Slippers, Hot Socks or Expedition Modular Boots.

#### Winter/Snow Boots (optional)

A waterproof, insulated boot that is best used only at Base Camp. These are best not used for any walking or climbing.

We recommend the Sorel Caribou Snow Boots.



## 5.0 Packs & Bags

#### XL-XXL Lockable Duffel Bag x 1 (130-150 litres)

You will need one XL-XXL duffel bag (as big as you can get) for stowing all your gear in on the sled. This will need to have around 130-150 litres carrying capacity (the sleds are supplied). No wheeled travel duffels please!

We recommend The North Face XL and XXL Base Camp Duffel.

#### Small Lockable Duffel Bag x 1 (30-40 litres)

You will also need a bag to leave in Punta Arenas with your travel clothes and surplus gear. This must be lockable and could be your wheeled travel case.

We recommend The North Face Base Camp Duffel Range.

#### Carry-on Daypack (25-35 litres)

All passengers are limited to one carry-on bag sized to fit under the airplane seat on the Antarctic flight. We recommend putting all of your essential items in a carry-on backpack that you can also use for daily excursions while in Antarctica.

We recommend The North Face Vault, Lowe Alpine Alpine Ascent 28 ND, Montane Cobra 25 or the Osprey Talon (Men's) or Tempest (Women's) Daypacks.

## **Expedition Mountaineering Pack (70-90 litres)**

Packs should have the versatility to cope with larger loads during the climb, even though some of your gear will go on the sleds. Required features are a good expansion system (adjustable side straps and lid), a volume of 70 to 90 litres (4500 - 5600 cui), as well as crampon and ice axe attachment points. Avoid trekking style packs with bulky side pockets.

We recommend the Black Diamond Mission 75, Exped Expedition 80 or the Lowe Alpine Metanoia 65:80 Expedition Mountaineering Packs.



## 6.0 Camping Gear

#### Down Sleeping Bag (-30C/-22F to -40C/-40F)

A quality down bag rated to -30C/-22F to -40C/-40F (these are comfort limit ratings for those looking for EN13537:2012 ratings). If you are a cold sleeper, go with a warmer bag. The sleeping bag should have a waterproof breathable covering and do note that synthetic bags are too heavy and bulky. The bag should be roomy enough to allow you to dry inner boots and damp clothing in your bag without being too squished. Remember that you will have to carry your sleeping bag on the mountain, so go with the lightest, most compact bag you can get away with.

We recommend The North Face Inferno -40, Mountain Equipment Glacier Expedition or the Rab Expedition 1200 Down Sleeping Bags.

#### **Foam Sleeping Mat**

A full length closed cell foam sleeping mat that will be used to increase comfort and the warmth of your air mattress, as well as protect it from damage. The mat can also be used to line your duffel bag.

We recommend the Therm-a-Rest Z-Lite SOL Foam Sleeping Mats.

## **Inflatable Sleeping Mat**

Bring a lightweight, full length model to use in conjunction with your foam mat. A repair kit is also worth taking for punctures or valve failure. A down-filled mattress can be used; these are warmer but heavier.

We recommend the Therm-a-Rest NeoAir XTherm and NeoAir Xtherm MAX or the Exped Down Mat 7 Pump Air Mattresses.

#### Water Bottles x 2

Two plastic bottles with heat-resistant qualities and a wide top of at least 1 litre capacity is ideal. A "camelback" type water carrying system is useful in theory but may freeze on cold mornings, even with an insulation sleeve on the tube, and they are prone to damage. An additional 500ml bottle can be a great idea to keep inside your jacket to aid hydration while preventing freezing.

We recommend the Adventure Consultants Branded Nalgene 1 litre or 500ml Wide Mouth Bottles, available from our office.

#### **Insulated Water Bottle Covers x 2**

This will slow the rate of freezing of your water!

We recommend the Outdoor Research Water Bottle Parka, Nalgene Insulated Sleeve and the Forty Below Bottle Boots.

#### Cup, Bowl and Cutlery

Plastic Mug - an insulated mug with attached snap on lid is a great idea.

Bowl - A deep 2-3 cup capacity bowl.

Cutlery - Lexan or other good quality lightweight plastic.

We recommend the Sea to Summit and GSI Tableware and Cutlery.

#### 7.0 Accessories

#### **Personal First Aid Kit and Medications**

You should carry at all times a basic first aid kit including blister tape, second skin, gauze pads, crepe bandage and painkillers (Paracetamol and Tylenol are great for altitude headaches). Include any personal medication required plus extras and be sure to inform the office and your guide, if you are on prescription medicine. Store your first aid kit in a waterproof container.

#### **Personal Toiletries**

Include items such as a toothbrush, toothpaste and deodorant etc. Make sure everything liquid is in containers that don't leak or break! Do not plan to carry anything but the minimum on the mountain. Purchase the smallest toothpaste tube available and do not take heavy deodorant sticks, cans or perfumes onto the mountain.

#### Sun Block and Lip Balm

We recommend SPF 30 or higher and waterproof sports versions tend to last longer. For climbing, we recommend small tubes with screw top lids that can be comfortably carried in your chest pocket to avoid freezing. Sticks for lips and nose should also be carried in a pocket for fast application. Again, purchase a small tube of sun cream that will last you the week on the mountain and not the family sized dispenser!



## **Moist Wipes**

Baby Wipes or similar pre-moistened cloth wipes for personal hygiene. These antibacterial wipes are excellent for cleaning hands and other hygiene issues during the expedition. About two packets of 10 should be sufficient. They are heavy due to the moisture content and must be kept warm to be of use!

#### **Hand Sterilising Gel**

A small unbreakable tube of hand sanitizer can be very useful.

#### Lighter

Please bring a lighter with you so the group has plenty of spares.

#### Thermos Flask (optional)

A small vacuum bottle is great for hot drinks. These should be made from stainless steel and about 500ml capacity.

We recommend the Primus Vacuum Bottles.

#### Pee Bottle

This is just a water bottle with a different job. It is obviously a good idea to have a different colour and shape so you do not confuse them in the dark. A larger 1.5 litre size is recommended. Pee funnels are available for women to allow you for peeing without exposing any bare skin to the elements, but require some practice to use successfully.

We recommend the Nalgene HDPE Wide Mouth 1.5 litre Bottle and the Sports and Travel Freshette for women.

#### **Small Camping Towel**

Bring a small lightweight towel as there may be a chance for a shower at the Union Glacier Camp. Ensure it is a quick dry camping towel and not a cotton one from home.

We recommend the Sea to Summit Tek and Drilite Camping Towels.

#### Ear Plugs and Eye Mask (optional)

Ear plugs provide a handy way to get a night's sleep when sharing a tent with a snorer! As there will be 24-hours of sunlight while you are on your expedition, an eye mask can be a helpful way to get to sleep.

#### **Stuff Sacks and Large Plastic Bags**

Lightweight coloured nylon stuff sacks are good for sorting and storing gear. Ensure you have enough to put all your ancillary items into when inside the tent.

We recommend the Sea to Summit Ultrasil Dry Sacks, Compression Sacks and Pack Liners.

## Pocket Knife/Leatherman/Tool Kit (optional)

A Swiss army style knife, Leatherman tool or the equivalent. A personal tool kit for your own equipment is required and do include any specific Allen keys, spanners and screwdrivers, etc. A lighter is also an extremely useful component of a climbing tool kit. Get as lightweight a tool as you can.

We recommend the Victorinox Knives and Leatherman Multi-Tools.



#### **Chemical Hand and Toe Warmers**

It is recommended that you bring several (2-4) lightweight chemical hand and toe warmers. The Grabber brand works well in confined low oxygen environments. Some climbers never use them but one in each mitten on summit day can really help. The version that fits into the boot is good for people who are susceptible to the cold, but they do take up valuable room in the boots and can become irritating. These items are heavy to carry so be very discerning on how many you bring.

We recommend the Grabber Brand of Hand and Toe Warmers.

#### Camera (optional)

The larger SLR models can be heavy and difficult to operate in cold temperatures, so are not recommended. We suggest you bring a straightforward lightweight model. Digital cameras can have battery issues in cold weather so ensure you have the type that takes AA batteries, as there is no power to recharge batteries in Antarctica. Although they are expensive, lithium batteries will provide a much longer life and are not affected by the cold.

## **Personal Entertainment (optional)**

Feel free to bring a good book, playing cards, diary and iPod etc. Please note that many iPods and MP3 players do NOT work at altitude although in our experience, the iPod Nano works fine as far as 7,950m (we haven't tried higher!). Once above about 5,000m, other MP3 players tend to crash. The maximum altitude seems to fluctuate with each unit (3,000m is the maximum guaranteed in the technical specifications for all iPods).

## 8.0 Climbing Equipment

#### Ice Axe

We recommend a lightweight high altitude ice axe with a standard pick with a length of 65-70 cm depending on your height. Specialist technical axes are not required. The axe should have a basic wrist leash. You can tape some foam padding or neoprene over the head of the axe to reduce heat conduction while you hold the tool.

We recommend the Black Diamond Raven Pro, Petzl Summit or the Grivel Air Tech Evolution G-Bone Ice Axes.

#### **Crampons**

**Steel only** – no aluminium please! A 12-point, semi-automatic style with a toe harness and heel bail is best. Check the setup is secure with your boots and that the strap is long enough. We recommend a new set of properly fitted crampons for this expedition. Avoid technical ice climbing crampons and ensure your crampons are fitted with 'anti-balling' plates.

It is extremely important that you try your crampons on with your boots before you leave home to ensure they fit securely. You may require longer bars or extended straps. Please contact us, if you are unsure at all.

We recommend the Petzl Vasak Leverlock Universel, Black Diamond Sabretooth Clip or the Grivel G12 New-Matic Crampons.

#### **Climbing Harness**

Bring a lightweight alpine climbing harness. It must have gear loop(s), adjustable leg loops and waist to fit over the varying clothing combinations that are worn during an expedition. Make sure you test it prior to your trip and it is large enough to fit over your down gear!

We recommend the Petzl Adjama, Luna or Aquila, Black Diamond Technician or Couloir or the Mammut Zephir Altitude Climbing Harnesses.

#### **Locking Carabiners x 2**

Bring manually locking carabiners that have a screw gate mechanism. Bring at least one that is a pear-shaped carabiner. Some climbers prefer to use a 'twist lock' style carabiner. Whatever you use, please make sure you bring the type that you are most familiar with and have previously used in very cold conditions.

We recommend Petzl and Black Diamond Screwgate Carabiners.



#### Non-Locking Carabiners x 5

Lightweight non-locking carabiners.

We recommend the Petzl and Black Diamond Non-Locking Carabiners.

## **Mechanical Ascender**

Bring a mechanical ascender for climbing fixed ropes.

We recommend the Petzl Ascension, Grivel A&D and Black Diamond Index Ascenders.

#### 4m of 8mm Cord or 16mm Tape

You will require a leash to attach your mechanical ascender to your harness. Our preference is to improvise leashes from cord or webbing. Leashes should be no longer than the distance from your tie in point to your hand on an outstretched arm, so that when you are resting on the rope you can still reach the ascender. You will also use the webbing or cord to make a lanyard.

Adventure Consultants has cord and tape available for purchase by the metre.

#### 2 x 120cm Sewn Slings

Bring 2 x 120cm sewn slings for sled towing.

We recommend Beal, Black Diamond, Bluewater and Edelrid Sewn Slings.

#### Prusiks (1 x long and 1 x short)

One long prusik made of 6mm cord approximately 2.75m/9ft in length and one short prusik, approximately 1.8m/6ft in length for crevasse rescue.

Adventure Consultants has cord and tape available for purchase by the metre.

#### **Collapsible Ski Poles with Powder Baskets**

For the load carrying days and they are especially good for easy glacier walking at altitude. Powder baskets are important when travelling on snow, to prevent your poles punching through.

We recommend the Leki and Black Diamond Trekking and Ski Poles.

## 9.0 Other

## Copy of Passport, Travel Agent Details and Insurance

Bring all these items. Keep them safe and bring copies in case you lose them.

## **Casual City Clothes**

Bring along two changes of casual clothing for use in town and while travelling, including items such a lightweight trousers and shirts, etc.

## **Exercise Gear (optional)**

There is the possibility that your flight from Punta Arenas to Union Glacier may be delayed up to a few days if the weather is not clear. It is advisable to bring your preferred exercise gear with you to Punta Arenas so you can continue your fitness regime.

Adventure Consultants provides a retail order facility for the purchase of recommended clothing and climbing equipment through our office. Please enquire for a catalogue and prices.