

# **2018 CHO OYU EXPEDITION EQUIPMENT LIST**

# **Equipment Checklist**

<ul> <li>□ Waterproof shell jacket and pants</li> <li>□ Expedition down jacket and pants</li> <li>□ Base Camp down jacket (optional)</li> <li>□ Midweight insulated jacket</li> <li>□ Softshell climbing pants</li> <li>□ Lightweight fleece top and pants</li> <li>□ Base layer tops and leggings x 2 sets</li> <li>□ Wind shirt (optional but a guide's favourite)</li> <li>□ Glacier/trekking shirt</li> <li>□ Underwear x 5-6 pairs</li> <li>□ Casual/trekking clothes</li> </ul>
2.0 Head Wear
□ Warm hat □ Sun hat □ Balaclava (optional) □ Sunglasses x 2 pairs □ Ski goggles □ Bandana or Buff □ Face mask (optional) □ Neck gaiter (optional)
3.0 Hand Wear
☐ Liner gloves x 2 pairs
<ul> <li>□ Fleece gloves x 2 pairs</li> <li>□ Mountaineering gloves with removable liners</li> <li>□ Expedition mittens</li> </ul>
☐ Mountaineering gloves with removable liners
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<ul> <li>□ Mountaineering gloves with removable liners</li> <li>□ Expedition mittens</li> <li>4.0 Foot Wear</li> <li>□ Socks x 6 pairs</li> <li>□ Lightweight shoes/sandals</li> <li>□ Trekking boots</li> <li>□ 8,000m mountaineering boots</li> <li>□ Snow gaiters (only required if you have boots without integrated gaiters)</li> <li>□ Bivvy boots</li> <li>□ Camp boots (optional)</li> </ul>

# **6.0 Camping Gear**

$\sqsupset$ Down sleeping bags x 2 (1x -20C/4F and 1x -30C/-22F
or better)
□ Foam sleeping mat
□ Inflatable sleeping mat
□ Camping pillow <i>(optional)</i>
□ Water bottles x 2
□ Water bottle covers x 2
□ Cup, bowl, cutlery
□ Pee bottles x 2
□ Small thermos flask <i>(optional)</i>
□ Ear plugs <i>(optional)</i>

# 7.0 Accessories

<ul> <li>□ Headlamps x 2 and spare lithium batteries</li> <li>□ Personal first aid kit and medication plus spare</li> <li>□ Sun block and lip balm</li> <li>□ Personal toiletries</li> <li>□ Wet wipes</li> </ul>	
□ Chemical hand and toe warmers (optional)	
□ Personal entertainment <i>(optional)</i>	
□ Pocket knife/Leatherman/tool kit	
□ Cigarette lighter	
□ Camping towel	
□ Camera (optional)	
□ Stuff sacks and large plastic bags (to keep gear dry)	
□ Collapsible trekking poles (optional)	
□ Travel power plug adapter	
□ 12V car charger for electronics	
□ Solar panel and battery pack (optional)	
□ Memory stick (optional)	
□ Steripen (optional)	
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# 8.0 Climbing Equipment

☐ Passport, copy of passport, travel agent contact details, insurance policy details.

☐ Mountaineering pack (65-85 litres)

# **Packing Lists**

Pack the above items into the following bags ready for your flight to Lhasa, journey overland and Base Camp.

Kathmandu Duffel Bag				
This will be left in Kathmandu and contains everything you will not need during the expedition.				
□ Small duffel bag (30-40 litres)	□ Casual wear			
Trek Daypack/Daywear				
This will be the pack that you carry with you on the plane to Lhasa and while on the trek.				
□ Daypack □ Waterproof shell jacket □ Waterproof shell pants □ Warm hat □ Sun hat □ Sunglasses x 1 pair □ Bandana and/or Buff □ Liner gloves □ Sun block and lip balm	<ul> <li>□ Water bottle x 1</li> <li>□ Personal entertainment (in case of flight delays to Lhasa)</li> <li>□ Camera</li> <li>□ Collapsible trekking poles (optional)</li> <li>□ Money and valuables</li> <li>□ Personal first aid kit</li> <li>□ Steripen (optional)</li> </ul>			
Wear your trekking clothes (base layers, trekking pants, shirt or long sleeved top and fleece jacket) and boots; pack any spares in your trek duffel. Make sure you have enough clothes with you to keep warm in case you get to the lodge before your porter and trek duffel.  Overland Duffel Bag				
This bag contains the items you will need during the overland journey from Lhasa to Chinese Base Camp. You will not have access to this bag during the day.				
□ Lockable duffel bag (95-132 litres) □ Base Camp down jacket □ Midweight insulated jacket □ Softshell climbing pants □ Lightweight fleece top and pants □ Windshirt (Optional) □ Glacier/trekking shirt □ Base layer top and leggings x 1 set □ Underwear x 4-5 pairs □ Spare trekking clothes □ Fleece gloves □ Socks x 2 pairs □ Lightweight shoes/sandals □ Snow gaiters	<ul> <li>□ Down sleeping bag (-20C/4F)</li> <li>□ Foam sleeping mat</li> <li>□ Water bottle</li> <li>□ Headlamp x 1</li> <li>□ Medication plus spare</li> <li>□ Personal toiletries</li> <li>□ Moist wipes</li> <li>□ Pocket knife/Leatherman/tool kit</li> <li>□ Cigarette lighter</li> <li>□ Camping towel</li> <li>□ Ear plugs (optional)</li> <li>□ Pillow case (optional)</li> <li>□ Stuff sacks and large plastic bags (to keep gear dry)</li> <li>□ Solar panel and battery pack (optional)</li> </ul>			

# **Base Camp Duffel Bag**

This bag contains everything you will need for the climb and Base Camp only. The bag will be carried directly to Base Camp. You will not have access to this bag until you arrive at Base Camp.

□ Lockable duffel bag (95-132 litres)	☐ Mountaineering gloves with removable liners
□ Mountaineering pack (65-85 litres)	☐ Expedition mittens
□ Ice axe	□ Socks x 3 pairs
□ Crampons	□ 8,000m mountaineering boots
□ Helmet	☐ Bivvy boots
□ Climbing harness	□ Camp boots (optional)
□ Belay/rappel device	☐ Foot warming system (optional)
□ Locking carabiners x 3	□ Down sleeping bag (-30C/-22F or better)
□ Non-locking carabiners x 3	□ Inflatable sleeping mat
□ Mechanical ascender x 1	☐ Water bottle covers x 2
☐ 4m of 8mm cord or 16mm tape for jumar rigging	☐ Cup, bowl, spoon
□ Long prusik x 1	☐ Small thermos flask (optional)
☐ Expedition down jacket and pants	☐ Headlamp and spare lithium batteries
□ Balaclava (optional)	☐ Wet wipes
□ Face mask (optional)	☐ Chemical hand and toe warmers (optional)
□ Neck gaiter (optional)	☐ Stuff sacks and large plastic bags
□ Sunglasses (spare)	☐ Pee bottle(s)
□ Ski goggles	□ 12V car charger
□ Liner gloves (spare)	☐ USB flash drive
□ Fleece gloves (spare)	☐ Avalanche transceiver

# **Clothing and Equipment Information Guide**

The following information is a guide to assist you in securing the required clothing and equipment for your expedition, 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.

# **Fabrics/Garment Designs/Garment 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 utilised 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 have to make prudent compromises. In the descriptions 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://www.adventureconsultants.com/adventure/LightweightGear/">http://www.adventureconsultants.com/adventure/LightweightGear/</a>

### 1.0 Body Wear

#### **Waterproof Shell Jacket**

You will need a Gore-Tex or similar fabric jacket with a good storm hood and water-resistant zip closures. Chest pockets are useful for storing bits and pieces like snack bars and sun cream during the day. The jacket should provide a good overlap with your pants, but should not be so long that it restricts access to your harness. Underarm pit zips allow for increased ventilation and cooling.

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

#### **Waterproof Shell Pants**

Waterproof overpants should have sufficient movement to enable you to lift your legs easily, when worn with your down pants during inclement weather. They should also have full length zips down each leg to enable you to put them on and take them off, while wearing your boots and/or crampons. A salopette style can be warmer as it has a greater overlap, although you need to choose a model which allows you to tend 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 Jacket and Pants**

During the approach, you may use a lighter down jacket in the evenings and mornings at the higher elevations. At Base Camp and on the lower mountain, you will most likely wear down clothing at the camps but not when climbing. Above Camp 3 you will almost certainly wear down clothing for climbing and during rest breaks, depending on the weather conditions at the time. The combination of a separate down jacket and pants are the favoured option of the Adventure Consultants' guide team. We do not generally recommend an all-in-one down suit due to their lack of versatility.

Using a separate down jacket and pants combination offers increased versatility of temperature regulation; wear both when it is cold, then zip off the pants as you warm up, followed by the jacket if it gets too hot. When you stop for a break, you can put the jacket back on to keep warm until you start moving again. This versatility is extremely important in maintaining effective thermal regulation. In comparison, a down suit is cumbersome, heavy and will fill up most of your pack, and the only day it will be of any real use is summit day. Because a down suit is impossible to put on just for a 5-minute rest, a separate down jacket must also be carried.

We have found that full-blown 8,000m down parkas are often too warm and that a slightly lighter expedition parka is sufficient, when worn in conjunction with your other layers. However, if you are prone to the cold, then it may be prudent to go with a warmer 8,000m parka.

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 to high camp and some climbers also elect to carry their shell garments on summit day, although this does add weight.

Ensure the down jacket has an integral hood that can be securely sealed and will not obscure vision. The down pants **must** have full-length side zips, so they can be put on or removed without taking boots/crampons off. They also must have a functional opening system for attending to calls of nature. When it comes to toilet function, you will have to choose between a 'dropped seat' and an 'under and over' zip – the former is much easier to use. Ensure the zip system you choose is compatible with your underlying fleece pants and thermals! Importantly, make sure there is a sufficient and well-sealed overlap between jacket and pants.

We recommend Rab Batura, Mountain Equipment Gasherbrum or Montane Deep Cold Down Jacket, and The North Face Himalayan Pants or the Rab Expedition Salopettes.

#### **Base Camp Down Jacket (optional)**

The Adventure Consultants dining tent will be heated, which means it is not necessary to have an 8,000m rated jacket for Base Camp. However, an extra down jacket for Base Camp will allow you to leave your expedition down clothing at the camps higher on the mountain.

We recommend The North Face Immaculator Parka, Rab Neutrino Endurance or the Marmot Ama Dablam Down Jackets.

#### **Midweight Insulated Jacket**

This can be a synthetically insulated jacket (i.e., Primaloft), thick fleece or insulated softshell with a full front zip for ventilation and a hood. Zip up pockets help avoid losing items which are stored there.

We recommend The North Face Thermoball Hoody, Rab Xenon X, Montane Prism or the Arc'Teryx Proton LT Jackets.

### **Softshell Climbing Pants**

Stretchy, comfortable, non-insulated softshell pants which should fit comfortably with or without your base layer bottoms are great for climbing lower on the mountain or on acclimatisation hikes, when it can be quite hot.

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

# Wind Shirt (optional but a guide's favourite)

Wind shirts are a light, slightly insulated interim layer that can be worn outside on windy (but not too cold) days. If you have one of these, you can reduce the weight of your down jacket. More layer's equal greater versatility and better thermoregulation all round.

We recommend the Marmot Ether DriClime Jacket and Hoody, or the Rab Vapour-Rise Alpine and Flex Jackets.

# **Lightweight Fleece Top**

A lightweight (100 weight) fleece or expedition weight sweater is a good additional layer to keep your thermoregulation perfect. Wear it as your top layer when warm or put your midweight insulated 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 ¼ Zip, Rab Power Stretch Pull-on, Montane Power Up Hoodie, Patagonia R1 Hoodie, Montane Allez Micro Hoodie or the Arc'Teryx Konseal Hoody.



#### **Lightweight Fleece Pants**

Bring some lightweight fleece or expedition weight pants (100 weight or lighter), which are functional for climbing above Base Camp. Choose between a standard pant design and "bib" style, sometimes referred to as underalls. If you choose the bib style, please ensure it has a system of toilet opening that is compatible with your shell and down pants.

We recommend The North Face TKA 100 or Rab Power Stretch Pro Pants or the Power Stretch Pro Bib.

#### Glacier/Trekking Shirt

This is a light coloured long sleeved cotton shirt to be worn on hot days to prevent sunburn. It is also useful for wearing on acclimatisation hikes. An old office shirt is fine.

We recommend The North Face Adventure Consultants Branded Long Sleeve Cool Horizon Shirt, available from our office.

# Base Layer Top and Leggings x 2 Sets

We recommend you bring one set of lighter weight thermals and one set of expedition weight thermals. It is recommended that the lightweight set has a white or light-coloured top for sunny days. Shirts should have long sleeves and we recommend a high neck with zip to allow some ventilation. Long underwear can be worn as a single layer on hot days and used under your Gore-Tex, softshell or fleece pants, when additional warmth is required.

We recommend The North Face Warm, Rab Merino+, Montane Primino or the Smartwool Ranges.

#### Underwear x 5-6 Pairs

Bring 5-6 pairs and there will be the opportunity to wash them now and again. Do not bring cotton underwear, which will hold moisture and undermine the work of your thermals!

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

#### **Trekking Clothes**

You will need clothing which is suitable for trekking. Light colours are recommended to help keep you cool and garments with a high UPF rating are a bonus. You can wear shorts when trekking but in respect of local custom, we advise that you wear them knee length or longer.

We recommend The North Face Range of Trekking Clothing.

#### **Casual Wear**

Two changes of casual clothing for use in town and while travelling, including items such as lightweight trousers and shirts, etc.



#### 2.0 Head Wear

#### **Warm Hat**

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

We recommend The North Face Bones or the Rab Shadow Beanies.

#### Sun Hat

A soft hat with a wide brim or a baseball cap which in conjunction with a bandana will 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 Horizon Breeze Brimmer Sun Hat, available from our office.

### **Balaclava** (optional)

You can choose to bring a lightweight one made of silk or polypropylene and a heavy-weight option made of wool, fleece or Windstopper fabric. These should be able to be layered together, if necessary.

We recommend the Smartwool or the Rab Power Stretch Balaclavas.

#### Sunglasses x 2 Pairs

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 polarized lenses with an anti-fog coating.

If you wear prescription glasses, we recommend you get grey or amber prescription glasses. If you wear contact lenses, it is advisable to bring a pair of prescription glacier glasses as a back-up. Leashes are essential and nose guards are optional.

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

#### Ski Goggles

High-quality goggles for sun and wind protection at altitude. The lens should offer visible light transmission (VLT) of no more than 30%. Those with light-sensitive eyes may wish to use a darker lens. Photochromatic models are ideal for use in changing conditions. If you wear prescription glasses, please ensure they fit under your goggles.

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

#### Bandana and/or Buff

A bandana and/or Buff are a useful addition to the cap to protect the back of your neck from the sun, or for dusty days in the valley.

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

#### Face Mask (optional)

Neoprene face masks are optional, but are good for protecting your face from the bitterly cold winds.

We recommend the Seirus Neofleece Combo Scarf (neck gaiter and face mask combination), the Seirus Neofleece Headliner (a balaclava and face mask combination), the Outdoor Designs Ski Mask or the Outdoor Research Windstopper Face Mask.

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

These are excellent for stopping draughts around the neck, as are balaclavas. Breathing in the very cold air while climbing at altitude, can precipitate the infamous high-altitude cough. A neck gaiter or balaclava can be used to cover your mouth and nose, and thereby, protecting your throat against cold air.



#### 3.0 Hand Wear

Like body wear, you'll need a few combinations of gloves for a wide variety of temperatures. Layering works well, so check that the various combinations work together.

#### Liner Gloves x 2 Pairs

These form a base layer and are worn whenever climbing. Lightweight comfortable finger/liner gloves are worn on hot days to protect against sunburn and under heavier gloves, and mittens on cold days. Wearing these gloves will prevent cold injuries in situations requiring full finger dexterity. They can also be worn doubled up.

We recommend Budget Polypropylene, Black Diamond Lightweight or the Rab Stretch Knit Liner Gloves.

#### Fleece Gloves x 2 Pairs

Fleece finger gloves are very useful and used most of the time for protection against the cold. They can also be useful to protect your hands from sunburn on a hot day.

We recommend The North Face Power Stretch, Black Diamond Midweight or the Rab Power Stretch Pro 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 your hand slides easily into the mitten when wearing your liner and fleece gloves. Wrist loops are also important to prevent your mitts blowing away in the wind.

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

#### 4.0 Foot Wear

#### Socks x 6 Pairs

Various combinations suit different people and you will need at least 6 complete sets of your personal preference. Some people prefer to wear just one pair of socks in their boots, while others wear two; a thicker pair over a thinner one.

You will need one set that will remain clean, dry and unworn for your summit bid. You will need 3 more sets to wear on the lower mountain and for when trekking in.

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, be very careful 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. Please test your combinations beforehand!

We recommend Smartwool, Bridgedale and Thorlo Socks.

#### **Lightweight Shoes/Sandals**

Bring a pair of lightweight shoes or sandals which have a good sole to wear at Base Camp and for when travelling. It is nice to put your feet in comfortable shoes after a long day in your (sometimes smelly) trekking and mountaineering boots!

We recommend the Salomon XA Pro 3D Ultra 2, Salewa Firetail 3 or the La Sportiva Boulder X Shoes.

#### **Trekking Boots**

You want a soft, lightweight, comfortable pair of boots with good ankle support and a reasonable sole for traction such as Vibram. Some people prefer a trekking shoe because they are lighter, but a boot offers much better ankle support.

We recommend the La Sportiva Trango TRK GTX, Salomon Quest 4D GTX and the Scarpa Kailash Trekking Boots.



#### 8,000m Mountaineering Boots

Bring high-altitude mountaineering boots 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. This style of boot does not need additional overboots.

**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 the La Sportiva Olympus Mons, Millet Everest, Scarpa Phantom 8,000 and the Expedition 8,000 Evo Rd High Altitude Mountaineering Boots.

#### Snow Gaiters (only required, if you have boots without integrated gaiters)

These should be a Canvas, Cordura or Gore-Tex combination covering the top of your boots and extending to the top of your calf. Gaiters are used to keep snow and small rocks out of your boots. They need a good tie down under the boot to stop them creeping up at the heel, when walking in soft snow.

We recommend the Sea to Summit Alpine or the Rab Latok Extreme Gaiters.

#### **Bivvy Boots**

Lightweight down bivvy boots are for wearing in your sleeping bag and tent. Ideally, they should be made of a water-resistant material and have a reinforced sole.

We recommend the Rab Down Expedition Slippers or the Rab Expedition Modular Boots.

#### **Camp Boots (optional)**

You may prefer to bring a waterproof and insulated boot for use at Base Camp only, but not for when walking or climbing. Although optional, these are highly recommended and will certainly make life at Base Camp more comfortable.

We recommend the Sorel Caribou Boots.

#### **Foot-Warming System (optional)**

Those who suffer from cold extremities may wish to invest in a battery powered foot-warming system for their summit bid. Heating elements warm the insoles of your boots and the batteries packs either clip onto the rear of your boot, or are kept in your pocket for easy adjustment. We recommend heating systems utilising AA batteries rather than rechargeable systems for best performance in the cold and ease of powering. Be sure to bring sufficient batteries - 8-16 Li-lon AA batteries should be enough for the summit push.

We recommend the Hotronic Foot Warming System used with Energizer Li-Ion batteries which are lighter, cold resistant and last longer.



# 5.0 Packs & Bags

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

A small duffel (30-40 litres) or suitcase is used for storing clothing and items left in Kathmandu, while on the expedition. Bring a lock for this duffel and if you're particularly adept at losing keys, please make sure to buy combination locks and set them to an easy to remember number!

We recommend The North Face Base Camp Duffel Range.

#### Large Lockable Duffel Bags x 2 (95-132 Litres)

You will need to take two large sized duffels of about 100 litres in capacity; one for your climbing equipment and another for your trekking/overnight gear. Bring locks for these duffels too.

We recommend The North Face Base Camp Duffel Range.

#### Daypack (30-45 Litres)

A comfortable daypack with the capacity to hold approximately 30-45 litres to carry your jacket, camera, water bottle and snack food is ideal.

We recommend the Deuter Guide Lite 32, Lowe Alpine Ascent 32, Montane Medusa 32 and Osprey Talon 33 Daypacks.

#### **Mountaineering Pack (65-85 Litres)**

Most of the time you do not need a large pack, as you are only carrying personal gear. However, your pack should have the versatility to cope with larger loads during the final descent, when camps are being brought down. Required features include a good expansion/compression system, a volume of 65 to 85 litres (a 55-litre pack is sufficient if you have opted for the Additional Sherpa Support option), crampon and ice axe attachment points. Avoid trekking style packs with bulky side pockets. This pack can also be used for the trek in.

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

# 5.0 Camping Gear

### Down Sleeping Bags x 2 (1x -20C/-4F and 1 x -30C/-22F or better)

You will need a quality down bag rated to about -20C/-4F for at Base Camp and the approach. A second sleeping bag rated to about -30C to -40C/-22F to -40F for use on the mountain is also required. Both bags should be 800+ goose down fill, so as not to be too heavy. We believe the lighter weight bags are more practical on the mountain as the warmer bags are often too hot and much bulkier to carry. However, if you are prone to the cold, go with a warmer sleeping bag.

The sleeping bag should also be long enough that your feet do not press hard against the foot of the bag, as this will mean the insulation is compressed and you will lose heat quickly. The sleeping bag also needs to be roomy, so you can fit in with lots of layers on. A liner can add extra warmth and helps to keep your bag clean and is useful to use in the hotels on the journey overland.

We recommend The North Face Inferno -29 and the Rab Expedition 1000 or 1200 Sleeping Bags for the mountain, and The North Face Inferno -18C, Montane Deep Heat or the Rab Andes 1000 Sleeping Bags for use at Base Camp.

### **Foam Sleeping Mat**

A closed cell foam mat is important to give your air mattress added insulation from the snow and it can also be used to line your duffel bag.

We recommend the Therm-a-Rest RidgeRest SOLite Foam Sleeping Mats.

#### **Inflatable Sleeping Mat**

We suggest a lightweight full-length model for use in conjunction with a foam mat for on the mountain. Bring a repair kit also in case of punctures or valve failure.

We recommend the Therm-a-Rest NeoAir XTherm or XTherm MAX and ProLite or ProLite Plus Air Mattresses.



#### **Camping Pillow (optional)**

A lightweight camping pillow can add comfort in Base Camp. Some use a stuff sack filled with down jacket but for such a long trip, it is worthwhile bring a small pillow.

We recommend Therm-a-Rest Compressible Pillows or the Sea to Summit Aero Series.

#### Water Bottles x 2

Two plastic bottles with heat-resistant qualities and a wide top of at least 1 litre capacity is ideal. A "Camelbak" type water carrying system is useful in theory but will freeze on cold mornings, even with an insulation sleeve on the tube and they are prone to damage. A couple of smaller 500ml sized bottles are great for carrying inside your down parka when climbing, to prevent freezing and for ease of access when you are thirsty.

We recommend Nalgene Adventure Consultants Branded 1 Litre and 500ml Wide Mouth Bottles, available from our office.

### Water Bottle Covers x 2

This will slow the rate of the 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.

Cutlery - Lexan or other good quality lightweight plastic.

Bowl - A deep 2-3 cup capacity bowl.

We recommend Sea to Summit and GSI Tableware and Cutlery.

#### Pee Bottles x 2

This is just a water bottle with a different job. We recommend that you mark this bottle in some way (e.g., with strips of duct tape) so you do not confuse them in the dark. Pee funnels are available for women to allow you to pee without exposing any bare skin to the elements, but require some practice to use successfully. Bring one bottle for Base Camp and another for use on the mountain.

We recommend the Nalgene HDPE Wide Mouth 1.5 Litre Bottle and the Sports and Travel Freshette for Women.

#### Thermos Flask (optional)

A small vacuum insulated Thermos flask/bottle for hot drinks, which is made from stainless steel and about 500ml to 1 litre in capacity.

We recommend Primus Vacuum Bottles.

#### **Ear Plugs**

A handy way to get a night's sleep when sharing a tent with a snorer!

#### 6.0 Accessories

#### Headlamps x 2 and Spare Lithium Batteries

Headlamps are more versatile than hand torches as they allow you to keep your hands free. Bring extra batteries, including a set of lithium batteries for summit day. You should have one headlamp for Base Camp and a more powerful version for early starts or long days on the mountain.

You MUST have a fresh set of lithium batteries for your head torch for summit day (ordinary alkaline batteries are fine for other days), and we recommend you also use them in your camera. Although they are expensive, lithium batteries will provide much longer life and are not affected by the cold. Please, do not bring rechargeable batteries. They do not last well at altitude, and there are limited charging facilities on the mountain.

We recommend the Petzl Myo, Petzl Actik, LED Lenser H7R.2, LED Lenser SEO 7R and the Black Diamond Icon, Storm and Spot Headlamps.



#### **Personal First Aid Kit**

You should always carry a basic first aid kit including blister tape, second skin, gauze pads, crepe bandage and painkillers (Paracetamol, Excedrin and Tylenol are great for altitude headaches). Include any personal medication required and be sure to inform the office and your guide, if you are on prescription medicine. It's a good idea to store your first aid kit in a waterproof container.

#### Sun Block and Lip Balm

This should be SPF 30 or higher and waterproof sports versions will last longer as you perspire. Small tubes for the face and sticks for lips that can be carried in a pocket for fast application are best.

#### **Personal Toiletries**

Do include your toothbrush, toothpaste and deodorant etc. Make sure everything liquid is in containers that don't leak or break! A personal roll of toilet paper and hand sanitizer can be very useful.

#### **Wet 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 approach and at Base Camp. Do also pack some antiseptic hand gel.

#### **Chemical Hand and Toe Warmers (optional)**

You can bring 2-3 sets of lightweight, disposable chemical hand and toe warmers. Make sure they are designed for use in low oxygen environments.

We recommend the Grabber Brand.

#### **Personal Entertainment (optional)**

Feel free to bring a good book, playing cards, diary and iPod etc. We recommend that you choose solid state devices such as the now obsolete iPod Nano (which we have tested up to 7,950m), as these are the most reliable. A smartphone, used in flight mode to extend battery life, can combine the functions of separate devices (camera, video, music, e-books, etc.) into one, but will require a personal sized solar panel and/or battery charging pack to keep charged throughout the expedition.

#### Pocket Knife/Leatherman/Tool Kit

Swiss Army Knife, Leatherman tool or equivalent. A personal repair kit for your own equipment is useful.

We recommend Victorinox Knives and Leatherman Multi-Tools.

#### **Cigarette Lighter**

A useful addition to your repair kit.

#### **Camping Towel**

A small camp towel or a bigger beach towel style for when showering at Base Camp.

We recommend the Sea to Summit Tek and Drilite Towels.

#### Camera (optional)

Bring your choice of SLR or fully automatic camera. Be aware that batteries can be a problem with the cold temperatures on the mountain, so it is a good idea to bring spare sets of batteries.



#### **Stuff Sacks**

If you are trekking on a rainy day, you will need to waterproof everything in your bags. The easiest and cheapest way to do this is to have a ready supply of plastic bag lined stuff sacks (please check for holes!).

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

#### **Collapsible Trekking Poles (optional)**

Collapsible trekking poles can be very useful on the trek in, especially if you get sore knees on the downhill sections. Bring snow baskets for use on the mountain.

We recommend Leki and Black Diamond Trekking Poles.

#### **Travel Power Plug Adapter**

You may also need to bring a universal power plug adaptor for charging items in Kathmandu, as they are on a 240V system.

#### 12 Volt Car Chargers for Electronics

Our electrical system provides 12V power, so please ensure that you have a car charger with a cigarette lighter plug. Some cameras only come with wall chargers so do check this before purchasing. It is best to get one which takes lithium AAA or AA batteries. Bring your own lithium batteries from home as Nepal batteries are not reliable.

#### **Solar Panel and Battery Pack (optional)**

You may wish to bring your own solar charging system for powering your gadgets during the expedition. This is especially important if you are bringing a large array of electronic devices as the Base Camp power supply is shared by all members.

We recommend the Goal Zero Switch 8 or Guide 10 kits for powering USB devices (such as phones or MP3 players) or the Goal Zero Sherpa 50 kit for powering tablets, cameras or laptops.

#### Memory Stick (optional)

At the end of your expedition, there will be the opportunity to share photos with the rest of the team members. Bring a memory stick (4-8GB recommended) if you would like to take copies of photos home with you.

#### Steripen (optional)

You may wish to bring your own Steripen to sterilise any drinking water (your guides will also be carrying one during the approach). Please be aware that you will need to bring additional lithium batteries for this.

# 7.0 Climbing Equipment

#### Ice Axe

We recommend a lightweight high-altitude ice axe with a standard pick, which has a length of 65-70 cm dependant on your height. Specialist technical axes are not required. The axe should also have a basic wrist leash.

We recommend the Black Diamond Raven Pro, Petzl Summit or the Grivel G Zero Ice Axes.

#### Crampons

Your crampons are your primary connection to the mountain, so buy a new set for this expedition. A clip-on crampon, with a heel bail and toe harness is best. Check that the set-up on your boots is secure and that the strap is long enough. You may need a longer extension bar if you are using your standard crampons on a new high-altitude boot, so check them before leaving home. Avoid technical ice climbing crampons and ensure you have 'anti balling' plates on them.

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



#### **Climbing Helmet**

Climbing helmets aim to deflect falling rock/ice and protect the head in the event of a fall. Be aware that plastic becomes brittle as it ages, so if you are borrowing a plastic helmet it should not be more than 4 years old. Composite (fibreglass/carbon fibre) helmets are also available but can be quite heavy and expensive. Check that the helmet adjusts enough to allow you to wear a warm hat underneath and a hood over the top.

We recommend the Petzl Meteor and Sirocco or the Black Diamond Vector and Vapor Helmets.

#### Climbing Harness

Bring a lightweight alpine climbing harness. It must have gear loop(s) and adjustable leg loops, do also check the waist size to ensure that it will fit over the varying clothing combinations that are worn during an expedition.

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

#### Locking Carabiners x 2

Bring 2 screw gate pear-shaped carabiners. Do not get the ball lock type, just a simple twist lock. Whatever you use, make sure you bring the type you are most familiar with and have used in very cold conditions.

We recommend Petzl and Black Diamond Locking Carabiners.

#### Non-locking Carabiners x 3

Bring three lightweight non-locking carabiners.

We recommend Petzl and Black Diamond Non-Locking Carabiners.

#### **Rappel Device**

Bring an ATC style or small figure 8 device for rappelling. It must be able to accommodate ropes of different thickness. Bring whichever one you are most familiar with.

We recommend Petzl Huit or VERSO, and the Black Diamond ATC XP or Super 8 Belay/Rappel Devices.

#### Mechanical Ascender x 1

Bring one mechanical ascender for climbing fixed ropes.

We recommend Petzl Ascension, Grivel A&D or the Black Diamond Index Ascender.



#### 4m of 8mm Cord or 16mm Tape for Jumar Rigging

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.

#### Long Prusik x 1

One long prusik can be used for various activities from abseiling, attaching to your pack, or as a back-up ascender if you drop yours. This can be made from 5 metres of 5-6mm prusik cord.

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

#### **Avalanche Transceiver**

Bring a modern 457MHZ standard or digital avalanche transceiver. Bring one that is simple to use or that you are very familiar with its operation. Please note that these are not available for purchase in Kathmandu, so it is best to purchase on before you leave home.

We recommend the Backcountry Access Tracker 3, Pieps DSP Sport or the Ortovox Zoom+ Avalanche Transceivers.

NOTE: You can buy almost anything in Kathmandu, except for specialised items such as avalanche transceivers. Please contact us if you are planning on sourcing any of your equipment in Kathmandu and we can advise accordingly.

If you realise you have forgotten something do not fret, we will go over these points during our briefings in Kathmandu, and your guides will be able to answer any of your questions and sort out gear with you then.

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