

# GREENLAND

## DOGSLEDGE SUPPORTED CROSSING



Welcome. This document is a personal tool and part of your Greenland dogsledge supported crossing. Equipment, both personal and what we supply is very important for both safety and the experience you are about to have. Go through the list carefully, and start packing as soon as possible so that questions and uncertainties will surface well ahead of departure.

We will supply items that are not usually part of everyone's normal outdoor gear. They are marked "Ousland". The rest is essentially personal equipment. In general it involves equipment commonly used in the mountains.

Below, the light blue rows are **your** responsibility, the light green ones are **ours**, and the yellow are suggestions while the pink are general thoughts from us.

Greenland puts enormous emphasis on equipment. We must prepare for everything from the nicest summer, via rain in the lower icefall to Arctic climate and blizzards. It all adds up to a trip that will stay with you forever. The better we equip, the better the experience.

You are welcome to use your own equipment instead of our as long as it meets our requirements. Please consult us before departure.

Enjoy your packing. Nothing prepares you mentally like pondering what to use, how to use it and what not to bring!


*Børge, Bengt & Lars*

## ON YOUR FEET EQUIPMENT

Skis	Mountain skis without steel edges in order to protect dog' feet. If you don't have those regular mountain skis. (eg. Åsnes Amundsen)	
Skins	Bring Short Click-skins and full length skins (30 – 35 mm wide).	
Bindings	Rottefelle NNN BC	
Ski poles	Swix (Mountain) ski poles, long cork handles	
Boots	Alfa Skarven (now named Quest) with glued on gaiters, or Alfa North Pole or Alfa Gaiter (then you can drop gaiters, both have them) We recommend Alfa Gaiter or Alfa North Pole. Both have gaiters built in and fit the Rottefella NNN BC bindings. The latter is very much warmer. So if you have a problem with very cold feet, or considering doing extremely cold trips this is the one (but then you must go up about 2 sizes to fit the sami Kartank socks). Remember not to choose too small boots too. The blisters come from too tight rather than too roomy boots, besides you might want to add an extra pair of socks or soles to increase insulation.	
Gaiter	Berghaus Yeti Extreme Gaiter. This should be glued onto the Alfa Skarven either with contact glue so that you can get them off again, or by superglue. Then they will have to stay on for ever, - but the chances are you will not have any bother with them during the trip. Ask us for advice. The clue is to prevent moisture getting to the boot, so you want this done correctly.	
Inner boots	Synthetic inner boots dry very fast - which can be an advantage if we get a lot of water. These can be from any producer as long as they fit well and are comfortable and warm.	<i>Option</i>
Sneakers	Sounds crazy, but the first day or two you may start out in these. They grip well on the icy surface and save using your ski boots.	<i>Option</i>
Thick socks	3 pairs, nice and thick trekking / expedition socks, woolly but with a synthetic mix so they do not take forever to dry. Keep one pair as your camp pair. They should go on straight away to start dry up your feet.	
Thin socks	2 pair of thin comfortable socks. If you are afraid of blisters bring one in silk (if you are male take your wife's, they will be excellent...)	

## PERSONAL EQUIPMENT



In general	<i>The shell layer is very important. There are lots of very good makes out there, and a lot can be used to great satisfaction. It is expensive stuff, but in this case we suggest you bring a jacket and pants that are as new as possible, with good taped seams (and maybe also waterproof zippers?). It can get wet in icefalls, so the newer the jacket the more water repellent it will be.</i>	<i>-Berge</i>
Jacket, wind- and waterproof	(Anorak) Not too large and bulky as it then works better in our changeable conditions. But the hood should be big, easy to adjust and tighten well. It is preferable to have large, easily accessible outside pockets. It should be as new as possible so it has very good water and wind protection. We recommend Gore-Tex for this trip. It is also recommendable to enlarge the zipper handle so you can operate them with gloves on.	

Pants (bib), windproof	Same as for the jacket. Pants with suspenders (bib) and a high waist is recommended. A full-length zipper on at least one side makes toilet activities much easier. Inside gaiters to close around your trekking boots is also recommended.		
Down or primaloft jacket	Large, light and thick one, as we carry no sledge, neither backpack. It should fit over everything.		
Vest.	Light and thin, with down or primaloft filling. An alternative to the jacket above. Fine for cold days when skiing.		<i>Option</i>
Fleece jacket	Used in the camp or to wear on extra cold days when skiing. If you only take the Down-Primaloft vest, you should take two fleece jackets, one thin and one thick.		

Mittens, windproof	Big and long mittens that are wind and waterproof. Goretex is recommended. <i>Preferably no skin grip</i> - preferably no skin at all.	
Thick, warm mittens	Very thick, woollen (or thick fleece) mittens to go (and stay) inside the windproof mittens.	
Fleece mittens	We recommend that you bring a pair of thick fleece mittens as spare. You may even use these and keep the woollies as spare.	
Medium mittens	Extra mittens (preferably fleece) if you need extra inside the bigger ones, or when the thick ones are too warm.	
Thin mittens / gloves	Thin gloves with long fingers (or cut fingers) is nice to have in the tent for preparing food, eating etc.	<i>Option</i>



Hat, thick	Wind proof & insulated hat that covers well over the ears and down the neck.	
Hat, thin	Thinner hat for warmer days, and maybe in the tent.	
Balaclava	Thin, can also be used as a scarf, mask and a night cap that stays on regardless.	
Facemask	For protection against cold and wind. Neoprene is the norm, but it can also be a balaclava fleece with wind-stopper. That way it is easy to cover the rest of the face with your goggles. (Fleece mask in wind-stopper may also be used here). Only for the few extreme days.	



	A very popular one is the Cold Avenger Expedition Balaclava which combines a comfortable fleece balaclava and an easy to fit facemask.	
Buff	Not required, but a buff with fleece is handy as a scarf and 'facemask light'. If you stitch on a soft, face-size piece in wind stopper fabric it becomes a buff/facemask/scarf. (Pretty usable in Greenland)	
Sun-glasses	Choose any you like, but must be dark (2000 or darker) and cover the eyes very well. Also! Bring a box for the sunglasses as without it you are bound to sit on your glasses at some point in the tent...	
Goggles	Can replace the sunglasses, covers the face better and is important if the wind is strong. (Bring dark and contrast glasses) . It can be a good idea to glue a small (Donald Duck) beak on, this shelters well both against the wind and the sun.	
Sun cream	Really high factor goes on in the morning well ahead of turning out of the tent. Don't even think of low factors to help your tan. Sweaty, ultra radiant and super reflective icefalls acts like microwave ovens... If you use mesh underwear remember not to wear just that shirt in strong sun. You will get 1000 small sunburns...	
Sun Block	Sun Block / Lipstick must be easy to use and re-applied after every time you drink or eat - or your lips will suffer big time. BIG! The best is to attach it on the outside of a pocket.	

#### UNDERWEAR


In general	<i>Free choice of (your favourite type of) underwear, but two sets is required. It is a good advice to bring one synthetic and one woollen set. Remember that a lot of the new very technical makes are mainly for shorter durations and very many seams is not ideal. To use synthetic mesh as one layer can be good, it insulates very well due to all the air it contains and is especially good if you sweat a lot.</i>	<i>-Børge</i>
Underpants	Two-three pair. If you have/find with wind stopper front that is extra security for your beloved parts. In general you'd only need one set, as the underwear stays on 24/7. But the system can take some time to adjust to having the pulling pelt pound on your stomach for hours day in day out, so an unfortunate, little 'early release' can occur. Hence the extra	
Underwear, top	Two pair. At least one set should have a turtle neck or zip-polo neck. One synthetic (mesh?), one thin wool? Thumb finger holes is also great to be sure you wrists are well covered - that will help your fingers.	
Underwear, long johns	Two pair (as above). If it has extra protection on the knees it a bonus as camp work often is on your knees and the cold from the ground can hurt. Or you stitch in fleece patches on the knees?	

## FOR THE TENT

Brush	To brush off snow and frost in the tent and from shoes / clothing. Shoe brush is good.	
Mattress	One thick or two regular sleeping mattresses. Chose mattresses so that you sleep like a baby - or maybe princess. We suggest one Ridge-Rest and one (short) Therma-Rest.	
Sleeping bag	Synthetic fibre (but down works in Greenland). Must be able to work down to -25-30° Celsius.	
Bivouac shoes	To be used in and around the camp. Put woollen innersoles inside to insulate better when walking outside (synthetic / primaloft is preferred).	<i>Option</i>
Spoon	Strong type, and most types will do, but there are some strong and very light ones in plastic.	
Bowl	Eating bowl. Roomy. Buy an insulated pro one, or buy a plastic bowl made for deep freezers and cover it in bubble plastic!	
Cup	Insulated cup, preferably with a lid.	
Drink bottles	Depending on how much you sweat and need to drink. Normally 2 litres is ok. If you use plastic (Nalgene) they should have insulation covers or you can stick them in the Bivi-boots as ice-cold drinks is not preferable.	
Thermos	One litre. For hot drinks, (unbreakable is a <b>must.</b> )	

Hygiene	Tooth brush / tooth paste / dental floss, toiletries etc.	
Medications	Bring medication etc. for personal use. But if you are on a regulate medication it is compulsory to inform us beforehand and the guide.	
Wet Towels	A handful of hygienic wet towels are not mandatory, but quite useful. Not only 'cause the shower is not there, but also to help out when a fast toilet paper wipe miss the odd speck that oh-so-easily make you very sore... 	<i>Option</i>
Tape	Blisters are not allowed, as we hate the idea of 5% of our body surface taking up 99% of our awareness... But if you are prone to blisters on your feet you must take care before this trip. You should test out and learn how to best tape your feet: how tight / how loose / how much. If that works you should tape them a couple of days before starting off. (Ask us for advice!) 	<i>A must</i>
Toilet paper	One roll each, but do not chose the softest kind. Keep it in a zip-lock- or a plastic bag.	




Night bottle (pee)	1 litter plastic bottle, lid must tighten well. It should be different to your drink bottles... Try it out at home. The trick is to do it laying down in your sleeping bag, but that takes some re-adjusting of your instincts... One you get used to it you will love having this hot 'water' bottle down at the bottom of your sleeping bag. <i>Funnels for women</i> , so called "she-pee" is a wonderful invention that can be bought on the web (right).		<i>Option</i>
Matches	A couple of boxes of ordinary matches (in a plastic bag).		
Cord	5-meter parachute (or other thin, strong) cord for small repair, long shoe laces is also ok.		
Rep kit	Bring a small, light bag with some sawing needles and tread, bandage, tape, extra glasses to the goggles, string, safety pins, awl etc.		
Knife	Own choice of multi-tool, pocket knife (Leatherman?) or normal knife.		

#### BAGS / PACKS

Pulling harness	Most have his own and will not change it for anything. If you don't have one tell us and we will bring it for you !		
Bag	Water proof bags. At least you need 3 bags for food 40l, a bag for the sleepingbag and a bag for spare clothing. <i>Not</i> the very thinnest / lightest. An example is the Oertlib blue that works well.		
Bag, personal	Extra Small, light kit bags for personal equipment, clothing to keep your sled tidy and anything that can't get wet safe. There are some really light, waterproof bags around. Better too many than too few...	<i>Option</i>	
Bag, food	Bring a minimum of 3 x 35 litre. These must also be waterproof		
Sledgebag	To fit everything into the sledge.	<i>Ousland</i>	
Backpack	A daypack with good shoulder straps is nice to have when we walk up on the ice. 35 litres or so	<i>Option</i>	

#### SAFETY EQUIPMENT, etc

Crampons	1 pair, must fit your big ski boots. Old type with straps can in general be used. Make sure that they fit your boots and make all adjustment before you leave.		
Lamp	Headlamp – light (LED) to be used inside DYE-II		
Belt	Climbing harness.		

## PERSONAL NECESSITIES

Insurance	We provide SAR insurance for the trip. This will take us from the ice to the nearest settlement in case of need, but from there on your travel insurance must take over. Make sure that they will cover you in Greenland (better speak it personally to make sure).	
Plane tickets	Depending on where you start out from but normally the best route is fly with Air Greenland from Copenhagen (CPH) to Kangerlussuaq (SFJ) which will be our meeting and start point. Once across the Ice we will fly by helicopter from Isortoq to Tasiilaq, and on to Kulusuk (KUS), both short heli flights with Air Greenland. From there towards Reykjavik domestic airport (RKV) with Air Iceland. Once in Reykjavik you can stay for the night or depending on your flight still have time to transfer by bus towards the international airport in Keflavik (KEF), some 50 Km outside of the capital and then home.	
Hotel	Old Camp lodge in Kangerlussuaq where we will meet. Hotel Angmagssalik once across the ice in Tasiilaq	
Training	The crossing is not the longest, but you must train well. We suggest you both pull tires and get used to heavy back packs. The days will be long at times to work your stamina.	
Technique	This is not very technical, but you need to be acquainted with ropes, to rope in and safety procedures concerning crevasses. We will help you get an understanding and will guide you through this. If you want to be very well prepared, we will help find a course for you. Please consult us, so that we know at what level you are.	
Nutrition	As we go through everything from high summer to freezing cold, from climbing, through walking to skiing, from pulling to carrying, it is important you think of nutrition. You must be good at eating breakfast (porridge), you must be good at nibble and fill up yourself with food. We prefer that there is never more than 50 minutes between (quick) breaks so that the energy level don't dip (with often unnecessary mental downs to go with it). You must also drink well. All this should be on our mind before leaving, during training (obs!) and during the trip.	

## PERSONAL OPTIONS

In general	<i>In our wonderful world there is no end to the electronic gadgets one can bring. But with changeable conditions and no chance to recharge you must be aware. Either: · the batteries must be super good · you must bring enough batteries · limit use · AND warm up the device before use. · The fact that you have to carry everything should not be forgotten...</i>	<i>-Berge</i>
Music	Bring both dreaming music and music that can spur you on. - Or an audio book?	<i>Option</i>
Camera	A must. But if it is too big and too complicated you end up with just camp photos. A small and easy-to-use pocket camera usually do the trick. But upon choosing you should go for one with the biggest possible wide angle. Don't forget a waterproof bag or ziplock bag for storage, or	

	maybe bring one of the new compact water resistant cameras (they resist quite important impacts as well)	
Video	Fun to have after the trip, but it eats batteries. Lots of photo cameras have HD video function too, and that should be enough?	<i>Option</i>
Diary	Do not underestimate a diary. If you write a bit every day you will be surprised on the plane back how many details you already forgotten. An experience like this needs a diary. But if you don't like to write use a Dictaphone or sound record on your iPod.	<i>Option</i>
Pen & Paper	Bring a pencil (pen is second choice) and paper or preferably a small book. It is not just your thoughts that will go in, but also massages, details and the to-do list.	

### JOINT EQUIPMENT

Sledge	Rigged sledge (Paris Expedition)	<i>Ousland</i>
Rope	Pulling ropes.	<i>Ousland</i>
Sledge bag	1 big bag that stays in the sledge.	<i>Ousland</i>
Starps	Elastic, to tie the bags to the sledge	<i>Ousland</i>
Carabiners	To connect it all (belt/pulling rope/sledge)	<i>Ousland</i>
Pot	Large pot, one per tent.	<i>Ousland</i>
Cooking plate	Plate to insulate and stabilise the Stove.	<i>Ousland</i>
Stove	MSR stove with pump and fuel bottles.	<i>Ousland</i>
Fuel	Fuel cans with Heptan.	<i>Ousland</i>
Funnel	We don't want to spill any drops.	<i>Ousland</i>
Tent	Tent with snow mat.	<i>Ousland</i>
Snow pegs	12 per tent – you are not allowed to use your skis for this !	<i>Ousland</i>
Shovel	Shovel, one per tent.	<i>Ousland</i>
Map	We will bring a conventional map but also a satellite photo we use to plot our way as this is very accurate, which is very important.	<i>Ousland</i>
GPS	GPS, bring your own if you wish - it is cool to have waypoints in it.	<i>Ousland</i>
Compass	Well, this one will never go out of fashion (NB for the Southern Hemisphere!)	<i>Ousland</i>





Compass holder	You strap it on in front, it holds the compass and makes navigation easier.	<i>Ousland</i>
Papers	Permission paperworks.	
Thermometer	Free choice, - if you bother (maybe it is better not to know).	
Rope	Climbing/safety rope	<i>Ousland</i>
Repair kit	There is no way we can pull spares to cover all corners, so it comes down to the repair kit - and the handiness of the guide (and team mates).	<i>Ousland</i>
First Aid kit	It is fairly well stocked and based on years of Polar expeditions, but please come with questions / suggestions based on what you know of yourself.	<i>Ousland</i>

#### EMERGENCY / COMMUNICATION

Beacon	Emergency transmitter Fastfind 406.	<i>Ousland</i>
Sat phone	Iridium satellite telephone(s) + batteries + PDA	<i>Ousland</i>
(VHF)	(Handheld VHF radio for use in rescue missions on Maritime Channel 16 - 156,8 MHz, only special trips).	<i>Ousland</i>

#### SPARE EQUIPMENT

Ski ???	Spare ski, but only clumsiness break skis these days...	
Ski tip	Spare ski tip.	<i>Ousland</i>
Binding	We need extra front binding, and hope for not too many systems...	
Pump	Spare pump (for stove). This is one of the most important pieces we bring. We can go quite far without food, but if the stove stops (which is usually down to the pump) it is serious. We do not get far without water! Treat it with super care.	<i>Ousland</i>
Mittens	Be warned! If you drop a mitten the first round is on you!	<i>Ousland</i>
Sun-glasses	Yes, they not only break but also mysteriously disappear.	<i>Ousland</i>

#### FOOD

In general	We will bring food for about 18 days. We provide very nutritious (and very tasty) expedition food. • If you feel like having extra, personalised snacks / favourites, bring them if you wish. BUT our weight allocation is	<i>-Børge</i>
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	tight and overweight is exceedingly expensive, so if you bring own food / more than a snack we need to be informed. • If you have allergies or special needs, please inform us in writing. Depending of what it is you may be asked to bring your own choice of food.	
Breakfast	Porridge, made from Børge's own secret recipe. This is a very important meal that lots brush aside at home. In the Polar environment it has to go down. So train at home. Eat porridge every day till you are off.	<i>Ousland</i>
Lunch	This is the biggest food allocation during the day. We nibble away at it in every break to constantly replace the used energy. It is a mix of Fruit soup or energy drink with hot water, Compressed biscuits rations and/or Flapjack (oatmeal cakes), 100 g milk chocolate per day. Piece of dried meat, nuts etc.	<i>Ousland</i>
Dinner	Freeze dried dinner, predominantly stew varieties. Chips and instant soup.	<i>Ousland</i>
Total	About 1000 grms of food per person a day.	
Surprise	Everyone should bring a small, surprising? funny? tasty? puzzling? liquid? shocking? Thing to cheer, celebrate or delight the others. Put it in a plastic box, tape it up and start looking forward to it but <b>MAX</b> 400 gr.)	

Approx. Sledge Weights per person	Food 23 kg + Fuel 4 kg + Sleeping bag 2 kg + Sleeping mattress 1 kg + Various clothes 4 kg + Half a tent's weight = 2.5 kg + Half a kitchen's weight = 1 kg + Sledges (2 each) 7,5 kg + Various joint equipment 4 kg + Various personal stuff 4 kg + various bags & containers 2 kg	
Total	It all adds up to about 54 kg	
	(Weight decreases by ca 1 kg / day).	



**BØRGE OUSLAND, BENGT ROTMO & LARS EBBESEN**  
**Polar Explorations**