

### Plan your trip.

Before you leave plan your trip! Look over the map and talk to ANS/CIRC staff for local knowledge. Plan your route and the amount of time you can reasonably expect it to take, again ask advice.

Fieldwork alone off-road should be avoided and is never allowed when using a boat or working on ice. Solo off-road fieldwork **must** be approved by your supervisor and will only be allowed in exceptional circumstances. Safety is always improved when working in pairs.

Winter travel always requires careful planning to evaluate risks and needs. Travel in avalanche prone areas requires special skills and equipment. Check with your supervisor before conducting any winter travel to evaluate risks and needs.

Mobile phone coverage is only good along the highway (E10) to approximately 4 km south of the road. On the north side of Torneträsk calls usually can be made up to 12 km from the road. If it is not possible to make a call, you might be able to send a SMS text message.

Use the white-board map of the surrounding region and a check-out board so that we can help you if you are in need. It is mandatory to use this board when traveling to anywhere that is not next to the highway. This is also true if you intend to work on water or ice no matter how close to the road.

### Don't over estimate your skills – minimizing the risks.

Ask yourself what could go wrong? How can I prevent it from going wrong! Do I have an emergency plan? Work in teams of two or more people!

If you have to call for help, the emergency number is **112** or **0046-63 107 112** (via SMS). Remember the limited mobile phone coverage and if you cannot reach 112 try sending an SMS. To get fast help it is necessary to know your position. A GPS is good in this situation and always bring a map and compass. Create a waypoint on your GPS at the trailhead, where you parked or were dropped off.

If someone gets injured you might have to leave that person and walk for help. This is very stressful situation and it is necessary to stay calm and spend some time to develop a good plan.

Perhaps you have to move the injured to a position where they are in the lee from the wind. You must also help the person to stay as warm as possible and insulate him from the ground. Mark the place with something in strong colour (white is good in summer and red in the winter) because it is very difficult to spot a person from a rescue helicopter.

One of the most common problem encountered in the field is keeping your feet healthy. New boots or when they do not fit well or are wet often cause blisters or “hot spots”. These can not only be extremely painful, but may impair your ability to hike and if left untreated become infected. Break in your boots by taking short walks or hikes before you plan to use them extensively in the field. Always bring extra socks and blister protection (found in first aid kits). When you get a hot spot, e.g. red and tender skin on your heel or elsewhere, stop, remove your footwear and cover with blister protection pads and first aid tape. If you typically get blisters in one or more spots on your feet, this is common when breaking in your boots, cover skin with a blister protection pads and first aid tape beforehand to reduce friction and prevent blistering.

### The below instructions should ALWAYS be followed!

1. ALWAYS make sure that your plans for fieldwork (time schedule, route and sites for your planned trip) are known by a colleague and posted on the CIRC whiteboard for all fieldwork!

2. CHECK the weather before you leave, including extended forecasts for multi-day trips at [www.yr.no](http://www.yr.no) and [www.smhi.se](http://www.smhi.se). When checking these websites, remember that there are weather stations at other “local” sites than just “Abisko”. Search for your particular destination or the nearest point-of-interest for more relevant weather forecasts and information.
3. If traveling off-trail or -road, POST your destination GPS coordinates (latitude and longitude) on the white-board.
4. When you RETURN from the field make sure you erase your name from CIRC whiteboard to check back in.
5. Boat use: NEVER use a boat alone and always wear a life jacket or survival suit!
6. ALWAYS bring appropriate safety gear (see checklist below)!
7. ALWAYS wear reflective safety vest when walking along the highway or busy roads.
8. ALWAYS bring a mobile phone with contact numbers or another device for communication!
9. NEVER cross streams and rivers if more than knee deep, unless there is a bridge.
10. ALWAYS unbuckle chest and waist straps on backpacks when crossing streams and rivers.
11. ALWAYS wear shoes and a walking stick when crossing a stream.

### Weather

Conditions change very rapidly and proximate localities vary significantly, for example, the weather can be very different between Abisko and Björkliden. Remember that wind speed increases with higher altitude and snow can occur on the mountains in the summer. In winter avalanche risk is higher after snowfall, high winds or a rapid increase in temperature. Wind transport of snow significantly increases this risk. Snow accumulates on leeward side of the slopes and here is the avalanche risk highest. Winter-like conditions can occur anytime of the year, especially in the mountains and at elevation.

### In Case of Emergency

1. Calm down and be prepared to devise an action plan.
2. If injured or lost call 112 or 0046-63 107 112 (via SMS)
3. Be prepared with the following information:
  - a. Where are you? Description and name of the location, GPS or map coordinates, or the position, distance and direction from a known map position or obvious landmark.
  - b. What has happened and the number of injured.
  - c. Your name and Abisko Research Station, Umeå University
  - d. Name and details of the injured person, including, age, sex, previous relevant medical conditions.
4. Contact Keith Larson, your supervisor or Reiner Giesler (please ensure these person’s mobile phone numbers are in your mobile phone address book.

### Checklist of equipment

Here is some hints for equipment in the field. Remember **always** to bring extra medications if you take some regularly. Fieldwork starts with a hardy breakfast and an extra intake of water. Remember to drink regularly (up to 0.5 litres per hour) of water during the day. Lack of food and water can lead to the poor decision making, increased risk, and may put you in danger! Winter conditions and low temperatures dehydrates your body. Bring a thermos with a hot beverage. You can extend the amount of liquid by adding clean snow to your thermos of warm liquid, hence more energy for your body with less effort to melt snow.

### Water/Ice Safety Equipment

1. Life jacket or survival suit if traveling or working on open water
2. Auto-inflating life jacket (wet sensor CO<sub>2</sub> inflation) when working on ice
3. Throw rope – open water or on ice
4. Ice claws – when working on ice
5. Use dry bags for carrying gear and equipment

### Winter Safety Equipment

1. storm proof insulated outer layer – jacket, pants, gloves, and hat
2. **extra** warm clothes, socks, gloves, hat, glove liners, face mask/buff/balaclava
  - a. avoid cotton, use fabrics that wick moisture such, as wool and synthetics
3. Snow goggles and/or sunglasses
4. if doing strenuous hiking, climbing, skiing, etc. - extra base layer(s)
5. appropriate footwear for snow, ice, and cold
6. first aid kit, including blister prevention and first aid supplies
7. GPS (w/ extra batteries), map, and compass
8. wind sack or similar emergency shelter
9. emergency space blanket
10. heat packets
11. foam pad to sit or stand on
12. extra food - energy bars, nuts, chocolate, dried fruit
13. warm drink in thermos
14. personal location beacon (PLB) satellite transponder if traveling off road
15. mobile phone and emergency numbers (do not forget to charge the night before and have credit on your phone!)
  - a. Add ICE number and emergency numbers (SOS alarm via SMS) to your contacts
16. sunscreen (February to May)
17. sunglasses are essential in late winter to avoid snow blindness (February to May)

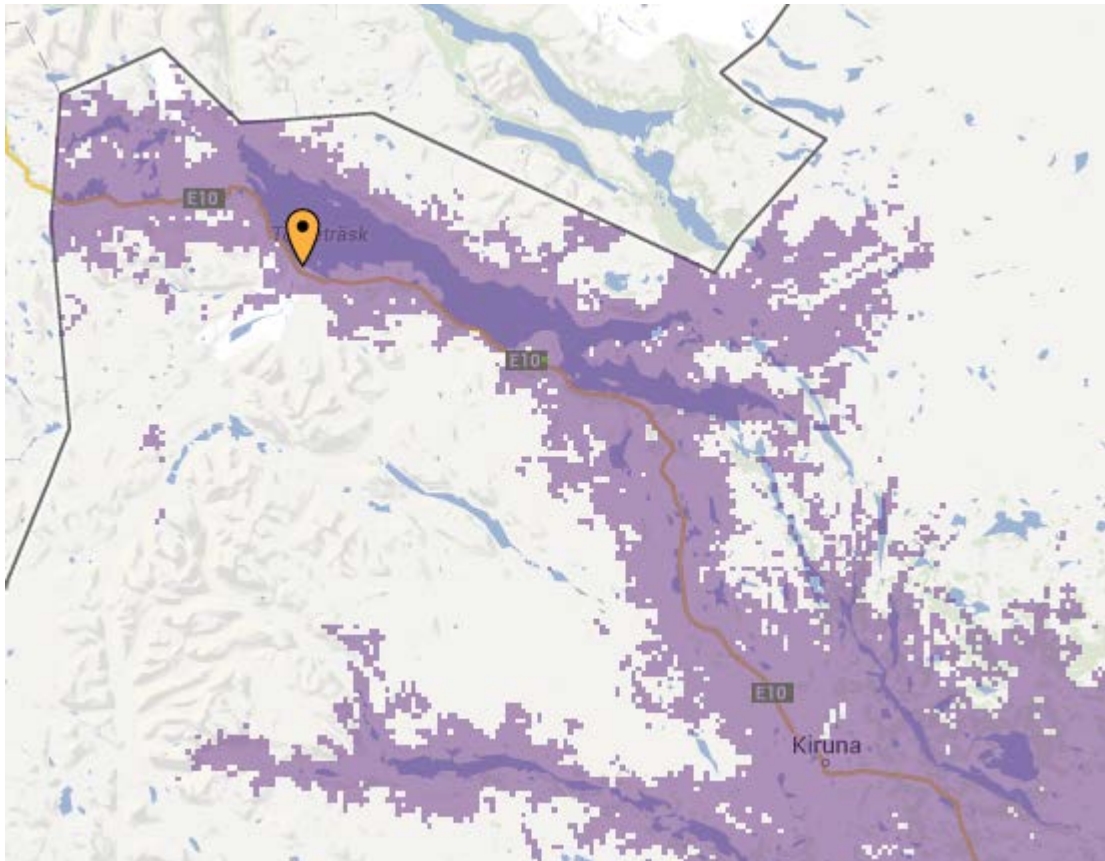
### Summer Safety Equipment

1. **extra** warm clothes, gloves, hat, and socks
  - a. avoid cotton, use fabrics that wick moisture, such as wool and synthetics
2. if doing strenuous hiking, climbing, etc. - extra base layer(s)
3. appropriate footwear for cold and rain (if leather boots, make sure waterproofed)
4. first aid kit, including blister prevention and first aid supplies
5. GPS (w/ extra batteries), map, and compass
6. wind sack or similar emergency shelter
7. emergency space blanket
8. heat packets (if you easily get cold fingers and toes)
9. foam pad to sit or stand on
10. extra food - energy bars, nuts, chocolate, dried fruit
11. warm drink in thermos
12. rain gear and warm jacket (e.g. fleece)
13. personal location beacon (PLB) satellite transponder if traveling off road
14. mobile phone and emergency numbers (do not forget to charge the night before and have credit on your phone!)

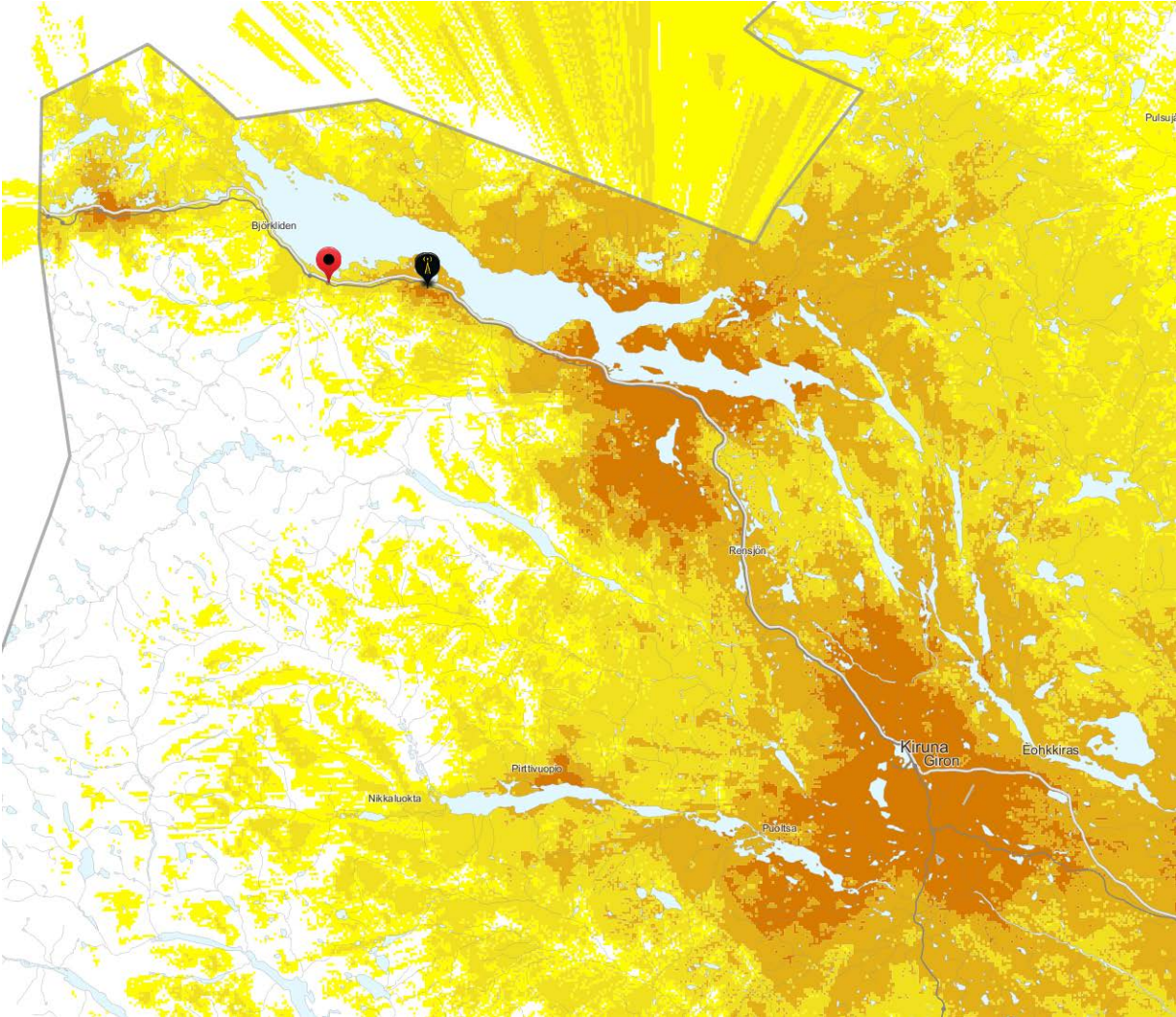
- a. Add ICE number and emergency numbers (SOS alarm via SMS) to your contacts
15. sunscreen
16. sunglasses
17. insect repellent

### Mobile phone and data coverage

Telia.se



Net1.se



## Wind Chill Chart

The Wind Chill Temperature (WCT) is also known as the "feels like" temperature and is based on the rate of heat loss from exposed human skin caused by the combined effects of wind and cold. As the wind increases, the body cools at a faster rate, causing a drop in skin temperature and eventually the internal body temperature.

		Air Temperature (Celsius)																
		0	-1	-2	-3	-4	-5	-10	-15	-20	-25	-30	-35	-40	-45	-50	-55	-60
Wind Speed (km/hr)	6	-2	-3	-4	-5	-7	-8	-14	-19	-25	-31	-37	-42	-48	-54	-60	-65	-71
	8	-3	-4	-5	-6	-7	-9	-14	-20	-26	-32	-38	-44	-50	-56	-61	-67	-73
	10	-3	-5	-6	-7	-8	-9	-15	-21	-27	-33	-39	-45	-51	-57	-63	-69	-75
	15	-4	-6	-7	-8	-9	-11	-17	-23	-29	-35	-41	-48	-54	-60	-66	-72	-78
	20	-5	-7	-8	-9	-10	-12	-18	-24	-30	-37	-43	-49	-56	-62	-68	-75	-81
	25	-6	-7	-8	-10	-11	-12	-19	-25	-32	-38	-44	-51	-57	-64	-70	-77	-83
	30	-6	-8	-9	-10	-12	-13	-20	-26	-33	-39	-46	-52	-59	-65	-72	-78	-85
	35	-7	-8	-10	-11	-12	-14	-20	-27	-33	-40	-47	-53	-60	-66	-73	-80	-86
	40	-7	-9	-10	-11	-13	-14	-21	-27	-34	-41	-48	-54	-61	-68	-74	-81	-88
	45	-8	-9	-10	-12	-13	-15	-21	-28	-35	-42	-48	-55	-62	-69	-75	-82	-89
	50	-8	-10	-11	-12	-14	-15	-22	-29	-35	-42	-49	-56	-63	-69	-76	-83	-90
	55	-8	-10	-11	-13	-14	-15	-22	-29	-36	-43	-50	-57	-63	-70	-77	-84	-91
	60	-9	-10	-12	-13	-14	-16	-23	-30	-36	-43	-50	-57	-64	-71	-78	-85	-92
	65	-9	-10	-12	-13	-15	-16	-23	-30	-37	-44	-51	-58	-65	-72	-79	-86	-93
	70	-9	-11	-12	-14	-15	-16	-23	-30	-37	-44	-51	-58	-65	-72	-80	-87	-94
	75	-10	-11	-12	-14	-15	-17	-24	-31	-38	-45	-52	-59	-66	-73	-80	-87	-94
	80	-10	-11	-13	-14	-15	-17	-24	-31	-38	-45	-52	-60	-67	-74	-81	-88	-95
85	-10	-11	-13	-14	-16	-17	-24	-31	-39	-46	-53	-60	-67	-74	-81	-89	-96	
90	-10	-12	-13	-15	-16	-17	-25	-32	-39	-46	-53	-61	-68	-75	-82	-89	-96	
95	-10	-12	-13	-15	-16	-18	-25	-32	-39	-47	-54	-61	-68	-75	-83	-90	-97	
100	-11	-12	-14	-15	-16	-18	-25	-32	-40	-47	-54	-61	-69	-76	-83	-90	-98	
105	-11	-12	-14	-15	-17	-18	-25	-33	-40	-47	-55	-62	-69	-76	-84	-91	-98	
110	-11	-12	-14	-15	-17	-18	-26	-33	-40	-48	-55	-62	-70	-77	-84	-91	-99	
		0 to -10 Low			-10 to -25 Moderate			-25 to -45 Cold			-45 to -59 Extreme			-60 Plus very Extreme				

(taken from: [www.acuracypoint.org](http://www.acuracypoint.org))