UNIS

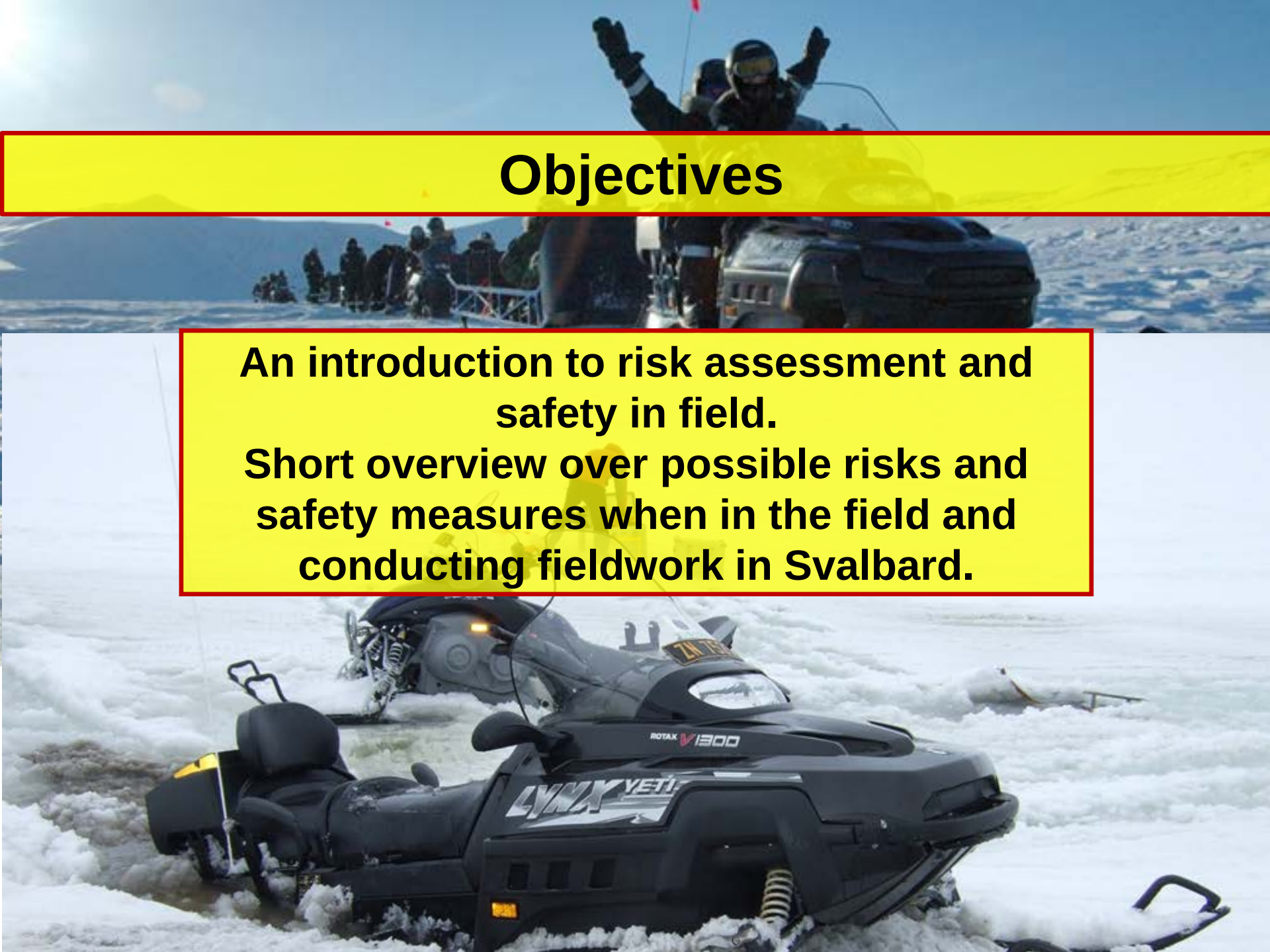
The University Centre in Svalbard

Field Safety in Winter

Info Lecture

Objectives

An introduction to risk assessment and safety in field.
Short overview over possible risks and safety measures when in the field and conducting fieldwork in Svalbard.

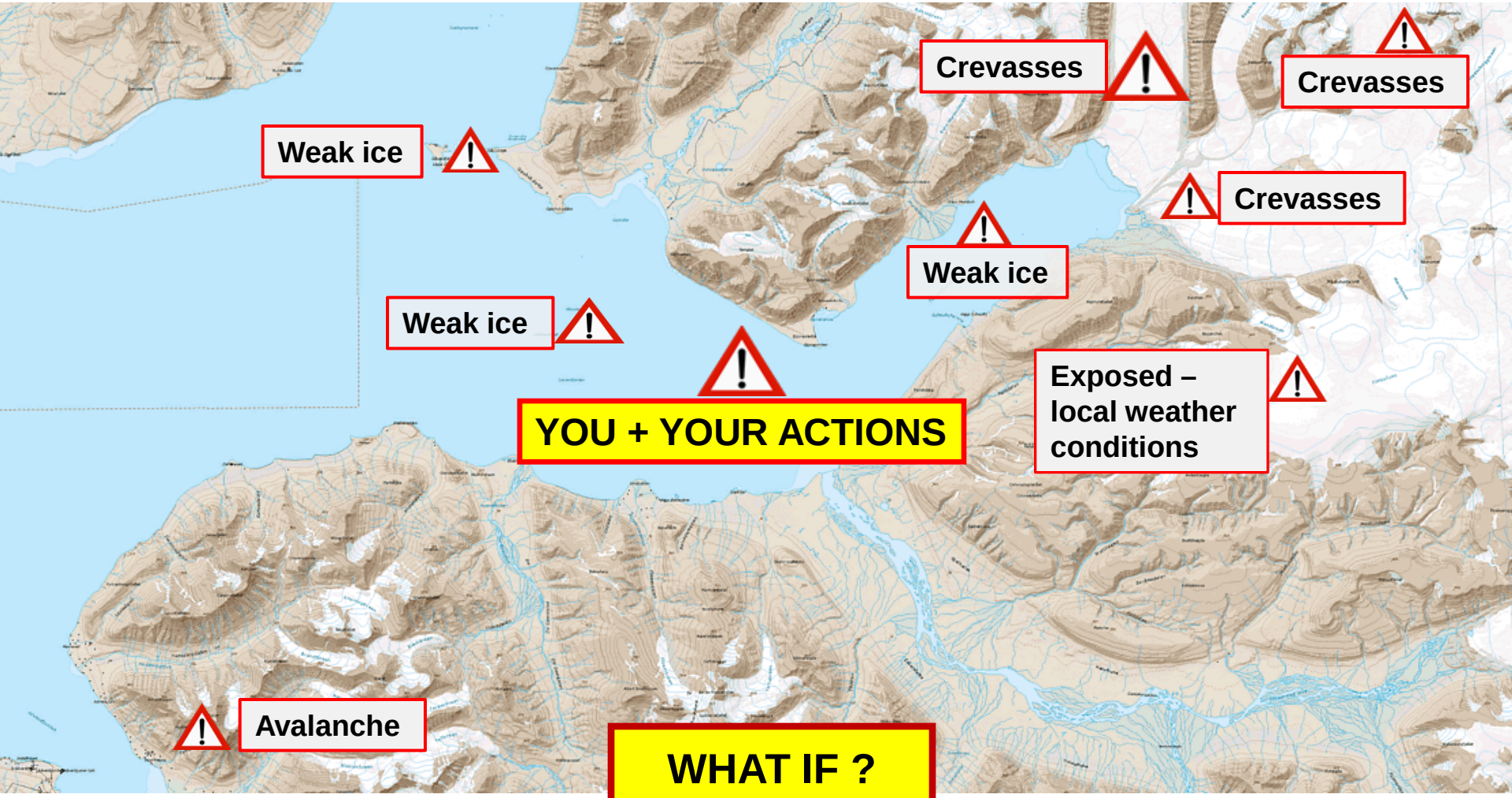


Safety Challenges in Svalbard

- Weather conditions
- Low temperatures and strong wind
- Limited or no visibility in bad weather
- Long distances
- Sea ice, glacier & avalanche risks could be hard to recognize
- Polar bears and other wildlife.
- Limited communication network
- Evacuation can take time or even be impossible – especially in bad weather

→ Even small mistakes/problems can lead to severe situations

Our main goal:
To identify possible risks and avoid problems!



Safety buffers to control the risk

1. Risk identification and assessment – what if ?

WHAT CAN GO WRONG

- Different risks: Nature-, Activity-, Gear- , Human related
- Evaluate the risks → Probability & Consequence

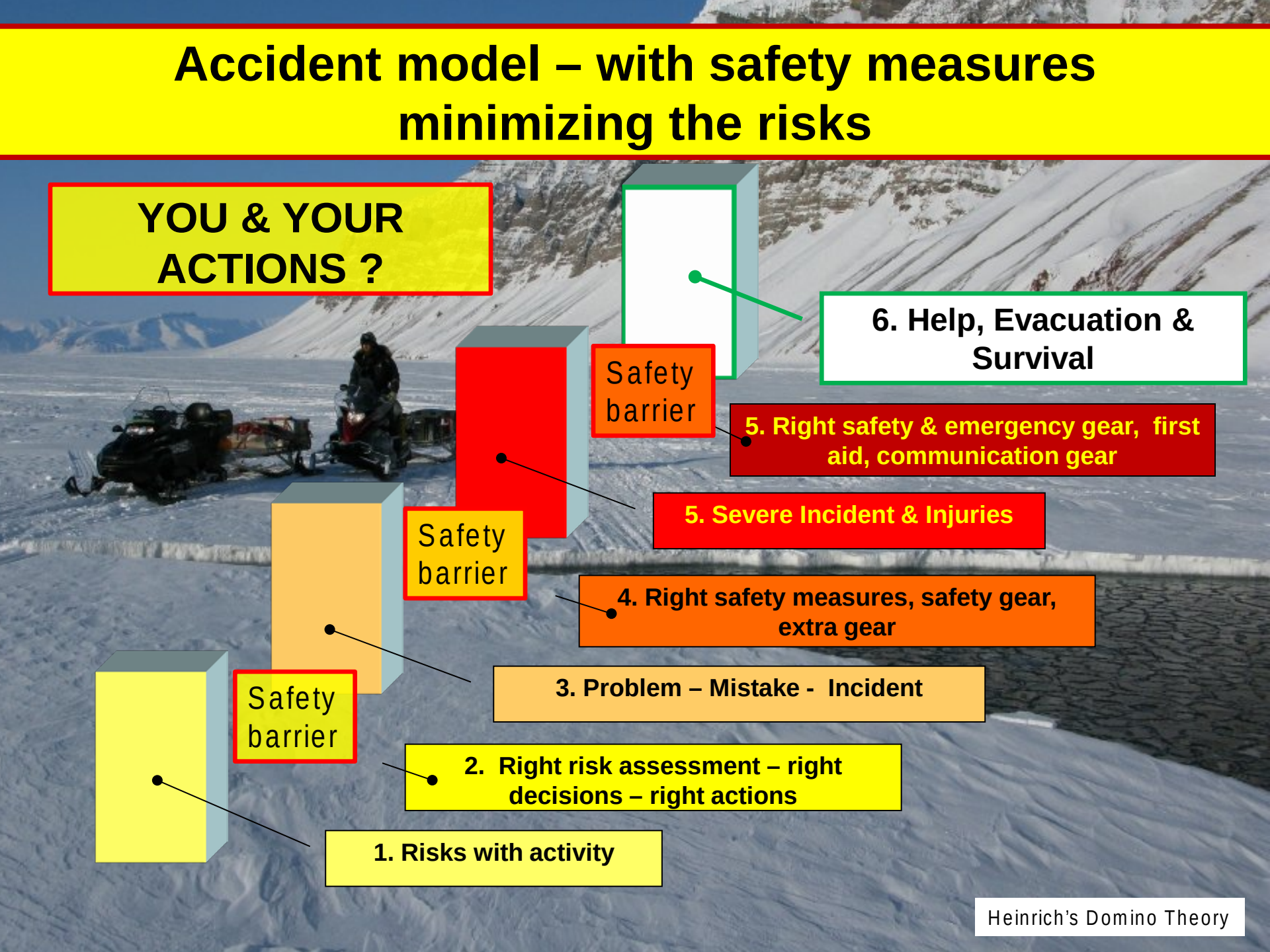
2. Protective measures – minimize risk & problems

- PLAN & check conditions
- Follow safety routines in field - Have & use safety gear
- When conditions change → STOP, THINK, EVALUATE
- **THINK, PLAN & CHANGE PLANS IF NEEDED EARLY ENOUGH**

3. Accident management and rescue – minimize damage

- Have safety + emergency gear with you in working order
- STOP, THINK, ORGANIZE GROUP to help
- Own safety – secure scene - help – further safety

Accident model – with safety measures minimizing the risks



Risks and safety measures in the field

- Driving snow scooters
- Sea ice
- Glaciers
- Snow & avalanches
- Weather conditions
- Clothing in the Arctic
- Cold related injuries
- Wildlife
- Emergency equipment
- Transport with airplane and helicopter
- Safety routines connected to fieldwork
- Some special environmental rules in Svalbard

Snowscooter & risks

Snow scooters transport you fast out over large distances - just keep in mind that they can stop either because of breakdown or accident...

Snowscooter & risks

Snowscooter problems and small accidents are most common incidents during UNIS fieldwork.

Accidents happen mostly because of:

- Inexperienced drivers
- Capsizing on side slopes etc.
- Driving too fast
- Driving in poor visibility or ‘flat light’
- Driving too fast in unknown terrain

Snowscooter safety

- **Drive slowly** and adapt your driving to the conditions – UNIS max speed in groups is 45km/h
- Keep enough **distance** between scooters
- Pay attention to **changes in terrain, snow and ice**

- **Pack your sledge properly** – attach well, not too heavy
- **Spare parts and emergency box**
- **Weather** forecast

- Ask about **latest conditions**
- **Updated GPS tracks** to follow

- **Extra gasoline** + Extra food + extra clothing + extra goggles
- **Never drive longer trips with only one scooter – if it breaks down you have a big problem.**

Snowscooter repair kit on UNIS excursions

- Cooling liquid concentrate
- Engine oil
- Antifreeze start help liquid
- Start cables
- Tool kit
- Spare parts, bolts and suspenders for sledge
- Axe
- Towing rope

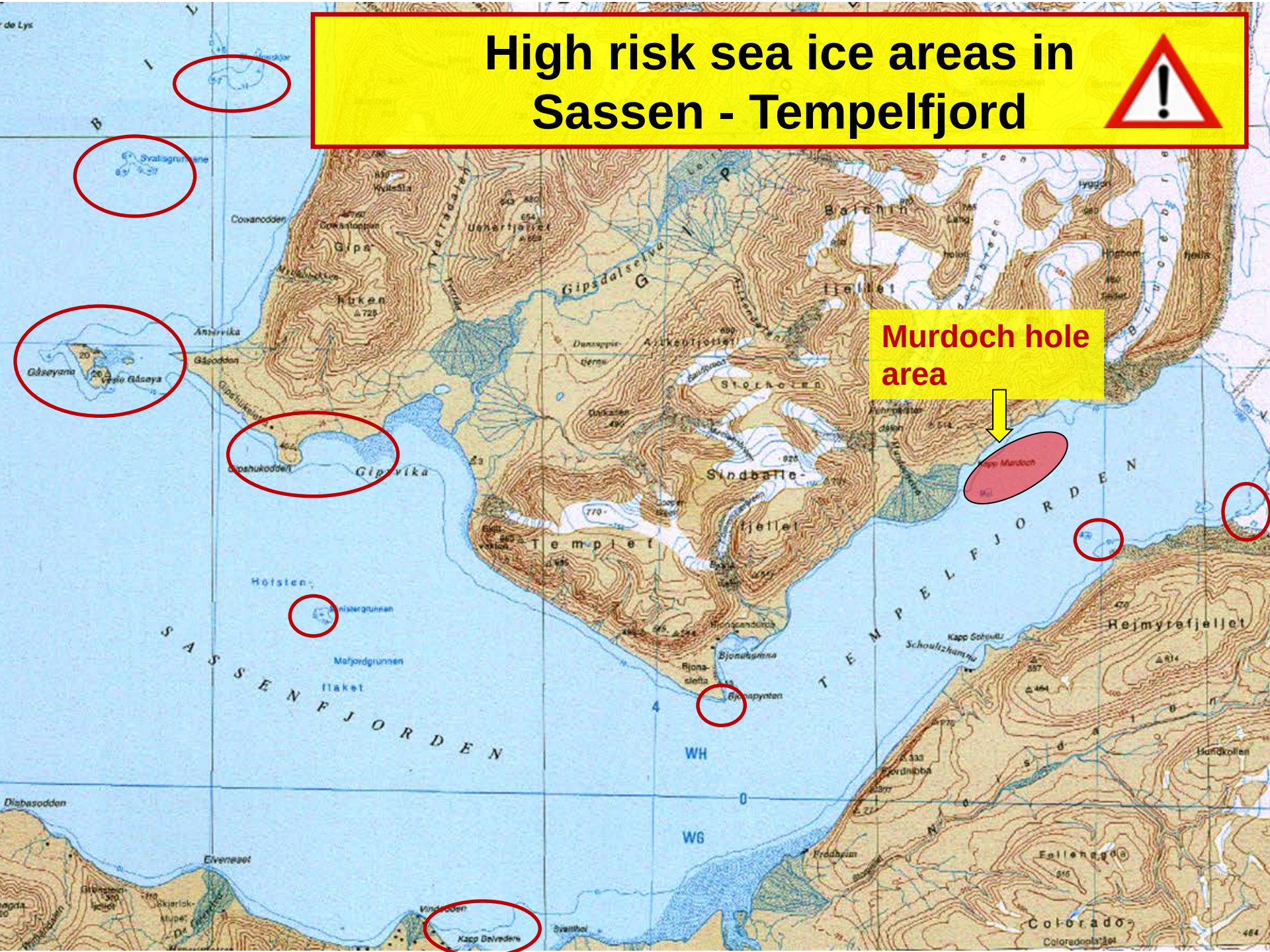
Sea ice risks

Most accidents in Svalbard wit deadly outcome have been related to activities on sea ice.

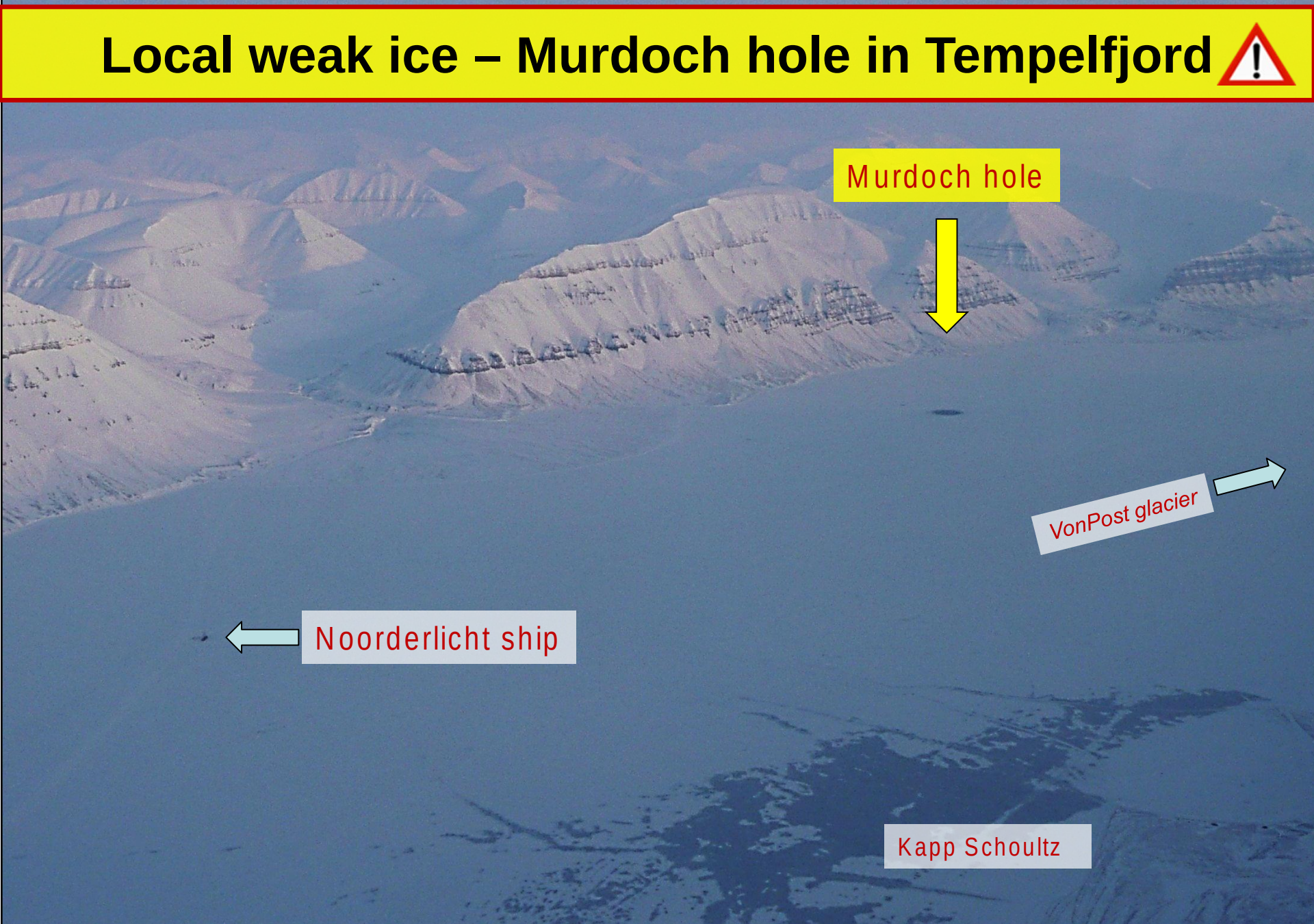
- **Weak ice and cracking major risk:**
  - Local spots due to currents, wind, shallow water, rivers etc.
  - Changes from day to day
  - Difficult to detect
- **Bad weather, poor visibility can obscure surface conditions and will disorient you.**
- **Wet ice surface obscure conditions**

- **Be specially aware in the start and at the end of the season, when most accidents happen**

High risk sea ice areas in Sassen - Tempelfjord

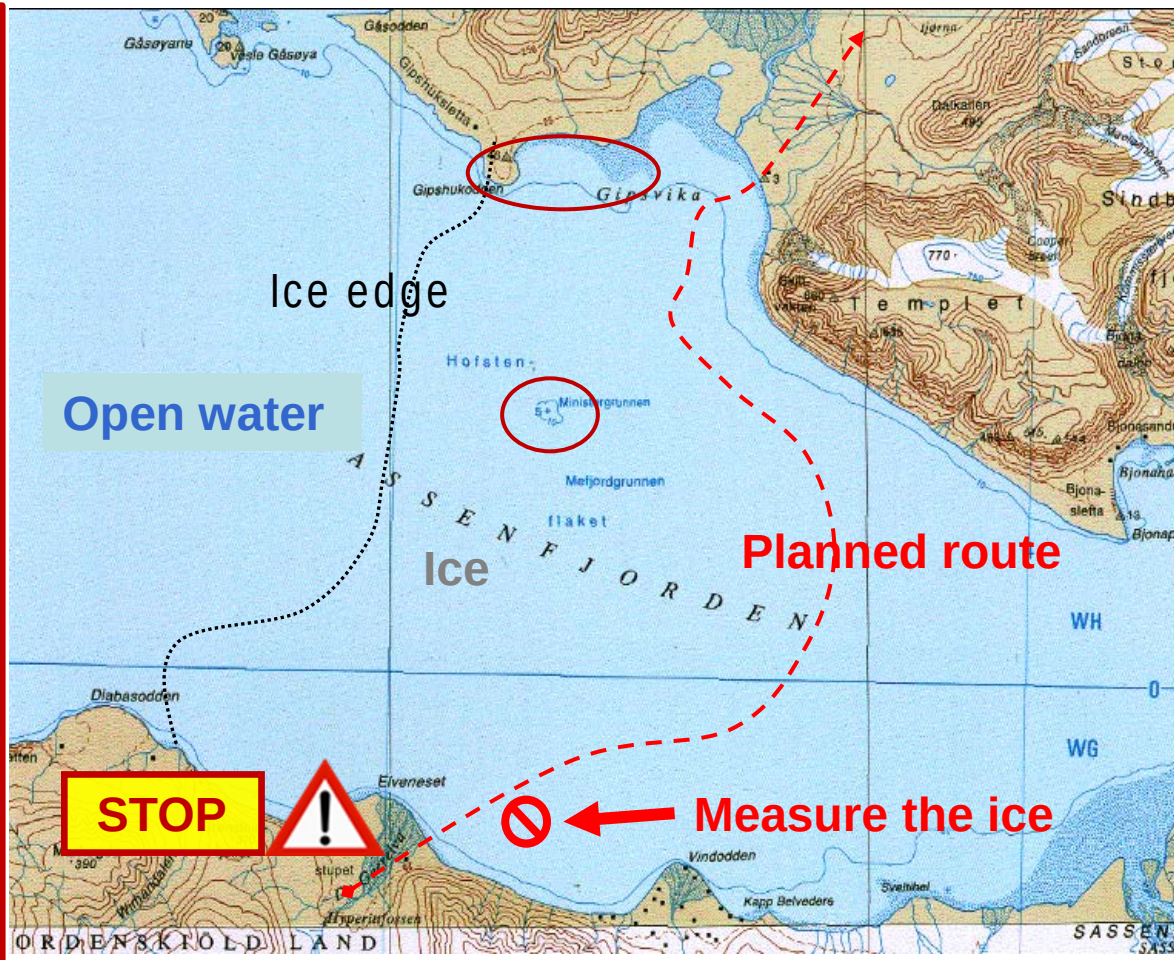


Local weak ice – Murdoch hole in Tempelfjord



Safety measures before driving to sea ice

1. **<u>Stop</u> – look - think**
   - Look for signs of poor ice
   - Plan the route
2. **<u>Make a plan</u> and brief the group.**
   - Distance between scooters
   - Signals
   - Communications (VHF etc)
   - Behaviour if stop
   - What to do in an accident
3. **<u>Make preparations</u>**
   - Ice spikes ready
   - Rescue equipment available (rescue rope etc)
4. **<u>Measure the ice</u> thickness and quality.**
   - Min 30 cm.
5. **<u>Make a decision</u> - whether to go or not.**



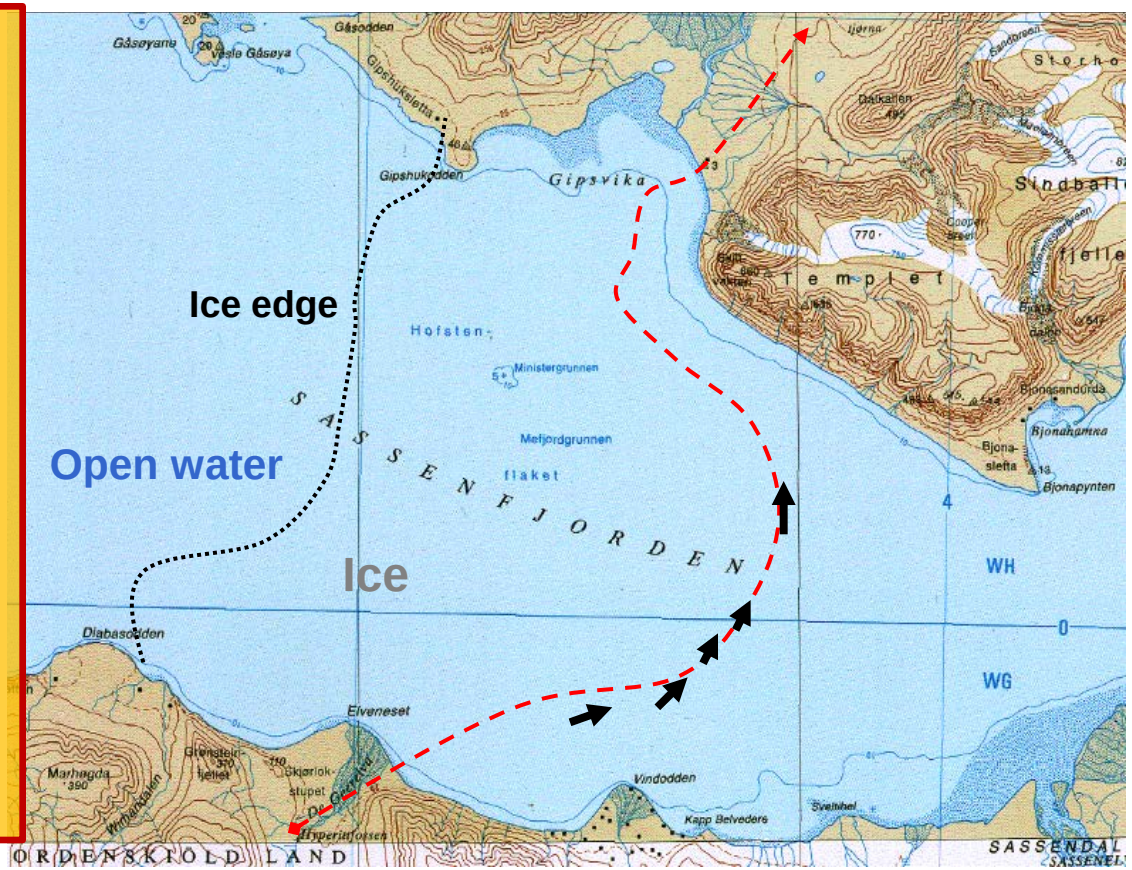
Safety measures when driving on sea ice

1. **<u>Single scooter</u>** (no sledge) first with good distance to the rest, or recon the route with a pair of scooters first.

2. **<u>Keep the speed up</u>**
   do not stop if you don't have to.

3. **<u>Observe the track</u>**
   look for water or slush.

4. **<u>Observe</u>** what is happening behind you.
   - Is everyone following?
   - Water behind the sledge?

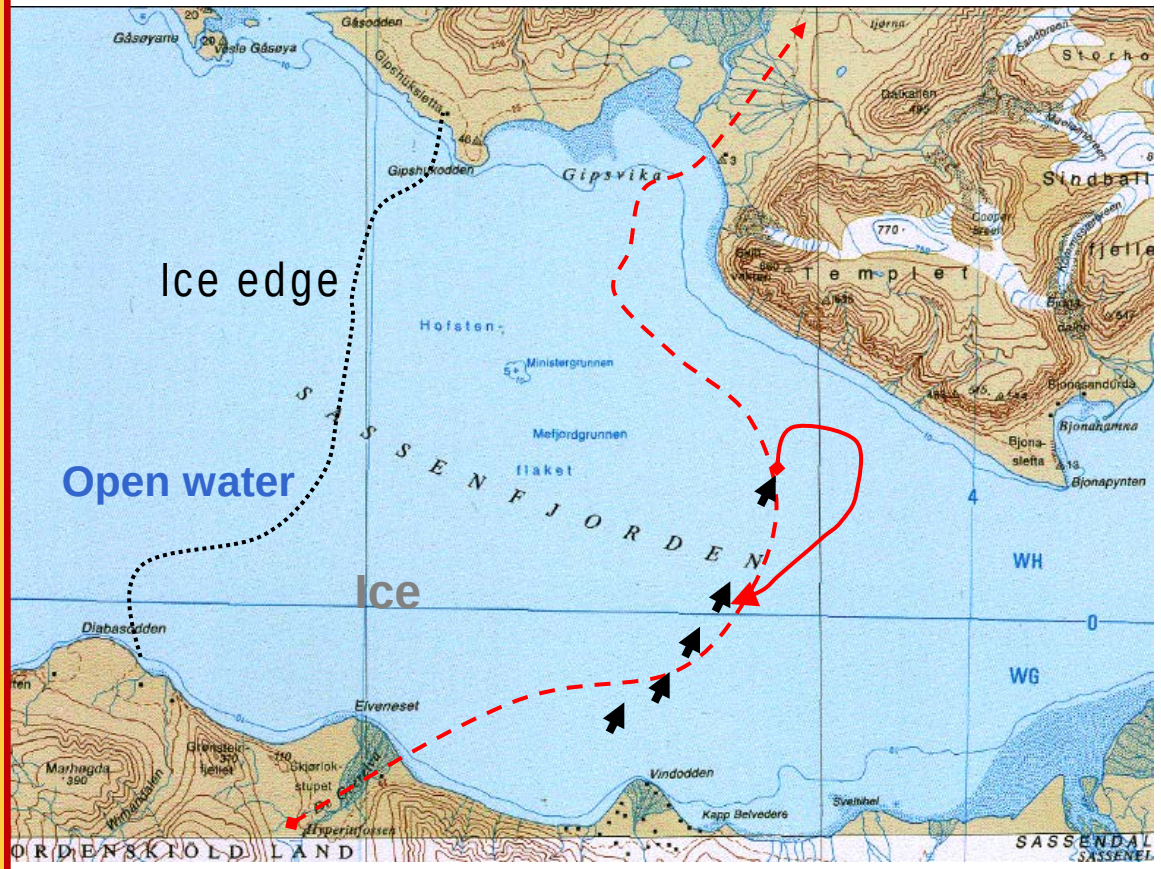


Safety measures with problems on sea ice

If something like this happens:

- Scooter seems to hold back and slow down (slush)
- You observe water in front of you or behind you
- You observe the ice quality or consistency is changing considerably
- Some of your colleagues get in trouble.

1. **Speed up**
2. **Make a big turn**
   - Keep as high speed as possible
   - Get back in a safe track
3. **Stop and evaluate**
   - Are you on safe ice?
   - How can you solve the problem / help your colleagues?



Rescue gear on sea ice

Personal safety:

- **Ice spikes around your neck**

Rescue equipment:

- **Rescue throw rope (30 m) easily available**
- Light survival suit in emergency box
- Ropes etc. in the glacier rescue box
- Jerry cans (they will float even when full, but can also be emptied if you have time)
- Sledges to spread the weight on the ice

Own safety before you rescue others!

Water and slush on ice and terrain

Water on top of ice

- Emerges under thicker snow cover in winter on sea ice
- Next to glacier fronts (glacier water with minerals etc. – does not freeze)
- End of season melt water on river beds, low terrain, on ice, river mouths etc.

- Can be totally hidden under snow and be 1-50cm deep slush
- Can be only thinly frozen on top

- Glacier front melt water pools and melt water usually visible as wet/slushy darker surface

→ **Scooters, sledges get stuck and you get wet and frozen**
→ **AVOID these areas**

Water and slush on ice and terrain

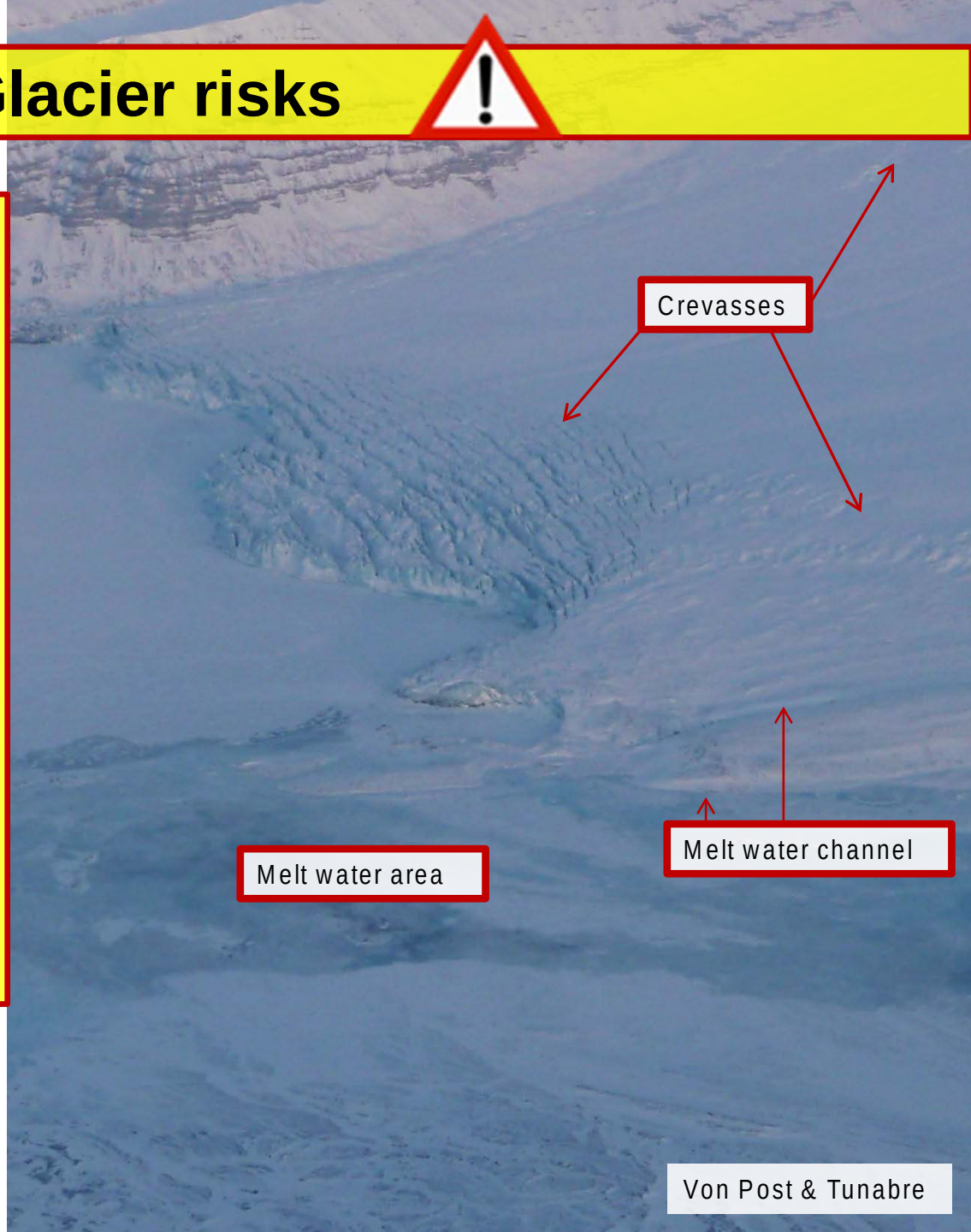
1. **<u>Do not stop!</u>**
2. **<u>Speed up – keep the speed</u>**
3. **<u>Make a big turn or cross the area</u>**
    1. Keep as high speed as possible
    2. Get back in a safe track
4. **<u>Stop and evaluate</u>**
    1. Are you safe?
    2. How can you solve the problem / help your colleges the best way?

If you get stuck:

- Detach the sledge, most cases empty the sledge
- Help each other, use ropes, which way is easiest to get loose?, try to make a snow/slush platform and get scooter and sledge on that before you try to drag and drive it out, open up track in loose snow etc.

Glacier risks

- **60 % of Svalbard is covered by glaciers**
- **Risks on glaciers**:
  - **Crevasses (cracks in ice)**
  - **Melt water channels**
  - **Melt water holes (Moulins)**
  - **Weather conditions**
  - Moraine areas
- Snow covered crevasses, channels & moulins with variable thick bridges → impossible to see the risks → possibility to fall in
- Problems with melt water next to glacier fronts the whole winter
- Many snowmobile routes cross over glaciers



Glacier risk areas

Crevasses:

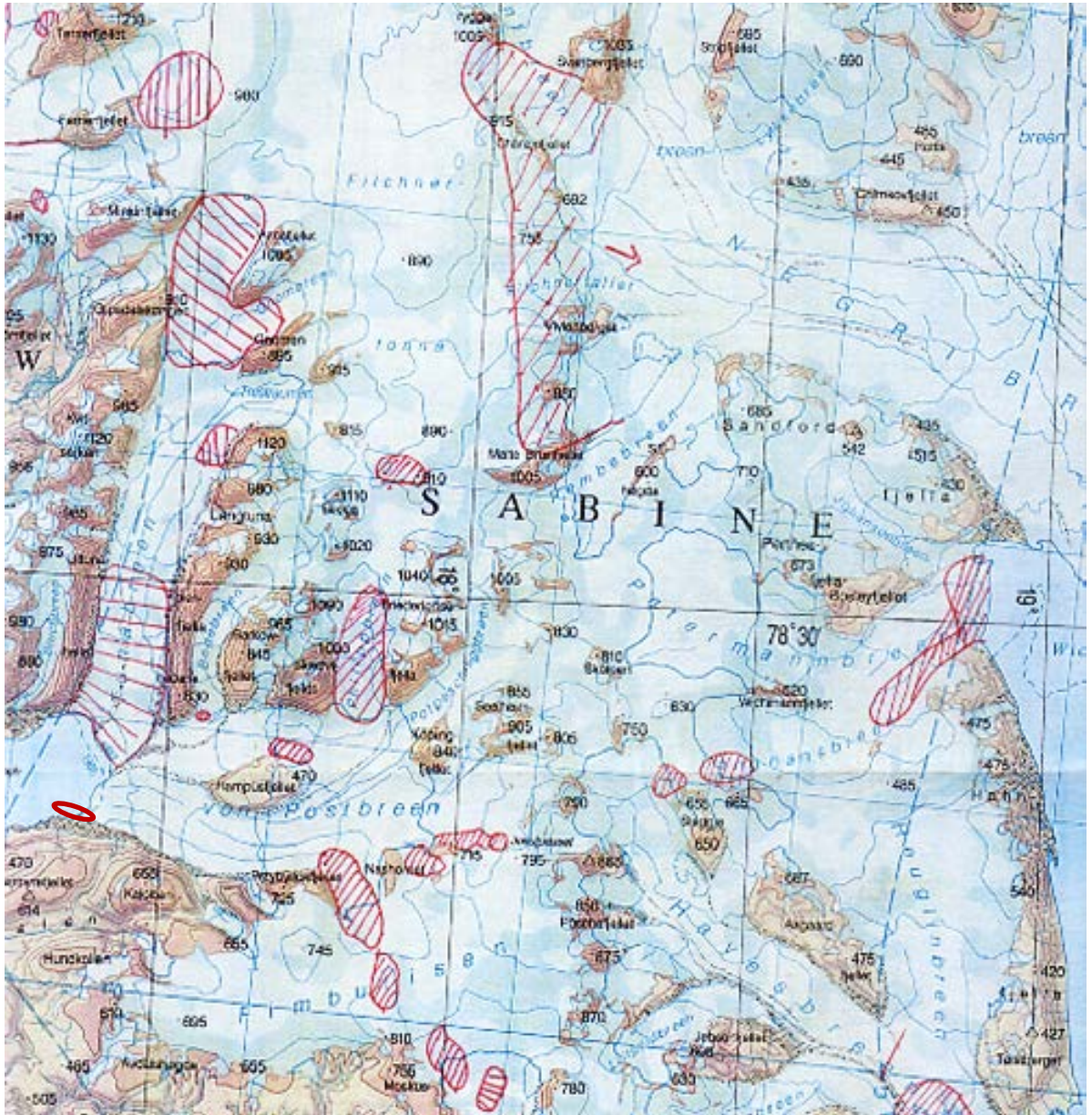
- Most crevasses on **places where glacier changes its character considerably** – fronts, steeper, convex, curve, get narrow, widens up, splits in two, by mountainsides
- **Safest on flat areas high up away from glacier fronts and mountain sides** (no stress on ice, mostly snow)

Melt water channels

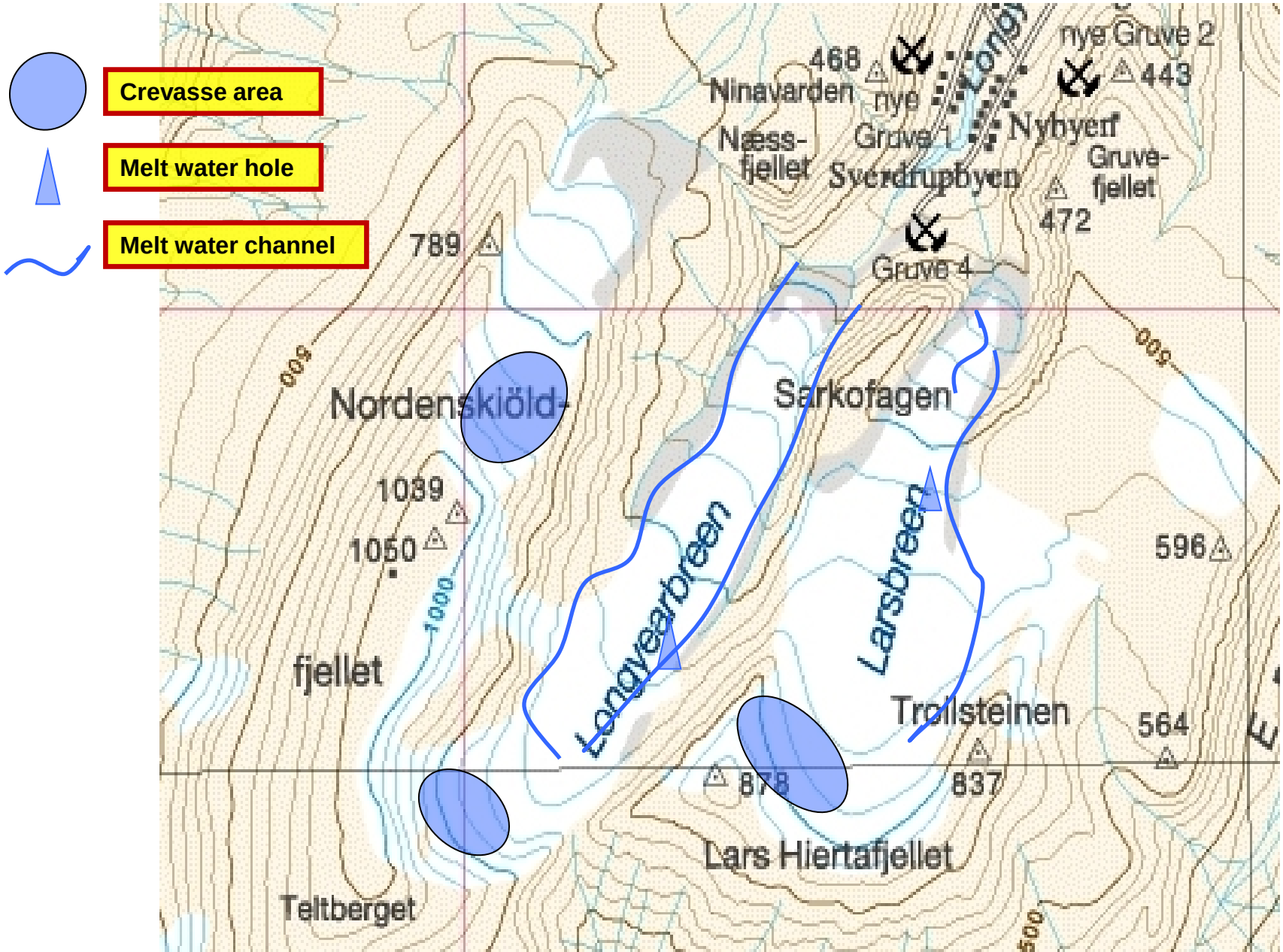
- Often on the sides, deepest close to fronts

Melt water/ Icings next to glacier fronts

- Do not freeze properly even at low temperatures



Glacier risk areas by Longyearbyen



Crevasses below Nordenskiöldtoppen

Glacier safety measures

Safe travel on glaciers

- **Follow known routes and GPS tracks on well known glaciers**
  - Ask experienced people
  - Map studies
- **Avoid terrain close to glacier fronts**
- **Avoid places where glacier terrain/contours change considerably**
- **Follow flattest and smoothest parts of terrain**
- **If unsure – avoid**

Glacier safety measures

Safe travel on glaciers

- **Avoid stopping (no stopping in uncertain areas)**
- **If unsure when stopping – stay on your scooter/sledge – probe the area to test it's safe before you walk around**
- **Do not head up to glaciers in bad weather**– zero visibility, exposed → easy to get lost and drive into dangerous areas
- Bring glacier rescue gear kit – have it on the last sledge

Crevasse accident safety

1. **Stay on your scooters and in the sledges!**
2. **Stop, Think, Evaluate**
3. **Your safety – rest of the groups safety → move to safe area**
   - Use probe to test that there are no crevasses before you start walking around
4. **Organize the group**
   - Safe area, rescuers, back up helpers (tent, first aid etc.)
5. **Call for help**
6. **Get into contact with the fallen person**
   - Use harness & rope for safety
   - Use probe to test there are no crevasses
7. **Crevasse rescue using glacier rescue kit** – keep it simple! Use the group. **Prioritize your own safety first!**

UNIS Glacier rescue gear kit

1 Rope 100m static	
Anchor set:	
Sling 120cm	3
Locking carabiner	3
Prusik rope short	1
ATC belay device	1
Pulley	1
Contact person set:	
Harness	1
Security sling 120	1
Locking carabiner	1
Regular carabiner	1
Prusik rope	2
Pulley	1
Crevasse rescuer set:	
Harness	1
Mini Traxion pulley	1
Rescue sling 60	1
Locking carabiner	2
Regular carabiner	2
Sling 120	1
Ice screw	1
Head lamp	1
Rescue Harness	1
Chest harness	1
Locking carabiner	2
Extras:	
Ice screw + carabiner	2
Ice axe	1


Avalanche & risks
YAMAHA

Avalanche risks and types

3 types of avalanches:

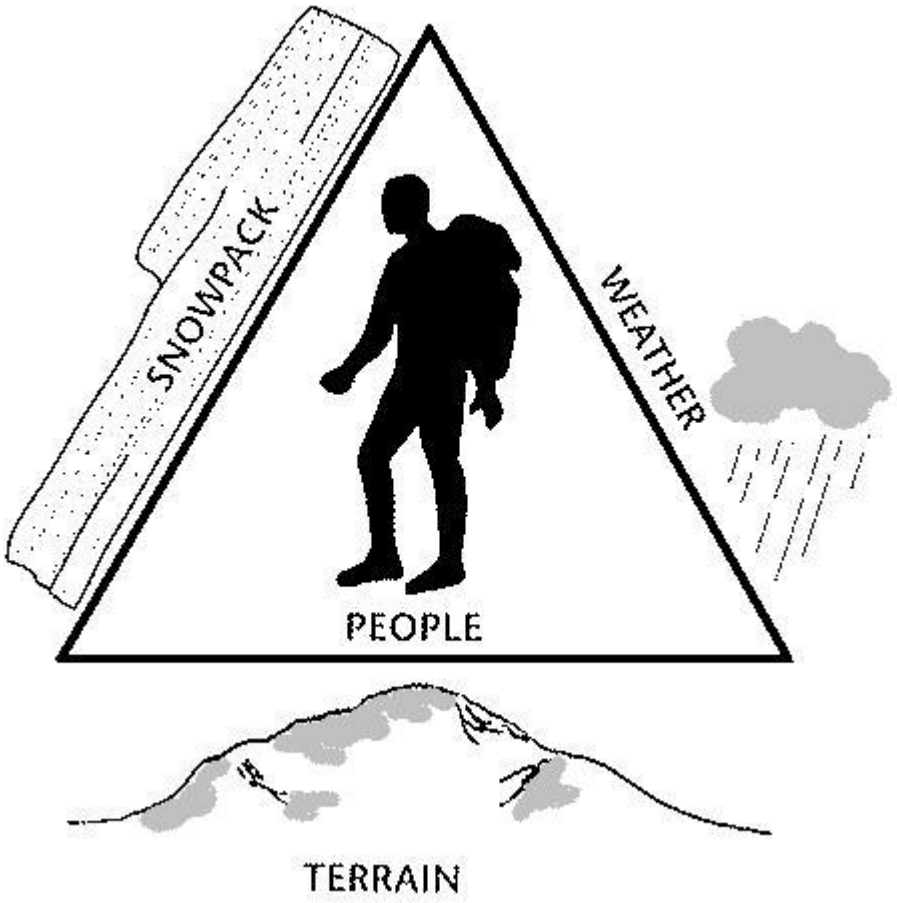
- **Slab avalanche**: larger area of snow release simultaneously
- **Cornice breakage**: wind created snow overhang breaks, falls and starts slab avalanche
- **Point release (loose snow)**: starts from one point and grows bigger further down

Almost all fatal avalanches are slab avalanches triggered by the victim

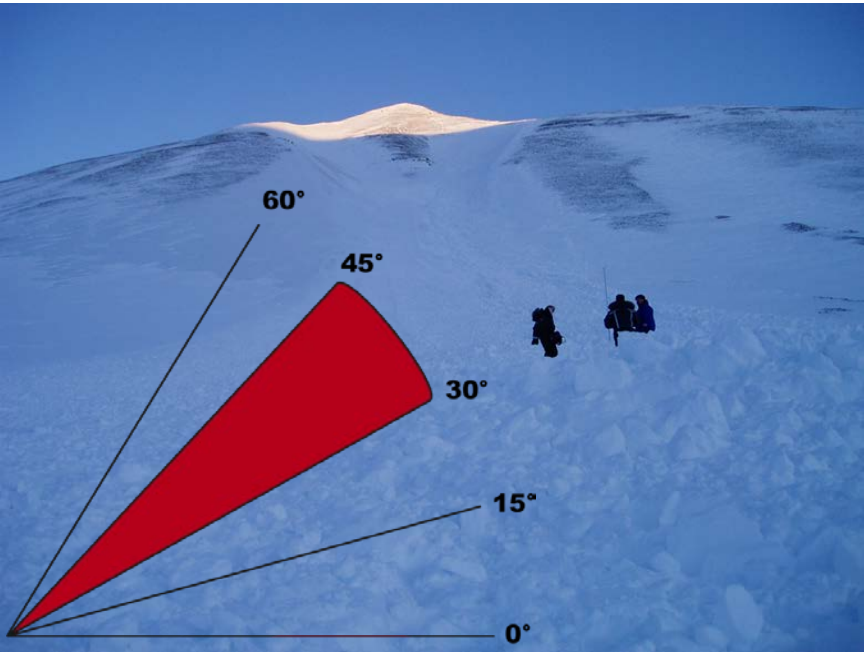
Cornice fall induced avalanches common in Svalbard – watch out for edges of plateau mountains

Causes of avalanches

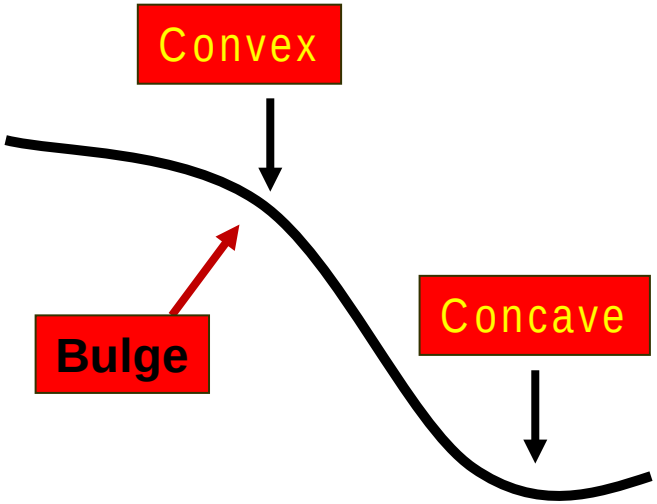
- **Terrain**: steep enough? Leeside?
- **Weather**: recent snowfall, wind moving snow, heat, rain
- **Snowpack**: signs of instability, local variation, wind transported snow?
- **People**: use of terrain, attitudes, alternatives?



Avalanche terrain



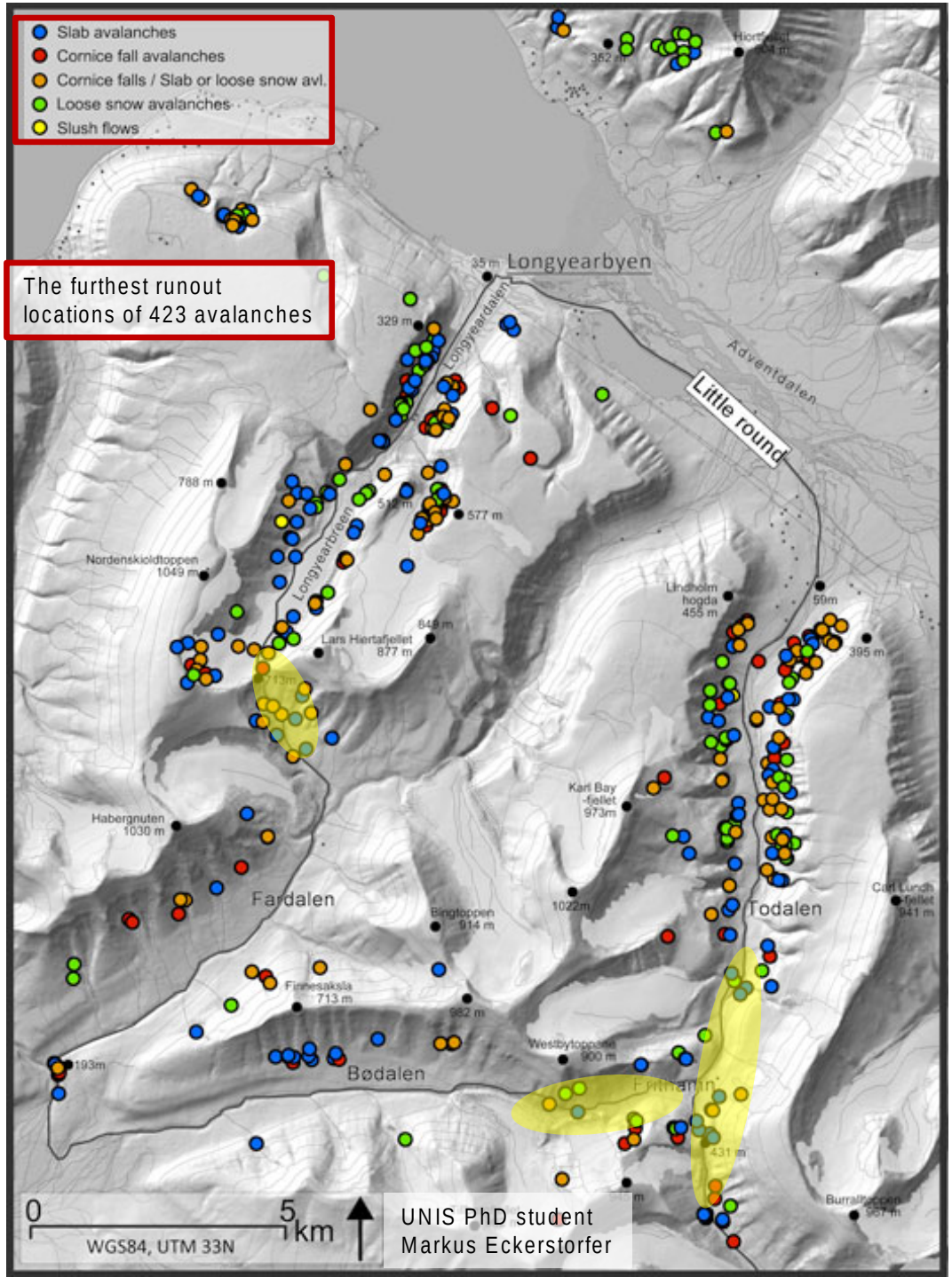
- **The majority of avalanches triggered by victim occur on slopes between 30°- 45°**
- **Lee side slopes gather snow and form slabs easier**
- Avoid terrain traps: narrow, steep valleys/creeks, terrain above cliffs etc.
- Small slopes 5m-30m can also be dangerous together with terrain trap (creek valleys)



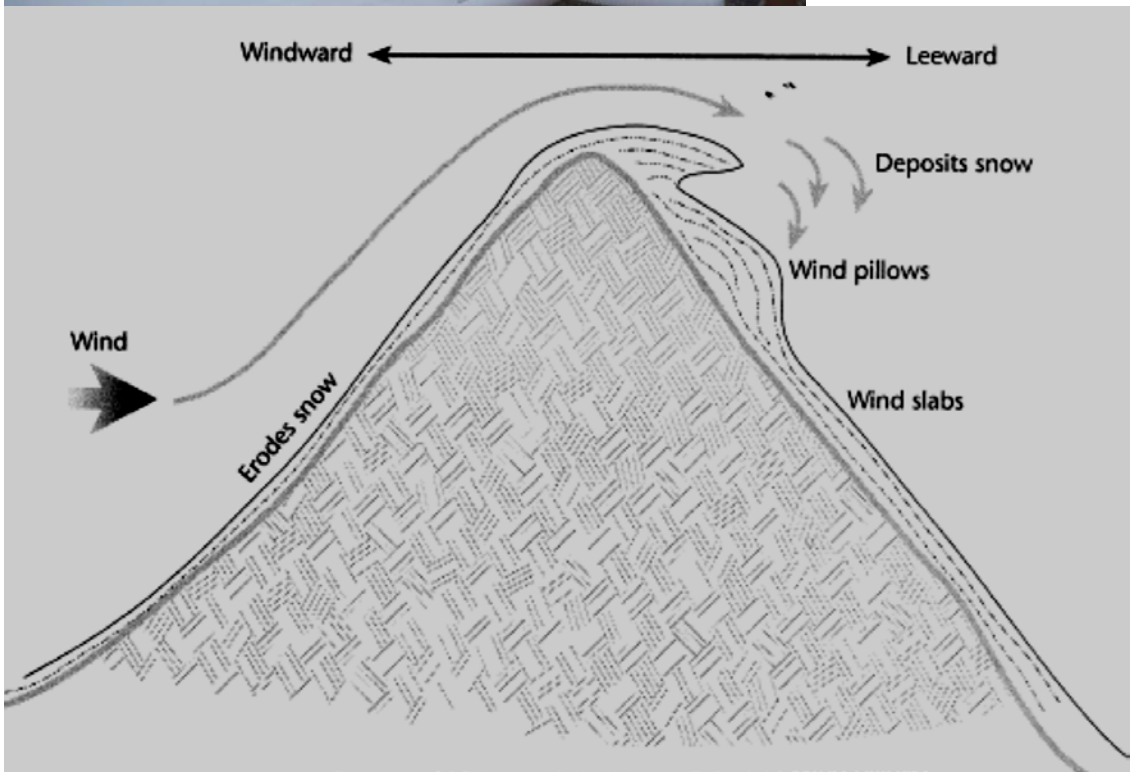
Many slabs release on the bulge of convex slopes

Avalanche terrain around Longyearbyen

- Lots of slopes over 35 degrees
- Lee side slopes under plateau → gather lots of snow during storms
- Wind transportation + slab forming very efficient
- Lots of cornices on top of slopes
- **Scooter routes mostly safe in valley bottoms.**
- **Risky points: Fardalen, highest parts of Todalen-Bødalen**



Weather & avalanche risk



- **Snowstorms**
- **Wind transporting snow** (between 7-18m/s) **to lee slopes**
- Rapidly warming temperatures can decrease stability
- Rain making snowpack wet

Many avalanches occur during and 1-2 days after storms

Snowpack

- **Different constantly changing local layers and crystals** formed by every snowfall, weather change and processes inside snowpack
- **Strong, stable and solid layers**
- **Weak, thin layers which can collapse suddenly due to extra load or melting → slab avalanche**

Some risky weak layers:

- **Border between recent wind transported new snow on top of older snowpack on lee slopes**

- **Thin, weak crystal layers deeper in snowpack formed due to cold weather - can stay long time reactive in snowpack until extra load by next snowfall or skier or scooter breaks them.**

→ **Common in Svalbard and can be very easy to trigger – also remote triggering. Large local variation!**

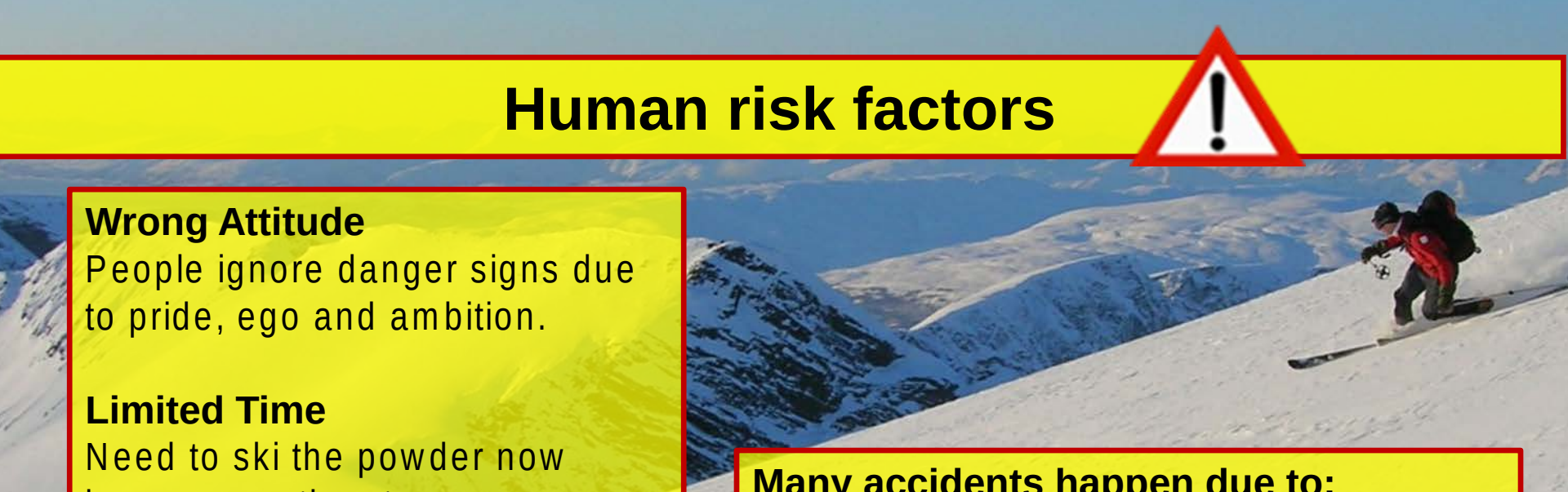
Difficult to evaluate snowpack stability! Look for following high risk signs and remember local variation and effect of wind!

High avalanche risk signs

- Recent avalanches
- Snowstorm & heavy snowfall yesterday-today
- High rate of wind transported snow to lee slopes
- Whoomp-sound & collapsing snow
- Shooting cracks on snow
- Hollow sound under hard snow surface layer (hard slab)
- Rain/warm weather making snowpack rapidly and properly wet

Avoid avalanche prone terrain when you observe these signs!

Human risk factors



Wrong Attitude
People ignore danger signs due to pride, ego and ambition.

Limited Time
Need to ski the powder now because no time tomorrow.

Blue Sky
Sunny weather gives false safety feeling.

Herding Instinct
People tend to think less in large groups and feel safer.

Tracker Dog
People tend to think that tracks in a slope is a safe slope.

Many accidents happen due to:

- Ascending, stopping and grouping in exposed places & avalanche paths
- Not reacting to signs of high risk and ignoring local variation in snowpack
- Not recognizing terrain traps
- Travelling alone

Most accidents happen because we ignore signs of avalanche danger and make bad decisions.

Avalanche safety measures

Routines to reduce risks when moving in avalanche prone terrain:

- **Stop and gather in safe places outside avalanche paths**
- Observe terrain and snow continually for danger signs → STOP, THINK, EVALUATE when something changes
- Choose easy and safe ascending route
- Expose only one person at the time
- Avoid crossing slopes above others
- Avoid terrain traps
- Do not trust that the others know better → say if you feel unsafe
- Carry transceiver, shovel and probe AND exercize in how to use them.
- Do not use: leash between skis and boots, handloop on ski poles

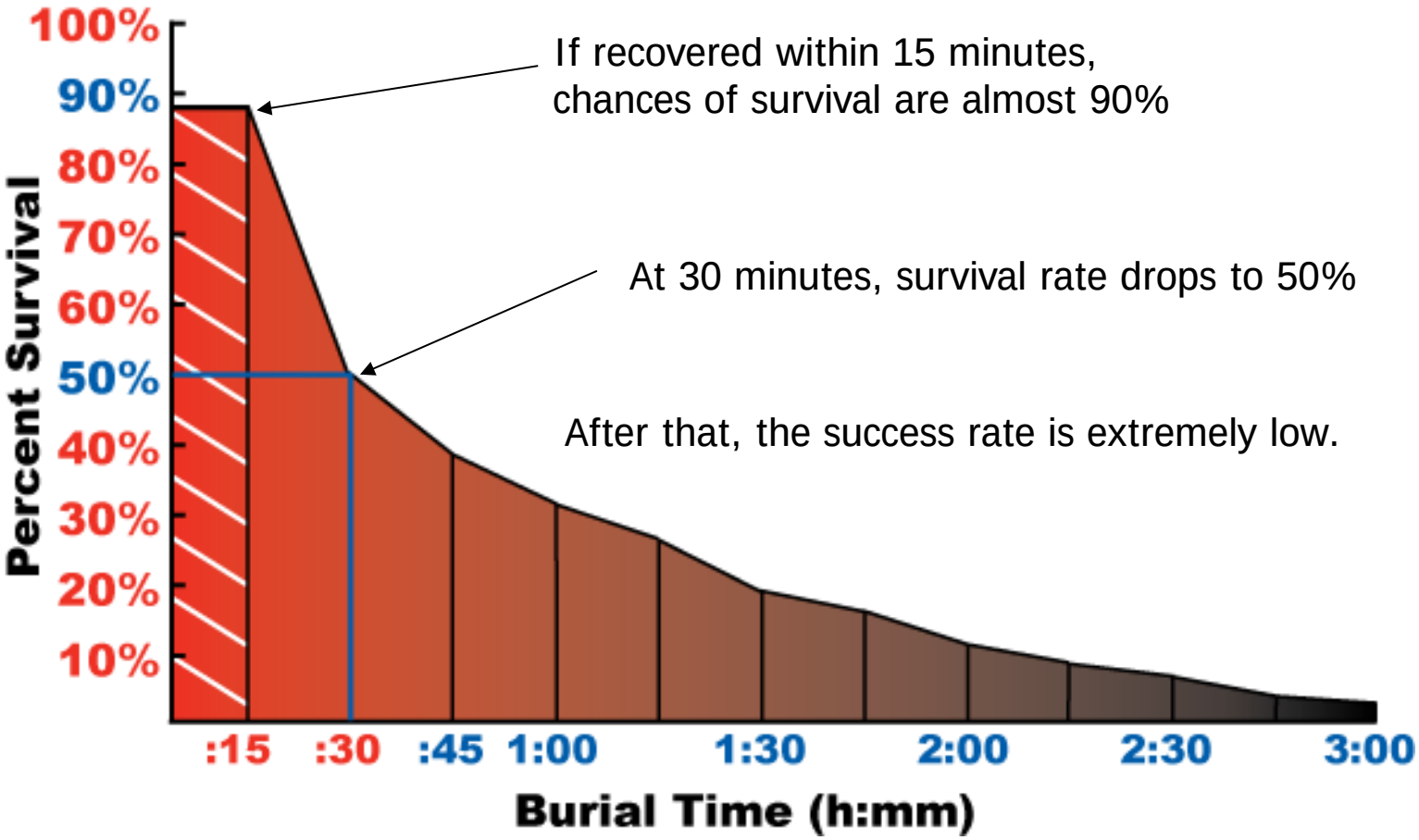
Avalanche rescue equipment

What do you need for a rescue:

- **Avalanche beacon**
  follows electronic signal to buried victim
- **Probe**
  verifies depth and exact location of buried victim
- **Shovel**
  removes snow

Practice how to use it!

Survival and burial time



Only a member of your group will probably have the chanse to save your life!

When avalanche occurs

Victim:

• Try to alarm and yell

• Try to escape to side immediately

• Try to stay on top

• If buried, try to form airpocket in front of your face and move around when you completely stop to form some space around your chest

Rescuer:

1. Your own and the groups safety?

2. Start the rescue, delegate tasks: search, shovelling

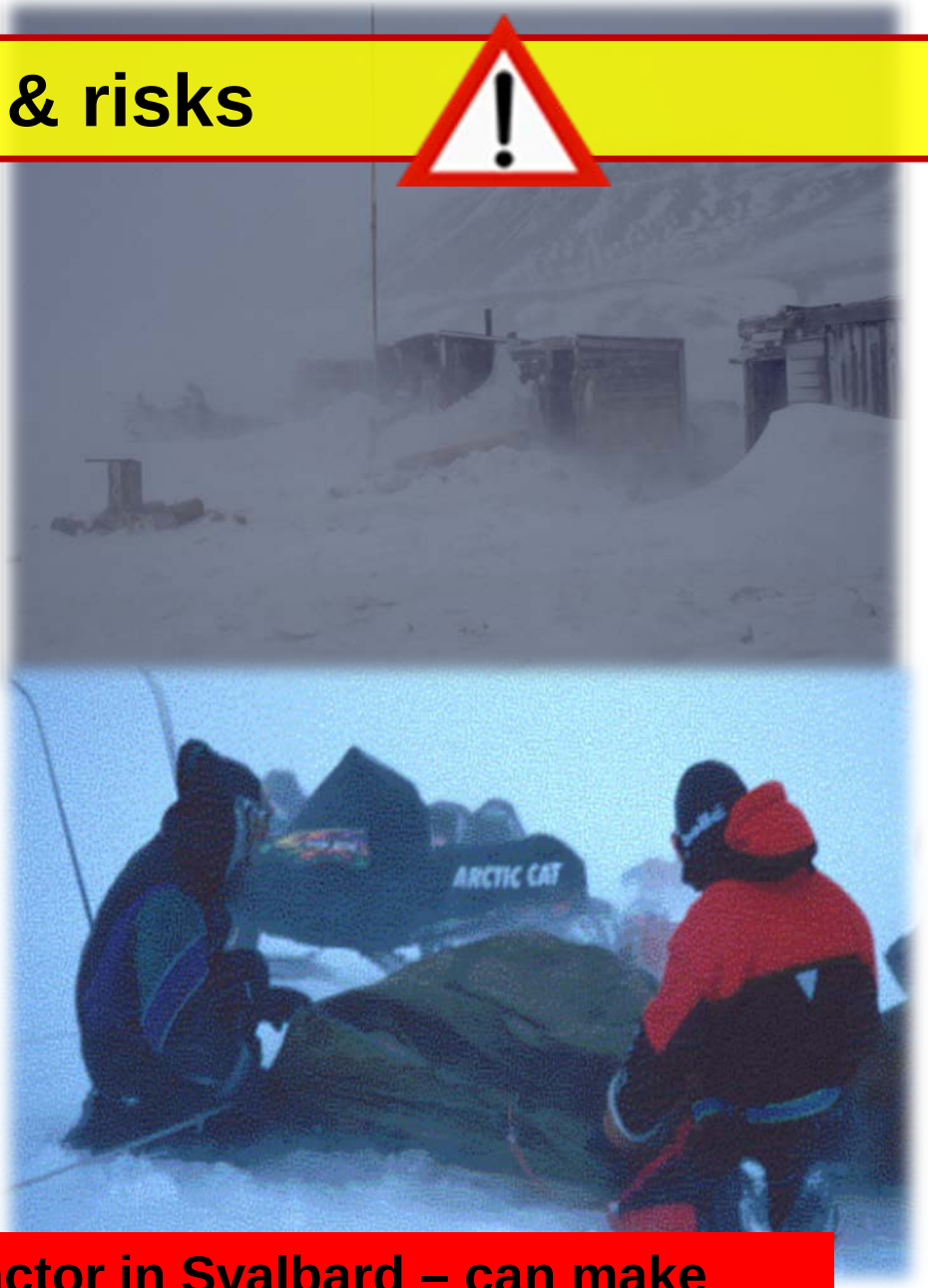
3. Release the emergency beacon and call for help using available communication.

• Look for any signs of the person on the surface while searching
• Start the search from ”last seen point”
• Confirm exact depth and location of the victim with probe – leave probe on place as marker
• Shovelling: excavate downhill from the victim, start a bit away from probe

Weather & risks

- Variable and often stormy weather (maritime versus polar air)
- Hard to predict
- **Big local variations**
- **Weather may change very rapidly**
- Average temperature winter:
  -11°C to -19°C but with wind often -20 to -30.
- Variation from +3 to – 35
- In winter the prevailing and strongest winds are easterly

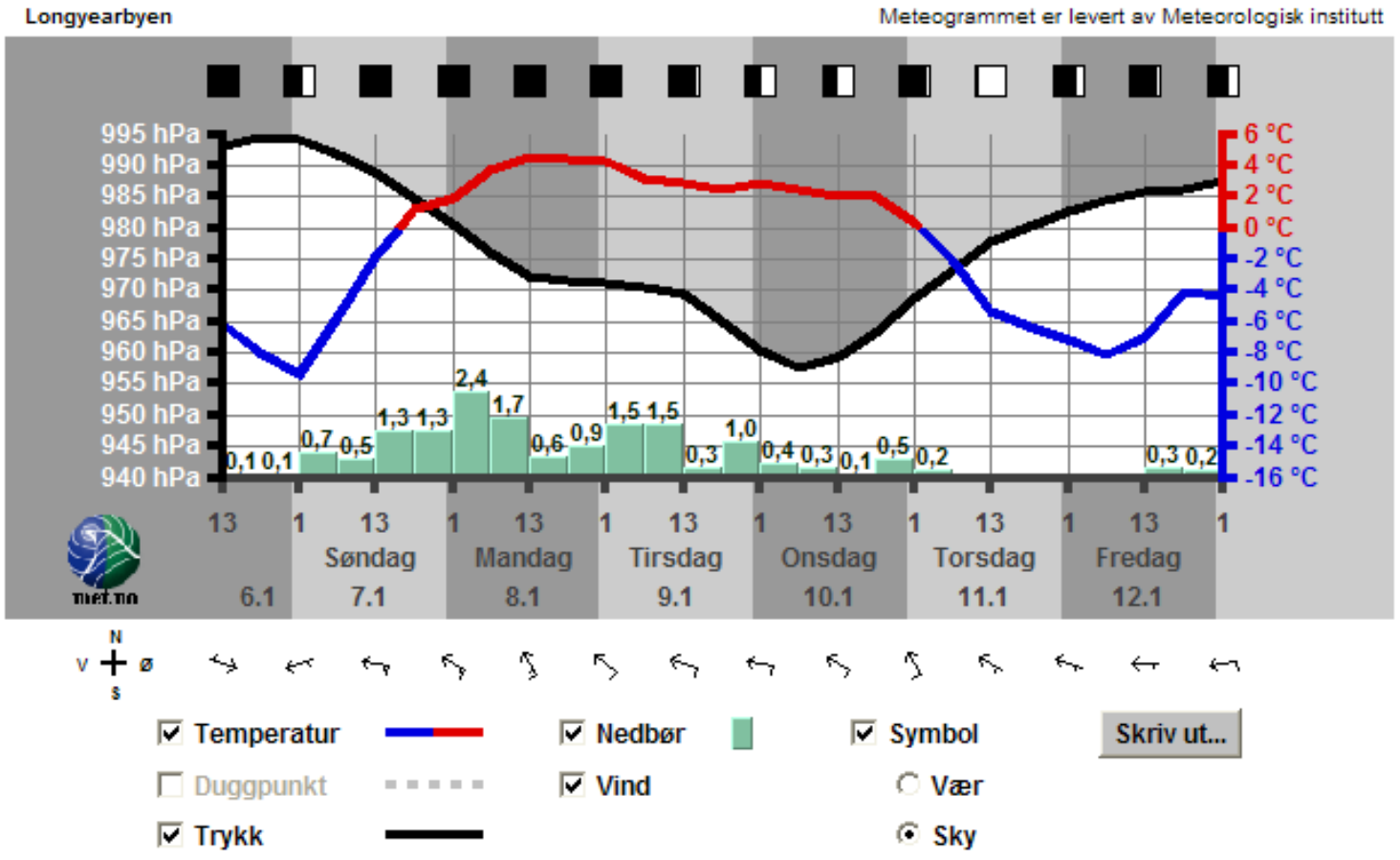
- **Often windy → wind chill, low visibility or whiteout with blowing snow**
- **Very exposed to weather**



Weather is a major risk factor in Svalbard – can make moving, orientation and evacuation impossible

Weather Meteogram

- Updates found by the reception daily



Check also:

[Weather forecast for Longyearbyen (Svalbard) – www.yr.no]

Windchill Chart

Vindstyrke i Beaufort	Luft-temp.	5	0	-5	-10	-15	-20	-25	-30	-35	-40	-45	-50
	meter/sek.	Indeks											
Svak vind	1,5	4	-2	-7	-13	-19	-24	-30	-36	-41	-47	-53	-58
	3	3	-3	-9	-15	-21	-27	-33	-39	-45	-51	-57	-63
Lett bris	4,5	2	-4	-11	-17	-23	-29	-35	-41	-48	-54	-60	-66
	6	1	-5	-12	-18	-24	-31	-37	-43	-49	-56	-62	-68
Laber bris	7,5	1	-6	-12	-19	-25	-32	-38	-45	-51	-57	-64	-70
	9	0	-7	-13	-20	-26	-33	-39	-46	-52	-59	-65	-72
Frisk bris	10,5	0	-7	-14	-20	-27	-33	-40	-47	-53	-60	-66	-73
Liten kuling	12	-1	-7	-14	-21	-27	-34	-41	-48	-54	-61	-68	-74
	13,5	-1	-8	-15	-21	-28	-35	-42	-48	-55	-62	-69	-75
Stiv kuling	15	-1	-8	-15	-22	-29	-35	-42	-49	-56	-63	-70	-76
	16,5	-2	-9	-15	-22	-29	-36	-43	-50	-57	-63	-70	-77
Sterk kuling	18	-2	-9	-16	-23	-30	-37	-43	-50	-57	-64	-71	-78
	19,5	-2	-9	-16	-23	-30	-37	-44	-51	-58	-65	-72	-79
	21	-2	-9	-16	-23	-30	-37	-44	-51	-59	-66	-73	-80
Liten storm	22,5	-3	-10	-17	-24	-31	-38	-45	-52	-59	-66	-73	-80
	24	-3	-10	-17	-24	-31	-38	-45	-52	-60	-67	-74	-81

Clothing

- Face, hands and feet are most exposed
- Windproof clothing
- Big enough size – specially shoes
- Spare clothing. Especially mittens and a warm hat !
- More layers instead of one thick layer → adjustable
- Never put on more clothing than just enough to keep you warm when active → avoid swetting and getting wet
- Always bring clothing suited for extreme weather conditions.
- You must be able to cover your face totally

Clothing

- **Underwear**
  - Wool (or in combination with synthetic fabrics)
- **Isolation layers**
  - Wool, Fleece, Primaloft etc. synthetic fabrics, Down
- **Outer wear (Shell clothing):**
  - **Windproof** (cotton, synthetic or Gore Tex etc.)
  - Long enough in the back + **good hood**
- **Headwear**
  - **Windproof** hat or fur hat (covers also cheeks)
- **Face protection**
  - Different fabrics (neoprene/wool), but always windproof
  - **Ski goggles and sun glasses later in season**
- **Neck protection**
  - Wool / fleece
- **Hands**
  - Always windproof shell + warm insulation layer (good if loose inner glove → easier to get dry) + extra gloves/mittens
  - Often good to have thin liner gloves in case you need to do precise tasks → no bare fingers on -20 degree metal, wood, ropes etc.
- **Footwear**
  - Socks: thinner and thicker wool socks – **never cotton!**
  - **Shoes big enough**: space for 2 pairs of socks + not tight around toes and feet
  - Thick sole and thick, loose insulation around foot (wool, Thinsulate etc.)

Wildlife – Arctic fox

- Harmless & curious
- Can steal food

Be aware:

- Rabies
- “Mouse parasite” (Echinococcus multilocularis) – especially in Grumant, Fuglefjella

- Store food & waste properly – do not feed foxes
- No drinking water from streams in high risk areas for Echinococcus-parasite (boiling kills it)
- Keep away and report aggressive foxes (Rabies) (report also immobile reindeers)

Wildlife – Walrus

- Growing population
- Also more common in Isfjorden
- Can be curious or even aggressive → can puncture or destroy small boats. Can be a risk also on the ice edge.

- Keep some distance and move away from walrus that is moving closer.
- Keep distance to walrus groups on land or on ice

Wildlife – Polar bear

- You can meet polar bears all over Svalbard and surrounding ice covered waters
- All kinds of terrain and places, also water
- Especially sea ice, sea shore, glacier fronts, seals on ice, carcasses

- Curious hunter
- Moves surprisingly fast in all kinds of terrain
- Very good sense of smell

- Not always shiny white

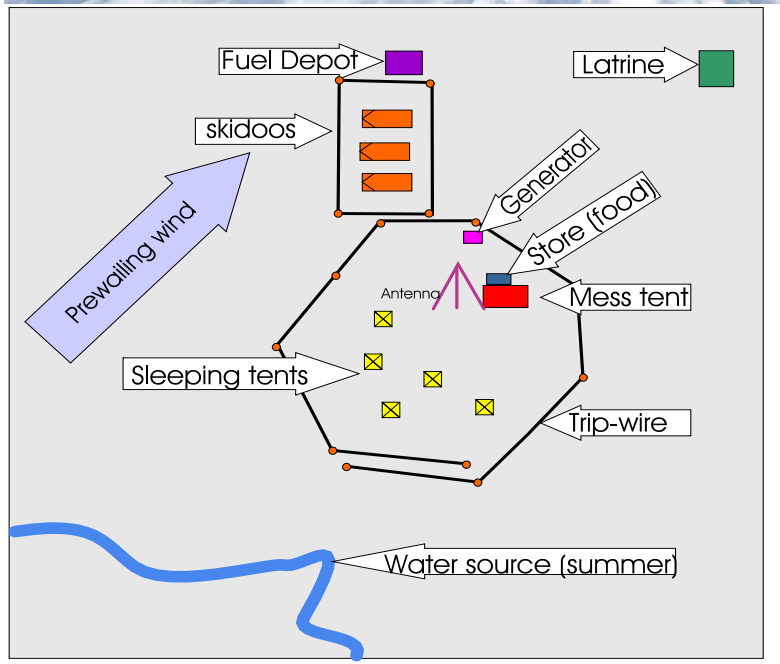
Wildlife – Encountering Polar bear

- Consider the Polar bear threat when planning your work, equipment, camps and stops
- Stay alert – think how you use the terrain - can you see around you?
- Avoid all close encounters and situations
- Carry rifle & flare gun with you all times

- If you meet a Polar bear:
  - Gather the group
  - Try to move away
  - Try to scare the bear off in time
  - Bears can be shot only in self defence

Tent camp

- **Anchor always storm proof**
- **Placement in terrain: wind, snow accumulation, polar bears, crevasses,** cultural heritage 100m
- Organize the camp and your gear
- Polar bear safety: visibility, trip wire, bear watch, separate kitchen tent
- Spare parts, extra fuel and food storage.

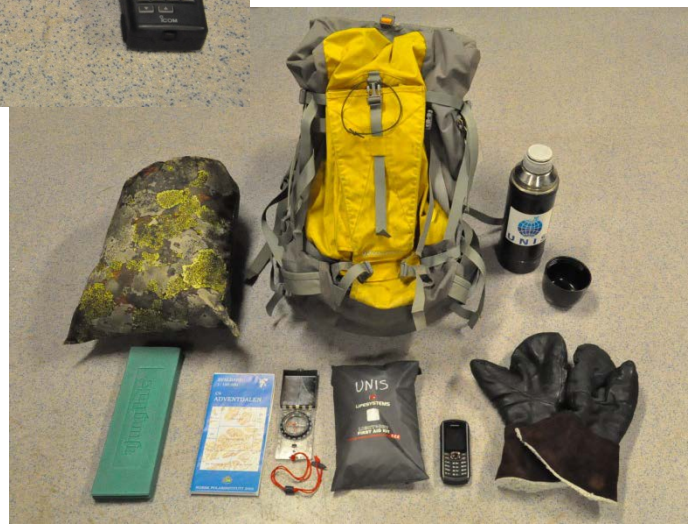


Transport with airplane and helicopter

- **Transport with helicopter:**
  - Special safety briefing
  - Some limitations regarding dangerous goods (fuel, ammunition)
  - Garbage from field parties must be stored in containers

- **Transport with fixed wing (airplane):**
  - Same safety regulations as for commercial airliners!
  - No flammable goods, ammunition or batteries.
  - Limitations on what kind of petrol driven machinery it is allowed to bring onboard.

Field safety & emergency equipment



Rifle & signal pistol

- Rifle with 10 pcs of high power hunting ammunition. All UNIS rifles are Ruger cal .30-06.
- A signal pistol is the best way to scare off bears. Always carry a signal pistol in addition to the rifle.
- Take good care of your weapons – check daily, keep clean!

Communication

- **Emergency beacon**
  - Emergency help transmitter
- **Satellite telephone**
  - Works everywhere
  - Daily contact to UNIS etc.
  - Emergency contact
- **VHF Radio**
  - Contact between field groups
  - Contact to boats/ships ch16
  - Can be backup communication to UNIS.

- All three communication types always out with the field party.
- The emergency beacon should be carried on the body by one person within the group.
- Sat.phone & VHF: **extra batteries and possible charger for longer trips**

Emergency beacon

- **If you have an accident where you consider you need help to save life or limbs; use the emergency beacon immediately !**
  - **You can use the satellite phone to call in details about the emergency.**
- **Only to be used in a real emergency situations.**
- **Transmits an emergency signal and the position through satellites when released.**
- **Can not communicate or give any details about the emergency.**

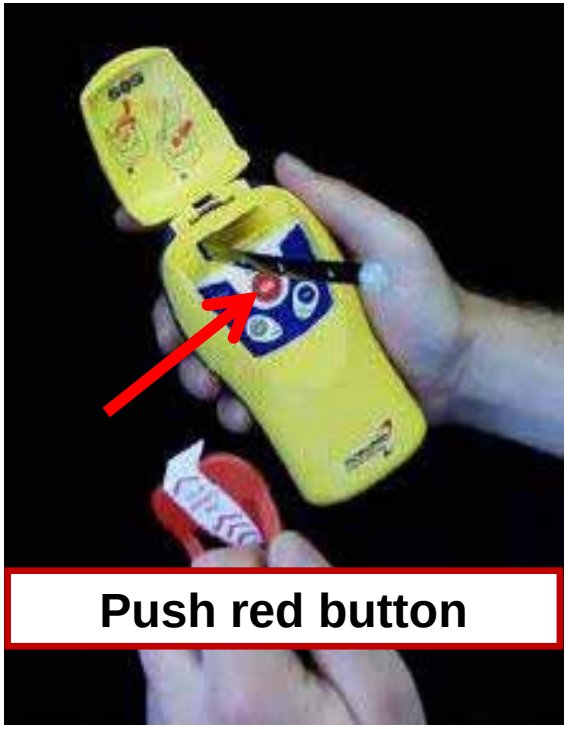
1

Open

2

Release cover

3



Push red button

Map & compass & GPS

- Always bring a map and a compass
- Maps 1:100 000 (1cm=1km)
- GPS is only navigation aid! Bring extra batteries.

- Snow and wind in the terrain and on sea ice; no visibility and no landmarks leads to total whiteout.
- Know where you are and where your camp/scooter/ terrain risky points are – use waypoints/tracks

UNIS Emergency box

- 1 Tent
- 1 Sleeping bag
- 1 Sleeping pad + sitting pads
- 1 Head lamp
- 1 Snow shovel
- 1 First aid kit
- 2 Gasoline stoves + 4 fuel bottles
- 2 Cooking pots
- 4 boxes of matches
- 2 plastic cups
- 1 Trip wire kit
- 2 insulated windproof bivouac bags
- 2 packs 24 hour rations
- 1 Box drinking powder
- 2 avalanche search probes
- 1 Lightweight rescue survival suit

Equipment for day-long excursions

- Insulated, windproof bivouac bag (Jervenduk)
- Sleeping pad / sitting pad
- First aid kit

- Thermos with warm drink
- Extra food and snacks
- Extra clothing **(hat + gloves!)**

- Rifle and a signal pistol
- Communication and contact numbers
- Map, compass and GPS

Environmental legislation and caution

- Research activities, physical installations and sampling are regulated and need permission from local authorities
- Label all physical field installations (contacts, dates)
- Leave no Trace on nature on campsites. It is prohibited to drive on bare, melted ground.
- Be aware of cultural heritage monuments. Camp minimum 100m away.
- All traces of human activity dating from 1945 or earlier are protected elements

Governor of Svalbard

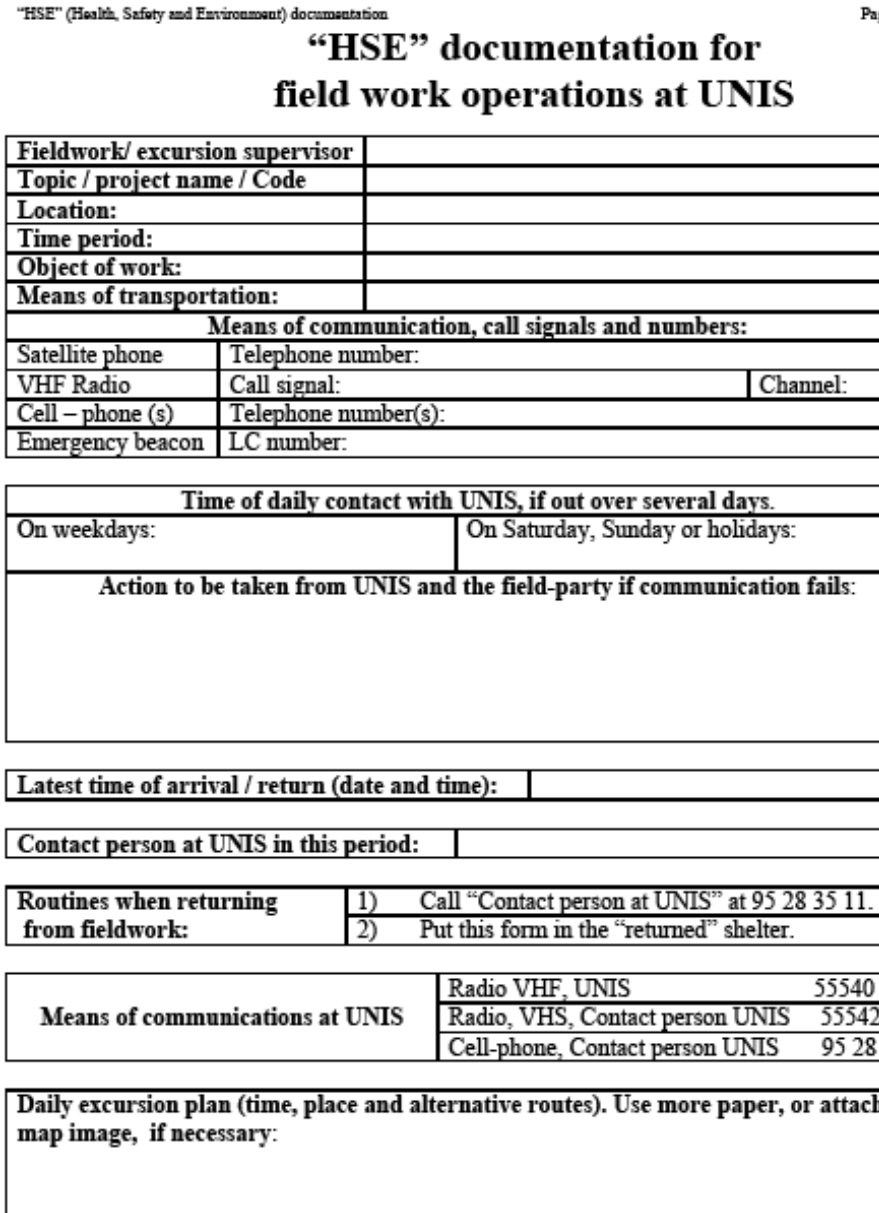
www.sysselmannen.no

Researchers

Whoever plans to carry out research activities in Svalbard needs to familiarize him or herself with current rules and regulations. As a rule, most field activities demand a permit from the Governor in Svalbard.

Safety routines for field work

- All field work and work in the labs need to be agreed on with the logistic department.
- HSE (Health, Safety and Environmental) briefing before all fieldwork.
- Document contact info, group members, plan, gear etc. in the "HSE documentation for fieldwork" before going out
- Contact with person on duty at UNIS if working after 1600 or if in need of assistance



"HSE" (Health, Safety and Environment) documentation

"HSE" documentation for field work operations at UNIS

Fieldwork/ excursion supervisor	
Topic / project name / Code	
Location:	
Time period:	
Object of work:	
Means of transportation:	

Means of communication, call signals and numbers:		
Satellite phone	Telephone number:	
VHF Radio	Call signal:	Channel:
Cell – phone (s)	Telephone number(s):	
Emergency beacon	LC number:	

Time of daily contact with UNIS, if out over several days.	
On weekdays:	On Saturday, Sunday or holidays:

Action to be taken from UNIS and the field-party if communication fails:

Latest time of arrival / return (date and time):	
Contact person at UNIS in this period:	

Routines when returning from fieldwork:	1)	Call "Contact person at UNIS" at 95 28 35 11.
	2)	Put this form in the "returned" shelter.

Means of communications at UNIS	Radio VHF, UNIS	55540
	Radio, VHS, Contact person UNIS	55542
	Cell-phone, Contact person UNIS	95 28

Daily excursion plan (time, place and alternative routes). Use more paper, or attach map image, if necessary:

Emergency, Health and Problem contacts

Emergency Phone 112

Telephone to Police and Rescue 24 hours:
+47 7902 1222

UNIS CAMPUS

Daytime from 08.30 to 16.00: **Study administration.**
Phone: Tel: +47 79 02 33 00
E-mail addresses: Studadm@unis.no

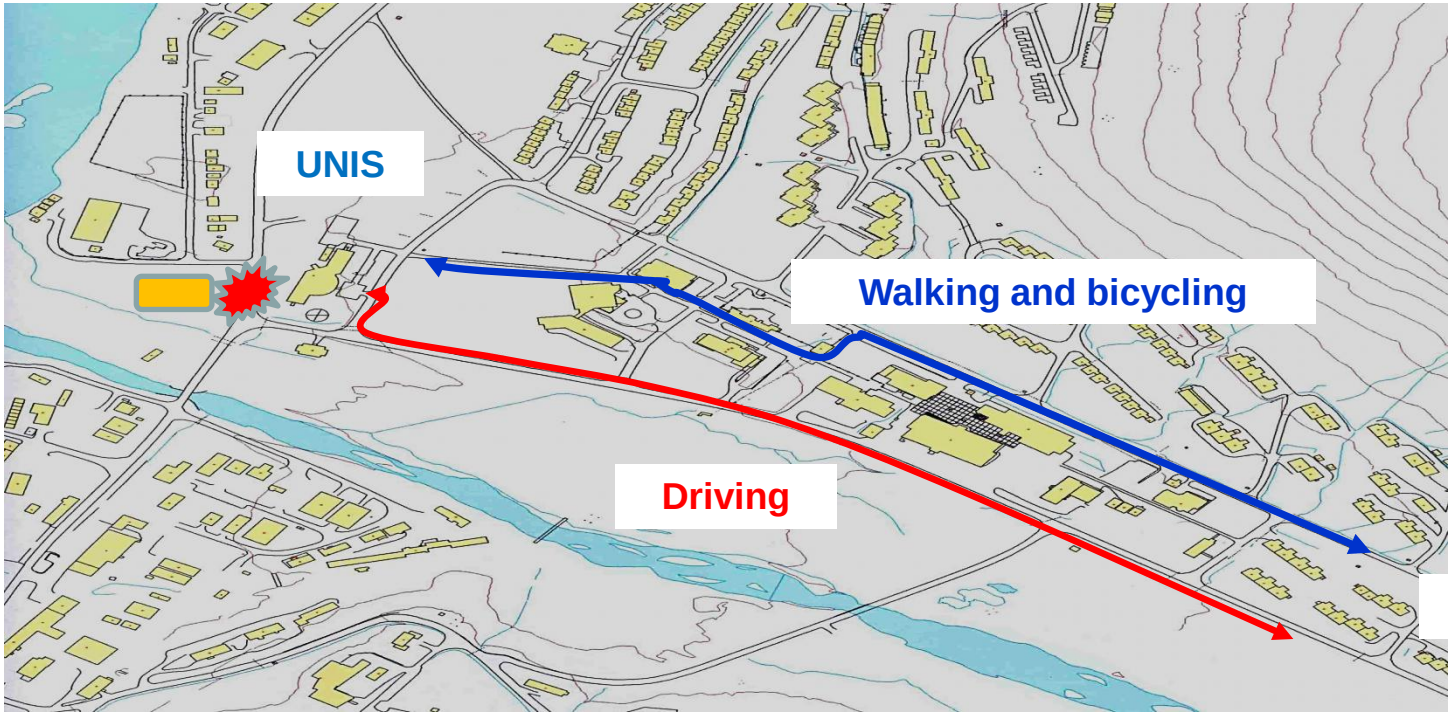
Evening/nights from 16.00 to 08.30: **Duty officer.**
Phone: Tel: +47 95 28 35 11

Off campus alternatives:

Longyearbyen hospital
Emergency phone 113
Phone nr. + 47 79 02 42 00

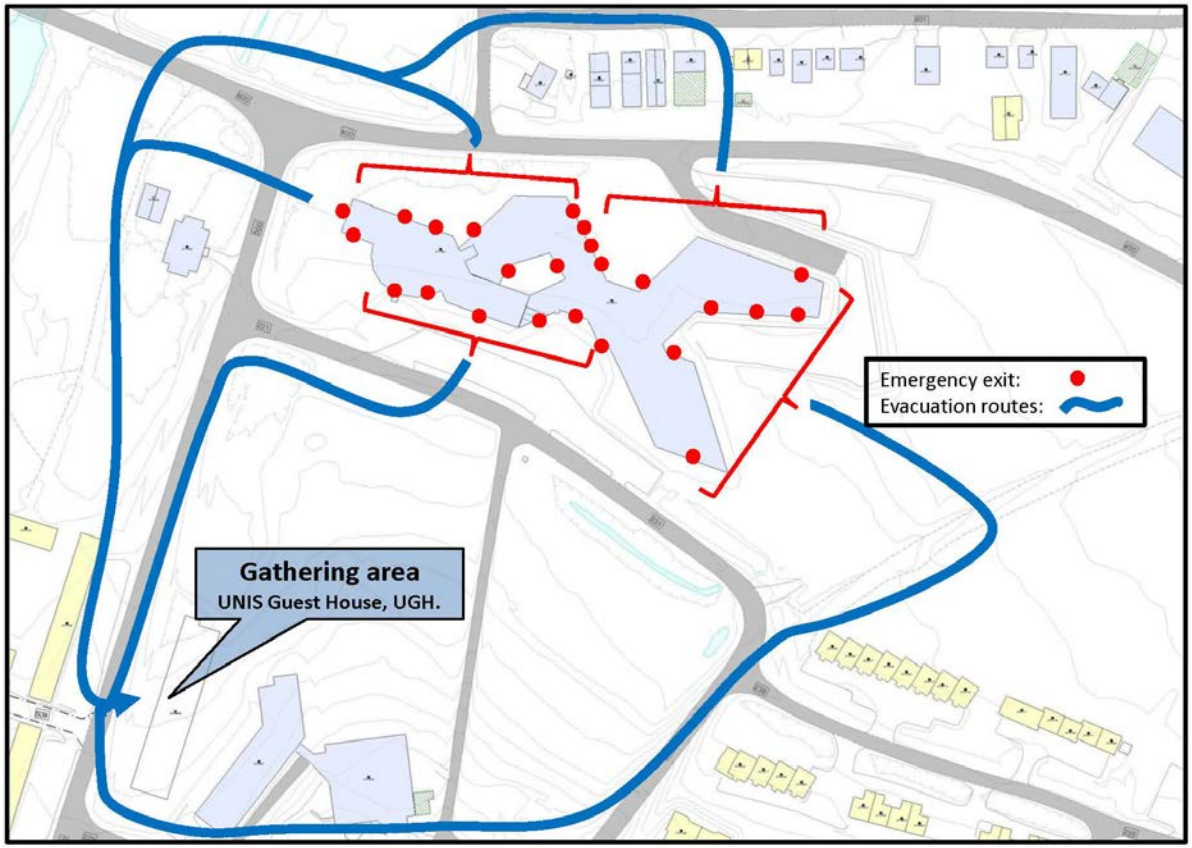
Svalbard Church
Phone nr. + 47 79 02 55 60

Urban safety challenges
Traffic



Chose the safest way and use reflectors on your clothing and lights on your bike! Please mark the road crossing north of UNIS!

Urban safety challenges
Fire protection at UNIS



If the fire alarm goes off. Leave UNIS through the emergency exits, follow the evacuation routes and meet at UNIS Guest House.

UNIS has only got one type of alarm. The fire alarm will be used as a signal that something is seriously wrong and you have to leave the building through the nearest emergency exit.

Security

What to do in case of a criminal act or use of serious violence at campus.

- **Run. Get away from the area. Use the nearest emergency exit point and follow the evacuation routes to UNIS Guest House.**

- **If you cannot get away, hide yourself. Barricade and, if possible, lock yourself in. Set your phone on silence and stay still. Get away if it becomes possible.**

- **Report the incident to the police at the emergency number 112. Inform others if you can. If possible, trigger the fire alarm. UNIS has only got one type of alarm and this is the fire alarm.**

- **If possible; observe as much as you can.**
  - **How many?**
  - **How do they look like?**
  - **What type of weapon?**
  - **Where did they go?**
  - **Where did you see them last**

- **If you have no other choice, and only then, attack the perpetrator.**

- **In meeting withe the police / armed response:**
  - **Stay calm and be aware that you might be pointed at with a weapon**
  - **Armed response is not there to carry out first aid, but to stop the perpetrators.**
  - **Keep you hands visible.**
  - **Follow their instructions.**

When going out on private excursions..

- What if? Check the weather and conditions along your planned route.
- Make sure someone knows where you are, your contact details and when you are supposed to be back!
- Bring the right equipment and right attitude with you out.
- Have fun & play safe!

1. Identify possible risks and avoid problems

2. Control the risks; plan ahead, act right, have and use safety gear

3. Minimize damage and get help – use safety and emergency gear

The most important tool to keep yourself safe is your head – take your time to use it early enough! **Most accidents happen because we make mistakes or bad decisions.**

Thank you!

Have a nice and safe stay in Svalbard!

UNIS Logistics Department