

Date	Incident Type	Location	Narrative	Lessons Learned/Recommendations
3/30/12	Vehicle	Dalton Hwy	Research group was traveling on the Dalton Hwy at 35mph with the truck in 4WD. They hit black ice and lost control of the truck. The driver tried to correct but the rear end started to fishtail, and they crossed the centerline and impacted the opposite snow berm at a 45 degree angle adjacent to the north bound lane. No one was injured but truck was damaged.	1) Ensure all users of NSF vehicles receive an orientation prior to use. Explain general vehicle safety, local road hazards, best practices and emergency contacts.
6/1/12	Aviation	Toolik	Paddle flew off external helicopter load.	Always double check loads prior to take off.
6/18/12	Vehicle	Barrow	Snowmobiling on water covered ice, machine hit a bump and rider fell off into the water. No injury but wet and cold afterwards.	1) Snow machine safety training strongly recommended to identify and avoid dangerous conditions.
7/15/12	Wildlife	Cherskiy	There was a bear sighting in the area the previous season. The bear was very close and didn't seem to be afraid of humans, so a team member lit a fire, which kept the bear away. After that, groups working farther afield carried gasoline and a lighter.	Better bear deterrent practices, though working in Russia has limitations with fire arms, bear spray, air horns.
4/5/13	Injury	Barrow	Researcher was pushing a sled across the hardpack snow on the tarmac and slipped and hit his jaw on the sled, broke a tooth and bruised his jaw. Was wearing boots and no YakTracs. Had not been very slippery that week.	Use a team approach moving heavy cargo.
5/25/13	Aviation	Petermann Glacier Greenland	Plane descended too fast on coming in for a landing or a go around, one ski touched down as the pilot pulled up and caused the left wing to hit the ground. The pilot crashed the left wing into the ice during a landing at Petermann AWS during very good weather and no wind. It took 2 days for the rescue plane to arrive on the ice and replace the wing. Research team was able to continue fieldwork in north Greenland. At the next stop in Daneborg, the pilot landed on the run way with breaks on, and almost flipped the plane over. These were two close calls - some bruises, no injuries.	Improve vetting of air vendor and pilots.
6/1/13	Wildlife	Barrow	UMIAQ bear guard with a large group of researchers on foot noticed a polar bear feeding on a whale carcass. He alerted UMIAQ base in Barrow. When they went to investigate they noticed that the Wildlife Bear hazers were getting ready to haze the bear in the direction of the research group. They intervened and were able to move the researchers out of the way (via snowmachines) before the bear was hazed.	Better coordination/communication between UMIAQ staff, researchers and responders.
6/6/13	Personal Health	SE	A marine technician aboard the a research vessel had been feeling bad for a few days. On the 6th day he reported chest pains and the vessel immediately pulled anchor and took him to the closest port. From there he flew home where he was diagnosed with a blockage to one of his heart vessels and associated tissue death. He had no previous history.	Responsibility of the vendor to vet their crew.

7/2/13	Vehicle	Dalton Hwy	Researcher traveling south slowed down and pulled to side of road as a truck heading north passed by going fast. A baseball sized rock flew up from the truck and shattered the driver-side window. No injuries.	1) Ensure all users of NSF vehicles receive an orientation prior to use. Explain general vehicle safety, local road hazards, best practices and emergency contacts.
7/11/13	Injury	Disenchantment Bay	A researcher on an archeological project developed a rash on her hands and it caused one hand to swell. It spread and got worse. She took Benadryl and cortisone cream, but it did not relieve the swelling, and the rash did not subside.	No other information available.
7/19/13	Vehicle	Barrow	Researchers (riding double) were headed back from their field site when they hit a ditch (or large pothole in the road) which caused the ATV to turn and rollover. Both received bruises and the driver required stitches on her chin. Both were wearing open faced helmets.	1) Ensure all users of NSF vehicles receive an orientation prior to use. Explain general vehicle safety, local road hazards, best practices and emergency contacts.
10/30/13	Aviation	Ivotuk	Researchers flew into Ivotuk to do some work on instrumentation at the site. Plane stayed with them but they were unable to get off the ground due to the soft snow. All 3 spent the night in the BLM cabin, and they were equipped with a CPS survival bag. The next day the pilot still had trouble taking off and wound up shuttling just one passenger to Umiat. When he tried to return to Ivotuk fog came in and prevented him from leaving Umiat. The last researcher spent another night at Ivotuk before being picked up the next day, shuttled to Umiat, the plane and both researchers then returned to Fairbanks.	Leaving a person behind solo is not recommended. Late season snow fall resulted in a soft runway which lowered the weight limit of the plane. This should be considered whenever planning remote airstrip operations.
4/14/14	Communication	Greenland ice cap	Research team was camped in two different spots, the Piston Bully (PB) camp waited for 2 check in calls from the snow machine camp and did not receive either the morning or noon one. They checked in with Kanger to see if a check in had occurred there as well but it hadn't. So they drove 5 hours to where the snow machine camp was to find everything okay. The snowmobile group had been unable to get their phone to work.	Have a backup communications plan which may include an additional phone, tracking devices, or two way communication device like a DeLorme iN Reach.
5/15/14	Altitude	Summit	Headache from altitude, treated by Summit Medic.	Reinforce acclimation procedure for Summit visitors.
5/16/14	Altitude	Summit	Arrived on station 5/14 and was coughing up blood by the time he was evacuated, other details not available.	Improve acclimation orientation prior to deployment.
5/17/14	Altitude	Summit	Dizzy while standing.	Reinforce acclimation procedure for Summit visitors.
5/17/14	Personal Health	Summit	Lost filling in 3rd molar upper left jaw. Transported off the ice for dental work.	This may have been caught in a dental PQ exam.
5/25/14	Behavior/Action	Rat Island, Aleutians	One member of the project was instructed to light the kerosene heater, but filled the tank with white gas. The heater did not ignite upon the first attempt. The person immediately stopped action and sought help. The white gas was replaced with kerosene. The heater worked flawlessly there after. No injuries, no equipment damage.	1) Label all devices requiring fuel with type of fuel to be used. 2) Train all personnel on equipment including heaters. 3) Provide instruction manuals for all equipment issued.
5/30/14	Wildlife	Dietrich River	For the second time in two years in the same location a bear crushed a tent that a researcher had been sleeping in. Nobody was in the tent during either incident. This year, the researcher left the tent about 10 minutes prior. Another researcher was in her tent about 2 meters away when she heard something and looked out to see the bear. The bear and 2 cubs immediately ran off.	Encourage researchers to participate in Arctic Field Training. Camp site selection, best practices and the use of deterrents like electric fences are discussed.

6/16/14	Injury	Summit	Two researchers were working on the 20m drill. As they took the barrel down in preparation to remove the core, one attempted to rotate the barrel, while the other plunged the rod that pushes the core out through the end. The first researcher's finger was caught and bruised with a blackened fingernail. The Medic relieved pressure from the fingernail, provided a splint, ibuprofen, topical disinfectant, and instructions to limit impact to that finger.	Coordinate and discuss procedures better.
6/24/14	Environmental	Kangerlusuaq	Researchers left boat at remote site on lake and hiked out 5 miles because of high winds on the lake. Winds lasted two days so requested a helicopter to pick up the boat since it was needed for another site and time was limited.	Anticipate changes in weather. Group was fortunate they were able to hike out. Otherwise could have either been stranded or taken risks to get out.
7/2/14	behavior/Action	Russell glacier, Kanger	2 researchers were working at the Russell Glacier. They were taking samples in the river that runs along the glacier on the bank and had just finished sampling, walked to the shore and packed their gear. While packing, a portion of the glacier calved and crashed into the river feet away from them causing a "tsunami" wave that drug both researchers down river approximately 10'. They were both submerged and banged up, scrapes and bruises, but were able to get to the shore, get their wits and gather the equipment, and return to KISS.	1) Field parties who plan to work in these areas should notify CPS of their field plans. 2) Field parties working near glacier faces should receive additional warnings. 3) Include working near glacier faces, areas affected by calving events on the Risk Assessment template.
7/13/14	Altitude	Summit	Student complaining of headache x 2 days but was determined to not be taking in enough water to stay hydrated. Instructed to consume more water and given Ibuprofen OTC.	Reinforce acclimation procedure for Summit visitors.
7/14/14	Altitude	Summit	One student's O2 saturation below normal and had been on supplemental O2 to maintain normal sats. Left with the 109th.	Reinforce acclimation procedure for Summit visitors.
7/21/14	Injury	Yakutat	Three participants suffered severe skin irritations that turned out to be from bug bites. The physician at MAS recommended diphenhydramine for the reactions and two improved 24 hours later. The 3rd took longer to improve and was kept indoors when possible.	1) Use precautions to avoid getting bitten - bug shirts, repellent, clothing. 2) It may be hard to vet individuals prone to reacting to insect bites but may be worth asking as part of the interview process.
7/21/14	Personal Health	Healy Lake	While attending a conference, a researcher became ill, vomiting and with abdominal pain. Telemedicine was consulted and recommended evacuation due to possible appendicitis.	When acute pain/symptoms occur consult Telemedicine immediately.
8/15/14	Aviation	Kangerlusuaq	A large instrument (the solar bee) was attached to a long line on a Bell 212 helicopter. After the helicopter had flown about 300 meters away with the instrument the long line detached from the helicopter and the solar bee fell to the ground. No injuries.	Always double check loads prior to take off.
8/16/14	Injury	West Greenland	Researcher slipped on rock while crossing stream and received a gash on shin and nose. Called Telemedicine and received instructions on how to put steri-strips on his nose.	Employ extra caution whenever crossing streams. Use a trekking pole or buddy system for added support.

8/27/14	Vehicle	Nome	Researchers noticed "smoke" coming from the inside right rear wheel. They stopped and discovered grass that had gotten caught up in the axel smoldering. An open flame was not observed but it gave off enough heat to smolder, smoke and melt the brake lines. Team pulled the grass out, stomped it out and poured water over the axel. Brake fluid was lost out of the damaged line. Nobody was injured or subjected to any serious threat. Team members acted quickly extinguishing the "fire" and said it was under control quickly.	Try to avoid heavy vegetation whenever operating ATV's off road.
9/12/14	Vehicle	Dalton Hwy	Researchers were traveling south and a truck traveling north threw a rock that went through the driver's window that was open a crack and smashed the back window from the inside. One of the PI's on the project was in the passenger seat and 2 others were in the back. No injuries.	1) Ensure all users of NSF vehicles receive an orientation prior to use. Explain general vehicle safety, local road hazards, best practices and emergency contacts.
10/8/14	vehicle	Barrow	Researcher was towing a zodiac behind the snowmobile when he went through the ice on a lake, and the snowmobile sunk ~3 feet. Researcher was wearing chest waders, float coat and crawled out onto the ice, then to shore (~30 feet). UMIAQ recovered the snowmobile later that day.	1) Snowmachine safety training recommended for all team members; 2) Ensure all team members know how to use communications devices; 3) Ensure others know the ETA of incoming parties and agree on a time to initiate a search if the ETA passes. 4) Review local hazards and snow/ice conditions before departure.
2/13/15	Behavior/Action	Kangerlussuaq	Two researchers traveling by snowmobile back from their field site ~3pm and hit a section of overflow water on top of river ice/snow. The snowmobile 'hydroplaned' and the driver lost control throwing the passenger off the machine into the water. The temperature was ~-22 C. The incident occurred about 1 mile from the KISS building. The pair was able to get warm and dry. No injuries.	1) Snowmachine safety training recommended for all team members; 2) Ensure all team members know how to use communications devices; 3) Ensure others know the ETA of incoming parties and agree on a time to initiate a search if the ETA passes.
2/28/15	Behavior/Action	Sea ice off Barrow	Three researchers and one UICS staff (bear guard/guide) were working at their site northeast of Point Barrow under ideal weather conditions when they were caught in a sudden blizzard/whiteout on their return. The bear guard was unable to navigate effectively with his hand held GPS unit and had to stop frequently under deteriorating weather conditions. Researchers became anxious and impatient and ended up separating from the bear guard. Though separated, the group had radios and called to each other. Radio transmissions were picked up by UICS staff in Barrow. Eventually the four made their way back and were met by UICS staff. Two members suffered frost nip but were otherwise ok.	1) Recommend groups stay together and never leave a person behind; 2) Communication equipment was supplied and used appropriately; 3) Teams traveling together should communicate clearly about the route and communications plans.
6/28/15	Altitude	Summit	Visiting researcher had difficulty acclimating and required O2 and Ibuprofen. Was OK after 2nd day.	Reinforce acclimation procedure for Summit visitors.

7/21/15	Property Damage	Kangerlussuaq	Two researchers traveling east on the ice cap road 7 miles from Kangerlussuaq were involved in a head-on collision with a west bound vehicle driven by non-NSF funded researchers in a similar truck. The accident occurred ~0830 local. Weather was not a factor. The eastbound (NSF) truck was traveling approximately 40 km/hr. The west bound truck with six passengers was traveling about the same speed but was able to stop just prior to impact. The two researchers in the eastbound truck complained of soreness in the neck and shoulder area but no other injuries were reported. Both vehicles sustained significant damage. The east bound truck was equipped with airbags that did not deploy. Visibility was limited due to terrain. The east bound truck was traveling downhill after cresting a rise. The driver was surprised to see the oncoming vehicle and immediately braked but could not fully stop. The impact occurred in the right (eastbound) lane indicating that the westbound vehicle (non-NSF) was out of its lane of travel. Local Kanger police did not issue citations or place fault with either party.	1) Ensure all users of NSF vehicles receive an orientation prior to use. Explain general vehicle safety, local road hazards, best practices and emergency contacts.
8/5/15	Injury	Summit	A researcher dropped an object weighing approx. 4lbs on their right big toe. The toe was bruised but functional. The medic treated the developing blood blister and gave Ibuprofen for pain.	PPE such as composite toes safety shoes may have prevented this. Researchers are not subject to the same requirements as staff.
8/9/15	Personal Health	Aleutians	A researcher developed a rash on the day of field deployment. Initially thinking it was bedbug bites, the rash spread and developed into open painful blisters. The close-support helicopter took the participant to nearby Dutch Harbor for treatment. The clinic doctor diagnosed shingles. The patient responded to medication and returned to the field a few days later.	(1) Good judgment exercised by field medical staff to ensure safety of participant
8/13/15	Injury	Aleutians	A field team member fell and broke a radius bone while working alone on a volcano. The researcher called the helicopter/ship by handheld radio. The researcher was flown to Dutch Harbor for treatment and did not return to the field.	(1) Recommend working and traveling with at least one other person in remote field sites; (2) Communication equipment was supplied and used appropriately
8/27/15	Injury	Y-K Delta	A researcher in this remote field camp injured a finger on July 28. The researcher ignored the pain for a couple days thinking it was a splinter. The researcher realized it was not a splinter after trying to remove it. The cut became infected. The researcher traveled to Chevak on Aug 12 and visited the village health care worker. They took a photo and contacted a doctor in Bethel. The doctor recommended the researcher travel to Bethel for treatment. The researcher chose not to go to Bethel but started antibiotics from the Chevak clinic. The researcher took antibiotics for one week and the infection cleared up. The pain and swelling returned and grew worse. On Aug 27 researcher contacted CPS PM and conveyed condition asking about costs of float planes and concerns about losing the finger. CPS contacted the PI to discuss. The weather was not conducive to travel by boat or plane. CPS urged the researcher to utilize the Medical Advisory Service 24/7 call number. The researcher was to depart by boat when weather cleared. The secondary plan was for the researcher to depart by float plan if the injury deteriorated. The researcher decided to remain in the field and depart with field team on Aug 31. No further information was provided.	1) Remind all field team members that small injuries can become infected with weather and other conditions delaying medical care - always report injuries to other team members and take measures to clean, care for even small wounds.
7/1/15	Injury	Summit	A researcher cut a finger while using scissors in the field. Another team member cleaned and bandaged the wound, but it became infected and required additional treatment at Summit Station. The finger did not require stitches and healed adequately in the end, but it could have been worse.	It is imperative to treat even small wounds carefully with follow up care to prevent infection.

7/1/15	Communication	Summit	Two team members traveled from the main camp to a coring site 30 km away in marginal weather - high winds with blowing snow. The team took a different sat-phone with them than expected. The main camp could not reach them during the scheduled check-in time, causing concern. The groups eventually communicated and they returned to the main camp unharmed late in the day. The main camp recognized they were not certain when to contact Kanger and initiate emergency procedures.	1) The team recognized and recommend having clear protocols more strictly enforced by all team members to avoid such incidents, however minor they may be in the end; 2) Recommend a clear check-out procedure with all team members to ensure everyone knows the satellite phone numbers and protocols; 3) Recommend all team members know they can make the Kanger comms center aware of any issue no matter how minor. Making the comms center alert at an early stage ensures they will be by the radio/phone if the situation deteriorates and allows them time to consider options should the situation get worse. Notifying the Kanger comms center when something is seriously wrong does not help improve the outcome.
7/1/15	Personal Health	Kangerlus suaq	Several team members became ill during their stay at KISS with cough and cold symptoms that persisted through much of the campaign on the ice. The team's productivity was not directly inhibited, but some members were quite ill during short segments of the campaign and for a time it spread to most of the field team. Eliminating the use of shared bath-towels at the restroom sinks in KISS is recommended to reduce the spread of illness, along with other personal hygiene safety measures to reduce spread of illness in situations with many international people sharing close quarters.	1) Recommend eliminating shared towels and implementing other hygiene practices to prevent the spread of communicable diseases.
7/1/15	Personal Health	Dalton Hwy	One team member developed a toothache and was transported to Fairbanks for treatment.	1) Even in areas not required, field team members are encouraged to have had recent medical dental check-up to avoid field incidents.
7/1/15	Personal Health	Barrow	A researcher became ill while in Barrow. After a doctor's visit, the team member fully recovered and was functional the following day.	Personal hygiene and washing hands helps prevent communicable disease.
7/1/15	Injury/Personal Health	West Greenland	A researcher suffered a twisted ankle and cold symptoms. The team administered bandages and cold medicine. The incident/illness did not impact day-to-day operations.	Slips trips and falls remain to be the most common injury.
7/1/15	Communication	Aleutians	Several teams working near Aleutian volcanoes were deployed via helicopter from a nearby vessel. Communications were in place with the vessel, but the vessel could not reach the helicopter because the pilot only kept the satellite phone on when the helicopter was operating. A researcher working near the summit of the volcano drifted out of radio contact with nearby teammates but was able to contact a field team at a different location by radio, who in turn contacted the nearby team. This is a near-miss because for the team working near the summit of the volcano, clouds came in very quickly. The team could have been stranded in a location. Walking down was not possible due to crevassed glaciers surrounding the drop-off location. Fortunately the clouds cleared and the pick-up took place.	1) When working in high-latitude areas, have a lower-altitude pick-up or meeting site planned; 2) Always be prepared to stay out for overnight or longer; 3) The research team equipped with basic safety/survival equipment and thus avoided any serious incident; 4) Recommend more than one form of communication and a clear protocol for keeping on or turning on devices for check-in and emerging issues like weather.

7/1/15	Vehicle	North Slope	A researcher driving a snow machine experienced a roll-over that resulted in broken throttle but no injuries.	1) Snow machine safety training strongly recommended to identify and avoid dangerous conditions.
9/18/15	Injury	Aleutians	A participant fell down a block lava flow (talus and scree) impacting a shin on a large rock. This resulted in a massive hematoma (bruise) and abrasions. The patient was able to bear weight on the leg. The patient contacted their physician by satellite phone and followed medical advice given. Tests performed after returning from the field revealed no breaks or dangerous clots.	(1) Recommend working and traveling with at least one other person in remote field sites
7/1/15	Personal Health	Summit	One team members came down with a fever after the first night at Summit Station. The participant recovered the next day after rest and attention from the medic.	As part of the station orientation reinforce the use of the station medic.
7/1/15	Injury	Aleutians	A team member fell and fractured an arm on the second day of fieldwork. The participant was working alone approximately 1-2 miles from two other team members and lost footing at the top of a small ravine, falling approximately 15 feet. The participant immediately radioed for help and both the helicopter and one of the nearest team members were deployed to the location. The helicopter arrived on location within 20 minutes and the pilot assisted the patient to the helicopter and returned to the ship. The patient was stabilized and then flown to Dutch Harbor for treatment.	1) Recommend working and traveling with at least one other person in remote field sites; 2) Good judgement and medical training exercised by field medical staff contributed to the safety of participant; 3) Communication equipment was supplied and used appropriately; 4) Implemented a check-in time for people working away from the group.
5/1/15	Wildlife	Barrow	On the final day of fieldwork a polar bear approached the team and was deterred by the bear guard assigned to the project.	1) The team took appropriate precautions and followed bear-safety guidelines; 2) Recommend mandatory bear safety training for this field site
3/17/16	Injury	Kangerlussuaq	A CPS employee overheard members of a research team talking to their PI about blood and an injury at approximately 2009L. The CPS employee inquired with the PI for more information and found out that one of the participants dropped a 45 lbs. weight on his left big toe when working out in the Kangerlussuaq gym at approximately 1930-1945L. The CPS employee called the site supervisor at 2010L to advise of the injury. The site supervisor came over to KISS at approximately 2015L to discuss w/ the PI and offer to take the injured participant to the Kangerlussuaq Nurses Station. The toe was swollen enough, there was broken skin, and because of the weight of the dropped object it was decided to bring the participant in to ensure nothing was broken. As it was after hours for the Nurses Station, the site supervisor called the duty phone and made arrangements to bring the patient in at 2030L. While waiting to go in, a CPS employee assisted the patient with foot elevation and immobilization, and retrieved an ice pack. The site supervisor, patient and Co-PI for the project went to the Nurses Station for an evaluation. The nurse cleaned the wound and examined the toe for any suspected fractures. The patient was released after the nurse concluded no suspected fracture and prescribed a dose of over-the-counter pain killers. The PI was briefed on the outcome of the nurse station visit.	1) As part of the research team risk assessment, encourage self reporting of any injury or illness to CPS staff. Reinforce personal responsibility applies at all times, whether in the field or after hours.

3/30/16	Environmental	Eastern Alaska Range	A team conducting research on the Jarvis glacier reported that a 4-day storm had done damage to 2 of the 4 sleeping tents, destroying the flies. The team had been provided with 4 ea. Mountain Hardware Trango 2.1 tents for sleeping and 1 ea. 8x8 Arctic Oven as a communal cook tent. The team said that with high winds and heavy wet snow, they were digging out the sleeping tents every 3-4 hours to keep them from collapsing in drifts. To deal with the damaged tents and mounting snow, the 4-person team moved from 4 individual tents to 2 people in 2 tents. The team lead reported that they were "all warm and in good spirits" and that no immediately emergency measures were necessary. CPS was able to send in replacement tents and repair kits.	1) Provide highest quality equipment for field teams subjected to potentially worse environmental conditions. Include as part of their equipment allocation spare tents. Encourage field team to go through all equipment prior to field season including inspection of all field gear.
4/4/16	Injury	Chevak	Researcher cut her wrist while cutting a zip tie. Knife cut through the zip tie and the momentum swung the blade toward her wrist puncturing it. Team was able to stop the bleeding by compression, bandage and then brought her to health clinic in Chevak (via snow machine) where it was cleaned and stitched. She was given antibiotics, extra bandages and instructions to keep the wound cleaned. She returned about 5 days later to remove the stitches and inspect it. It had healed well.	1) Personal responsibility, proper use of equipment, using the right tool for the right job. Good that the field team addressed the wound immediately and took precautions to prevent infection.
4/4/16	Personal Health	Chevak	Researcher developed problem with a tooth and had to leave the field for root canal. Snow machined to Chevak and then flew commercial to Bethel, met with a dentist who advised traveling on to Anchorage for the procedure. Patient had the root canal done and also a crown and returned to Chevak in about 4 days.	1) Preventative dental checkup prior to the field season may have caught this problem. Encourage field team members to get checkups prior to extended deployments in remote areas.
4/5/16	Vehicle	Barrow	Two researchers were driving to their field sites early on the morning of April 5 when they encounter drifting snow that had accumulated across the Cake Eater road overnight due to strong winds and snow. The driver underestimated the size of the drifts and got their Ford F250 truck stuck and were unable to back out of the drifts. They called UICS and while waiting a road grader that was clearing the snow pulled the truck out. Temperature was -1 with wind blowing 24 from E.	1) As part of the truck orientation, describe hazardous driving conditions such as white outs, drifting snow, blizzards to all vehicle users. Encourage users to check with UICS staff if the weather is questionable.
4/5/16	Vehicle	Dalton Hwy	Two researchers attempted to drive from Toolik Field Station to Deadhorse when they encountered winter storm conditions including blowing snow and low visibility. When they departed TFS, the weather was clear and calm. They had departed at 10 AM, stopped to take samples at a couple locations and by the time they had reached milepost 396 the road had drifted in significantly. They had met up with two other oil field trucks and caravanned north together. They did not attempt to travel further due to 3'-5' high drifts. They waited in their truck for a snow plow to clear the road. They had food, water, extra clothing and sleeping bags. They were also equipped with a CB radio and satellite phone. After idling for approximately 5 hr. they contacted CPS and reported their predicament. CPS contacted the NSB police and DOT who were already aware of a different vehicle accident they were going to respond to south of their position. A DOT plow truck came by around ~ 9PM and the group was able to continue on to Deadhorse arriving at approximately 01:25 am April 6.	1) Include a description of winter weather driving conditions as part of the truck orientation. Point out the Alaska 511 DOT website. Remind all users to carry extra clothing and food and water and anticipate unexpected delays due to weather, road conditions or mechanical problems.

5/4/16	Injury	North Slope	A researcher suffered a welt/bruise on his back when an ice auger malfunctioned while auguring holes in lake ice. Due to icing conditions and a frayed control throttle cable, the auger throttle stuck open and the operator lost grip of the auger head. He was unable to hit the kill switch. The pull cord struck the researcher as it spun uncontrolled in the hole which he just drilled.	Two person operation is recommended. CPS will be more thorough inspecting the throttle cables of augers and provide a spare cable.
5/30/16	Vehicle	Barrow	One researcher accompanied by a UICS staff member encountered thin ice north of Barrow enroute to a study site. They stopped their snow machines to measure the ice thickness and realized it was very thin. When they departed, the lead machine punched through the ice, partially submerging the track. The operator was able to free himself quickly and the pair continued toward safe ice. It occurred within a 1/4 mile from shore.	Always travel in pairs, check ice conditions frequently.
6/1/16	Behavior/Action	Barrow	A domestic incident occurred in the village of Barrow involving a local person and local and state police. The suspect in question fired upon responding officers in the village and was able to escape capture. In the ensuing days, the local authorities feared he might be armed and dangerous and possibly occupying/hiding in structures in/near the NARL area of Barrow. Though there was no evidence to support this, the UIC Native corporation thought it prudent to evacuate the area including visiting researchers. A sea ice field school composed of 20 students, teachers and visiting researchers were wrapping up their field season. CPS was able to chaperone these people to the airport so they could catch their flights out on time. The few (3) remaining researchers were housed in Barrow for one night. The suspect surrendered later that same evening.	Domestic violence is always a potential threat wherever you may be working. Update and share your emergency contacts with your field team and always be vigilant about your surroundings and work area.
6/16/16	Injury	Northwest	A participant in an archeological study with a known history of allergic reaction to biting/stinging insects was exposed to mosquitos and biting flies in the first few days of their field campaign. She experienced local swelling to face, hands and ankles and had a fever. The camp manager called the UCD on call doctor who recommended antihistamines and rest and avoid getting bit. She wore head nets, and covered up. Because there was a scheduled flight back to Kotzebue, it was decided she should go seek medical attention and stay the weekend to recuperate. The doctor in Kotzebue prescribed antihistimes, cortisone cream, epi pens and recommended the use of insect repellent and to cover up as much as possible.	Screening participants of allergies and other medical history would be valuable. The difficulty is privacy issues and HIPAA regulations.
6/30/16	Wildlife	Northwest	A dead walrus was spotted offshore from a field camp established at Cape Espenberg on the morning of June 30 2016. When first seen it was approximately 200 meters off shore and about 1/4 mile west of camp. A single large grizzly bear had detected the carcass and was approximately 150 meters from camp, looking out towards the carcass. CPS staff were notified of the situation by the camp manager and steps were taken to relocate the carcass before it became stranded and pose as an attractant for bears. After consulting with several agencies including NPS, USFWS, ADFG and the Native corporation, hunters in Shismaref were contacted and arrangements were made for 4 men to travel by boat to the camp and tow the walrus to deeper water. By 2200 that same day, the hunters had successfully towed the carcass to deeper water and away from Cape Espenberg.	Good diligence by camp staff. It was valuable to have relationships already established with the agencies involved and the local community.

7/3/16	Wildlife	Northwest	Two members of an archeological field camp were surveying a site approximately two miles west of the main excavation site and camp. They encountered a grizzly sow and yearling cub, which charged towards them from two ridges away (~250 meters) and stopped about 30-40 meters from the researchers. One person, trained in firearms, fired a warning shot with a shotgun. The other person had bear spray at the ready. Upon hearing the warning shot, both bears stopped and then ran off in the opposite direction.	Always provide bear avoidance training and orientation to camp occupants. Travel in pairs, know how to use deterrents. Carry communication devices to warn others of bear near camp.
7/7/16	Wildlife	Icecap	On the morning of July 7 2016 a single sub adult polar bear was seen approximately 300 meters from the EGRIP camp which was operated and occupied by Danish scientists and staff. The EGRIP camp is located approximately 400 kilometers inland from the coast of Greenland. The field leader notified the camp and protocols taken to muster all participants in the main dome. The bear did not represent an immediate threat as it did not approach any occupied tents or structures. The camp staff decided to dispatch the bear with two qualified shooters when the bear approached the camp to within 75 meters. They fired 6 shots from a .308 rifle but the bear did not appear to be hit and retreated to about 1.8 kilometers away where it stayed the remainder of the day. (Upon further investigation later, they believed the bear was shot in the rear leg but it did not bleed much.) The camp staff then contacted the Gov't of GL and gained permission to shoot the bear with instructions to keep some samples as evidence and additional instructions how to dispose of the carcass. They monitored the bear throughout the day and then decided to drug the bear with sedatives with the intent to kill the bear under a more controlled situation. Later in the evening, they bated the bear which consumed the drugs and was later shot and killed by the designated shooters at approximately 2330 hr. The bear was buried 2 km from camp.	Despite the relatively low odds of a polar bear encounter on the Greenland ice cap, a polar bear interaction plan should be in place and discussed with camp users.
7/17/16	Wildlife	Northwest	Early in the morning the CPS camp manager noticed fresh bear tracks leading from the beach towards the camp which was situated on the first ridge away from the water. Camp manager was unable to follow the tracks once the bear walked on vegetation but it is suspected the bear approached camp, and then turned away. It occurred sometime during the night or early morning when the camp was asleep. An electrified fence surrounds the perimeter of the main camp infrastructure.	Always keep a clean camp and utilize deterrents like electric bear fences where encounters are possible. Inform camp occupants of a potential bear in the area and heighten awareness.
7/14/16	Altitude	Summit	4 students complained of mild altitude related discomfort, all received recommendations from the medic on how to relieve discomfort and two received O2.	Reinforce acclimation procedure for Summit visitors.
7/27/16	Injury	Northwest	Two participants were conducting experiments requiring them to burn wood samples with the use of diesel fuel. As part of the experiments the researchers had to monitor temperature sensors which exposed them to the smoke/fumes of the fire. After the experiments were conducted, they complained of dizziness, nausea, headache and sore throats. It was determined they suffered smoke inhalation and were advised by the UCD call in doctor to refrain from this activity, get bed rest and to take OTC Dramamine and Benadryl. They were both able to resume normal activities after 24 hr.	The burning experiments were curtailed for the remainder of the season and an evaluation will be conducted how to proceed with the experiments in 2017.
8/9/16	Personal Health	Northwest	A researcher with a known peanut allergy ingested one at a local restaurant in Kotzebue, Alaska. The team was finished with their field work and went out to dinner at a local restaurant. The restaurant was negligent in including the nut in the food and the researcher become severely ill immediately following the ingestion. Members of the team called 911 and the participant was taken to the hospital where she was administer anti nausea medication, and antacid and monitored for 1.5 hours.	More diligence will be required for the researcher to be aware of what they eat at restaurants. The participant had an epi pen but chose not to use it.

8/28/16	Vehicle	Dalton Hwy	A researcher was driving a CPS leased vehicle south along the Dalton Hwy near milepost 28 when he encountered a trio of fully loaded semi trucks heading northbound. The trucks were descending a hill. The CPS truck was traveling approximately 15 mph. When the second of the three trucks passed, it threw a rock which shattered a 5" hole in the driver's side window. They kept control of the truck and radioed to a truck he was following (another CPS lease vehicle they were traveling with) that he needed to pull over. An Alyeska Services truck was following them and informed them that there was a pullout approximately ½ mile ahead. They stopped, cleared the remaining glass from the frame and was able to continue to Fairbanks. The incident occurred about 2:30 PM and the weather was clear, sunny and warm. There were no injuries.	After the incident the driver was very wary of oncoming trucks and became extra vigilant about the potential for flying debris and aggressive drivers. Inform all drivers of the potential for flying rocks, dust and aggressive driving by haul road trucks.
12/28/16	Property Damage	Summit	the top 35-40 meters of the 50-meter tower at Summit Station, broke off and fell to the ground. There were no injuries.	Always perform detailed visual inspections of structures and equipment after high wind events.
3/30/17	Environmental	Eastern Alaska Range	A team conducting research on the Jarvis glacier reported that a multi - day wind storm damaged the main camp tents including a 12' x 18' Arctic Oven, Mtn HW Space Station, and Mtn HW Stronghold. The Stronghold was blown "off" the glacier and lost. The 5 team members were able to hole up in their North Face VE-25 tents and were fine. The project lead checked on all members throughout the storm. Nobody was injured and only a minimal amount of gear was lost. It is suspected the winds were in excess of 50 mph with gusts well above that. The team was resupplied with replacement tents as soon as the storm abated.	1) The Jarvis glacier camp site has a history of disruptive weather patterns, which the research team was well-versed on. CPS will go through all damaged equipment to identify any weak points for future work. 2) It is important that all teams are sufficiently trained to handle equipment damage and intense weather conditions common in the areas where they are working. 3) Based on the experience this same team had in 2016 (heavy snow) they elected to not build snow walls for fear of increased drifting. After the replacement tents were brought in, the team fortified all the tents with walls.
5/5/17	Property Damage	Kangerlussuaq	A science group locked the doors to an NSF truck while shopping in the store. Their key would not open the doors when they returned, they contacted CPS staff. The spare keys did not open the door either. The lock mechanism is likely worn out and keys would not work. The researcher attempted to open the window with a screwdriver but broke the vent window in the process. No injuries occurred as a result of the event.	The CPS Kanger mechanic is going to check on replacing the door lock mechanism. However, due to the age of the vehicle and cost to replace it the directive will be to not lock the doors. This truck is generally reserved for CPS staff who do not lock the truck. They also do not leave valuables in it for that reason. If the truck is ever loaned to science parties, they will be informed of the lock mechanism.

5/19/17	Aviation	Toolik	<p>Two researchers were dropped off ~ 10 miles east of Toolik Field Station. Weather was partly cloudy with 30% chance of rain. Researchers checked with the CPS helicopter coordinator about the planned activities and weather forecast with two check ins throughout the day to update weather. There was another field team that had been dropped off in another location not related to this group. They too were monitoring weather throughout the day. Despite this, heavy fog rolled into the area by noon and the pilot deemed it was not possible to fly. The team checked in later that day and was informed there would be no pickup by 4 pm, the scheduled time. By 5 pm, the weather was unchanged so the team asked if they would be allowed to hike back to the road and get picked up. The line of sight distance was ~ 3 miles. The helicopter coordinator discussed this plan with the TFS manager and agreed they could do this provided they carry the CPS issued survival bag. The group set off and checked in with the helicopter coordinator at 7 and 8:30 pm via sat phone and said everything was ok but the going was slow. By 10:30 pm the group decided to camp for the evening because they could not cross a major drainage between themselves and the road. They spent the night in the tent utilizing the gear in the CPS survival bag. By 7 am the following morning, the weather had cleared and they were picked up by the helicopter and returned to TFS.</p>	<p>There was good coordination between the science group, helicopter coordinator, pilot and TFS staff to monitor the situation and make the decision for the group to hike out. Weather can change quickly and combined with the ~40% snow cover, the pilot was concerned about poor visual conditions and elected to stand down. The group was equipped with a survival bag which made all the difference. Without it, the group may have elected to make a hasty crossing of a flooded creek. The group also lacked a compass and GPS. Compasses will now be included in the CPS survival bags but all people should carry a compass and a GPS.</p>
5/25/17	Aviation	Northwest	<p>CPS staff received a 3rd party report of an airplane operated by a frequently contracted air vendor suffered the loss of one of their planes to a fire. At the time of the incident, the vendor was not under contract with CPS or carrying any equipment or personnel related to the ARSLS program. However, the vendor was to be under contract the next day so concern over their operations and safety was discussed. The incident occurred after landing at a remote site, off loading equipment and preparing to taxi for takeoff back to Kotzebue. Both the pilot and passenger were able to exit the plane without harm. The plane was a total loss.</p>	<p>The fire is under investigation (as of May 30 2017). The vendor was able to fly under CPS contract as planned without incident.</p>
5/30/17	Injury	Icecap	<p>CPS Kanger staff were notified by satellite phone that a team member on a traverse group injured her hand during a firm core drilling operation. Between 11-11:30 am on Saturday, 5/26, two team members were using the Sidewinder drill. The electric drill includes a rigid metal drill stem as well as a Kevlar braided rope that both go into the drill hole. (The rope is used for raising the drill out of the hole.) One team member was stationed in a 1.5m pit to guide the drill into the hole and the other was at the surface holding/operating the drill. When the drill started, the "guider's" hand was between the drill stem and the rope. As the drill began to turn, this positioning caught the guider's hand and hyperextended her wrist. The drill operator released the trigger instantly to stop the activity. First aid treatment was provided by two team members, both of whom are certified Wilderness First Responders. The Sidewinder drill is owned by IDDO and has been used by this group in previous field efforts. It's not clear if the injured had previous experience with this equipment or received formal training.</p>	<p>1) It was agreed that it is easy to forget the amount of power the Sidewinder drill generates due to its lighter weight. This led to less formality with drill communications, which they have implemented and will utilize for the remainder of their season and incorporate into future training. 2) Institute formalized communications protocol for all drilling operations and re-train group to. 3) Communicate feedback to drill manufacturer for potential changes to documentation that accompanies drill to field. 4) It was determined that the best practice would be to use the left hand to guide the drill into the tube due to the direction of the drill rotation.</p>

6/30/17	Personal Health	Cape Espenberg	<p>Camp manager for Alix camp called PM at 9:50 pm on 6/29/2017 to report a participant was ill. The participant had been flown into the camp earlier in the day from the village of Shishmaref, the participant's home. Symptoms were pale, disoriented, and nauseous. Initially thought it was air sickness, however participant did not recover. After dinner Telemed was called. Blood pressure was taken and it was low. Participant also has history of low iron levels and has not been taking iron medication for last month. The participant is now stable and a morning check-in on patient's condition was established. The participant's mother had recently been medevaced to Nome for a stomach related illness. It is unknown whether the two issues are related.</p>	Participant may have been suffering anxiety in addition to missing medications. Participant was able to stay in camp.
8/7/17	Personal Health	Cape Espenberg	<p>A researcher at the CPS staffed camp at Cape Espenberg, Alaska has been experiencing a sore throat and swollen glands for the past 4 days. Yesterday, 8/6/2017, the individual had some fluid coming out the ears and ear pain. These symptoms were reported to the camp manager who then called UCD medical hotline. The doctor prescribed Cipro antibiotics, 1 dose every 12 hours for 7 days. If the individual has a fever, increased pain or dizziness, that would be signs of needing additional medical attention requiring the person to leave the field. Today the individual is still not feeling well, the glands remain swollen, however some of the ear pain has subsided. The individual is scheduled to leave camp later this week as the project finishes. No plans for immediate evacuation were made.</p>	Personal hygiene and washing hands helps prevent communicable disease.
8/14/17	Vehicle	Dalton Hwy	<p>Two researchers were travelling northbound on the Dalton highway North of Toolik Field Station in a CPS leased vehicle. A passing semi truck kicked up a rock that went through the driver side window, shattering it. Both vehicles were moving at perhaps 40 miles per hour. There was no room to pull over due to the soft shoulder from the recent rains. The researchers said that the broken window appears to be the only damage to the vehicle, and neither the driver nor the passenger sustained any injuries.</p>	Remind all operators of this potential when traveling on the Dalton Hwy. CPS furnished a replacement vehicle within two days. A temporary replacement plexiglass window was purchased and sent to TFS and affixed in place so the truck can return to Fairbanks for repair.