UNIVERSITY
of ALASKA

UNIVERSITY OF ALASKA
REMOTE TRAVEL PLANNING & RESOURCE GUIDE

I. INTRODUCTION AND PURPOSE

Travel in remote areas of Alaska presents many challenges. This Guide is to be used as a training, preparation, and resource tool for University of Alaska students, faculty, and staff who will travel to remote areas for business, research, or recreation. Emphasis is placed on the inclusion of information specific to field work in Alaska that is not easily found elsewhere. Information is included on modes of travel, clothing, food and water, health, safety, subsistence, and survival techniques. It is recommended that all supervisors, graduate student major advisors, research principal investigators, student affairs personnel, student organizations, rural faculty, and any other University of Alaska affiliated individuals traveling in remote areas be familiar with the contents of this Guide and use pertinent sections for preparation and training on how to work and recreate safely in the wilderness. Planning for remote travel in Alaska is crucial as individuals are typically removed from sources of supplies and medical assistance. The goal of this guide is to increase awareness and knowledge of wilderness travel health and safety issues and promote the best possible chance for crisis free trips.

There are several additional training and preparation recommendations or requirements that should be completed to supplement the information and advice found in this Guide. For example, First Aid and CPR training and certification, firearms usage, wildness survival, or water safety may be part of your preparation, depending on where you are heading, the size of your group, or the kinds of wilderness you anticipate you will encounter. References are given at the end of this Guide for published information available on other important field safety topics such as mountaineering. Prepare accordingly to minimize potential adverse impacts. You will be required to complete the various checklists referenced herein and obtain all required approvals for activities PRIOR TO travel.

II. OVERVIEW

A. PLANNING

No matter how much advance planning you do, there is always a chance that something will go wrong and you will need to use your wits as well as your experience to solve the problem. Nothing can substitute for a positive mental attitude in those situations. If you have done your planning well, including advance thought about the emergencies which you might encounter, you will know that you have the capability to survive and to help your companions to survive whatever the situation may be. Keep your wits about you, and remember that your best resource is yourself.

There are three required plans/checklists that must be completed and attendant tasks accomplished before each field season or remote trip. Several other check lists are provided in the appendices of this guide to assist you in your planning purposes.

1) Remote Travel Pre-Trip Plan & Authorization: Prior to each trip, a detailed plan that addresses trip-specific details must be prepared, approved and communicated with appropriate personnel prior to finalizing the trip plans and encumbering funding. This pre-trip plan must provide specific information regarding participants, trip route, conveyance methods, communication and emergency plans, and training needed relevant to the trip. An approval process for remote travel should be established at each campus. This form can be found in Appendix A.

2) Remote Travel Emergency Plan: This plan is to be completed and left on file to record trip specifics, communications and emergency plans. It must be approved in accordance with your campus policy or procedure prior to departure. This form can be found in Appendix B.

3) Survival Kit Checklist: This check list will help you put together your survival kit and can be found in Appendix C.

B. TRAINING

Training for a successful remote travel includes relevant preparation of the participants. If you find that a necessary trainin

1. # INSURANCE GUIDE

FOR UA EMPLOYEES

(Includes eligible volunteers and graduate students on stipend – for eligibility confirmation call 907-450-8157.)

Visitors from other institutions and other non-affiliated persons must procure their own insurance coverage. UA does not have the ability to provide insurance protection to non-affiliated individuals other than for those who qualify through the Foreign Visitor Insurance program. For further information about this coverage or for questions, please contact the System Office of Risk Services 907-450-8157 or 1-800-478-8632 (in state only),
http://www.alaska.edu/risksafety/b_insurance/insurance-coverage/foreign-visitor/
If a UA sponsored remote trip will involve non-affiliated persons, please contact your local risk/safety office for consultation on best course of action for insurance options.
UAA: http://www.uaa.alaska.edu/ehsrms/
UAF: http://www.uaf.edu/safety/
UAS: http://www.uas.alaska.edu/facilities_services/safety

III. SAFETY AND SURVIVAL TIPS

Success and survival depend on planning, timing, common sense, and the intelligent use of supplies and equipment. Following are some wilderness survival tips.

1. You must help yourself, don't depend on someone else to think and plan for you. Confidence in your own abilities and your will to live can make the difference between life and death.
2. Whether in camp, in a vehicle, on foot, or in the water or air, always have a plan in case of an accident. Carry your survival kit with you whenever you leave camp.
3. Never leave camp alone. There should be at least two people per party when traveling in remote areas.
4. Tell someone where and when you are going and when you expect to return. Check in when you return. The same holds true if you must travel away from a downed plane or other vehicle; leave a message saying when you left and the direction you were headed.
5. Don't fight the environment. Conserve your energy - go around obstacles, not over or through them. Wait out high winds and other adverse weather.
8. Fuel stoves outside tents or shelters; fumes could be toxic or could cause an explosion.
9. Don’t light or use cooking stoves inside unventilated tents.
10. Make sure your tent is fire-resistant if you are going to have any open flames in it.
11. Do not pack liquid fuel for stoves with food; a spill could contaminate and ruin your food.
12. Store emergency food, gear, shelter, and sleeping protection away from main camp area; “do not put all your eggs in one basket.”
13. In an emergency situation, do not overeat, but be sure to drink plenty of water. You can probably survive without food for a week or more, but you cannot survive without water.

IV. BASIC SAFETY

A. TRAVEL

1. Communications

There are a variety of transportation modes that may be employed on remote travel trips. Each type of travel requires different knowledge and preparation. Regardless of the mode of transportation chosen, communications in an emergency situation are of utmost concern. When traveling, make sure that a means of communication such as a satellite phone, radio, cell phone (if you will be within coverage range), or emergency locator beacon are include in your emergency survival kits. Schedule periodic radio or telephone communication with a base of operations whenever you are traveling and document the schedule in your Remote Travel Emergency Plan (Appendix B).

2. Motor Vehicle Travel

A Highway Travel Equipment Checklist can be found in Appendix E. This checklist can be modified dependant upon the season, location, and length of your trip.

Cars and Trucks: The Alaska Section of Community Health and Emergency Medical Services (EMS) and the Alaska Highway Safety Office publishes a brochure entitled Help Along the Way - Emergency Medical Services For Alaska Travelers that can be found on the web at: http://chems.alaska.gov/EMS/Assets/Downloads/HAW.pdf
This is an excellent brochure providing emergency contact information for places along the major Alaska highway systems, including the marine highway. Other general safety information is included such as a suggested list of emergency equipment to carry in your car, first aid information, and accident procedures. Copies of this brochure can be printed from your computer or can be obtained at the EMS office in each major Alaskan town.

Emergency equipment should be carried in your vehicle. A vehicle will provide shelter if you are stranded. If there is injury, the blankets, extra clothing, water, etc. will help occupants survive until assistance arrives.

Buses and Vans: Special safety precautions exist for travel in these vehicles. Drivers must be certified in accordance with any applicable laws, regulations, or policies through your campus driver training program:
UAA: http://www.uaa.alaska.edu/ehsrms/
UAF: http://www.uaf.edu/safety/
UAS: http://www.uas.alaska.edu/facilities_services/safety

your emergency survival gear. Since exiting a downed aircraft may be difficult, a hack saw, pry bar, large pliers and other tools should be in an accessible place known to all passengers. Wear leather gloves while traveling in small aircraft to provide the ultimate protection to your hands. Do not smoke around fueling operations.

Do not let yourself be dropped off by a pilot without a sleeping bag and your survival kit. The weather may turn bad before the rest of the gear can be flown in.

Helicopter Safety and Etiquette:

- If possible, deploy some light weight material as a wind sock to indicate wind direction to the pilot.
- Wait for directions from the pilot before approaching the aircraft.
- AFTER the pilot has acknowledged your presence and you are cleared to approach the aircraft:
    - Approach or leave in pilot's field of vision, usually from the front of the aircraft.
    - Approach or leave machine in a crouching manner (to stay below the main rotor).
    - Stay away from the tail rotor.
    - Approach or leave on the down slope side.
    - Carry tools horizontally and below waist level, never upright or over the

B.

2. Body Gear

a. Clothing

Dressing loose and in layers is the primary concept for comfort and safety. For warmth, choose two-way zippers, storm flaps, insulated pockets, adjustable cuffs, collars, raglan sleeves (eliminates shoulder seams and allows more movement), hi-length style, and hood. Wear clothes in layers, with each layer large enough to fit comfortably over the underlying layer. For summer use, be sure that clothing covers and protects skin from too much sun exposure, insects, and rapid changes in temperature found in the Alaskan wilderness.

FIVE WAYS BODY HEAT IS LOST	
Radiation:	Up to 50 percent of body heat loss radiates from the head and neck areas. Keep these areas covered for maximum warmth.
Conduction:	Cold is transmitted through contact with cold surfaces and will occur with lengthy periods of sitting or standing or otherwise having body contact with cold surfaces. Make sure there is enough insulation between your body and the cold surface, especially between your feet and the ground.
Convection:	Protect your body from the effects of wind by wearing windproof garments and by tightening your collar around your neck and using your jacket waist line drawstring, if it has one.
Evaporation:	You will lose heat through perspiration. Wear layers and remove them as necessary to prevent overheating.
Respiration:	If you can see your breath, you are losing heat. Maintain an airspace or layer of insulation in front of your nose and mouth in very cold weather.

THREE LAYERING CONSIDERATIONS	
Inner (wicking)	This primary layer should be next to your skin and should consist of fabrics that will wick the moisture away from your skin. Good fabrics include polypropylene, thermax, and silk. Do not wear cotton. Wet fabrics next to your skin will make you feel cold and conduct more heat away from your body.
Middle (insulating)	You need to create a dead air space to insulate your body. Good fabrics for this purpose include polarfleece, down, and wool. Wool and polypropylene are especially good as they retain most of their insulating value even when wet. Down will not provide effective insulation when wet and should always be avoided in wet or moist environments.
Outer (protection)	This final layer should protect your body from wind and moisture yet be breathable and allow for the evaporation of moisture. Gore-Tex is a Teflon-like substance that is both breathable and waterproof. Its pores are small and do not allow water to penetrate the material from the outside, but water vapor can escape from inside.

b. Footwear

Proper footwear is critical to comfort, protection and survival. Be sure to wear the right kind of footwear for the areas where you will be traveling. In most cases, boots are needed to protect people from dampness, insect bites, and ensure that feet stay dry and healthy. Feet stay warmer if there is a thick layer between the foot and the ground and felt boot liners are excellent for this. Footgear should be waterproof for travel in almost all Alaskan locations. Boots should be broken in before going on a long trip, and they should be warm and comfortable. Wear a thin sock liner and sufficient outer sock to provide good insulation between your feet and the ground. Do not wear cotton socks.

c. Hand, Face and Head Protection

This includes items such as gloves, mittens, masks, safety glasses, sunglasses, goggles, hats, head nets, and hard hats. Wear a waterproof hat to protect from rain and heat loss. Up to 50 percent of body heat loss occurs from the head and neck areas. Mittens, rather than gloves, provide maximum protection and warmth, but you should also have gloves available. Don’t forget to use layers on your hands and feet. Mittens with a thin glove liner work very well. Do not wear gloves that restrict circulation to the hands.

3. Food and Shelter

a. Food

Unless you have had a lot of experience with bush-living, hunting, and fishing, you should plan to carry food with you for the trip. Packaged, dehydrated food will probably be the choice if you are backpacking. If you will be operating from a base camp or traveling by boat, you will have plenty of room for more interesting cuisine. Wild fish and game in Alaska is protected. Hunting and fishing season information can be obtained from the Alaska Department of Fish and Game: http://www.state.ak.us/adfg/adfghome.htm.

Although much wild vegetation in Alaska is nutritious, there are several types of plants that are poisonous, including baneberry and water hemlock. Reference volumes by Heller (1993) and Viereck (1998) contain information on edible and poisonous plants. See References, section VIII.C. Educate yourself about these plants.

Keep food out of your shelter. If trees are available and tall enough, try hanging your food supply about 30 feet up to keep bears (who can launch themselves vertically a significant distance), squirrels, and other wild creatures away.

b. Water

You can probably survive for a week or more without food, but you cannot survive more than a few days without water. You should take in two quarts of water each day to maintain efficiency and health. If you will be in an area without fresh water, be sure to carry enough water with you for the amount of time you expect to be gone and/or some means to purify water.

In winter, it is more energy and yield efficient to melt ice (or-hard-packed snow) for water rather than loose or fluffy snow. In summer, there is an abundance of water in rivers, lakes, streams, ponds, and other outdoor sources that you can purify before drinking. Some of your gear may be able to serve double duty as a rain collecting device. Surface open flames in this type of shelter as the wood and sap are very combustible.

2) Summer:
In summer you will need to find or make a shelter against rain and insects. Choose a campsite near water, but on high, dry ground. Mosquitoes and flies are thickest near woods. A ridge top or a river sandbar are good spots, especially if there's a breeze to keep the area insect-free. Be aware that a change in the weather resulting in rain may result in a rise in river levels and flooding of sandbars.

3) Unoccupied Cabins/Shelters:
Alaska law (Sec. 11.46.340. Criminal trespass) provides for emergency use of others' premises or property in the case of emergency if:

(1) the entry, use, or occupancy of premises or use of personal property on the premises is for an emergency in the case of immediate and dire need; and

(2) as soon as reasonably practical after the entry, use, or occupancy, the person contacts the owner of the premises, the owner's agent or, if the owner is unknown, the nearest state or local police agency, and makes a report of the time of the entry, use, or occupancy and any damage to the premises or personal property, unless notice waiving necessity of the report is posted on the premises by the owner or the owner's agent.

d. Fire

Carry matches in a waterproof container with you at all times. Build fires in wind protected spots, in a pit area cleared of vegetation and lined with rocks, or gravel, if available. Beware of melting snow in the fire pit or from overhanging branches. If camping under snow laden trees, clear away snow before attempting to start the fire. In the snow, build a platform (of thick logs, rocks, or whatever is available) for your fire so that the coals do not sink into the snow and burn out. Do not build a fire on the tundra or forest floor without clearing and protecting the area from escaping fire. Keep a water bucket at hand near the fire. Completely extinguish all fires before leaving the site as fires can smolder for days or weeks before breaking out into wildfires.

C. HEALTH CONCERNS

Following are some health and safety conditions common to travel in Alaska including a general description, prevention techniques, symptoms, and treatment recommendations:

1.	**FROSTBITE**

Frostnip is the first stage of frostbite and typically affects the tips of the cheeks, ears, nose, fingers, and toes. The skin may be reddened and feel numb or tingly. If this occurs, warm the skin by using warm compresses or immersing the area in warm water (100 to 105° F) until sensation returns. Body warmth of a companion can be utilized if it can be done without excessively cooling the other person. Do not rub or massage the skin as this will damage skin tissue. If symptoms of frostbite occur, seek medical attention.

Frostbite is damage to the skin from freezing and is due to prolonged exposure to cold temperatures. It occurs when ice crystals form in the skin or deeper tissue. The most common sites for frostbite are the fingers, hands, toes, feet, ears, nose, and cheeks. Severity depends on several factors including temperature, length of exposure, wind-chill factor, dampness, and type of clothing worn.

Be aware that wind chill factor can create an effective temperature much colder than the actual measured temperature. Wind Chill is the term used to describe the rate of heat loss on the human body resulting from the combined effect of low temperature and wind. When wind blows across the skin, it removes the insulating layer of warm air adjacent to the skin. When all factors are the same, the faster the wind blows, the greater the heat loss, which results in a colder feeling. As winds increase, heat is carried away from the body at a faster rate, driving down both the skin temperature and eventually the internal body temperature.

While exposure to low wind chills can be life threatening to both humans and animals alike, the only effect that wind chill has on inanimate objects, such as vehicles, is that it shortens the time

TREATMENT
Frostbite needs immediate professional medical attention. If you cannot get immediate medical help do not attempt to thaw the frozen tissue. This will be extremely painful. Keep body parts and muscles moving. Immobility can lead to lowering of circulation in the body and decrease body warmth. Swing and flex feet and hands, if not severely affected, to get blood flowing. Move inside to a warm area, if possible, and change any wet clothes. If you have the capability and you can get the patient to help immediately, warm the frozen part by using warm compresses or immersing the affected area in warm water (100 to 105° F) until sensation returns. Wrap re-warmed area in dry, sterile dressing. Give something warm to drink. Do not allow refreezing. If you cannot guarantee that the injured portion will not be refrozen, do not attempt to thaw the frozen area as refreezing will almost certainly result in the death of tissue. Do not rub or massage the skin as this will further damage skin tissue. Do not use direct heat such as heating pads or fires. Do not place the frostbitten skin in snow to “warm” it. Apply clean cotton or gauze between fingers and toes if they are affected. Do not disturb any blisters. Wrap warmed areas of the skin to prevent further damage. Further treatment will depend on the extent and severity of injury and may include treatment of skin damage with debridement or surgery.

2.	**HYPOTHERMIA**

Hypothermia is life threatening. It is caused by cold, wet, or windy weather that causes the body to lose heat faster than it can produce heat. It most typically occurs at temperatures between 30F and 50F. The greatest factor causing hypothermia is inadequate clothing and exposure during times following exertion. Hypothermia can occur in rugged mountain terrain where the weather can change extremely fast, or after being soaked in a stream crossing or a boating accident since most Alaskan waters are very cold all year long. The onset of hypothermia is insidious. Prevention must be practiced as an individual's ability to recognize and react to hypothermia dramatically declines as the condition develops. Hypothermia adversely affects an individual's decision making process.

PREVENTION

Dress appropriately and in layers so you can remove extra clothing before becoming overheated and wet with perspiration. Always carry rain gear and/or dry clothing. Keep your head and neck covered as up to 50% of body heat can be lost from these areas. Snack when necessary to keep up your energy; drink enough fluids, especially while active. Watch for symptoms in yourself and others in your party; don't hesitate to say something if others in your group are not dressed appropriately or if they show signs of fatigue or discomfort.

SYMPTOMS

Feeling cold, uncontrollable shivering, clumsiness due to loss of muscle coordination, slurred speech, inability to think clearly, and eventual unconsciousness and cessation of reflexes including heart and lung functions. Many victims in the later stages of hypothermia feel warm and try to shed clothing. Watch each other!

TREATMENT

Allow core area to warm up before warming the extremities. You want to keep blood circulating in the core area until it is warm enough to circulate to the extremities and to prevent cold blood from being circulated back to the core.

Strip and dry the victim; dress in dry clothing. Re-warm the victim SLOWLY; do not warm fast by immersing in warm/hot water. Cover the head and neck with warm clothing or blankets. Provide shelter out of the weather; get victim into a pre-warmed sleeping bag, into blankets, or into whatever is available to provide shelter and warmth. Chest to chest skin contact with another person in a sleeping bag works well. Warm rocks wrapped in clothing or hot water bottles are helpful. Warm drinks are not necessary, but may help in the psychological recovery. Breathing steam vapor may help. Do NOT give alcohol. Try to keep victim awake; this helps keep the body temperature up. Handle victim gently; don't let victim move or exercise.

3.	**CARBON MONOXIDE POISONING**
Carbon monoxide (CO) poisoning is a real danger in cold weather if an external heat or light source is brought into a shelter or a running vehicle is used for warmth. CO poisoning is also a problem in boats. CO is emitted from portable heating devices, lanterns and candles. CO from vehicle exhaust can cause death when inhaled. It combines with hemoglobin in the blood and prevents the attachment of oxygen, depriving the tissues of oxygen. CO is slow to leave the blood and is cumulative in the body.	
PREVENTION	
DO NOT GO TO SLEEP IN A SHELTER WHEN ANY SOURCES OF CO (heating devices, lanterns, candles) ARE BEING OPERATED. YOU MAY NOT WAKE UP! Run vehicles and heaters periodically, not continuously. In a motor vehicle, make sure the tail pipe is clear of snow and mud. Make sure there is adequate ventilation, with a window slightly open. Be sure you are upwind of vehicle exhaust so that it is not drawn into the vehicle. **NEVER GO TO SLEEP IN A RUNNING VEHICLE OR VESSEL.**	
SYMPTOMS	

You cannot see, smell, or taste carbon monoxide. Symptoms can feel like flu symptoms. Be aware and watch for the following:

- Body as a whole: headache, irritability, confusion, fainting, impaired judgment, unconsciousness, bizarre behavior;
- Respiratory: shortness of breath, increased rate of breathing, chest pain, stop breathing;
- Eyes, ears, nose, and throat: bright cherry red color to lips and face;
- Skin: bright red color to fingernails, pale skin;
- Gastrointestinal: nausea and vomiting;
- Heart and blood vessels: abnormal heart beat, rapid heart beat, low blood pressure;
-

4.	**GIARDIA**
Giardiasis is caused by the parasite *Giardia lamblia*. The parasite is in the form of a cyst during part of its life cycle and the cysts are often found in untreated surface water in Alaska. Feces of beavers, hares, and other carrier animals contain the cysts, which can then be transmitted to humans who drink contaminated water.	
PREVENTION	
Water from streams, lakes, ponds, and other outdoor sources must be disinfected before drinking. See Section IV. B. 3. b. Water for disinfecting methods.	
SYMPTOMS	
Abdominal bloating, cramps, excessive gas, and diarrhea. Incubation time after ingesting the cysts averages 10 to 14 days, any symptoms lasting longer than seven days should be suspect, and you should see your physician. Diagnosis is confirmed by stool examination.	
TREATMENT	
Drugs should be prescribed by a doctor.	

5.	**SNOW BLINDNESS**
Snow blindness is caused by the effects of excessive direct sunlight or reflected sunlight off of snow, ice, or water on unprotected eyes.	
PREVENTION	
If you are without eye protection, devise some method of shielding your eyes from the direct and reflected (off of snow and water) sunlight using materials at hand to make slit goggles.	

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7.	**INSECT BITES**
PREVENTION	

A smoky fire helps keep insects away. Some individuals may experience minor skin irritations with commercial mosquito repellants. If repellant is not available, cover hands and face with oil, fat, or mud. However, do not use the oils and fats in bear territory as the aroma can attract the

2. Moose and Other Large Animal Safety
   Although moose appear slow and passive, they are capable of stomping a person to death in a matter of minutes. Never approach a moose and never go anywhere near, or come between, a moose and her calf. Moose and other large animals will attack to protect themselves or their young, to defend their mates, or even to guard a food supply. Stay away from large animals and do not give them a reason to attack you. Do not make sudden moves either toward or away from them, as this may be interpreted as aggressive or territorial.

V. FIREARMS

You must receive training and complete UA permission paperwork if you plan to take a gun on your trip. Do not bring personal firearms unless you have received permission. Discharging a firearm should only be done in an emergency, such as self-protection or signaling if you are lost.

The possession of firearms, explosives and prohibited weapons is governed by Board of Regents Policy and Regulation 02.09.02: http://www.alaska.edu/bor/policy-regulations/. Activities involving

VI. EMERGENCY CONTACTS

These references are included in your Remote Travel Safety Guide. If there are additional resources that may be helpful on your trip, please take the time to record them in your copy of the Remote Travel Safety Guide.

PUBLIC RESPONSE	
ALASKA STATE TROOPERS	911
COAST GUARD	1-800-478-5555
POISON CONTROL	1-800-222-1222

UAA	Environmental, Health and Safety	907-786-1351
	University Police	907-786-1120
	Alaska Department of Environmental Conservation (DEC)	907-269-3063 1-800-478-0084 (After Hours)

UAF	Risk Management	907-474-7889
	Environmental Health & Safety	907-474-5413
	University Police	907-474-7721
	Institute of Arctic Biology	907-474-7658
	IARC	907-474-1597
	Facilities Services	907-474-7000
	Alaska Department of Environmental Conservation (DEC)	907-451-2121 1-800-478-0084 (After Hours)

UAS	Safety and Health Officer	907-465-6799
	Facilities Services	907-465-6496

VII. APPENDICES

A. Remote Travel Pre-Trip Plan & Authorization Form
B. Remote Travel Emergency Plan Form
C. Survival Kit Checklist
D. First Aid Kit Check List
E. Highway Travel Equipment Check List
F. Boat Travel Equipment Check List
G. Emergency Rations and Equipment List for All Aircraft In Alaska (from Alaska statutes 02.35.110)
H. Visual Signals Between Ground and Aircraft
I. UA Field Stations and Facilities
J. Wind Chill Chart
K. Comments and Advice From University Graduate Students, Staff, & Faculty

Appendix A.

UNIVERSITY OF ALASKA

REMOTE TRAVEL PRE-TRIP PLAN & AUTHORIZATION

This form must be completed and submitted to the designated department head and campus safety professional for review and approval before travel plans are finalized and funds encumbered.

Department:____ Campus:_________ Date:_____________

Trip Leader/PI:____ Phone:________________________

Proposed Dates of Travel – From:___________________________ To:_____________________________

Destination(s) From:________________________________To:__________________________________

Trip Type: ☐ Research ☐ Joint Research Project ☐ Class Activity ☐ Recreational Activity

☐ Other (describe):____

Trip Purpose:____

____

Number of Participants:_____________ Will Minors (under age 18) Participate? ☐ Yes ☐ No

Participant Status and Number: UA Employees #______ Grad Students #_____ Undergrad Students #______

Unaffiliated Other (describe):____#____

1. Mode(s) of Travel (automobile, boat, airplane, snowmachine, skis, etc):

Date(s)	Vehicle Description	Distance (time/miles, etc.)

2. Travel Route Planned and Location of Field Site(s) (Attach map)

____

____

____

____

Appendix B.

UNIVERSITY OF ALASKA

REMOTE TRAVEL EMERGENCY PLAN

This form must be completed and submitted to the designated department head and campus safety professional before departure.

Department:____ Campus:_________ Date:_____________

Trip Leader/PI:____ Phone:_________________________

Departure Date:__________________________________ Return Date:________________________________

Destination(s) From:__________________________________To:____________________________________

Trip Purpose:____

____

1. Method(s) of Travel:

Date(s)	Vehicle Description	Distance (time/miles, etc.)

9. Participants (list here or attach list of names, addresses and emergency contact phone numbers)

Submitted By: ____ Date:________________
(Name) (Title)

Approved By:____ Date:________________
Department/Institute Director

Approved By:____ Date:________________
Safety Professional

*Diving: Documentation of each research diver's current certification status must be attached. The documentation should contain certification status, depth of certification, date of last physical examination, emergency diver evacuation plan, and signature of the diving officer. Prior to any diving activity, the principle investigator must coordinate with the UAF Diving Committee.

Appendix C.

SURVIVAL KIT CHECK LIST

Your survival kit should be put together in a waterproof pack and not used for anything other than an emergency situation. Keep this survival kit separate from your regular camping gear. Do NOT borrow from it for everyday use, but DO check periodically to see that batteries in the flashlight are still good and there is still spare fuel for the stove.

	SHELTER AND SURVIVAL EQUIPMENT
	Instant shelter (plastic 7 bushel lawn bag or "tube tent")
	Sleeping bag, space blanket, foam pad
	Extra clothing
	Spare sunglasses
	Knife
	Flashlight and fresh batteries, string, twine, or dental floss
	Duct tape

Appendix D.

FIRST AID KIT CHECK LIST

BANDAGES AND DRESSINGS	
	Band-Aids
	Butterfly bandages
	Roller gauze
	Sterile gauze pads
	Sterile absorbent cotton
	Triangular bar(.48 0.48 re f* 56.52 690.48 0.48 0.48 re 48 0.re f* 38.04 6321BT /TT0 1 Tf 12 0 0

Appendix E.

HIGHWAY TRAVEL EQUIPMENT CHECK LIST

	Blankets for each passenger
	Extra clothing for each passenger
	Local and State Maps
	Drinking Water
	Full tank of gasoline - always drive on upper half
	Matches and candles
	Fire extinguisher
	Flashlight and spare batteries
	Emergency flares and reflectors
	Tow cable
	Jumper cables

Appendix H.

VISUAL SIGNALS BETWEEN GROUND AND AIRCRAFT

Standard ground to air signals: See codes below. Signals may be tramped in the snow, made of branches, cloth, or stone, trenches dug in the tundra, or patterns cut in vegetation. Try to make as big a color contrast as possible between your symbol(s) and the surrounding terrain. The symbol(s) should be 8 to 10 feet long and 3 feet wide for spotting by plane. The surfaces of your airplane or vehicle, which will generally be in sharp contrast to the surrounding area, are also a signal that can be seen from the air. In addition, you should use any means possible to try and attract an aircraft's attention: radio, flames, smoke, flares etc.

Require doctor - serious injury.................................... |

Require medical supplies... ||

Am going in this direction... →

Unable to proceed……………………………………… X

Yes..… Y

No... N

All is well……………………………………………. LL

Air-to-ground signals:

Understand..……..	Rock wings (in daylight) or make green flashes with signal lamp (night).
Do not understand..................................………	360 turn to right over party (in daylight) or make red flashes with signal lamp (night).
Proceed in this direction..........................…………	Pass over party while rocking wings; proceed for 1 minute on heading desired, then return and repeat maneuver two more times.

Appendix I.

UA FIELD STATIONS AND FACILITIES

UA field stations and facilities should you need to contact someone in your vicinity in an emergency:

UAA

- **Anchorage:** Elmendorf AFB Military Education Services, 3 MSS/DPE 4109 Bullard Ave, Suite 21, Elmendorf AFB, AK 99506, 907-753-0204
- **Anchorage:** Ft. Richardson Military Education Services, Kiska Hall, Bldg. 658, Rm. 131, Fort Richardson, AK 99505, 907-428-1228
- **Anchorage:** Goose Lake Campus, UPD, 3211 Providence Drive, Anchorage, AK 99508, 907-786-1120
- **Cordova:** Cordova Extension Center, Cordova, AK 99574, 907-424-7598
- **Eagle River:** Chugiak/Eagle River Campus, 10928 Eagle River Road, #228, Eagle River, AK 99577, 907-694-3313
- **Fairbanks:** Eielson AFB Military Education Services, 3124 Wabash Ave, Room #105, Eielson AFB, AK 99702, 907-372-3484
- **Fairbanks:** Ft. Wainwright Military Education Services, Ft. Wainwright, AK 99703, 907-353-6395
- **Glennallen:** Copper Basin Extension Center, Glennallen, AK 99588, 907-822-5574
- **Homer:** Kachemak Bay Branch, 533 E. Pioneer Ave, Homer, AK 99603-7624, 907-235-7743
- **Kodiak:** Kodiak College, 117 Benny Benson Drive, Kodiak, AK 99615, 907-486-4161
- **Palmer:** Matanuska-Susitna College, Palmer, AK 99645, 907-745-9726
- **Valdez:** Prince William Sound Community College, Valdez, AK 99686, 907-

ƒ **Nome:** Northwest Regional Campus, 443-2201 (College of Rural Alaska, Fairbanks, 474-7106)
ƒ **Palmer:** Palmer Research Center 533 E. Fireweed, 746-9450 (Agricultural & Forestry Research Station, Fairbanks 474-7188)
ƒ **Seward:** Seward Marine Center, 224-5261(Institute of Marine Science, Fairbanks, 474-7824)

Appendix J.

- Talk to the department/institute travel officer.

- Talk with people in the local area of your work.

- Talk with those who have been in the area previously, especially recently.

- Talk to other graduate students /professors who have worked out in the field before, especially if they have been to your study site.

- Ask senior graduate students for advice; they often have been the ones who have done previous leg work to set up projects that you will be continuing. Talk to many people (preferably other grad students) who have done similar projects before, and who are familiar with the area.

WHO'S BUYING?

- Prepare for your field trip in advance. Many times people don't realize how long it can take to purchase scientific equipment, nor do they realize how expensive travel can be. Preparation and careful research well in advance can save quite a lot of money.

- Baggage is expensive and oftentimes you have to pay each carrier for it.

- Make sure both your own and your project's funding are provided, or that you are prepared to seek ways to fund them.

- A good tent is critical; a cheap one will cause many problems.

IF ONLY…

- If possible, bring more supplies than you think you need.

- Be sure to have sunscreen and sunglasses with you in the spring when the days are getting longer and the sun is higher in the sky.

- Be prepared to take advantage of long days; the season may be shorter than anticipated.

- Take reference manuals for all equipment to be used in the field. Also take instructions for all sampling and testing techniques with you.

- Back up methods for every procedure or alternative tests, even if they're sort of hokey. Take extra sample bottles and containers in case you lose one, break one, or decide to take more or different types of samples.

BAD THINGS CAN HAPPEN TO GOOD PEOPLE

- Do't go for an airplane flight just because someone offers.

- Do not store any field data in a tent! I lived/worked out of a wood stove-heated wall tent which burned to the ground while we were away. I nearly lost weeks of priceless data sheets.

- The main source of danger for the field worker is the helicopter. Safety training for anti-gravity machines must be taught every spring for every field person, bar none!!

- Learn first aid techniques and map and compass navigation if you'll be out in the field.

- Don't touch plastic or varnish with a lot of insect repellent on your hands - they'll stick.

- Do not let yourself be dropped off by a pilot without at least your sleeping bag, if not your whole survival kit. The weather may turn bad before the rest of the gear can be flown in.

- Use wet baby wipes to wash hands after using formaldehyde or other toxic materials, especially before meals.n

- Double bag all samples and tape bottle lids with strapping tape to prevent leakage, especially in helicopters and airplanes. Know regulations for carrying fuels, chemicals, etc. in aircraft.

- People should work together, not solo.

HONOR YOUR MOTHER

- Disturb the study-site as little as possible; plan your sampling scheme well in advance and sample efficiently.

- Know how to properly dispose of or contain foreign materials (chemicals), if needed for on-site sample processing. Do not dispose of chemicals in the field.

VIII. REFERENCES

References are listed here by subject matter. Where known, the distribution address and cost are included. Prices, revision, and availability are subject to change.

A. PLANNING

1] Morton, Keith. 2001. Planning a Wilderness Trip in Canada and Alaska. Rocky Mountain Books. #108, 17665-66A Avenue Surrey, BC, V3S 2A7. $19.95

2] University of Alaska. 1986. Risk and Loss Control Manual. University of Alaska, Risk Management. Fairbanks, AK 99775. 30 pp.

B. TRAVEL

3] Alaska Section of Community Health and Emergency Medical Services and the Alaska Highway Safety Office. 2002. Emergency Medical Services for Alaska Travelers. Southern Region EMS Council, Inc., 6130 Tuttle Place, Anchorage, AK 99507-2041. 907-562-6449.

4] Brown, Robert E., ed. 1984. Boater's Safety Handbook. American Outdoor Safety League, distributed by The Mountaineers, 306 Second Ave. West, Seattle, WA 98119. 45 pp. $3.50.

5] Frazier, David. 1998. The ABC's of Safe Flying, 4th ed. McGraw-Hill. 231 pp, 34.95

6] Gerding, Mildred. 1980. Helicopter Safety and Survival Procedures. Univ. of Texas at Austin. 40 pp. $15.00.

7] Lanza, Mike. 2003. Day Hiker's Handbook: Get Started with the Experts. The Mountaineers, 306 Second Ave. West, Seattle, WA 98119. 173 pp. $16.95.

8] Prater, Gene. 2002. Snowshoeing, From Novice to Master, 5th ed. The Mountaineers, 306 Second Ave. West, Seattle, WA 98119, 176 pp. $16.95

C. CLOTHING, SHELTER, FOOD, AND WATER

9] Gulbrandson, Ruth R. 1985. Selection of Outerwear Garments

IX DISCLAIMER

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