

2016 ALASKA HELISKIING OPERATION AND SAFETY PLAN

INTRODUCTION

Alaska Heliskiing, LLC is based in Haines, Alaska. The mailing address is box 1448 Haines, Alaska 99827. The business Phone number is 907-767-5745.

This operating plan is hereby made part of Alaska Heliskiing, LLC tour and recreation permit. The primary purposes of this plan are:

- 1. To ensure the protection of the natural resources within the Haines State Forest and BLM Lands in the permitted area of operations of Alaska Heliskiing.**
- 2. To provide documentation of safety procedures, training, emergency contact procedures, and operations as described to provide a safe outfitter guided operation for Alaska Heliskiing clients. Upon approval by the Haines Borough, DNR, and the BLM, this operating plan becomes part of the recreation and tour permit issued to Alaska Heliskiing, LLC.**

GENERAL OPERATIONS

Heliskiing operations will be conducted from an area near the 35 mile heliport, 18 mile, along the Haines Highway, and at the Haines Airport. Guided Heliskiing activities will be conducted in the mountainous regions of the Haines Borough with complete respect for wildlife, other backcountry users, and residents. Flight paths will be selected that are safe, and will have the least potential impact on wildlife, other backcountry users, and residents. Heliskiing operations will begin as early as February 1st and end no later than May 3rd unless a request is made to extend the season. Heliskiing operations will generally occur between the hours of 8 a.m. and 6 p.m. until March 31st and by the end of April, heliskiing operations will generally be occurring between the hours of 6a.m. and 8p.m. Alaska Heliskiing may use up to 1400 user days this season mostly on Haines State Forest land and some on BLM. Alaska Heliskiing will advertise in magazines, ski films, word of mouth, and on the Internet. The tours will be offered for sale in Haines Alaska, and activities will take place in the Haines State Forest and when approved on BLM lands.

Group size will typically not exceed 55 clients per guided tour. Client to guide ratio will typically not exceed 5-1. Therefore, total group size probably will not exceed 66

total persons (55 clients plus 11 guides).

1-4 helicopters and up to 2 ski planes will be utilized for transporting clients to and from the selected areas for skiing. Clients and guides will be dropped off at the selected site, ski down the mountain, and then be picked up by a helicopter at the end of each ski run. This scenario, (dropped off, ski, picked up) will typically be repeated 6 times per guided trip.

Prior to leaving a heliport, all clients and guides will be given pre flight information. The information will be read, explained, and demonstrated to all participants. At this time, or prior to, all clients and guides possess transceivers, and exercises are conducted on proper use of the equipment. No guest or guide will be permitted to ski until they are completely familiar with the use and techniques of rescue using the avalanche transceivers. Backcountry skiing rules and helicopter safety rules are explained. A question and answer session will be held throughout the briefing, and an explanation of the inherent risks of skiing and particularly helicopter skiing will be made clear. Before the tour begins, clients and guides will have been thoroughly briefed on helicopter safety and participant safety when skiing. All clients and guides will sign a form stating that they are aware of the inherent risks of participating in this activity and agree not to hold anyone liable for unforeseen-able accidents that could occur during their tour before being allowed to go helicopter skiing. Avalanche bags designed to float a skier or snowboarder on top of sliding snow will be offered for rent and instruction on how to use them will be included in the safety briefing. Guides will inspect the participant's and fellow guides equipment to insure it is in good working order and pay particular attention to the arming of avalanche bags prior to each ski run. An avalanche bag must be de-activated prior to being loaded into a helicopter and the guide will insure that guests re-activate their avalanche bags prior to each ski run.

Prior to each guided trip a weather check will be completed with the National Weather Service over the Internet. Guides and pilots will then discuss the best areas to be skied for the day. Weather, snow conditions, and avalanche hazard forecasting will be the overall determining factors when selecting skiing areas. All pertinent weather information is close at hand and guides and pilots have easy access to the latest weather information and technology.

All radio communications will be with VHF radios. Each guide will have a mobile radio capable of contacting the pilot and base. If for some reason a guide is unable to contact the base of operations because they are in a valley bottom the pilots will relay communications for them.

Drinking water, food and restrooms are available at the base of operations and all human wastes and trash will be flown back to base and disposed of at the end of each day.

GUIDE REQUIREMENTS AND EXPERIENCE

All guides with Alaska Heliskiing, LLC will have completed an extensive training program. This program includes topics listed in the Alaska Heliskiing safety plan under the guide requirements. At a minimum guides must attend various seminars and must participate in the guide training program through the Alaska Heliskiing Guide School. After successful completion of the guide training program a guide trainee must then participate in at least 15 commercial operating tours before being allowed to guide. In addition, all guides are required to participate in the field as a guide trainee under the direction of a lead guide. A list of current guides working for Alaska Heliskiing will be on file at the base of operations. This list will be updated as needed with guides names, address/phone numbers, and qualifications. All employees that are employed by Alaska Heliskiing must sign an "Employment at Will" agreement. This agreement will state the duration of employment, job duties, rate of pay and that each employee is trained and is familiar with the Alaska Heliskiing Safety and Operating Plan.

MINIMUM GUIDE REQUIREMENTS

LEAD GUIDES

AVY 3, Wilderness First Responder, Heli Rescue, Crevasse and Rope Rescue

GUIDES

AVY 2, Wilderness Advanced First Aid, Heli Rescue, Crevasse and Rope Rescue

GUIDE TRAINEES

AVY 1, Wilderness Advanced First Aid, Heli Rescue, Crevasse and Rope rescue

ALCOHOL AND DRUG USE POLICY

THE USE OF DRUGS WILL NOT BE TOLERATED. Any employee suspected of using drugs will be tested. If drug testing is found positive for drug use, the employee will be suspended indefinitely. Employees are not permitted to use alcohol during work hours and any hours of the day prior to working. There will be no alcohol permitted at base of operations until all helicopters have completed all flying for that day.

Prior to a person entering the guide program, he/she must have a verifiable record as an experienced skier with ski related educational background. A guide trainee must also possess a character that shows sound judgment and temperament. He/she must exhibit a high degree of safety consciousness, and a proven capacity to work enthusiastically with the public.

The guide-training program consists of the topics here mentioned and outlined thusly. Experience obtained is listed here under its' respective subject. Alaska Heliskiing guides have participated in the training, seminars, or in the field exercises for the following subject matters.

AVALANCHE FORECASTING

Each guide is knowledgeable in observing and compiling weather information, avalanche charts, snow pits, and snow studies. Mandatory seasonal staff training is under the direction of Alaska Heliskiings' Snow Safety Director or similarly qualified person. Avalanche seminars are conducted annually at the onset of each season. Collected field data is compiled and analyzed by Alaska Heliskiings' Snow Safety Director. The Snow Safety Director composes snow stability and weather forecast daily, based on field observations and published weather resources. The Snow Safety Director will have the same minimum requirements as a LEAD GUIDE.

AVALANCHE RESCUE

Guides are knowledgeable of standard operating procedures for the rescue of avalanche victims including the instruction of avalanche transceiver use and inspection of Avalanche airbags prior to ski runs used in this operation. Mandatory seasonal staff training is under the direction of Alaska Heliskiings' Snow Safety Director or similarly qualified person. Rescue procedures are practiced in the field and at base daily to ensure their effectiveness in the event of actual rescue situations.

FIRST AID

All guides are required to maintain at least a Wilderness Advanced First Aid and CPR certification. Guides must obtain certifications prior to being a guide trainee. Lead Guides are required to hold a Wilderness First Responder or Outdoor Emergency Care. Alaska Heliskiing will also hold classes with qualified first aid instructors to update and refresh guides' qualifications. Guides must maintain a running inventory of first aid supplies in their guide packs and can properly perform first aid emergencies. They must be familiar with the cold related illnesses and know the procedures for their treatment.

SKI INSTRUCTION

Ski instruction plays an integral part as a safety program function. Clientele skiing ability and experience are as variable as the changes in terrain and snow conditions. Different techniques are required when encountering various conditions. Therefore, instructions in the field are offered when necessary. Alaska Heliskiing offers the use of “Fat Skis” which have revolutionized heliskiing; allowing beginner, intermediate, and expert skiers alike to ski fresh snow like never before.

Guides will be qualified and experienced in backcountry powder skiing and riding techniques. They will have acquired their experience through in the field seminars with lead guides who have professionally ski instructed at ski area ski schools. Guide trainees are required to attend commercial operations many times to visually observe teaching techniques in the backcountry while skiing by helicopter. This is the best way to gain experience in teaching different techniques for various snow conditions. Guides can identify guest ski ability and can select skiing terrain to suit their ability. They are able to discuss and relate pre-flight briefing forms in a manner, which is both informative and educational to the public.

WINTER MOUNTAINEERING

Guides will have exhibited winter mountaineering skills and participated in annual training by Alaska Heliskiing in conjunction with the Alaska Heliskiings’ Guide School. Mountaineering skills consist of backcountry skiing, route selection, avalanche prediction, crevasse rescue and glacier travel, avalanche rescue, helicopter rescue, rescue evacuation, orientation, cold weather survival, and cold related illness, basic climbing techniques, and specialized wilderness survival skills.

SKIER SAFETY

Guides are required to know backcountry skiing rules set forth by Alaska Heliskiing. Guide training seminars have been implemented to instruct safety rules. Trainees are required to attend commercial tours to observe procedures and learn guiding techniques.

HELICOPTER SAFETY

Guides are required to know helicopter safety rules as set forth by Alaska Heliskiing and Coastal Helicopters. Trainees are required to attend commercial tours to observe helicopter safety rule procedures.

Pilots at Coastal Helicopters are required to have helicopter safety meetings to better educate the guides on the proper way of loading and unloading of guests and equipment. Pilots also instruct guides and guests on the use of the Emergency Transmitter Locator which the aircraft contain, as to its use in an emergency situation. Helicopters are also equipped with first aid and survival gear.

TERRAIN ANALYSIS AND ROUTE SELECTION

While selecting terrain and routes, careful consideration will be given to the following factors: Avalanche hazard, snow conditions, terrain traps, flight routes, landing and pickup zones, weather analysis, observation of wildlife, use of other public interest groups and skiing ability.

If an area is thought to be highly dangerous because of avalanche frequency or terrain traps, the particular slope will carefully be avoided until steady observations are made and stability evaluations have been conducted. Avalanche occurrence, terrain characteristics, weather observations, and snow profile charts will be systematically recorded, analyzed, and will be kept on file at the base of operations.

Carefully planned research missions will continue all season to record the physical characteristics of all areas. Constant review and evaluation of all ski areas are also maintained in guide logs and are quite useful for guide reference, training, route selection, and snow pack studies.

LOCAL BIOLOGY AND HISTORY

Guides will have knowledge of the local Haines region human and natural history. Alaska Heliskiing has recorded information on terrain analysis and snow pack studies in the Haines area for many years. This knowledge of the area will be passed on to all of the guides working for Alaska Heliskiing.

SKIING PROFICIENCY

Guides are required to have expert ski or snowboard ability. A guide trainee must ski untracked slopes with a guide pack for extended periods of time. A large pack will alter even an expert skier's ability. It is necessary for the trainee to adjust for the extra weight before he/she is ready for full time guiding. Only through field experience can a guide trainee be qualified to guide backcountry helicopter ski tours.

USE REPORTS

Guides will be instructed on the proper procedures for completing daily report

forms. Guide trainees will be required to attend end of the day guide meetings and become familiar with the process for documenting essential information.

Alaska Heliskiing will submit an annual use report to the BLM and DNR by May 31 and to the Haines Borough bi-weekly throughout the season's beginning and ending operating dates. The use report will consist of daily skier days used, any deviations from flight guidelines and documentation of any accidents. A daily report of any wildlife sightings, including mountain goat activity, will be submitted to the Haines Borough at the end of the operating season.

BILLING

At the end of each ski day a guide meeting is held. Pertinent information from the day's activities will be discussed. The guides in the field record the use of helicopter flight time of each group throughout the day by using the HOBBS meter located in each helicopter. This accounting of HOBBS time will determine the amount of helicopter flight time used by each group and will be used for billing purposes. This amount of flight time is divided by the number of participants in each group and multiplied by an hourly rate to determine an individual billing for each participant. Some participants are on package deals while others are paying for flight time. It is important to document flight time used by each group during the day's activities and it is the guide's responsibility to record Hobbs readings from the meter located inside the helicopter when entering and exiting the helicopter. The customers paying for flight time will be billed according to actual time used during the day while package customers are billed a fixed rate by the day or by the run.

FLIGHT FOLLOWING

Flight following is an important part of daily operations and is recorded by the radio dispatcher throughout the day on an on-line Google document. Flight following serves many purposes and documents the day's activities. Each helicopter in the field has its own flight following form which documents times of communications, areas skied, number of landings, fuel usage, total HOBBS time of that aircraft, load manifests, guides and participants names and weights, contact info, the whereabouts of key personnel, and other general information. An On-Line Google document is used that is visible to both Coastal Helicopters in Juneau and owners and staff of Alaska Heliskiing. This Google document is in real time and a very useful tool for keeping track of daily activity at the moment it occurs. Management can view this information at anytime using their smart phone or computer from anywhere an Internet connection or cell service exists. This format has truly revolutionized the flight following aspect of the helicopter industry making it safer and more manageable to control the activity from the base of operations. Training seminars are conducted on how to use this system and the employees of Alaska Heliskiing are familiar on the use of this system.

Each helicopter is equipped with a satellite tracking device and owners and managers of Alaska Heliskiing and Coastal Helicopters have access to a Google map where the exact location of the helicopter is recorded every three minutes. **Each helicopter landing will be recorded by waypoint and this information including all landings and flight routes will be submitted to the borough according to the requirements of the permit.** This tracking device is very reliable but like any satellite or Internet based system there are times when the system may be down for short periods of time.

DAILY REPORT FORM

The guides in the field complete the daily report form at the end of each day during the guide meeting. This form records the first and last names of the people in each group, their attitude, personality, ski or snowboard ability, and total weight of the person and their gear. This form also documents the type of snow, steepness of slope, and type of terrain for each run. The guides name and date, the helicopters tail number, pilot name, total HOBBS time for the aircraft, and the individual participants' share of the HOBBS time is recorded on this form. Comments and recommendations are also written on this form for base manager evaluation.

GUIDE LOG

The Guide Log records general observations from each area skied. The location and area, HOBBS meter readings, number of runs, vertical feet of run, steepness and aspect of slope, snow observation/stability, avalanche conditions, and weather are documented. Comments about these observations are recorded and discussed during the evening guide meeting.

GUIDE FIELD BOOK

Each guide carries a field book while guiding clients. This field book holds all of the information, which will later be transferred to the daily reports. This field book records, name of run, # of runs, HOBBS meter, and upper and lower elevations of each run skied. This documentation is used to determine the amount of vertical feet skied by the group that day. The guide's field book also compiles onsite snow observations, which may include a snow profile chart documenting the current snow stratification and avalanche concerns. Weather observations will also be noted.

EMERGENCY REPORTING

In the event of client or employee accident or serious injury, the DNR, BLM and Haines Borough will be notified. This incident report will include the names and addresses of all persons involved, details of what happened, witness reports and the

corrective action taken. A reportable incident is one that requires more than on-site emergency first aid, and/or search and rescue operations. In the event of an accident notes will be taken and organized on a time-line to document the incident.

TRIP ITINERARY

DAY 1

Guests arrive at the base of operations for mandatory client orientation. Helicopter and Backcountry Skiing Rules will be read and explained. Guides will instruct clients on how to use avalanche transceivers and practice searches will be performed. The client must be able to locate a buried transmitting transceiver within a minimum of 3 minutes prior to participating. Client orientation will also include additional on slope avalanche avoidance and rescue techniques. Guests are escorted to the helicopter and will receive a helicopter safety orientation. Waivers and Pre-flight forms are now completed and signed. Arrangements for rental equipment will be completed and clients are now ready to ski. When the activities for the day are through guests will obtain a rental car if needed and settle into their accommodations.

DAY 2

This is an important day for guides to spend determining skier ability. The terrain selected for skiing this day will start off very easy and the guide will determine skier ability. There will be a focus on demonstrating safe backcountry skiing techniques and an over-all emphasis on safety awareness.

DAY 2-9

Helicopter skiing is weather dependent. Fortunately Haines has great weather and guests ski 7 out of 10 days on average. Every day that is good for flying helicopters, will be spent skiing the mountainous areas around Haines. Bad weather days will be spent enjoying the other activities and businesses of Haines. Rental equipment will be returned at the end of each day and inspected for damage and to insure it is functioning properly.

DAY 10

Guests will fill out an evaluation sheet on Alaska Heliskiing guides and make comments on the whole experience. A Log Book will be kept of all guests and comments recorded. They will then check out of accommodations, return their rental cars, and guests will prepare for their departure.

SKI AREA RESEARCH PLAN

The backcountry helicopter skiing operation provided by Alaska Heliskiing, LLC will take place in the Haines area and be serviced with strict compliance to the rules

thereof. Prospective ski areas will be visited and information will be obtained during carefully planned research missions and Alaska Heliskiing, LLC, will review these areas with complete regard for public safety and wildlife. In selecting prospective ski runs careful consideration will be given to the following factors.

1. **Avalanche hazard and terrain traps**
2. **Control Capability**
3. **Flight routes, landing and pick up zones**
4. **Escape routes**
5. **Observation of wildlife**
6. **Weather Analysis**
7. **Use by other public interest groups**
8. **Skier ability**

If any area is thought to be highly dangerous because of avalanche frequency, or terrain traps the slope will be carefully avoided until steady observations are made, and control potential or stability evaluation is determined. Avalanche occurrence, terrain characteristics, weather observations, and snow profile charts will be systematically recorded.

STAFF TRAINING

ALASKA HELISKIING, LLC GUIDE/PILOT TRAINING

1. **Pilot/guide relationship**
 - A. **This relationship must be a good professional working partnership. It is one of the most important elements of this entire operation and requires respect and maintenance.**
 - B. **This partnership is imperative for everyone's safety, enjoyment, and overall quality of the guided helicopter skiing experience.**
 - C. **This partnership is the basis for efficiency, which is created through clear communication and the execution of a plan.**
 - D. **A strong guide/pilot relationship will ultimately add to the customer's overall experience.**
 - E. **Any problems or disagreements between guide/pilot MUST be dealt with as soon as possible or at the end of the day debriefing meeting.**

- F. No client should see or be aware that any problems or disagreements between the guide and pilot exist.**
- G. If problems cannot be worked out in a professional manner then the operations manager is notified and it is the operations manager responsibility to take action to correct the problem.**
- H. The pilot has total and final say on all LZ's used in this operation.**
- I. Guide should provide LZ input for the pilot on features such as cornices, crevasses, rocks, etc. Mention to the pilot if any of these hazards are present before touchdown.**
- J. If any LZ's need to be dug out prior to offloading only the guide can get out to dig. All clients must stay in helicopter unless otherwise directed by the pilot or guide.**
- K. Pilot should shut down on top LZ if at all possible or a nearby LZ until lower PZ can be established. This does the following**
 - 1. The helicopter is at less of a risk for avalanche activity.**
 - 2. The group can establish a good lower PZ by digging it flat, evaluating avalanche hazards from the ground, and flagging it for wind direction, and chalking the approach and other elevated hazards for when low light conditions occur. It is important to chalk the approach to the PZ even if the current lighting is perfect in case clouds or shadows obscure the PZ later in the day.**
 - 3. This system allows the pilot to find the group more efficiently.**
 - 4. This allows the pilot to maintain better radio communication.**
- L. Pilot will mark each LZ with the name of run and coordinating GPS. It is extremely important that all guides agree upon the names of all runs. Pilots reference run names to get GPS coordinates.**
- M. Guide is responsible for flagging and highlighting all LZ's and PZ's and marking any elevated hazards, as well as providing a safe, flat landing spot with a clear approach into the wind.**
- N. Guides must pay particular attention to anything that could conflict with the helicopter rotor system and dig out or mark elevated obstacles near the rotor system with chalk and remove any shrubs, branches or trees.**
- O. Guides need to remember to establish a flat landing zone with respect to the helicopter tail rotor and the ground. Any tilt in PZ towards nose, tail or otherwise is potentially dangerous.**
- P. Do not approach a helicopter if the pilot is not in it and do not begin loading a helicopter until everyone is under the rotor system and within an arms reach of the body of the helicopter.**
- Q. Do not approach the helicopter until you have made eye**

contact with the pilot. Do not load the helicopter while anyone is approaching. Sudden settling of the helicopter could cause the rotors to lower and hit approaching persons.

SAFETY BRIEFING

- A. Pilots or Guides are to give a helicopter safety briefing to all new clients.**
- B. Safety briefing should include helicopter awareness, entry and exit procedure, take off and landing, emergency transceiver instructions, Avalanche airbag operations, radio/headset communications, basket loading and unloading, and other emergency procedures relevant and appropriate for general client knowledge.**
- C. It is the guide's responsibility to insure that all clients receive all required briefings. In the event a guide allows a client to board without receiving required briefings, the guide shall be reprimanded and placed on probation.**
- D. Guide and pilot must work together to make sure all clients understand and obey all safety guidelines around the helicopters. THIS IS A BIG DEAL, WORK TOGETHER ON THIS ONE!**
- E. Clientele must be inspected at the beginning and end of each ski run. If an avalanche air bag is being used, the system must be de-activated prior to being loaded into a helicopter and re-activated prior to entering a slope. It's easy to overlook this important step in avalanche safety by the clientele so it is the guide's responsibility to inspect guest's and guides equipment.**
- F. Drug or alcohol use will not be tolerated. Guests will be informed that the use of drugs or alcohol are not allowed prior to or during the days activities. If a guest is suspected using drugs or alcohol before a day of Heliskiing they will not be allowed to participate that day. Any employee suspected of drug use at any time during the season will be tested.**

WEATHER

- A. The first rule: Pilot has total control over any and all decisions when flying in inclement weather.**
- B. Guide and Pilot shall work together to decide when to vacate skiing areas if weather is moving in. All questions and debates can be solved by referring to "The first rule".**
- C. All guides and pilots in the field must openly communicate all weather observations to all groups. COMMUNICATE AS A TEAM.**
- D. If weather is at all a factor stay close to an exit out of mountainous regions and pay particular attention to radio communication as action may be required quickly.**
- E. If weather is moving in faster than expected, and any group is forced**

to wait for a pick-up, then a overnight pack will attempted to be dropped off to the remaining group or groups before the helicopter departs the area.

- F. **Groups may be shuttled to an exit route instead of base as an option to save time in the attempt to not strand groups in the field.**

EFFICIENCY

- A. **Pilots should not fly around unnecessarily.**
- B. **Pilots shall fly to the LZ or PZ in the safest and most direct way possible.**
- C. **If a pilot has any doubts about where any location is, please ask guide for directions. We have a huge area and it is very difficult to know and remember where everything is located.**
- D. **Guides may request alternate flight paths to observe conditions or scope out other lines.**
- E. **Having a plan prior to entering the helicopter is paramount for the efficient use of the helicopter. A guide's plan for ski location should be known before leaving base. The Owners of Alaska Heliskiing, the pilot, and the customers will appreciate the guide for properly executing a plan.**

COMMUNICATIONS

- A. **Pilots are to check in with base according to policy**
- B. **Guide and Pilot must stay in radio communications whenever possible**
- C. **Pilot and guide will determine estimated time duration for completion of run before the helicopter departs the upper LZ. If contact has not been made before time period has elapsed, pilot must immediately do whatever it takes to establish contact.**
- D. **Guides are not to use radios for anything other than communications between guide/base, guide/helicopter, and guide/guide. All film crews shall have their own radios. Our radios have limited battery life and must be used only for operational purposes.**
- E. **Guides are responsible for providing their own radios for both base and client communications.**
- F. **Guides will carry enough handheld motorola radios to be able to communicate with the participants in his group while on slope. MOTOROLA handheld radios play a very important role in the safety and satisfaction of the participants, as well as aid the guide in managing the participant's actions on slope.**
- G. **Radios have multiple channels and the main channel is referred to as the hailing channel to be used to talk to the base, pilot or with other guides. If a conversation needs to occur between guides then you may switch to another channel or use your Motorola's to keep the main frequency open for more important communications.**

AVALANCHE TRANSCEIVERS AND AVY BAGS

- A. All persons in the field including the helicopter pilot will have a transceiver and will be trained on how to use them.**
- B. Guides, it is your responsibility to assess the search abilities of your clients. Remember if you are buried it is your clients that will be looking for you.**
- C. Guides will inspect participant's avalanche transceivers to be sure they are functioning properly with enough battery power to last.**
- D. Guides will inspect avalanche airbags used by participants to be sure they are functioning properly. Avalanche bags will be de-activated prior to loading into the helicopter and re-activated prior to entering the slope. It is the guide's responsibility to make sure all devices are working properly.**

STAFF DEBRIEFING

Pilots and guides each have an equally difficult task in assuring the safety and happiness of the helicopter skiing client. Pilots and guides must work together as a team helping each other to overcome the dangers of this activity and profession. People who come to ski/snowboard with us are spending a lot of money and in some cases save for years just to afford one trip like this in a lifetime. Therefore, we must try to do everything in our power to assure their total safety and complete satisfaction. We can only accomplish this as a team with open communications, understanding, patience, consideration, and respect. Any deficiency in any of these qualities or operation must be discussed and rectified. Our team abilities, environment, safety skills, and superior attitude are what will give our clients an amazing experience, and keep them coming back. These things are paramount to your happiness as well.

GUIDE TRAINING PROGRAM

The guiding staff at Alaska Heliskiing, LLC undergoes an extensive training program through the Alaska Heliskiings' Guide School. The goals of this training program are to achieve a standard level of professionalism in our guiding staff and to promote heliskiing with Alaska Heliskiing, LLC in Haines, Alaska. The Alaska Guide School has been training heliski guides in Alaska for over 15 years and this training program is quite possibly the best training available for a helicopter ski guide in Alaska. Alaska Heliskiing is one of a few heliskiing operations that conducts a two week training course at the beginning of every heliski season to refresh it's current staff and introduce new employees and guide trainees to the guiding techniques, rescue systems, and the fundamental requirements of working and guiding in the helicopter skiing industry in Alaska.

THE GOALS OF THIS SAFETY PLAN

GENERAL

The goal of this safety plan is to develop a backcountry skiing program that will promote the safety of our guests.

A degree of hazard is inseparable from the use of alpine winter recreation areas where severe weather and rugged terrain is often encountered. Careful compliance with this plan, however, will minimize the danger and help to safeguard the public from foreseeable hazards.

HAINES BOUROUGH, DNR, and BLM Responsibility

Responsibility of administration of Alaska Heliskiing, LLC helicopter skiing operations include:

- 1.) Inspection of facilities and operation for compliance with the tour permit terms so that public health and safety are protected, and satisfactory public service is provided.**
- 2. Cooperation with Alaska Heliskiing, LLC personnel in avalanche safety with regard to the helicopter skiing program. A close working relationship with the Haines Borough, DNR, and BLM is desirable.**

FLIGHT SERVICE RESPONSIBILITY

Alaska Heliskiing, LLC will contract the flight service to Coastal Helicopters, an already reputable helicopter service in Haines and Juneau. Other than working under the terms of this contract, Coastal Helicopters is a separate business entity. Coastal will be responsible for maintenance, flying and the operation of the helicopters.

The Federal Aviation Administration, the Department of Transportation, will in accordance with the rules and regulations establish all helicopter operations performed under this permit and the **OVERDUE HELICOPTER REPORTING PROCEDURES** described in this safety plan.

Immediate attempts to contact the helicopter should be made by the radio dispatcher or mobile base. If no contact has been made with the helicopter after 10 minutes of its pre-determined check in time, a helicopter is considered overdue. Report overdue helicopter to base manager and inform all emergency agencies of flight area and last verified location.

AIRCRAFT AND PILOT ROSTER

The following planes and pilots may be used this year for skiing activities with Alaska Heliskiing. Activities will include pick-up and drop off of people and equipment.

Paul Swanstrom	Mountain Flying, Haines	Cessna 185	N185M		
Drake Olson	Earth Center Air Taxi	Cessna 180	ND453C		
Hans Munich	Yakutat Coastal Air	Otter			
Dustin Carroll	Coastal Helicopters	AS350	207CH	Yellow	
Al Holzman	Coastal Helicopters	AS350	204CH	Yellow	
Mike Wilson	Coastal Helicopters	AS350	203CH	Yellow	

OPERATING PROCEDURES-HELICOPTER

Each day, guides will determine intended day use of areas to be flown to for skiing. Flight following will keep track of times and areas operated in, and will be recorded by radio dispatcher at base operations or mobile base. Any deviation from the intended day use of areas will be reported to the radio dispatcher and recorded.

Missing or Overdue Aircraft: "Moving" per Sat Track (call Coastal to check A/C status)

When an aircraft has failed to contact AH within 10 minutes of its last regular 30-minute check in time or designated "NEXT" time, start the EAP.

OC:	Briefed?	Time contacted/Location	Initials
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Contact type	Time(s) Attempted	Time Contacted	Results
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Coastal/AHI (151.565)			
Coastal (160.140)			
Coastal Repeater (Rx 151.7750- Tx 154.515 Tone 136.5)			
Sat Phone #			
Other Coastal Aircraft N#			
CTAF (area frequency) Which Freq used:			
Pilot Cell #			
Pax Cell #			

If an hour goes by with no contact, call FSS and ask them to attempt contact.

Name of contact	Number	Time contacted	Initials
Juneau FSS	789-7380		

**Alert Phase: Aircraft NOT MOVING or NOT ON SAT Juneau
TRACK (call Coastal to check A/C status)**

- *Note the time the aircraft was supposed to check in. Write it down here _____.
45 minutes after this time, start the distress phase.*
- Collect as much of the following information as possible, you can refer to it as you brief the various people you contact.
 - Aircraft N# / Pilot / Pax on board
 - Last Location
 - Time of Last Sat Track report
 - Latitude and Longitude
 - Additional information

OC:	Briefed? Location?	Time contacted	Initials
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Start and maintain an emergency log using computer or legal pad. (If you use paper, print clearly so that the information can be typed up after the emergency is over.) Include a time for each event. Include radio calls, phone calls, new information, aircraft dispatched, etc. Assign someone to answer phones if able. Phone person can use the phone log in this packet.

- Try to contact the pilot by phone (land line, cellular, satellite) and other company aircraft that may be near the area. If the guides/pax have a sat phone or radio, you can try calling that as well. Does the guide or any clients on the excursion have a SPOT?

Contact type	Time(s) Attempted	Time Contacted	Results
Coastal/AHI (151.565)			
Coastal (160.140)			
Coastal Repeater (Rx 151.775 Tx 154.515 tone 136.5)			
Sat Phone #			
Other Coastal Aircraft N#:			
CTAF (area frequency) Which Freq used:			
Pilot Cell #			
Pax Cell #			

Call Juneau Flight Service Station and ask them if they have a flight plan for the aircraft, or have any contact with it. Make sure to give Flight Service the entire N# of the aircraft and last know location. After dialing the number press 1 to bypass the menu system.

Name	Number	Time contacted	Initials
Juneau FSS	789-7380		

- Contact local operators (ask to speak with Operations) who may have aircraft near the last known location of the overdue aircraft and ask if they can make contact. Also ask how long it would take them to have an aircraft in the area. OC may have suggestions of who to call first.

Name of contact	Number	Time/Possible ETA	Initials
Temsco	789-9501 If no answer: 723-2405 (Mitch Horton)		
SEABA	314-0445		
Earth Center Adventures	766-3679		
Wings	789-0790 766-2030		
Mountain Flying Service	766-3007		
Air Excursions	789-5591 766-3800		

- **CHECK YOUR TIME - MOVE TO DISTRESS PHASE AT 45 MINUTES AFTER MISSED CHECK IN TIME**

- *Consult with OC* to contact other company management.

Name	Phone	Current Location	Time Contacted	Initials
Michael Wilson General Manager	C 907-209-0845 H 907-500-9003			
Mike Rawson Director of Operations	907-723-3275			
John Garrard (JAG) Chief Pilot	C 907-723-1640 H 907-796-3550			
John Modrow Director Of Maintenance	907-209-9701			
Dustin Carroll Assistant Chief Pilot	907-723-9789			
Adam Kitchen Director of Safety	503-929-9084			

Distress Phase

- Ensure that OC has contacted Bob Berto at this time

Name	Number	Time contacted	Initials
Bob Berto	907-617-1212		

- Contact the FAA Regional Operations Center and report an overdue Aircraft, giving them all available information. They will notify the NTSB and may “conference” them in on your phone call.

Name of contact	Number	Time contacted	Initials
FAA OPS Center	907-271-5936		

- Contact the Alaska State Troopers and give them as much information as they request. Ask them if they are going to contact the U.S. Coast Guard or not. If not, you should call the Coast Guard as well.

Name of contact	Number	Time contacted	Initials
AK Troopers	465-4000 766-2552		
USCG	463-2000		

- Contact Klehini Valley Volunteer Fire Department and let them know we have an overdue aircraft and may need their assistance. Let them know we will keep them advised as the situation changes.

Name of contact	Number	Time contacted	Initials
	767-5550		

- ***OC and OC alone*** will dispatch any search aircraft as necessary. *All search aircraft must be manifested, weight and balanced, and risk assessed as usual.* Coordinate with available personnel to select spotters for search aircraft, and use the “Overdue or Missing Aircraft Search Plan” form in this packet.
- Once the Aircraft is found -
- If the aircraft is found and all is ok, call back each agency or individual you made contact with and tell them that the aircraft has been found. If possible, speak to the same person you spoke with the first time.
- If the aircraft is found and there has been an accident or incident, proceed to the

Accident/Incident section of the EAP

Overdue or Missing Aircraft Search Plan

Aircraft		Pilot	
Assigned Search Route			
Assigned Observer(s)			
Check Points			
Reporting Times			
Lift-off Time		Fuel	

Aircraft		Pilot	
Assigned Search Route			
Assigned Observer(s)			
Check Points			
Reporting Times			
Lift-off Time		Fuel	

Aircraft		Pilot	
Assigned Search Route			
Assigned Observer(s)			

Check Points			
Reporting Times			
Lift-off Time			Fuel

Aircraft			Pilot
Assigned Search Route			
Assigned Observer(s)			
Check Points			
Reporting Times			
Lift-off Time			Fuel

PHONE COORDINATOR

Brief Description of Duties and Responsibilities

Log all phone calls. Be sure to have callers identify themselves first, as media personnel often avoid doing so in order to get more information. If anyone asks you about the incident, say, **“I am sorry, I do not have information regarding the situation, but I can take a message and have someone from management call you back.”**

Date	Time	For	Caller	Message/Event	Initial

OVERDUE AND MISSING HELICOPTER PROCEDURE

- 1. Dispatch air search utilizing additional Coastal helicopter or local operators outlined in EAP with guides and first aid equipment.**
- 2. Notify all agencies listed in EAP that additional Coastal helicopter or local operator has been dispatched in search of missing helicopter, for removal of other groups, and stand-by for possible evacuation of injured.**

AGENCIES

Haines Medical Clinic	766 2521	
Haines Fire Department	766 2115	
Haines Police Department	766 2121	
Alaska State Troopers	766 2552	465 4000
USCG	463 2000	

- 3. When downed helicopter is spotted or flight area is searched, emergency helicopter will notify radio dispatcher that helicopter is either: a.) down, no danger, b.) down and danger/injuries, c.) still missing after complete first stage of air search.**
- 4. Evacuation of injured will be conducted by an emergency helicopter or ski plane with aid of medical support and the police and fire department aiding Alaska Heliskiing staff.**
- 5. If injuries are determined, immediately dispatch Emergency Medical Service (EMS) Paramedics, Wilderness First Responder, or Emergency Trauma Technician to pick up zone for removal of injured to hospital.**
- 6. Notify Haines Medical Clinic if there are any injuries, alert them of numbers of persons that will require treatment and extent of all injuries.**

OVERDUE AIRCRAFT

OVERDUE AIRCRAFT PROCEDURE (Downed or disabled aircraft)

- 1. Guide staff will meet each morning to decide which areas are to be skied. The pilot will select a flight plan for the day's operation and**

- log it with the base.
2. Pilot is to communicate with base every 30 minutes throughout the day's operation to report position and destination.
 3. Pilot will notify base if helicopter will be out of communication for more than 30 minutes and will determine a check-in time.
 4. Attempts to contact the helicopter by base should be made whenever the contact interval reaches 30 minutes unless the pilot has made other arrangements with base.
 5. Overdue Aircraft Alert (OAA) Stage 1 "Alert Phase" will exist when 10 minutes has elapsed since last communication or since last pre-arranged communication.
 6. Steps taken by base manager during (OAA) Stage 1:
 - a. Contact agencies listed in EAP
 7. An OAA Stage 2 "Distress Phase" will exist when 45 minutes has elapsed since last communication.
 8. Steps taken by base manager during OAA Stage 2:
 - a. Dispatch search aircraft along overdue aircraft's intended flight path with guides, first aid equipment, and SKED.
 - B. Inform EMS Captain to dispatch a hasty search team along intended overdue aircraft's flight path.
 - C. Inform agencies listed in EAP that a search is underway.
 - D. Organize and dispatch search team comprised of Alaska Heliskiing's personnel. Search team shall attempt to remain in radio contact with the base station at all times
 9. An OAA Stage 3 "Recovery Phase" will exist when the downed or disabled aircraft has been located.
 10. Steps taken during OAA Stage 3 by base manager:
 - A. Dispatch medical personnel to pick up zone for transport.
 - B. Notify hospital staff to ready emergency room facilities.

OVERDUE AIRCRAFT PROCEDURE FOR IN FIELD GROUPS

If after 30 minutes, the helicopter has not contacted the base station, then the base station alerts guides in the field and asks them for information and to hold position.

If in field group arrives at pre-determined pick up zone and the helicopter does not arrive in thirty minutes:

- A. Guide attempts radio contact with base.
- B. If radio contact is unsuccessful, then guide leads group out on pre-determined escape route when the guide has determined it is necessary to leave the field. Radio communication with other in-field guides, and base station shall be attempted as group proceeds.
- C. Group continues out to pre-arranged pick-up point and waits for transport out.
- D. NOTE: The first priority is to get stranded groups out. However in the event that a group makes visual or audio contact with downed or disabled aircraft, then the guide shall organize a rescue using available personnel.

GUIDE SERVICE RESPONSIBILITY

GUIDE REQUIREMENTS

Alaska Heliskiing, LLC will provide a staff of skilled professionals to promote and assure the safety of their customers, and will continue development of the backcountry skiing program.

Each guide is considered qualified to the standards accepted by the Alaska Heliskiing Guide School, exhibiting sound judgment and temperament. Guides are assigned specific jobs (i.e. avalanche forecasting, weather observations, equipment manager, etc) and are cross-trained in all other areas. Guides will have experience in the following skills:

1. **Avalanche Safety:** All guides will be knowledgeable in observing and compiling all weather and avalanche information including snow pit analysis and avalanche activity. All guides will professionally participate in daily avalanche forecast discussions. Apprentice guides will be certified in AVY 1, Guides will be certified in AVY 2, and all Lead Guides will be certified in AVY 3. All guides will be familiar with the use of avalanche beacons and avalanche bags and be able to train guests on how to use them. Guides will inspect this equipment and be sure it is functioning properly, including disarming avalanche bags prior to being loaded into helicopter and making sure customers re-activate avalanche bags prior to entering a slope. **Alaska Heliskiing guides will, to the best of their knowledge, choose ski areas that are not being currently used by other backcountry skiers in order**

to reduce the risk of avalanche danger in that area.

- 2. Avalanche Remediation: All guides will be knowledgeable in the procedures adopted by Alaska Heliskiing, LLC in the remediation of avalanche activity including cornice cutting, ski cutting, and belayed ski cutting.**
- 3. Avalanche Rescue: All guides will be knowledgeable of the standard operating procedures for rescue of an avalanche victim. Guide qualifications include client education and instruction regarding transceiver use and avalanche rescue techniques.**
- 4. First Aid: All guides and apprentice guides will be required to maintain a minimum of WAFA and CPR. All lead guides will be required to maintain a minimum of WFR or OEC and CPR. They will also be capable of transporting a victim in a SKED to be evacuated from the backcountry.**
- 5. Ski Instruction: All guides will be knowledgeable in current techniques of ski and snowboard instruction. They will have been a ski instructor or exhibit an equivalent professional ability. They will be able to select ski runs suitable to the guest ability.**
- 6. Mountaineering: All guides will be knowledgeable in high angle rescue techniques, cold weather survival techniques, basic high altitude and cold weather illnesses, mountain weather, and route selection. They will be thoroughly familiar with all skiing areas and escape routes when evacuation is deemed necessary.**
- 7. Radio Communication: All guides will be familiar with all radio equipment and protocols used in this operation and will carry an FM radio while in the backcountry. All guides will be trained in the use of flight following procedures and radio use in the field.**
- 8. Helicopter Safety: All guides will be familiar with all helicopters used in this operation. They will instruct guests in the safety rules and procedures to be followed.**
- 9. Backcountry Safety: All guides will be knowledgeable of skiing and riding rules and procedures to be used in safely guiding skiers through the backcountry.**
- 10. Ground Control: All guides will be trained in the management of the scene at base of operations including flight following, fueling of helicopters, maintaining group control and proper staging areas. All guides will be familiar with the problems that may develop on the**

ground before and after helicopter skiing.

- 11. Guides are familiar with the general human and natural history of the Haines area.**
- 12. Guide trainees are required to possess an expert ski ability. As a guide trainee, he/she must ski various types of snow to enhance his/her skiing ability. During training periods, he/she must ski natural snow conditions on high angle slopes with a guide pack for extended periods of time. A large pack will alter even expert skiers ability. Only through extensive field experience, can a guide trainee be qualified to guide backcountry ski tours. Guide trainees also will be able to give the customer their required helicopter safety briefing, backcountry skiing briefing, and training in the use of avalanche transceivers. They will also be familiar with the inspection and maintenance of rental equipment, especially avalanche airbags.**

GUIDES

Guides will be required to carry the following safety equipment with them at all times:

GENERAL EQUIPMENT

VHF and Motorola radio, whistle, water, food, compass, topographical maps, field log notebook, two pencils, headlamp, two candles, water proof matches or lighter, fire-starter, wood saw, extra survival food, extra layer, extra batteries, watch, chalk, flagging, and camera.

REPAIR EQUIPMENT

Multi-tool, duct tape, and zip ties or bailing wire.

AVALANCHE EQUIPMENT

Avalanche transceiver, avalanche airbag, probe, large metal shovel, snow saw, snow study kit, cornice cutting cord.

RESCUE EQUIPMENT

Guides will carry appropriate equipment to build mechanical advantage raising systems up to a 9:1, as well as a minimum 30 meter 7mm or larger rope.

AVALANCHE SAFETY PLAN

AVALANCHE FORECASTING

Extensive data input from many sources is required to make an effective summation of the potential hazard of avalanche danger within any area. These include snow pit studies, weather forecasts, actual local weather, snow observations, and land topography observations. Alaska Heliskiing, LLC provides local information provided by the internet, utilizing many weather websites to interpret local weather patterns and flight planning schedules within the Haines area.

At the end of each days field activities, each guide will fill out a snow stability worksheet and participate in an evening guides meeting to share all observations from the day. The snow safety director will collect these documents and utilize this information to generate the following days forecast. These documents will then be compiled for future reference and documentation.

Weather reports will be obtained in order to interpret a better understanding of the relationship between the snow pack and current/previous weather factors. Information will be gathered on a daily basis and in the following manner.

- 1. Check daily weather forecasts from the Internet and flight advisory.**
- 2. Observing snow and weather, conducting snow pit surveys regularly, and gathering weather data will enable guides to determine avalanche hazard forecasting.**
- 3. Determine area of operation for each day of ski use.**
- 4. Slope selected for skiing day will be carefully studied for avalanche danger**
- 5. Determination as to the safety of the area will be made before skiing is permitted. If it is felt that the area is unsafe after observation or control efforts are completed, skiing will not be allowed.**
- 6. Each guide in the field will complete a snow stability worksheet and participate in evening guide meetings.**

AVALANCHE SAFETY EQUIPMENT

- 1. Each guide and guest will have an avalanche beacon, warning whistle, shovel, and probe. Avalanche bags will be available for rent for guests and required for guides.**
- 2. Hasty Search Equipment:
This includes each guide and client's rescue gear in the field**
- 3. Extended Search Equipment: (located in helicopter)
Avalanche Markers, Rescue plan and job descriptions, Recco.**

4. **Medical Pack (located in helicopter)**
Resuscitator, Oxygen, Severe bleeding and trauma kit, Fracture Pack, Cervical Collars, Oregon Spine Splint, Sked.
5. **Avalanche Rescue Cache Equipment (located at base station)**
Probes, Shovels, Water, Food, and Overnight pack, Recco.

Chain of Command and Communication Diagram

It is important during any sort of accident to set up a chain of command and a pattern or system for maintaining documentation and communications for the purpose of achieving timely rescues. In addition, having a system in place that can be practiced during training seminars means that guides and the staff of Alaska Heliskiing have a format to follow during training and actual rescues.

RESCUE PERSONNEL

Medical Support

Law Enforcement

Air Support

RESCUE LEADER

Public Relations

Dispatcher

Scribe

SITE COMMANDER

Scribe

Stage 1

Stage 2

Stage 3

Column Leaders

Medical Leader

**Evacuation Leader
Support Leader**

RESCUE LEADER (Overall Coordinator)

- **Dispatches equipment and personnel for all stages of rescue.**
- **Notifies via base station medical personnel, Haines Borough, DNR, law enforcement, and public relations people.**
- **Delegates' responsibilities in order to remain free to make major rescue decisions and appoints a scribe to document the rescue.**

SITE COMMANDER (First guide on the scene)

- **Gather and organize witness reports**
- **Decides where to search and organizes personnel**
- **Relays witness report information to dispatcher and rescue leader as soon as possible.**

COLUMN LEADER (Guides and experienced personnel)

- **Forms rescue volunteers into groups and organizes their efforts as directed by rescue leader.**

DISPATCHER (Trained Alaska Heliskiing, LLC personnel)

- **Coordinates communication at base station**
- **Keeps written log of all proceedings and transmissions including times, areas, and dates.**
- **Organizes Stage 2 and Stage 3 of the rescue operation with rescue leader.**
- **Coordinates dispatch and return of volunteer searchers.**

- **Keeps records of avalanche victims, names, addresses, phone numbers, and pertinent accident records.**

Qualified rescue leaders and site commanders are kept on file at the base office.

THREE STAGE RESCUE PLAN

STAGE 1

- A. Purpose: To locate victim as soon as possible using heliski groups already in the field.**
- 1. Site Commander will post an avalanche guard and take eyewitness reports. He will note the point of entry, point of capture, and last seen point of victim(s). Using this information the group will then conduct a hasty beacon rescue search.**
 - 2. All skiers will be equipped with avalanche transceiver. Alaska Heliskiing, LLC avalanche transceiver frequencies are compatible with frequencies of beacons used by ski patrols and search and rescue teams.**
 - 3. Pilot or guide will deliver additional search and medical equipment to the avalanche site.**
 - 4. Additional skier groups will be assigned duties by the site commander, as he deems necessary. Each guide will supervise the execution of these duties by his group.**
 - 5. Rescue leader will handle all ground and logistical aspects of rescue from base of operations or mobile base.**
- B. Equipment**
- 1. Hasty Pack (Guides and clients equipment)**
 - 2. Overnight Pack**

3. **Medical Pack**
4. **Crevasse rescue pack**

STAGE 2

- A. **Purpose: To provide essential medical personnel and equipment to treat and transport victim(s), and to supply additional rescue manpower.**
 1. **Revival and evacuation team is transported to the site.**
 2. **Medical personnel are transported to scene along with toboggans, blankets, sleeping bags, tent, stove, etc.**
 3. **Volunteers (guide Trainees or other experienced mountain types) are requested from local residents and service groups by base station. Names, addresses, and phone numbers of available volunteers in community are kept on file at the base office.**
- B. **Equipment**
 1. **Avalanche rescue cache**
 2. **Medical supplies and rescue equipment of assisting agencies**

STAGE 3

- A. **Purpose: Continuous support for the rescue operation**
 1. **Support group volunteers are transported to avalanche site.**
 2. **Transportation of hot beverages, food, warm clothing, and illumination equipment is organized.**
- B. **Equipment**
 1. **Additional equipment from volunteer groups.**

AVALANCHE RESCUE PLAN

Alaska Heliskiing, LLC will be responsible for all rescue operations incurred by its guide service activities. Where and if an avalanche does bury a skier, the standard three stage format will be followed. The manager or lead guide, and then followed by order of experience, will be the rescue leader.

ALARM

- A. The alarm will originate with the guide in the immediate area, or the helicopter pilot.**
- B. The guide who initiates the report will be the site commander.**
- C. The helicopter pilot will insure that Alaska Heliskiing, LLC base of operation or mobile base and all guides in the field are notified of the alarm.**
- D. The site commander will immediately evaluate any further danger from avalanches. If any avalanche danger remains, they will determine the best course of action concerning rescue safety. Client evacuation is of primary concern.**
- E. After remaining clients have been evacuated, a control team will control that area to insure safety to the rescue team.**
- F. If the site commander evaluates that there is no additional avalanche danger, he will immediately initiate an avalanche transceiver rescue procedure and quickly search with his group for the buried victim.**
- G. The helicopter pilot will deliver overnight pack and medical equipment to the site commander.**

DAILY OPERATIONS

- 1. Daily operation consideration for areas to be skied**
 - A. Each morning the guide staff will collect the following data from the Internet.**
 - 1. Most recent and present weather conditions.**
 - 2. Present temperature.**
 - 3. Total precipitation for the last 24 hours.**
 - 4. Maximum and minimum temperatures for the last 24 hours.**
 - 5. Wind speed and direction.**

6. **Maximum and minimum wind speed for the last 24 hours.**
 7. **Barometric activity.**
- B. The guide staff will then select the areas to be skied and consult the following: (to be kept on file at the office).**
1. **Run profiles**
 2. **Run control plan**
 3. **Snow pack and structure chart**
- C. A stability evaluation will be made using the following criteria:**
1. **Previous snow cover and conditions**
 2. **Current and past avalanche conditions**
 3. **Snow pack structure**
 4. **Local meteorological measurement**
 5. **Weather Service information**
 6. **Ski tests**
- D. If necessary, avalanche control teams will be discharged to implement appropriate avalanche control measures. If the conditions are not safe the area will not be skied.**
1. **Before skiing, make sure all transceivers are transmitting and avalanche airbags have been activated.**
 2. **Wear avalanche transceiver secured and inside clothing.**
- E. Avalanche Search Instruction**
1. **Initiate communication to implement rescue plan.**
 2. **Switch beacons to receive**
 3. **Systematically search likely catchments areas, by slowly moving down the mountain in parallel lines forty feet apart. Follow beacon indicator signals to locate buried transceiver.**
 4. **Mark spot of likely buried transceiver by bracketing over the strongest signal.**
 5. **Use avalanche probe to determine exact location of victim before digging.**
 - * **Begin excavation of victim by digging down slope of probe strike.**
 - * **After locating victim expose airway and initiate necessary first aid.**

- * **Secure the victim/scene and determine the field exit strategy.**

FIRST AID

Life threatening situations may at some time confront us in our backcountry skiing adventure. Preservation of life being of primary concern, Alaska Heliskiing, LLC is ready and qualified to deal with such situations. All lead guides will hold at minimum a Wilderness First Responder or Outdoor Emergency Care certification and a current CPR certification. All Guides and Apprentice guides will hold at a minimum a Wilderness Advanced First Aid certification and current CPR certification. Efforts will be made to keep current with new developments and techniques in the field of first aid. These qualifications along with past experience in first aid will enable Alaska Heliskiing, LLC to cope with an emergency in the backcountry as efficiently and professionally as possible.

FIRST AID PLAN

There will be a standard operating procedure familiar to all guides concerning the evacuation of victims from the backcountry. All guides will carry extensive first aid equipment.

- A. Guide will notify the pilot, other guides, and dispatcher at Alaska Heliskiing, LLC base of an accident, if necessary.**
- B. The guide at the accident site will take appropriate first aid action, if necessary.**
- C. The helicopter will fly the extra medical equipment and deliver it to the accident site.**
- D. After First Aid has been applied, the victim will be moved to the nearest safe pick up zone, using the SKED, if necessary, to be air-lifted out of the backcountry.**
- E. If necessary, the victim may be transported directly to Haines Medical Clinic or Bartlett Regional Hospital in Juneau for treatment provided that other groups will not be left stranded in the backcountry.**

- F. If circumstances warrant, the guide will accompany the victim to the hospital. A stand by guide would remain with the group for the duration of the day. The group will never be left unattended in the field.**
- G. A formal accident report will be completed at the base by the guide.**
- H. All equipment used will be logged for replacement and recovery to maintain a running inventory of supplies.**

FIRST AID SAFETY PLAN

- A. Equipment and location**
 - 1. Guide pack first aid equipment (to be carried with each guide at all times)**

Airway, Pocket mask, Wire splint, Safety pins, Triangular bandages, Band-aids, Butterflies, 4x4 gauze, Non-stick pads, Kling: 4"x5yds, Roller gauze 4"x5yds, Tape, Scissors, Space blanket, Sugar packets and hard candies, Tongue depressors.
 - 2. Medical Pack (located in helicopter)**
 - 3. Evacuation Kit (located in helicopter)**
- B. First Aid Procedure**
 - 1. In the event of an accident, injured person or witness will notify guide of accident.**
 - 2. Guide shall notify pilot of the accident, extent of injury, and exact location.**
 - 3. Pilot will relay this information to base.**
 - 4. Guide shall instruct his group to remain where they are as he administers first aid to the injured party.**
 - 5. Procedure for injured skier still capable of skiing under his own power.**
 - A. Skier will ski to helicopter pickup zone under guide**

supervision.

- B. Injured skier will then be flown to base and transported to Haines Medical Clinic.**
 - C. Guide will record pertinent information in route and fill out formal reports at base.**
- 6. Procedure for injured skier who must be transported by SKED to the helicopter pick up zone.**
- A. Guide will radio helicopter to obtain necessary first aid equipment.**
 - B. SKED will be transported to scene directly by helicopter or by another guide skiing it to the scene.**
 - C. Guide will prepare person for transport and secure victim into SKED.**
 - D. Injured skier will then be transported to the pick up zone and flown to base for transport to medical facilities. An injured skier may be flown directly to medical facilities if other groups will not be stranded in the field.**
 - E. Guide will record pertinent information in route and fill out formal reports at base.**
- 7. When a hurry situation (Code 2 or Code 3) exists:**
- A. Base station will notify Hospital.**
 - B. Pilot will drop medical pack and evacuation kit at the accident site.**
 - C. Guide will be notified of situation and location to transport patient.**
 - D. Any guide on the hill above the accident site will take his group to the scene or designated Alaska Heliskiing, LLC personnel will be flown to the site to assist in the first aid.**
 - E. Assisting guide will take command of both ski groups while attending guide flies to base to be transported to**

hospital with injured party. Guide will record pertinent information in route and fill out formal reports at base.

- F. Helicopter and guide will immediately return to the field once the injured party is turned over to further advanced care with report to the hospital.**
 - G. Formal accident reports will be filled out at the base.**
- 8. Helicopter may act as a direct air ambulance to Haines Medical Clinic or Bartlett Regional Hospital in Juneau in all accidents that require it as long as other groups will not be stranded in the backcountry.**

RADIO COMMUNICATIONS

Alaska Heliskiing, LLC will be using many forms of electronic equipment for communications and avalanche safety. We will be utilizing a system of VHF radios for direct use between base station, mobile base, other guides, and helicopter. All guides, pilots and guests will be carrying avalanche transceivers.

This system of communications will enable us to monitor the conditions for hazard and prevent possible dangerous situations. All guides are experts in the use of avalanche transceivers and all guest are trained how to use them.

BACKCOUNTRY SKIING RULES

- 1. You will carefully follow and obey all signals, and commands from your guide.**
- 2. Your guide will instruct you on where, how, and when to ski.**
- 3. If you don't understand something, make sure to ask your guide.**
- 4. Groups will ski only areas specifically designated by your guide.**
- 5. Always use the buddy system and always watch the other members of your group.**
- 6. If someone is injured, notify your guide immediately, and make note of the accident and nature of the injury.**
- 7. If you should fall and are not hurt, please wave your right hand or ski**

pole.

8. **If you should find yourself lost, immediately backtrack to the last point of contact with your group or stay put and wait. Your guide and helicopter will find you.**
9. **Do not assume that because a slope has been controlled and skied that it cannot avalanche.**
10. **Each skier should enter a slope cautiously, and ALWAYS AVOID TRAVERSING onto slopes.**
11. **Never ski below your guide unless told to do so. Always stop above him/her. He/she could be standing directly above a hazard.**
12. **When stopping mid slope use islands of safety.**
13. **Always feel free to report any areas of concern including snow failure observations to your guide.**
14. **If you are caught in an avalanche, make swimming motions and try to stay on top while working your way to the side of the avalanche. As you come to a stop, get your hands and arms in front of your face and make an air space. Remain calm.**
15. **If your guide has been caught in an avalanche, establish communication with other groups and initiate a rescue. Turn transceiver to receive.**
16. **Once an avalanche victim has been recovered, check for airway obstructions, respirations, and a pulse. Determine extent of injury and administer first aid as required.**

HELICOPTER SAFETY RULES AND INSTRUCTIONS

1. **Be alert at all times around the helicopter.**
2. **You will carefully follow your pilots and guides instructions**
3. **If you don't understand something, make sure you ask your guide or pilot.**
4. **Do not attempt to retrieve anything loose while loading or unloading.**

- 5. Prior to being picked up by the helicopter, secure your ski poles and skis as one unit then drag your skis or snowboards by the tips to the loading zone.**
- 6. Do not hold your skis or snowboard in an upright position at any time in the loading zone.**
- 7. The loading and unloading zone is 30 feet in diameter from the center of the helicopter.**
- 8. Prior to the helicopter landing, crouch low, keep your eyes on the helicopter and your guide, and wait until your guide has directed you to board the helicopter.**
- 9. Your guide will load and unload the skis at all times.**
- 10. Always approach the helicopter from the front, in view of the pilot. Follow your guides or pilots hand signs and directions at all times.**
- 11. Never approach the rear of the helicopter, stay in front of the basket and clear of the tail rotor at all times.**
- 12. Do not touch the helicopter during landing or takeoff. Your guide or pilot will open and close all doors, unless they specify a door handler.**
- 13. Do not load into helicopter until instructed to do so, when boarding the helicopter, don't kick the helicopter to knock snow off your boots.**
- 14. After boarding the helicopter, fasten your seat belts and remain seated until you are directed to move by your guide or pilot. Help your fellow customers fasten their seatbelts. Do not touch the pilot!**
- 15. During take offs and landings please remain seated and QUIET!**
- 16. When exiting the helicopter, make sure that your seat belts are fastened and inside the helicopter.**
- 17. While exiting the helicopter watch your guide's signals. Stay low at all times and move to where your guide has placed his pack. Wait until the helicopter has departed.**

DAILY REPORT FORM

GUIDE SIGNATURE _____

DATE _____

HELICOPTER _____ **PILOT** _____

HOBBS _____

TOTAL WEIGHT OF PASSENGERS AND EQUIPMENT _____

FLIGHT ROSTER AND GUIDE EVALUATION

NAMES					
SNOW					
SLOPE					
ATTITUDE					
PERSONAL					
ABILITY					
SKI/BOARD					
D					
WEIGHT					
CLASS					
HOBBS					

*****Use the following terms when completing the flight roster and guide evaluation table.**

- NAMES:** You must enter first and last names!!
- SNOW:** Hard Pack, Wind Slab, Powder, Crust, Variable, Other
- TERRAIN:** Intermediate (30-35), Advanced (35-45), Expert (45+)
- SLOPE:** Enter Slope Angle
- ATTITUDE:** Cautious, Confident, Aggressive, Other
- PERSONAL:** Needs Attention, Average, Helpful, Other
- ABILITY:** Intermediate, Advanced, Expert

SKI/BOARD: Ski, Telemark, Snowboard, Other
WEIGHT: Enter Total Weight of client with all gear and equipment
CLASS: TO BE FILLED OUT BY OPERATIONS MANAGER
HOBBS: TO BE FILLED OUT BY OPERATIONS MANAGER

ADDL COMMENTS

DAILY REPORT FORM CONTINUED

GUIDE LOG (General Observations from each area skied)

LOCAT ION	AREA	#RUNS	SNOW	SLOP E	VERT	BLOC K	DEPT H	WEAT H

***Use the following terms and descriptions when completing the guide log.

- LOCATION:** Enter the name of the run that was skied
- AREA:** Enter the name of the zone that was skied
- #RUNS:** How many runs did your group make in this location
- SNOW:** Hard Pack, Wind Pack, Powder, Tricky, Variable, Other
- SLOPE:** Enter Slope Angle
- VERT:** Enter Vertical Feet Skied
- *BLOCK:** Enter Value 1-7 From Block Test and Q value 1-3 for shear quality
- DEPTH:** Enter the depth of snow where stability failure occurs.
- WEATHER:** Sunny/Cold, Sunny/Warm, Cloudy/Cold, Cloudy/Warm, Snow/Cold, Snow/Warm

Snow Observations Worksheet

Signature: _____

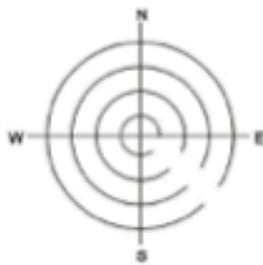
Locations: _____

Date _____

Time range _____

Observers _____

Stability by aspect and elevation



Notes: _____

Overall stability rating:

Very Poor Poor Fair Good Very Good

Variability:

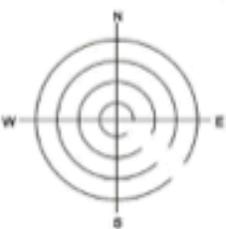
Low ++++++High

Confidence:

Low ++++++High

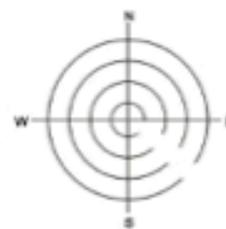
Examples:
 SS-Soft Slab
 HS-Hard Slab
 WS-Wet Slab
 WL-Wet Loose
 L-Loose

Avalanche Activity



Type _____ Size R _____ D _____
 Trigger _____ Elevation _____

Stability Tests performed



Aspect _____ Elevation _____
 Incline _____ Tot depth _____
 Location _____

Snow Surface

N _____
 N _____
 NE _____
 NE _____
 NW _____
 NW _____
 E _____
 E _____
 W _____
 W _____

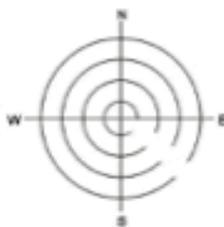
Examples:

Smooth _____
 Ripples _____
~~Stratified~~ _____
 sun cups _____
 Rain _____
 New Snow +
 Decomposing
 fragments /
 Crusts V
 Surface Hoar V

Weather:

Time _____	Location _____	Aspect _____	Elevation _____	Wind speed _____
Wind dir _____	Blo sno Y / N _____	Precip _____	T°air _____ T°surf _____ T°20 _____	Comm _____
Time _____	Location _____	Aspect _____	Elevation _____	Wind speed _____
Wind dir _____	Blo sno Y / N _____	Precip _____	T°air _____ T°surf _____ T°20 _____	Comm _____
Time _____	Location _____	Aspect _____	Elevation _____	Wind speed _____
Wind dir _____	Blo sno Y / N _____	Precip _____	T°air _____ T°surf _____ T°20 _____	Comm _____
Time _____	Location _____	Aspect _____	Elevation _____	Wind speed _____
Wind dir _____	Blo sno Y / N _____	Precip _____	T°air _____ T°surf _____ T°20 _____	Comm _____

Hazard by elevation & aspect



Comments: _____

Current hazard Observation:

Low Moderate Considerable High Extreme

Variability:

Low ++++++High

Confidence:

Low ++++++High

DAILY CHECKLIST

This daily checklist is the responsibility of the base manager. He/She must see to it that these duties are accomplished and may appoint available guides to aid him/her with these tasks.

FOR EACH CLIENT

Has Everyone Signed The Liability Release Forms?

Has Everyone Had and Signed a Pre-Flight Briefing?

Does Everyone Have an Avalanche Transceiver In Good Working Condition? If they rented equipment is it functioning properly?

Does Everyone Have a Shovel, Probe, and Backpack?

Does Everyone Have a Harness?

Does Anyone Need Ski Gear?

Has Everyone Received an Avalanche Transceiver Drill and Search Practice?

Has everyone received a Helicopter Safety Briefing and Backcountry Safety Briefing?

FOR EACH GROUP

Fill Out A Flight Manifest With Weights

Gear Check functioning properly

Avalanche Transceiver Check

Radios For Each Group

IN HELICOPTER

SKEDCO

FRACTURE PACK

OXYGEN KIT

EXTRA SKI POLE

DAILY OPERATIONS

Provide Flight Following Service

Provide Ground Service For The Fueling Of Helicopters And Mobile Communications.

Public Relations: Organize delivery of Anything From Food To Rescue And Survival Gear into The Field. (During an incident no comment will be made to the public.) Your job is to document the events, and follow the procedures located in the Alaska Heliskiing Safety Plan.

POST TRIP

**Fill Out Daily Report Forms For Each Group At End Of Day Guide Meeting.
Fill Out Snow Observation Reports For Each Group At End Of Day Guide Meeting.**

Participant agreement, release, and acknowledgement of risks

In consideration of the services of Alaska Heliskiing, LLC, their agents, owners, officers, volunteers, participants, employees, and all other persons or entities acting in any capacity on their behalf, on behalf of myself, my children, my parents, my heirs, assigns, personal representative, and estate as follows:

1. I acknowledge that heliskiing entails known and unanticipated risks, which could result in physical or emotional injury, paralysis, death, or damage to myself, to property, or to third parties. I understand that such risks simply cannot be eliminated without jeopardizing the essential qualities of the activity. The Risks include, among other things: Helicopter skiing is usually accompanied by beautiful mountain scenery. Those same beautiful mountains pose a risk of avalanches. Avalanches may be caused by natural forces including steepness of slopes, snow depth, instability of snow pack or changing weather conditions, Alaska Heliskiing, LLC or its staff may misjudge whether the terrain is safe for skiing, or where or when an avalanche may occur. The natural beauty of the mountainous area used for heliskiing sometimes hides dangerous obstacles. Those obstacles may be hidden by snow and include, but are not limited to crevasses, ice and snow cornices, tree wells, tree stumps, creeks, rocks and boulders, a forest deadfall, holes and depressions below the snow surface, and varying and difficult snow conditions. These areas may not have been skied previously and are not regularly patrolled. Skiers may become lost or separated from their skiing guides or skiing companions by skiing in forested areas, wild rugged terrain or bad weather. Communication in this mountain terrain is always difficult and in the event of an accident, rescue and medical treatment may not be immediately available. Furthermore, Alaska Heliskiing, LLC guides have difficult jobs to perform. They seek safety, but are not infallible. They might be ignorant of a participant's fitness or abilities. They might misjudge weather, the elements or terrain. They may give inadequate warnings or instructions, and the equipment being used may malfunction.

2. I expressly agree and promise to accept and assume all of the risks existing in this activity. My participation in this activity is purely voluntary, and I elect to participate in spite of the risks.

3. I hereby voluntarily release, forever discharge, and agree to indemnify and hold harmless Alaska Heliskiing, LLC from any and all claims, demands, or causes of action, which are in any way connected with my participation in this activity or my use of Alaska Heliskiing, LLC equipment or facilities, including any such claims which allege negligent acts or omissions of Alaska Heliskiing, LLC.

4. Should Alaska Heliskiing, LLC or anyone acting on their behalf, be required to include attorney's fees and costs to enforce this agreement, I agree to indemnify and hold them harmless for all such fees and costs.

5. I certify that I have adequate insurance to cover any injury or damage I may cause or suffer while participating, or else I agree to bear all the costs of such injury or damage to myself. I further certify that I have no medical or physical conditions, which could interfere with my safety in this activity, or else I am willing to assume and bear the costs of all risks that may be created, directly or indirectly, by any such condition.

6. In the event that I file a lawsuit against Alaska Heliskiing, LLC I agree to do so solely in the State of Alaska, and I further agree that I am bound by the substantive law of the state of Alaska, and if any portion of this agreement is found to be void or unenforceable, the remaining portions shall remain in full force and effect.

By signing this document, I acknowledge that if anyone is hurt or property is damaged during my participation in this activity, I may be found in a court of law to have waived my right to maintain a lawsuit against Alaska Heliskiing, LLC on the basis of any claim from which I have released them herein.

I have had sufficient opportunity to read this entire document. I have read and understood it, and agree to be bound by its' terms.

Signature of participant _____

Print

Name _____

Address _____

E-Mail _____ Phone _____ Date _____

Parents or guardians additional indemnification (must be completed for participants under the age 18)

In consideration of _____ (print minors name) ("Minor")

being permitted by Alaska Heliskiing, LLC to participate in activities and to use its equipment and facilities, I further agree to indemnify and hold harmless Alaska Heliskiing, LLC from any and all claims which are brought by, or on behalf of Minor, and which are in any way connected with such use or participation by Minor.

Parent or Guardian _____ Print Name
Date

**COASTAL HELICOPTER SKI AND SNOWBOARDING
RELEASE OF LIABILITY FORM
2016**

I Understand Coastal Helicopters Inc. Is providing a point to point charter only and will not be conducting any guiding for helicopter skiing and/or snowboarding operations.

Once you are dropped off, Coastal Helicopters, Inc. will not be responsible for any injuries incurred once leaving the helicopter and prior to re-boarding the helicopter.

You are encouraged to carry a shovel, emergency locating beacon, and any other rescue equipment you deem necessary when conducting any operations in the mountains.

By signing below, I acknowledge that I have read and understand the statement above and have been adequately briefed on the safety features and how to conduct operations in and around the helicopter.

DATE _____

PRINT NAME _____

ADDRESS _____

SIGNATURE OF PASSENGER _____

**SIGNATURE OF PARENT OR
GUARDIAN**_____

**EMERGENCY PHONE
CONTACT**_____

STATEMENT OF ACCIDENT

Our professional trade association requires us to collect witness statements pertaining to accidents so we may clearly assess how they occur. We use this form to obtain these statements pertaining to accidents so we may clearly assess how they occur. We use this form to obtain these statements, and to obtain information on future accident prevention. Thank you for helping with this matter.

1. Describe the actions leading up to the accident (situations, statements, and actions of guides, pilots, and passengers):

2. Describe the accident

3. Describe the actions following the accident

4. Can you think of any way this type of accident could be avoided in the future?

5. Were sufficient warnings, instructions, and information provided?

NAME _____
ADDRESS _____
SIGNATURE _____ DATE _____

INCIDENT AND ACCIDENT REPORT

NAMED _____
INSURED _____
ADDRESS _____
OFFICE PONE (____) _____ HOMEPHONE(____) _____
CONTACT _____
PERSON _____
INSURANCE POLICY NUMBER _____ EFFECTIVE _____
DATE _____
NAME OF INJURED _____
PARTY _____ AGE _____ GENDER _____
ADDRESS _____
EMPLOYMENT _____
HOME PHONE(____) _____ EMPLOYMENT _____
PHONE(____) _____
ACTIVITY PARTICIPATING _____
IN _____
DATE OF _____
INJURY _____

DESCRIBE THE EXTENT OF INJURY

DESCRIBE THE INJURED'S MENTAL STATUS
CONFUSED _____ CALM _____ PANICKED _____ AGGRESSIVE _____
OTHER _____

DESCRIBE IN DETAIL HOW ACCIDENT HAPPENED

ALLERGIES AND MEDICATIONS

DESCRIBE FIRST AID GIVEN

IS THIS A RE-INJURY OR OLD CONDITION

_____?
ACTIVITY TIME LOST: NONE _____ 1/2 DAY OR
MORE _____ ENDED DAY _____

DESCRIBE EVACUATION

DESCRIBE LOCATION AND ACCIDENT SITE

DESCRIBE WEATHER

AIR
TEMPERATURE _____ WIND _____ PRECIP _____ CLOUDS _____
VISIBILITY _____