



Alaska Avalanche School

Level 1 Pre Course Test

Name _____

Date _____

To better prepare yourself for this course, please complete this test as best as possible before the first day. You can edit this test during the course. On the final day we will go over it together, with help from the instructors. The answers to these questions can be found in your pre-course reading and during the course.

- 1) As you're climbing a slope, you can hardly kick toe holds with your boots. What does this say about the stability of the slope? What other factors would you like to know about? What avalanche problem(s) could you be dealing with that involve this hard snow?

- 2) Eight inches of low density snow has recently fallen in the area you are riding in. The snow pack is right side up, and stability is good. What factors (or what kinds of situations) would tend to make the snow highly unstable within a matter of hours or sooner? Why?

- 3) As you're starting up the mountain to your favorite slope a quarter mile away, the snow around you suddenly goes "WHUMPH." What process is occurring and what does it tell you about the stability of the snow where you're going?

- 4) List four weak layers (or combinations of layers) that contribute to instability within the snowpack.



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- 5) Tomorrow you want to travel into Wonderful Bowl on Mystical Mountain. What are the red flags for unstable snow you should search for? Likewise, what are the main indicators of a stable snowpack? Prioritize each list in order of importance.

- 6) What is the importance of slope angle on the potential for avalanche danger?

- 7) What terrain factors do you consider important in assessing avalanche danger and why?

- 8) A buddy of yours says: "After a new snowfall, it's important to let the snow settle for at least 24 hours, before you travel on steep snow-filled slopes." Is this true or false and why?

- 9) What human factors are you most susceptible to? How might you work toward tackling your current human factors?

- 10) You are traveling in a group of five and one person has just been buried in an avalanche. What is your rescue plan?



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AAS Avalanche Course Gear List

AAS students must be prepared for a variety of challenging conditions during the outside field portions of our courses. Depending on conditions, you may not need or use every single item listed below. Your time outside may fluctuate between periods of inactivity (standing for a demonstration or viewing and discussing terrain and snow conditions) and high activity for backcountry travel to relevant terrain. Courses head out into the field in all weather conditions. Be prepared for snow, rain, wind, sun, arctic temperatures and everything in between.

Please feel free to contact the AAS office if you have any questions about this list. Our AAS office in Anchorage has a small avalanche specialty retail store. **All proceeds for the sale of items at our shop directly support our non-profit mission. Gear we sell is denoted with an asterisk (*).** Our office staff can assist you with the pros and cons of gear on the market to help you find the correct items for the backcountry. We also rent Beacon, shovels, and probes.

Technical Equipment: required for all field portions of the course

- ___ **Beacon***: Digital with direction arrows. **Must be less than 10 years old.** AAS choice: Pieps DSP Sport.
- ___ **Batteries**: Always carry an extra set of Alkaline batteries for your beacon. No lithium or rechargeable.
- ___ **Probe***: Must be at least 240cm. A quality probe will have cable instead of string to hold it together and a quick and easy locking mechanism. AAS choice: BCA Stealth 300 or Black Diamond Quickdraw Carbon (320cm) Probe. Ski pole probes are not acceptable.
- ___ **Shovel***: Must be a metal backcountry avalanche shovel. **No plastic shovels.** Avoid cheap shovels such as brands sold at Costco and Fred Meyer. AAS choice: Black Diamond Evac 7 or BCA B2-EXT.
- ___ **Snow Saw***: Required. AAS choice: G3 Bonesaw.
- ___ **Inclinometer***: Any type. This may be included in a compass, as a swinging weight on a plastic card or bubble type. AAS choice: AAS inclinometer card.
- ___ **Extended Column Test Cord*** 3 meters of 2mm cord with overhand knots every 15 cm.

Rentals: beacon \$15/ course, probe \$10/ course, shovel \$10/course, snowshoes \$10/course

Travel: practice and be familiar with your gear before the course

Note: you can use skis, snowshoes, splitboard or snowshoes combined with snowboard.

- ___ **Skis:** Alpine touring or telemark skis with bindings and skins for uphill travel. Make sure your boots and bindings are sized to match and the DIN is set appropriately.
- ___ **Snowshoes:** They must have metal teeth for ascending and descending steep slopes. AAS choice: MSR Lightning Ascent.
- ___ **Snowboard:** If you bring a snowboard for descents, please bring snowshoes and collapsible ski poles.
- ___ **Split Board:** In combination with a pair of skins for traveling uphill.
- ___ **Skins:** For use with your skis or split-board. Skins are essential for uphill travel. Make sure they are trimmed to your boards and that they work before arriving to your class. AAS choice: Black Diamond Ascension or G3 Alpinist.
- ___ **Ski Poles:** Mandatory for everyone. Everyone needs these for quick tests. AAS choice: Black Diamond Traverse for skier/snowshoe and the Expedition or Compactor for snowboard/split-board.
- ___ **Helmet:** Optional but recommended. Ski or snowboard helmet.
- ___ **Elastic Ski Strap:** Recommended to hold your skis and poles together. Also useful for emergency repair. AAS choice: Voile or Black Diamond ski strap.



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Day Pack Essentials

- ___ **Backpack:** 30 to 45 liters. This needs to be big enough to carry all of your gear inside your pack for the field portions of the course. AAS choice: BCA Stash 40.
- ___ **Lunch Food:** This should be field type food that does not freeze. Bring plenty. There is not typically a designated lunch break. Instead we eat at short breaks throughout the field session.
- ___ **Water Bottle:** 1 liter, or a Thermos. AAS choice: Nalgene 32-oz wide mouth.
- ___ **Sunglasses:** Good to have even in mid-winter as a backup to your goggles.
- ___ **Headlamp:** Bring extra batteries. AAA alkaline to match your beacon batteries.
- ___ **Extra Clothing:** Gloves/mittens and warm puffy jacket. Be prepared for all types of weather: rain, snow, wind or sun.
- ___ **Notebook and Pencil:** To take notes. Bring extra pencils.
- ___ **Goggles:** Recommended.
- ___ **Hand/Foot Warmers:** Optional. These are helpful during blustery cold days.
- ___ **First Aid Kit:** Optional. A small simple kit for blisters and cuts. Ibuprofen, Tylenol, personal prescriptions, etc. Instructors will have a larger kit on hand.

Clothing

Do not bring cotton. It holds moisture and dries slowly leaving the user cold and wet. Synthetic and wool layers dry out quickly and they do not lose their warmth even when damp. A winter environment is conducive to hypothermia, and you will miss out on class time if you are sitting inside because you are cold.

- ___ **Long Underwear Top and Bottom:** Light to mid-weight synthetic or wool.
- ___ **Mid-Weight Top and Bottom:** Polartec or light fleece top. Bottoms for extra cold conditions.
- ___ **Hard Shell Top and Bottom:** Wind and waterproof/breathable with Gore-Tex or equivalent. Pants should fit over boots.
- ___ **Gaiters:** To keep snow out of your boots. Most ski/snowboard pants have these built in.
- ___ **Warm socks:** Synthetic or wool. Make sure they fit comfortable with the boots you will be wearing. A common mistake is to wear two pairs of socks that are too thick, which constricts blood flow and creates cold feet.
- ___ **Warm Hat:** Fleece or wool.
- ___ **Face Mask:** AAS choice: Buff
- ___ **Warm Gloves/Mittens:** Bring a few pairs of varying warmth.
- ___ **Glove liners:** A good combination for with heavy gloves/mittens. Important for warmth when taking notes, packing, etc.
- ___ **Insulated Parka:** Synthetic or down puffy with hood. Your parka should fit over all of your other layers and be warm. This is helpful when standing around outdoors on the field portion of the course. Bring two if it is to be extra cold or if you tend to get cold easily. AAS choice: Patagonia Micro puff or DAS parka, Wild Things Belay Parka.
- ___ **Puffy Pants:** Or puff skirt. Optional. This is a parka for your legs. Good for sub-zero temps. AAS choice: Mountain Hardwear Compressor pant or Patagonia DAS pant.
- ___ **Boots:** Assure they are warm and comfortable enough to stand around in the cold for an hour or more. No leather hiking boots as they are not warm enough. A good pair of boots is essential to being happy outside on cold days. If you have any doubts, spend a day outside in cold temperatures testing them before the course. Please break in your boots to avoid cold feet and blisters.



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Hatcher and Manitoba Notes

- ___ **Sled or Large Backpack:** To haul gear up to the Visitor's Center or Hut.
- ___ **Sleeping Bag:** This should be a medium to light-weight sleeping bag.
- ___ **Sleeping Pad:** The floor is hard.
- ___ **Toiletries:** Toothbrush, toothpaste, deodorant, personal prescriptions, wet wipes, etc.
- ___ **Indoor Footwear:** Sandals, slippers, booties, etc.
- ___ **Earplugs:** Some people snore...

Hatcher and Manitoba Food

Note: Hatcher only has hot and cold water and a microwave. A stove is not available. The fridge is outside the door. Coffee will be provided at both locations! There is NO ELECTRICITY at Manitoba. There is gas stove for cooking. For more information, please visit www.alaskahuts.org.

- ___ **Bowl, Plate, Utensils, etc:** You are required to bring all of your own eating and cooking utensils and supplies.
- ___ **Food:** You are required to bring all of your food for the full three days of the course.
- ___ **Water:** There is clean running water at the Hatcher Pass Visitor Center. Manitoba has river water that some people purify.
- ___ **Potluck Item.** For the end of the first field day.

Required for Level 2 and 3 Courses, Optional for Level 1 Courses

- ___ **Field Data Notebook*:** AAS recommends the Snowpit Technologies Field Notebook.
- ___ **SWAG Book*:** Snow, Weather and Avalanche Observation Guidelines (SWAG):
- ___ **Compass:** Some compasses have an inclinometer built in. AAS choice: Silva Ranger.
- ___ **Mechanical Pencil**
- ___ **Magnifying Lens/Loupe**
- ___ **Crystal Card**
- ___ **Folding Ruler or Marked Probe*:** marked in centimeters



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AAS Equipment Price List

Books

Avalanche Essentials- Bruce Tremper	\$16.00
Avalanche Handbook- McClung & Schaerer	\$20.00
Alaska Factor- Joe Stock	\$25.00
Staying Alive in Avalanche Terrain- Bruce Tremper	\$20.00
SWAG- Snow Weather and Avi Guide	\$20.00
Pit Book- Field Data Notebook	\$29.00

Snow Tools

Inclinometer	\$10.00
Avalanche Pocket Guide	\$9.00
Beacon- Tracker 2	\$240.00
Beacon- Pieps	\$420.00
Probe- Black Diamond- carbon	\$100.00
Shovel- Black Diamond Evac 7	\$80.00
Snow Saw- G3	\$60.00
Crystal Card	\$12.00
ETC Cord	\$5.00
Magnifier- 10 x w/stand	\$20.00
Thermometer	\$25.00

SWAG

T-shirts	\$25.00
Beanies	\$20.00
Trucker Hats	\$25.00
Hoodies	\$45.00
Freezy Freakies	\$40.00

Rental Equipment- Prices are per course or workshop

Beacon	\$15.00
Probe	\$10.00
Shovel	\$10.00
Snowshoes	\$10.00



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Pre-Trip Medical History

Course Date: _____

Name: _____

Age: _____

The environment and physical requirements of courses provided by the Alaska Avalanche School requires that participants be healthy and physically fit. The information provided on this form is held confidentially. Please answer the questions honestly – a history of a medical illness or traumatic injury will not be cause to exclude a participant from a course: however, this information is imperative to properly prepare for any contingencies. In the event you are involved in an accident or medical emergency, your history form will be attached to an incident report and will be passed along to medical personnel. Please alert the AAS staff of any changes that occur prior to the start of your program. If AAS has any follow up questions for you, or if we would like clarification from you, an AAS representative might contact you prior to the start of the course. This is for your health and safety.

Please answer each question and provide explanations as requested.

1) Do you currently have any medical condition for which you are under the care of a medical provider? If yes, please explain.

2) Are you taking any medications for this, either daily or as needed? (include inhalers and over the counter medications).

3) Have you been hospitalized in the last 12 months? If yes, please explain.



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4) If you currently have any of the conditions identified below, please check the box:

- | | |
|---|--|
| <input type="checkbox"/> Epilepsy or a seizure disorder | <input type="checkbox"/> Asthma or chronic respiratory illness |
| <input type="checkbox"/> Diabetes | <input type="checkbox"/> High blood pressure |
| <input type="checkbox"/> Allergies | <input type="checkbox"/> Frostbite or Reynauds |
| <input type="checkbox"/> Cardiac disease (including angina, heart failure, palpitations, rhythm problems) | |
| <input type="checkbox"/> Any other illness or condition that may affect your well-being during this course. | |

If you checked any of the above boxes, please describe your condition below and let us know what steps you take to manage the condition.

5) Please list any allergies to medications or food. Include the reaction you had. Please include food restrictions here.

6) Do you have a regular medical provider? Yes No

Emergency Contact Information:

Name: _____ Phone: _____

Relation: _____ Alternate Phone: _____

If you have any questions about this form – please contact AAS. A senior staff member will address your concerns and if necessary we will forward your questions to our Medical Advisor.

Thank you for your time and assistance.



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Participant Agreement, Release and Assumption of Risk

In consideration of the services of Alaska Avalanche School, their agents, owners, officers, volunteers, participants, employees, and all other persons or entities acting in any capacity on their behalf (hereinafter collectively referred to as "AAS"), I hereby agree to release, indemnify, and discharge AAS, on behalf of myself, my spouse, my children, my parents, my heirs, assigns, personal representative and estate as follows:

- I acknowledge that my participation in an avalanche training course entails known and unanticipated risks that 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: falling, temperature exposure (hypothermia, frostbite, frostnip, sunburn), collision, striking obstructions or other persons, unsafe speed of travel for conditions or experience, equipment failure, failure to wear protective clothing, elevation changes, weather conditions including electrical storms, avalanches and unfavorable snow conditions. Furthermore, AAS employees have difficult jobs to perform. They seek safety, but they are not infallible. They might be unaware of a participant's fitness or abilities. They might misjudge the weather or other environmental conditions. They may give incomplete warnings or instructions, and the equipment being used might malfunction.
- 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.
- I hereby voluntarily release, forever discharge, and agree to indemnify and hold harmless AAS 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 AAS's equipment or facilities, **including any such claims which allege negligent acts or omissions of AAS.**
- Should AAS or anyone acting on their behalf, be required to incur attorney's fees and costs to enforce this agreement, I agree to indemnify and hold them harmless for all such fees and costs.
- 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 the costs of such injury or damage myself. I further certify that I am willing to assume the risk of any medical or physical condition I may have.
- In the event that I file a lawsuit against AAS, I agree to do so solely in the state of Alaska, and I further agree that the substantive law of Alaska shall apply in that action without regard to the conflict of law rules of that state. I agree that if any portion of this agreement is found to be void or unenforceable, the remaining document 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 by a court of law to have waived my right to maintain a lawsuit against AAS 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 I agree to be bound by its terms.

Signature of Participant _____ Print Name _____

Address _____

Phone Number _____ Date _____

EMERGENCY CONTACT

Name: _____ Phone Number: _____

Relation: _____ Alternate Number: _____

PARENT'S OR GUARDIAN'S ADDITIONAL INDEMNIFICATION (Must be completed for participants under the age of 18)

In consideration of _____ (print minor's name) (print minor's name) ("Minor") being permitted by AAS to participate in its activities and to use its equipment and facilities, I further agree to indemnify and hold harmless AAS 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: _____