



# Alaska Avalanche School

## Riding Complex Terrain in Southcentral Alaska

**From the heli, backcountry and ski mountaineering guides at the Alaska Avalanche School.**

**What is Complex Terrain?** Complex terrain has high consequences if an avalanche occurs. It can have terrain traps including cliffs, crevasses, rocks and trees in the starting zone, path and runoff. The result of even a small slab or sluff is serious. A steep powder line is one thing. A steep powder line with high consequences is another.

**Be Humble:** Have you ridden some big lines? Ask this question: was it experience or luck that allowed me to succeed? Alaska mountains are bigger and better than you.

**Be Patient:** Wait until the weather, snowpack and partners align before entering complex terrain. Sometimes these conditions align in November. Other seasons you may wait until April. Complex terrain requires stable snow, stable weather and stable partners. Conditions will align. Don't push Mother Nature.

**Wait Until the Danger Rating is Low:** Low danger doesn't mean no danger, but it does give the okay to consider riding in complex terrain. Keep in mind that low danger and heavy sluffing often go together. Sluffing and skiing with exposure increases risk.

**Don't Mess With Deep Slab:** A deep persistent slab problem means stay away. Deep slabs are difficult to trigger, but when they go, the consequences are not survivable. Like Russian Roulette.

**Bring the Gear:** sometimes all, sometimes just a helmet.

- Helmet
- Self-arrest ski pole (eg. BD Whippet)
- Ice axe: short (50cm) and light with a steel head
- Crampons: aluminum is light and works fine if you avoid rock
- Rope: 30m x 7-8mm for non-glacial applications, 45m x 8-9mm for glacial applications
- Harness: light and simple
- Munter biner: for rappelling and belaying with a Munter hitch
- Cordelette: 6m of 6mm accessory cord tied with a flemish bend. Used for anchors.
- Crevasse rescue kit: 19cm ice screw, V-threader, prusiks, 45-meter rope, biners.

**Learn Simple Mountaineering Skills:** Options open if you have a rope, cordelette and locking biner. Learn old-school techniques like terrain and body belays, ski anchors, Munter Hitch, bowline on a coil and improvised anchors. Learning mountaineering skills takes time—take a class and then practice.

**Learn Glacier Travel Skills:** Falling in a crevasse is bad. Take a glacier travel class from a reputable ski mountaineering guide before venturing onto any glacier in Southcentral Alaska. Like avalanche rescue skills, these basic skills are perishable and need to be practiced each year.



# Alaska Avalanche School

**Use Terrain Progression:** Start your day or trip with smaller warm up runs that have low consequences. If conditions align, then hit the proud line in complex terrain, if it feels right. On extended trips, apply terrain progression to each new zone, and for weather changes.

**Start Early:** You can never start too early, but you can start too late. Starting early allows terrain progression on warm-up runs, in addition to avoiding time-sensitive hazards.

**Look for Reasons to Not Go:** Riding big Alaska lines is the easy part. Turning around is the hard part. A bad gut feeling is a good reason to turn around. You will learn more through turning around than success.

**Find Safe Spotting Zones:** Long Alaska lines often bulge, taking the rider out of view. Take time to find a safe zone: under cliffs, out on spurs, or adjacent ridges.

**Communication:** Alaska runs are long. Have a solid plan before dropping in. Radios help.

**Manage your Sluff:** Ride diagonally down the slope with loose dry avalanches. Don't cross your sluff. Ride spines and ridges that shed the sluff to either side. Take it slow. You're not the pro-skier you think you are.

**Keep Your Guard Up on the Apron:** Don't let your guard down on the apron below the steep terrain. At 35 degrees, the apron can feel low angle, but that is prime avalanche terrain.

**Ski Test Big Lines:** Similar to ski cutting done by ski patrollers, but different. You're not trying to start an avalanche. Rather you're starting the run defensively, with a couple zig-zags, aiming toward your escape route just in case the slope does release. Ski testing can sluff-out loose snow before you get into the high consequence terrain. Ski test on belay if you need more security.