

AVALANCHE PROTECTION FUNDAMENTALS and SKI AREA OPERATIONS – PREWORK

Paul Baugher

These questions are meant to get you to think about you and your ski area's safety and some of your answers will be subjective. First, read the 14-page article Considerations for Avalanche Hazard Reduction at Ski Area (PDF provided.) Then rely on your individual work experience and current knowledge of avalanche protection techniques to answer the questions. There may not be time to review these questions in the workshop due to the length of the Avalanche Protection workshop forecasting problem. Feel free to find me at the school anytime to discuss any of these questions

1. Your avalanche hazard reduction team partner is traveling one at a time in an avalanche path. The visibility conditions are poor. You are about to lose sight of your partner. How will you manage this situation?
2. Your avalanche hazard reduction team has thrown hand charges in the 3 previous paths on your avalanche mitigation route with no results other than craters. You are now preparing to control a north-facing slope. The top of this path appears much more wind scoured than the previous paths. Unfortunately, poor visibility restricts your view to the very top of the path only.

Weather for the past 24 hrs:
Old Surface Hard Crust
New Snow 6"
Wind SW 40-60 mph
Temp range 5° - 10° F

Discuss the following:

- (a) Where would you place explosives and how would you get the charge(s) onto the slope
 - (b) Do you expect to see an avalanche?
 - (c) If so, what type?
 - (d) What are some possible effects of the wind?
 - (e) How does the poor visibility affect your avalanche mitigation efforts and your team's safety?
 - (f) What, if any, snowpack stability is indicated by the lack of avalanche releases with your previous explosive tests?
3. You are at the top of a starting zone about to make your first ski cut of the new season.
List three mistakes you could make.
 4. Do you think the risk of inbounds avalanches can be completely eliminated at your ski area? If yes, how are you doing that? If no, how can you communicate this risk to your skiers?
 5. Generally for buildings and other structures located in avalanche terrain, is it better to choose avalanche mitigation with explosives or engineered protection?
 6. Are skiers more likely to die at a ski area from an inbounds avalanche or as a result of snow immersion?