How to videos: Stability Tests

The **National Avalanche Center** has a great site describing many common stability tests and other essential skills.

Compression Test

One of the most basic stability tests is the Compression Test. It is quick and easy to do, but it only tests a small piece of snow. It is excellent at identifying weak layers in the snowpack and analyzing the balance between stress and strength.

Extended Column Test

Many have asked us to show how to do an ECT since it is quickly becoming one of the most popular and useful tests. The ECT takes a little more time to do over a CT, but provides more information. Specifically it shows you whether or not a failure in the weak layer can propagate, a necessary condition to get an avalanche.

Where to dig?

Choosing a location for a snowpit is not always easy, but consider a few things. Also, it is always a good idea to dig more than one snowpit and keep it quick (no more than 10-15 minutes), Spending a lot of time in one pit doesn't make it better.

What about pits on low angle slopes? Read this paper from the NAC: "The effect of changing slope angle on extended column test results: Can we dig pits in safer locations?"

Snowmobiling - Where to dig?

Just because you're snowmobiling doesn't mean you can dig a quick pit and perform a quick stability test. Besides it's fun to ride around and find a good spot then work to park your sled exactly where you want to dig. Maybe use your track on the first pass to dig half the snowpit!

How to perform a full snow profile with stabilty tests

See how to do a quick stability assessment, then record a full snowprofile. With practice this can be done completely in about 10 minutes. Practice a few times doing everything in the video. As you get good, you can just do the parts that seem most important or relevant.

More and detailed information about this tests and all others can be found in "Snow, Weather, and Avalanches: Observation Guidelines for Avalanche Programs in the United States"