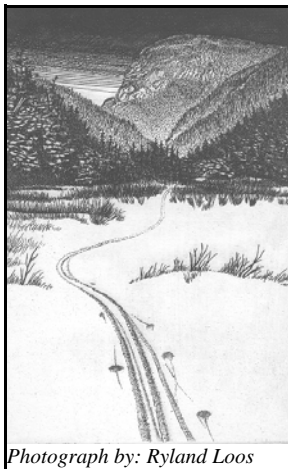


BASIC AVALANCHE AWARENESS

This brochure is designed to let the recreational user know that avalanche danger does exist in New York and gives basic ideas of what to look for and avoid. To learn more about avalanche awareness consider attending professional courses, reading and experience.

1. Know basic avalanche rescue techniques.
2. Check the snow depth.
3. Check how much new snow has fallen.
4. Practice safe route finding.
5. Check the degree of the slope.
6. Check the terrain.
7. Carry basic avalanche rescue equipment.
8. Never travel alone.
9. Let someone know where you are going.
10. Do not be afraid to turn around.
11. Use common sense.



ADDITIONAL RESOURCES

Organizations

U.S. Forest Service Avalanche Center
PO Box 2356
Ketchum, Idaho, 83340
Office Phone: (208) 622-0088
www.fsavalanche.org

Westwide Avalanche Network
www.avalanche.org

American Avalanche Association
www.avalanche.org/~aaap

Books

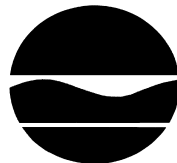
Mountaineering: The Freedom of the Hills
Published by The Mountaineer Books

Snow Sense: A Guide to Evaluating Snow Avalanche Hazard
Published by Alaska Mountain Safety Center, Inc.

Thank You For Your Cooperation

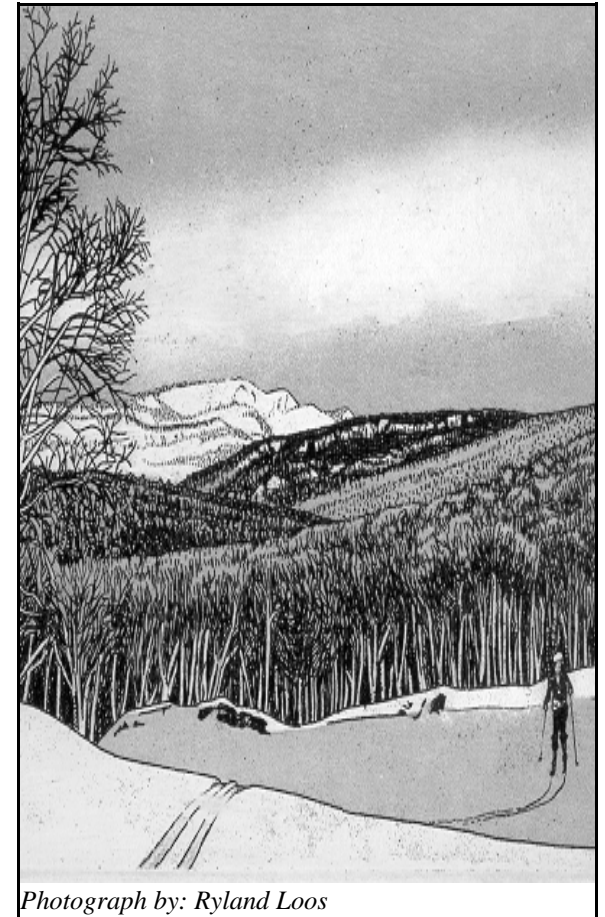
NYSDEC - Region 5
Ray Brook, New York 12977
(518) 897-1200
Emergency Dispatch Number: (518) 891-0235

Visit the DEC Website at
www.dec.ny.gov



New York State Department of
Environmental Conservation

Avalanche Preparedness in the Adirondacks



WHAT IS AN AVALANCHE?

An avalanche is a mass of snow sliding down a mountainside. Avalanches are also called snowslides; there is no difference in these terms.

WHAT CAUSES AN AVALANCHE?

An avalanche occurs when the stress (from gravity) trying to pull the snow downhill exceeds the strength (from bonds between snow grains) of the snow cover. Four conditions must be present for an avalanche to occur.

- ◇ a steep slope
- ◇ a snow cover
- ◇ a weak layer in the snow cover
- ◇ a trigger

WHEN ARE AVALANCHES MOST LIKELY TO OCCUR?

The avalanche danger increases with major snowstorms and periods of thaw. About 2,000 avalanches are reported to the U.S. Forest Service Avalanche Center in an average winter. More than 80 percent of these occur during or just after large snowstorms. The most avalanche-prone months are, in order, February, March, and January. Avalanches caused by thaw occur most often in April.

WHERE DO AVALANCHES OCCUR?

About 90 percent of all avalanches start on slopes of 30-45 degrees; about 98 percent of all avalanches occur on slopes of 25-50 degrees. Avalanches release most often on slopes above timberline that face away from prevailing winds. This is because leeward slopes collect snow blowing from the windward sides of ridges. Avalanches can occur, however, on small slopes well below timberline, such as gullies, road cuts and small openings in the trees. Very dense trees can anchor the snow to steep slopes and prevent avalanches from starting, however, avalanches can release and travel through a moderately dense forest. Most avalanches occur in the backcountry, outside of developed ski areas.

HOW CAN YOU KEEP FROM GETTING CAUGHT IN AN AVALANCHE?

You can reliably avoid avalanches by recognizing and avoiding avalanche terrain. Travel on the valley floor away from large avalanche runouts, along ridgetops above avalanche paths, in dense timber, or on slopes of 25 degrees or less that do not have steeper slopes above them. Avoid cornices on ridgetops.

You cannot entirely eliminate risk if you travel in avalanche terrain, but you can minimize risk by using good technique: climb, descend, or cross avalanche areas one at a time; cross a slope at the very top or bottom if possible; climb or descend the edge of a slope rather than the center; carry and know how to use avalanche rescue gear; and turn back or alter your route if you detect signs of unstable snow.

HOW CAN YOU RECOGNIZE UNSTABLE SNOW?

When the snow cover is very unstable, nature often broadcasts clear danger signals. Fresh avalanches are the best clue. Snow that cracks, collapses, or makes hollow sounds is also unstable. Weak layers that are found by digging snow pits are signs of unstable snow. Snow that has become wet from thaw or rain can be dangerous.

Even if you find no signs of unstable snow, you should always travel observing the techniques listed above to minimize risk.

WHAT RESCUE GEAR SHOULD YOU CARRY?

You should always have an avalanche transceiver (or beacon), shovel, and a collapsible or ski-pole probe. You should practice frequently to be proficient in using your beacon.

You should not take extra risk just because you have rescue equipment. Always carry a day pack with enough equipment to spend the night.

WHAT DO YOU DO WHEN CAUGHT IN AN AVALANCHE?

Surviving avalanches can depend on luck, but it is always better to avoid them in the first place. Remember that only 1 of 3 victims buried without a beacon survives. If you are caught, first try to escape to the side, or grab a tree or rock. If you are knocked down, get rid of your poles, skis, and a heavy pack. Swim with the avalanche to try to stay on top and avoid trees. When the avalanche slows down, reach the surface or make an airpocket.

SAFE TRAVEL TECHNIQUES

- ◇ Never put everyone on the slope. Only one person should be on the slope at a time.
- ◇ Have an escape route planned. Always think avalanche. What will you do if the slope slides. Have a plan before you travel.
- ◇ Use slope cuts. Keep your speed up and cut across the starting zone, so that if the slope slides, your momentum can carry you off the moving slab into safer terrain. You can do this on skis, snowboards or on snowmobiles.
- ◇ Watch out for cornices. They always break farther back than you think. Always give them a wide berth. NEVER, NEVER walk out to the edge of a drop-off without first checking it out. Many people have died this way.
- ◇ If it looks too dangerous, find a safer route. Use terrain to your advantage. Follow ridges, thick trees and slopes with safer consequences. You can almost always go back the way you came. The route got you there, it will most likely get you back as well.
- ◇ If there's no other choice, go underground. You can almost always weather out a bad storm or bad avalanche by digging a snow cave or seeking the shelter of a crevasse. You may be uncomfortable but you will be alive.