SPRING AVALANCHE STATEMENT

Note that in areas retaining a significant winter snowpack, backcountry travelers face a continuing risk of avalanches during the springtime. We strongly advise that backcountry travelers continue to assess snowpack stability as they travel and project the effects of anticipated future weather on the snowpack when making route choices.

Some general notes regarding spring avalanches follow . . .

During fair spring weather the avalanche danger is generally lowest during the night and early morning hours when surface snow refreezes due to heat loss to the surrounding atmosphere. During the day, sun effects and warm air temperatures can rapidly melt and weaken surface snow layers and produce an increasing avalanche danger during the late morning and afternoon. Wet loose avalanche activity generally starts on east and southeast facing slopes receiving morning sunshine and progresses to west and southwest facing slopes during the afternoon. Therefore the safest time to cross potential avalanche terrain is during early morning hours before the surface snow begins to warm and weaken.

This daily melt-freeze cycle is strongly affected by any cloud cover during the night since clouds at night limit cooling and may prevent freezing. This may allow melt water and associated snowpack weakening to affect progressively deeper layers in the snow cover. Snowpack weakening is maximized when warm days are followed by warm overnight temperatures and overcast skies. Backcountry travelers should exercise particular caution under these conditions that often lead to considerable wet loose slide activity along with possible wet slab avalanches.

Backcountry travelers should also be aware that spring storms might quickly produce unstable snow conditions. Although precipitation may fall as rain at lower elevations, substantial new snow may be deposited at higher elevations. This new snow may form a poor bond with an old crusted snow surface. Rapid rises in temperature following the storm due to intense solar radiation may quickly warm and weaken recent snow, which may need little or no disturbance to slide. While subsequent wet loose slides may start small, they may entrain more snow as they descend and may trigger larger wet slab slides as well. Dangerous conditions may also result from cornices deposited by spring storms, as these may be unstable and release during later warm days. Also, slopes beneath glide cracks should normally be avoided, especially during the heat of the day, as the entire snow cover may release from melt water lubrication and weakening.

Precipitation as rain may also create unstable snow conditions. This is because rain falling on an already wet snowpack causes water to quickly percolate through the snowpack, which weakens progressively deeper snow layers. If the water encounters a crust or an ice lens, it may flow along this layer and lubricate it, making avalanches increasingly likely within the snow above.

No matter what the season, backcountry travelers should avoid slopes of questionable snowpack stability. Remember that many areas, which undergo regular avalanche control during the winter, may not be controlled in the spring.

Also remember that small avalanches may be dangerous. Although wet loose snow in motion may be soft, when it stops rapid hardening takes place. Most avalanche victims trigger the avalanches in which they are caught, and almost half of all avalanche deaths occur in slides traveling less than 300 feet; with some slide fatalities occurring with victims buried only a few inches under the snow surface. Several fatal accidents have occurred during past springs from climbers or skiers releasing and being caught in relatively small avalanches, which subsequently carried the victims into or over a terrain trap. Hence, backcountry travelers should be aware of both the terrain above and below intended routes.

Have a safe and enjoyable spring! --Ferber/USFS NW Weather and Avalanche Center