

Avalanche Weather Forecast Guide

PRE-FORECAST INDICATORS OF AVALANCHE POTENTIAL

Indicator	Greater Avalanche Potential	Uncertain Potential	Lesser Avalanche Potential
Avalanche Climate	Continental	Intermountain	Maritime
Avalanche Terrain	Slopes between 35 and 40 degrees	25 to 35 degrees or 40 to 60 degrees	Less than 25 or greater than 60 degrees
Weather History	Generally cold and dry	Unknown or variable	Generally warm and wet
Recent Avalanches	Within the last 24 hours	Within the last 24 to 48 hours	Older than 48 hours or no avalanches
Snowpack Description **	Generally shallow, weak, and unconsolidated	Unknown or variable	Generally deep, strong, and consolidated
Snowpack Stability **	Unstable	Unknown or inconclusive	Stable
Snow Surface **	Hard, smooth, or cold	Unknown or non-uniform	Soft, rough, or warm

**Information obtained from field obs & snowpits

WEATHER INDICATORS OF AVALANCHE POTENTIAL

	Increasing Avalanche Potential	Potential Staying the Same	Decreasing Avalanche Potential
Precipitation			
New Snow Amount	12 inches (30 cm) or more in 24 hours	<12 inches (30 cm) in 24 hours	No new snow
Snow Accumulation Rate	1 in/hr (2.5 cm/hr) or more for 6+ hours	< 1 in/hr (2.5 cm/hr)	No new snow
Snow Water Equivalent	1 inch (25 mm) or more in 24 hours	< 1 inch (25 mm) in 24 hours	No new water
New Snow Density	More than 6 inches (15 cm) of 9% or greater density	< 12 inches (30 cm) of 6% or less density	No new snow
Storm Trend	Storm begins cold, ends warm	Storm begins warm, ends cold	Temps 20s °F (-7 to -3 °C) and not much new snow
Rainfall	Any rain	No rain	No rain
Wind			
Wind Speed Average	<ul style="list-style-type: none"> • 20 to 60 mph (9-27 m/s) • > 60 mph (27 m/s) with snow > 10% density • 15 to 20 mph (7-9 m/s) with snow < 5% density 	< 20 mph (9 m/s) or > 60 mph (27 m/s)	Light, variable winds < 15 mph (7 m/s)
Wind Direction Average	Consistent	Variable	Variable
Temperature			
Increasing Temps	Temps rise more than 15°F (8°C) in 12 hours with temps near or above freezing	Temps rise less than 15°F (8°C) in 12 hours with temps well below freezing	Gradual rise in temps over several days but remaining below freezing
Decreasing Temps		Temp range stays between 15 and 25°F (-10 to -4°C)	Colder temps follow a warm-up
Rain/Snow Level	At or above avalanche starting zone elevations	Below all avalanche starting zone elevations	Temps well below freezing at all elevations
Warm Temps	Above freezing at avalanche starting zone elevations for > 24 hours	Above freezing at avalanche starting zone elevations for 12-24 hours	
Cold Temps	<ul style="list-style-type: none"> • Very low temps (< 15°F or -10°C) for long period of time • Shallow snowpack, < 3 ft (1 m) deep, and very low temps, < 15°F (-10°C) 	Between 15 and 25°F (-10 to -4°C)	
Cloud Cover/Solar Radiation			
Nighttime Sky Cover	Clear skies with temps < 15°F (-10°C) and winds 10 mph (5 m/s) or less	<ul style="list-style-type: none"> • Cloudy • Clear with relatively mild temps • Partly cloudy with wind > 10 mph (5 m/s) 	
Daytime Sky Cover	Clear skies or thin clouds with warm temps and high sun angles, especially on sun-facing slopes	Thick overcast	