

# Avalanche Terrain Ratings



Kananaskis  
Country

Adapted to Kananaskis Country from Parks Canada's Pamphlet:  
"Avalanche Terrain Ratings for the Mountain National Parks", ISBN# 0-662-38737-6

Traditional models for rating avalanche danger are based on the stability of snow, which changes regularly with the weather — from day to day, or even hour to hour. Terrain however, doesn't change much. The angle and shape of the ground, or the number of established avalanche paths won't vary from day to day. By using the **Avalanche Terrain Exposure Scale (ATES)**, you can begin to measure your skills, experience and risk tolerance against the landscapes through which you choose to travel.

## When should I use this system?

These ratings are intended to supplement pre-trip planning material. This means reading guidebooks, studying maps and photos, talking to friends, checking weather and avalanche conditions, and referring to the ATES ratings while planning the trip. All these resources together will give you a better sense of the route you are choosing.

## How do I use the scale?

The list of rated trips represents the most common destinations in Kananaskis Country. Don't use this scale alone — you'll need additional material to learn about the trip you are proposing.

## Do I still need to pay attention to the daily avalanche bulletins?

Absolutely — terrain is only part of the picture. When the avalanche conditions are rated "poor", you should select very conservative terrain. Alternatively, when the avalanche conditions are rated "good", this might be the time to consider that next level of terrain you've been contemplating. The two must be used together for understanding the big picture of how to manage your risk in the backcountry. Daily bulletins are available at Visitor Information Centres, and on the Web:

[www.cd.gov.ab.ca/parks/kananaskis](http://www.cd.gov.ab.ca/parks/kananaskis) or  
[www.avalanche.ca](http://www.avalanche.ca)

## How much experience do I need for these trips?

**Simple** — Class 1 terrain requires common sense, proper equipment, first aid skills, and the discipline to respect avalanche warnings. Simple terrain is usually low avalanche risk, ideal for novices gaining backcountry experience. These trips may not be entirely free from avalanche hazards, and on days when the *Backcountry Avalanche Bulletin* is rated "high or extreme", you may want to re-think any backcountry travel that has exposure to avalanches — stick to groomed cross-country trails.

**Challenging** — Class 2 terrain requires skills to recognize and avoid avalanche prone terrain — big slopes exist on these trips. You must also know how to understand the *Backcountry Avalanche Bulletin*, perform avalanche self rescue, basic first aid, and be confident in your routefinding skills. You should take a *Recreational Avalanche Course (RAC)* prior to travelling in this type of terrain. If you are unsure of your own, or your group's ability to navigate through avalanche terrain then consider hiring a professional, ACMG certified guide.

**Complex** — Class 3 terrain demands a strong group with years of critical decision making experience in avalanche terrain. There can be no safe options on these trips, forcing exposure to big slopes. As a minimum, you or someone in your group must have taken an *Advanced Recreational Avalanche Course (ARAC)* and have several years of backcountry experience. Be prepared! Check the *Backcountry Avalanche Bulletin* regularly, and ensure everyone in your group is up for the task and aware of the risk. This is serious country — not a place to consider unless you're confident in the skills of your group. If you're uncertain then consider hiring a professional, ACMG certified guide.

## Important Notice

Snowpack structure and stability information is determined from field analysis specific to snow study plot sites. Snowpack structure and stability will vary as you travel throughout mountainous terrain. It is, therefore, the responsibility of the backcountry traveller to be self-sufficient in being able to perform self-rescue should you, the traveller, be involved in an accident. Also, backcountry travellers are responsible for obtaining their own information concerning current weather conditions, snow, winds, snowfall, etc. and are responsible for educating themselves to the best possible awareness level.

## For Further Information

Peter Lougheed Park Visitor Centre: (403) 591-6322  
Barrier Information Visitor Centre: (403) 673-3985  
Canadian Avalanche Association: [www.avalanche.ca](http://www.avalanche.ca)  
Emergency 24/7: (403) 591-7767

To report on conditions and avalanche observations, or incidents you may observe in Kananaskis Country please contact: [Avalanche.Safety@gov.ab.ca](mailto:Avalanche.Safety@gov.ab.ca)

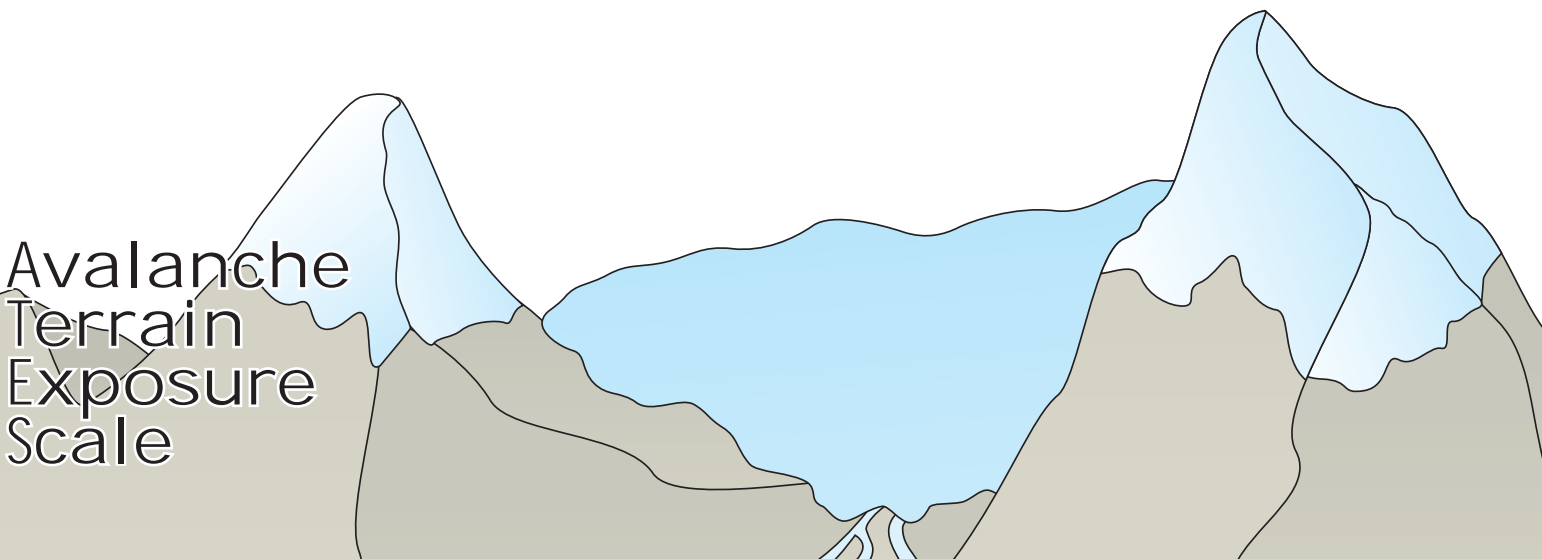
About this scale:

Any given piece of mountain terrain may have elements that will fit into multiple classes. Applying a terrain exposure rating involves considering all of the variables described above, with some default priorities.

Terrain that qualifies under an ***italicized bold*** descriptor automatically defaults into that or a higher terrain class. Non-italicized descriptors carry less weight and will not trigger a default, but must be considered in combination with the other factors.

Adapted from Parks Canada's Document: "Technical Model (V. 1-04)"

	Simple — Class 1	Challenging — Class 2	Complex — Class 3
<b>Slope angle</b> — □	Angles generally < 30°	Mostly low angle, isolated slopes >35°	<b><i>Variable with large &gt;35°</i></b>
<b>Slope shape</b> — □	Uniform	Some convexities	Convoluted
<b>Forest density</b> — □	Primarily treed with some forest openings	Mixed trees and open terrain	Large expanses of open Isolated tree bands
<b>Terrain traps</b> — □	Minimal, some creek slopes or cutbanks	Some depressions, gullies and/or overhead avalanche terrain	<b><i>Many depressions, gullies, cliffs, hidden slopes above gullies, cornices</i></b>
<b>Avalanche frequency</b> — □ <i>(events:years)</i>	1:30 ≥ size 2	1:1 for < size 2 1:3 for ≥ size 2	1:1 < size 3 <b><i>1:1 ≥ size 3</i></b>
<b>Start zone density</b> — □	Limited open terrain	Some open terrain. Isolated avalanche paths leading to valley bottom	Large expanses of open terrain. Multiple avalanche paths leading to valley bottom
<b>Runout zone characteristics</b> — □	Solitary, well defined areas, smooth transitions, spread deposits	Abrupt transitions or depressions with deep deposits	Multiple converging runout zones, confine deposition area, steep tracks overhead
<b>Interaction with avalanche paths</b> — □	Runout zones only	Single path or paths with separation	<b><i>Numerous and overlapping paths</i></b>
<b>Route options</b> — □	Numerous, terrain allows multiple choices	A selection of choices of varying exposure, options to avoid avalanche paths	<b><i>Limited chances to reduce exposure, avoidance not possible</i></b>
<b>Exposure time</b> — □	None, or limited exposure crossing runouts only	<b><i>Isolated exposure to start zones and tracks</i></b>	<b><i>Frequent exposure to start zones and tracks</i></b>
<b>Glaciation</b> — □	None	<b><i>Generally smooth with isolated bands of crevasses</i></b>	<b><i>Broken or steep sections of crevasse icefalls or serac exposure</i></b>





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# Avalanche Terrain Exposure Scale

## Backcountry

### Simple — Class 1

*Exposure to low angle or primarily forested terrain. Some forest openings may involve the runout zones of infrequent avalanches. Many options to reduce or eliminate exposure. No glacier travel.*

Black Prince XC Trails  
Chester Lake Trail  
Commonwealth Lake  
Forks Campground

Fox Creek  
Galatea Creek to Lillian Lake  
Headwall Creek to First Lake  
Hidden Lake

Kens Ridge  
Marushka Lake  
Mt Engadine XC Trails  
Pocaterra XC trails

Ribbon Creek to Ribbon Falls  
Rummel Lake  
Sawmill XC Trails  
Skogan Pass

Tombstone Lakes  
Upper Lake Circuit  
Watridge Lake

### Challenging — Class 2

*Exposure to well-defined avalanche paths, starting zones or terrain traps; options exist to reduce or eliminate exposure with careful routefinding. Glacier travel is straightforward but crevasse hazards may exist.*

Aster Lake  
Birdwood Pass  
Black Prince Cone  
Buller Pass  
Burstall Pass  
Commonwealth Ridge

Fortress Out of Bounds  
French Creek to Toe of Glacier  
Gypsum Quarry  
Haig Glacier  
Heros Nob  
Lawson Lake

Maude Lake  
Mount Allan  
Murray Creek  
Pocaterra Ridge  
Ptarmagin Cirque  
Ribbon Lake

Rummel Pass  
Smuts Fist Col  
Smuts Pass  
Snow Peak  
Tent Ridge  
Three Isle Lake

Tryst Lake  
Valley West Side of Mt Burstall

### Complex — Class 3

*Exposure to multiple overlapping avalanche paths or large expanses of steep, open terrain; multiple avalanche starting zones and terrain traps below; minimal options to reduce exposure. Complicated glacier travel with extensive crevasse bands or icefalls.*

Aster Lake to Mount Joffre  
Aster Lake to Warrior Mountain  
Beatty Glacier  
Black Prince to Murray Creek

French Glacier  
Marushka Valley to Fist / Smuts Col  
North Over Glacier to Aster Lake  
Old Goat Glacier

Rae Glacier  
Robertson Glacier  
Upper Chester Lake to Fortress / Mount Chester Pass  
Upper Headwall Lakes

# Avalanche Terrain Exposure Scale

## Ice Climbs

### Simple — Class 1

*Routes surrounded by low angle or primarily forested terrain, possible brief exposure time to infrequent avalanches.*

#### Eastern Region

Pitches of Eastwick  
PCP  
Bill's Drip  
Blue Russian  
Marilyn Cross

The Missing Piece  
Brewers Droop  
Betty Davis'  
Sneeze  
A Wizard Prang

#### Western Region

Amadeus  
Troll Falls  
Chantilly Falls  
Moonlight  
Snow Line  
2 Low for Zero  
Wedge Smear

Glossolalia  
Solid Cold  
Dodge Ram  
The Blue Door  
Whitemans Falls  
Red Man Soars  
King Creek

Trick or Treat  
Adrianes Thread  
Black and Blue  
Golden Showers  
Far Away  
Early Pillar

#### Ghost Region

Hidden Dragon  
The Joker  
The Hooker  
The Candle Stick Maker  
Olympus  
Polaris  
Bonneywind 4 Pitch  
Eastward 3 Pitch  
Wicked Wanda\*  
Weathering Heights  
Anorexia Nervosa  
The Peanut Gallery  
Little Devil  
Green Angel  
Malignant Mushroom\*  
Frozen Fungi  
Sunshine  
Aquarius\*  
Fearful Symmetry  
Rainbow Serpent  
Mr Jive  
Lacy Gibbot\*  
Fountain Head  
The Rad Monster

Black Rock Falls  
Bloody Mary  
Sunset Falls  
The Ribbon  
The Good, the Bad & the Ugly  
Silver Tongue Devil  
Dead Bird  
Yellow Bird  
Seagull  
Albatros  
The Eagle  
The Raven  
Cuckoo Falls  
Snipe Falls  
The Unforgiven  
Phantom Falls  
Dirty Harry  
This House of Sky  
Burning in Water,  
Drowning in Flame  
The Sliver  
Valley of Sun  
French Technique  
Going to the Sun HWY

Beowulf  
Devils Punchbowl  
Wee Wolf  
Fur Face  
Sittkas Slide  
Keso Curtain  
Tuk Taku  
The Lost Moose  
Nonatak  
Husky Howl  
Lupine Lunge  
Fang and Fist  
Chilkoot Passage  
Taiga Trot  
Werewolf Waltz  
Idle Incisor  
Venus  
Caroline Falls  
Marion Falls  
Kemosabe  
The Ice Funnel  
The Indian Scalp

\* These climbs are located in Banff National Park and are also quoted in the Parks Canada's pamphlet called: "Waterfall Ice Climbing and Avalanches in Canada's Mountain National Parks". ISBN# 0-662-41954-5

### Challenging — Class 2

*Routes with brief exposure to starting zones or terrain traps, or long exposure time in the runout zones or infrequent avalanches.*

#### Western Region

Lifes Spindrift  
Mountain Dew  
R&D  
Sinatra Falls  
Tasting Fear  
Wherefore and Why  
The Fantastic Exploding Alternative

A Bridge too Far  
Bring out the Gimp  
Cryogenics  
Good Host  
Jungle Warfare  
Kindergarten  
Moonshadow Gully  
Palm Sunday

Public Enemy of the State  
Ribbon of Darkness  
Saddams Insane  
The Wreck of Glen Fitzgerald  
Upper Level Skyway  
Waxy Referendum

Zoe  
Cobra Verde  
The Hoser  
Spite  
Winter Solstice  
The Wild Bunch

#### Ghost Region

The Sorceror  
The Real Big Drip

Hydrophobia  
Big Dipper

Little Dipper  
Mouse Trap

City Lights

### Complex — Class 3

*Routes with frequent exposure to multiple overlapping avalanche or large expanses of steep, open terrain; multiple avalanche starting zones and terrain traps of cliffs below.*

#### Western Region

Sandblaster  
Dr Evil  
Marshall Arts  
Drip at the Centre of the Universe  
Buffalo Head  
Takonka

Cabrio  
Centaur  
Chalice and the Blade  
Lone Ranger  
Mt. Kidd Bowl  
Kidd Falls  
Coffee Suckin' do

Nothin'  
Parallel Falls  
First Blood  
Long Enough  
Trolls Route  
Auto de Feu  
Saki

Tax Collecta  
No Doughnut  
Burning Man  
Recession Dodgers



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