

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.

Chester Lake Trail
Fox Creek
Galatea Creek to Lillian Lake
Hidden Lake

Marushka Lake
Ribbon Creek to Ribbon Falls
Rummel Lake
Skogan Pass

Upper Lake Circuit
Watridge Lake
Rawson Trail to 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 Telemark Slopes
Buller Pass
Burstall Pass
Burstall Pass Common-

wealth Circuit
Commonwealth Lake Circuit
Commonwealth Ridge
Dog Leg Slide Path
French Creek to
Toe of Glacier

Gypsum Quarry
Haig Glacier
Headwall Creek to First Lake
Heros Nob
Mount Allan
Mount Sparrowhawk

Murray Creek
North Kananaskis Pass
Pocaterra Ridge
Ptarmagin Cirque
Rummel Pass
Smuts Fist Col

Smuts Pass
Snow Peak
Superslope
Tent Ridge
Three Isle Lake
Tryst Lake

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.

Beatty Glacier
French Glacier
Marushka Valley to Fist / Smuts Col
Mount James Walker

Mount Joffre
Mount Nestor
North Over Glacier to Aster Lake
Old Goat Glacier

Rae Glacier
Robertson Glacier
Spray Range Traverse

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 or
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
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

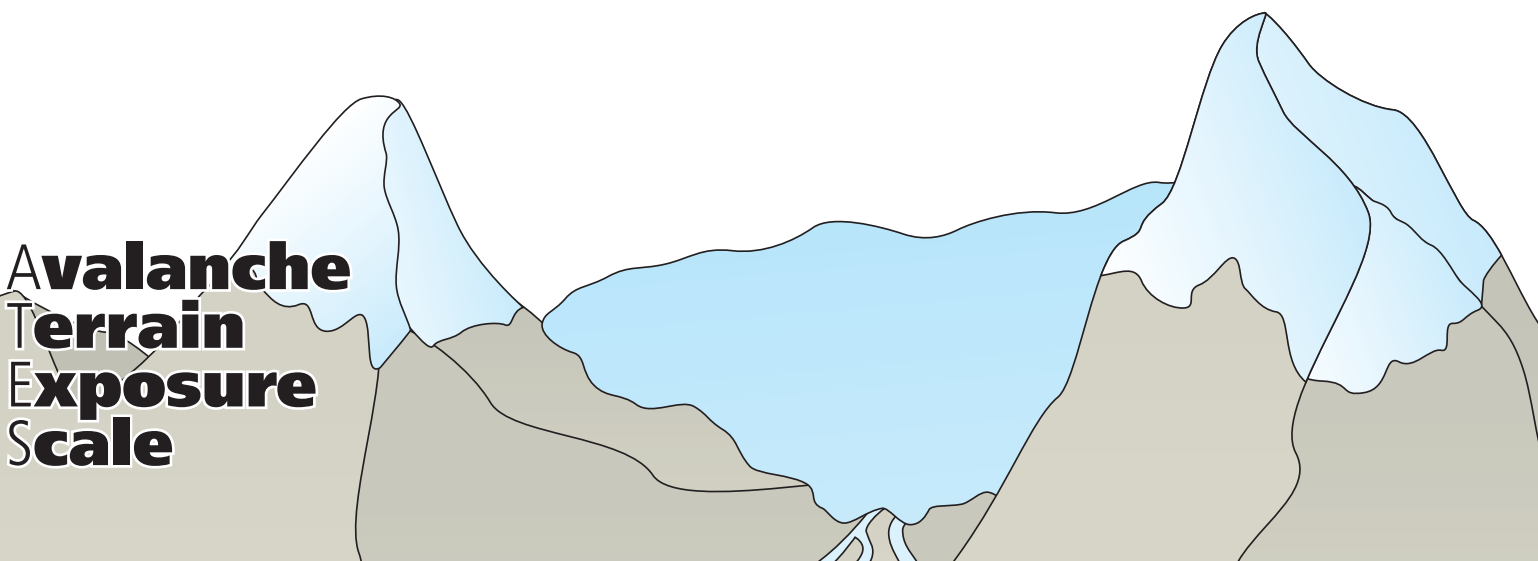
About this scale:

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



**Avalanche
Terrain
Exposure
Scale**

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
Rehab Wall
Cry of the Snow Lion

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
Sitkas 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
Kings Breath
Dropout

Vsop
Squid Does Courvoisier
Reids Tower Route
The Maul
Klatu Verata
Balzout Direct
Cursed Goddess