

The Mountaineers Olympia Branch
2024 Combined
Basic Nordic (Cross-Country) Skiing
And
Basic Snowshoe Courses



Winter Travel Hazards

Why Worry About Weather?

Learn to Expect the Unexpected.

Long and Short-Range Forecast Sources.

Presented by Mike Forsyth

Email: <adktripper@earthlink.net>

“There’s no such thing as bad weather, only bad clothes.”

– Norwegian saying.

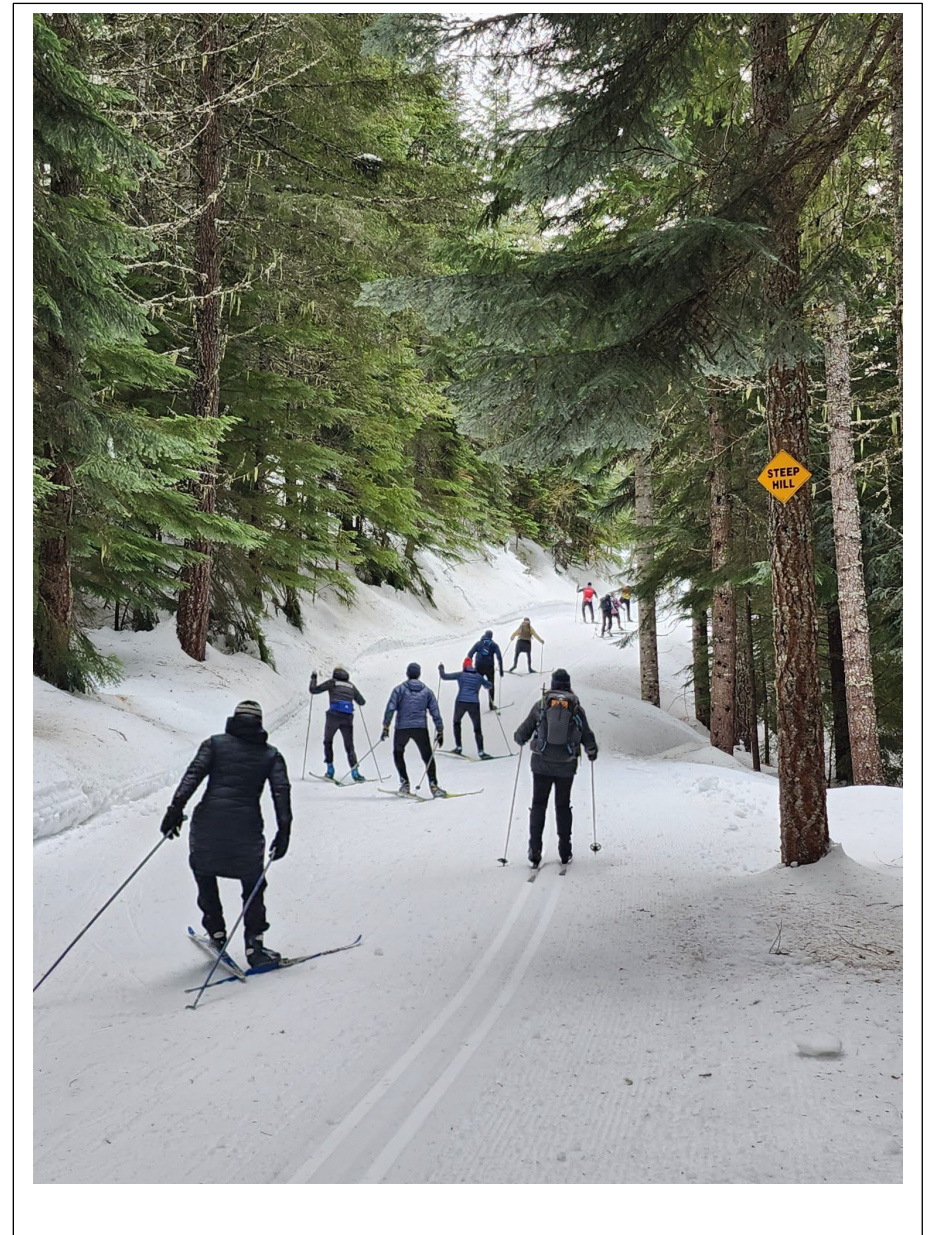
Why worry about the weather?

- Impacts on - the intended ski or snowshoe route;
- route finding difficulties;
 - personal safety in the field;
 - the drive to and from the trailhead.



The ski or snowshoe route:

- Terrain hazards:
 - tree wells,
 - moats,
 - cornices,
 - snow bridges over streams,
 - snow bombs falling from warm tree tops,
 - tree limbs, branches, etc. across the trail under snow.
- After thaw and re-freeze, icy trails may be treacherous in heavily trafficked and steep areas.
- As the day warms, hard-packed trail may turn to deep slush.
- Rain or sun and above-freezing temperatures may cause snow melt, rising streams, washed-out snow bridges.
- **The way you came in may be difficult or impossible to use going out.**



Winter Route-finding:

- Safe route in winter may be different from summer trails to avoid avalanche terrain.
- Trail signs and markers may be obscured by snow.



- Own tracks may be erased by snow and wind, or tracked over by other groups.
- In snow pack (e.g. Rainier above Longmire) look for orange poles or wands marking route. Crossed poles mark danger.

Weather complications:

- In addition to clouds and fog, heavy snowfall may cause white-out and near-zero visibility.
- Mt. Rainier NPS says: "If you are ascending and clouds or fog start rolling in, turn around and head back to the trailhead. If that's not possible, stop moving and dig in, and wait for conditions to improve."
- Be aware of your compass direction of travel. Add or subtract 180 degrees for reciprocal heading to go back.
- Take a Mountaineers Navigation course.

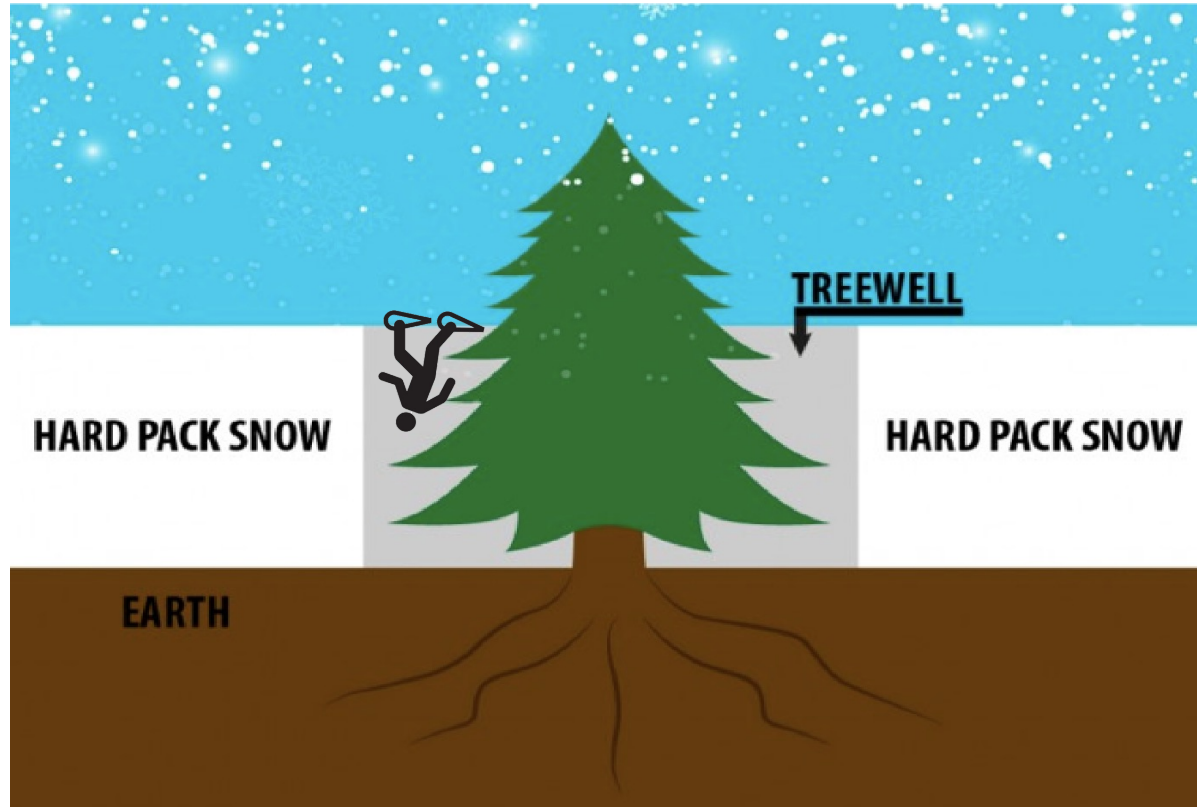


Personal safety risks in the field:

- Cold, wind, rain = hypothermia & frostbite risks. At higher elevations expect lower temps, stronger winds, more precipitation.
- High wind can make walking or skiing difficult.
- Dickey stream crossings: fall, immersion, hypothermia & drowning risks.
- High wind, saturated soil, branches loaded with ice = blowdown and “widow-makers”.
- Fall risk due to terrain, including icy footing, tripping hazards, etc .
- Avalanche risk of serious injury or death. Collapsing cornices. WA averages 3 deaths per year.
- Suffocation in tree wells.
- “Nice” weather: sunburn and snowblindness.



Snow Immersion Suffocation ANATOMY OF A TREE WELL



Tree wells form around the base of conifers due to their low lying branches, which limit snow accumulation and consolidation around the trunk of the tree. These depressions, or wells, can exceed 10 feet in depth.

When an individual falls into a tree well, they are usually buried headfirst making self-extrication nearly impossible.

If an individual is unable to self-extricate and is not rescued, he or she will die from asphyxiation.

Tree well burials occur predominately during or immediately after major snowstorms, so skiers, snowshoers and snowboarders should be especially cautious in deep powder conditions in areas with conifers.

Ski, snowboard or snowshoe with a partner, maintaining vocal and visual contact at all times.

<https://www.outsideonline.com/outdoor-adventure/snow-sports/tree-well-death-snow-immersion-suffocation-powder-day/>

When [Paul] Baugher was the head of ski patrol at Washington State's Crystal Mountain Resort—a position he held for 30 years—he performed an improvised experiment to study how people react when in an SIS situation. He had ten patrollers—five skiers and five snowboarders—volunteer to be dropped in tree wells filled with powder to see if they could save themselves. The subjects were placed at different inverted angles while wearing their ski or snowboard equipment. Each volunteer wore a safety harness, and could signal to the safety crew for a speedy removal.

“The degree of inversion was the biggest factor in being able to save yourself,” Baugher said. “The angle that was closest to horizontal—three out of ten could recover. If you were over 30 degrees, you weren't coming out on your own. Everybody else, no matter if they got their skis off, had to be yanked out.”

Can we avoid, or at least anticipate these risks?
Can we make an alternate “Plan B”?
Where do we get our information?



Blowdown, ungroomed trails and other surprises? Know before you go!

Check trip reports for recent trail conditions:

Mountaineers: click "Activities", then "Trip Reports":

https://www.mountaineers.org/activities/trip-reports#b_start=0

Washington Trails Association: <https://www.wta.org/go-outside/trip-reports>

Check grooming schedules and latest grooming reports:

Sno-parks I-90 corridor:

Select your park at <https://www.parks.wa.gov/459/Blewett-I-90>

Grooming reports for Cabin Creek & Crystal Springs:

<https://nordic-pulse.com/ski-areas/US/WA/Cabin-Creek>

<https://www.kongsbergers.org/GroomingReport>

Mount Rainier National Park Website: nps.gov/mora

- Alerts in effect
- Road Closures
- Longmire to Paradise Road and gate status.

Go to <https://parks.wa.gov/find-sno-parks/crystal-springs-sno-park>

Links to printable pdf maps

Link to Grooming Calendar for snow season:

Recent Grooming reports:

[CrystalSprings-Motorized.pdf](#)

[Crystal-Springs-NM.pdf](#)

[Crystal-Springs-Sled-Dog.pdf](#)

Non-motorized grooming

Grooming Season: 12/1-3/31

Grooming Company: Lake Easton State Park

Grooming Calendar:

[Central Cascades Area Grooming Calendars 2023-2024.pdf](#)

Non-motorized grooming reports

Grooming reports are provided on our website as they are given to us. They don't represent the most accurate current conditions.

1/12/24: Hyak to Crystal Springs:

Grooming today is expected to continue as scheduled.

*Grooming can be suspended during any I-90 pass closure or high avalanche danger period.

Crystal Dog Sled Trails:

Grooming is expected to continue as scheduled.

*Grooming can be suspended during any I-90 pass closure or high avalanche danger period.

1/11/24: Hyak to Crystal Springs: Total Snow: 30"

Grooming today is expected to continue as scheduled.

*Grooming can be suspended during any I-90 pass closure or high avalanche danger period.

Crystal Dog Sled Trails:

Grooming is expected to continue as scheduled.

*Grooming can be suspended during any I-90 pass closure or high avalanche danger period.

Cabin Creek Nordic Grooming Report (Cabin Creek & Erling Stordahl trail systems)



The Cabin Creek Sno-Park Groomed Trail System is a non-motorized recreation area provided by the Washington State Parks and Recreation Commission, funded by Sno-Park permit fees, and located primarily on USFS land. The trails are groomed by a private contractor under contract to State Parks.



Grooming status for nearby [Wa State Sno-Parks](#) can be found at [Hyak Sno-Park](#), [Crystal Springs Sno-Park](#) and [Lake Easton Sno-Park](#) (scroll down in each page).

Trail Etiquette for Skiers, Snowshoers & Snowplay

The trails at Cabin Creek are very heavily used. We all need to follow trail etiquette so everyone can enjoy the trails.

- Please do not walk on the groomed ski trails, it quickly destroys the grooming.
- Snowshoe on the edges of the trail, not on the set tracks nor down the middle of the trail.
- Dogs are allowed on the South Loop trail. [Where can I go with my dog?](#)
- Above all - be nice!

More etiquette suggestions can be found at [snowrec.org](#) and [rei.com](#).
Click here for [additional recreation options at I-90 Sno-Parks](#). Click here for [snowshoeing tips](#).

Snoqualmie Pass I-90 Pass Report (WSDOT)

Updated: Sat Jan 13 7:10pm PST (last change 2:42pm)

Eastbound: No restrictions

Westbound: No restrictions

Conditions: The roadway is bare and dry with areas of compact snow and ice.

Weather: Overcast skies with light winds

Exit 62 near Cabin Creek



Click for more cams

Trail Grooming Status (as of Saturday, Jan 13)

Cabin Creek area (Lower trails map) (Amabilis map)			Erling Stordahl area (map)		
The Road	Today	Amabilis (to Y)	Today	Trollhaugen Trails	Today
Berg Loop	Today	Amabilis (top)	Today	Challenge Loop	Today
Viking Loop	Today	South Loop	Today		
Ozbaldy	Today				



Saturday, Jan 13, 2024 7:17 am PST

Groomed lower trails, both sides of Amabilis and South Loop.

Erling Stordahl should be groomed by 9am,

Think snow...



Friday, Jan 12, 2024 5:23 am PST

Groomed lower trails(Berg & Viking Loops , The Road and Ozbaldy).

Think snow...



Thursday, Jan 11, 2024 7:55 am PST

Groomed lower trails, The Road and Amabilis both sides of Y. (Rolled Ozbaldy, no classic track)

Think snow...



Wednesday, Jan 10, 2024 12:32 pm PST

Groomed Erling Stordahl; trail is rough and uneven but this wet heavy sticky snow has improved it a lot. No classic track.

Think snow...

Cabin Creek & Crystal Springs:
<https://www.kongsbergers.org/GroomingReport>

Links to Weather, Trail Maps,
Club info

Trail Etiquette

I-90 Snoqualmie Pass Report

Trail grooming status and daily
reports for Cabin Creek and
Crystal Sno-Park trails

NWS home page: **Weather.gov**.

Click on western WA on map to go to:

NWS Forecast Office Seattle/Tacoma
weather.gov/sew/

NATIONAL WEATHER SERVICE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION

HOME FORECAST PAST WEATHER SAFETY INFORMATION EDUCATION NEW

Local forecast by "City, St" or ZIP code
Enter location ...
[Location Help](#)

Significant Winter Storm in the Central U.S.; Parade of Storms to Bring Heavy
A significant winter storm will shift from the central Plains to the Upper Midwest Tuesday and Great Lakes on Thursday. The storm will bring areas of heavy snow, ice, severe thunderstorms into next week, additional Pacific storms may impact the West with heavy snow and rain that [Read More >](#)

WRN ACTIVE ALERTS FORECAST MAPS RADAR RIVERS, LAKES, RAINFALL AIR QUALITY

Customize Your Weather.gov
City, ST
Enter Your City, ST or ZIP Code
 Remember Me

[Privacy Policy](#)

Created: 01/03/23 at 15:29 UTC

American Samoa Guam Puerto Rico/Virgin

Click on the map above for detailed alerts or [Public Alerts](#)

<input type="checkbox"/> Tornado Warning	<input type="checkbox"/> Avalanche Warning	<input type="checkbox"/> Dense Fog Advisory
<input type="checkbox"/> Severe Thunderstorm Warning	<input type="checkbox"/> Flood Warning	<input type="checkbox"/> Small Craft Advisory
<input type="checkbox"/> Flash Flood Warning	<input type="checkbox"/> Tornado Watch	<input type="checkbox"/> Brisk Wind Advisory
<input type="checkbox"/> Severe Weather Statement	<input type="checkbox"/> Gale Warning	<input type="checkbox"/> Hazardous Seas Warning
	<input type="checkbox"/> Storm Watch	<input type="checkbox"/> Wind Advisory

NWS Forecast Office
Seattle/Tacoma, WA page

[weather.gov/sew/](https://www.weather.gov/sew/)

has links for Past Weather for
trip planning:

Click on “Climate and Past
Weather”, then “Local” to go to

[https://www.weather.gov/wrh/
climate?wfo=sew](https://www.weather.gov/wrh/climate?wfo=sew)

Click on map for current
forecast.

On bottom line of icons, click on
“Mt. Rainier Rec. Report” for
mountain recreational forecast.

The screenshot shows the NWS Forecast Office Seattle/Tacoma, WA website. At the top, there is the NWS logo and the text "NATIONAL WEATHER SERVICE NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION". Below this is a navigation menu with links for HOME, FORECAST, PAST WEATHER, SAFETY, INFORMATION, EDUCATION, NEWS, SEARCH, and ABOUT. A local forecast search box is on the left, and a "News Headlines" section is on the right. The main content area features a "Customize Your Weather.gov" sidebar, a "Click a location below for detailed forecast." map, and a "Text Product Selector" dropdown menu. Below the map is a grid of 18 icons representing various weather products and services, including radar, satellite, weather maps, forecast tables, sea-level pressure, graphical forecasts, hydrology, marine, fire weather, forecast discussion, aviation, Mt. Rainier Rec. Report, and social media.

The drive is often the riskiest part of the trip:

- Bad weather = slow traffic, dangerous roads;
- Flooding, landslide, avalanche, downed trees and power lines, can block roads and trails;
- Pass closures may add many hours to a trip and/or require an alternate route or change of plan.

Chains, cables or auto socks must be carried by **all** vehicles in MRNP Nov 1-May 1. In the passes, **all** vehicles must use chains, cables or auto socks during a WSDOT "chains required on all vehicles" notice.



Weather looks okay at destination. How about getting there? Check roads and mountain passes at

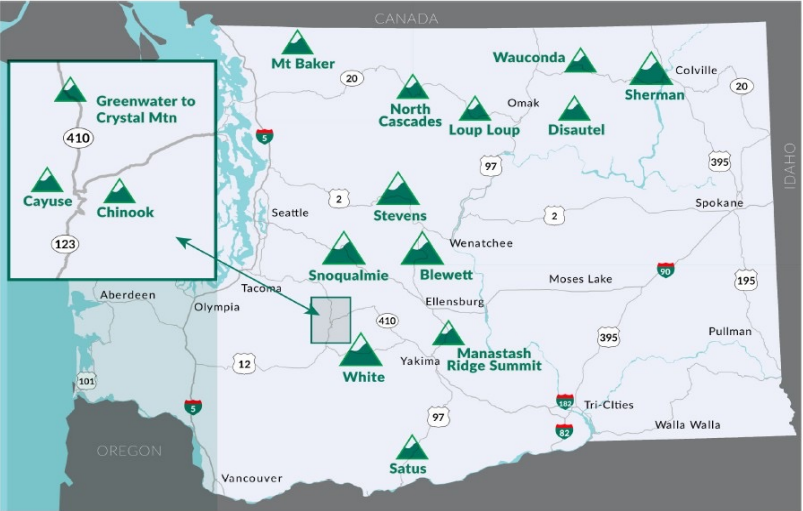
<https://wsdot.com/travel/real-time/mountainpasses/>

Click on area of interest.

Mountain passes & winter travel | WSDOT https://wsdot.com/travel/real-time/mountainpasses/

Q

Mountain passes & winter travel



Map of all the Mountain Passes in Washington State. Click on the green and white mountain pass icon for the specific pass's information or use the list of links below.

Mountain passes by name

- Blewett Pass US 97
- Crystal to Greenwater SR 410

Traffic and weather info away from your laptop:

Use your cell phone and WSDOT app or subscribe to text message alerts.

Commercial radio traffic and weather reports every ten minutes “on the fours” from KOMO Seattle, 97.7 FM, 1000 AM. Pass restrictions and closures, if any, are reported.

Latest mountain pass information

Twitter

Follow us on twitter

[@wsdot_passes](#)

Call us

Call 5-1-1 from your hands-free device

WSDOT app

Download WSDOT's free [smartphone app](#)

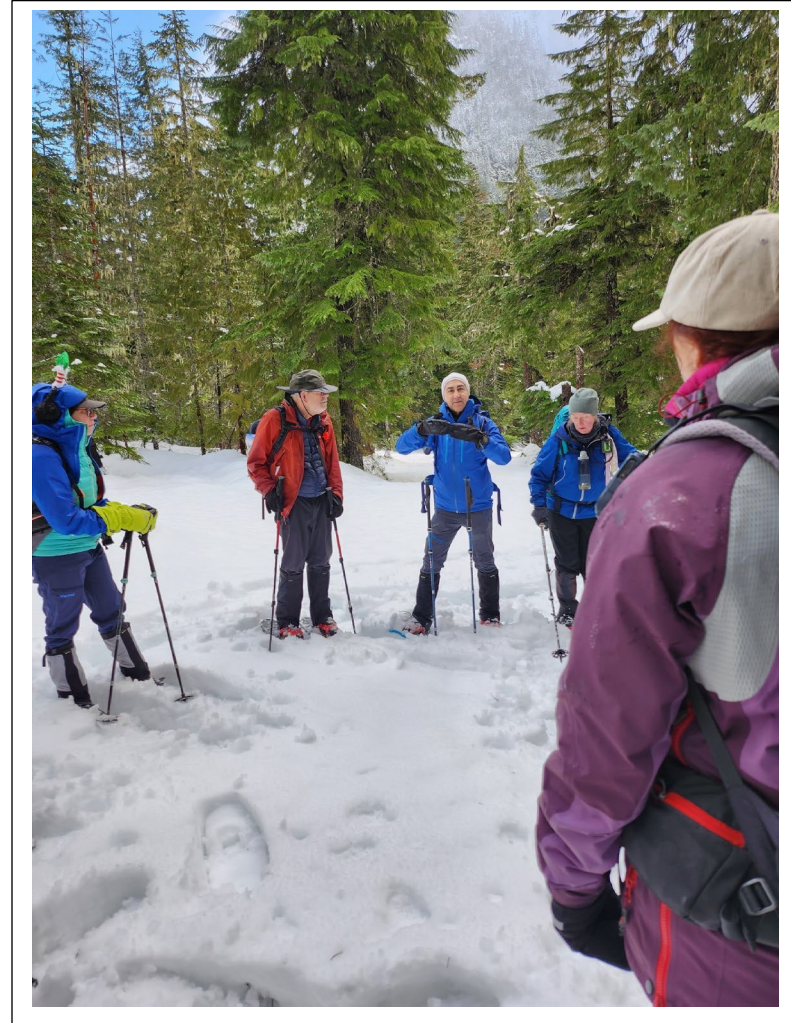
Radio

Tune into the Highway Advisory Radio at 1610 AM and 530 AM

What can we do about the weather?

- We can get trail conditions, recent weather impacts and pretty good forecasts for the trail or route days before the trip.
- We can get an avalanche forecast.
- We can get traffic and road condition reports for mountain passes.
- We can predict some local conditions based on our experience and observations.

We can then select clothing for the weather, equip ourselves adequately, and if we foresee difficulties, as a group we can consider and discuss risks, and make informed group decisions on choice of routes, possible Plan B, a “go-no go” decision, and take prudent precautions to manage risk.





The Last Word:

“I may say that this is the greatest factor: the way in which the expedition is equipped, the way in which every difficulty is foreseen, and precautions taken for meeting or avoiding it. Victory awaits him who has everything in order, luck, people call it. Defeat is certain for him who has neglected to take the necessary precautions in time, this is called bad luck.”

[Roald Amundsen](#), leader of the first successful expedition to the South Pole.

Winter Travel References and Resources:

Trail conditions:

Sno-parks I-90 corridor: Select your park at <https://www.parks.wa.gov/459/Blewett-I-90>

Grooming report for Cabin Creek & Crystal Springs: <https://www.kongsbergers.org/GroomingReport>

Trip reports:

Mountaineers: click “Activities”, then “Trip Reports”:

https://www.mountaineers.org/activities/trip-reports#b_start=0

Washington Trails Association: <https://www.wta.org/go-outside/trip-reports>

Tree wells: <https://wms.org/magazine/magazine/1205/Tree-Wells/Default.aspx>

Mt. Baker snowboarder tree well rescue (2:08): <https://www.youtube.com/watch?v=UqnhOsxQxMo>

Mount Rainier National Park Website: [nps.gov/mora](https://www.nps.gov/mora). MRNP Visitor Update, Winter 2022-23.

Chains, cables & auto socks: in Rainier see <https://www.nps.gov/mora/planyourvisit/tire-chain-faq.htm> .

In the passes, see <https://wsdot.com/travel/real-time/mountainpasses/tiresandchains>

National Weather Service Home page: www.weather.gov

NWS Forecast Office Seattle/Tacoma, WA page with links to detailed local forecast, past weather data, and the

Mount Rainier Recreational Report: <https://www.weather.gov/wrh/TextProduct?product=recsew>

Check past weather data for 2000 through 2022 for trip planning. Schedule your trip for a date when acceptable weather is possible: <https://www.weather.gov/wrh/climate?wfo=sew>

Mount Rainier Recreational Report: <https://www.weather.gov/wrh/TextProduct?product=recsew>

Air temp change with elevation: about 3F (moist air) to 6F (dry air) per 1,000 ft. Higher is colder. Wind at crest of summit, ridge, pass, etc. is often double the speed at lower elevations.

Mike Forsyth Email: adktripper@earthlink.net

Photos: Mike Forsyth, © 2023. Sky with broken halo and clouds, Edith Basin, MRNP. ADK Loj Heart Lake trailhead parking lot, Adirondack High Peaks. Ski trail: Viking Loop, Cabin Creek, WA. Buried trail sign, Rampart Ridge, MRNP. Snowshoers in featureless snowfield, Golden Gate, MRNP. Snow bridge: Commonwealth Basin, WA. Overlook: Dial Mtn., Adirondack High Peaks. Mountaineers in Cougar Rock Campground, RNP. Roald Amundsen, public domain.