# Mt. Rainier Climbing and Mountaineering Route Brief

#### The Muir Snowfield

The Muir Snowfield is a very rewarding hike, both in the winter and summer. Please take the time to prepare yourself no matter what time of year you go.

Check in at the Longmire Museum or Paradise Ranger Stations for current conditions. No permits are required for day trips, but overnight camping or climbing do require one, which can be obtained at the Longmire Museum.

Park in the upper Paradise lot or in the overnight area if that is you're camping. There are bathrooms and an emergency phone in the "tunnel" in the upper lot. If you are climbing, you can self-register and pay in the kiosk on the porch of the Paradise Old Station (old A-frame immediately adjacent to the parking lot).

Panorama Point is usually the crux of the hike, technically speaking. In firm snow conditions, it can be slick and icy, requiring crampons. In deep or fresh snow, it can be avalanche prone. Carry a beacon, shovel and ice axe and travel with a partner to be prepared for either of these circumstances. Make sure and get an avalanche forecast!

It's easy to get 'suckered-in' with great weather as you go up, but keep a sharp eye out for approaching storms, which can turn your dream into a nightmare! Easily recognizable landmarks are on short supply, so if the visibility goes to zero, you'll need alternate forms of navigation like map, compass, and GPS. Parties who have strayed even a few hundred feet off route have ended up hurt or killed in avalanches, or over cliffs.

As you ascend, you'll quickly begin to feel the effects of altitude. Be sure an keep hydrated and feed your body good wholesome food. Establish a good <u>breathing rhythm</u> then vary your pace to maintain that breathing cadence. Take strong breaths exhaling forcefully. If you feel headaches or nausea, you're showing signs of Acute Mountain Sickness, which can cascade into pulmonary edema and can also effect frostbite.

									Tem	pera	ture	(°F)							
	Calm	40	35	30	25	20	15	10	5	0	-5	-10	-15	-20	-25	-30	-35	-40	-45
	5	36	31	25	19	13	7	1	-5	-11	-16	-22	-28	-34	-40	-46	-52	-57	-63
	10	34	27	21	15	9	3	-4	-10	-16	-22	-28	-35	-41	-47	-53	-59	-66	-72
	15	32	25	19	13	6	0	-7	-13	-19	-26	-32	-39	-45	-51	-58	-64	-71	-77
	20	30	24	17	11	4	-2	-9	-15	-22	-29	-35	-42	-48	-55	-61	-68	-74	-81
ď,	25	29	23	16	9	3	-4	-11	-17	-24		-37	-44	-51	-58	-64	-71	-78	-84
Wind (mph)	30	28	22	15	8	1	-5	-12	-19	-26	-33	-39	-46	-53	-60	-67	-73	-80	-87
펻	35	28	21	14	7	0	-7	-14	-21		-34	-41	-48	-55	-62	-69	-76	-82	-89
⋚	40	27	20	13	6	-1	-8	-15	-22	-29	-36	-43	-50	-57	-64	-71	-78	-84	-91
	45	26	19	12	5	-2	-9	-16	-23	-30	-37	-44	-51	-58	-65	-72	-79	-86	-93
	50	26	19	12	4	-3	-10	-17	-24	-31	-38	-45	-52	-60	-67	-74	-81	-88	-95
	55	25	18	11	4	-3	-11	-18	-25	-32	-39	-46	-54	-61	-68	-75	-82	-89	-97
	60	25	17	10	3	-4	-11	-19	-26	-33	-40	-48	-55	-62	-69	-76	-84	-91	-98
Frostbite Times 30 minutes 10 minutes 5 minutes																			
Wind Chill (°F) = 35.74 + 0.6215T - 35.75(V <sup>0.16</sup> ) + 0.4275T(V <sup>0.16</sup> ) Where, Tr. Air Temperature (°F) Va Wind Speed (mph)  Effective 1/01/01																			

#### **Vital Statistics:** Panorama Point: 2.00 1400' 16% Slope 390' Pebble Creek: 0.47 18% Slope Moon Rocks: 1.49 1974' 29% Slope Camp Muir: 900' 27% Slope 0.64 Total: 4.60 4664' 20% Slope

### What You'll Need:

- \* Sunglasse
- \*Thermal Layer
- \*Insulating Layer
- \*Shell Layer
- \*Down lacket
- \*Hat
- \*Gloves (inner and shell
- \*Warm Winter Boots
- \*10 essentials
- \*GPS with extra batts
- \*2 liters of water
- \*Lunch and Emerg Food
- \*Stove / fuel
- \*Sleeping Bag / Pad
- \*Shovel
- \*Beacon / Probe
- \*Head Lamp
- \*Cell Phone / SPOT
- \*Skis / Snowshoes

#### <u>Information Resources:</u>

- \*Mt Rainier Recreational Forecast:
- <u>www.atmos.washington.edu/d</u> <u>ata/rainier\_report.html</u>
- \*Temp / Winds Aloft Forecast www.usairnet.com/cqibin/Winds/Aloft.cqi?location=S EA&Submit=Get+Forecast&hou

*r*=06&course=azimuth

- \*Avalanche Forecast
  <a href="http://www.nwac.us/forecast/">http://www.nwac.us/forecast/</a>
  <a href="mailto:avalanche/current/zone/7/">avalanche/current/zone/7/</a>
- \*Paradise Mountain Webcam http://mms.nps.gov/mora/cam /mountain.jpg
- \*Updated Route Conditions http://mountrainierclimbing.bl ogspot.com

#### **Camp Muir Weather**

	Average Temperature	Average Wind Speed			
Dec-Mar	16	24			
May-Jun	31	17			
Jul-Sep	42	16			
Oct-Nov	25	28			



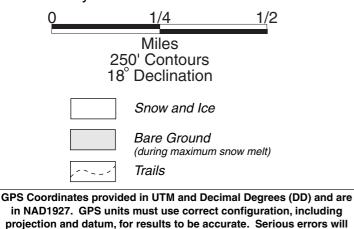
## GET YOUR BEARINGS

Mistakes in navigation while traveling to or from Camp Muir during storms and "white-outs" have resulted in lost climbers and hikers and fatalities. To decrease the possibility of this happening to your party, this map shows compass bearings to and from Camp Muir (true and magnetic north) as well as prominent landmarks. This map will not substitute for a USGS topographic map.

Proper bearings alone will not ensure a safe trip. Camp Muir and the Muir Snowfield are nearly surrounded by glaciers: the Nisqually Glacier to the west, the Cowlitz Glacier to the north and east, and the Paradise Glacier to the south and east. A minor error in navigation may lead you onto these glaciers where there are numerous crevasses and other hazards. Stay on course. You may have to correct your direction of travel to the windward due to strong winds, usually out of the west or southwest.

Always beware of steep cliffs to the east of Camp Muir and Anvil Rock and to the east of McClure Rock. These cliffs, obscured by snow and cornices in the winter, have been the sites of mountaineering tragedies. <u>Panorama Point</u> is a dangerous avalanche area.

While traversing the Muir Snowfield, approach rock islands with care because of holes which form around rocks as snow melts. Crevasses occasionally open up on the snowfield in the vicinity of Anvil Rock in late summer and may be hidden by snow.



occur if GPS units are not configured correctly!

