



Ridge Explorations LLC



NEWSLETTER OF RIDGE EXPLORATIONS FALL 2011

Happy 25th Anniversary...American Avalanche Association.

Thanks for your dedication to avalanche safety, education, and research.

- **Ridge Explorations is back again** at Crystal Mountain committed to avalanche education.
- **This year we are unveiling a new class for downhill skiers** called Sidecountry Safety (SCS). We will teach basic knowledge and skills needed to venture safely into the remote parts of ski resorts, or into basic lift accessed backcountry terrain. As skiers and snowboarders become more experienced, they look forward to the challenges of getting away from the groomed runs. This workshop includes a two-hour slideshow lecture and discussion and a two-hour on-snow training session covering transceiver and rescue skills. This will be a great intro for your friends and family. Tell them to look at our website for details.
- **Next year is the International Snow Science Workshop 2012** in Anchorage. 800 professional avalanche workers, the latest in theory and practice. Dates are September 16-22nd. REX staff will be there with bells on! ...well maybe transceivers!
☺ <http://www.alaskasnow.org/issw2012/>
- **REX Wilderness First Aid classes.** First Aid skills, like Level 1 avalanche skills are very important to have when you venture away from the car. Watch for our classes next year and expect the same high quality outdoor education from Ridge Explorations that you got with your avalanche education.
- **For those who are ready to do an expedition**, the Wapta Ski Traverse is a great place to start. This ski tour is one of the premier ski traverses in North America. It is a hut-to-hut trip and the huts are not far apart. You carry light packs and sleep cozy while enjoying the high Canadian Rockies. This trip is co-brokered with Revelstoke Alpine Guides, owned by my very good friend, Dave Scott. For that and other Canadian mountain explorations, go to Dave's website.
<http://www.revelstokealpine.ca/traverses.php>
- **We are on Face Book**, even though I hardly know how to use it. Ha Ha.
- **Level 1 Refresher** field trips are available if you want to keep your skills honed.
- **Below is the year in review of the Northwest Weather and Avalanche Center** scanned from *The Avalanche Review*, magazine of the American Avalanche

Sidecountry skiing ---

- Away from groomed runs
- Away from the crowds
- Fresh powder
- Getting lost
- Danger from Avalanches!
- Away from help



Association. If *you* want to get this magazine four times a year, become a member of the AAA. Tell them I sent you!

- **Clarke's Whistler Highcamp** is now taking reservations for your Ski Whistler Winter Getaway. REX team-member, Damian Clarke, invites you to visit www.whistlerhighcamp.com for more information.
- **Northwest Snow and Avalanche Summit** is November 13th. Hope to see you there.
- **As the snow flies, I will look for you on the trail.** And remember when stability is the question, terrain is the answer. Take knowledge to the mountains. And take care.
Don Langlois, owner and director of Ridge Explorations



■ Northwest Weather and Avalanche Center

November to Mid-January

After off-again-on-again snow that began in late October we started our forecasting season on November 24, the day before Turkey Day. It was to be a long season of early mornings that did not end until late April. The first avalanche fatality of the season occurred on December 4 when a solo climber was

killed in a gully on Morning Star Peak in the central Cascades.

Mother Nature seemed to think that the Northwest needed a periodic Pineapple Express this winter. The first came on December 12-13 with most sites near and west of the Cascade crest getting 4-8" of precipitation as snow changed to rain. Coastal freezing levels rose to 9600-11,400', and many natural and human-triggered avalanches were reported.

Off-again-on-again snow generally continued until mid-January. A warm and wet few days culminated in the second Pineapple Express of the season seen on January 15-16. Most sites near and west of the crest received 4-8.5" of precipitation mostly as rain with Timberline the winner with over 10". Coastal freezing levels rose to 9000-10,400' with many natural and human-triggered avalanches again reported. This also resulted in a crust that became a benchmark for the winter – the Martin Luther King (MLK) crust.



Spatial variability: Hurricane Ridge, Olympic Mountains, December 31. Photo by Greg Halberg

Mid-January to Mid-February

We had a drought during this period that made many of us doubt whether the hoped-for La Niña effects would ever materialize. The drought shows up in height of snow charts, especially at Crystal Mountain.

The second fatality of the season occurred on February 1. Well-known local skier Monika Johnson walked onto a cornice on top of Red Mountain at Snoqualmie Pass. The cornice failed, and Monika was killed in the resulting avalanche. The annual Alpentel Randonee Ski Rally has been renamed in her honor.

Some spectacular wind speeds were seen on February 12 at the NWAC Camp Muir weather station at 10,100' on Mt Rainier (*speeds in mph, at right*).

By mid-February many were singing the lack-of-snow blues and wondering what had become of all the promised La Niña snow. At about this time I overheard a conversation at the local maritime watering hole:

Billy Snow Crystal: "You seen any of that La Niña snow yet?" Jack Palance: "Nope." Billy: "Seems like it ain't gonna happen." Jack: "Winter ain't over yet."

Late February through April

Well winter wasn't over yet because La Niña kicked into high gear in late winter and spring here in the maritime Northwest. The February 22 to mid-March period gave us 10-20' of snow near and west of the crest. On February 29 an off-duty patroller at Mt Hood Meadows escaped a close call due to a skilled partner. On

Mt Rainier Camp Muir Wind Speeds 2/12/11

Time	Min	Ave	Max
800	85	100	113
900	90	102	114
1000	91	103	114
1100	97	112	131
1200	96	114	135
1300	95	117	137
1400	105	128	152
1500	107	132	155
1600	83	120	141
1700	96	111	127
1800	97	112	124
1900	87	112	130
2000	59	83	102

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March 4 a snowboarder who was part of a film project was seriously injured near Mt Baker. After a heroic evacuation the crew later noted that all seven factors of ALPTRUTH were present.

The third fatality of the season was seen on March 5 at Mt Cashmere, which is east of the Cascade crest. A backcountry skier triggered a slab on a rollover where recent snow had accumulated on facets above the MLK crust. The accident report notes that the average height of snow in that area was 250 cm, but the height of snow at the trigger point was 45 cm.



D5, Mt Hood Meadows, March 10. Photo by Ron Martin

With all of the late February and early March snow accumulating on a weak facet/MLK crust combination, an enormous D5 avalanche was artificially triggered on March 10 at Mt Hood Meadows. Note the person in the lower right of the photo above.

The fourth fatality of the season occurred on the backside of Cowboy Mountain near Stevens Pass on March 27. The victim triggered a shallow wet-snow avalanche that entrained more wet snow and carried the victim into trees.

The third deluge of the season came on March 30 to April 1 with most NWAC sites getting 2-6" of rain and Snoqualmie topping out at 8.5". Another huge, natural D5 avalanche was reported on March 30 on Mt Hood, once again releasing on the



Stevens Pass, March 31.

Photo by Mike Stanford

facet/MLK crust combination. More examples of this deep instability were very large controlled avalanches on April 1 within the Crystal Mountain ski area. This was followed by injury accidents on April 3 and 6 at Stevens and Snoqualmie respectively.

The photo at left shows a snowplow that was caught in an avalanche on March 31 at

Stevens Pass. Fortunately the driver was not seriously injured.

Stevens Pass. Fortunately the driver was not seriously injured.

The strong La Niña conditions continued with a vengeance through April. NWAC sites near and west of the crest received another 6-12' of snowfall in April.

Several sites continued to attain new height of snow maximums for the season at the end of April, well after the usual time of around April 1. Monthly average freezing levels at Quillayute, Washington, actually lowered from January (5300'), to February (3800'), to March (3550'), to April (3490').

May 1 Snow Heights & Percent of Normal

	Height	%
Hurricane Ridge.....	170"	187
Mt Baker Ski Area.....	241"	175
Stevens Pass.....	113"	140
Snoqualmie Pass.....	87"	147
Crystal Mountain.....	107"	149
Paradise, Mt Rainier....	244"	153
White Pass.....	66"	228
Timberline, Mt Hood...	211"	138
Mt Hood Meadows.....	156"	137

Roses and Twitters

We starting issuing avalanche danger roses with our avalanche forecasts this season. Our roses use elevation rings that range from 3000-7000' and divide the compass into eight parts.

We also started Tweets (?), Twitters (?) Twittering (?) – at least until the next latest social media fad comes along – with about 100 twitters tweeted so far this season.

Friends of the Northwest Weather and Avalanche Center

The FOAC continues to be a great help and the recent SnowBall live and silent auction dinner netted \$32,000 for their educational and other support efforts.

—Garth Ferber, forecaster



Bear Gap April, 2010

↑ NIGHT IN THE WOODS

→ SKI AREA

What can you do?
PREPARE
Educate Yourself
Get outside training

Beyond Ski Area Boundary

Be smart or be cold and wet...*or worse!* 2011/09/2