## Participating in the 2010 Olympics as a forecaster

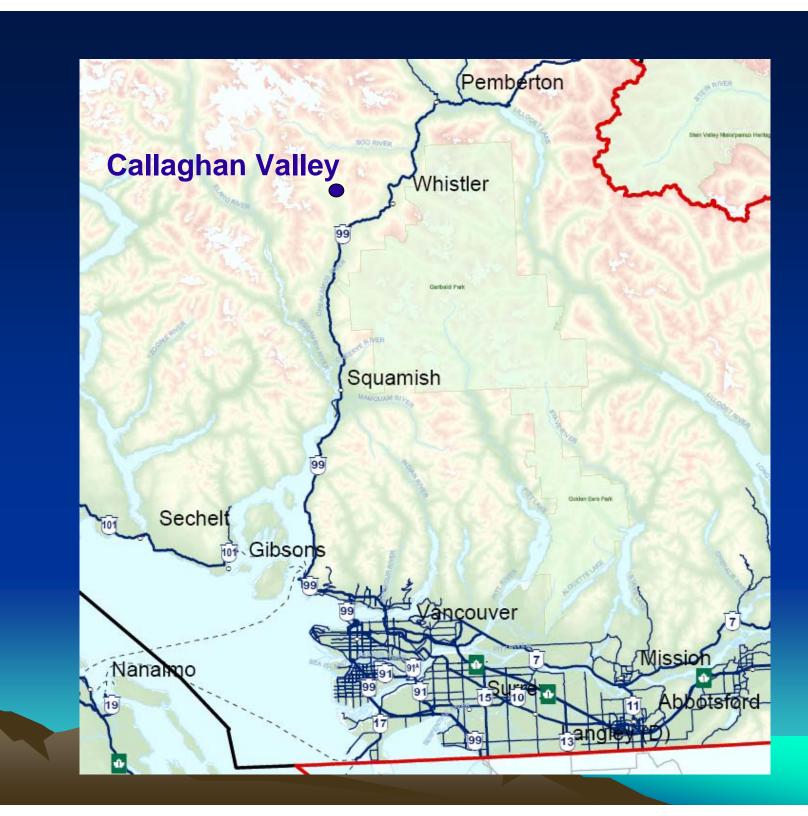
a recent forecast training experience

Doug McDonnal

National Weather Service, Seattle

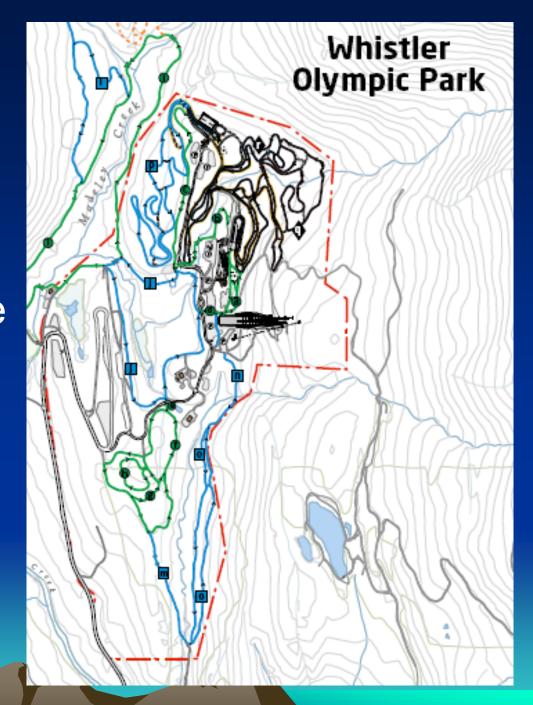
#### Training for 2010 Forecast Team members has included

- Mountain Weather Course at COMET
- Training at the Pacific Storm Prediction Center
- The venue practicum



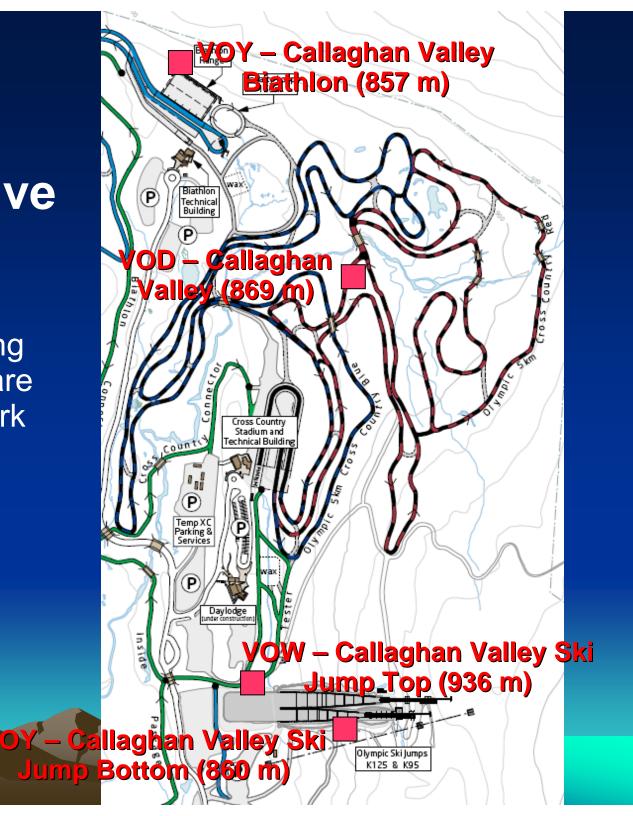
# Whistler Olympic Park – the nordic events venue in the Callaghan Valley

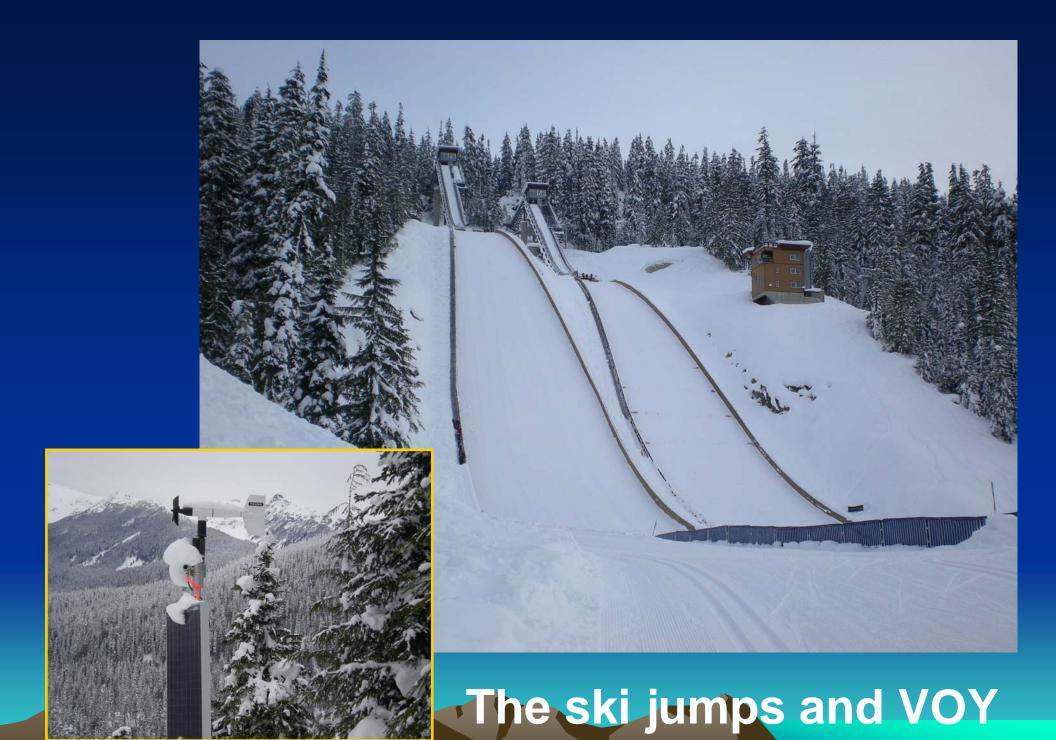
- built especially for the 2010 Winter Games
- opened for public recreation and competitive events in late 2007



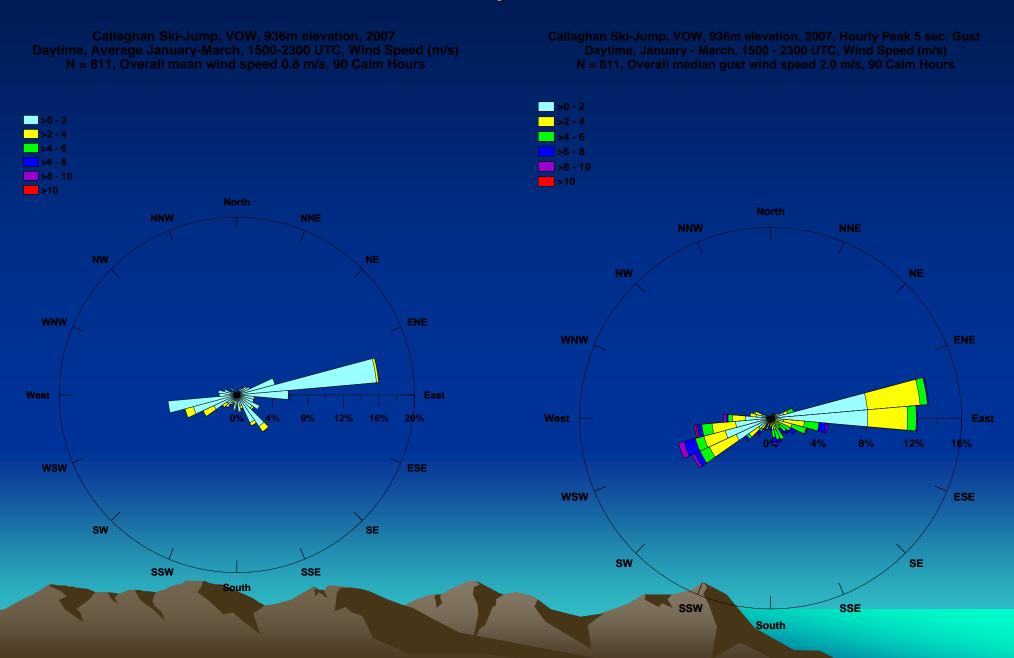
## The Callaghan Valley competitive venue area

 Includes four supporting weather stations that are part of the OAN network



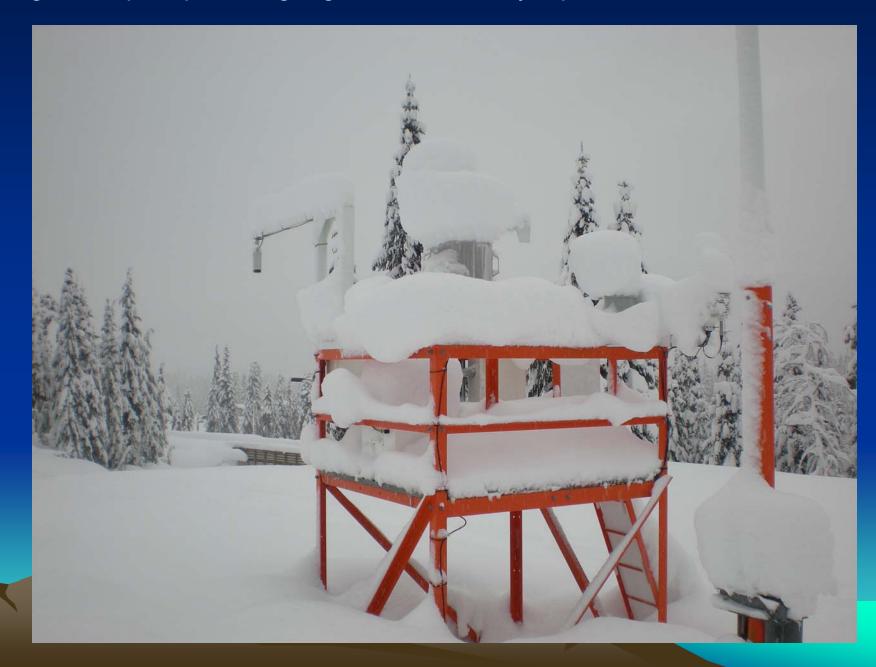


## Callaghan Ski-Jump, Daytime Average and Peak Gust, Hourly Wind



### VOD – Callaghan Valley

snow capping of the precipitation gauge is occasionally a problem



### Daily forecasting routine included

- hourly forecasts
- text forecasts
- briefings
- verification

Connection to PSPC network gives venue forecasters the full suite of models, observations, and operational data





Event support –

North American Junior National Combined Nordic Championships (Jan 2-5)

BC Cross Country Cup (Jan 19-20)

#### Visibility (km)

Date (m/d/y) & Time (PST)	Temp (Celsius)	Dew point (C)	Wind dirction	Wind speed (m/s)	min	max	Snow past 3 hours (cm)	Total snow (cm)	Rain past 3 hours (mm)	Precip Past 3 hours (mm water- equivalent)	Total precip (mm)	Base snow depth (cm)
1/4/08 10:00	0	-0.5	20	1	3	10	0	0.2	0	0.2	0.2	156
1/4/08 11:00	0	0	30	1				0.2			0.2	
1/4/08 12:00	0	0	40	1G2				0.2			0.2	
1/4/08 13:00	0	0	50	1G3	1.5	8	3.5	3.7	0	3.3	3.5	158
1/4/08 14:00	0.5	0.5	50	1G3				3.7			3.5	
1/4/08 15:00	0.5	0.5	60	1G3				3.7			3.5	
1/4/08 16:00	0.5	0.5	70	1G3	1	4	4.5	8.2	0	6.1	9.6	160
1/4/08 17:00	0.5	0.5	70	1G3				8.2			9.6	
1/4/08 18:00	0.5	0.5	70	1G3				8.2			9.6	
1/4/08 19:00	0.5	0.5	80	1G3	1	4	3	11.2	0.2	4.6	14.2	162
1/4/08 20:00	0.5	0.5	100	1				11.2			14.2	
1/4/08 21:00	0.5	0.5	100	1				11.2			14.2	
1/4/08 22:00	0.5	0.5	100	1	1	4	3.5	14.7	0.2	4.9	19.1	164
1/4/08 23:00	0.5	0.5	100	1				14.7			19.1	
1/5/08 0:00	0.5	0.5	100	1				14.7			19.1	
1/5/08 1:00	0.5	0.5	110	1	1	4	3	17.7	0.2	4	23.1	161
1/5/08 2:00								17.7			23.1	
1/5/08 3:00			1					17.7			23.1	
1/5/08 4:00	0.5	0.5	120	1G2	1	4	3	20.7	0.2	4	27.1	162

Callaghan Valley synopsis, summary, and outlook – January 5<sup>th</sup>

A trough of low pressure was moving through British Columbia Saturday, bringing more snowfall to the Callaghan Valley and the strongest winds of the week. Around 3 cm of snow fell during the morning hours, and another 6 to 9 cm is likely before the end of the day. The temperature will be nearly steady at zero degrees through the afternoon. Southerly winds rose to 2 m/s gusting to 7 m/s at the base of the ski jump late this morning, and they will likely peak this afternoon at 3 m/s with gusts to 10 m/s.

Flurries will continue tonight, gradually decreasing overnight as the system weakens and lifts northeast of the region. Snowfall will amount to 5 to 10 cm tonight. The overnight low will fall to around -3. The southerly winds will continue to ease this evening, becoming light easterly overnight.

An upper trough over the Gulf of Alaska will approach the coast Sunday and move inland Sunday night, for a transition to a period of cooler and less wet weather. Flurries on Sunday will likely bring 4 to 8 cm of snow, with a high temperature of -1. The wind will be easterly 2 m/s or less. Flurries will decrease Sunday night, and occasional clearing will allow the temperature to fall to around -7 overnight.

A weak upper ridge will move to the coast Monday, producing cloudy skies with sun breaks and a chance of light flurries. The high temperature will be around -3.

A more active pattern will return Tuesday, as another vigorous Pacific frontal system brings a fresh round of moderate to heavy snowfall to the Callaghan Valley. Flurries in the wake of the front will continue on Wednesday.

## North American Junior National Combined Nordic Championships (Jan 1-5)

- An active weather pattern had a significant impact on event planning.
- Three vigorous frontal systems moved through southwest British Columbia between Tuesday and Friday, followed by a strong upper trough on Saturday.
- Base snow depth increased from 131 cm to 178 cm during the period.
- Periods of heavy snow suspended use of the jump at times and required many hours of grooming and preparation.
- The upper trough moving through the area on Saturday produced one of the windiest days this winter, with sustained winds of 3 m/s and gusts of 10 m/s at the jump site.

