Sahalie Historical Note #14 – Snow over the years at Snoqualmie Pass



I am continually stunned by the wealth of information now at our fingertips through the World Wide Web. Not that it is foolproof – in fact, there are a lot of fools out there. But tracking down credible historical data, photos and facts has been made ever so much easier on-line compared to back-in-the-day.



This latest in my historical series looks at **snowfall** and **snow accumulation** at Snoqualmie Pass – fairly important features to a ski club, eh?! Is it trending up or down? Remember the good ol' days when we couldn't even see the lodge there was so much snow? Or the year Sahalie had to run Carnival races on a small patch of snow over at Alpental because our hill was bare? Is La Nina all it's cut out to be at 3,000 feet? And on and on... the Senior Room arguments can be legendary.

So after a little surfing, I offer the following summary for your nerdy pleasure and argumentative ammunition, as we enter what promises to be a great ski season ahead.

First, we should acknowledge that the devil is often in the details. There are different sources of data, all measured slightly differently or measuring different parameters. Some summaries are reported as the "winter season" (Oct – May), others for the calendar year, yet others for the "water year" (Oct – Sept). Even small differences in location of the sample result in big changes in results. There is a significant difference between precipitation (snowfall) totals and on-the-ground snow levels (accumulated snow depth). Then there is snow water content, which is important to the river and irrigation managers downstream. We'll focus on the first two, snowfall and snow depth, in order.

Snowfall

The Washington State Department of Transportation keeps a historical summary of snowfall at the Pass going back to 1949, at <u>http://www.wsdot.wa.gov/NR/rdonlyres/831F0090-87F0-4210-A21E-</u> <u>B788ED17852C/0/111411HistoricalSnowfallthrough1011season.pdf</u>. I attach the DOT data at the end of this article so you can see the year-by-year details.

Snowfall data for Hyak are also available on the web at: <u>http://hyak.net/snowfallhist.html</u> going all the way back to 1930. I attach these data at the end, too, in case you want to drill down.

Just as I was about to crunch the DOT data myself in an Excel table, I came upon a snowboarder dude with the Webhandle, Drexnefex, and his excellent work at "nwBroweather" (<u>http://www.nwbroweather.com/2010/10/snow-data-full-retard/</u>). Drex saved me the trouble. I give him and his nwbroweather site full credit for the following cool summary stats and charts.



Here is Drex's **annual summary chart for snowfall at Snoqualmie Pass in the last 60 years** (beginning on the left with the 1949-1950 season and extending to the right at 2009-2010 (the chart doesn't include last season, which at 497 inches was a better-than-average winter):



(Source: http://www.nwbroweather.com/2010/10/snow-data-full-retard/)

As you can see, snowfall varies a lot and has always varied a lot year-to-year – some good, some dreadful. It does look like the stretch in the mid 1950s was a good time to be a skier at the Pass. In fact, 1955 was the coldest year statewide on record. Maybe there is a frosting of truth to those old-timers' stories of slogging into Sahalie lodge through waist-deep snows....



Average snowfall per month at Snoqualmie Pass over these 60 years (1949-2009) looks like this:

(Source: http://www.nwbroweather.com/2010/10/snow-data-full-retard/)



A completely different data set based at the Western Regional Climate Center for the years 1930-1972 yields the following average and extreme snowfall per <u>day</u> at Snoqualmie Pass (I attach the WRCC's monthly summary data at the end of this article):



Note in the above chart that there have been many occasions over those years where we've gotten more than two-and-a-half feet of snow in 24 hours!

By his own admission, Drex from nwBro "took the nerd up a notch" to develop the following "sweet-ass comparisons" between regular winters and those officially designated by NOAA as La Nina. Look at the whopping difference in La Nina winters: 128% more snow on average! (That's more than a quarter more snow in La Nina years, for the math-challenged among us.)



Snoqualmie Pass	Histo	rical Sı	nowfa	ll Sur	nma	ry T	ab	le	
MonthOctobe	rNovemł	berDecemb	erJanuar	yFebrua	ryMarcl	nApri	l May	yJune	Total
Average/All Time5" Average/1994-Now4" Average/La Nina5"	50" 48" 61"	96" 100" 110"	107" 94" 132"	72" 58" 95"	72" 69" 80"	26" 24" 30"	4" 7" 6"	0" 1" 1"	433" 405" 518"
Difference/La Nina & All Time ^{+1"}	+13″	+10″	+37"	+37″	+11"	+6″	-1″	0″	+113"
% Difference/La Nina & All Time ^{125%}	127%	110%	139%	163%	116%	1259	%82%	6125	%128%
(Source: <u>http://wv</u>	vw.nwbrowe	eather.com/20) <u>10/10/snov</u>	<u>w-data-full-</u>	retard/)				

Drex charted this difference to help those of us where a picture is worth a thousand numbers:



Snowfall totals per month at Snoqualmie Pass in La Nina winters vs. the 62-year average.

(Source: http://www.nwbroweather.com/wp-content/uploads/2010/10/Snoqualmie-Pass-Historical-Snowfall-by-Month-La-

Nina.jpg)



This bodes well for the 2011-2012 season ahead. Here are the NOAA long-range forecast maps (generated 20 October 2011):

...more precip (green = greater than average) ...



(Source: National Weather Service Climate Prediction Center, http://www.cpc.ncep.noaa.gov/products/predictions/90day/)

... and lower temps (blue = below average):



(Source: National Weather Service Climate Prediction Center, <u>http://www.cpc.ncep.noaa.gov/products/predictions/90day/</u>)

For the full-meal-deal on the La Nina predictions, check out the "El Nino/Southern Oscillation (ENSO) Diagnostic Discussion," updated as of November 10, 2011, at:

http://www.cpc.ncep.noaa.gov/products/analysis_monitoring/enso_advisory/ensodisc.html . %





Now, for **snow depth**

The Office of the Washington State Climatologist, based at U.W., offers a cool site where one can query data going back to the 1929-1930 winter season

(<u>http://www.climate.washington.edu/snowdepth/</u>). It is fun to play with the graphing function here to compare a specific winter season with the averages, but I haven't yet been able to mine these data for all the specific years in one chart. Stay tuned for that.



Here is their summary chart for snow depth at Snoqualmie Pass over 81 years of record:

(Source: Office of the Washington State Climatologist (<u>http://www.climate.washington.edu/snowdepth/</u>)

Note that while average snow<u>fall</u> per month (previous charts) is highest in November/December, average on-the-ground snow <u>depth</u> keeps building through late March on average before starting to diminish. The blue max line in the above graph gets the juices flowing; the brown min line, on the other hand, is pretty scary, eh? Many of you remember those winters....

The Western Regional Climate Center (based at the Desert Research Institute in Reno, Nevada) has access to snow depth data from 1930 through 1972. A query produces the following summary graph:



And for you weather junkies who want to know up-to-the-minute conditions, the Northwest Avalanche Center offers **real-time (telemetry) weather data, updated hourly, 24-7, for the last ten days for Alpental**: at the base (3100 feet), mid-level (4350 feet), and top (5470/5520 feet)! Both in graphical form and as numerical data! Dig in. Save these links in your favorites and check them often – for graphical data within the last hour and for the past ten days:

http://www.nwac.us/weatherdata/alpental/ and for numerical data also up to the hour:

<u>http://www.nwac.us/weatherdata/alpental/10day/</u>. I include an example of the graphical display from the Alpental telemetry data on the next page. Way cool, indeed. Habit-forming.

Any statisticians in the club? If you were good at math in school and can get excited about charting some of the referenced data beyond what Drex/nwbro did for our benefit, let me know – I think there are some further, interesting ways to show these figures that will offer even more value for us all.

But meanwhile, the Alpental telemetry tells me it is snowing hard as I send this off to you! Yes.

Dave Galvin (November, 2011)

Galvind53@gmail.com



Here is an example of the Northwest Avalanche Center's real-time weather data for Alpental:

Here are the Washington DOT Snowfall data for Snoqualmie Pass, from 1949 through 2011 (page 1 of 3)

(Source: http://www.wsdot.wa.gov/winter/snoqualmie/).

WSDOT South Central Region

Snoqualmie Pass Monthly and Seasonal Totals and Averages

Winter	Season	Yearly			h	nches of S	nowfall				
Season	Snowfall	Average	October	November	December	January	February	March	April	May	Year
1949-50	696	696	0	6	168	220	112	125	61	4	1
1950-51	590	643	0	74	98	185	86	147	0	0	2
1951-52	477	588	0	51	166	130	52	78	0	0	3
1952-53	460	556	0	6	102	115	82	86	58	11	4
1953-54	680	581	0	29	116	267	145	56	67	0	5
1954-55	630	589	0	6	113	82	111	221	97	0	6
1955-56	828	623	10	125	175	190	169	150	9	0	7
1956-57	517	610	36	56	31	114	133	127	20	0	8
1957-58	396	586	12	36	148	107	- 30	38	25	0	9
1958-59	419	569	0	81	44	93	59	113	18.	11	10
1959-60	456	559	3	26	60	71	77	130	78	11	11
1960-61	505	555	0	102	56	96	124	84	41	2	12
1961-62	405	543	26	45	141	31	20	112	30	0	13
1962-63	236	521	4	43	41	24	25	81	11	7	14
1963-64	678	532	8	46	70	265	79	152	45	13	15
1964-65	501	530	0	94	138	150	96	22	1	0	16
1965-66	510	528	0	34	104	166	107	99	0	0	17
1966-67	483	526	0	26	85	140	96	101	34	1	18
1967-68	422	520	0	31	111	128	. 40	54	58	0	19
1968-69	615	525	3	42	192	243	102	33	0	0	20
1969-70	383	518	0	5	110	175	71	22	0	0	21
1970-71	492	517	4	49	149	186	79	24	1	0	22
1971-72	600	521	23	58	157	170	70	62	60	0	23
1972-73	233	509	0	14	70	77	15	42	15	0	24

Daily Snowfall is the amount of new snow measured each morning at 6:00am.

Measurements are taken from a WSDOT study plot on the summit of Snoqualmie Pass. Snowfall amounts vary greatly east and west of the summit.

	(S	ource:	http://	www.wso	dot.wa.go	ov/wint	er/snoq	ualmie/			
			·).		·		-		
WSDC	T South Cei	ntral Regio	n ^{Sn}	oqualmie Pass	Monthly and Se	asonal Total	s and Averages	3			
Winter	Season	Yearly			Ir	nches of S	Snowfall				
Season	Snowfall	Average	October	November	December	January	February	March	April	May	
1973-74	692	516	5	142	128	112	139	124	22	20	25
1974-75	504	516	0	58	. 111	126	111	63	35	0	26
1975-76	535	516	43	91	64	107	120	98	12	0	27
1976-77	191	505	0	2	19	23	35	112	0	0	28
1977-78	315	498	0	69	79	50	46	33	19	19	29
1978-79	350	493	0	39	74	44	141	26	26	0	30
1979-80	366	489	1	22	60	115	49	103	16	0	3.
1980-81	219	481	0	40	43	13	25	21	77	0	32
1981-82	472	480	0	13	132	161	72	43	43	8	33
1982-83	336	476	14	68	107	56	47	25	19	0	34
1983-84	359	473	0	74	85	22	72	43	59	4	3
1984-85	443	472	31	103	140	3	90	60	16	0	30
1985-86	311	468	13	70	31	87	82	11	16	1	37
1986-87	300	463	0	36	67	102	39	46	10	0	38
1987-88	334	460	0	13	81	77	39	90	31	3	39
1988-89	410	459	0	84	44	134	55	64	29	0	4(
1989-90	421	458	0	28	13	159	145	53	23	0	4
1990-91	367	456	7	45	113	68	11	82	41	0	42
1991-92	211	450	8	53	46	61	43	0	0	0	43
1992-93	266	446	0	57	122	51	10	22	4	0	44
1993_94	313	443	0	25	58	52	119	45	14	0	4
1994_95	411	442	12	127	105	68	45	35	19	0	46
1995 96	314	439	0	43	71	126	40	23	7	4	47

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WSDC	T South Cen	itral Regio	n Sn	oqualmie Pass	Monthly and Se	asonal Total	s and Averages				
Winter	Season	Yearly			Į.	nches of S	Snowfall				
Season	Snowfall	Average	October	November	December	January	February	March	April	May	
1996_97	602	443	26	90	182	70	72	129	24	9	4
1997_98	361	441	0	22	74	149	58	52	6	0	4
1998_99	603	444	0	65	146	102	164	82	19	25	Ę
1999_20	427	444	5	39	102	144	65	48	22	2	5
2000_01	295	441	0	46	67	53	50	43	24	12	ŧ
2001_02	540	443	13	50	124	117	66	124	28	18	ŧ
2002_03	277	440	0	0	73	51	23	86	28	16	ŧ
2003_04	381	439	1	74	125	97	46	37	1	0	ę
2004_05	216	435	2	19	57	35	23	65	15	0	ł
2005_06	446	435	1	88	61	175	71	41	9	0	ę
2006_07	389	434	3	111	96	68	62	37	11	1	ŧ
2007_08	590	437	2	23	174	131	98	89	73	2	Ę
2008_09	433	437	0	7	131	74	24	143	46	8	e
2009_10	297	435	5	79	44	44	13	50	54	9	6
2010_11	497	436	1	79	112	48	78	94	.84	3	6
Averages	435.6		5.2	51.3	96.9	106.4	72.1	72.6	27.6	3.6	-
49/50-09/10	Yearly Total		October	November	December	January	February	March	April	May	
	Cumulative	Average	5.2	56.5	153.3	259.8	331.8	404.4	432.0	435.6	
		M	Daily Snov easurements S	vfall is the amou are taken from nowfall amount	unt of new snow a WSDOT study is vary greatly e:	r measured e plot on the s ast and west	ach morning at summit of Snoq of the summit.	6:00am. ualmie Pass.			

Western Regional Climate Center Snowfall Data for Snoqualmie Pass, from 1930 to 1972

(Source: http://www.wrcc.dri.edu/cgi-bin/cliMAIN.pl?wasnop)

Monthly Total Snowfall, SNOQUALMIE PASS, WASHINGTON

Page 1 of 3

SNOQUALMIE PASS, WASHINGTON

Monthly Total Snowfall (Inches)

(457781)

File last updated on Jul 25, 2006 *** Note *** Provisional Data *** After Year/Month 197202

a = 1 day missing, b = 2 days missing, c = 3 days, ...etc...,

z = 26 or more days missing, A = Accumulations present Long-term means based on columns; thus, the monthly row may not

ong-term means based on columns, thus, the monthly row m

sum (or average) to the long-term annual value.

MAXIMUM ALLOWABLE NUMBER OF MISSING DAYS : 5

Individual Months not used for annual or monthly statistics if more than 5 days are missing. Individual Years not used for annual statistics if any month in that year has more than 5 days missing.

YEAR (S)	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	AN
1930- 31	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	80.00	46.00	56.00	23.00	3.00	0.00	208.
1931- 32	0.00	0.00	0.00	11.00	82.00	96.00	117.00	83.00	82.00	26.00	0.00	0.00	497.
1932- 33	0.00	0.00	0.00	9.50	38.00	118.00	134.00	119.00	82.00	15.00	8.00	2.00	525.
1933- 34	0.00	0.00	5.00	8.00	0.00	154.00	80.00	8.00	15.00	19.00	0.00 o	0.00 e	289.
1934- 35	0.00j	0.00 e	0.00h	0.00 k	41.00	134.50	81.00	53.00	96.00	23.00	11.00	0.00	439.
1935- 3 <u>6</u>	0.00	0.00 z	0.00	8.50	29.00	73.50	124.50	144.00	107.00	5.00	2.50	0.00 đ	1494.
1936- 37	0.00	0.00	4.00 e	0.00 a	0.00 z	71.90	98.50	190.50	23.90	62.00	0.00	0.00	450.
1937- 38	0.00 a	0.00 a	0.00	0.00	45.50	140.50	70.00	60.70	110.50	2.00	9.50	0.00	438.
1938- 39	0.00	0.00	0.00	0.00	57.00	74.00	112.00	129.00	83.00	8.50	2.00	0.00	465.
1939- 40	0.00	0.00	0.00	7.50	6.00	46.00	53.00	112.50	38.00	6.50	7.00	0.00	276.
1940- 41	0.00	0.00	0.00	1.00	49.50	45.50	73.80	21.50	2.00	2.00	0.80	0.00	196.
1941- 42	0.00	0.00	0.00	0.00	1.50	65.50	25.50	45.50	25.00	5.50	3.50	0.00	172.
1942- 43	0.00	0.00	0.00	11.10	69.50	98.90	31.00 a	0.00	75.00	5.60	30.30	0.00	321.
1943- 44	0.00	0.00	0.00	19.00 c	16.00	31.50	84.00	53.50	71.10	27.70	7.00	0.00	309.
1944- 45	0.00	0.00	0.00	0.00	32.00	25.70	24.50	47.00 a	91.60	0.00 z	0.00	0.00 c	220

Western Regional Climate Center Snowfall Data for Snoqualmie Pass, from 1930 to 1972

(Source: http://www.wrcc.dri.edu/cgi-bin/cliMAIN.pl?wasnop)

Monthly Total Snowfall, SNOQUALMIE PASS, WASHINGTON

Page 2 of 3

1945- 46	0.00 m	0.00 z	z 0.00 n	0.501	36.80 k	0.002	z 51.90 c	l 64.90 d	34.50b	17.30b	0.00e	e 0.00 a	n 168.
1946- 47	0.00 d	0.00 c	10.00 d	14.30b	66.70 d	36.60	e 57.30	2.00 i	33.00 d	31.50a	0.00 f	0.00	239.
1947- 48	0.00 e	0.00 j	0.00e	6.00	59.00b	74.00	a 95.00	102.50 c	45.00 f	39.00	0.50 <i>a</i>	a 0.00	376.
1948- 49	0.00	0.00	0.00	5.50	114.00	112.50 i	26.20 e	90.50 h	25.50	6.50	7.50	0.00	185.
1949- 50	0.00	0.00	0.00	0.00 d	6.50	114.60\$	\$227.00	113.00	123.00 c	61.00	4.00	0.00	649.
1950- 51	0.00	0.00	0.00	2.00f	0.00 u	0.002	z 0.00 z	2 41.00 o	74.00 m	0.00	0.00z	2 0.00 z	z 0.
1951- 52	0.00 z	0.00 z	z 0.00 z	0.00 z	0.00 z	0.002	z 0.00 z	e 0.00 z	0.00 z	0.00 z	0.00 z	z 0.00 z	z 0.
1952- 53	0.00 z	0.00 2	z 0.00 z	0.00	2.00b	99.50	101.50	81.50	73.00	55.00a	11.00	1.00	424.
1953- 54	0.00	0.00	0.00	0.00	30.00	125.00	251.00	146.00	55.00	52.00	0.00	1.00	660.
1954- 55	0.00	0.00	0.00	0.00	0.00 r	105.00	65.00	101.00	222.00	87.40	18.00	0.00	598.
1955- 56	3.00	0.00	0.00	7.00	107.00	157.00	198.00	166.00	150.00	9.00	3.00	0.00	800.
1956- 57	0.00	0.00	0.00	44.00	62.00	29.40	124.00	129.00	134.00	8.30	0.00	0.00	530.
1957- 58	0.00	0.00	0.00	12.00	33.00	151.00	112.00	24.00	38.00	25.00	0.00	0.00	395.
1958- 59	0.00	0.00	0.00	1.00	81.00	21.00	104.00	64.00	121.00	18.00	11.00	0.00	421.
1959- 60	0.00	0.00	0.00	3.00	22.20	57.00	83.00	83.00	144.00	78.00	0.00	0.00	470.
1960- 61	0.00	0.00	0.00	5.00	27.00 f	49.50	91.80	114.30	81.00	41.00	2.00	0.00	384.
1961- 62	0.00	0.00	0.00	28.00	40.30	128.60	36.70	24.00	116.00	28.50	0.00	0.00	402.
1962- 63	0.00	0.00	0.00	3.00	0.00 z	39.00	25.00	32.00	77.80	11.00	7.00	0.00	194.
1963- 64	0.00	0.00	0.00	2.00	45.00	67.00	265.00	80.00	149.00	43.00	12.00	0.00	663.
1964- 65	0.00	0.00	0.00	0.00	98.00	152.50	155.50	92.00	22.00	1.00	15.00	0.00	536.
1965- 66	0.00	0.00	0.00	0.00	25.70	79.50	124.00	112.00	95.00	17.00	0.00	0.00	453.
1966- 67	0.00	0.00	0.00	22.00	24.00	82.00	136.00	95.00	101.00	31.00	2.00	0.00	493.
1967- 68	0.00	0.00	0.00	0.00	0.00 z	74.00	130.50	44.00	0.00 z	44.50	5.00	0.00	298.
1968- 69	0.00	0.00	0.00	0.00 z	44.00	196.70	253.80	90.00	27.60	25.00	2.00	0.00	639.

Weste	Western Regional Climate Center Snowfall Data for Snoqualmie Pass, from 1930 to 1972												
		(So	urce:	http://	www.w	rcc.dri.	edu/cgi-	bin/cliN	IAIN.pl?	wasno	<mark>p</mark>)		
Monthl	y Total	l Snov	vfall, S	NOQU	ALMIE	PASS, W	ASHINC	JTON				Page 3	3 of 3
1969- 70	0.00	0.00	0.00	0.00	4.00	0.00 z	2 149.50	69.00	27.00	71.00	0.00	0.00	320.
1970- 71	0.00	0.00	0.00	0.00 z	52.00	158.00	0.00 z	0.00 z	0.00 z	0.00 z	0.002	z 0.00 z	z 210.
1971- 72	0.00 z	0.002	z 0.00 z	0.00 z	50.50 e	122.00	117.50	58.90 b	0.00 z	0.00 z	0.002	z 0.00 z	2348.
					Pe	riod of F	lecord Sta	atistics					
MEAN	0.08	0.00	0.25	6.72	43.45	91.51	106.92	81.06	77.99	27.15	5.13	0.11	460.
S.D.	0.50	0.00	1.05	9.65	30.26	45.67	63.07	44.50	48.34	23.02	6.50	0.39	156.
SKEW	5.75	0.00	3.96	2.16	0.55	0.30	0.98	0.32	0.66	0.94	1.93	3.83	0.
MAX	3.00	0.00	5.00	44.00	114.00	196.70	265.00	190.50	222.00	87.40	30.30	2.00	800.
MIN	0.00	0.00	0.00	0.00	0.00	21.00	24.50	0.00	2.00	0.00	0.00	0.00	172.
NO YRS	36	35	36	34	33	36	39	37	36	38	36	38	

Snowfall Data for Hyak, from 1930 to 2011 (page 1 of 3)

(Source: <u>http://hyak.net/snowfallhist.html</u>)

Season	Season	Seasonal								
Oct/May	Snowfall	Average	October	November	December	January	February	March	April	May
1930-31	361	(by decade)	6*	51*	96*	80	46	56	23	3
1931-32	497		11	82	96	117	83	82	26	0
1932-33	525		9	38	118	134	119	82	15	8
1933-34	289		8	0	154	80	8	15	19	0
1934-35	439		0	41	134	81	53	96	23	11
1935-36	494		8	29 ·	- 74	124	144	107	5	3
1936-37	501		0	51*	72	98	191	24	62	0
1937-38	438		0	46	140	70	61	110	2	10
1938-39	465	1931-40	0	57	74	112	129	83	8	2
1939-40	276	428''	8	6	46	53	112	38	7	7
1940-41	196		1	49	46	74	21	2	2	1
1941-42	172		0	2	66	25	45	25	6	4
1942-43	321		11	70	99	31	0	75	6	30
1943-44	309		19	16	32	84	54	71	27	7
1944-45	223		0	32	26	25	47	92	3*	0
1945-46	264		1	37	96*	52	65	35	17	0
1946-47	239		14	67	37	57	2	33	32	0
1947-48	376		6	59	74	95	103	45	39	1
1948-49	185	1941-50	6	114	112	26	91	26	6	8
1949-50	696	298"	0	6	168	220	112	125	61	4
1950-51	590		0	74	98	185	86	147	0	0
1951-52	477		0	51	166	130	52	78	0	0
1952-53	460		0	6	102	115	82	86	58	11
1953-54	680		0	29	116	267	145	56	67	0
1954-55	630		0	6	113	82	111	221	97	0
1955-56	828		10	125	175	190	169	150	9	0
1956-57	517		36	56	31	114	133	127	20	0
1957-58	396		12	36	148	107	30	38	25	0
1958-59	419	1951-60	0	81	44	93	59	113	18	11
1959-60	456	545"	3	26	60	71	77	130	78	11
1960-61	505		0	102	56	96	124	84	41	2

Snowfall Data for Hyak, from 1930 to 2011 (page 2 of 3)

(Source: http://hyak.net/snowfallhist.html)

1961-62	405		26	45	141	31	20	112	30	0
1962-63	236		4	43	41	24	25	81	11	7
1963-64	678		8	46	70	265	79	152	45	13
1964-65	501		0	94	138	150	96	22	1	0
1965-66	510		0	34	104	166	107	99	0	0
1966-67	483		0	26	85	140	96	101	34	1
1967-68	422		0	31	111	128	40	54	58	0
1968-69	615	1961-70	3	42	192	243	102	33	0	0
1969-70	383	474"	0	5	110	175	71	22	0	0
1970-71	492		4	49	149	186	79	24	1	0
1971-72	600		23	58	157	170	70	62	60	0
1972-73	233		0	14	70	77	15	42	15	0
1973-74	692		5	142	128	112	139	124	22	20
1974-75	504		0	58.	111	126	111	63	35	0
1975-76	535		43	91	64	107	120	98	12	0
1976-77	191		0	2	19	23	35	112	0	0
1977-78	315		0	69	79	50	46	33	19	19
1978-79	350	1971-80	0	39	74	44	141	26	26	0
1979-80	366	428''	1	22	60	115	49	103	16	0
1980-81	219		0	40	43	13	25	21	77	0
1981-82	472		0	13	132	161	72	43	43	8
1982-83	336		14	68	107	56	47	25	19	0
1983-84	359		0	74	85	22	72	43	59	4
1984-85	443		31	103	140	3	90	60	16	
1985-86	311		13	70	31	87	82	11	16	1
1986-87	300		0	36	67	102	39	46	10	
1987-88	334		0	13	81	77	39	90	31	3
1988-89	410	1981-90	0	84	44	134	55	64	29	0
1989-90	421	361"	0	28	13	159	145	53	23	0
1990-91	372		7	. 45	118	68	11	82	41	
1991-92	211		8	53	46	61	43	0	0	0
1992-93	266		0	57	122	51	10	22	4	0
1993-94	313		0	25	58	52	119	45	14	0
1994-95	411		12	127	105	68	45	35	19	0
1995-96	314		0	43	71	126	40	23	7	4
1996-97	602		26	90	182	70	72	129	24	9
1997-98	362		0	22	74	149	58	52	6	0
1998-99	603	1991-00	0	65	146	102	164	82	19	25
1999-00	427	388"	5	39	102	144	65	48	22	2

Snowfall Data for Hyak, from 1930 to 2011 (page 3 of 3)

(Source: http://hyak.net/snowfallhist.html)

	300		0	46	67	53	50	43	31	10
2001-02	514		15	49	114	110	67	119	27	12
2002-03	235		0	1	35	51	17	86	28	17
2003-04	373		1	75	117	96	46	37	1	0
2004-05	191		.5	20	54	31	15	56	14	0
2005-06	431		1	82	48	172	63	40	7	1
2006-07	364		3	92	95	66	62	23	12	1
2007-08	599		1	20	143	120	79	78	56	2
2008-09	334	2001-09	.5	5	106	53	16	114	36	4
2009-10	189	371"	2	50	22	25	8	33	43	6
2010-11	385		1	67	87	34	69	70	56	1
2011-12			0							
Average	410		6	51	96	111	76	72	26	3
			October	November	December	January	February	March	April	May

These data, from the <u>hyak.net</u> website, were gathered from a Hyak home located at 2,800 feet elevation, or from ski resort reports or Washington DOT if the home data were not available or verified.

* indicates missing data or snowfall total for the month, which was replaced with the "average" in the above table.