



SRC CLIMATE REFERENCE STATION DAILY DATA REPORT

SASKATOON STATION 4057180

52°09' N 106°36' W 497 m asl Estab. 1963

Preliminary **JANUARY 2014**

Day	Temperature						Degree-days			Precipitation			Relative Humidity		Station Pressure (sea level)	
	Max	Normal Max	Min	Normal Min	Mean	Normal Mean	Growing	Heating	Cooling	Weighing Gauge	Notes	Snow-on-Ground 0900h	Max ½ hr Avg	Min ½ hr Avg	Max ½ hr Avg	Min ½ hr Avg
	°C	1981-2010	°C	1981-2010	°C	1981-2010	5°C base	18°C base	18°C base	mm		cm	%	%	mbar	mbar
1	-21.3	-10.8	-31.8	-21.9	-26.6	-16.4	0.0	44.6	0.0	0.4		15	79	73	1028	1023
2	-6.3	-9.6	-28.8	-19.3	-17.6	-14.5	0.0	35.6	0.0	0.2		15	92	76	1025	999
3	-6.2	-10.2	-20.8	-20.2	-13.5	-15.2	0.0	31.5	0.0	4.1		18	96	68	1017	995
4	-20.7	-10.7	-28.1	-20.5	-24.4	-15.6	0.0	42.4	0.0	0.0		15	78	61	1028	1018
5	-28.0	-11.1	-33.3	-21.1	-30.7	-16.1	0.0	48.7	0.0	0.0		15	70	56	1037	1029
6	-21.0	-10.2	-33.3	-19.1	-27.2	-14.7	0.0	45.2	0.0	0.0		15	82	69	1032	1016
7	-19.7	-10.4	-29.4	-18.9	-24.6	-14.7	0.0	42.6	0.0	0.3		15	81	76	1023	1016
8	-10.6	-11.2	-30.8	-19.7	-20.7	-15.5	0.0	38.7	0.0	0.0	SOG=28cm	14	88	75	1022	1001
9	-8.6	-12.2	-11.3	-21.3	-10.0	-16.8	0.0	28.0	0.0	0.0	uneven drifting on site	17	94	88	1001	996
10	-4.1	-12.2	-11.4	-21.4	-7.8	-16.8	0.0	25.8	0.0	0.0		17	93	86	1001	995
11	1.0	-10.8	-11.4	-19.9	-5.2	-15.4	0.0	23.2	0.0	0.0		16	94	84	1002	976
12	-3.4	-9.7	-17.8	-19.6	-10.6	-14.7	0.0	28.6	0.0	0.0		15	89	75	1002	982
13	-6.2	-9.7	-19.3	-20.3	-12.8	-15.0	0.0	30.8	0.0	0.0		15	88	73	1014	994
14	-3.2	-10.3	-14.9	-20.7	-9.1	-15.5	0.0	27.1	0.0	0.0		14	88	71	1024	1006
15	8.1	-8.1	-3.2	-18.6	2.5	-13.4	0.0	15.5	0.0	2.6	SOG=19cm	15	87	48	1009	994
16	0.5	-8.7	-11.9	-18.2	-5.7	-13.5	0.0	23.7	0.0	0.0		14	87	64	1022	1009
17	3.4	-10.0	-7.4	-19.4	-2.0	-14.7	0.0	20.0	0.0	0.3		15	87	70	1022	1004
18	2.9	-8.3	-6.3	-19.2	-1.7	-13.7	0.0	19.7	0.0	0.0		15	92	69	1015	999
19	4.1	-9.9	-17.1	-20.1	-6.5	-15.0	0.0	24.5	0.0	0.2		14	91	65	1015	998
20	-14.2	-8.6	-23.8	-18.6	-19.0	-13.6	0.0	37.0	0.0	0.0		14	82	67	1031	1017
21	-5.2	-9.2	-18.0	-19.1	-11.6	-14.2	0.0	29.6	0.0	1.8		15	89	76	1027	1015
22	-18.0	-9.2	-27.6	-18.3	-22.8	-13.8	0.0	40.8	0.0	0.2		14	80	65	1035	1028
23	0.3	-8.9	-23.7	-18.5	-11.7	-13.7	0.0	29.7	0.0	0.0		15	87	78	1031	1011
24	4.3	-10.3	-6.5	-19.9	-1.1	-15.1	0.0	19.1	0.0	0.0	SOG=17cm	14	92	72	1017	1006
25	4.1	-9.5	-8.2	-19.8	-2.1	-14.7	0.0	20.1	0.0	0.0	Grassy spots visible	14	98	67	1018	998
26	-3.6	-8.4	-24.5	-20.1	-14.1	-14.2	0.0	32.1	0.0	0.4	part rain	13	86	54	1030	1004
27	-21.1	-8.7	-28.2	-19.8	-24.7	-14.3	0.0	42.7	0.0	0.0		13	76	57	1031	1027
28	-10.9	-10.3	-25.6	-19.8	-18.3	-15.1	0.0	36.3	0.0	0.0		13	80	57	1027	1001
29	-11.1	-9.8	-19.2	-20.6	-15.2	-15.2	0.0	33.2	0.0	0.0		12	80	71	1010	1001
30	-19.2	-7.3	-25.0	-18.2	-22.1	-12.8	0.0	40.1	0.0	0.0		13	78	66	1016	1008
31	-14.7	-8.6	-22.0	-17.8	-18.4	-13.2	0.0	36.4	0.0	0.0	SOG=14cm	12	82	70	1014	1001
Total							0.0	993.3	0.0	10.5			Extreme / Date	Extreme / Date	Extreme / Date	Extreme / Date
Avg	-8.0	-9.8	-20.0	-19.7	-14.0	-14.7	1981-2010 Normal			15.5	Normal					
Extreme Date	8.1		-33.3				0.0	1015.1	0.0	10.5	Cumulative		98	48	1037	976
	15		5							15.5	Cumulative No		25	15	5	11

Note: Red numbers indicate manual calculation; Red cell indicate data not available

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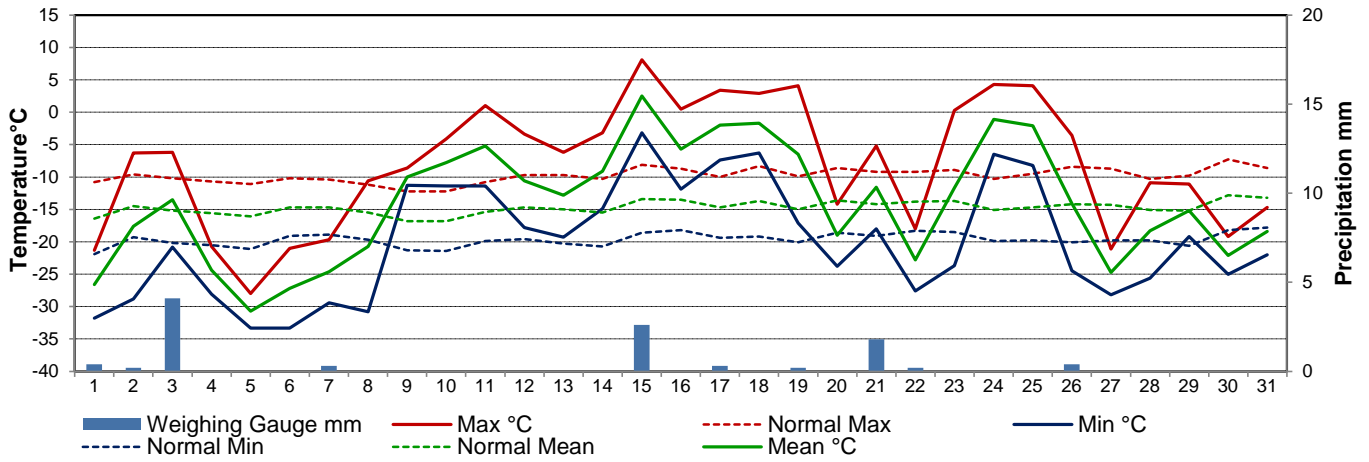


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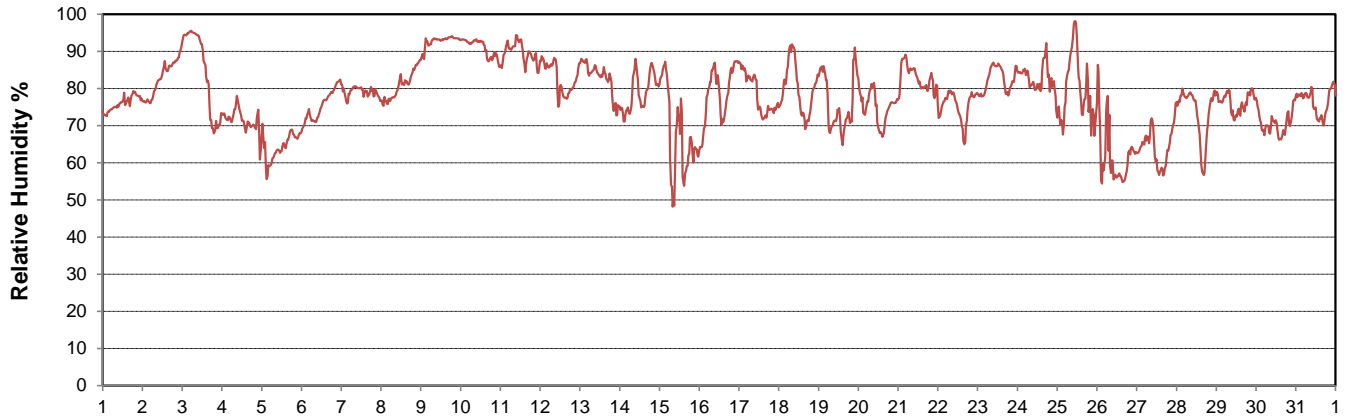
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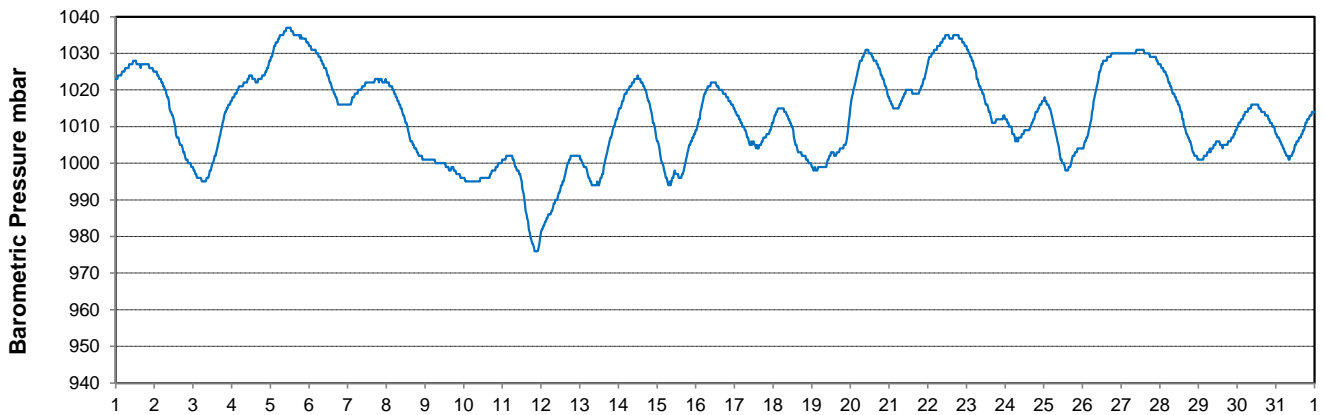
Temperature and Precipitation for January 2014



Relative Humidity for January 2014



Barometric Pressure Corrected to Sea Level for January 2014





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SASKATOON STATION 4057180

52°09' N 106°36' W 497 m asl Estab. 1963

Preliminary **JANUARY 2014**

Day	Wind Gust			Soil Temperatures at 0900hrs								Soil Moisture	Radiation				
	Max	Direction	Time	Surface	5 cm	10 cm	20 cm	50 cm	100 cm	150 cm	300 cm		0900hrs	Bright Sunshine	Possible	% Possible	Global
	km/h			°C	°C	°C	°C	°C	°C	°C	°C	%	hours	hours		MJ/m ²	MJ/m ²
1	11.8	WSW	11:29	-23.5	-3.5	-3.0	-2.0	0.5	3.0	4.5	7.0	not	5.3	7.8	67.6	4.6	1.6
2	35.7	SSE	13:23	-21.5	-4.0	-3.5	-2.5	0.0	3.0	4.5	6.5	available	0.3	7.9	3.8	2.4	2.0
3	47.8	N	12:22	-7.5	-4.0	-3.5	-2.5	0.0	3.0	4.5	7.0		3.5	7.9	44.4	2.6	1.5
4	38.2	WNW	16:45	-14.5	-3.5	-3.5	-2.5	0.0	3.0	4.5	6.5		6.9	7.9	87.2	4.7	1.2
5	35.4	NW	4:46	-16.0	-4.0	-3.5	-2.5	0.0	3.0	4.5	6.5		4.2	7.9	52.9	3.1	2.1
6	22.9	SE	17:38	-15.0	-4.0	-3.5	-2.5	0.0	3.0	4.0	6.5		0.7	8.0	8.8	2.2	1.8
7	16.0	NE	9:11	-13.0	-4.5	-4.0	-3.0	0.0	2.5	4.0	6.5		4.6	8.0	57.6	3.6	3.0
8	37.9	S	15:04	-12.0	-4.5	-4.0	-3.0	-0.5	2.5	4.0	6.5		0.3	8.0	3.7	2.4	2.1
9	16.8	NNW	2:14	-9.5	-4.5	-4.0	-3.0	-0.5	2.5	4.0	6.5		0.0	8.1	0.0	2.3	2.0
10	24.6	W	23:43	-7.5	-4.0	-3.5	-3.0	-0.5	2.5	4.0	6.5		3.6	8.1	44.5	3.4	2.1
11	58.0	SE	16:24	-6.5	-3.5	-3.5	-3.0	-0.5	2.5	4.0	6.5		0.0	8.1	0.0	1.6	1.4
12	56.4	WNW	19:41	-5.5	-3.5	-3.0	-2.5	0.0	2.5	4.0	6.0		3.3	8.2	40.4	3.5	1.8
13	38.7	NW	12:08	-7.5	-3.0	-2.5	-2.0	0.0	2.5	4.0	6.5		2.7	8.2	32.9	2.7	1.7
14	35.1	S	21:38	-7.0	-3.0	-2.5	-2.0	0.0	2.5	4.0	6.0		0.0	8.2	0.0	2.4	2.2
15	103.7	NW	10:20	-5.5	-3.0	-2.5	-2.0	0.5	2.5	4.5	6.0		5.1	8.3	61.6	3.6	1.8
16	65.0	NW	0:21	-5.5	-2.5	-2.0	-2.0	0.0	2.5	4.0	6.0		7.1	8.3	85.2	4.1	1.3
17	48.5	WNW	17:43	-5.0	-2.0	-2.0	-1.5	0.0	2.5	4.0	6.5		6.7	8.4	80.0	3.8	1.3
18	44.2	SW	13:44	-4.0	-2.0	-2.0	-1.5	0.0	2.5	4.0	6.0		7.6	8.4	90.3	4.9	1.4
19	62.2	WNW	20:18	-2.0	-2.0	-1.5	-1.5	0.5	2.5	4.0	6.5		5.0	8.5	59.1	4.3	2.0
20	43.2	NNE	0:01	-15.5	-2.0	-1.5	-1.0	0.0	2.5	3.5	6.0		6.7	8.5	78.7	5.0	1.4
21	55.3	NNE	21:42	-9.5	-2.0	-2.0	-1.5	0.5	2.5	3.5	6.0		0.3	8.6	3.5	3.5	3.0
22	37.9	NE	0:05	-11.0	-2.5	-2.0	-1.5	0.5	2.5	3.5	6.0		8.3	8.6	96.4	7.0	1.0
23	37.8	WNW	20:20	-13.0	-3.0	-2.5	-1.5	0.5	2.5	3.5	6.0		1.6	8.7	18.5	3.2	2.6
24	41.7	NW	10:16	-4.0	-3.0	-2.5	-2.0	0.5	2.5	4.0	6.5		1.6	8.7	18.4	2.3	1.6
25	65.7	NNW	22:03	-5.0	-2.5	-2.0	-2.0	0.5	2.5	4.0	6.5		1.5	8.8	17.1	2.9	1.8
26	79.2	N	6:32	-21.0	-2.0	-2.0	-1.5	0.0	2.5	3.5	6.0		8.4	8.8	95.3	5.6	1.3
27	22.5	WNW	17:04	-22.5	-2.5	-2.0	-1.5	0.0	2.5	3.5	5.5		8.6	8.9	97.1	5.8	1.1
28	25.6	S	14:40	-21.0	-3.5	-3.0	-2.0	0.0	2.5	3.5	5.5		4.7	8.9	52.7	4.7	3.3
29	35.4	N	23:14	-13.5	-4.0	-3.5	-2.5	0.0	2.0	3.5	5.5		6.5	9.0	72.5	4.4	2.7
30	40.1	N	0:27	-22.5	-4.0	-3.5	-2.5	0.0	2.0	3.5	5.5		3.6	9.0	39.9	4.3	3.3
31	40.9	NW	17:09	-16.5	-4.5	-4.0	-3.0	-0.5	2.0	3.5	5.5		7.1	9.1	78.1	5.8	1.8
Total													125.8	259.65	48.4	116.7	59.2
Mean				-11.7	-3.2	-2.8	-2.2	0.0	2.5	3.9	6.2		1981-2010 Normal for Radiation				
Extreme	103.7	NW	10:20	1971- 2000 Normal for Soil Temperatures									101.0	259.0	39.0	126.9	69.6
Date	15			-8.4	-8.0	-7.1	-3.5	-0.1	1.7	4.6		No. of Bright Sunshine days = 28					

Note: Red numbers indicate manual calculation

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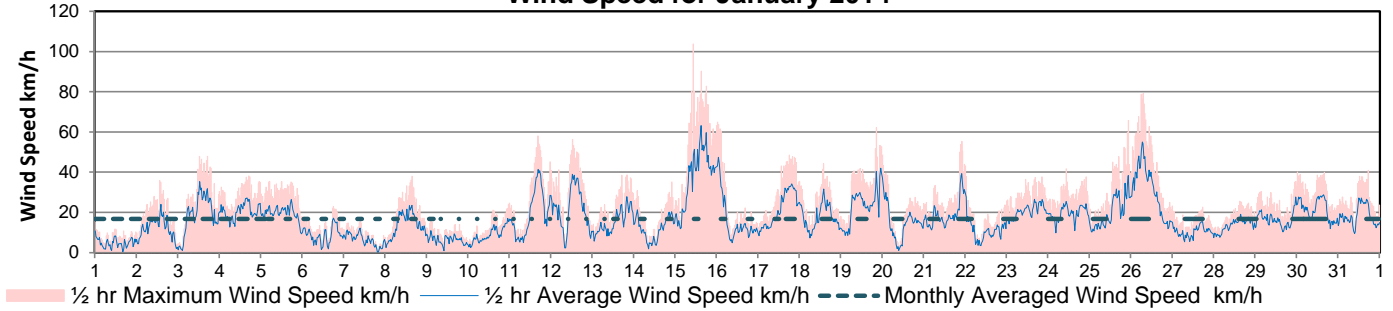


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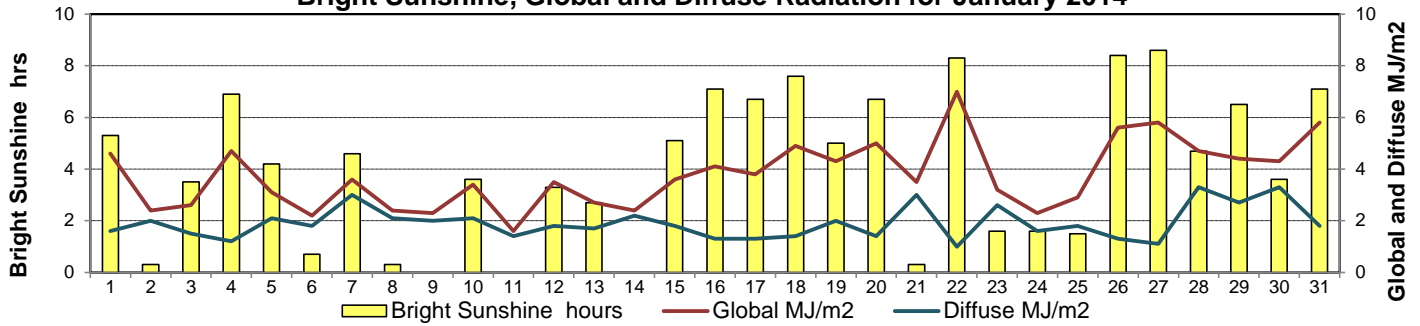
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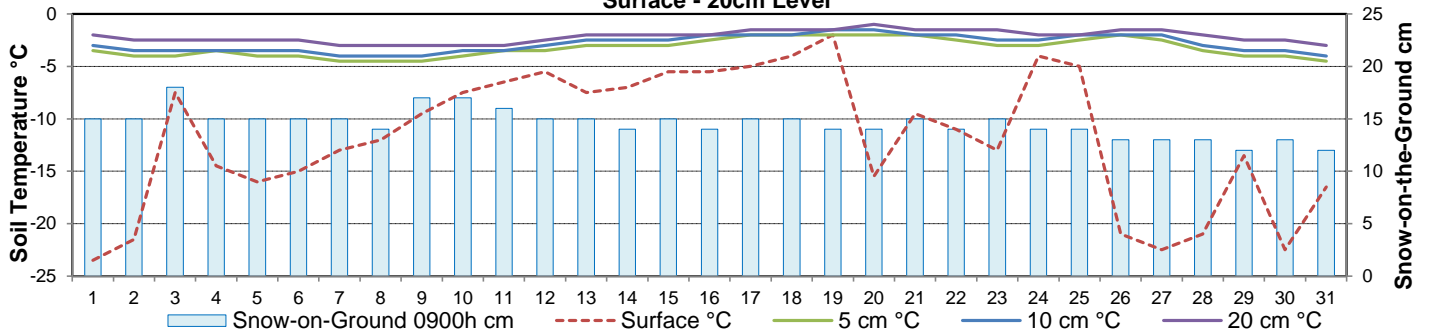
Wind Speed for January 2014



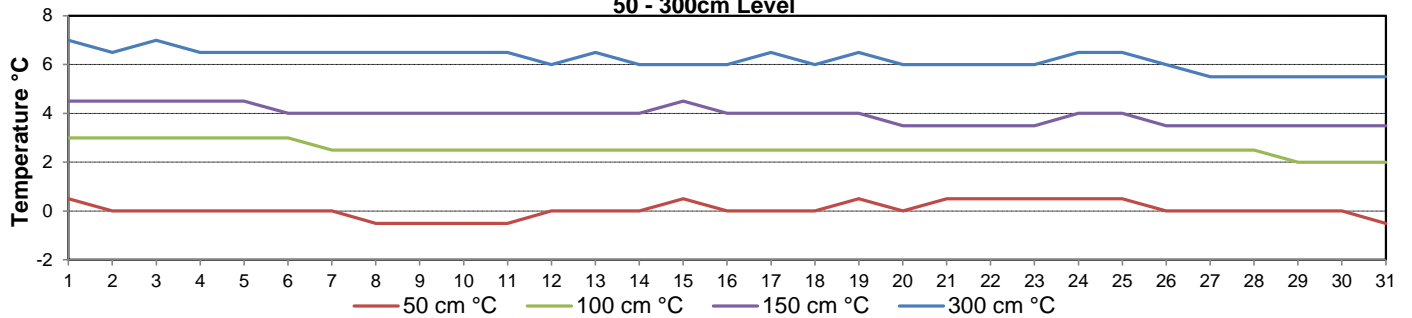
Bright Sunshine, Global and Diffuse Radiation for January 2014



**Soil Temperatures for January 2014
Surface - 20cm Level**



**Soil Temperatures for January 2014
50 - 300cm Level**





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Preliminary **JANUARY 2014**

Extreme Records for January

Max/Min Temperature °C			Precipitation - Monthly mm				Wind Monthly km/h				CRS Bright Sunshine - Monthly						
S'toon Area	Date	Site	S'toon CRS	Date	S'toon Area	Date	Site	S'toon CRS	Date	S'toon Airport	Date	S'toon CRS**	Date	Hours	Year	No. of Days	Year
11.0	23/1980	SWT	7.0	1993&86	66.1	1911	SE	48.6	1969	111	11 ^W 1986	109	1986	146.9	1979	30	1993
-48.9	31/1893	SM	-43.9	1966&69				2.6	2001					45.5	2004	15	1995

**1975 forward * more than one year

Notable Events for CRS Saskatoon - January						Saskatoon Area Stations			Glossary	
Element	Type	Day	New Record	Old Record	Year	SM	NWMP	c. 1892-1901	T	Trace of precipitation
Daily Temperature	High Maximum	15	8.1	6.1	1973	SE	Eby	1901-1941	Normal	30 year average beginning with the decade
		17	3.4	1	1991	US	Univ. of Sask.	1915-1964	SOG	Depth of snow-on-the-ground in cm
		19	4.1	3.9	1971	S	Saskatoon	1941-1942	na	not available
	High Minimum	15	-3.2	-5.8	1999	SA	Saskatoon A	1942 -	Degree-days	
		15	2.5	-1	1986	NRC	Nat. Res. Council	1952-1966	Tm	Mean Temperature
		17	-2	-2.2	2009	SRC	Sask. Res. Council	1963-	Growing	(Tm-5°C); if Tm ≤ 5°C then GDD = 0
Monthly Temperature	High Maximum	15	8.1	7.0	11/1986	SWT	S'toon Water Treatment Plant	1974 -	Heating	(18°C-Tm); if Tm ≤ 18°C then HDD = 0
		22/1993				SC	S'toon Central Ave	1974-1989	Cooling	(Tm-18°C); if Tm ≥ 18°C then CDD = 0
						S1	Saskatoon 1	1976-1978	Extreme Cooling	(Tm-24°C); if Tm ≥ 24°C then CDD = 0
						S2	Saskatoon 2	1977-1990	Did you Know? Various wind speed scales have been suggested and used including a 1704 version by Daniel Defoe. In 1805, Francis Beaufort of the British Royal Navy devised a scale to standardize weather observations for his ship's log. Later revisions to a 12 point observational scale based on how wind affects the sails of a frigate from "just sufficient to give steerage" to "that which no canvas sails could withstand" was accepted as the naval standard. With the advent of steam ships, it was changed to how the sea behaved and extended to land observations. Speed notations were referenced to the categories in 1923.	
						K	S'toon Kernen Farm	1993-2004		
						KCS	S'toon Kernen Farm CS	1996-		
						RCS	Environment Canada	2008-		

Summary

A total of 41°C indicated the great variability between the maximum and the minimum temperatures. Record daily high temperatures were broken for the maximum (3), the minimum (1) and the average (2) along with the high maximum monthly temperature of 8.1°C. Maximum temperatures exceeded daily normal values 19 times while the minimum exceeded daily normal values 15 times. At the beginning of the month, four cold spells (T=-30°C) were recorded. Overall, January's maximum temperatures were almost 2°C above normal and slightly below normal for the minimum. The unpleasantness experienced was due to the temperature and wind combining to produce high wind chill values between -16C and -45C. Seventeen days were -28C or lower. On January 15, the station recorded its second highest wind speed at 104km/h; just slightly lower the record 109km/h set in 1986. January listed wind speeds in all categories of the "Beaufort Wind Scale" except the last; 'Hurricane'; beginning at 118km/h.



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