



SRC CLIMATE REFERENCE STATION DAILY DATA REPORT

**SASKATOON STATION 4057180**

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

Preliminary **OCTOBER 2017**

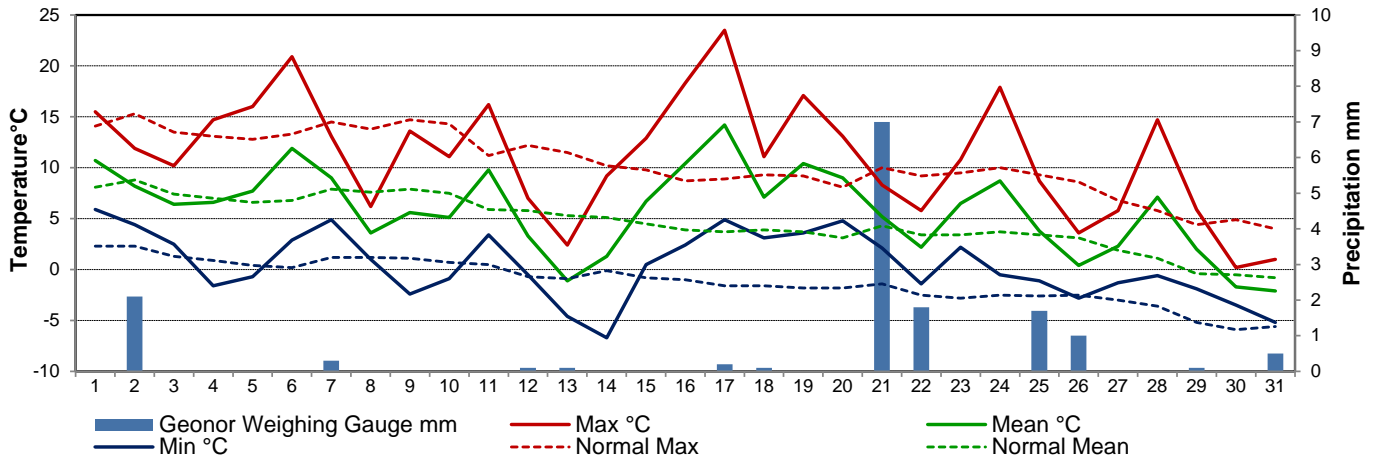
Day	Temperature						Degree-days			Precipitation			Relative Humidity		Station Pressure (sea level)	
	Max	Normal Max	Min	Normal Min	Mean	Normal Mean	Growing	Heating	Cooling	Geonor Weighing Gauge	Notes	Snow-on-Ground 0900h	Max ½ hr Avg	Min ½ hr Avg	Max ½ hr Avg	Min ½ hr Avg
	°C	1981-2010	°C	1981-2010	°C	1981-2010	5°C base	18°C base	18°C base	mm		cm	%	%	mbar	mbar
1	15.5	14.1	5.9	2.3	10.7	8.1	5.7	7.3	0.0	0.0		-	95	71	1002	997
2	11.9	15.3	4.4	2.3	8.2	8.8	3.2	9.8	0.0	2.1	light rain	-	93	83	1015	1001
3	10.2	13.5	2.5	1.3	6.4	7.4	1.4	11.6	0.0	0.0		-	90	33	1022	1015
4	14.7	13.1	-1.6	0.9	6.6	7.0	1.6	11.4	0.0	0.0		-	85	34	1022	1019
5	16.0	12.8	-0.7	0.4	7.7	6.6	2.7	10.3	0.0	0.0		-	94	33	1021	1012
6	20.9	13.3	2.9	0.2	11.9	6.8	6.9	6.1	0.0	0.0		-	79	31	1011	988
7	13.1	14.5	4.9	1.2	9.0	7.9	4.0	9.0	0.0	0.3	light rain	-	86	34	998	989
8	6.2	13.8	1.0	1.2	3.6	7.6	0.0	14.4	0.0	0.0		-	84	55	1017	998
9	13.6	14.7	-2.4	1.1	5.6	7.9	0.6	12.4	0.0	0.0		-	83	30	1018	1011
10	11.1	14.3	-0.9	0.7	5.1	7.5	0.1	12.9	0.0	0.0		-	80	47	1014	1009
11	16.2	11.2	3.4	0.5	9.8	5.9	4.8	8.2	0.0	0.0		-	78	32	1008	1004
12	7.0	12.2	-0.5	-0.7	3.3	5.8	0.0	14.7	0.0	0.1		-	84	61	1015	1007
13	2.4	11.5	-4.6	-0.9	-1.1	5.3	0.0	19.1	0.0	0.1		-	77	47	1022	1015
14	9.2	10.2	-6.7	-0.1	1.3	5.1	0.0	16.7	0.0	0.0		-	89	39	1021	1013
15	12.9	9.8	0.5	-0.8	6.7	4.5	1.7	11.3	0.0	0.0		-	90	36	1018	1008
16	18.3	8.7	2.4	-1.0	10.4	3.9	5.4	7.6	0.0	0.0		-	78	21	1010	1004
17	23.5	8.9	4.9	-1.6	14.2	3.7	9.2	3.8	0.0	0.2	light rain	-	73	14	1010	984
18	11.1	9.3	3.1	-1.6	7.1	3.9	2.1	10.9	0.0	0.1		-	70	19	1007	992
19	17.1	9.2	3.6	-1.8	10.4	3.7	5.4	7.6	0.0	0.0		-	62	37	1003	997
20	13.1	8.1	4.8	-1.8	9.0	3.1	4.0	9.0	0.0	0.0		-	81	45	997	989
21	8.3	10.0	2.1	-1.4	5.2	4.3	0.2	12.8	0.0	7.0	rain	-	91	70	1005	992
22	5.8	9.2	-1.4	-2.5	2.2	3.4	0.0	15.8	0.0	1.8	light rain	-	94	81	1009	996
23	10.8	9.5	2.2	-2.8	6.5	3.4	1.5	11.5	0.0	0.0		-	87	49	1027	1009
24	17.9	10.0	-0.5	-2.5	8.7	3.7	3.7	9.3	0.0	0.0		-	84	31	1026	1012
25	8.7	9.3	-1.1	-2.6	3.8	3.4	0.0	14.2	0.0	1.7	light rain, freezing rain, light snow	-	98	57	1018	998
26	3.6	8.6	-2.8	-2.5	0.4	3.1	0.0	17.6	0.0	1.0		-	96	60	1030	1019
27	5.8	6.8	-1.3	-3.0	2.3	1.9	0.0	15.7	0.0	0.0		-	93	64	1023	1018
28	14.7	5.8	-0.6	-3.6	7.1	1.1	2.1	10.9	0.0	0.0		-	91	45	1017	1003
29	5.9	4.4	-1.9	-5.2	2.0	-0.4	0.0	16.0	0.0	0.1	very light snow	-	73	54	1024	1006
30	0.2	4.9	-3.5	-5.9	-1.7	-0.5	0.0	19.7	0.0	0.0		-	82	52	1026	1015
31	1.0	4.0	-5.2	-5.6	-2.1	-0.8	0.0	20.1	0.0	0.5	light snow	-	93	63	1014	998
Total							66.3	377.7	0.0	15.0			Extreme / Date	Extreme / Date	Extreme / Date	Extreme / Date
Avg	11.2	10.4	0.4	-1.2	5.8	4.6	1981-2010 Normal			19.2	Normal					
Extreme Date	23.5		-6.7				62.2	415.1	0.1	239.4	Cumulative		98	14	1030	984
	17		14							329.2	Cumulative No		25	17	26	17

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

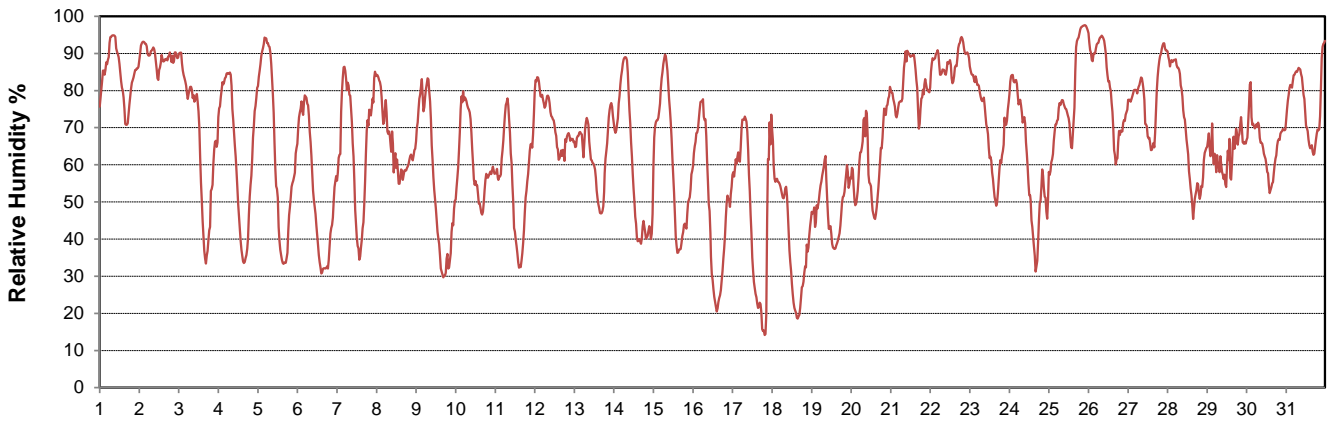
**SRC proudly recognizes the following CRS supporters:**



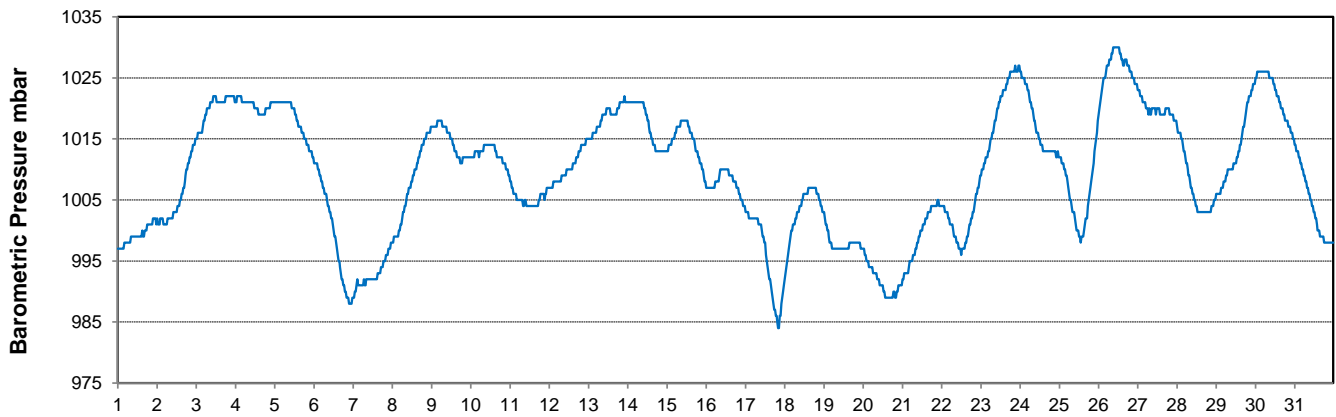
### Temperature and Precipitation for October 2017



### Relative Humidity for October 2017



### Barometric Pressure Corrected to Sea Level for October 2017





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

Preliminary **OCTOBER 2017**

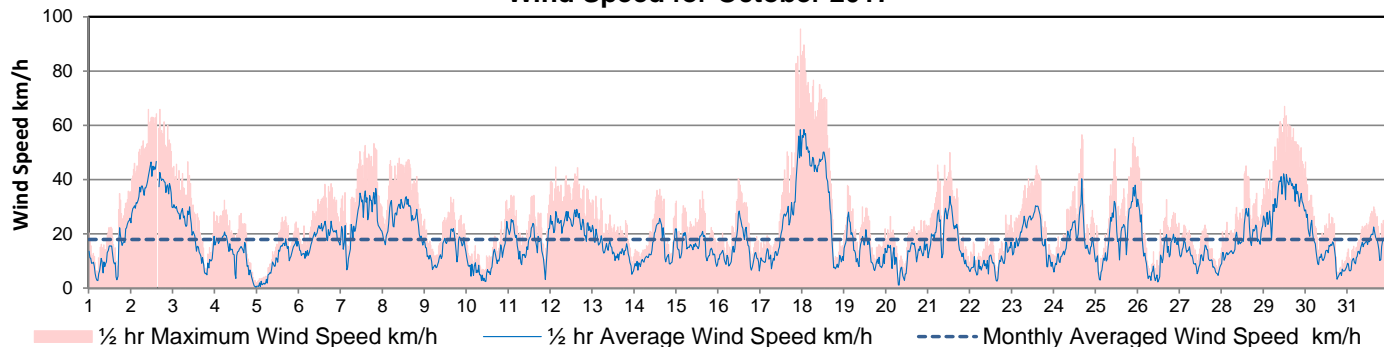
Day	Wind Gust			Soil Temperatures at 0900hrs								Soil Moisture 30 cm	Radiation				
	Max	Direction	Time	Surface	5 cm	10 cm	20 cm	50 cm	100 cm	150 cm	300 cm		0900hrs	Bright Sunshine	Possible	% Possible	Global
	km/h			°C	°C	°C	°C	°C	°C	°C	°C	%	hours	hours		MJ/m <sup>2</sup>	MJ/m <sup>2</sup>
1	35.7	NNE	22:45	9.0	11.5	12.0	13.0	13.0	12.0	12.0	11.0	16	0.1	11.6	0.9	3.5	2.8
2	65.9	N	10:04	8.5	11.5	12.5	12.5	13.0	12.0	12.0	11.0	16	0.0	11.5	0.0	2.2	1.8
3	46.6	NNE	8:39	2.5	8.0	9.0	10.0	12.5	12.0	12.0	11.0	16	6.1	11.5	53.3	9.4	2.8
4	32.3	SW	5:34	0.5	5.0	6.5	8.5	11.5	12.0	12.0	11.0	15	11.0	11.4	96.7	13.0	1.3
5	26.2	WSW	16:53	3.0	4.5	5.5	7.5	11.0	12.0	12.0	11.0	15	10.9	11.3	96.3	12.9	1.7
6	38.4	SSW	18:31	5.0	6.0	7.0	8.0	10.5	11.5	11.5	11.0	15	9.3	11.3	82.7	11.7	2.0
7	53.3	WNW	19:22	7.5	8.5	9.0	9.5	10.5	11.5	11.5	11.0	15	6.1	11.2	54.5	9.3	2.7
8	47.9	WNW	9:44	3.0	7.0	8.0	9.0	10.5	11.5	11.5	11.0	15	1.2	11.1	10.8	3.6	2.6
9	33.5	WSW	15:05	-1.0	4.0	5.0	7.0	10.0	11.0	11.5	11.0	15	9.2	11.1	83.3	11.2	2.4
10	32.3	ESE	23:02	1.5	4.5	5.5	7.0	9.5	11.0	11.5	11.0	15	2.6	11.0	23.7	6.1	4.3
11	34.3	WSW	23:51	4.5	6.0	6.5	7.5	9.5	11.0	11.5	11.0	15	7.2	10.9	65.9	9.3	3.0
12	44.7	W	2:20	3.0	6.5	7.0	8.0	9.5	10.5	11.0	11.0	15	0.0	10.9	0.0	2.8	2.3
13	33.9	WNW	3:23	-3.0	3.5	5.0	6.5	9.5	10.5	11.0	11.0	14	8.1	10.8	75.1	9.4	3.1
14	36.5	SSW	14:40	-5.0	1.5	3.0	5.0	9.0	10.5	11.0	11.0	14	9.6	10.7	89.6	11.2	1.4
15	35.7	W	15:05	1.5	4.0	4.5	5.5	8.0	10.5	11.0	11.0	14	9.2	10.7	86.3	10.6	1.3
16	40.4	WNW	11:56	6.0	4.5	5.0	6.0	8.5	10.0	10.5	11.0	14	10.1	10.6	95.4	10.5	1.4
17	95.5	WNW	23:16	5.5	5.5	6.0	7.0	8.5	10.0	10.5	11.0	14	6.9	10.5	65.5	8.7	2.6
18	89.6	WNW	1:12	4.0	6.5	7.5	8.5	9.0	10.0	10.5	10.5	14	10.0	10.5	95.6	10.6	1.1
19	37.8	SE	2:28	6.5	5.5	6.0	7.0	9.0	10.0	10.5	10.5	14	2.2	10.4	21.2	4.9	3.3
20	26.4	ESE	2:46	5.0	7.0	7.5	8.0	9.0	10.0	10.5	10.5	14	2.9	10.3	28.1	5.5	3.8
21	49.9	WNW	12:36	5.5	7.0	7.5	8.0	9.0	10.0	10.5	10.5	14	1.5	10.3	14.6	2.2	1.6
22	26.9	WNW	20:47	0.0	3.0	4.5	6.0	9.0	10.0	10.0	10.5	15	0.0	10.2	0.0	2.0	1.6
23	45.1	NW	14:00	4.5	4.0	4.5	5.5	8.5	9.5	10.0	10.5	15	8.9	10.1	87.8	9.2	1.0
24	56.5	NW	16:01	1.5	2.5	3.5	5.0	8.0	9.5	10.0	10.5	15	5.7	10.1	56.5	6.3	2.9
25	55.5	NNE	21:33	3.0	4.5	5.0	6.0	8.0	9.5	10.0	10.5	15	0.6	10.0	6.0	3.0	2.3
26	48.5	NNE	0:18	-3.5	2.5	3.5	5.0	8.0	9.5	10.0	10.5	15	3.1	10.0	31.2	6.1	3.0
27	23.2	SSW	2:42	-0.5	2.0	3.0	4.0	7.5	9.5	10.0	10.5	15	8.4	9.9	84.9	7.9	1.3
28	45.1	NW	14:12	1.0	2.0	3.0	4.0	7.0	9.0	10.0	10.5	15	4.6	9.8	46.8	5.2	3.0
29	67.0	NW	12:12	3.0	3.0	4.0	5.0	7.0	9.0	9.5	10.5	15	0.6	9.8	6.1	3.4	2.5
30	46.5	NNW	0:12	-3.0	1.5	2.0	3.5	7.0	9.0	9.5	10.0	14	2.9	9.7	29.9	5.1	3.1
31	29.9	ESE	15:20	-4.0	1.0	1.5	3.0	6.5	8.5	9.5	10.0	14	0.1	9.6	1.0	3.6	2.9
Total													159.1	328.56	48.4	220.4	72.9
Mean				2.4	5.0	5.8	7.0	9.3	10.4	10.8	10.7	15	1981-2010 Normal for Radiation				
Extreme	95.5	WNW	23:16	1971- 2000 Normal for Soil Temperatures									156.1	329.2	47.4	239.0	97.2
Date	17			4.3	4.7	6.2	8.3	9.2	9.6	9.4		No. of Bright Sunshine days = 28					

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

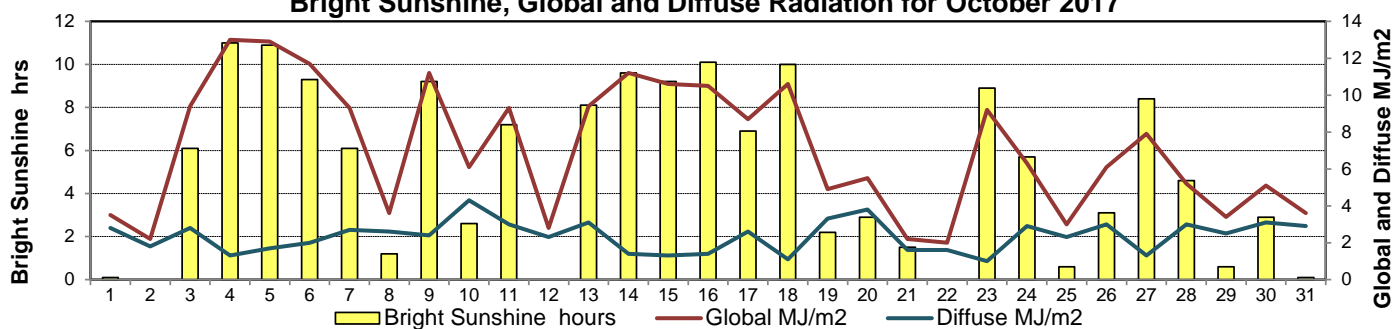
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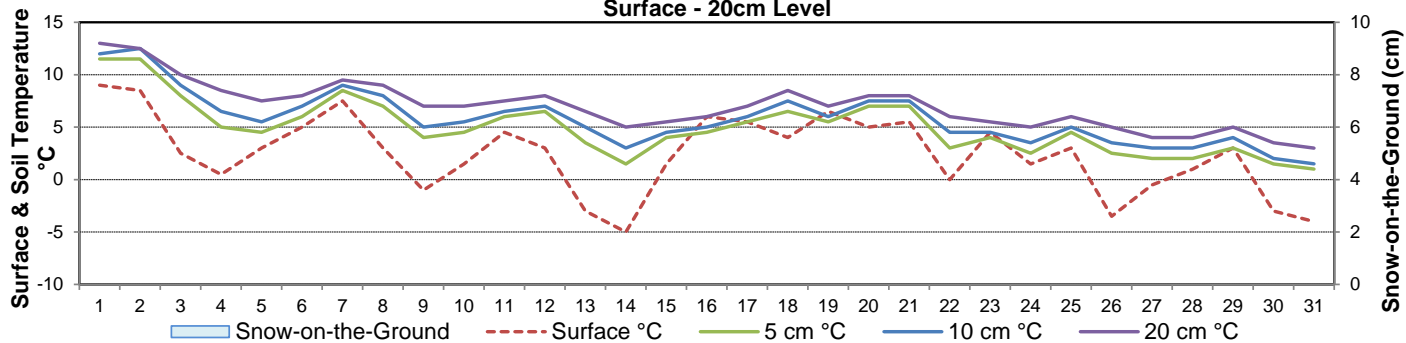
### Wind Speed for October 2017



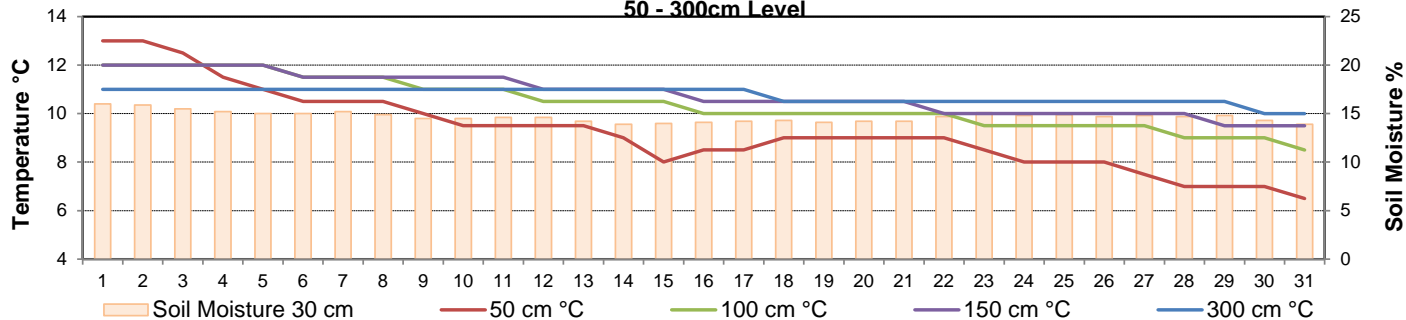
### Bright Sunshine, Global and Diffuse Radiation for October 2017



### Soil Temperatures for October 2017 Surface - 20cm Level



### Soil Temperatures for October 2017 50 - 300cm Level





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Preliminary **OCTOBER 2017**

**Extreme Records for October**

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
32.2	05/1943	SA US SF	28.5 06,08/1980,'84	72.4	1969	SF	69.8 1969	138 <sup>NW</sup>	16/1967	97	1976	231.3	2010	31	1965, 88
-25.6	26/1919	SE US	-21.5 29/1991	0.0	1965*	NRC*	0.0 2000					61.1	2016	19	2016

\*\*1975 forward \* more than one year/site

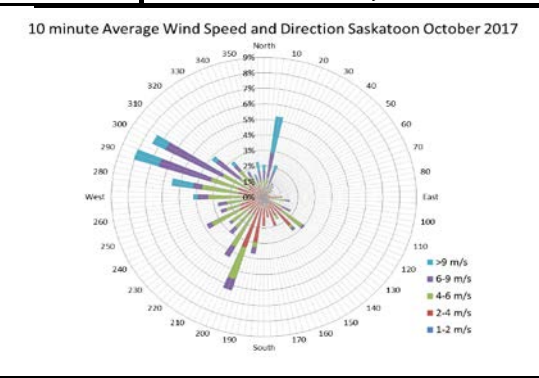
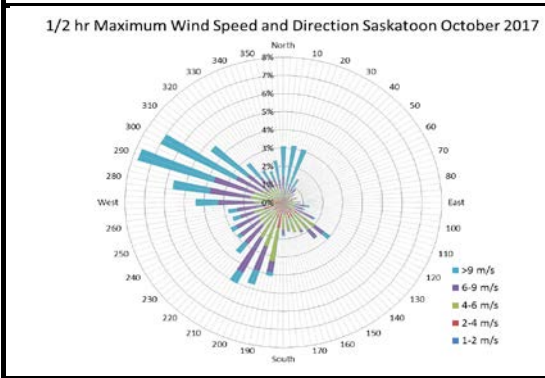
Notable Events for CRS Saskatoon - October					
Element	Type	Day	New Record	Old Record	Year
Temperature	Highest Minimum Daily	17	23.5	23.5	1986
	Highest Average Daily	17	14.2	14.0	1986
<p style="color: red;">Frost-free season 18 May to 4 Oct</p> <p style="color: red;">Frost-free season length 138 days</p>					

Saskatoon Area Stations		
SM	NWMP	c. 1892-1901
SE	Eby	1901-1941
US	Univ. of Sask.	1915-1964
S	Saskatoon	1941-1942
SA	Saskatoon A	1942 -
NRC	Nat. Res. Council	1952-1966
SRC	Sask. Res. Council	1963-
SWT	S'toon Water Treatment Plant	1974 -
SC	S'toon Central Ave	1974-1989
S1	Saskatoon 1	1976-1978
S2	Saskatoon 2	1977-1990
K	S'toon Kernen Farm	1993-2004
KCS	S'toon Kernen Farm CS	1996-
RCS	Environment Canada	2008-
SF	Sutherland Forestry	1943-1970

Glossary	
T	Trace of precipitation
Normal	30 year average beginning with the decade
SOG	Depth of snow-on-the-ground in cm
na	not available
Degree-days	
Tm	Mean Temperature
Growing	(Tm-5°C); if Tm ≤ 5°C then GDD = 0
Heating	(18°C-Tm); if Tm ≤ 18°C then HDD = 0
Cooling	(Tm-18°C); if Tm ≥ 18°C then CDD = 0
Extreme Cooling	(Tm-24°C); if Tm ≥ 24°C then CDD = 0

Fall general maintenance October 4th - 5th (capping of tipping bucket, empty and re-charge all-season precipitation gauge (Geonor) for winter season, swap dessicant from the solar radiation instruments and swapped the Bright Sunshine Instrument for the re-calibrated Bright Sunshine Instrument (5 Oct 2017 between 10:30 and 10:45); snow depth transducer housing assembly replaced (16 Oct 2017)

Oct 24 Max wind speed/dir/time is manual calculations due to datalogger error. May 18 Min temperature is manual calculation due to datalogger error resulting in calculation correction of frost free season length.



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