



# SRC CLIMATE REFERENCE STATION DAILY DATA REPORT

## SASKATOON STATION 4057180

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

Preliminary **AUGUST 2018**

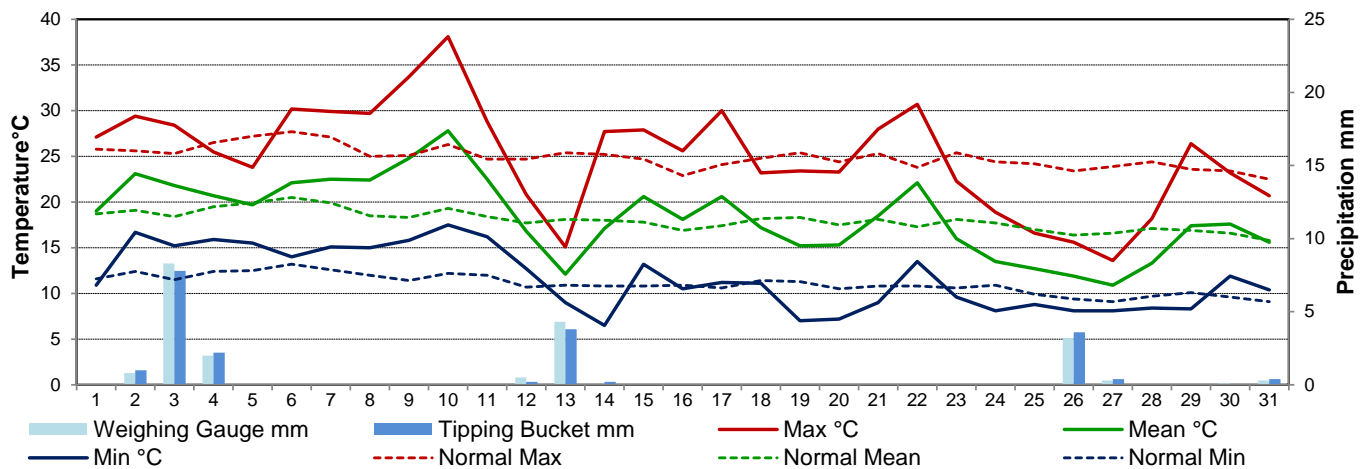
Day	Temperature						Degree-days			Precipitation			Relative Humidity		Station Pressure (sea level)	
	Max	Normal Max	Min	Normal Min	Mean	Normal Mean	Growing	Heating	Cooling	Weighing Gauge	Tipping Bucket	Notes	Max ½ hr Avg	Min ½ hr Avg	Max ½ hr Avg	Min ½ hr Avg
	°C	1981-2010	°C	1981-2010	°C	1981-2010	5°C base	18°C base	18°C base	mm	mm		%	%	mbar	mbar
1	27.1	25.8	10.9	11.6	19.0	18.7	14.0	0.0	1.0	0.0	0.0		90	30	1020	1007
2	29.4	25.6	16.7	12.4	23.1	19.1	18.1	0.0	5.1	0.8	1.0	light rain	83	33	1007	1005
3	28.4	25.3	15.2	11.5	21.8	18.4	16.8	0.0	3.8	8.3	7.8	rain	89	28	1009	1003
4	25.5	26.5	15.9	12.4	20.7	19.5	15.7	0.0	2.7	2.0	2.2	light rain	88	52	1011	1004
5	23.8	27.2	15.5	12.5	19.7	19.9	14.7	0.0	1.7	0.0	0.0		91	40	1017	1011
6	30.2	27.7	14.0	13.2	22.1	20.5	17.1	0.0	4.1	0.0	0.0		91	28	1016	1010
7	29.9	27.1	15.1	12.6	22.5	19.9	17.5	0.0	4.5	0.0	0.0	smoke haze	78	20	1010	1008
8	29.7	25.0	15.0	12.0	22.4	18.5	17.4	0.0	4.4	0.0	0.0	smoke haze	76	27	1014	1011
9	33.7	25.1	15.8	11.4	24.8	18.3	19.8	0.0	6.8	0.0	0.0	smoke haze	73	19	1016	1013
10	38.1	26.3	17.5	12.2	27.8	19.3	22.8	0.0	9.8	0.0	0.0	smoke haze	65	13	1014	1008
11	28.8	24.7	16.2	12.0	22.5	18.4	17.5	0.0	4.5	0.0	0.0	smoke haze	78	34	1013	1008
12	20.8	24.7	12.7	10.7	16.8	17.7	11.8	1.2	0.0	0.5	0.2	tstorm	86	52	1016	1010
13	15.1	25.4	9.0	10.9	12.1	18.1	7.1	5.9	0.0	4.3	3.8	light rain	90	63	1019	1013
14	27.7	25.2	6.5	10.8	17.1	18.0	12.1	0.9	0.0	0.0	0.2	heavy dew	95	24	1018	1008
15	27.9	24.7	13.2	10.8	20.6	17.8	15.6	0.0	2.6	0.0	0.0	smoke haze	83	32	1014	1008
16	25.6	22.9	10.5	10.9	18.1	16.9	13.1	0.0	0.1	0.0	0.0	smoke haze	94	42	1019	1014
17	30.0	24.1	11.2	10.6	20.6	17.4	15.6	0.0	2.6	0.0	0.0	smoke haze	92	34	1019	1012
18	23.2	24.8	11.1	11.4	17.2	18.2	12.2	0.8	0.0	0.0	0.0	smoke haze	93	33	1020	1012
19	23.4	25.4	7.0	11.3	15.2	18.3	10.2	2.8	0.0	0.0	0.0		82	21	1023	1021
20	23.3	24.4	7.2	10.5	15.3	17.5	10.3	2.7	0.0	0.0	0.0	smoke haze	92	25	1026	1023
21	28.0	25.3	9.0	10.8	18.5	18.1	13.5	0.0	0.5	0.0	0.0	smoke haze	70	16	1023	1016
22	30.7	23.8	13.5	10.8	22.1	17.3	17.1	0.0	4.1	0.0	0.0	smoke haze	54	15	1016	1005
23	22.3	25.4	9.6	10.6	16.0	18.1	11.0	2.0	0.0	0.0	0.0	smoke haze	87	39	1008	1005
24	18.9	24.4	8.1	10.9	13.5	17.7	8.5	4.5	0.0	0.0	0.0	smoke haze	89	53	1009	1003
25	16.6	24.2	8.8	9.9	12.7	17.0	7.7	5.3	0.0	0.0	0.0		90	42	1013	1009
26	15.6	23.4	8.1	9.4	11.9	16.4	6.9	6.1	0.0	3.2	3.6	light rain	90	62	1012	1006
27	13.6	23.9	8.1	9.1	10.9	16.6	5.9	7.1	0.0	0.3	0.4	haze / fog	94	81	1015	1007
28	18.2	24.4	8.4	9.7	13.3	17.1	8.3	4.7	0.0	0.0	0.0	drizzle	90	34	1015	1011
29	26.4	23.6	8.3	10.1	17.4	16.9	12.4	0.6	0.0	0.0	0.0		78	25	1011	1001
30	23.2	23.4	11.9	9.6	17.6	16.6	12.6	0.4	0.0	0.1	0.0		85	30	1005	1001
31	20.7	22.5	10.4	9.1	15.6	15.8	10.6	2.4	0.0	0.3	0.4	light rain	86	31	1008	1005
Total							413.9	47.4	58.3	19.8	19.6		Extreme / Date	Extreme / Date	Extreme / Date	Extreme / Date
Avg	25.0	24.9	11.6	11.0	18.4	18.0	1981-2010 Normal			46.5	Normal					
Extreme Date	38.1		6.5				402.8	50.0	49.8	148.1	Cumulative		95	13	1026	1001
	10		14							273.0	Cumulative No		14	10	20	29

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

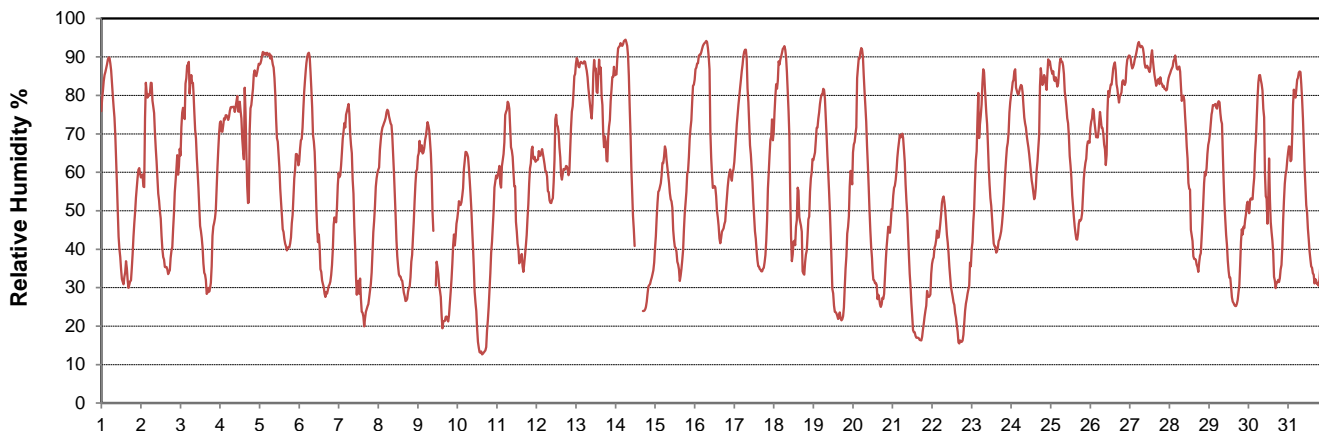
### SRC proudly recognizes the following CRS supporters:



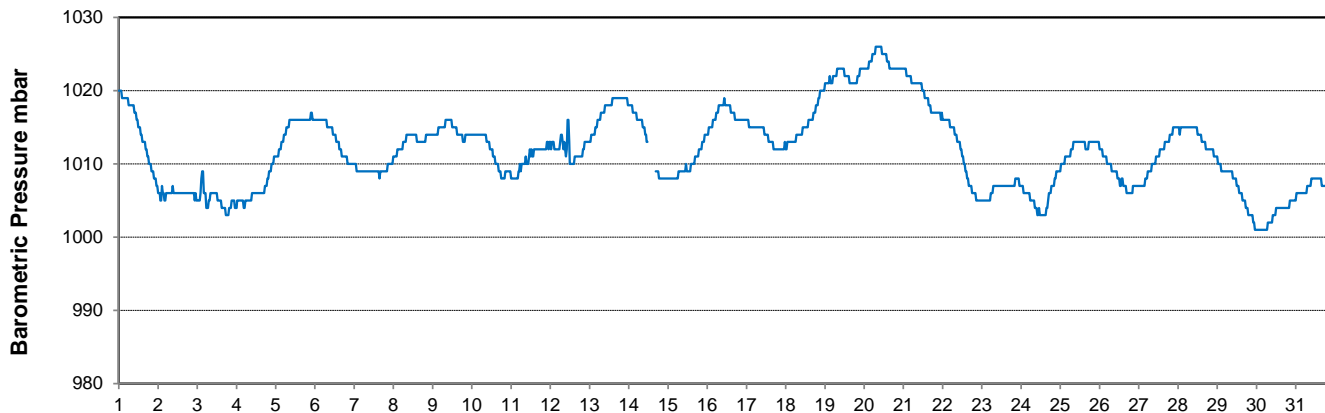
### Temperature and Precipitation for August 2018



### Relative Humidity for August 2018



### Barometric Pressure Corrected to Sea Level for August 2018





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

Preliminary **AUGUST 2018**

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	34.3	SSE	12:28	17.5	19.5	20.5	21.0	19.5	14.5	12.5	9.5	12	10.5	15.5	67.8	19.3	5.9
2	33.9	NW	14:22	21.0	20.5	21.0	21.0	19.0	14.5	12.5	9.5	12	11.8	15.4	76.5	23.9	4.8
3	62.6	WSW	2:35	18.5	20.0	21.0	21.5	19.5	14.5	12.5	9.5	13	13.2	15.4	85.9	24.2	4.7
4	57.3	NW	17:53	17.5	19.0	20.0	20.5	19.5	14.5	12.5	9.5	13	3.2	15.3	20.9	12.1	5.6
5	27.7	NNE	13:32	15.5	18.5	19.0	19.5	19.0	14.5	12.5	9.5	13	9.4	15.3	61.6	19.0	5.5
6	39.8	WSW	13:43	19.5	18.0	19.0	19.5	19.0	14.5	13.0	9.5	13	13.1	15.2	86.2	22.6	3.9
7	48.9	WNW	15:41	20.0	19.0	20.0	20.5	19.0	14.5	13.0	9.5	13	7.8	15.1	51.5	16.2	7.1
8	34.6	NW	16:36	19.0	18.5	19.0	20.0	19.0	14.5	13.0	10.0	12	12.6	15.1	83.6	20.9	6.2
9	26.3	SSW	15:55	20.5	19.0	20.0	20.5	19.0	14.5	13.0	10.0		12.5	15.0	83.2	19.0	7.4
10	38.5	S	14:17	23.5	20.0	20.5	21.0	19.0	14.5	13.0	10.0		12.6	15.0	84.2	21.8	5.7
11	53.2	NNE	14:30	23.0	21.0	21.5	21.5	19.5	15.0	13.0	10.0	This sensor is no longer on site. Stay tuned for new soil moisture information that provides information on 10, 20 and 50 cm levels	7.3	14.9	49.0	14.6	7.6
12	66.2	ENE	11:47	17.5	20.0	20.5	21.0	19.5	15.0	13.0	10.0		2.3	14.9	15.5	8.2	4.9
13	31.0	NW	12:08	13.5	18.0	18.5	19.0	19.0	15.0	13.0	10.0		0.2	14.8	1.4	6.7	5.1
14	33.6	SW	11:57	13.5	13.0	14.5	16.5	18.5	15.0	13.0	10.0		2.9	14.7	19.7	11.4	2.6
15	28.2	WNW	15:04	17.5	15.5	16.5	17.0	17.5	15.0	13.0	10.0		5.2	14.7	35.4	10.9	5.9
16	32.3	E	15:28	13.0	15.0	16.0	17.0	17.0	14.5	13.0	10.0		6.7	14.6	45.9	13.4	7.1
17	27.3	ESE	0:14	17.5	16.0	17.0	17.5	17.0	14.5	13.0	10.0		11.0	14.5	75.7	17.6	7.1
18	46.2	N	17:48	17.5	17.5	18.0	18.5	17.5	14.5	13.0	10.5		5.3	14.5	36.6	9.4	5.8
19	43.7	W	13:18	13.5	14.0	15.0	17.0	17.5	14.5	13.0	10.5		10.8	14.4	74.9	18.6	4.7
20	18.6	NNE	16:47	13.0	13.5	15.0	16.5	17.0	14.5	13.0	10.5		9.4	14.4	65.5	17.6	5.9
21	40.5	W	16:49	14.5	14.5	15.5	16.5	16.5	14.5	13.0	10.5	12.2	14.3	85.3	20.8	4.6	
22	40.9	SW	11:50	19.0	16.0	17.0	17.5	17.0	14.5	13.0	10.5	13.1	14.2	92.1	21.7	3.3	
23	37.8	NE	20:13	13.5	16.5	17.5	18.0	17.0	14.0	13.0	10.5	9.4	14.2	66.3	17.3	6.5	
24	43.2	NW	15:17	12.5	16.0	16.5	17.5	17.0	14.5	13.0	10.5	0.9	14.1	6.4	8.0	5.8	
25	34.4	WNW	1:42	10.0	14.5	15.5	16.5	17.0	14.5	13.0	10.5	4.8	14.0	34.2	12.3	5.8	
26	35.4	SE	5:50	12.0	13.5	14.5	15.5	16.5	14.0	13.0	10.5	0.3	14.0	2.1	5.0	3.8	
27	32.6	N	17:41	11.5	12.5	13.5	14.5	15.5	14.0	13.0	10.5	0.0	13.9	0.0	3.5	2.7	
28	22.4	S	16:15	10.0	12.5	13.0	13.5	15.0	14.0	13.0	10.5	8.3	13.9	59.9	16.7	5.4	
29	31.0	SSW	14:50	14.0	12.0	13.0	14.5	15.0	14.0	13.0	10.5	9.3	13.8	67.5	16.9	6.3	
30	47.3	WNW	16:46	14.5	14.5	15.5	15.5	15.0	13.5	13.0	10.5	8.0	13.7	58.3	14.6	6.5	
31	51.7	WNW	11:12	12.5	14.0	15.0	15.5	15.5	13.5	12.5	10.5	9.6	13.7	70.3	17.9	4.5	
Total													243.7	452.4	53.9	482.1	168.7
Mean				16.0	16.5	17.4	18.1	17.7	14.4	12.9	10.1		1981-2010 Normal for Radiation				
Extreme	66.2	ENE	11:47	1971- 2000 Normal for Soil Temperatures									271.3	452.5	60.0	542.1	182.4
Date	12				16.5	16.9	18.1	16.8	14.1	12.3	9.1		No. of Bright Sunshine days = 30				

Soil moisture sensor removed Aug 9 2018; New Soil moisture sensors installed 10, 20 and 50 cm; new cmprtr program installed Aug 14, 2018

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

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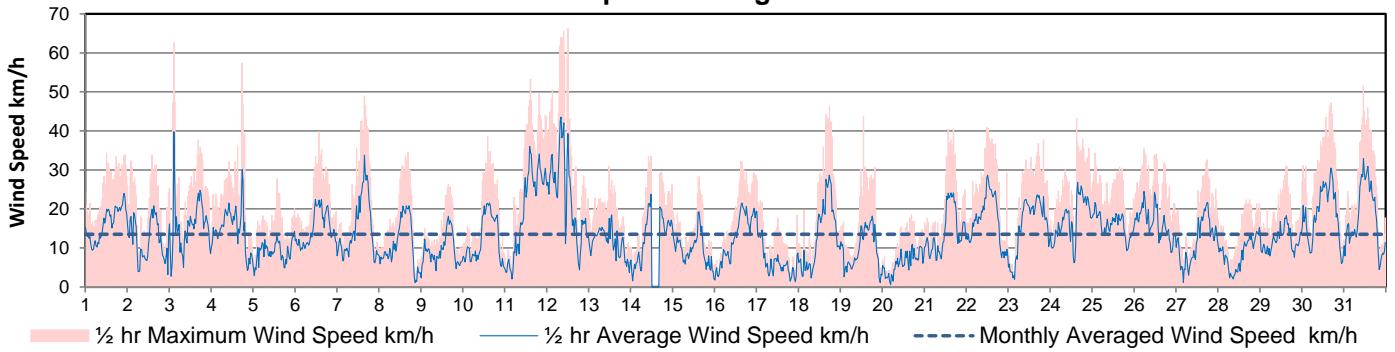


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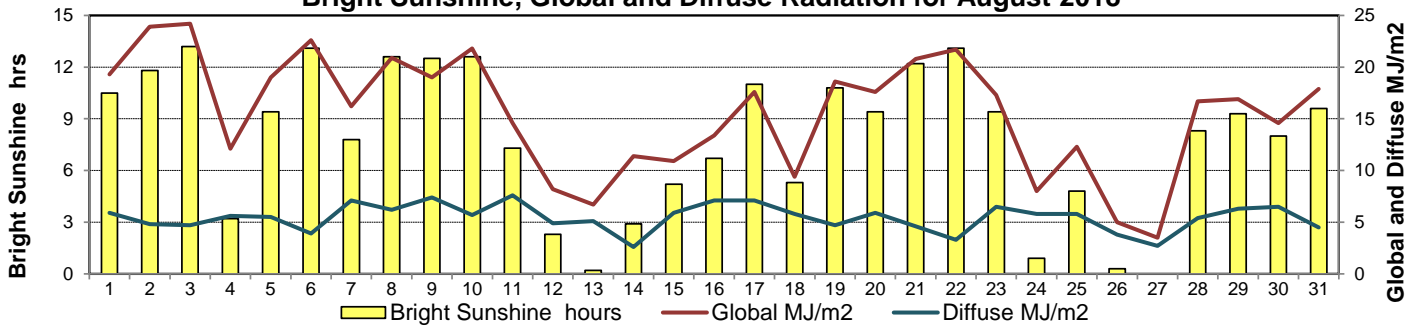


CAMPBELL SCIENTIFIC WHEN MEASUREMENTS MATTER

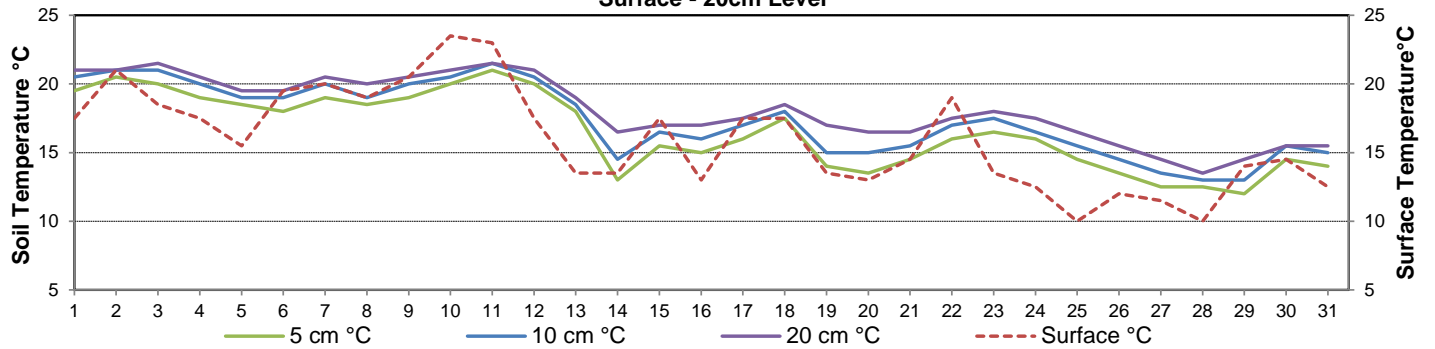
**Wind Speed for August 2018**



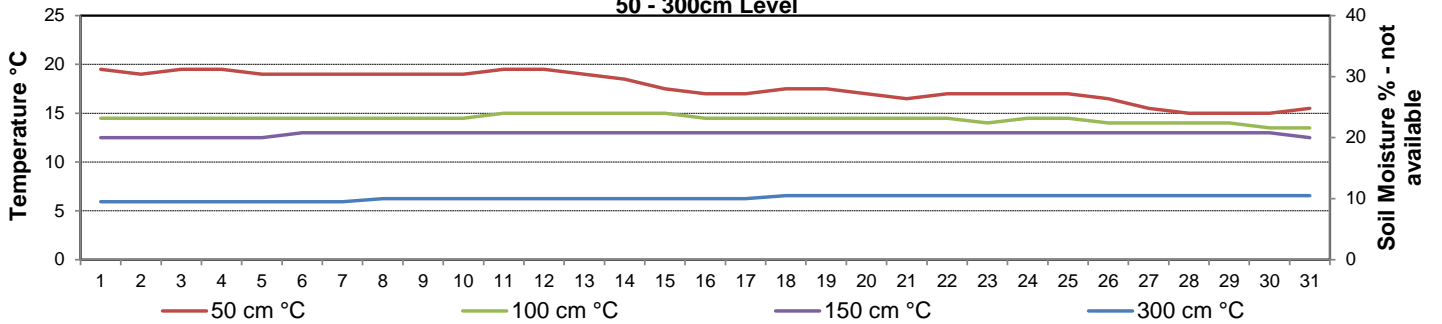
**Bright Sunshine, Global and Diffuse Radiation for August 2018**



**Soil Temperatures for August 2018  
Surface - 20cm Level**



**Soil Temperatures for August 2018  
50 - 300cm Level**





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

Preliminary **AUGUST 2018**

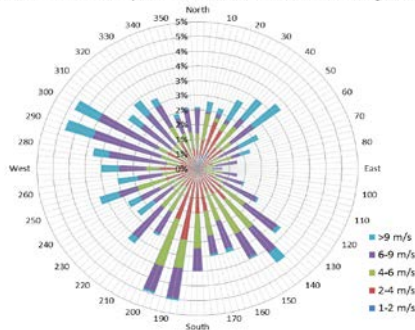
### Extreme Records for August

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
39.7	06/1998	SRC	39.7	06/1998	229.8	1953	SF	105.2	2007					360.8	1969	31	1966*
-2.8	23/1901 28/1976	SM SRC	-2.8	28/1976	0.0	1986	SC	7.0	2001	151 <sup>W</sup>	14/1967	129	1985	200.8	1987	27	1992*

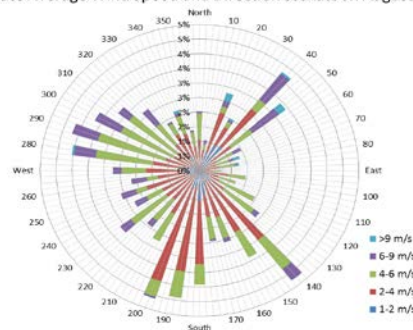
\*\*1975 forward \* more than one year

Notable Events for CRS Saskatoon - August						Saskatoon Area Stations			Glossary	
Element	Type	Day	New Record	Old Record	Year	Station	Location	Period	Term	Definition
Temperature	Highest Maximum Daily	10	38.1	37.3	1998	SM	NWMP	c. 1892-1901	T	Trace of precipitation
	Lowest Maximum Daily	27	13.6	14.0	1982	SE	Eby	1901-1941	Normal	30 year average beginning with the decade
	Highest Daily Average	10	27.8	27.3	1991	US	Univ. of Sask.	1915-1964	SOG	Depth of snow-on-the-ground in cm
						S	Saskatoon	1941-1942	na	not available
						SA	Saskatoon A	1942 -	<b>Degree-days</b>	
						NRC	Nat. Res. Council	1952-1966	Tm	Mean Temperature
						SRC	Sask. Res. Council	1963-	Growing	(Tm-5°C); if Tm ≤ 5°C then GDD = 0
						SWT	S'toon Water Treatment Plant	1974 -	Heating	(18°C-Tm); if Tm ≤ 18°C then HDD = 0
						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		
						K	S'toon Kernen Farm	1993-2004		
						KCS	S'toon Kernen Farm CS	1996-		
						RCS	Environment Canada	2008-		
						SF	Sutherland Forestry	1943-1970		

1/2 hr Maximum Wind Speed and Direction Saskatoon August 2018



10 minute Average Wind Speed and Direction Saskatoon August 2018



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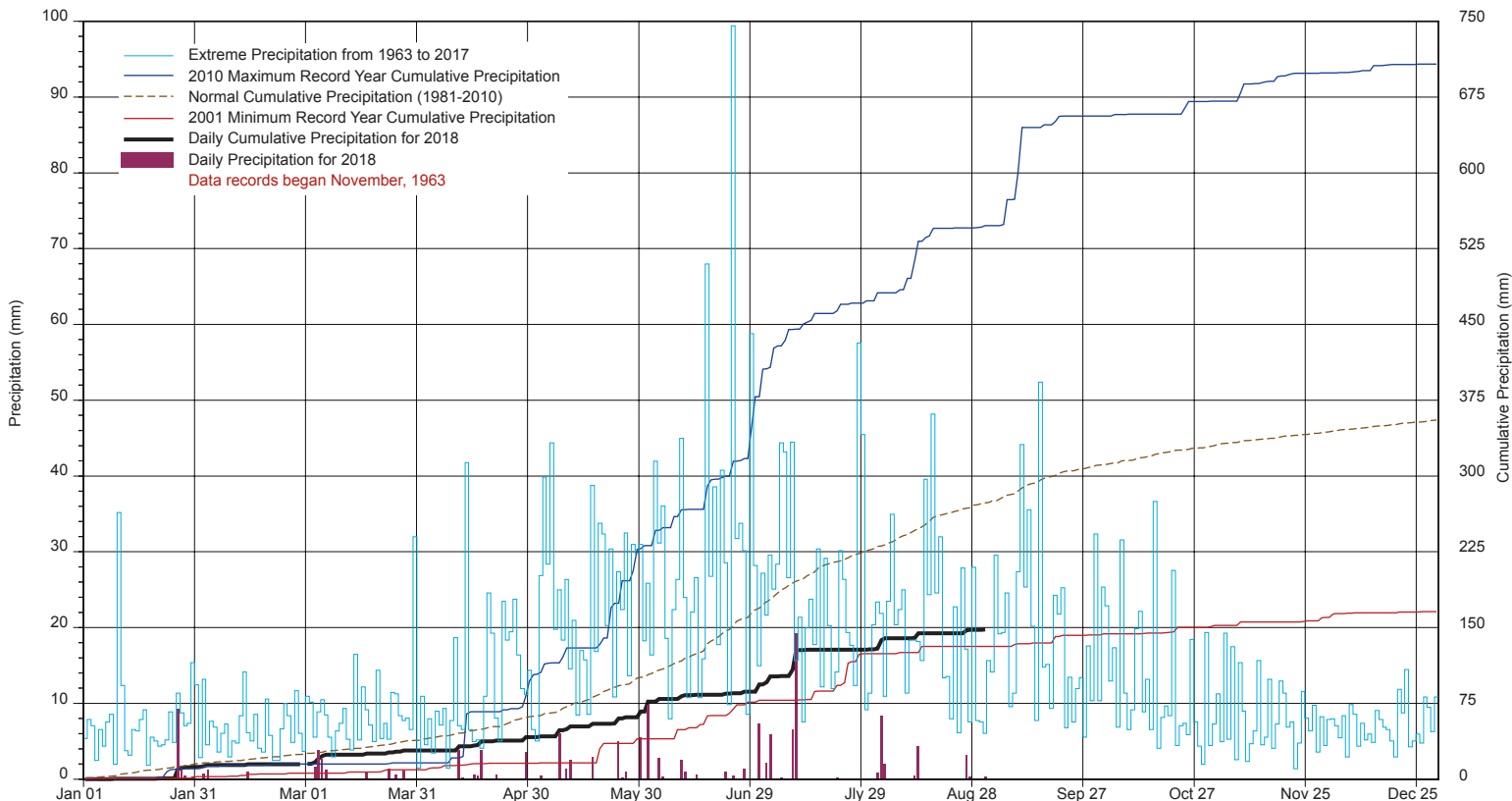


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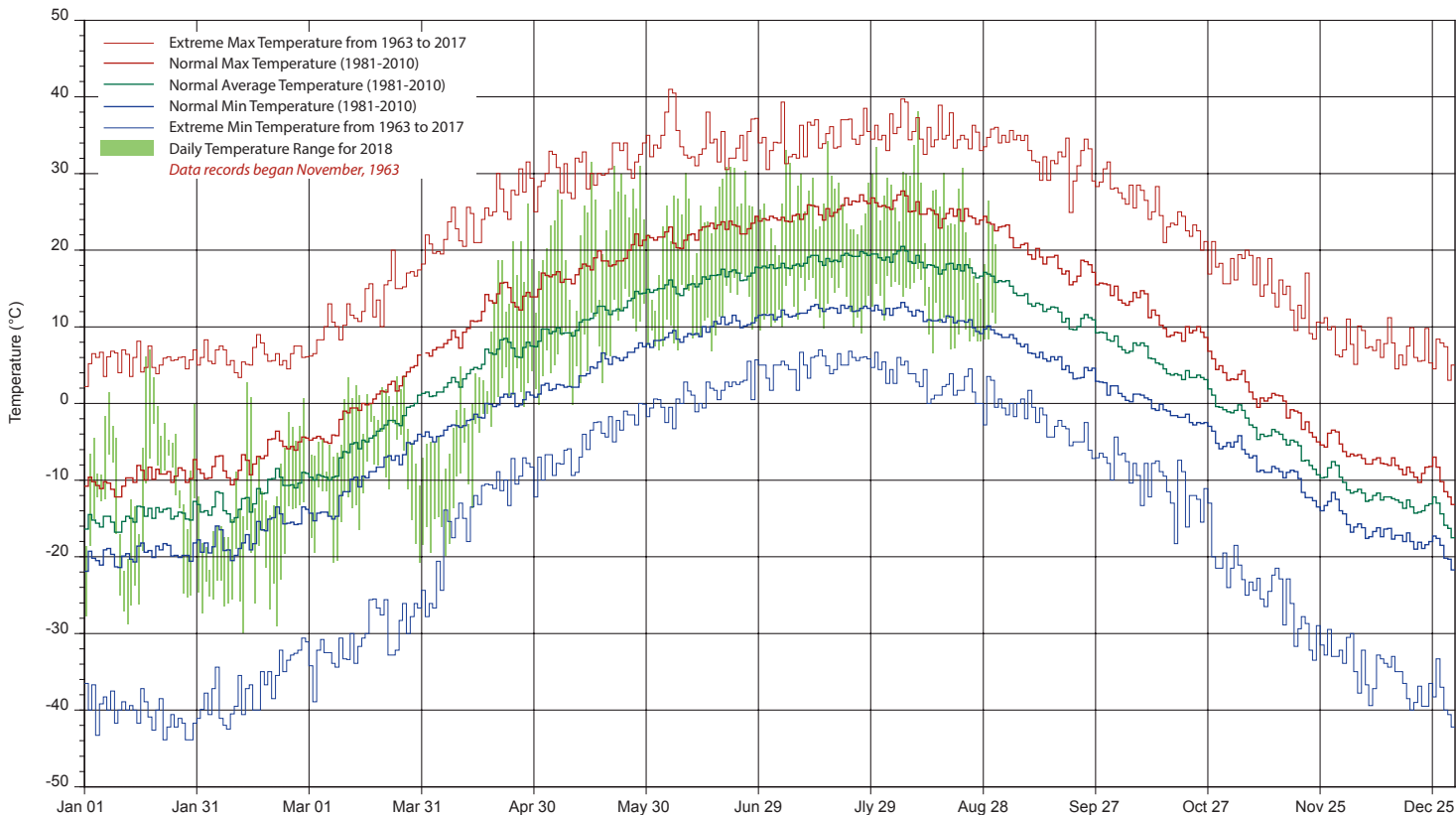
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## 2018 TEMPERATURES AND NORMALS



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