

Environment Canada Imaging Cover Page

Report N.:



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SKP Box Number: 672572447

NORMAL VALUES OF TEMPERATURE, PRECIPITATION, PRESSURE
AND HUMIDITY AT CANADIAN CLIMAT STATIONS

1. The tables that follow contain normal or provisional normal values of temperature, precipitation, pressure, and humidity for those stations in Canada from which data are used in the International CLIMAT broadcast each month. In addition, a list of CLIMAT stations is attached giving the latitude, longitude and elevation of each station along with its International index number. The initial year of the period of record is shown, along with the year when observations were begun at the present site. With a few exceptions, all observations are now taken at airport sites.
2. Temperature normals are expressed in degrees Fahrenheit and are based on the average of the mean daily maximum and mean daily minimum temperatures for the month. On any particular day, the maximum temperature is the highest temperature in the twenty-four hours ending at 12Z the following day, while the minimum temperature day ends at 00Z on the following day. A code sheet is shown which indicates the period of record used for the normals from each station and whether or not any adjustments have been made. (Reference CIR-3208, 1959).
3. Precipitation normals are listed in hundredths of inches and the same code as used in the temperature normals applies to these precipitation normals. Precipitation is the sum of the rainfall plus one tenth of the snowfall and at all stations the precipitation day ends at 12Z on the next day. (Reference CIR-3208, 1959).
4. Normal values of pressure have been listed to the closest millibar. Values have not been averaged from individual station records but rather have been read from average monthly maps prepared from the 1940 through 1949 data. In northern Canada the period of record is several years shorter. (Reference CIR-2710, 1955).
5. Average values of relative humidity expressed as a percentage are listed in this table. The period of record in all cases is the decade from 1941 to 1950 or for whatever part of that period data are available. The individual number of years in the record is indicated in a column to the right. Humidity normals listed have been calculated from dry bulb and dew point temperatures at the four standard synoptic hours each day. Many data are missing for northern stations during the winter months because of the difficulty in reading the wet bulb depression at low temperatures. (Reference Climatic Summaries Vol.II, Revised 1959).
6. Precipitation quintiles have been prepared for a number of Canadian CLIMAT stations where the observations have been taken at one location over the period 1921 to 1950 and at stations where the record is fairly homogeneous over those thirty years despite a move from city or town to airport. Monthly values of precipitation have been arranged in order of magnitude and the five quintile levels selected for each month.
7. Station names in this circular have been simplified for international usage. In domestic publications Halifax/Dartmouth appears as Halifax Dartmouth (A), Sydney as Sydney (A), etc., to denote airport data in contrast to city data.

INDEX OF CANADIAN CLIMAT STATIONS

Index Number	Station	POSITION				PERIOD OF RECORD		
		Latitude		Longitude		Open	Present Site Since	
		0	1	0	1			Elevation feet
72600	Sable Island	43	56	60	02	12	1897	
72601	Halifax/Dartmouth	44	38	63	30	136	1944	
72624	Toronto/Malton	43	41	79	38	578	1938	
72627	Montreal/Dorval	45	28	73	45	98	1941	
72707	Sydney	46	10	60	03	197	1870	1941
72717	Chatham	47	01	65	27	112	1889	1943
72722	Maniwaki	46	22	75	59	559	1914	1954
72727	Bagotville	48	20	71	00	536	1942	
72731	North Bay	46	22	79	25	1210	1915	1939
72803	Gander	48	57	54	34	517	1937	
72805	St. Pierre *	46	47	56	11	--		
72811	Seven Islands	50	13	66	16	190	1944	
72816	Goose Bay	53	19	60	25	144	1941	
72826	Nitchequon	53	12	70	54	1690	1942	
72831	Kapuskasing	49	25	82	28	752	1918	1938
72836	Moosonee	51	16	80	39	34	1932	1939
72841	Armstrong	50	17	88	54	1065	1930	1938
72848	Trout Lake	53	50	89	52	720	1939	
72852	Winnipeg	49	54	97	14	786	1872	1938
72863	Regina	50	26	104	40	1884	1884	1938
72867	The Pas	53	58	101	06	894	1910	1943
72874	Lethbridge	49	38	112	48	3018	1908	1939
72879	Edmonton	53	34	113	31	2219	1882	1941
72892	Vancouver	49	11	123	10	16	1898	1938
72896	Prince George	53	53	122	41	2218	1912	1942
72906	Fort Chimo	58	06	68	26	117	1941	1947
72907	Port Harrison	58	27	78	08	66	1921	
72909	Frobisher Bay	63	45	68	33	68	1942	
72913	Churchill	58	45	94	04	115	1888	1945
72915	Coral Harbour	64	12	83	22	193	1943	
72917	Eureka	80	00	85	56	8	1947	
72924	Resolute	74	43	94	59	209	1947	
72926	Baker Lake	64	18	96	00	30	1946	
72934	Fort Smith	60	01	111	58	665	1913	1944
72938	Coppermine	67	49	115	05	28	1930	
72945	Fort Nelson	58	50	122	35	1230	1937	
72964	Whitehorse	60	43	135	04	2289	1940	1942
72968	Aklavik	68	14	135	00	30	1926	
74043	Norman Wells	65	17	126	49	209	1943	1950
74051	Sachs Harbour	71	57	124	44	277	1955	
74072	Mould Bay	76	14	119	20	50	1948	
74074	Isachsen	78	47	103	32	83	1948	
74081	Hall Lake	68	47	81	15	34	1955	
74082	Alert	82	30	62	20	205	1950	
74090	Clyde	70	27	68	33	10	1942	
74101	Sandspit	53	15	131	49	25	1945	
74109	Port Hardy	50	41	127	22	74	1944	
	O.W.S. 'Papa'	50	00	145	00	--	1950	

* French Station Report included with Canadian Message for convenience.

MONTHLY AVERAGES OF SEA LEVEL PRESSURE (MILLIBARS)

(Add 1000 MB.)

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
Sable Island	13	9	12	14	16	14	17	16	18	16	15	13
Halifax/Dartmouth	14	10	13	14	15	14	16	15	18	17	15	14
Toronto/Malton	19	17	16	17	15	14	16	17	19	18	16	18
Montreal/Dorval	18	15	15	16	14	13	14	16	18	18	16	17
Sydney	11	08	11	13	16	13	15	14	17	15	14	11
Chatham	13	11	12	14	14	12	14	14	17	16	15	14
Maniwaki	18	15	15	16	15	13	14	15	18	17	16	17
Bagotville	16	13	14	15	14	12	13	14	16	16	15	15
North Bay	18	16	16	17	15	14	15	16	18	17	16	17
Gander	07	05	08	12	15	12	14	13	15	13	12	07
Seven Islands	13	10	12	14	14	11	11	12	15	14	14	12
Goose	09	08	10	13	14	11	10	11	13	10	12	07
Nitchequon	14	13	14	15	13	11	10	11	13	12	13	12
Kapuskwasing	18	17	16	18	15	13	13	15	16	16	15	17
Moosonee	17	17	16	18	15	13	12	14	15	15	14	16
Armstrong	19	19	17	18	16	14	14	15	16	16	16	18
Trout Lake	18	20	18	19	17	14	12	14	14	14	16	17
Winnipeg	20	21	18	17	15	13	14	14	15	15	17	19
Regina	21	21	18	16	15	13	14	14	16	15	18	18
The Pas	20	22	18	17	16	13	12	13	14	13	17	18
Lethbridge	21	20	17	15	15	14	15	15	16	16	18	18
Edmonton	20	20	17	15	15	14	14	15	16	14	17	17
Vancouver	20	16	16	17	16	16	17	16	17	17	17	17
Prince George	19	17	15	14	15	15	16	16	17	14	16	16
Fort Chimo	09	12	12	14	13	10	08	08	10	08	10	08
Port Harrison	12	15	15	17	16	13	09	10	10	09	10	11
Frobisher Bay	08	11	12	17	14	11	08	09	08	06	09	07
Churchill	17	21	19	20	18	14	11	12	12	12	15	16
Coral Harbour	11	15	16	17	17	13	09	10	10	08	11	11
Eureka	15	17	19	19	20	14	10	10	10	13	17	17
Resolute	14	16	18	18	18	13	11	11	10	12	15	14
Baker Lake	16	19	18	19	19	14	09	10	12	11	15	15
Fort Smith	20	23	18	17	16	13	11	12	13	10	17	18
Coppermine	19	23	20	20	20	16	11	10	13	10	18	19
Fort Nelson	19	21	15	14	15	13	13	14	14	10	16	17
Whitehorse	15	17	11	12	15	14	15	15	13	07	13	14
Aklavik	20	24	19	18	18	15	12	12	14	09	18	18
Norman Wells	21	26	20	19	18	15	13	12	15	11	20	21
Sachs Harbour	19	23	20	20	21	17	12	11	14	12	18	19
Mould Bay	18	18	19	18	20	16	12	12	11	14	17	17
Isachsen	16	17	19	18	20	15	11	11	10	14	17	16
Hall Lake	11	15	16	16	17	13	09	09	09	08	12	12
Alert	16	18	19	20	21	16	12	12	13	15	18	19
Clyde	09	11	14	14	16	12	08	09	07	07	11	10
Sandspit	11	11	11	13	16	17	18	17	15	10	09	09
Port Hardy	16	14	14	16	16	18	18	17	16	15	14	14
O.W.S. 'Papa' *	08	06	11	12	13	15	20	20	16	13	07	05

* Values read from U.S.W.B. Technical Paper No. 21.

MONTHLY FREQUENCY GROUPS OF PRECIPITATION ACCORDING TO QUINTILES (INCHES)

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
SABLE ISLAND												
1	3.29	3.24	2.27	2.10	2.19	1.54	1.76	0.89	1.70	2.49	3.49	3.34
2	4.22	3.83	3.73	2.83	2.85	2.42	2.95	2.06	2.65	3.51	3.94	4.27
3	4.73	4.90	4.61	3.63	3.61	2.73	3.67	3.02	4.04	4.73	5.49	5.65
4	5.08	5.58	5.06	4.45	4.57	3.98	4.12	4.38	5.74	6.86	6.70	6.43
5	8.24	7.93	7.76	7.56	11.27	6.62	6.00	9.64	7.16	9.77	11.54	12.51
SYDNEY												
1	3.39	3.07	2.94	2.37	2.38	1.57	1.56	2.34	2.78	2.91	2.66	3.71
2	4.22	3.89	3.67	3.40	3.04	2.71	2.68	3.21	3.74	4.24	4.08	5.07
3	5.35	4.54	4.42	3.94	3.62	3.14	3.06	4.28	4.61	5.38	5.60	5.51
4	6.75	5.33	5.40	4.67	5.40	3.97	3.80	5.52	5.41	6.77	6.61	6.33
5	8.98	8.70	6.58	6.19	6.40	10.89	6.88	7.94	12.34	11.18	8.76	8.94
CHATHAM												
1	2.01	1.24	1.97	2.08	2.00	2.46	2.23	2.32	1.60	1.72	2.10	1.66
2	2.37	1.88	2.49	2.40	2.52	3.16	2.60	3.02	2.61	2.81	2.85	2.18
3	2.84	2.29	2.88	3.05	3.24	3.89	3.19	3.68	3.29	3.70	3.51	2.90
4	3.32	2.68	3.12	3.35	3.61	4.53	3.77	5.77	3.92	5.00	4.45	3.46
5	4.23	4.14	4.19	4.56	5.85	6.75	5.78	7.59	10.13	8.94	8.67	4.92
MANIWAKI												
1	1.35	1.03	1.39	1.29	1.70	1.94	2.27	1.62	2.17	1.80	1.32	1.51
2	1.78	1.38	1.91	1.93	2.18	2.49	2.95	2.38	3.07	2.18	2.01	2.44
3	2.24	1.68	2.15	2.68	2.74	3.48	3.31	2.93	3.49	2.63	3.22	2.69
4	2.45	2.32	2.65	3.28	3.36	4.04	4.77	4.22	4.03	3.75	4.16	2.92
5	4.37	3.15	4.80	4.02	4.67	6.43	7.05	6.49	6.86	5.45	6.33	3.75
KAPUSKASING												
1	1.48	0.75	0.90	0.99	1.82	1.77	1.93	1.76	2.13	1.48	1.64	1.49
2	1.80	1.14	1.46	1.34	2.27	2.02	3.01	2.73	2.85	1.96	2.13	1.88
3	2.28	1.40	2.24	2.07	2.84	3.05	3.78	3.20	3.37	2.68	2.69	2.24
4	3.01	1.80	2.75	2.82	3.50	4.57	4.73	3.87	4.96	3.51	3.67	2.99
5	4.34	3.56	4.39	4.80	4.86	7.54	7.19	7.29	6.93	4.62	6.10	4.20
WINNIPEG												
1	0.42	0.39	0.48	0.44	0.83	1.47	1.51	1.76	1.09	0.42	0.71	0.32
2	0.62	0.62	0.72	0.90	1.57	2.21	2.01	1.83	1.62	0.80	0.90	0.64
3	1.04	0.69	1.18	1.13	1.91	2.62	2.83	2.85	2.39	1.31	1.09	0.94
4	1.43	1.18	1.89	1.71	3.20	3.53	3.71	3.63	3.22	2.07	1.55	1.35
5	2.04	2.25	2.84	3.52	5.27	6.74	6.46	5.51	5.89	5.67	2.40	1.85
REGINA												
1	0.19	0.34	0.43	0.31	0.76	1.78	1.06	0.68	0.44	0.27	0.28	0.28
2	0.52	0.48	0.64	0.67	1.07	2.56	1.80	1.25	0.78	0.60	0.53	0.53
3	0.68	0.63	0.72	0.82	1.47	2.98	1.93	2.21	1.17	0.85	1.08	0.61
4	1.00	0.73	1.11	1.06	2.51	4.79	2.66	2.37	1.91	1.26	1.32	0.80
5	1.45	1.87	1.98	2.05	4.32	6.29	5.40	4.12	4.19	2.22	2.37	1.74

MONTHLY FREQUENCY GROUPS OF PRECIPITATION ACCORDING TO QUINTILES (INCHES)
(Cont'd)

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
THE PAS												
1	0.35	0.38	0.40	0.36	0.67	1.03	1.62	1.31	0.92	0.58	0.52	0.47
2	0.58	0.53	0.57	0.69	1.03	1.51	2.04	2.02	1.57	0.95	0.78	0.65
3	0.83	0.79	0.84	1.01	1.57	2.57	2.40	2.55	1.98	1.15	0.98	0.80
4	1.07	1.13	1.20	1.56	2.24	3.44	2.97	3.05	3.10	1.83	1.80	1.20
5	2.71	2.17	2.02	2.14	3.56	5.18	5.51	4.47	5.61	2.20	2.72	3.15
LETHBRIDGE												
1	0.26	0.41	0.74	0.56	0.89	1.33	0.54	0.46	0.68	0.31	0.47	0.38
2	0.43	0.62	0.93	0.89	1.22	1.74	0.92	0.86	1.08	0.66	0.59	0.55
3	0.67	0.76	1.19	1.19	1.95	3.40	1.63	1.18	1.78	0.93	1.07	0.71
4	1.02	1.04	1.41	1.99	2.99	4.33	2.55	1.85	2.69	1.47	1.61	1.33
5	2.13	1.54	2.51	3.36	7.32	6.79	4.50	4.05	4.86	5.01	2.91	2.27
EDMONTON												
1	0.51	0.30	0.30	0.45	1.07	1.48	1.88	1.37	0.56	0.21	0.49	0.46
2	0.66	0.51	0.46	0.70	1.46	2.14	2.79	1.72	0.85	0.50	0.69	0.62
3	0.94	0.77	0.88	0.92	1.77	2.81	3.24	2.41	0.98	0.87	0.86	0.97
4	1.20	1.05	1.31	1.53	2.38	4.18	3.70	3.37	1.81	1.29	1.11	1.33
5	2.50	2.30	2.76	2.85	5.28	6.78	8.31	4.84	3.09	1.93	3.10	2.85
PRINCE GEORGE												
1	1.15	0.65	0.64	0.44	0.74	1.11	0.86	0.97	1.19	1.43	1.32	1.20
2	1.58	1.09	0.88	0.78	1.28	1.72	1.46	1.56	1.82	1.97	1.75	1.77
3	2.13	1.55	1.23	0.94	1.88	2.45	2.21	2.53	2.18	2.25	2.30	1.98
4	2.45	2.06	1.93	1.34	2.07	3.48	3.41	3.61	2.68	2.92	2.83	2.98
5	3.20	3.38	3.19	2.96	2.91	4.14	5.08	5.80	6.12	3.83	4.52	4.98
FORT SMITH												
1	0.24	0.25	0.21	0.15	0.54	0.63	0.72	0.79	0.65	0.52	0.30	0.31
2	0.35	0.37	0.46	0.32	0.83	1.07	1.12	1.19	1.19	0.72	0.56	0.72
3	0.49	0.55	0.60	0.58	1.18	1.50	2.17	1.44	1.67	0.96	0.77	1.01
4	0.88	1.00	1.12	0.77	1.53	2.11	2.93	2.00	2.08	1.17	1.38	1.45
5	1.42	2.89	2.02	1.72	2.24	4.13	4.26	6.66	4.77	2.93	2.49	2.29

KEY TO DERIVATION OF TEMPERATURE AND PRECIPITATION NORMALS

<u>TYPE</u>	<u>DESCRIPTION</u>
1.	Normals were computed directly from a period of record of 20 to 30 years within the period 1921-1950. In most cases the record existed over the full 30 years.
2.	Data for these normals were from the full ten year period 1941-1950 adjusted to 1921-1950.
3.	Data for these normals were from a ten year period ending in the early 1950's, first adjusted to the period 1941-1950 and then further adjusted to 1921-1950.
4.	These data are based on the complete 10 years from 1941-1950.
5.	These data were from a ten year period ending in the early 1950's and then adjusted to the period 1941-1950.
6.	These averages are based on a period of record of 10 to 19 years with no adjustments.
7.	At several locations the observing station was moved from the town or city to an airport during the 1930's. At many of these locations the records were kept separate but at those shown as Code 7, the airport and town data were considered homogeneous. The resulting normals are based on the full 30 year period 1921-1950.
8.	These data are based on a period of record of less than 10 years.
9.	These data are based on a period of record of less than 10 years but adjustments have been made when unusually warm or cold months unduly influenced the average values.