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CDS #6-71

CANADIAN METEOROLOGICAL SERVICE

## EXTREMES OF ATMOSPHERIC PRESSURE IN CANADA

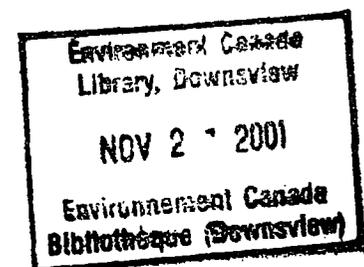
Data and information concerning specific observed pressure extremes in Canada are to be found in this Climatic Data Sheet and supersede data published a decade ago in CDS #6-61. Although a limited quality control check has been carried out the extremes data should be considered as provisional since it has not been possible to carry out a complete and thorough check, especially on earlier data. Some world wide pressure extremes are listed at the end of this CDS for comparison with Canadian data.

Some two dozen Weather Offices across Canada regularly publish monthly pressure extremes in Monthly Meteorological Summaries and these extremes were used as the bases for the tables showing the highest and lowest observed pressures at selected stations. Since many of the extremes published in the Monthly Meteorological Summaries were based on six hours synoptic data only, it was frequently necessary to inspect the hourly weather observations to obtain the actual extreme values.

While it is hoped that the data contained in these tables are relatively complete and accurate it is possible that some observed pressure extremes have been missed. Field offices with any additions or corrections to these data should notify the Climatology Division at Headquarters at their convenience.

March 17, 1971  
JEP/

Climatology Division  
Canadian Meteorological Service  
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**TABLE 1**  
**HIGHEST ATMOSPHERIC PRESSURES OBSERVED IN CANADA**

Station	Station Elevation Feet	Sea Level Pressure MB	Correspond- ing Station Pressure MB	Temp °F	Date	Hour
Medicine Hat, Alta.	2365	1067.3	965.1	-42	Jan 24, 1897	06 MST
Edmonton, Alta.	2158	1065.7	965.3	-41	"	"
Calgary City, Alta.	3471	1065.0	915.3	-34	"	"
Fort Chimo A, Que.	117	1064.1	1058.9	-25	Jan 8, 1956	09 EST
Frobisher Bay, A, N.W.T.	68	1062.7	1059.8	-19	"	15 EST
Resolution Island, N.W.T.	127	1062.2	1056.9	3	"	20 EST
Cape Hopes Advance, Que.	240	1061.2	1051.3	- 3	"	08 EST
Clyde, N.W.T.	10	1063.8	1063.8	-35	Jan 18, 1958	07 EST
Mayo Landing, Y.T.	1625	1063.6	992.1	-53	Jan 27, 1951	09 YST
Dawson, Y.T.	1062	1063.0	1016.8	-46	"	12 YST
Dawson, Y.T.	1062	1063.6	-	-52	Jan 6, 1909	08 YST

TABLE 2  
HIGHEST OBSERVED PRESSURES AT SELECTED STATIONS IN CANADA

Name	Years of Record	Elevation Feet	Date	Hour	Highest Sea Level Pressure MB	Corresponding Station Pressure MB	Temp. °F	Sea Level Pressure Range from Highest to Lowest
Fort St. John A, B.C.	29	2275	Jan 8, 1962	21 P 22 P	1057.5	965.1	-20 -15	87.3
Prince George A, B.C.	27	2218	Jan 16, 1957	10 P	1057.8	967.4	-15	86.8
Vancouver Int'l A, B.C.	33	16	Jan 16, 1957 Jan 26, 1949	09 P 11 P	1044.0 1044.0	1044.0 1044.0	22 30	73.7
Victoria Gonzales Hts. B.C.	70	228	Oct 20, 1906	12 P	1039.3	1036.1	51	68.9
*Victoria Int'l A, B.C.	28	67	Jan 28, 1949	11 P	1043.8	1043.8	29	73.2
Whitehorse A, Y.T.	28	2289	Jan 18, 1962	10 Y	1056.4	964.9	6	97.5
Calgary Int'l A, Alta.	31	3540	Jan 9, 1962	10 M	1059.4	919.7	-13	78.9
Edmonton Ind'l A, Alta.	87	2219	Jan 9, 1962	10 M	1060.7	970.1	-23	89.6
Lethbridge A, Alta.	33	3018	Jan 9, 1962	11 M 19 M	1062.0	940.6	-15 -23	89.1
Regina A, Sask.	32	1884	Jan 9, 1962	20 M	1056.8	979.4	-25	81.7
Saskatoon A, Sask.	6	1645	Mar 16, 1967	09 M	1053.1	986.0	-14	75.0
Winnipeg Int'l A, Man.	32	786	Jan 10, 1949	11 C	1054.1	1021.1	-16	87.5
Mount Forest, Ont.	9	1360	Jan 11, 1968	23 E	1043.9	988.9	-7	64.7
Ottawa Int'l, A, Ont.	10	413	Jan 12, 1968	09 E	1045.9	1028.6	-13	76.5
Toronto, Ont.	128	379	Jan 8, 1866	08 E	1062.6	1046.7	-12	-
Toronto Int'l A, Ont.	10	578	Jan 8, 1968	11 E	1045.4	1021.6	-11	71.1
Montreal Int'l A, Que.	28	98	Dec 25, 1949	14 E	1052.3	1048.4	11	89.7
Quebec A, Que.	13	245	Dec 4, 1966	10 E	1043.5	1033.6	10	76.8
Moncton A, N.B.	31	248	Dec 25, 1949	18 A	1050.3	1040.2	15	91.8
Halifax, N.S.	97	136	Dec 25, 1949	20 A	1051.2	1046.0	21	100.8
*Sydney A, N.S.	57	197	Mar 10, 1943	08 A	1050.8	1042.7	5	98.7
Truro, N.S.	10	131	Feb 5, 1970	21 A	1043.6	1038.3	18	80.0
*Gander Int'l A, Nfld.	28	482	Mar 10, 1943	08 N	1047.9	1028.1	-2	101.6
*St. John's A, Nfld.	29	463	Mar 10, 1943	08 N	1047.5	1030.0	7	96.7

\* Synoptic Observations only.

TABLE 3  
MONTHLY MAXIMUM STATION PRESSURES OBSERVED AT SELECTED STATIONS

Station	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Year
Fort St. John A, B.C.	965.1	957.2	956.6	953.8	952.9	948.0	947.5	948.5	955.6	954.5	957.9	960.4	965.1
Prince George A, B.C.	967.4	961.0	957.7	957.1	951.6	948.4	949.8	950.0	956.0	958.6	962.3	960.5	967.4
Vancouver Int'l A, B.C.	1044.0	1042.1	1041.3	1038.9	1034.2	1030.5	1029.5	1028.9	1032.8	1040.1	1040.5	1041.8	1044.0
Victoria Gonzales Hts, B.C.	1035.9	1034.5	1033.2	1033.5	1029.5	1027.4	1025.1	1027.4	1029.8	1036.1	1034.5	1035.2	1036.1
Victoria Int'l A, B.C.	1043.8	1042.3	1040.4	1037.9	1033.3	1029.4	1028.6	1027.8	1031.9	1034.4	1040.2	1041.3	1043.8
Whitehorse A, Y.T.	964.9	963.9	957.6	954.8	951.8	948.7	947.5	947.6	954.6	956.5	960.5	960.5	964.9
Calgary Int'l A, Alta.	919.7	912.0	911.7	908.5	909.6	908.0	905.0	905.3	907.6	910.8	913.1	913.5	919.7
Edmonton Ind'l A, Alta.	970.1	963.4	965.1	959.7	956.3	954.0	951.9	950.8	956.7	958.0	962.8	964.1	970.1
Lethbridge A, Alta.	940.6	931.9	931.8	932.7	928.2	925.1	922.4	923.5	925.5	928.2	931.9	933.3	940.6
Regina A, Sask.	979.4	970.7	978.8	971.0	966.3	962.8	962.3	961.9	968.5	967.4	970.6	973.4	979.4
Saskatoon A, Sask.	978.4	978.2	986.0	970.9	971.9	967.1	968.1	973.1	969.2	976.7	979.0	973.3	986.0
Winnipeg Int'l A, Man.	1020.7	1018.5	1018.0	1009.6	1005.4	1003.7	999.7	1004.4	1011.1	1009.2	1015.1	1012.2	1020.7
Mount Forest, Ont.	988.9	986.4	986.5	985.6	983.6	983.0	978.6	980.0	984.3	986.2	986.2	988.9	988.9
Ottawa Int'l A, Ont.	1028.6	1023.6	1026.3	1021.9	1020.9	1015.3	1012.2	1016.5	1020.0	1020.7	1023.4	1028.5	1028.6
Toronto, Ont.	1046.7	1034.5	1036.8	1025.3	1022.4	1020.3	1021.4	1018.4	1023.2	1028.3	1035.0	1033.6	1046.7
Toronto Int'l A, Ont.	1021.6	1016.6	1020.1	1013.7	1012.4	1010.2	1006.3	1007.7	1013.9	1015.5	1016.3	1020.3	1021.6
Montreal Int'l A, Que.	1048.4	1043.3	1047.7	1035.0	1033.2	1023.1	1025.3	1032.3	1035.5	1037.9	1038.1	1048.4	1048.4
Quebec A, Que.	1033.5	1031.5	1026.8	1031.5	1027.9	1023.3	1018.5	1026.9	1025.9	1028.7	1033.1	1033.6	1033.6
Moncton A, N.B.	1040.0	1035.5	1039.2	1029.3	1029.1	1023.1	1020.0	1023.9	1030.7	1034.0	1031.6	1040.4	1040.2
Halifax, N.S.	1044.6	1043.3	1044.7	1042.8	1033.7	1028.9	1027.9	1027.9	1034.6	1037.5	1038.7	1046.0	1046.0
Sydney A, N.S.	1039.5	1039.5	1042.7	1035.5	1031.9	1029.4	1024.0	1031.4	1032.5	1031.6	1036.6	1039.5	1042.7
Truro, N.S.	1036.6	1038.3	1036.4	1033.3	1029.1	1023.8	1023.9	1027.3	1032.6	1031.3	1033.2	1035.6	1038.3
Gander Int'l A, Nfld.	1025.1	1026.2	1028.1	1022.8	1025.2	1015.7	1014.2	1014.9	1022.1	1020.2	1026.1	1021.5	1028.1
St. John's A, Nfld.	1026.2	1024.2	1030.0	1025.0	1026.5	1014.6	1013.7	1015.7	1023.9	1022.8	1026.7	1021.4	1030.0

**TABLE 4**  
**LOWEST ATMOSPHERIC PRESSURES OBSERVED IN CANADA**

Station	Station Elevation Feet	Sea Level Pressure MB	Correspond- ing Station Pressure MB	Temp. °F	Date	Hour
Gander Int'l A, Nfld.	482	946.3	929.2	32	Feb 9, 1964	08 N
Brevoort Island, N.W.T.	1216	954.8	909.7	- 7	Jan 25, 1963	07 E
Resolution Island, N.W.T.	1208	952.7	908.1	- 2	Jan 25, 1963	08 E
Halifax, N.S.	136	950.4	945.5	42	Dec 1, 1964	16 A
†St. John's Torbay A, Nfld.	463	951.3	934.9	31	Feb 14, 1968	20 N
Sydney, N.S.	197	952.1	945.0	32	Dec 19, 1963	22 A
St. Anthony, Nfld.	57	958.8	956.7	28	Dec 20, 1963	13 N
Frobisher Bay A, N.W.T.	68	953.9	951.3	18	Jan 22, 1963	12 E
Moncton A, N.B.	248	955.7	946.9	37	Dec 30, 1956	06 A
Cartwright, Nfld.	47	955.8	955.8	40	Jan 24, 1963	20 N
Montreal, (McGil) Que.	187	956.7	949.9	38	Jan 3, 1913	19 E

† Extreme at St. John's, Nfld., exceeded on Jan 17, 1971: Sea Level Pressure 946.7 mb - Station Pressure 930.4 mb.

TABLE 5  
 LOWEST OBSERVED PRESSURES AT SELECTED STATIONS IN CANADA

Name	Years of Record	Elevation Feet	Date	Hour	Lowest Sea Level Pressure MB	Corresponding Station Pressure MB	Temp. °F	Sea Level Pressure Range from Highest to Lowest
Fort St. John A, B.C.	29	2275	Nov 26, 1949	23 P	970.2	890.0	34	87.3
Prince George A, B.C.	27	2218	Nov 26, 1949	19 P	971.0	893.3	50	86.8
Vancouver Int'l A B.C.	33	16	Jan 19, 1964	17 P	970.3	970.3	44	73.7
Victoria Gonzales Hts. B.C.	70	228	Jan 19, 1964	15 P	970.4	962.3	41	68.9
Victoria Int'l A. B.C.	28	67	Jan 19, 1964	16 P	970.6	970.6	43	73.2
Whitehorse A, Y.T.	28	2289	Jan 2, 1948	00 Y	958.9	878.2	26	97.5
Calgary Int'l A, Alta.	31	3540	Jan 20, 1964	01 M	980.5	854.5	17	78.9
Edmonton Ind'l A, Alta.	87	2219	Nov 19, 1962	18 M	971.1	893.8	46	89.6
Lethbridge A, Alta.	33	3018	Jan 20, 1964	00 M	972.9	872.9	32	89.1
Regina A, Sask.	32	1884	Nov 20, 1962	01 M	975.1	908.8	53	80.6
Saskatoon A, Sask.	6	1645	Jan 16, 1964	20 M	978.1	917.5	25	75.0
Winnipeg Int'l A, Man.	32	786	Oct 10, 1949	15 C	966.6	938.7	48	87.1
Mount Forest, Ont.	9	1360	Feb 25, 1965	14 E	979.2	929.7	23	64.7
Ottawa Int'l A, Ont.	10	413	Feb 25, 1965	21 E	969.4	954.2	32	76.5
Toronto, Ont.	128	379	Jan 2, 1870	09 E	—	952.8	—	—
Toronto Int'l A, Ont.	10	578	Feb 25, 1965	16 E	974.3	953.2	24	71.1
*Montreal Int'l A, Que.	28	98	Dec 2, 1942	13 E	962.6	959.1	30	89.7
Quebec A, Que.	13	245	Nov 30, 1963	12 E	966.7	957.8	52	76.8
Moncton A, N.B.	31	248	Dec 30, 1956	06 A	958.5	949.4	37	91.8
Halifax, N.S.	97	136	Dec 1, 1964	16 A	950.4	945.5	42	100.8
Sydney A, N.S.	57	197	Dec 19, 1963	22 A	952.1	945.0	32	98.7
Truro, N.S.	10	131	Mar 2, 1968	07 A	963.6	958.9	33	80.0
Gander Int'l A, Nfld.	28	482	Feb 9, 1964	08 N	946.3	929.2	32	101.6
†St. John's A, Nfld.	29	463	Feb 14, 1968	20 N	951.3	934.9	31	96.7

\* Synoptic Observation only.

† Extreme at St. John's, Nfld., exceeded on Jan 17, 1971: Sea Level Pressure 946.7 mb — Station Pressure 930.4 mb.

**TABLE 6**  
**MONTHLY MINIMUM STATION PRESSURES OBSERVED AT SELECTED STATIONS**

Station	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Year
Fort St. John A, B.C.	897.9	902.9	900.0	908.5	912.0	908.7	917.0	908.4	906.4	902.1	890.0	900.8	890.0
Prince George A, B.C.	896.8	901.5	898.6	909.3	915.6	917.3	920.3	917.6	904.9	900.5	893.3	898.6	893.3
Vancouver Int'l A, B.C.	970.3	979.1	982.7	980.6	995.2	1003.0	1003.0	991.0	991.6	975.8	980.5	972.9	970.3
Victoria Gonzales Hts, B.C.	960.2	970.6	969.7	968.8	980.2	987.3	993.9	990.6	980.6	963.0	973.4	962.5	960.2
Victoria Int'l A, B.C.	970.6	978.9	982.6	985.9	995.5	1000.6	1002.1	997.7	975.3	973.8	982.9	972.3	970.6
Whitehorse A, Y.T.	878.2	896.2	895.5	902.1	900.9	909.6	910.9	908.8	901.9	891.0	882.9	891.1	878.2
Calgary Int'l Alta.	854.5	861.5	857.3	863.4	867.7	871.3	876.0	870.7	866.3	859.8	855.3	856.6	854.5
Edmonton Ind'l A, Alta.	898.1	899.8	901.5	906.5	903.5	912.4	910.5	911.5	907.6	900.6	893.8	895.0	893.8
Lethbridge A, Alta.	872.9	879.8	878.9	882.5	885.9	891.0	896.2	890.9	888.9	882.3	875.9	876.5	872.9
Regina A, Sask.	911.8	915.4	917.6	916.8	923.4	920.6	926.7	925.7	920.4	919.0	908.8	913.4	908.8
Saskatoon A, Sask.	917.5	928.1	922.2	929.4	929.3	931.4	933.8	933.1	927.6	926.7	921.2	928.9	917.5
Winnipeg Int'l A, Man.	948.1	951.1	951.7	952.4	954.9	948.6	962.8	963.4	956.4	938.7	945.6	947.1	938.7
Mount Forest, Ont.	936.3	929.7	932.9	930.6	942.4	950.2	948.9	947.5	940.4	938.5	937.0	931.4	929.7
Ottawa Int'l A, Ont.	961.1	954.2	967.4	963.6	974.3	979.8	981.0	981.7	973.8	966.5	961.1	963.8	954.2
Toronto, Ont.	952.8	958.9	954.0	969.5	962.9	976.8	977.6	982.0	975.6	954.9	959.2	962.7	952.8
Toronto Int'l A, Ont.	962.1	953.2	962.7	957.6	968.3	975.5	974.6	973.9	968.6	966.2	964.1	956.4	953.2
Montreal Int'l A, Que.	969.0	970.2	965.9	972.2	986.2	980.3	990.7	993.3	986.1	983.7	965.3	959.1	959.1
Quebec A, Que.	959.0	971.1	970.5	966.1	980.5	979.8	985.1	986.2	974.9	978.5	957.8	969.7	957.8
Moncton A, N.B.	955.1	956.8	955.4	964.8	976.1	976.4	984.2	978.0	964.1	963.8	962.1	949.4	949.4
Halifax, N.S.	961.2	952.9	958.1	956.6	971.0	981.4	983.9	966.6	967.9	969.2	955.8	945.5	945.5
Sydney A, N.S.	956.0	948.2	955.0	962.2	967.5	979.5	981.8	976.6	962.5	966.7	948.2	945.0	945.0
Truro, N.S.	963.9	966.7	958.9	967.6	982.2	986.2	989.3	986.0	983.7	969.2	969.2	960.3	958.9
Gander Int'l A, Nfld.	932.3	929.2	941.4	952.7	960.3	964.6	970.7	970.7	939.9	995.3	945.6	945.4	929.2
†St. John's A, Nfld.	†940.1	934.9	947.9	949.7	959.8	966.1	969.5	966.7	958.4	952.4	940.4	944.4	†934.9

† Extreme at St. John's, Nfld., exceeded on Jan 17, 1971: Sea Level Pressure 946.7 mb — Station Pressure 930.4 mb.

**TABLE 7**  
**SOME WORLD - WIDE PRESSURE EXTREMES**

**Highest Sea-Level Pressure**

<b>World</b>	1083.8	Agata, Siberia, USSR	Dec 31, 1968
	1079.9	Barnaul, Siberia, USSR	Jan 23, 1900
<b>Canada</b>	1067.3 mb	Medicine Hat, Alta.	Jan 24, 1897
<b>United States</b>	1063.3 mb	Helena, Mont.	Jan 9, 1962
<b>Alaska</b>	1062.2 mb	Bethel	Dec 21, 1937
<b>British Isles</b>	1055.9 mb	Aberdeen, Scotland	Jan 31, 1902

**Lowest Sea-Level Pressure**

<b>World</b>	877.4 mb	19°N 135°E - 600 miles N.W. of Guam (Estimated by Aerial Reconnaissance in eye of Typhoon IDA)	Sep 24, 1958
	886.6 mb	S.S. Sapoërea, 460 miles east of Luzon, Philippine Islands.	Aug 18, 1927
<b>Canada</b>	946.3 mb	Gander, Nfld.	Feb 9, 1964
<b>United States</b>	892.3 mb	Matecumbe Key Florida (hurricane)	Sep 2, 1935
<b>British Isles</b>	925.5 mb	Ochtertyre, Scotland	Jan 26, 1884