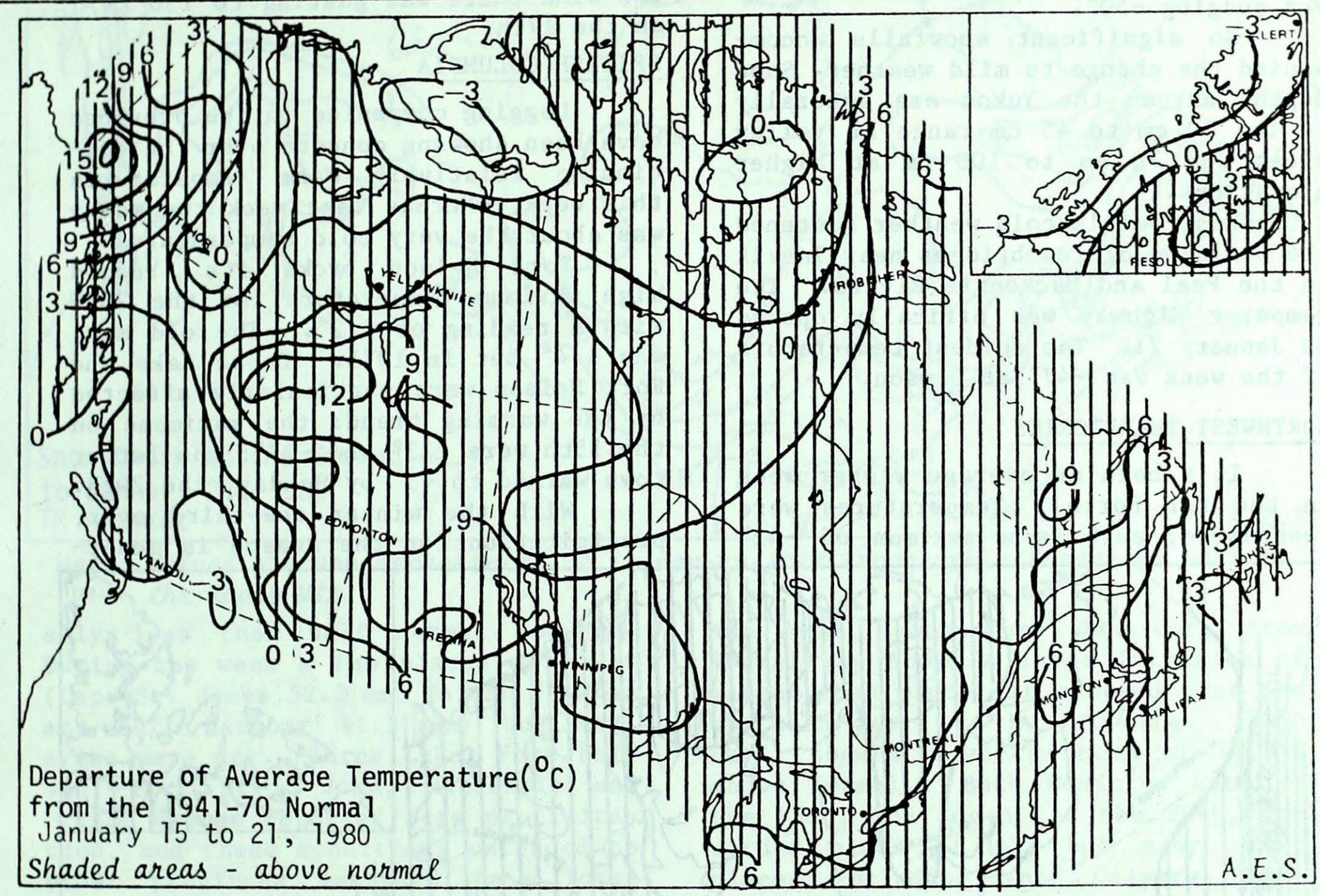
Environment Canada / Environnement Canada
Atmospheric Environment / Environnement atmosphérique
Fisheries and Environment Canada / Pêches et Environnement Canada

A WEEKLY REVIEW OF CANADIAN CLIMATE

CLIMATIC PERSPECTIVES

CLIMATE CENTRE,
VIRONMENT SERVICE
WNSVIEW, ONTARIO M3H 5T4

JANUARY 25, 1980 (Aussi disponible en français) VOL. 2 NO. 3



Departure of Average Temperature(^{o}C)
from the 1941-70 Normal
January 15 to 21, 1980
Shaded areas - above normal
A.E.S.

WEATHER HIGHLIGHTS FOR THE WEEK - JANUARY 15 - 21, 1980

Milder Weather Covers Canada again;
Snowless Days Persist in Southern Ontario - Quebec

Except for a handful of stations, the whole of Canada had above normal temperatures reaching to 18.6° above normal for the week at Burwash, Y.T., 14.8° above normal at High Level, Alberta and 10.9° above normal at Peace River, Alberta. At the same time, precipitation was virtually zero across large areas of the Foothills and Prairies. The east and west coasts were an exception: Sable Island recorded the highest precipitation for the week, 86.8 mm (40.7 mm at Argentia, Nfld.), while Cape St. James and Tofino, B.C. recorded 52.2 mm and 51.2 mm respectively.

National temperature extremes for the week were 10° at Abbotsford, B.C. on January 15th, and -47° at Dawson, Y.T. (15th) and Shepherd Bay, N.W.T. (16th). Broadview, Sask. was the sunniest place in Canada, with 42.9 hours of sunshine this week.

NOTE: The data shown in this publication are based on unverified reports from approximately 225 Canadian and 115 northern United States Synoptic stations.

YUKON

A dramatic reversal in the flow pattern over the Yukon occurred on January 16 and 17. Southerly winds brought the temperature regime from 20° below normal to 20° above normal within a matter of several days. This welcome intrusion of warm Pacific air gave Burwash a reading of 5° early on January 21st. Only a week ago the thermometer was nudging -50°.

No significant snowfalls accompanied the change to mild weather. Snow depths across the Yukon are generally in the 30 cm to 45 cm range at valley sites and 70 cm to 100 cm at higher elevations.

Last week's cold weather hastened the building of ice bridges near Inuvik on the Peel and Mackenzie Rivers. The Dempster Highway was offically opened on January 21. The coldest temperature of the week was -47° at Dawson.

NORTHWEST TERRITORIES

It's been an average winter week in the far North. Temperatures were seasonable, such as a maximum of -42° at Eureka on the 18th and a minimum of -47° at Shepherd Bay on the 16th. Unlike the Yukon, only Frobisher Bay got above zero all week (1° on the 21st). Elsewhere in the Territories, the temperature stayed below the zero mark.

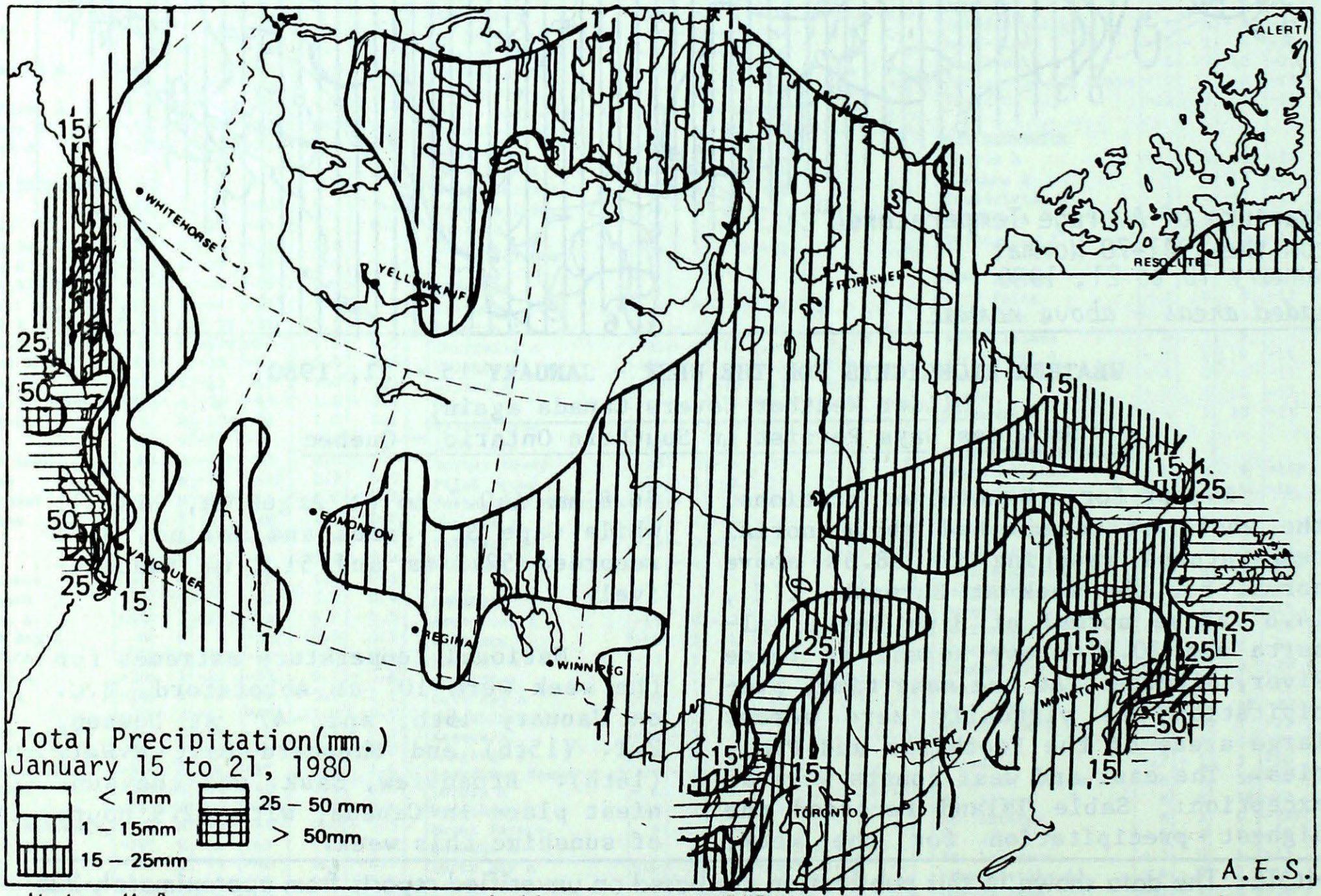
Precipitation varied widely, from nil in many areas to 20 mm at Cape Dyer. Just to make life a bit more miserable for the people of Mackar Inlet, the wind there was gusting to 130 km/h on the 17th.

BRITISH COLUMBIA

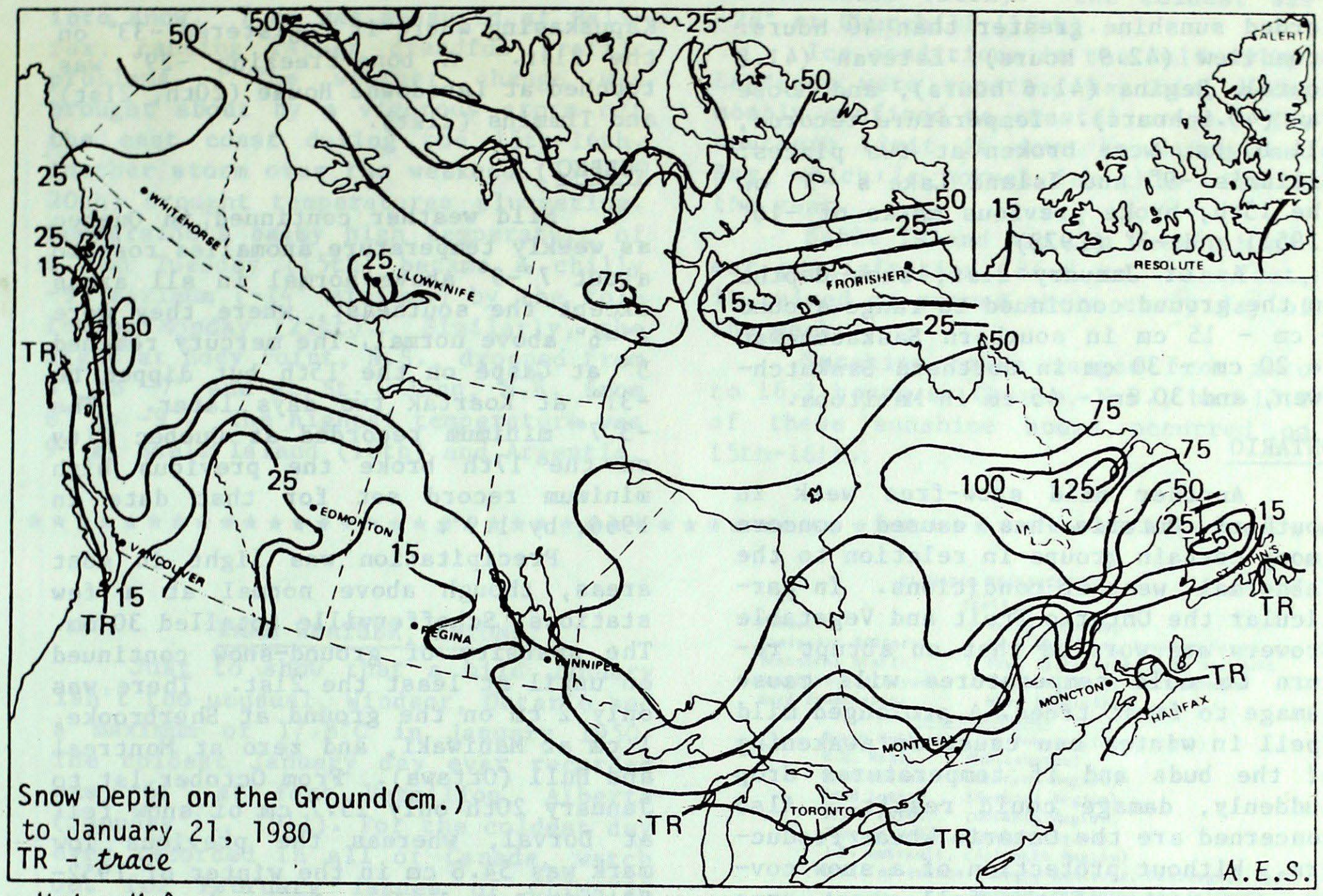
Logging companies in the province have been showing concern over the continuing relatively warm temperatures this week, whereas last week the worry was about the very cold temperatures.

Fort Nelson broke its record high maximum temperature for the 20th with a reading of 5.2°. The old mark was 4.4° set in 1975. Dease Lake and Fort Nelson were particularly affected by the warming trend: the maximums on the 15th were -23° and -27°; the latter town warmed to +5° by Sunday, the 20th.

With the winter one-third over, precipitation for the season is gener-



Note: Values are non-representative in non-uniform topographical regions such as the Rocky Mts.



Snow Depth on the Ground(cm.)
to January 21, 1980
TR - *trace*

Note: Values are non-representative in non-uniform topographical regions such as the Rocky Mts.

ally less than half normal amounts. During the week a few places were wet (Cape St. James 52.2 mm, Tofino 51.2 mm and Bull Harbour 41.5 mm) but most areas were dry. Burns Lake, Fort Nelson, Fort St. John, Mackenzie and Prince George reported zero precipitation, and these conditions extended to other provinces eastward (see Total Precipitation Map). Indeed, Kamloops farmers are becoming worried about the low water table. Many rural creeks and wells have dried up, and rivers and lakes are at their lowest levels in memory. The driest year previously in Kamloops was 1960, when only 170.7 mm fell (normal 260.1 mm). Considering that 1979 broke that low record with only 151.7 mm, the present extended dry weather could cause problems for the spring and summer.

ALBERTA

Albertans were glad to share in the energy savings brought about by the unseasonably mild weather this week. The Mean Temperature Departure from Normal map shows a large intrusion of warmer than usual air centred over the northern part of the province. High Level showed a weekly mean of 14.8°C above normal. Both Medicine Hat, on the 15th, and Edson, on the 20th, recorded highs of 6°, but many other places, including Banff, Calgary, Coronation, Edmonton, Namao, Fort MacMurray, Grande Prairie, High Level, Jasper, Lethbridge, Peace River, Red Deer, Rocky Mountain House, Slave Lake and Whitecourt, had highs during the week above 0°.

The milder temperatures went with very little snow. There were very light falls on the 15th-17th at a few places like Coronation, Grande Prairie and Vermilion, but generally precipitation was zero.

SASKATCHEWAN AND MANITOBA

The warmer air which moved into Alberta also affected the Prairie Provinces. Four Saskatchewan stations re-

corded sunshine greater than 40 hours: Broadview (42.9 hours), Estevan (41.8 hours), Regina (41.6 hours), and Moose Jaw (40.9 hours). Temperature records, all highs, were broken at two places: Gillam's -9° and Island Lake's -5° on the 15th, broke previous marks of -16° (1951) and -7° (1973).

As of January 21st, snow depths on the ground continued to range around 5 cm - 15 cm in southern Saskatchewan to 20 cm - 30 cm in northern Saskatchewan, and 30 cm - 45 cm in Manitoba.

ONTARIO

Another mild snow-free week in southern Ontario has caused concern among certain groups in relation to the "abnormal" weather conditions. In particular the Ontario Fruit and Vegetable Growers are worried that an abrupt return to cold temperatures will cause damage to fruit trees. A prolonged mild spell in winter can cause an awakening of the buds and if temperatures drop suddenly, damage could result. Also concerned are the Ontario Wheat Producers. Without protection of a snow cover, the roots of the fall wheat crop are often forced out of the ground by the freezing-thawing action. Rain (and it has been abundant this winter) is a problem too, as it smothers the wheat and so ruins the crop. Normal winter-kill in Ontario runs around 5% of the crop, but initial estimates this year are not good. In the worst years, up to 25% of the fall wheat has been destroyed by winter-kill.

Municipal roads departments have received our mild winter with mixed blessings, for although ploughing and salting operations have saved scores of thousands of dollars, the break-up of roads and the creation of numerous pot-holes due to rain and thawing could cause repair bills greater than those for the usual snow-removal.

For the climatological record, the highest precipitation was 30.5 mm at Kapuskasing, followed closely by 29.5 mm at Wawa. A few millimetres were recorded at virtually all stations. The whole province was above normal in the week's temperature; highest maximum was 10° at Earlton on the 18th. Coldest Ontarians this week were residents of Kapuskasing where it registered -33° on the 21st. A bone-freezing -29° was touched at Lansdowne House (20th, 21st) and Timmins (21st).

QUEBEC

Mild weather continued in Quebec as weekly temperature anomalies rose to about 7°-9° above normal in all areas except the southeast, where they were 4°-6° above normal. The mercury reached 5° at Gaspé on the 15th but dipped to -31° at Koartak two days later. The -3.7° minimum recorded at Quebec City on the 17th broke the previous high minimum record set for that date in 1966, by 1.9°.

Precipitation was light in most areas, though above normal at a few stations. Schefferville totalled 30 mm. The sparsity of ground-snow continued on until at least the 21st. There was only 2 cm on the ground at Sherbrooke, 1 cm at Maniwaki, and zero at Montreal and Hull (Ottawa). From October 1st to January 20th only 23.7 cm of snow fell at Dorval, whereas the previous low mark was 54.6 cm in the winter of 1952-53. At Dorval also, January's snow accumulation (to the 20th) has been only 2 cm, easily under the 1880 low record of 5.6 cm.

The Honourable Bernard Landry, Quebec Minister of State for Economic Development, said on the 18th that he will examine the financial difficulties described by ski resort owners, brought about by the lack of snow. The Quebec owners have been importuning financial aid from the provincial government.

The ice cover is extensive but generally very thin over the St. Lawrence River. In the shipping channel, the ice thickness is quite variable, reaching 30 cm in some areas but no shipping problems have been encountered. However, three ice breakers are standing by waiting for the formation of ice jams. Ice conditions are quite changeable at this time; generally, ice formation is about 2 to 3 weeks behind schedule.

ATLANTIC PROVINCES

The 16th turned out to be a day of surprises, not entirely welcome, for parts of Nova Scotia, when the rain

which had been falling steadily turned into snow. 7 cm was measured at Halifax, causing rather dreadful traffic problems. The weather change was brought about by a vigorous storm off the east coast during the 15th-16th. Another storm over the weekend (19th - 20th) brought temperatures plummeting. Summerside's balmy high temperature of 6° on Tuesday (15th) became a chilly -9° maximum (-14° minimum) by the following Monday (21st). Similarly, the highs at Eddy Point, N.S., dropped from 4° to -7° and at St. John, N.B. from 6° to -9°. The highest temperature was 9° at Sable Island (18th) and Argentia, Newfoundland (20th). The coldest was -28° at Churchill (16th).

Ice conditions in the Gulf of St. Lawrence were reported as thin, being mostly confined to coastal areas. The southern limit is down to Notre Dame Bay, which is normal for this time of the year.

Sable Island had the week's highest precipitation, 86.8 mm. In fact, it rained or snowed there every day of the week.

Sunshine hours ranged from zero to 16.1 hours at Charlo, N.B., but 13.1 of these sunshine hours occurred on 15th-16th.

★★★

WARM WEATHER, ANYONE?

Just to show that a mild January isn't too unusual, Windsor, Ontario had a maximum of 17.8°C in January 1950. The coldest January day ever recorded was -61° at Fort Vermilion, Alberta (January 11, 1911). For the coldest day ever recorded in all of Canada, watch out for February issues of CLIMATIC PERSPECTIVES.

CLIMATIC PERSPECTIVES

Staff

Editor: Terry Allsopp
Assistant Editors: Yves Durocher, Freeman Keyte
Technical Staff: Fred Richardson, Andy Radomski
Graphics and Layout: Debra Allsopp, Bill Johnson
Word Processing: Myra D'Gabriel

Correspondents

Terry Mullane, (Ice Forecasting Central)
H.E. Wahl, (Whitehorse)
Bill Prusak, (Western Region)
Fred Luciow (Central Region)
Bryan Smith, (Ontario Region)
Jacques Miron, (Quebec Region)
J.F. Amirault, (Atlantic Region)
Staff of Prince George, Kamloops, Castlegar, Fort Nelson, Penticton and Kelowna weather offices (Pacific Region)

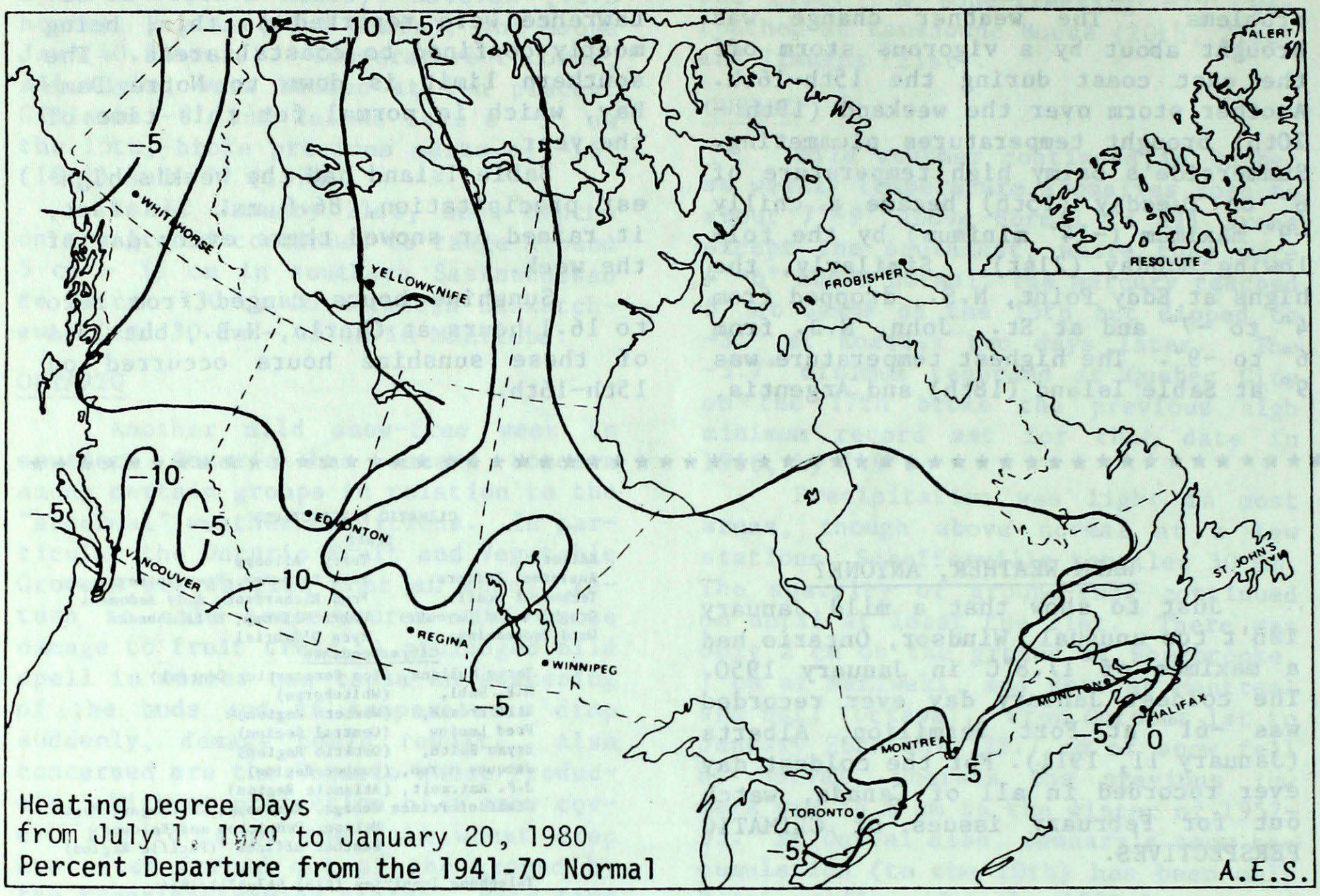
Telephone Inquiries (416) 667-4711/4956

SEASONAL* TOTAL HEATING DEGREE-DAYS (BELOW 18°C)
for selected Canadian Stations

Station	Period of Record	Mean	Standard Deviation	Extremes of Seasonal Totals				1941-70 Mean	1941-1970 Standard Deviation
				Greatest	Year	Least	Year		
Vancouver Int'l A	1938-1979	3019.2	214.9	3417	1950	2516	1958	3008.2	210.1
Victoria Gonz, Hts.	1899-1979	2931.8	189.8	3432	1917	2473	1940	2913.7	176.0
Calgary Int'l A	1882-1979	5297.8	411.8	6189	1956	4430	1931	5348.0	434.7
Edmonton Munic. A	1938-1979	5546.6	433.4	6325	1956	4415	1977	5584.1	440.9
Ranfurly, Alta.	1906-1978	6018.6	440.1	6964	1907	5046	1931	6015.7	452.3
Regina A	1884-1979	5986.0	480.3	7095	1885	4842	1931	5920.7	436.3
Saskatoon A	1893-1979	6119.3	443.6	7008	1907	5051	1931	6071.5	499.3
Scott CDA	1912-1978	6256.8	434.6	7134	1956	5171	1931	6276.2	457.3
Brandon CDA	1891-1978	6036.5	390.8	6890	1936	5243	1931	5968.5	371.8
Winnipeg Int'l A	1873-1979	6000.1	475.2	7141	1888	4728	1878	5896.1	360.7
Beatrice, Ont.	1879-1978	5013.7	289.4	5800	1885	4371	1921	4910.8	235.0
Harrow CDA, Ont.	1918-1978	3548.1	245.0	4078	1918	2904	1932	3511.8	218.1
Kitchener, Ont.	1915-1978	4162.8	225.6	4667	1920	3592	1932	4145.2	180.6
London A, Ont.	1884-1979	4095.0	244.9	4814	1885	3322	1921	4071.6	202.7
Ottawa CDA, Ont.	1899-1978	4759.8	264.3	5644	1934	4168	1921	4656.3	223.1
Sudbury A, Ont.	1955-1979	5423.0	207.6	5647	1979	4725	1955	5416.6	242.5
Thunder Bay A, Ont.	1942-1979	5777.8	227.9	6300	1979	5388	1949	5766.1	231.7
Toronto City, Ont.	1841-1979	3982.6	351.0	4823	1885	3297	1921	3655.5	168.1
Toronto Int'l A, Ont.	1938-1979	4127.5	207.8	4521	1978	3705	1953	4083.7	212.5
Windsor A, Ont.	1941-1979	3604.9	190.2	3965	1978	3199	1949	3599.3	182.9
Montreal Int'l A, Que.	1947-1979	4504.1	228.2	4837	1978	3945	1949	4441.3	229.9
Quebec A, Que.	1944-1979	5128.1	212.0	5427	1972	4621	1949	5076.0	216.3
Saint John A, N.B.	1947-1979	4787.6	250.6	5294	1948	4237	1953	4772.9	295.9
Sussex, N.B.	1898-1978	4649.6	314.8	5478	1905	4004	1949	4525.7	283.8
Shearwater A, N.S.	1945-1979	4160.7	219.0	4479	1965	3722	1951	4118.9	233.2
St. John's A, Nfld.	1943-1979	4834.6	227.4	5253	1975	4378	1958	4803.7	228.5

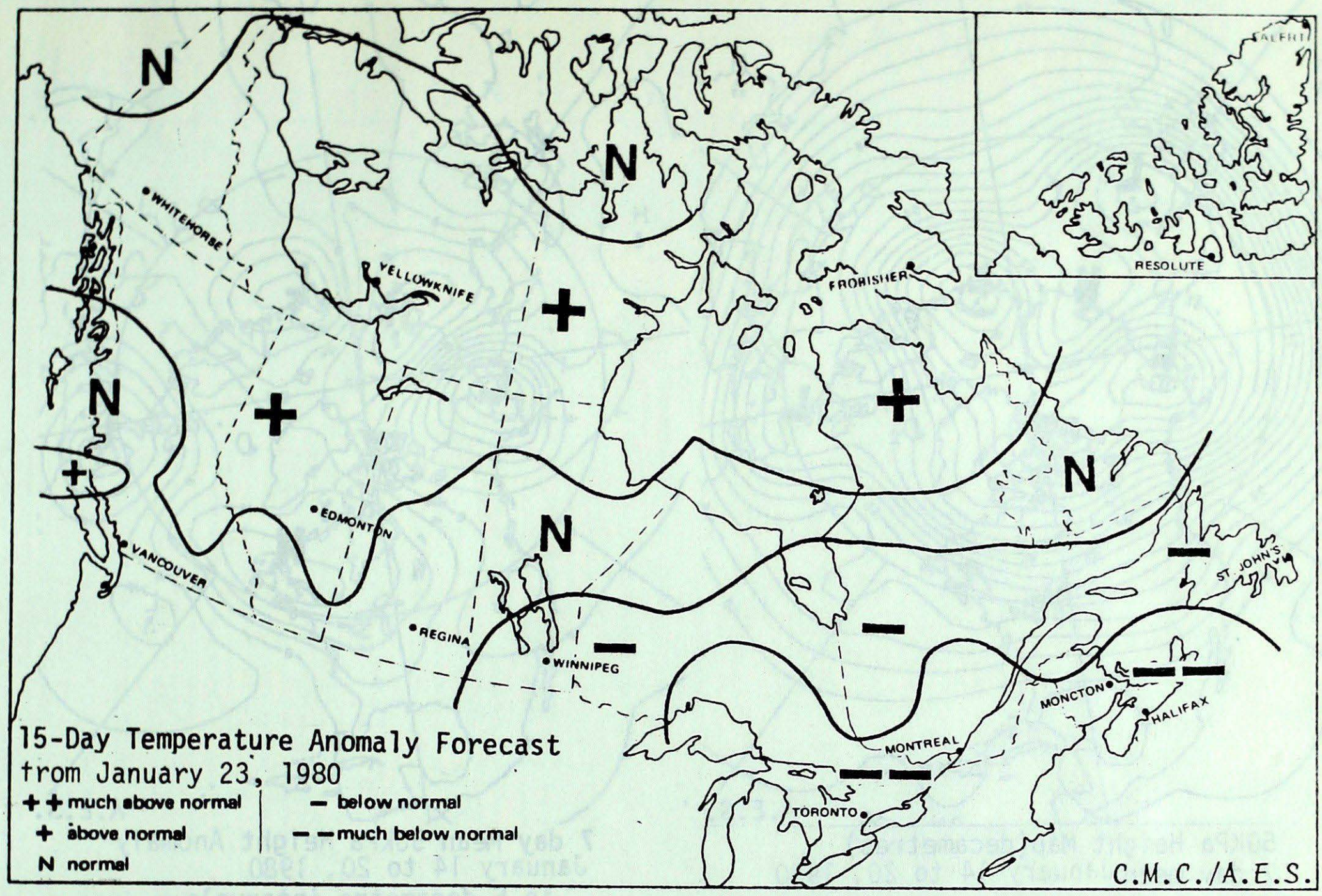
*July 1 to following June 30

HEATING DEGREE-DAY SUMMARY TO JANUARY 19, 1980



STATION	MONTHLY CUMULATIVE TOTAL	MONTHLY DIFF. FROM 1941-70 NORMAL	SEASONAL TOTAL	SEASONAL DIFF. FROM 1941-70 NORMAL	SEASONAL PERCENT OF NORMAL
Resolute	958.5	9.5	6492.5	214.5	107
Inuvik	978.0	60.0	4458.0	-677.0	87
Whitehorse	801.0	92.0	3515.0	-199.0	95
Vancouver Int'l A	315.5	18.5	1444.0	-85.0	94
Edmonton Mun A	652.5	35.5	2558.0	-347.0	88
Calgary Int'l A	612.0	73.0	2501.5	-215.5	92
Regina	660.5	-4.5	2745.5	-242.5	92
Winnipeg Int'l A	664.5	-11.5	2875.0	-48.0	98
Thunder Bay	540.0	-81.0	2702.0	-121.0	96
Windsor	375.5	-42.5	1627.5	-98.5	94
Toronto Int'l A	413.5	-42.5	1883.5	-58.5	97
Ottawa Int'l A	466.5	-84.5	2151.5	-145.5	94
Montreal Int'l A	453.5	-71.5	2088.5	-74.5	97
Quebec	532.5	-20.5	2460.0	-3.0	100
Saint John, N.B.	447.0	-26.0	2082.0	-143.0	94
Halifax	411.5	7.5	1813.5	2.5	100
Charlottetown	449.0	-11.0	2023.5	-33.5	98
St. John's, Nfld.	453.0	55.0	2208.5	66.5	103

15 DAY TEMPERATURE ANOMALY FORECAST



Forecast Method

Analogue technique based on point prediction at 70 Canadian stations.

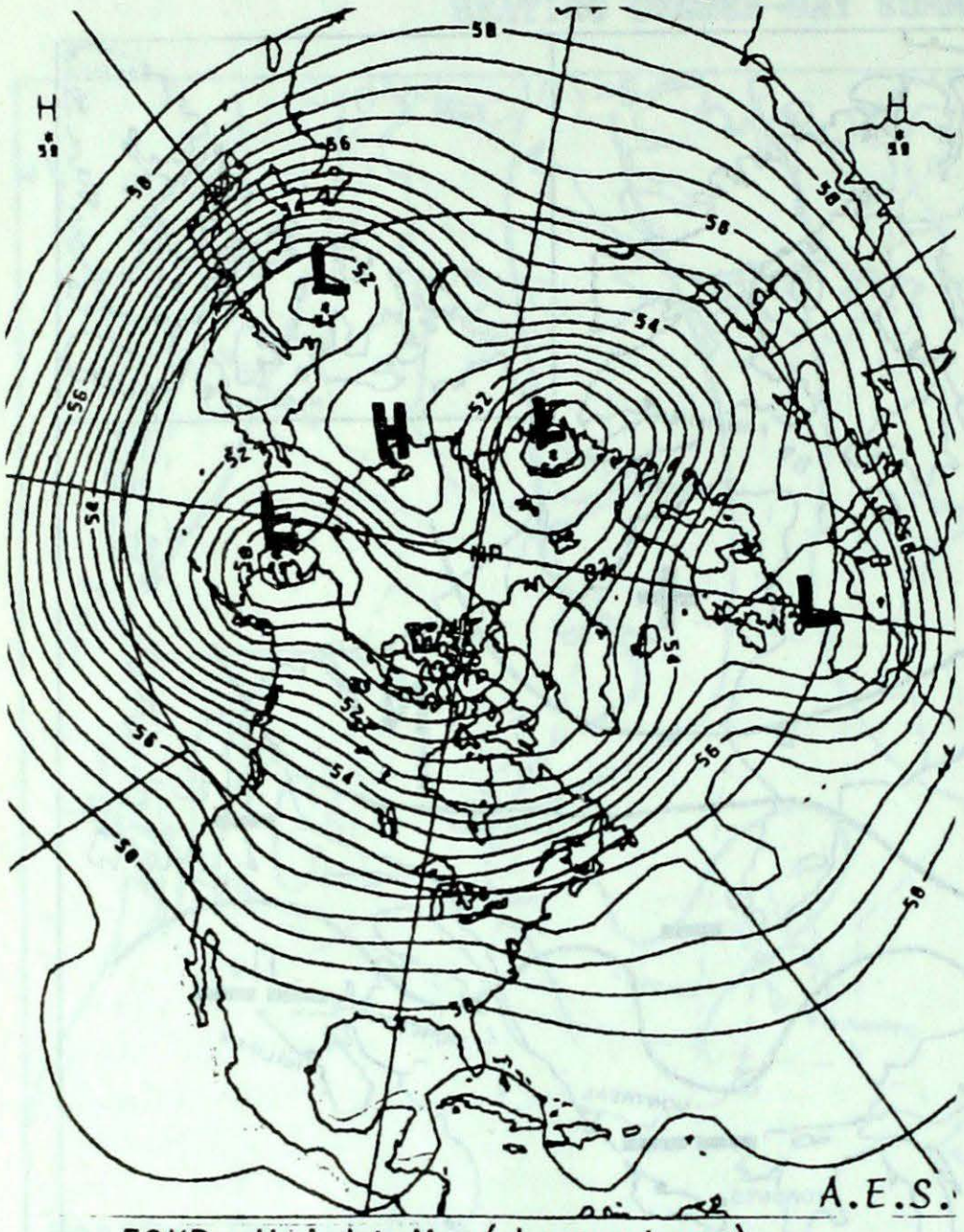
Temperature Scale

Each temperature class is designed to contain 20% of the historically observed 15 day means pertinent to specific location and time of year:

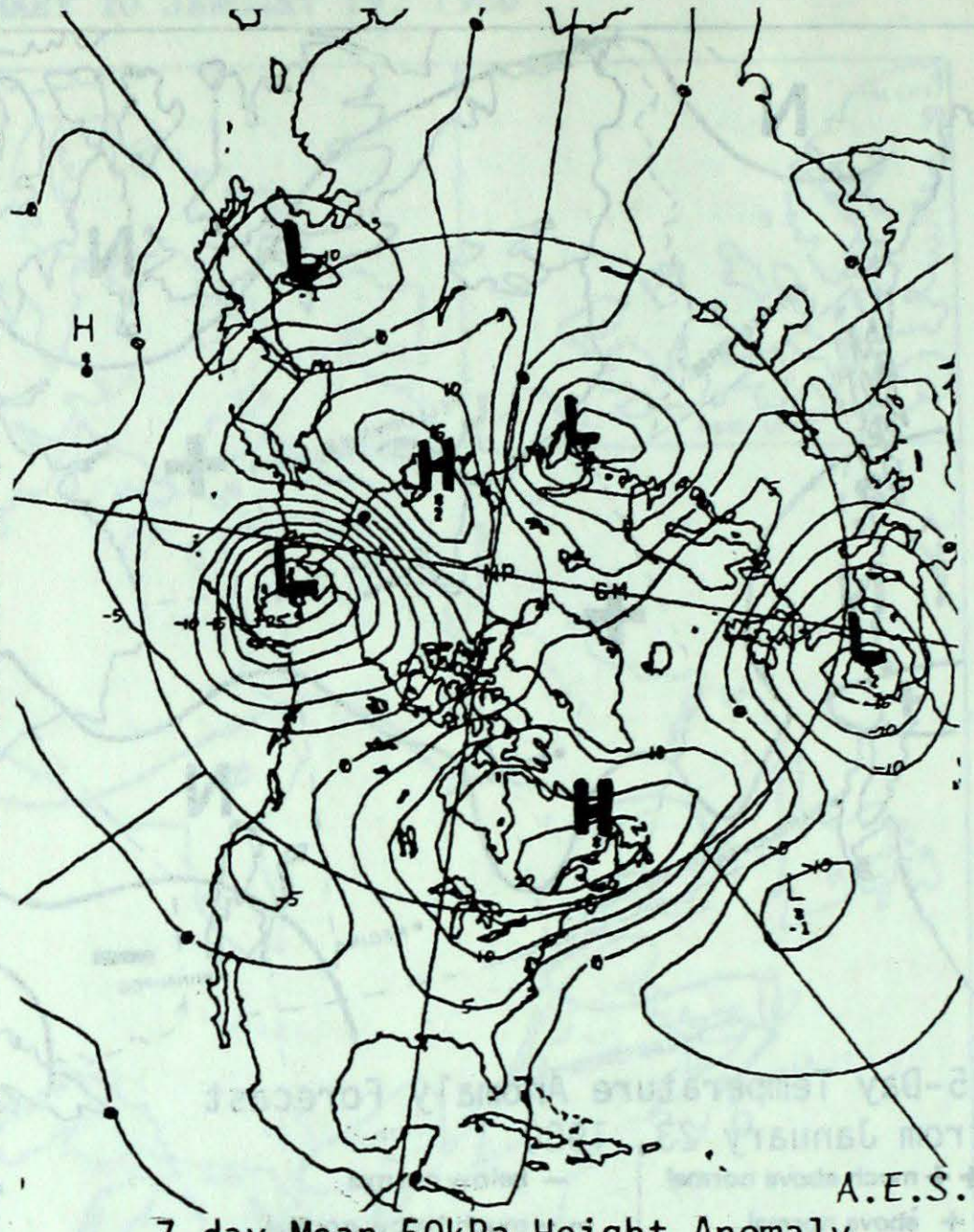
Station	Current Temperature Anomaly (ΔT) Forecast	
Whitehorse	Above Normal	(+1.7°C <ΔT <+5.7°C)
Victoria	Near Normal	(-0.6°C <ΔT <+0.6°C)
Vancouver	Near Normal	(-0.7°C <ΔT <+0.7°C)
Edmonton	Above Normal	(+1.4°C <ΔT <+4.8°C)
Regina	Near Normal	(-1.3°C <ΔT <+1.3°C)
Winnipeg	Below Normal	(-3.8°C <ΔT <-1.1°C)
Thunder Bay	Much Below Normal	(ΔT <-3.0°C)
Toronto	Much Below Normal	(ΔT <-2.4°C)
Ottawa	Much Below Normal	(ΔT <-2.7°C)
Montreal	Much Below Normal	(ΔT <-2.7°C)
Quebec	Much Below Normal	(ΔT <-2.9°C)
Fredericton	Much Below Normal	(ΔT <-2.9°C)
Halifax	Much Below Normal	(ΔT <-2.3°C)
Charlottetown	Below Normal	(-2.6°C <ΔT <-0.8°C)
St. John's	Below Normal	(-2.2°C <ΔT <-0.7°C)
Goose Bay	Near Normal	(-1.3°C <ΔT <+1.3°C)
Frobisher Bay	Above Normal	(+1.5°C <ΔT <+5.0°C)
Inuvik	Above Normal	(+1.3°C <ΔT <+4.3°C)

Note: Anomaly denotes departure from the 1949-73 mean.

Atmospheric Circulation Features



50KPa Height Map(decametres)
7 day mean January 14 to 20, 1980



7 day Mean 50kPa Height Anomaly
January 14 to 20, 1980
in 5 decametre intervals

The upper level 50 kPa steering flow was more complex during this period. Both short and major 50 kPa upper waves progressed successively from west to east in the relatively zonal upper wind flow. This affected and complicated the surface pressure pattern during the first half of the period with numerous low pressure disturbances and frontal waves tracking eastward across the country resulting in changeable weather but with near, or above normal, temperatures almost everywhere.

The deep cold low which was in the vicinity of Alaska during the latter part of the previous period continued its slow retrogression westward. In its place a strong major ridge built and became quasi-stationary over the west coast, effectively blocking surface weather disturbances approaching from the west and maintained high surface pressure through the latter half of the period. As a result, above normal temperatures and relatively low precipitation amounts were common to all of western Canada, not to mention Ontario and Quebec, where the surface storm track continued to position itself further to the north than is normal at this time of the year.

The Atlantic Provinces, on the other hand, received variable sky conditions with near, or above normal, mean temperatures through the first half of the period. This was due in part to a large high pressure area moving slowly eastward across Quebec and Labrador, supressing the northern edge of an extensive area of cloud and unsettled weather, from associated low pressure systems, to more southern areas. By mid-period, generally unsettled weather conditions prevailed everywhere as a low pressure system approaching from the upper Great Lakes reformed and eventually became quasi-stationary in the vicinity of Labrador. This resulted in much colder air penetration southward in a strong northwesterly cyclonic air flow from northern Quebec, dropping temperatures to below normal values by Sunday.

Andy Radomski

TEMPERATURE AND PRECIPITATION DATA FOR THE WEEK ENDING 0600 G.M.T. JANUARY 22, 1980

Station	Temperature (°C)				Precip. (mm)	
	Average	Departure from Normal	Extreme Maximum	Extreme Minimum	Total	Departure from Normal
BRITISH COLUMBIA						
Abbotsford A	2	1	10	- 5	5.8	-39.7
Alert Bay	3	0	6	- 2	30.8	-13.7
Blue River	M	X	3P	-29	M	X
Bull Harbour	3	- 1	7	- 2	41.5	- 7.1
Burns Lake	M	X	1	-28P	0.0	X
Cape Scott	3	- 1	8	- 1	M	M
Cape St. James	4	1	8	0	52.2	21.1
Castlegar A	- 4	- 3	3	-12	13.1	- 8.8
Comox A	2	0	7	- 6	22.6	-19.3
Cranbrook A	-10	- 4	2	-25	8.5	- 1.7
Dease Lake	-16	4	- 3	-28	2.0	- 2.8
Estevan Point	3	- 1	9	- 2	34.6	-52.5
Fort Nelson A	-18	5	5	-32	0.0	- 5.4
Fort St. John A	- 6	12	2	-16	0.0	- 7.3
Kamloops A	- 5	2	5	-17	0.2	- 5.5
Langara	3	0	8	- 2	21.3	-12.7
Lytton	M	M	5P	-14	7.6	-29.9
Mackenzie A	M	X	0	-30P	0.0	X
McInnes Island	M	M	6P	- 1	M	M
Penticton A	- 3	1	4	-13	2.0	- 4.3
Port Hardy A	2	- 1	6	- 4	36.3	- 4.5
Prince George A	-10	3	3	-25	0.0	-12.5
Prince Rupert A	1	1	7	- 8	17.6	-29.6
Quesnel A	-10	1	4	-24	1.8	- 9.6
Revelstoke A	- 6	- 1	3	-21	6.4	-29.1
Sandspit A	2	1	8	- 4	27.5	- 4.1
Smithers A	-11	0	2	-24	4.8	- 8.6
Spring Island	M	M	M	M	M	M
Stewart A	M	X	2P	-11P	M	X
Terrace A	- 6	- 1	1	-13	33.8	9.3
Tofino A	3	- 1	9	- 5	51.2	-47.8
Vancouver Int'l A	2	0	9	- 5	12.0	-24.8
Victoria Int'l A	2	- 1	8	- 6	10.8	-24.5
Williams Lake A	- 8	1	4	-22	2.0	- 6.0
YUKON						
Burwash A	-10	19	5	-41	0.0	- 1.9
Dawson A	-22	6	- 2	-47	0.2	- 3.0
Komakuk Beach A	-31	- 6	-11	-44	0.0	- 2.8
Mayo A	-18	9	- 3	-39	0.3	- 3.3
Shingle Point A	M	M	- 1P	-46	0.4	- 0.7
Watson Lake A	-25	0	-14	-38	0.2	- 7.4
Whitehorse A	-10	9	1	-29	0.0	- 3.8
NORTHWEST TERRITORIES						
Alert	-33	- 1	-24	-41	0.6	- 1.1
Baker Lake	-29	4	-12	-38	0.5	- 1.9
Broughton Island	-15	8	- 4	-28	0.4	- 2.8
Byron Bay A	-36	- 3	-28	-43	13.0	12.7
Cambridge Bay A	-36	- 2	-26	-42	0.0	- 1.5
Cape Dorset	M	X	- 9	-29P	M	X
Cape Dyer A	-18	3	- 2	-32	20.6	11.8
Cape Hooper	-16	8	- 8	-28	3.6	- 0.8
Cape Parry A	-30	- 2	-25	-43	5.0	3.5
Cape Young A	-32	- 3	-25	-42	2.5	1.8
Chesterfield Inlet	M	M	-12P	-38	0.3	- 2.4
Clinton Point	-31	- 4	-23	-40	2.6	0.1
Clyde	M	M	- 5P	-35	1.0	- 1.0
Contwoyto Lake	-28	4	-12	-40	5.9	3.9
Coppermine	M	M	-24P	-41	2.6	0.2
Coral Harbour	-28	2	-13	-40	2.0	- 0.5
Dewar Lakes	-22	3	-11	-34	5.9	4.8
Ennadai	M	M	- 9P	-34	M	M
Eureka	-41	- 3	-33	-44	0.0	- 0.9
Fort Reliance	-23	8	- 6	-35	3.8	1.9
Fort Simpson	-25	5	-14	-38	0.0	- 3.8
Fort Smith A	-17	10	- 4	-31	0.0	- 4.2
Frobisher Bay A	-19	7	1	-31	9.3	3.1
Gladman Point A	-33	2	-13	-42	0.0	- 1.6
Hall Beach A	-31	- 2	-12	-44	10.5	8.2
Hay River A	-19	7	- 4	-30	0.0	- 4.3
Inuvik A	-28	2	-11	-46	0.0	- 4.3
Jenny Lind Island	-14	- 2	-18	-41	1.4	1.4
Lady Franklin Point	M	M	-28P	-41P	6.0	4.2
Longstaff Bluff	-27	- 1	-14	-37	10.1	8.5
Mackar Inlet	-30	- 1	-12	-40	0.0	- 0.6
Mould Bay	-37	- 3	-31	-46	0.0	- 0.7
Nicholson Peninsula	M	M	-18P	-46	0.7	- 0.4
Norman Wells A	-28	1	-17	-40	0.0	- 4.3
Pelly Bay	-30	1	-13	-40	2.0	1.2
Pond Inlet A	-28	X	-11	-40	11.8	X
Port Burwell	M	X	M	M	M	X
Resolute A	-29	4	-19	-40	1.6	0.8
Sachs Harbour	-30	0	-21	-42	0.0	- 0.5
Shepherd Bay A	-32	3	-12	-47	1.5	- 0.1
Tuktoyaktuk	M	M	-16P	-43	0.0	- 0.8
Yellowknife A	-25	4	-16	-32	0.0	- 2.7
ALBERTA						
Banff	- 9	3	1	-23	1.8	- 5.3
Brooks	M	M	M	M	M	M
Calgary Int'l A	- 6	5	3	-19	0.0	- 2.7
Cold Lake A	-10	9	0	-18	0.0	- 3.9
Coronation A	-10	6	1	-21	3.6	- 1.9
Edmonton Int'l. A	- 9	8	2	-19	0.0	- 5.0
Edmonton Mun. A	- 6	9	3	-15	0.0	- 6.0
Edmonton Namao A	- 7	8	2	-17	0.0	- 5.3
Edson A	-10	1	6	-26	0.0	- 3.2
Fort Chipewyan	M	M	- 1P	-27	0.0	- 7.0
Fort McMurray A	-10	12	1	-23	0.2	- 5.4
Grande Prairie A	-12	6	2	-25	3.2	- 4.2
High Level A	-13	15	5	-29	0.0	- 2.8
Jasper	-10	2	3	-26	1.4	- 6.0
Lethbridge A	- 4	6	6	-18	1.1	- 3.7
Medicine Hat A	- 5	8	6	-16	0.5	- 4.9
Peace River A	- 9	11	1	-24	0.0	- 3.9
Red Deer A	-11	4	1	-25	0.2	- 3.9
Rocky Mountain House	-11	2	4	-30	0.6	- 3.7
Slave Lake A	-11	3	2	-23	0.0	- 5.3
Vermilion A	-10	9	0	-20	4.4	0.0
Whitecourt	- 9	8	4	-23	0.0	- 5.2
SASKATCHEWAN						
Broadview	-10	11	0	-18	1.6	- 2.9
Buffalo Narrows	-10	11	1	-20	1.2	- 4.1
Cree Lake	-15	X	- 3	-29	0.2	X
Estevan A	- 9	8	2	-18	1.5	- 2.9
Hudson Bay	-12	10	- 3	-23	8.1	3.7
Kindersley	- 9	9	- 1	-18	3.1	- 0.4
La Ronge A	-14	8	- 5	-23	0.4	- 4.8
Meadow Lake A	-13	X	0	-25	4.3	X
Moose Jaw A	- 6	10	4	-14	0.0	- 4.2
Nipawin A	-14	X	- 3	-25	10.8	X
North Battleford A	-11	8	- 1	-20	2.5	- 1.9
Prince Albert A	-14	7	- 2	-27	5.2	1.7
Regina A	-10	8	1	-19	1.0	- 3.0
Saskatoon A	-10	9	- 1	-18	6.5	2.6
Swift Current A	- 6	8	4	-15	0.4	- 5.1
Uranium City	-19	9	- 8	-31	0.0	- 4.0
Wynyard	- 8	11	0	-16	3.1	0.2
Yorkton A	-11	8	- 2	-20	2.4	- 2.4
MANITOBA						
Bissett	-12	9	- 1	-24	0.7	- 8.5
Brandon A	-12	6	- 3	-22	0.3	- 3.6
Churchill A	-21	8	-10	-33	4.4	1.4
Dauphin A	-10	9	0	-19	0.3	- 3.4
Gillam A	-19	X	- 8	-33	9.9	X
Gimli	-12	8	- 2	-23	0.2	- 5.4
Island Lake	-13	X	- 3	-22	M	X
Lynn Lake	-20	6	-10	-31	0.6	- 6.6
Norway House	-13	X	- 4	-26	12.4	X
Pilot Mound	-11	8	- 4	-20	0.8	- 3.1
Portage la Prairie	-10	7	- 1	-23	0.0	- 5.1
The Pas A	-13	11	- 3	-24	5.3	2.1
Thompson A	-20	4	- 8	-30	6.7	1.5
Winnipeg Int'l A	M	M	- 1	-21P	0.6	- 4.7
ONTARIO						
Armstrong A	-12	10	- 2	-30	M	M
Atikokan	- 9	9	- 1	-23	2.9	- 4.2
Earlton A	- 8	9	1	-22	10.0	- 2.5
Geraldton	-11	8	1	-31	7.2	- 2.0
Gore Bay A	- 2	8	5	- 9	15.9	1.0
Kapuskasing A	-11	7	- 1	-33	30.5	15.3
Kenora A	- 9	10	- 1	-19	1.0	- 5.3
Kingston A	M	M	4	- 8P	6.0	- 8.3
Lansdowne House	-15	8	- 4	-29	1.2	- 4.8
London A	0	6	7	- 6	1.1	-14.8
Moosonee	-13	7	- 1	-32	17.1	4.8
Mount Forest	M	M	9P	-10	M	M
Muskoka A	- 3	7	4	-13	8.1	-10.4
North Bay A	- 6	7	2	-19	7.0	- 8.3
Ottawa Int'l A	- 4	7	3	-13	3.0	-10.5
Petawawa A	- 5	X	1	-17	3.7	X
Pickle Lake	-12	9	- 3	-22	1.0	- 9.1
Red Lake A	-11	9	- 2	-26	0.6	- 9.0
Simcoe	1	8	6	- 4	M	M
Sioux Lookout A	- 9	10	- 2	-23	3.0	- 5.1
Sudbury A	- 6	8	1	-17	14.8	4.7
Thunder Bay A	- 6	9	2	-22	6.8	- 7.1
Timmins A	-10	8	0	-29	18.6	6.3
Toronto Int'l A	0	6	5	- 6	5.2	- 5.3
Trenton A	0	7	5	- 8	8.3	- 7.6
Trout Lake	-16	9	- 4	-26	2.9	- 1.8
Wawa A	- 9	X	1	-25	29.5	X
Wiarton A	0	7	7	- 6	6.5	-14.0
Windsor A	1	6	9	- 6	2.4	- 8.6
QUEBEC						
Bagotville A	-10	5	2	-24	10.3	- 8.4
Baie Comeau	- 9	6	1	-21	7.6	-12.6
Blanc Sablon	- 7	5	1	-18	28.3	- 8.6
Border	M	M	- 3P	-22	M	M
Chibougamau	-14	X	0	-26	19.4	X
Fort Chimo A	M	M	- 4P	-29	M	M
Gaspé A	- 8	X	5	-18	10.8	X
Grindstone Island	- 4	2	3	-14	10.8	-10.4
Inoucdjouac	M	M	- 8P	-27P	M	M
Koartak	M	X	0P	-31P	M	X
La Grande Rivière A	-16	X	- 5	-27	8.3	X
Maniwaki	- 6	8	3	-19	6.7	- 5.0
Matagami A	-12	X	0	-28	17.0	X
Mont-Joli A	- 8	3	2	-20	11.1	-12.6
Montréal (A int.)	- 4	6	4	-14	0.0	-18.8
Natashquan A	- 8	3	0	-21	22.8	- 0.2
Nitchequon	-16	8	- 5	-26	16.0	6.0
Port Menier	M	M	2	-20P	23.3	6.2
Poste-de-la-Baleine	-15	9	- 4	-26	22.8	16.7
Québec A	- 7	5	1	-19	0.6	-19.3
Rivière du Loup	- 8	6	1	-20	6.6	- 6.9
Roberval A	-11	5	2	-23	10.0	- 4.8
Schefferville A	-14	7	- 3	-25	30.0	14.4
Sept-Iles	-10	4	0	-23	13.0	-15.3
Sherbrooke A	- 5	7	4	-15	1.2	- 8.8
Ste. Agathe des Monts	- 7	8	1	-18	1.9	-13.8
Val d'Or A	-10	7	1	-25	4.8	- 8.4
NEW BRUNSWICK						
Charlo A	- 9	6	1	-22	15.3	1.0
Chatham A	- 5	4	4	-15	15.4	-10.1
Fredericton A	- 3	5	5	-14	8.4	-17.9
Moncton A	- 4	4	6	-15	5.6	-20.9
Saint John A	- 3	5	6	-14	1.2	-39.1
NOVA SCOTIA						
Eddy Point	- 2	X	4	-14	18.4	X
Greenwood A	- 2	3	7	-10	7.0	-16.9
Sable Island	3	3	9	- 5	86.8	60.0
Shearwater A	- 1	3	5	-11	33.2	1.1
Sydney A	- 3	2	3	-15	24.0	- 6.3
Truro	- 2	5	6	-14	13.9	- 2.9
Yarmouth A	M	M	7P	- 7	14.5	-17.1
PRINCE EDWARD ISLAND						
Charlottetown	M	M	5P	-13	5.0	-17.4
Summerside	- 4	3	6	-14	4.0	-16.6
NEWFOUNDLAND						
Argentia VTMS	0	X	9	- 7	40.7	X
Battle Harbour	- 7	2	0	-18	11.3	-11.5
Bonavista	- 3	1	2	- 9	27.2	7.6
Burgeo	- 2	4	3	- 8	40.4	16.9
Cartwright	M	M	1	-19P	18.7	- 1.6
Churchill Falls A	-13	10	- 4	-28	17.2	2.7
Comfort Cove	- 5	4	2	-14	29.4	3.5
Daniel's Harbour	- 6	1	2	-16	25.0	8.3
Deer Lake	- 8	1	7	-24	32.4	9.6
Gander Int'l A	- 4	2	2	-13	37.1	18.5
Goose A	- 8	8	- 1	-21	25.7	8.1
Hopedale	- 9	8	0	-18	21.5	4.4
Port aux Basques	- 2	1	3	- 8	26.4	0.8
St. Albans	M	M	5	-18P	43.2	1.9
St. Anthony	- 6	X	1	-17	18.4	X
St. John's A	- 3	0	4	-14	48.0	22.7
St. Lawrence	- 2	3	4	- 9	40.2	13.6
Stephenville A	- 4	1	4	-13	35.3	14.8
Wabush Lake	-15	7	- 6	-24	12.9	- 2.0

P = extreme value based on less than 7 days X = no normal due to short period M = not available at press time