...EW OF CANADIAN CLIMATE ...ATIC ...RSPECTIVES

THE CANADIAN CLIMATE CENTRE,
ATMOSPHERIC ENVIRONMENT SERVICE,
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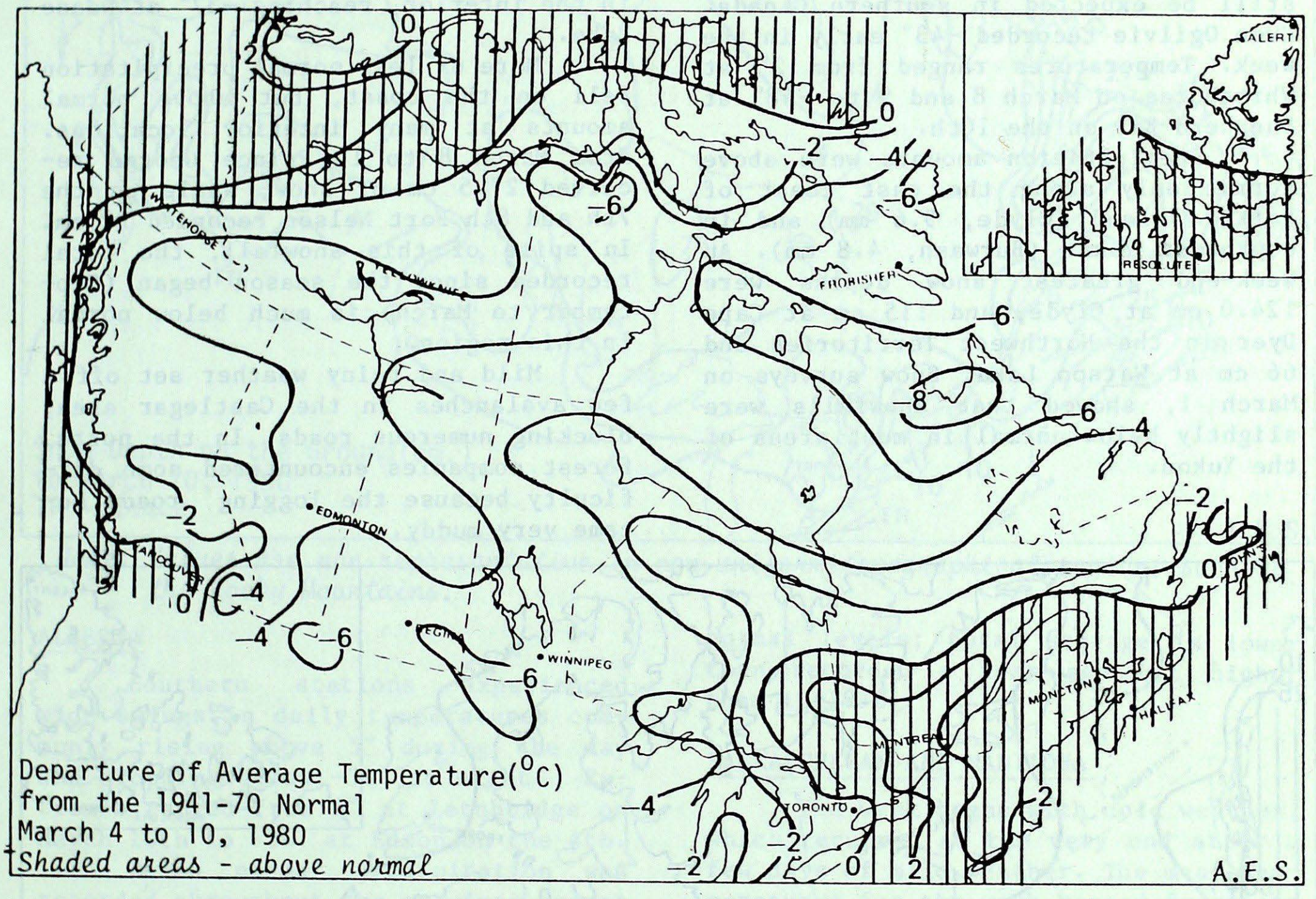
MARCH 14, 1980 *(Aussi disponible en français)* VOL. 2 NO. 10



Departure of Average Temperature(^{o}C)
from the 1941-70 Normal
March 4 to 10, 1980
Shaded areas - above normal

A.E.S.

WEATHER HIGHLIGHTS FOR THE WEEK - MARCH 4 - 10, 1980

Winter Weather Continues - Snow in Eastern Canada

Although spring weather has appeared on the West Coast and some warm air has moved into the Yukon, the rest of Canada still remains locked in winter's grip, experiencing very low temperatures but at the same time enjoying plenty of sunshine. Shepherd Bay recorded -46° on the Arctic coast while Victoria, Tofino, Penticton and Abbotsford all enjoyed 11° weather in western Canada.

A storm crossed eastern Canada during the last few days of the week dumping 10 to 20 cm of snow in southern Ontario and Quebec and the Maritimes, and even more in Newfoundland. City dwellers in Ontario and Quebec considered the snowfall accompanying the storm to be fairly heavy, mainly because severe storms have rarely occurred this winter. However, such snowfalls are common during March.

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

YUKON AND NORTHWEST TERRITORIES

Warmer air from the southwest raised Yukon mean tempertures 2 to 5° above normal. Elsewhere in the Territories they were generally below normal, reaching -6.8° at Shepherd Bay. Nighttime temperatures in the central Arctic dropped below -35 to -40° frequently during the week indicating that incursions of very cold air should still be expected in southern Canada. Even Ogilvie recorded -43° early in the week. Temperatures ranged from 2° at Whitehorse on March 8 and 9 to -48° at Shepherd Bay on the 10th.

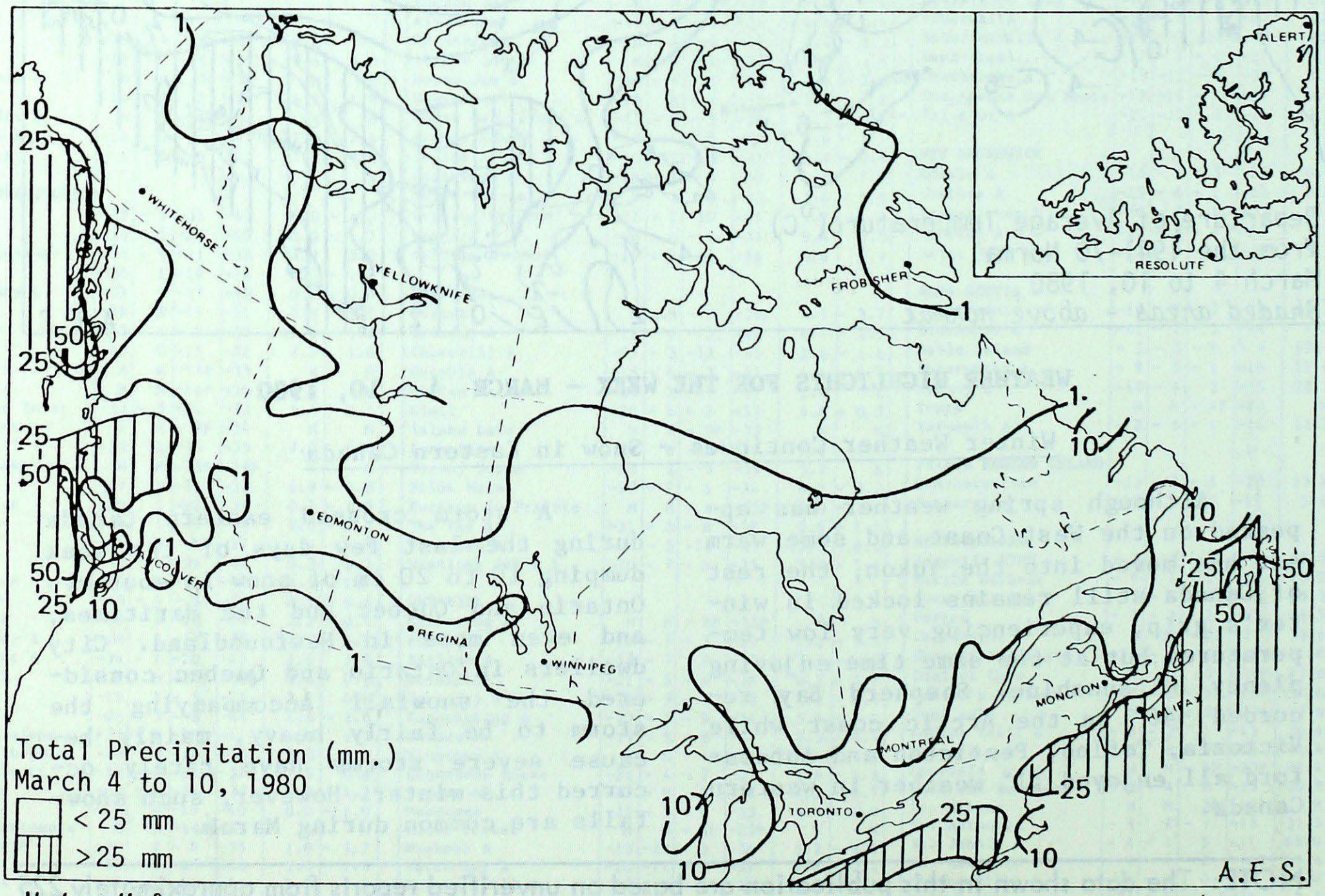
Precipitation amounts were above normal only along the east coast of Baffin Island (Clyde, 9.6 mm) and in southwest Yukon (Burwash, 4.8 mm). At week-end greatest snow depths were 124.0 cm at Clyde, and 115 cm at Cape Dyer in the Northwest Territories and 66 cm at Watson Lake. Snow surveys on March 1, showed that snowfalls were slightly below normal in most areas of the Yukon.

BRITISH COLUMBIA

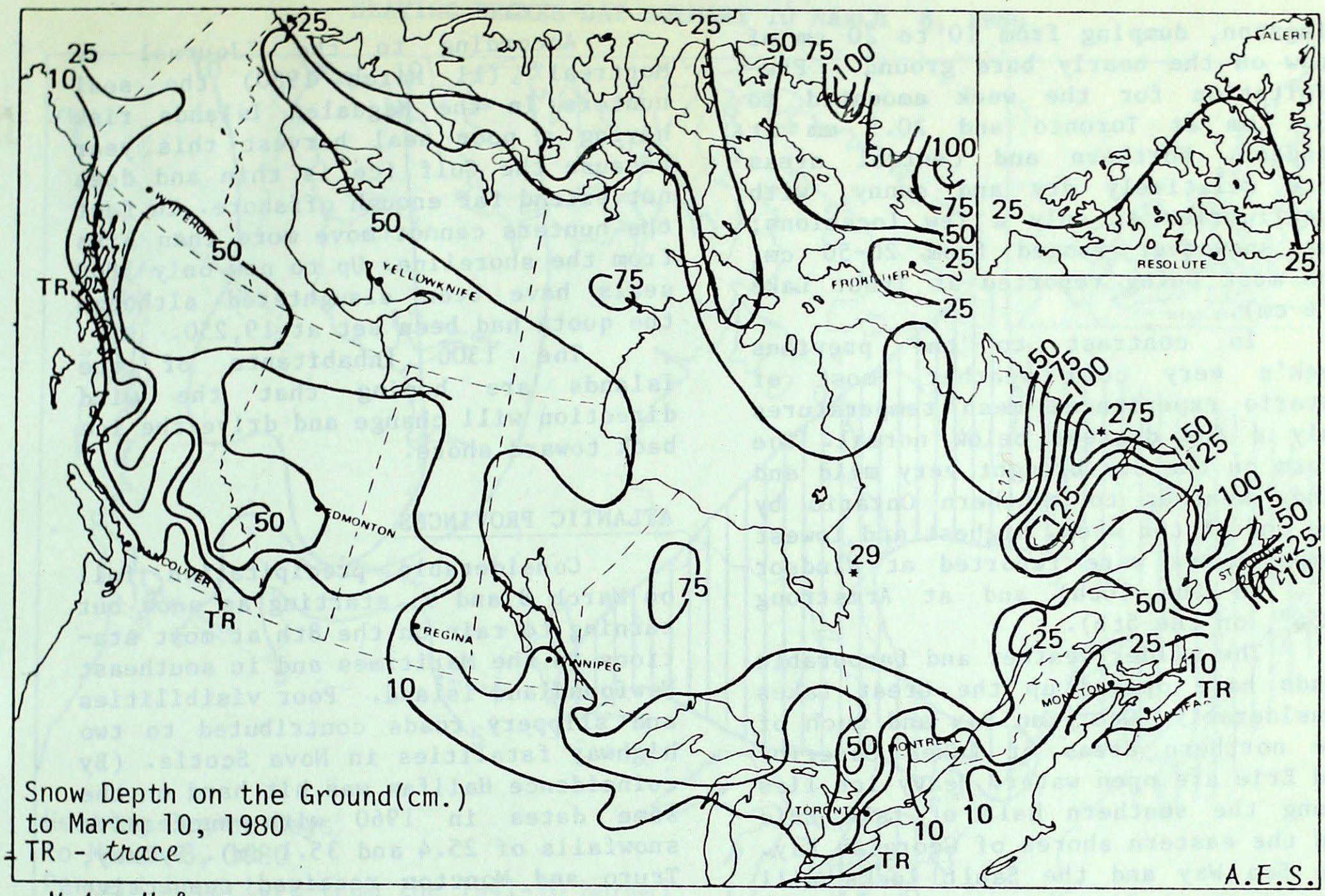
The weather cooled somewhat compared with last week, dropping below normal everywhere except on Vancouver Island and in the Queen Charlotte Islands. However, temperatures were mild, rising above the freezing point everyday at all stations, and above 10° in southern areas. By contrast, on some nights the mercury dropped below -20° in the interior, reaching -37° at Dease Lake.

More or less normal precipitation fell on the coast, but above normal amounts at many interior locations. From March 8 to 10 Prince George received 27.5 cm of snow, while on the 7th and 8th Fort Nelson recorded 12 cm. In spite of this snowfall, the total recorded since the season began (September to March) is much below normal in this region.

Mild and rainy weather set off a few avalanches in the Castlegar area, blocking numerous roads. In the north, forest companies encountered some difficulty because the logging roads became very muddy.



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



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

ALBERTA

Southern stations experienced wide swings in daily temperatures commonly rising above 5° during the day and dropping below -30° at night. Extremes ranged from 8° at Lethbridge on March 10th to -36° at Edson on the 4th.

Below normal precipitation was recorded throughout the province except in west central areas, where Whitecourt and Edson had 9.7 mm and Grande Prairie 6.4 mm.

According to Alberta Environment, above normal spring snowmelt runoff is expected in west central areas, but much below normal amounts in the plains. Annual runoff from the mountains should be near or slightly below normal, but below normal in the Oldman River Basin. Despite the extremely dry summer of 1979, the present carry-over in reservoirs in the North Saskatchewan and Bow River Basins is near normal. However, because of the dry conditions and heavy usage in 1979 reservoirs in the Waterton-St. Mary system have below normal levels; total storage is lower than recorded a year ago but higher than in 1978.

SASKATCHEWAN AND MANITOBA

The week began with cold weather, which recurred at the very end after a few days of mild weather. The mean temperatures for the week ranged from 4 to 7° below normal at most stations, while the mercury rose up to 2° (at Estevan) and down to -37° (at Thompson). Record low maximum temperatures were recorded at several places on March 4 and 10.

Precipitation amounts were almost negligible in Saskatchewan, and while greater elsewhere, only exceeded normal values at Thompson. However, nearly 10 cm of snowfall was reported in northwestern Manitoba.

ONTARIO

On March 8 the heaviest snowfall of the winter hit southwestern Ontario south of a line through Goderich, Orangeville, Barrie, Peterborough and

Kingston, dumping from 10 to 20 cm of snow on the nearly bare ground. Precipitation for the week amounted to 23.1 mm at Toronto and 20.5 mm at Windsor. Northern and central areas were relatively dry and sunny, with snowflurries at only a few locations; but snowcover ranged from 20-50 cm, the most being reported at Trout Lake (76 cm).

In contrast to the previous week's very cold weather, most of Ontario experienced mean temperatures only a few degrees below normal. The storm on the 8th brought very mild and windy weather to southern Ontario by the end of the week. Highest and lowest temperatures were reported at Windsor (8°, on the 10th) and at Armstrong (-36°, on the 5th).

The milder weather and favourable winds have opened up the Great Lakes considerably. Georgian Bay and much of the northern areas of Lakes Superior and Erie are open water. Heavy ice lies along the southern half of Lake Erie and the eastern shores of Georgian Bay. The Sea Way and the Sault locks will open on March 24, the earliest date on record. Ice conditions should be near normal for the opening; in preparation, the St. Lawrence Sea Way locks are being cleared of any remaining ice.

QUEBEC

Temperatures became above normal in all of southern Quebec but remained 9° below normal in the north. The mercury rose during the week to 4° at Gaspé, Montreal and several other places. Northern areas were persistently cold as shown by the -37° recorded at Poste-de-la-Baleine; however, the cold weather was accompanied by up to 75% of the possible sunshine in some localities including Fort Chimo. In contrast the mild weather in the south was associated with cloudy skies which only allowed 50% of the possible sunshine.

While less than normal, precipitation increased somewhat this week, with Quebec receiving 24.3 mm.

According to the "Journal de Montréal" (11 March 1980) the seal hunters in the Magdalen Islands risk having a poor seal harvest this year because the Gulf ice is thin and does not extend far enough offshore. In fact the hunters cannot move more than 5 km from the shoreline. Up to now only 3800 seals have been slaughtered although the quota had been set at 19,250.

The 1300 inhabitants of the Islands are hoping that the wind direction will change and drive the ice back toward shore.

ATLANTIC PROVINCES

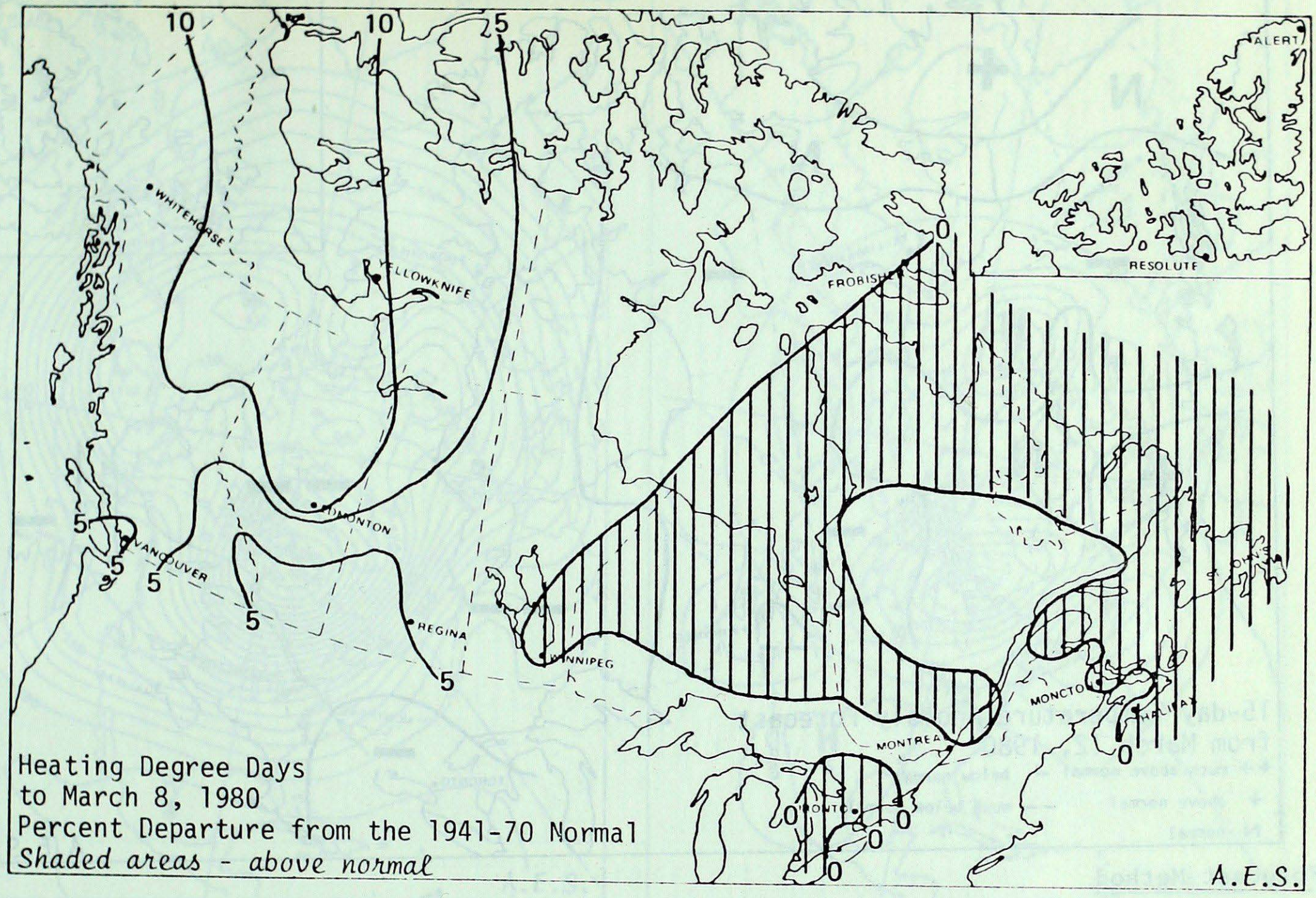
Considerable precipitation fell on March 8 and 9, starting as snow but turning to rain on the 8th at most stations in the Maritimes and in southeast Newfoundland island. Poor visibilities and slippery roads contributed to two highway fatalities in Nova Scotia. (By coincidence Halifax was hit hard on the same dates in 1960 with successive snowfalls of 25.4 and 35.1 cm). Sydney, Truro and Moncton received respective snow amounts of 8.0, 10.0 and 11.6 cm on the 8th, but the latter city had an additional 3.5 cm on the following day. Argentia reported the most precipitation for the two-day period (54.5 mm) as well as for the week (78.1 mm).

Mean temperature departure was 2.5° above normal at Truro but less than 1° elsewhere, except in northern Newfoundland and Labrador, dropping to about 7° below normal at Hopedale. Highest and lowest temperatures were recorded at St. John's on the 8th (9°) and at Hopedale on the 10th (-32°).

Ice cover in the Gulf of St. Lawrence has not changed much from last week, but a lot of ice drifting through Cabot Strait has congested the shipping lanes. Ice breakers have been able to overcome any local problems.

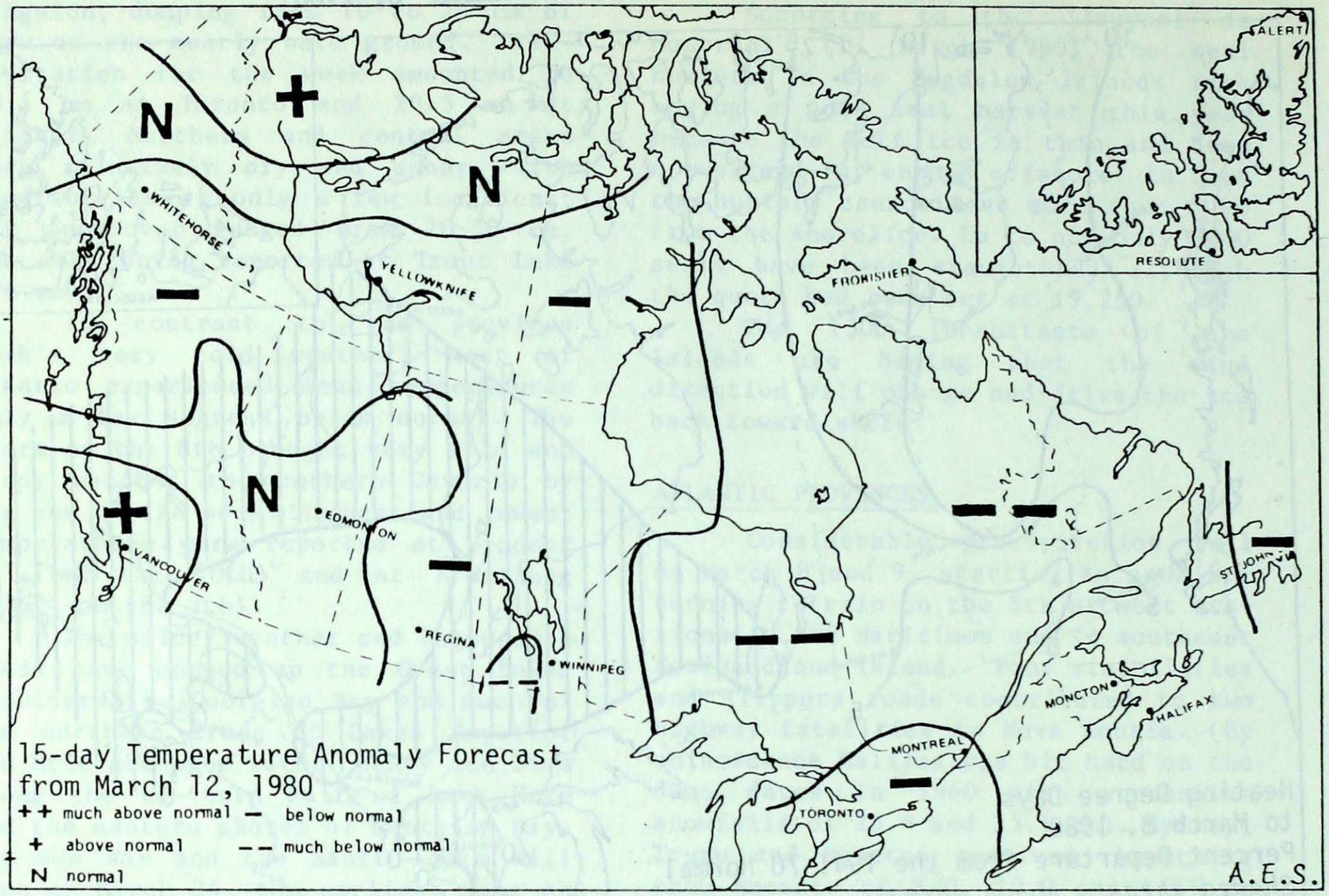
Ice extends up to 250 km off the east coast of Newfoundland but fortunately persistent offshore winds have been conducive to light ice cover in coastal areas.

HEATING DEGREE-DAY SUMMARY TO MARCH 8, 1980



STATION	MONTHLY CUMULATIVE TOTAL	MONTHLY DIFF. FROM 1941-70 NORMAL	SEASONAL TOTAL	SEASONAL DIFF. FROM 1941-70 NORMAL	SEASONAL PERCENT OF NORMAL
Resolute	394.5	-13.5	8743.5	-67.5	99
Inuvik	364.5	4.5	6408.0	-1057.0	86
Whitehorse	233.5	6.5	4922.5	-362.5	93
Vancouver Int'l A	100.5	-3.5	2128.5	-87.5	96
Edmonton Mun A	209.5	-4.5	3869.0	-483.0	89
Calgary Int'l A	225.5	33.5	3803.0	-209.0	95
Regina	273.0	31.0	4353.0	-251.0	95
Winnipeg Int'l A	283.5	41.5	4617.0	17.0	100
Thunder Bay	244.5	23.5	4301.5	-44.5	99
Windsor	185.5	30.5	2783.5	3.5	100
Toronto Int'l A	202.0	30.0	3139.0	32.0	101
Ottawa Int'l A	213.5	16.5	3552.0	-95.0	97
Montreal Int'l A	216.0	36.0	3475.0	11.0	100
Quebec	234.0	31.0	3933.5	65.5	102
Saint John, N.B.	205.5	20.5	3383.0	-89.0	97
Halifax	180.0	17.0	2973.0	78.0	103
Charlottetown	204.0	17.0	3333.5	44.5	101
St. John's, Nfld.	172.5	4.5	3317.0	81.0	103

15 DAY TEMPERATURE ANOMALY FORECAST



Forecast Method

Analogue technique based on point predicition at 70 Canadian stations.

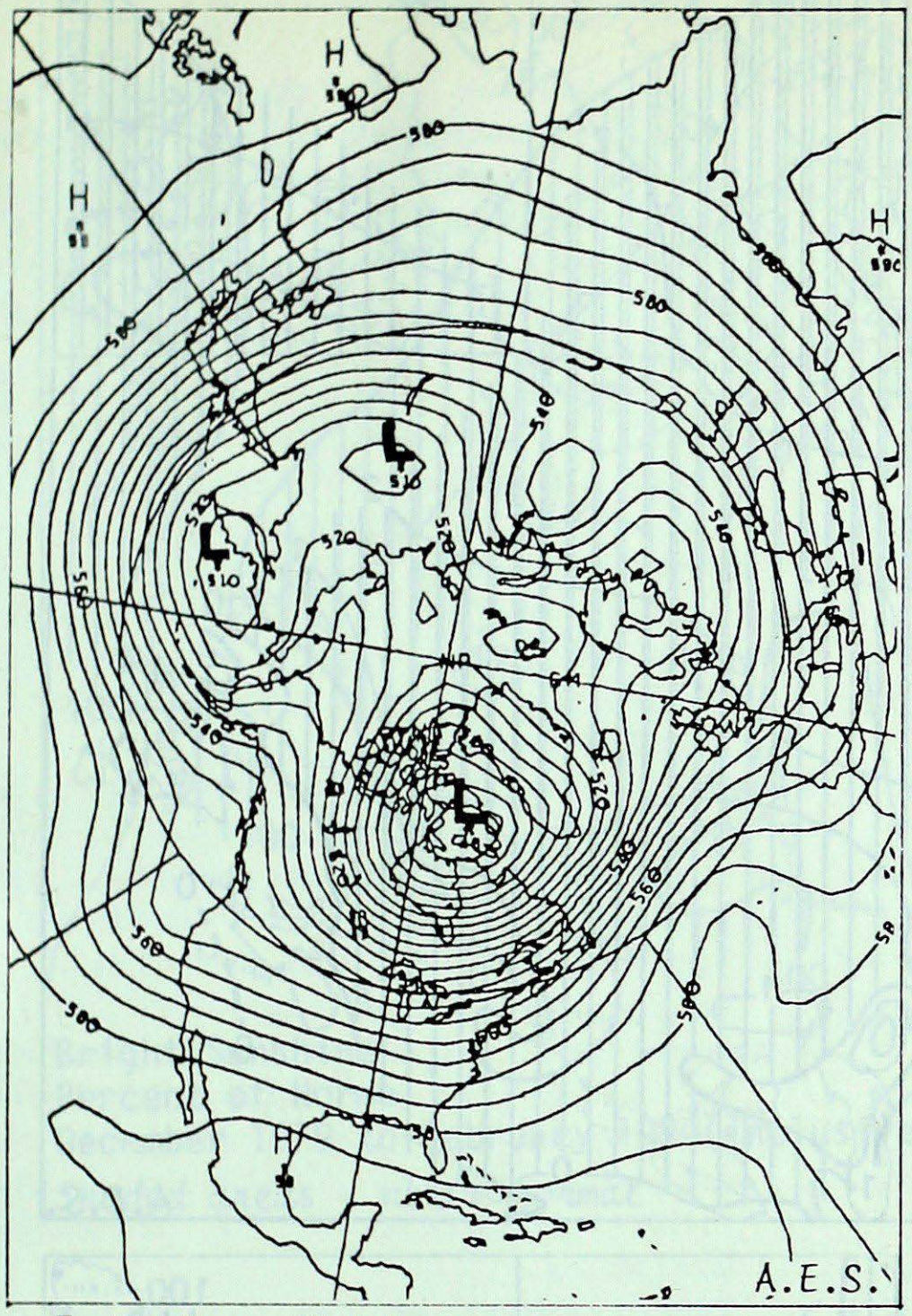
Temperature Scale

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

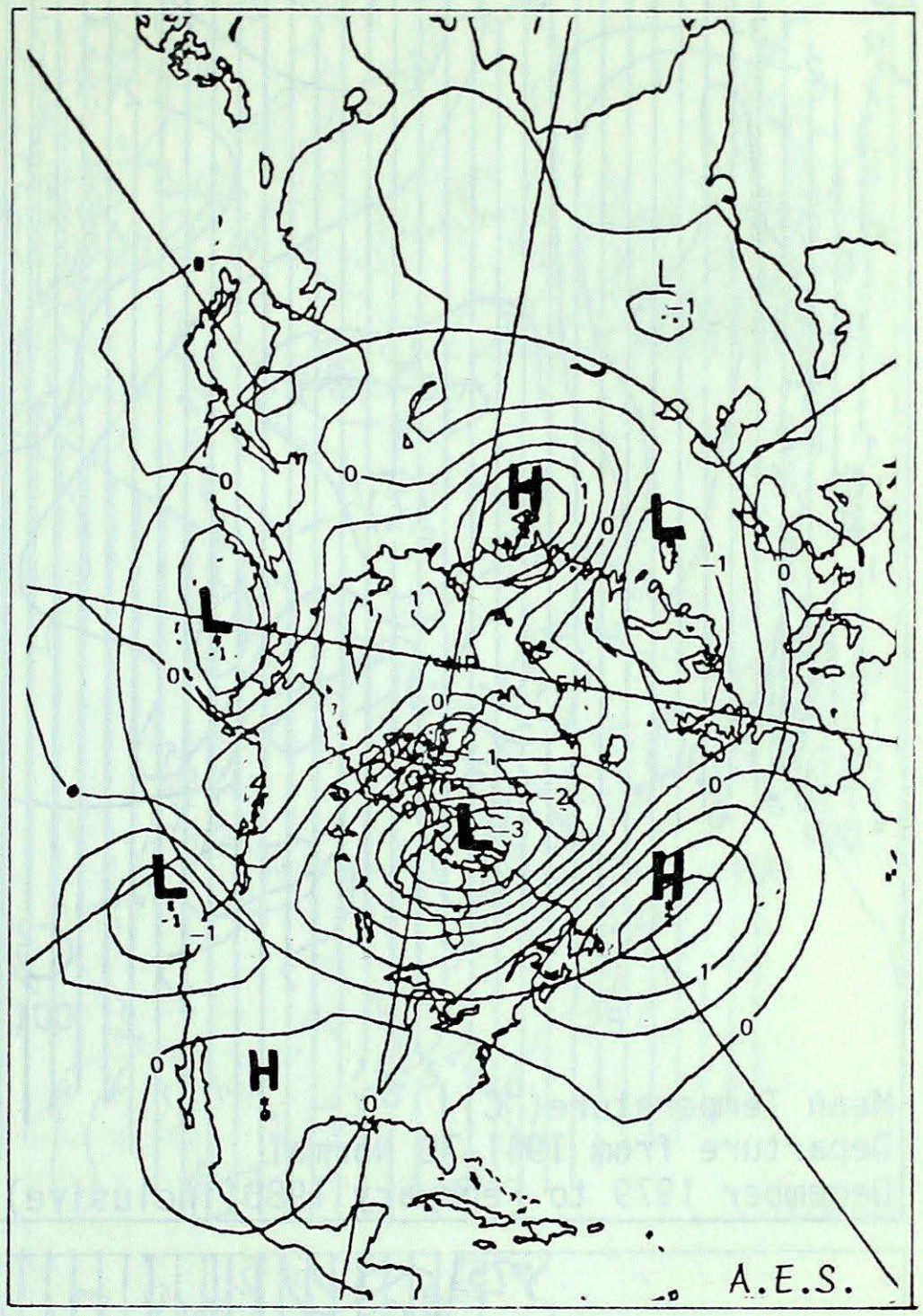
Station	Current Temperature Anomaly Forecast	
Whitehorse	Below Normal	From 1.1° to 3.7° below Normal
Victoria	Above Normal	From 0.3° to 1.1° above Normal
Vancouver	Above Normal	From 0.3° to 1.2° above Normal
Edmonton	Near Normal	Within 1.1° of Normal
Regina	Below Normal	From 1.1° to 3.7° below Normal
Winnipeg	Beldow Normal	From 1.0° to 3.3° below Normal
Thunder Bay	Much Below Normal	More than 2.5° below Normal
Toronto	Below Normal	From 0.6° to 2.1° below Normal
Ottawa	Below Normal	From 0.7° to°2.2° below Normal
Montreal	Below Normal	From 0.6° to 2.1° below Normal
Quebec	Much Below Normal	More than 2.2° below Normal
Fredericton	Much Below Normal	More than 2.2° below Normal
Halifax	Much Below Normal	More than 1.6° below Normal
Charlottetown	Much Below Normal	More than 2.0° below Normal
St. John's	Below Normal	From 0.5° to 1.7° below Normal
Goose Bay	Much Below Normal	More than 3.3° below Normal
Frobisher Bay	Much Below Normal	More than 4.5° below Normal
Inuvik	Much Below Normal	From 1.1° to 3.7° above Normal

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

Atmospheric Circulation Features



7-day Mean 50 kPa Height Map(in dams)
March 3 to 9, 1980



7-day Mean 50 kPa Height Anomaly
(in 5 dam intervals) March 3 to 9, 1980

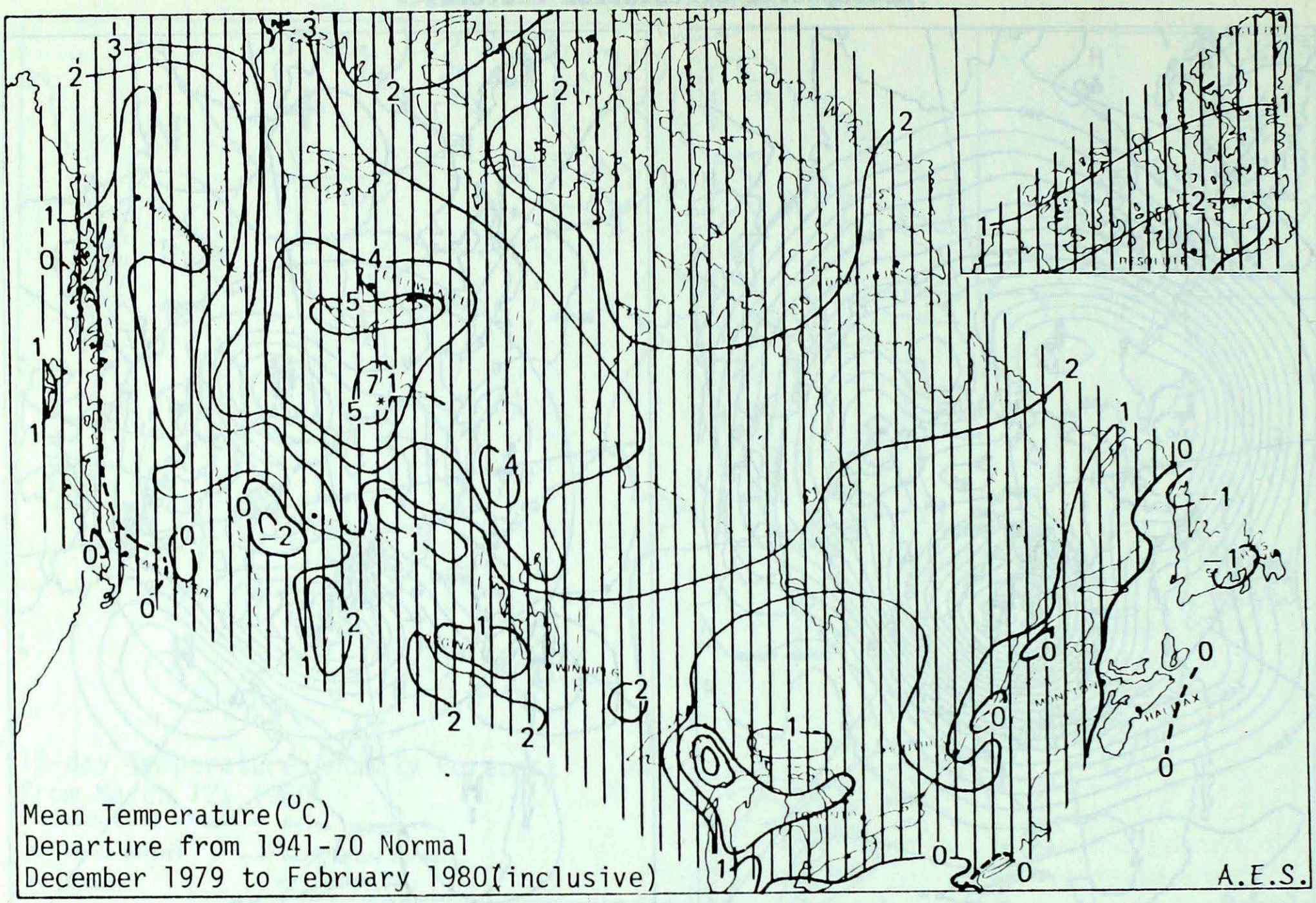
A broad long-wave trough anchored over mid-continent has submerged most of Canada under a cyclonic circulation.

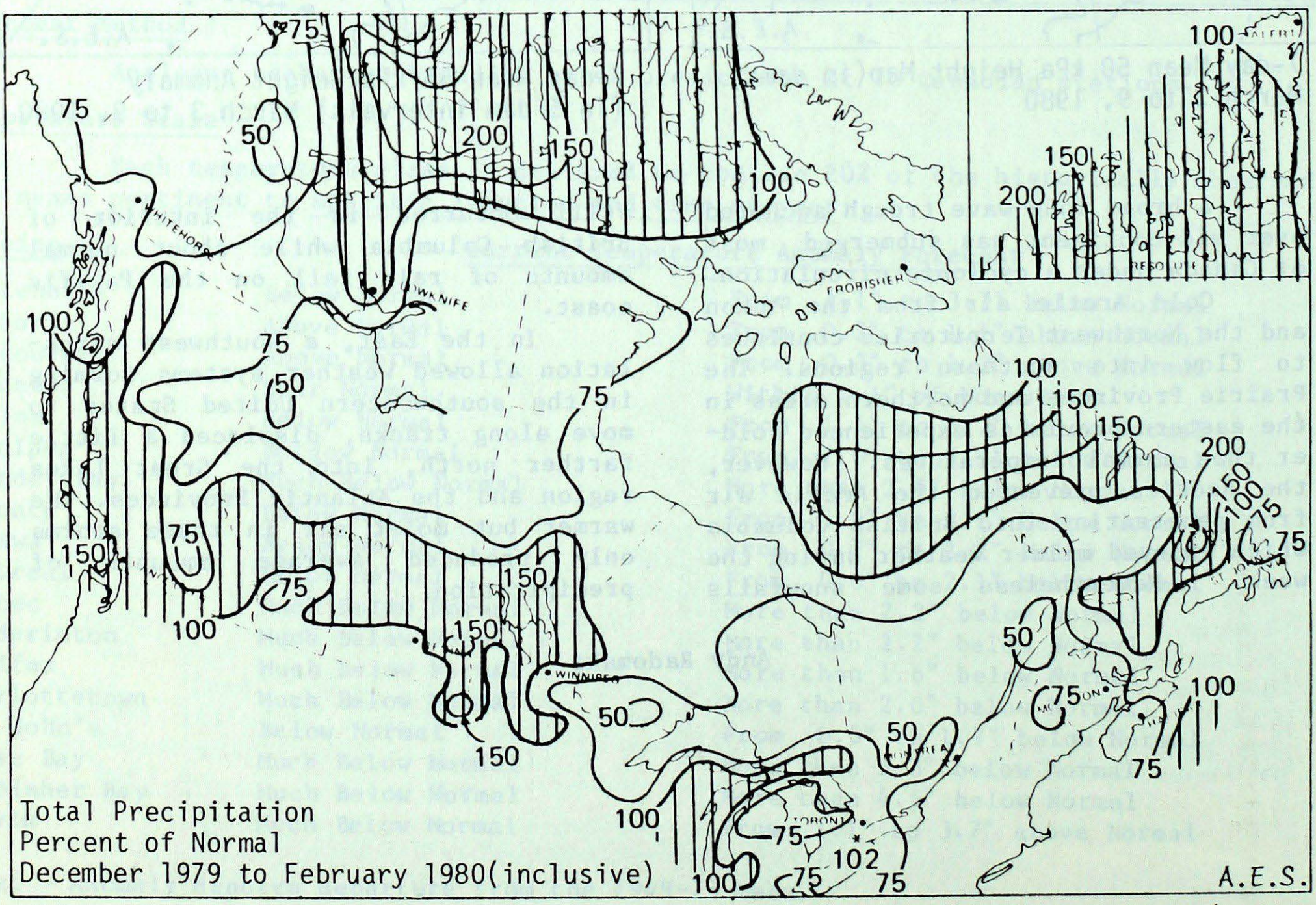
Cold Arctic air from the Yukon and the Northwest Territories continues to flow into southern regions. The Prairie Provinces and northern areas in the eastern provinces experienced colder than normal temperatures. However, the Rockies prevented the Arctic air from penetrating into British Columbia which enjoyed milder weather during the week. Nevertheless some snowfalls still occurred in the interior of British Columbia while about normal amounts of rain fell on the Pacific coast.

In the East, a southwest circulation allowed weather systems forming in the southwestern United States to move along tracks, displaced a little farther north, into the Great Lakes region and the Atlantic Provinces. The warmer but moist air in these storms only produced average amounts of precipitation.

Andy Radomski

SEASONAL MAPS **DECEMBER 1ST 1979 - FEBRUARY 29, 1980**





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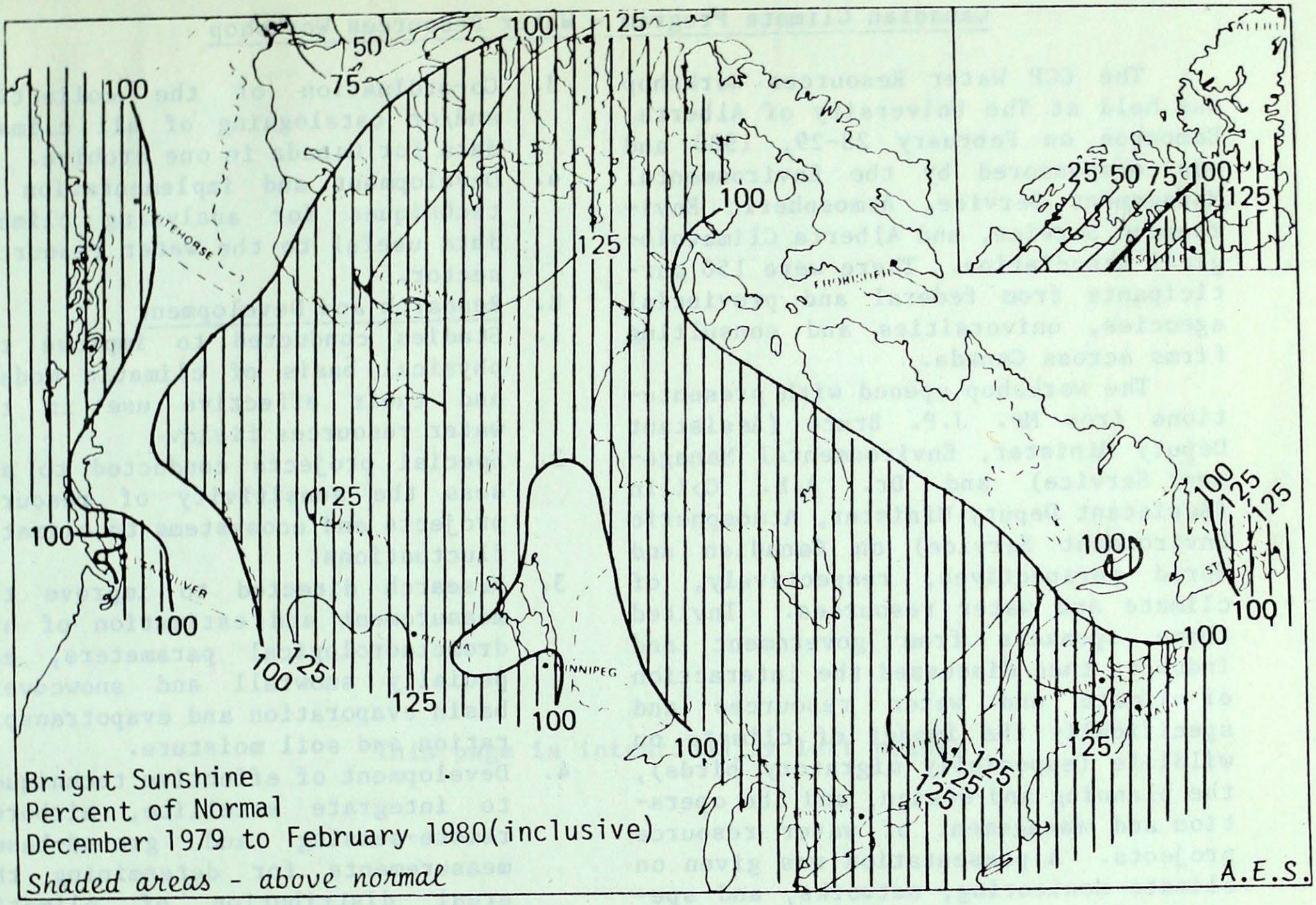

Bright Sunshine
Percent of Normal
December 1979 to February 1980(inclusive)
Shaded areas - above normal

A.E.S.

ON THIS DATE ...

.....March 4, 1966. A blizzard with fresh snowfall amounting to 35.6 cm and winds up to 113 km/h struck Winnipeg, and left the city paralyzed for two days.

.....March 4, 1971. A major storm, one of the worst in the history of southern Quebec brought 43.2 cm of snow and strong winds gusting to 108 km/h in the Montreal area. The storm paralyzed the city for two days.

.....March 5, 1964. During the passage of a storm at Montreal, a sudden short-period wind gust in excess of 175 km/h was recorded.

.....March 10, 1961. Wind speeds as high as 145 km/h with gusts to 190 km/h delayed trains for 17 hours at St. Andrew's, Newfoundland.

CLIMATIC PERSPECTIVES

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Canadian Climate Program - Water Resources Workshop

The CCP Water Resources Workshop was held at The University of Alberta, Edmonton on February 28-29, 1980 and was co-sponsored by the Environmental Management Service, Atmospheric Environment Service, and Alberta Climatological Association. There were 150 participants from federal and provincial agencies, universities and consulting firms across Canada.

The workshop opened with presentations from Mr. J.P. Bruce (Assistant Deputy Minister, Environmental Management Service) and Dr. A.E. Collin (Assistant Deputy Minister, Atmospheric Environment Service) on Canadian and World perspectives, respectively, of climate and water resources. Invited theme speakers from government and industry then discussed the interaction of climate and water resources and specifically the impact of climate on wildlife (especially migratory birds), the planning and design, and the operation and management of water resource projects. A presentation was given on climate monitoring, networks, and specialized analyses available for support of the natural resources sector.

Working group discussions to identify climate needs of the water resource sector followed, focussing on such specific aspects as: planning and design of a) large and b) small river projects; proxy data; operation and management of a) large and b) small river projects; forest hydrology and watershed management; water quality for inland fisheries; use of water in dry regions; and wildlife management. About 100 specific recommendations on climate service, data, research and institutional needs of the various groups evolved. The complete set of recommendations, including discussion, will be available in the proceedings of the Workshop. A brief summary is given below, outlining the major areas of concern.

A. Service

1. Enhancement of the climatological data base for the water sector, with special emphasis on remote or data-sparse regions.
2. Improved data access and dissemination of information.
3. Co-ordination of the collection and/or cataloguing of all climate data for Canada in one archive.
4. Development and implementation of techniques for analysing climate data useful to the water resources sector.

B. Research and Development

1. Studies conducted to improve the physical basis of climatic models and their effective use in the water resources field.
2. Special projects conducted to assess the sensitivity of resource projects and ecosystems to climatic fluctuations.
3. Research directed to improve the measurement and estimation of hydrometeorological parameters, especially snowfall and snowcover, basin evaporation and evapotranspiration and soil moisture.
4. Development of effective techniques to integrate satellite, airborne remote-sensing and ground-based measurements for determining the areal distribution of climatic variables.
5. Encouragement of the collection of all types of proxy data, with research aimed at extending historical non-instrumental records.

C. Institutional

Recommendations were aimed at improving the co-ordination and co-operation between agencies in such activities as: planning observational networks, establishing regional climate centres or committees, standardizing network observations and data publications and improving the transfer of knowledge from research scientists to planners and designers.

The above recommendations were subsequently discussed by regional working groups in an effort to establish regional priorities; quite naturally, differences between regions resulted. The regional priorities will be available in the Workshop Proceedings. Anyone who did not attend the Workshop and who would like a copy of the Proceedings when they become available should contact Mr. P. Scholefield of the Canadian Climate Centre, Atmospheric Environment Service, Downsview ([416] 667-4525).

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TEMPERATURE AND PRECIPITATION DATA FOR THE WEEK ENDING 0600 G.M.T. MARCH 11, 1980

Station	Temperature (°C) Average	Departure from Normal	Extreme Maximum	Extreme Minimum	Precip. (mm) Total	Departure from Normal
BRITISH COLUMBIA						
Abbotsford A	5	1	11	- 3	43.1	6.9
Alert Bay	5	0	10	- 1	31.2	9.2
Blue River	M	X	4P	-14	M	X
Bull Harbour	M	M	9P	- 2P	48.9	17.7
Burns Lake	M	X	7P	-30P	M	X
Cape Scott	M	M	9P	2P	54.7	-15.2
Cape St. James	M	M	9P	1P	21.1	- 3.7
Castlegar A	0	- 1	8	-11	3.4	-10.1
Comox A	5	1	10	- 2	7.2	-19.1
Cranbrook A	- 6	- 5	7	-21	0.8	- 3.1
Dease Lake	-12	- 3	0	-37	11.0	3.5
Estevan Point	M	M	10P	0	M	M
Fort Nelson A	-13	- 2	0	-30	7.8	0.8
Fort St. John A	-10	- 1	4	-27	3.3	- 3.0
Kamloops A	0	- 1	9	-10	2.4	- 1.6
Langara	4	1	9	0	34.2	4.2
Lytton	M	M	M	- 8	M	M
Mackenzie A	M	X	4P	-28P	M	X
McInnes Island	M	M	8P	2P	M	M
Penticton A	2	0	11	- 7	0.8	- 3.9
Port Hardy A	4	0	8	- 3	34.6	8.5
Prince George A	- 6	- 1	5	-23	28.7	21.9
Prince Rupert A	2	- 2	8	- 8	63.1	22.9
Quesnel A	- 4	- 2	6	-19	30.4	25.6
Revelstoke A	- 3	- 2	3	-13	16.4	- 1.6
Sandspit A	5	1	10	0	10.7	- 9.9
Smithers A	- 5	- 1	6	-19	10.2	4.8
Spring Island	M	M	M	M	M	M
Stewart A	M	X	6	-12	15.8	X
Terrace A	- 1	- 1	5	- 9	6.6	-11.4
Tofino A	6	1	11	- 1	56.7	- 4.8
Vancouver Int'l A	5	0	9	- 3	16.0	- 5.3
Victoria Int'l A	5	0	11	- 3	2.0	-16.7
Williams Lake A	- 6	- 3	5	-20	43.1	39.7
YUKON						
Burwash A	-12	2	- 2	-26	4.8	2.8
Dawson A	-11	6	- 1	-25	1.6	- 1.9
Komakuk Beach A	-24	2	- 9	-31	0.0	- 0.4
Mayo A	-11	2	- 1	-24	0.8	- 1.6
Shingle Point A	-23	2	-10	-35	0.0	- 0.7
Watson Lake A	M	M	- 3	-41P	3.9	- 1.7
Whitehorse A	M	2	-24	-24P	2.1	- 1.8
NORTHWEST TERRITORIES						
Alert	-32	1	-24	-38	0.2	- 1.9
Baker Lake	-34	- 4	-28	-38	0.0	- 1.8
Broughton Island	-29	- 4	-20	-33	2.1	1.1
Byron Bay	-31	0	-24	-38	0.4	- 0.1
Cambridge Bay A	-33	- 1	-25	-40	0.0	- 0.8
Cape Dorset	-26	X	-17	-32	5.4	X
Cape Dyer A	-31	- 6	-16	-43	4.8	1.1
Cape Hooper	-29	- 3	-23	-33	0.4	- 1.2
Cape Parry A	-28	0	-21	-34	0.4	- 1.1
Cape Young A	-28	0	-18	-35	0.0	- 0.5
Chesterfield Inlet	-34	- 5	-27	-40	0.0	- 1.5
Clinton Point	-24	3	-15	-33	0.0	- 1.2
Clyde	-28	1	-19	-41	9.6	7.9
Contwoyto Lake	M	M	-20P	-39	0.0	- 2.9
Coppermine	-27	1	-16	-35	0.2	- 2.7
Coral Harbour	-33	- 6	-26	-40	0.0	- 2.4
Dewar Lakes	-31	- 4	-22	-36	0.0	- 0.8
Ennadai	M	M	M	-33P	M	M
Eureka	-41	- 2	-26	-46	0.0	- 0.5
Fort Reliance	-27	- 2	-16	-36	0.2	- 1.8
Fort Simpson	-17	- 3	- 3	-34	0.0	- 3.1
Fort Smith A	-21	- 3	- 9	-34	0.0	- 4.2
Frobisher Bay A	-29	- 5	-20	-37	2.8	- 3.8
Gladman Point A	-36	- 2	-29	-42	0.0	- 0.8
Hall Beach A	-33	- 1	-21	-44	0.0	- 2.1
Hay River A	-20	- 2	- 8	-35	0.7	- 3.6
Inuvik A	-26	- 1	-12	-38	0.0	- 2.3
Jenny Lind Island	-35	- 4	-26	-42	0.0	- 0.2
Lady Franklin Point	-29	- 1	-19	-36	0.4	- 0.8
Longstaff Bluff	-31	- 2	-21	-36	0.2	0.2
Mackar Inlet	-31	- 1	-24	-36	0.0	0.0
Mould Bay	-33	1	-27	-38	0.4	- 0.3
Nicholson Peninsula	-27	- 1	-16	-35	0.0	- 0.6
Norman Wells A	-19	3	- 8	-31	1.8	- 1.6
Pelly Bay	-33	- 1	-25	-39	0.0	- 1.4
Pond Inlet A	-29	X	-23	-38	0.0	X
Port Burwell	M	X	M	M	M	X
Resolute A	-32	1	-23	-40	0.0	- 0.5
Sachs Harbour	-29	0	-20	-39	0.0	- 0.6
Shepherd Bay A	-38	- 7	-30	-48	0.0	- 0.7
Tuktoyaktuk	M	M	-21	-35P	0.0	- 0.6
Yellowknife A	-24	- 3	-11	-37	0.3	- 1.8
ALBERTA						
Banff	- 7	- 1	5	-26	1.2	- 3.8
Brooks	M	M	M	M	M	M
Calgary Int'l A	-10	- 3	3	-24	0.8	- 4.5
Cold Lake A	M	M	0P	-30	0.4	- 5.2
Coronation A	-15	- 5	- 1	-28	1.0	- 3.6
Edmonton Int'l. A	-12	- 3	2	-28	4.0	1.0
Edmonton Mun. A	-10	- 2	3	-24	0.0	- 3.7
Edmonton Namao A	-11	- 2	2	-27	1.8	- 2.3
Edson A	-11	- 4	4	-36	9.4	2.9
Fort Chipewyan	M	M	- 9P	-34	0.0	- 3.9
Fort McMurray A	-15	- 3	- 2	-32	2.4	- 1.3
Grande Prairie A	-11	0	4	-30	6.4	1.7
High Level A	-16	- 7	- 3	-30	1.4	- 4.2
Jasper	- 7	- 2	6	-25	0.4	- 2.4
Lethbridge A	- 9	- 4	8	-27	1.2	- 5.8
Medicine Hat A	-12	- 5	2	-24	3.6	- 0.3
Peace River A	-12	- 1	2	-25	1.0	- 3.9
Red Deer A	-13	- 4	3	-30	4.0	- 1.1
Rocky Mountain House	-13	- 6	6	-35	6.1	- 1.0
Slave Lake A	-11	- 2	0	-25	3.1	0.5
Vermilion A	-15	- 3	- 1	-27	1.4	- 2.6
Whitecourt	-10	- 1	2	-28	9.7	4.3
SASKATCHEWAN						
Broadview	-18	- 7	- 6	-27	0.7	- 1.5
Buffalo Narrows	-16	- 2	0	-31	0.0	- 4.8
Cree Lake	-21	X	- 5	-35	0.6	X
Estevan A	-16	- 6	2	-25	0.0	- 3.2
Hudson Bay	-16	- 3	- 3	-27	0.0	- 4.7
Kindersley	-16	- 5	- 2	-27	0.3	- 3.7
La Ronge A	-16	- 3	0	-30	0.6	- 2.7
Meadow Lake A	-17	X	- 4	-33	0.0	X
Moose Jaw A	-15	- 6	- 2	-27	0.4	- 3.3
Nipawin A	-17	X	- 6	-29	0.0	X
North Battleford A	-16	- 4	- 4	-29	2.0	- 1.5
Prince Albert A	-18	- 4	- 5	-31	0.0	- 4.2
Regina A	-18	- 6	- 4	-30	0.8	- 2.6
Saskatoon A	-18	- 5	- 5	-31	1.4	- 2.7
Swift Current A	-14	- 5	0	-25	0.6	- 4.2
Uranium City	-22	- 4	-12	-35	0.0	- 2.9
Wynyard	-18	- 7	- 6	-27	3.4	- 1.6
Yorkton A	-17	- 4	- 5	-27	2.4	- 3.0
MANITOBA						
Bissett	-19	- 7	- 4	-36P	2.2	- 2.0
Brandon A	-18	- 6	- 5	-28	1.7	- 2.7
Churchill A	-26	- 3	-17	-35	1.4	- 1.7
Dauphin A	-17	- 4	- 4	-27	0.3	- 4.9
Gillam A	-23	X	- 9	-35	6.9	X
Gimli	-17	- 5	- 3	-30	1.9	- 3.4
Island Lake	-19	X	- 6	-32	3.4	X
Lynn Lake	-20	- 4	- 7	-35	1.0	- 1.3
Norway House	-20	X	- 6	-32	9.8	X
Pilot Mound	-17	- 7	- 2	-26	2.0	- 2.7
Portage la Prairie	-16	- 5	- 3	-27	3.0	- 3.2
The Pas A	-17	- 2	- 4	-28	1.0	- 3.0
Thompson A	-22	- 6	- 6	-37	4.3	0.9
Winnipeg Int'l A	M	M	- 4	-27P	2.6	- 3.1
ONTARIO						
Armstrong A	-20	- 5	- 5	-36	2.2	- 3.8
Atikokan	-16	- 6	- 4	-31	5.2	- 1.3
Earlton A	- 8	3	2	-20	7.4	- 3.5
Geraldton	-19	- 5	- 3	-35	11.0	3.5
Gore Bay A	- 8	- 1	1	-21	10.4	2.3
Kapuskasing A	-13	0	0	-23	8.0	- 4.5
Kenora A	-16	- 6	- 4	-27	4.4	- 2.4
Kingston A	- 2	2	2	- 5	M	M
Lansdowne House	-19	- 3	- 5	-32	1.4	- 1.7
London A	- 4	- 1	5	-12	18.3	2.6
Moosonee	-17	- 1	- 1	-33	3.4	- 5.9
Mount Forest	M	M	- 3P	-15	M	M
Muskoka A	- 6	0	4	-19	15.8	- 1.0
North Bay A	- 7	1	0	-20	11.9	- 3.5
Ottawa Int'l A	- 4	2	4	-11	12.8	0.8
Petawawa A	- 4	X	6	-19	3.7	X
Pickle Lake	-19	- 5	- 5	-35	0.2	- 4.8
Red Lake A	-18	- 5	- 5	-32	1.0	- 4.8
Simcoe	- 3	- 1	5	-10	12.5	- 9.2
Sioux Lookout A	-17	- 5	- 6	-30	5.8	- 0.2
Sudbury A	- 8	1	0	-19	4.4	- 5.4
Thunder Bay A	-12	- 2	- 1	-26	2.4	- 4.1
Timmins A	-10	2	1	-22	2.9	-11.0
Toronto Int'l A	- 4	0	5	-11	23.1	8.2
Trenton A	- 3	1	5	-10	17.9	3.2
Trout Lake	-20	- 2	- 6	-33	2.3	- 0.8
Wawa A	M	X	- 2P	-23P	10.7	X
Wiarton A	- 5	0	4	-14	16.2	4.0
Windsor A	- 2	- 1	8	- 9	20.5	7.1
QUÉBEC						
Bagotville A	- 8	2	2	-17	7.2	- 6.2
Baie Comeau	- 8	2	0	-20	8.2	- 0.4
Blanc Sablon	-10	- 2	1P	-19P	16.8	-16.4
Border	M	M	M	-34	M	M
Chibougamau	-14	X	0	-28	5.2	X
Fort Chimo A	-27	- 8	-15	-35	0.0	- 6.4
Gaspé A	- 8	X	4	-21	5.4	X
Grindstone Island	- 5	0	4	-13	12.0	- 2.5
Inoucdjouac	-27	- 5	-16	-36	0.0	- 2.8
Koartak	M	X	-20	-33P	0.0	X
La Grande Rivière A	M	X	- 4	-31P	4.5	X
Maniwaki	- 5	2	4	-19	5.8	- 2.9
Matagami A	-14	X	- 1	-28	3.1	X
Mont-Joli A	- 7	1	1	-13	10.8	- 5.0
Montréal (A int.)	- 4	2	4	-10	15.2	- 1.4
Natashquan A	-10	- 2	0	-22	7.3	-14.9
Nitchequon	-22	- 5	- 7	-34	3.6	- 3.6
Port Menier	- 6	2	- 1	-13	8.7	- 6.0
Poste-de-la-Baleine	-25	- 5	- 6	-37	1.9	- 4.3
Québec A	- 7	0	1	-18	24.3	5.8
Rivière du Loup	- 6	2	1	-12	10.4	- 0.7
Roberval A	- 9	0	0	-18	10.0	- 9.2
Schefferville A	-22	- 6	-12	-34	2.6	- 6.4
Sept-Iles	-10	- 1	- 2	-21	8.4	- 9.2
Sherbrooke A	- 5	1	3	-17	18.8	- 0.3
Ste.Agathe des Monts	- 6	1	1	-18	15.6	- 4.3
Val d'Or A	-10	1	1	-22	11.0	- 4.7
NEW BRUNSWICK						
Charlo A	- 7	1	1	-20	15.5	- 4.2
Chatham A	- 5	1	5	-19	12.3	- 6.2
Fredericton A	- 4	0	5	-20	19.4	4.6
Moncton A	- 4	1	6	-20	21.1	0.6
Saint John A	- 4	0	5	-21	12.6	- 8.8
NOVA SCOTIA						
Eddy Point	- 2	X	7	-11	36.7	X
Greenwood A	- 2	1	8	-20	31.2	16.0
Sable Island	1	1	7	- 3	27.8	- 0.8
Shearwater A	- 1	1	6	-13	49.8	25.2
Sydney A	- 3	0	5	-11	40.0	13.2
Truro	- 1	2	6	-14	36.0	21.0
Yarmouth A	0	1	7	-11	48.4	25.7
PRINCE EDWARD ISLAND						
Charlottetown	- 4	1	4	-13	13.1	- 4.3
Summerside	- 4	1	5	-15	7.2	-10.6
NEWFOUNDLAND						
Argentia VTMS	- 1	X	8	- 6	78.1	X
Battle Harbour	-10	- 3	0	-16	1.2	-25.2
Bonavista	M	M	5	- 9P	27.2	- 1.2
Burgeo	- 3	1	4	-10	46.9	15.1
Cartwright	M	M	- 3	-27P	6.2	-19.1
Churchill Falls A	-18	- 4	- 7	-30	5.0	- 8.7
Comfort Cove	- 5	0	7	-14	8.2	-11.5
Daniel's Harbour	- 7	- 2	5	-20	19.8	5.1
Deer Lake	- 7	0	6	-27	10.6	-12.0
Gander Int'l A	- 5	- 1	6	-14	27.1	0.8
Goose A	-16	- 6	- 4	-27	5.9	- 9.3
Hopedale	-19	- 7	- 8	-32	11.6	0.4
Port aux Basques	- 3	0	3	-10	24.1	0.4
St. Albans	- 4	0	6	-19	68.6	30.2
St. Anthony	M	X	0P	-16	10.0	X
St. John's A	- 1	1	9	- 8	47.4	14.1
St. Lawrence	- 2	1	4	- 9	65.4	35.5
Stephenville A	- 5	- 2	4	-17	17.6	- 0.5
Wabush Lake	-19	- 2	- 7	-31	4.4	- 7.2

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