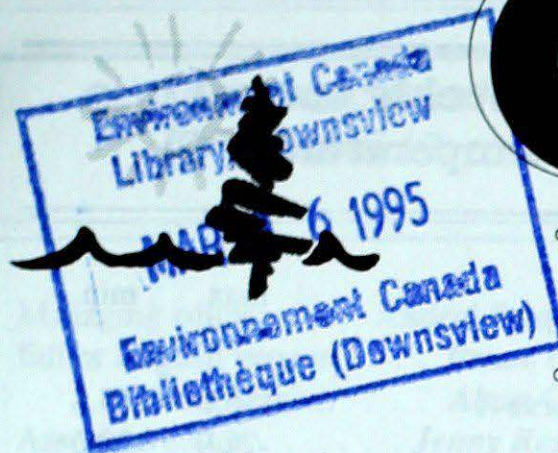


# Climatic Perspectives



February 20 to 26, 1995

A weekly review of Canadian climate and water

Vol. 17 No. 9

## Temperatures take a plunge

*Clear, cold weather settled over the District of Mackenzie, N.W.T., following milder-than-normal temperatures since mid-December. There was also a dramatic drop in temperatures in Alberta, southern Saskatchewan and some other areas of the country.*

It was a cold and mostly clear week across the Northwest Territories. Minimum temperatures fell to  $-30^{\circ}\text{C}$  in the southwest, and to the minus 40's, elsewhere. With the extreme cold, advisories were given for very high to extreme windchills whenever winds higher than 20 km/h were forecast. Fort Liard and Fort Simpson received 7-8 cm of snow, on the 24th.

Heavy snowfalls occurred along the Haines and Skagway (coastal) roads at the beginning of the week, while a blizzard warning was issued for the Dempster Highway. While much of the Yukon was affected by the winter storm, Whitehorse (sitting in the snow shadow), remained sunny. The disturbance pushed southwards during the week, dragging cold weather with it. By the weekend, under clear skies, temperatures plummeted. The 1,600-km Yukon Quest International Sled Dog Race from Whitehorse, Yukon, to Fairbanks, Alaska, finished on the 23rd, in a record time of 10 days, 16 hours, 18 minutes.

A westerly flow brought above-normal temperatures to the Prairie Provinces at the beginning of the week. There were a few record-warm temperatures in Alberta, February 20/21. Lethbridge recorded  $19.4^{\circ}\text{C}$ , on the 20th (old record  $18.5^{\circ}\text{C}$ , 1988). By the 26th, cold arctic air covered

the Prairies with minimums to  $-30^{\circ}\text{C}$  in the north and  $-20$  to  $-15^{\circ}\text{C}$  in the south. Daily maximum temperatures of  $2.3$  to  $9.0^{\circ}\text{C}$  at Swift Current, Saskatchewan, February 20-25, contrasted with a maximum of only  $-7.2^{\circ}\text{C}$ , on the 26th. Heavy snowfalls of 10 to 20 cm fell in the north and mountain parks of Alberta, February 24-25.

Mild air in southern B.C. extended north to Fort St. John ( $7.6^{\circ}\text{C}$ ), on the 20th. In the northeast, Pacific air overrode cold arctic air, generating widespread snowfalls in the Fort Nelson area. In this area, oil-patch activity and timber extraction reached their seasonal peaks. The southern interior was dominated by a ridge of high pressure and Kamloops averaged 4.9 degrees above the normal of  $0.0^{\circ}\text{C}$ . However, by the weekend, the interior of the province was in the process of being gripped by the arctic airmass. Revelstoke recorded a minimum of  $-6.4^{\circ}\text{C}$ , on the 26th (old record  $-5.6^{\circ}\text{C}$ , 1975).

A week of colder-than-normal temperatures in Ontario, helped to break a five-month string of above-normal monthly temperatures. February temperatures averaged near two degrees below normal. A lack of continuous snowcover in southern Ontario (to the south of Barrie) has made for a season of poor cross-country skiing. Temperatures in southern Quebec took a dive over the weekend - Montréal-Mirabel recorded a minimum of  $-26.8^{\circ}\text{C}$  on the 26th, the coldest since February 6 ( $-28.5^{\circ}\text{C}$ ).

### The East

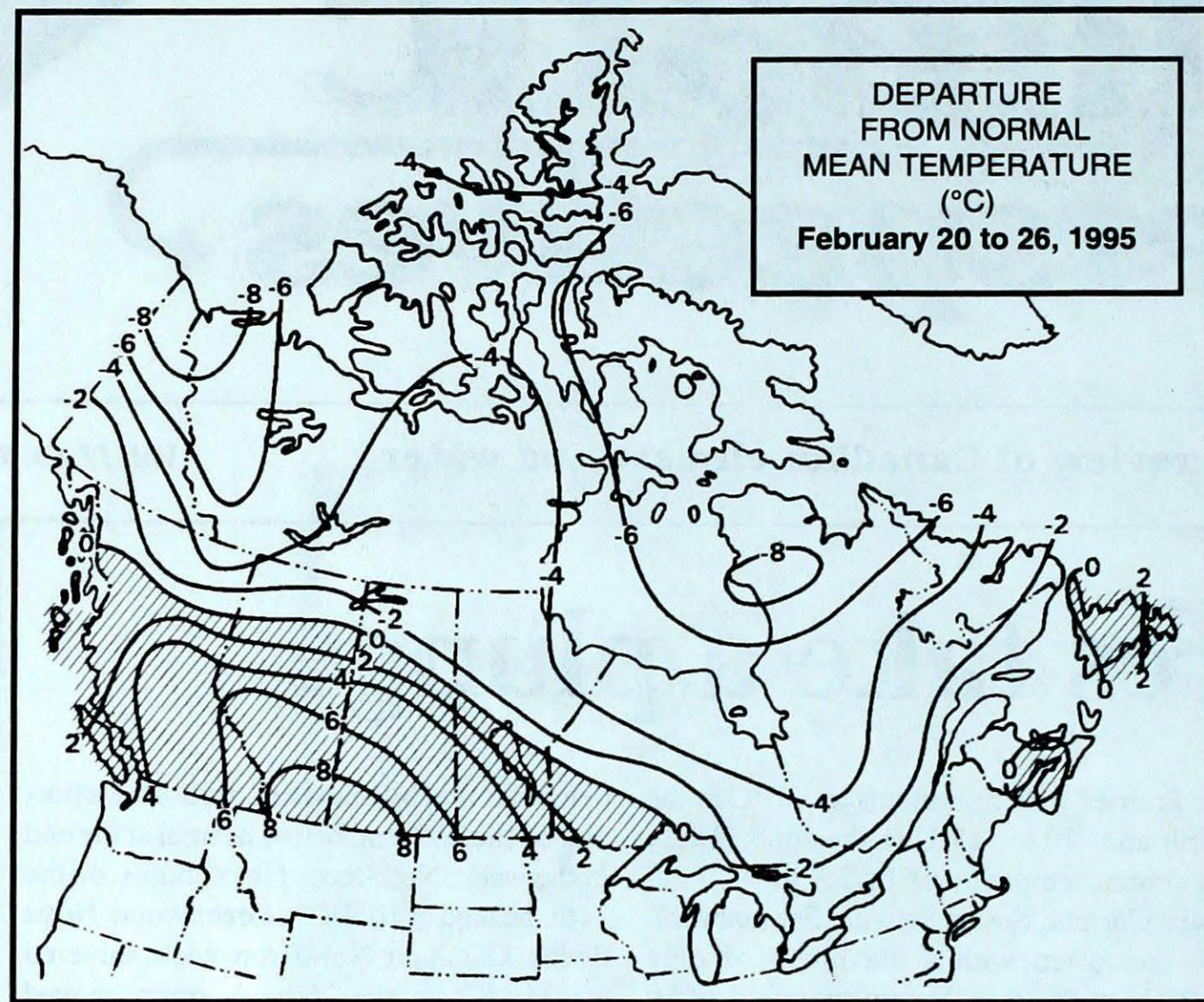
Temperatures fluctuated in the Maritimes: above normal at the beginning of the week,

below normal by midweek, well-above normal on the 24th and below normal at the end of the week. Near-record maximums, on the 24th, peaked at  $10.9^{\circ}\text{C}$  at Greenwood, Nova Scotia. Chatham, New Brunswick, shivered at  $-34.4^{\circ}\text{C}$  on the 26th. A storm moved through the Maritimes on the 24th and snow quickly changed to rain. Nova Scotia received most of the moisture. Truro, Nova Scotia, recorded 63.9 mm of precipitation for the week whereas St. Stephen, New Brunswick, recorded only 8.4 mm.

A low pressure system gave 32.4 cm of snow to Port aux Basques, Newfoundland, on the 21st and 15-20 cm to central and eastern areas of the Island. Another low, February 24-25, gave snow and then rain as temperatures rose well above normal in most areas. Labrador had a mixture of clear and cold weather along with periods of snow, freezing rain and rain in southern regions.

### A Look Ahead...

For the week of March 6, below-normal temperatures are forecast across the Northwest Territories, Prairies, northwestern Ontario, and northern Quebec. Above-normal values are likely for the Yukon, British Columbia, southern Ontario and Quebec, and the Atlantic Provinces. Elsewhere, temperatures will be near normal. Significant precipitation is possible for southern B.C., the southern half of Ontario and Quebec, and the Atlantic Provinces.



### Weekly normal temperatures (°C)

	max.	min.
Whitehorse A	-5.6	-15.8
Iqaluit A	-21.9	-30.6
Yellowknife A	-17.8	-28.1
Vancouver Int'l A	8.3	1.3
Victoria Int'l A	8.5	1.1
Calgary Int'l A	-0.6	-12.3
Edmonton Int'l A	-3.6	-16.0
Regina A	-6.4	-17.6
Saskatoon A	-7.4	-18.5
Winnipeg Int'l A	-8.0	-19.3
Ottawa Int'l A	-3.2	-12.0
Toronto Int'l A	0.1	-8.8
Montréal Int'l A	-2.9	-11.5
Québec A	-4.4	-13.7
Fredericton A	-1.4	-12.8
Saint John A	-1.1	-11.7
Halifax (Shearwater)	0.5	-7.4
Charlottetown A	-2.5	-10.8
Goose A	-9.0	-19.7
St John's A	-1.1	-8.3

### Weekly temperature and precipitation extremes

	Maximum temperature (°C)	Minimum temperature (°C)	Greatest precipitation (mm)
British Columbia	Abbotsford A 16	Fort Nelson A -29	Port Alberni A 50
Yukon Territory	Haines Junction 4	Old Crow -42	Watson Lake A 4
Northwest Territories	Fort Smith A -14	Eureka -47	Hay River A 18
Alberta	Lethbridge A 19	Fort Chipewyan A -31	High Level A 14
Saskatchewan	Eastend Cypress (aut) 14	Uranium City A -32	Prince Albert A 11
Manitoba	Portage La Prairie A 7	Gillam A -40	Gillam A 15
Ontario	Windsor A 11	Nagagami (aut) -39	Geraldton A 19
Quebec	Gaspé A 6	Schefferville A -45	Border (aut) 43
New Brunswick	Moncton A 7	St Leonard A -23	St Leonard A 23
Nova Scotia	Greenwood A 11	Truro -18	Truro 64
Prince Edward Island	Charlottetown A 7	Charlottetown A -16	Charlottetown A 24
Newfoundland and Labrador	Argentia A 9	Churchill Falls A -38	St John's A 59

#### Across The Country...

Highest Mean Temperature	Abbotsford A (B.C.)	7
	Lytton (B.C.)	7
Lowest Mean Temperature	Shepherd Bay A (N.W.T.)	-42

95/02/20-95/02/26

CLIMATIC PERSPECTIVES  
VOLUME 17

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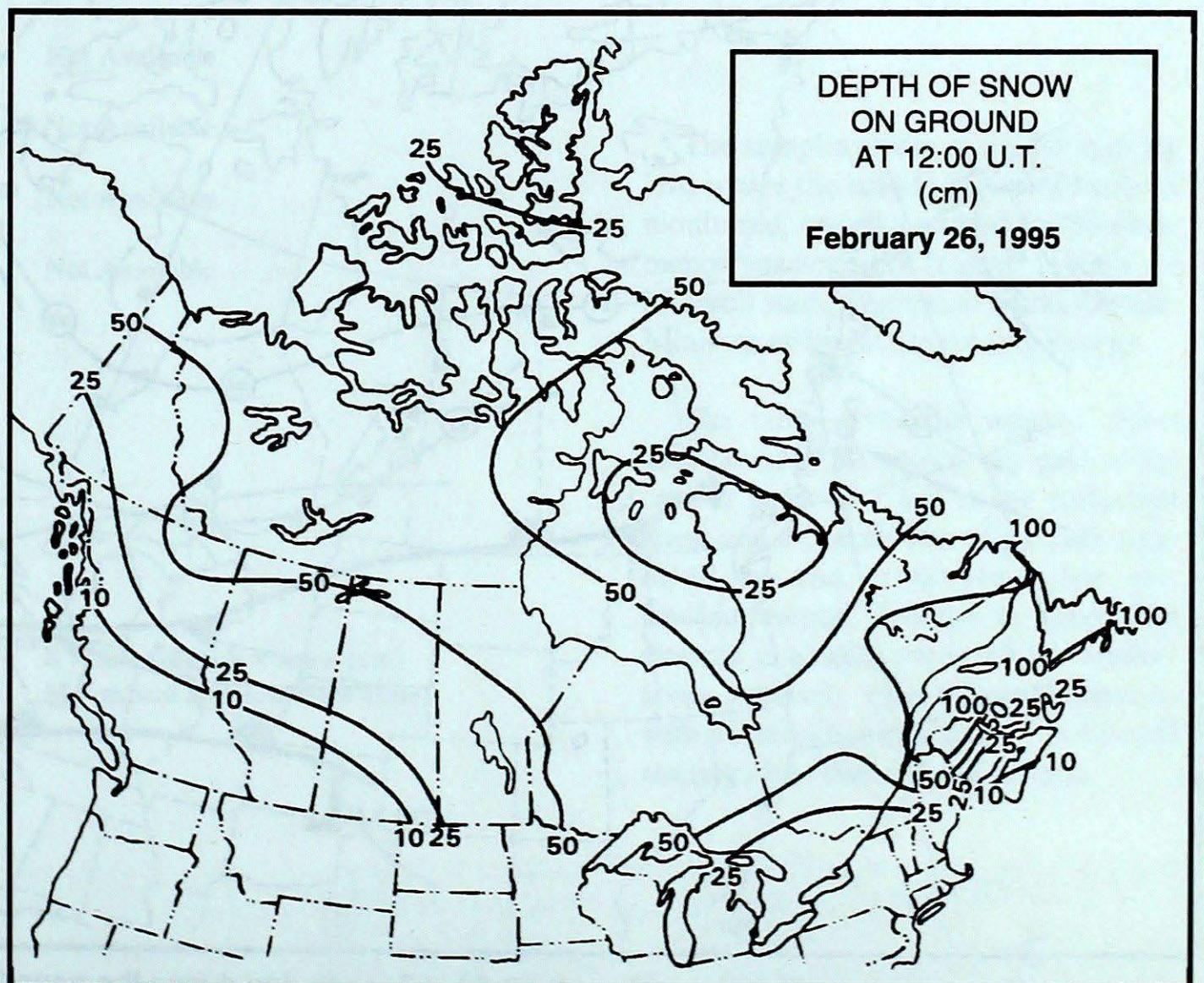
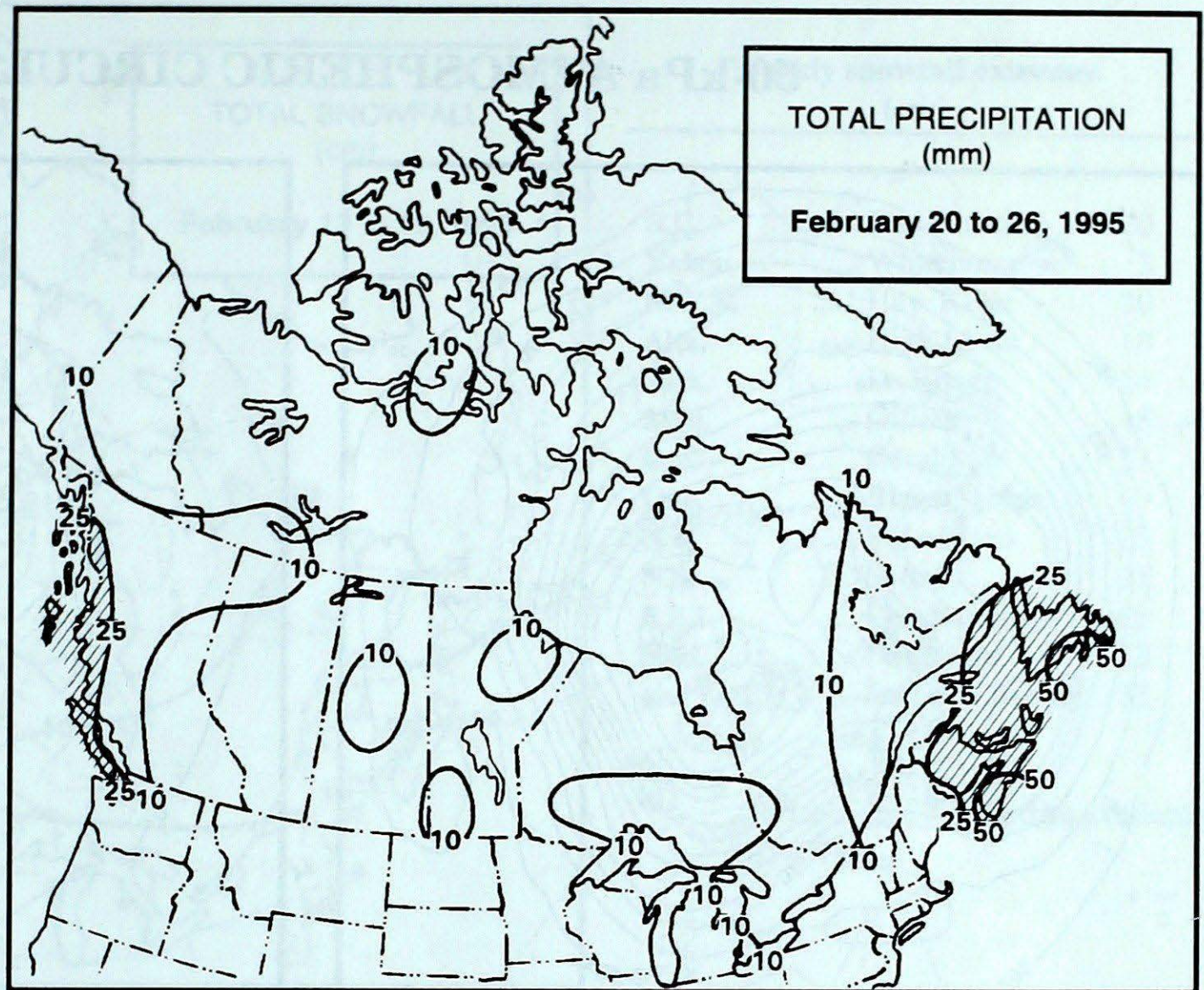
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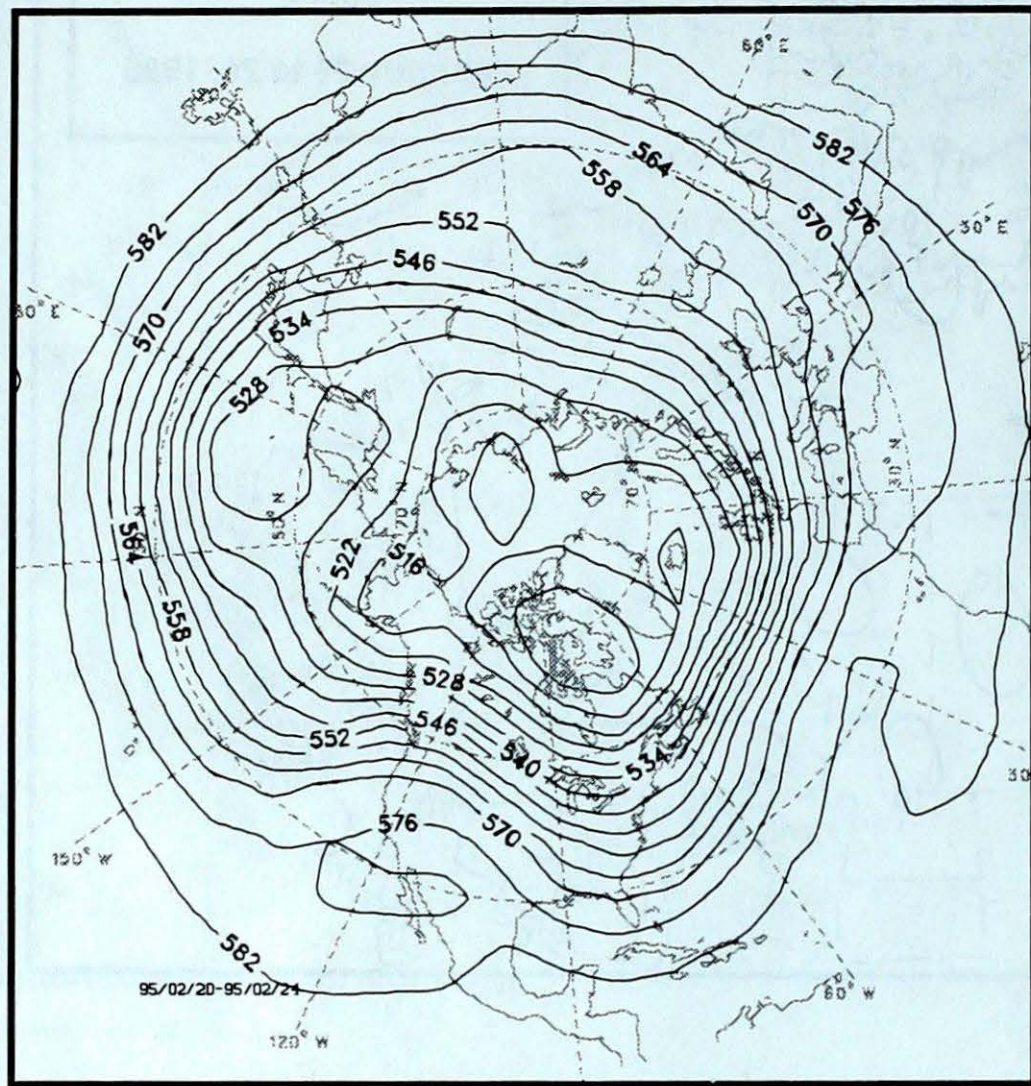
FTP (anon.): 199.212.19.42/climate

The purpose of the publication is to make topical information available to the public concerning the Canadian climate and its socio-economic impact.

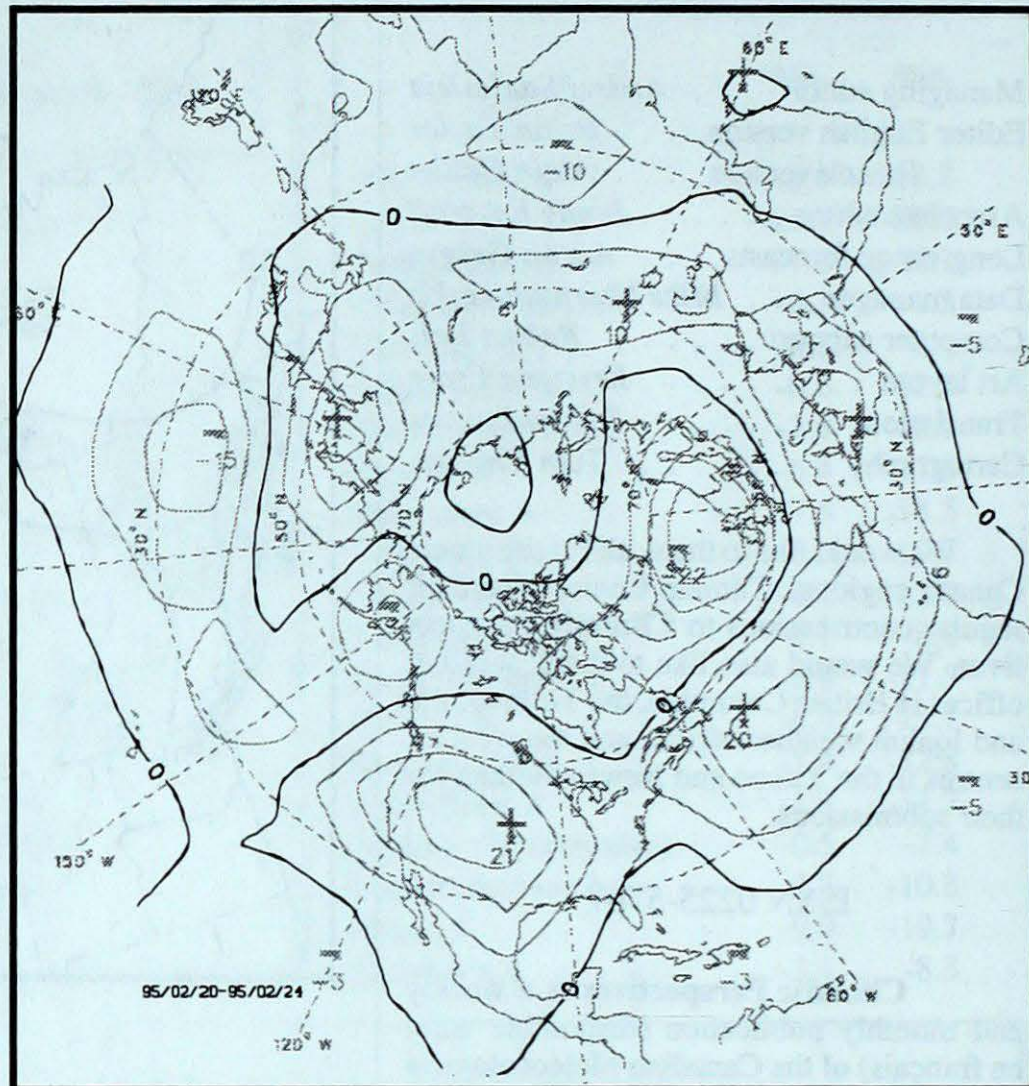
The data in this publication are based on unverified reports from approximately 225 Canadian synoptic weather stations. Information concerning climatic impacts is gathered from AES contacts with the public and from the media. Articles do not necessarily reflect the views of Atmospheric Environment Service.



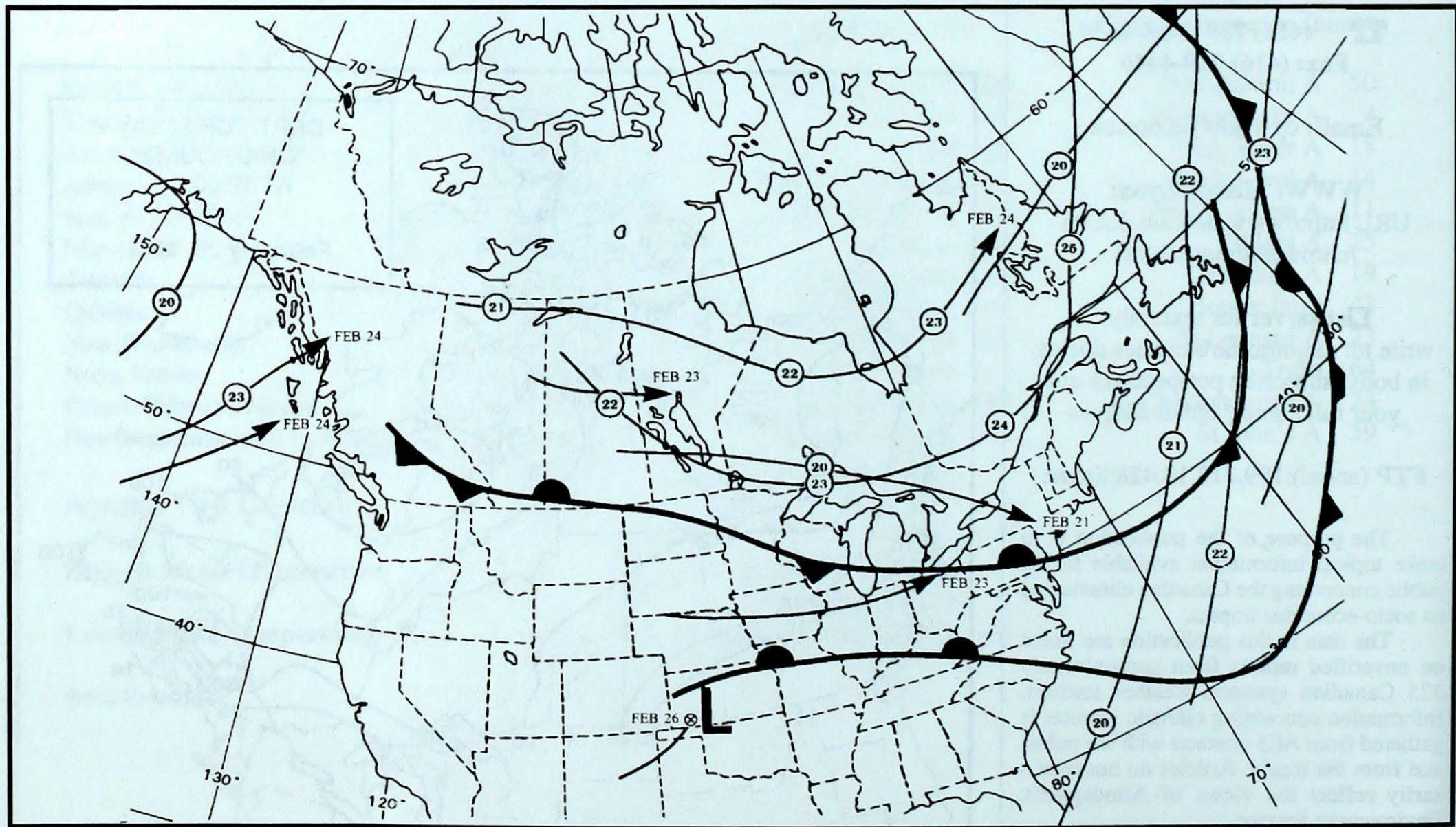
# 50-kPa ATMOSPHERIC CIRCULATION



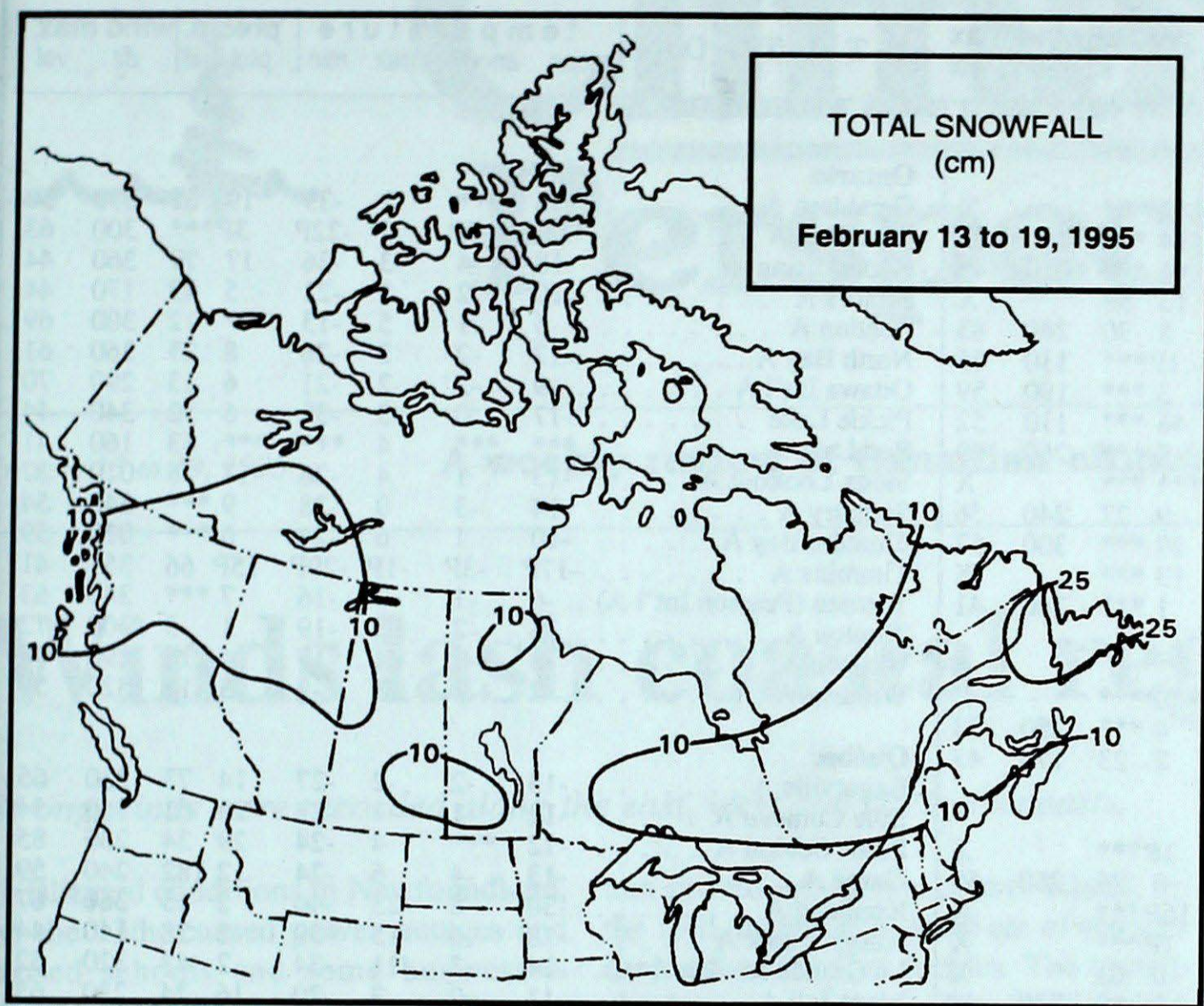
Mean geopotential height  
50-kPa level (6-decametre intervals)



Mean geopotential height anomaly  
50-kPa level (6-decametre intervals)



Tracks of low pressure centres at 12:00 U.T. each day during the period. Fronts depicted on last day.



**Weekly snowfall extremes  
(cm)**

B.C.	..... Fort Nelson	20
Yukon	..... Whitehorse	3
N.W.T.	..... Hay River	20
Alta.	..... High Level	18
Sask.	..... La Ronge	14
Man.	..... Gillam	18
Ont.	..... Geraldton	21
Que.	..... Blanc Sablon	29
N.B.	..... St Leonard	23
N.S.	..... Sydney	31
P.E.I.	..... Charlottetown	22
Nfld.	..... Bonavista	33
and Lab.	..... Port aux Basques	33

P=Less than 7 days data available  
Tr=Trace

**ACID RAIN REPORT**

Site	Day	pH	Amount	Air Path To Site	February 19 to 25, 1995
Egbert, Ont.				Not Available	
Dorset*, Ont.				Not Available	
Sutton, Qué.				Not Available	
Kejimkujik, N.S.				Not Available	

The sampling sites in the table to the left, where the acidity of precipitation is monitored, are all operated by Environment Canada except Dorset\*, which is a research station operated by the Ontario Ministry of Environment and Energy.

The table gives the weekly report summarizing the acidity (or pH) of the rain or snow that fell at the collection sites, and a description of the path travelled by the moisture-laden air. Environmental damage to lakes and streams is usually observed in sensitive areas regularly receiving precipitation with pH readings less than 4.7, while pH readings less than 4.0 are serious.

R = rain (mm) S = snow (cm)  
M = mixed rain and snow (mm)

STATION	temperature				precip.		wind max		STATION	temperature				precip.		wind max	
	mean	anom	max	min	ptot	st	dir	vel		mean	anom	max	min	ptot	st	dir	vel
<b>British Columbia</b>									<b>Ontario</b>								
Blue River A	1P	4P	11P	-14P	0P***			X	Geraldton A	-18	***	-1	-39	19	62	350	50
Comox A	7	2	15	1	14	***	130	63	Gore Bay A	-13P	-5P	1P	-22P	3P***	300	63	
Cranbrook A	5	7	14	-4	1	***	010	46	Kapuskasing A	-18	-4	-3	-36	17	79	360	44
Fort Nelson A	-20	-6	-9	-29	13	58		X	Kenora A	-10	2	5	-21	5	49	170	44
Fort St John A	-8	1	8	-21	8	30	240	83	London A	-5	-1	5	-13	***	12	300	69
Kamloops A	5P	5P	15P	-5P	1P***		110	65	North Bay A	-12	-2	2	-26	8	23	360	61
Penticton A	6	4	15	-3	3	***	190	59	Ottawa Int'l A	-9	-2	2	-21	6	13	290	70
Port Hardy A	6	2	13	-2	46	***	110	52	Pickle Lake	-17	0	-3	-33	6	52	340	44
Prince George A	0	5	12	-13	8	***	260	69	Red Lake A	***	***	4	***	***	63	160	41
Prince Rupert A	***	***	***	***	***	***		X	Sioux Lookout A	-13	1	4	-26	17	75	010	37
Smithers A	-1	3	8	-14	9	27	240	56	Sudbury A	-14	-3	0	-28	9	***	340	54
Vancouver Int'l A	7	2	14	2	29	***	300	57	Thunder Bay A	-10	1	6	-24	6	***	020	59
Victoria Int'l A	7	2	13	-2	13	***		X	Timmins A	-17P	-3P	-1P	-29P	15P	66	351	41
Williams Lake A	2	4	12	-11	1	***	240	41	Toronto (Pearson Int'l A)	-6	-1	2	-16	7	***	340	63
<b>Yukon Territory</b>									Trenton A	-6	-2	3	-19	1	3	300	72
Teslin (aut)	-16P	***P	-3P	-31P	0P***			X	Warton A	-8	-2	4	-17	4	16	290	48
Watson Lake A	-20	-3	-2	-37	4	***	250	33	Windsor A	-2	1	11	-9	13	14	320	59
Whitehorse A	-12	-2	0	-29	2	23	170	43	<b>Québec</b>								
<b>Northwest Territories</b>									Bagotville A	-13	-2	-2	-27	14	73	280	65
Alert	-36P	-2P	-31P	-41P	1P***			X	Baie Comeau A	-12	-1	-4	-23	20	61	260	54
Baker Lake A	-35	-3	-30	-40	0	26	260	59	Blanc Sablon A	-12	***	4	-24	29	34	230	85
Cambridge Bay A	-36P	-2P	0P	-41P	16P***			X	Gaspé A	-13	-4	6	-24	12	182	240	59
Clyde A	-31P	-3P	-27P	-37P	1P***			X	Kuujuuaq A	-30	-8	-23	-40	2	15	360	67
Coppermine A	-35	-6	-26	-43	0	61		X	Kuujuuarapik A	-28	-6	-15	-39	2	28	140	44
Coral Harbour A	-36	-7	-28	-41	0	10	330	48	La Grande Rivière A	-24	-3	-11	-34	2	47	320	32
Eureka	-42	-3	-30	-47	0	11		X	Mont Joli A	-11	-2	-3	-20	16	74	230	65
Fort Smith A	-21P	-2P	-14P	-30P	7P	53		X	Montréal Int'l A	-9	-1	2	-24	10	***	260	63
Hall Beach A	-38	-6	-30	-43	0	38	300	43	Natashquan A	-12	-1	4	-23	22	111	250	69
Inuvik A	-35	-9	-27	-44	2	57		X	Québec A	-11	-2	0	-26	13	84	270	67
Iqaluit A	-34	-8	-25	-39	0	24	330	46	Schefferville A	-26P	-5P	-10P	-45P	6P***	340	63	
Mould Bay A	-36P	-1P	-31P	-42P	0P***			X	Sept-Îles A	-14	-2	-4	-23	19	68	080	46
Norman Wells A	-30	-6	-21	-40	5	35		X	Sherbrooke A	-8P	2P	4P	-26P	1P***	028	6	
Resolute A	-38	-4	-30	-43	1	50	340	35	Val-d'Or A	-17	-4	0	-35	9	32	330	50
Yellowknife A	-25	-2	-18	-35	4	***	050	50	<b>New Brunswick</b>								
<b>Alberta</b>									Fredericton A	-7	0	6	-18	16	32	040	59
Calgary Int'l A	0	7	18	-18	1	***	270	98	Miscou Island (aut)	-10P	1P	3P	-18P	9P***			X
Cold Lake A	-7	5	8	-23	11	32	290	61	Moncton A	-5	1	7	-17	21	20	210	83
Edmonton Namao A	***	***	8	***	***	19		X	Saint John A	-6	0	7	-17	21	6	210	65
Fort McMurray A	-11	2	7	-27	7	30	290	57	St Leonard A	-11	***	1	-23	23	137	260	44
Grande Prairie A	-7	4	6	-24	8	34	250	56	<b>Nova Scotia</b>								
High Level A	-18	-2	-4	-26	14	46		X	Greenwood A	-4	0	11	-16	18	3	240	74
Lethbridge A	6P	11P	19P	-10P	0P***		250	87	Shearwater A	-4	0	8	-13	55	3	210	59
Medicine Hat A	3	10	19	-17	5	6	340	56	Sydney A	***	***	7	***	***	20	070	63
Peace River A	-11P	0P	4P	-27P	3P	31	190	46	Yarmouth A	-3	0	8	-11	28	3	270	67
<b>Saskatchewan</b>									<b>Prince Edward Island</b>								
Estevan A	-4	7	5	-16	3	6	120	70	Charlottetown A	-7	-1	7	-16	24	17	030	83
La Ronge A	-12	2	9	-27	10	41	270	43	East Point (auto)	-7P	***P	3P	-15P	***P***			X
Regina A	-5	7	5	-20	1	5	120	82	<b>Newfoundland and Labrador</b>								
Saskatoon A	-7	6	6	-25	7	***	290	56	Cartwright	-15	-2	5	-25	16	163	210	83
Swift Current A	-1	9	9	-19	1	***	260	56	Churchill Falls A	-27P	-7P	-13P	-38P	5P***	300	69	
Yorkton A	-9	5	5	-24	9	51	280	56	Gander Int'l A	-6	1	8	-17	27	112	160	93
<b>Manitoba</b>									Goose A	-18	-4	0	-29	15	21	270	65
Brandon A	-9	5	4	-21	11	33	300	54	Stephenville A	-7P	-1P	7P	-18P	42P108	070	74	
Churchill A	-29	-4	-20	-35	1	***	100	52	St John's A	-2	3	8	-13	59	***	190	76
Lynn Lake A	-21	-3	-7	-34	7	33	140	35	St Lawrence	-2	3	9	-11	50	48		X
The Pas A	-13	3	7	-25	5	33	180	59	Wabush Lake A	-22	-1	-8	-35	12	102	010	37
Thompson A	-21	-3	-7	-40	5	50		X	95/02/20-95/02/26								
Winnipeg Int'l A	-10	4	4	-18	0	22	170	57									

**mean** = mean weekly temperature, °C  
**max** = maximum weekly temperature, °C  
**min** = minimum weekly temperature, °C  
**anom** = mean temperature anomaly, °C  
**ptot** = weekly precipitation total in mm  
**st** = snow thickness on the ground in cm  
**dir** = direction of max wind, deg. from north  
**vel** = wind speed in km/h  
**Annotations**  
**X** = no observation  
**P** = less than 7 days of data  
**\*** = missing data when going to printing.