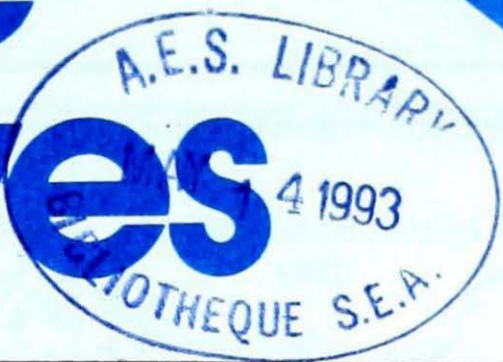


Climatic Perspectives



May 3 to 9, 1993

A weekly review of Canadian climate and water

Vol. 15 No. 19

Summer-like weather arrives

What a change! In just a couple of weeks the weather across central Canada switched from cold and snowy to warm and sunny. Along with this change, was the inevitable arrival of some severe weather and the forest fire season

Residents of Ontario and southern Quebec enjoyed mainly sunny skies and record warm temperatures, especially during the latter half of the week. This was due to a nearly stationary ridge of high pressure over the Great Lakes Basin. On the afternoon of May 9, readings in northeastern Ontario topped 30°C, setting new daily records.

In Quebec, on May 6, hail of one to two centimeter in diameter was reported in few localities, from Hull to Montreal.

The Mother's Day weekend saw the final traces of snow cover vanish from most areas. The combination of sunny and dry weather and the past winter's below normal snow cover resulted in an early start to the fire season. Ontario reported 39 new forest fires and Quebec 18 by the end of the week. The most significant of these was near Red Lake, which grew quickly to 116 hectares, before being subdued by four water bombers. The lack of nearby water resulted in over eleven kilometres of hoseline being used in the operation.

A brisk southwesterly circulation across the Prairies caused temperatures to rise to the mid-to-upper twenties this

week, but the weather became unsettled. In southern Saskatchewan and Manitoba, thunderstorms developed by the end of the week and produced heavy downpours and some hail. Heavy rainfall advisories were issued for north-central Alberta, as well as for some areas along the Alberta-Saskatchewan border.

Warm, moist air moved into the southern Mackenzie Valley, producing record amounts of precipitation. Yellowknife received a total of 40 mm on weekend.

Not so summer-like elsewhere...

Blizzard conditions along the Arctic coast and the District of Keewatin were followed by widespread freezing rain. Also, in the western Arctic islands, Mould Bay received 32 cm of snow in two days - an unusual event at any time of the year.

The weather across British Columbia could be summed up as unsettled, with the dull weather pattern of the past few weeks continuing.

With the exception of cloud and showers during the middle of the week, the Maritimes were generally sunny. Temperatures were on the mild side but overnight lows dipped below the freezing mark. Ice in the Northumberland Strait delayed the opening of the lobster season in northern Nova Scotia.

It was a cool week in Newfoundland, with brisk northerly winds, snow flurries and a number of daily low temperature records broken. In Labrador, the weather

was still winter-like as strong northerly winds, snow and blowing snow gave blizzard conditions to the northern coastal areas over the weekend.

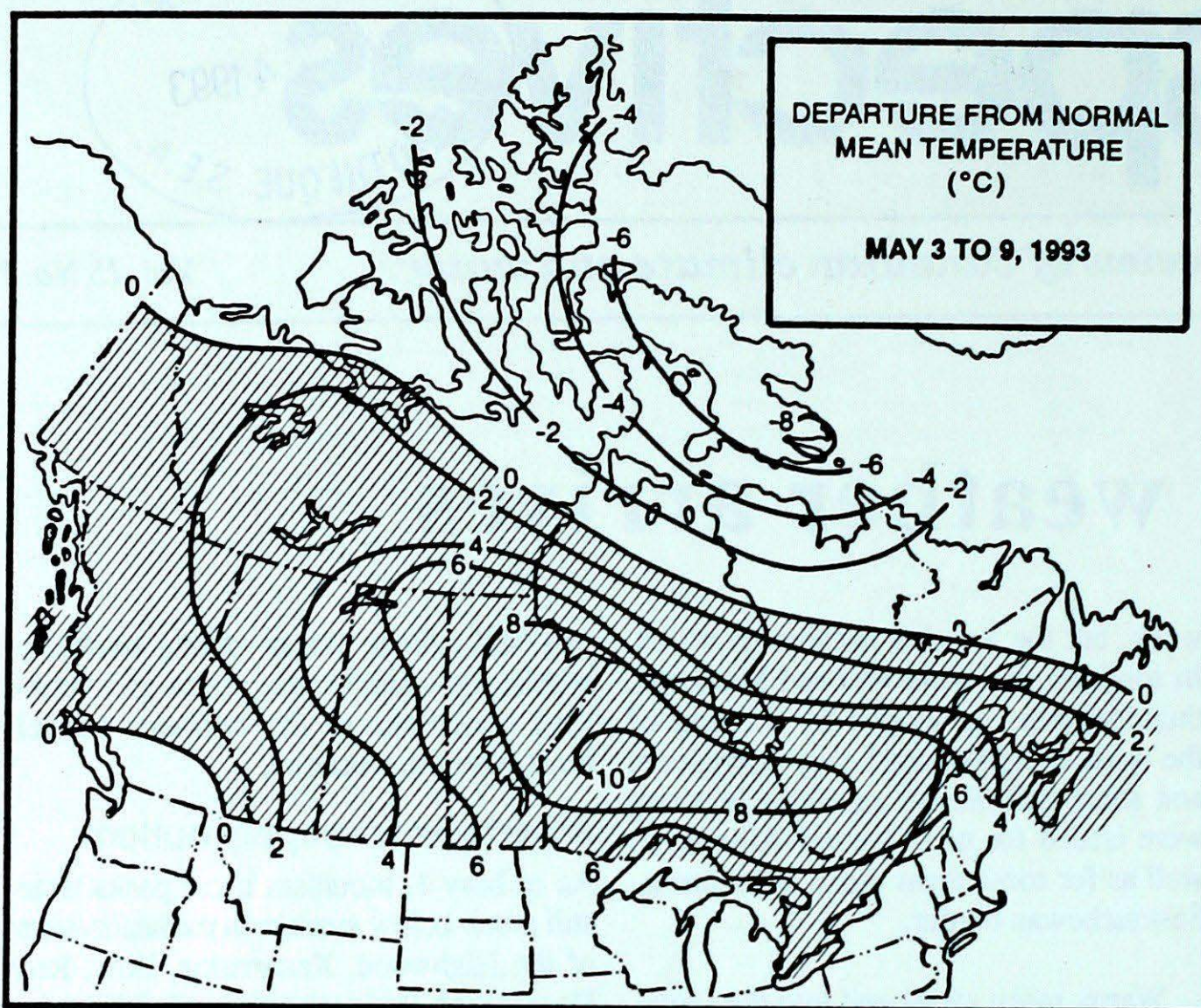
Alberta water supply outlook

As of May 1, mountain snow packs were still much-below average in the headwaters of the Highwood, Kananaskis, Bow, Red Deer, North Saskatchewan and Athabasca River basins and below average in the Oldman and Waterton/St. Mary River basins. Record-low mountain snow packs were measured at many snow survey locations from the headwaters in the northern portion of the Bow River Basin, north to the Athabasca River headwaters.

This year's spring has been rather cool, with no extended periods of warm weather to cause much snow melt in the mountains. However, because of the much below-average snowpack at higher elevations, the peak mountain snow melt is expected to take place earlier than normal this year. Consequently, river levels are expected to recede sooner than usual and streamflow volumes are expected to be much below average during the summer.

A Look Ahead...

For the week of May 24, above-normal temperatures are expected for most of the country, except near-normal values are likely for Ontario, the southern half of Quebec and the Atlantic region. Unsettled weather will occur east of Manitoba.



Weekly normal temperatures (°C)

	max.	min.
Whitehorse A	10.6	-1.0
Iqaluit A	-1.1	-8.5
Yellowknife A	6.9	-3.2
Vancouver Int'l A	15.6	6.9
Victoria Int'l A	15.7	5.8
Calgary Int'l A	14.1	1.2
Edmonton Int'l A	14.9	1.4
Regina A	15.4	1.6
Saskatoon A	15.9	2.2
Winnipeg Int'l A	15.2	2.0
Ottawa Int'l A	16.1	4.5
Toronto (Pearson Int'l A)	15.8	3.9
Montréal Int'l A	16.1	5.0
Québec A	14.0	2.4
Fredericton A	14.0	2.2
Saint John A	12.1	1.8
Halifax (Shearwater)	11.4	2.7
Charlottetown A	10.4	1.6
Goose A	7.4	-1.5
St John's A	7.4	-0.3

Weekly temperature and precipitation extremes

	Maximum temperature (°C)	Minimum temperature (°C)	Heaviest precipitation (mm)
British Columbia	Cranbrook A 25	Puntzi Mountain (aut) -7	Prince Rupert A 61
Yukon Territory	Watson Lake A 16	Komakuk Beach A -20	Teslin (aut) 9
Northwest Territories	Fort Smith A 29	Alert -30	Fort Smith A 42
Alberta	Fort McMurray A 29	Banff (aut) -5	Lac La Biche (aut) 50
Saskatchewan	Nipawin A 29	Buffalo Narrows A -3	North Battleford A 24
		Cree Lake -3	
Manitoba	Thompson A 30	Churchill A -2	Portage 87
Ontario	Kapuskasing A 31	Armstrong (aut) -3	Timmins A 38
Quebec	Val-d'Or 28	Border (aut) -15	Chibougamau Chapais a 43
		Inukjuak A -15	
		Kuujuuaq A -15	
New Brunswick	St-Léonard A 25	Miscou Island (aut) -6	St-Léonard A 14
Nova Scotia	Greenwood A 23	Truro -3	Shearwater A 17
Prince Edward Island	Charlottetown A 22	Charlottetown A -4	Charlottetown A 2
Newfoundland	Comfort Cove 19	Churchill Falls A -13	Stephenville A 40

Across The Country...

Highest Mean Temperature	Windsor A (Ont.) 17
Lowest Mean Temperature	Eureka (N.W.T.) -22

CLIMATIC PERSPECTIVES
VOLUME 15

Managing editor *A.Saulesleja*
Editor English version *Andrew Radomski*
French version . . . *Alain Caillet*
Long-range forecasts *Aaron Gergy*
Data manager *M. Skarpathiotakis*
Computer support *Robert Eals*
Art layout *K. Czaja*
Translation *D. Pokorn*
Cartography *T. Chivers*

ISBN 0225-5707 UDC 551.506.1(71)

Climatic Perspectives is a weekly publication (disponible aussi en français) of the Canadian Climate Centre, Atmospheric Environment Service, 4905 Dufferin St., Downsview, Ontario, Canada M3H 5T4

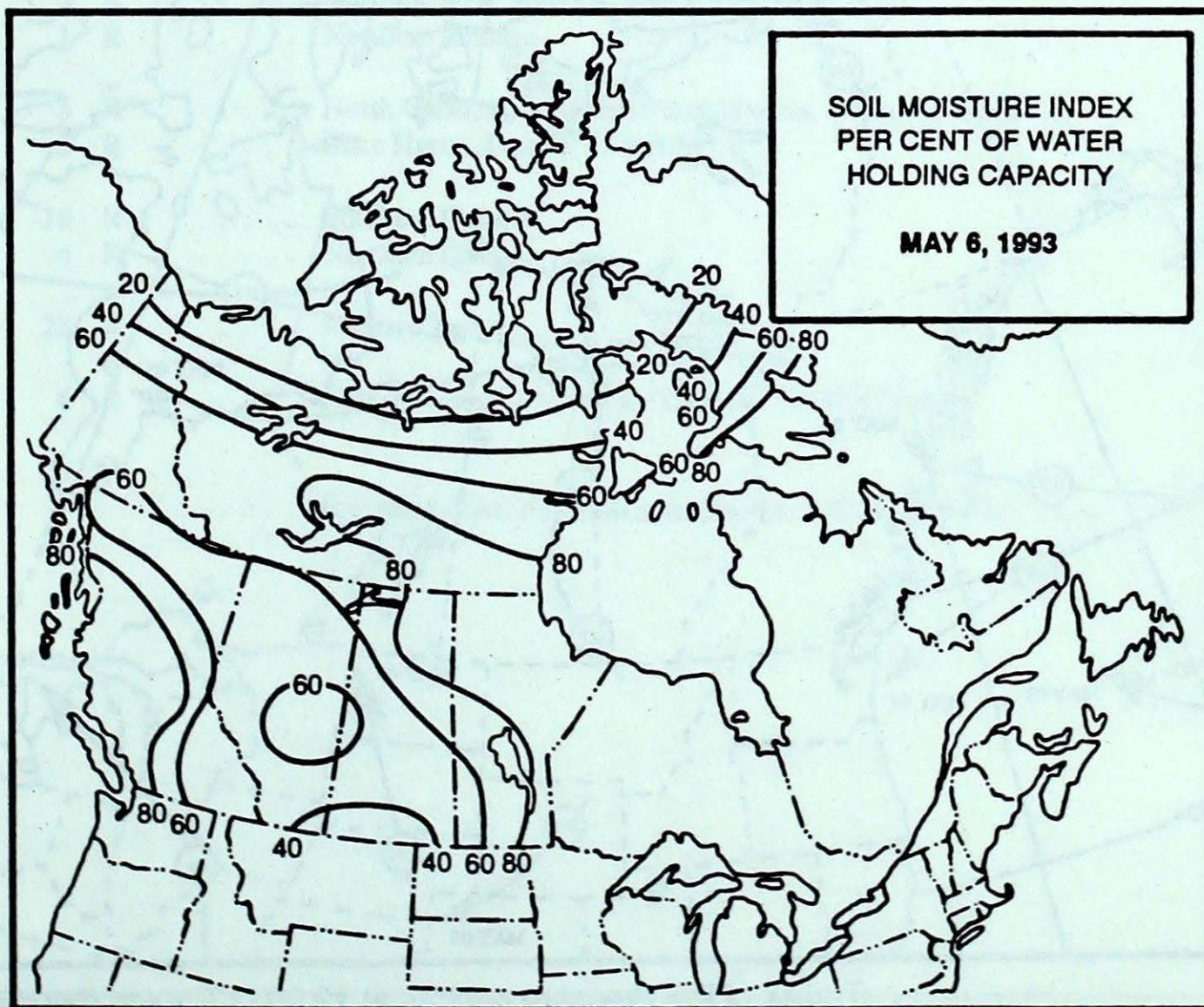
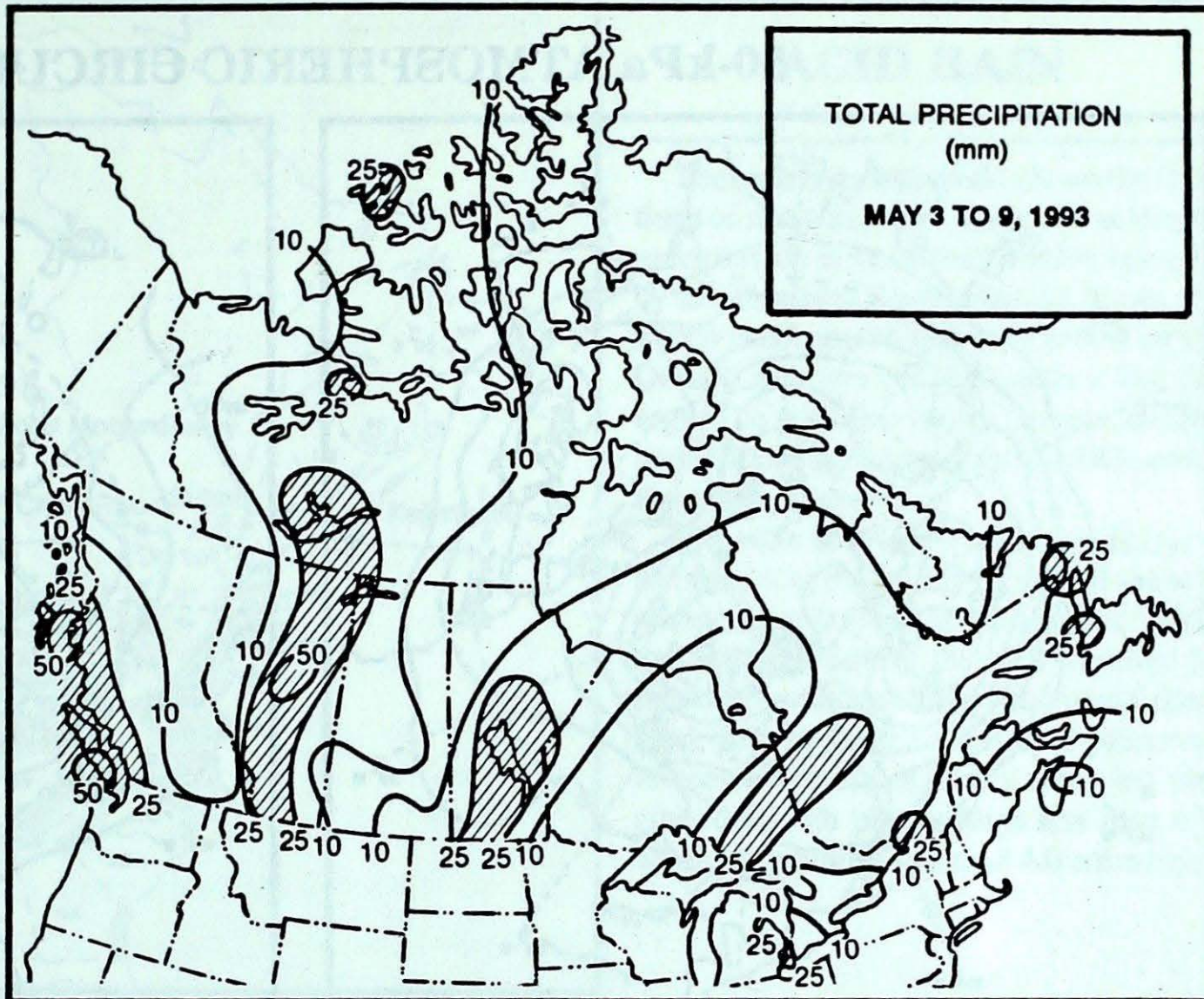
☎ (416) 739-4438/4330
InterNet (Email):
CCCOPS@aestor.dots.doe.CA
Fax: (416) 739-4446

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

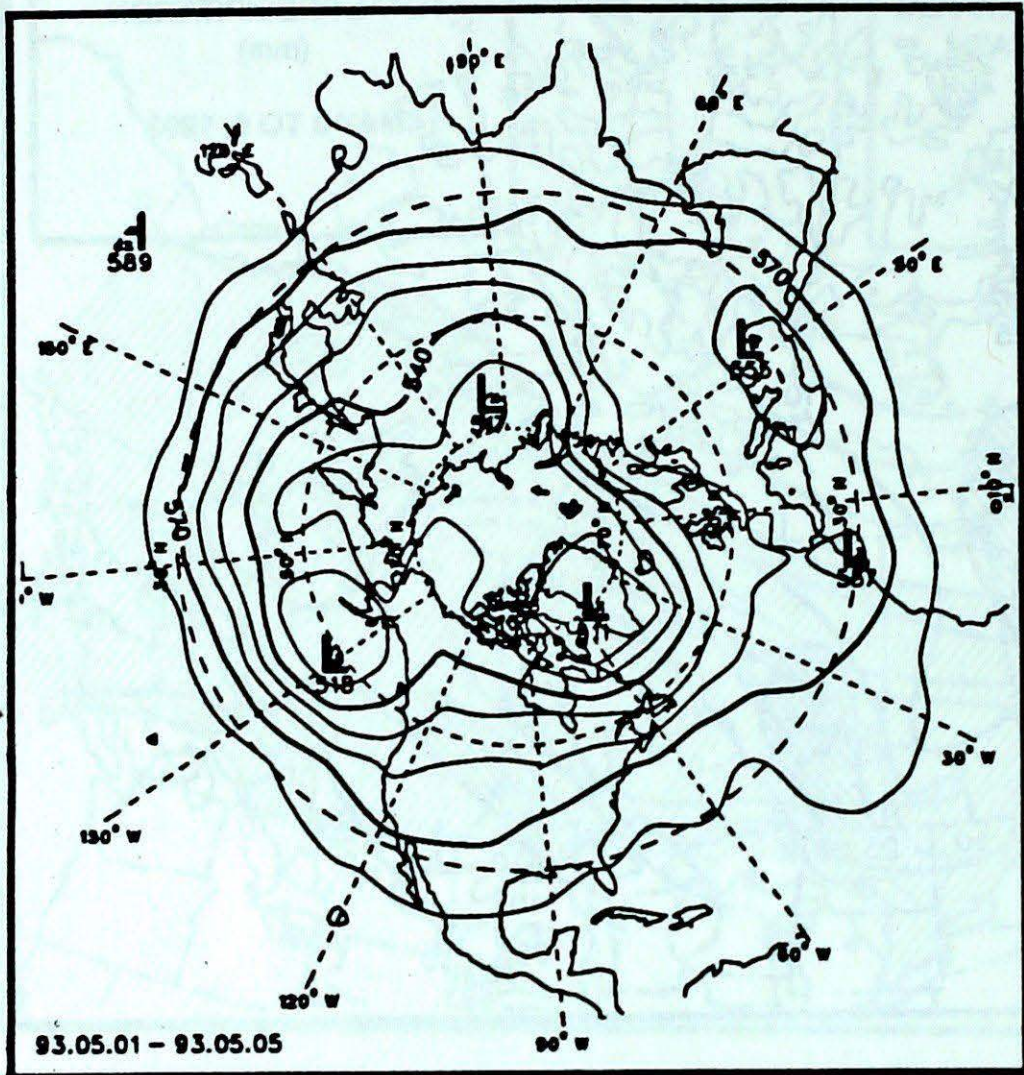
The data in this publication are based on unverified reports from approximately 225 Canadian synoptic weather stations. Information concerning climatic impacts is gathered from AES contacts with the public and from the media. Articles do not necessarily reflect the views of the Atmospheric Environment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

Annual Subscriptions
and changes:

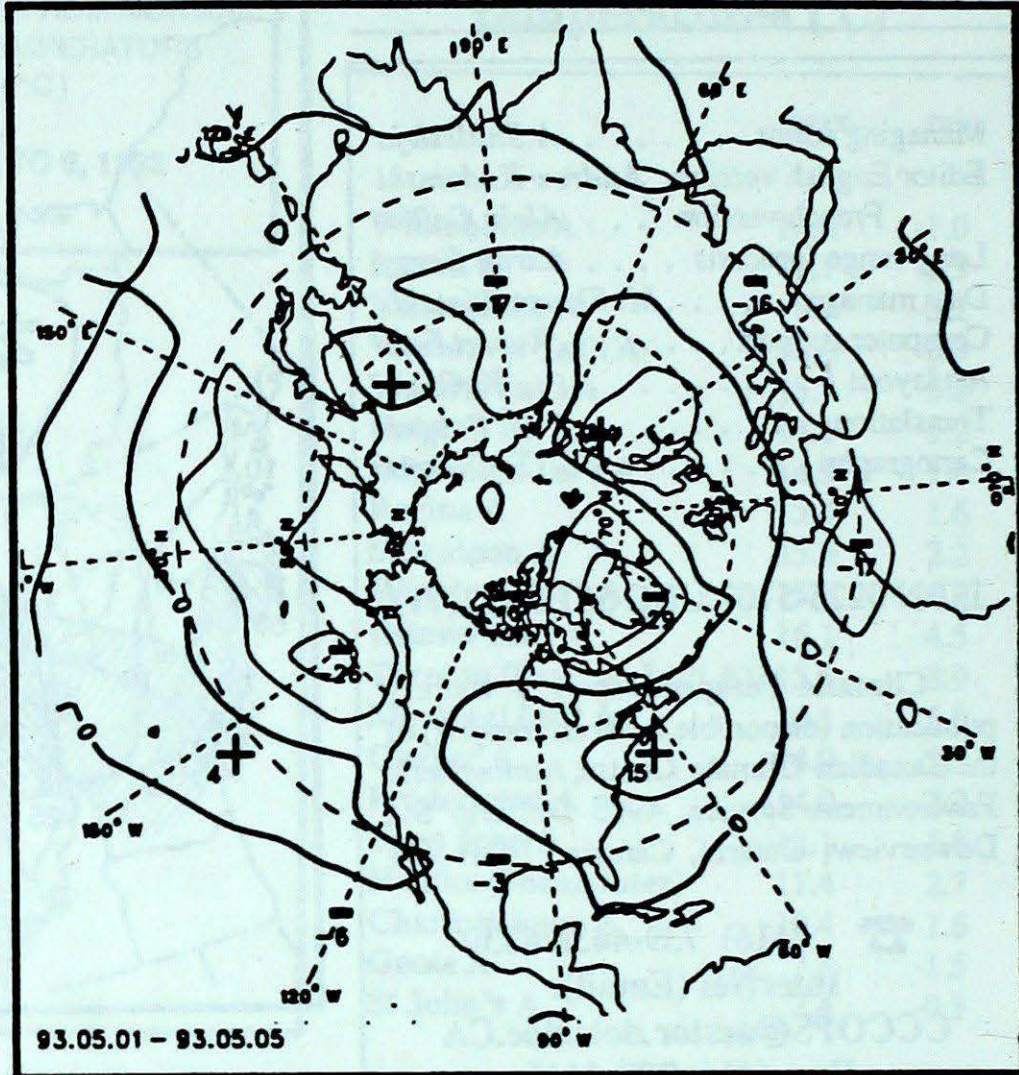
Albert Wright (416) 739-4156
Fax: (416) 739-4264



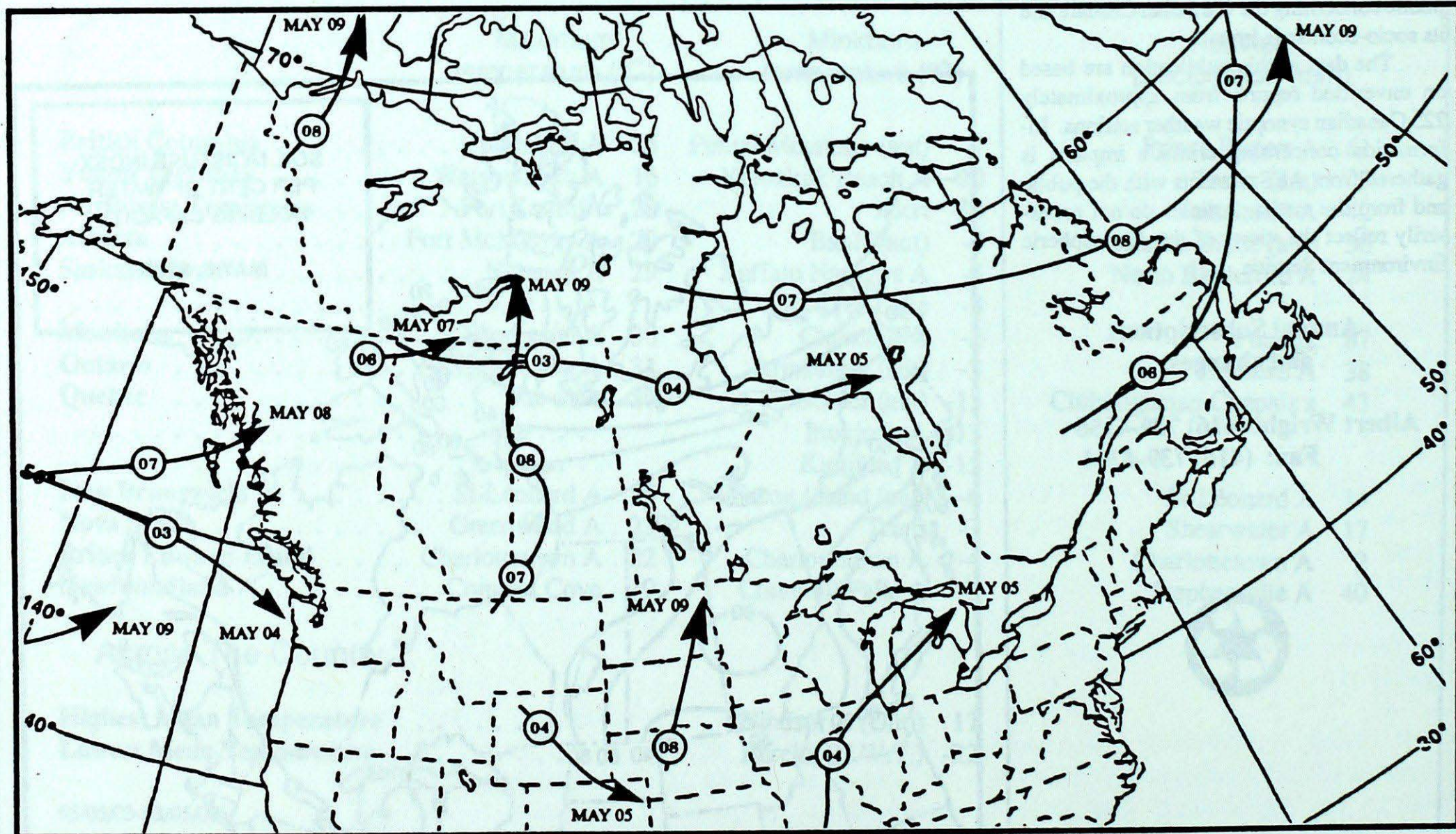
50-kPa ATMOSPHERIC CIRCULATION



Mean geopotential height
50-kPa level (10 decametre intervals)



Mean geopotential height anomaly
50-kPa level (10 decametre intervals)

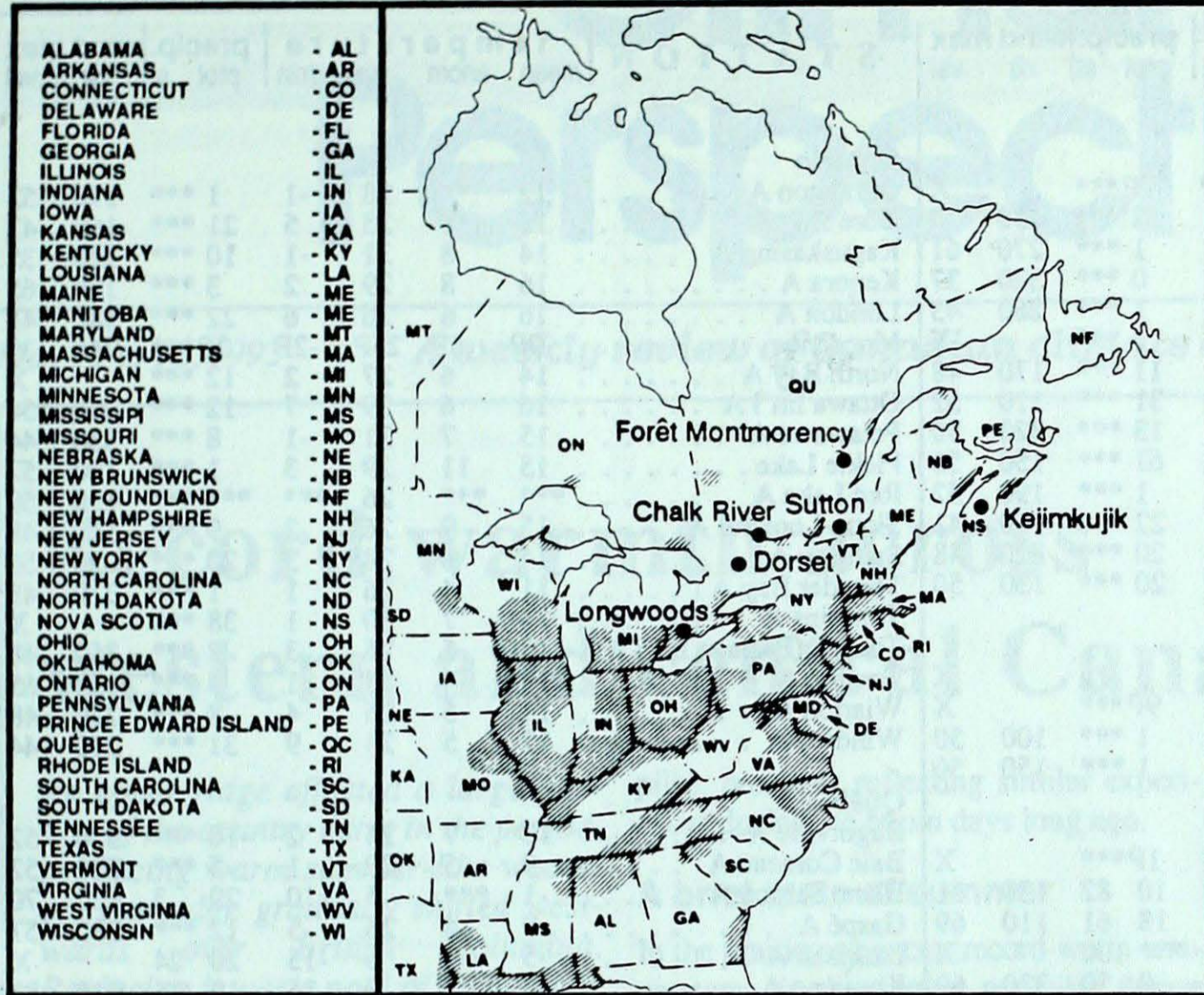


Tracks of low pressure centres at 12:00 U.T. each day during the period.

ACID RAIN

The reference map (left) shows the locations of sampling sites, where the acidity of precipitation is monitored. All are operated by Environment Canada except Dorset (*), which is a research station operated by the Ontario Ministry of Environment and Energy. The map also shows the approximate areas (shaded), where SO₂ and NO_x emissions are greatest.

The table below gives the weekly report summarizing the acidity (or pH) of the acid 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.



SITE	day	pH	amount	AIR PATH TO SITE
------	-----	----	--------	------------------

May 2 to 8, 1993

Longwoods			 Data not available this week
Dorset *	04	4.1	3 R Virginia, west Virginia, western Pennsylvania
	06	4.0	1 R Northern Ontario
Chalk River	04	4.1	5 R North Carolina, Virginia, Pennsylvania, Western New York
	05	4.2	5 R Lake Huron, Central Ontario
Sutton	05	4.5	16 R Southern Ontario
	06	4.8	4 R Northern Quebec
Montmorency	05	4.6	28 R Western Quebec
Kejimikujik	06	4.2	6 R New Jersey, southern New England, Gulf of Maine

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

STATION	temperature				precip. plot	wind max dir	max vel	STATION	temperature				precip. plot	wind max dir	max vel		
	mean	anom	max	min					mean	anom	max	min					
British Columbia								Ontario									
Blue River A	10P	2P	24P	-2P	7P***		X	Geraldton A	12	***	28	-1	1	***	170	52	
Comox A	10	-1	15	4	32	***	130	57	Gore Bay A	13	5	23	5	21	***	160	43
Cranbrook A	11	1	25	-2	1	***	270	61	Kapuskasing A	14	8	31	-1	10	***	320	35
Fort Nelson A	12	4	20	2	0	***	320	37	Kenora A	16	8	29	2	3	***	190	65
Fort St John A	11	3	19	4	1	***	260	43	London A	16	6	26	6	22	***	180	41
Kamloops A	12	-1	24	4	3	***		X	Moosonee	9P	6P	25P	-2P	2P	***	240	35
Penticton A	12	-1	23	1	11	***	170	48	North Bay A	14	6	27	2	12	***		X
Port Hardy A	10	1	15	4	31	***	110	52	Ottawa Int'l A	16	6	29	7	12	***	280	54
Prince George A	9	1	20	-1	13	***	320	50	Petawawa A	15	7	31	-1	8	***	330	44
Prince Rupert A	8	1	14	2	61	***	150	56	Pickle Lake	15	11	29	3	1	***	180	57
Smithers A	9	1	17	-2	1	***	190	52	Red Lake A	***	***	26	***	***	***	150	59
Vancouver Int'l A	12	0	17	8	22	***	110	41	Sioux Lookout A	15	9	26	2	9	***	170	48
Victoria Int'l A	11	0	16	6	20	***	220	48	Sudbury A	14	6	28	3	20	***	020	50
Williams Lake A	8	0	20	-1	20	***	130	50	Thunder Bay A	11	4	26	1	1	***	310	43
Yukon Territory								Québec									
Komakuk Beach A	-9	0	-1	-20	5	15		X	Bagotville A	13	7	24	2	10	***	330	52
Teslin (aut)	5P	***	12P	-4P	9P	***		X	Baie Comeau A	9	5	20	1	5	***	220	52
Watson Lake A	6	1	16	-4	1	***	100	50	Blanc Sablon A	-1	***	5	-10	29	3	220	70
Whitehorse A	5	1	13	-4	1	***	150	50	Gaspé A	9	4	26	-5	12	***	280	57
Northwest Territories								New Brunswick									
Alert	-16P	-1P	0P	-30P	1P	***		X	Fredericton A	12	4	24	0	5	***	270	50
Baker Lake A	-10	0	0	-20	10	82	130	61	Miscou Island (aut)	6P	1P	17P	-6P	13P	***		X
Cambridge Bay A	-15	-2	-4	-25	18	61	110	69	Moncton A	10	3	23	-3	5	***	250	48
Cape Dyer A	***	***	-29	***	***	100		X	Saint John A	9	2	18	0	2	***	220	44
Clyde A	-16	-6	-8	-25	0	50	320	69	St Leonard A	12	***	25	-1	14	***	190	54
Coppermine A	-7	4	2	-14	35	112	080	70	Nova Scotia								
Coral Harbour A	-13	-4	-5	-24	5	38	070	44	Greenwood A	11	3	23	-1	5	***	270	63
Eureka	-22P	-7P	-17P	-27P	0P	***		X	Shearwater A	10	3	19	0	17	***	220	56
Fort Smith A	8	3	29	-4	42	3	300	50	Sydney A	***	***	22	***	***	***	240	67
Hall Beach A	-17	-5	-5	-25	2	60	300	39	Yarmouth A	10	3	21	4	9	***	220	56
Inuvik A	-5P	0P	4P	-17P	4P	***		X	Prince Edward Island								
Iqaluit A	-14	-9	-7	-22	4	21	340	52	Charlottetown A	9	3	22	-4	2	***	240	56
Mould Bay A	-16P	-2P	-7P	-24P	32P	45		X	East Point (auto)	6	***	18	-1	1	***		X
Norman Wells A	4	2	15	-4	19	***	300	39	Newfoundland								
Resolute A	-17	-3	-8	-23	7	16	090	83	Cartwright	-1	-2	8	-10	15	43	300	93
Yellowknife A	4	2	18	-5	41	***	310	69	Churchill Falls A	-1P	-1P	12P	-13P	7P	***	290	78
Alberta								93/05/03-93/05/09									
Calgary Int'l A	10	3	24	-3	16	***	340	80	Gander Int'l A	4	0	18	-7	9	***	200	61
Cold Lake A	13	4	27	-1	21	***	140	56	Goose A	2	-1	14	-10	11	3	280	78
Edmonton Namao A	13	4	26	2	24	***	270	56	Stephenville A	4	-1	15	-4	40	***	230	52
Fort McMurray A	13	5	29	3	42	***	160	43	St John's A	4	0	18	-5	17	3	240	70
Grande Prairie A	11	3	21	1	1	***	250	50	St Lawrence	4	0	12	-4	8	***		X
High Level A	11	3	27	-3	1	***	340	37	Wabush Lake A	2P	2P	10P	-10P	9P	4	260	56
Lethbridge A	11	2	23	-2	28	***	250	65									
Medicine Hat A	12	2	27	-1	3	***	290	80									
Peace River A	12	4	24	1	9	***	330	54									
Saskatchewan																	
Cree Lake	11	6	26	-3	1	***	280	48									
Estevan A	14	5	28	1	22	***	130	85									
La Ronge A	12	6	26	-2	1	***	290	54									
Regina A	14	5	28	1	17	***	150	106									
Saskatoon A	13	4	27	-2	13	***	170	78									
Swift Current A	12	4	27	1	4	***	140	80									
Yorkton A	13	5	26	-1	5	***	310	54									
Manitoba																	
Brandon A	14	6	28	-1	19	***	300	69									
Churchill A	4	8	19	-2	9	3	090	52									
Lynn Lake A	12	7	29	2	4	***	150	46									
The Pas A	13	7	27	0	1	***	140	59									
Thompson A	12	8	30	-2	29	***	130	39									
Winnipeg Int'l A	17	8	29	2	33	***	140	67									

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.