Environment Canada | Environnement Canada

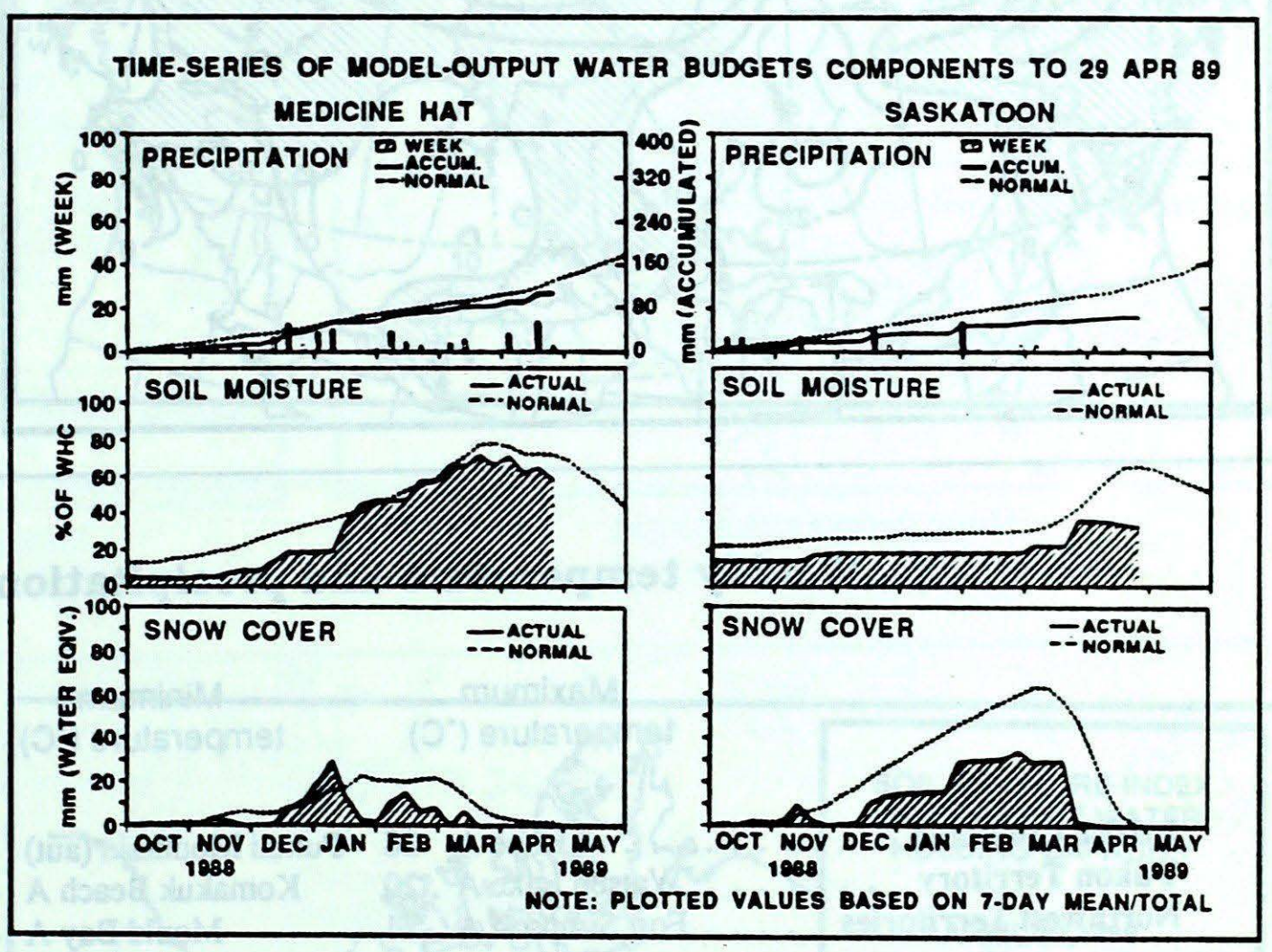
Climatic Perspectives

pril 24 to 30, 1989 | *A weekly review of Canadian climate* | Vol. 11 No. 18

B.C. crops suffer severe winter kill

Unusually cold weather in southern B.C. in February and March has taken its toll on vegetation. Damage to crops is greatest in the southern Interior and southwest coast. Severe cold in the Okanagan Valley with minimums to -25°C in February killed the flower buds on some of the fruit trees, while they were in the dormant stage. A large percentage of those buds that survived were again stricken and damaged by record cold in March. There has been extensive damage to apricots and peaches with only 60 to 70% of the normal crop expected unless extensive pollination occurs.

In the Fraser River Valley, damage to the strawberry crop could reduce yields by 35 to 50%, with the eastern half of the valley being the hardest hit. Reduced yields are also expected for raspberries (20-25%), cranberries (10-15%), and on the eastern side of the valley, forage crops (50-100%).



In the Caribou region, damage has occurred to the alfalfa crop, but the amount of damage will not be known until growing begins.

Along the Coast nursery crops suffered as much as 30% damage, depending on the grower. Plants and bushes grown in pots suffered the most, as the frost penetrated the pots, and killed the roots. High winds during the cold spell in February caused power outages and damage to greenhouses. The daffodil harvest was delayed with some rotting in the fields. The Ornamental Gardens at the University of B.C. have suffered their worst winter kill since major planting began in the 1970's. Many rare varieties from South America and New Zealand were killed, and others had extensive damage. Major pruning is being done at this time.

Earl Coatta, AES, Vancouver
Bruce Macdonald, Ornamental Gardens, University of British Columbia

Dryness continues...

Most of the country has received very little precipitation over the last few weeks. The only notable precipitation fell as snow in the southern foothills of Alberta, and in northern Labrador. Excellent drying conditions are allowing farmers to proceed with spring planting, but on the downside, the lack of precipitation is causing concern with farmers who now need rain for seed germination.

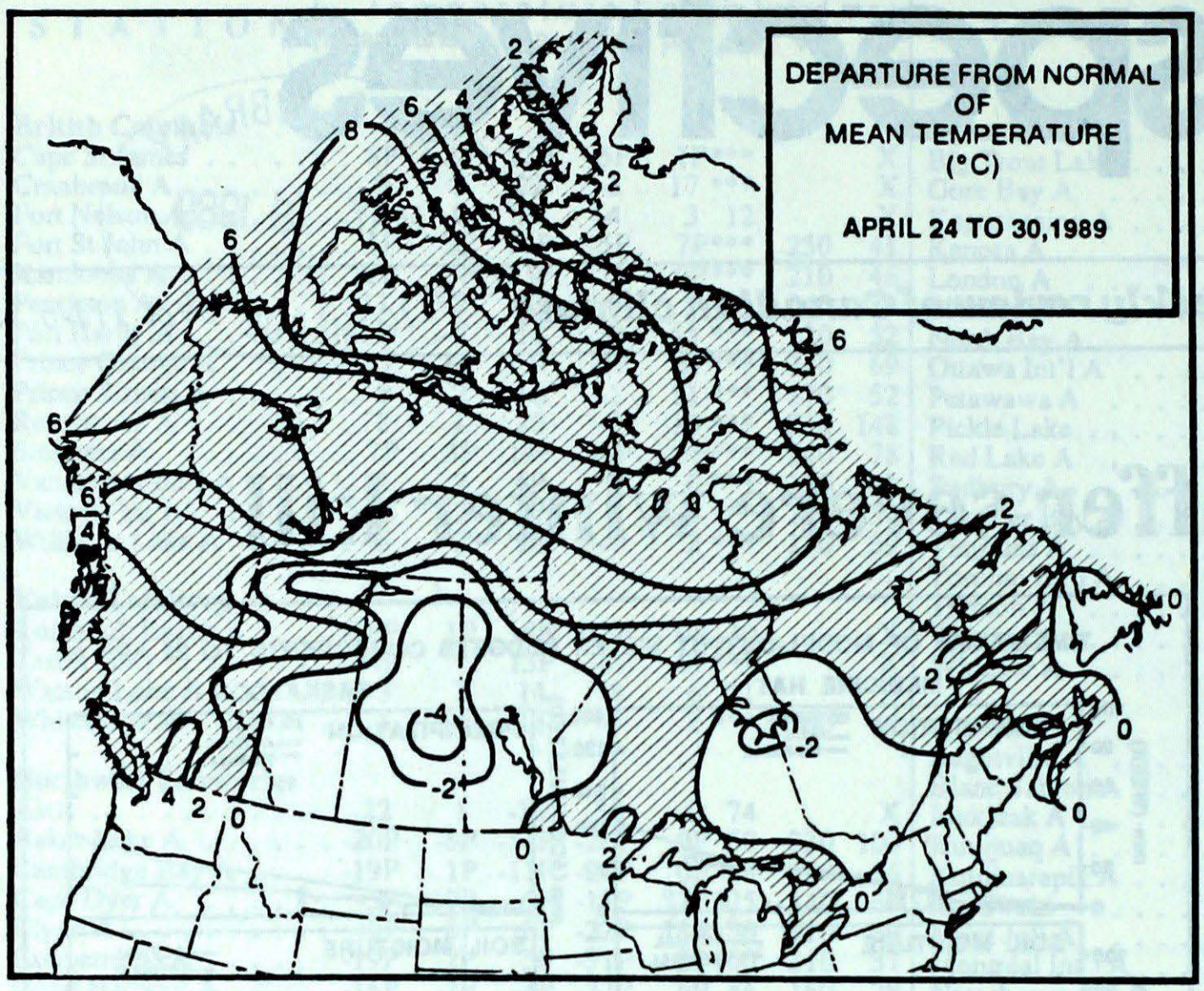
A look ahead...

Temperatures next week are expected to be above normal except for Ontario, Québec, and the Keewatin District of the Northwest Territories which will be under the influence of a cool atmospheric flow pattern. This cool weather is expected to persist for the month of May. Only British Columbia, southern Alberta, and the Atlantic Provinces will experience above normal temperatures this month.

A. Gergye, Canadian Climate Centre

For further information, contact Brian Taylor (416) 739-4438

Canada



Summer in the North

While areas in eastern Canada are still awaiting the arrival of summer, the Yukon and Northwest Territories are collaborating to take summer away from cities such as Toronto. The Canadian hot spot was Carmacks, Yukon on the 26th, with a high of 23°C. On the 27th, the highest temperature in the country was 22.8°C at Fort Simpson, in the southern Mackenzie River Valley.

Due to rapid snow melt, there is a fear of flooding along the Liard River, and there is potential for flooding along the Hay River. Ice roads are all out due to the warm weather.

Weekly temperature and precipitation extremes

	Maximum temperature (°C)		Minimum temperature (°C)		Heaviest precipitation (mm)	
British Columbia	Hope A	28	Puntzi Mountain (aut)	-6	Cranbrook A	10
Yukon Territory	Watson Lake A	20	Komakuk Beach A	-19	Komakuk Beach A	3
Northwest Territories	Fort Simpson A	24	Mould Bay A	-29	Resolute A	5
					Ennadai Lake (aut)	5
Alberta	Fort McMurray A	24	Fort Chipewyan A	-9	Lethbridge A	15
Saskatchewan	Meadow Lake A	20	Collins Bay	-11	Estevan A	11
Manitoba	Thompson A	17	Dauphin A	-8	Brandon A	13
Ontario	Toronto Int'l A	20	Moosonee	-8	Sioux Lookout A	11
Québec	Québec A	20	Schefferville A	-15	Schefferville A	11
New Brunswick	Chatham A	18	St Stephen (aut)	-5	Moncton A	2
Nova Scotia	Western Head (aut)	18	Truro	-3	Sydney A	4
Prince Edward Island	Charlottetown A	16	Charlottetown A	-1	Charlottetown A	2
Newfoundland	Goose A	12	Wabush Lake A	-11	Nain A, Nfld	27

Across The Country...

Warmest Mean Temperature	Hope A (BC)	16
Coolest Mean Temperature	Alert (NWT)	-19

89/04/24-89/04/30

CLIMATIC PERSPECTIVES
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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.

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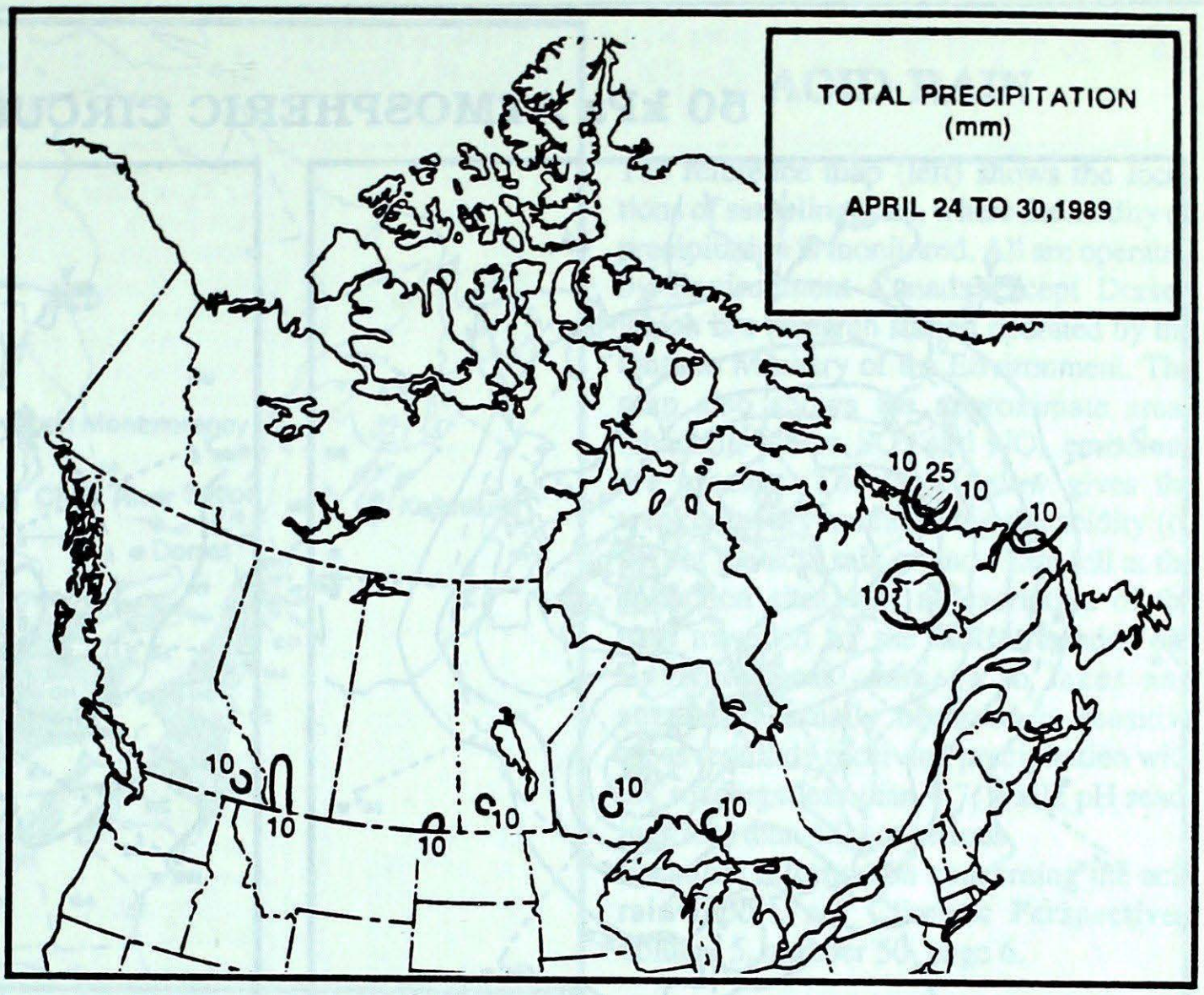
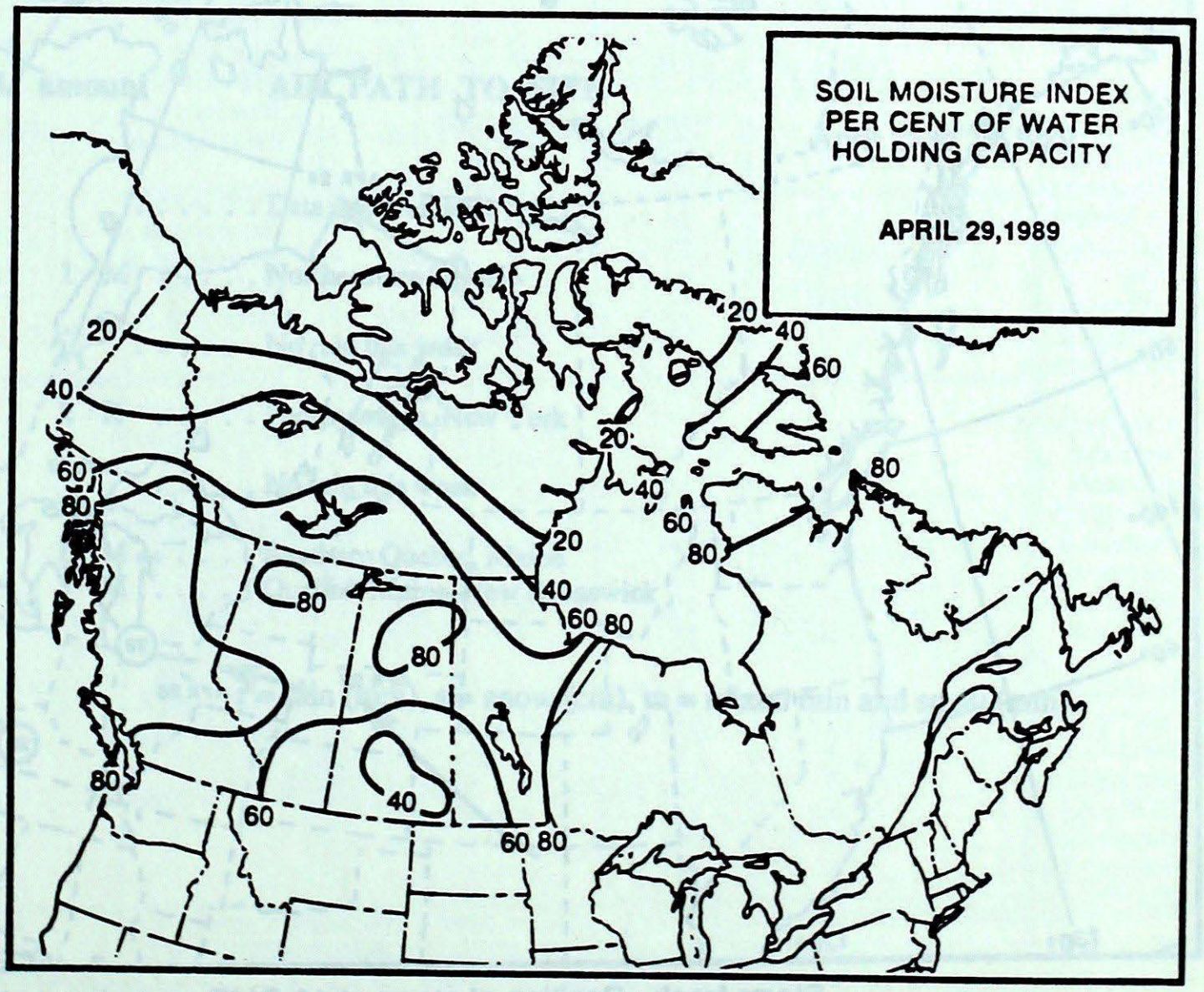
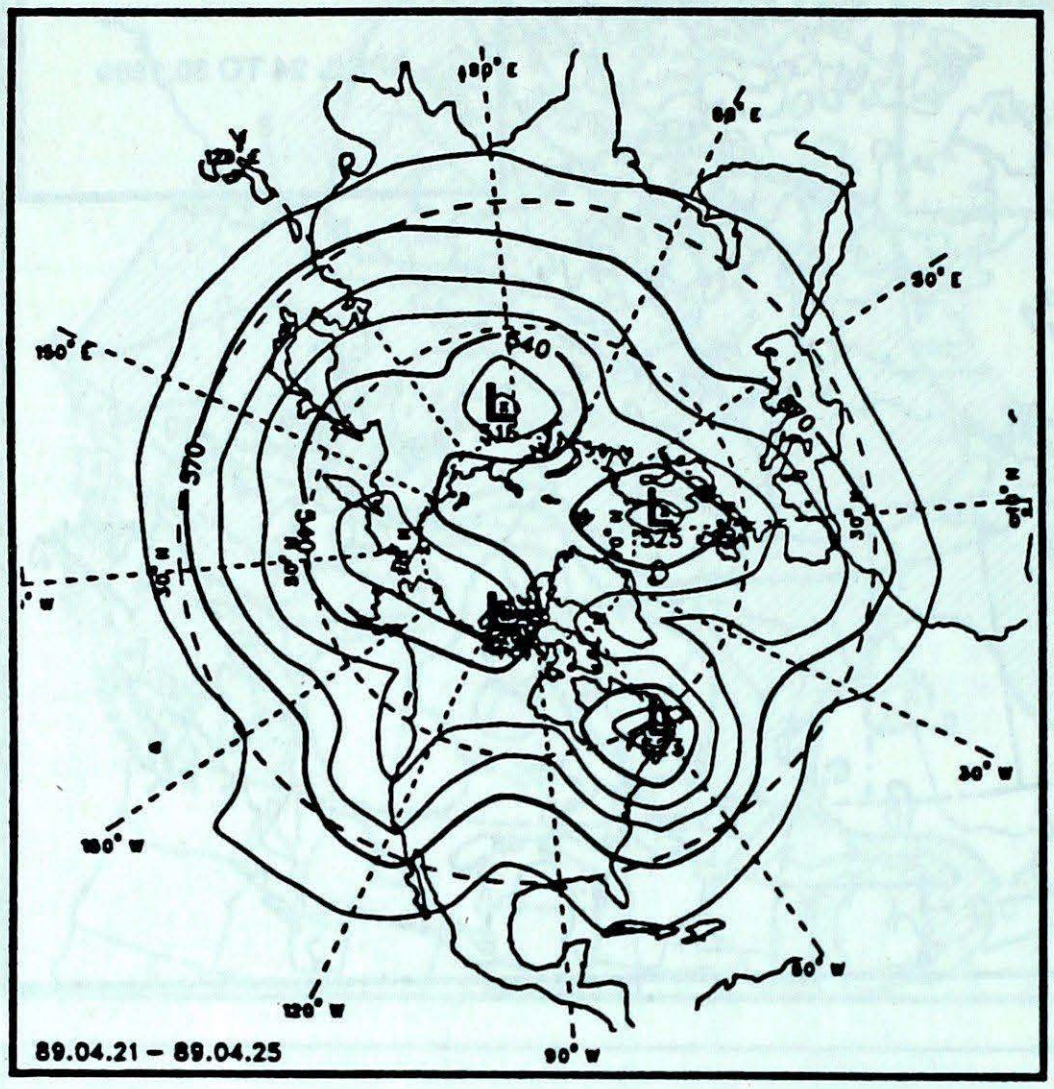
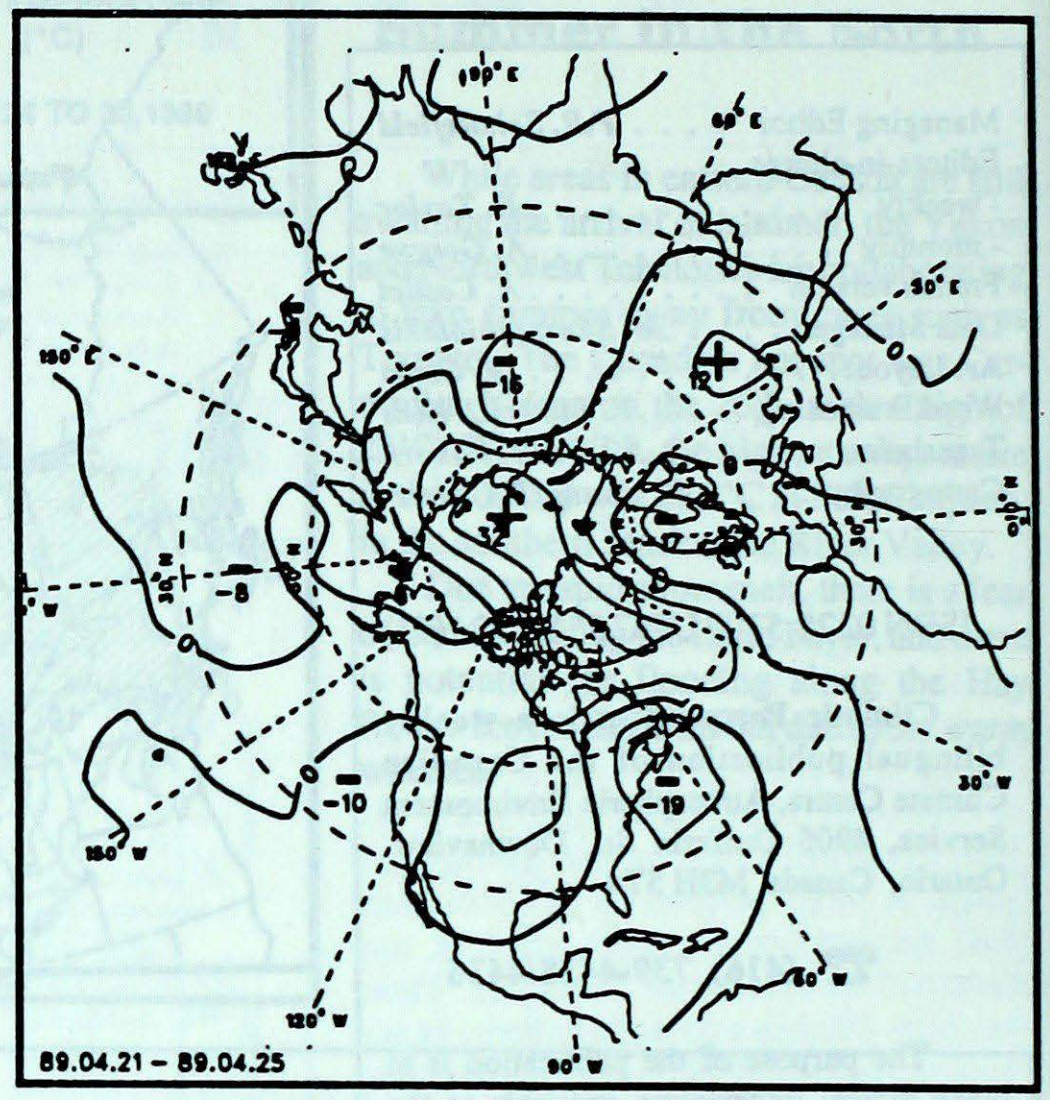




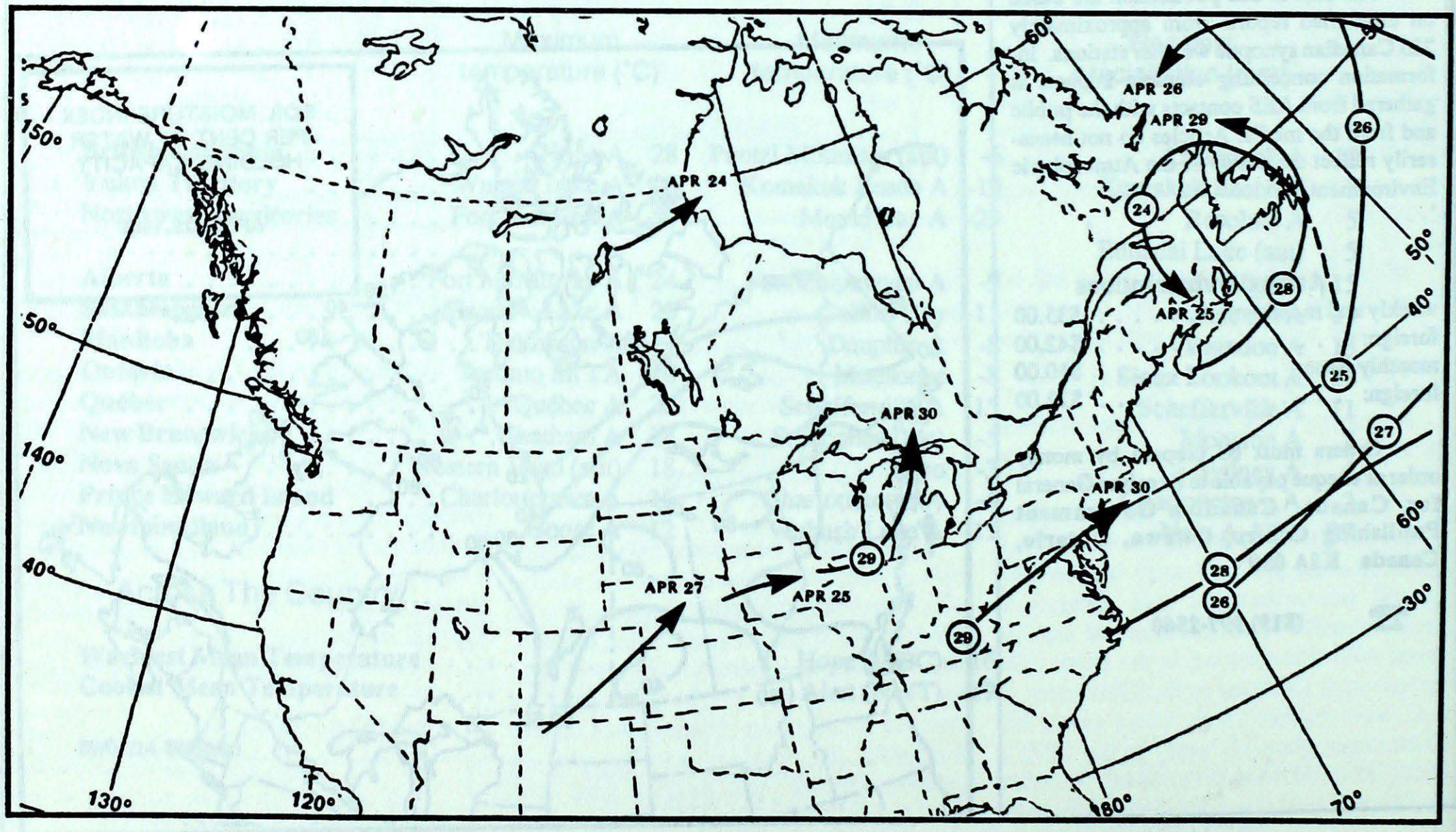
50 kPa ATMOSPHERIC CIRCULATION



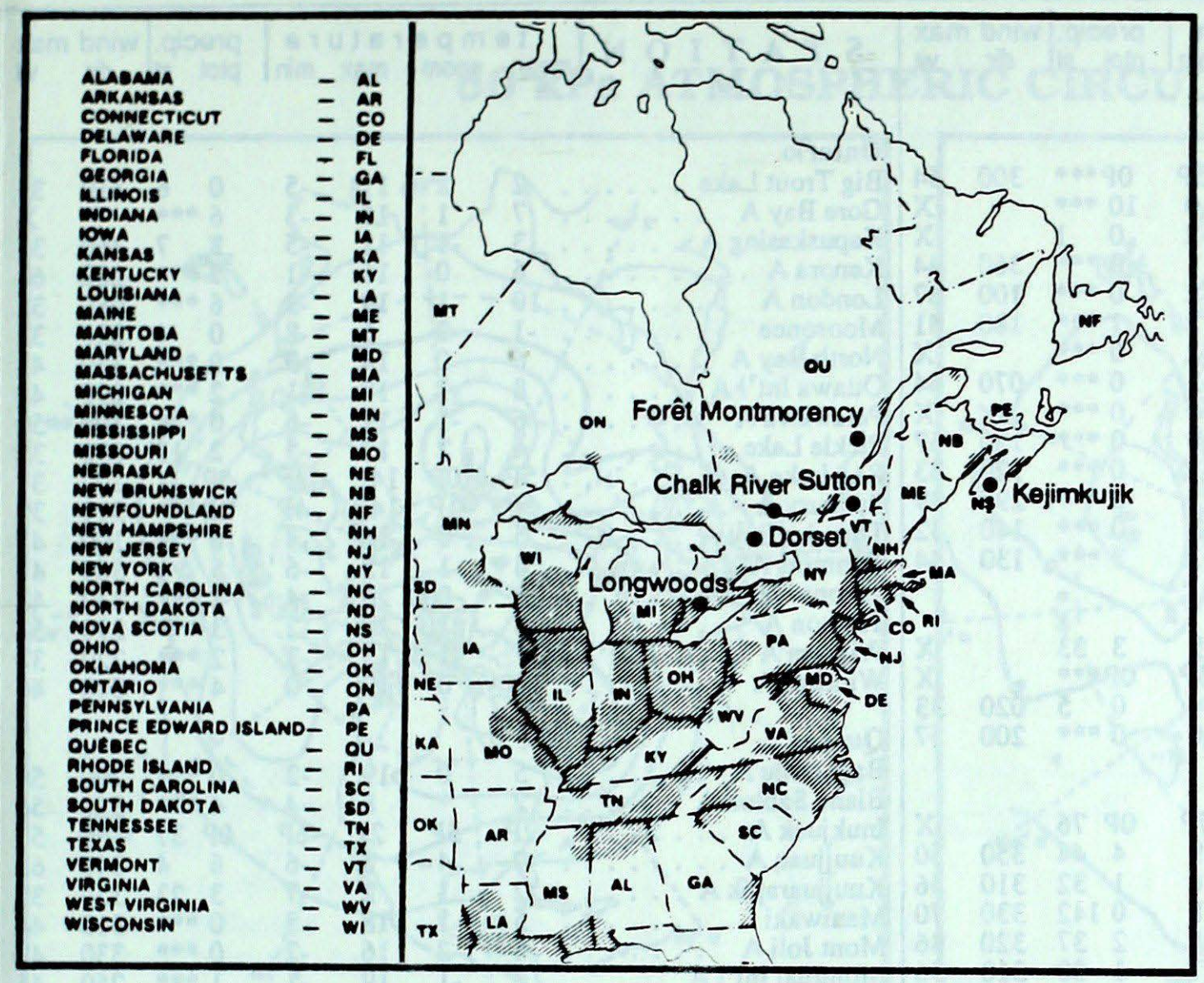
Mean geopotential height
50 kPa level (10 decameter intervals)



Mean geopotential height anomaly
50 kPa level (10 decameter intervals)



Storm track - Position of storm at 12 GMT 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 the Environment. The map also shows the approximate areas (shaded), where SO_2 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.

For more information concerning the acid rain report, see Climatic Perspectives, volume 5, number 50, page 6.

April 23 to 29, 1989

SITE	day	pH	amount		AIR PATH TO SITE
Longwoods					. . . . . Data not available
Dorset *	24	5.1	1	M	. . . . . Northeastern Ontario
Chalk River					. . . . . No rain this week
Sutton	29	4.1	2	R	. . . . . Pennsylvania, New York
Montmorency					. . . . . No rain this week
Kejimkujik	23	4.6	1	M	. . . . . Southern Quebec, Maine
	25	4.9	3	M	. . . . . Quebec, Maine, New Brunswick

r = rain (mm), s = snow (cm), m = mixed rain and snow (mm)

STATION	temperature mean	anom	max	min	precip. ptot	st	wind max dir	vit
British Columbia								
Cape St James	11P	4P	18P	5P	0P	***	300	54
Cranbrook A	8	0	22	0	10	***		X
Fort Nelson A	10	5	22	-2	0	1		X
Fort St John A	10	5	22	1	0	***	360	44
Kamloops A	13	2	27	2	0	***	100	37
Penticton A	12	2	25	2	1	***	180	41
Port Hardy A	10	3	22	2	0	***		X
Prince George A	10	4	22	-3	0	***	070	44
Prince Rupert A	10	4	23	0	0	***		X
Revelstoke A	11	1	25	0	0	***	150	67
Smithers A	10	4	22	-3	0	***	120	33
Vancouver Int'l A	13	3	21	5	0	***	290	39
Victoria Int'l A	12	3	23	2	0	***	140	32
Williams Lake A	9	3	22	-1	3	***	130	44
Yukon Territory								
Komakuk Beach A	-11	2	-6	-19	3	33		X
Teslin (aut)	7P	*	18P	-3P	0P	***		X
Watson Lake A	8	5	20	-4	0	5	020	33
Whitehorse A	10	7	19	0	0	***	200	57
Northwest Territories								
Alert	-19P	1P	-7P	-27P	0P	76		X
Baker Lake A	-7	6	-1	-19	4	44	350	50
Cambridge Bay A	-9	8	-1	-16	1	32	310	56
Cape Dyer A	-6	6	1	-18	0	142	330	70
Clyde A	-14	0	-1	-26	2	37	320	46
Coppermine A	-5	5	8	-21	1	80	310	56
Coral Harbour A	-6	7	3	-13	0	35	360	48
Eureka	-18	3	-9	-26	2	20	130	59
Fort Smith A	6	4	22	-10	0	1		X
Hall Beach A	-10P	7P	-2P	-19P	1P	34	320	67
Inuvik A	-3	6	13	-14	1	12	330	37
Iqaluit A	-6P	5P	4P	-14P	1P	6	330	74
Mould Bay A	-17P	1P	-5P	-29P	0P	20	260	65
Norman Wells A	6	7	18	-7	0	1	300	69
Resolute A	-13	5	-4	-22	5	28	190	65
Yellowknife A	3	5	16	-11	0	***	150	43
Alberta								
Calgary Int'l A	5	0	19	-4	11	***	160	39
Cold Lake A	7	1	20	-4	0	***		X
Edmonton Namao A	8	1	20	-3	0	***	170	37
Fort Mcmurray A	7	2	24	-6	0	***		X
High Level A	8	0	23	-5	0	1	350	41
Jasper	7	2	22	-3	0	***		X
Lethbridge A	5	-1	18	-3	15	***	040	41
Medicine Hat A	7	-1	17	-2	3	***	090	44
Peace River A	10	4	23	-2	0	***	330	41
Saskatchewan								
Cree Lake								X
Estevan A	6	-1	16	-2	11	***	010	54
La Ronge A	3	-2	16	-7	0	***		X
Regina A	5	-1	16	-5	0	***	060	57
Saskatoon A	5	-2	17	-6	0	***	020	46
Swift Current A	5	0	15	-3	0	***	360	43
Yorkton A	3	-2	15	-8	0	***	010	56
Manitoba								
Brandon A	5	-1	15	-4	13	***	020	63
Churchill A	-3	4	5	-6	3	30	340	52
Lynn Lake A	0	-4	16	-8	0	3	300	33
The Pas A	3	-1	15	-6	0	***	050	41
Thompson A	2P	-1P	17P	-6P	0P	***	270	43
Winnipeg Int'l A	6	-1	15	-5	8	***	040	50

STATION	temperature mean	anom	max	min	precip. ptot	st	wind max dir	vit
Ontario								
Big Trout Lake	2	2	11	-5	0	6	310	33
Gore Bay A	7	1	15	-3	6	***		X
Kapuskasing A	3	-1	11	-5	3	7	360	37
Kenora A	6	0	16	-1	7	***	280	63
London A	10	1	19	-3	6	***	080	32
Moosonee	-1	-2	5	-8	0	4	330	32
North Bay A	6	0	14	-3	0	***	330	41
Ottawa Int'l A	8	-1	18	-1	2	***	290	48
Petawawa A	6	-1	17	-6	0	***	300	50
Pickle Lake	4	2	12	-5	2	11	030	35
Red Lake A	5P	0P	14P	-4P	5P	1	100	37
Sudbury A	5P	-1P	14P	-4P	2P	***	310	39
Thunder Bay A	5	0	16	-4	6	***	100	41
Timmins A	4	-1	12	-6	5	1	360	41
Toronto Int'l A	9	0	20	-4	8	***	330	48
Trenton A	8	-1	18	-2	3	***	290	52
Wiarton A	7	-1	15	-3	2	***	220	37
Windsor A	10	0	19	0	4	***	040	46
Québec								
Bagotville A	5	0	19	-2	0	***	290	56
Blanc Sablon A	2	*	8	-4	4	***	320	54
Inukjuak A	-2P	5P	2P	-6P	0P	37	360	54
Kuujjuaq A	-2	4	3	-6	6	4	340	65
Kuujjuarapik A	-2	1	2	-7	3	23	350	37
Maniwaki	5	-1	18	-5	0	***	310	44
Mont Joli A	6	2	16	-2	0	***	330	48
Montréal Int'l A	8	-1	19	-1	1	***	250	46
Natashquan A	2	1	9	-3	8	11	300	35
Québec A	6	0	20	-2	0	***	340	63
Schefferville A	-3	1	4	-15	11	69	350	63
Sept-Iles A	5	3	13	-2	2	***	300	52
Sherbrooke A	4	-2	15	-6	0	***	300	50
Val D'or A	2	-2	11	-6	0	1	330	48
New Brunswick								
Charlo A	5	1	16	-2	0	1	280	46
Chatham A	5	0	18	-2	0	***	250	50
Fredericton A	6	-1	17	-4	0	***	310	67
Moncton A	4P	-1P	17P	-2P	2P	***	270	52
Saint John A	5	-1	16	-4	1	***	010	59
Nova Scotia								
Greenwood A	6	-1	16	-2	2	***	300	67
Shearwater A	6	1	17	0	0	***	260	44
Sydney A	4	1	13	-2	4	***	250	54
Yarmouth A	5	-1	10	1	3	***	310	50
Prince Edward Island								
Charlottetown A	4	0	16	-1	2	1	250	37
Summerside A	5	0	15	-1	0	***	250	50
Newfoundland								
Cartwright	1P	1P	8P	-4P	18P	142	340	65
Churchill Falls A	-1	1	6	-9	15	106	080	63
Gander Int'l A	3	0	11	-4	13	1	260	67
Goose A	2P	2P	12P	-2P	5P	12	320	52
Port Aux Basques	2P	-1P	9P	-3P	3P	1	180	67
St John's A	3	0	10	-4	3	***	250	72
St Lawrence	3P	0P	11P	-4P	1P	1		X
Wabush Lake A	-1	1	8	-11	10	***	350	56

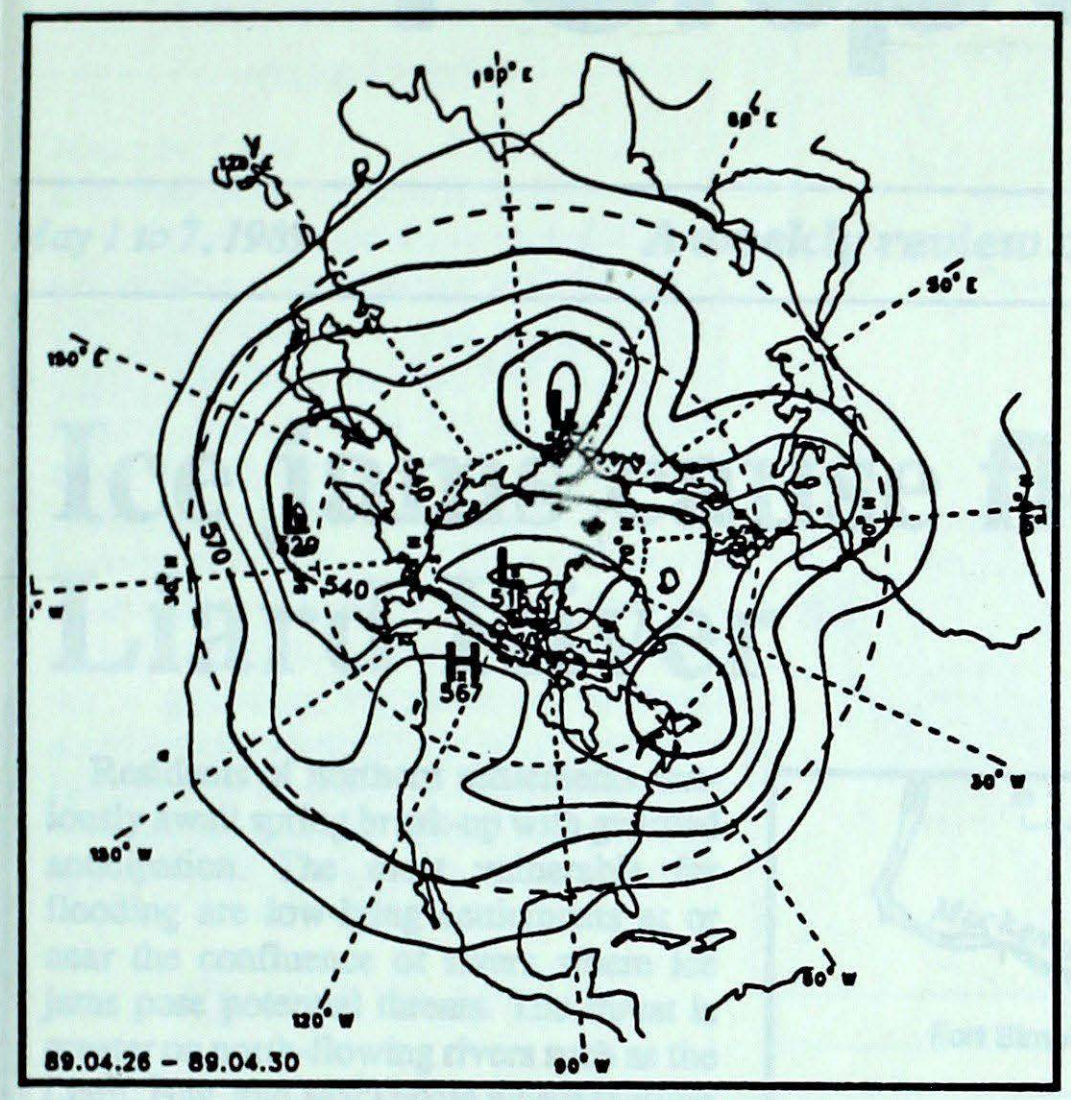
89/04/24-89/04/30

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.
vit = wind speed in km/h

· Annotations ·
X = no observation
P = less than 7 days of data
***** = missing data when going to printing.

50 kPa ATMOSPHERIC CIRCULATION



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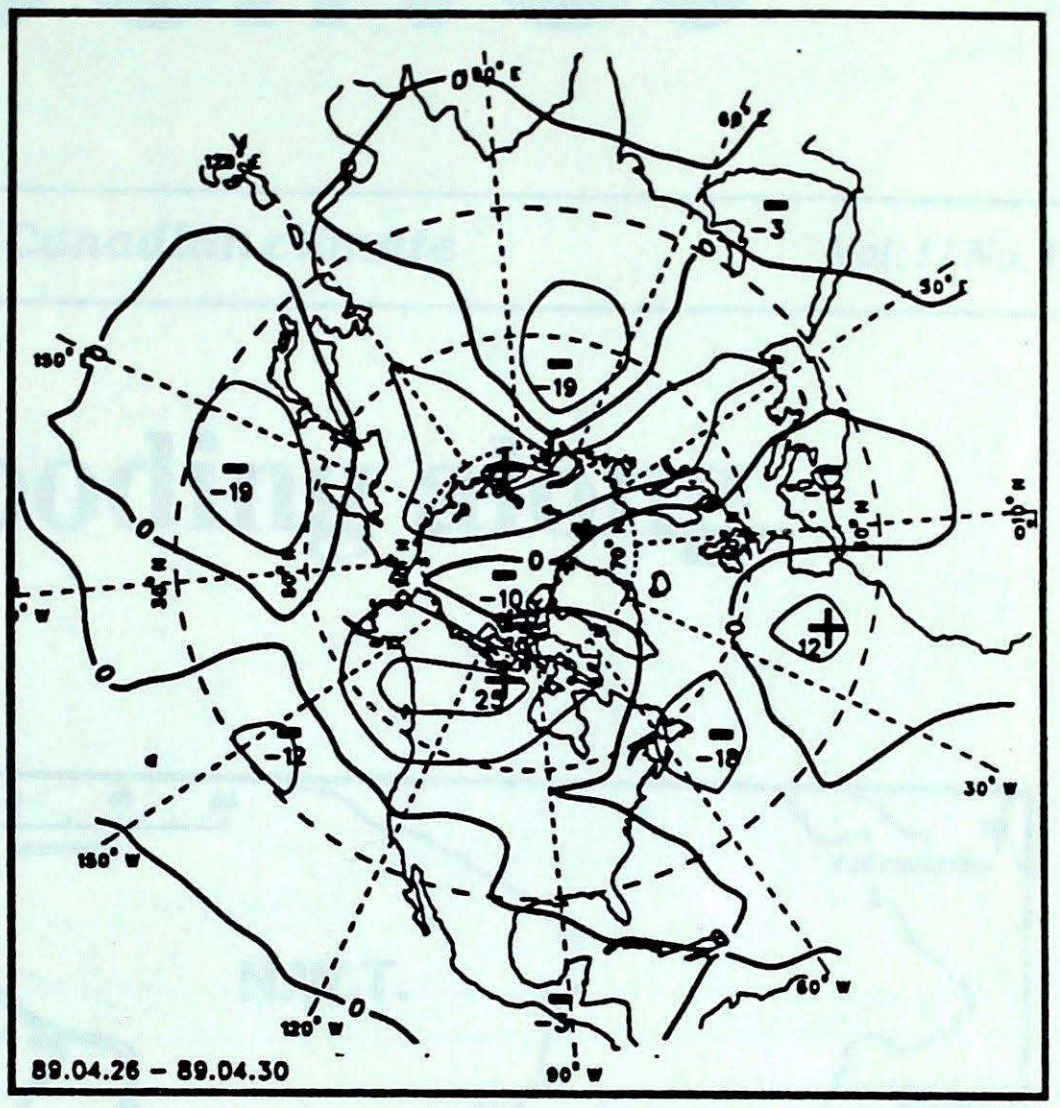

Mean geopotential height anomaly
50 kPa level (10 decameter intervals)

Environment Canada / Environnement Canada
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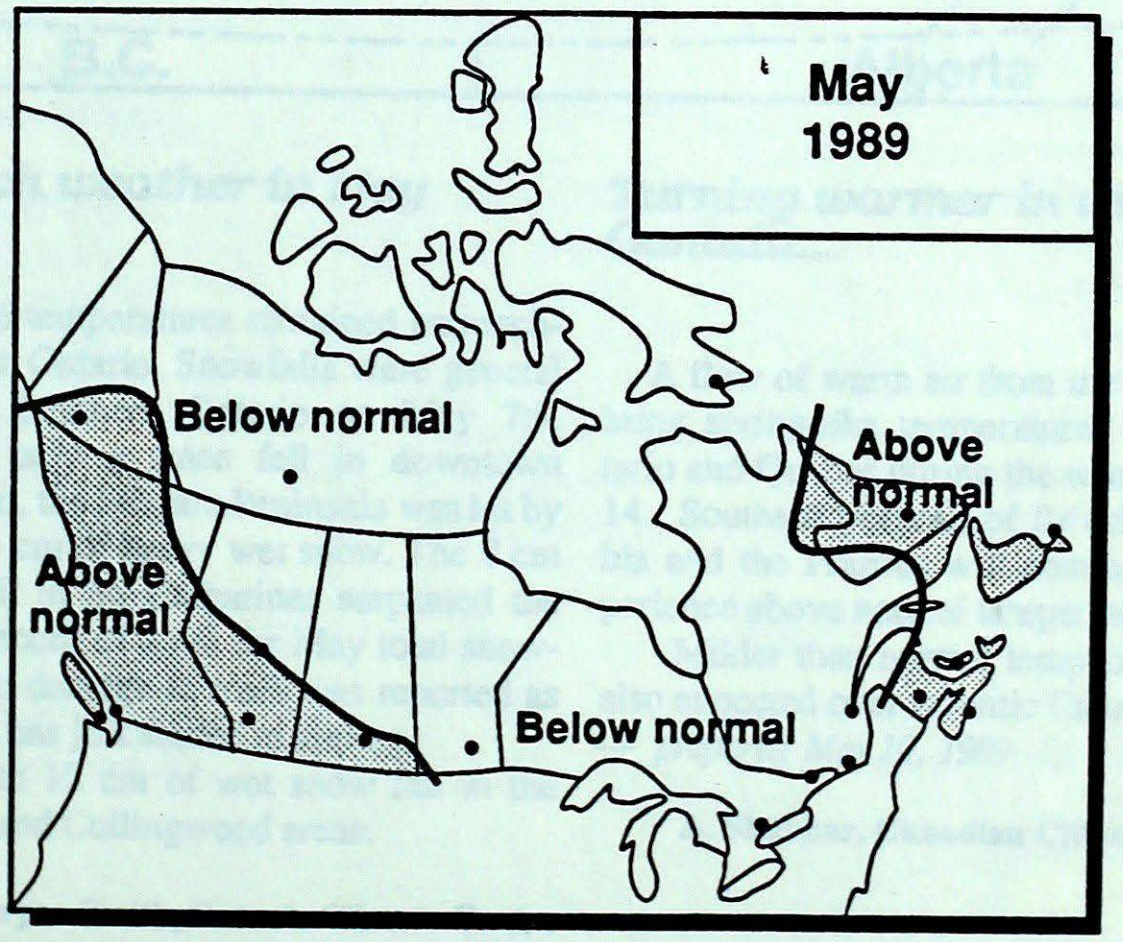
MONTHLY TEMPERATURE FORECAST

Normal temperatures for May, °C

Whitehorse	7	Toronto	12
Yellowknife	5	Ottawa	13
Iqaluit	-3	Montreal	13
Vancouver	12	Quebec	11
Victoria	12	Fredericton	11
Calgary	9	Halifax	9
Edmonton	11	Charlottetown	9
Regina	11	Goose Bay	5
Winnipeg	11	St. John's	5



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