

Climatic Perspectives

March 29 to April 4, 1988

A weekly review of Canadian climate

Vol. 10 No. 14



Environment
Canada

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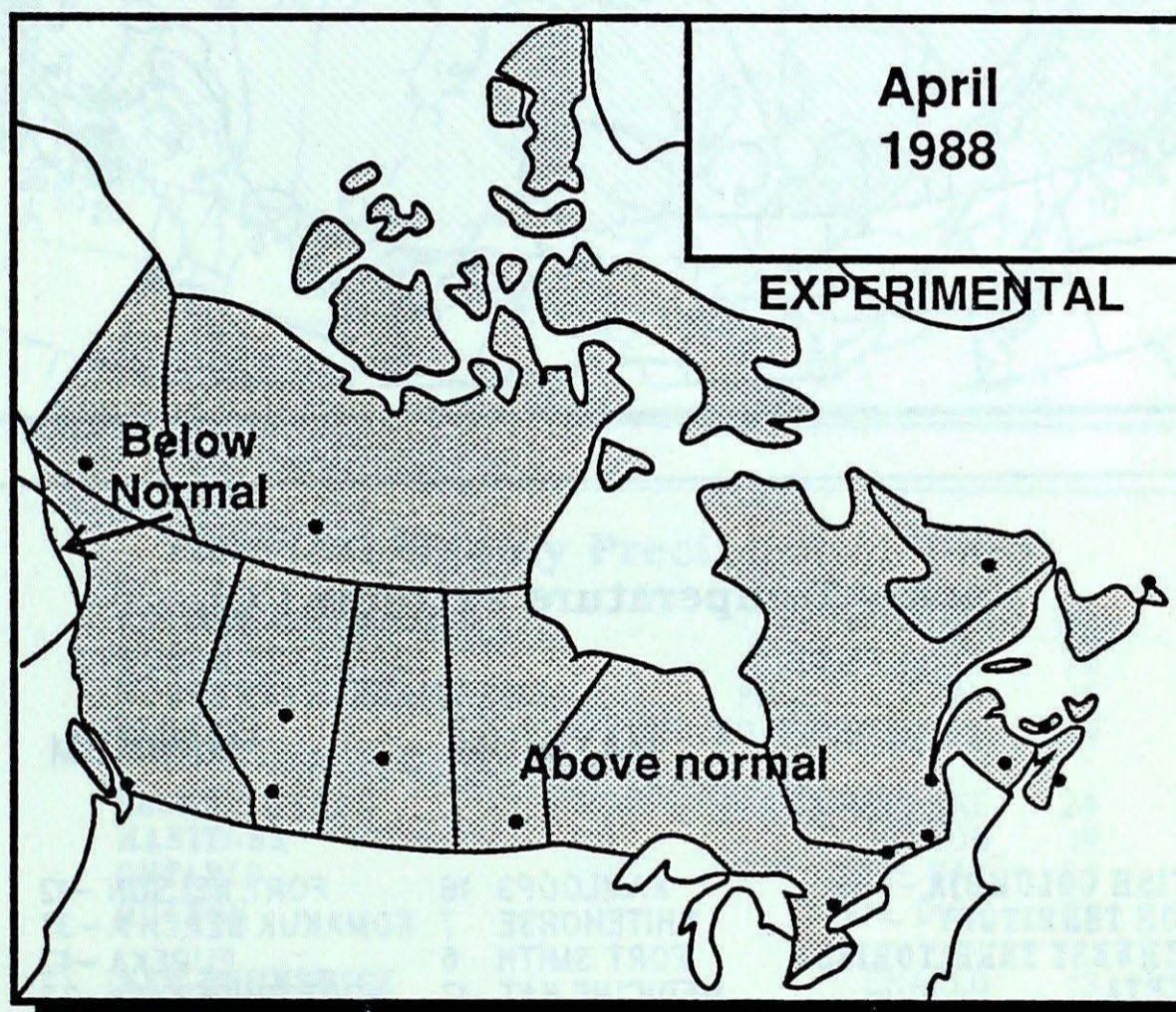
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MONTHLY TEMPERATURE FORECAST

Normal temperatures for April, °C

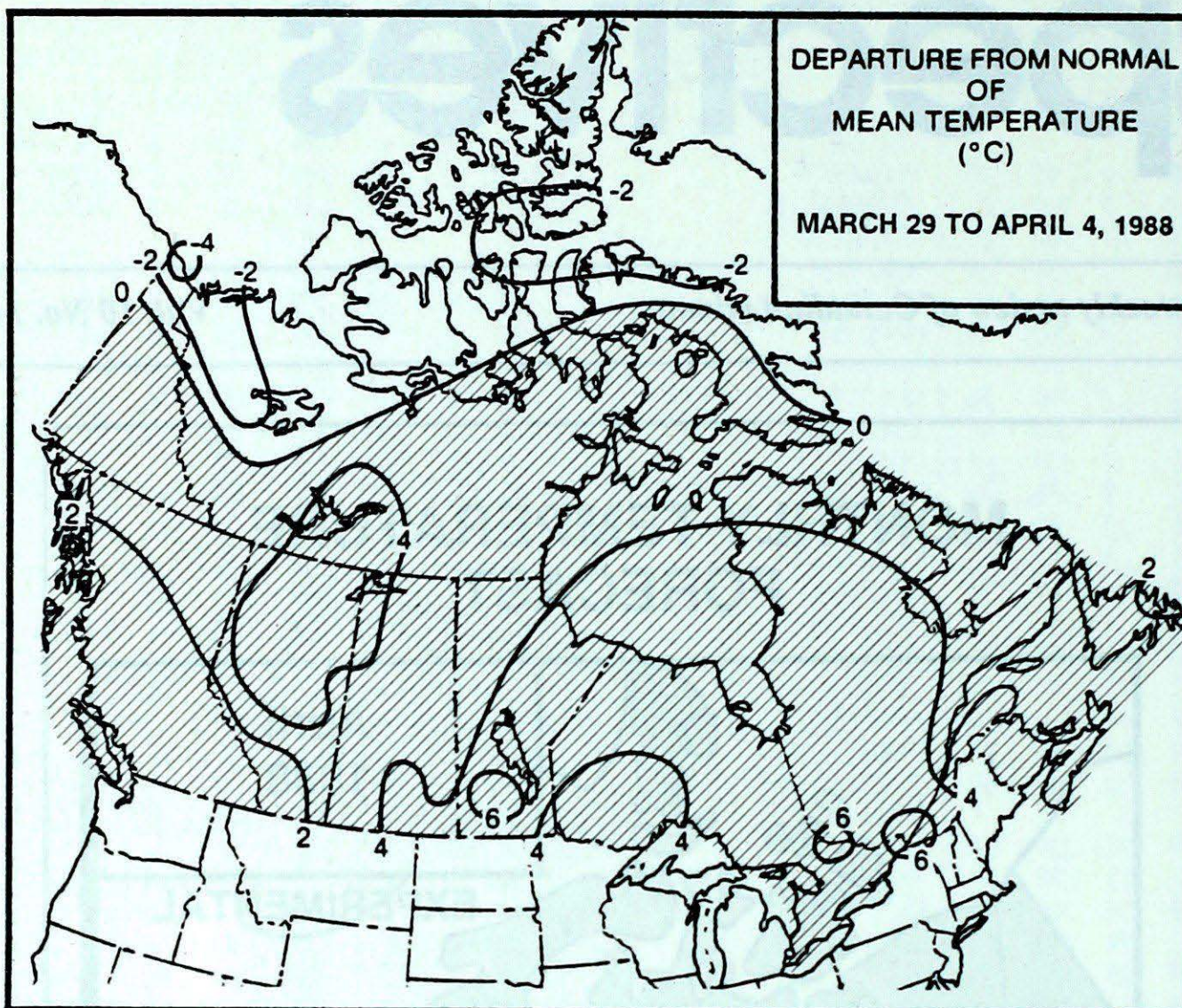
Whitehorse	3	Toronto	6
Yellowknife	-7	Ottawa	6
Iqaluit	-14	Montreal	6
Vancouver	9	Quebec	3
Victoria	8	Fredericton	4
Calgary	3	Halifax	4
Edmonton	4	Charlottetown	2
Regina	3	Goose Bay	-2
Winnipeg	3	St. John's	1

Canada



The above new temperature forecast format is the one currently proposed for the official public product to be released effective May 15, 1988. Please forward any comments to the Canadian Climate Centre at the address listed on page 4.

- **Wintry weather persists in the Arctic**
- **Mild spring weather for Easter**
- **Much needed precipitation B.C.
southern interior**



ACROSS THE COUNTRY...

Yukon and Northwest Territories

A broad ridge of high pressure prevailed over the Arctic, producing fair but cold weather conditions. Disturbances tracked eastwards towards Hudson Bay along a line south of the Northwest Territories. Blizzards occurred near northern Hudson Bay, while temperatures in the more southern portions of the north managed to climb above the freezing mark. Snowfalls in the order of 10 to 50 centimetres fell in the Yukon. Falls of 10 to 15 centimetres were common on Baffin Island, where temperatures remained below freezing throughout the period. Record cold weather was in evidence in the high Arctic, with readings dipping down to the minus forties.

British Columbia

For the most part it was a dull and wet week as Pacific weather systems affected the province. The drought stricken areas of southern B.C. received 5 to 20 millimetres of precipitation, while coastal districts had amounts approaching 100 mm. Fresh snow fell at higher elevations, increasing the snow pack, and resulting in slippery road conditions through the mountain passes. The northern parts of the province received 20 cm of snow. Apricots are in bloom in the Okanagan.

Prairie Provinces

A mild Pacific air mass gradually made its way across the Rockies accompanied by scattered showers. This is a big improvement from last week's snowstorm, which is blamed for the deaths of new born calves. Sizable drifts are still evident in many areas.

In Saskatchewan and Manitoba, it was an Easter weekend to remember after a cold, wintry start to the period. In the north many locations picked up 10 cm of new snow earlier in the week. By the middle of the week high pressure produced sunny but cool weather. The weather over the long Easter weekend turned out to be near perfect. Temperatures in both provinces soared to the low twenties under sunny skies, break-

Weekly Temperature extreme (°C)

	MAXIMUM	MINIMUM
BRITISH COLUMBIA	KAMLOOPS 18	FORT NELSON -12
YUKON TERRITORY	WHITEHORSE 7	KOMAKUK BEACH A -37
NORTHWEST TERRITORIES	FORT SMITH 6	EUREKA -42
ALBERTA	MEDICINE HAT 17	FORT CHIPEWYAN -23
SASKATCHEWAN	ESTEVAN 22	CREE LAKE -24
MANITOBA	BRANDON 22	THOMPSON -27
ONTARIO	SIMCOE 22	GERALDTON -19
QUEBEC	MONTREAL INT'L 17	KUUJJIARAPIK -24
NEW BRUNSWICK	CHATHAM 17	CHARLO -8
NOVA SCOTIA	SHELBURNE 17	SYDNEY -6
PRINCE EDWARD ISLAND	CHARLOTTETOWN 11	CHARLOTTETOWN -5
NEWFOUNDLAND	COMFORT COVE 14	WABUSH LAKE -18

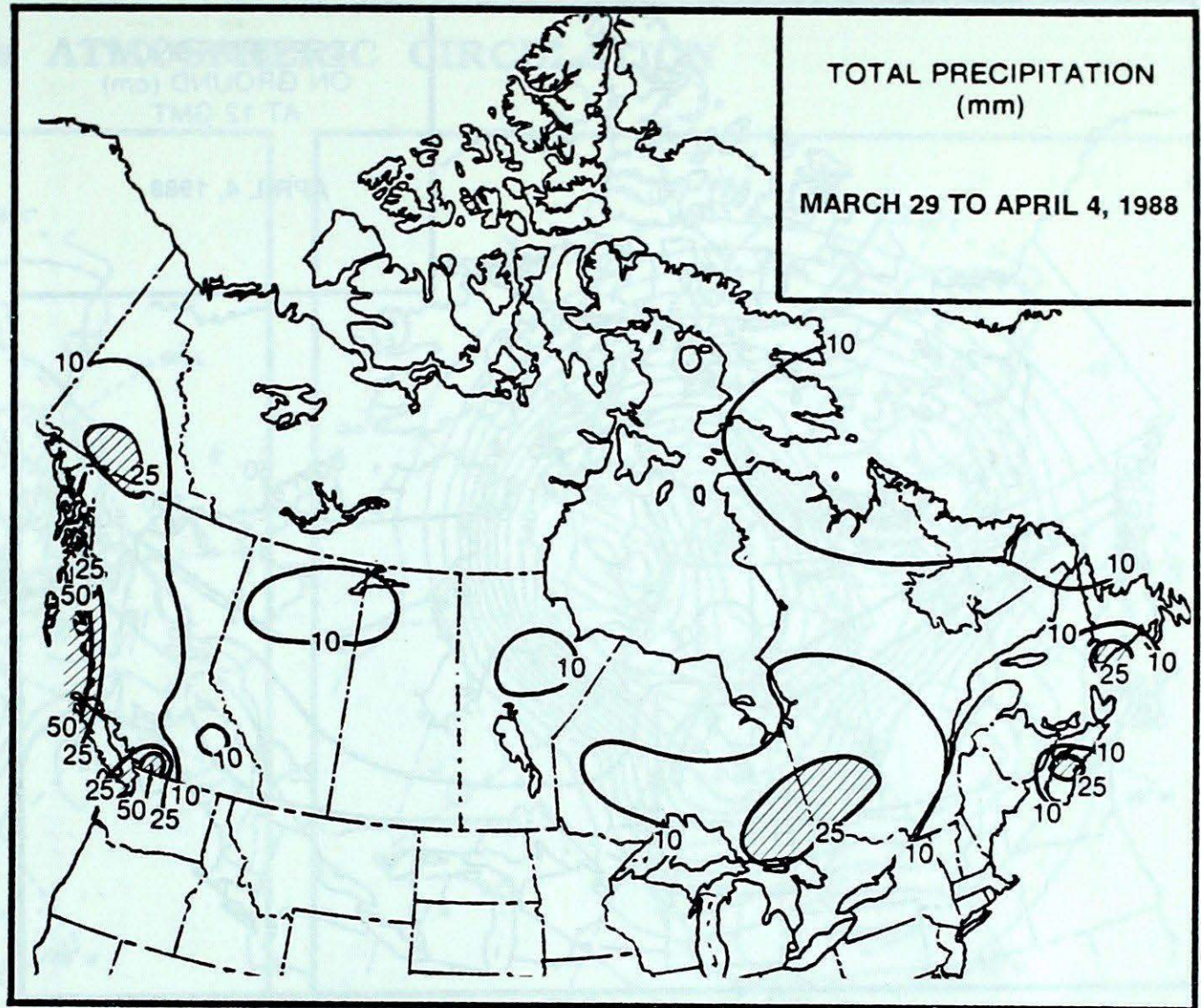
ACROSS THE NATION

WARMEST MEAN TEMPERATURE	10	WINDSOR	ONT
COOLEST MEAN TEMPERATURE	-36	EUREKA	NWT

ing many long standing daily temperature records.

Ontario

It was a changeable spring week as disturbances from the American southwest tracked towards the Great Lakes. The whole province, except the extreme northwest, experienced a mostly cloudy and wet Easter. Thunderstorms were prevalent, producing 10 to 45 millimetres of rain. Dense fog on Easter Sunday closed Pearson International Airport for most of the evening, delaying both incoming and outgoing flights by several hours. In northwestern Ontario it was a different story, as sunny record warm weather prevailed during the holidays. Daytime temperatures on April 2 and 3 climbed to the mid-teens, breaking many daily temperature records. The southern half of the province is snow-free, while snow depths across the north range from 20 to 50 centimetres.



Quebec

Last week's mild weather continued, and many daily high temperature records were broken after the middle of the week. Weather systems, approaching from the southwest, produced unsettled conditions during the early and latter part of the period, but for the most part, the Easter weekend turned out pleasant and balmy. The ski season is drawing to a close, except in the ski centres near Quebec City, where there still is an ample snow cover. The spring thaw is well under way. The lack of heavy rain has prevented any significant flooding. The mild weather has slowed logging.

Maritimes

A strong ridge of high pressure deflected weather systems north of the region. Partly sunny and cool conditions at the beginning of the period gave way to a sunny and mild Easter weekend. Maximum temperatures soared to daily record values on March 31, April 1 and 3. Cool nights and sunny warm days, with readings climbing to the mid-teens, benefited Maple syrup producers. It had been a slow

Heaviest Weekly Precipitation (mm)

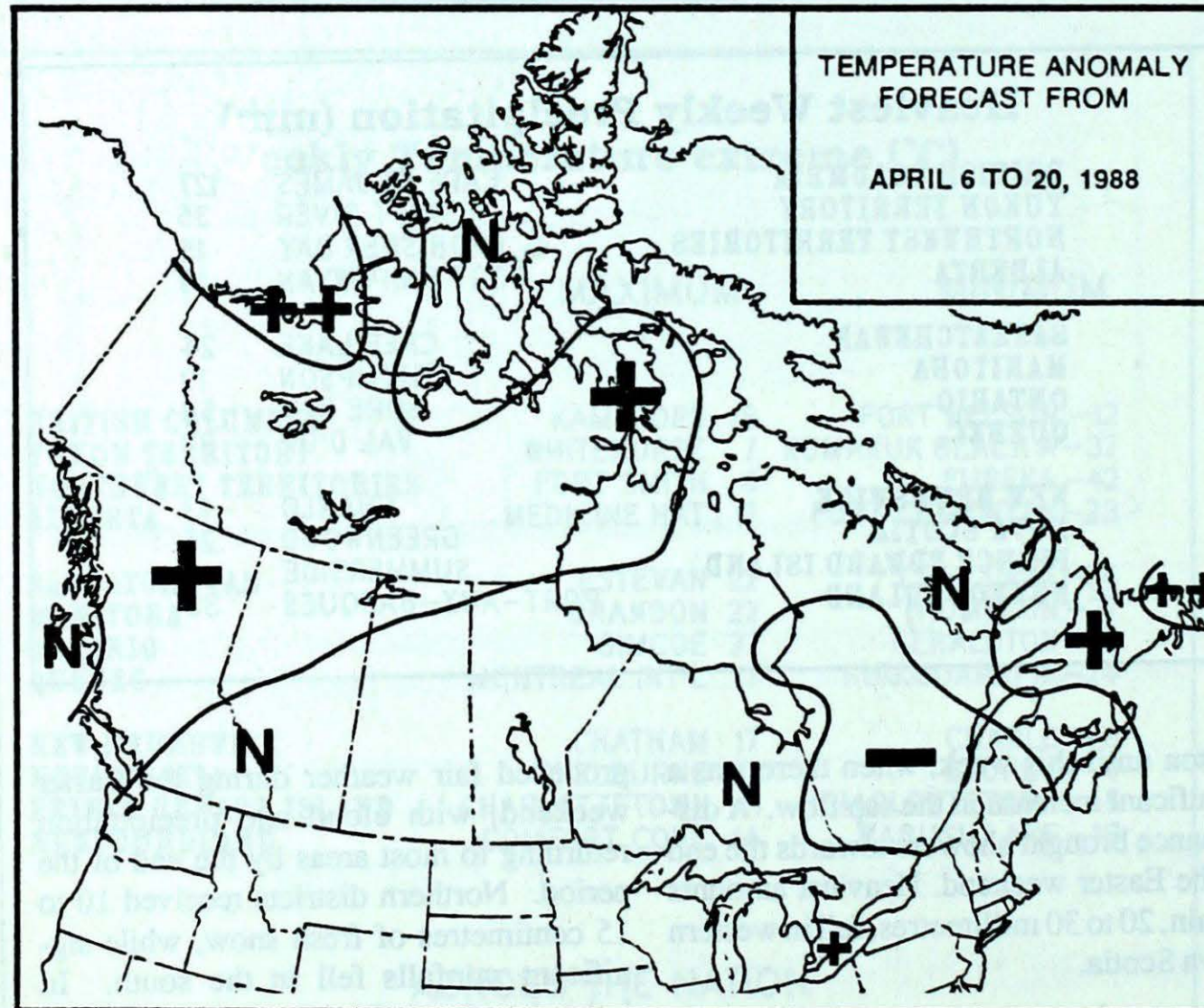
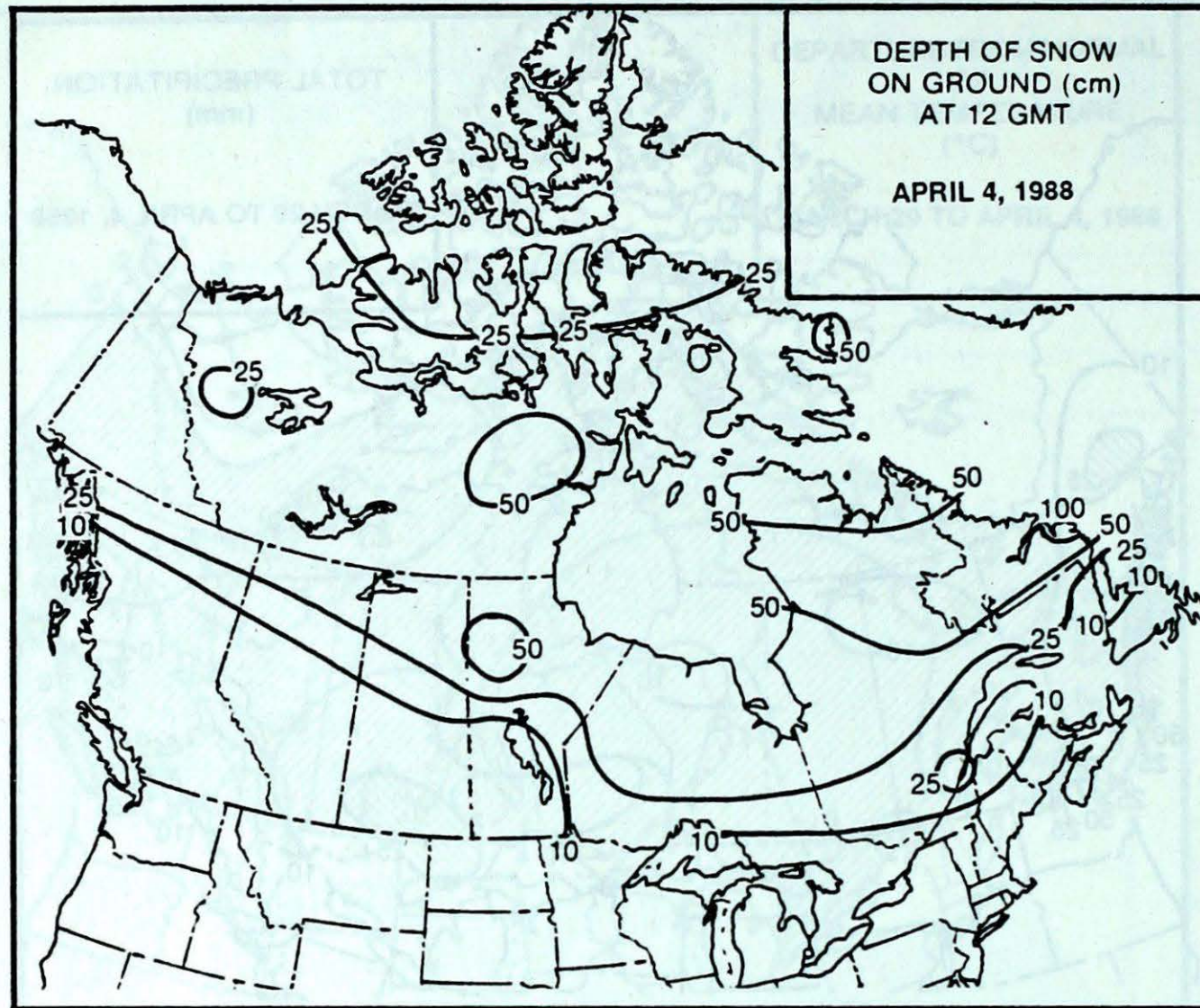
BRITISH COLUMBIA	CAPE ST. JAMES	127
YUKON TERRITORY	SWIFT RIVER	35
NORTHWEST TERRITORIES	FROBISHER BAY	15
ALBERTA	FORT CHIPEWYAN	19
SASKATCHEWAN	CREE LAKE	24
MANITOBA	THOMPSON	19
ONTARIO	GORE BAY	53
QUEBEC	VAL D'OR	32
NEW BRUNSWICK	CHARLO	13
NOVA SCOTIA	GREENWOOD	25
PRINCE EDWARD ISLAND	SUMMERSIDE	4
NEWFOUNDLAND	PORT-AUX-BASQUES	33

season until this week, when there was a significant increase in the sap flow. A disturbance brought showers towards the end of the Easter weekend. Heaviest amounts of rain, 20 to 30 millimetres, fell in western Nova Scotia.

Newfoundland

On the Island, the week started off cloudy, with extensive fog and periods of rain or drizzle. Temperatures were on the mild side. A ridge of high pressure

produced fair weather during the Easter weekend, with cloud and precipitation returning to most areas by the end of the period. Northern districts received 10 to 15 centimetres of fresh snow, while significant rainfalls fell in the south. In Labrador, the early part of the week was unsettled, with an area of high pressure dominating the weather picture over the holiday weekend. Fresh snowfalls, of 5 to 10 centimetres, fell the final day of the period. Snow depths along the coast ranged as high as 168 cm.



- ++ much above normal
- + above normal
- N normal
- below normal
- much below normal

Temperature Anomaly Forecast
 This forecast is prepared by searching historical weather maps to find cases similar to the present. The historical outcome during the 15 days subsequent to the chosen analogues is assumed to be a forecast for the next 15 days from now.

CLIMATIC PERSPECTIVES VOLUME 10

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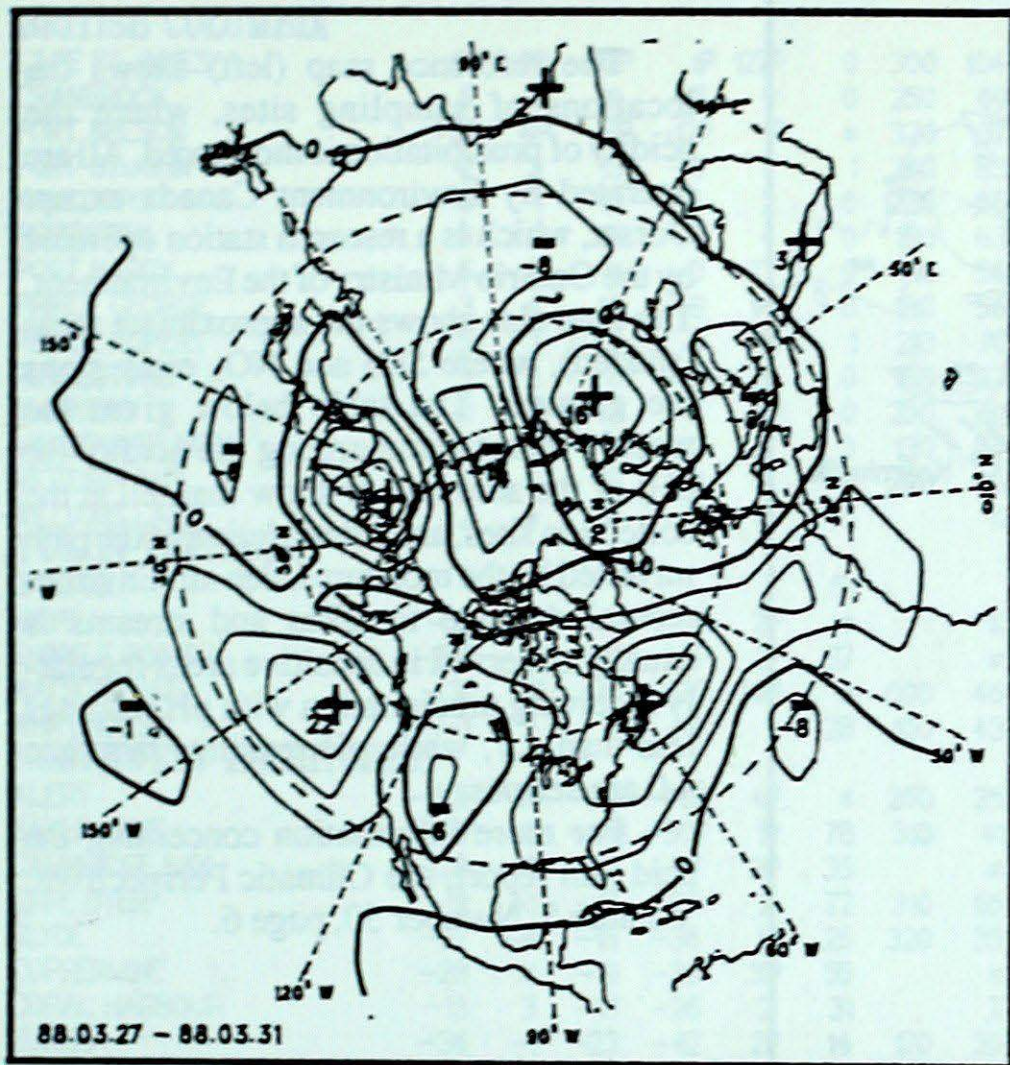
The purpose of the publication is to make topical information available to the public concerning the Canadian Climate and its socio-economic impact.

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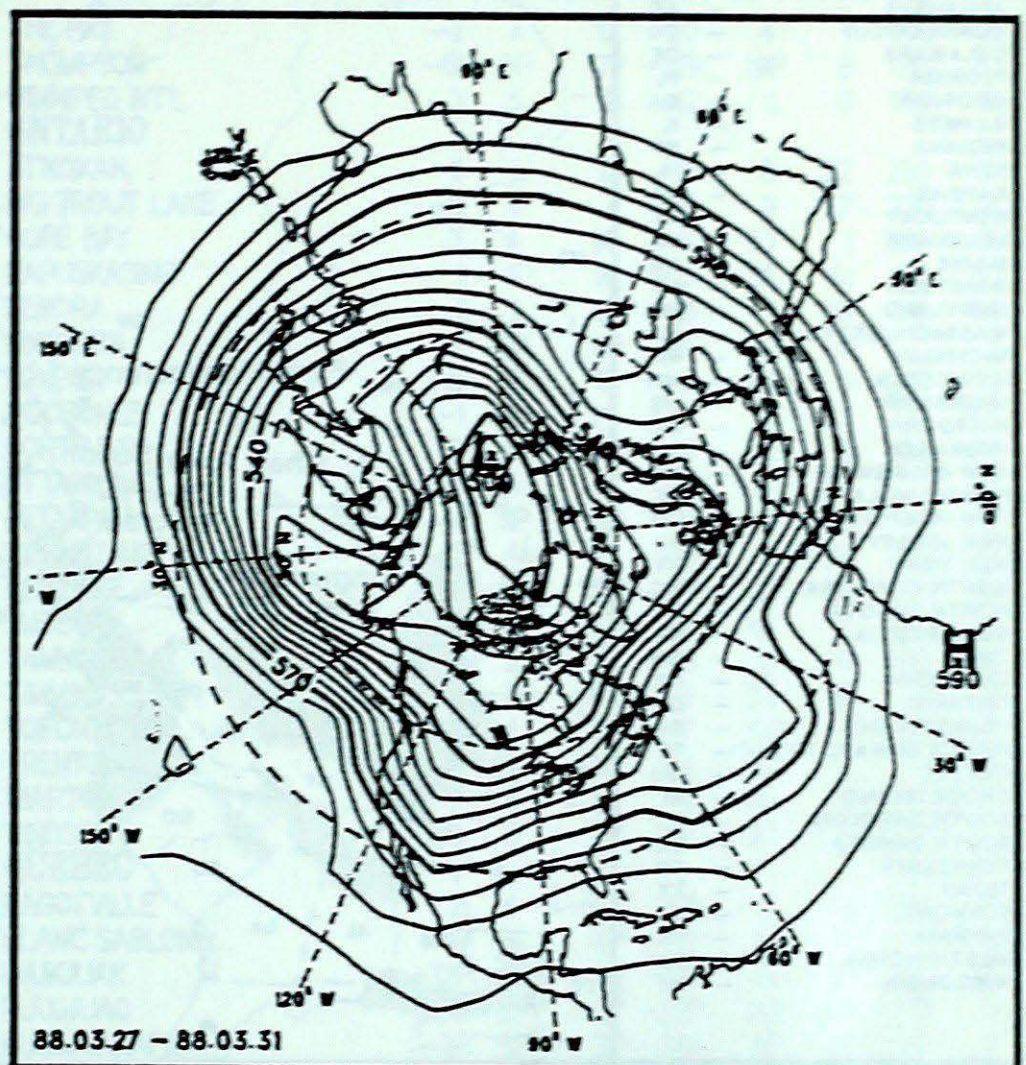
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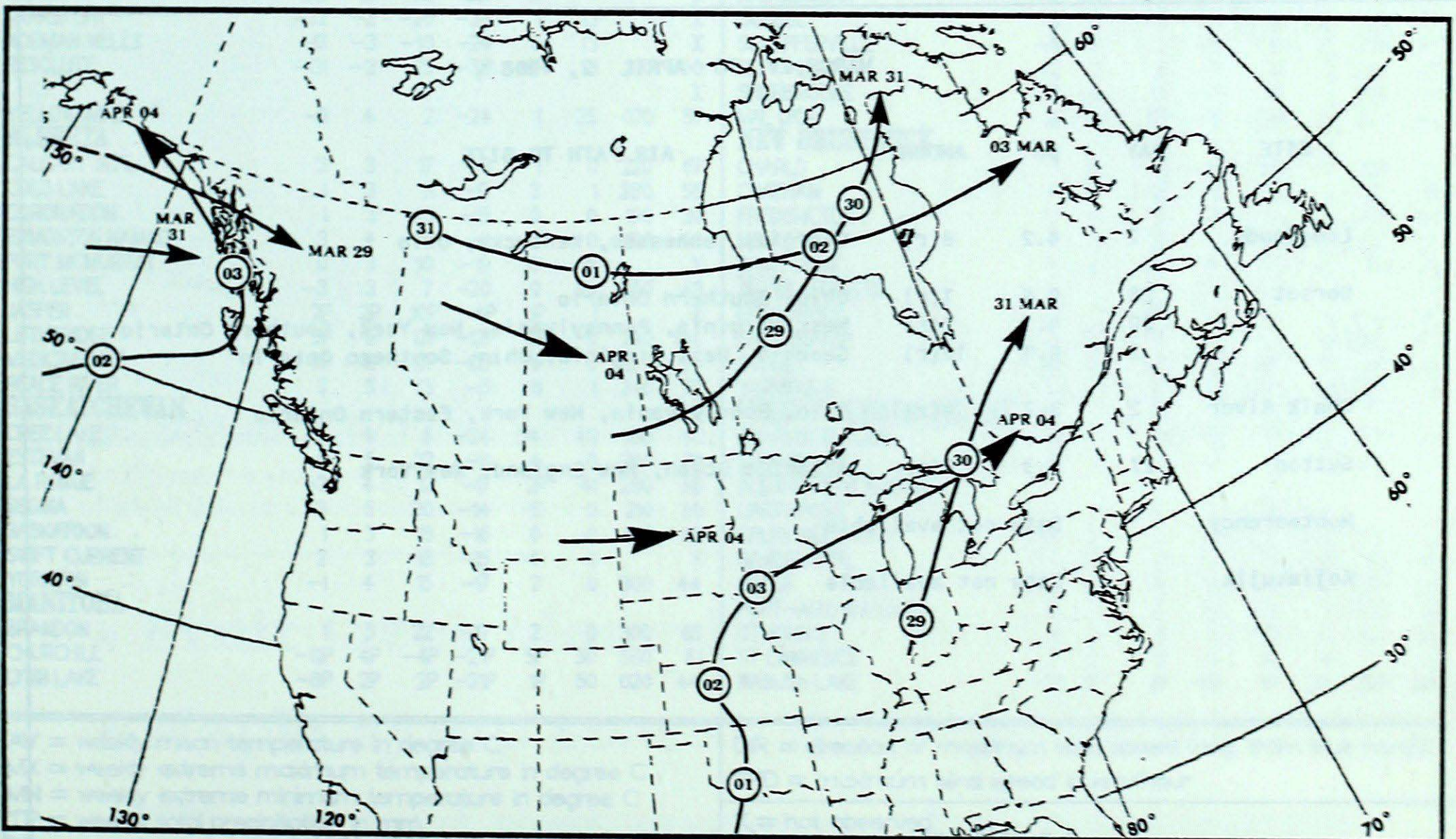
50 kPa ATMOSPHERIC CIRCULATION



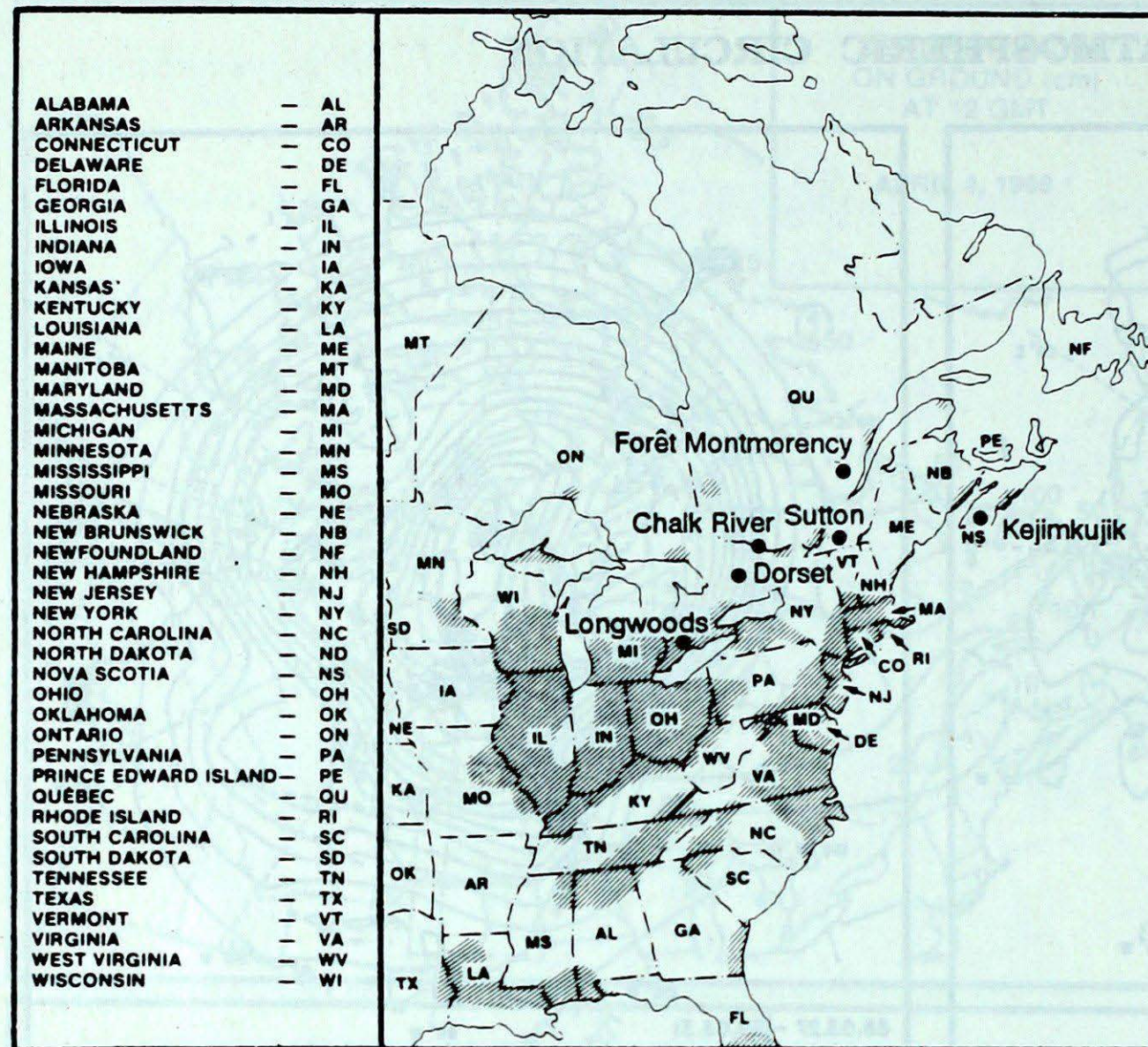
Mean geopotential height anomaly
50 kPa level (5 decameter intervals)



Mean geopotential height
50 kPa level (5 decameter intervals)



Storm track - Position of storm at 12 GMT during the period: March 29 to April 4, 1988



ACID RAIN REPORT

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 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.

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

MARCH 27 TO APRIL 2, 1988

SITE	DAY	pH	AMOUNT	AIR PATH TO SITE
Longwoods	2	4.2	8(r)	Georgia, Tennessee, Kentucky, Ohio
Dorset	28	4.4	1(r)	Ohio, Southern Ontario
	30	4.1	2(r)	West Virginia, Pennsylvania, New York, Southern Ontario
	2	4.1	10(r)	Georgia, West Virginia, Ohio, Southern Ontario
Chalk River	2	3.7	4(r)	Ohio, Pennsylvania, New York, Eastern Ontario
Sutton	27	4.3	8(m)	Atlantic Ocean, New England, New York
Montmorency				Data not available
Kejimikujik				Data not available

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

TEMPERATURE, PRECIPITATION AND MAXIMUM WIND DATA FOR THE WEEK ENDING 0600 GMT APRIL 5, 1988

STATION	TEMPERATURE				PRECIP.		WIND MX		STATION	TEMPERATURE				PRECIP.		WIND MX	
	AV	DP	MX	MN	TP	SOG	DIR	SPD		AV	DP	MX	MN	TP	SOG	DIR	SPD
BRITISH COLUMBIA																	
CAPE ST. JAMES	6P	0P	10P	1P	127P	0	300	104	THE PAS	-2	*	12	-20	4	1	140	48
CRANBROOK	5	2	14	-3	9	0	250	69	THOMPSON	-6P	5P	7P	-27P	19P	8	010	50
FORT NELSON	0P	4P	8P	-12P	1P	*	320	37	WINNIPEG INT'L	3	5	17	-12	1	0	180	61
FORT ST. JOHN	2	3	13	-4	7	1	240	83	ONTARIO								
KAMLOOPS	8	1	18	-4	2	0	230	56	ATKOKAN	-2	2	15	-18	8	22	250	31
PENTICTON	8	1	16	0	4	0	180	63	BIG TROUT LAKE	-3	*	7	-16	9	27	220	74
PORT HARDY	6	0	11	0	77	0	110	56	GORE BAY	3	4	14	-5	53	1	290	65
PRINCE GEORGE	3	*	10	-3	14	0	180	56	KAPUSKASING	1	5	14	-12	16	41	120	50
PRINCE RUPERT	5	1	9	0	88	1	210	76	KENORA	-1	2	12	-15	1	16	210	50
REVELSTOKE	5	2	11	-2	29	0	160	33	KINGSTON	5P	3P	11P	-4P	0	0		X
SMITHERS	3	1	13	-6	11P	0	250	81	LONDON	8	6	18	-3	14P	0	240	72
VANCOUVER INT'L	8	0	11	2	37	0	130	54	MOOSONEE	-1	6	14	-16	8	33	270	44
VICTORIA INT'L	8	0	12	2	17	0	200	50	NORTH BAY	5	6	15	-5	21	2	190	72
WILLIAMS LAKE	2	*	10	-6	19	1		X	OTTAWA INT'L	7	6	17	-2	19	0		X
YUKON TERRITORY																	
DAWSON							51		PETAWAWA	4P	5P	14P	-6P	13P	1		X
MAYO	-3P	3P	4P	-11P	2P	*		X	PICKLE LAKE	-2	4	15	-18	11	52	250	57
SHINGLE POINT A	-26P	-4P	-21P	-34P	2P	37		*	RED LAKE	0P	4P	15P	-18P	3P	52	190	59
WATSON LAKE	-3P	2P	4P	-13P	10P	*	090	46	SUDBURY	4	6	13	-5	45	3		X
WHITEHORSE	-1	2	7	-8	1	28	160	43	THUNDER BAY	0	2	9	-10	8	0	290	37
NORTHWEST TERRITORIES																	
ALERT	-32P	0P	-21P	-40P	4P	*	260	35	TIMMINS	2	6	14	-7	33	41		*
BAKER LAKE	-23P	1P	-18P	-30P	1P	78	310	41	TORONTO INT'L	6	4	13	-3	19P	0	220	80
CAMBRIDGE BAY	-28	0	-22	-37	2P	35		*	TRENTON	7	4	14	-4	24P	0		X
CAPE DYER	-19	-1	-12	-28	2	72	310	65	WARTON	7	6	18	-4	49	0		X
CLYDE	-27	-4	-18	-36	1P	25	320	35	WINDSOR	10	5	18	0	22	0	260	81
COPPERMINE	-28	*	-19	-38	3P	55		*	QUEBEC								
CORAL HARBOUR	-18	3	-13	-26	2	31		X	BAGOTVILLE	2	4	13	-8	12	9	270	54
EUREKA	-36	-1	-23	-42	2P	14	170	39	BLANC SABLON	-1P	*	4P	-7P	6P	1		X
FORT SMITH	-3	5	6	-20	4	31		X	INUKJUAQ	-12P	4P	-3P	-21P	7P	57	100	70
IQUALUIT	-19P	-1P	-6P	-31P	15P	48	350	61	KUUVJUAQ	-10P	3P	-1P	-20P	14P	46	270	74
HALL BEACH	-26	-1	-15	-35	2	35	050	43	KUUVJUAPIK	-7P	5P	3P	-24P	9P	31	130	65
INUVIK	-26P	-5P	-16P	-35P	5P	*		X	MANIWAKI	5	6	15	-8	17	1	230	61
MOULD BAY	-32	-2	-26	-38	1	13		X	MONT JOLI	1	3	11	-8	5	0	340	43
NORMAN WELLS	-17	-3	-10	-24	6	13		X	MONTREAL INT'L	7	6	17	-3	6	0	240	52
RESOLUTE	-31	-3	-25	-38	0P	13	100	50	NATASHQUAN	-1P	2P	3P	-8P	3P	31	010	43
								X	QUEBEC	3	3	11	-7	16	47	080	33
YELLOWKNIFE	-9	4	2	-24	1	35	070	57	SCHIEFFERVILLE	-8	3	2	-19	8	71	290	76
ALBERTA																	
CALGARY INT'L	3	3	17	-8	1	0	220	67	SEPT-ILES	-2	2	6	-8	4	6	080	43
COLD LAKE	1	3	11	-17	3	1	280	56	SHERBROOKE	5	6	17	-9	6	1	270	41
CORONATION	1	3	13	-15	0	0	190	39	VAL D'OR	2P	6P	12P	-8P	32P	13	220	44
EDMONTON NAMAQ	3	4	16	-11	1	0	120	48	NEW BRUNSWICK								
FORT MCMURRAY	0	3	10	-19	19	19		X	CHARLO	1	3	11	-8	13	19	320	41
HIGH LEVEL	-3	3	7	-20	9	29	360	43	CHATHAM	4	4	17	-5	7	1	320	41
JASPER	2P	2P	10P	-4P	6P	1		X	FREDERICTON	5	4	16	-5	2	1	330	43
LETHBRIDGE	3P	1P	17P	-12P	0P	0	240	104	MONCTON	4	4	16	-4	3	0	320	50
MEDICINE HAT	6P	4P	17P	-12P	1P	0	230	74	SAINT JOHN	5	4	16	-4	1	0	340	50
PEACE RIVER	3	5	13	-6	11	1	240	52	NOVA SCOTIA								
SASKATCHEWAN																	
CREE LAKE	-5	4	6	-24	24	43	180	46	GREENWOOD	5	3	16	-3	25	*	020	48
ESTEVAN	4	5	22	-11	4	0	260	70	SHEARWATER	5	3	14	-1	11	0	340	54
LA RONGE	-3	4	12	-17	2P	41	280	56	SYDNEY	2P	3P	10P	-6P	7P	0	020	54
REGINA	3	5	20	-14	5	0	210	59	YARMOUTH	5	2	12	-4	20P	0	330	52
SASKATOON	1	3	18	-16	0	0	210	48	PRINCE EDWARD ISLAND								
SWIFT CURRENT	2	3	18	-15	4	0		X	CHARLOTTETOWN	2	2	11	-5	1	4	350	46
YORKTON	-1	4	15	-17	2	0	300	44	SUMMERSIDE	2	2	11	-4	4	6	010	57
MANITOBA																	
BRANDON	1	5	22	-17	2	0	300	65	NEWFOUNDLAND								
CHURCHILL	-11P	4P	-4P	-21P	5P	30	060	61	CARTWRIGHT	-3	2	5	-12	12P	168		*
LYNN LAKE	-8P	2P	2P	-21P	1P	50	020	44	CHURCHILL FALLS	-6	3	4	-18	8	99	270	57
									GANDER INT'L	1	3	11	-7	4	10	160	46
									GOOSE	-2	3	10	-13	6	52	280	43
									PORT-AUX-BASQUES	2	3	8	-4	33	1	300	41
									ST JOHN'S	1	1	9	-5	13	0	160	65
									ST LAWRENCE	3	4	11	-4	14	*		X
									WABUSH LAKE	-5P	5P	6P	-18P	6P	50	250	56

AV = weekly mean temperature in degree C
 MX = weekly extreme maximum temperature in degree C
 MN = weekly extreme minimum temperature in degree C
 TP = weekly total precipitation in mm
 DP = departure of mean temperature from normal in degree C
 SOG = snow depth on ground in cm, last day of the period

DIR = direction of maximum wind speed (deg. from true north)
 SPD = maximum wind speed in km/hour

X = not observed
 P = value based on less than 7 days
 * = missing

