

Climatic Perspectives

A weekly review of Canadian climate

April 22 to 28, 1986

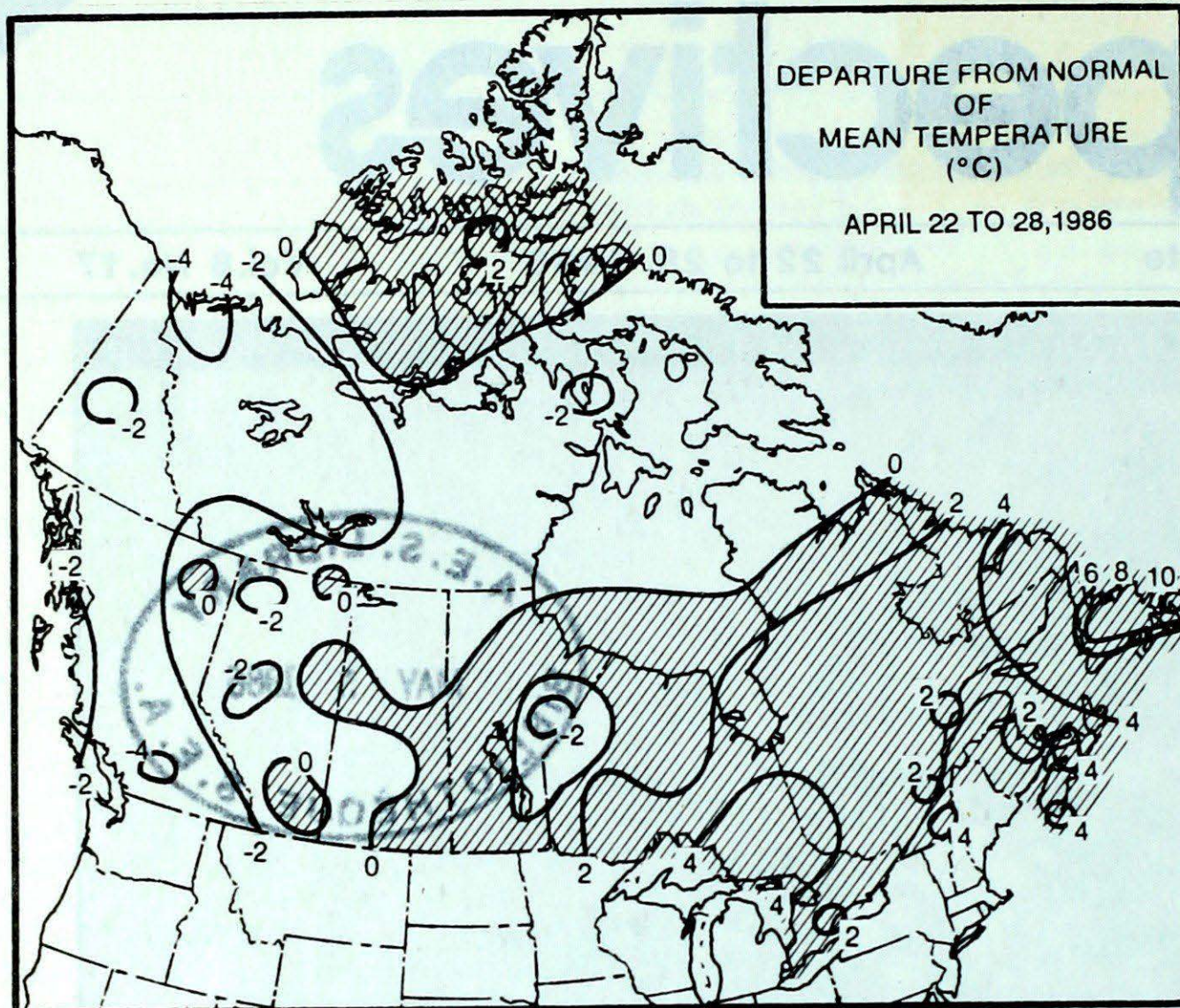
Vol.8 No.17



This NOAA 6 photograph of April 25, 1986, shows the Mackenzie District of the Northwest Territories. All lakes and rivers are still ice covered, and as much as 50 cm of snow still blankets the ground. The tree-less Arctic tundra (top right) is very distinguishable due to the lack of tall vegetation, as compared to the coniferous forested Mackenzie Valley.

- **Cool unsettled weather in B.C. setback for agriculture**
- **Record warmth follows cold in Ontario and Quebec**
- **Record high temperatures for April in Newfoundland**

TEMPERATURE



ACROSS THE COUNTRY...

Yukon and Northwest Territories

Overall, temperatures in the Yukon and Northwest Territories were unseasonably cool, but in the southern Yukon and Mackenzie District readings did manage to reach the double digits. Snow depths in the Yukon are still considered to be above normal, and western sections received an additional 2 to 4 cm this week. The south Klondike Highway, between Whitehorse and Skagway Alaska, was opened April 26. There were periods of snow throughout the Northwest Territories and on Baffin Island, with falls ranging up to 10 cm. In many cases, snow depths on Baffin Island still exceed 100 cm.

British Columbia

An upper cold low plagued the province, giving cool unsettled conditions throughout. Sunshine was scarce, with many locations receiving half their normal amount. In the Okanagan, showery weather conditions hindered the spraying and pollination of the fruit crops. Early morning frost was reported in the southern valleys on a number of occasions. In the Kootenays, 25 cm of snow fell in the mountain passes over the weekend. In the north it was dry and relatively sunny, with convective build-ups and showers developing during the afternoons.

Prairie Provinces

It was unsettled, cloudy and damp throughout most of the period. Temperatures were on the cool side, with a few daily low temperature records set in Alberta. Earlier in the week, under sunny skies, readings in Alberta briefly climbed into the low twenties. A fair amount of rain fell in all three provinces, with the highest rainfall totals, almost 30 mm, reported in southern Manitoba. In the Alberta foothills, 10 to 20 centimetres of snow fell early in the week, while up to 15 cm of snow fell in extreme south eastern Manitoba over the weekend. Spring field work has begun in Saskatchewan, but fields are much too soggy in southern Manitoba.

WEEKLY TEMPERATURE EXTREME (C)

	MAXIMUM		MINIMUM
BRITISH COLUMBIA	KAMLOOPS 16	DEASE LAKE	-10
YUKON TERRITORY	WATSON LAKE 10	OGILVIE	-29
NORTHWEST TERRITORIES	FORT SMITH 16	PELLY BAY	-31
ALBERTA	MEDICINE HAT 22	RED DEER	-9
SASKATCHEWAN	ESTEVAN 28	CREE LAKE	-8
MANITOBA	BRANDON 21	CHURCHILL	-15
ONTARIO	WAWA 30	MOOSONEE	-18
QUEBEC	VAL D'OR 28	KUUJJIARAPIK	-21
NEW BRUNSWICK	CHATHAM 20	CHARLO	-1
NOVA SCOTIA	SAINT JOHN	AMHERST	2
PRINCE EDWARD ISLAND	GREENWOOD 22	CHARLOTTETOWN	1
NEWFOUNDLAND	CHARLOTTETOWN 18	SUMMERSIDE	
	ST JOHN'S 24	CHURCHILL FALLS	-12

ACROSS THE NATION

WARMEST MEAN TEMPERATURE	13	ST JOHN'S	NFLD
COOLEST MEAN TEMPERATURE	-22	EUREKA	NWT

PRECIPITATION

Ontario

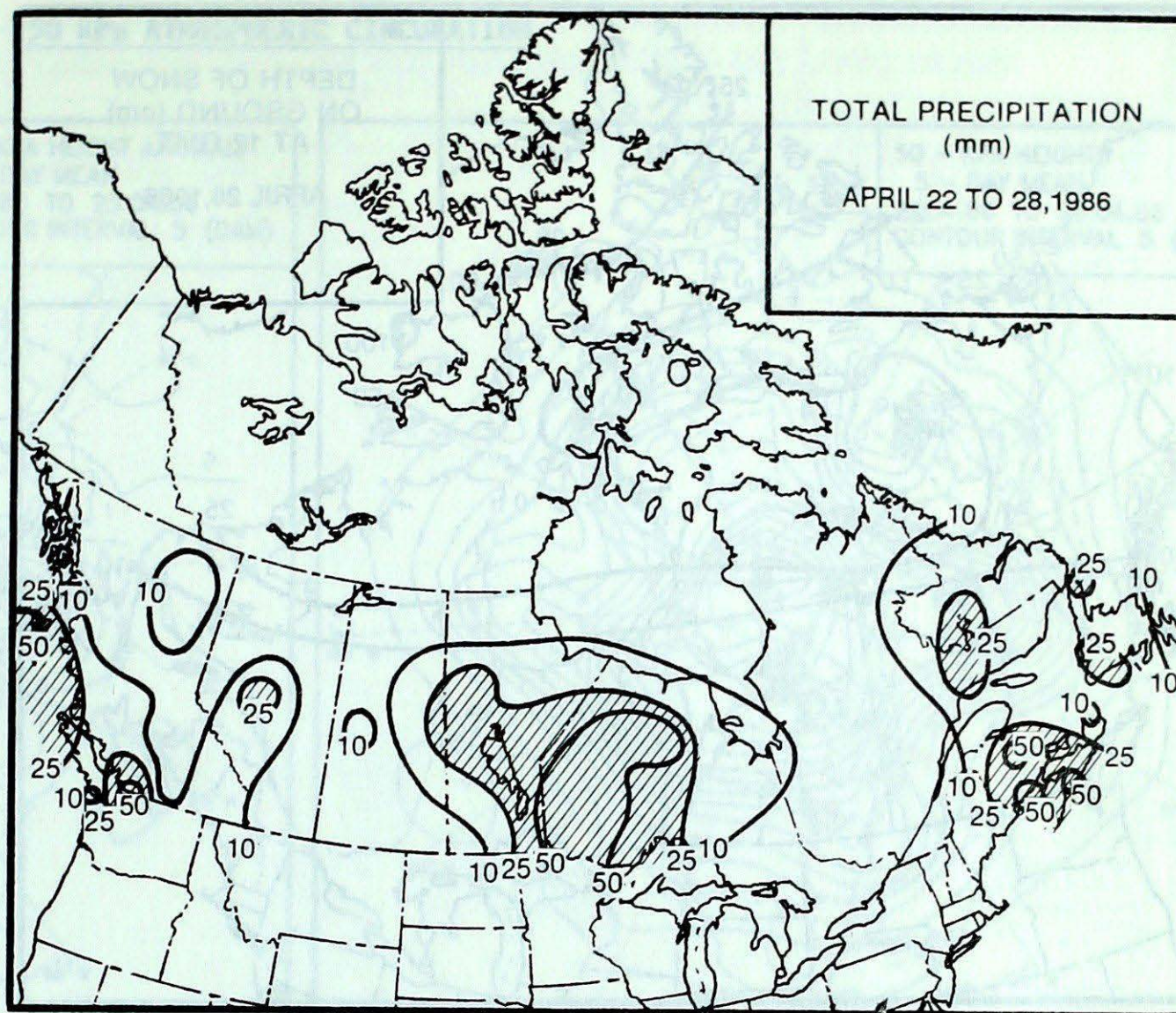
This was a week of record breaking temperatures. In the south, an area of high pressure gave mostly dry conditions, while disturbances brought inclement weather, including snow, to northern Ontario. The early part of the week was unseasonably cold, as an Arctic airmass spilled southwards across the province. No less than twenty daily low temperature records were broken on April 22 and 23, with readings even in the south falling well below the freezing mark; southern Ontario received an overnight dusting of snow. By mid-week a southerly flow pumped very mild air back into the province. Under sunny skies, readings over the weekend rebounded to record high values. In areas not affected by the cold waters of the Great Lakes, temperatures soared to the mid to high twenties. On April 27, the temperature at Timmins reached a record 30°C.

Quebec

Fine sunny weather continued from last week, and conditions were perfect for the St. Hubert Airshow. The week began on the cool side, with several daily low temperature records being set. By the weekend, temperatures rebounded to record high values, and eighteen new daily maximum temperature records were established. Val d'Or set a new monthly temperature record of 27°C on April 27. The week was sunny and very dry, except in eastern sections of the province, where there was up to 26 mm of rain. Seeding continues in the southern parts of the province, but there is a lack of moisture needed for germination.

Maritimes

A stationary weather system, situated near Nova Scotia, gave dull and wet weather conditions for most of the week. Heaviest precipitation occurred on April 23, with a number of locations in New Brunswick and Prince Edward Island reporting daily totals in the 20 to 25 millimetre range. Coastal areas were plagued by fog and drizzle. Sunshine was more prevalent in



HEAVIEST WEEKLY PRECIPITATION (mm)

BRITISH COLUMBIA	KINDAKUN POINT	61
YUKON TERRITORY	BURWASH	4
NORTHWEST TERRITORIES	BAKER LAKE	7
ALBERTA	WHITECOURT	32
SASKATCHEWAN	LA RONGE	23
MANITOBA	THE PAS	39
ONTARIO	SIoux LOOKOUT	77
QUEBEC	SEPT-ILES	26
NEW BRUNSWICK	SAINT JOHN	63
NOVA SCOTIA	SHELBURNE	51
PRINCE EDWARD ISLAND	SUMMERSIDE	34
NEWFOUNDLAND	STEPHENVILLE	33

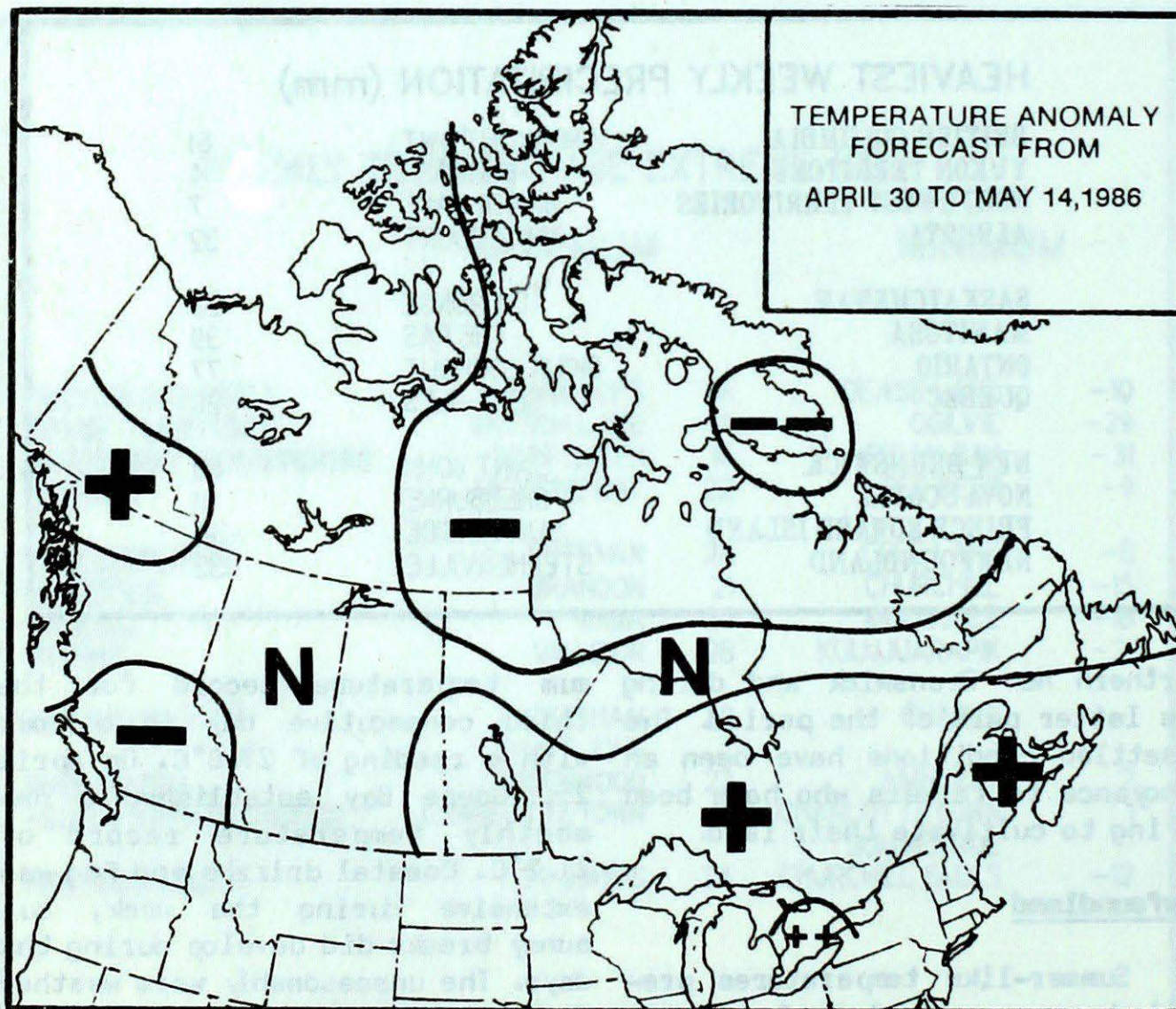
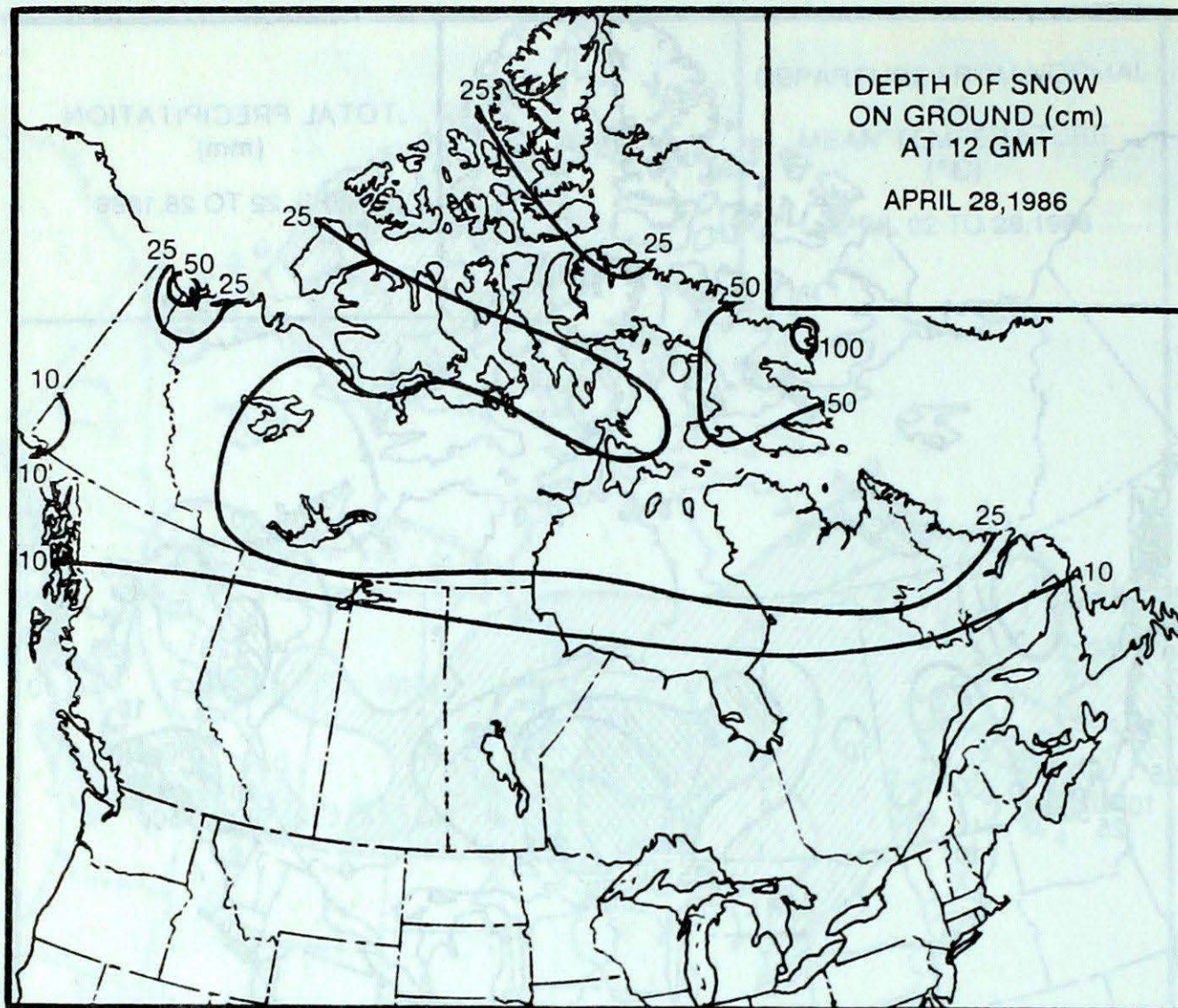
northern New Brunswick and during the latter part of the period. The unsettled conditions have been an annoyance to farmers who have been trying to cultivate their land.

Newfoundland

Summer-like temperatures prevailed over much of Newfoundland, including Labrador. Numerous daily and monthly temperature records were shattered. On April 24, St. John's recorded the highest maximum temperature ever, 24.1°C, during the month of April. On April 26, Stephenville broke a monthly maxi-

mum temperature record for the third consecutive day in a row, with a reading of 23.8°C. On April 25, Goose Bay established a new monthly temperature record of 21.2°C. Coastal drizzle and fog was extensive during the week, but sunny breaks did develop during the days. The unseasonably warm weather came to an abrupt end during the latter part of the weekend, as a cold front pushed southward across the district.

FORECAST



Temperature Anomaly Forecast

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

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.

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Managing Editor M.J. Newark
 Editor (English) A.K. Radomski
 Editor (French) A.A. Gaillet
 Staff Writer M. Skarpathiotakis
 Art Layout K. Czaja
 Cartography G. Young/T. Chivers
 B. Taylor
 Word Processing U. Ellis, P. Burke

Regional Correspondents

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 Lab

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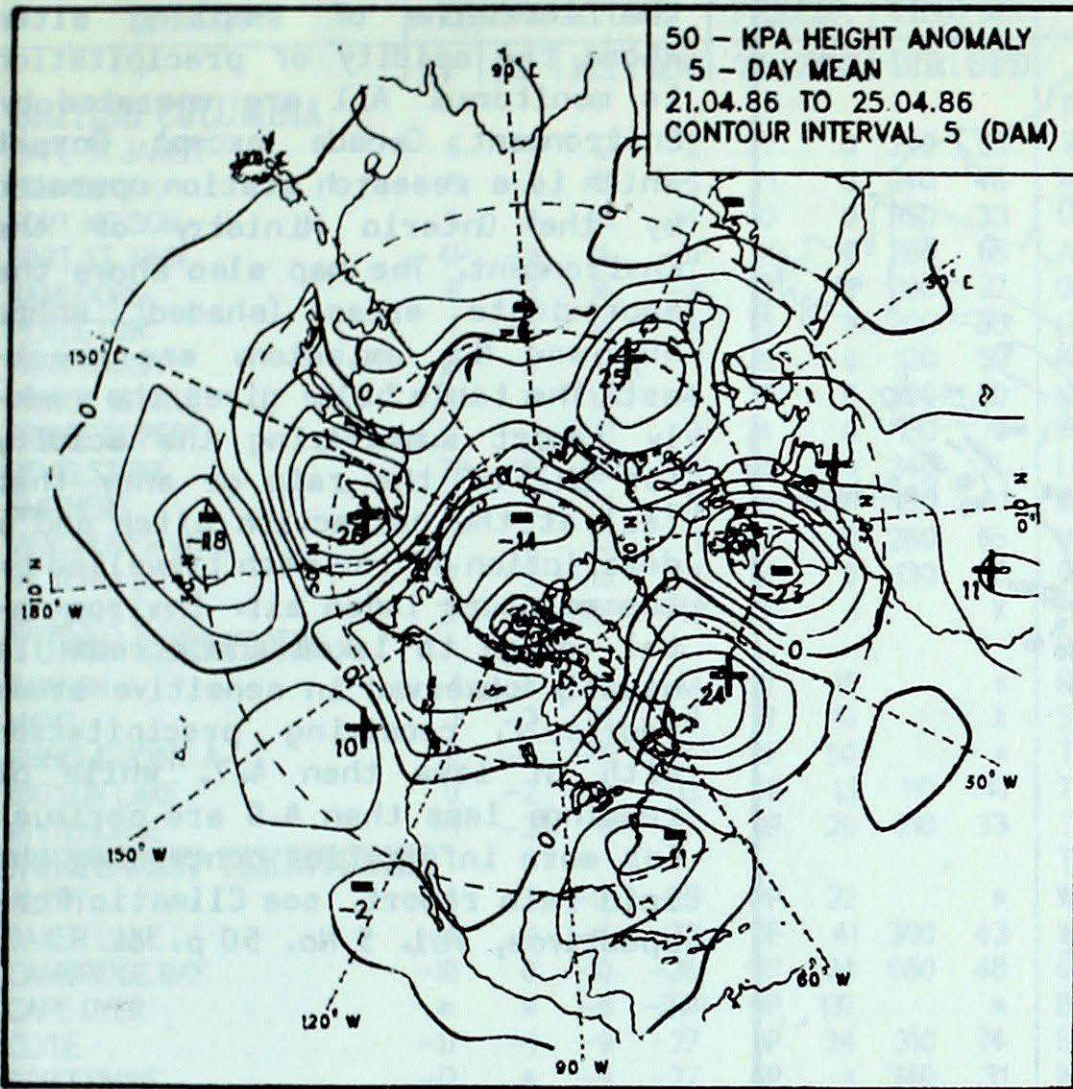
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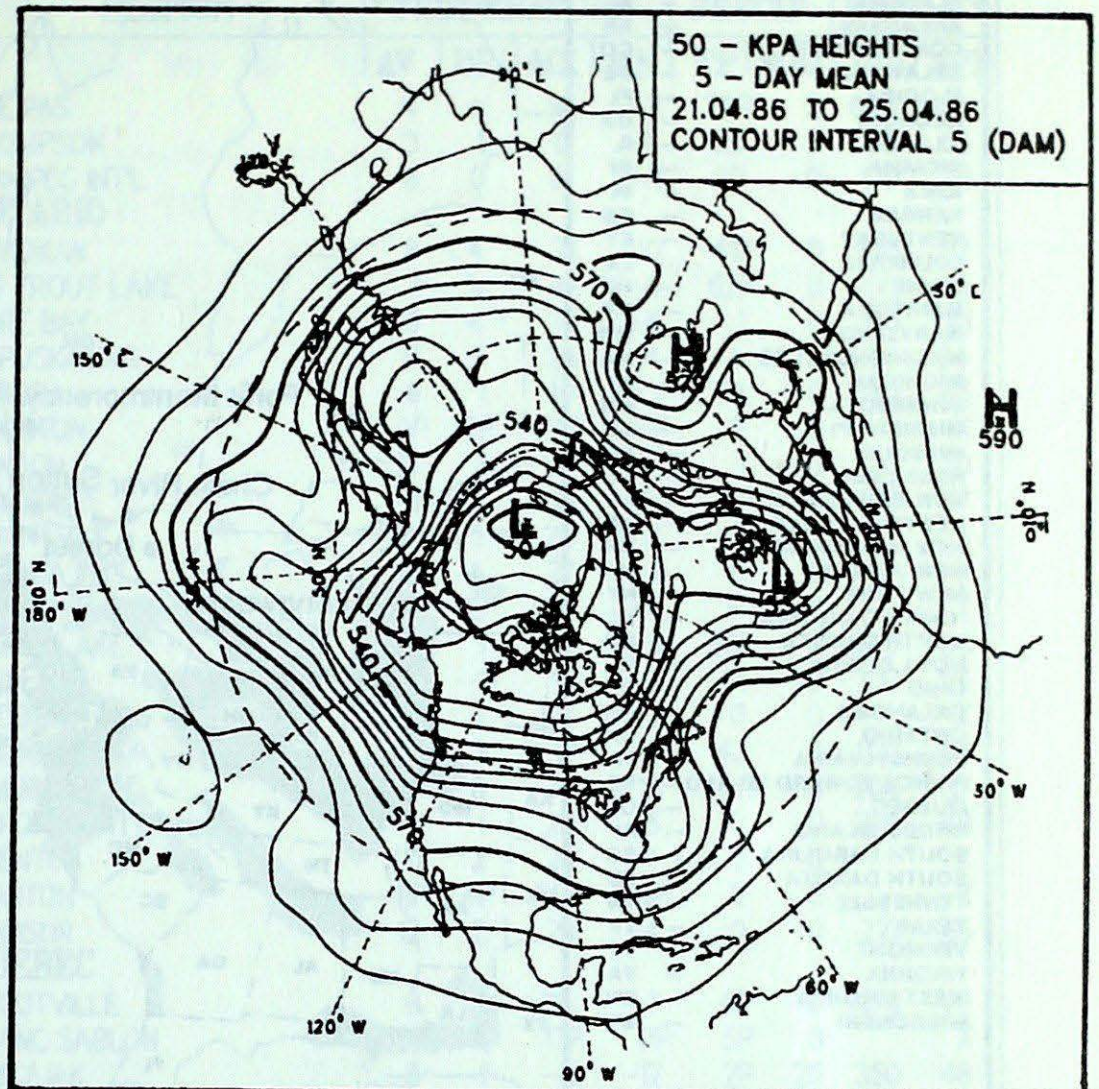
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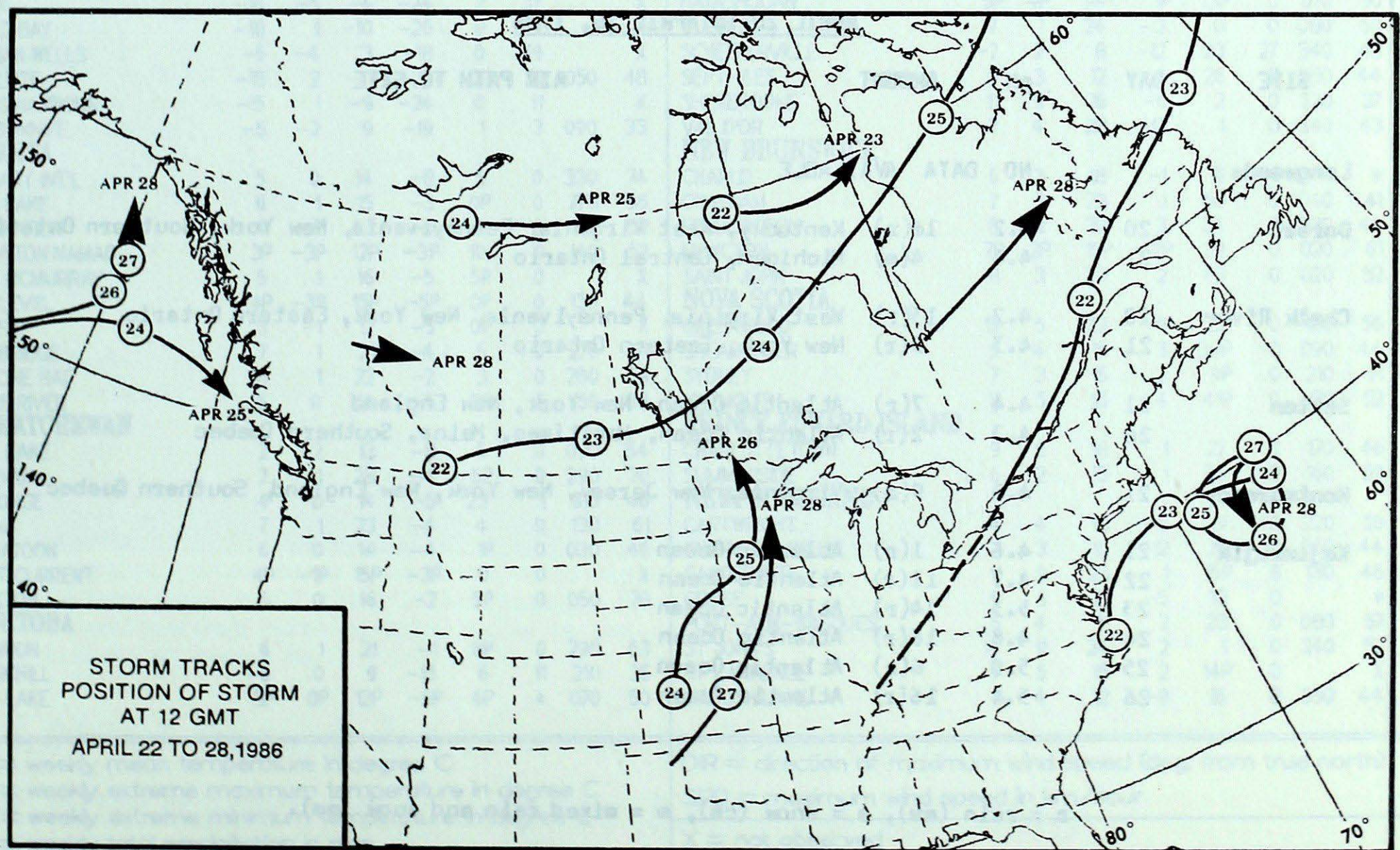
50 KPa ATMOSPHERIC CIRCULATION



MEAN 50 KPa HEIGHT ANOMALY (dam)
April 21 to April 25, 1986

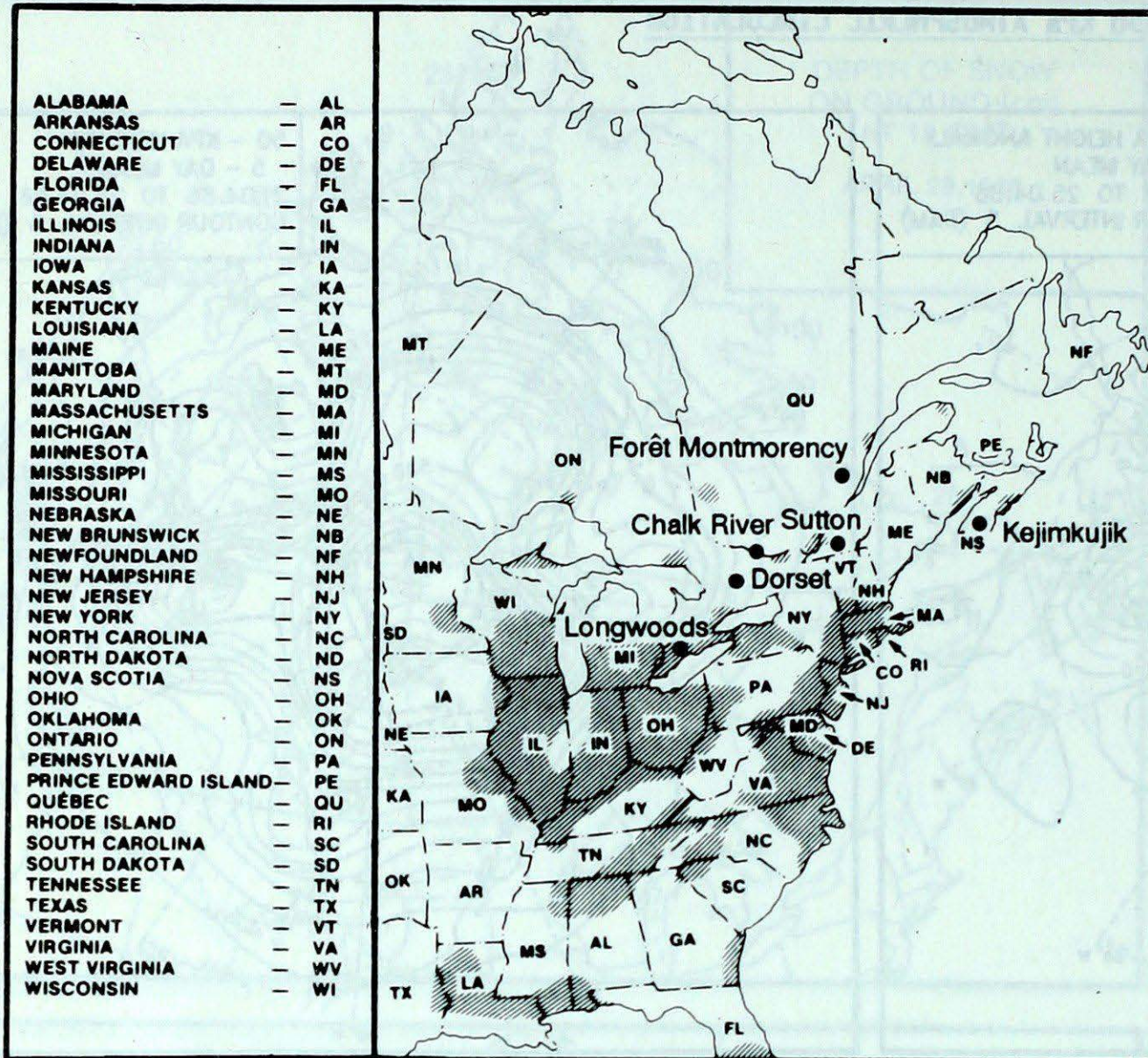


MEAN 50 KPa HEIGHTS (dam)
April 21 to April 25, 1986



ACID RAIN

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 SO_2 and NO_x emissions are greatest. The table below 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 less than 4.7, while pH readings less than 4.0 are serious. For more information concerning the acid rain report, see Climatic Perspectives, Vol. 5 No. 50 p. 6.

APRIL 20 TO APRIL 26, 1986

SITE	DAY	pH	AMOUNT	AIR PATH TO SITE
Longwoods			NO DATA AVAILABLE	
Dorset	20	4.2	16(r)	Kentucky, West Virginia, Pennsylvania, New York, Southern Ontario
	21	4.4	4(m)	Michigan, Central Ontario
Chalk River	20	4.2	13(r)	West Virginia, Pennsylvania, New York, Eastern Ontario
	21	4.3	9(r)	New York, Eastern Ontario
Sutton	21	4.4	7(r)	Atlantic Ocean, New York, New England
	26	4.3	2(r)	Atlantic Ocean, Maritimes, Maine, Southern Quebec
Montmorency	21	4.3	9(m)	Virginia, New Jersey, New York, New England, Southern Quebec
Kejimikujik	21	4.6	1(r)	Atlantic Ocean
	22	4.7	11(r)	Atlantic Ocean
	23	5.3	14(r)	Atlantic Ocean
	24	4.8	16(r)	Atlantic Ocean
	25	5.0	6(r)	Atlantic Ocean
	26	5.4	16(r)	Atlantic Ocean

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 29, 1986

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									THE PAS	4	*	14	-3	39P	2	090	44
CAPE ST. JAMES	6	-1	12	2	37	0	290	69	THOMPSON	3	1	12	-4	25	0	060	65
CRANBROOK	5	-3	13	-5	21	0	240	46	WINNIPEG INT'L	6	0	18	-1	32	0	170	61
FORT NELSON	5	0	16	-4	10	0	350	33	ONTARIO								
FORT ST. JOHN	4P	-1P	14	-3P	9P	0	260	65	ATIKOKAN	8	4	21	-10	41P	0	100	57
KAMLOOPS	8	-3	16	-3	2P	0	280	37	BIG TROUT LAKE	1	*	10	-6	62P	8	280	65
PENTICTON	7	-3	14	-4	5	0	200	50	GORE BAY	10	4	27	-6	1	0	150	41
PORT HARDY	6	-2	12	1	28	0	120	59	KAPUSKASING	8	5	30	-14	4	0	290	54
PRINCE GEORGE	4	*	13	-4	9	0	180	50	KENORA	6	1	19	-3	55	0	060	65
PRINCE RUPERT	6	-1	11	0	24	0	150	70	KINGSTON	9P	2P	24P	-5P	0	0		X
REVELSTOKE	7P	-3P	12P	-1P	13P	0	340	74	LONDON	10	2	28	-4	1	0	220	50
SMITHERS	4	-2	11	-3	0P	0	150	41	MOOSONEE	3	2	19	-18	15P	0	210	37
VANCOUVER INT'L	7	-2	13	1	33	0	280	65	NORTH BAY	10	5	28	-12	0	0		*
VICTORIA INT'L	7	-2	13	1	6P	0	130	50	OTTAWA INT'L	12	4	27	-7	0	0		X
WILLIAMS LAKE	3P	*	10P	-4P	3P	1		X	PETAWAWA	10	3	25	-9	0	0		X
YUKON TERRITORY									PICKLE LAKE	3	1	11	-5	30P	0	260	56
DAWSON	-1	*	9	-12	0	19		*	RED LAKE	4	-1	15	-2	51	0	100	56
MAYO	1	-2	9	-8	3	10		X	SUDBURY	11	5	30	-11	0	0		X
SHINGLE POINT A	-16	-4	-11	-26	0P	50		*	THUNDER BAY	7	3	17	-9	42	0	070	65
WATSON LAKE	0	-2	10	-13	0P	13	110	41	TIMMINS	9	6	30	-13	0P	0	200	37
WHITEHORSE	-1	-3	9	-11	1P	20	210	33	TORONTO INT'L	9	1	23	-5	0	0	240	48
NORTHWEST TERRITORIES									TRENTON	11	2	26	-4	0	0		X
ALERT	-20	1	-12	-28	0P	22		*	WIARTON	11P	4P	29P	-6P	2	0		X
BAKER LAKE	-14	-1	-6	-23	7P	41	300	43	WINDSOR	12	2	29	-4	0	0	210	65
CAMBRIDGE BAY	-18	0	-10	-26	0P	24	060	48	QUEBEC								
CAPE DYER	*	*	-8	-24P	0P	137		*	BAGOTVILLE	8	3	24	-7	0P	0	070	44
CLYDE	-17	-1	-9	-27	1P	34	310	74	BLANC SABLON	5P	*	13P	0P	5P	0		X
COPPERMINE	-17	*	-9	-27	6P	*	340	31	INUKJUAQ	-8	-1	-3	-17	2P	26	350	48
CORAL HARBOUR	-15	-2	-5	-25	2P	24		X	KUUJUAQ	-5	1	4	-17	3P	44	270	56
EUREKA	-22	1	-13	-28	0	22	290	50	KUUJUARAPIK	-1	2	7	-21	5P	8	150	46
FORT SMITH	2P	0P	16P	-10P	0P	*		X	MANIWAKI	10	4	28	-8	0	0		*
FROBISHER BAY	-12	-1	-3	-22	0P	40	340	48	MONT JOLI	5	1	15	-3	4P	0	050	59
HALL BEACH	-20	-2	-10	-27	1P	38	340	37	MONTREAL INT'L	11	3	27	-3	0	0	030	44
INUVIK	-14	-5	-4	-24	2	37		X	NATASHQUAN	5P	4P	14P	1P	13P	0	070	50
MOULD BAY	-18	1	-10	-26	0	29		X	QUEBEC	7	1	24	-3	0	0	080	50
NORMAN WELLS	-6	-4	3	-18	0	19		X	SCHIEFFERVILLE	-2	2	8	-12	23	27	340	43
RESOLUTE	-18	2	-11	-25	0P	31	050	48	SEPT-ILES	5	3	12	0	26	2	080	44
SACHS HARBOUR	-15	1	-9	-24	0	11		X	SHERBROOKE	11	5	26	-6	2	0	320	37
YELLOWKNIFE	-5	-2	9	-19	1	3	090	33	VAL D'OR	7	4	28	-17	1	0	340	43
ALBERTA									NEW BRUNSWICK								
CALGARY INT'L	5	0	14	-8	5	0	330	74	CHARLO	6	3	18	-1	19	1		*
COLD LAKE	6	1	15	-3	0P	0	270	56	CHATHAM	7	2	20	1	50	0	040	41
CORONATION	4	-1	13	-5	9	0	150	52	FREDERICTON	8	2	20	3	34	0	030	46
EDMONTON NAMAQ	3P	-3P	12P	-3P	10	0	140	52	MONCTON	7P	2P	15P	2P	39	0	020	61
FORT MCMURRAY	5	1	16	-5	5P	0		X	SAINT JOHN	8	3	20	2	63	0	020	52
HIGH LEVEL	4P	-3P	15P	-5P	0P	0	130	44	NOVA SCOTIA								
JASPER	3	-1	12	-5	0P	0		X	GREENWOOD	12	5	22	6	22	0	160	56
LETHBRIDGE	7	1	21	-4	6	0	270	81	SHEARWATER	9	4	16	3	30P	0	090	44
MEDICINE HAT	8	1	22	-2	3	0	280	59	SYDNEY	7	3	15	2	9P	0	210	41
PEACE RIVER	5	0	14	-4	2P	0	150	33	YARMOUTH	11	5	18	4	41P	0	170	52
SASKATCHEWAN									PRINCE EDWARD ISLAND								
CREE LAKE	2	-2	13	-8	5	0	090	54	CHARLOTTETOWN	9	5	18	1	27	0	170	46
ESTEVAN	7	1	28	-4	5P	0	290	70	SUMMERSIDE	6	2	13	1	34	2	160	59
LA RONGE	4	0	14	-5	23	1	310	46	NEWFOUNDLAND								
REGINA	7	1	23	-4	4	0	130	61	CARTWRIGHT	4	4	13	-5	19	16	220	50
SASKATOON	6	0	14	-4	1P	0	030	46	CHURCHILL FALLS	1	3	15	-12	26	30	350	44
SWIFT CURRENT	4P	-1P	15P	-3P	0	0		X	GANDER INT'L	11	9	23	1	15P	0	180	46
YORKTON	5	0	16	-2	5P	0	050	70	GOOSE	5	5	21	-5	18	0		*
MANITOBA									PORT-AUX-BASQUES	6	4	11	2	23	0	080	57
BRANDON	6	1	21	-1	8P	0	290	63	ST JOHN'S	14	11	24	2	1	0	240	52
CHURCHILL	-6	0	9	-15	6	11	210	35	ST LAWRENCE	7	5	15	2	14P	0		X
LYNN LAKE	3P	0P	12P	-5P	4P	*	070	50	WABUSH LAKE	1	4	12	-9	16	8	350	44

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