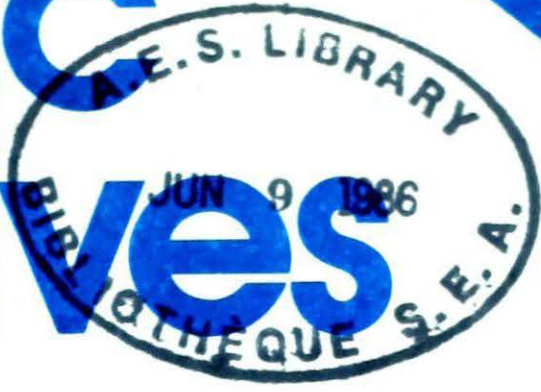


Climatic Perspectives

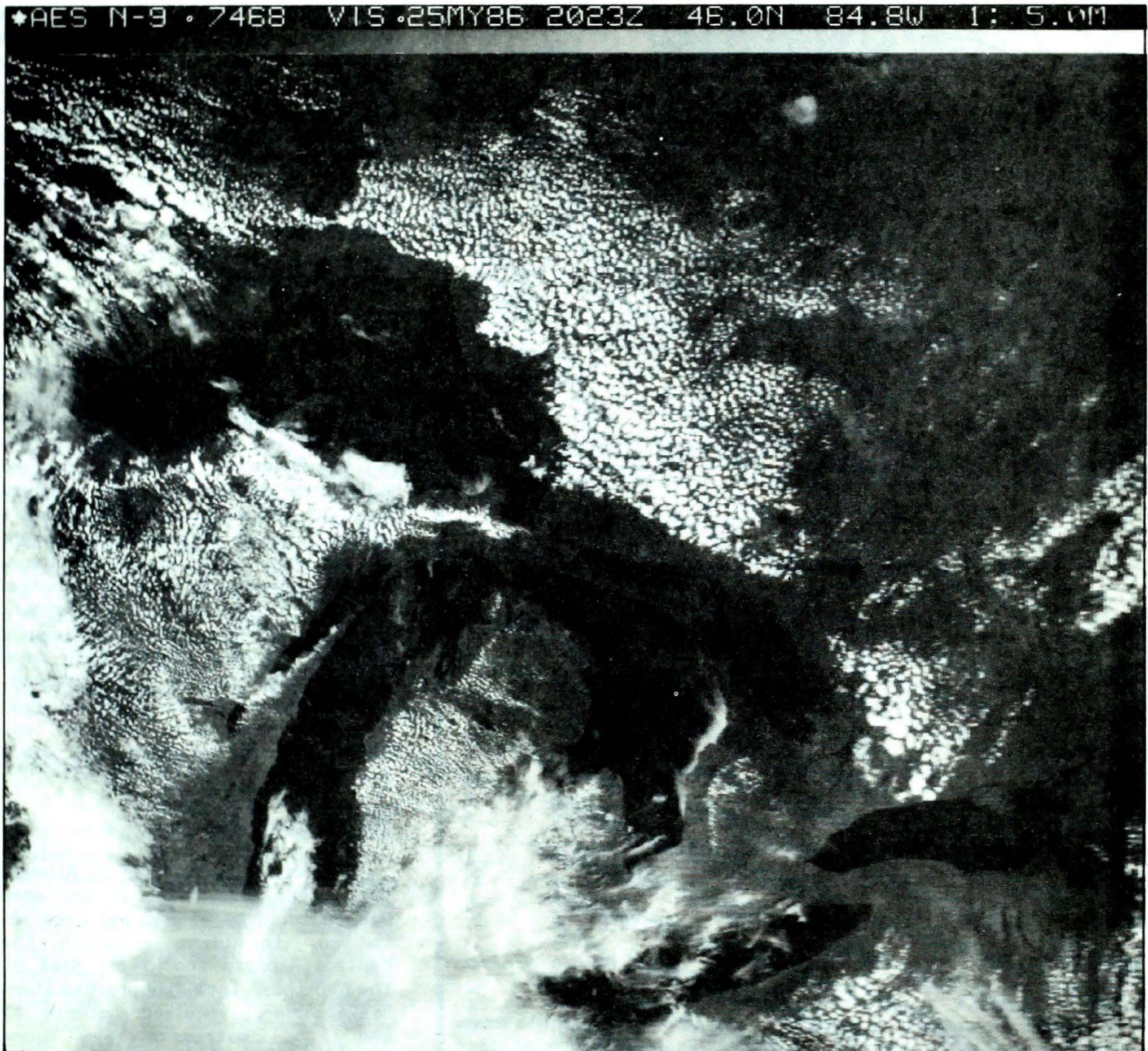
MONTHLY SUPPLEMENT INCLUDED



A weekly review of Canadian climate

May 20 to 26, 1986

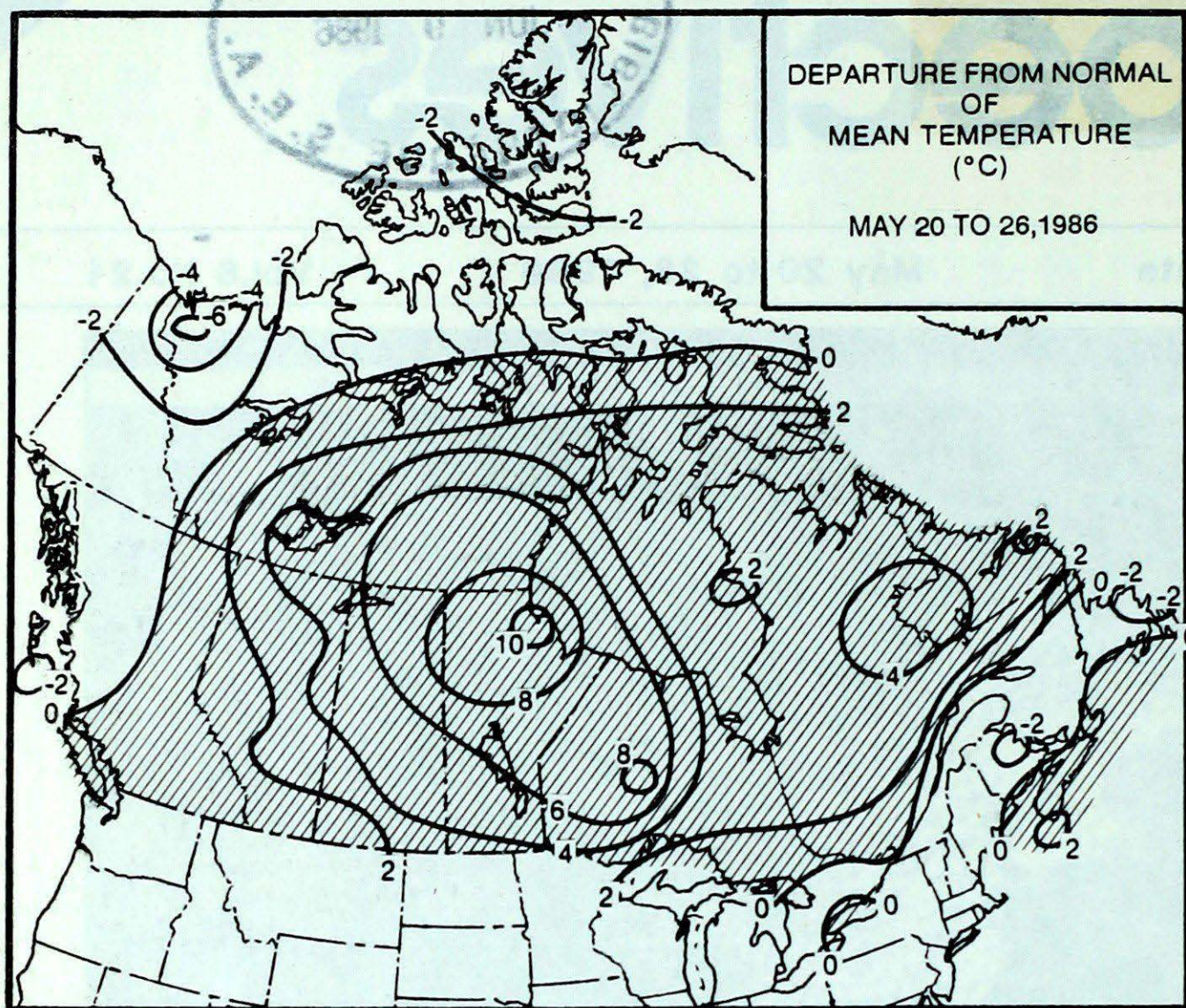
Vol.8 No.21



Fair weather cumulus and towering cumulus cloud developed during the afternoon, and outlined the Great Lakes in this NOAA 9 satellite image of May 25, 1986. For more detail see page 3.

- ***Weather favours Prairie seeding***
- ***Wet weather threatens B.C. berry crop***
- ***Ample rainfalls in Eastern Canada please farmers and dampen fires***

TEMPERATURE



ACROSS THE COUNTRY...

Yukon and Northwest Territories

Temperatures were seasonally cool in the eastern Arctic. Five to 8 centimetres of new snow fell on Baffin Island. Windy conditions with blowing snow were experienced in the southern and eastern Arctic. Winds at Cape Dorset reached 80 km/h. The Yukon was primarily cool and wet, with temperatures gradually moderating towards the end of the period. Record warm weather was experienced in the southern Mackenzie early in the period, but changeable weather conditions followed.

British Columbia

In the south the weather continued to be dull and showery for most of the week. Farmers fear that the berry crop on the lower mainland will be adversely affected if the poor weather continues much longer. In the Okanagan, the fruit crop has also been set-back by the weather. Concern has been expressed that a sharp rise in temperatures in the coming weeks would cause rapid snow melt in the mountains of the central interior and cause possible flooding problems in the valleys. Pleasant weather in the north this week allowed seeding to get underway. The Swiftsure Yacht Race held at Victoria over the weekend was favoured by brisk winds, but overcast skies.

Prairie Provinces

Record warm weather in Alberta during the early part of the week was followed by widespread precipitation, including snow in the central Alberta foothills. Most of the province, including southwestern Saskatchewan, received between 15 and 25 millimetres of rain. Sunny warm weather in Manitoba dried out the fields rapidly, and seeding operations got into full swing. In the north, many daily temperature records were broken after May 21, with readings climbing into the upper twenties. Island Lake registered 30°C on May 25. Eleven forest fires broke out in Manitoba this week.

WEEKLY TEMPERATURE EXTREME (C)

	MAXIMUM	MINIMUM
BRITISH COLUMBIA	CRANBROOK 33	DEASE LAKE -4
YUKON TERRITORY	WATSON LAKE 19	SHINGLE POINT A -22
NORTHWEST TERRITORIES	FORT SMITH 32	HALL BEACH -18
ALBERTA	FORT MCMURRAY 35	JASPER -1
SASKATCHEWAN	URANIUM CITY 32	COLLINS BAY -4
MANITOBA	THOMPSON 32	GRAND RAPIDS -1
ONTARIO	KENORA 33	MOOSONEE -5
QUEBEC	MANIWAKI 30	SCHIEFFERVILLE -7
NEW BRUNSWICK	FREDERICTON 22	CHARLO -1
NOVA SCOTIA	SHELBURNE 25	SYDNEY -2
PRINCE EDWARD ISLAND	CHARLOTTETOWN 22	CHARLOTTETOWN 4
NEWFOUNDLAND	GOOSE 28	BADGER -10

ACROSS THE NATION

WARMEST MEAN TEMPERATURE	19	KENORA	ONT
COOLEST MEAN TEMPERATURE	-12	ALERT	NWT

Ontario

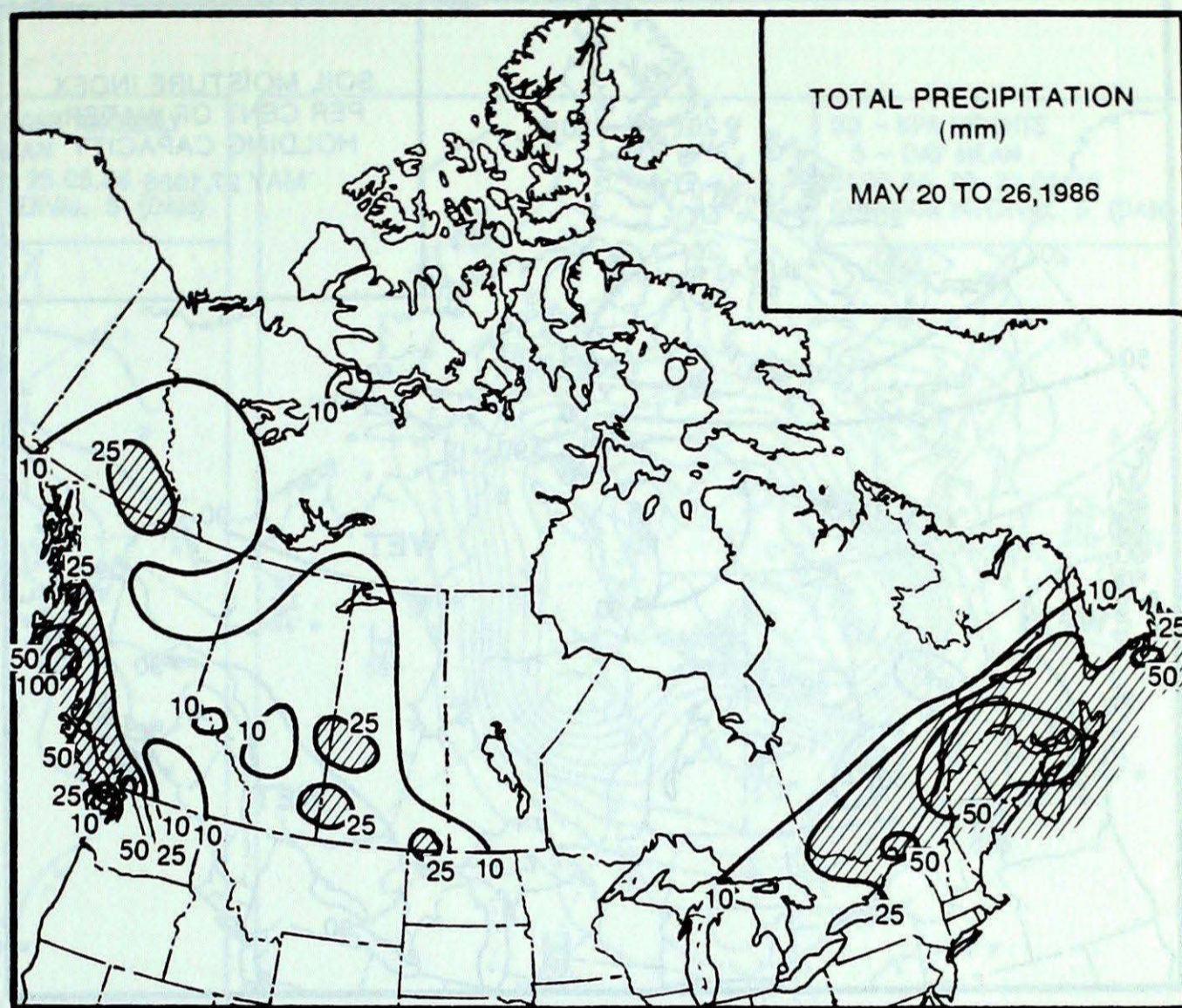
Cloudy skies and showers plagued southern and central Ontario until the weekend, but the rain was well received by the agricultural community. Heavy rains, between 50 and 100 millimetres in the last two weeks, were responsible for a land slide in the Brantford area. Several houses and buildings were damaged or threatened near the banks of the Grand River. Warm and dry weather in northern Ontario did not help the forest fire situation. In all, 22 fires were burning in the province. The worst fire, which doubled in size over the weekend, was burning near Red Lake.

Quebec

Unsettled and wet weather conditions prevailed in the south until the weekend, with generally more than 25 mm of rain reported between the Ottawa Valley and the Gaspé. Bagotville and Mont-Joli received more than 80 mm of rain this week. A land slide north of Trois Rivières on May 21 destroyed a road, which isolated two hundred residents. It was sunny and dry in the northern parts of the province. Fires to-date have destroyed 1557 hectares compared to a normal of 890 hectares.

Atlantic Provinces

Much needed rain diminished the serious forest fire threat that existed in the Maritimes last week. At some locations amounts exceeded 50 mm. Areas in northern Nova Scotia received the least amount of rain. Fog persisted near coastal regions, and was responsible for the cancellation of two air shows. Cooler and wet weather also helped the forest fire situation in Newfoundland. Several fires were burning out of control during the early part of the period. Thunderstorms were reported at several locations. In Labrador, sunny and pleasant weather conditions did not help the forest fire situation. Most of last week's fires have been contained, but another major fire flared up near Wabush Lake during the latter part of this week.

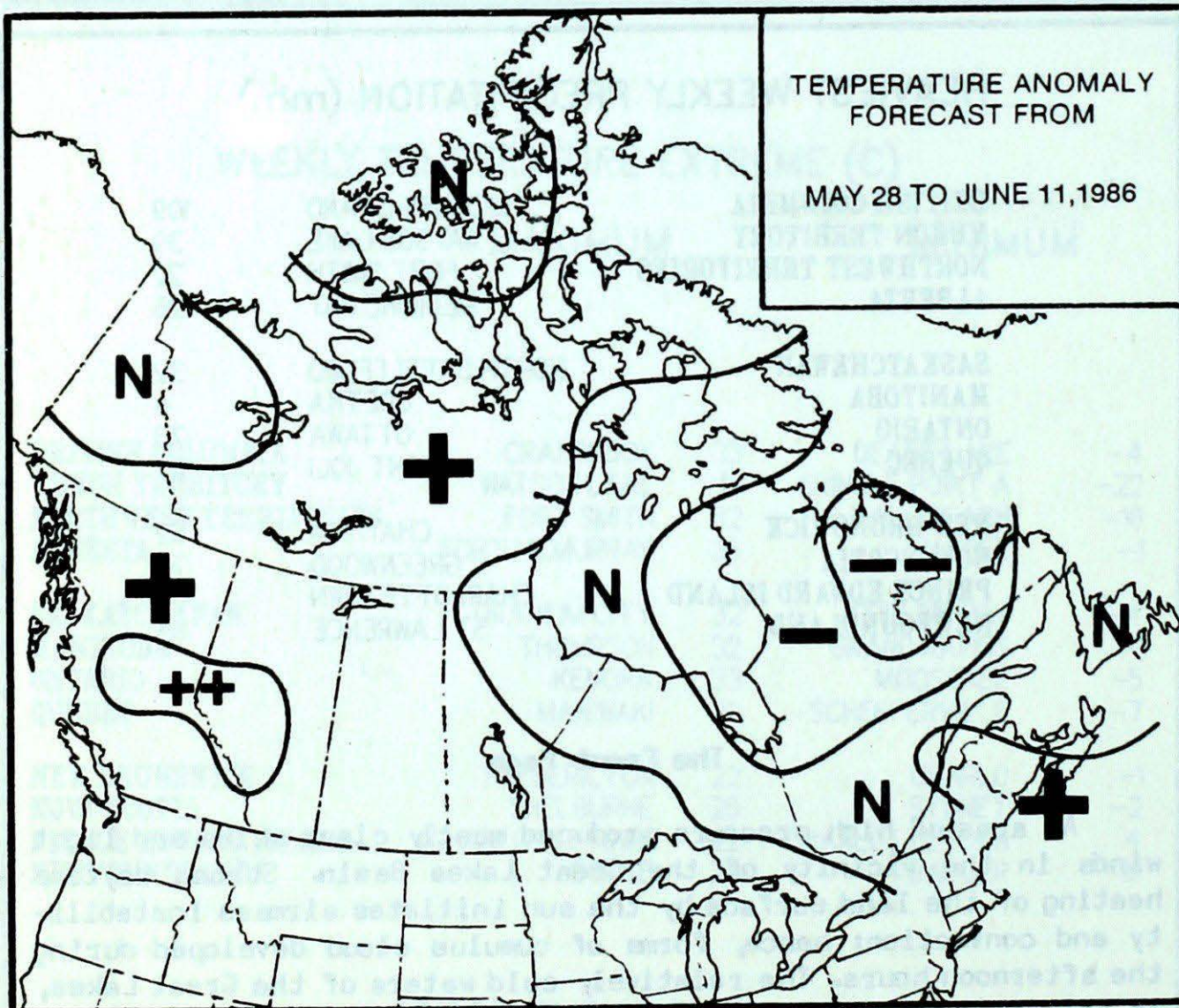
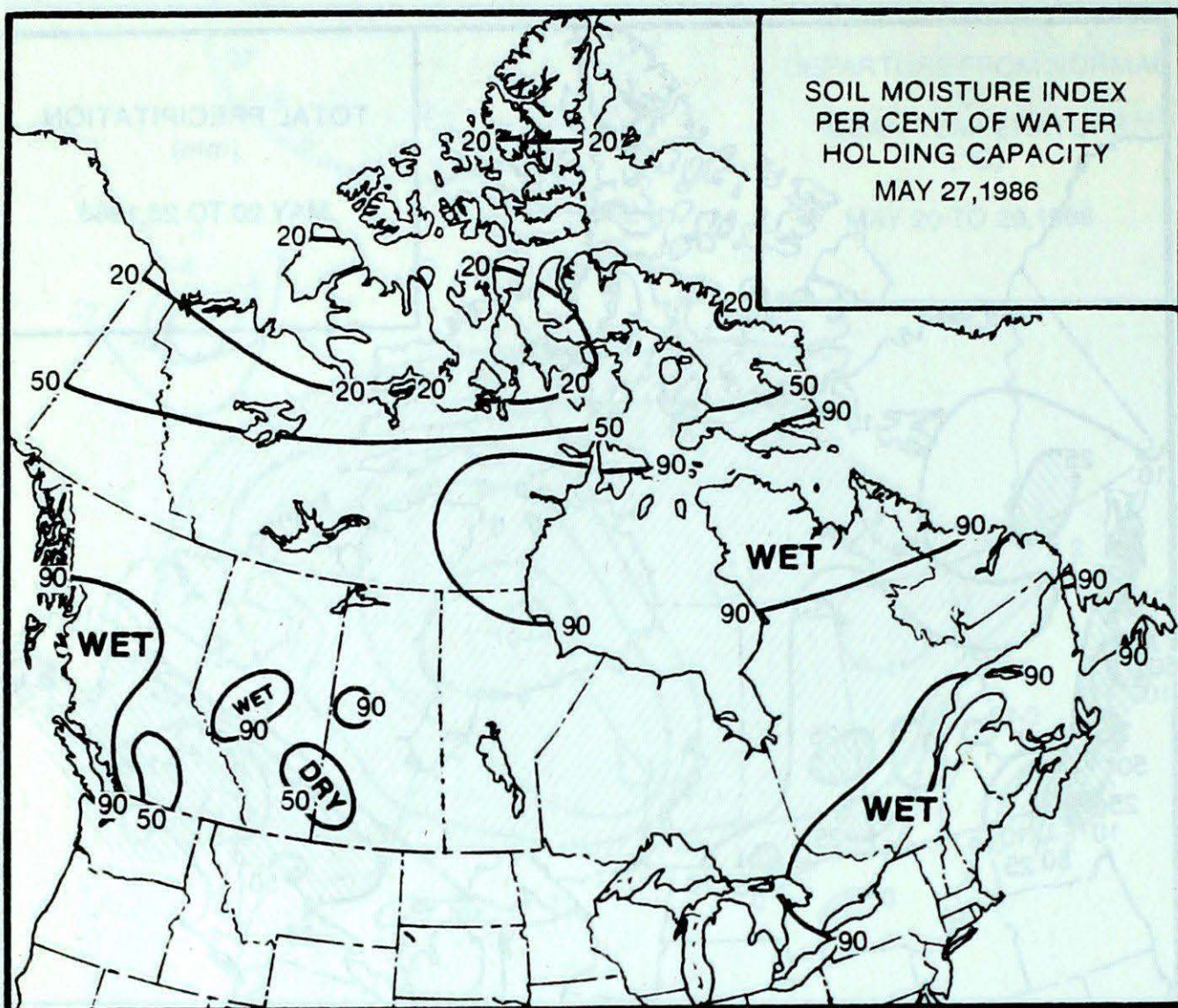
**HEAVIEST WEEKLY PRECIPITATION (mm)**

BRITISH COLUMBIA	MCINNES ISLAND	109
YUKON TERRITORY	WATSON LAKE	39
NORTHWEST TERRITORIES	FORT SMITH	22
ALBERTA	MEDICINE HAT	26
SASKATCHEWAN	NORTH BATTLEFORD	32
MANITOBA	GRETNA	4
ONTARIO	OTTAWA	73
QUEBEC	MONT JOLI	87
NEW BRUNSWICK	CHATHAM	62
NOVA SCOTIA	GREENWOOD	74
PRINCE EDWARD ISLAND	CHARLOTTETOWN	60
NEWFOUNDLAND	ST LAWRENCE	65

The Front Page

An area of high pressure produced mostly clear skies and light winds in the vicinity of the Great Lakes Basin. Strong daytime heating of the land surface by the sun initiates airmass instability and convection; hence, forms of cumulus cloud developed during the afternoon hours. The relatively cold waters of the Great Lakes, at this time of year suppress convective activity and in fact frequently cause an airmass over the water to subside. This effectively sets the pattern for a cooling lake breeze to set in near the shores of large lakes on hot summery afternoons.

FORECAST



- ++ 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 8

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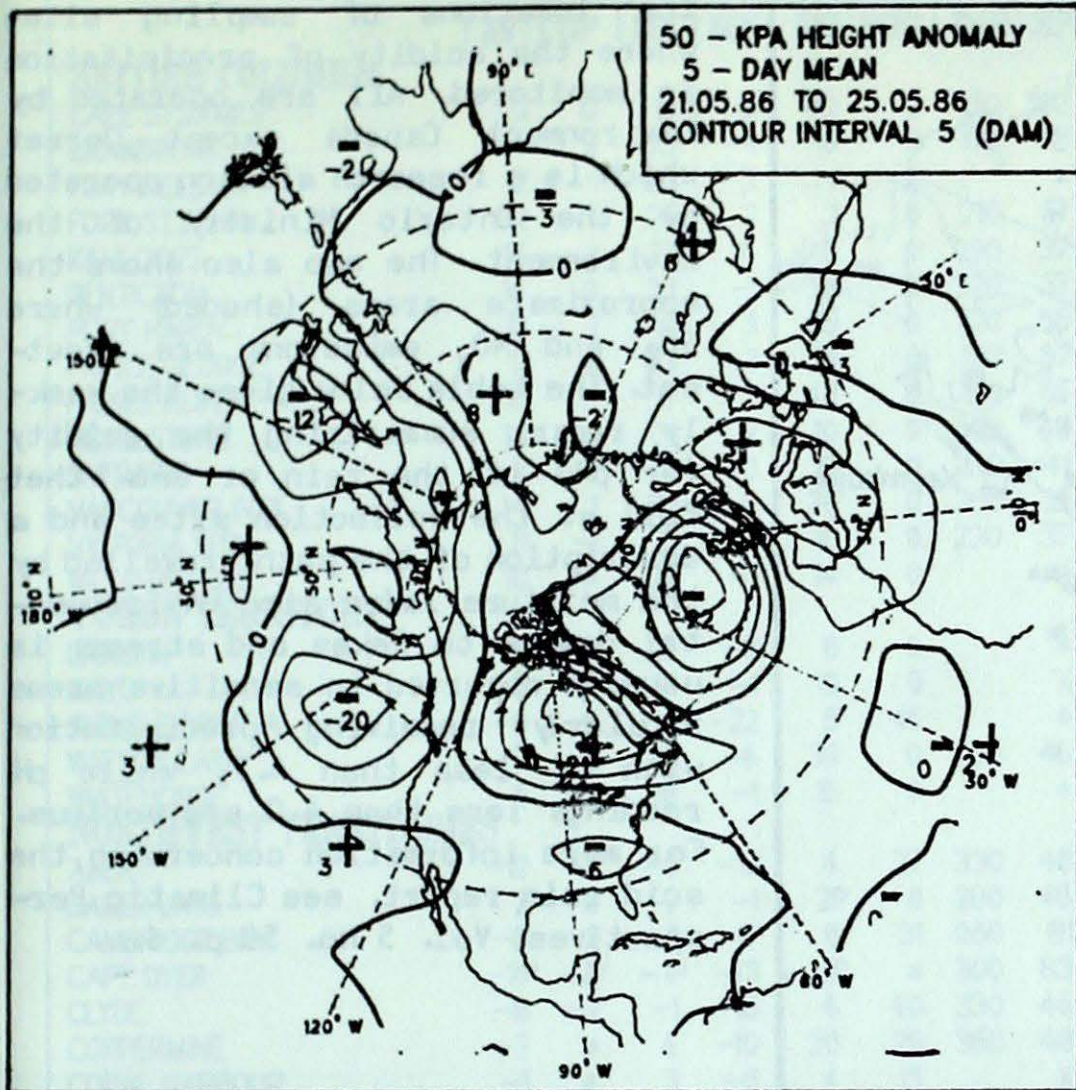
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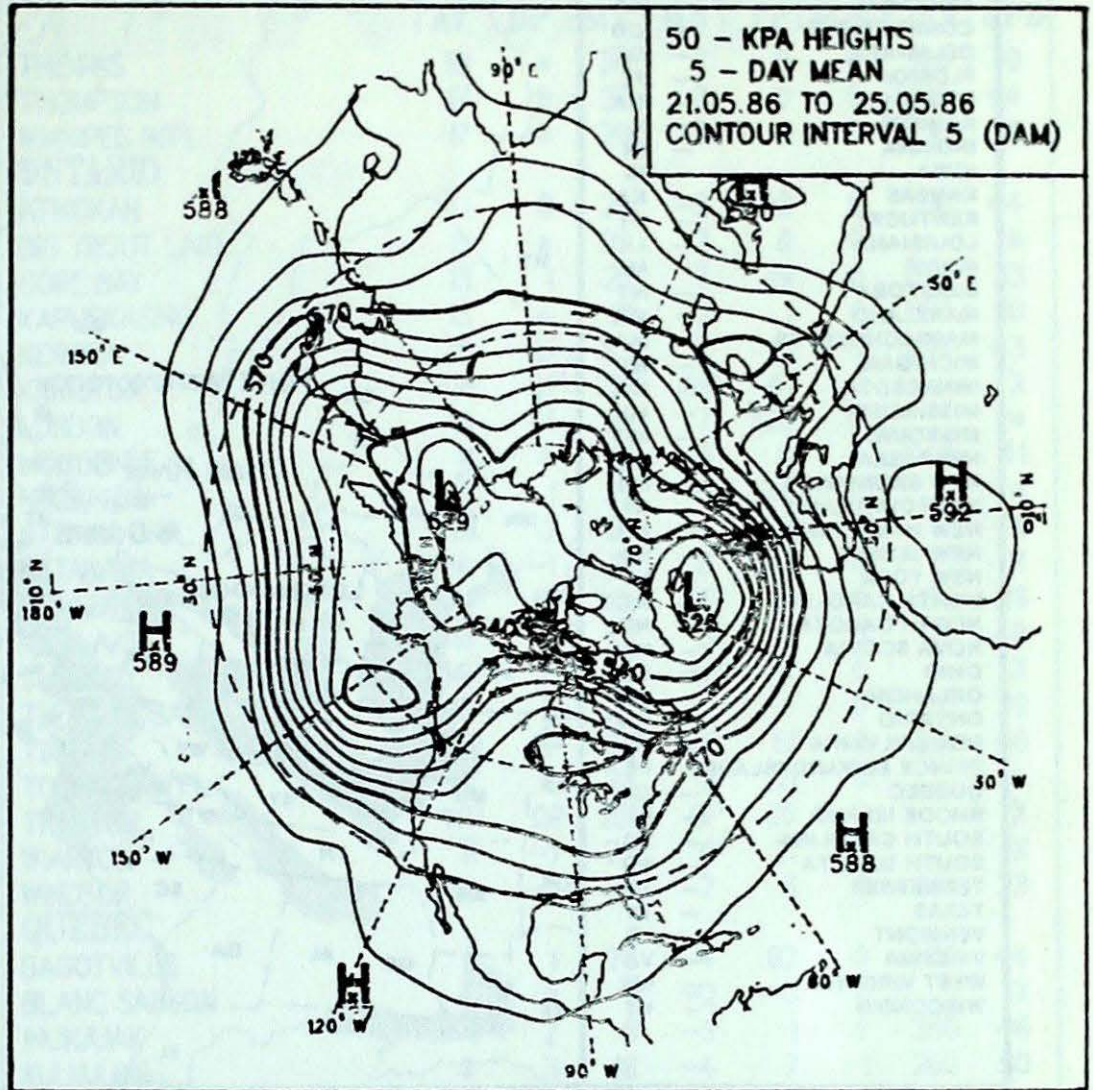
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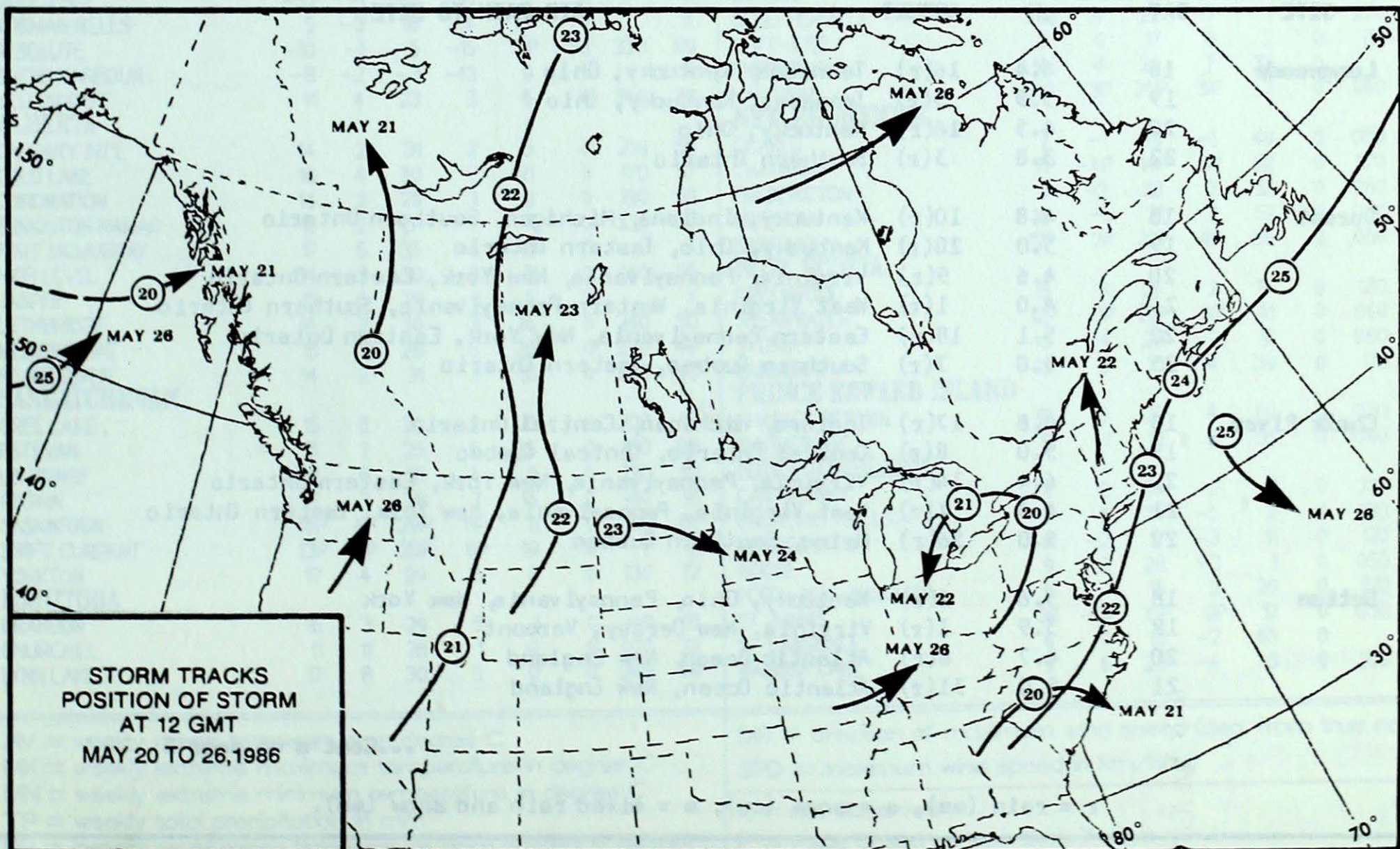
50 KPa ATMOSPHERIC CIRCULATION



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

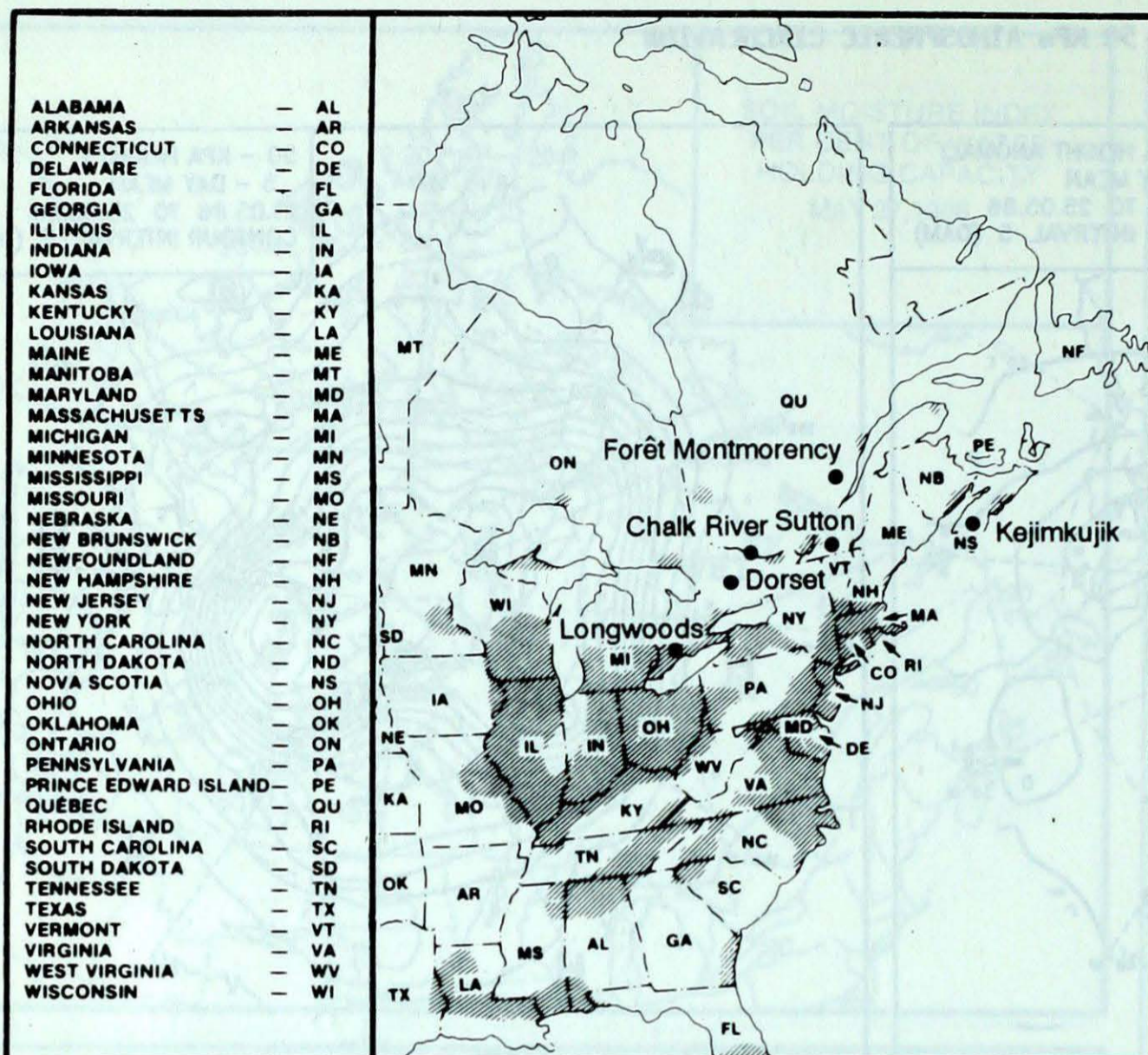


MEAN 50 KPa HEIGHTS (dam)
May 21 to May 25, 1986



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 SO₂ 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.

MAY 18 TO MAY 24, 1986

SITE	DAY	pH	AMOUNT	AIR PATH TO SITE
Longwoods	18	4.4	16(r)	Tennessee, Kentucky, Ohio
	19	3.9	3(r)	Tennessee, Kentucky, Ohio
	20	4.5	16(r)	Kentucky, Ohio
	22	3.8	3(r)	Southern Ontario
Dorset	18	4.8	10(r)	Kentucky, Indiana, Michigan, Southern Ontario
	19	5.0	20(r)	Kentucky, Ohio, Eastern Ontario
	20	4.6	9(r)	Virginia, Pennsylvania, New York, Eastern Ontario
	21	4.0	1(r)	West Virginia, Western Pennsylvania, Southern Ontario
	22	5.1	18(r)	Eastern Pennsylvania, New York, Eastern Ontario
	23	5.0	7(r)	Southern Quebec, Eastern Ontario
Chalk River	18	4.8	17(r)	Indiana, Michigan, Central Ontario
	19	5.0	8(r)	Central Ontario, Central Quebec
	20	6.4	14(r)	Virginia, Pennsylvania, New York, Eastern Ontario
	21	4.4	1(r)	West Virginia, Pennsylvania, New York, Eastern Ontario
	22	5.0	26(r)	Maine, Southern Quebec
Sutton	18	3.6	2(r)	Kentucky, Ohio, Pennsylvania, New York
	19	3.9	1(r)	Virginia, New Jersey, Vermont
	20	4.7	6(r)	Atlantic Ocean, New England
	21	5.0	31(r)	Atlantic Ocean, New England

...Cont'd on page 8

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

TEMPERATURE, PRECIPITATION AND MAXIMUM WIND DATA FOR THE WEEK ENDING 0600 GMT MAY 27, 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									THE PAS	18	*	30	7	0	0	140	70
CAPE ST. JAMES	9	0	12	5	40	0	130	100	THOMPSON	17	8	32	3	0	0	140	44
CRANBROOK	14	2	33	-1	16	0	170	48	WINNIPEG INT'L	17	4	30	7	0	0	130	39
FORT NELSON	12	1	23	3	1	0		*	ONTARIO								
FORT ST. JOHN	12	1	26	2	1	0	210	67	ATIKOKAN	12	0	28	-2	0	0	120	44
KAMLOOPS	16	1	27	4	0	0	090	37	BIG TROUT LAKE	15	*	29	3	0	0		*
PENTICTON	14	0	33	-1	1	0	320	37	GORE BAY	13	1	26	7	19	0	030	33
PORT HARDY	10	1	19	3	45	0	120	56	KAPUSKASING	15	4	31	-2	1	0	020	50
PRINCE GEORGE	11	*	23	-2	15	0	170	57	KENORA	19	6	33	7	0	0	090	43
PRINCE RUPERT	10	1	17	2	48	0	160	65	KINGSTON	13P	0P	23P	9P	41	0		X
REVELSTOKE	13	1	31	2	10	0	360	48	LONDON	13	-1	25	7	20	0		*
SMITHERS	8	-2	18	-3	16	0	230	41	MOOSONEE	11	4	31	-5	0	0	040	41
VANCOUVER INT'L	14	1	22	6	28	0	250	39	NORTH BAY	13	1	27	6	34	0		*
VICTORIA INT'L	11	-1	21	4	10	0	230	37	OTTAWA INT'L	15	0	29	8	73	0		X
WILLIAMS LAKE	10	*	22	-1	14	0		X	PETAWAWA	14	-1	31	8	42	0		X
YUKON TERRITORY									PICKLE LAKE	16P	6P	30P	3P	0P	0	090	39
DAWSON	7	*	17	-3	6	0		*	RED LAKE	16	4	30	3	0	0	120	48
MAYO	8	-1	16	-1	19	0		X	SUDBURY	14P	2P	31P	6P	17	0		X
SHINGLE POINT A	-6	-4	1	-22	5	45		*	THUNDER BAY	13	2	25	-1	0	0	100	39
WATSON LAKE	7	-2	19	-4	39	0	230	46	TIMMINS	14P	3P	31P	1P	6P	0	020	46
WHITEHORSE	6	-2	16	-1	15	0		*	TORONTO INT'L	14	0	25	7	21	0		*
NORTHWEST TERRITORIES									TRENTON	14P	0P	25P	8P	20	0		X
ALERT	-12	-3	-9	-17	4	27	330	48	WIARTON	11	-1	23	6	21	0		X
BAKER LAKE	2	6	7	-1	2P	8	280	46	WINDSOR	14	-2	25	7	3	0	100	33
CAMBRIDGE BAY	-8	-2	0	-17	8	31	060	81	QUEBEC								
CAPE DYER	-7P	-2P	-1P	-13	3P	*	300	83	BAGOTVILLE	11	1	28	4	82	0	080	44
CLYDE	-8	-2	-1	-16	4	40	330	46	BLANC SABLON	4	*	11	-2	0	0		X
COPPERMINE	-3	*	4	-10	20	26	360	48	INUKJUAK	1	2	6	-3	1	0	350	46
CORAL HARBOUR	-1	4	3	-6	4	15		X	KUUJUAQ	4	3	18	-4	7	1	260	50
EUREKA	-10	-2	-7	-15	1	12	330	37	KUUJUARAPIK	6	3	23	-6	0	0	240	44
FORT SMITH	15	5	32	6	22	0		X	MANIWAKI	14	2	30	6	41	0		*
FROBISHER BAY	-2	0	4	-9	6	12	330	56	MONT JOLI	9	-1	21	3	87	0	050	63
HALL BEACH	-8	-1	0	-18	3	40	330	54	MONTREAL INT'L	14	0	26	7	26	0	040	48
INUVIK	-4	-6	6	-13	3	7		X	NATASHQUAN	6	0	14	-1	0	0	080	50
MOULD BAY	-10	-1	-5	-16	2	31		X	QUEBEC	11	-1	25	6	77	0	090	59
NORMAN WELLS	5	-3	18	-4	14	0		X	SCHEFFERVILLE	6	4	22	-7	1	0	290	63
RESOLUTE	-10	-1	-5	-15	2P	33	330	59	SEPT-ILES	7	0	17	0	2	0	110	39
SACHS HARBOUR	-8	-2	-3	-13	9	15		X	SHERBROOKE	16	4	25	7	32	0		*
YELLOWKNIFE	11	4	23	3	6	0	340	39	VAL D'OR	14P	3P	29P	5P	7	0	060	44
ALBERTA									NEW BRUNSWICK								
CALGARY INT'L	14	2	31	2	5	0	210	59	CHARLO	7	-1	18	-1	49	0	080	56
COLD LAKE	16	4	30	7	21	0	170	57	CHATHAM	7P	-4P	14P	1P	62	0	070	57
CORONATION	14	2	29	3	3	0	190	59	FREDERICTON	11	-2	22	2	52	0	060	54
EDMONTON NAMAO	15	2	31	2	4	0	330	59	MONCTON	10	-1	21	3	52	0	030	59
FORT MCMURRAY	17	5	35	6	15	0		X	SAINT JOHN	12P	2P	22P	4P	56	0	050	46
HIGH LEVEL	14	2	30	0	8	0	140	56	NOVA SCOTIA								
JASPER	10	0	29	-1	6	0		X	GREENWOOD	15	3	24	2	74	0	180	48
LETHBRIDGE	14	2	30	3	16	0	240	50	SHEARWATER	12P	1P	22P	3P	41	0	060	41
MEDICINE HAT	15	1	28	5	26	0	330	46	SYDNEY	8	-1	23	-2	17	0	080	31
PEACE RIVER	14	2	31	3	18	0	280	43	YARMOUTH	13	3	21	4	39	0	170	50
SASKATCHEWAN									PRINCE EDWARD ISLAND								
CREE LAKE	15	5	30	2	0	0	200	57	CHARLOTTETOWN	10	0	22	4	60	0	030	46
ESTEVAN	15	2	25	6	25	0	130	83	SUMMERSIDE	9	-1	18	5	55	0	040	59
LA RONGE	17	6	31	4	0	0	220	50	NEWFOUNDLAND								
REGINA	17	3	29	7	16	0	140	91	CARTWRIGHT	6	2	24	-2	2	0	320	46
SASKATOON	18P	4P	29P	8P	11	0	130	65	CHURCHILL FALLS	7	4	24	-5	0	0	280	67
SWIFT CURRENT	13P	0P	25P	6P	19	0		X	GANDER INT'L	6	-2	17	-3	11	0	120	37
YORKTON	17	4	29	6	0	0	130	72	GOOSE	9	3	28	-3	1	0	050	56
MANITOBA									PORT-AUX-BASQUES	6	1	15	2	20	0	070	50
BRANDON	16	3	29	5	1	0	140	65	ST JOHN'S	3P	-3P	10P	0P	12	0	030	61
CHURCHILL	11	11	28	1	0	0	020	33	ST LAWRENCE	6	0	15	-2	65	0		X
LYNN LAKE	17	8	30	5	0	0	240	48	WABUSH LAKE	9	6	23	-4	0	0	270	54

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

ACID RAIN

ACID RAIN

Cont'd from page 6

SITE	DAY	pH	AMOUNT	AIR PATH TO SITE
	22	5.0	19(r)	Atlantic Ocean, New England
	23	4.6	1(r)	Atlantic Ocean, Maine
	24	5.6	3(r)	New Brunswick, Southern Quebec
Montmorency	18	4.1	14(r)	Southern Ontario, Southern Quebec
	19	4.2	22(r)	New York, Southern Quebec
	20	4.5	27(r)	Atlantic Ocean, New England, Southern Quebec
	21	4.8	24(r)	Atlantic Ocean, New England, Southern Quebec
	23	6.0	14(r)	Atlantic Ocean, New Brunswick
Kejinkujik	20	4.1	1(r)	Atlantic Ocean
	22	5.0	9(r)	Atlantic Ocean
	23	5.2	24(r)	Atlantic Ocean
	24	4.6	4(r)	Atlantic Ocean

ACID RAIN

MAY 11 TO MAY 17, 1986

SITE	DAY	pH	AMOUNT	AIR PATH TO SITE
Longroods	14	4.7	3(r)	Kentucky, Ohio
	15	3.9	14(r)	Tennessee, Kentucky, Ohio
	17	3.9	2(r)	Tennessee, Kentucky, Indiana, Ohio
Dorset	14	3.9	1(r)	Virginia, West Virginia, Western Pennsylvania
	15	4.0	2(r)	Tennessee, Kentucky, Ohio, Southern Ontario
	16	4.1	2(r)	West Virginia, Pennsylvania, Southern Ontario
	17	3.9	1(r)	Tennessee, Kentucky, Indiana, Ohio, Southern Ontario
Chalk River	15	3.9	1(r)	Tennessee, Kentucky, Ohio, Southern Ontario
	16	4.0	4(r)	Tennessee, Kentucky, Ohio, Southern Ontario
	17	3.9	7(r)	Indiana, Southern Ontario, Central Ontario
Sutton	15	3.6	4(r)	West Virginia, Pennsylvania, New York
	16	4.0	8(r)	West Virginia, Pennsylvania, New York
Montmorency			NO RAIN THIS WEEK	
Kejinkujik	11	4.7	4(r)	Atlantic Ocean, Nova Scotia
	16	4.4	5(r)	Pennsylvania, Massachusetts, Atlantic Ocean
	17	4.0	10(r)	Kentucky, West Virginia, Pennsylvania, Massachusetts, Atlantic Ocean

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