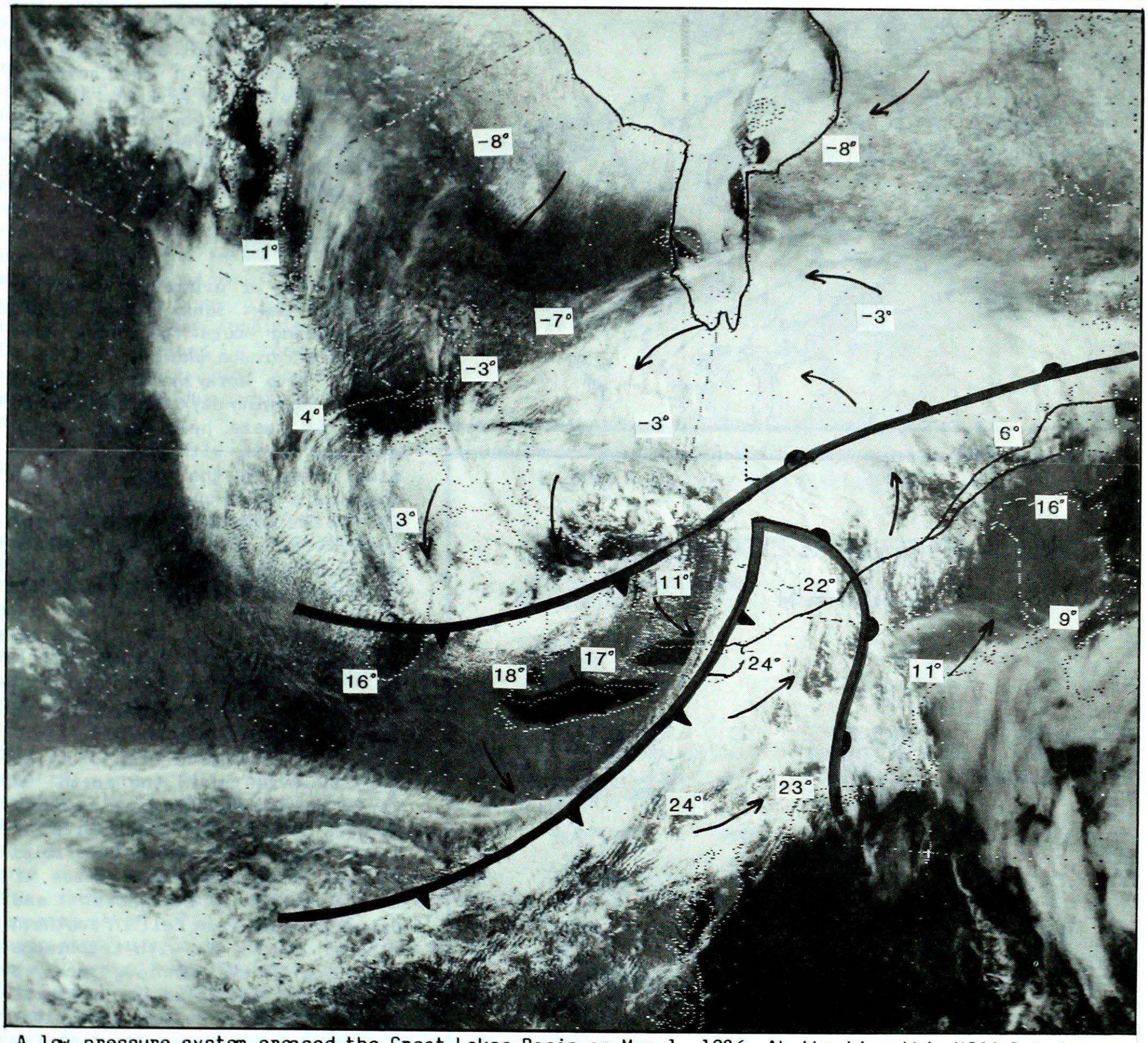
Environment Canada Environnement Canada

Climatic Perspectives

A weekly review of Canadian climate April 29 to May 5, 1986 Vol.8 No.18

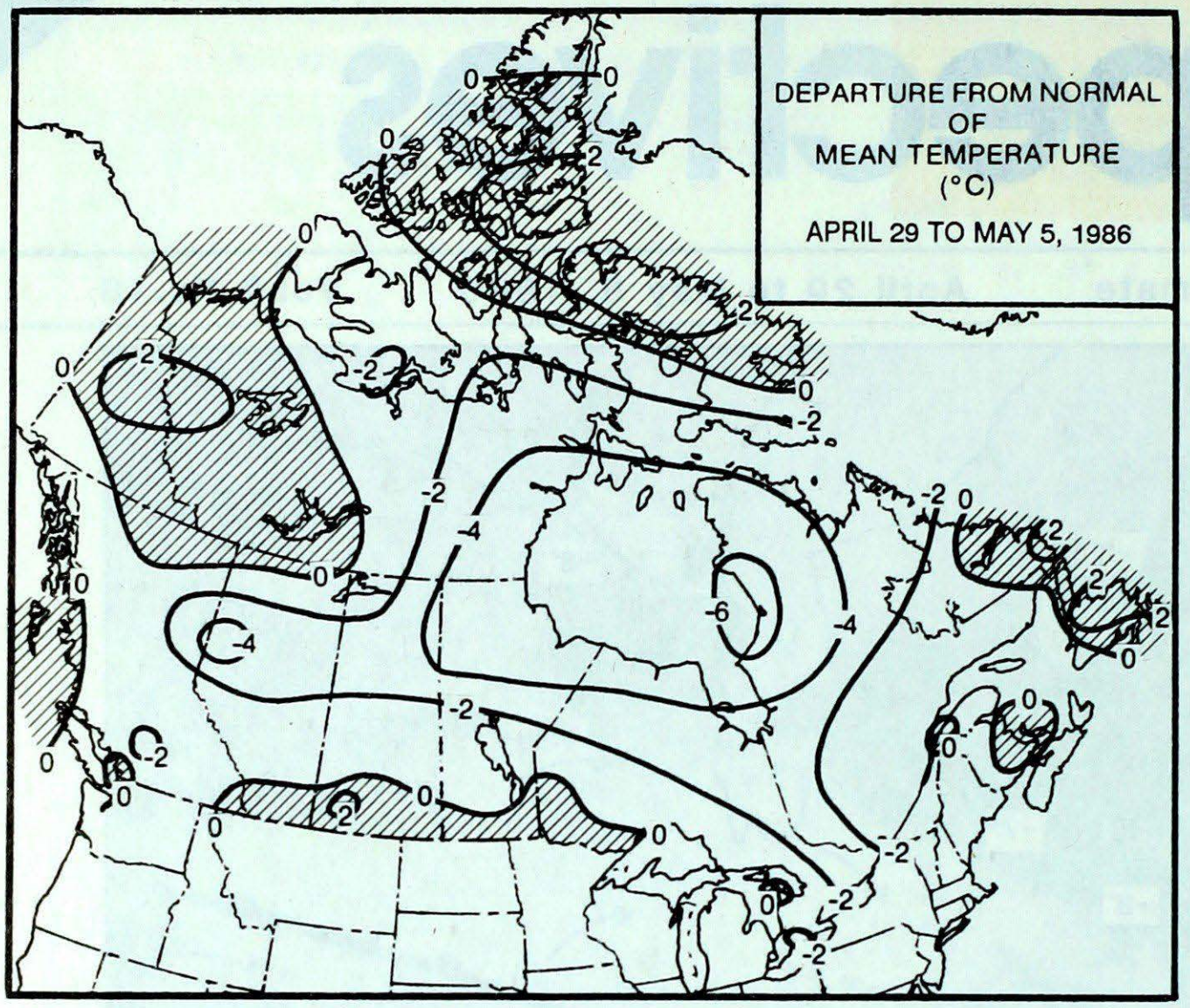


A low pressure system crossed the Great Lakes Basin on May 1, 1986. At the time this NOAA 9 image was received heavy snow was falling in northeastern Ontario. The Maritime cold front crossing Lake Ontario is very well defined, with clearing skies to the west. Leads of open water have developed along the eastern shore of Hudson Bay.

- ***Latest spring frost ever in Vancouver***
- ***Cool, damp weather for Expo 86 opening***
- ***Rain turns fields to gumbo in Eastern Prairies***

Canada

TEMPERATURE



WEEKLY TEMPERATURE EXTREME (C)

	MAXIMUM		MINIMUM	
BRITISH COLUMBIA	PRINCE GEORGE	23	PUNTZI MOUNTAIN	−9
YUKON TERRITORY	DAWSON	15	KOMAKUK BEACH A	−18
NORTHWEST TERRITORIES	FORT SIMPSON	14	SHEPHERD BAY A	−29
ALBERTA	MEDICINE HAT	25	GRANDE PRAIRIE	−8
SASKATCHEWAN	ESTEVAN	27	CREE LAKE	−15
MANITOBA	PILOT MOUND	25	CHURCHILL	−18
ONTARIO	WINDSOR	28	BIG TROUT LAKE	−13
QUEBEC	SHERBROOKE	28	INUKJUAK	−18
NEW BRUNSWICK	CHATHAM	24	CHARLO	−4
NOVA SCOTIA	GREENWOOD	20	GREENWOOD	−4
PRINCE EDWARD ISLAND	SUMMERSIDE	18	CHARLOTTETOWN	−2
NEWFOUNDLAND	COMFORT COVE	20	WABUSH LAKE	−10

ACROSS THE NATION

WARMEST MEAN TEMPERATURE	12	WINDSOR	ONT
COOLEST MEAN TEMPERATURE	−20	SHEPHERD BAY A	NWT

ACROSS THE COUNTRY...

Yukon and Northwest Territories

Warmer weather this week depleted most of the snow cover in the southern and central Yukon. In northern regions, the thaw is just beginning. Temperatures in the Territories moderated through the period, climbing to the double digits in more southern locations. Showers occurred in the southern Mackenzie over the weekend. A snowstorm accompanied by strong winds hit Baffin Island on May 4 and 5. Snowfalls at some locations along the east coast exceeded 50 cm.

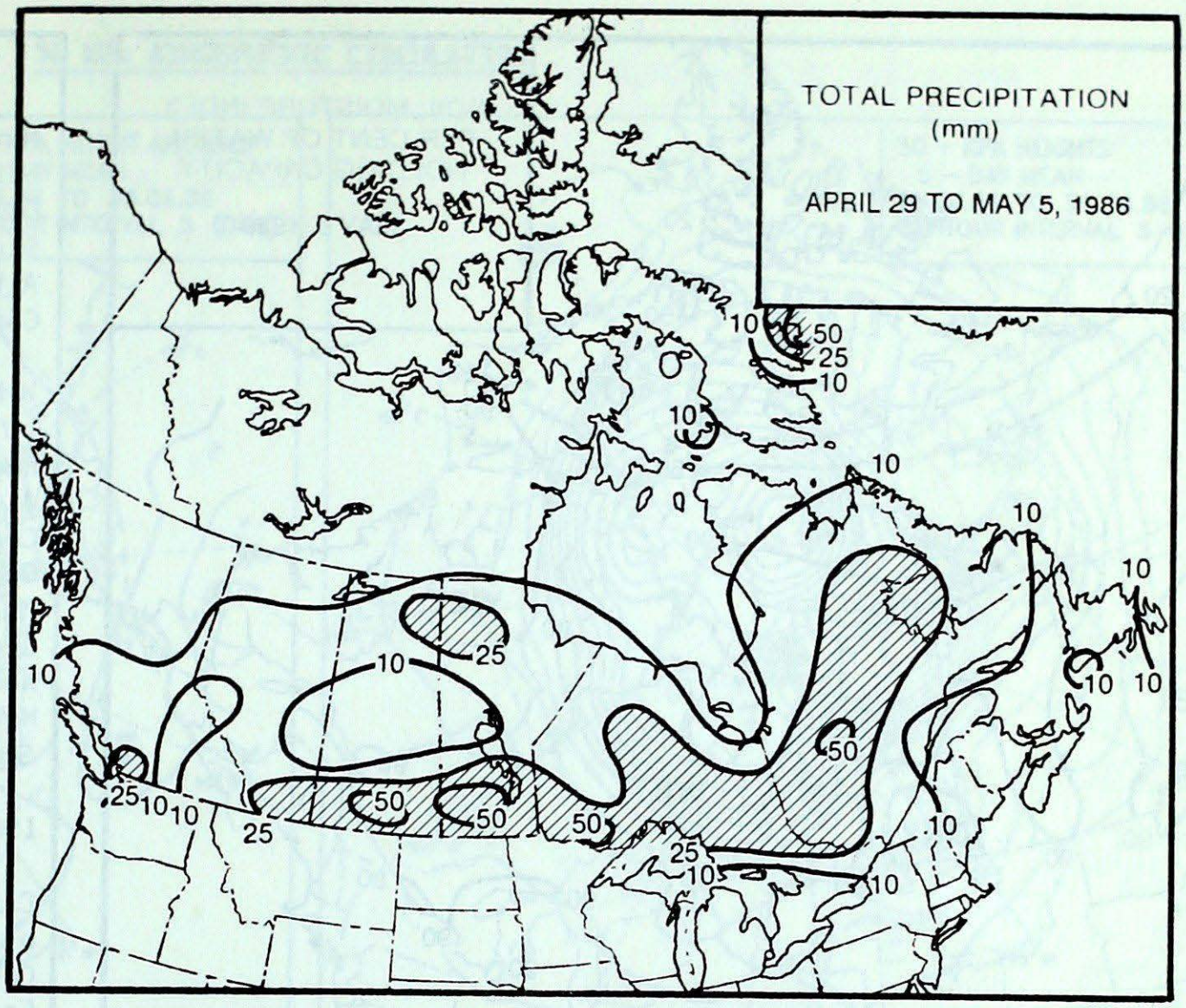
British Columbia

It was a primarily unsettled and cool week. Sunny breaks during the morning hours frequently gave way to afternoon showers, and as a result, crop spraying was delayed. May 2, opening-day festivities at Expo '86, were held under mainly overcast skies, with showers occurring later in the day. Vancouver received a dusting of snow on April 29. On the morning of April 30, the thermometer at Vancouver International Airport registered -0.5°C; the latest spring frost ever recorded.

Prairie Provinces

It was cool and unsettled in the west, cold and wet in the east. Snowstorms deposited from 5 cm to more than 20 cm in the north. On April 30, the Dauphin area received between 15 and 25 centimetres of snow. Rain showers were beneficial in the drought stricken areas of southwestern Saskatchewan and Alberta. Heavy rain fell in southern Alberta on May 4, with Lethbridge recording 27 mm. Winnipeg received 44.1 mm of precipitation on April 30, setting a new 24-hour precipitation record for the month of April. In southern Manitoba, soil moisture is up to capacity, and in some communities is excessive. At least two weeks of warm, dry weather are required before seeding operations can get fully underway. In Saskatchewan, pre-seeding field work and seeding continues to be slow, do to the poor weather conditions of late.

PRECIPITATION



HEAVIEST WEEKLY PRECIPITATION (mm)

BRITISH COLUMBIA	HOPE	31
YUKON TERRITORY	OGILVIE	3
NORTHWEST TERRITORIES	CAPE DYER	55
ALBERTA	LETHBRIDGE	35
SASKATCHEWAN	REGINA	61
MANITOBA	PORTAGE LA PRAIRIE	68
ONTARIO	ATIKOKAN	53
QUEBEC	CHIBOUGAMAU	52
NEW BRUNSWICK	FREDERICTON	5
NOVA SCOTIA	SHEARWATER	8
PRINCE EDWARD ISLAND	CHARLOTTETOWN	4
NEWFOUNDLAND	WABUSH LAKE	29

Ontario

A strengthening weather system, tracking across the upper Great Lakes during the middle of the week, gave a mixture of snow and rain to the northern half of the province. In its wake, cold and blustery weather conditions affected the province, as an Arctic high pressure cell swept southwards just before the weekend. Ten centimetres of snow fell at Timmins on April 24. Overnight readings in southern Ontario on May 2 and 3, plunged well below freezing. In some unprotected areas, frost damaged early emerging vegetable crops such as asparagus, and occurred just as fruit trees were beginning to blossom. During the weekend, very strong westerly winds, frequently gusting to more than 70 km/h, disrupted opening day festivities at Canada's Wonderland, a theme park north of Toronto; high speed and wind-sensitive rides had to be shut down.

Quebec

Unseasonably warm weather gave way to a much colder and windy regime by the weekend. During the first part of the period, fourteen daily maximum temperature records were broken. On April 28 and 29, Val d'Or and Chibougamau established new high temperature records for the month, 28°C and 26°C, respectively. A cold frontal passage on May 2 was associated with rain showers. Snow fell across the northern half of the province. Between May 2 and 4, twenty five new daily low temperature records were established. On May 2, Val d'Or recorded a new monthly low temperature of -3°C. Strong winds, associated with this Arctic outbreak, gusted to 100 km/h near Chibougamau. At Abitibi, the strong winds downed hydro lines, causing power failures. Three small forest fires were reported burning in the province.

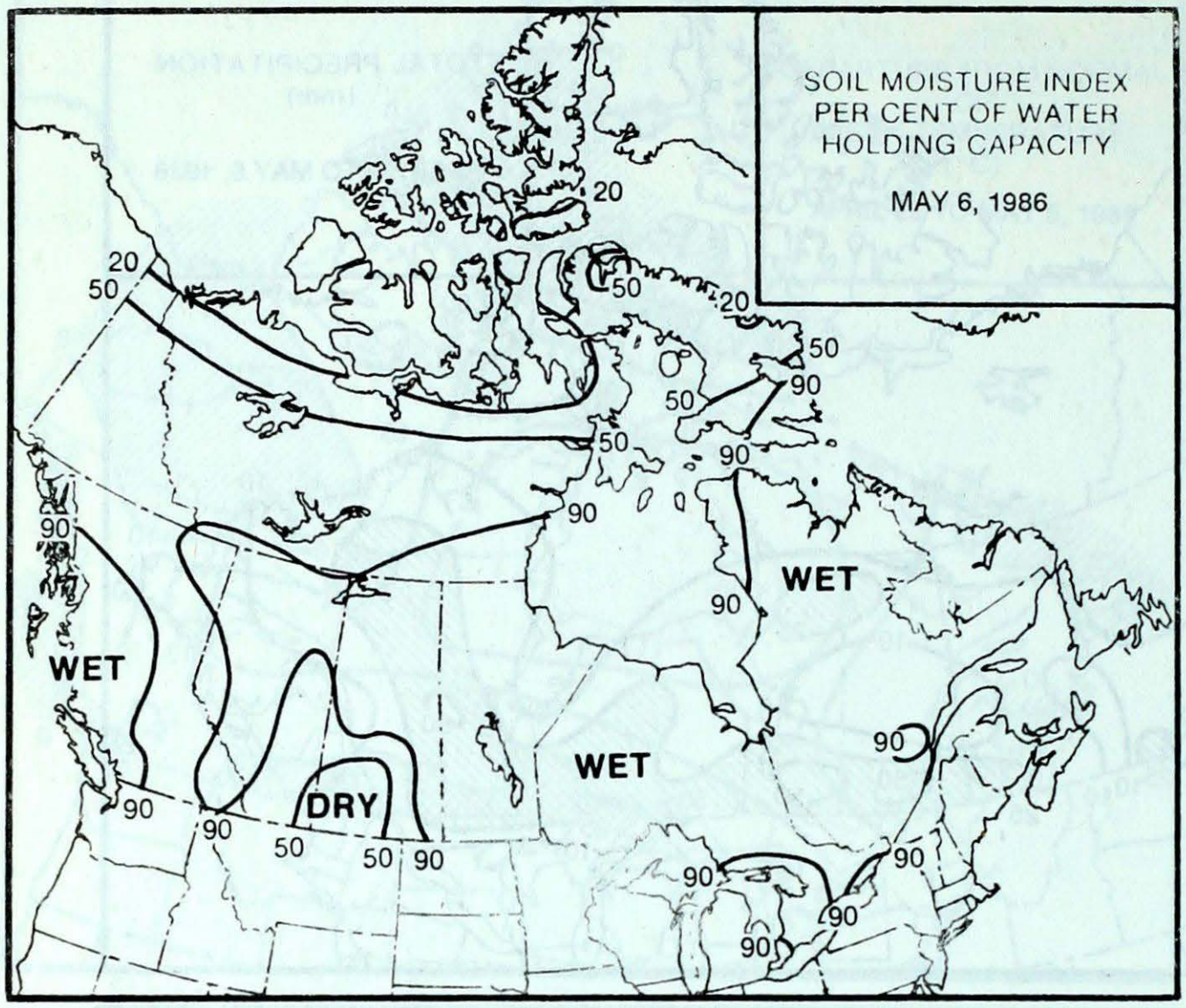
Atlantic Provinces

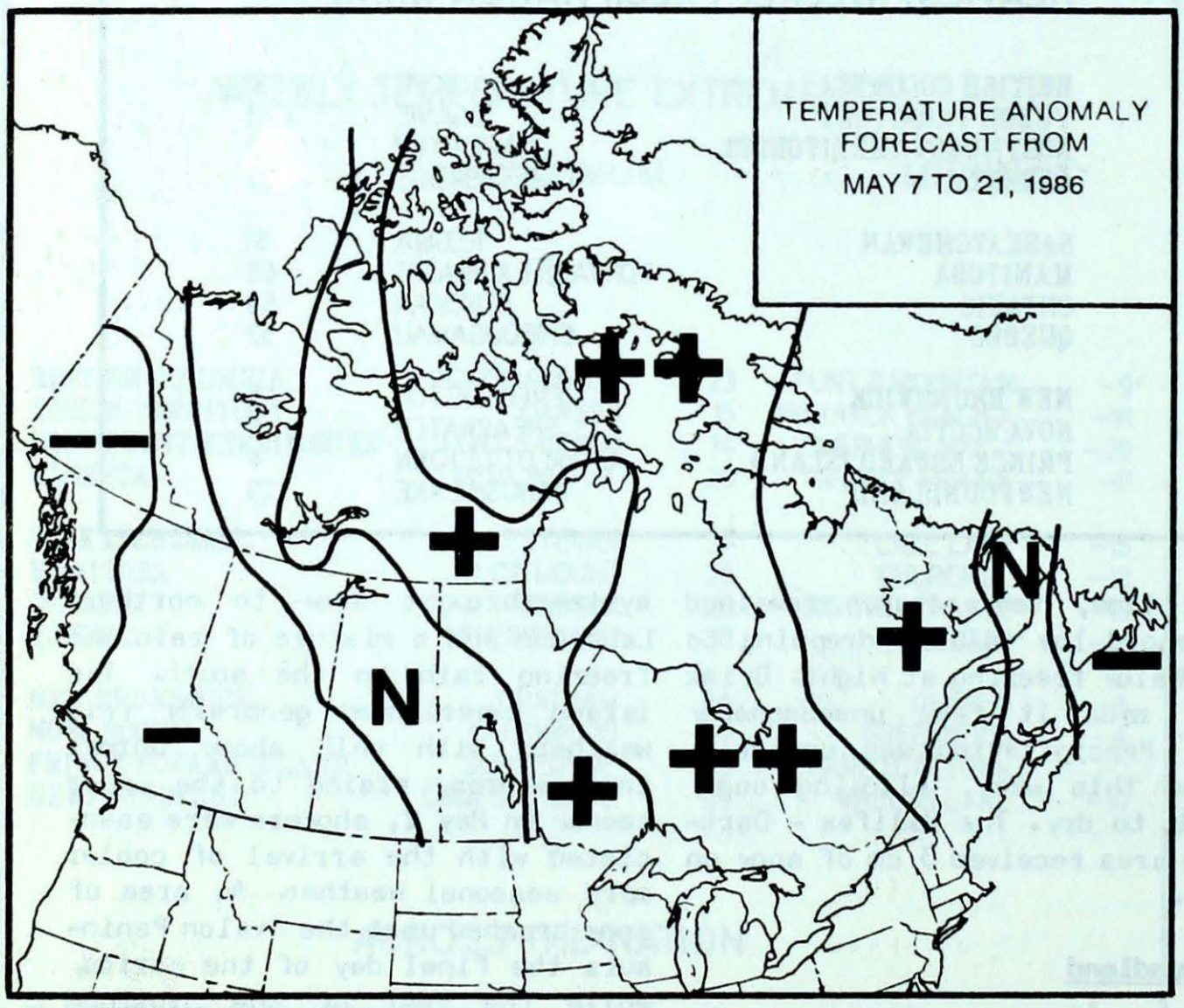
Cloudy and mild weather conditions continued well into this week. Showers preceded the arrival of a cold front on May 2, after which time, temperatures remained at record low values, dropping to well below freezing at night. Brisk winds made it feel unseasonably cold. Precipitation was unusually sparse this week, allowing soggy fields to dry. The Halifax - Dartmouth area received 3 cm of snow on May 4.

Newfoundland

A series of disturbances affected Labrador this week, giving generally unsettled weather conditions. During the early part of the weekend, a slow moving weather system brought snow to northern Labrador and a mixture of rain and freezing rain to the south. The Island experienced generally fair weather, with well above normal temperatures, rising to the upper teens. On May 2, showers were associated with the arrival of cooler more seasonal weather. An area of snow brushed past the Avalon Peninsula the final day of the period, while the rest of the province enjoyed some sun.

FORECAST





++	**much above 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.
+	**above normal**	
N	**normal**	
-	**below normal**	
--	**much below normal**	

CLIMATIC PERSPECTIVES VOLUME 8

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

Regional Correspondents
Atl.: F.Amirault; Que.: J.Miron
Central: B.Tortorelli;
Ont.: A.Radecki; Western: W.Prusak;
Pac.: R.McLaren; Yukon Weather Centre; Yellowknife Weather Office;
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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.

Unsolicited articles are welcome but should be at maximum about 1500 words in length. They will be subject to editorial change without notice due to publishing time constraints. The contents may be reprinted freely with proper credit.

The data shown 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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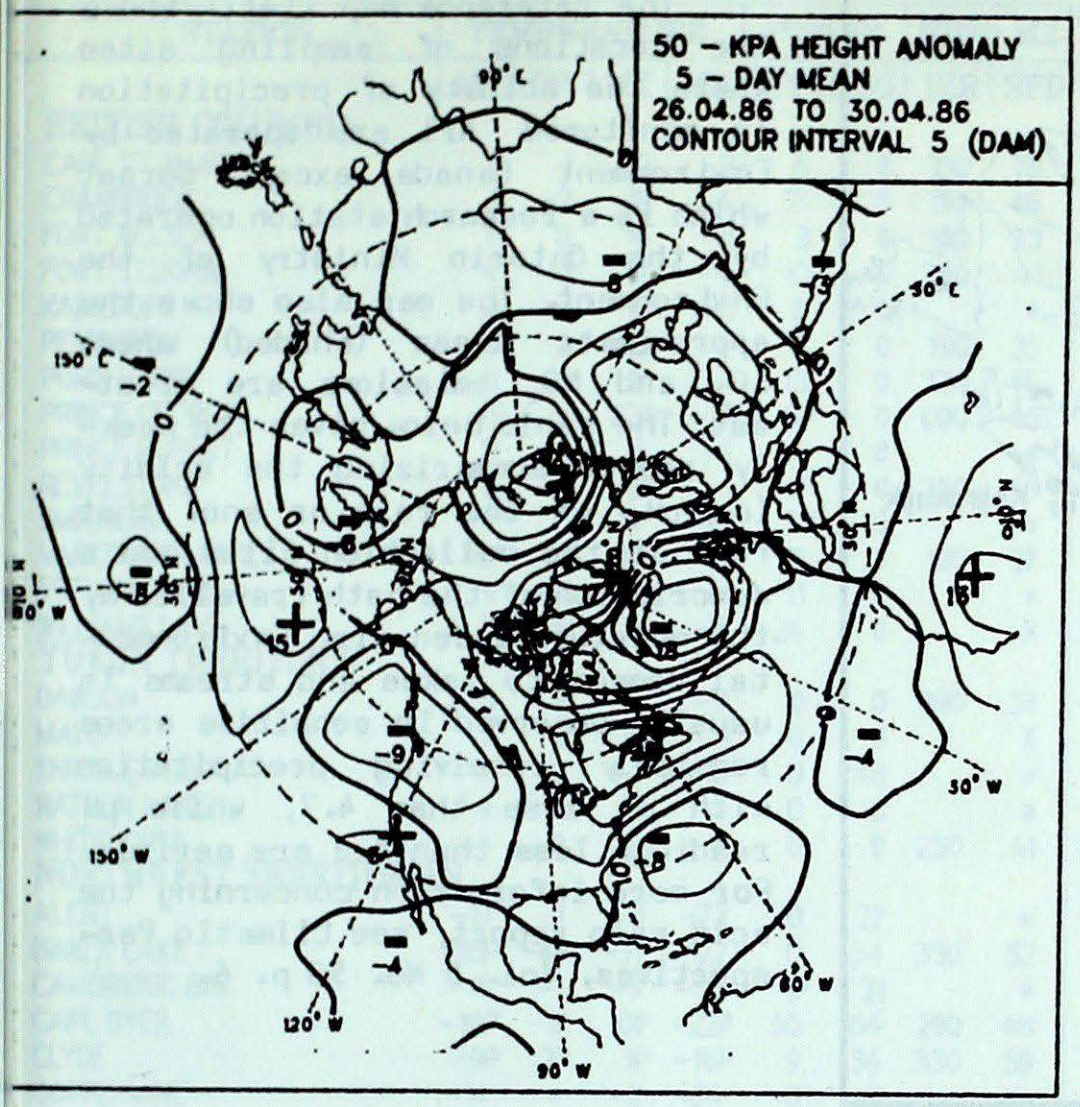
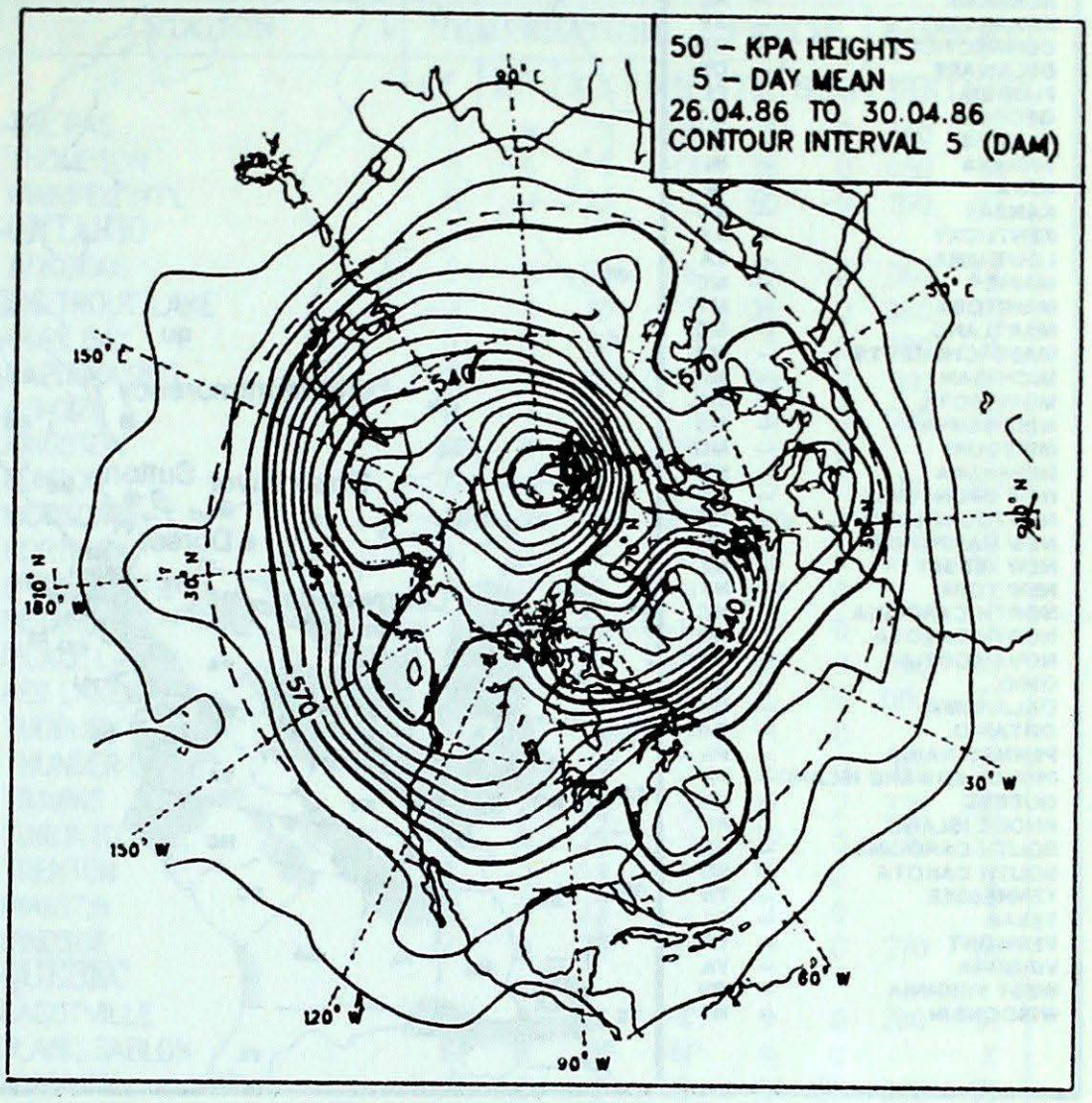
50 KPa ATMOSPHERIC CIRCULATION



MEAN 50 KPa HEIGHT ANOMALY (dam)
April 26 to April 30, 1986



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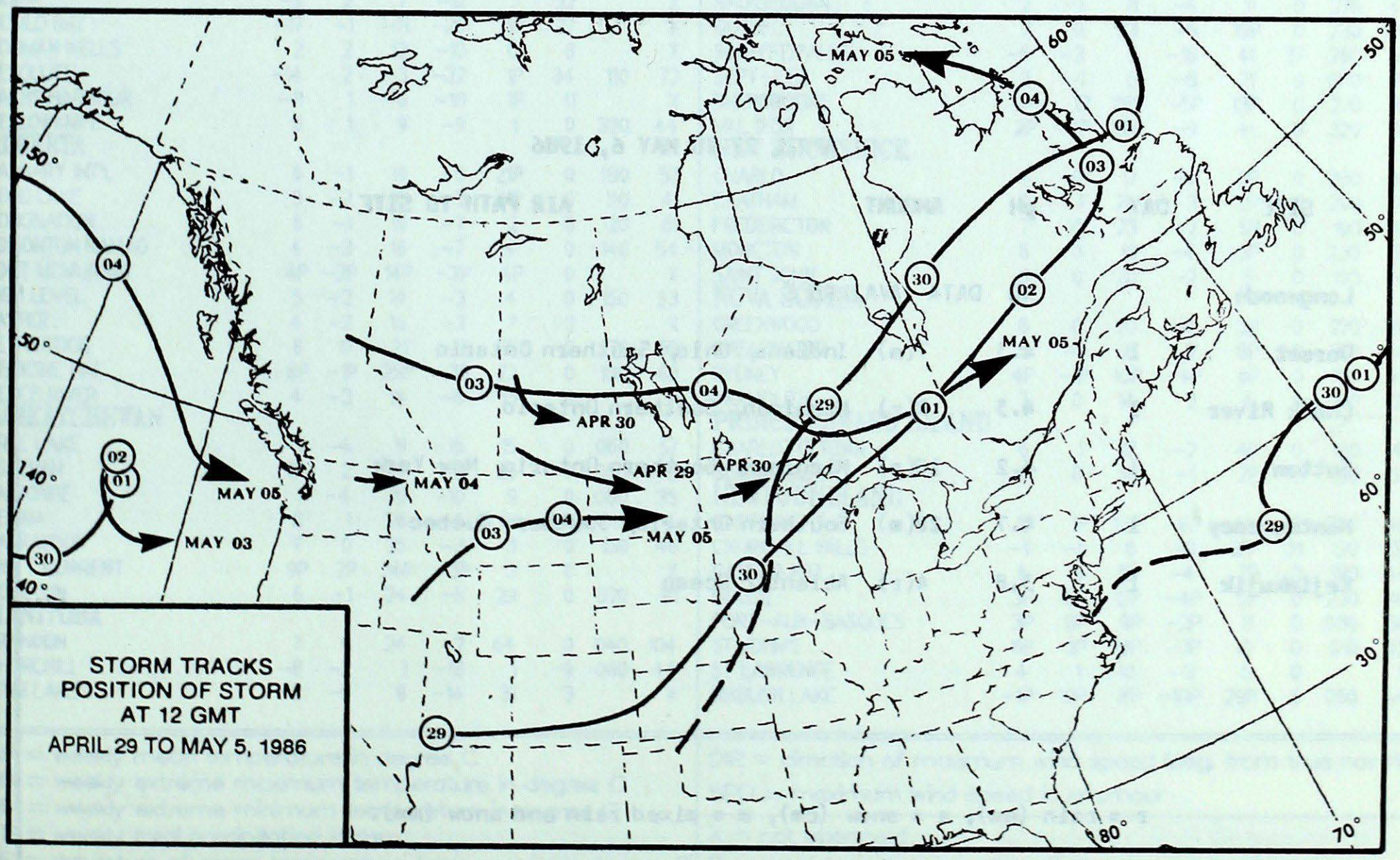
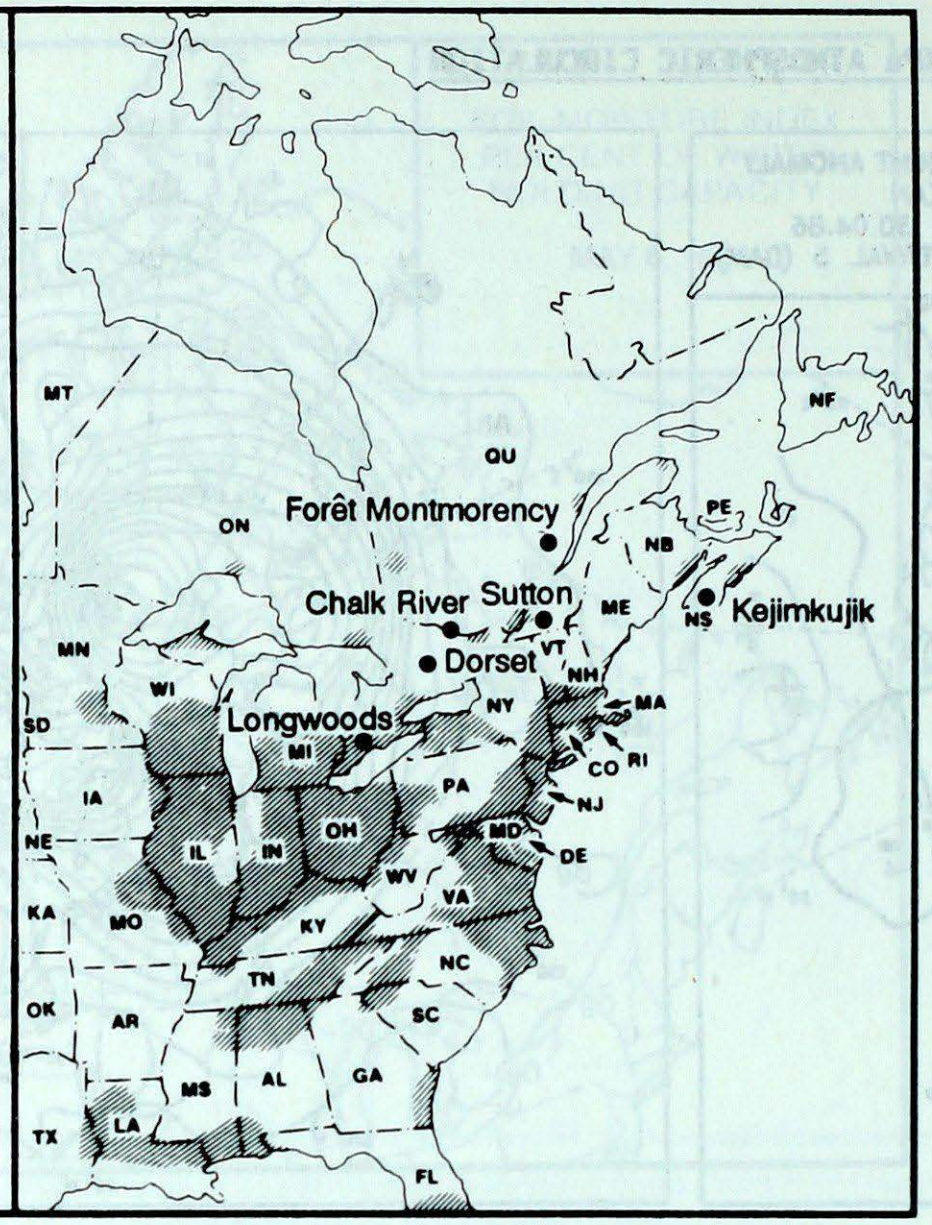


ACID RAIN

ALABAMA	—	AL
ARKANSAS	—	AR
CONNECTICUT	—	CO
DELAWARE	—	DE
FLORIDA	—	FL
GEORGIA	—	GA
ILLINOIS	—	IL
INDIANA	—	IN
IOWA	—	IA
KANSAS	—	KA
KENTUCKY	—	KY
LOUISIANA	—	LA
MAINE	—	ME
MANITOBA	—	MT
MARYLAND	—	MD
MASSACHUSETTS	—	MA
MICHIGAN	—	MI
MINNESOTA	—	MN
MISSISSIPPI	—	MS
MISSOURI	—	MO
NEBRASKA	—	NE
NEW BRUNSWICK	—	NB
NEWFOUNDLAND	—	NF
NEW HAMPSHIRE	—	NH
NEW JERSEY	—	NJ
NEW YORK	—	NY
NORTH CAROLINA	—	NC
NORTH DAKOTA	—	ND
NOVA SCOTIA	—	NS
OHIO	—	OH
OKLAHOMA	—	OK
ONTARIO	—	ON
PENNSYLVANIA	—	PA
PRINCE EDWARD ISLAND	—	PE
QUÉBEC	—	QU
RHODE ISLAND	—	RI
SOUTH CAROLINA	—	SC
SOUTH DAKOTA	—	SD
TENNESSEE	—	TN
TEXAS	—	TX
VERMONT	—	VT
VIRGINIA	—	VA
WEST VIRGINIA	—	WV
WISCONSIN	—	WI



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 27 TO MAY 6, 1986

SITE	DAY	pH	AMOUNT	AIR PATH TO SITE
Longwoods		NO DATA AVAILABLE		
Dorset	1	4.3	7(m)	Indiana, Ohio, Southern Ontario
Chalk River	1	4.3	9(r)	Michigan, Southern Ontario
Sutton	1	4.2	10(r)	Michigan, Southern Ontario, New York
Montmorency	1	4.7	28(m)	Southern Ontario, Southern Quebec
Kejimkujik	1	3.8	4(r)	Atlantic Ocean

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

STATISTICS

TEMPERATURE, PRECIPITATION AND MAXIMUM WIND DATA FOR THE WEEK ENDING 0600 GMT MAY 6,1986

STATION	TEMPERATURE				PRECIP.		WIND MX	
	AV	DP	MX	MN	TP	SOG	DIR	SPD
BRITISH COLUMBIA								
CAPE ST.JAMES	8	1	13	3	6	0	100	78
CRANBROOK	7	-2	18	-4	21	0	190	46
FORT NELSON	6	0	16	-2	3	0	150	33
FORT ST.JOHN	4	-3	14	-4	10	0	360	41
KAMLOOPS	10	-1	18	-2	8	0		*
PENTICTON	9	-2	19	-4	6	0	190	35
PORT HARDY	8	0	15	-1	13	0	130	46
PRINCE GEORGE	7P	*	23P	-3P	3P	0	090	46
PRINCE RUPERT	8	1	15	-1	0	0		*
REVELSTOKE	8	-2	19	-1	14P	0	350	46
SMITHERS	7	0	17	-3	5P	0		*
VANCOUVER INT'L	10P	0P	17P	2P	26	0	120	37
VICTORIA INT'L	9	-1	16	-1	11	0		*
WILLIAMS LAKE	5	*	13	-6	24	0		X
YUKON TERRITORY								
DAWSON	5	*	15	-9	0	0	090	37
MAYO	7	2	15	-3	0	0		X
SHINGLE POINT A	-9	0	-4	-16	0	48		*
WATSON LAKE	4	0	13	-5	0	0		*
WHITEHORSE	4	0	12	-5	0	0	230	41
NORTHWEST TERRITORIES								
ALERT	-17	-1	-11	-23	0	22		*
BAKER LAKE	-15P	-4P	-7P	-22	0	34	330	52
CAMBRIDGE BAY	-16	-1	-9	-22	1P	21		*
CAPE DYER	-10P	-1P	0P	-22P	55	154	290	48
CLYDE	-9P	3P	1P	-16P	9	34	330	59
COPPERMINE	-14	*	-2	-24	0	41		*
CORAL HARBOUR	-15	-4	-7	-23	0P	19		X
EUREKA	-15	2	-8	-22	0	15	290	61
FORT SMITH	4	1	13	-5	0P	0		X
FROBISHER BAY	-10	-3	4	-23	8	34	140	67
HALL BEACH	-13P	0P	1P	-26P	3	41	330	56
INUVIK	-5	2	7	-12	1	32		X
MOULD BAY	-17	-1	-11	-25	1P	27		X
NORMAN WELLS	2	2	13	-10	0	8		X
RESOLUTE	-14	2	-3	-22	1P	34	110	72
SACHS HARBOUR	-11	1	-6	-18	1P	11		X
YELLOWKNIFE	0	1	9	-9	1	0	320	44
ALBERTA								
CALGARY INT'L	6	-1	19	-5	21P	0	180	57
COLD LAKE	5	-2	18	-3	11P	0	110	41
CORONATION	6	-1	19	-7	2	0	120	61
EDMONTON NAMAO	4	-3	16	-7	4	0	140	54
FORT MCMURRAY	4P	-2P	14P	-3P	4P	0		X
HIGH LEVEL	5	-2	14	-3	4	0	150	33
JASPER	4	-2	16	-3	7	0		X
LETHBRIDGE	8	0	21	-2	35	0	270	65
MEDICINE HAT	8P	-1P	25P	-3P	22	0	180	48
PEACE RIVER	4	-3	14	-4	15	0		*
SASKATCHEWAN								
CREE LAKE	-1	-4	9	-15	15	0	060	57
ESTEVAN	10	2	27	-3	25	0	060	78
LA RONGE	1	-4	10	-10	9	0	080	35
REGINA	8	1	26	-5	61	0	010	74
SASKATOON	7	0	25	-3	3	0	150	46
SWIFT CURRENT	9P	2P	24P	-3P	3	0		X
YORKTON	6	-1	24	-5	29	0	020	81
MANITOBA								
BRANDON	7	0	24	-2	64	0	040	104
CHURCHILL	-8	-2	1	-18	1	9	060	44
LYNN LAKE	-2	-5	8	-14	31	3		*
THE PAS	1	*	11	-10	1P	0	140	44
THOMPSON	-1	-4	9	-13	16	0	050	41
WINNIPEG INT'L	8	-1	23	-3	50	0	070	67
ONTARIO								
ATIKOKAN	7	1	24	-6	53	0	360	44
BIG TROUT LAKE	-2	*	10	-13	26	2	040	43
GORE BAY	7	0	20	-2	5	0	300	74
KAPUSKASING	3	-2	22	-10	29	0	310	61
KENORA	8	1	26	-3	31	0	090	50
KINGSTON	7P	-2P	17P	-2P	6	0		X
LONDON	7P	-3P	18P	-2P	5	0	310	80
MOOSONEE	1P	-1P	24P	-10P	9P	0	340	70
NORTH BAY	5	-2	17	-6	30P	0	340	56
OTTAWA INT'L	9	0	25	-3	20P	0		X
PETAWAWA	7	-1	23	-8	33P	0		X
PICKLE LAKE	3P	0P	14P	-10P	18P	0	090	48
RED LAKE	6	0	24	-4	6	0	080	52
SUDBURY	7P	0P	17P	-5P	21	0		X
THUNDER BAY	7	1	19	-2	31	0	150	72
TIMMINS	4	-2	22	-9	38	2	330	56
TORONTO INT'L	9	0	25	-3	2P	0	270	72
TRENTON	9	-1	23	-3	7P	0		X
WIARTON	8	0	23	-2	3	0		X
WINDSOR	12	0	28	0	8	0	270	81
QUEBEC								
BAGOTVILLE	6	0	22	-6	9	0	280	61
BLANC SABLON	1P	*	8P	-6P	9	0		X
INUKJUAK	-11	-6	-3	-18	2P	26	040	59
KUUJJUAQ	-7	-4	1	-15	13	55	030	74
KUUJJUARAPIK	-7	-4	10	-14	16P	0	020	63
MANIWAKI	8	0	27	-6	30P	0	260	46
MONT JOLI	5	0	20	-3	4	0	240	59
MONTREAL INT'L	8P	-2P	24P	-3P	14	0	270	70
NATASHQUAN	2	-1	8	-4	11	0	270	43
QUEBEC	7	0	23	-5	19P	0	230	100
SCHEFFERVILLE	-5	-3	5	-16	41	37	250	56
SEPT-ILES	2	-1	8	-5	21	0	080	70
SHERBROOKE	9P	1P	28P	-5P	13P	0	270	87
VAL D'OR	2P	-3P	26P	-9	41	0	320	67
NEW BRUNSWICK								
CHARLO	4	0	17	-4	2P	0	280	50
CHATHAM	7	1	24	-3	2P	0	290	48
FREDERICTON	7	0	23	-2	5P	0	190	52
MONCTON	6	0	19	-4	3P	0	230	59
SAINT JOHN	6	0	20	-2	5	0	190	50
NOVA SCOTIA								
GREENWOOD	8	0	20	-4	3P	0	270	70
SHEARWATER	5	-1	16	-2	8P	0	270	54
SYDNEY	4P	-1P	10P	-4P	6P	0	190	43
YARMOUTH	7	0	14	2	6	0	190	52
PRINCE EDWARD ISLAND								
CHARLOTTETOWN	6	1	17	-2	4P	0	160	41
SUMMERSIDE	6	0	18	-1	2P	0	160	52
NEWFOUNDLAND								
CARTWRIGHT	1P	1P	13P	-8P	10	12	200	48
CHURCHILL FALLS	-1	-1	6	-9	28	31	120	52
GANDER INT'L	6	3	18	-4	7P	0	180	46
GOOSE	3P	0P	12P	-4P	13	0	230	46
PORT-AUX-BASQUES	3P	0P	9P	-2P	11	0	080	56
ST JOHN'S	6P	3P	18P	-3P	10	0	010	63
ST LAWRENCE	4	1	10	-3	5	0		X
WABUSH LAKE	-1P	0P	8P	-10P	29P	6	060	44

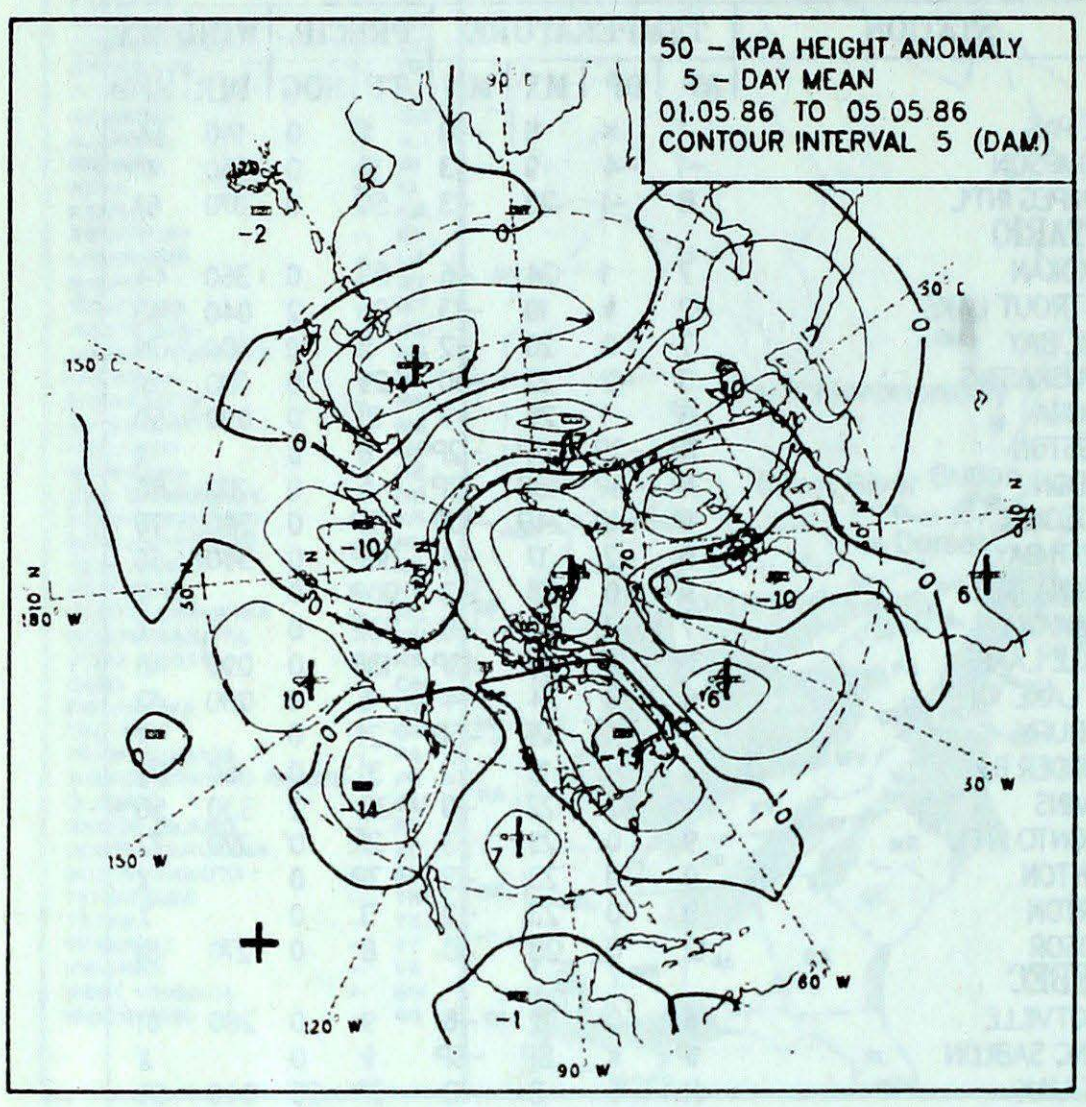
AV = weekly mean temperature in degree C
MX = weekly extreme maximum temperature in degree C
MN = weekly extreme minimum temperature in degree C
TP = weekly total precipitation in mm
DP = departure of mean temperature from normal in degree, C
SOG = snow depth on ground in cm, last day of the period

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

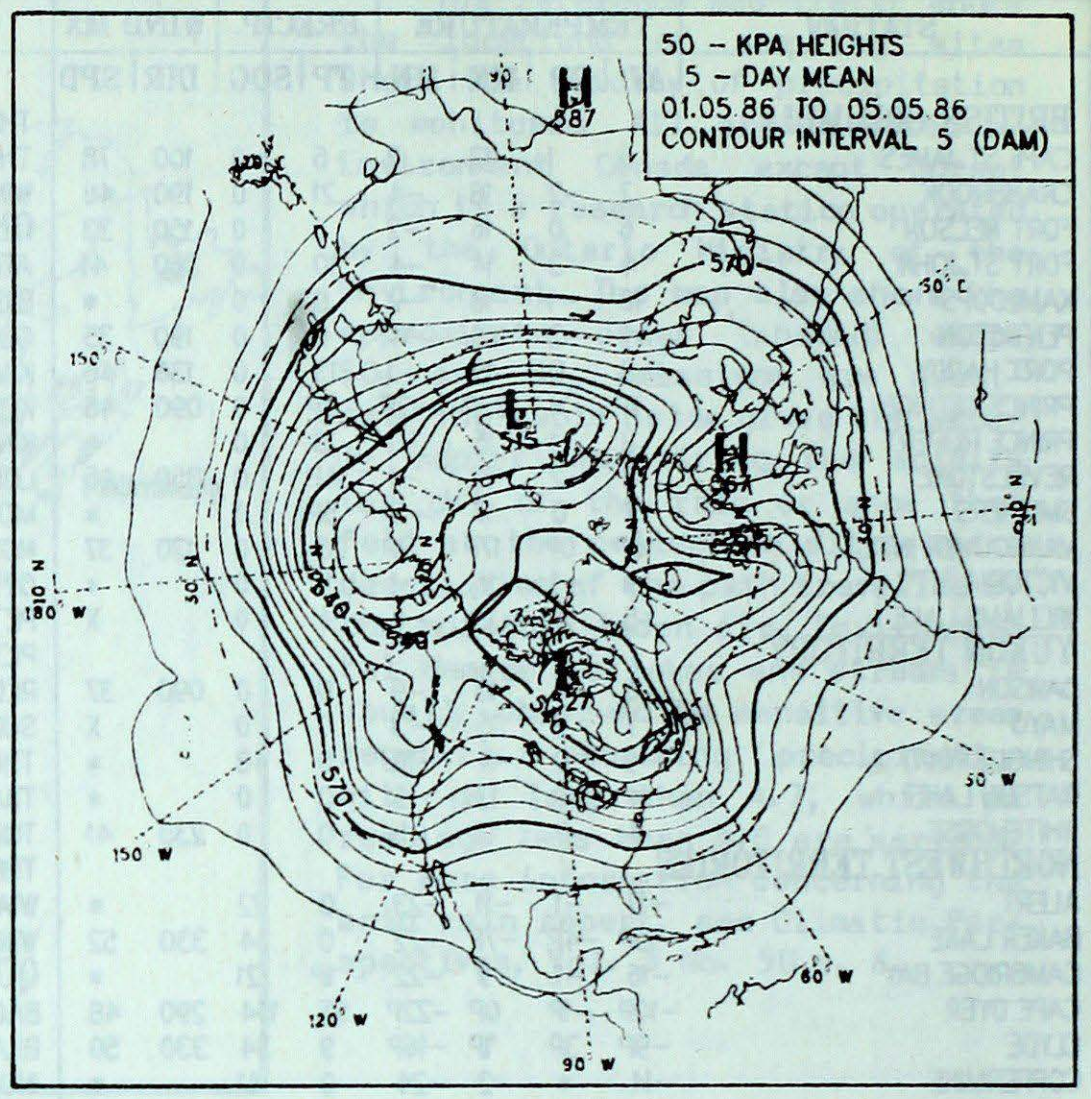
X = not observed
P = value based on less than 7 days
* = missing

CIRCULATION

50 KPa ATMOSPHERIC CIRCULATION



MEAN 50 KPa HEIGHT ANOMALY (dam)
May 1 to May 5, 1986



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May 1 to May 5, 1986