

Climatic Perspectives

May 3 to 9, 1988

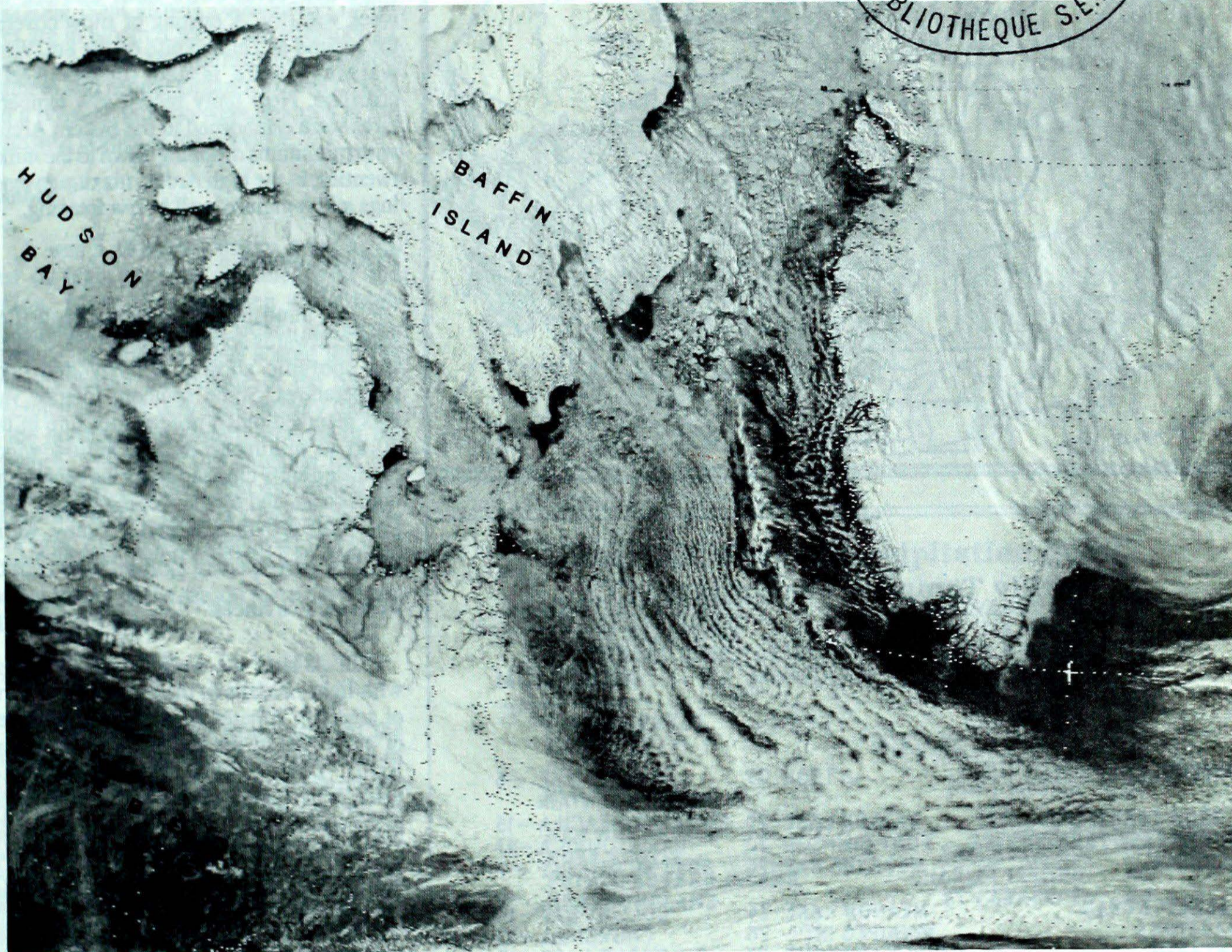
A weekly review of the Canadian climate

A.E.S. LIBRARY

MAY 24 1988

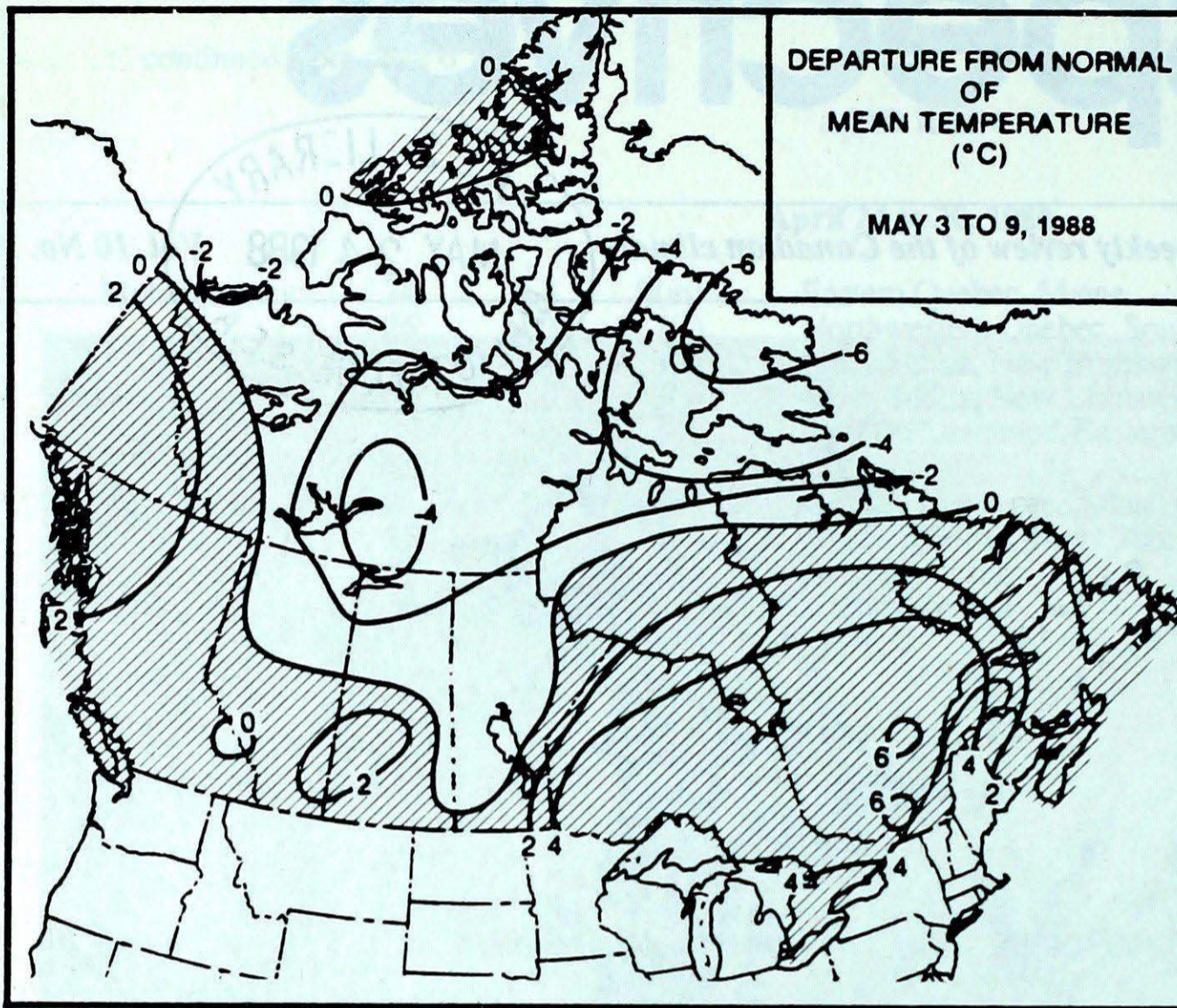
Vol. 10 No. 19

BIBLIOTHEQUE S.E.A.



Spring may be evident everywhere across southern Canada, but in the north it is a different situation, as seen in this NOAA 9 satellite photo of May 4, 1988. Snow still covers northern Quebec and Baffin island. The Greenland ice cap is easily discernible. Ice is showing signs of break-up in northern Hudson Bay and Hudson Strait.

- **Much needed rain in the southeastern Prairies**
- **Winds play havoc with Maritime lobster fishermen**



ACROSS THE COUNTRY ...

Yukon and Northwest Territories

Maximum temperatures in the southern and central Yukon were above seasonal values, with readings of 20°C. In the Mackenzie and Great Slave Lake districts, the week was dry. A dusting of snow covered the ground at Yellowknife on the 8th. Wind warnings were issued for the Arctic coastline. New daily record low temperatures were established in the eastern Arctic, with minimums dropping down to the minus twenties. In the high Arctic, maximum readings still remained well below freezing.

British Columbia

An atmospheric disturbance drifted southeastwards across the province, triggering sporadic shower activity and cool temperatures. Some southern interior valleys received much needed moisture in the 10 to 15 millimetre range. Outflow winds produced early clearing along the central and north coast, and by the weekend pretty well the whole province basked in sunny, warm weather, as a offshore flow predominated.

Prairies Provinces

In Alberta the week began unsettled, with light rainfalls in the foothills and parts of southern Alberta. Five to 10 centimetres of snow fell in the mountain valleys near Banff. Sunny, warm weather returned towards the middle of the week, and daytime highs once again climbed into the twenties.

Skies cleared rapidly in Saskatchewan and southwestern Manitoba after the heavy rain that caused extensive flooding and soil erosion in the Swan River Valley moved northeastward into northern Manitoba. By mid-week, temperatures climbed back up into the teens. Widespread shower and thunderstorm activity, associated with a disturbance over the northern plains, moved into southeastern Saskatchewan and southern Manitoba for the weekend, dumping 10 to 25 millimetres of additional rain. On May 7, severe thunderstorms produced hail and spawned a small tornado at Emerson and Winnipeg, respectively.

Ontario

High pressure dominated the weather pattern for the greater portion of the week. The edge of a slow moving disturbance

Weekly Temperature Extreme (°C)

	MAXIMUM	MINIMUM
BRITISH COLUMBIA	LYTTON 27	DEASE LAKE -6
YUKON TERRITORY	WATSON LAKE 20	PUNTZI MOUNTAIN
NORTHWEST TERRITORIES	FORT SIMPSON 20	KOMAKUK BEACH A -15
ALBERTA	MEDICINE HAT 26	CAPE YOUNG A -27
		FORT MCMURRAY -7
SASKATCHEWAN	MEADOW LAKE 24	COLLINS BAY -10
MANITOBA	WINNIPEG INT'L 26	CHURCHILL -13
ONTARIO	SIoux LOOKOUT 27	BIG TROUT LAKE -5
QUEBEC	QUEBEC 28	LAC EON -9
NEW BRUNSWICK	CHATHAM 26	ST STEPHEN -3
NOVA SCOTIA	SYDNEY 22	SYDNEY -3
PRINCE EDWARD ISLAND	SUMMERSIDE 22	SUMMERSIDE 0
NEWFOUNDLAND	GOOSE 20	CHURCHILL FALLS -7

ACROSS THE NATION

WARMEST MEAN TEMPERATURE	15	OTTAWA INT'L	ONT
COOLEST MEAN TEMPERATURE	-18	DEWAR LAKES	NWT

brushed past the southern part of the province on Thursday. Daily high temperature records were broken across the north, but the arrival of rain resulted in cooler conditions over the weekend. In the southern half of the province, it turned out to be a gorgeous Mother's Day weekend, with daytime highs climbing into the mid twenties, accelerating plant growth considerably. Fruit trees are in bloom. Late on the afternoon of May 9, heavy thunderstorms crossed southern and central Ontario. Funnel clouds and a possible tornado were reported in the southwest corner of the province.

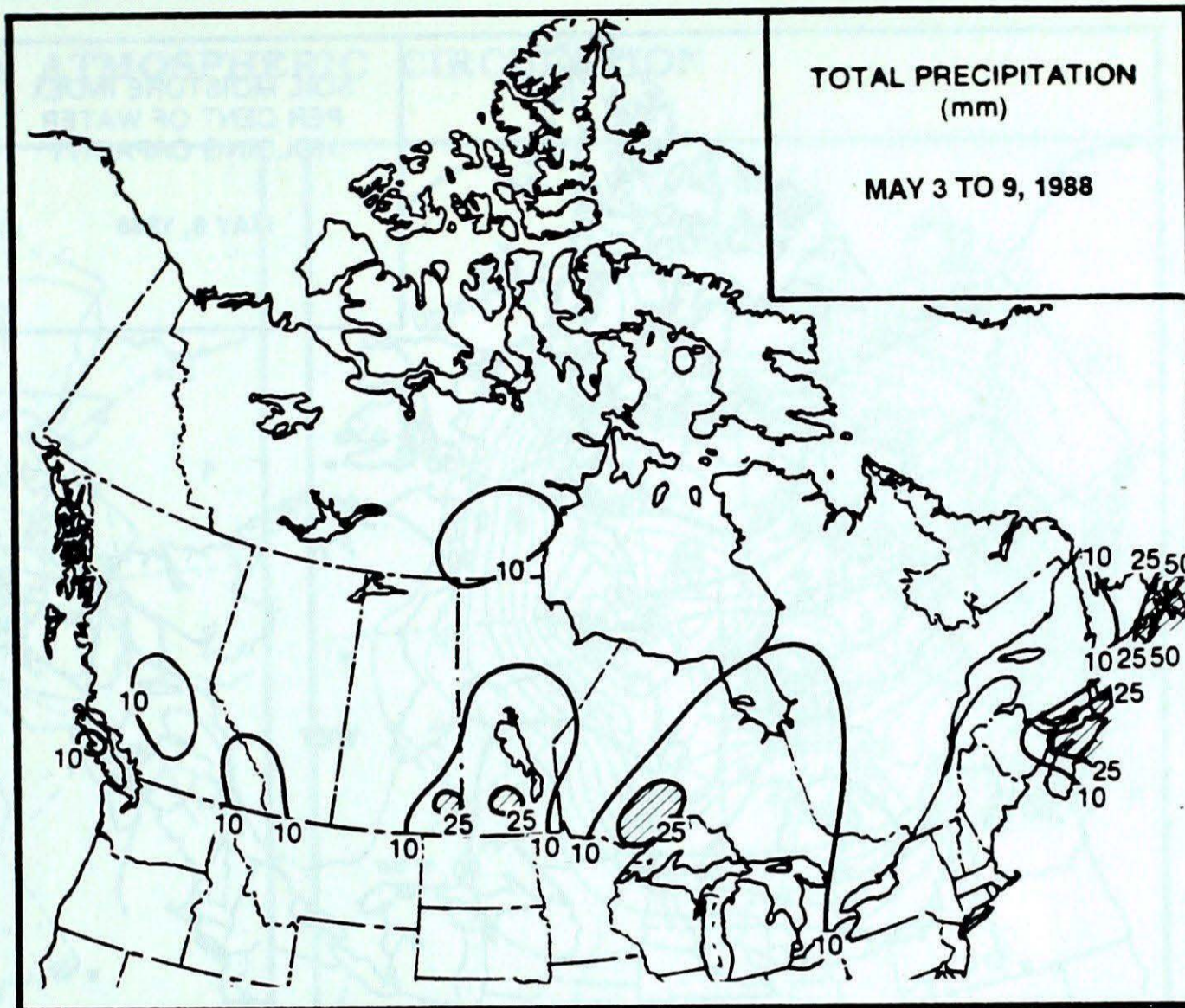
Quebec

It was a pleasantly sunny week as an area of high pressure prevailed over the region. More than a dozen daily high temperature records were broken across the province, as daytime highs soared into the twenties during the middle of the period. Precipitation was very light, mostly limited to the northern and eastern sections of the province. The forest fire situation has become critical, and until rain diminishes the forest fire hazard, there is a ban on all outdoor fires. As of May 9, there were more than 60 fires were burning in the province. Since the beginning of the season there have been 212 reported fires.

Atlantic Provinces

A vicious Atlantic storm reached the shores of eastern Canada at the beginning of the week, bringing wet and unseasonably cool weather. Up to 42 mm of rain fell on Nova Scotia, while Sable Island received 100 mm. Winds gusted to 148 km/h along the Cape Breton coastline. Mainland lobster fishermen lost thousands of traps, with the greatest losses reported on Pictou Island, where some lost 60 percent of their catch. The record cool temperatures moderated quickly, and by mid-week readings nudged the mid-twenties under sunny skies.

Newfoundland experienced the same type of inclement weather at the beginning of the period, after which it turned fair and mild until the weekend, when light rain and snow fell on eastern sections of the Island. The week ended on a unseasonably cold but sunny note. In Labrador, the week started off warm and sunny, with the mercury at some locations climbing to twenty degrees. Temperatures returned to more seasonal values by mid-week, with a few showers or flurries.

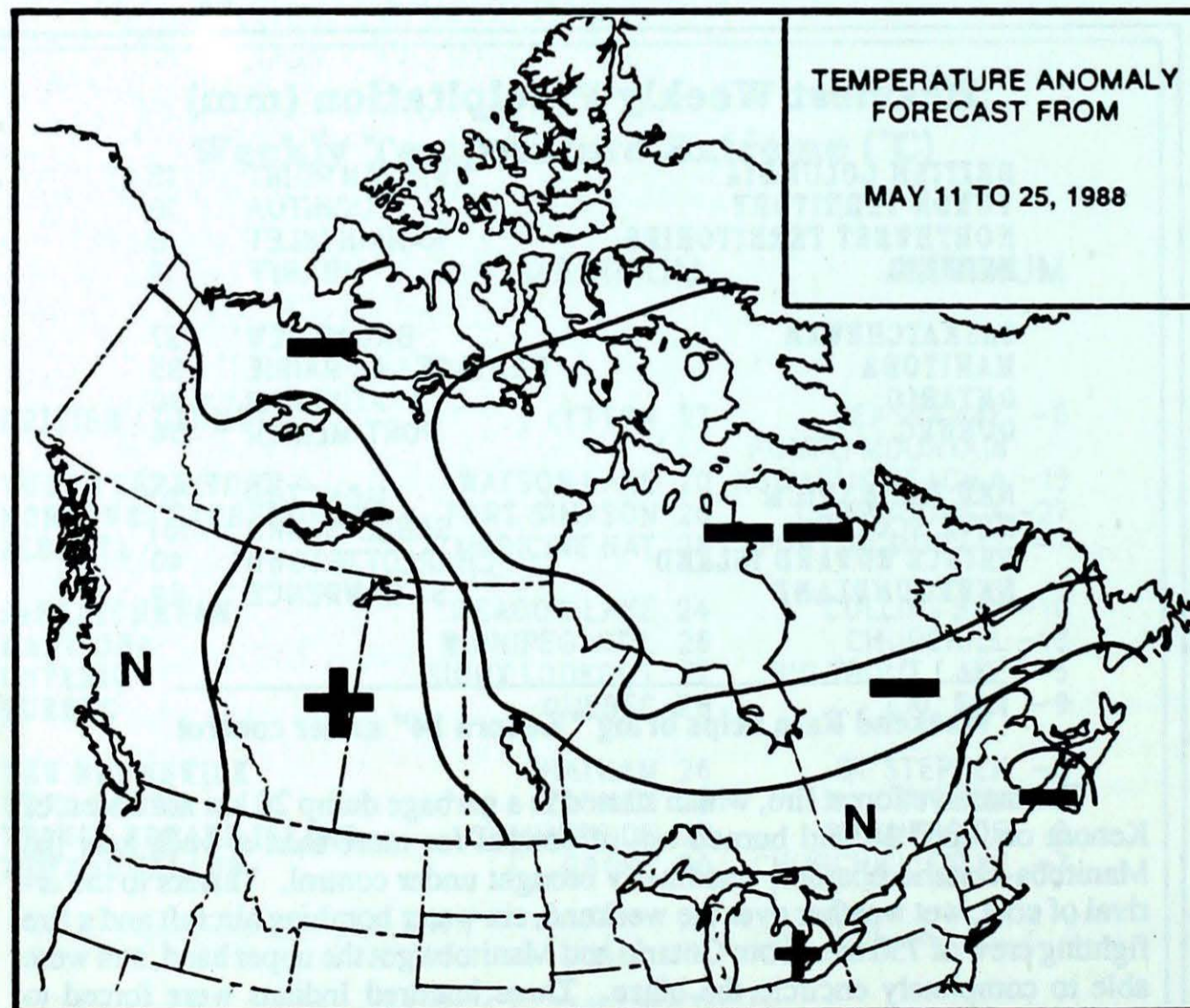
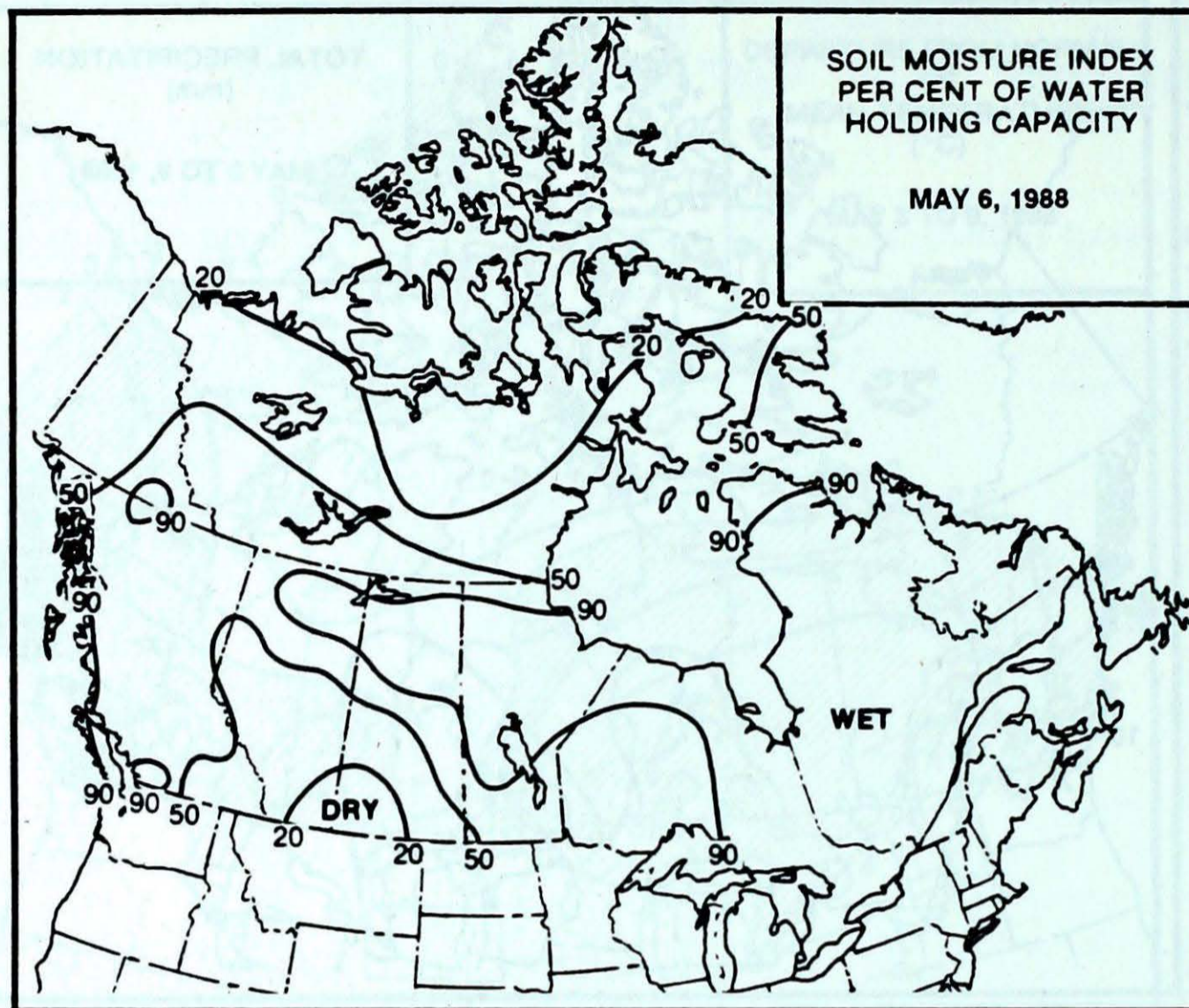


Heaviest Weekly Precipitation (mm)

BRITISH COLUMBIA	ESTEVAN POINT	18
YUKON TERRITORY	TUCHITUA	18
NORTHWEST TERRITORIES	RANKIN INLET	8
ALBERTA	BANFF	19
SASKATCHEWAN	BROADVIEW	27
MANITOBA	PORTAGE LA PRAIRIE	35
ONTARIO	ATIKOKAN	30
QUEBEC	PORT MENIER	54
NEW BRUNSWICK	MONCTON	20
NOVA SCOTIA	SABLE ISLAND	101
PRINCE EDWARD ISLAND	CHARLOTTETOWN	40
NEWFOUNDLAND	ST LAWRENCE	89

Weekend Rain helps bring "Kenora 14" under control

The massive forest fire, which started in a garbage dump 20 km northwest of Kenora on April 30 and burned out of control for more than a week near the Manitoba-Ontario boarder, was finally brought under control. Thanks to the arrival of cool, wet weather over the weekend, six water bombing aircraft and a fire fighting crew of 750 men from Ontario and Manitoba got the upper hand, and were able to completely encircle the blaze. Three hundred Indians were forced to evacuate the Whitedog Indian Reserve. Ten cottages were destroyed, but luckily 240 others were saved. The fire destroyed more than 240 square kilometers of timber more than twice the size of the city of Hamilton. There is very little evidence of open flames, but workers are still on the scene snuffing out small fires and identifying hot spots. In fact, there could be fire crews stationed there all summer to keep an eye out for flare-ups.



- ++ 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

Managing Editor P.R. Scholefield
 Editors-in-charge
 weekly A.K. Radomski
 monthly A.A. Caillet
 Data Manager M. Skarpathiotakis
 Art Layout K. Czaja
 Word Processing P. Burke/U. Ellis
 Translation D. Pokorn
 Cartography G. Young/T. Chivers

Regional Correspondents

Atlantic: F.Amirault; Quebec: J.Miron;
 Ontario: B.Smith; Central: J.F.Bendell;
 Western: W.Prusak; Pacific: E.Coatta;
 Yukon Weather Centre: J.Steele; Frobisher
 Bay and Yellowknife Weather Offices;
 Newfoundland Weather Centre:
 G.MacMillan; Ice Central Ottawa

ISBN 0225-5707 UDC 551.506.1(71)

Climatic Perspectives is a weekly bilingual publication of the Canadian Climate Centre, Atmospheric Environment Service, 4905 Dufferin St., Downsview, Ontario, Canada M3H 5T4
 ☎ (416) 739-4438/4436

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.

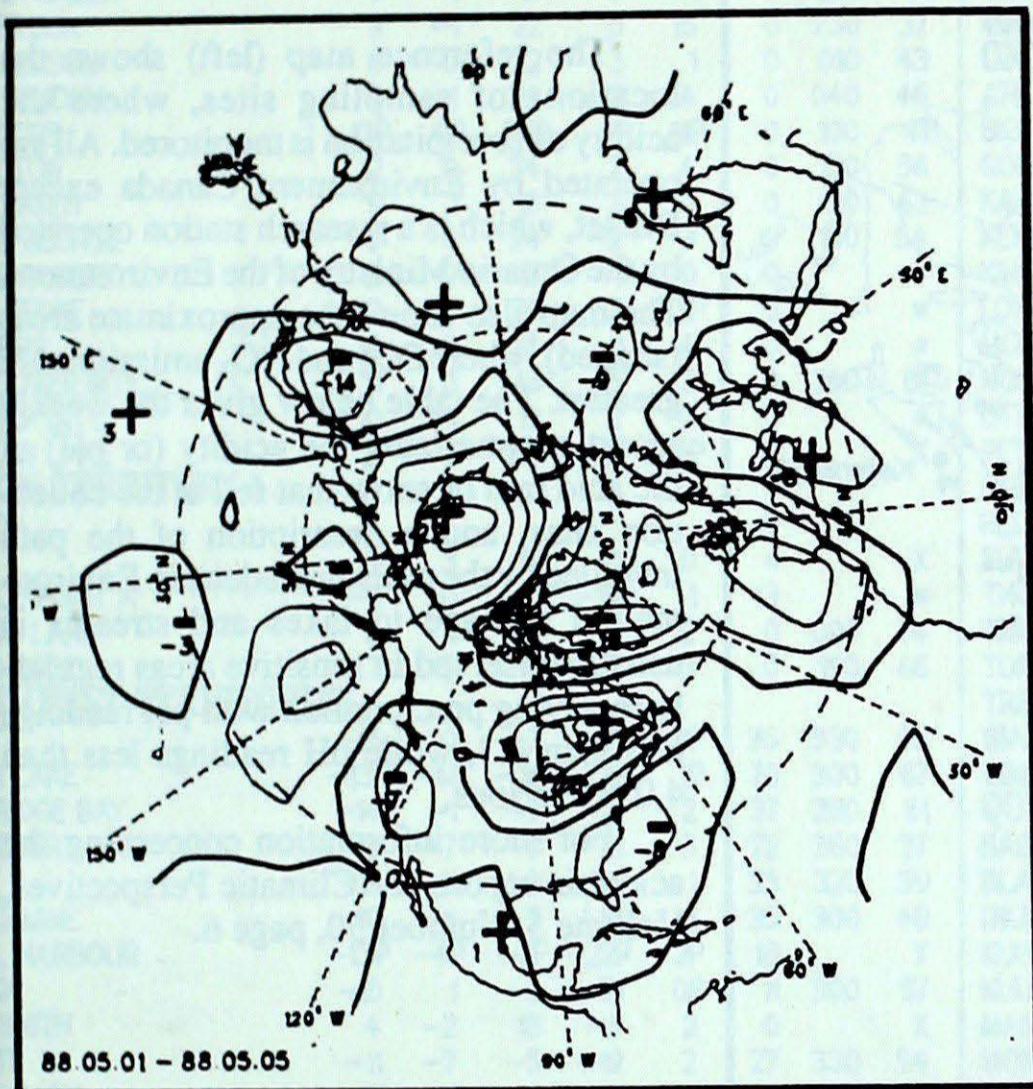
The data in this publication are based on unverified reports from approximately 225 Canadian synoptic weather stations. Information concerning climatic impacts is gathered from AES contacts with the public and from the media. Articles do not necessarily reflect the views of the Atmospheric Environment Service.

Annual Subscriptions

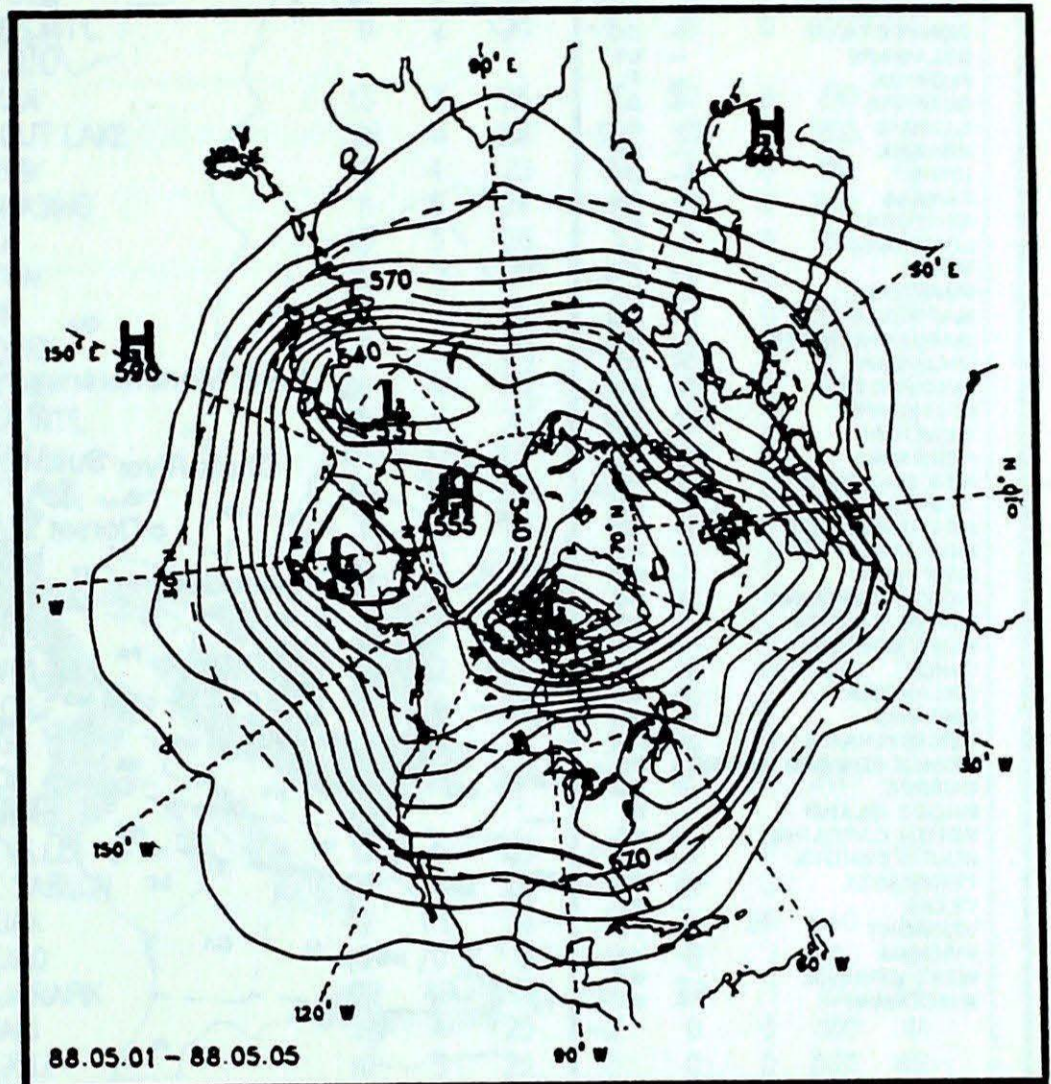
weekly and monthly supplement: \$35.00
 foreign:\$42.00
 monthly issue:\$10.00
 foreign:\$12.00

Orders must be prepaid by money order or cheque payable to Receiver General for Canada. Canadian Government Publishing Centre, Ottawa, Ontario, Canada K1A 0S9 (819) 997-2560

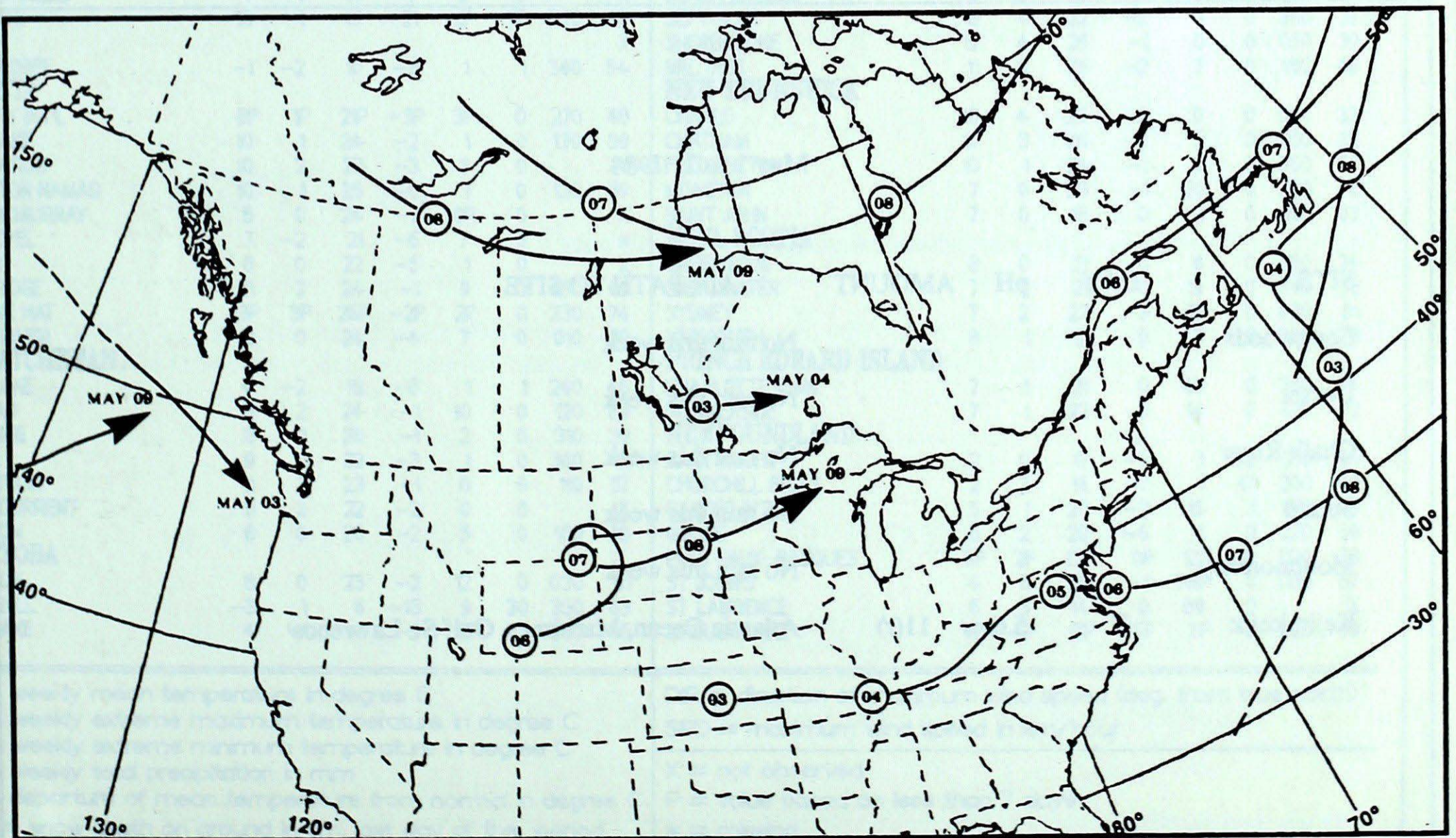
50 kPa ATMOSPHERIC CIRCULATION



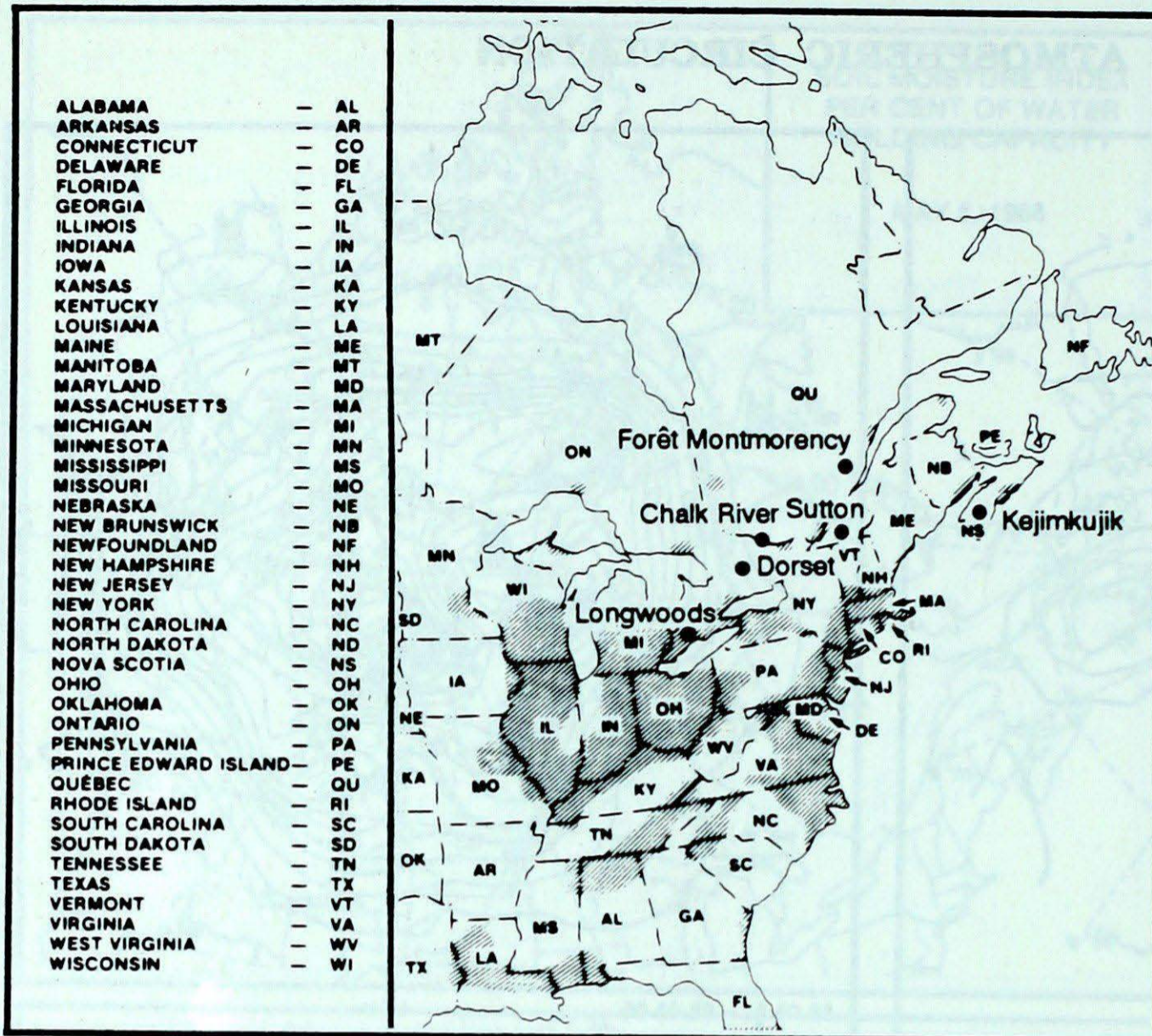
Mean geopotential height anomaly
50 kPa level (5 decameter intervals)



Mean geopotential height
50 kPa level (5 decameter intervals)



Storm track - Position of storm at 12 GMT during the period: May 3 to 9, 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.

May 1 to 7, 1988

SITE	DAY	pH	AMOUNT	AIR PATH TO SITE
Longwoods				No rain this week
Dorset				No rain this week
Chalk River				No rain this week
Sutton				No rain this week
Montmorency				No rain this week
Kejimikujik	3	5.6	11(r)	Atlantic Ocean, Maritimes, Gulf St. Lawrence

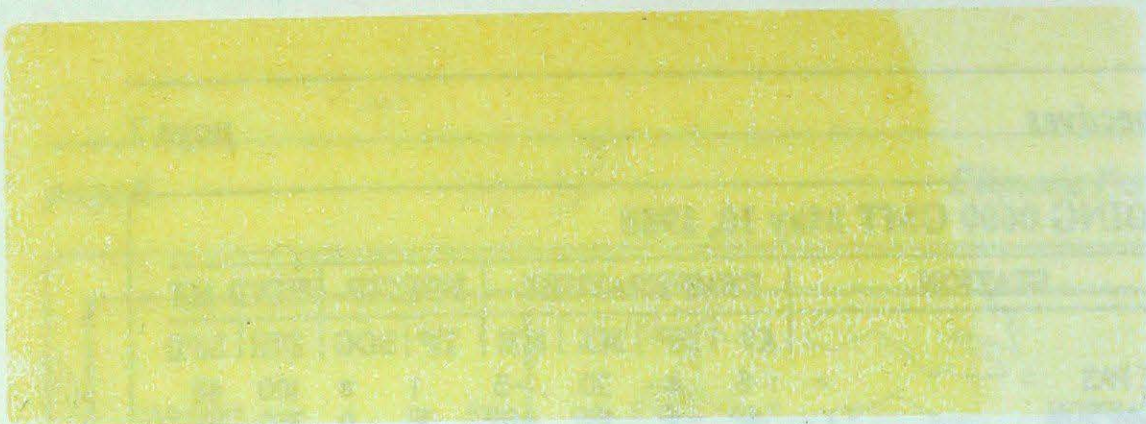
r = rain (mm), s = snow (cm), m = mixed rain and snow (mm)

STATISTICS FOR THE WEEK ENDING 0600 GMT May 10, 1988

Table with columns for STATION, TEMPERATURE (AV, DP, MX, MN), PRECIP. (TP, SOG), and WIND MX (DIR, SPD). Rows are organized by province/territory: BRITISH COLUMBIA, ALBERTA, SASKATCHEWAN, MANITOBA, ONTARIO, QUEBEC, NEW BRUNSWICK, PRINCE EDWARD ISLAND, and NEWFOUNDLAND. Each row lists a station and its corresponding weather data for the week.

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



STATION	TEMPERATURE		WIND	MOON	SEA	VISIB	PRES	WIND DIR	WIND SPC	WIND GUST	WIND RAIN	WIND DRIFT
	MAX	MIN										
BRITISH COLUMBIA	18	12	15	2	4	10	1015	120	10	15	0.0	0
QUEBEC	15	5	10	1	3	10	1010	110	10	15	0.0	0
ALBERTA	12	2	8	1	2	10	1005	100	10	15	0.0	0
ONTARIO	10	0	6	1	2	10	1000	90	10	15	0.0	0
MANITOBA	8	-2	4	1	2	10	995	80	10	15	0.0	0
SASKATCHEWAN	5	-5	1	1	2	10	990	70	10	15	0.0	0
BRITISH COLUMBIA	15	8	12	2	4	10	1015	120	10	15	0.0	0
ALBERTA	12	3	9	1	3	10	1010	110	10	15	0.0	0
ONTARIO	10	1	7	1	2	10	1005	100	10	15	0.0	0
MANITOBA	8	-1	5	1	2	10	1000	90	10	15	0.0	0
SASKATCHEWAN	5	-4	2	1	2	10	995	80	10	15	0.0	0
BRITISH COLUMBIA	18	10	15	2	4	10	1015	120	10	15	0.0	0
ALBERTA	15	6	12	1	3	10	1010	110	10	15	0.0	0
ONTARIO	12	3	9	1	2	10	1005	100	10	15	0.0	0
MANITOBA	10	1	7	1	2	10	1000	90	10	15	0.0	0
SASKATCHEWAN	8	-1	5	1	2	10	995	80	10	15	0.0	0

10 = 10% observed
 20 = 20% observed
 30 = 30% observed
 40 = 40% observed
 50 = 50% observed
 60 = 60% observed
 70 = 70% observed
 80 = 80% observed
 90 = 90% observed
 100 = 100% observed