

Climatic Perspectives

A.E.S. LIBRARY

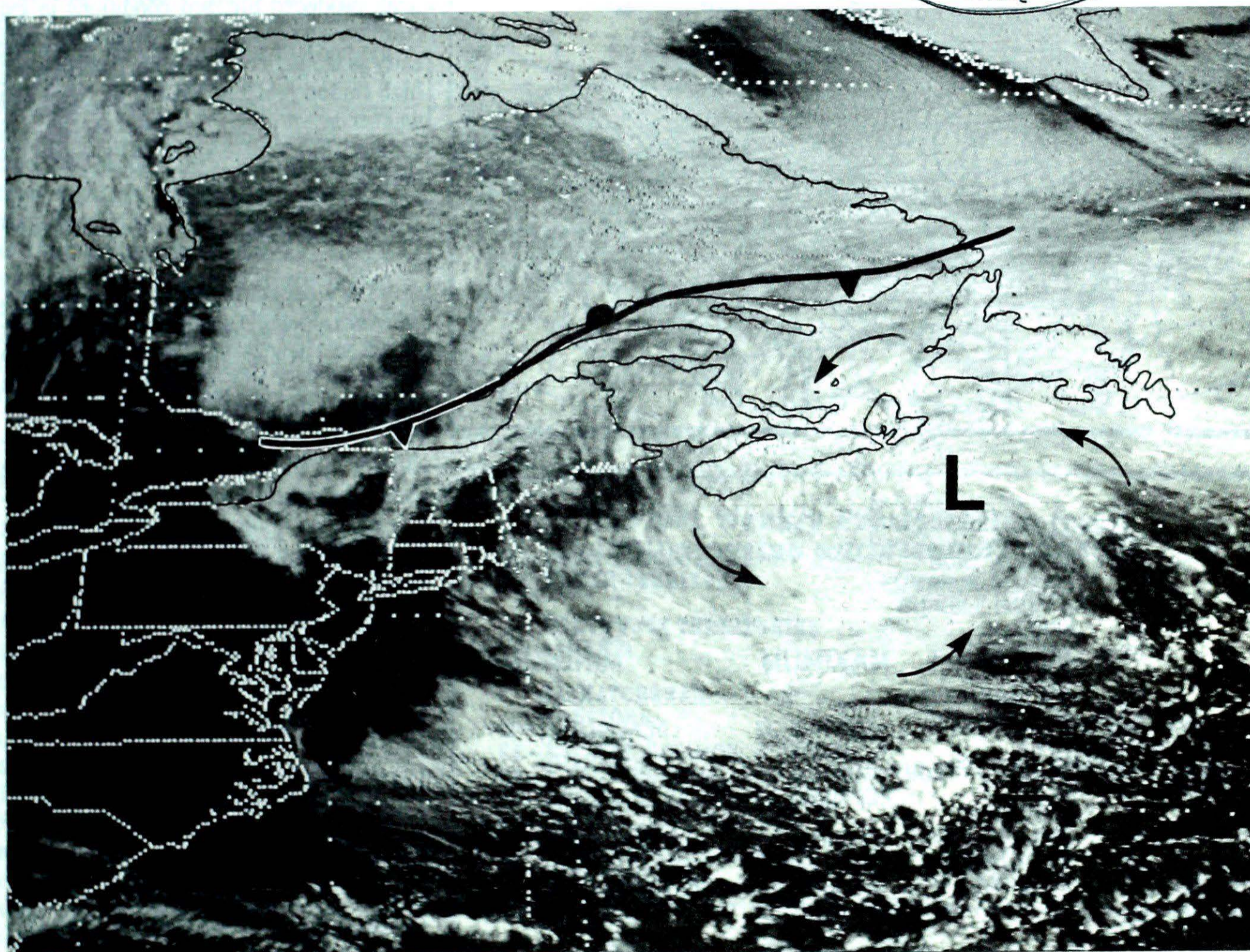
APR 26 1988

BIBLIOTHEQUE S.E.A.

Vol. 10 No. 15

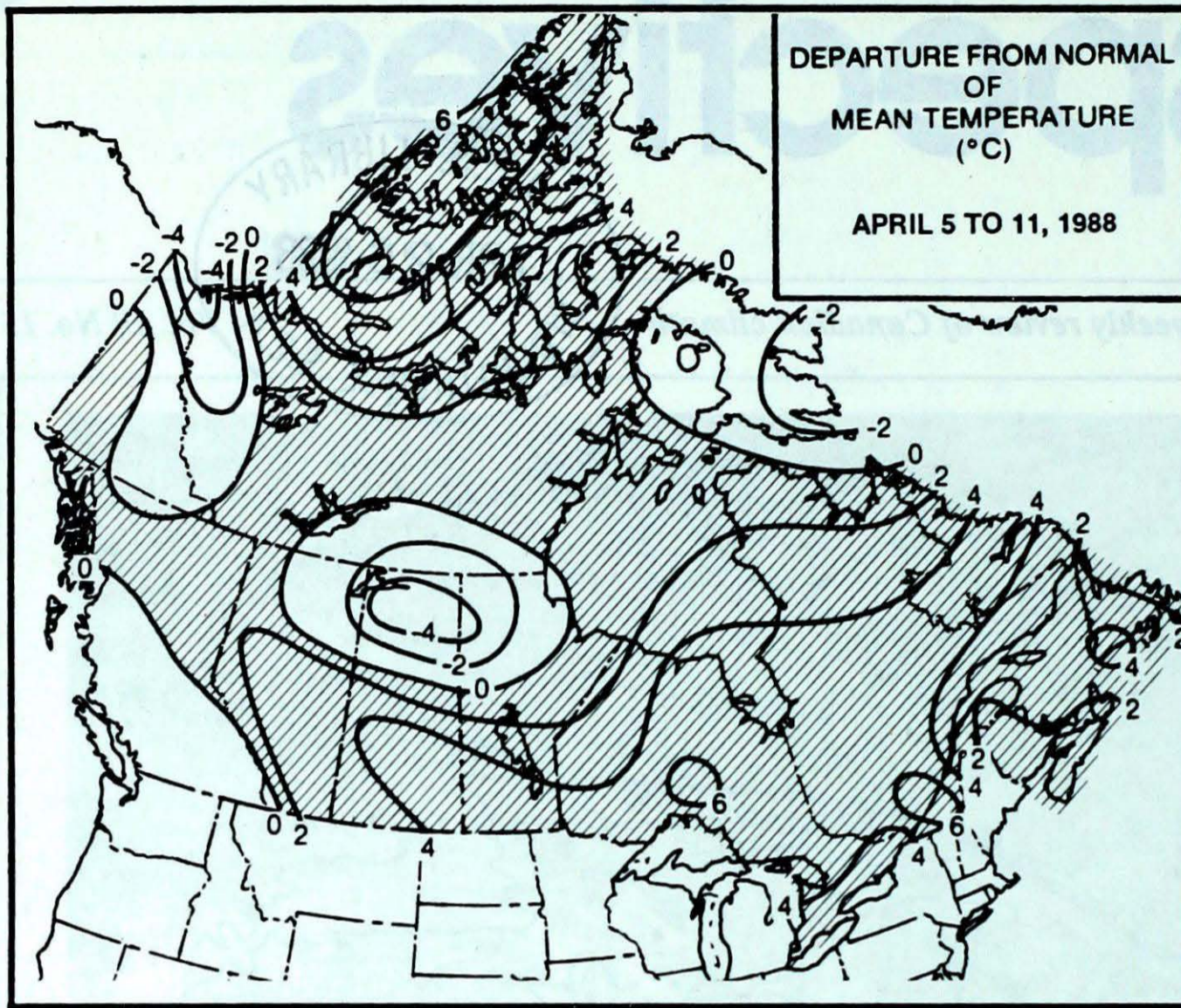
April 5 to 11, 1988

A weekly review of Canadian climate



This GOES satellite picture of April 10, 1988, shows the large cloud shield associated with a vigorous slow moving Atlantic storm, which hit Atlantic Canada over the weekend. For more information see page 3.

- **Fruit trees blooming in southern B.C.**
- **Maple syrup season drawing to a close**
- **Winds and wet snow in the Maritimes**



ACROSS THE COUNTRY...

Yukon and Northwest Territories

A strong area of high pressure drifted slowly eastwards across the Arctic. A strengthening weather system, which tracked across Hudson Bay towards Baffin Island, produced blizzard conditions in the Northwest Territories and the eastern Arctic early in the period. At Iqaluit, a new record high station pressure reading of 104.4 kPa was set on April 10. Fresh snow covered the southern Mackenzie Valley at the end of the period.

British Columbia

The week started off unsettled and wet, with rain along the south coast. Victoria established a new 24-hour April precipitation record of 39.3 mm, which also equals the normal for the month. A ridge of high pressure produced sunny, pleasant weather conditions by the middle of the week. The drought-stricken areas of the southern interior received minimal amounts of rain, but there has been some recovery in the high level snowpack. Skiing remains excellent at higher elevations, but many lower level ski runs have been closed. Cherries are beginning to bloom in the Okanagan.

Prairie Provinces

In Alberta, it was a pleasant week. The only significant precipitation fell in the more northern districts.

In Saskatchewan and Manitoba, it was pleasant and warm until the weekend. There were scattered showers reported. A number of new daily high temperature records, with readings rising to the low twenties, were established in the south. Blustery, winter-like weather prevailed in the north most of the week, where snowfalls ranged up to 15 centimetres.

The drought continues in the western prairies, especially the eastern portions of south-central Alberta and southwestern Saskatchewan. Autumn rains have been minimal and snowfalls have been scarce this winter season. The heavy March 27 snowfall was very localized, and the run off was barely adequate. Soil moisture is at a bare minimum, and it is doubtful that spring

Weekly Temperature extreme (°C)

	MAXIMUM	MINIMUM
BRITISH COLUMBIA	LYTTON 23	DEASE LAKE -12
YUKON TERRITORY	MAYO 8	KOMAKUK BEACH A -33
NORTHWEST TERRITORIES	FORT SIMPSON 9	SHEPHERD BAY A -43
ALBERTA	RED DEER 23	FORT CHIPEWYAN -19
SASKATCHEWAN	ESTEVAN 23	CREE LAKE -23
MANITOBA	GRETNA 22	CHURCHILL -24
ONTARIO	WINDSOR 24	BIG TROUT LAKE -16
QUEBEC	MONTREAL INT'L 18	INUKJUAK -26
NEW BRUNSWICK	FREDERICTON 10	CHARLO -4
NOVA SCOTIA	YARMOUTH 12	SYDNEY -2
PRINCE EDWARD ISLAND	CHARLOTTETOWN 9	CHARLOTTETOWN -1
NEWFOUNDLAND	GOOSE 14	WABUSH LAKE -12

ACROSS THE NATION

WARMEST MEAN TEMPERATURE	8	WINDSOR	ONT
COOLEST MEAN TEMPERATURE	-27	KOMAKUK BEACH A	YT

seeding would be very successful if the soil moisture is not replenished soon. Wells and reservoirs are drying up as the water table drops. This years drought is considered worse than the dry conditions experienced in 83/84 and 76/77.

Ontario

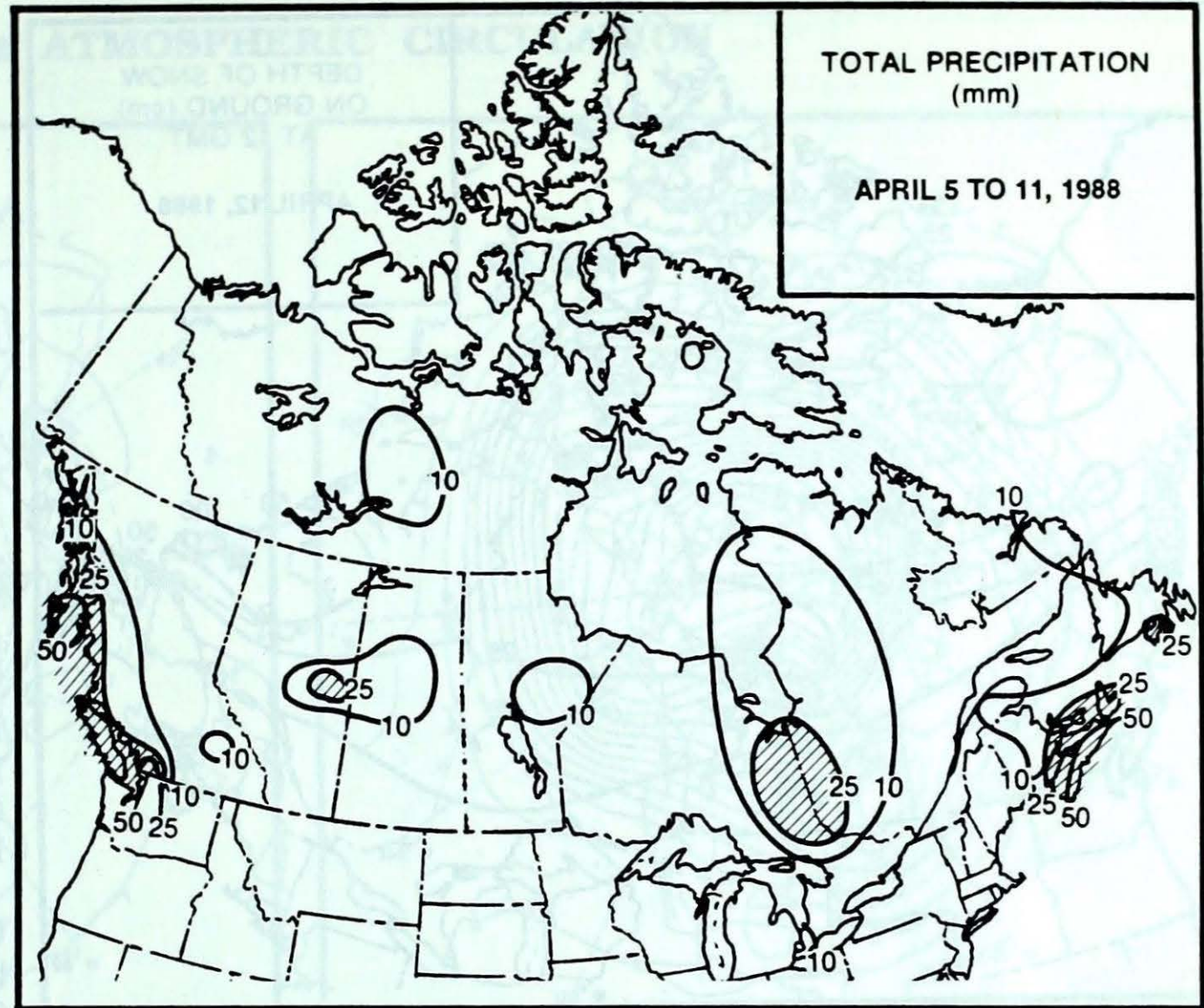
It was a mostly sunny, dry spring week. Record high temperatures were established in various sections of southern and central Ontario between April 5 and 7, with highs of near 20C as far north as North Bay. The mercury at Windsor registered a record 24C on the 6th. A developing disturbance briefly affected the province during the middle of the week, but there was little precipitation. Breezy, cooler conditions affecting the province before the weekend were short lived, as sunny milder weather returned. With fields nearly dry farmers are poised ready to start their spring field work. To-date there have been no reports of flooding this spring.

Quebec

Temperatures returned to more seasonal values this week, but not before more daily high temperature records were broken on the 5th and 6th. The mild spring weather put an end to the maple syrup season, and has caused rivers to swell and in some cases overflow their banks. On the 6th, the Milles-Iles River flooded streets in west Laval. Further upstream at Mauricie, an ice jam several kilometres long and up to 5 metres thick resulted in the flooding of an adjacent highway. Most ski resorts have closed except Mont Sainte-Anne near Quebec City which will remain open till the end of the month.

Maritime Provinces

It was a mostly cloudy, wet and windy week as a number of disturbances funnelled through the region, the most notable being over the weekend. Precipitation ranged from just a few millimetres in New Brunswick to 148 mm at Sable Island, which exceeded the monthly normal by more than 50 mm. The rain helped quench a number of brush fires burning in Nova Scotia. An influx of colder air Sunday night changed the precipitation in P.E.I. to



Heaviest Weekly Precipitation (mm)

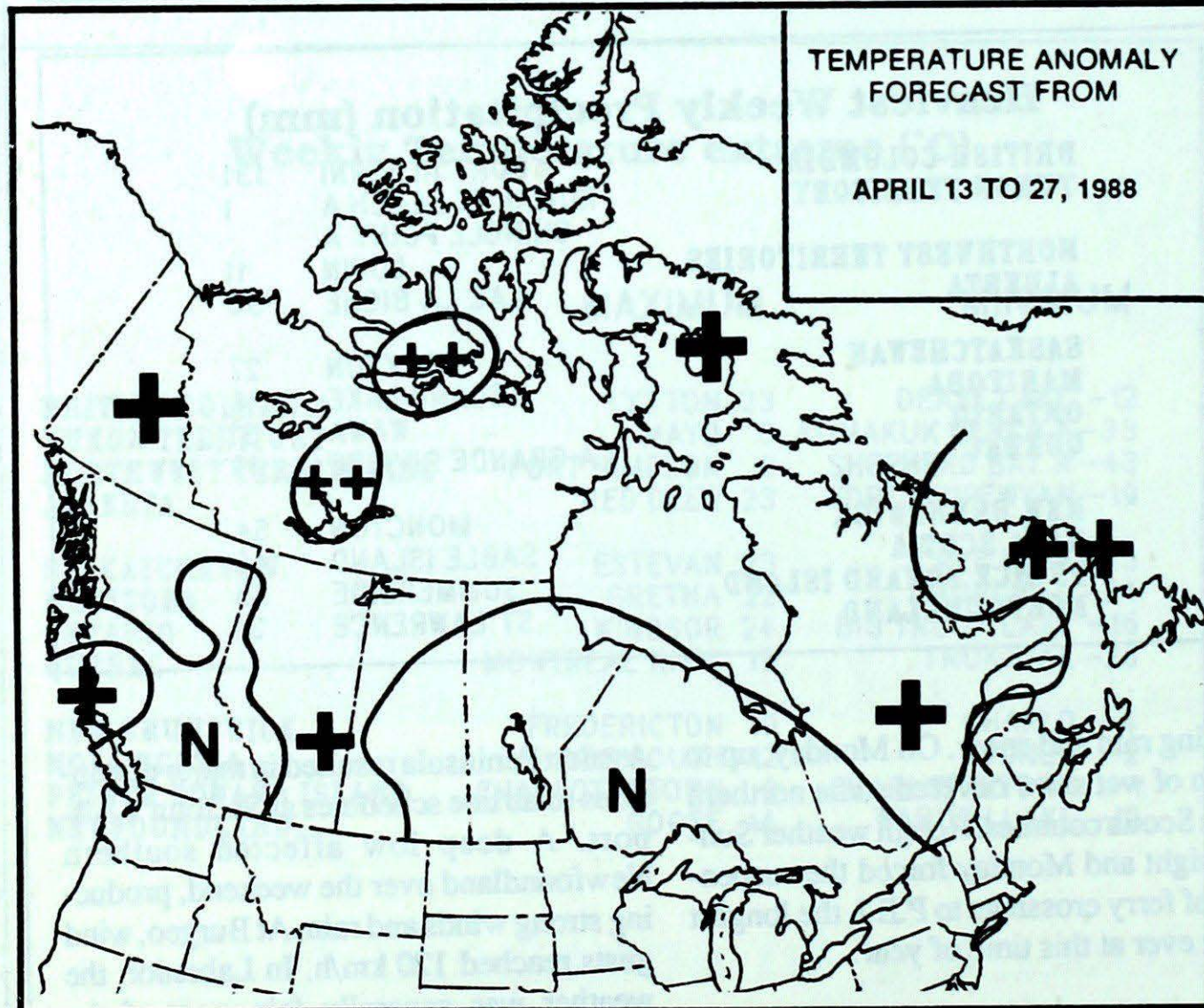
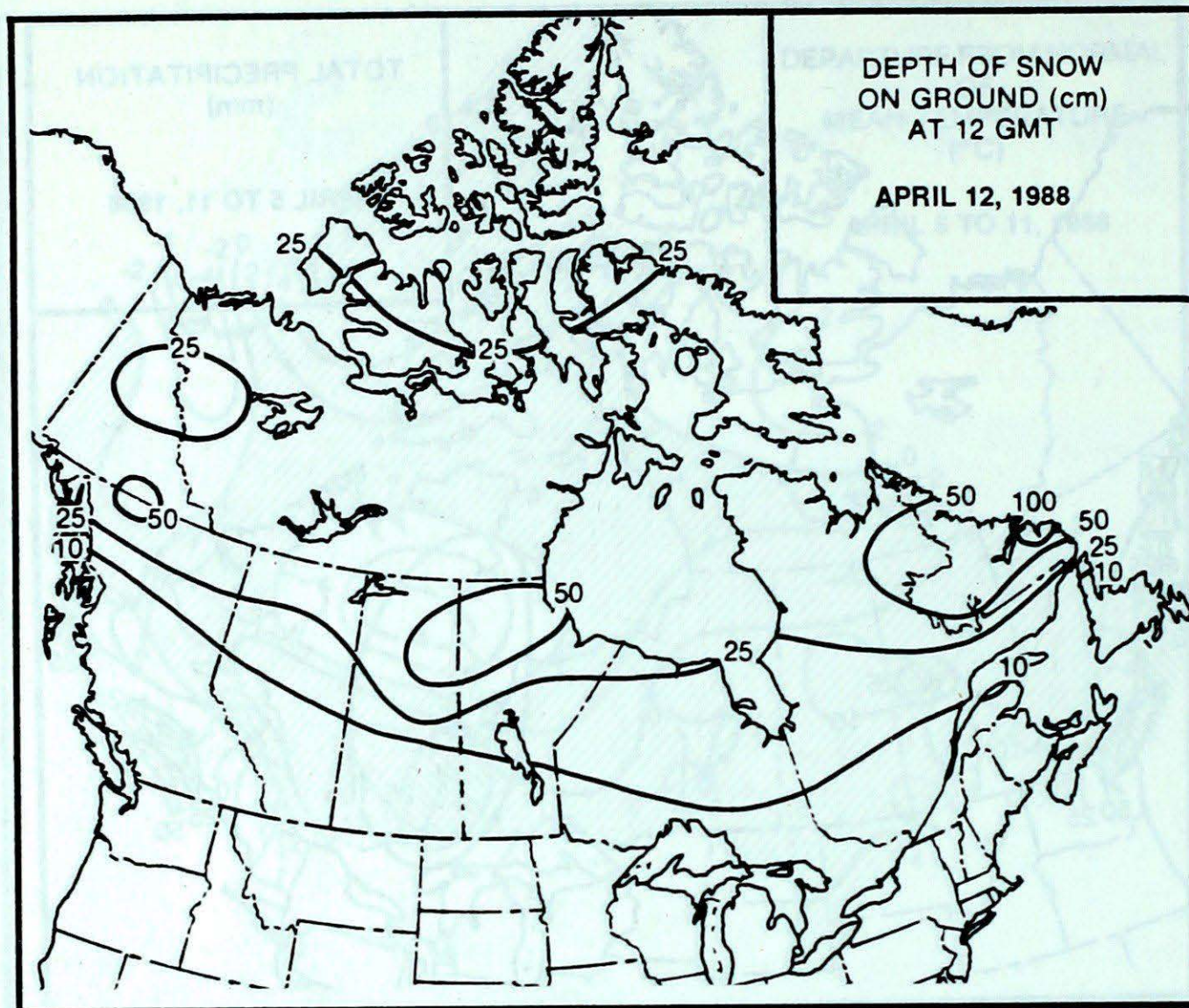
BRITISH COLUMBIA	PORT ALBERNI	131
YUKON TERRITORY	KOMAKUK BEACH A	1
	SHINGLE POINT A	
NORTHWEST TERRITORIES	LUPIN	11
ALBERTA	LAC LA BICHE	30
SASKATCHEWAN	YORKTON	27
MANITOBA	ISLAND LAKE	14
ONTARIO	WAWA	31
QUEBEC	LA GRANDE RIVIERE	19
NEW BRUNSWICK	MONCTON	54
NOVA SCOTIA	SABLE ISLAND	148
PRINCE EDWARD ISLAND	SUMMERSIDE	35
NEWFOUNDLAND	ST LAWRENCE	31

freezing rain and snow. On Monday, up to 15 cm of wet snow covered some northern Nova Scotia counties. Rough weather Sunday night and Monday forced the suspension of ferry crossings to P.E.I, the longest delay ever at this time of year.

Newfoundland

On the Island, a ridge of high pressure prevailed over the more northern communities, while passing disturbances affected the south. Drizzle and freezing drizzle was common. Extensive fog on the

Avalon Peninsula resulted in major disruptions to airline schedules at St. John's Airport. A deep low affected southern Newfoundland over the weekend, producing strong winds and rain. At Burgeo, wind gusts reached 120 km/h. In Labrador, the weather was generally fair most of the week. Temperatures climbed into the teens during the middle of the week, reaching 14C at Goose Bay. The weekend became unsettled as an on-shore flow produced periods of freezing drizzle and snow at a number of locations.



- ++ 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. Shabbar
 French 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.

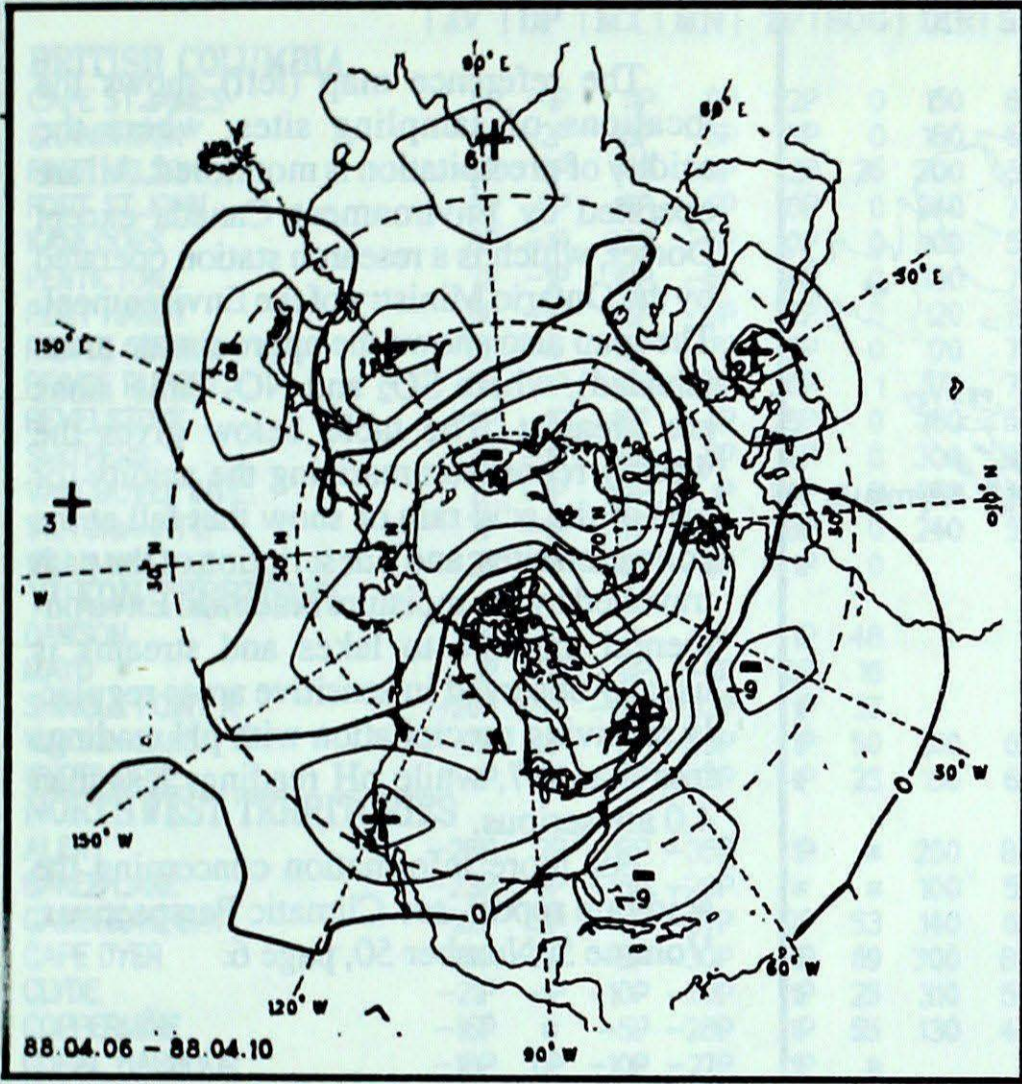
The data in this publication are based on unverified reports from approximately 225 Canadian synoptic weather stations. Information concerning climatic impacts is gathered from AES contacts with the public and from the media. Articles do not necessarily reflect the views of the Atmospheric Environment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

Annual Subscriptions

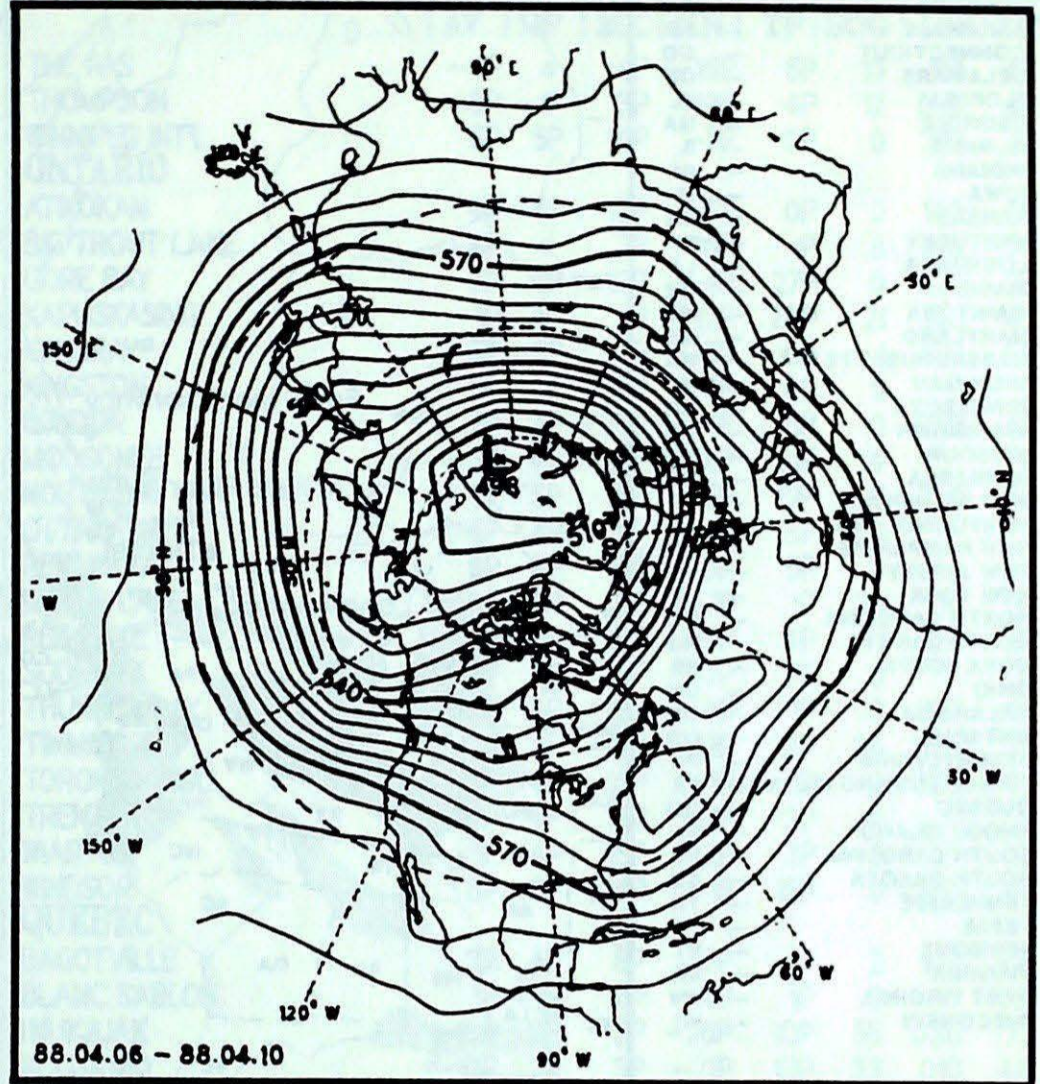
weekly and monthly supplement \$35.00
 foreign: \$42.00
 Monthly issue: \$10.00
 foreign: \$12.00

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

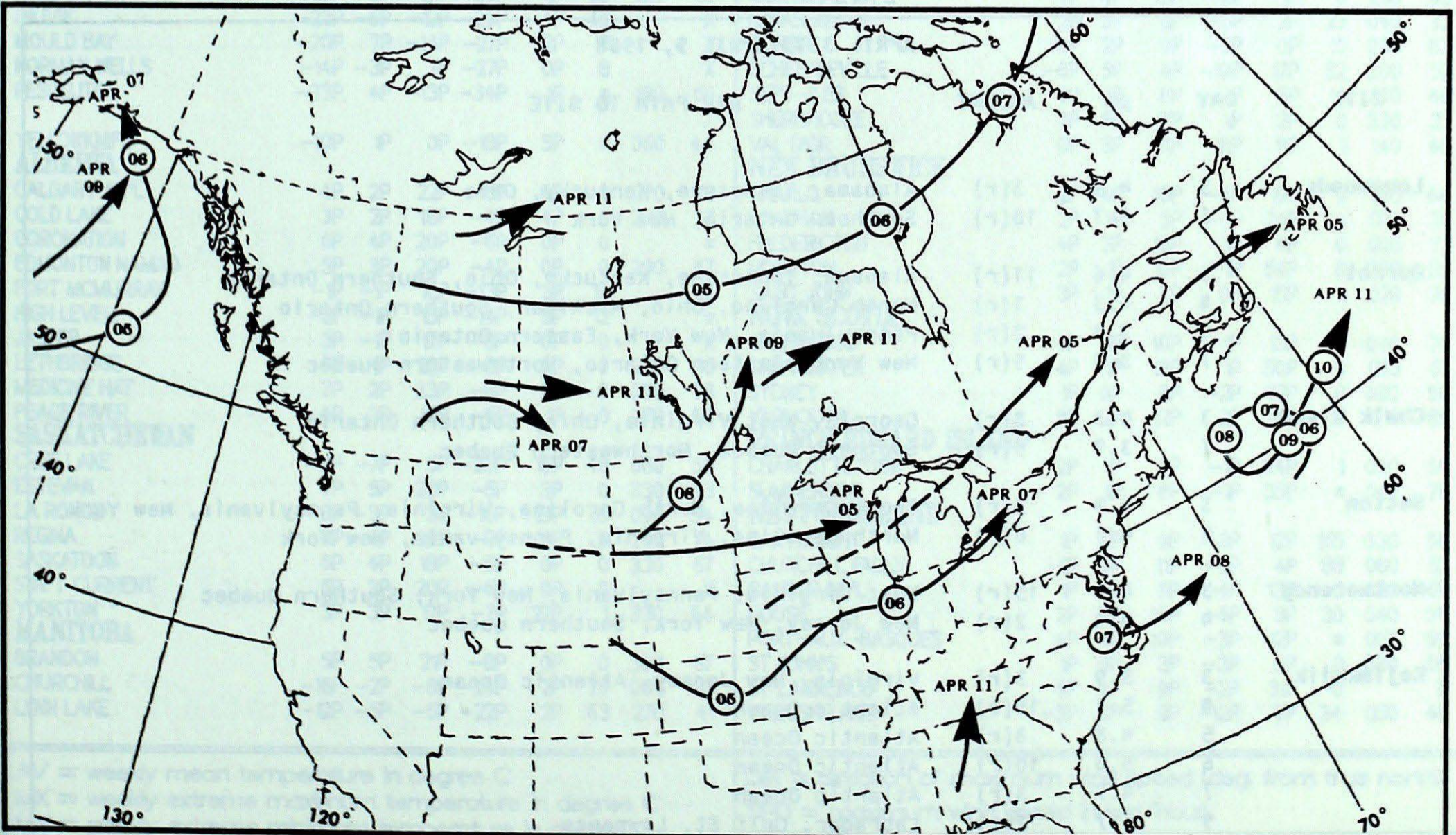
50 kPa ATMOSPHERIC CIRCULATION



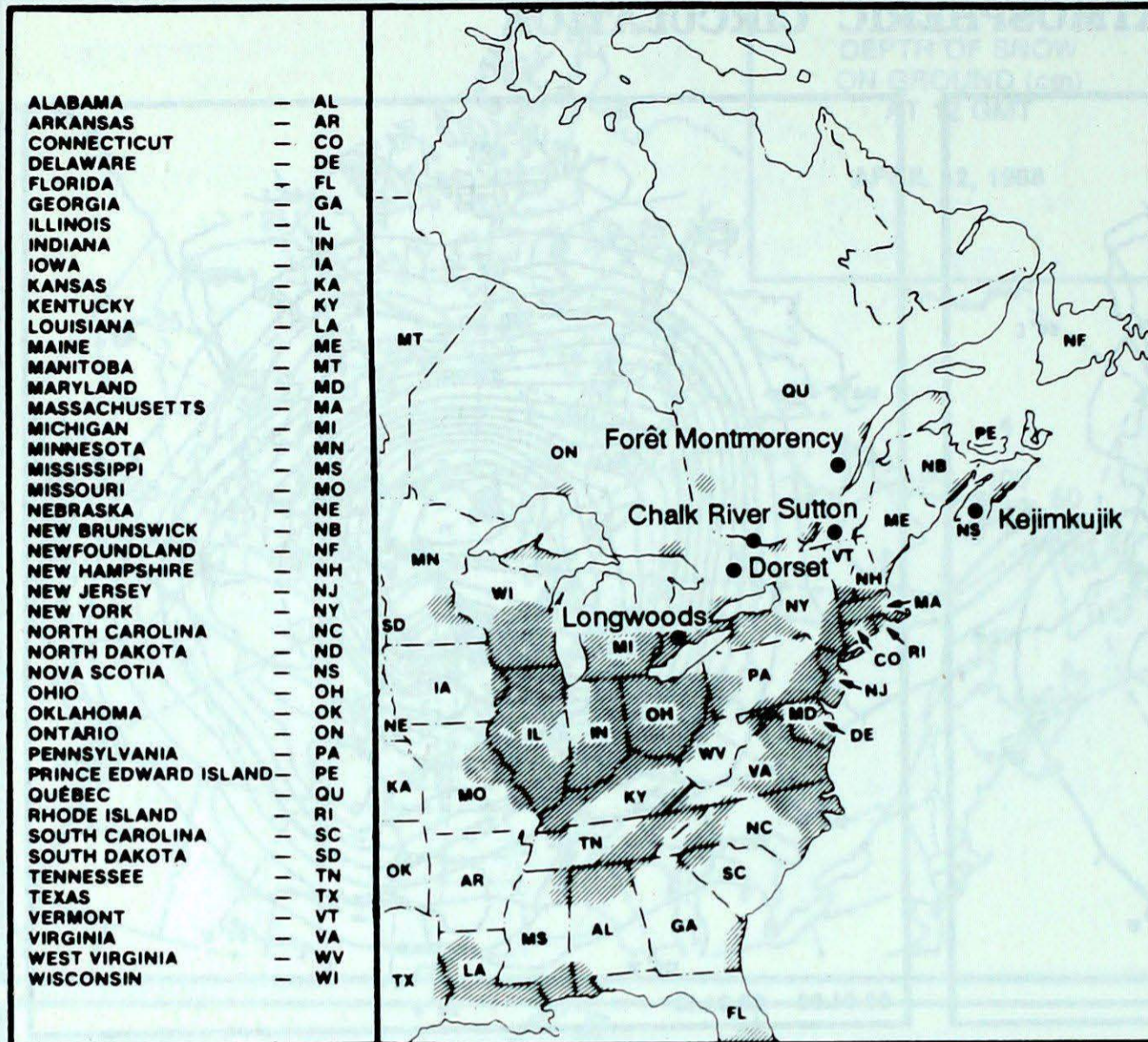
Mean geopotential height anomaly
50 kPa level (5 decameter intervals)



Mean geopotential height
50 kPa level (5 decameter intervals)



Storm track - Position of storm at 12 GMT during the period: April 5 to 11, 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.

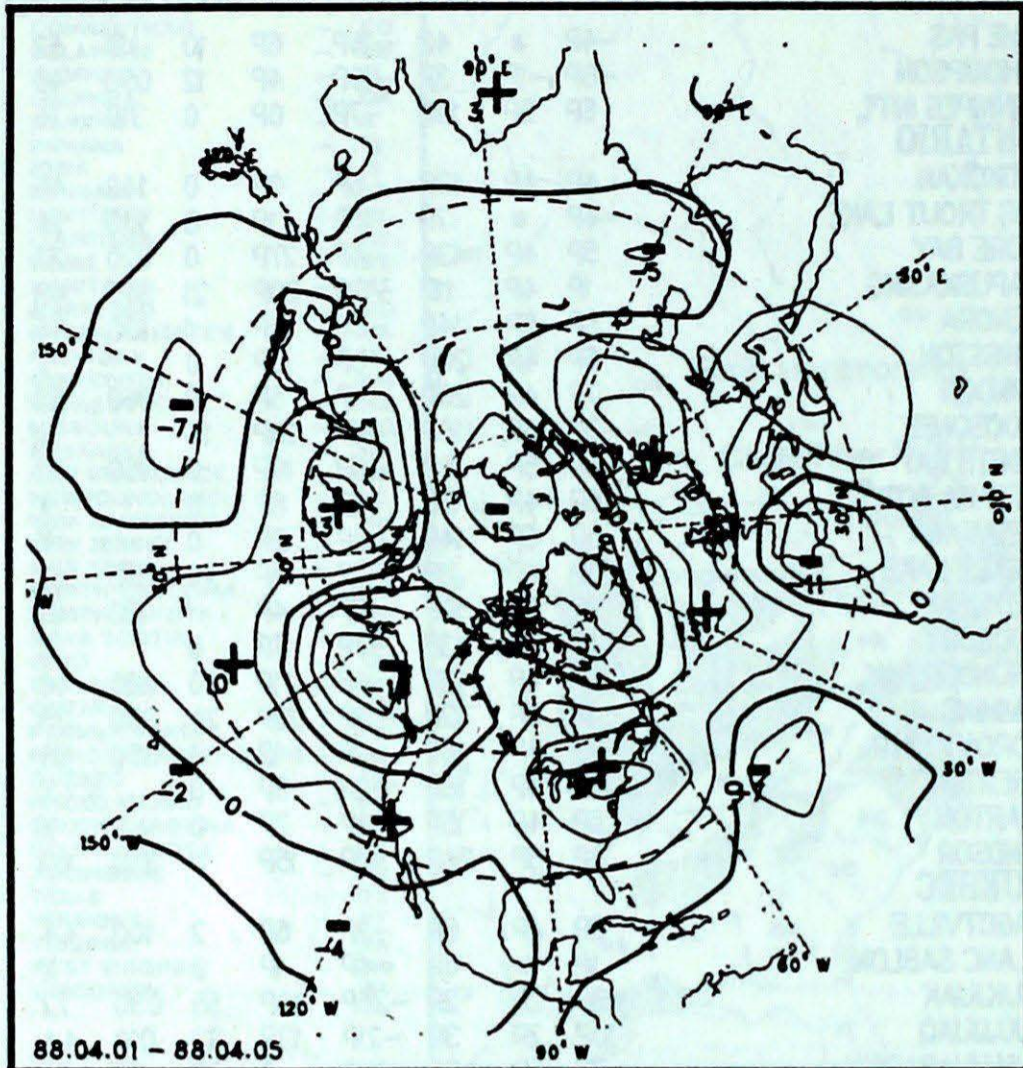
For more information concerning the acid rain report, see Climatic Perspectives, Volume 5, Number 50, page 6.

APRIL 3 TO APRIL 9, 1988

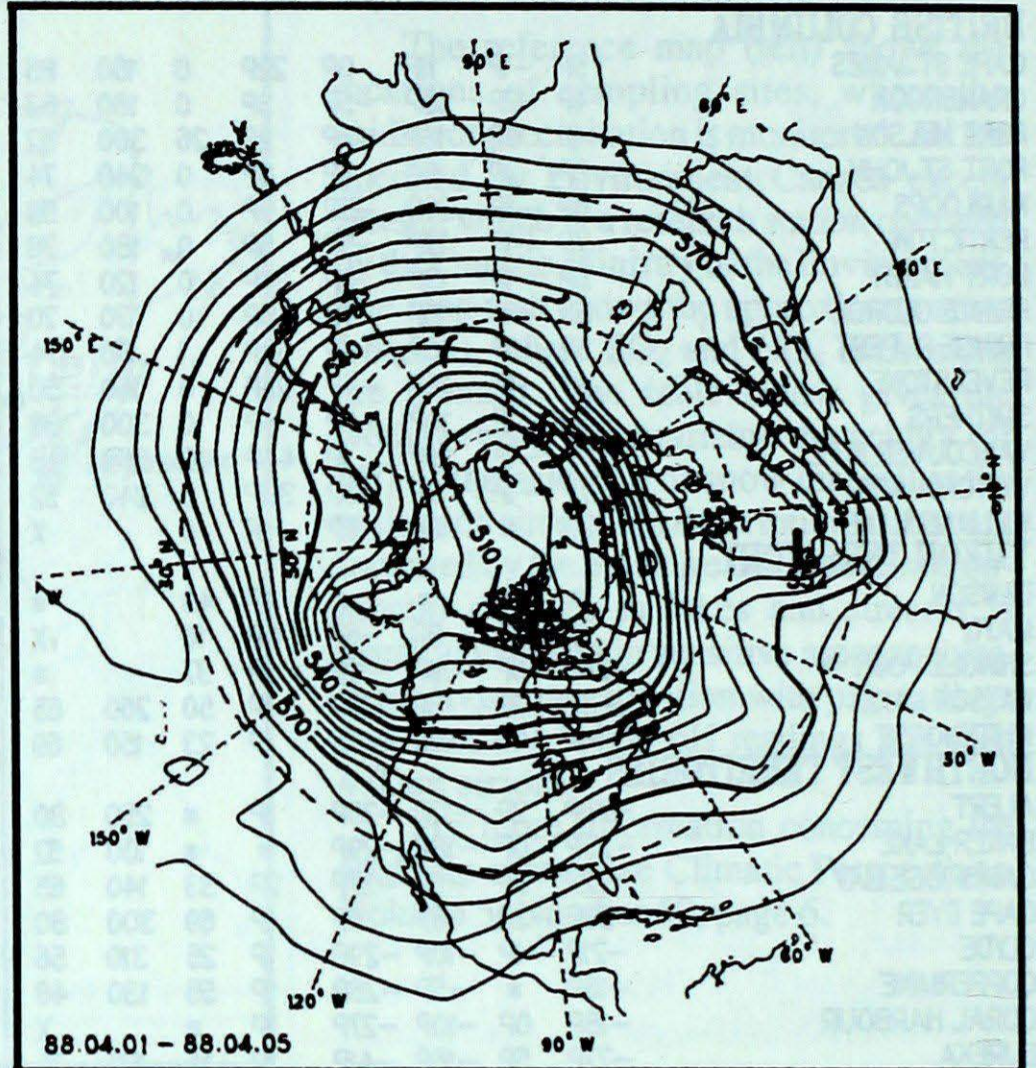
SITE	DAY	pH	AMOUNT	AIR PATH TO SITE
Longwoods	3	4.9	3(r)	Alabama, Tennessee, Kentucky, Ohio
	6	3.7	10(r)	Southern Ontario, New York
Dorset	3	4.6	11(r)	Alabama, Tennessee, Kentucky, Ohio, Southern Ontario
	4	4.3	1(r)	North Carolina, Ohio, Michigan, Southern Ontario
	6	3.4	2(r)	Pennsylvania, New York, Eastern Ontario
	7	3.9	9(r)	New York, Eastern Ontario, Northwestern Quebec
Chalk River	3	4.3	8(r)	Georgia, West Virginia, Ohio, Southern Ontario
	7	3.9	5(r)	Southern Quebec, Northwestern Quebec
Sutton	3	3.9	5(r)	South Carolina, North Carolina, Virginia, Pennsylvania, New York
	4	4.1	6(r)	North Carolina, Virginia, Pennsylvania, New York
Montmorency	3	4.0	15(r)	West Virginia, Pennsylvania, New York, Southern Quebec
	4	4.4	2(r)	New Jersey, New York, Southern Quebec
Kejimikujik	3	3.9	3(r)	Virginia, New Jersey, Atlantic Ocean
	4	5.1	15(r)	Atlantic Ocean
	5	4.8	3(r)	Atlantic Ocean
	6	5.0	10(r)	Atlantic Ocean
	7	4.7	3(r)	Atlantic Ocean
	9	5.7	2(r)	Labrador, Gulf St. Lawrence

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

50 kPa ATMOSPHERIC CIRCULATION



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



Mean geopotential height
50 kPa level (5 decameter intervals)

Environment CANADA Environnement
1005959D VOL 10 ISS 15 880411
REF # 002
ARCHIVES-----PERIODICALS
CLIMATIC PERSPECTIVES
OTM