



Climatic Perspectives

April 13 to 19, 1992

A weekly review of Canadian climate and water

Vol. 14 No. 16

Easter storm strikes!

Several hundred Easter weekend travellers did not make it to their destination on time and were forced to spend the night in hotels and community centres as rain and freezing rain made highways in parts of Saskatchewan and Manitoba too slippery to travel.

On April 19, a slow moving low pressure system, centred over North Dakota, carried copious amounts of freezing precipitation to southern Saskatchewan and Manitoba. Freezing rain, which changed to snow and blowing snow resulted in zero visibilities at times. Snow was heaviest in southwestern Manitoba, with amounts as high as 47 cm, 45 cm and 40 cm at Virden, Elkhorn and Melita, respectively.

Weekend precipitation totalled as high as 86 mm in southern Manitoba, and 40 mm in southeastern Saskatchewan, while other areas received as little as 2 mm. Hundreds of people were stranded by the road side as travel was hazardous. Power lines were knocked down, flights were delayed and diverted at the Winnipeg International Airport, and at least one fatal accident was blamed on the blizzard-like weather conditions. Following on the heels of the storm, gusty northerly winds announced an invasion of cold air into the region. Reports have also indicated that agricultural field work has been postponed for a few days because of saturated soils.

Over Newfoundland, stormy weather hit at the beginning of the week when an intense low pressure system brought

snow, freezing rain and rain across the island. At St John's the freezing rain lasted for nearly eight hours, resulting in numerous school closures. On Thursday, this intense low became almost stationary, hovering just east of Labrador. Many areas in western Newfoundland experienced blizzard-like conditions, while elsewhere on the island only scattered flurries were reported. Wind gusts were as high as 154 km/h at Englee and close to 120 km/h at St Anthony.

Flood potential over eastern Canada

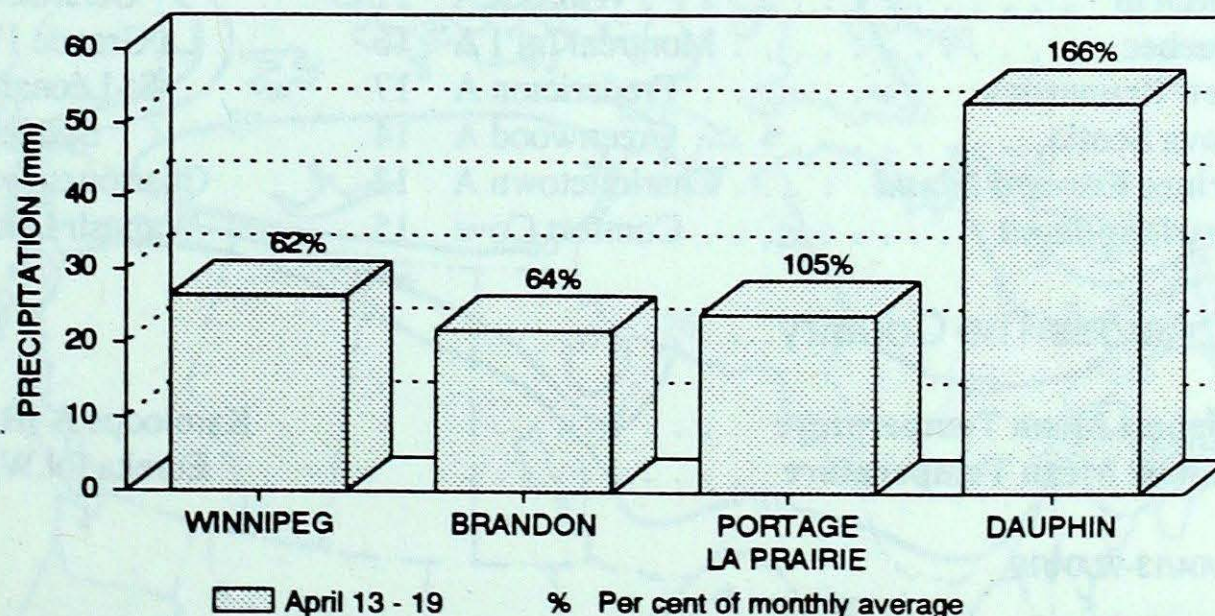
Cool, spring weather over eastern Canada has been responsible for lower than normal streamflow flooding for this time of the year. The snow cover has been reduced gradually over recent weeks by radiational melting. However, rainy

weather and warm temperatures may be expected over the next few days and could significantly increase the flood risk from ice jams. A flood alert has been issued for central Ontario. Regions of Quebec, Newfoundland and New Brunswick are observing the situation closely, while the risk of flooding in Prince Edward Island and Nova Scotia has passed.

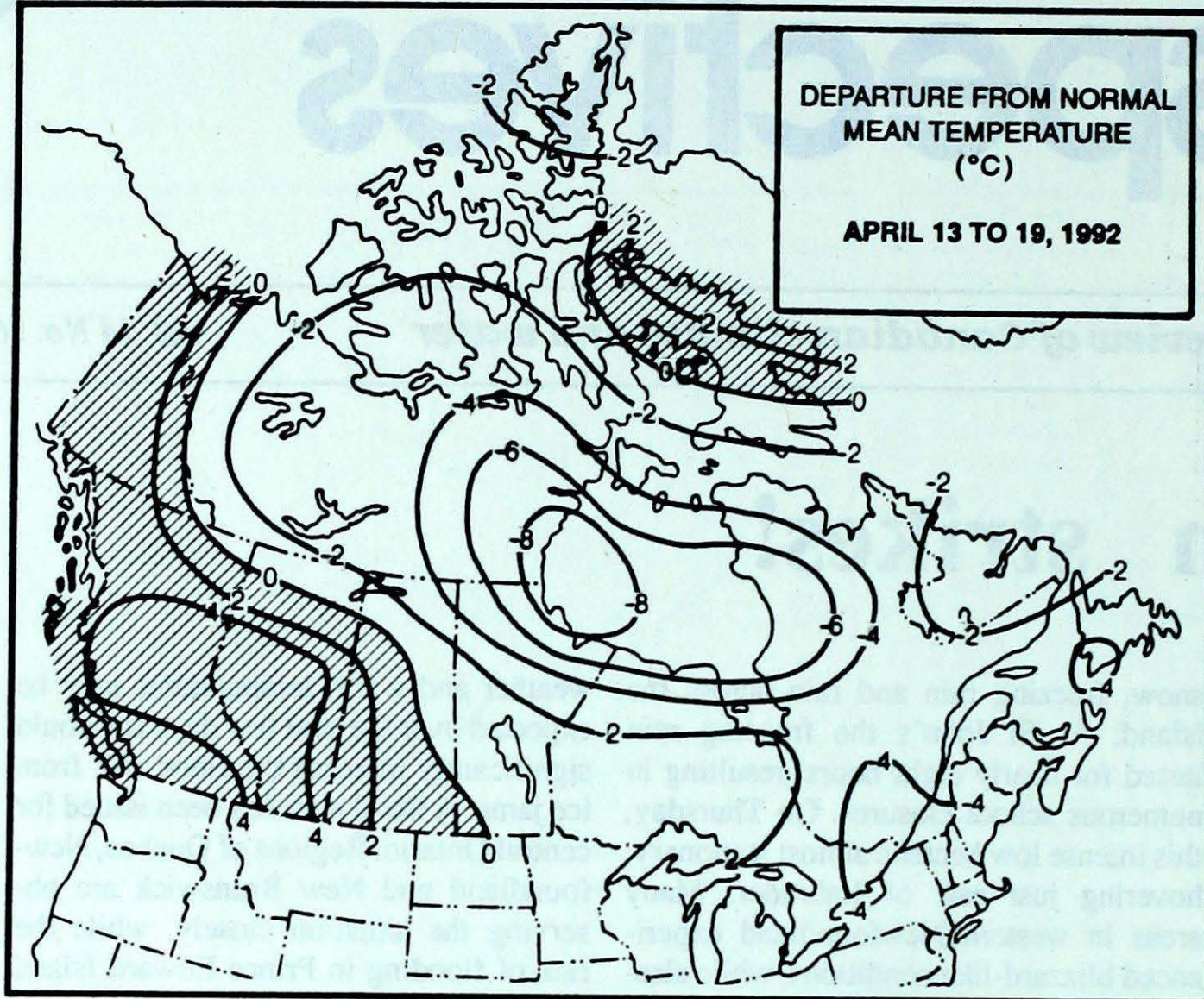
A look ahead ...

The week of April 27 will see most of the country under a cool north-westerly air flow which will result in slightly colder than normal temperatures for most of the regions. Warmer than normal temperatures are expected throughout British Columbia, Nouveau Quebec, Newfoundland, Labrador and the eastern part of the Northwest Territories.

Precipitation in southern Manitoba
April 13 - 19, 1992



The week's precipitation is expressed as total fall and as a percentage of average fall for April.



**Weekly normal
temperatures (°C)**

	max.	min.
Whitehorse A	5.0	-5.1
Iqaluit A	-10.0	-19.9
Yellowknife A	-1.3	-12.2
Vancouver Int'l A	12.2	4.6
Victoria Int'l A	12.2	3.7
Calgary Int'l A	9.3	-2.7
Edmonton Int'l A	8.5	-2.7
Regina A	10.5	-2.4
Saskatoon A	9.9	-1.8
Winnipeg Int'l A	10.4	-0.9
Ottawa Int'l A	12.3	1.1
Toronto (Pearson Int'l A)	12.9	1.3
Montréal Int'l A	12.2	1.4
Québec A	8.5	-0.9
Fredericton A	10.1	-1.3
Saint John A	8.4	-1.7
Halifax (Shearwater)	8.3	0.0
Charlottetown A	6.6	-1.6
Goose A	3.1	-6.7
St John's A	4.4	-2.2

Weekly temperature and precipitation extremes

	Maximum temperature (°C)	Minimum temperature (°C)	Heaviest precipitation (mm)
British Columbia	Kamloops A 21	Fort Nelson A -11	Estevan Point (aut) 87
Yukon Territory	Watson Lake A 14	Komakuk Beach A -27	Watson Lake A 4
Northwest Territories	Fort Smith A 18	Eureka -38	Cape Dyer A 6
Alberta	Lethbridge A 23	High Level A -9	Cold Lake A 32
Saskatchewan	Estevan A 22	Collins Bay -23	Broadview 40
Manitoba	Dauphin A 16	Churchill A -30	Dauphin A 53
Ontario	Windsor A 21	Geraldton A -20	Toronto Int'l A 40
Quebec	Montréal Int'l A 16	La Grande IV A -33	Blanc Sablon A 17
New Brunswick	Fredericton A 17	St-Léonard A -13	Moncton A 1
Nova Scotia	Greenwood A 14	Sydney A -9	Yarmouth A 8
Prince Edward Island	Charlottetown A 12	Charlottetown A -10	Charlottetown A 0
Newfoundland	Comfort Cove 15	Wabush Lake A -22	Daniels Harbour 24

Across The Country...

Highest Mean Temperature	Kamloops A (B.C.) 13
Lowest Mean Temperature	Eureka (N.W.T.) -30

92/04/13-92/04/19

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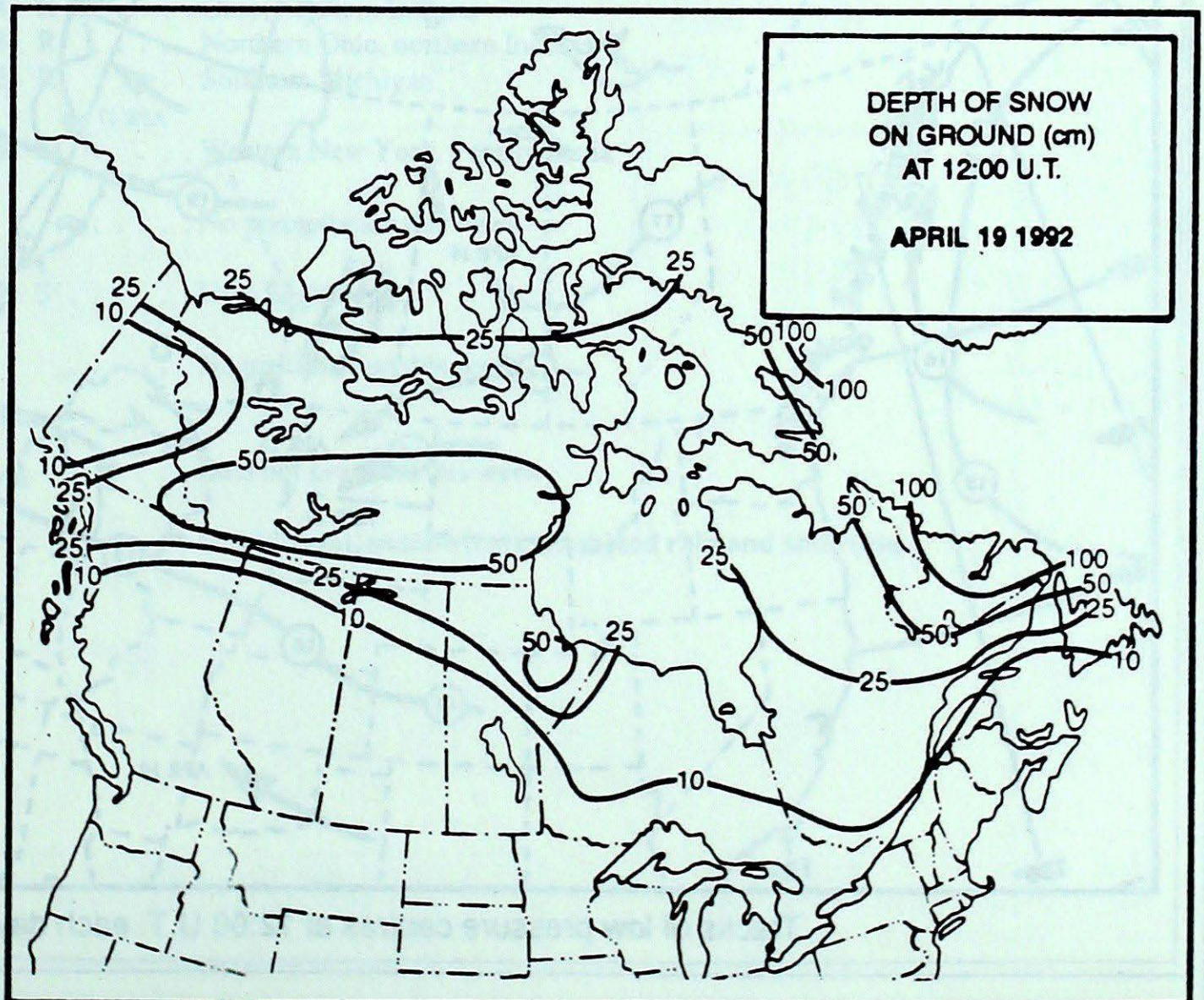
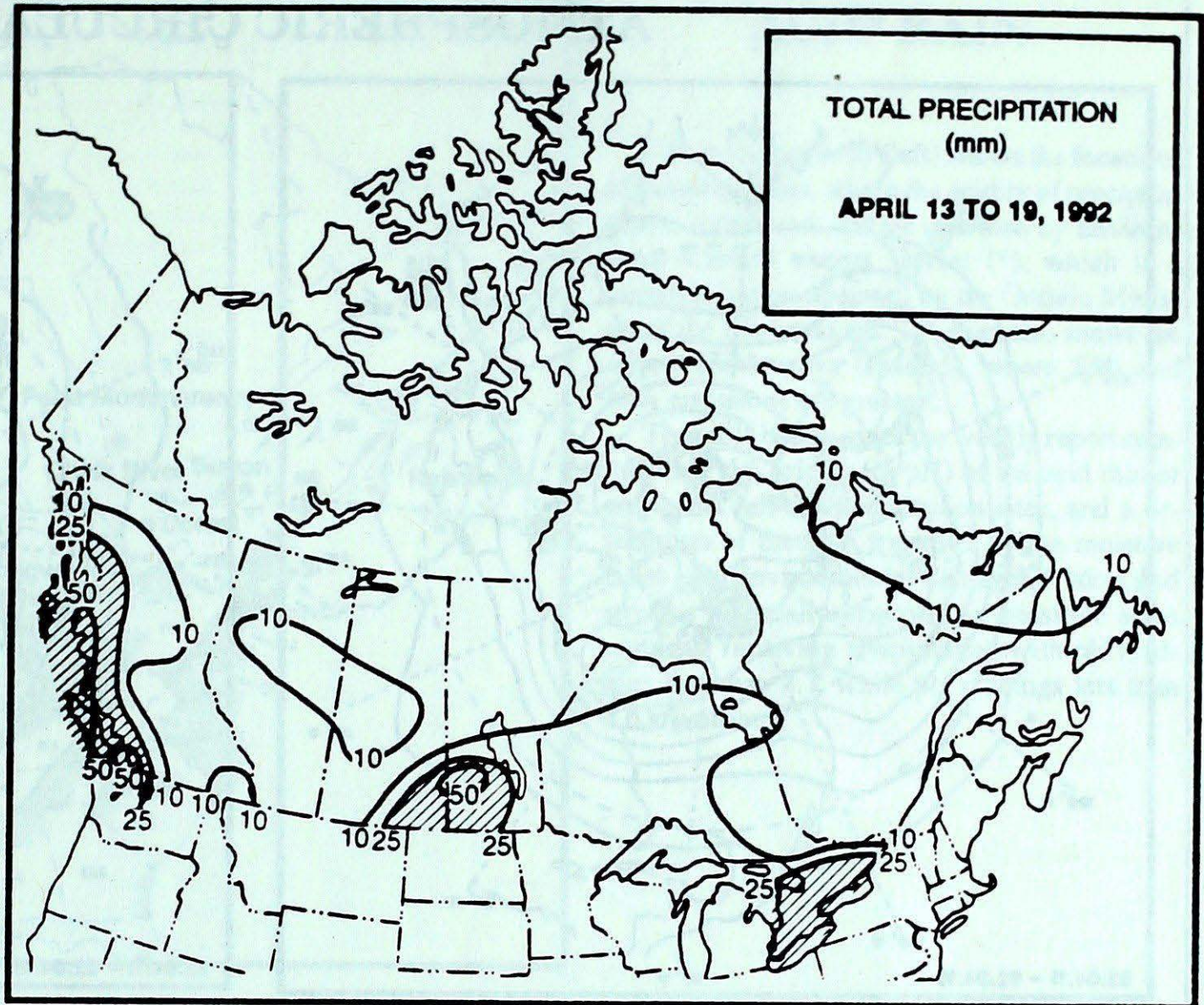
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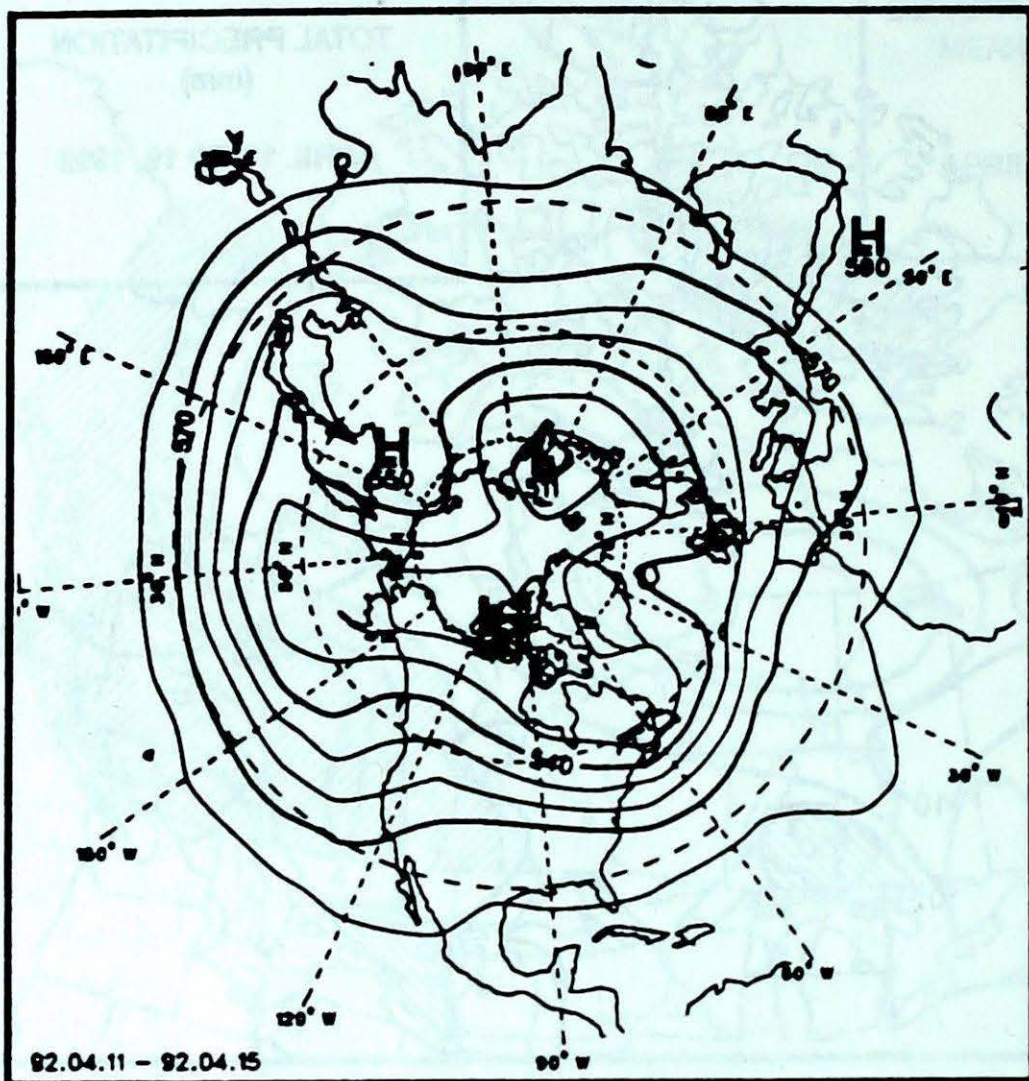
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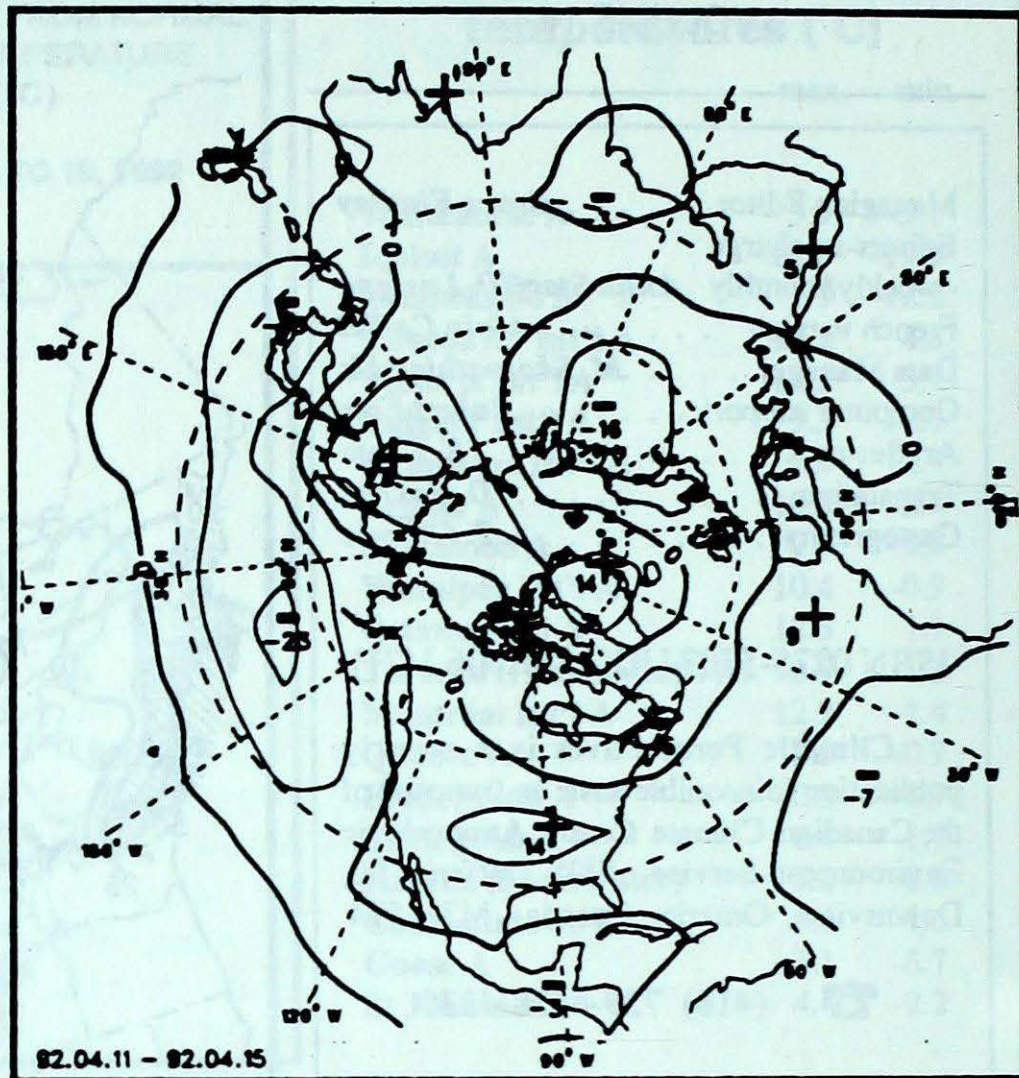
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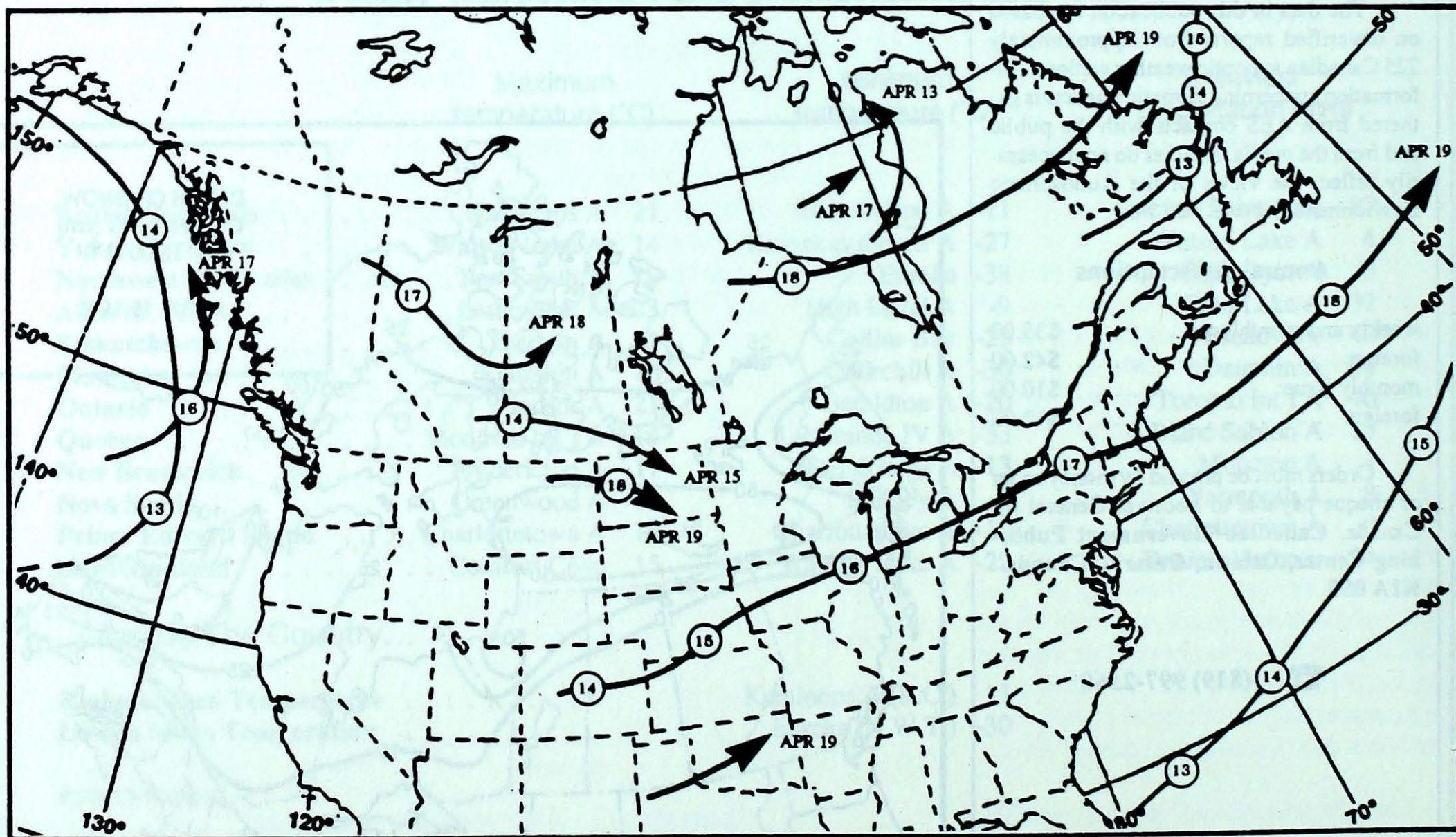
ATMOSPHERIC CIRCULATION



Mean geopotential height
50-kPa level (10-decametre intervals)



Mean geopotential height anomaly
50-kPa level (10-decametre intervals)

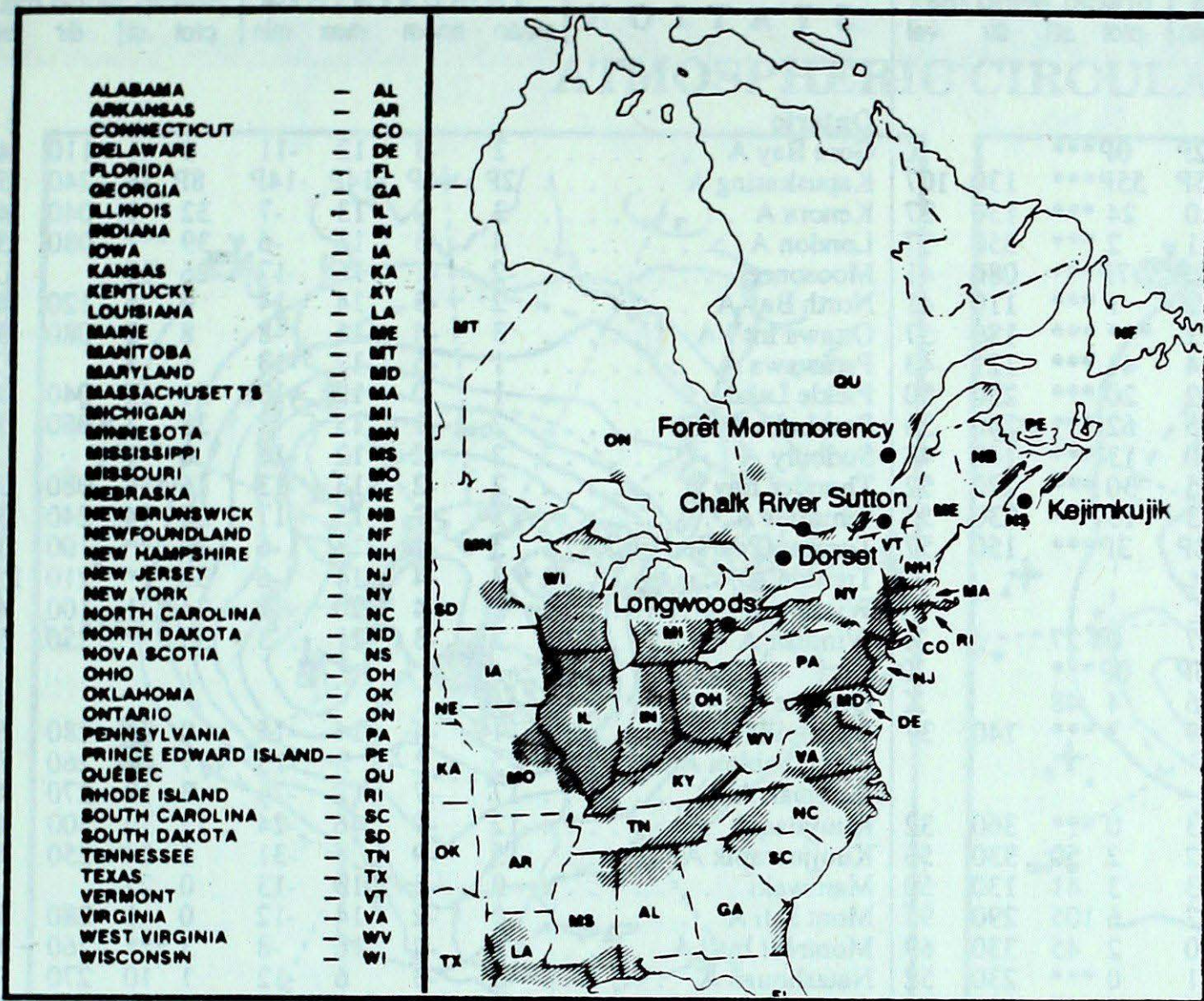


Tracks of low pressure centres at 12:00 U.T. each day during the period.

ACID RAIN

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.

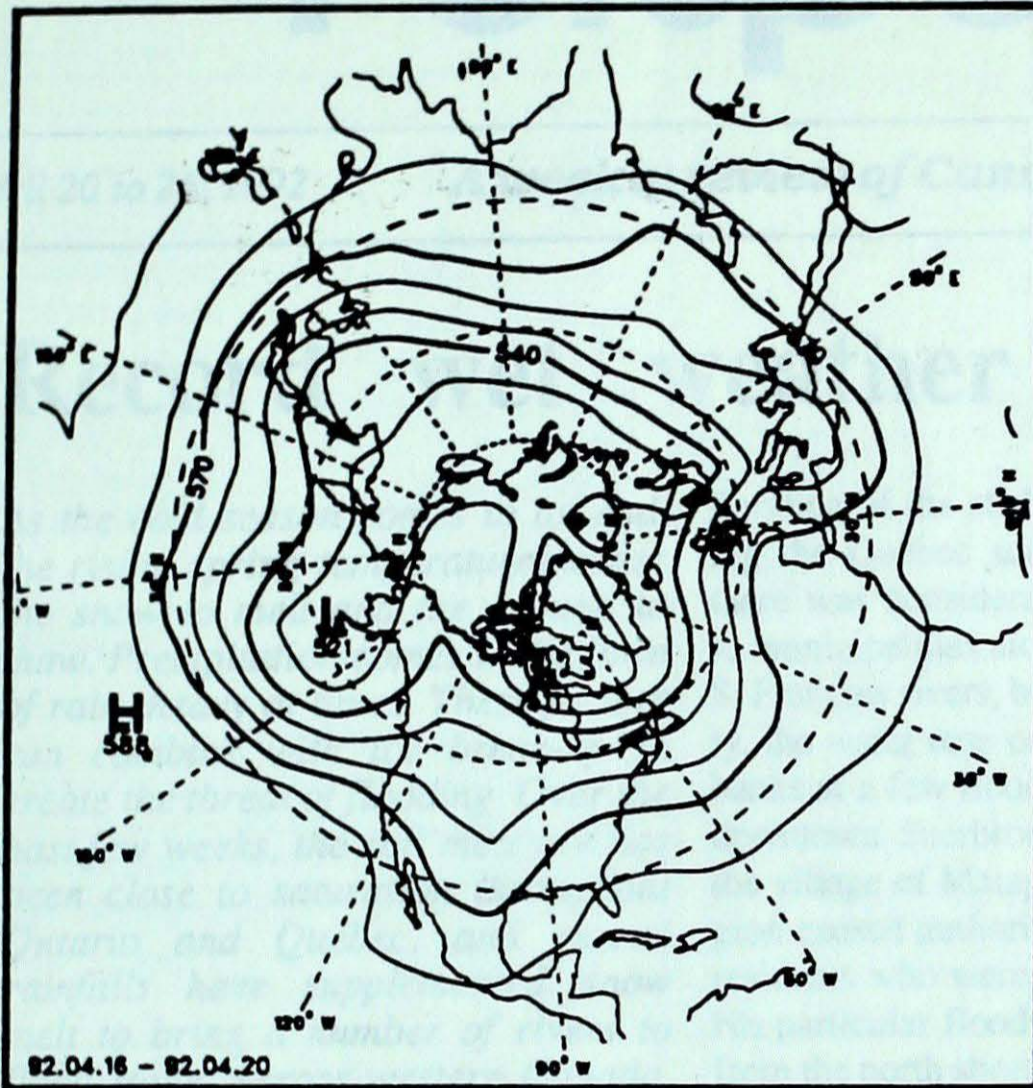
The table below gives the weekly report summarizing the acidity (or pH) of the acid rain or snow that fell at the collection sites, and a description of the path travelled by the moisture laden air. Environmental damage to lakes and streams is usually observed in sensitive areas regularly receiving precipitation with pH readings less than 4.7, while pH readings less than 4.0 are serious.



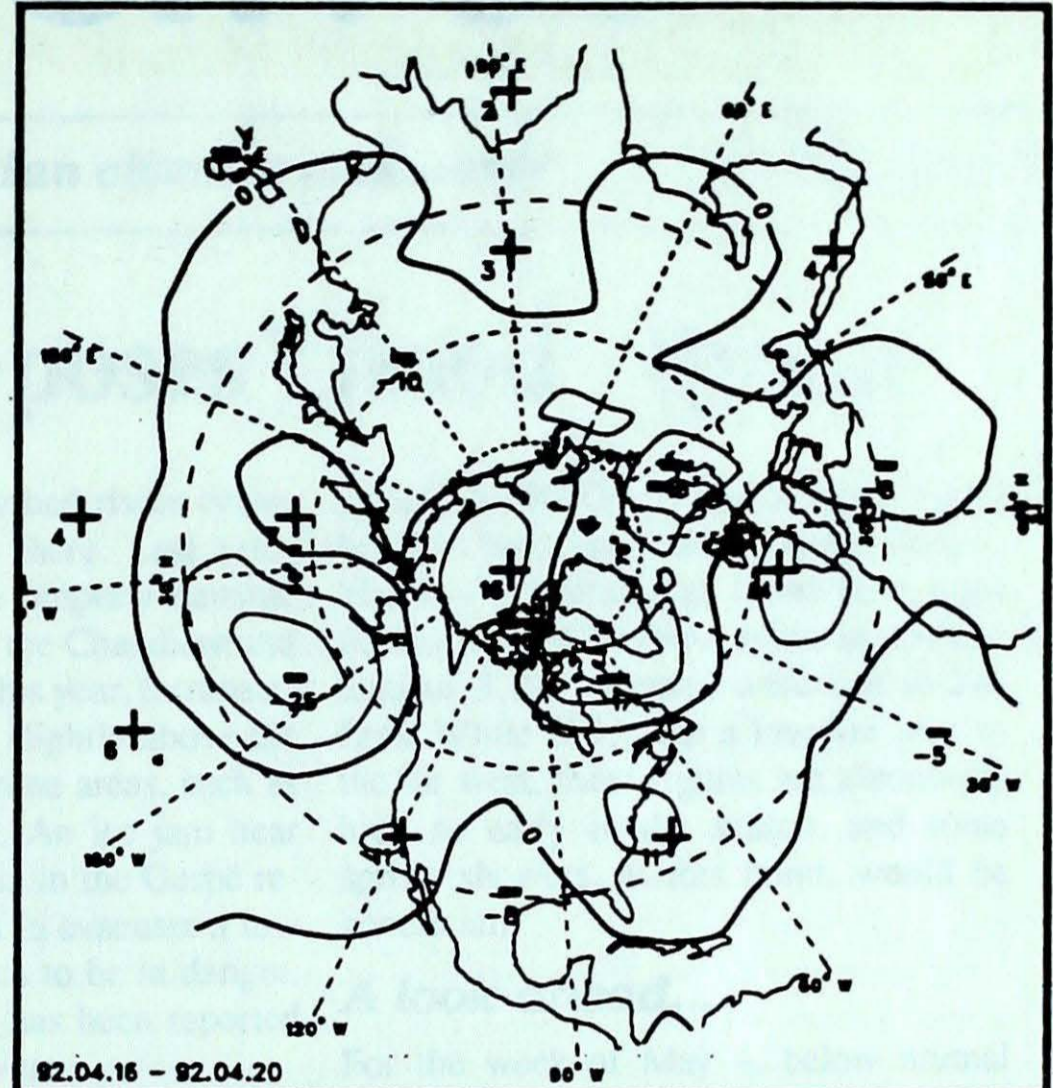
Site	day	pH	amount	air path to site
April 12 to 18, 1992				
Longwoods	15	3.6	14 R	Ohio, northern Indiana
	16	4.1	18 R	Northern Ohio, northern Indiana
	18	4.2	2 R	Southern Michigan
Dorset*	16	4.4	10 M	Western New York, Pennsylvania
Chalk River				No precipitation this week
Sutton	16	4.5	5 S	New England
Montmorency				No precipitation this week
Kejimikujik				Data not available this week

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

ATMOSPHERIC CIRCULATION



Mean geopotential height
50-kPa level (10-decametre intervals)



Mean geopotential height anomaly
50-kPa level (10-decametre intervals)



Environment Canada
Environnement Canada
Atmospheric Environment Service
Service de l'environnement atmosphérique

MONTHLY TEMPERATURE FORECAST

Normal temperatures for
mid-April to mid-May, °C

Whitehorse	4	Toronto	9
Yellowknife	-1	Ottawa	9
Iqaluit	-9	Montréal	9
Vancouver	11	Québec	7
Victoria	10	Fredericton	7
Calgary	6	Halifax	6
Edmonton	7	Charlottetown	5
Regina	7	Goose Bay	2
Winnipeg	7	St. John's	3

Canada

