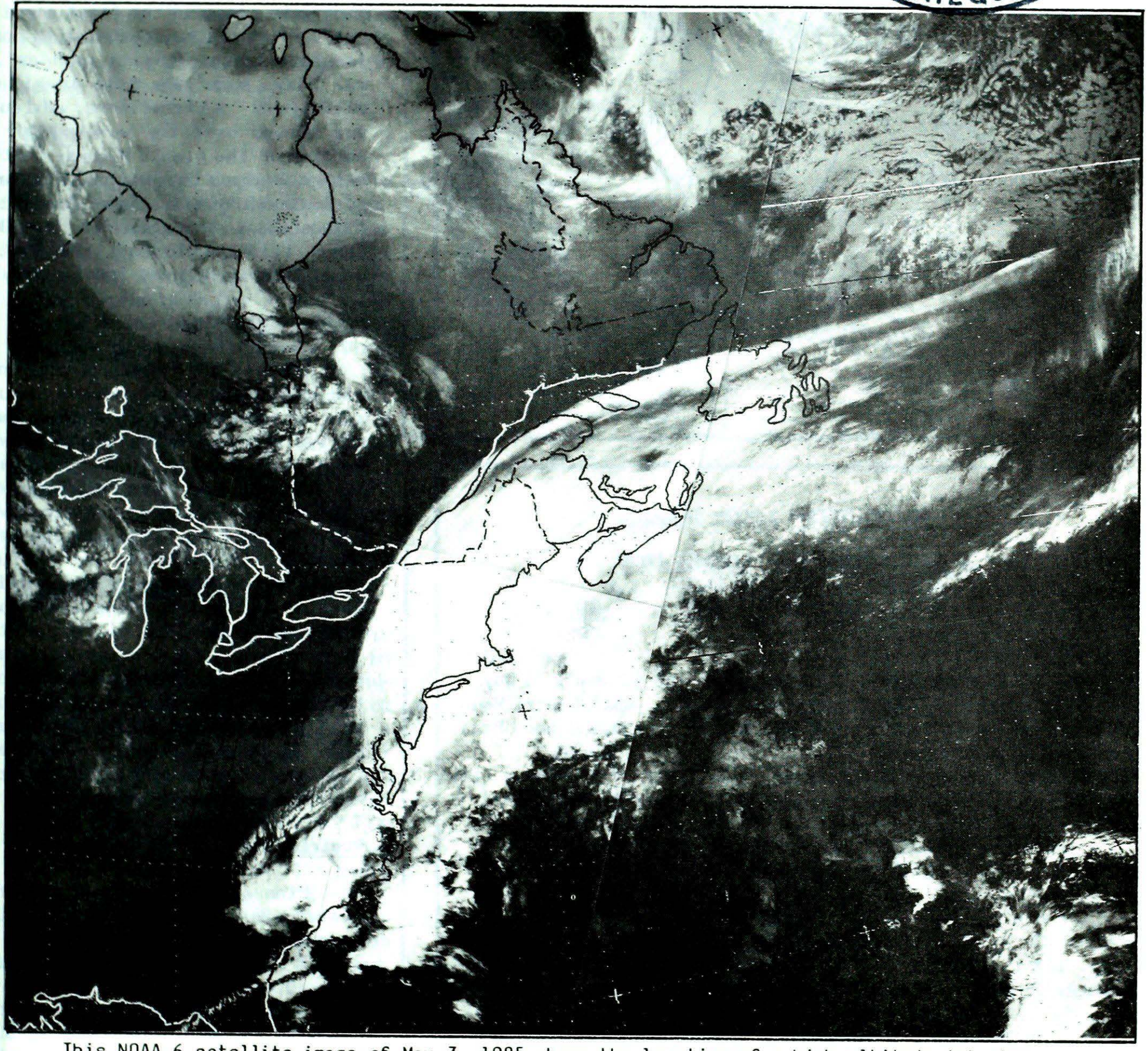
Environment Canada Environnement Canada

# Climatic Perspectives



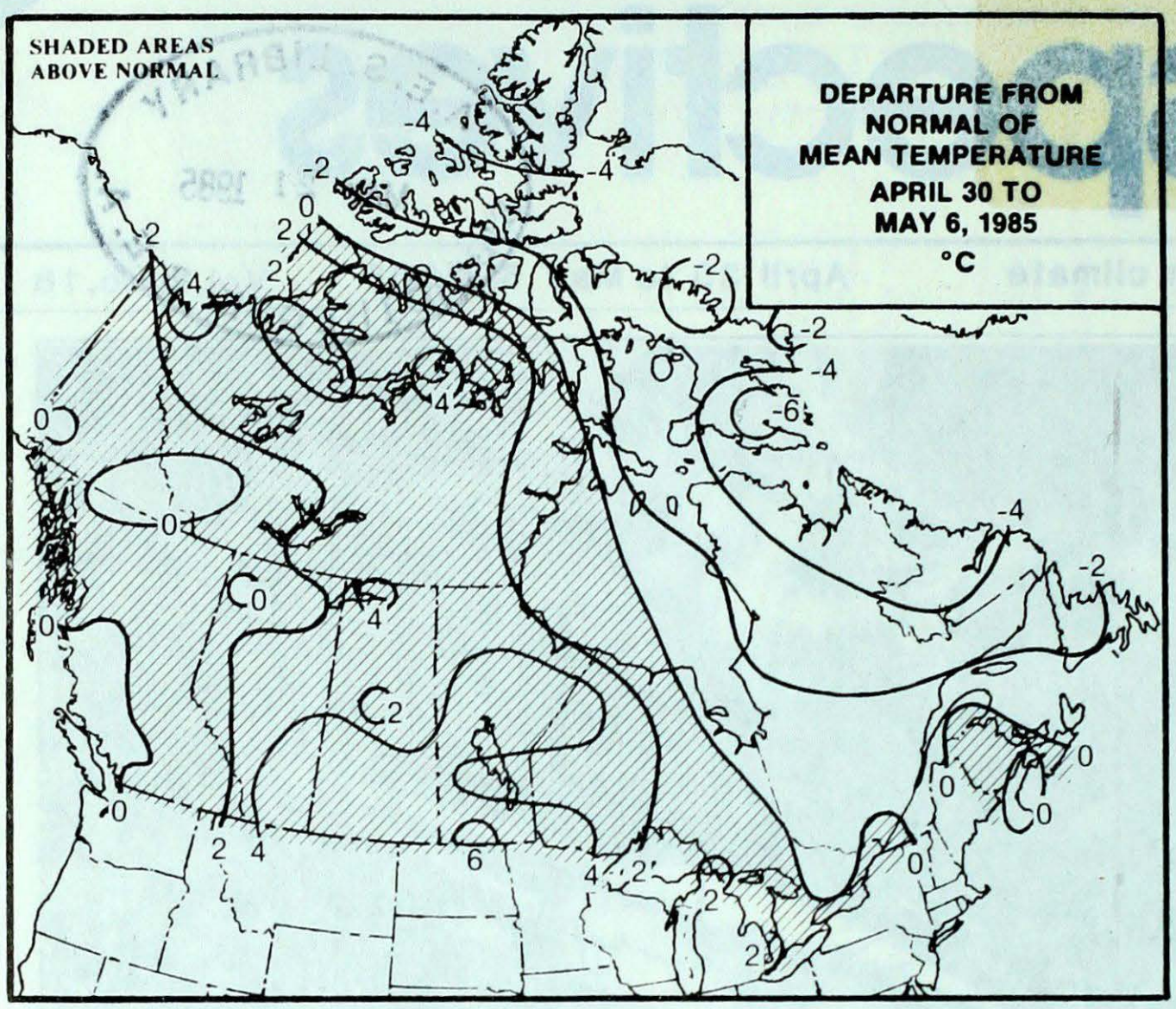
A weekly review of Canadian climate April 30 to May 6, 1985 Vol. 5 No. 18



This NOAA 6 satellite image of May 3, 1985 shows the location of a high altitude jet stream.
See page 3 for more detail.

- ***More St. Lawrence fishermen drown***
- ***Winter hangs on and on in Atlantic Canada***
- ***Spring floods begin in the Yukon***

Canada




## WEEKLY TEMPERATURE EXTREMES (°C)

| | MAXIMUM | MINIMUM |
|---|---|---|
| YUKON TERRITORY | 14.3 Mayo | -24.0 Komakuk Beach |
| NORTHWEST TERRITORIES | 17.0 Fort Smith | -29.9 Mould Bay |
| BRITISH COLUMBIA | 26.0 Penticton | - 8.3 Puntzi Mountain |
| ALBERTA | 29.5 Medicine Hat | - 5.6 Grande Prairie |
| SASKATCHEWAN | 30.7 Estevan | - 5.8 Uranium City |
| MANITOBA | 29.1 Pilot Mound | - 9.6 Churchill |
| ONTARIO | 27.3 Ottawa<br>Windsor | - 7.4 Moosonee |
| QUÉBEC | 25.6 Maniwaki | -18.0 Quaqtaq |
| NEW BRUNSWICK | 19.4 St. Stephen | - 3.5 St. Stephen |
| NOVA SCOTIA | 22.0 Shelburne | - 3.0 Sydney |
| PRINCE EDWARD ISLAND | 15.7 Summerside | - 1.9 Charlottetown |
| NEWFOUNDLAND | 15.2 Argentia | -14.4 Churchill Falls |

## ACROSS THE NATION

| | | |
|---|---|---|
| Warmest mean temperature | 14.7 | Windsor, ONT |
| Coolest mean temperature | -22.1 | Eureka, NWT |

## ACROSS THE COUNTRY...

### Yukon and Northwest Territories

After a prolonged period of cool weather, temperatures in the Yukon climbed into the double digits, accelerating the snow melt. After mid-week, southern and central districts received the first significant rains of the season, with some localities recording as much as 30 mm. Heavy snowfalls fell at higher elevations. A travellers advisory was issued over the weekend for a section of the Alaska Highway southeast of Watson Lake due to a potential flooding situation. The rains triggered a snowslide at the BC-Yukon border, blocking the Whitehorse-Skagway Highway indefinitely.

### British Columbia

Overall, the period was cool and unsettled. Thunderstorms occurred in several areas. Heavy rain fell along the north coast. It was sunny and dry in the north. Harvesting of last years fall crop was almost complete in the Peace River District. Spring field work is well underway. Fruit trees are in full bloom in the Okanagan. Skiing still continues at higher elevations. Open water is evident on a few of the larger lakes in the central and northern interior. On April 25, four fishing trawlers sank with the loss of 2 lives in a coastal storm near the Queen Charlotte Islands. Eighteen sailors were plucked from the cold waters by helicopters.

### Prairies

Pleasant spring weather prevailed. Many new daily temperature records were established on May 2 and 3. Favourable conditions have allowed early spring seeding to begin in the Peace River District. Elsewhere, field work and seeding are continuing. A weather system crossing the region during the weekend produced showers and thunderstorms. In some cases rainfalls were significant, improving soil moisture reserves for the growing season. Some flooding was reported in the Fort McMurray District due to the combination of heavy rain and spring runoff.

## Ontario

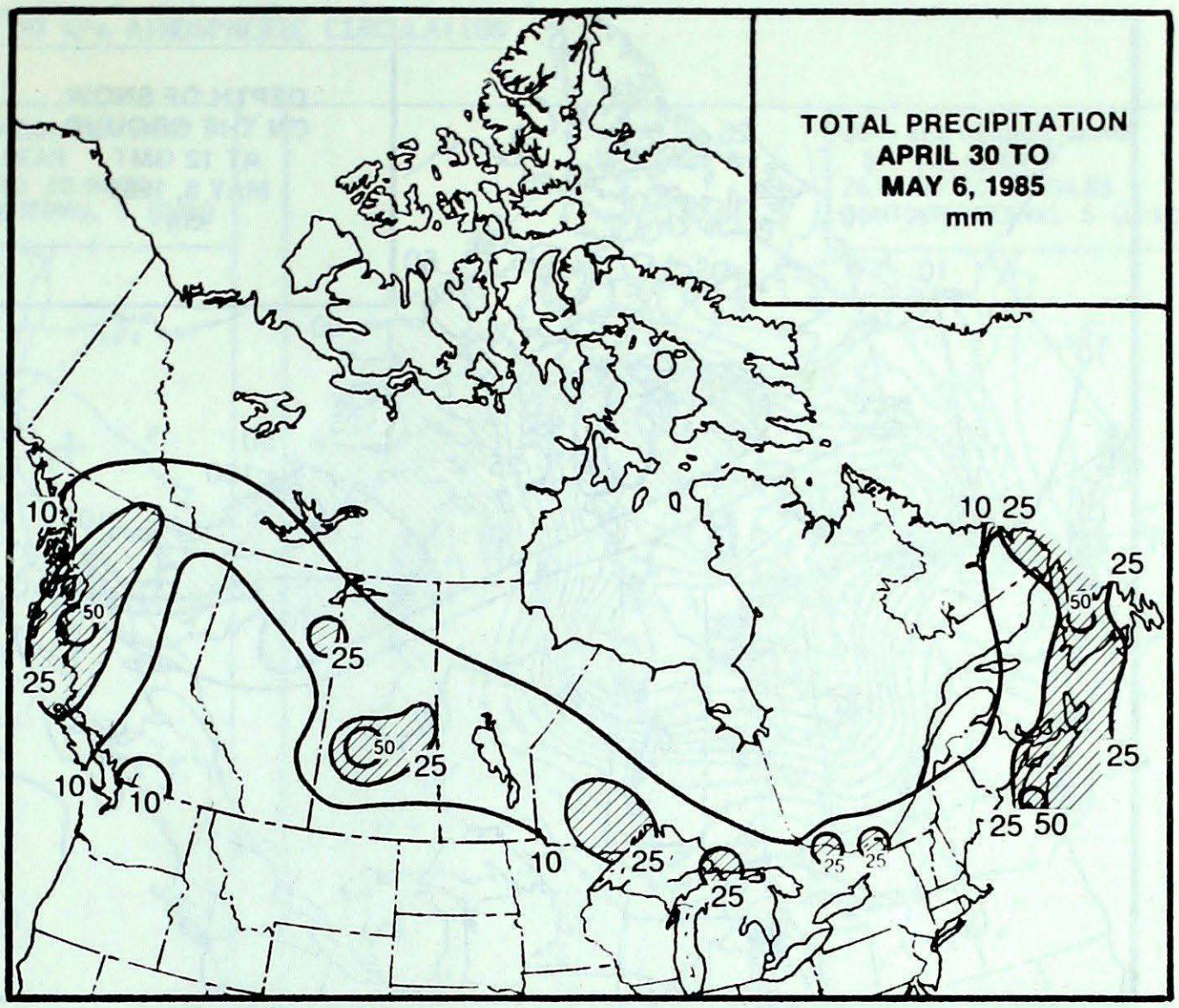
It was a typical spring week. Several record high temperatures were set in the north. Much needed rain fell across southern and central Ontario over the weekend, between 10 and 35 mm. Thunderstorms gave locally heavy downpours. Several new 24-hour precipitation records were established on May 5. The snow has virtually disappeared across northern Ontario.

## Québec

Even though temperatures were near normal, several weather systems affected southern Québec. Heaviest rains occurred in the Ottawa and St. Lawrence Valleys and along the North Shore. Strong winds in the Gaspé damaged an apartment complex under construction. Three fishermen lost their lives in the rough waters of the Gulf of St. Lawrence. The north was unusually cold, but relatively dry. Six fires were burning in the province for a seasonal total of 71, well below the 5-year average of 150 for the same period.

## Atlantic Provinces

Sunny and warm weather conditions came to an abrupt halt. On May 2, a large portion of Newfoundland was blanketed by a 5 to 10 cm snowfall before changing to rain. A second intensifying late winter storm moved up the east coast and hit Atlantic Canada over the weekend. On May 3, between 10 and 50 mm of rain fell on parts of Nova Scotia and New Brunswick. The heavy rains were welcome as a number of forest fires broke out the day before. Up to 16 cm of heavy wet snow covered Prince Edward Island; strong winds downed power lines, and some areas were without power for several days. The storm hit Newfoundland on May 4-5. Snow over the eastern end of the Island changed to rain; but the northern peninsula and coastal Labrador received snowfalls of 30 to 40 cm, along with winds gusting to 107 km/h. The storm left record low temperatures in its wake, and strong winds caused heavy blowing snow and zero visibility.

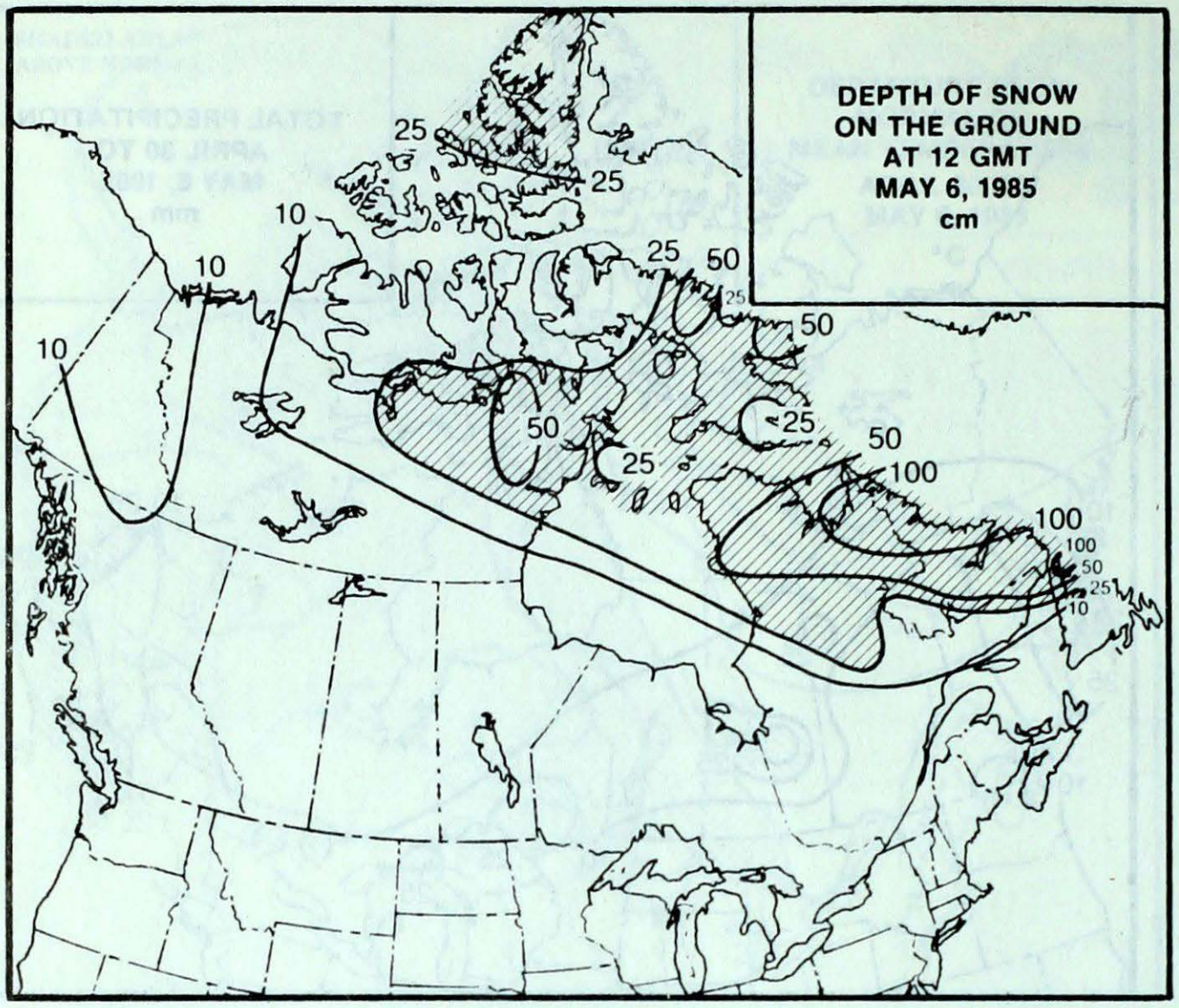


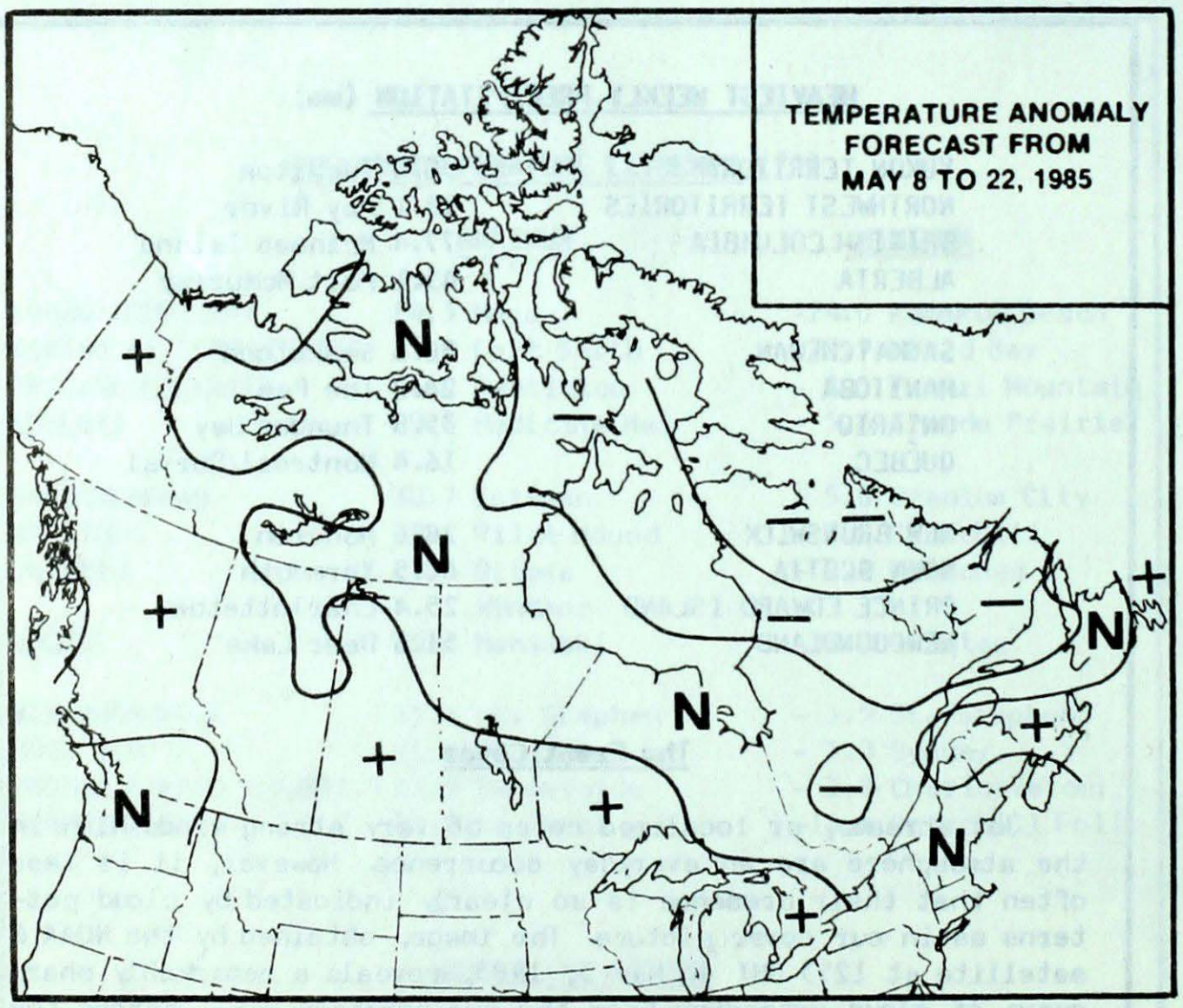

### HEAVIEST WEEKLY PRECIPITATION (mm)

| | |
|---|---|
| YUKON TERRITORY | 30.0 Tuchitua |
| NORTHWEST TERRITORIES | 18.1 Hay River |
| BRITISH COLUMBIA | 77.4 McInnes Island |
| ALBERTA | 45.1 Fort McMurray |
| SASKATCHEWAN | 50.6 Saskatoon |
| MANITOBA | 24.2 The Pas |
| ONTARIO | 35.8 Thunder Bay |
| QUÉBEC | 16.4 Montreal/Dorval |
| NEW BRUNSWICK | 28.6 Moncton |
| NOVA SCOTIA | 60.5 Yarmouth |
| PRINCE EDWARD ISLAND | 25.4 Charlottetown |
| NEWFOUNDLAND | 51.6 Deer Lake |

### The Front Cover

Jet streams, or localized cores of very strong winds high in the atmosphere are an everyday occurrence. However, it is less often that their presence is so clearly indicated by cloud patterns as in our cover picture. The image, obtained by the NOAA 6 satellite at 1253 GMT on May 3, 1985, reveals a remarkably sharp curve of cloud extending from the northeastern U.S., across the St. Lawrence Valley to Newfoundland and beyond. The jet core (in this case, winds of 240 km/h at an altitude of 9 km) divides cloud in the warm moist airmass to the south from clear skies in the colder and drier air to the north and west. This particular configuration was visible for a few days.




**Temperature Anomaly Forecast**

| | |
|---|---|
| ++ | **much above normal** |
| + | **above normal** |
| N | **normal** |
| - | **below normal** |
| -- | **much below 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.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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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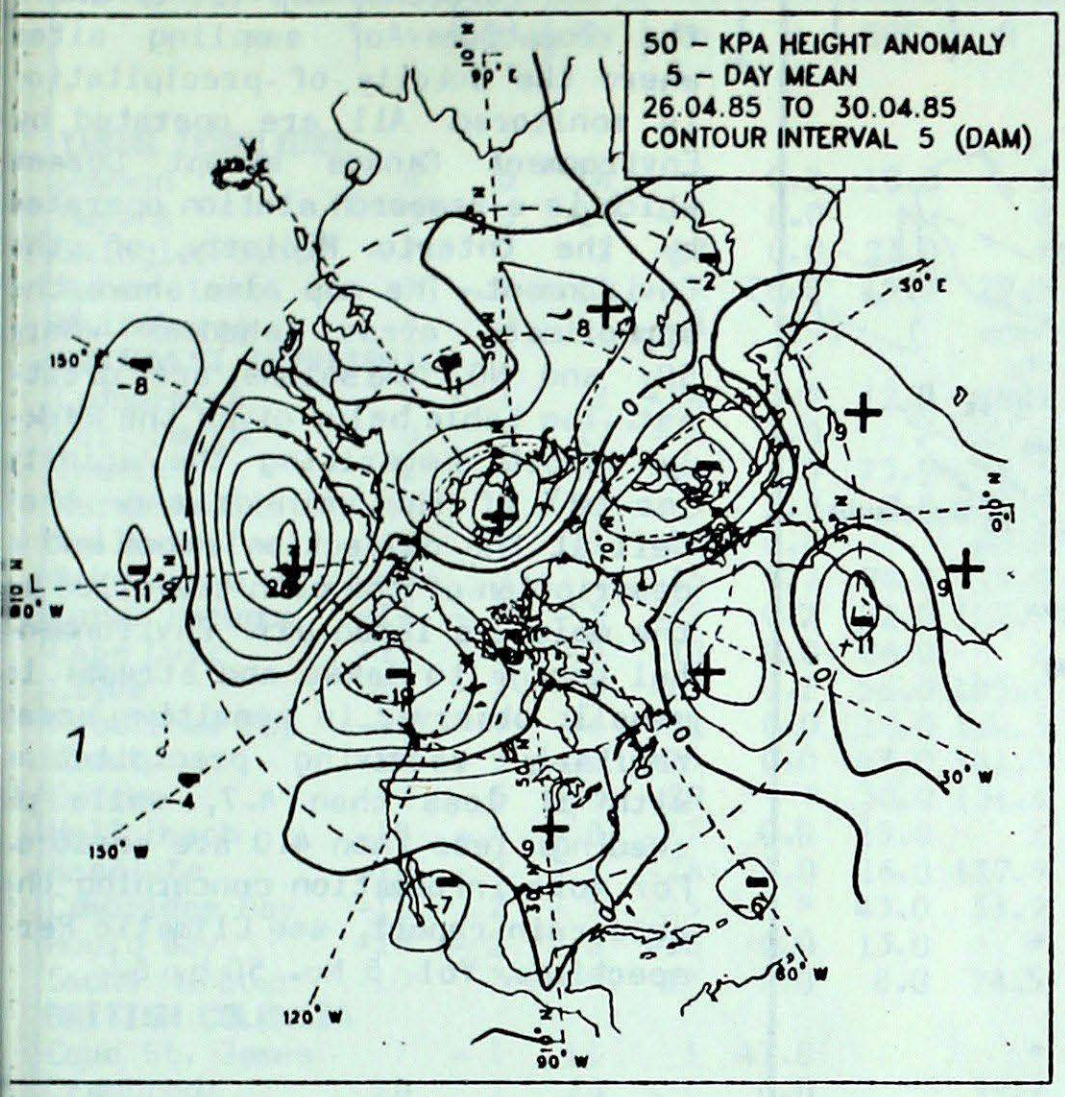
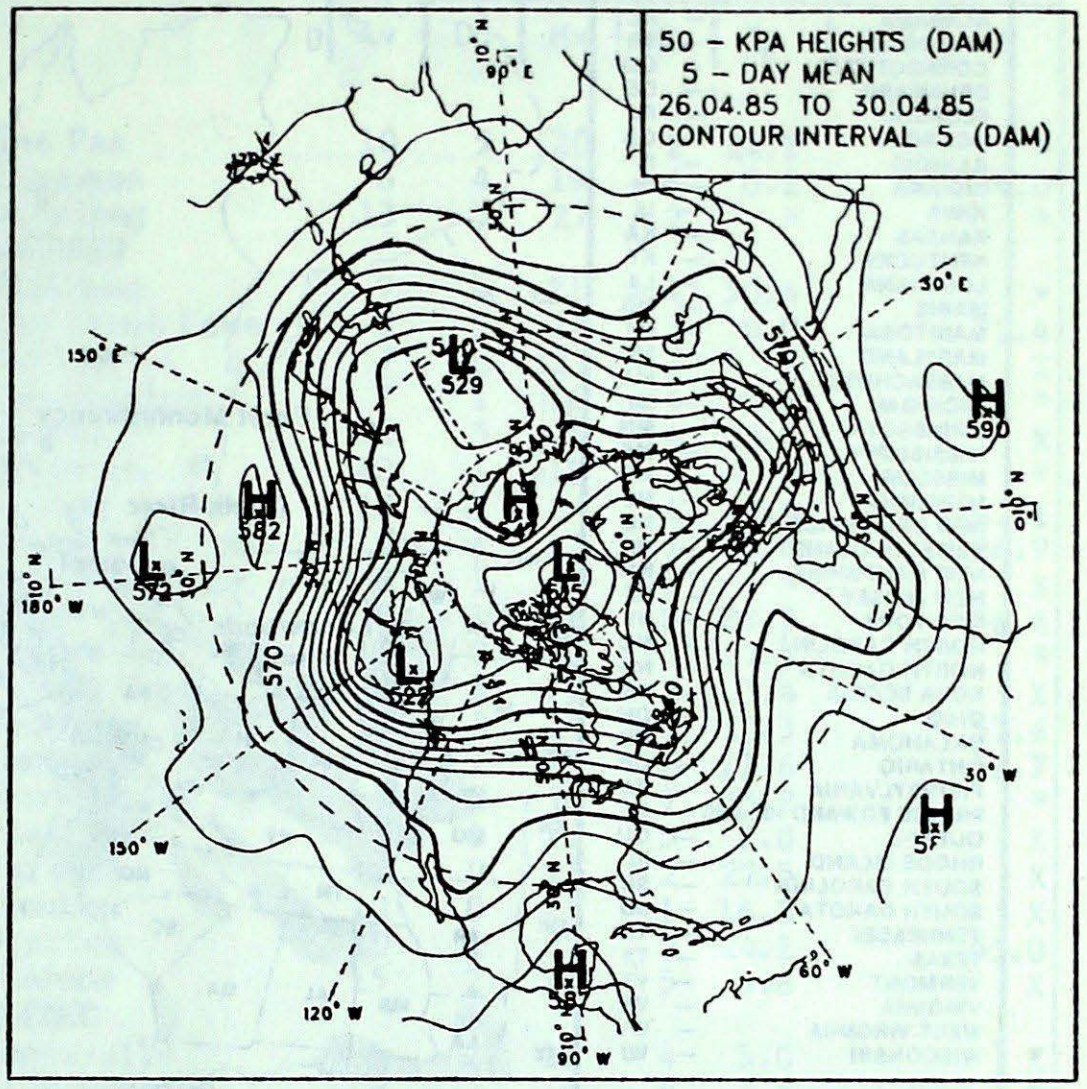
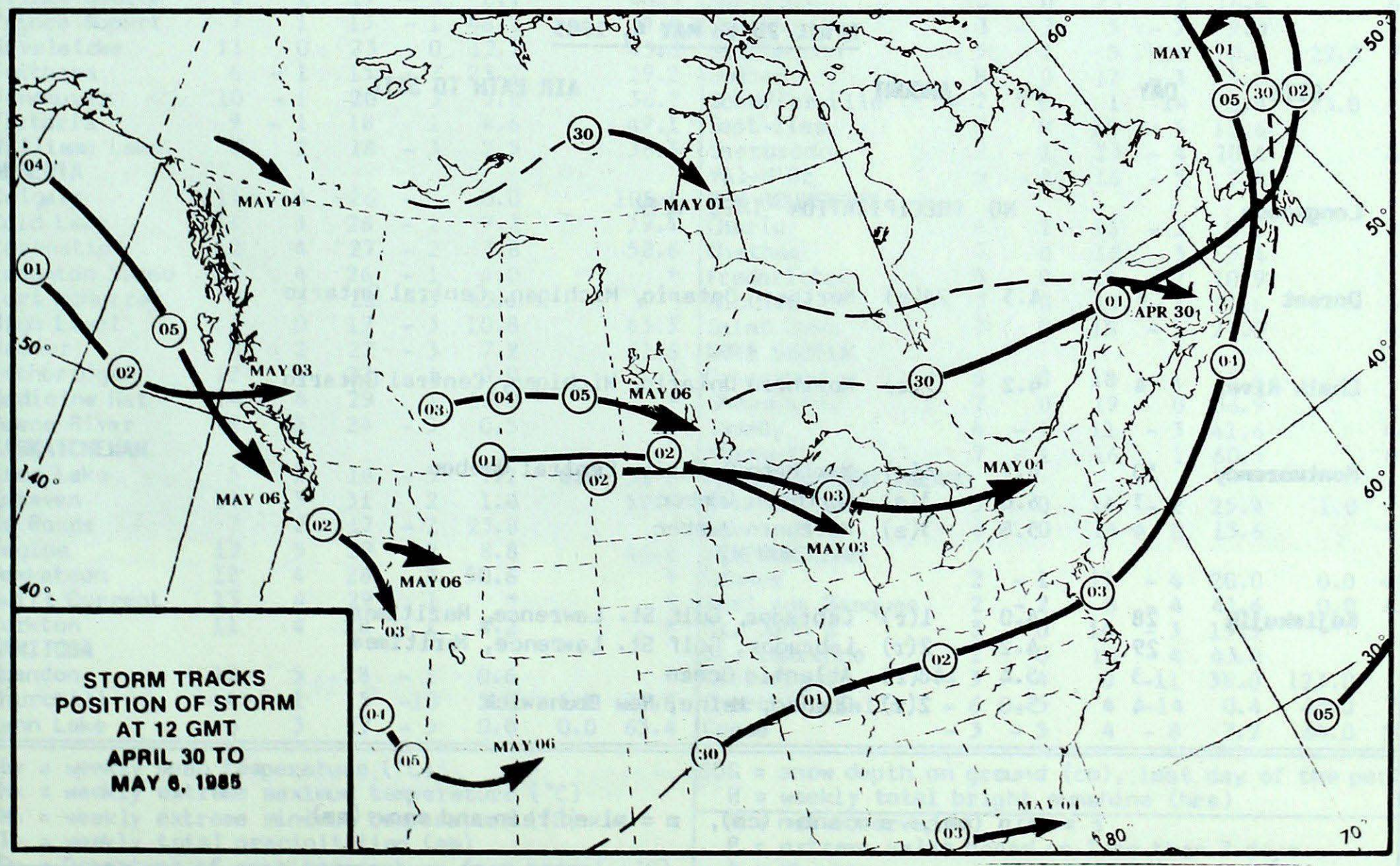
## 50 KPa ATMOSPHERIC CIRCULATION



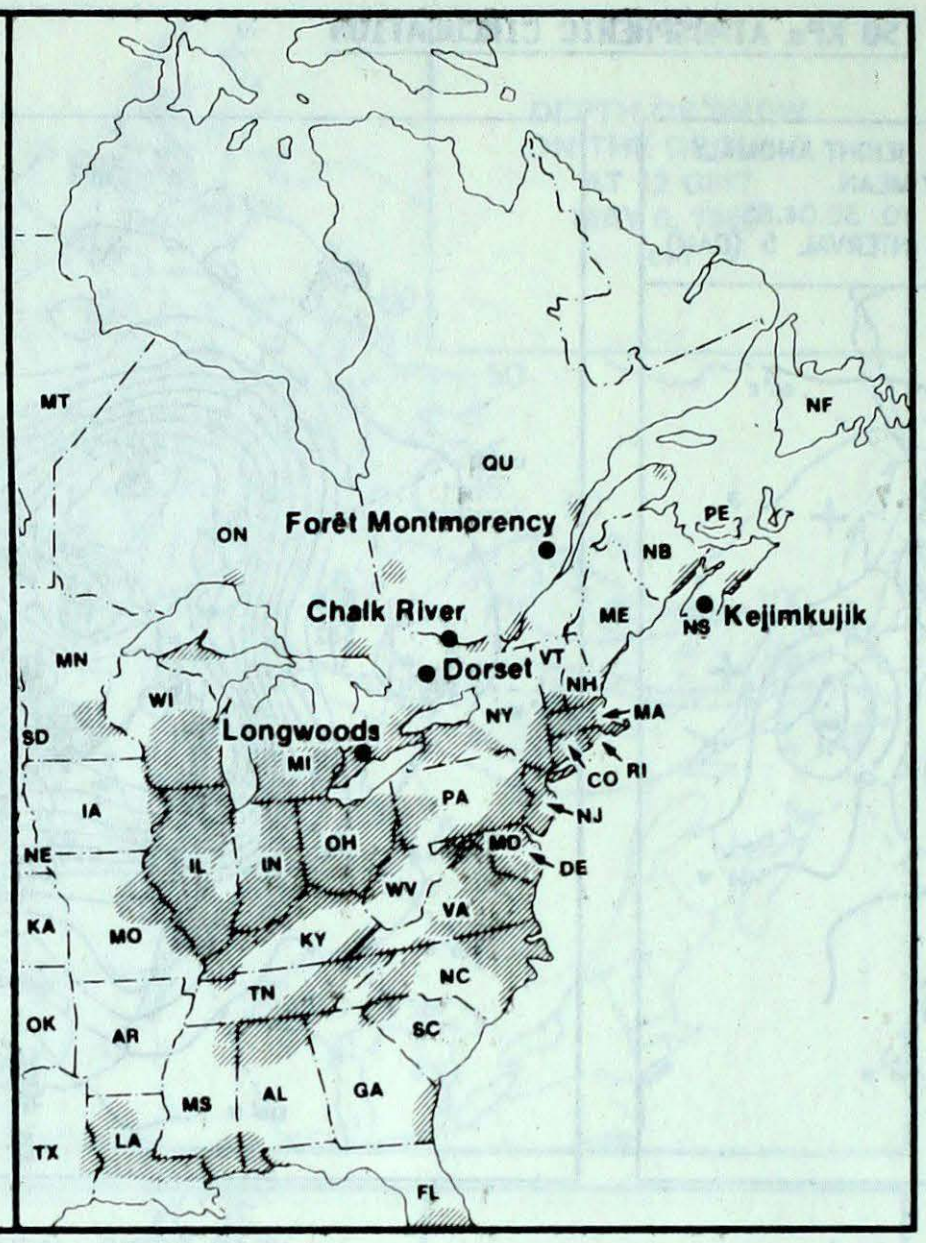

MEAN 50 KPa HEIGHT ANOMALY (dam)
April 26 to April 30, 1985




MEAN 50 KPa HEIGHTS (dam)
April 26 to April 30, 1985



| | | |
|---|---|---|
| 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 |
| MASSACHUSET | — | 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 28 to MAY 4, 1985**

| SITE | DAY | pH | AMOUNT | AIR PATH TO SITE |
|---|---|---|---|---|
| **Longwoods** | | | NO PRECIPITATION THIS WEEK | |
| **Dorset** | 4 | 4.3 | 24(r) | Northern Ontario, Michigan, Central Ontario |
| **Chalk River** | 4 | 4.2 | 7(r) | Northern Ontario, Michigan, Central Ontario |
| **Montmorency** | 30 | 4.7 | 6(r) | Northern Ontario, Central Quebec |
| | 3 | 6.0 | 3(s) | Northern Quebec |
| | 4 | 5.8 | 3(s) | Northern Quebec |
| **Kejimkujik** | 28 | 4.0 | 1(r) | Labrador, Gulf St. Lawrence, Maritimes |
| | 29 | 4.2 | 2(r) | Labrador, Gulf St. Lawrence, Maritimes |
| | 3 | 5.4 | 48(r) | Atlantic Ocean |
| | 4 | 5.0 | 2(r) | Quebec, Maine, New Brunswick |

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

## TEMPERATURE, PRECIPITATION AND BRIGHT SUNSHINE DATA FOR THE WEEK ENDING 0600 GMT MAY 7, 1985

| STATION | TEMP | | | | PRECIP | | SUN |
|---|---|---|---|---|---|---|---|
| | Av | Dp | Mx | Mn | Tp | SOG | H |
| **YUKON TERRITORY** | | | | | | | |
| Dawson | 4 | 0 | 14 | - 5 | 0.2 | 10.0 | X |
| Mayo A | 5 | 0 | 14 | - 5 | 0.0 | | X |
| Shingle Point | - 7 | 2 | 2 | -17 | 0.0 | 23.0 | * |
| Watson Lake | 3 | - 1 | 12 | - 5 | 26.6 | 15.0 | 29.5 |
| Whitehorse | 4 | 0 | 12 | - 4 | 3.0 | | * |
| **NORTHWEST TERRITORIES** | | | | | | | |
| Coppermine | - 9 | 1 | 2 | -24 | 2.7 | 12.0 | 48.7 |
| Fort Smith | 8 | 4 | 17 | - 4 | 2.0 | | * |
| Inuvik | - 2 | 4 | 9 | -14 | 0.0 | 23.0 | * |
| Norman Wells | - 4 | 3 | 14 | - 5 | 2.8 | 7.0 | * |
| Yellowknife | 2 | 2 | 11 | -12 | 0.4 | | 68.5 |
| Baker Lake | - 9 | 2 | 1 | -15 | 1.7 | 74.0 | 19.0 |
| Coral Harbour | -14 | - 3 | - 5 | -22 | 0.2 | 22.0 | 101.7 |
| Cape Dyer | -11 | - 2 | - 5 | -18 | 0.0 | 86.0 | X |
| Clyde | -13 | - 2 | - 8 | -19 | 0.2 | 56.0 | 105.6 |
| Frobisher Bay | -14 | - 7 | - 6 | -21 | 0.0 | 16.0 | 101.3 |
| Alert | -20 | - 5 | -12 | -25 | 0.0 | 43.0 | 161.9 |
| Eureka | -22 | - 5 | -15 | -29 | * | 30.0 | 136.4 |
| Hall Beach | -18 | - 4 | - 8 | -27 | 0.0 | 25.0 | X |
| Resolute | -18 | - 2 | - 9 | -24 | 0.0 | 16.0 | 127.5 |
| Cambridge Bay | -12 | 2 | - 5 | -25 | * | 43.0 | 33.9 |
| Mould Bay | -18 | - 2 | - 8 | -30 | 0.0 | 13.0 | * |
| Sachs Harbour | -10 | 2 | - 4 | -17 | 0.0 | 8.0 | 74.5 |
| **BRITISH COLUMBIA** | | | | | | | |
| Cape St. James | 7 | - 1 | 11 | 3 | 47.0 | | * |
| Cranbrook | 10 | 1 | 24 | - 1 | 0.0 | | 59.2 |
| Fort Nelson | 7 | 1 | 19 | - 2 | 4.7 | | * |
| Fort St. John | 9 | 2 | 20 | - 1 | 0.6 | | X |
| Kamloops | 12 | 1 | 24 | - 1 | 2.2 | | 56.3 |
| Penticton | 11 | 0 | 26 | - 2 | 2.4 | | 53.4 |
| Port Hardy | 9 | 1 | 16 | 3 | 17.6 | | 15.6 |
| Prince George | 8 | 1 | 19 | - 5 | 6.1 | | 46.5 |
| Prince Rupert | 7 | 1 | 13 | - 1 | 46.2 | | 34.4 |
| Revelstoke | 11 | 0 | 23 | 0 | 12.7 | | 43.6 |
| Smithers | 6 | - 1 | 15 | - 2 | 23.2 | | 29.2 |
| Vancouver | 10 | - 1 | 20 | 3 | 5.8 | | 36.7 |
| Victoria | 9 | - 1 | 18 | 1 | 4.6 | | 49.1 |
| Williams Lake | 8 | 2 | 18 | - 3 | 2.5 | | 36.3 |
| **ALBERTA** | | | | | | | |
| Calgary | 11 | 4 | 26 | - 1 | 0.0 | | 105.4 |
| Cold Lake | 11 | 3 | 26 | - 2 | 9.2 | | 39.4 |
| Coronation | 12 | 4 | 27 | - 2 | 3.8 | | 58.6 |
| Edmonton Namao | 11 | 4 | 26 | - 1 | 4.0 | | * |
| Fort McMurray | 9 | 3 | 22 | - 3 | 45.1 | | * |
| High Level | 7 | 0 | 19 | - 3 | 10.8 | | 43.3 |
| Jasper | 8 | 2 | 22 | - 3 | 7.2 | | 61.6 |
| Lethbridge | 12 | 4 | 27 | - 1 | 0.0 | | * |
| Medicine Hat | 14 | 4 | 29 | 1 | 10.0 | | * |
| Peace River | 9 | 3 | 24 | - 3 | 0.5 | | X |
| **SASKATCHEWAN** | | | | | | | |
| Cree Lake | 5 | X | 16 | - 5 | 7.2 | 0.0 | 51.0 |
| Estevan | 14 | 5 | 31 | 2 | 1.8 | | 59.9 |
| La Ronge | 7 | 2 | 17 | - 2 | 23.8 | | * |
| Regina | 13 | 5 | 29 | 2 | 8.8 | | 46.8 |
| Saskatoon | 12 | 4 | 28 | 3 | 50.6 | | * |
| Swift Current | 13 | 6 | 29 | 1 | * | | * |
| Yorkton | 11 | 4 | 28 | - 1 | 4.2 | | * |
| **MANITOBA** | | | | | | | |
| Brandon | 12 | 5 | 28 | - 1 | 0.6 | | * |
| Churchill | - 4 | 1 | 5 | -10 | 2.0 | 5.0 | 37.6 |
| Lynn Lake | 6 | 3 | 17 | - 5 | 0.0 | 0.0 | 63.4 |

| STATION | TEMP | | | | PRECIP | | SUN |
|---|---|---|---|---|---|---|---|
| | Av | Dp | Mx | Mn | Tp | SOG | H |
| The Pas | 10 | 5 | 20 | - 2 | 24.2 | | * |
| Thompson | 6 | 4 | 19 | - 6 | 0.2 | | 64.0 |
| Winnipeg | 13 | 5 | 27 | - 2 | * | | * |
| **ONTARIO** | | | | | | | |
| Atikokan | 9 | 4 | 21 | - 4 | 30.4 | | * |
| Big Trout Lake | 6 | 5 | 14 | - 3 | 0.0 | | 72.4 |
| Earlton | 7 | 0 | 21 | - 3 | * | | X |
| Kapuskasing | 7 | 1 | 16 | - 4 | 0.6 | | * |
| Kenora | 12 | 5 | 21 | 4 | 24.8 | | X |
| Kingston | 10 | 1 | 19 | 1 | * | | * |
| London | 12 | 1 | 24 | 1 | 13.6 | | 41.1 |
| Moosonee | 2 | - 1 | 12 | - 7 | 3.8 | | 124.9 |
| Muskoka | 8 | - 1 | 21 | - 3 | * | | X |
| North Bay | 7 | - 1 | 21 | 0 | 28.3 | | 56.4 |
| Ottawa | 11 | 0 | 27 | 3 | 27.4 | | * |
| Pickle Lake | 6 | 3 | 17 | - 2 | 3.4 | | X |
| Red Lake | 10 | 3 | 19 | - 1 | 10.3 | | 57.6 |
| Sudbury | 8 | 1 | 25 | 0 | 21.6 | | 52.7 |
| Thunder Bay | 7 | 2 | 18 | - 2 | 35.8 | | * |
| Timmins | 7 | 1 | 15 | - 5 | 2.0 | | X |
| Toronto | 11 | 0 | 25 | 2 | 22.5 | | X |
| Trenton | 10 | 0 | 21 | 1 | 16.8 | | X |
| Wiarton | 10 | 1 | 25 | 2 | 24.1 | | 55.0 |
| Windsor | 15 | 2 | 27 | 5 | 6.8 | | X |
| **QUEBEC** | | | | | | | |
| Bagotville | 5 | - 2 | 16 | - 4 | 5.0 | | X |
| Blanc-Sablon | - 2 | - 2 | 4 | - 8 | * | 6.0 | * |
| Inukjuak | - 7 | - 2 | 2 | -15 | 0.0 | 50.0 | 67.0 |
| Kuujjuaq | - 9 | - 6 | - 4 | -16 | 1.0 | 117.0 | 48.6 |
| Kuujjuarapik | - 6 | - 4 | 5 | -15 | 3.2 | 9.0 | 41.7 |
| Maniwaki | 7 | - 1 | 26 | - 4 | 13.8 | | 65.5 |
| Mont-Joli | 5 | - 1 | 14 | - 4 | 0.0 | | 73.0 |
| Montréal | 10 | 0 | 23 | 2 | 16.4 | | 63.5 |
| Natashquan | 0 | - 2 | 5 | - 7 | 9.0 | | * |
| Nitchequon | - 5 | - 4 | 5 | -16 | 0.6 | 29.0 | 79.3 |
| Québec | 8 | 0 | 17 | - 3 | 1.6 | | 55.0 |
| Schefferville | - 7 | - 5 | 1 | -14 | 1.4 | 23.0 | * |
| Sept-Iles | 3 | 0 | 10 | - 5 | 11.6 | | * |
| Sherbrooke | 7 | - 1 | 23 | - 4 | 10.4 | | 49.6 |
| Val-d'Or | 5 | - 1 | 16 | - 5 | 7.4 | | * |
| **NEW BRUNSWICK** | | | | | | | |
| Charlo | 6 | 1 | 16 | - 3 | 0.8 | | 80.0 |
| Chatham | 7 | 0 | 16 | - 3 | 3.4 | | 54.9 |
| Fredericton | 8 | 0 | 18 | - 2 | 10.9 | | * |
| Moncton | 7 | 0 | 17 | - 1 | 28.6 | | 55.8 |
| Saint John | 7 | 0 | 18 | - 1 | 21.0 | | 48.9 |
| **NOVA SCOTIA** | | | | | | | |
| Greenwood | 8 | 0 | 18 | - 1 | 31.6 | | X |
| Shearwater | 7 | 0 | 19 | 0 | 36.9 | | 51.4 |
| Sydney | 4 | - 1 | 11 | - 3 | 41.6 | | 46.0 |
| Yarmouth | 7 | - 1 | 16 | 1 | 60.5 | | 82.8 |
| **PRINCE EDWARD ISLAND** | | | | | | | |
| Charlottetown | 5 | 0 | 14 | - 2 | 25.4 | 1.0 | * |
| Summerside | 6 | 0 | 16 | 0 | 13.6 | | 53.2 |
| **NEWFOUNDLAND** | | | | | | | |
| Gander | 2 | - 1 | 11 | - 4 | 20.0 | 0.0 | 42.6 |
| Port aux Basques | 2 | - 2 | 8 | - 4 | 41.6 | 0.0 | 46.1 |
| St. John's | 3 | 0 | 14 | - 3 | 19.5 | | * |
| St. Lawrence | 2 | 0 | 10 | - 4 | 43.0 | | X |
| Cartwright | - 3 | - 4 | 0 | -11 | 38.0 | 123.0 | * |
| Churchill Falls | - 6 | - 5 | 4 | -14 | 0.4 | 64.0 | 78.3 |
| Goose | - 3 | - 5 | 4 | - 8 | 7.2 | 64.0 | 50.5 |

Av = weekly mean temperature (°C)
Mx = weekly extreme maximum temperature (°C)
Mn = weekly extreme minimum temperature (°C)
Tp = weekly total precipitation (mm)
Dp = Departure of mean temperature from normal (°C)

SOG = snow depth on ground (cm), last day of the period
H = weekly total bright sunshine (hrs)

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