



Environment Canada / Environnement Canada

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VOL 6 ISS 16  
CLIMATIC PERSPECTIVES

# Climatic Perspectives

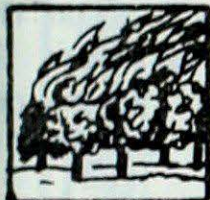
A WEEKLY REVIEW OF CANADIAN CLIMATE

APRIL 27, 1984

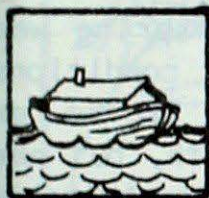
(Aussi disponible en français)

VOL. 6 NO. 16

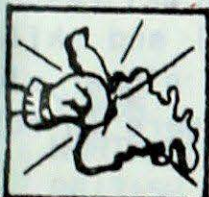
FOR THE PERIOD APRIL 17 TO 23, 1984



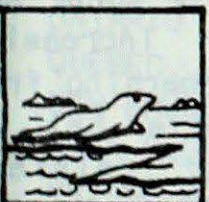
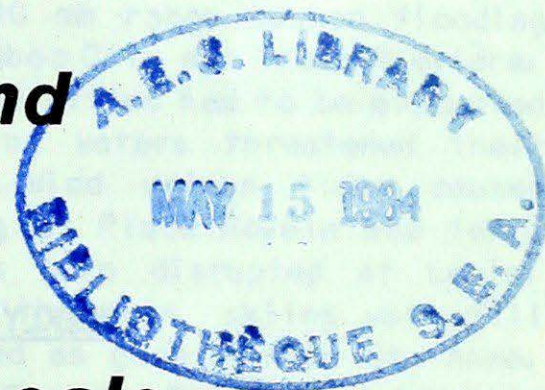
**Warm and dry weather promotes forest fires on the Prairies**



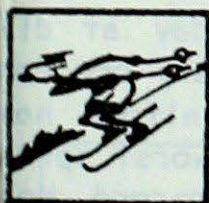
**Spring flooding in Quebec and Nova Scotia**



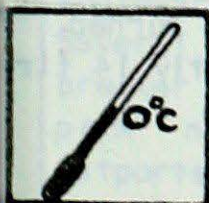
**Winter's last punch in Newfoundland**



**Ice floes off Newfoundland bring seals to hunters**



**Spring skiing still good in Quebec**



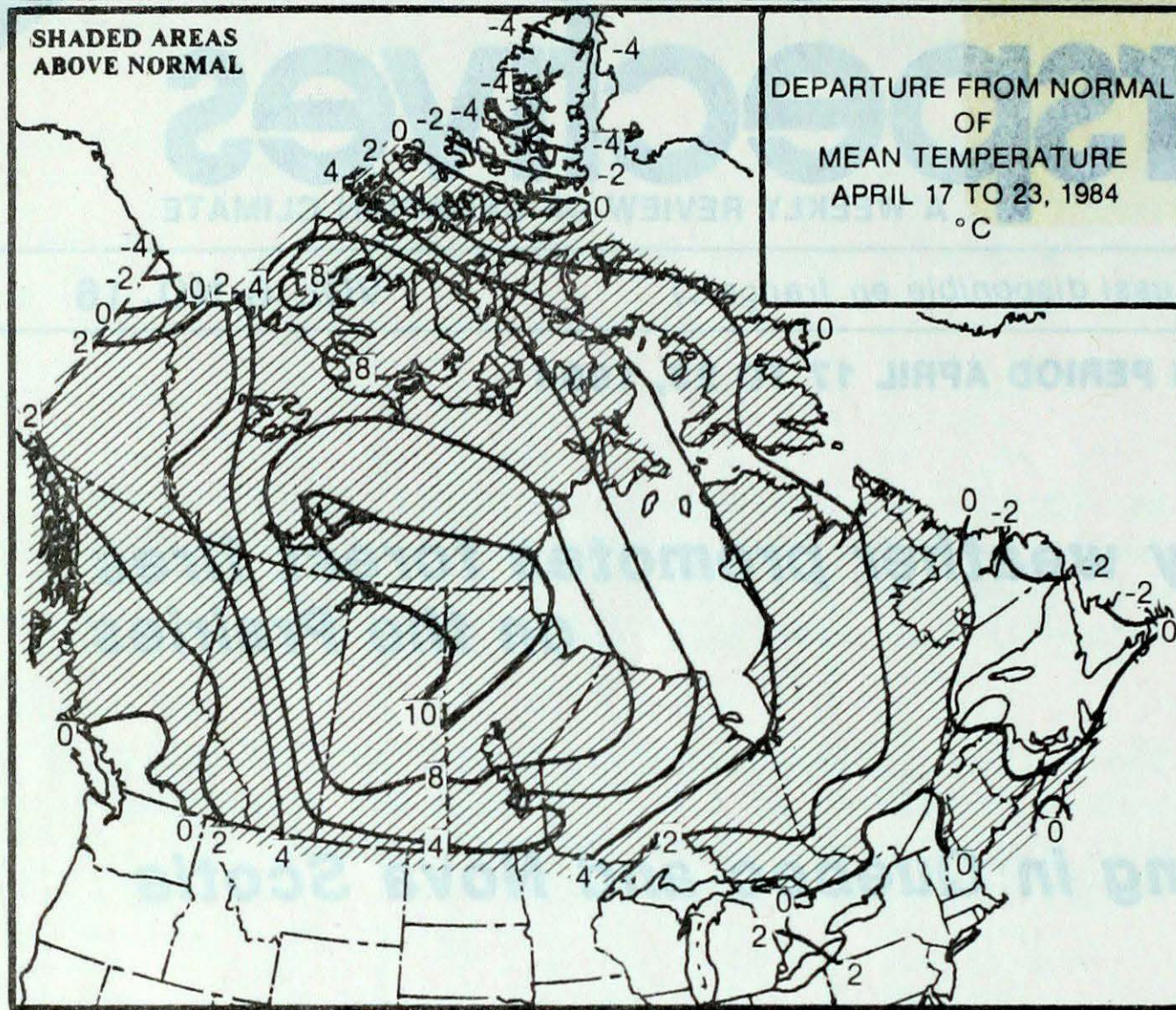
**Average dates of last Spring frost across Canada**

0225-5707  
551-506.1(71)

NOTE: The data shown in this publication are based on unverified reports from approximately 225 Canadian synoptic stations.

Canada





ACROSS THE COUNTRY...

Yukon and Northwest Territories

Except for the High Arctic, above-normal temperatures occurred throughout the North. The Yukon enjoyed record-mild 10 to 13 degrees readings. In the Mackenzie District, a southerly flow of mild air resulted in 21° reading at Fort Smith. The skies were mainly sunny but some mountainous locations received 10 to 15 mm of precipitation. Snow on the ground was nearly non-existent in the Yukon, however, over 50 cm remained on the ground on Baffin Island.

British Columbia

It was a typical spring week with changeable weather conditions. Temperatures continued to be extremely mild in the north, but near normal in the south. Precipitation was variable, with heaviest amount falling along the west coast and in the south. Many mountain ski resorts received a new snowfall and skiing continues to be good at higher elevations. Orchard crops were in full bloom in the Okanagan.

Prairies

It was predominantly sunny and dry in the east with increasing clouds and showers approaching from the west during the latter half of the period. Heaviest rainfall amounts were 15 to 20 millimetres in southern Alberta. Mean temperatures continued to be well above normal and several new temperature records were established each day at different locations. The very dry conditions in southern Manitoba have resulted in one of the worst spring forest fire seasons on record. More than 70 fires have been reported to date; two of them out of control. More than 14,000 hectares of bush and prairie have been burned. In Alberta there are currently 14 fires burning, none major.

Ontario

Dry and warm weather in North-western Ontario substantially increased the threat of forest fires. Some northern locations have now

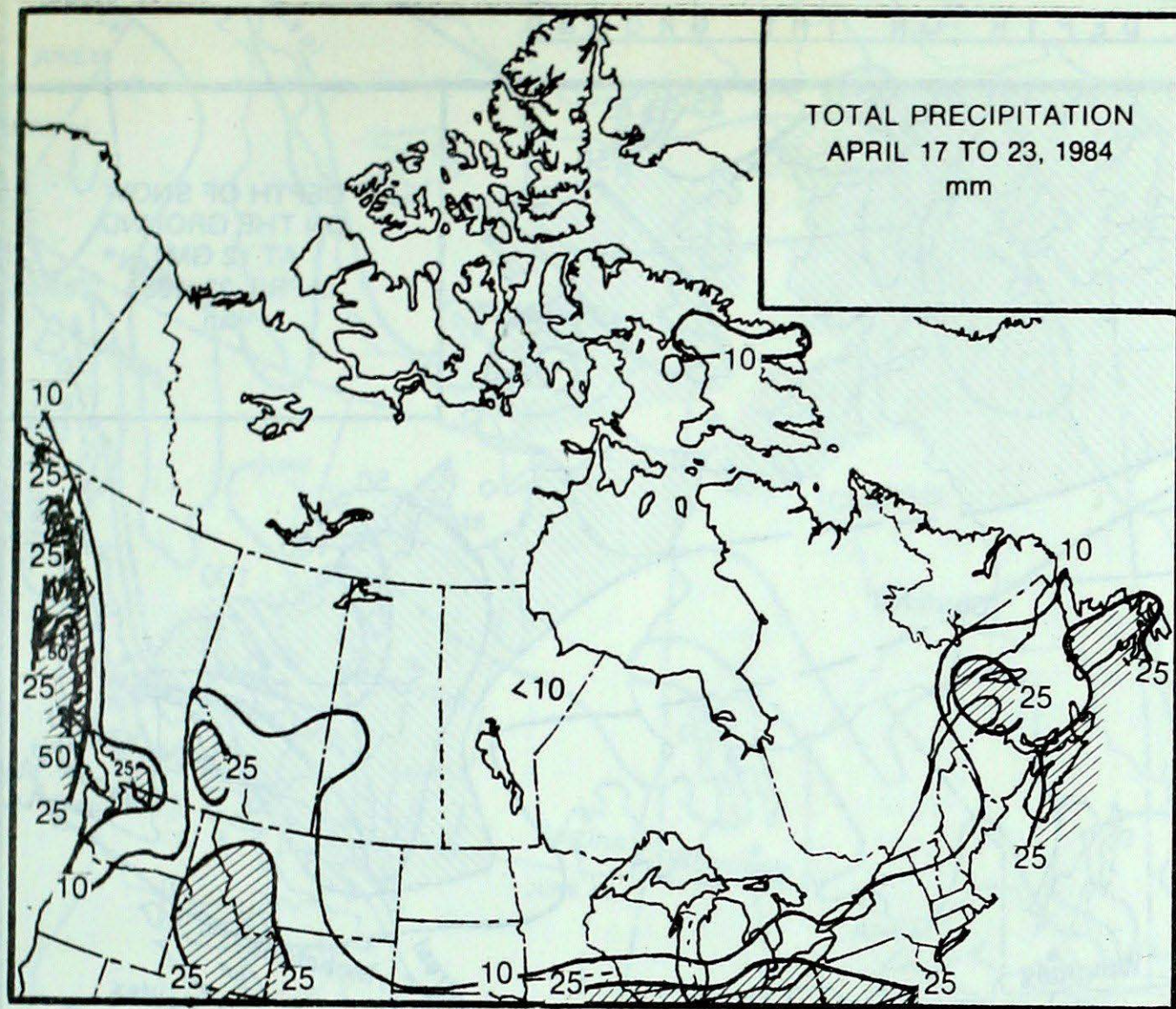
WEEKLY TEMPERATURES EXTREMES (°C)

	<u>MAXIMUM</u>	<u>MINIMUM</u>
YUKON TERRITORY	12.8 Faro	-29.7 Komakuk Beach
NORTHWEST TERRITORIES	20.8 Fort Smith	-36.6 Eureka
BRITISH COLUMBIA	19.2 Kamloops	-7.3 Puntzi Mountain
ALBERTA	23.8 Fort McMurray	-4.2 Jasper
SASKATCHEWAN	25.6 North Battleford Swift Current	-3.0 Uranium City
MANITOBA	24.3 Thompson	-7.4 Churchill
ONTARIO	23.6 Moosonee	-9.4 Big Trout Lake
QUEBEC	21.6 Matagami	-19.1 Kuujuaq
NEW BRUNSWICK	22.6 Fredericton	-5.5 Moncton
NOVA SCOTIA	22.3 Shearwater	-5.6 Sydney
PRINCE EDWARD ISLAND	15.8 Summerside	-3.6 East Point
NEWFOUNDLAND	14.1 ST. Lawrence	-16.6 Badger Churchill Falls

ACROSS THE NATION

Warmest mean temperature	13.5	Saskatoon BC
Coollest mean temperature	-31.4	Eureka, NWT





#### HEAVIEST WEEKLY PRECIPITATION (mm)

YUKON	4.1	Dawson
NORTHWEST TERRITORIES	14.4	Dewer Lakes
BRITISH COLUMBIA	89.4	Estevan Point
ALBERTA	21.0	Lethbridge
SASKATCHEWAN	13.8	Hudson Bay
MANITOBA	1.6	Thompson
ONTARIO	24.4	Windsor
QUEBEC	39.9	Sept-Isles
NEW BRUNSWICK	22.4	Chatham
NOVA SCOTIA	57.4	Shearwater
PRINCE EDWARD ISLAND	26.7	Charlottetown
NEWFOUNDLAND	35.7	St. Lawrence

#### Ice Pack closes in off Newfoundland

Strong northeasterly air flow pushed thick sheets of ice southward along the East Coast. Several long liners and one ice breaker were stuck in the ice pack near St. John's. Some outports including Belle Isle were isolated as supply vessels could not reach them. Ferry

services were cancelled. Hunted came to the hunters as several hundred seals rode on south bound ice floes to St. John's. Harp seal, rarely seen in southern waters, were spotted off the Avalon Peninsula. Icebergs hampered drilling in the Grand Banks, some oil rigs were moved south.

been without precipitation for 6 weeks. Daytime temperatures soared into the mid-teens near the shores of James Bay further increasing the potential for fires. In contrast, southern and central regions continued to experience cool and damp weather. The temperatures remained below seasonable values and several communities received near 20 mm of rain.

Ice jams in the St. Clair River hampered shipping in the Great Lakes as wind driven ice floes clogged the River. All measurable snow on the ground finally disappeared leaving only trace amounts at Lansdowne House and Moosonee.

#### Quebec

The weather was cool and damp. A cold wave near the beginning of the week resulted in -10 to -15 degrees readings along the lower St. Lawrence Valley. By mid-week, mild air covered the central and southern areas and the temperatures climbed near record 15°. Heavy rains in the 20 to 40 mm range caused flooding near Québec City and Trois Rivières. Some communities had to be evacuated as raging waters threatened their safety. Wind driven tides caused flooding at Place Royale and ferry services were disrupted at Levis. Despite the rain, skiing was still described as good at Mont St. Anne. In the Eastern Townships, farmland was drying out rapidly and some farmers started their spring ploughing.

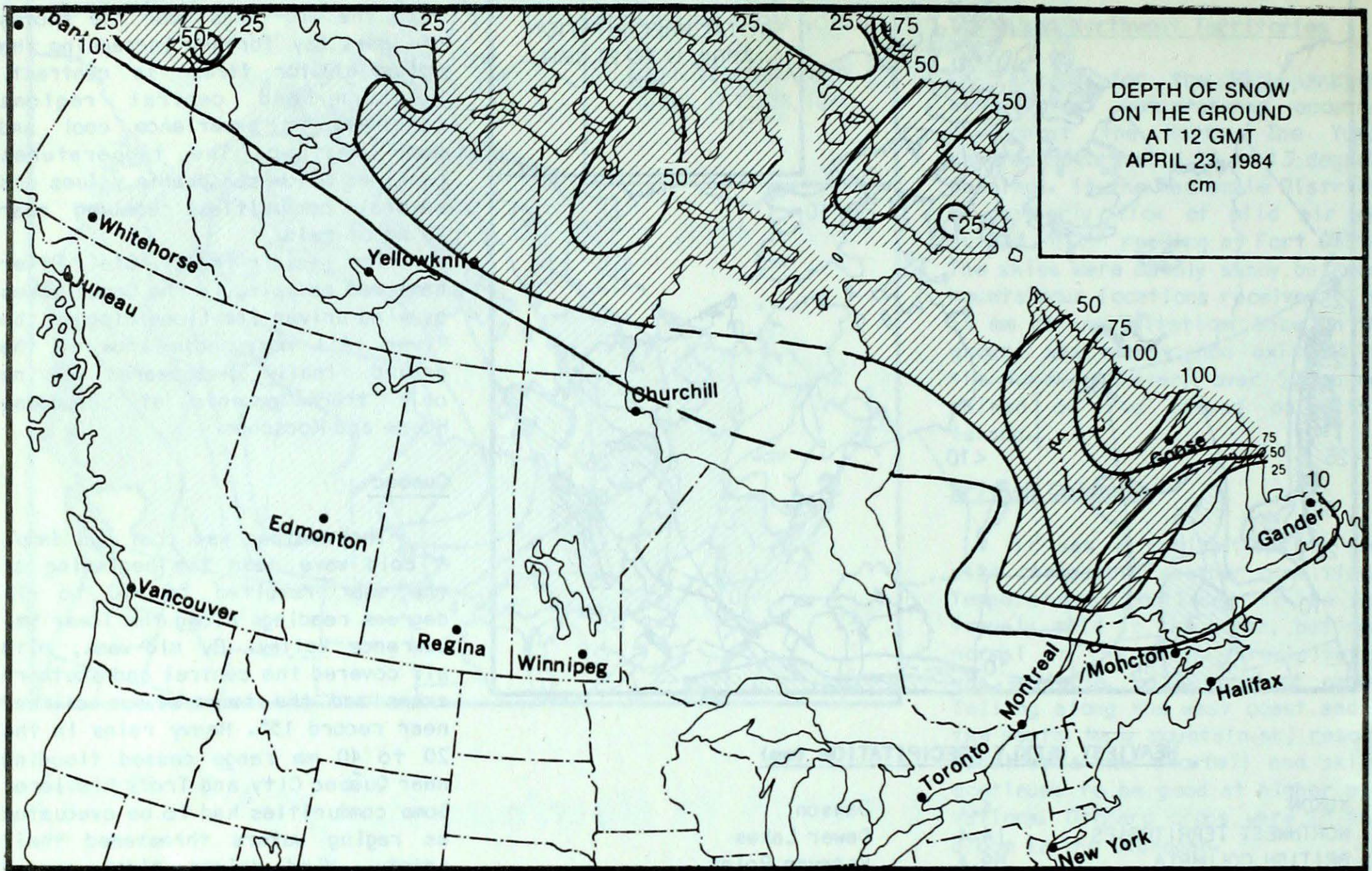
#### Atlantic Provinces

Atlantic Canada had mixed weather this week. Heavy rains in the 50 to 80 mm range inundated southwestern Nova Scotia early in the week. Although many communities experienced minor flooding from overflowing river banks, Yarmouth was the hardest hit as over 78 mm of rain flooded fields and caused extensive water damage to buildings. Weather systems crossing the Maritimes produced cool and damp weather for the remainder of the week. Most of the Maritimes experienced blustery cold air and some locations had up to 11 cm of snow. In Newfoundland, storms dumped over 20 cm of snow over the Great Northern Peninsula. Heavy drifting made highways

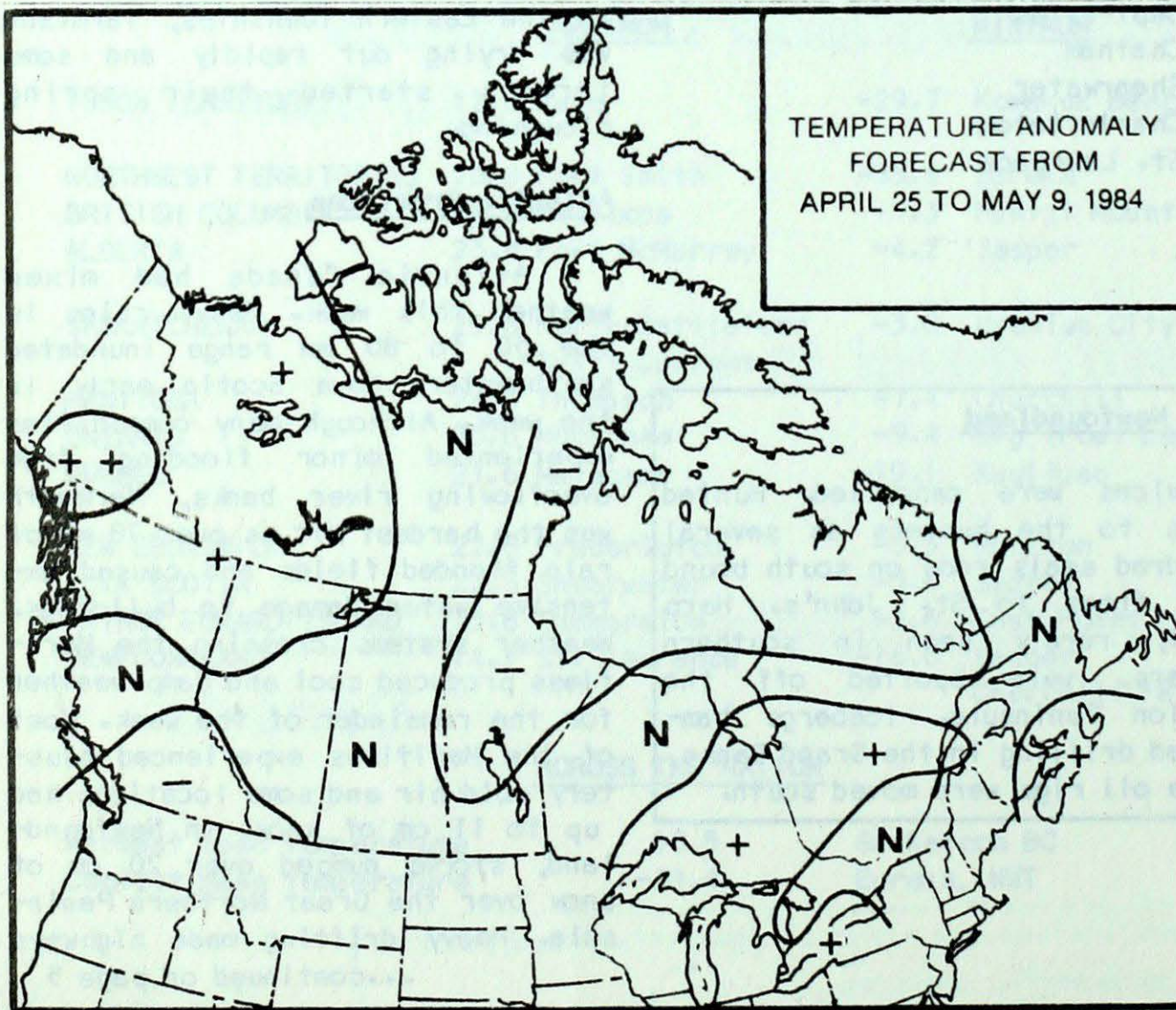
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SNOW DEPTH ON THE GROUND



TEMPERATURE ANOMALY FORECAST

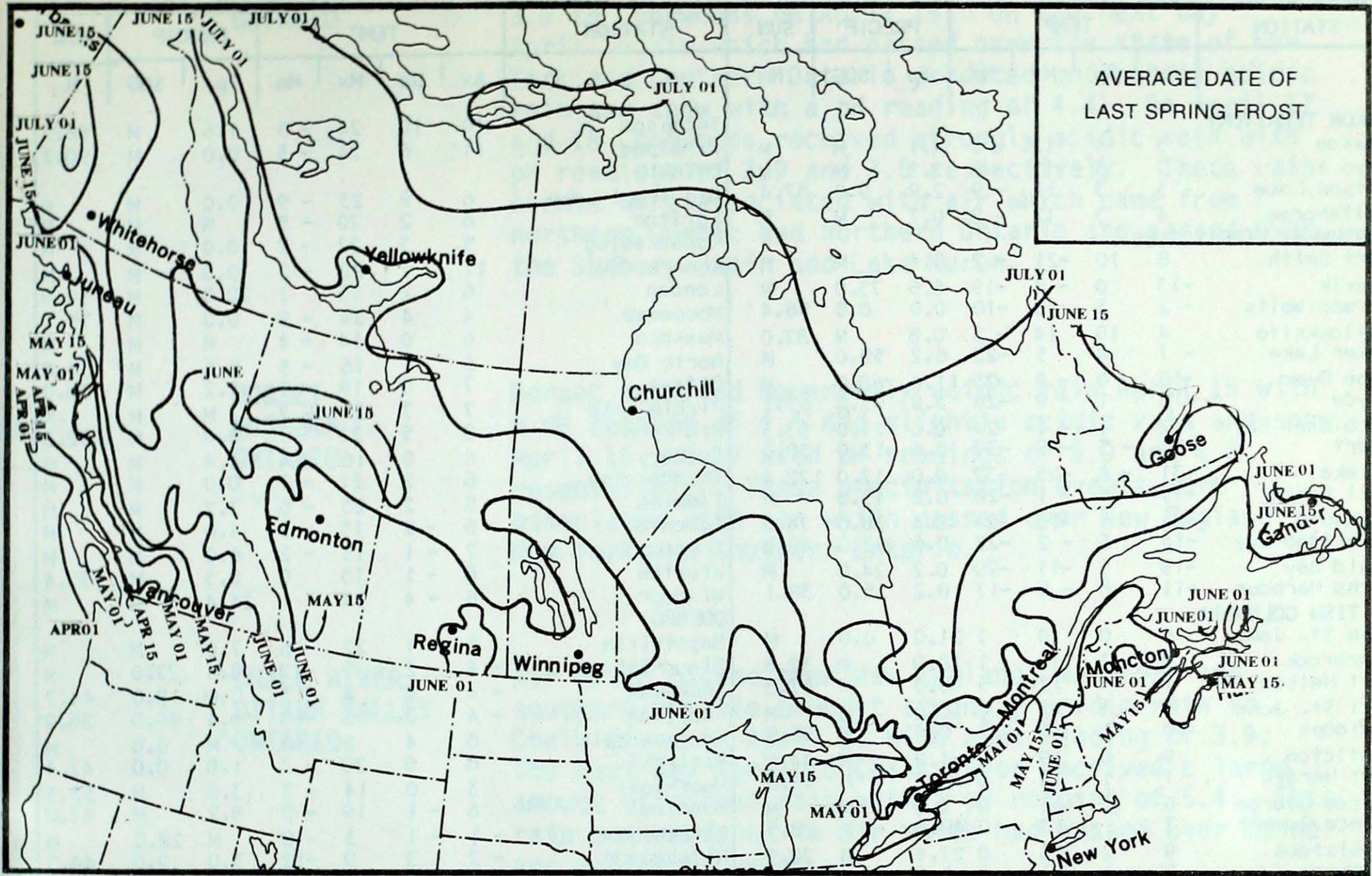


Temperature Anomaly Forecast

The temperature anomaly forecast, for each of the 70 Canadian stations, is prepared by searching historical weather maps to find cases similar to the present one. The principle used is that a prediction for the next 15 days may be based on what is known to have actually happened during 15-day periods. After the five best cases are selected, the surface temperature anomalies are calculated. This results in five separate forecasts, which are averaged to provide the forecast depicted.

- ++ much above normal
- + above normal
- N normal
- below normal
- much below normal



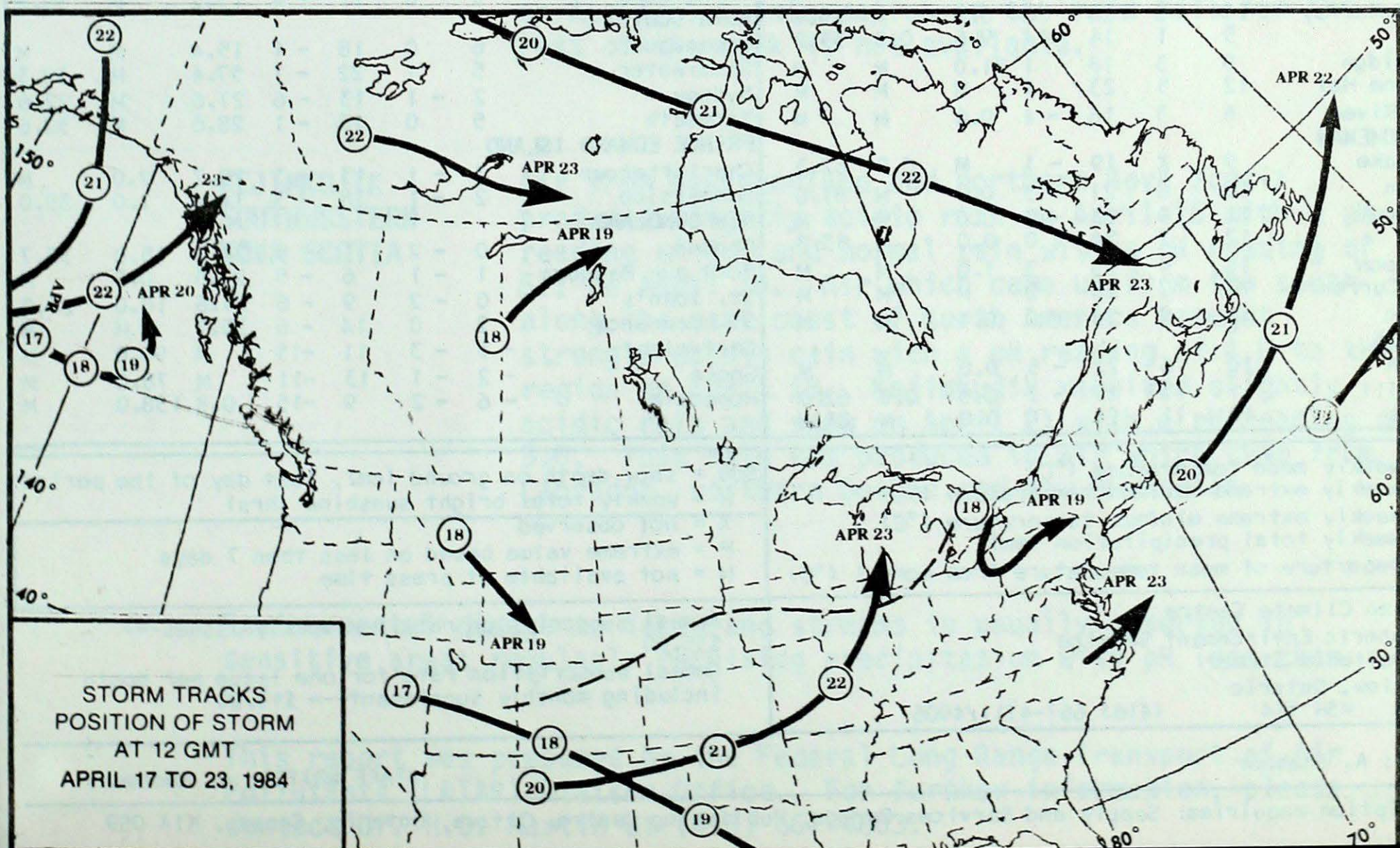


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 treacherous and some roads were closed. Spring arrived in the

Maritimes over the weekend, the temperatures rose to record values in the low twenties in Nova Scotia

but wintry weather remained in Newfoundland.

STORM TRACKS





## TEMPERATURE, PRECIPITATION AND BRIGHT SUNSHINE DATA FOR THE WEEK ENDING 0600 GMT APRIL 24, 1984

STATION	TEMP				PRECIP		SUN	STATION	TEMP				PRECIP		SUN
	Av	Dp	Mx	Mn	Tp	SOG	H		Av	Dp	Mx	Mn	Tp	SOG	H
<b>YUKON TERRITORY</b>								Thompson	10	10	24	-3	1.6	M	88.5
Dawson	3	4	12	-7	4.1	M	M	Winnipeg	11	6	24	-3	0.0	M	90.2
Mayo A	3	3	13	-8	2.8	M	M	<b>ONTARIO</b>							
Watson Lake	3	3	11	-9	2.9	0.0	57.4	Big Trout Lake	6	9	23	-9	0.0	M	M
Whitehorse	4	3	12	-8	0.2	M	M	Earlton	6	2	20	-5	M	M	M
<b>NORTHWEST TERRITORIES</b>								Kapuskasing	5	3	22	-7	0.0	M	M
Fort Smith	8	10	-21	-2	0.4	M	M	Kenora	11	7	22	-2	0.0	M	M
Inuvik	-13	0	-4	-19	6.6	73.0	M	London	6	-2	13	1	20.0	M	19.9
Norman Wells	-2	3	10	-10	0.0	0.0	56.4	Moosonee	4	4	24	-9	0.0	M	75.1
Yellowknife	4	10	14	-3	0.8	M	82.0	Muskoka	6	0	14	-4	M	M	M
Baker Lake	-7	8	5	-22	6.2	59.0	M	North Bay	6	1	16	-5	5.6	M	34.6
Cape Dyer	-15	0	-8	-25	11.6	60.0	M	Ottawa	7	0	18	-1	2.2	M	36.0
Clyde	-16	1	-9	-28	3.8	95.0	63.1	Pickle Lake	7	7	21	-7	M	M	M
Frobisher Bay	-12	1	-1	-24	0.6	21.0	53.3	Red Lake	8	5	22	-7	0.0	M	92.0
Alert	-26	-3	-19	-32	0.4	13.0	130.0	Sudbury	6	0	16	-4	4.4	M	M
Eureka	-31	-6	-25	-37	0.0	12.0	122.4	Thunder Bay	6	2	21	-7	0.0	M	M
Hall Beach	-15	5	-1	-28	6.2	43.0	M	Timmins	5	2	20	-6	7.2	M	M
Resolute	-21	1	-13	-27	0.4	38.0	74.2	Toronto	6	-2	15	-2	4.6	M	M
Cambridge Bay	-14	6	-2	-22	0.6	43.0	46.8	Trenton	7	-1	15	-2	6.0	M	M
Mould Bay	-19	3	-11	-29	0.2	24.0	M	Warton	6	-1	15	0	8.3	M	35.4
Sachs Harbour	-11	8	-5	-17	0.2	15.0	39.1	Windsor	6	-4	14	1	24.4	M	M
<b>BRITISH COLUMBIA</b>								<b>QUEBEC</b>							
Cape St. James	6	0	10	1	21.0	0.0	M	Bagotville	5	1	22	-6	7.0	M	M
Cranbrook	8	3	15	-1	18.9	M	32.6	Blanc-Sablon	-4	-2	0	-12	8.4	22.0	M
Fort Nelson	7	4	17	-5	0.0	M	57.0	Inukjuak	-4	4	4	-13	0.0	18.0	44.7
Fort St. John	7	3	13	0	10.0	M	M	Kuujuuaq	-4	3	6	-19	0.4	49.0	26.9
Kamloops	10	1	19	0	0.0	M	36.9	Kuujuarapik	0	4	8	-10	M	0.0	M
Penticton	9	0	19	0	1.8	M	44.5	Maniwaki	6	0	20	-7	1.8	0.0	42.4
Port Hardy	7	1	14	0	33.2	M	41.6	Mont-Joli	3	0	14	-3	3.8	M	33.3
Prince George	6	1	15	2	4.8	M	M	Montréal	6	-1	19	-5	8.2	M	47.0
Prince Rupert	7	1	13	0	49.0	M	28.5	Natashquan	-1	-1	3	-8	M	28.0	M
Revelstoke	9	2	16	0	27.4	M	20.5	Nitchequon	-2	3	9	-12	3.0	9.0	44.3
Smithers	5	1	14	-5	6.4	M	40.1	Québec	4	0	19	-5	1.2	0.0	45.5
Vancouver	9	0	15	4	14.6	M	43.5	Schefferville	-4	1	9	-16	4.4	60.0	39.5
Victoria	8	-1	15	2	16.7	M	52.8	Sept-Îles	0	-1	10	-8	39.9	28.0	38.1
Williams Lake	4	-1	14	-4	1.2	M	39.1	Sherbrooke	6	1	20	-5	2.4	M	36.0
<b>ALBERTA</b>								Val-d'Or	4	1	20	-7	4.8	M	52.4
Calgary	7	3	19	-1	14.5	M	34.0	<b>NEW BRUNSWICK</b>							
Cold Lake	11	8	22	3	6.7	M	50.9	Charlo	3	1	16	-3	11.8	18.0	39.8
Coronation	9	5	21	-1	17.2	M	46.4	Fredericton	5	-1	23	-4	15.1	0.0	M
Edmonton Namao	8	4	20	0	3.8	M	M	Saint John	5	0	17	-4	13.2	M	30.8
Fort McMurray	10	8	24	0	0.8	M	49.4	<b>NOVA SCOTIA</b>							
Jasper	5	1	14	-4	9.6	0.0	33.2	Greenwood	6	0	18	-1	15.4	M	M
Lethbridge	9	3	18	1	21.0	M	M	Shearwater	5	1	22	-1	57.4	M	32.3
Medicine Hat	12	5	23	4	M	M	M	Sydney	2	-1	13	-6	27.6	M	22.6
Peace River	6	3	16	-4	0.0	M	M	Yarmouth	5	0	16	-1	28.6	M	32.6
<b>SASKATCHEWAN</b>								<b>PRINCE EDWARD ISLAND</b>							
Cree Lake	9	X	19	-1	M	0.0	62.3	Charlottetown	3	-1	13	-3	26.7	2.0	M
Estevan	10	6	21	-3	0.0	M	81.0	Summerside	2	-1	16	-3	14.4	1.0	35.0
La Ronge	11	9	24	-3	0.0	M	M	<b>NEWFOUNDLAND</b>							
Regina	12	7	24	0	0.0	M	83.8	Gander	0	-2	11	-8	24.0	15.0	37.7
Saskatoon	14	9	25	3	1.0	M	M	Port aux Basques	1	-1	6	-5	20.0	0.0	M
Swift Current	12	7	26	2	M	M	M	St. John's	0	-2	9	-6	35.6	10.0	24.0
Yorkton	11	7	24	0	0.4	M	M	St. Lawrence	2	0	14	-6	35.7	M	M
<b>MANITOBA</b>								Cartwright	-5	-3	11	-15	M	90.0	M
Brandon	10	6	22	-5	0.0	M	M	Goose	-2	-1	13	-11	M	78.0	M
Churchill	1	11	19	-7	0.0	0.0	62.0	Hopedale	-6	-2	9	-15	0.8	138.0	M
The Pas	12	11	24	0	0.0	M	84.8								

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

M = not available at press time

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**LONGWOODS  
NEAR LONDON  
ONTARIO**

Air which passed over Maryland and Pennsylvania brought strongly acidic rain with a pH reading of 3.6 to Longwoods on April 15. On the next day April 16 air which had passed over the state of New York and southern Ontario produced moderately acidic rain and snow with a pH reading of 4.4. On April 17 and 18 Longwoods received strongly acidic rain with pH readings of 3.9 and 3.5 respectively. These rain events were associated with air which came from northern Quebec and northern Ontario and passed over the Sudbury Basin and Lake Huron.

**DORSET  
MUSKOKA  
ONTARIO**

Dorset received moderately acidic rain April 15 with a pH reading of 4.4 and slightly acidic rain and snow April 16 and 17 with pH readings of 5.0 and 4.8 respectively. These precipitation events were associated with air which passed over New England, New York and southern Ontario.

**CHALK RIVER  
OTTAWA VALLEY  
ONTARIO**

Air which passed over New England, New York and southern Ontario brought strongly acidic rain to Chalk River on April 15 with a pH reading of 3.9. The next day April 16 Chalk River received a large amount of normal rain with a pH reading of 5.4. This rain was produced in air which had passed over Maine and southern Quebec.

**MONTMORENCY  
QUEBEC CITY  
QUEBEC**

Air which passed over New Brunswick, Maine and southern Quebec brought a small amount of moderately acidic rain with a pH reading of 4.5 to Montmorency on April 15. Information on the rain fall for the rest of the week is not available.

**KEJIMKUJIK  
SOUTHWESTERN  
NOVA SCOTIA**

Air from Newfoundland and northern Nova Scotia produced slightly acidic rain on April 15 with a pH reading of 4.7 and normal rain with a pH reading of 5.1 on April 16. Air which came up from the south along the east coast of North America brought strongly acidic rain with a pH reading of 4.0 to the region on April 18. Kejimkujik received slightly acidic rain and snow on April 21 with a pH reading of 5.0. This rain was produced in air which came from Labrador, northern Quebec and New Brunswick.

Environmental damage to lakes and streams is usually observed in sensitive areas regularly receiving precipitation with pH less than 4.7.

This report was prepared by the Federal Long Range Transport of Air Pollutants (LRTAP) Liaison Office. For further information, please contact Dr. H.C. Martin at (416) 667-4803.