



Climatic Perspectives

A WEEKLY REVIEW OF CANADIAN CLIMATE

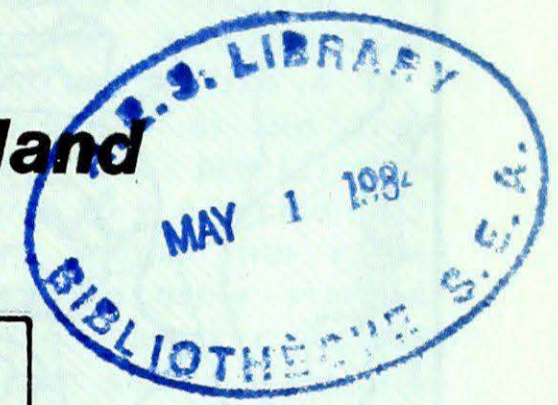
APRIL 19, 1984

(Aussi disponible en français)

VOL. 6 NO. 15

FOR THE PERIOD APRIL 10 TO 16, 1984

• Worst ice storm in decades hits Newfoundland



THE MAIL-STAR Monday, April 16, 1984

Residents play musical houses Winter may be gone, not forgotten

Ice storm leaves St. John's powerless Full restoration of power expected to take a week

Fierce storm pounds Cumberland Three injured in accident

ST. JOHN'S, Nfld. (CP) — Some local residents spent much of Sunday playing a game of musical houses as the provincial capital remained electrically powerless after parts of the city were cut off by the storm.

Those who were left with electricity — some in a house, enjoying a few minutes of power before an emergency power outage — were away, was trans-

ST. JOHN'S (CP) — Fresh meat Some stores were selling perishables at fire-sale prices and the big grocery

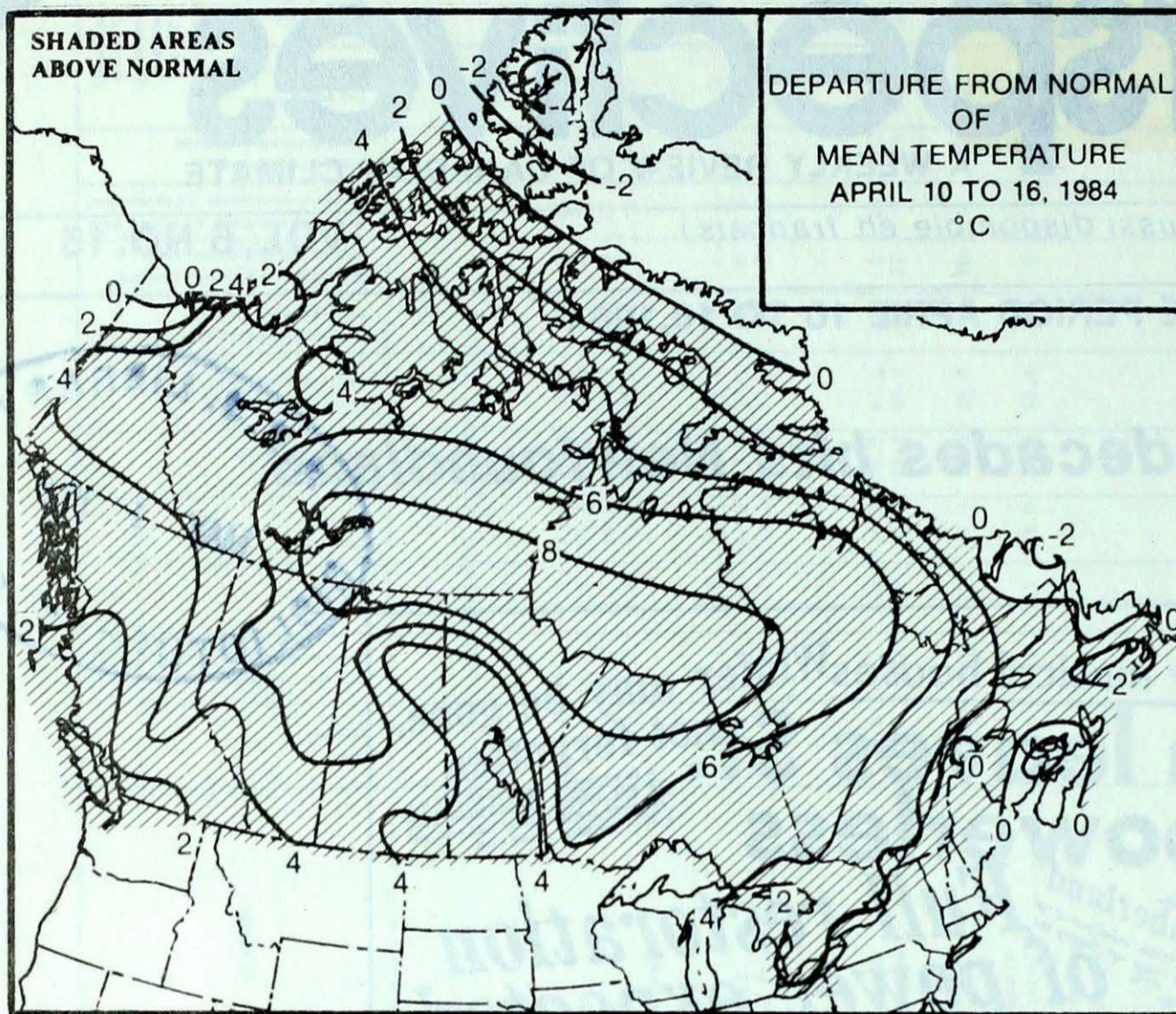
AMHERST — The second winter storm to hit Cumberland County in the only other mishap reported by police throughout the county occurred in Amherst.

1 to 10 centimetres from Truro to the New Brunswick border, Truro and winds gusting reported light snow and 15-75 kilometre gusting winds.

A vicious ice storm glazed southeastern Newfoundland on the weekend. The ice storm, the worst since 1958 to hit Newfoundland, covered utility lines and roads with ice nearly 25 mm thick. Under the heavy load of ice, power lines snapped, and trees toppled. St. John's was the hardest hit, nearly 200,000 homes suffered blackout and heat loss. Customers stood in line for hours to buy propane stoves, cooking stoves and fuels. ...continued on page 5

- Wind storm causes extensive damage in British Columbia
- Summer heat on the Prairies..... threat of forest fires rises.



**ACROSS THE COUNTRY...****Yukon and Northwest Territories**

Except for the eastern Baffin Island and the High Arctic, almost all of the North experienced balmy temperatures that were 5 to 9 degrees above normal. Daytime readings climbed to near 12° in the southern Yukon. In contrast, the temperatures did not rise much above -30° all week at some of the far northern locations. Precipitation was light and sporadic throughout the Arctic; however, Cape Hooper received nearly 15 mm. Depth of snow on the ground ranged from 95 cm at Clyde to trace amounts in the southern Yukon.

British Columbia

A moist onshore flow resulted in a continuation of predominantly cloudy unsettled weather, even though temperatures remained on the mild side. Mean temperatures ranged from near normal on Vancouver Island to more than 5° above normal in the Peace River District. Over the weekend a strong southerly flow allowed temperatures to soar into the mid-to upper twenties in the southern Interior. On April 15, maximum temperatures at Castlegar and Kamloops reached 28 and 29 degrees, respectively - new records for the date. Precipitation for the week was variable. Amounts ranged from nil in the Peace River District and the Kootanys to more than 150 mm in the Queen Charlotte Islands.

Prairies

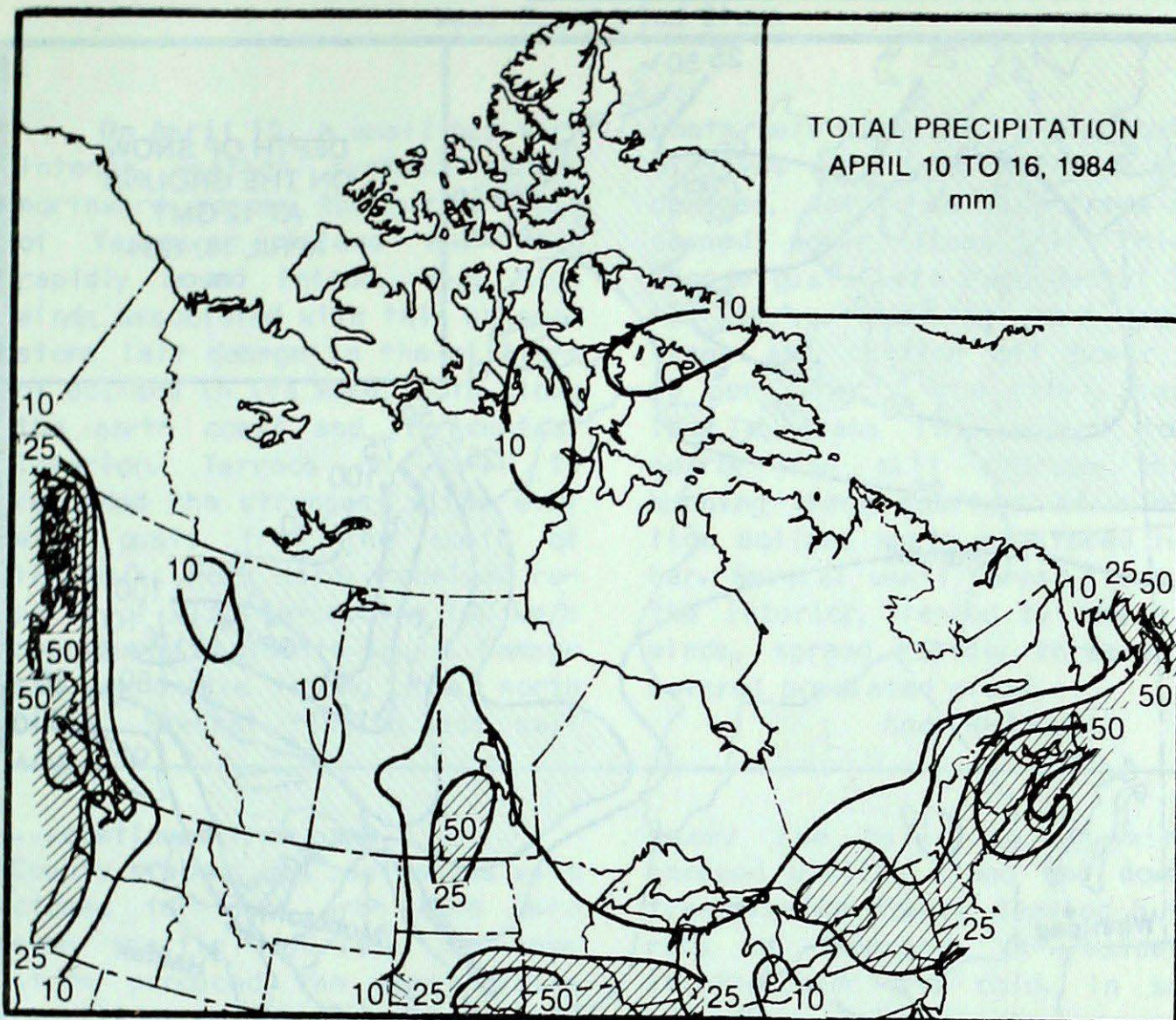
Alberta enjoyed a glorious spring week. Daytime temperatures climbed from the mid-teens to the 23 to 30 degree range by the week's end. Across Alberta and parts of Saskatchewan many longstanding maximum temperature records were shattered. Daytime temperature at both Edmonton and Medicine Hat reached 30° on April 16. In Addition, several new monthly maximum temperature records were established in Alberta. In contrast, the eastern portion of the southern agricultural district experienced unsettled and wet weather conditions. Much needed rain fell in the critically dry areas

WEEKLY TEMPERATURES EXTREMES (°C)

	<u>MAXIMUM</u>	<u>MINIMUM</u>
YUKON TERRITORY	10.9 Dawson Mayo	-26.6 Shingle Point
NORTHWEST TERRITORIES	21.4 Fort Smith	-38.9 Eureka
BRITISH COLUMBIA	29.2 Kamloops	-7.0 Puntzi Mountain
ALBERTA	29.7 Edmonton Lethbridge	-7.5 Edson Red Deer Rocky Mountain
SASKATCHEWAN	28.3 Kindersley	-9.0 Collins Bay
MANITOBA	19.1 Bissett	-9.8 Thompson
ONTARIO	18.7 Muskoka	-8.2 Geraldton
QUEBEC	17.3 Maniwaki	-18.5 Nitchequon
NEW BRUNSWICK	13.1 St. Stephen	-6.5 Miscou Island
NOVA SCOTIA	14.5 Shelburne Yarmouth	-4.8 Yarmouth
PRINCE EDWARD ISLAND	8.0 Charlottetown	-4.2 Summerside
NEWFOUNDLAND	14.1 Goose	-24.8 Churchill Falls

ACROSS THE NATION

Warmest mean temperature	11.6	Kamloops, BC
Coollest mean temperature	-34.3	Eureka, NWT



HEAVIEST WEEKLY PRECIPITATION (mm)

YUKON	8.0	Dawson
NORTHWEST TERRITORIES	16.7	Hall Beach
BRITISH COLUMBIA	156.2	McInnes Island
ALBERTA	12.8	Cold Lake
SASKATCHEWAN	19.8	Yorkton
MANITOBA	42.8	Brandon
ONTARIO	47.7	Trenton
QUEBEC	37.4	Maniwaki
NEW BRUNSWICK	84.2	Moncton
NOVA SCOTIA	71.5	Shelburne
PRINCE EDWARD ISLAND	64.3	Charlottetown
NEWFOUNDLAND	105.5	St. John's

Warm and dry weather favours early forest fire season in western Canada

Very warm temperatures and consistently below normal precipitation over the past several months have created the right environment for the early start of the forest fire season in western Canada. During mid-April,

the temperatures climbed to near 30° in areas that have been critically dry. Several major forest fires, fanned by 100 km/h burned stored timber worth near \$0.75 million and threatened some communities in British Columbia.

of southern Manitoba. Precipitation amounts ranged between 20 to 50 millimetres somewhat improving soil moisture reserves.

Ontario

Dry and warm weather continued across Northwestern Ontario. Many northern locations have now been without precipitation from 4 to 6 weeks; for example, at Big Trout Lake no measurable precipitation fell since March 15 - a period of 32 days. The dry weather has raised concerns about the early start of the forest fire season, especially since the winter snowfall was also below normal.

In the South, sunny skies and warm temperatures early in the week succumbed to cool and dull weather as a series of slow moving weather systems crossed the lower Great Lakes. Although most stations received less than 20 mm of rain, over 33 mm fell at Trenton. By the end of the week, almost all of the Province was without significant snow cover.

Québec

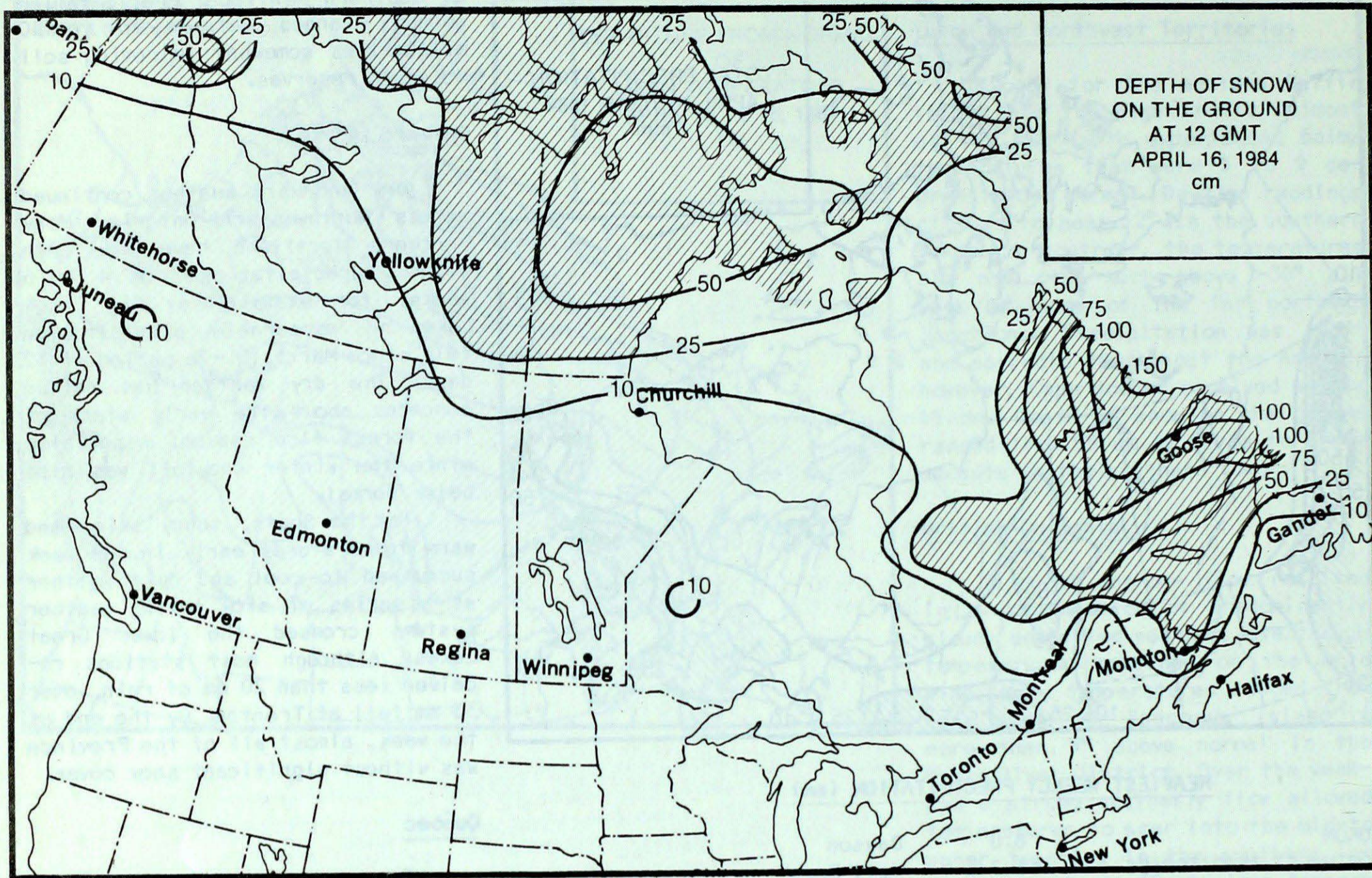
Record warmth covered Québec. Sunny, skies and warm temperatures in the mid-teens produced spring-like weather. At least 15 daily warm temperature records were set from central to southern Québec. As well, 3 monthly warm readings were tied. Due to a meager rainfall this week, danger of flooding was minimal; however, the Chaudiere River showed signs of flooding. Near Québec City, cold temperatures stopped flow of maple sap. Except for some limited skiing in the Eastern Townships and at Québec City, spring skiing was virtually over for the season.

Atlantic Provinces

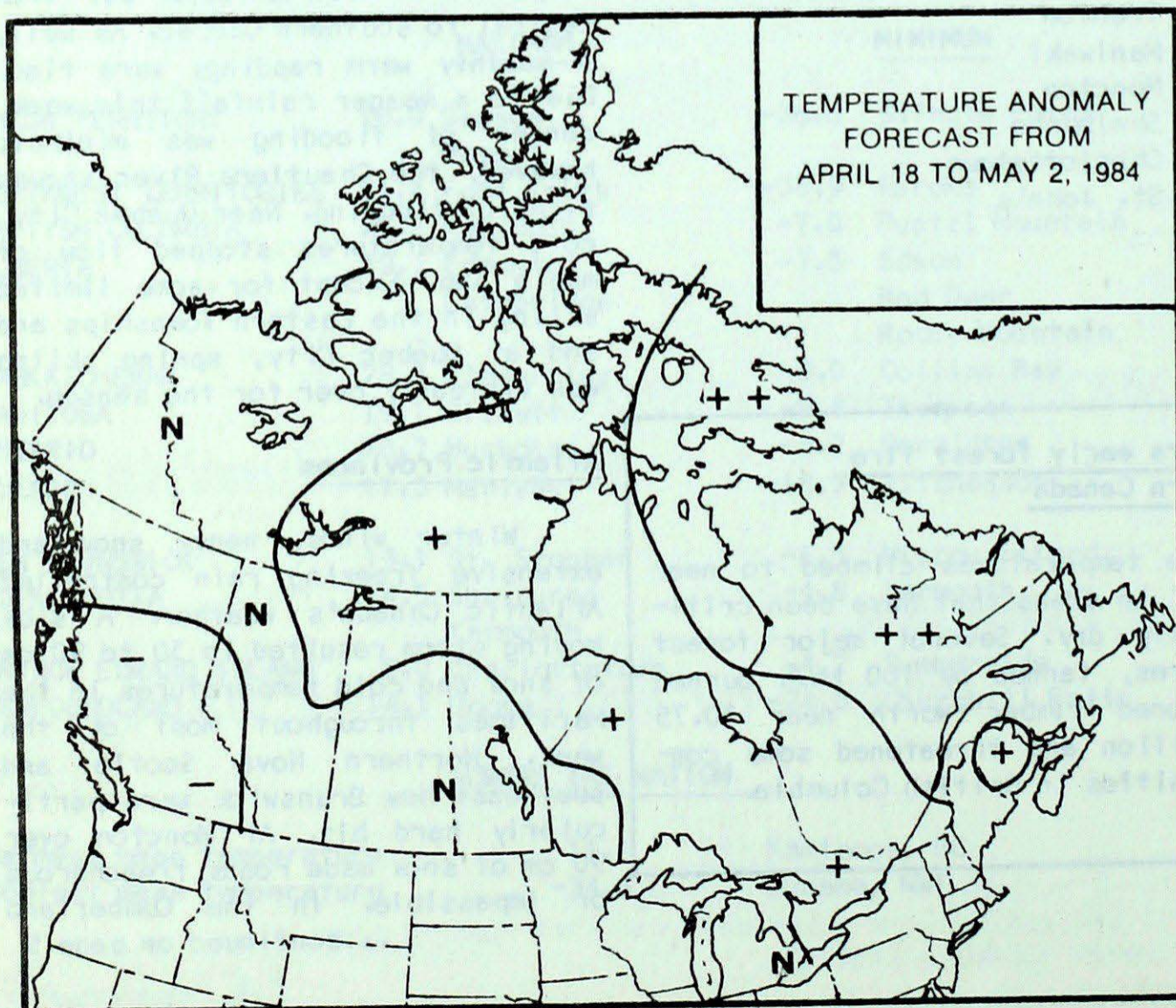
Winter winds, heavy snow and extensive freezing rain controlled Atlantic Canada's weather. A slow moving storm resulted in 30 to 90 cm of snow and cold temperatures in the Maritimes throughout most of the week. Northern Nova Scotia and southeast New Brunswick were particularly hard hit. At Moncton over 90 cm of snow made roads treacherous or impassible. In the Cumberland

...continued on page 5

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

West Coast Wind Storm

On April 15, a small but very intense weather system tracked northward across the north coast of Vancouver Island and then rapidly moved inland. Very high winds associated with this unusual storm left damage in the millions of dollars in its wake, both along the north coast and the central interior. Terrace on April 15 recorded the strongest winds ever with gusts from the south of 124 km/h. Port Hardy received reports of winds exceeding 100 km/h near Queen Charlotte Sound. Damage was extensive along the north coast. Several fishing and sail

boats were capsized, and a number of lives were lost. Aircraft were damaged, not to mention trees and downed power lines. At Prince George gusts were recorded at 107 107 km/h, knocking down power lines and cutting off power to 60 per cent of the city. Sparks from a grass fire spread to a nearby saw mill storage yard, burning three quarters of a million dollars worth of stored lumber. Several small forest fires in the interior, fanned by the high winds, spread rapidly threatening several populated areas.

Andy Radomski

Ice Storm In Newfoundland

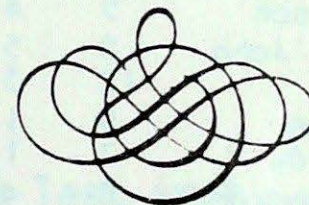
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Non-electric fuels such as kerosene, propane and dry woods were sold at premium prices. Because of the refrigeration break down fresh food was sold at discount. Two houses burned and many were extensively damaged as fireplaces malfunctioned. The blackout prevented local newspapers from publishing at St. John's. Historically, on February 27 - March 2, 1958, a severe ice storm occurred at St. John's Nfld. Nearly 43 hours of freezing rain left thousands of people without heat and light for several days.

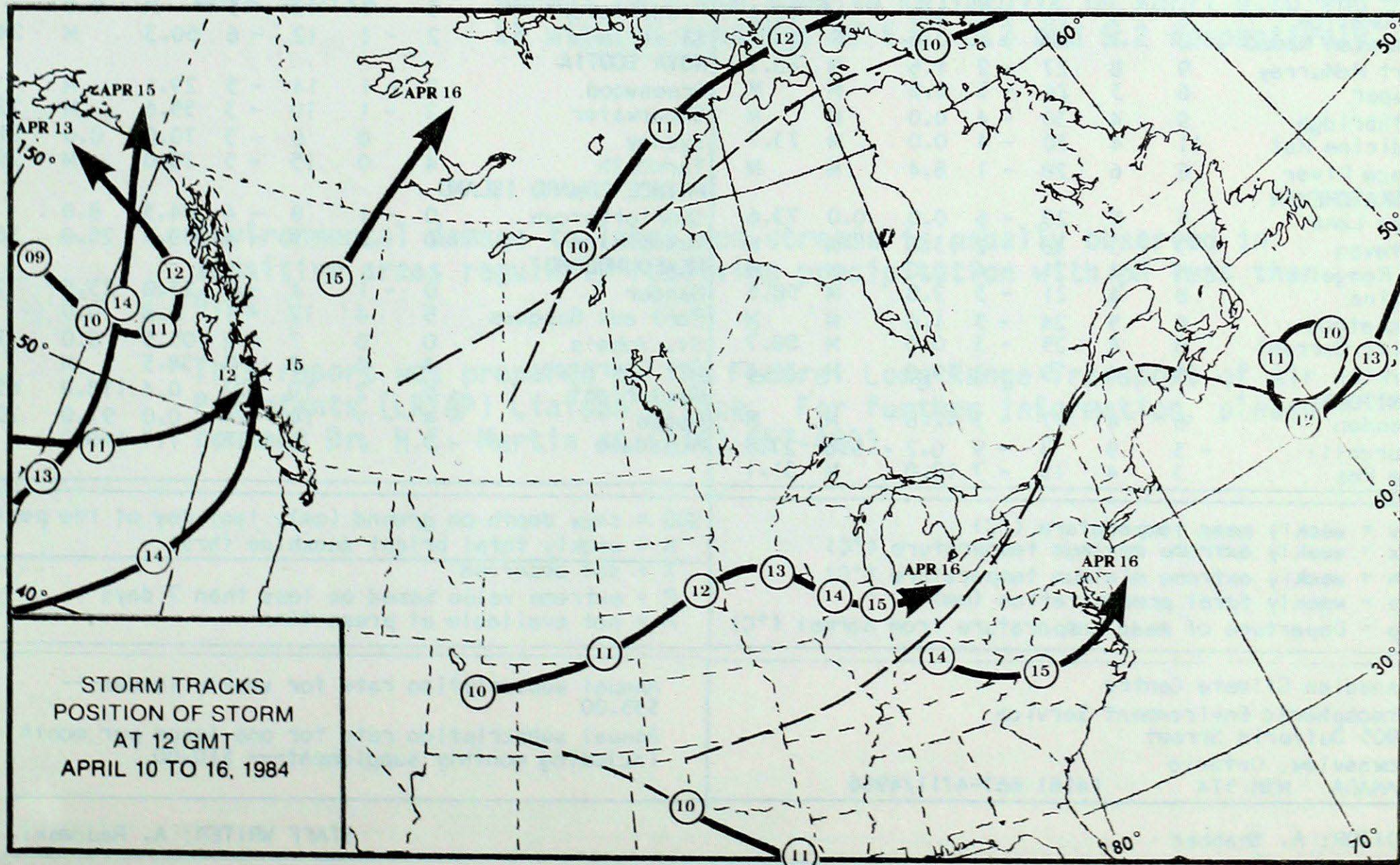
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County schools and businesses were closed for days and there were some traffic injuries. The same storm produced the worst icing conditions on the Avalon Peninsula in nearly 26 years. At St. John's,

heavy ice build up on wires snapped utility lines and downed transmission towers leaving hundreds of thousands of residents in the dark and cold. In some locations, electricity was not expected for nearly a week.



STORM TRACKS



TEMPERATURE, PRECIPITATION AND BRIGHT SUNSHINE DATA FOR THE WEEK ENDING 0600 GMT APRIL 17, 1984

STATION	TEMP				PRECIP		SUN	STATION	TEMP				PRECIP		SUN
	Av	Dp	Mx	Mn	Tp	SOG	H		Av	Dp	Mx	Mn	Tp	SOG	H
YUKON TERRITORY								Thompson	1	2	15	-10	3.0	0.0	27.4
Dawson	2	4	11	-5	8.0	5.0	M	Winnipeg	7	4	19	-5	16.6	M	50.9
Mayo A	4	5	11	-8	0.2	1.0	M	ONTARIO							
Watson Lake	3	3	9	-3	5.5	5.0	M	Big Trout Lake	4	9	15	-7	0.0	2.0	M
Whitehorse	3	3	9	-4	1.2	M	38.2	Earlton	6	4	18	-4	M	M	M
NORTHWEST TERRITORIES								Kapusking	6	6	18	-4	0.0	0.0	M
Fort Smith	6	10	21	-7	0.2	M	M	Kenora	9	7	18	0	9.1	M	M
Inuvik	-14	1	-5	-19	2.0	70.0	3.0	London	8	3	18	-2	21.8	M	42.7
Norman Wells	-3	5	3	-12	6.1	9.0	M	Moosonee	2	4	11	-6	0.0	3.0	M
Yellowknife	0	8	12	-12	3.4	1.0	M	Muskoka	7	3	19	-6	M	M	M
Baker Lake	-12	6	3	-24	9.2	77.0	40.2	North Bay	7	4	18	-1	19.8	M	M
Cape Dyer	-18	-2	-10	-28	7.3	51.0	M	Ottawa	7	1	15	-3	41.4	M	38.7
Clyde	-21	-1	-12	-29	7.4	92.0	65.5	Pickle Lake	6	8	17	-5	0.0	10.0	M
Frobisher Bay	-15	1	0	-28	M	23.0	50.5	Red Lake	8	7	18	-4	1.1	0.0	60.7
Alert	-29	-3	-21	-35	0.0	14.0	134.4	Sudbury	6	4	18	-2	18.0	M	36.8
Eureka	-34	-5	-27	-39	0.0	12.0	91.8	Thunder Bay	7	5	16	0	0.0	M	47.1
Hall Beach	-19	3	-8	-33	16.7	38.0	M	Timmins	6	5	18	-6	0.0	M	M
Resolute	-24	0	-12	-32	0.0	38.0	95.3	Toronto	7	1	14	-4	17.2	M	M
Cambridge Bay	-18	4	-6	-28	0.8	42.0	52.5	Trenton	7	1	17	-3	47.7	M	M
Mould Bay	-20	5	-10	-30	0.0	25.0	53.0	Warton	6	1	17	-3	M	M	M
Sachs Harbour	-12	8	-6	-22	0.6	15.0	22.0	Windsor	M	M	19	-1	8.3	M	M
BRITISH COLUMBIA								QUEBEC							
Cape St. James	6	0	9	4	40.8	M	20.9	Bagotville	5	3	14	-7	9.2	1.0	M
Cranbrook	7	2	25	-3	0.0	M	61.4	Blanc-Sablon	-3	0	4	-8	1.2	56.0	M
Fort Nelson	5	4	17	-1	18.0	M	M	Inukjuak	-5	6	2	-18	0.0	24.0	69.0
Fort St. John	8	5	25	-3	0.0	M	M	Kuujuaq	-3	7	10	-18	0.2	57.0	42.9
Kamloops	12	3	29	1	1.0	M	36.3	Kuujuarapik	2	9	13	-8	0.0	8.0	85.6
Penticton	9	1	24	-2	6.7	M	M	Maniwaki	6	2	17	-6	37.4	0.0	41.1
Port Hardy	7	1	14	1	41.4	M	17.6	Mont-Joli	1	-1	8	-5	15.4	2.0	46.3
Prince George	8	4	25	-4	8.2	M	37.4	Montréal	7	1	15	-5	23.5	M	33.5
Prince Rupert	6	2	10	1	68.5	M	24.4	Natashquan	0	1	8	-7	5.0	30.0	M
Revelstoke	9	3	21	2	12.8	M	36.9	Nitchequon	1	8	13	-19	0.0	16.0	85.7
Smithers	5	1	14	-4	4.7	M	M	Québec	3	0	11	-6	10.4	9.0	33.1
Vancouver	10	1	18	3	36.8	M	14.8	Schefferville	-3	5	11	-17	0.0	60.0	71.4
Victoria	9	1	19	1	10.0	M	M	Sept-Îles	3	3	10	-6	0.2	37.0	53.1
Williams Lake	7	4	23	-3	0.0	M	M	Sherbrooke	5	1	15	-2	11.4	0.0	34.1
ALBERTA								Val-d'Or	5	4	15	-7	14.0	2.0	50.3
Calgary	9	6	27	-5	0.0	M	65.1	NEW BRUNSWICK							
Cold Lake	10	7	26	-2	12.8	M	56.6	Charlo	2	2	12	-6	31.8	32.0	31.0
Coronation	8	5	28	-4	0.0	M	72.3	Fredericton	3	-1	13	-5	M	0.0	M
Edmonton Namao	10	7	28	-2	0.6	M	M	Saint John	2	-1	12	-6	50.3	M	24.1
Fort McMurray	9	8	27	-2	1.6	M	48.7	NOVA SCOTIA							
Jasper	6	3	24	-5	6.8	M	M	Greenwood	2	-1	14	-5	29.1	M	M
Lethbridge	9	4	30	-4	0.0	M	M	Shearwater	2	-1	10	-3	55.6	M	22.8
Medicine Hat	11	4	30	-4	0.0	M	73.7	Sydney	1	0	8	-3	70.0	0.0	21.2
Peace River	8	6	28	-1	8.4	M	M	Yarmouth	4	0	15	-5	70.0	M	29.6
SASKATCHEWAN								PRINCE EDWARD ISLAND							
Cree Lake	5	X	20	-6	0.0	0.0	73.6	Charlottetown	0	-1	8	-4	64.3	8.0	M
Estevan	7	3	18	-2	13.8	M	M	Summerside	0	-2	7	-4	39.7	25.0	18.0
La Ronge	5	4	21	-4	0.0	M	M	NEWFOUNDLAND							
Regina	8	4	21	-3	2.8	M	58.6	Gander	0	-1	4	-4	23.0	23.0	7.6
Saskatoon	8	5	24	-3	1.6	M	M	Port aux Basques	5	4	12	-1	4.8	0.0	M
Swift Current	8	4	25	-3	0.0	M	80.7	St. John's	0	0	7	-2	105.5	0.0	1.2
Yorkton	6	4	19	-3	19.8	M	39.6	St. Lawrence	3	3	7	-3	38.5	M	M
MANITOBA								Cartwright	-5	-2	10	-23	0.4	118.0	65.0
Brandon	6	4	17	-3	42.8	M	M	Goose	-4	-1	14	-24	0.0	97.0	75.4
Churchill	-3	9	5	-9	0.2	6.0	27.5	Hopedale	-5	1	8	-15	1.7	149.0	M
The Pas	3	4	15	-7	10.0	M	31.1								

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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ACID RAIN REPORT ISSUED BY ENVIRONMENT CANADA FOR APR. 8-14, 1984

**LONGWOODS
NEAR LONDON
ONTARIO**

Air which passed through the Ohio Valley, West Virginia and Pennsylvania brought strongly acidic rain with a pH reading of 3.6 to Longwoods on April 14.

**DORSET
MUSKOKA
ONTARIO**

Air which passed through Pennsylvania, New York and southern Ontario produced strongly acidic rain with a pH reading of 3.9 on April 13 and slightly acidic rain with a pH reading of 4.8 on April 14.

**CHALK RIVER
OTTAWA VALLEY
ONTARIO**

Chalk River received strongly acidic rain on April 14 with a pH reading of 3.5. This rain was associated with air which had passed through Virginia, Pennsylvania and southern Ontario.

**MONTMORENCY
QUEBEC CITY
QUEBEC**

Montmorency received no precipitation last week.

**KEJIMKUJIK
SOUTHWESTERN
NOVA SCOTIA**

Air from the north which passed over Newfoundland, Prince Edward Island and northern Nova Scotia brought normal rain and snow to Kejimkujik on April 9, 10 and 12 with pH readings of 5.5, 5.2 and 5.2 respectively.

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.