

# CLIMATIC Perspectives

A WEEKLY REVIEW OF CANADIAN CLIMATE

DECEMBER 9, 1983

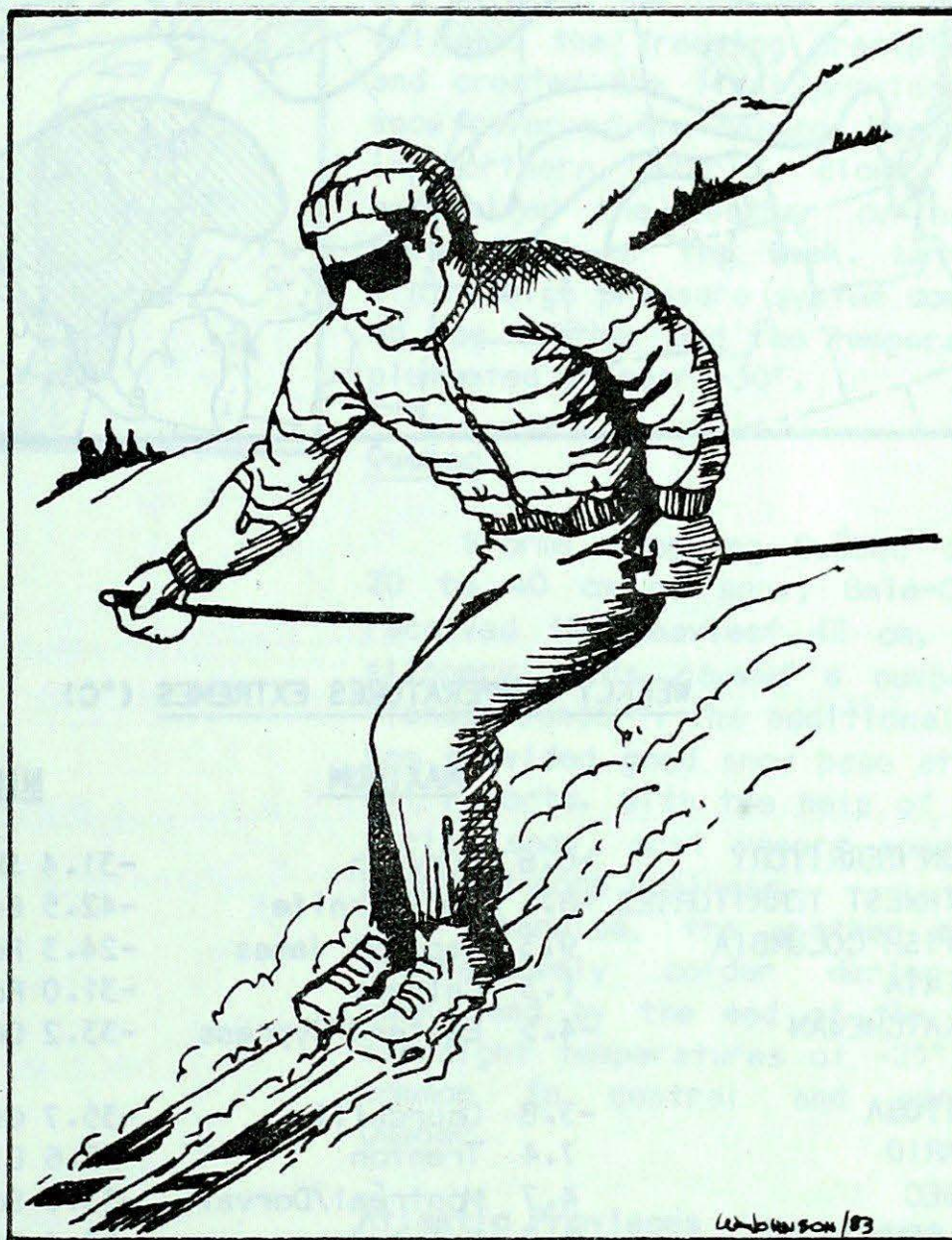
(Aussi disponible en français)

VOL. 5 NO. 49

FOR THE PERIOD NOVEMBER 29 TO DECEMBER 5, 1983

## ● Skiing season off to a good start across most of Canada

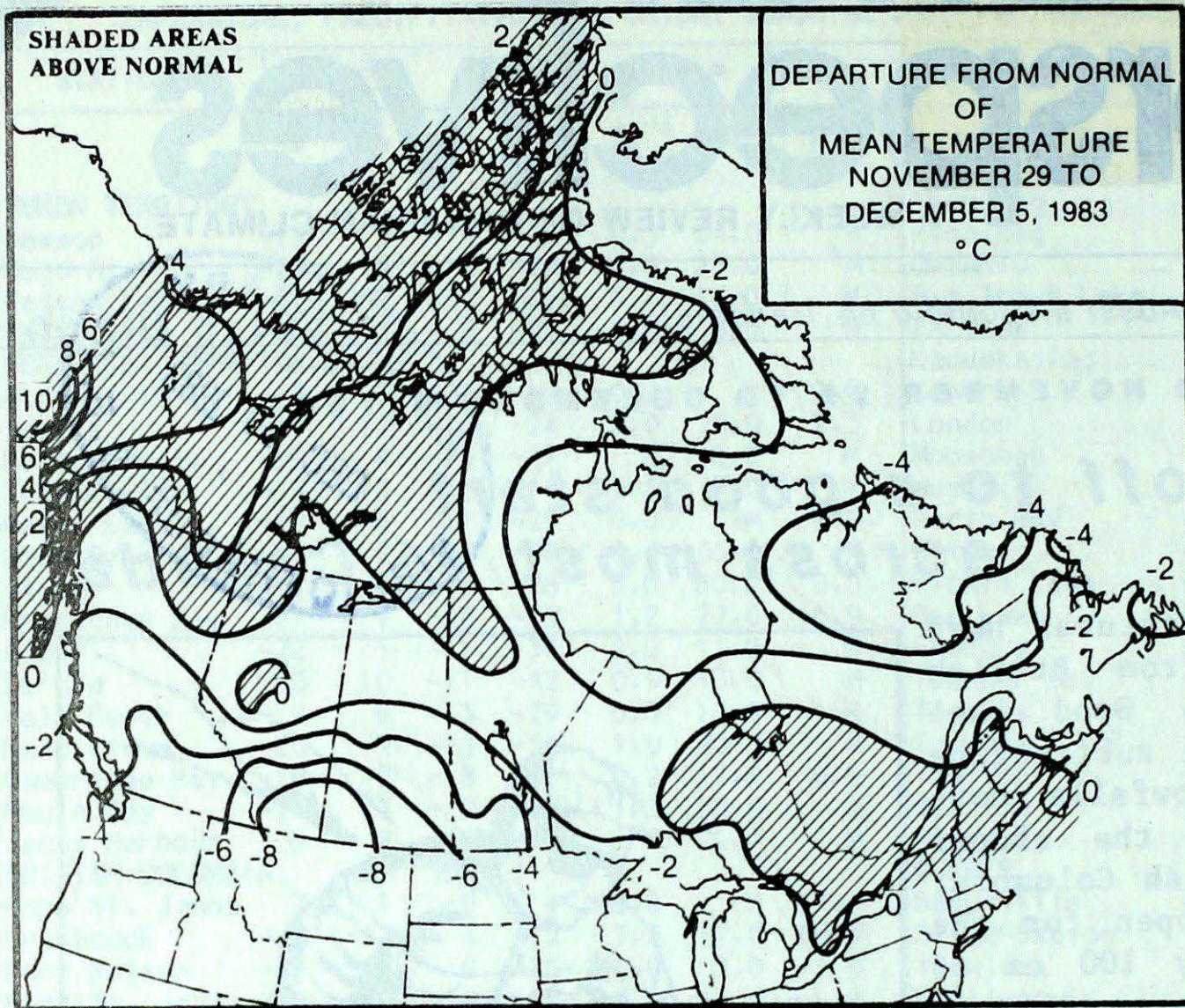
Ample snow and cold temperatures have allowed most ski resorts from British Columbia to Québec to open. Good base provided by artificial snow in subfreezing temperatures and frequent snowfalls have attracted ski enthusiasts to the slopes earlier than average. In British Columbia, almost all ski resorts were open for the season; some areas had nearly 100 cm of snow on the ground. In southern Alberta, Fortress in Kananaskis country was open, as well, Sunshine Village and Norquay in Banff have opened. At least a dozen ski resorts have commenced operation in southern Ontario. According to Donald McIlveen, Director of Ontario Ski Resorts Association: "The target date for the resorts openings is December 15. However, some ski operator have taken advantage of cold weather and the snowfall and have opened their gates to the public 2 to 3 weeks earlier this year, other could have opened also." Depth of snow on the ground ranged from 20 to 45 cm at southern Ontario's resorts. Some of the slopes that were open for business in the vicinity of Toronto included: Horse Shoe Valley, Devils Elbow and Mount St Louis. With good snow base, resorts near Québec City and Trois-Rivières provided good ski, but there was limited skiing available in the Laurentians and Eastern Townships.



## ● Ready for ice fishing ?

**Find out the average date of lake freeze up in your area** page 5

## ● Crew members airlifted from a storm-tossed freighter off Newfoundland



**ACROSS THE COUNTRY...**

**Yukon and Northwest Territories**

The above-normal temperature pattern that was established in November in the western two-thirds of the North continued into December. However, weekly mean values fell from nearly 14° above normal to about 4° above normal. Cold air continued to have its icy grip on Baffin Island, where the mercury remained 3 to 5 degrees below the norm. Snowfall was scant everywhere, Cape Dyer received the most - 22 cm. At the week's end, snow depth varied considerably across the Arctic. While southern Baffin Island had nearly 80 cm, cross-country ski enthusiasts were unhappy with only 4 cm on the ground at Whitehorse. Low clouds and fog persisted in the southern Yukon Valleys; larger lakes are not frozen over yet. See the average dates of Lake freeze-up on page 5.

**British Columbia**

A cold Arctic air mass and associated high pressure penetrated the province and gave predominantly sunny skies. Mean temperatures were 1 to 4 degrees below normal. Southern interior valleys received their first general snow cover this week. Several high November precipitation records were established across the south. Vancouver's November precipitation total of 350.8 mm was the highest on record for any calendar month.

**Prairies**

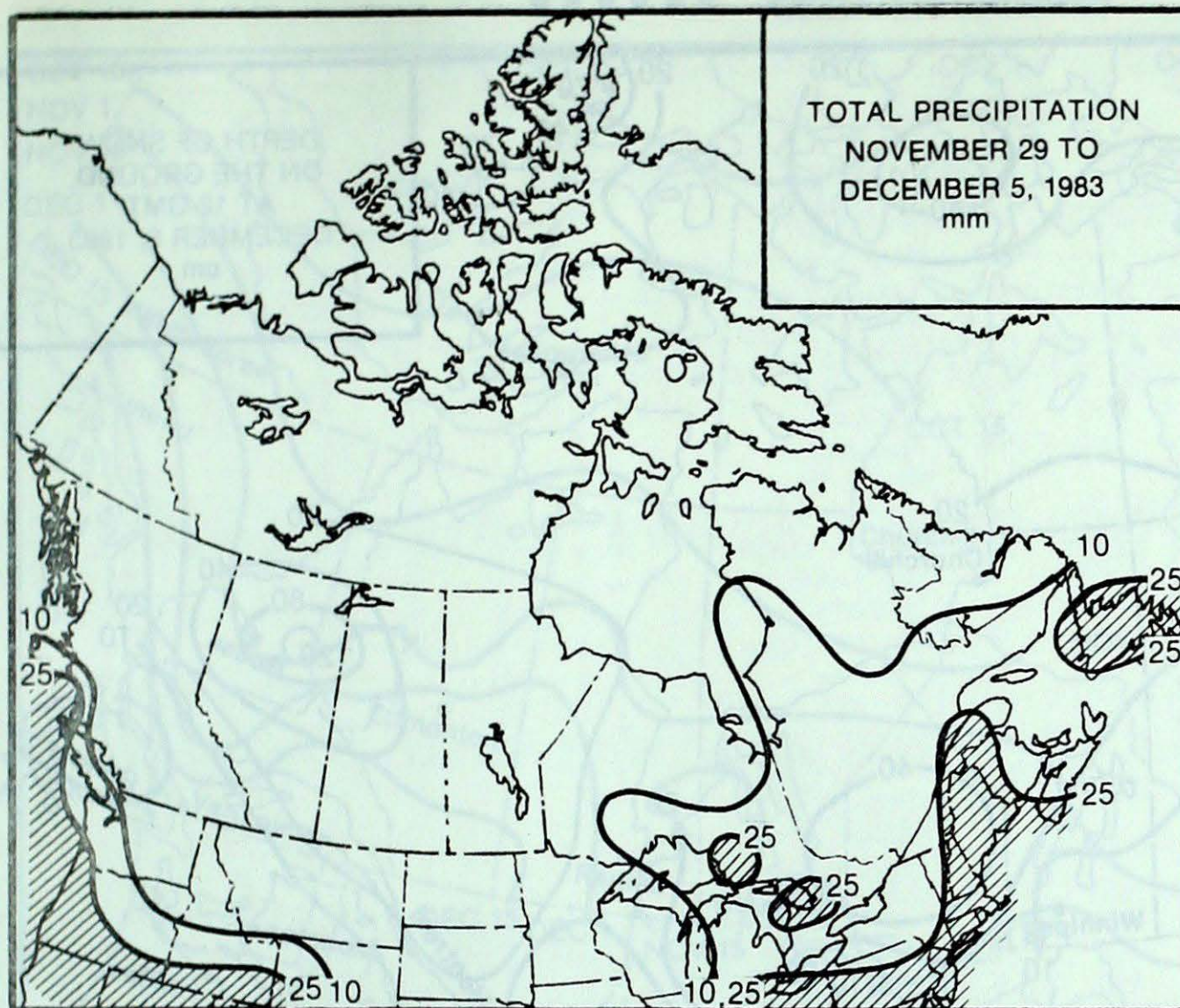
Relatively pleasant but cold weather conditions prevailed. Mean temperatures were 5 to 10 degrees below normal across the south. Daytime temperature readings remained well below the freezing mark, and dropped to -20 and -30 degrees at night. Several major ski resorts opened for the season, both at Banff and the Kananaskis District southwest of Calgary; other resorts are expected to be open soon.

**WEEKLY TEMPERATURES EXTREMES (°C)**

	<u>MAXIMUM</u>	<u>MINIMUM</u>
YUKON TERRITORY	-0.8 Burwash	-31.4 Shingle Point
NORTHWEST TERRITORIES	-6.1 Yellowknife	-42.5 Eureka
BRITISH COLUMBIA	9.3 Cape St James	-24.3 Fort Nelson
ALBERTA	1.3 Calgary	-31.0 Fort Chipewyan
SASKATCHEWAN	-4.5 Eastend Cypress	-33.2 Cree Lake
MANITOBA	-3.8 Churchill	-35.7 Gillam
ONTARIO	7.4 Trenton	-32.6 Big Trout Lake
QUEBEC	4.7 Montréal/Dorval	-33.0 Schefferville
NEW BRUNSWICK	6.7 Saint John	-17.4 St Stephen
NOVA SCOTIA	12.8 Shearwater	-9.3 Greenwood Truro
PRINCE EDWARD ISLAND	7.6 East Point	-9.0 Summerside
NEWFOUNDLAND	8.1 St. Lawrence	-33.3 Hopedale

**ACROSS THE NATION**

Warmest mean temperature	4.3	Amphitrite Point, BC
Coollest mean temperature	-28.7	Pelly Bay, NWT



#### HEAVIEST WEEKLY PRECIPITATION (mm)

YUKON	4.7 Mayo
NORTHWEST TERRITORIES	22.4 Cape Dyer
BRITISH COLUMBIA	70.2 McInnes Island
ALBERTA	6.2 Slave Lake
SASKATCHEWAN	1.8 Collins Bay
MANITOBA	5.4 Churchill
ONTARIO	52.2 Wawa
QUEBEC	42.0 Bale-Comeau
NEW BRUNSWICK	19.8 Chatham
NOVA SCOTIA	40.0 Shelburne
PRINCE EDWARD ISLAND	14.6 Summerside
NEWFOUNDLAND	37.5 Stephenville

#### HISTORICALLY THIS WEEK...

A look into the past reveals some interesting events that happened at the end of November and early December.

##### Nov 30, 1917

The highest monthly precipitation total for Canada -2235.5 mm was reported at Swanson Bay, B.C.

##### Dec 1-2, 1964

One of the most violent storms in years struck the Maritime

Provinces with gales reaching gust speeds of 160 km/h. Three fishing boats, including two large draggers, were lost in the storm with a toll of 23 lives. Damage due to seas, wind and flooding were estimated in excess of one million dollars.

##### Dec 3, 1878

Forecasts were first made for the Maritime Provinces and transmitted to 20 locations in those provinces.

#### Ontario

Strong onshore flow of moist air created snow streamers in the lee of the lower Great Lakes that produced heavy snow and blowing snow throughout most of southern Ontario on December 1. Muskoka and Warton were the hardest hit with nearly 25 cm of snow, whereas London and Mount Forest had 5 to 10 cm. The additional snow and subfreezing temperatures were sufficient for some ski resorts to resume operation for the season. Once again, storms developing in the U.S. spread freezing rain in southern Ontario. Periods of snow closely followed the freezing precipitation and created the first province-wide snow cover of the season. Meanwhile, in northern Ontario, cloudy skies controlled the weather during the first half of the week. Later, a wintry high pressure system dominated the weather and the temperatures plummeted to near  $-30^{\circ}$ .

#### Québec

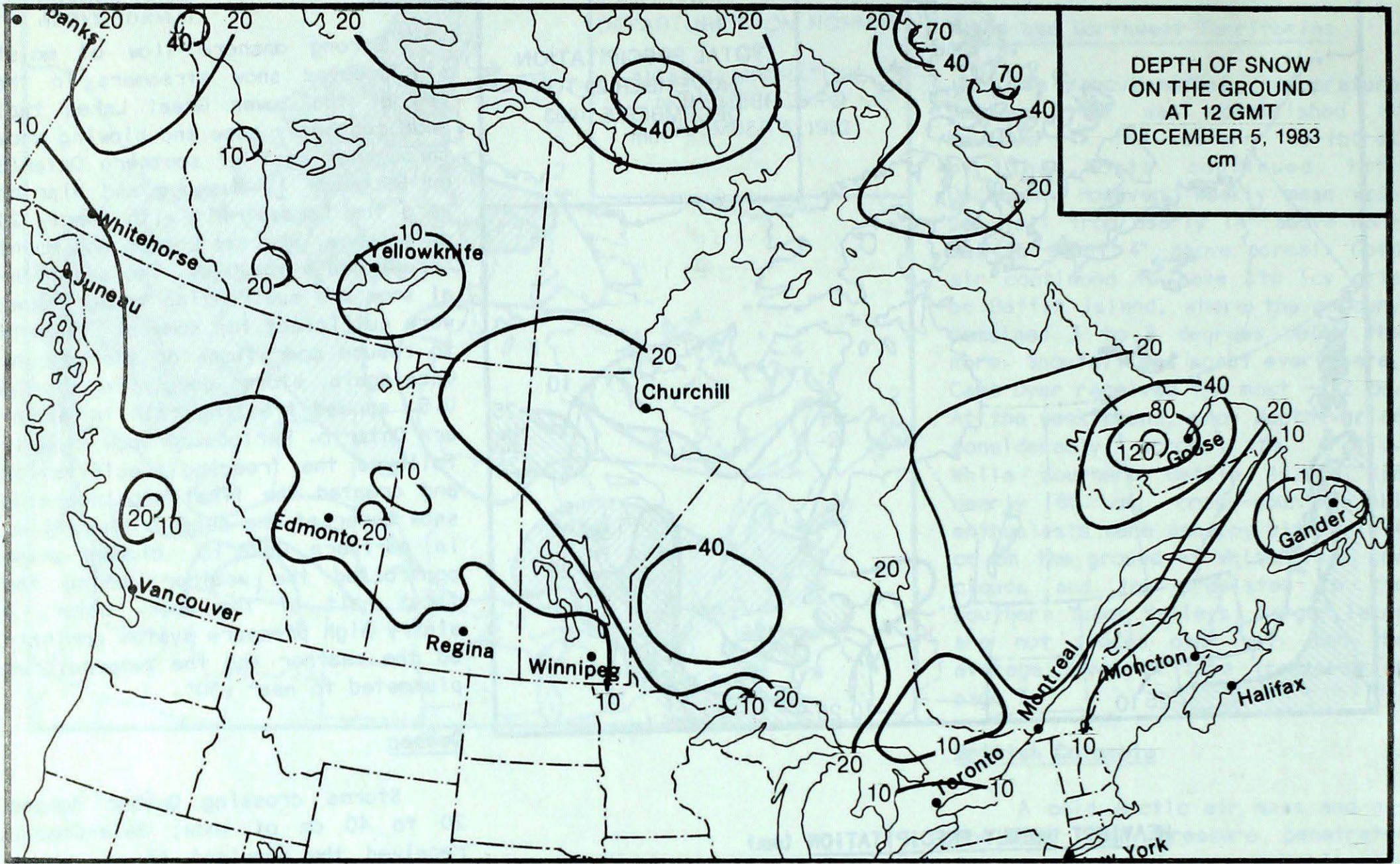
Storms crossing Québec dumped 20 to 40 cm of snow; Bale-Comeau received the heaviest 42 cm, where slippery roads caused a number of "fender bender". The additional snow has provided good snow base at many ski resorts. With the help of artificial snow, most resort operators reported good business.

Otherwise, the weather became progressively colder during the week, and by the end of the week, overnight temperatures of  $-25^{\circ}$  were common in central and northern Québec.

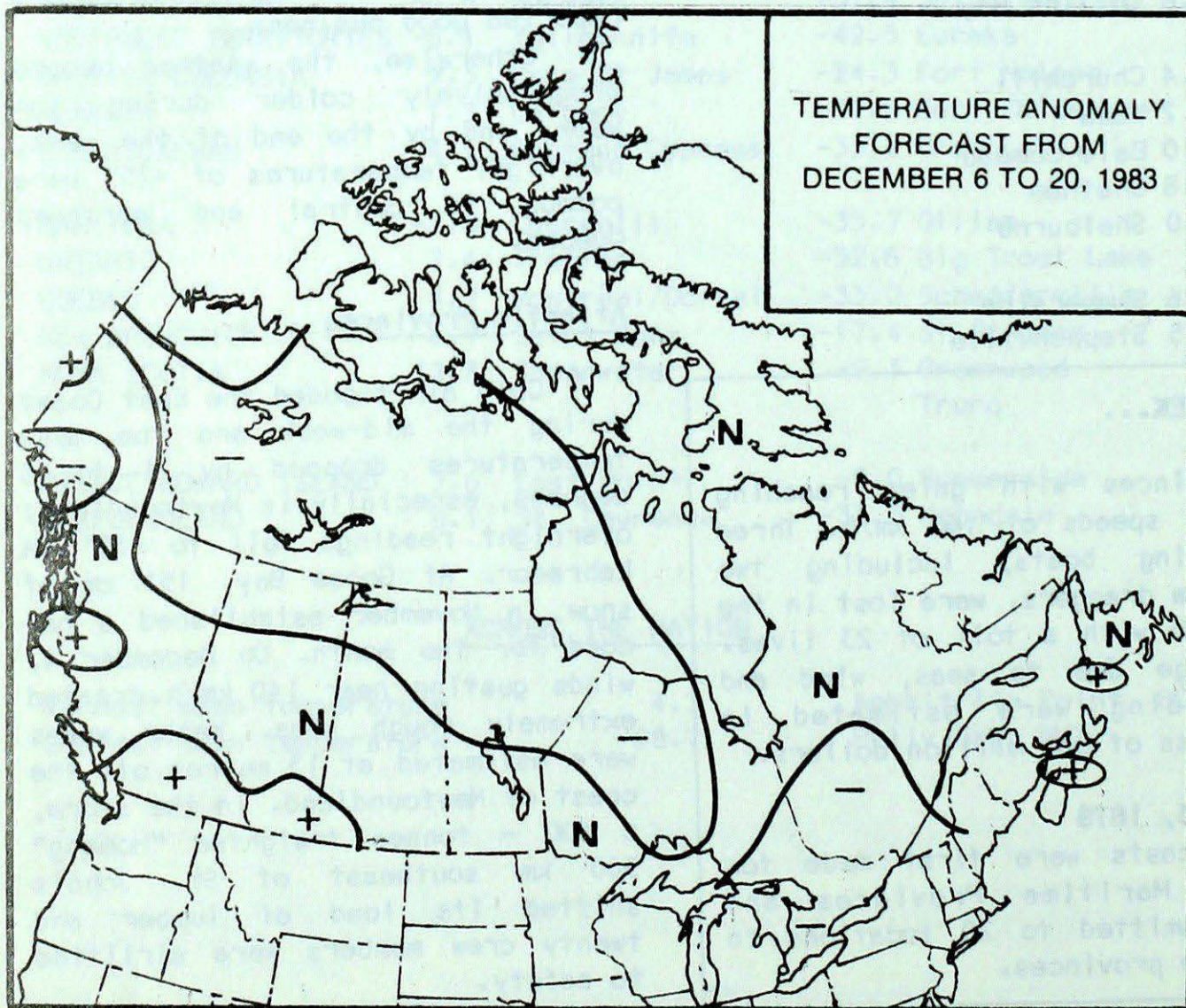
#### Atlantic Provinces

Cold air flooded the East Coast during the mid-week and the mean temperatures dropped by 4 to 6 degrees, especially in Newfoundland; overnight readings fell to  $-30^{\circ}$  in Labrador. At Goose Bay, 151 cm of snow in November established a record for the month. On December 4, winds gusting near 140 km/h created extremely rough seas. Water waves were estimated at 13 metres off the coast of Newfoundland. In the storm, a 600-tonnes freighter "Homeng" 300 km southeast of St. John's shifted its load of lumber and twenty crew members were airlifted to safety.

**SNOW DEPTH ON THE GROUND**



**TEMPERATURE ANOMALY FORECAST**

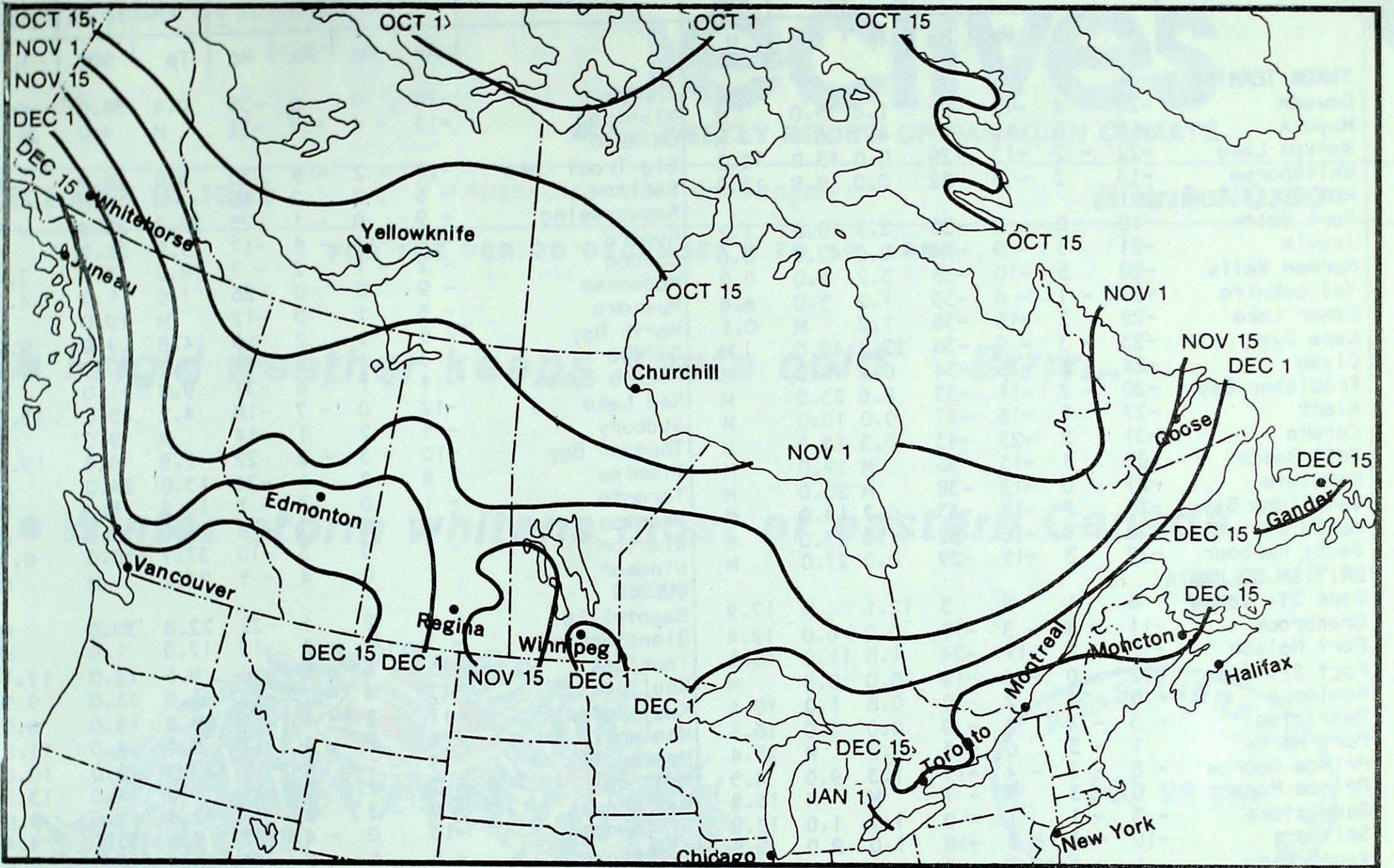


**Temperature Anomaly Forecast**

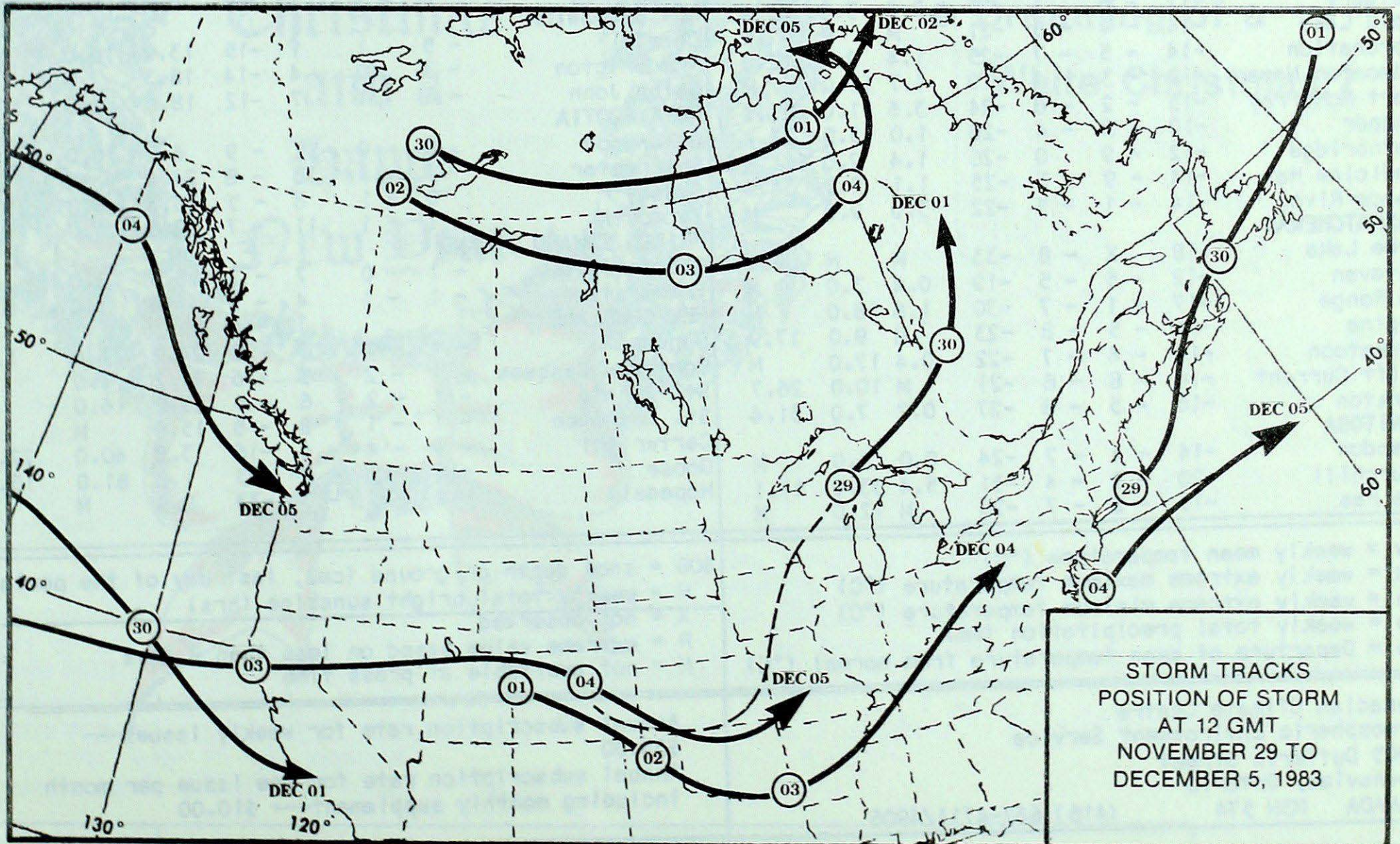
The temperature anomaly forecast, for each of the 70 Canadian stations, is prepared by searching historical weather maps to find cases similar to the present one. The principle used is that a prediction for the next 15 days may be based on what is known to have actually happened during 15-day periods. 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

**FREEZE-OVER OF LAKES**



**STORM TRACKS**



## TEMPERATURE, PRECIPITATION AND BRIGHT SUNSHINE DATA FOR THE WEEK ENDING 0600 GMT DECEMBER 6, 1983

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	-20	0	-6	-35	0.4	28.0	9.0
Dawson	-20	4	-12	-28	1.6	35.0	M	Winnipeg	-13	-4	-7	-22	M	4.0	29.3
Mayo A	-18	5	-10	-27	4.7	28.0	M	<b>ONTARIO</b>							
Watson Lake	-22	-2	-13	-29	0.0	15.0	12.3	Big Trout Lake	-17	-2	-5	-33	6.0	44.0	M
Whitehorse	-13	2	-5	-22	0.0	5.0	12.0	Earlton	-6	2	2	-18	M	6.0	M
<b>NORTHWEST TERRITORIES</b>								Kapuskasing	-9	0	-1	-25	26.2	28.0	M
Fort Smith	-18	0	-8	-30	2.3	10.0	1.2	Kenora	-12	-2	-6	-17	5.9	36.0	M
Inuvik	-21	5	-9	-34	0.0	42.0	0.0	London	-2	-1	2	-7	18.0	2.0	7.4
Norman Wells	-20	5	-10	-35	3.2	6.0	0.0	Moosonee	-9	0	0	-26	7.6	11.0	4.7
Yellowknife	-21	-1	-6	-33	1.2	5.0	6.6	Muskoka	-3	1	3	-12	M	18.0	M
Baker Lake	-28	-3	-16	-36	1.2	M	0.1	North Bay	-5	1	2	-16	14.8	9.0	9.9
Cape Dyer	-23	-3	-9	-36	22.4	48.0	M	Ottawa	-3	1	3	-11	13.7	10.0	10.9
Clyde	-24	-3	-16	-34	0.2	78.0	M	Pickle Lake	-14	-1	-6	-31	9.8	51.0	M
Frobisher Bay	-20	-2	-11	-33	8.6	23.0	M	Red Lake	-12	0	-7	-18	4.2	45.0	13.8
Alert	-27	1	-16	-37	0.0	10.0	M	Sudbury	-5	2	1	-14	M	9.0	M
Eureka	-31	2	-23	-43	0.3	13.0	M	Thunder Bay	-10	-3	-2	-22	2.8	8.0	19.4
Hall Beach	-23	4	-13	-36	M	19.0	M	Timmins	-8	2	1	-24	13.0	24.0	M
Resolute	-27	0	-18	-38	M	20.0	M	Toronto	-1	0	3	-5	10.2	3.0	M
Cambridge Bay	-26	1	-15	-33	0.2	14.0	M	Trenton	-2	0	7	-9	18.9	10.0	M
Mould Bay	-26	4	-16	-32	1.0	27.0	M	Warton	-1	0	3	-10	37.7	10.0	0.7
Sachs Harbour	-22	3	-15	-29	0.0	27.0	M	Windsor	1	0	4	-5	24.2	M	M
<b>BRITISH COLUMBIA</b>								<b>QUEBEC</b>							
Cape St. James	6	1	9	3	12.1	M	17.9	Bagotville	-6	2	1	-22	22.8	30.0	M
Cranbrook	-11	-5	-3	-19	0.0	6.0	19.4	Blanc-Sablon	-7	-1	-1	-13	17.0	1.0	M
Fort Nelson	-17	2	-11	-24	1.8	11.0	10.5	Inukjuak	-15	-4	-5	-26	9.6	12.0	12.1
Fort St. John	-12	0	-4	-19	0.0	10.0	M	Kuujuuaq	-17	-4	-7	-24	1.0	11.0	9.5
Kamloops	-5	-4	2	-10	0.8	1.0	10.4	Kuujuarapik	-11	-2	-4	-17	18.4	18.0	0.9
Penticton	-3	-4	3	-9	0.0	0.0	16.5	Maniwaki	-5	2	4	-17	6.0	4.0	11.8
Port Hardy	1	-3	6	-5	8.2	M	25.4	Mont-Joli	-5	-1	0	-16	27.0	28.0	10.0
Prince George	-8	-3	-4	-15	1.3	9.0	4.5	Montréal	-2	1	5	-11	18.0	14.0	13.7
Prince Rupert	0	-3	5	-7	M	M	16.8	Natashquan	-9	-3	0	-20	17.6	13.0	9.6
Revelstoke	-3	-1	1	-9	1.2	1.0	15.8	Nitchequon	-13	0	-4	-23	7.6	35.0	4.4
Smithers	-10	-4	-2	-18	1.0	9.0	9.5	Québec	-5	1	1	-17	23.6	18.0	8.6
Vancouver	1	-4	7	-5	8.8	M	30.7	Schefferville	-19	-5	-10	-33	1.2	39.0	7.0
Victoria	1	-4	6	-4	10.6	M	25.3	Sept-Îles	-8	-1	-2	-19	20.6	30.0	12.6
Williams Lake	-11	-4	-5	-19	2.6	24.0	13.8	Sherbrooke	-4	0	2	-19	25.2	13.0	3.1
<b>ALBERTA</b>								Val-d'Or	-8	1	2	-22	10.2	9.0	12.7
Calgary	-12	-6	1	-25	0.0	3.0	45.4	<b>NEW BRUNSWICK</b>							
Cold Lake	-14	-4	-8	-21	M	M	17.5	Charlo	-5	1	1	-15	13.9	19.0	6.5
Coronation	-14	-5	-7	-25	1.4	9.0	22.0	Fredericton	-3	0	4	-14	18.3	M	M
Edmonton Namao	-12	-3	-4	-19	1.7	11.0	M	Saint John	-1	1	7	-12	18.6	4.0	17.7
Fort McMurray	-15	-2	-8	-24	3.6	11.0	21.2	<b>NOVA SCOTIA</b>							
Jasper	-10	-3	-4	-20	1.0	3.0	21.4	Greenwood	0	0	11	-9	6.2	0.0	M
Lethbridge	-12	-9	0	-26	1.4	2.0	M	Shearwater	1	-1	13	-8	24.4	M	17.0
Medicine Hat	-14	-9	-3	-25	1.1	9.0	34.9	Sydney	0	-1	8	-5	23.3	6.0	15.7
Peace River	-14	-1	-5	-22	3.0	9.0	M	Yarmouth	1	-1	11	-7	32.0	6.0	10.9
<b>SASKATCHEWAN</b>								<b>PRINCE EDWARD ISLAND</b>							
Cree Lake	-18	X	-8	-33	M	M	9.7	Charlottetown	-1	0	7	-7	12.4	3.0	M
Estevan	-12	-5	-5	-19	0.4	3.0	M	Summerside	-1	-1	4	-9	14.6	1.0	8.2
La Ronge	-17	-1	-7	-30	1.6	18.0	M	<b>NEWFOUNDLAND</b>							
Regina	-14	-5	-8	-23	M	9.0	17.9	Gander	-4	-2	3	-8	24.2	21.0	1.8
Saskatoon	-14	-4	-7	-22	0.4	17.0	M	Port aux Basques	-1	-2	5	-6	21.2	4.0	M
Swift Current	-14	-8	-6	-21	M	10.0	26.7	St. John's	-1	-2	6	-5	25.2	6.0	M
Yorkton	-16	-5	-8	-27	0.2	7.0	31.4	St. Lawrence	-1	-1	8	-8	15.0	M	M
<b>MANITOBA</b>								Cartwright	-9	-4	-4	-16	3.8	40.0	22.9
Brandon	-14	-4	-7	-24	0.0	3.0	M	Goose	-14	-5	-6	-23	1.0	81.0	15.9
Churchill	-20	-2	-4	-31	5.4	33.0	11.1	Hopedale	-12	-5	-7	-33	0.9	M	M
The Pas	-15	-2	-7	-29	M	12.0	M								

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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