

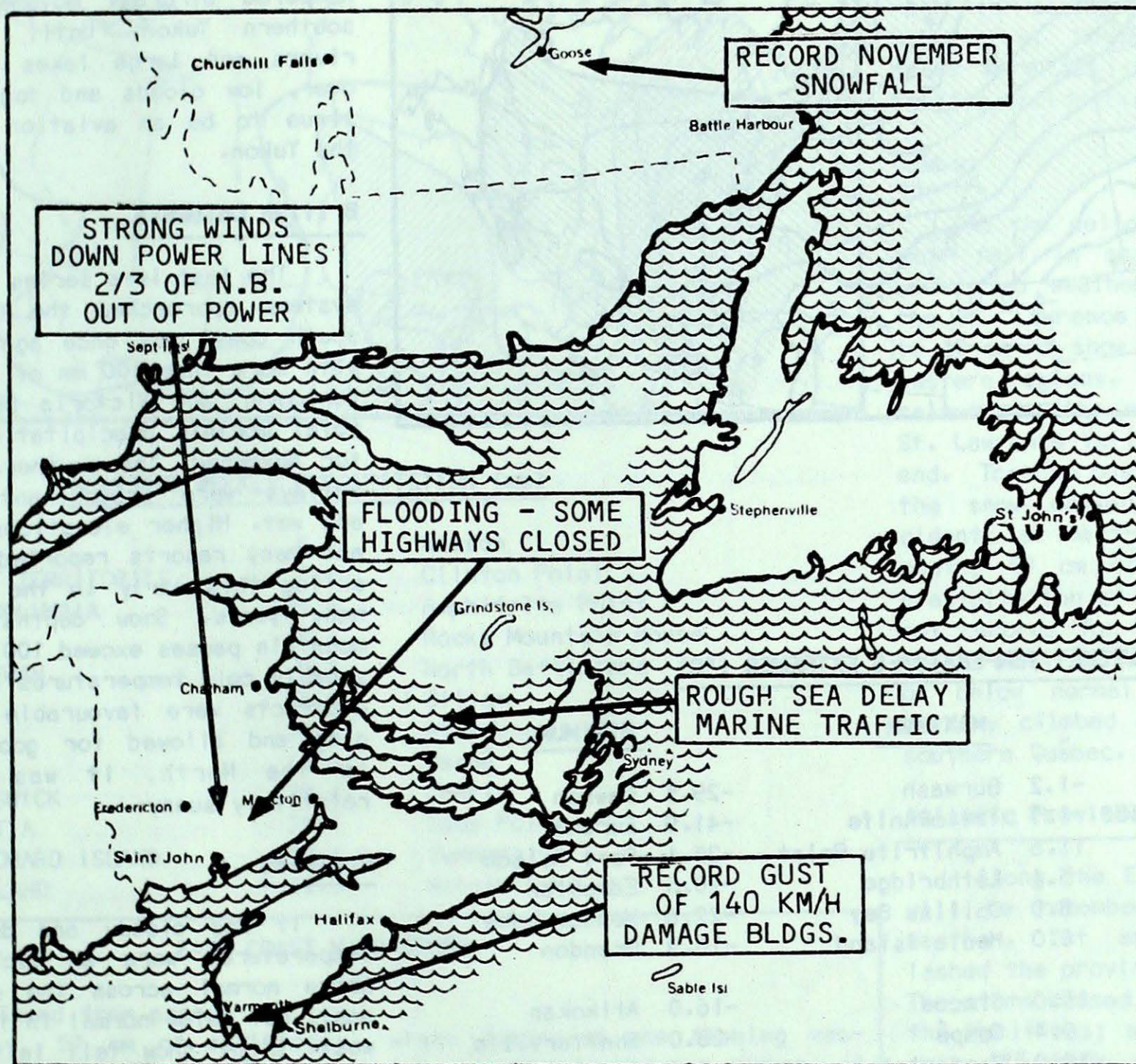
DECEMBER 2, 1983

(Aussi disponible en français)

VOL. 5 NO. 48

FOR THE PERIOD NOVEMBER 22-28, 1983

## ● Maritimes whipped by severe wind storm

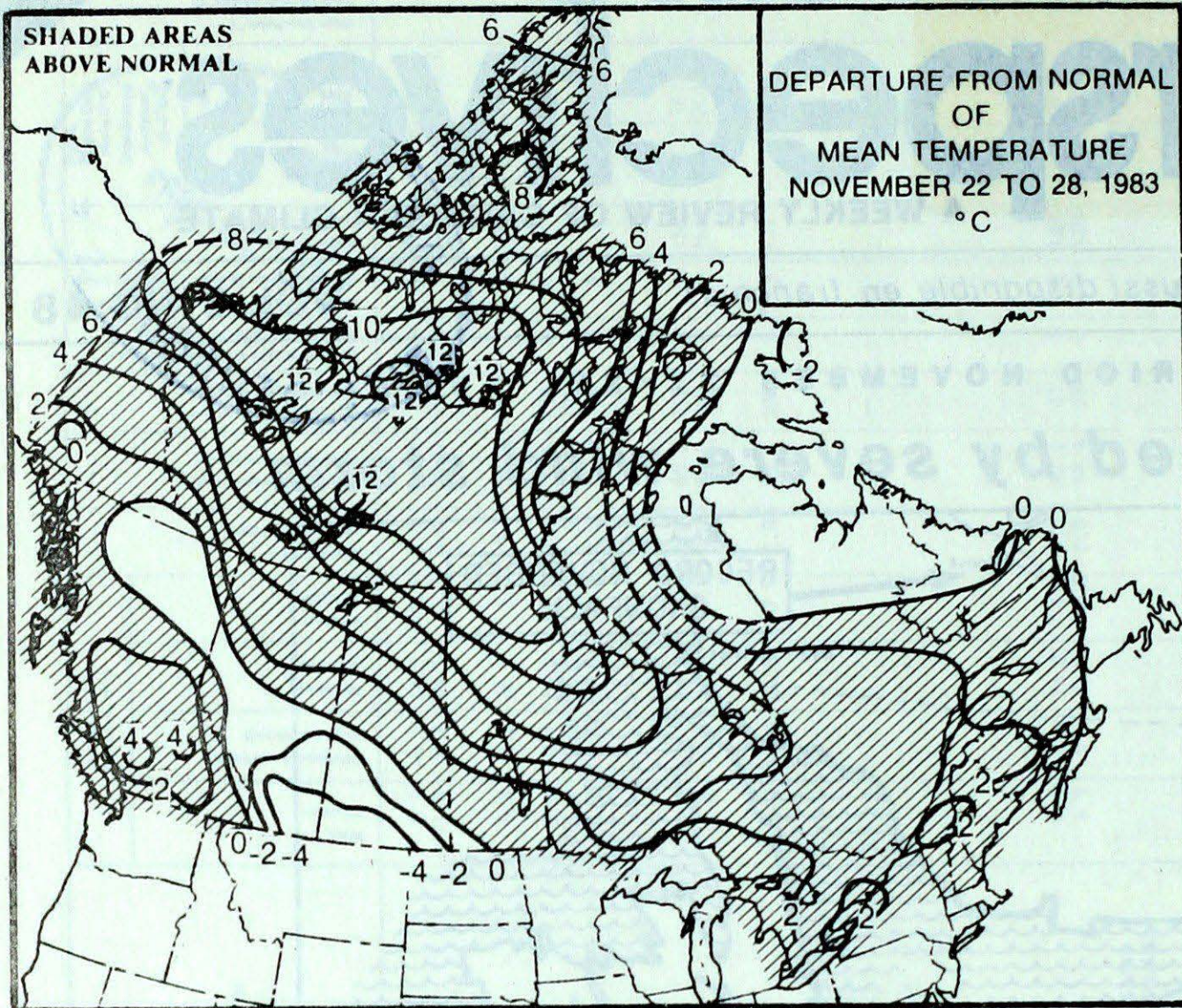


A major storm developing in the southeastern U.S. tracked northeastward and buffeted New Brunswick with winds in excess of 100 km/h during the weekend. Strong winds gusting near 120 km/h tore down power lines throughout most of the region and left two-thirds of the province without electricity that lasted from 20 minutes to 20 hours. Large trees were uprooted and many mobile homes were blown down. Heavy precipitation, in the 40 to 80 mm range, accompanied the storm and flooded many roadways and basements. Major highways between Fredericton and Newcastle were closed due to flooding, and one bridge was washed out at Fredericton. The Nashwaak River rose to flood stages at Fredericton. The same storm lashed western Newfoundland later during the weekend; at Burgeo winds were clocked at 105 km/h. Heavy snow fell in Labrador, at

...continued on page 3



**ACROSS THE COUNTRY...**



**Yukon and Northwest Territories**

Mild temperatures continued across the North. The readings were as much as 13° above normal in the Mackenzie District. Only Baffin Island had below average values. Precipitation was light almost everywhere; Watson Lake received the most - 6 cm of snow. Once again this week, extensive low clouds hampered aircraft movement in the southern Yukon. Until the major rivers and large lakes are frozen over, low clouds and fog will continue to be an aviation hazard in the Yukon.

**British Columbia**

The last in a series of weather systems approached the Coast. The south coast was once again deluged with more than 100 mm of rain. Both Vancouver and Victoria broke their total monthly precipitation records for November. The southern interior valleys were predominantly cloudy and wet. Higher elevations had snow and many resorts reported the best skiing this early in the season in many years. Snow depths in many mountain passes exceed 100 cm. Seasonably cold temperatures in central districts were favourable for logging and allowed for good skiing. In the North, it was dry and relatively sunny.

**Prairies**

It was cloudy and dull. Mean temperatures were as much as 10° above normal across the north and east, but below normal in the southwest. Light snow fell in all areas but heavier snowfalls of 15 to 30 cm were reported in extreme eastern Manitoba. Snow depths at the end of the week ranged from several centimetres in the south to more than 35 cm in the north.

**Ontario**

Northern Ontario's worst snow storm of the season so far dumped heavy snow in the 30 to 40 cm range north of Lake Superior early in the

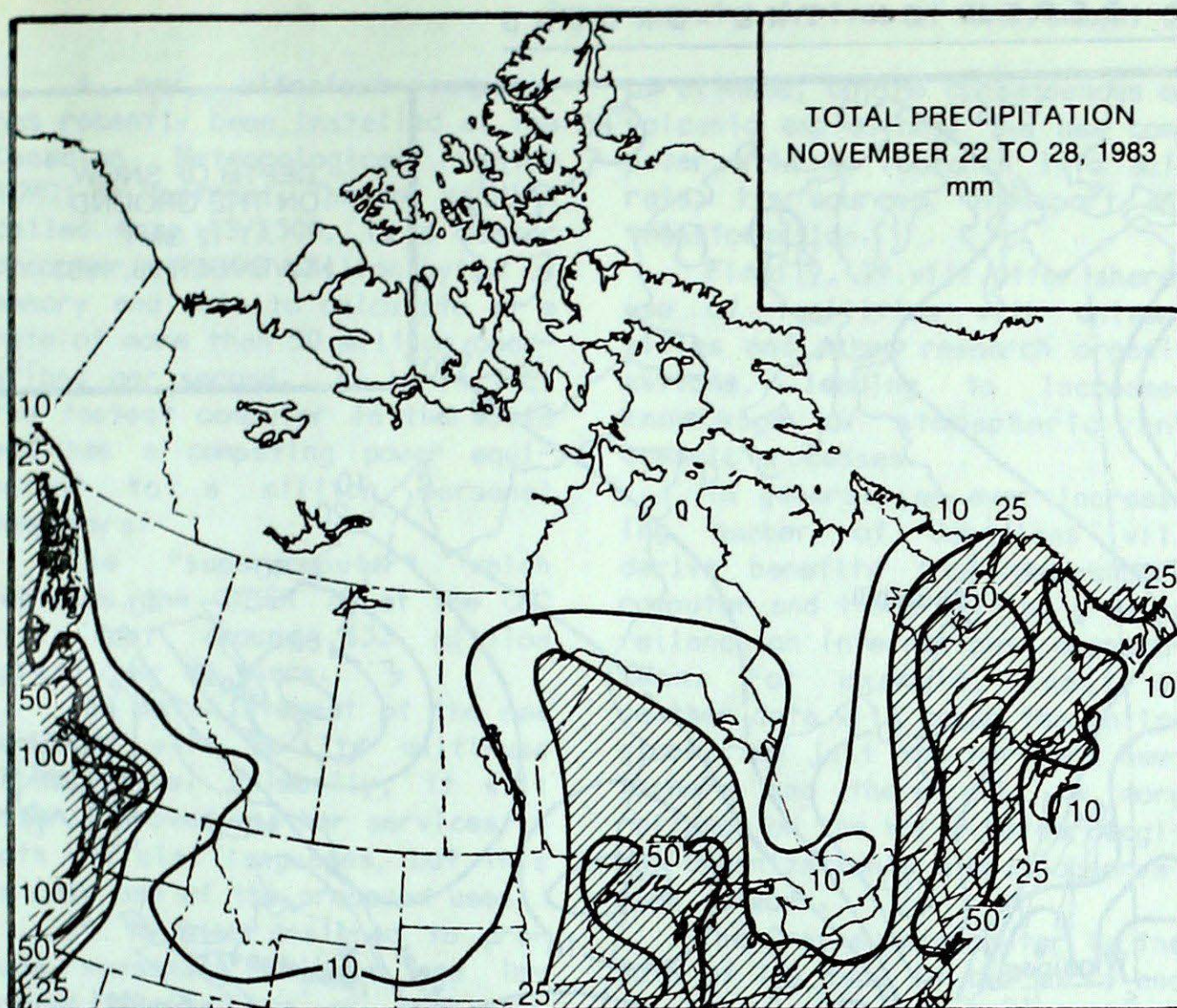
**WEEKLY TEMPERATURES EXTREMES (°C)**

	MAXIMUM	MINIMUM
YUKON TERRITORY	-1.2 Burwash	-29.5 Dawson
NORTHWEST TERRITORIES	-1.7 Yellowknife	-41.9 Eureka
BRITISH COLUMBIA	11.6 Amfitrite Point	-25.1 Fort Nelson
ALBERTA	3.4 Lethbridge	-20.6 Edmonton
SASKATCHEWAN	8.0 Collins Bay	-22.6 Meadow Lake
MANITOBA	0.0 Hecla Island	-16.9 Brandon
ONTARIO	15.0 Simcoe	-16.0 Atikokan
QUEBEC	9.4 Gaspé	-28.0 Shefferville
NEW BRUNSWICK	15.0 Fredericton	-7.6 Charlo
NOVA SCOTIA	15.2 Greenwood	-4.8 Greenwood
PRINCE EDWARD ISLAND	12.9 Summerside	-2.6 Summerside
NEWFOUNDLAND	8.4 St. Lawrence	-23.6 Wabush Lake

**ACROSS THE NATION**

Warmest mean temperature	7.3	Amfitrite Point BC
Coollest mean temperature	-23.2	Eureka, NWT





#### HEAVIEST WEEKLY PRECIPITATION (mm)

YUKON	6.1	Watson
NORTHWEST TERRITORIES	6.6	Clinton Point
BRITISH COLUMBIA	135.6	Amphitrite Point
ALBERTA	10.4	Rocky Mountain House
SASKATCHEWAN	9.3	North Battleford
MANITOBA	30.8	Gillam
ONTARIO	70.0	Atikokan
QUEBEC	63.0	Gaspé
NEW BRUNSWICK	79.4	Charlo
NOVA SCOTIA	25.1	Eddy Point
PRINCE EDWARD ISLAND	27.4	Summerside
NEWFOUNDLAND	62.3	Wabush Lake

#### EAST COAST WIND STORM

... continued from page 1

Goose Bay, 57 cm of additional snow brought the monthly accumulation to a record 150 cm.

Earlier in the week, a sudden but violent storm crossed southwestern Nova Scotia. At Yarmouth, strong winds gusting near 140 km/h snapped utility lines leaving residents in the dark for nearly 12 hours. High

winds destroyed one fishing vessel, a wharf and a number of lobster traps. A portion of a wharf at the Yarmouth Bar collapsed taking a building, with at least 245 lobster traps, into the sea. Other wind damages included: smashed windows and torn off roof shingles.

week. Strong winds accompanying the snow severely restricted visibilities and disrupted traffic. At Lansdowne House, a serious plane crash that claimed 4 lives was attributed to this storm. By the week's end, Trout Lake had the deepest snowcover - 63 cm. Elsewhere, the weather was dull; however, the temperatures climbed into the mid-teens and produced unusual warmth in southwestern Ontario. A major winter storm, developing in the American Midwest, produced rain and freezing rain in southern Ontario on the morning of November 28. Slippery roads were the cause of a rash of traffic accidents.

#### Québec

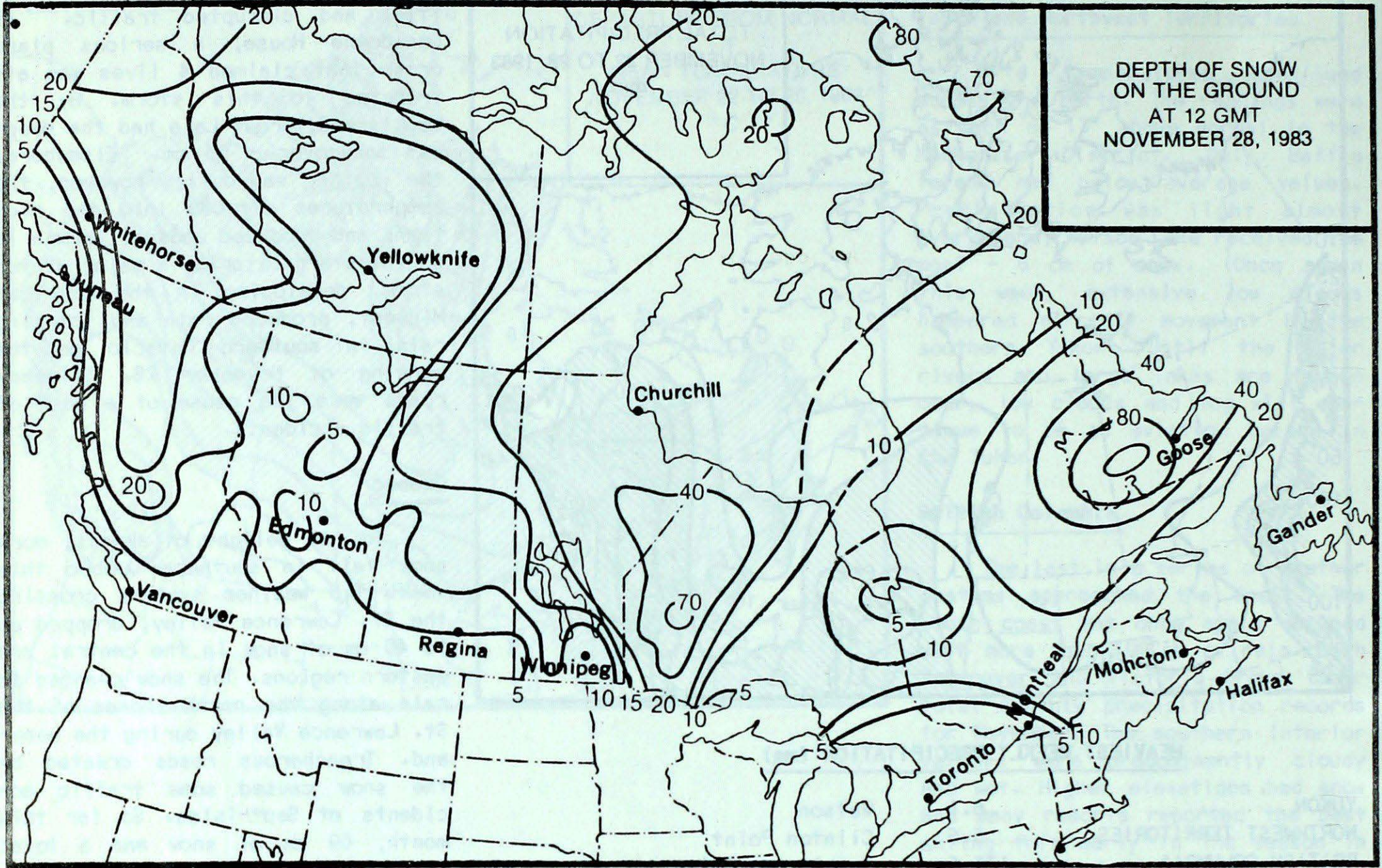
To the delight of skiers, more snow fell in southern Québec this week. Two weather systems crossing the St. Lawrence Valley, dropped up to 40 cm of snow in the central and eastern regions. The snow changed to rain along the north shores of the St. Lawrence Valley during the weekend. Treacherous roads created by the snow caused some traffic accidents at Sept-Isles. So far this month, 69 cm of snow and a total precipitation of 174 mm have already set records for the month of November at Montréal. After several weeks of below normal temperatures, the mercury climbed above normal across southern Québec.

#### Atlantic Provinces

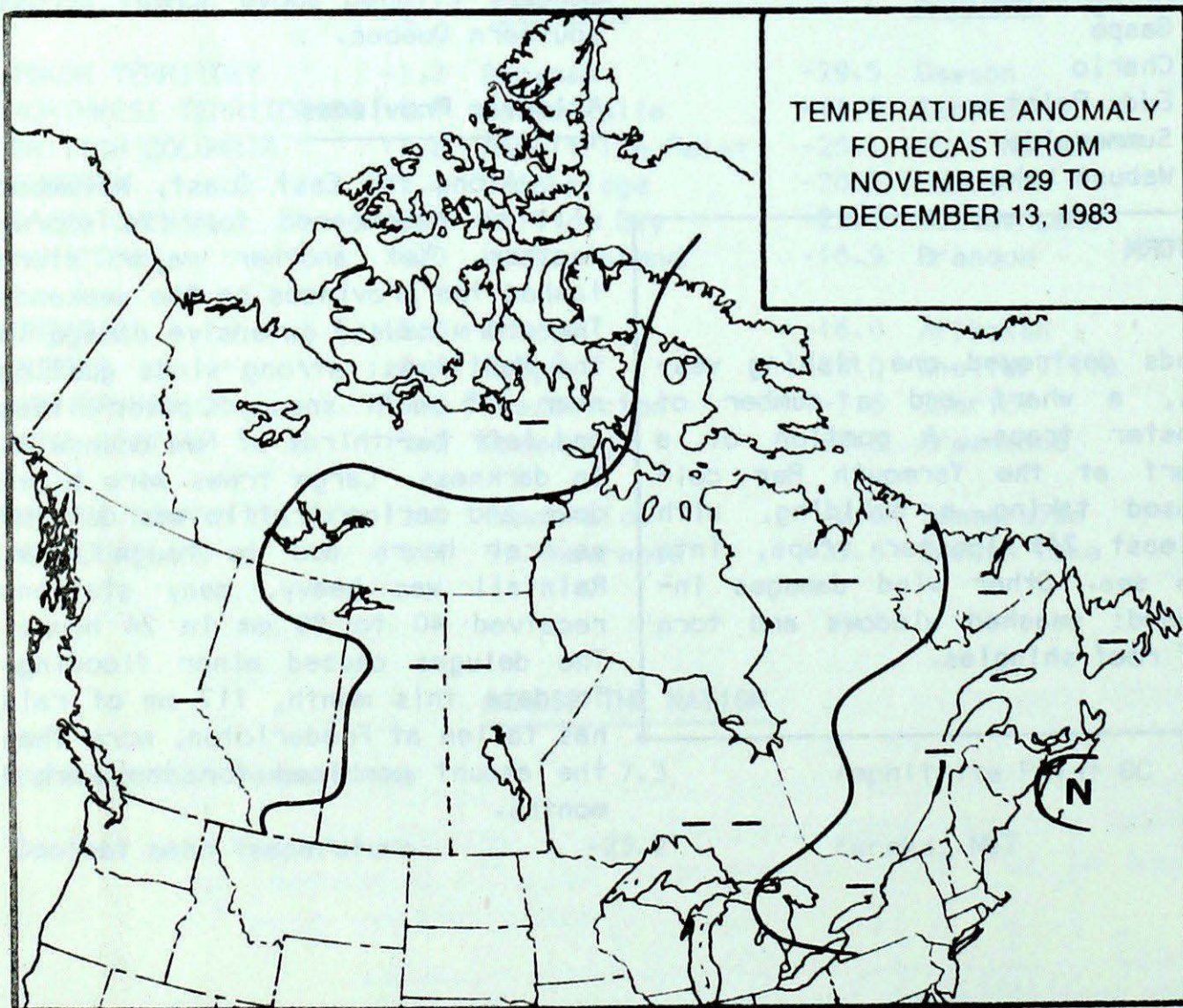
Along the East Coast, November will be remembered for its stormy weather. Yet another major storm lashed the provinces on the weekend. The storm caused extensive damage in the Maritimes; strong winds gusting near 115 km/h snapped power lines and left two-thirds of New Brunswick in darkness. Large trees were blown down and marine traffic was delayed several hours due to rough seas. Rainfall was heavy, many stations received 40 to 80 mm in 24 hours. The deluges caused minor flooding. To date this month, 117 mm of rain has fallen at Fredericton, more than the amount combined for the last 3 months.



**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



### Supercomputer Arrives at Environment Canada

A new, ultrafast computer has recently been installed at the Canadian Meteorological Centre (CMC) in Montréal. The new machine called Cray IS/1300, is a vector computer with 10 million bytes of memory and able to calculate at a rate of more than 50 million operations per second. It is in fact the fastest computer in the world and has a computing power equivalent to a million personal computers.

The "supercomputer" which replaces the CYBER 76 at the CMC will cost around \$32 million spread over 6½ years.

The main interest of the new computer will be its multi-use capabilities. Primarily, it will offer improved weather services in both official languages, but this is only one of the proposed uses.

It is also designed to produce seasonal outlooks and improved evaluations of scenarios for climate change; for example, the effects of atmospheric CO<sub>2</sub>

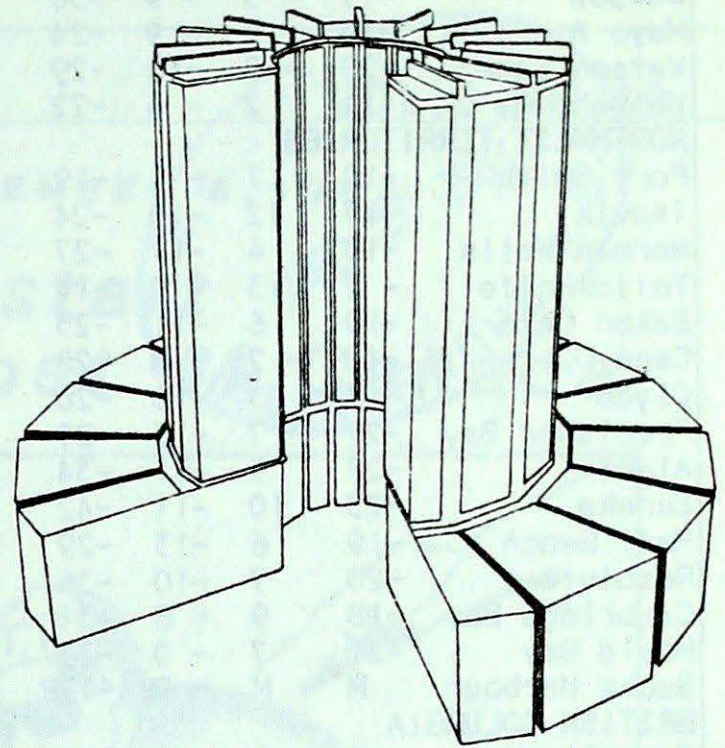
on climate, or the consequences of volcanic explosions. The new computer will do research into acid rain, its sources, transport and transformation.

Finally, it will offer shared use of facilities with universities and other research organizations, leading to increased knowledge of atmospheric and oceanic processes.

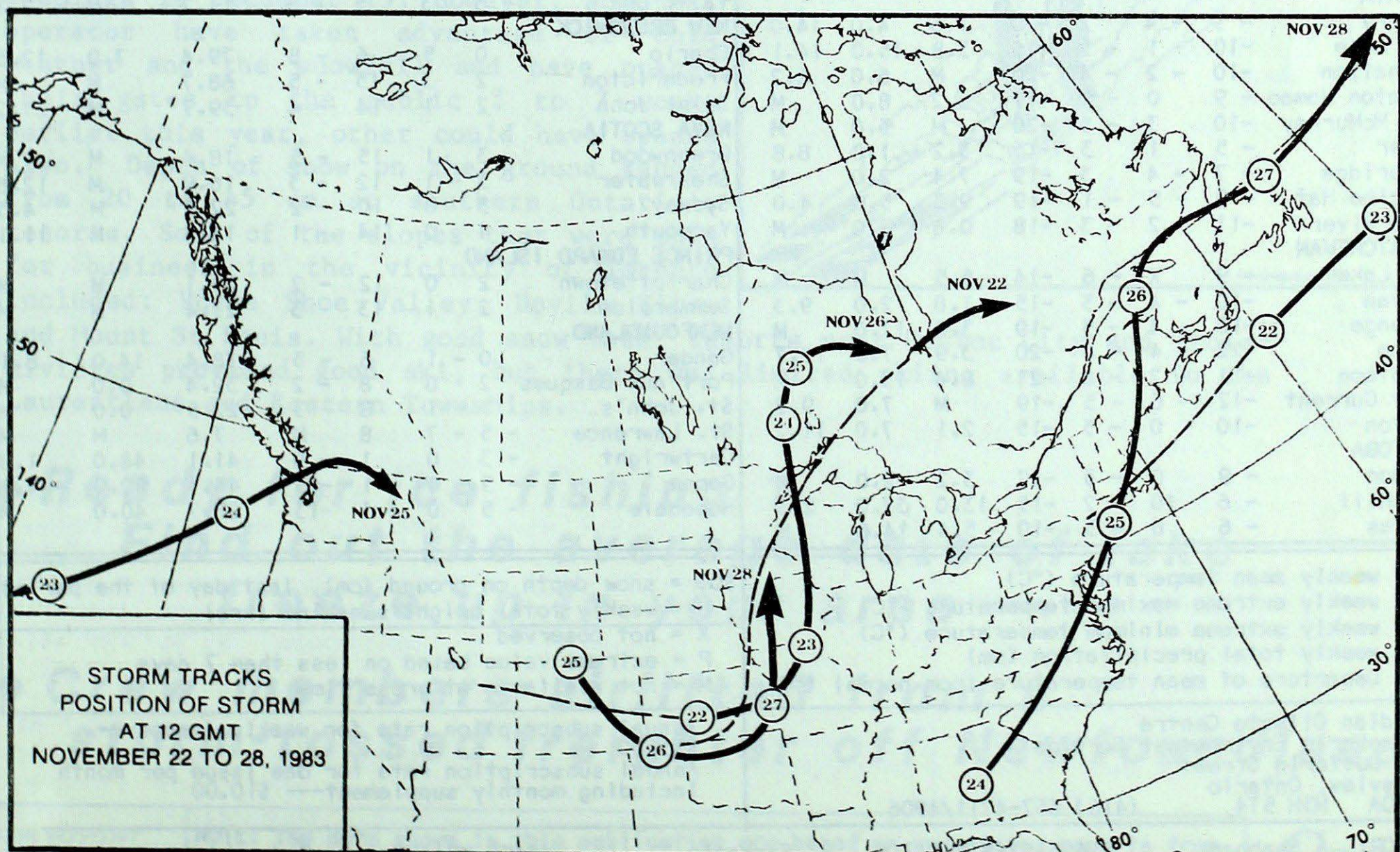
In general, an ever increasing number of Canadians will derive benefits from the supercomputer and there will be growing reliance on international cooperation. For example, input of weather data will cover the entire globe, not just the northern hemisphere and there will be more reliance on the World Meteorological Organization's global observation network.

The Cray supercomputer is the 56th of its type in the world and first in Canada.

-Information Directorate



### STORM TRACKS





## TEMPERATURE, PRECIPITATION AND BRIGHT SUNSHINE DATA FOR THE WEEK ENDING 0600 GMT NOVEMBER 29, 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	-6	-11	-1	-11	12.4	43.0	1.3
Dawson	-17	5	-9	-30	0.3	34.0	M	Winnipeg	-8	1	-2	-13	M	5.0	9.9
Mayo A	-16	5	-9	-24	0.4	23.0	M	<b>ONTARIO</b>							
Watson Lake	-20	-2	-10	-29	6.1	16.0	M	Big Trout Lake	-7	7	0	-13	43.0	64.0	M
Whitehorse	-11	2	-6	-22	0.6	5.0	M	Earlton	-2	3	6	-9	M	M	M
<b>NORTHWEST TERRITORIES</b>								Kapusking	-4	4	4	-10	22.1	7.0	M
Fort Smith	-10	7	-4	-19	0.2	M	0.0	Kenora	-7	1	-4	-11	M	31.0	M
Inuvik	-17	12	-10	-24	0.0	50.0	2.3	London	4	3	14	-1	30.4	M	M
Norman Wells	-19	4	-14	-27	M	6.0	M	Moosonee	-2	6	5	-9	22.8	1.0	6.0
Yellowknife	-7	13	-2	-14	2.8	7.0	M	Muskoka	1	3	9	-6	M	M	M
Baker Lake	-19	6	-11	-25	0.0	M	2.8	North Bay	-2	2	8	-11	19.0	0.0	8.8
Cape Dyer	-18	-2	-8	-28	0.4	36.0	M	Ottawa	1	3	9	-5	13.3	M	21.5
Clyde	-17	3	-10	-26	5.0	80.0	0.0	Pickle Lake	-7	5	-5	-12	M	71.0	M
Frobisher Bay	-21	-7	-15	-29	1.2	27.0	16.9	Red Lake	-8	3	-4	-14	23.0	41.0	0.4
Alert	-22	5	-11	-34	2.0	11.0	M	Sudbury	-1	2	8	-9	20.8	0.0	8.2
Eureka	-23	10	-11	-42	0.9	13.0	M	Thunder Bay	-4	2	7	-11	48.0	3.0	6.1
Hall Beach	-19	6	-13	-29	0.8	18.0	M	Timmins	-3	3	7	-8	8.4	10.0	M
Resolute	-20	7	-10	-36	1.0	20.0	M	Toronto	3	2	13	-2	16.1	M	M
Cambridge Bay	-18	9	-8	-31	0.2	12.0	0.0	Trenton	3	2	11	-3	14.4	M	M
Mould Bay	-21	7	-9	-33	1.3	30.0	M	Warton	3	2	13	-2	14.7	M	0.8
Sachs Harbour	M	M	-9P	-17P	M	20.0	M	Windsor	5	3	15	-1	33.5	M	M
<b>BRITISH COLUMBIA</b>								<b>QUEBEC</b>							
Cape St. James	7	1	9	4	18.8	M	17.9	Bagotville	-1	3	2	-6	40.3	22.0	M
Cranbrook	-3	2	4	-12	7.6	7.0	11.1	Blanc-Sablon	-2	1	3	-9	14.4	0.0	9.9
Fort Nelson	-17	0	-9	-25	0.0	7.0	M	Inukjuak	-13	-4	-5	-22	1.7	5.0	17.8
Fort St. John	-10	0	-2	-18	0.0	11.0	M	Kuujuuaq	-11	-1	-4	-21	3.4	10.0	7.6
Kamloops	2	3	5	-2	12.8	M	0.2	Kuujuuarapik	-7	0	1	-16	10.8	15.0	10.6
Penticton	4	2	8	0	21.4	M	3.9	Manawaki	0	2	8	-7	7.2	M	14.1
Port Hardy	5	1	8	0	42.0	M	1.1	Mont-Joli	-1	-1	2	-12	50.9	18.0	10.4
Prince George	-3	2	1	-8	4.6	8.0	M	Montréal	2	2	8	-4	33.5	M	23.0
Prince Rupert	3	1	8	-2	23.4	M	4.9	Natashquan	-2	1	5	-11	51.4	0.0	20.3
Revelstoke	1	4	5	-1	21.5	M	7.6	Nitchequon	-8	2	-1	-22	16.4	31.0	7.2
Smithers	-3	2	0	-8	6.5	12.0	M	Québec	0	2	5	-4	38.0	0.0	14.9
Vancouver	6	0	8	1	101.4	M	M	Schefferville	-12	-1	-5	-28	28.4	65.0	M
Victoria	6	0	9	1	70.7	M	11.2	Sept-Îles	-2	2	5	-10	55.2	20.0	15.2
Williams Lake	-3	2	0	-10	22.2	26.0	3.2	Sherbrooke	0	2	7	-5	48.2	19.0	11.1
<b>ALBERTA</b>								Val-d'Or	-3	3	5	-8	11.2	M	7.1
Calgary	-9	-4	2	-20	1.6	4.0	14.0	<b>NEW BRUNSWICK</b>							
Cold Lake	-10	-1	-5	-16	3.8	15.0	14.1	Charlo	0	5	6	-8	79.4	7.0	12.5
Coronation	-10	-2	-4	-20	M	6.0	6.2	Fredericton	2	3	15	-5	68.7	M	M
Edmonton Namao	-9	0	-1	-17	3.2	8.0	M	Saint John	2	1	14	-4	39.7	M	21.7
Fort McMurray	-10	3	-5	-20	M	5.0	M	<b>NOVA SCOTIA</b>							
Jasper	-5	1	3	-15	3.2	1.0	8.8	Greenwood	3	1	15	-5	18.4	M	M
Lethbridge	-7	-4	3	-19	7.4	2.0	M	Shearwater	3	-1	12	-3	16.9	M	12.6
Medicine Hat	-9	-5	-1	-19	9.3	5.0	4.0	Sydney	3	0	10	-2	22.7	M	4.3
Peace River	-11	2	-3	-18	0.8	7.0	M	Yarmouth	4	0	14	-1	13.6	M	11.1
<b>SASKATCHEWAN</b>								<b>PRINCE EDWARD ISLAND</b>							
Cree Lake	-9	X	-6	-14	5.5	M	M	Charlottetown	2	0	12	-2	23.1	M	M
Estevan	-10	-4	-5	-15	1.8	2.0	9.3	Summerside	2	1	13	-3	27.4	M	M
La Ronge	-10	4	-5	-19	3.6	17.0	M	<b>NEWFOUNDLAND</b>							
Regina	-12	-4	-6	-20	3.9	7.0	12.7	Gander	0	-1	6	-5	38.4	14.0	6.1
Saskatoon	-11	-2	-6	-21	8.4	13.0	M	Port aux Basques	2	0	8	-2	32.4	0.0	M
Swift Current	-12	-6	-5	-19	M	7.0	9.2	St. John's	1	-1	8	-3	22.5	0.0	M
Yorkton	-10	0	-5	-15	2.1	7.0	11.2	St. Lawrence	-5	-7	8	M	7.6	M	M
<b>MANITOBA</b>								Cartwright	-3	0	1	-9	41.1	48.0	1.8
Brandon	-9	0	-3	-17	3.2	2.0	M	Goose	-5	0	1	-15	44.1	80.0	4.1
Churchill	-6	10	-2	-15	13.0	32.0	2.3	Hopedale	-5	0	-1	-13	28.7	40.0	M
The Pas	-6	6	-3	-10	5.4	14.0	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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