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Climatic Perspectives

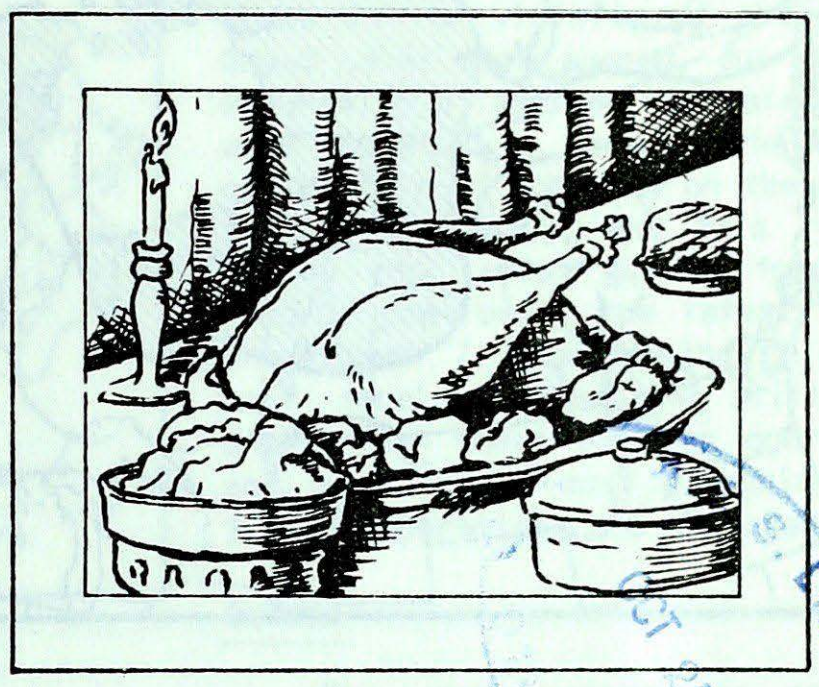
A WEEKLY REVIEW OF CANADIAN CLIMATE

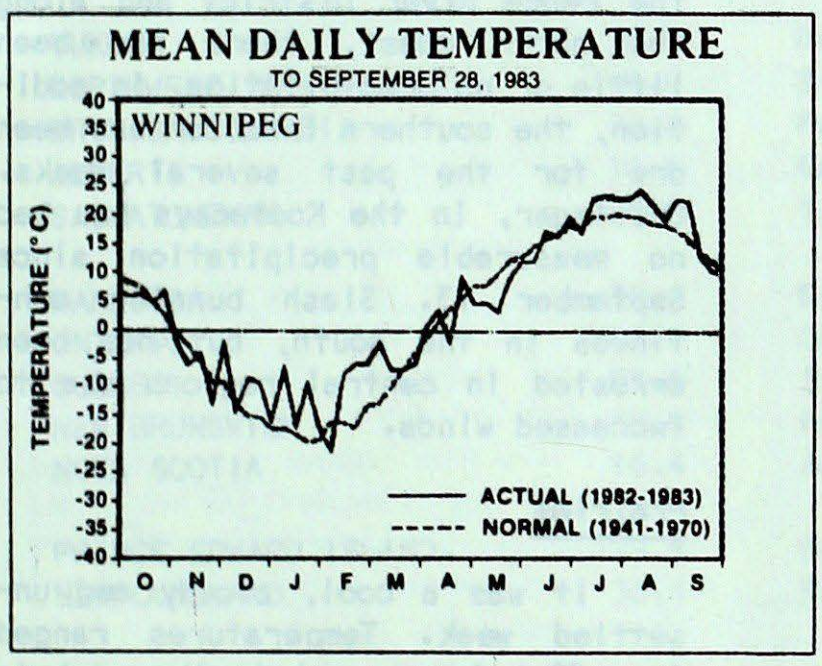
OCTOBER 14,1983 | (Aussi disponible en français) | VOL.5 NO.41

FOR THE PERIOD OF OCTOBER 4-10, 1983

How was your Thanksgiving weekend ?

Yukon and Northwest Territories: variable cloudiness, some snow.
British Columbia: Mostly sunny with seasonal temperatures.
Prairies: Mainly sunny and cool, becoming cloudy.
Ontario: Rain ending in the south, becoming sunny and cool.
Québec: Rain ending, becoming sunny and cool.
Atlantic Provinces: Variable cloudiness, few showers.



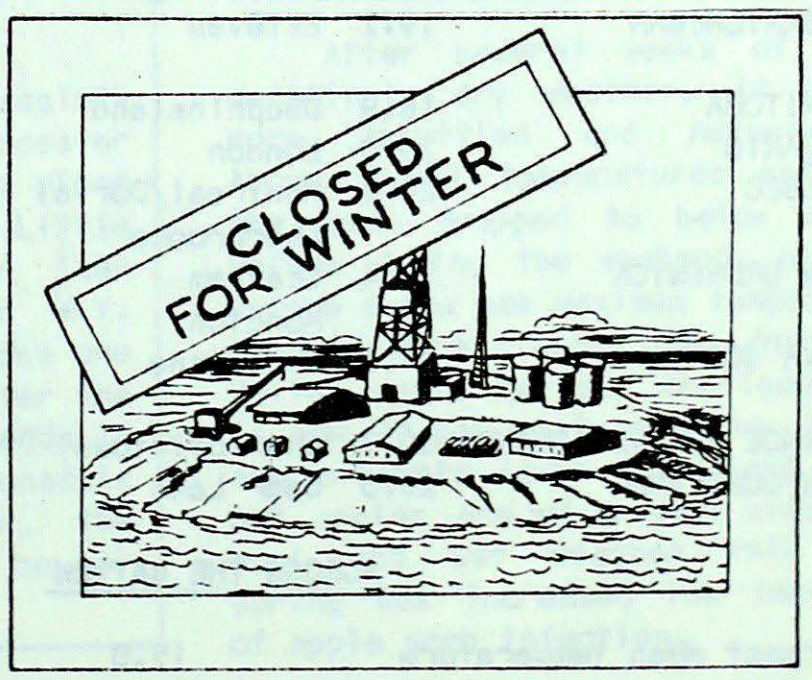


Mean daily temperature.....

These graphs show mean daily temperatures at selected cities in western Canada from October 1982 to the end of September 1983. The normal values are indicated as a dotted line. For example, notice the small annual variation of the mean temperature at Vancouver (see page 5) compared to the more continental climate of Winnipeg. At Winnipeg, the mild winter of last year, the rather cool spring and the hot summer are quite evident. Next weeks issue will include some stations from eastern Canada.

Beaufort Sea drilling season ending.....

Ice conditions in the Beaufort Sea provokes an early closing to the drilling season. Freezing-up is well underway in the Arctic. See page 3 for details.



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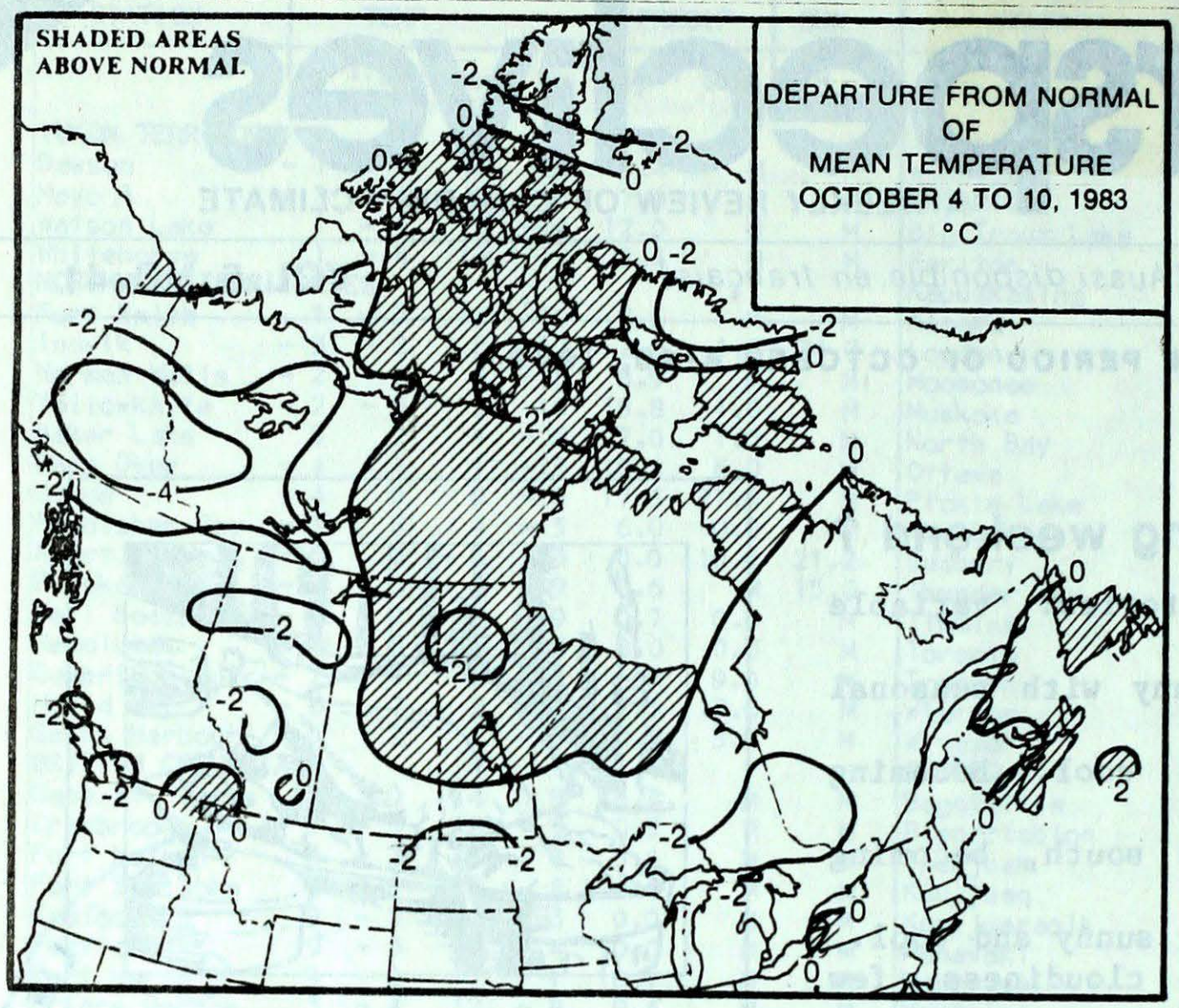
NOTE: The data shown in this publication are based on unverified reports from approximately 225 Canadian synoptic stations.

Canada



WEEKLY TEMPERATURES EXTREMES (°C)

	MAXIMUM		MINIMUM	
YUKON TERRITORY	11.6	Burwash	-21.2	Whitehorse
NORTHWEST TERRITORIES	8.5	Fort Smith Hay River	-24.0	Eureka
BRITISH COLUMBIA	19.5	Kamloops	-9.8	Dease Lake
ALBERTA	21.1	Lethbridge	-9.8	Peace River
SASKATCHEWAN	19.2	Estevan	-8.7	Meadow Lake
MANITOBA	18.9	Dauphinsland	-5.2	Grand Rapids
ONTARIO	23.0	London	-5.7	Armstrong
QUEBEC	20.4	Montreal/Dorval Sherbrooke	-5.5	Val Dor
NEW BRUNSWICK	18.4	Chatham Moncton	-3.0	St. Stephen
NOVA SCOTIA	24.3	Shelburne	-1.3	Greenwood
PRINCE EDWARD ISLAND	20.7	Charlottetown	3.0	Charlottetown
NEWFOUNDLAND	20.3	Deer Lake	-5.3	Wabush Lake

ACROSS THE NATION

Warmest mean temperature	15.0	Sable Island, N.S.
Coolest mean temperature	-20.0	Eureka, NWT

ACROSS THE COUNTRY...

Yukon and Northwest Territories

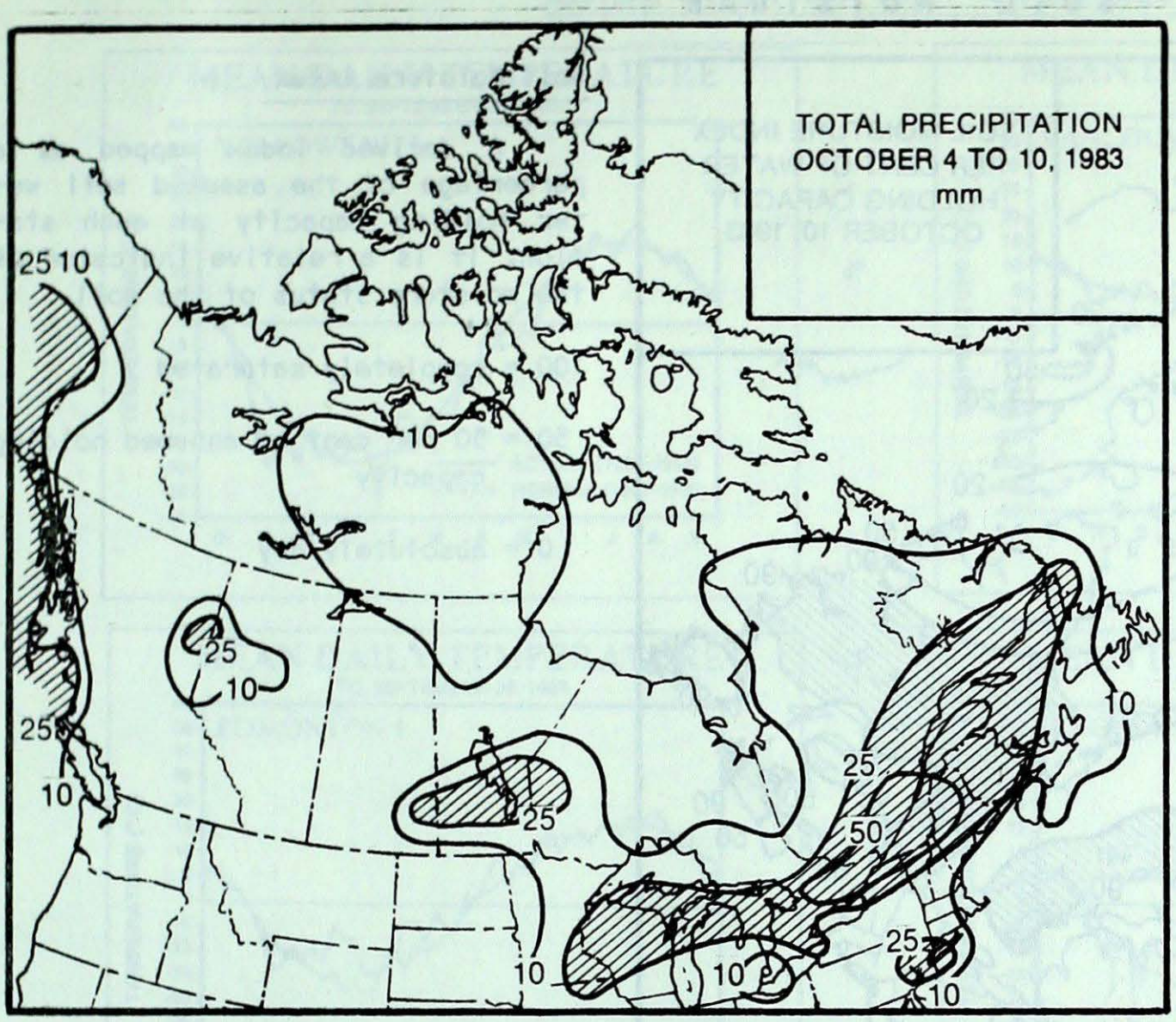
All areas received several centimetres of new snow; Whitehorse had 12 cm. The snowfall in the southern Yukon is at least 3 weeks early and is unlikely to stay. Mean temperatures across the Yukon and western Arctic continued to be below normal, as much as 6° in the central Yukon. In contrast, mean temperatures in the Keewatin District were more than 2° above normal. Temperatures in the Yukon dropped through the week, then plummeted by weeks end due to a fresh Arctic outbreak. Several minimum temperature records were broken October 9. Whitehorse recorded the lowest temperature of the week at -21.2°, however, this was not a record.

British Columbia

Pleasant autumn weather continued, particularly in the southern half of the province, where sunshine was plentiful. With the exception of the Peace River District and along the north coast, there has been little or no precipitation. In addition, the southern interior has been dry for the past several weeks. Castlegar, in the Kootenays has had no measurable precipitation since September 13. Slash burning continues in the south, but has been arrested in central regions due to increased winds.

Prairies

It was a cool, cloudy and unsettled week. Temperatures ranged from 3° below normal in the west to more than 2° above normal in the northeast. In Alberta night time temperatures dropped to near record values during mid-week, as low as -7° at Edmonton and Calgary and -9° further to the north. Precipitation amounts were variable but generally less than 10 mm. Heaviest amounts, in excess of 20 mm, fell in the Peace River District and in a band from eastern Saskatchewan across southern Manitoba. The sugar beet harvest continues in the south, while another week of relatively dry weather is needed to complete the harvest in the Peace River Agricultural District.



HEAVIEST WEEKLY PRECIPITATION (mm)

YUKON	28.1	Dawson
NORTHWEST TERRITORIES	19.2	Baker Lake
BRITISH COLUMBIA	79.0	Prince Rupert
ALBERTA	10.6	Grande Prairie
SASKATCHEWAN	28.0	Yorkton
MANITOBA	30.7	Bissett
ONTARIO	91.4	Ottawa
QUEBEC	99.6	Ste Agathe des Monts
NEW BRUNSWICK	38.0	Fredericton
NOVA SCOTIA	16.4	Amherst
PRINCE EDWARD ISLAND	29.8	Summerside
NEWFOUNDLAND	36.4	Daniel Harbour

ARCTIC ICE

Ice thickness continues to increase in the Beaufort Sea and is now approximately 10 cm thick. Most drill ships have returned to winter harbour at McKinly Bay. The only drilling operations continuing are on man-made islands and semi-permanent drilling berms.

Freeze-up is well underway in the Arctic, about 2 weeks later than normal. The icebreaker John A. MacDonald is assisting ships through Lancaster Sound and to the iron ore mines near Nanasivik and on Little Cornwallis Island. The ice-strengthened ore carrier M.V. Arctic will attempt to make one more trip to Nanasivik after the official shipping season ends in approximately 2 weeks. Canada's most powerful icebreaker, the Louis St. Laurent, will be assisting.

Ontario

It was a damp unsettled week as several disturbances crossed the lower Great Lakes. Heaviest rains occurred in eastern Ontario; Ottawa and Trenton received 91 mm and 77 mm of rain, respectively. In contrast, several northwestern Ontario communities reported less then 10 mm. Temperatures fell during the week with the first killing frost of the season striking many southern and central Ontario communities. Only areas in the vicinity of the lower Great Lakes were spared, due to the moderating effects of the relatively warm waters. In Muskoka the first official frost occurred on the morning of October 9, and this represented the latest Autumn frost on record, previously the latest being on October 7. Despite the rainfall most farming areas are still dry enough for field work to continue, and as a result most ploughing and farming operations are on schedule.

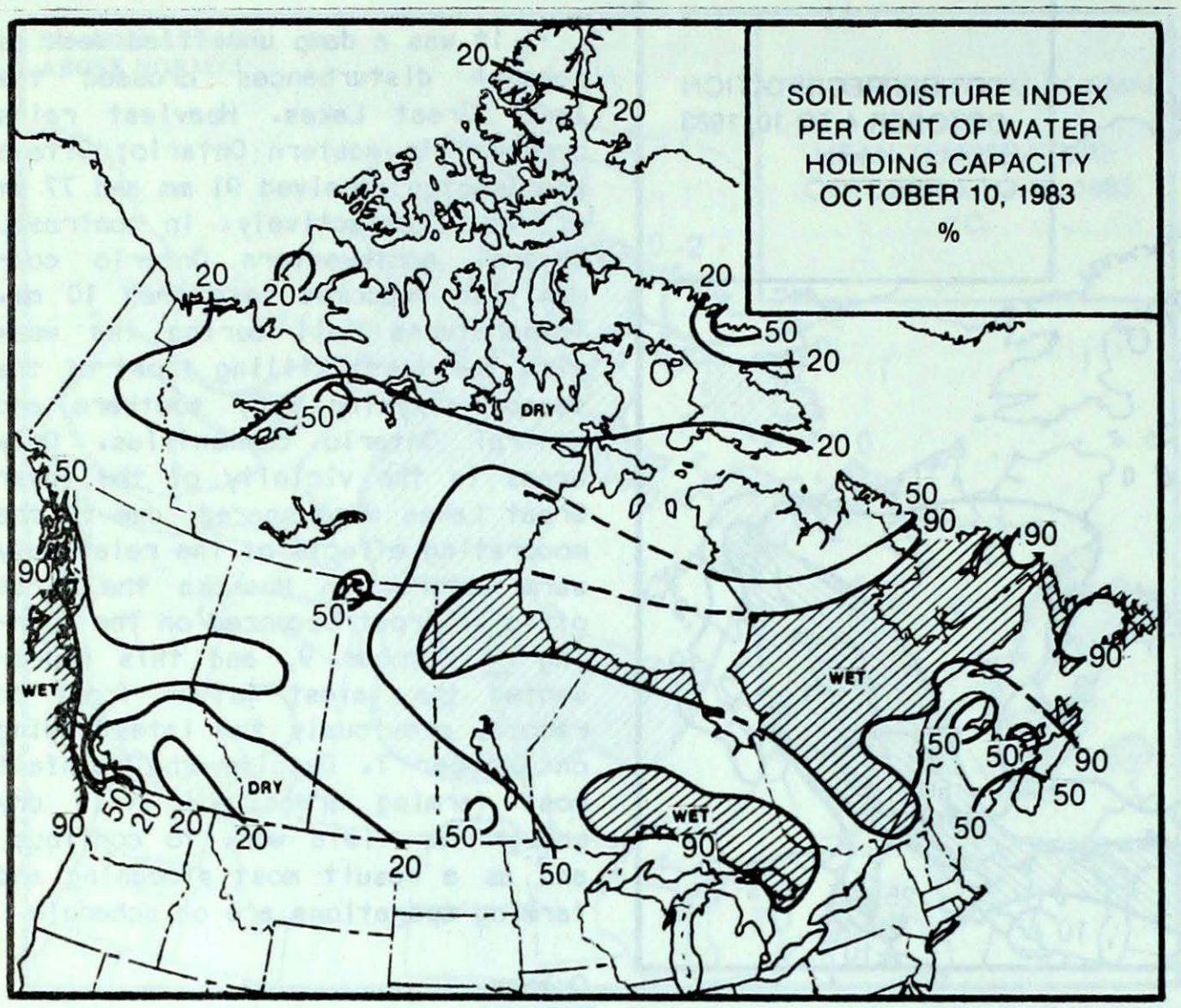
Québec

The warm weather was rapidly replaced by cool and wet conditions at the beginning of the week. At Montréal, the maximum temperature dropped from 20° on October 4 to 11° on October 5. During these two days, many stations in southwestern Québec received more than half their normal monthly rainfall. For example, Ste. Agathe received 75 mm in two days while Québec reported 50 mm on October 5 alone. The end of the week was generally sunny and dry. The forest fire season is considered over in Québec.

Atlantic Provinces

After several weeks of warm, relatively dry weather, it became more unsettled and Autumn-like. Above normal temperatures early in the week dropped to below normal values during the weekend, but not before a few new maximum temperature records were broken. The Annapolis Valley apple harvest continues and is now 70 per cent complete. Yields are slightly lower than last year, but apples are of a good size. The cool and wet weather this past spring has increased the incidence of apple scab infection.

SOIL MOISTURE



Soil Moisture Index

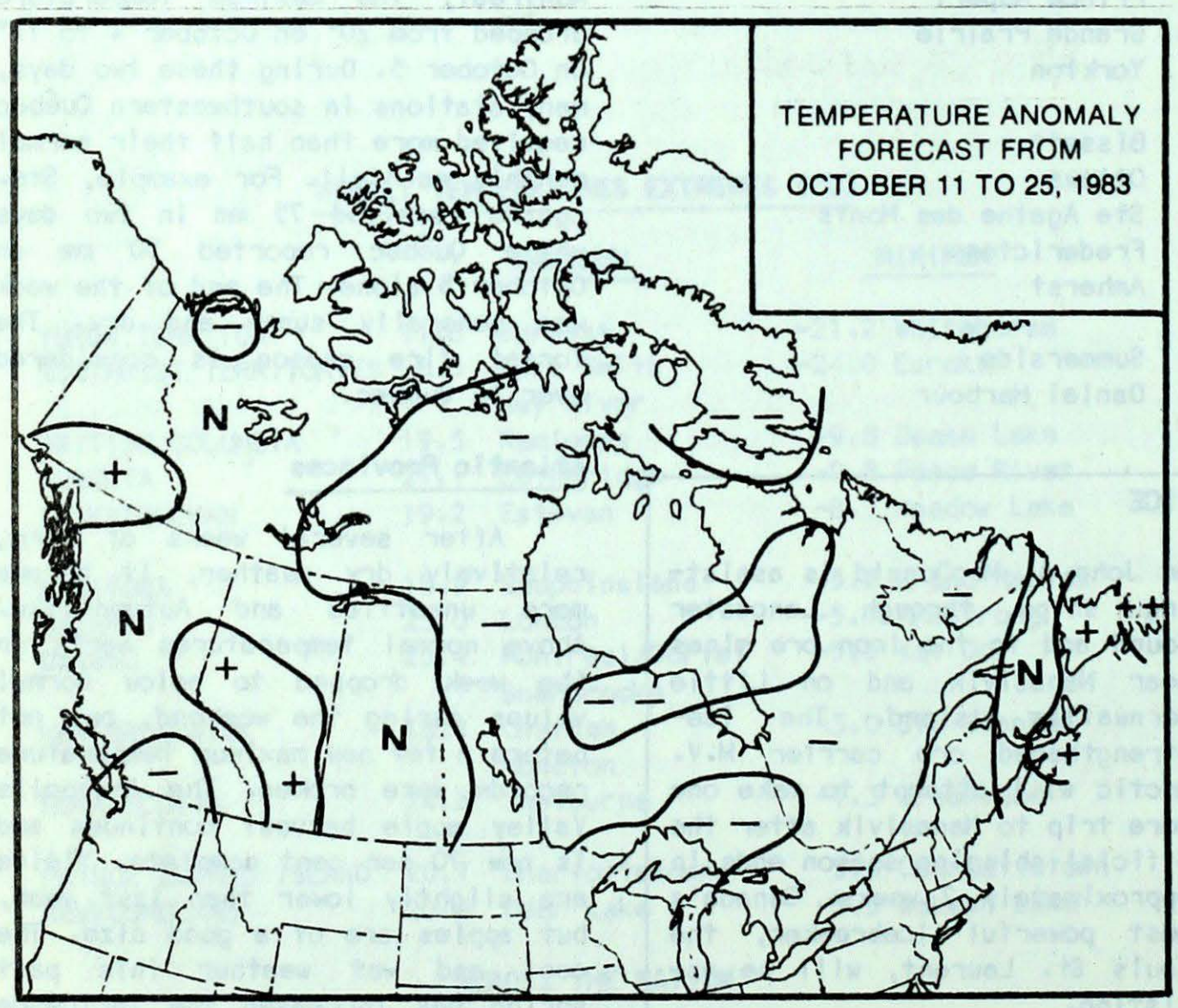
A derived index mapped as a percentage of the assumed soil water holding capacity at each station. It is a relative indicator of the moisture status of the soil.

100 = completely saturated

50 = 50 per cent of assumed holding capacity

0 = absolutely dry

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 the 15-day anomaly periods. After the five best sets are selected, the surface temperature anomalies are calculated. This results in five separate forecasts, which are averaged to provide the consensus forecast depicted.

++ much above normal

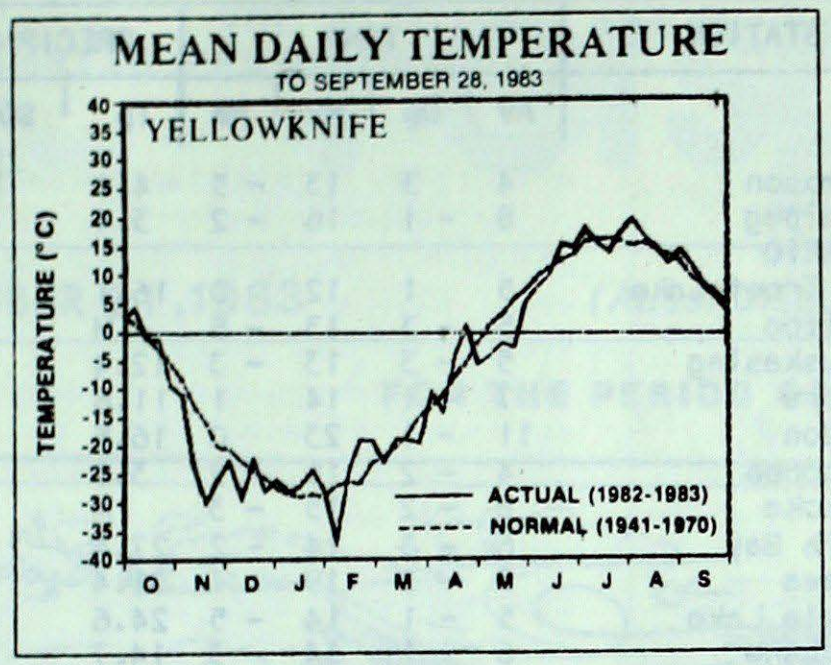
\+ above normal

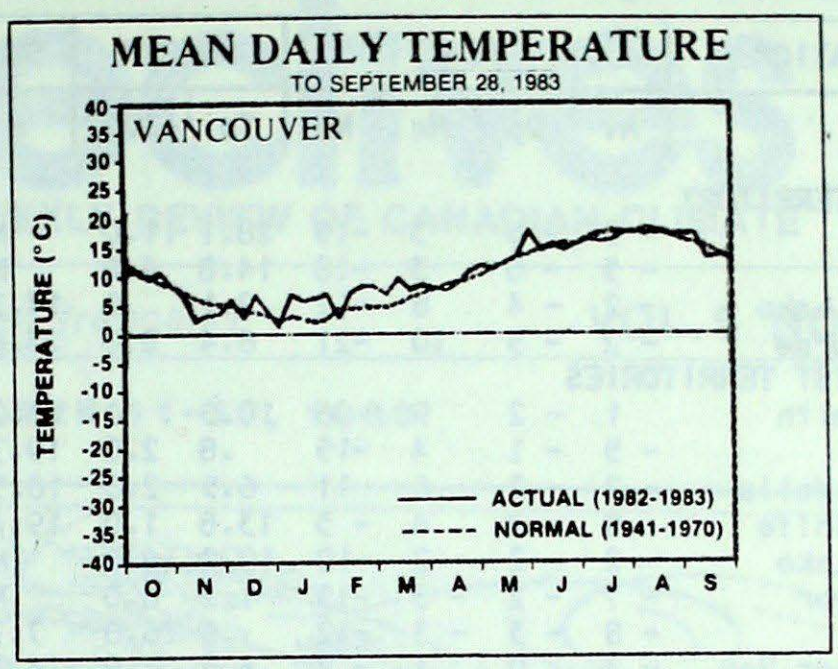
N normal

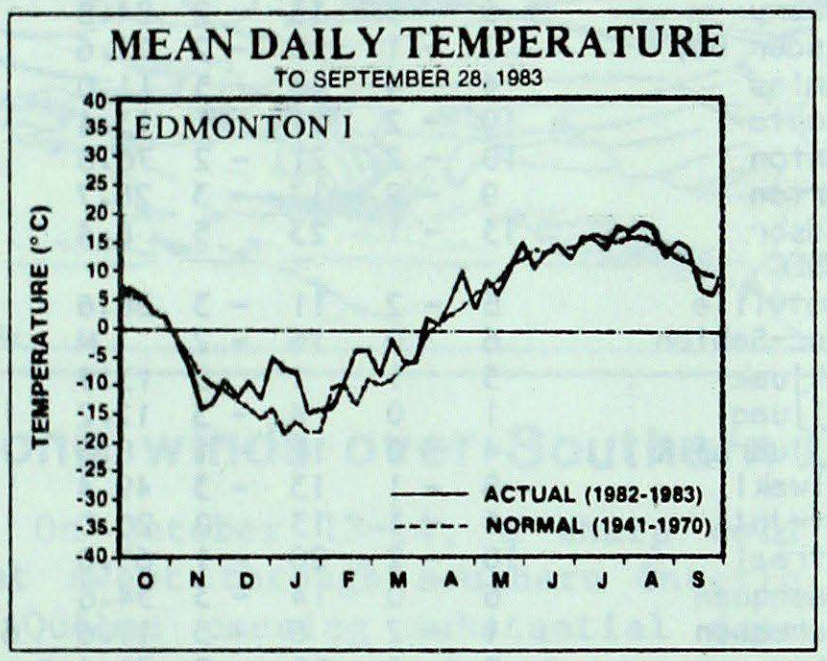
\- below normal

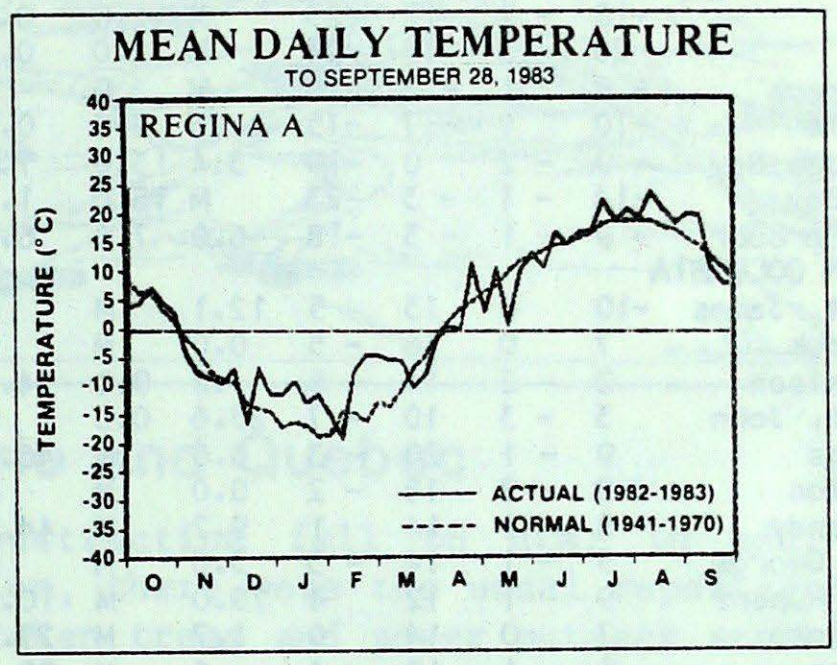
-- much below normal

WESTERN CANADA MEAN DAILY TEMPERATURES

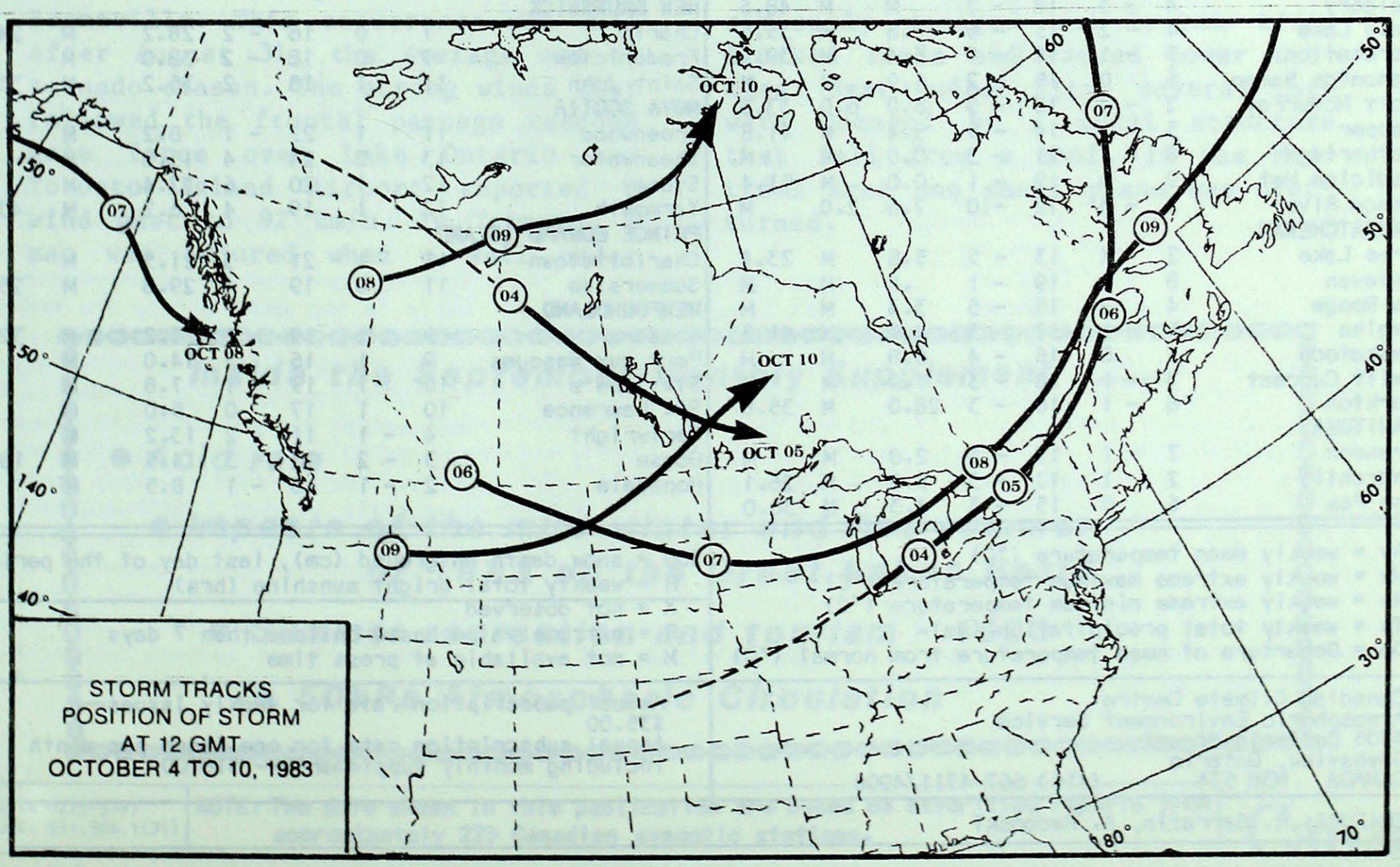








STORM TRACKS



TEMPERATURE, PRECIPITATION AND BRIGHT SUNSHINE DATA FOR THE WEEK ENDING 0600 GMT OCTOBER 11, 1983

STATION	TEMP				PRECIP		SUN
	Av	Dp	Mx	Mn	Tp	SOG	H
YUKON TERRITORY							
Dawson	- 5	- 5	3	-19	28.1	11.0	M
Mayo A	- 5	- 6	3	-18	14.8	4.0	M
Watson Lake	- 2	- 4	8	-12	2.1	0	17.3
Whitehorse	- 2	- 5	10	-21	6.4	8.0	23.6
NORTHWEST TERRITORIES							
Fort Smith	1	- 2	9	- 6	10.0	0	13.2
Inuvik	- 5	- 1	4	-15	.8	2.0	19.3
Norman Wells	- 2	- 2	6	-11	6.5	2.0	16.5
Yellowknife	0	- 2	4	- 5	13.8	1.0	19.4
Baker Lake	- 2	2	2	-10	19.2	6.0	M
Cape Dyer	- 7	- 2	- 3	-15	1.2	6.0	M
Clyde	- 8	- 3	- 3	-12	.8	26.0	7.7
Frobisher Bay	- 3	0	1	- 7	4.5	1.0	14.1
Alert	-18	- 2	-12	-23	M	11.0	0.0
Eureka	-20	- 3	-15	-24	M	2.0	0.0
Hall Beach	- 6	1	- 2	-10	M	0	M
Resolute	-10	1	- 7	-15	.6	2.0	0.5
Cambridge Bay	- 9	- 2	0	-19	3.4	13.0	7.2
Mould Bay	-14	- 1	- 3	-23	M	18.0	1.4
Sachs Harbour	- 9	- 1	- 3	-18	6.0	7.0	6.4
BRITISH COLUMBIA							
Cape St. James	-10	0	13	5	12.1	M	M
Cranbrook	7	0	16	- 5	0.0	M	M
Fort Nelson	2	- 2	14	- 8	.2	0.0	34.7
Fort St. John	3	- 3	10	- 7	25.6	0.0	M
Kamloops	9	- 1	20	- 3	0.0	M	46.3
Penticton	8	- 2	18	- 2	0.0	M	M
Port Hardy	8	- 1	14	1	9.7	M	44.6
Prince George	5	- 1	14	- 3	3.0	M	M
Prince Rupert	9	- 1	12	4	79.0	M	10.5
Revelstoke	7	0	14	0	1.7	M	29.9
Smithers	5	- 1	12	- 4	.6	M	20.6
Vancouver	9	- 2	15	3	0.0	M	46.7
Victoria	9	- 2	15	3	0.0	M	41.4
Williams Lake	5	- 2	14	- 5	0.0	M	M
ALBERTA							
Calgary	4	- 3	18	- 7	M	M	48.6
Cold Lake	4	- 2	15	- 6	.8	M	35.5
Coronation	5	- 1	16	- 5	6.4	M	39.2
Edmonton Namao	6	0	15	- 2	1.9	M	M
Fort McMurray	2	- 3	13	- 9	6.0	6.0	33.3
Jasper	5	- 1	14	- 5	8.4	M	41.8
Lethbridge	8	- 1	21	- 3	0.0	M	M
Medicine Hat	9	0	19	- 1	0.0	M	51.4
Peace River	2	- 3	12	-10	7.6	2.0	M
SASKATCHEWAN							
Cree Lake	2	X	13	- 5	5.8	M	23.4
Estevan	8	0	19	- 1	.8	M	M
La Ronge	4	0	15	- 5	3.4	M	M
Regina	6	- 1	17	- 3	4.9	M	41.3
Saskatoon	7	0	16	- 4	6.8	M	M
Swift Current	7	- 1	18	- 3	1.9	M	M
Yorkton	6	- 1	16	- 3	28.0	M	35.8
MANITOBA							
Brandon	7	- 1	17	- 3	2.8	M	M
Churchill	2	1	10	- 3	5.0	M	26.1
The Pas	6	0	15	- 3	4.3	M	30.0
Thompson	4	3	13	- 5	4.1	M	21.4
Winnipeg	8	- 1	16	- 2	3.4	M	31.6
ONTARIO							
Big Trout Lake	5	1	12	0	16.1	M	M
Earlton	5	- 3	13	- 5	M	M	M
Kapuskasing	5	- 3	13	- 3	12.4	M	M
Kenora	7	- 1	14	1	11.6	M	M
London	11	- 1	23	0	16.5	M	20.7
Moosonee	4	- 2	15	- 2	3.0	M	30.0
Muskoka	8	- 2	15	- 3	M	M	M
North Bay	6	- 3	14	- 2	27.4	M	29.6
Ottawa	9	- 2	19	1	91.4	M	33.3
Pickle Lake	5	- 1	14	- 5	24.6	M	M
Red Lake	6	- 1	14	- 3	14.7	M	19.4
Sudbury	6	- 3	13	- 2	24.8	M	M
Thunder Bay	7	- 1	15	- 2	12.6	M	24.2
Timmins	4	- 4	13	- 5	11.0	M	M
Toronto	10	- 2	22	1	13.4	M	M
Trenton	10	- 2	21	- 2	76.6	M	M
Wiarton	9	- 2	17	- 3	28.7	M	19.2
Windsor	13	- 1	23	5	8.4	M	M
QUEBEC							
Bagotville	6	- 2	11	- 3	38.6	M	M
Blanc-Sablon	6	0	16	- 2	M	M	M
Inukjuak	3	1	5	0	13.9	M	14.0
Kuujjuaq	1	0	4	- 3	12.2	1.0	12.5
Kuujjuarapik	4	0	11	- 1	8.6	M	15.3
Maniwaki	8	- 1	13	- 3	49.4	M	26.5
Mont-Joli	6	- 1	13	0	26.0	M	34.5
Montréal	10	- 2	20	- 1	65.0	M	31.5
Natashquan	6	0	14	- 3	34.6	M	M
Nitchequon	1	- 2	6	- 3	17.6	6.0	20.0
Québec	8	- 1	15	- 2	71.4	M	22.8
Schefferville	- 1	- 2	3	- 4	20.4	5.0	15.5
Sept-Iles	5	- 1	12	- 2	M	M	M
Sherbrooke	8	0	20	- 4	55.8	M	14.6
Val-d'Or	4	- 2	12	- 6	21.6	M	33.4
NEW BRUNSWICK							
Charlo	7	0	16	- 2	28.2	M	24.0
Fredericton	9	0	18	- 2	38.0	M	M
Saint John	11	1	18	2	35.2	M	35.6
NOVA SCOTIA							
Greenwood	11	1	22	- 1	8.2	M	M
Shearwater	13	2	24	4	13.8	M	M
Sydney	12	1	20	6	12.4	M	M
Yarmouth	12	1	19	4	6.2	M	43.5
PRINCE EDWARD ISLAND							
Charlottetown	11	1	21	3	21.5	M	M
Summerside	11	0	19	4	29.8	M	25.2
NEWFOUNDLAND							
Gander	9	1	19	0	3.2	M	32.3
Port aux Basques	9	1	16	2	14.0	M	M
St. John's	10	1	19	1	7.8	M	M
St. Lawrence	10	1	17	0	5.0	M	M
Cartwright	4	- 1	11	- 2	13.2	M	M
Goose	3	- 2	10	- 3	14.5	M	18.8
Hopedale	2	- 1	8	- 1	8.5	M	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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