Climatic Perspectives

A WEEKLY REVIEW OF CANADIAN CLIMATE

OCTOBER 28, 1983 (Aussi disponible en français) VOL.5 NO.43

FOR THE PERIOD OCTOBER 18 - 24, 1983

- ***Pleasant autumn weather from the Rockies to the St. Lawrence Valley***
- ***Blizzard-like weather in the Yukon***
- ***Heavy rains in Newfoundland and coastal British Columbia***
- ***Extensive new ice cover in Baffin Bay - Supply Vessels on the move in the Arctic.***

0225-5707
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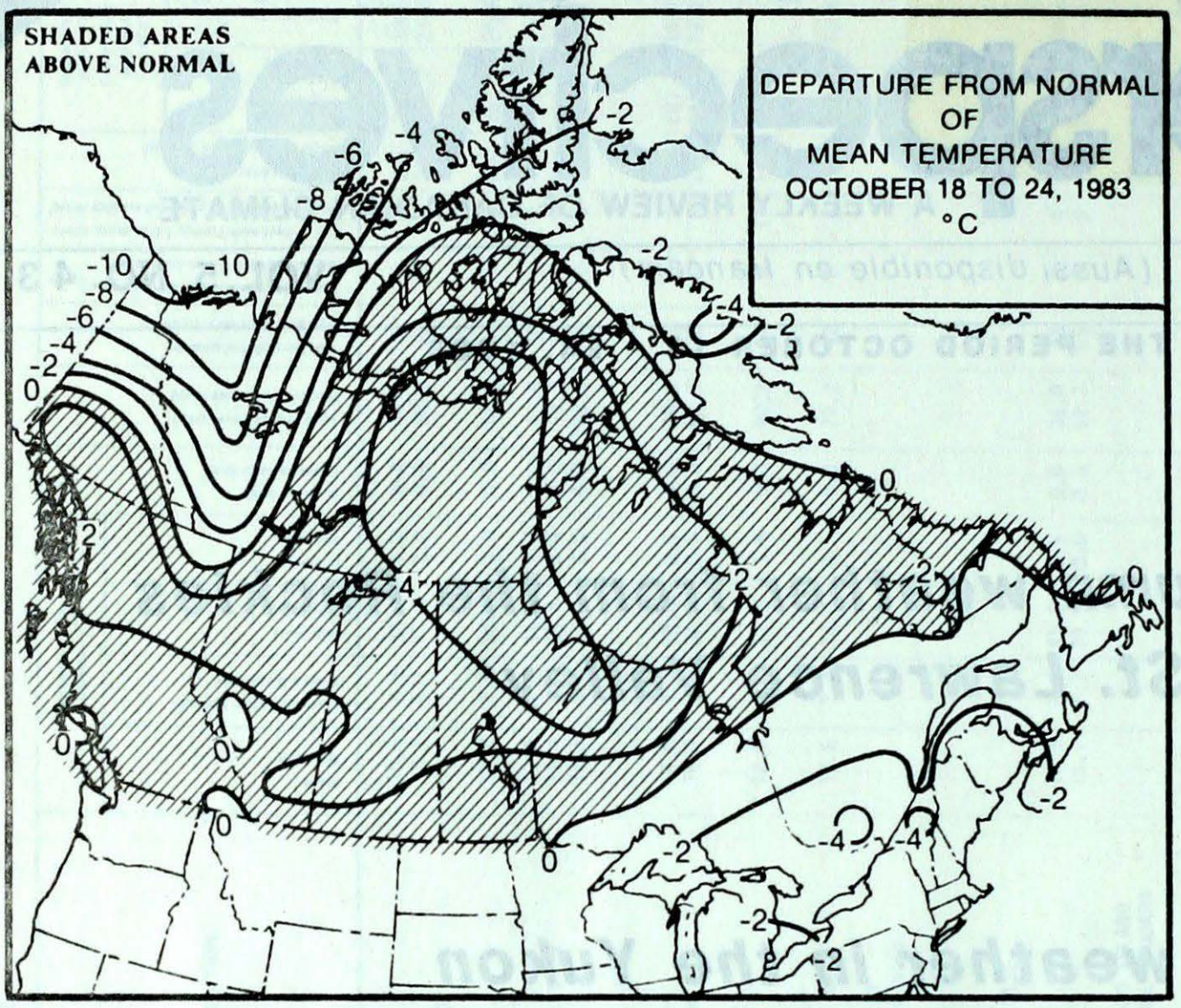
NOTE: The data shown in this publication are based on unverified reports from approximately 225 Canadian synoptic stations.

Canada



WEEKLY TEMPERATURES EXTREMES (°C)

	MAXIMUM		MINIMUM	
YUKON TERRITORY	8.5	Watson Lake	-30.7	Shingle Point
NORTHWEST TERRITORIES	8.5	Fort Smith	-37.2	Eureka
BRITISH COLUMBIA	17.9	Kamloops	-11.0	Fort Nelson
ALBERTA	20.1	Lethbridge	-10.4	High Level
				Red Deer
SASKATCHEWAN	25.8	Moose Jaw	-11.8	Collins Bay
MANITOBA	20.0	Dauphin	-10.9	Dauphin
ONTARIO	15.1	Toronto	-9.4	Geraldton
QUEBEC	14.5	Gaspé	-9.1	Sherbrooke
NEW BRUNSWICK	15.8	St Stephen	-8.2	Fredericton
NOVA SCOTIA	16.8	Sable Island	-4.6	Truro
PRINCE EDWARD ISLAND	15.2	Charlottetown	0.0	Charlottetown
NEWFOUNDLAND	15.2	Bonavista	-8.7	Churchill Falls

ACROSS THE NATION

Warmest mean temperature	10.5	Cape Scott, BC
Coolest mean temperature	-27.3	Mould Bay, NWT

ACROSS THE COUNTRY...

Yukon and Northwest Territories

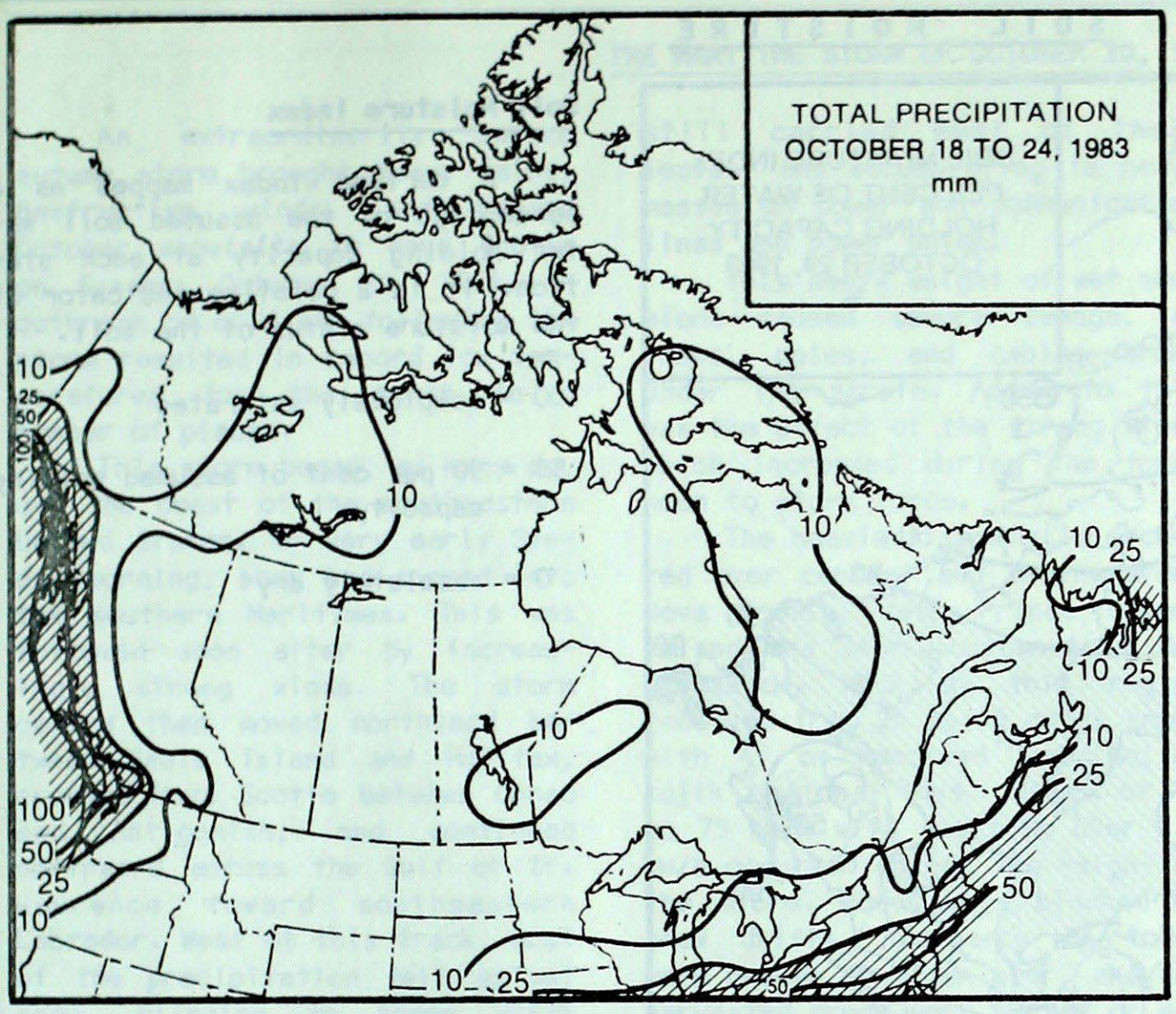
Mean temperatures continued to be below normal across the North. The High Arctic was especially cold where the readings plummeted to 10° below the norm. Only the southern Yukon and Keewatin District experienced near normal temperatures. Weather systems, crossing the North, dropped moderate to heavy snow in the central and northern Yukon. Dawson, Eagle plains and Ogilvie received nearly 30 cm of snow. In the northern Yukon, strong winds and very cold temperatures produced uncomfortably high wind chill values. Blowing snow restricted visibility on numerous occasions. On October 18, the Dempster Highway was closed to traffic at the Peel and Mackenzie Rivers until the ice bridges are operational.

British Columbia

It was a typical autumn week with variable amounts of sun. Mean temperatures were as much as 3° above normal in the Peace River District. Cloudy nights allowed temperatures to remain well above freezing in many localities. Heavy precipitation fell along the Coast and in the Kootenay area of the southern Interior, as much as 135 mm on Vancouver Island. The Peace River District was dry and good progress was made with this season's harvest.

Prairies

A series of high pressure cells gave warm and dry weather conditions. Showery precipitation amounted to less than 5 mm and only eastern Manitoba received amounts in excess of 10 mm. Temperatures were cool at first, but moderated quickly reaching the low twenties in Saskatchewan in time for the weekend. Several new daily maximum temperature records were established in more northern areas. Moose Jaw reached 26° on October 22. Fine weather in the Peace River District allowed harvesting to progress rapidly; only 10 per cent of the crop remains to be harvested.

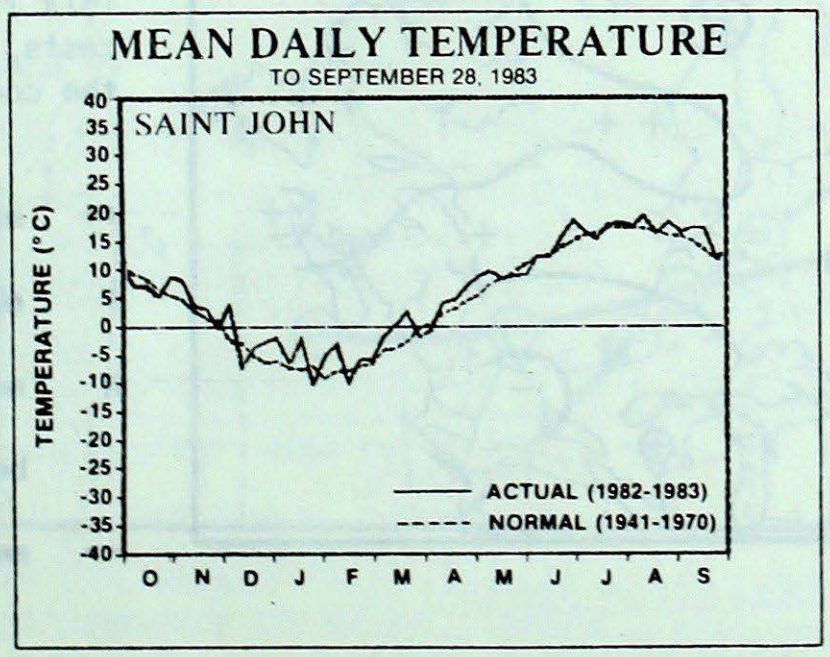


HEAVIEST WEEKLY PRECIPITATION (mm)

YUKON	19.2	Dawson
NORTHWEST TERRITORIES	22.5	Frobisher Bay
BRITISH COLUMBIA	135.0	Estevan Point
ALBERTA	5.8	Jasper
SASKATCHEWAN	2.6	Collins Bay
MANITOBA	16.11	Bissitt
ONTARIO	21.0	Windsor
QUEBEC	21.0	Inukjuak
NEW BRUNSWICK	5.6	St Stephen
NOVA SCOTIA	33.7	Shelburne
PRINCE EDWARD ISLAND	5.8	Charlottetown
NEWFOUNDLAND	77.1	St. John's

CORRECTION

Oops. We goofed! Mean daily temperatures curve for Saint John, NB was drawn incorrectly last week. We apologize for the very cold autumn season at Saint John. The temperature curve should be as follows:



Ontario

Hazy and sunny skies highlighted Ontario's pleasant autumn weather. The temperatures however, averaged 1 to 3 degrees below normal and frost occurred at many locations on October 20; the suburbs of Toronto experienced extensive frost on the same day. In the cool air mass, daytime temperatures barely reached 10° at several communities between the 18th and 20th of October. The weekend was marred by dull and damp weather across southern Ontario. While 15 to 25 mm fell across the south, the weather remained dry in the North. The apple harvest continued rather slowly. In southern Ontario, the October 14 wind storm caused considerable damage in apple orchards; in the Quinte area, many of unharvested varieties ended up on the ground.

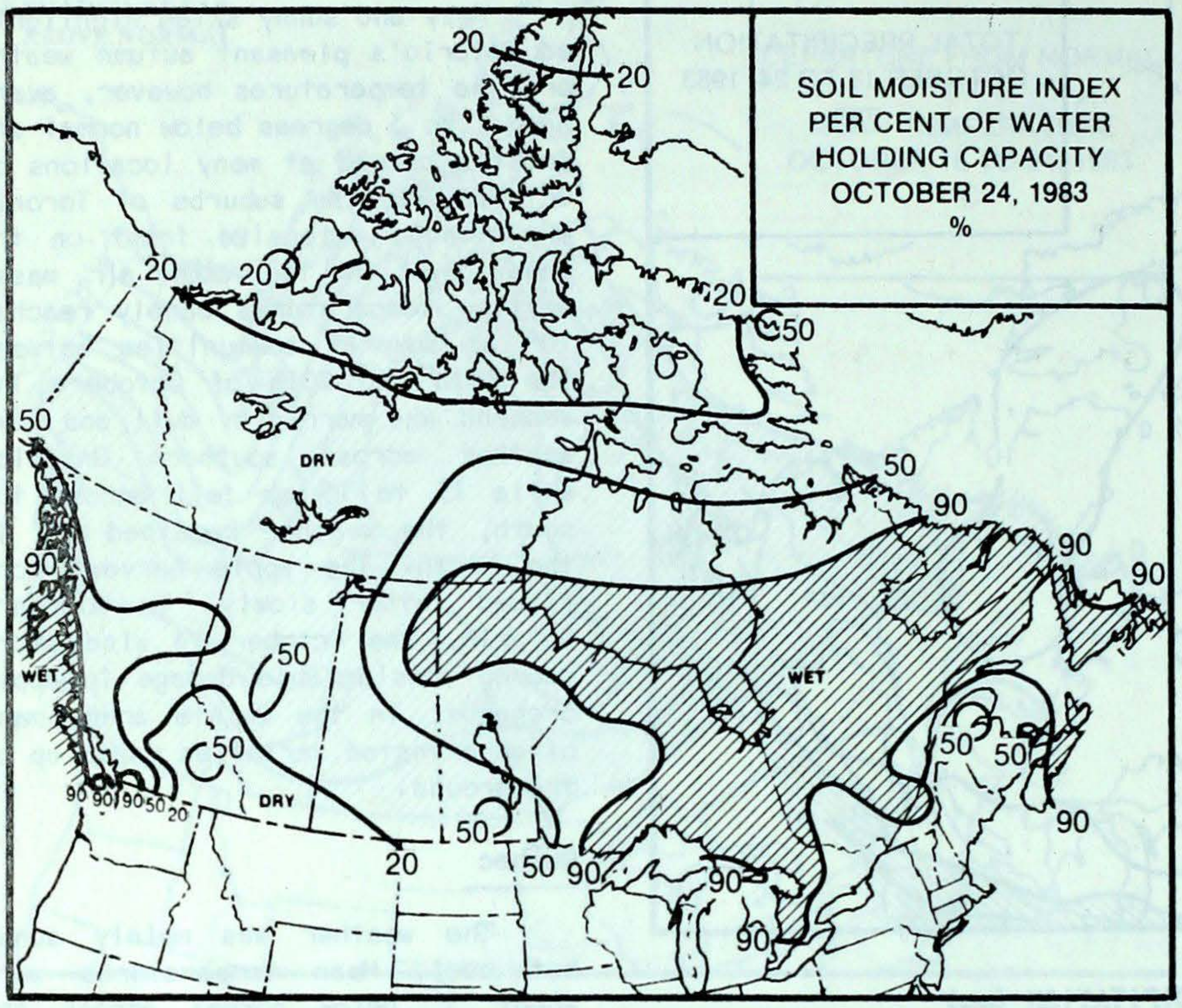
Québec

The weather was mainly sunny but cool. Mean temperatures were about 3° below normal across the province and as much as 7° below normal at Sherbrooke where overnight readings remained near -9° on the 20th and 21st of October. A few record low temperatures were set in the cold air mass. Precipitation was light almost everywhere. Kuujjuaq received the most-17 mm. In southeastern Québec, the third cut of the alfalfa crops was nearly completed.

Atlantic Provinces

Below normal temperatures dominated the weather. Overnight readings were especially cold in Newfoundland. On October 20, daytime values did not climb above -2° at Churchill Falls and Wabush Lake. Except for the Avanlon Peninsula, the East Coast enjoyed plenty of sunshine. On October 23, strong winds gusting near 100 km/h accompanied by heavy rains buffeted St. John's. Southeastern Newfoundland received 50 to 70 mm of rain during the week. In Nova Scotia, dry weather allowed apple harvest to progress rapidly; the harvest was about 2 weeks ahead of schedule, and the size and the colour of the crop was described as good to excellent.

SOIL MOISTURE



Soil Moisture Index

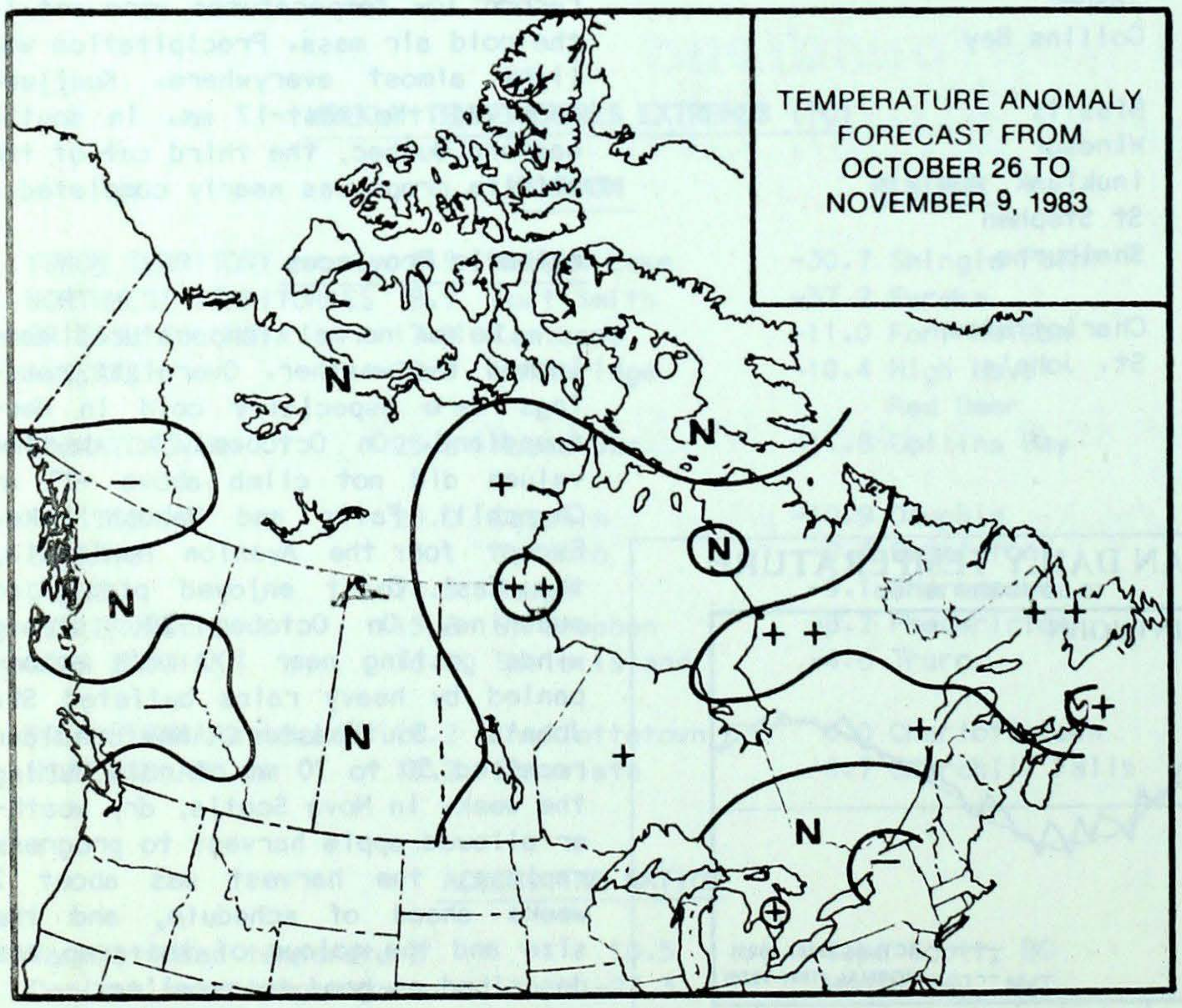
A derived index mapped as a percentage of the assumed soil water holding capacity at each station. It is a relative indicator of the moisture status of the soil.

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

THE MARITIME STORM OF OCTOBER 20, 1974

An extraordinarily severe autumn storm brought heavy rains, destructive winds, and record October snowfalls to Nova Scotia on Sunday, October 20, 1974. An outbreak of cold air following the storm resulted in record low temperatures for the month in a number of places.

This storm began, as many do, off the coast of the southeastern United States. By very early Sunday morning, snow had spread into the southern Maritimes. This was followed soon after by increasingly strong winds. The storm centre then moved northward between Sable Island and Halifax, crossed Nova Scotia between Canso and Antigonish, and continued northward across the Gulf of St. Lawrence toward southeastern Labrador. West of this track, most of the precipitation fell as wet snow, clinging to trees which still carried most of their leaves, and accumulating in heavy masses on power and communication lines and power poles.

This heavy weight of wet snow alone caused severe damage, as trees, poles, and cables broke under the strain. Added to this was the effect of the strong winds which increased during the forenoon to storm force.

The heaviest snowfalls occurred over central and southwestern Nova Scotia, over Prince Edward Island and over southwestern New Brunswick. Much of this region received from 25 to 38 cm of snow, with 45 cm reported from Kejimkujik National Park. Winds of 55 to 75 km/h with gusts to over 130 km/h occurred during the height of the storm. Roads were blocked by snow drifts, thousands of trees were broken or blown over, and unharvested crops were buried or destroyed. Power and communications failures were widespread, which in some cases could not be repaired for several days.

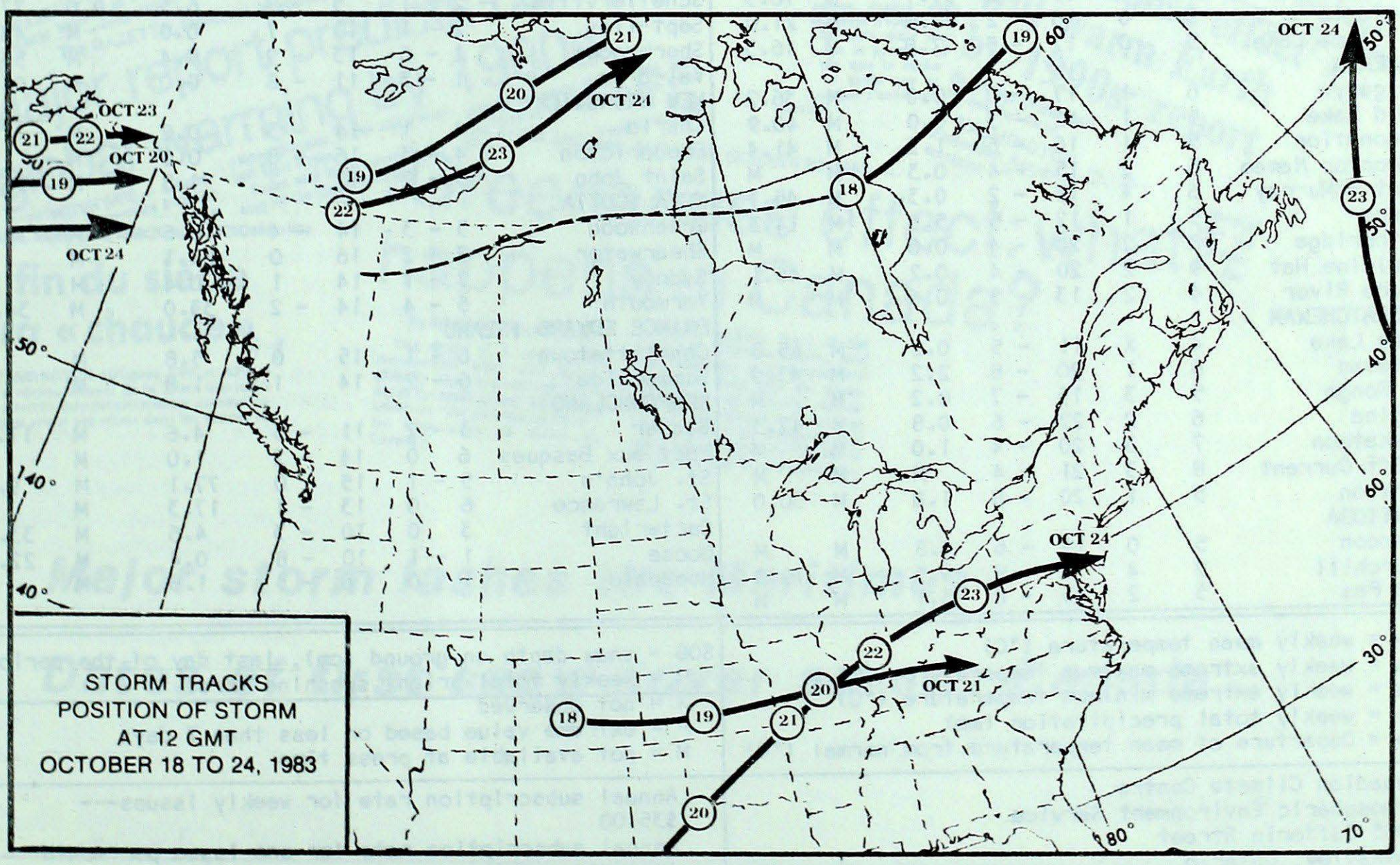
East of the storm track, most of the precipitation fell as rain. Very strong winds occurred here as well.

For the most affected area, snowfalls exceeded any previously recorded October amounts. Stronger winds have occurred in the past, but have been rare.

Cold air swept into the Maritimes following the passage of the storm. Record low temperatures for the season were recorded in a number of places. On October 22, a reading of -10° was observed at Truro and lows near -5° were general.

A.D. Gates and J.F. Amirault
Atlantic Region

STORM TRACKS



TEMPERATURE, PRECIPITATION AND BRIGHT SUNSHINE DATA FOR THE WEEK ENDING 0600 GMT OCTOBER 25, 1983

STATION	TEMP				PRECIP		SUN
	Av	Dp	Mx	Mn	Tp	SOG	H
YUKON TERRITORY							
Dawson	- 9	- 4	0	-20	19.2	28.0	M
Mayo A	- 3	2	7	- 9	5.2	9.0	M
Watson Lake	1	3	9	- 6	10.1	M	14.5
Whitehorse	1	2	6	- 3	5.4	M	M
NORTHWEST TERRITORIES							
Fort Smith	3	4	9	- 4	0.8	0.0	M
Inuvik	-20	-10	-16	-28	2.8	28.0	M
Norman Wells	-15	- 8	- 9	-20	4.8	7.0	10.5
Yellowknife	- 1	2	5	- 9	M	4.0	6.0
Baker Lake	- 5	6	3	-16	6.5	9.0	1.4
Cape Dyer	-11	- 3	- 4	-19	5.4	10.0	M
Clyde	-11	- 3	- 3	-21	4.6	48.0	10.5
Frobisher Bay	- 7	0	0	-17	22.5	14.0	9.6
Alert	-22	- 1	-11	-33	M	7.0	M
Eureka	-27	- 3	-12	-37	8.0	8.0	M
Hall Beach	-11	1	- 1	-23	8.4	8.0	M
Resolute	-17	0	- 6	-28	4.2	7.0	0.0
Cambridge Bay	-10	4	0	-19	4.2	17.0	M
Mould Bay	-27	- 7	-17	-35	M	17.0	M
Sachs Harbour	-22	- 8	-11	-29	8.9	18.0	5.1
BRITISH COLUMBIA							
Cape St. James	10	1	13	7	71.1	M	M
Cranbrook	5	0	13	- 5	M	M	20.0
Fort Nelson	- 2	- 1	7	-11	7.9	3.0	24.0
Fort St. John	6	3	13	0	1.9	M	M
Kamloops	9	2	18	- 2	0.4	M	M
Penticton	10	2	17	- 3	1.7	M	28.0
Port Hardy	8	0	12	3	65.3	M	M
Prince George	5	1	13	- 8	6.9	M	26.8
Prince Rupert	9	2	13	5	99.2	M	11.7
Revelstoke	7	1	13	0	22.3	M	7.2
Smithers	5	2	11	- 1	M	M	M
Vancouver	10	1	15	2	39.7	M	16.9
Victoria	9	0	16	2	22.9	M	21.0
Williams Lake	5	0	12	- 5	2.8	M	16.3
ALBERTA							
Calgary	6	1	17	- 8	0.0	M	36.2
Cold Lake	5	1	12	- 3	0.0	M	40.9
Coronation	5	1	16	- 6	1.2	M	41.4
Edmonton Namao	6	2	15	- 4	0.3	M	M
Fort McMurray	6	4	15	- 2	0.3	M	45.1
Jasper	5	1	12	- 5	5.8	M	14.3
Lethbridge	8	2	20	- 4	0.0	M	M
Medicine Hat	9	2	20	- 4	0.2	M	46.1
Peace River	4	2	13	- 5	0.6	M	M
SASKATCHEWAN							
Cree Lake	4	X	11	- 5	0.2	M	45.0
Estevan	6	1	20	- 8	2.2	M	43.9
La Ronge	5	3	15	- 7	0.2	M	M
Regina	6	2	22	- 6	0.8	M	42.3
Saskatoon	7	3	20	- 4	1.0	M	M
Swift Current	8	3	21	- 4	M	M	M
Yorkton	5	1	20	- 8	1.8	M	50.0
MANITOBA							
Brandon	5	0	19	- 6	6.8	M	M
Churchill	2	4	8	- 8	9.5	M	19.8
The Pas	5	2	15	- 8	3.1	M	M
Thompson	4	4	14	- 4	5.6	M	35.3
Winnipeg	6	1	14	- 9	5.8	M	25.6
ONTARIO							
Big Trout Lake	5	4	12	- 4	15.3	M	M
Earlton	2	- 2	12	- 8	M	M	M
Kapuskasing	3	- 1	13	- 6	0.0	M	M
Kenora	5	1	12	- 4	6.2	M	M
London	7	- 2	14	1	17.0	M	26.7
Moosonee	2	- 1	12	- 6	2.2	M	M
Muskoka	4	- 3	13	- 6	M	M	M
North Bay	4	- 2	12	- 4	2.2	M	56.9
Ottawa	4	- 3	13	- 3	9.0	M	49.7
Pickle Lake	3	2	11	- 8	7.4	M	M
Red Lake	5	1	13	- 6	9.8	M	23.7
Sudbury	4	- 2	12	- 3	2.2	M	49.3
Thunder Bay	3	- 2	13	- 7	1.0	M	43.4
Timmins	2	- 2	12	- 9	0.0	M	M
Toronto	6	- 3	15	- 1	17.3	M	M
Trenton	6	- 3	13	- 3	18.0	M	M
Wiarton	5	- 4	13	- 4	16.0	M	39.9
Windsor	10	- 1	14	5	21.0	M	M
QUEBEC							
Bagotville	2	- 3	10	- 8	0.4	M	M
Blanc-Sablon	3	1	10	- 4	4.6	M	M
Inukjuak	1	2	5	- 3	21.0	M	4.9
Kuujjuaq	- 1	1	5	- 6	5.0	1.0	10.5
Kuujjuarapik	2	1	8	- 2	8.8	M	15.7
Manawaki	2	- 4	13	- 8	0.4	M	52.0
Mont-Joli	3	- 3	11	- 5	0.9	M	44.6
Montréal	5	- 4	12	- 3	6.0	M	55.0
Natashquan	2	- 2	13	- 7	1.2	M	M
Nitchequon	- 1	0	4	- 6	10.6	1.0	M
Québec	5	- 1	13	- 4	0.0	M	54.8
Schefferville	- 2	1	5	- 7	6.5	0.0	27.7
Sept-Iles	2	- 1	10	- 7	0.0	M	43.3
Sherbrooke	1	- 6	13	- 9	9.4	M	55.5
Val-d'Or	1	- 3	11	- 8	0.0	M	54.6
NEW BRUNSWICK							
Charlo	4	1	14	- 3	0.2	M	M
Fredericton	4	- 3	16	- 8	0.0	M	M
Saint John	5	- 2	12	- 2	1.8	M	36.0
NOVA SCOTIA							
Greenwood	5	- 3	14	- 4	12.6	M	M
Shearwater	7	- 2	16	0	24.1	M	M
Sydney	7	- 1	14	1	0.4	M	M
Yarmouth	5	- 4	14	- 2	33.0	M	34.2
PRINCE EDWARD ISLAND							
Charlottetown	6	- 1	15	0	5.8	M	M
Summerside	6	- 2	14	1	1.8	M	M
NEWFOUNDLAND							
Gander	3	- 2	11	- 3	4.6	M	17.4
Port aux Basques	6	0	14	- 2	1.0	M	M
St. John's	5	- 1	15	0	77.1	M	9.7
St. Lawrence	6	0	13	- 1	17.3	M	M
Cartwright	3	0	10	- 3	4.6	M	33.5
Goose	1	- 1	10	- 8	0.4	M	22.3
Hopedale	1	0	8	- 5	1.8	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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