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Climatic Perspectives

A WEEKLY REVIEW OF CANADIAN CLIMATE

JULY 8, 1983 | (Aussi disponible en français) | VOL.5 NO. 27

FOR THE PERIOD JUNE 28 TO JULY 4, 1983

Tornadoes cause injuries and property destruction in Ontario and Québec.

Canada Day celebrations were marred in two Ontario locations as tornadoes ripped through Atherley, 3 km east of Orillia and Omemee, 10 km west of Peterborough. The Atherley tornado was the more severe causing an estimated $1 million in damages predominantely to a large marina. About 6 people were injured. At Omemee, damage was confined to trees and utility poles as the tornado passed through mainly open farmland. On the same day, a tornado struck Mistassini, Québec just north of Lac Saint-Jean. At least 10 people were injured when their mobile homes was tossed around. Up to baseball size hail accompanied the dangerous weather. Property damage was estimated at $300,000. On July 4, another twister touched down in the village of Haliburton in Ontario. Damage to a lumber yard and marina amounted to $250,000.

(Also see do's and dont's on severe summer weather ... pg.5)

- **Lack of rain slows crop growth east of the Ottawa Valley.**

Fields saturated on the Prairies.

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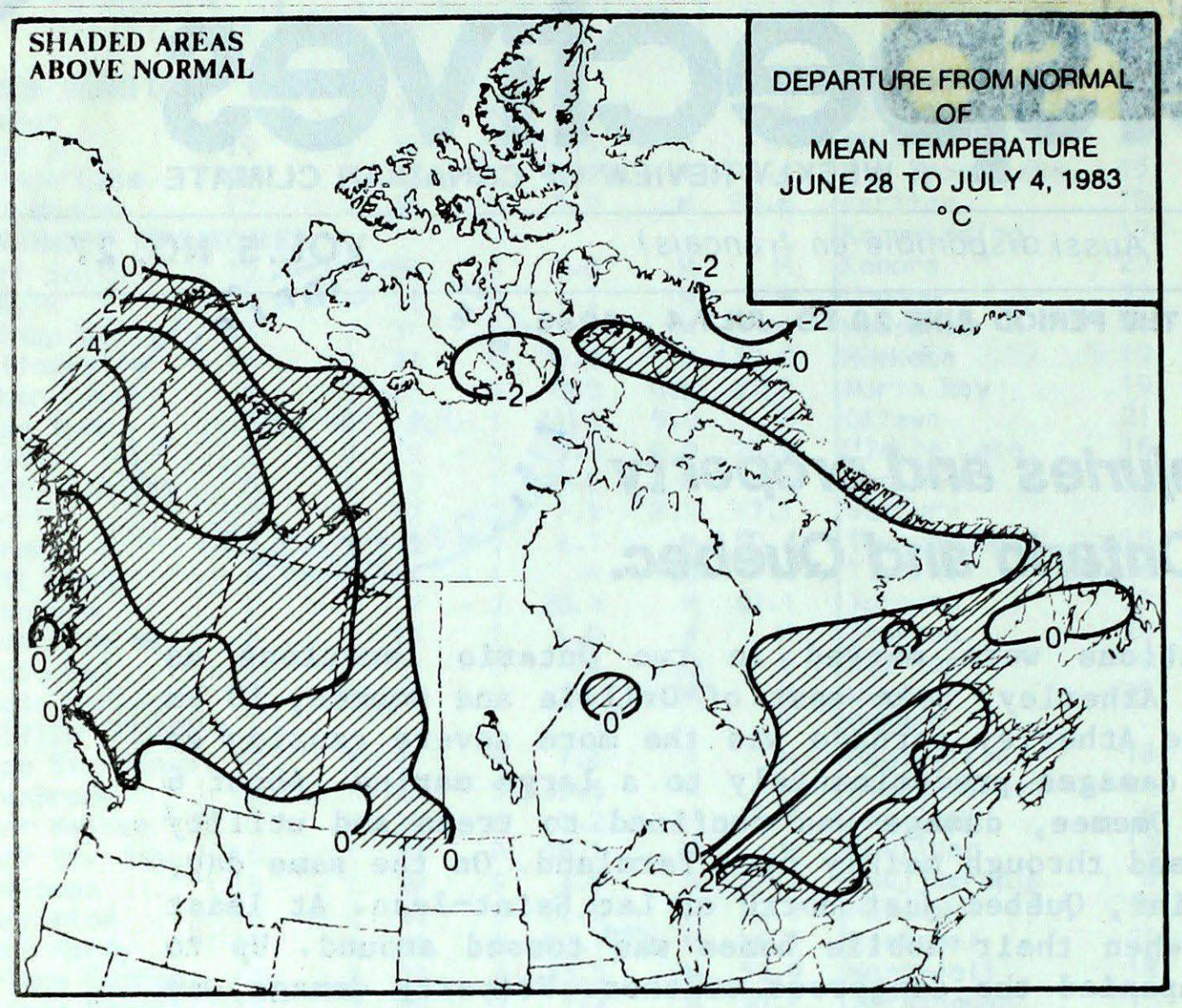
NOTE: The data shown in this publication are based on unverified reports from approximately 225 Canadian synoptic stations.

Canada



WEEKLY TEMPERATURES EXTREMES (°C)

	MAXIMUM		MINIMUM	
YUKON TERRITORY	30.5	Dawson	-0.5	Komakuk Beach
NORTHWEST TERRITORIES	32.2	Norman Wells	-5.1	Mackar Inlet
BRITISH COLUMBIA	30.6	Kamloops	0.0	Kindakun Point
				Lawn Point
ALBERTA	28.7	High Level	1.6	Grande Prairie
SASKATCHEWAN	28.5	Kindersley	0.0	Rockglen
MANITOBA	27.1	Gillam	0.6	Churchill
ONTARIO	32.3	Toronto	-0.2	Moosonee
QUEBEC	35.9	Mont Joli	-0.2	La Grande Rivière
NEW BRUNSWICK	34.3	Chatham	3.3	St. Stephen
NOVA SCOTIA	32.5	Greenwood	3.7	Greenwood
PRINCE EDWARD ISLAND	28.5	Charlottetown	8.8	Summerside
NEWFOUNDLAND	31.0	Wabush Lake	1.5	St Anthony

ACROSS THE NATION

Warmest mean temperature	22.4	Winisk, ONT
Coolest mean temperature	-0.1	Cape Hooper, NWT

ACROSS THE COUNTRY...

Yukon and the Northwest Territories

Record-breaking warmth continued in the Yukon. Daytime temperatures soared into the low thirties in the central and northern portions. However, persistent cloud cover kept the temperatures near normal in the southwestern Yukon. Local thunderstorms dumped up to 20 mm of rain at some locations. By the week's end, 80 forest fires were burning in the Yukon; most of them ignited by lightning strikes. Rapid melt and decay of ice was evident in the Beaufort Sea; the pack ice was about 80 km off the coast.

British Columbia

It was hot and dry in the north while changeable showery weather plagued central and southern portions. Terrace recorded the least amount of sunshine for any June, 113.9 hrs. Prince George established a new June maximum rainfall of 145.6 mm. The previous record was 122.0 mm set in 1977.

Wet conditions were causing delays in the hay harvest.

Prairies

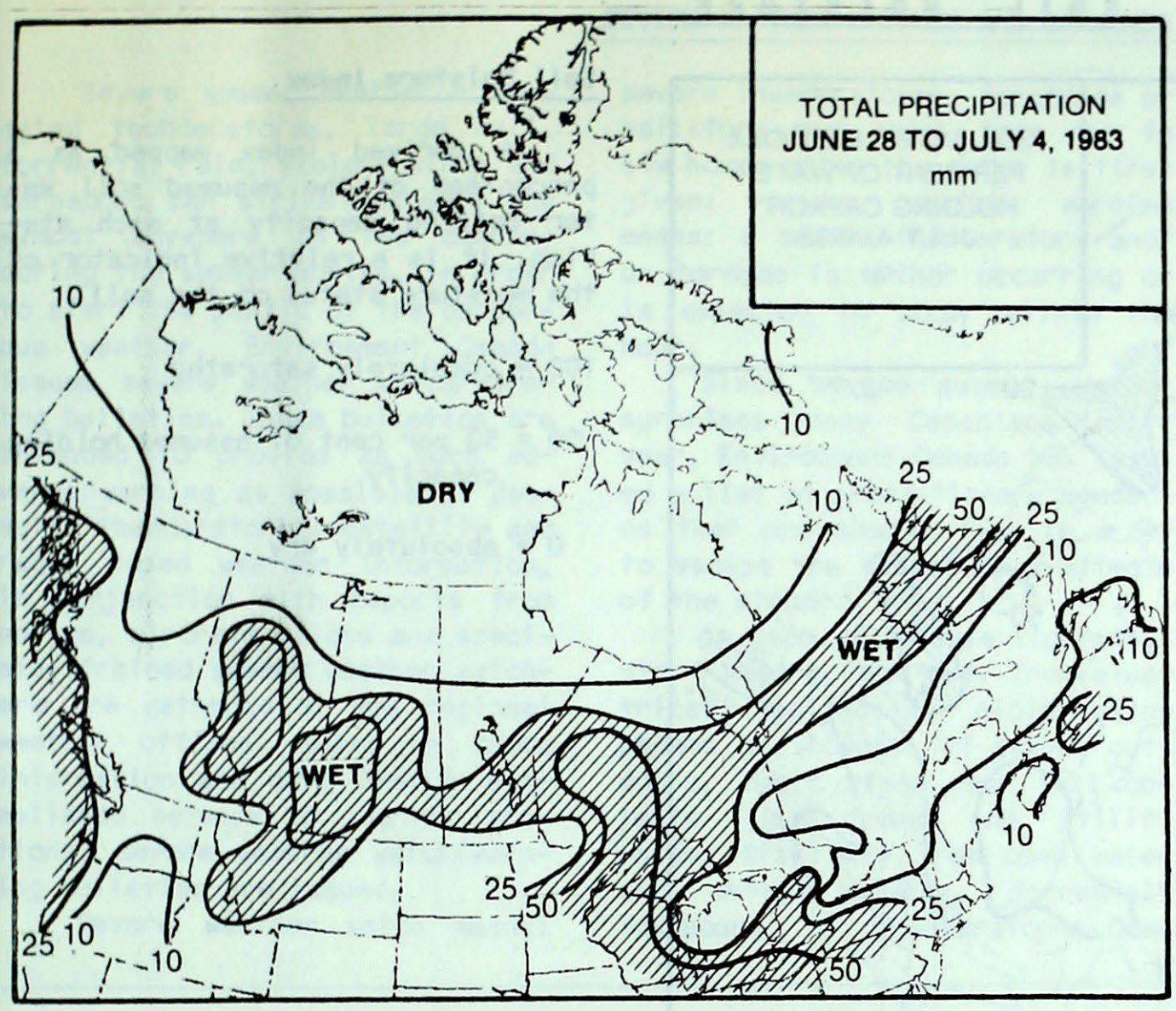
Weak disturbances continued to track eastward allowing for a cool and showery weather regime. Most areas have received more than enough rain and there is concern by farmers that if this pattern continues fields will be too wet; already there are difficulties with the hay harvest.

On July 4, severe thunderstorms struck several communities north of Edmonton. In addition to spectacular lightning there were heavy downpours and golf ball size hail.

Ontario

Severe thunderstorms spawned at least 3 tornadoes in Ontario. On July 1, tornadoes at Atherley near Orillia and Omemee near Peterborough caused extensive property damage. On July 4, another twister touched down in the village of Haliburton.

Otherwise, the cool, dry



HEAVIEST WEEKLY PRECIPITATION (mm)

YUKON	15.4	Whitehorse
NORTHWEST TERRITORIES	14.2	Cape Dyer
BRITISH COLUMBIA	49.3	Cape Scott
ALBERTA	68.7	Whitecourt
SASKATCHEWAN	106.8	Kindersley
MANITOBA	39.2	Portage la Prairie
ONTARIO	79.2	Windsor
QUEBEC	45.4	Nitchequon
NEW BRUNSWICK	21.6	Moncton
NOVA SCOTIA	31.8	Eddy Point
PRINCE EDWARD ISLAND	15.6	Charlottetown
NEWFOUNDLAND	65.1	Hopedale

Canada Day weather across the country

Yukon	Showers
Southern B.C.	Rain
Prairies	Showers
Ontario	Hot - 2 tornadoes
Québec	Thunderstorms - 1 tornado
Atlantic Provinces	Cloudy

weather at the beginning of the week turned progressively warmer and more humid by Canada Day. In the south, afternoon temperatures near 30° were common. In southwestern Ontario, the lengthening dry spell came to an abrupt end as heavy rains in the 50 to 65 mm range fell on June 27; London, for example, received 63 mm on that day. In southern Ontario, the hay harvest was near completion.

By the end of the week, 15 forest fires were burning, although none of them were considered serious. Showery weather has kept the fire danger at the low levels in the North.

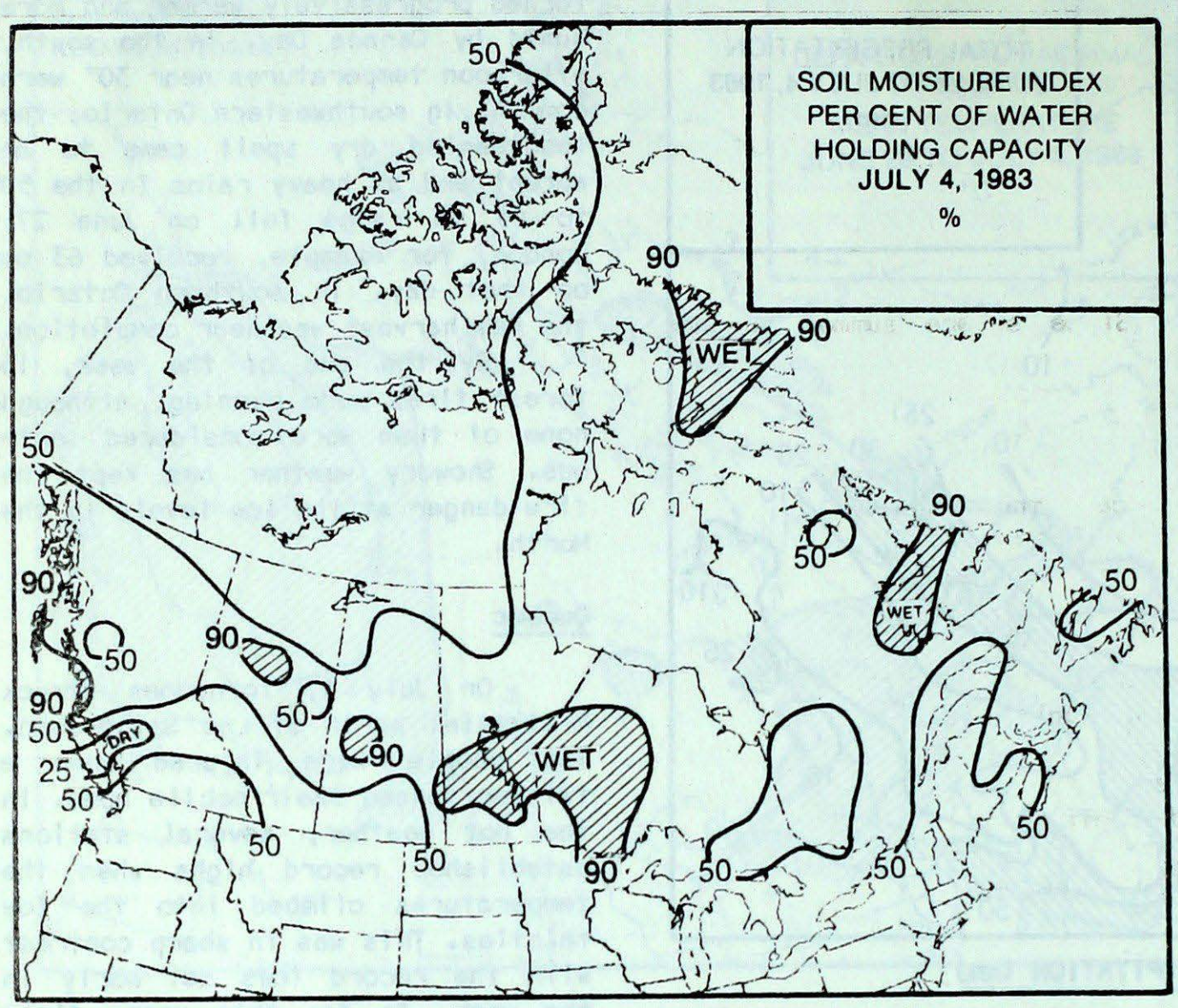
Québec

On July 1, tornadoes struck Mistassini north of Lac Saint-Jean. Ten people were injured when a twister tossed their mobile home. In the hot weather, several stations established record highs when the temperatures climbed into the low thirties. This was in sharp contrast with the record lows set early in the week. So far this year, fires have ravaged about 221,000 hectares of forested land. The 5-year average to date is only 5,500 hectares. Owing to the lack of rain, the crop growth has slowed down.

Atlantic Provinces

Fine summer weather continued. Lack of rain has considerably slowed the hay crop growth in the Maritimes. On July 3, severe thunderstorms struck Nova Scotia, and lightning strikes killed 4 cattle at Stewiacke, N.S. Numerous forest fires were burning across the Provinces. In Newfoundland, 4 major fires were out of control near Corner Brook. Tent caterpillars were rampant in Nova Scotia, especially in east Hants County. These insects have strip trees of foliage and were crawling on roadways and in homes.

SOIL MOISTURE



Soil Moisture Index

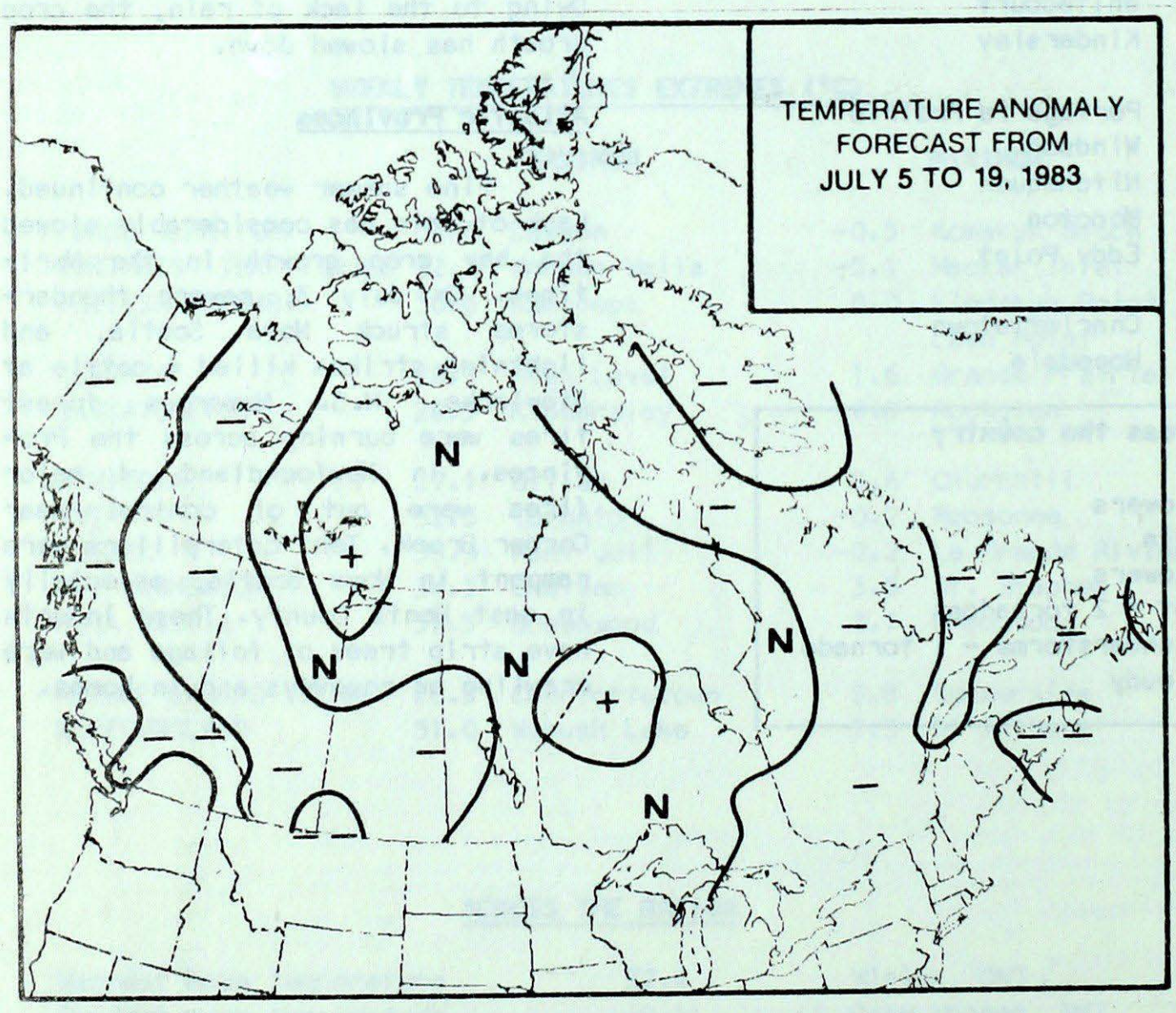
A derived index mapped as a percentage of the assumed soil water holding capacity at each station. It is a relative indicator of the moisture status of the soil.

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

SEVERE WEATHER WATCHES AND WARNINGS

Severe summer weather - damaging thunderstorms, large hail, torrential rain, violent winds and tornadoes can strike suddenly and almost anywhere in the country during the summer months. In order to alert the public of the dangerous weather, Environment Canada issues severe weather watch/warning bulletins. These bulletins are intended to provide as much advance warning as possible of damaging thunderstorms. Satellite and radar based weather information, in conjunction with reports from police, aircraft pilots and specially trained severe weather watchers are gathered at the regional weather offices. Based on these information and data from an established network of weather stations, severe weather watch/warning bulletins are issued.

Severe weather watch means: severe thunderstorms, tornadoes or hailstorm may occur from one to six hours after the watch is first given: severe weather warning means: a severe thunderstorm and/or tornado is either occurring or is expected to occur within the hour.

Since severe summer weather surprises many Canadians every year, Environment Canada has issued a list of precautionary measures that one should take in order to escape the disasterous effects of the storms.

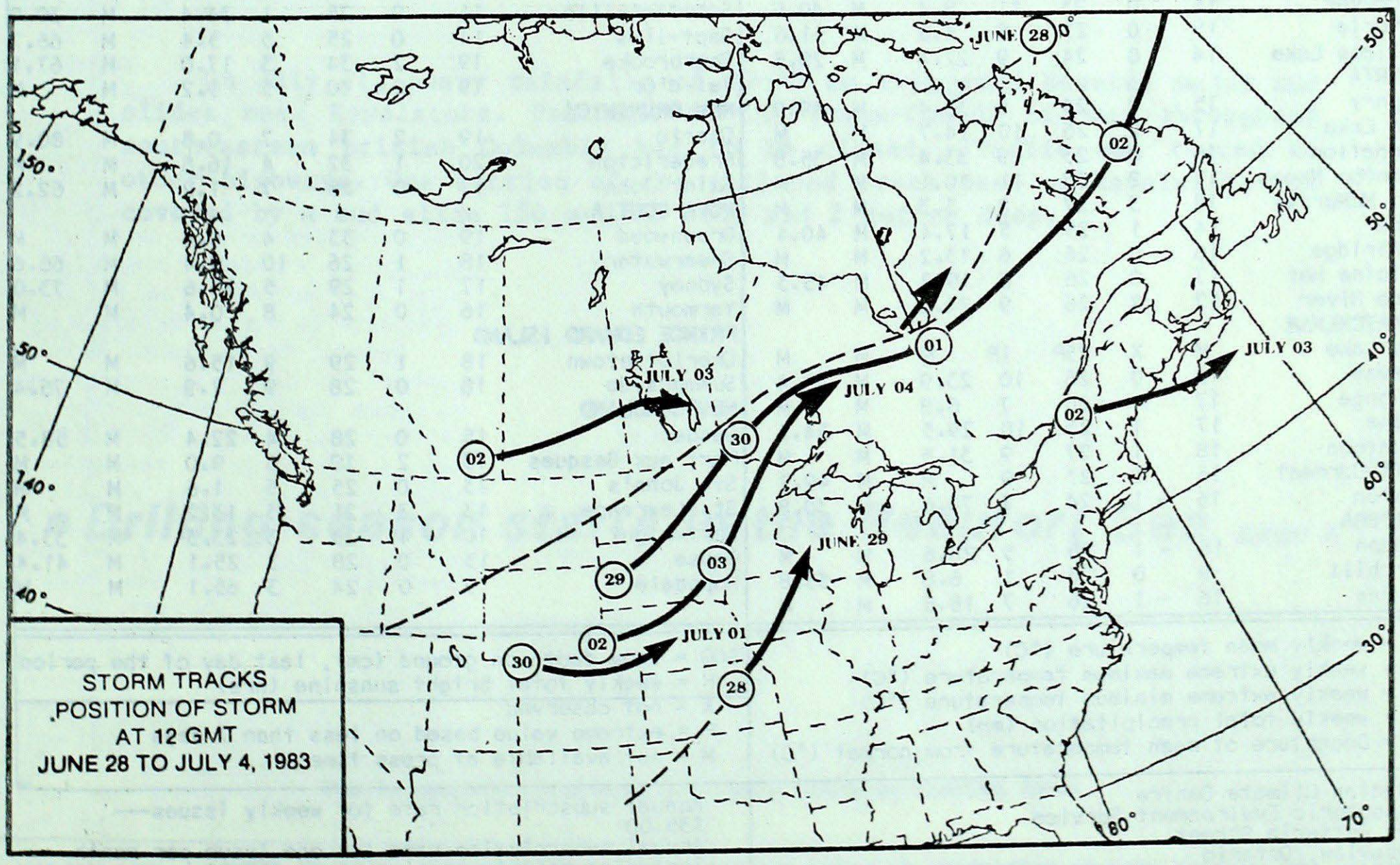
In case of intense lightning, stay indoors, and away from electrical appliances. Avoid using phones or showers. If caught outdoors, don't stand near tall objects like trees and utility poles. Stay away from open water and metal objects. Torrentail downpours in thunderstorms can cause flash floods. Do not shelter where you may be trapped by rising water.

When a tornado threatens stay away from windows, doors and outside walls. Protect your head. The safest place is in the basement. Go to the centre of the house or the side away from the approaching storm. Avoid buildings with large areas of roof, such as arenas and supermarkets. If caught in the open, move away from the tornado's path at a right angle. If unable to avoid the torando, find a ditch or other depression and lie flat. Do not remain in a car.

For more information, contact your local weather office.

- Material provided by the Information Directorate

STORM TRACKS



TEMPERATURE, PRECIPITATION AND BRIGHT SUNSHINE DATA FOR THE WEEK ENDING 0600 GMT JULY 5, 1983

STATION	TEMP				PRECIP		SUN
	Av	Dp	Mx	Mn	Tp	SOG	H
YUKON TERRITORY							
Dawson	19	4	31	8	7.7	M	M
Mayo A	20	6	30	9	9.1	M	M
Watson Lake	19	5	28	7	12.5	M	M
Whitehorse	15	2	23	9	15.5	M	M
NORTHWEST TERRITORIES							
Fort Smith	18	3	30	6	0.0	M	103.8
Inuvik	17	4	28	4	0.0	M	142.2
Norman Wells	21	5	32	7	0.0	M	110.3
Yellowknife	18	3	28	8	0.0	M	124.2
Baker Lake	7	-1	24	-1	3.0	M	52.0
Cape Dyer	2	-1	9	-2	14.2	0.0	M
Clyde	3	-1	8	-2	8.8	0.0	62.5
Frobisher Bay	6	0	12	2	2.8	M	M
Alert	2	-1	12	-2	11.0	4.0	83.8
Eureka	4	-1	10	1	0.5	M	91.8
Hall Beach	5	1	10	1	0.6	0.0	M
Resolute	1	-2	5	-1	2.2	M	28.7
Cambridge Bay	5	-1	11	1	5.4	M	61.2
Mould Bay	2	-2	8	-2	0.6	1.0	54.6
Sachs Harbour	5	0	16	-2	3.0	M	105.2
BRITISH COLUMBIA							
Cape St. James	13	2	20	9	32.1	M	M
Cranbrook	15	-1	26	8	22.9	M	M
Fort Nelson	19	3	30	11	0.3	M	68.9
Fort St. John	17	2	26	11	13.4	M	M
Kamloops	19	0	31	12	12.1	M	33.3
Penticton	17	-1	29	9	M	M	41.5
Port Hardy	13	1	19	7	36.2	M	21.0
Prince George	15	1	24	6	19.9	M	37.1
Prince Rupert	13	1	18	9	16.8	M	33.0
Revelstoke	16	0	30	10	26.5	M	21.5
Smithers	15	1	21	9	22.1	M	35.2
Vancouver	16	0	23	11	8.4	M	40.5
Victoria	15	0	23	8	4.8	M	51.6
Williams Lake	14	0	24	9	22.4	M	29.5
ALBERTA							
Calgary	15	0	24	6	30.4	M	49.9
Cold Lake	17	2	26	10	14.7	M	M
Coronation	16	0	23	9	33.4	M	35.8
Edmonton Namao	17	2	25	11	20.1	M	M
Fort McMurray	18	3	27	8	3.3	M	M
Jasper	14	1	25	5	17.4	M	40.4
Lethbridge	16	0	26	6	13.2	M	M
Medicine Hat	17	0	26	8	19.2	M	45.3
Peace River	17	2	26	9	24.6	M	M
SASKATCHEWAN							
Cree Lake	M	X	25P	1P	M	M	M
Estevan	18	0	26	10	23.9	M	43.4
La Ronge	17	1	26	7	6.8	M	M
Regina	17	1	25	10	29.5	M	34.7
Saskatoon	18	1	27	9	31.5	M	M
Swift Current	16	0	27	9	M	M	49.9
Yorkton	16	-1	24	7	70.6	M	30.8
MANITOBA							
Brandon	16	-1	25	5	28.6	M	M
Churchill	9	0	26	1	6.8	M	53.8
The Pas	16	-1	26	7	18.8	M	M
Thompson	13	-1	27	1	1.2	M	M
Winnipeg	17	-1	25	7	28.4	M	41.6
ONTARIO							
Big Trout Lake	15	1	27	3	23.4	M	M
Earlton	19	2	30	5	M	M	M
Kapuskasing	16	-1	29	4	17.7	M	M
Kenora	17	0	26	9	21.2	M	M
London	22	1	31	11	23.4	M	56.1
Moosonee	14	0	29	-1	42.6	M	55.6
Muskoka	21	2	32	7	M	M	M
North Bay	20	2	29	9	21.0	M	67.6
Ottawa	22	2	32	12	13.8	M	73.8
Pickle Lake	15	0	28	5	M	M	M
Red Lake	15	-2	26	5	56.3	M	33.0
Sudbury	20	2	29	9	21.1	M	63.6
Thunder Bay	15	-2	24	4	48.7	M	42.2
Timmins	16	0	29	3	6.2	M	M
Toronto	21	1	32	10	14.7	M	M
Trenton	21	1	31	9	1.6	M	M
Wiarton	20	2	32	1	27.4	M	M
Windsor	22	0	31	15	79.2	M	M
QUEBEC							
Bagotville	19	2	36	7	16.4	M	M
Blanc-Sablon	11	2	18	4	5.6	M	M
Inukjuak	6	-1	19	1	7.6	M	M
Kuujjuaq	8	-1	15	2	17.0	M	M
Kuujjuarapik	9	0	22	0	11.8	M	55.1
Manawaki	20	2	31	5	11.0	M	70.7
Mont-Joli	19	3	36	8	2.6	M	74.9
Montréal	22	1	33	10	6.2	M	68.9
Natashquan	12	-1	20	4	3.8	M	M
Nitchequon	13	0	24	0	45.4	M	M
Québec	20	2	35	7	1.6	M	71.0
Schefferville	11	0	25	1	34.4	M	39.9
Sept-Iles	14	0	25	5	5.4	M	66.7
Sherbrooke	19	2	34	3	17.0	M	67.1
Val-d'Or	19	2	30	5	9.2	M	M
NEW BRUNSWICK							
Charlo	19	2	34	7	0.8	M	80.9
Fredericton	20	1	32	4	16.8	M	M
Saint John	17	0	28	7	1.2	M	62.2
NOVA SCOTIA							
Greenwood	19	0	33	4	0.4	M	M
Shearwater	18	1	26	10	0.4	M	66.6
Sydney	17	1	29	5	23.6	M	73.0
Yarmouth	16	0	24	8	0.4	M	M
PRINCE EDWARD ISLAND							
Charlottetown	18	1	29	9	15.6	M	M
Summerside	18	0	28	9	7.9	M	76.4
NEWFOUNDLAND							
Gander	15	0	28	4	22.4	M	58.5
Port aux Basques	13	2	19	6	9.0	M	M
St. John's	13	0	25	5	1.6	M	M
St. Lawrence	13	3	21	5	13.2	M	M
Cartwright	10	-1	23	3	23.3	M	33.4
Goose	13	0	28	3	25.1	M	41.4
Hopedale	9	0	24	3	65.1	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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