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an Climate Centre

Climatic Perspectives

A WEEKLY REVIEW OF CANADIAN CLIMATE

5 AUGUST, 1983 | (Aussi disponible en français) | VOL. 5 NO. 31

FOR THE PERIOD 26 JULY - 1 AUGUST, 1983

The Toronto Sun, Tuesday August 2, 1983

5 CAMPERS HURT

Winds smash houses

High winds battered Scarboro and North York yesterday ...ing down unfinished houses in both cities and fellin ... power lines.

...hipped in from southwestern Ontario, pr ... 55 mph, and pac...d hailstones up

Storms save some crops but start floods and fires

By Sarah Jane Growe Toronto Star

Some drought-stricken Ontario farmers says yesterday's storms saved them but others received no moisture fo... crops and still others s... by rain or hail

CROPS SAVED

It's raining dollars on our farmers

The rain across Ontario the past few days has been ...millions of dollars for farmers and was a ... for forest firefighters.

...esident of the Ontario Federation ...ast amounts of crops were of ... saved by ...

Rain saves some Ontario crops

A farmer's rain dance

- ***"Mult-million dollar" rain ends prolonged dry spell in Southern Ontario, accompanying severe weather destroys property.....*** page 5

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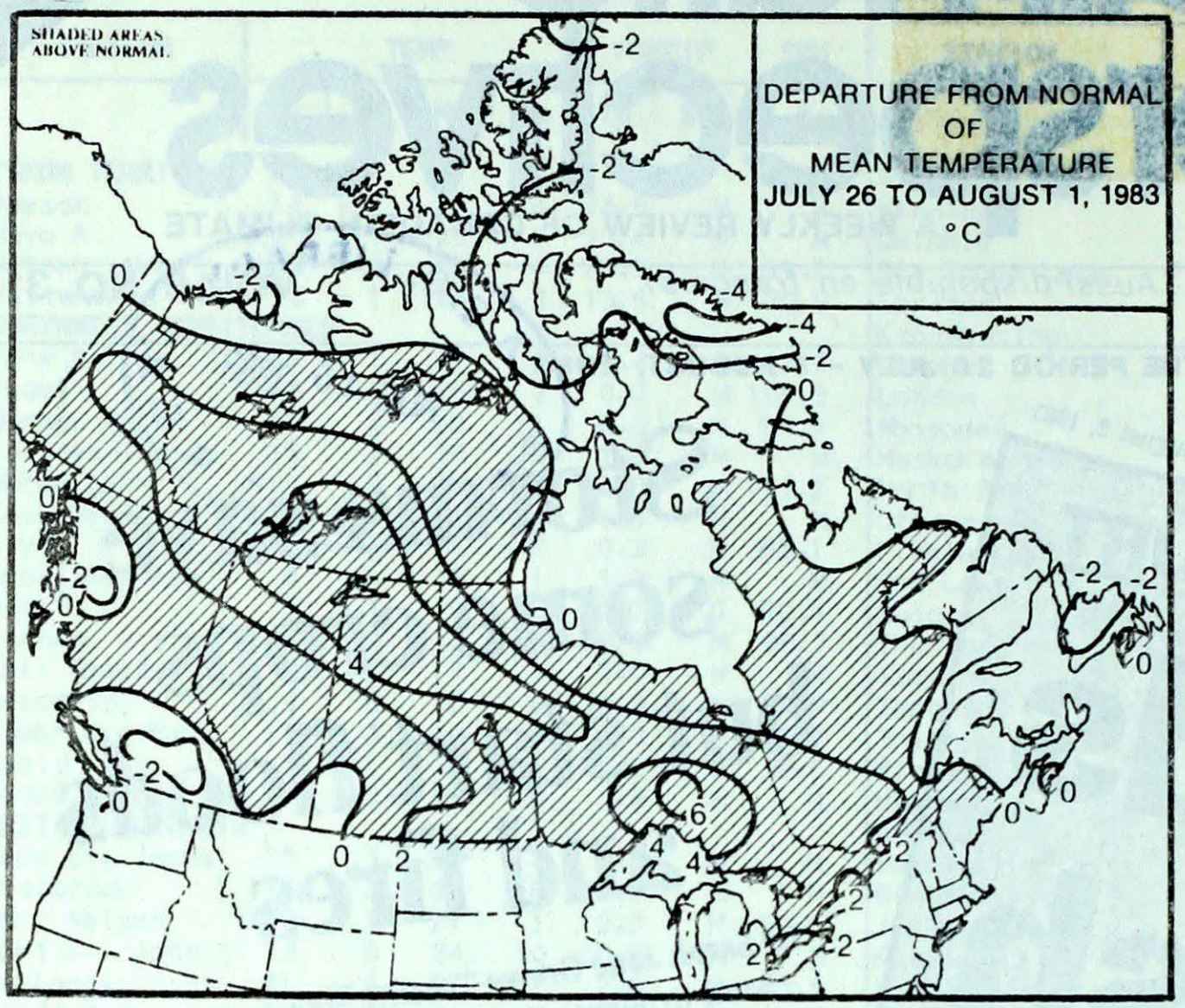
NOTE: The data shown in this publication are based on unverified reports from approximately 225 Canadian synoptic stations.

Canada



WEEKLY TEMPERATURES EXTREMES (°C)

	MAXIMUM		MINIMUM	
YUKON TERRITORY	26.8	Mayo	1.6	Komakuk Beach
NORTHWEST TERRITORIES	29.1	Fort Smith	-3.6	Broughton Island
BRITISH COLUMBIA	37.2	Kamloops	1.2	Dease Lake
ALBERTA	34.0	Medicine Hat	2.2	Rocky Mountain House
SASKATCHEWAN	32.1	Estevan	7.8	Broadview
MANITOBA	31.8	Portage la Prairie	4.6	Churchill
ONTARIO	33.0	Ottawa	5.0	Winisk
QUEBEC	32.3	Roberval	2.4	Kuujjuarapik
NEW BRUNSWICK	32.8	Fredericton	6.2	St. Stephen
NOVA SCOTIA	31.1	Greenwood	7.0	Shelburne
PRINCE EDWARD ISLAND	26.0	Charlottetown	11.8	Charlottetown
NEWFOUNDLAND	27.4	Goose	2.2	Badger

ACROSS THE NATION

Warmest mean temperature	23.8	Toronto, ONT
Coolest mean temperature	1.2	Resolute Bay, NWT

ACROSS THE COUNTRY...

Yukon and Northwest Territories

The Yukon and the Mackenzie District experienced temperatures that were 4 to 5 degrees above normal; Fort Smith had the highest, 29°. Elsewhere, the average readings were 3 to 5 degrees below normal. Precipitation was light almost everywhere. Rain in the 30 to 40 mm range fell in the northern Yukon and over Baffin Island. The threat of forest fires was low in the Yukon where 14 fires were still burning.

British Columbia

The weather was cool but generally dry. Only the coastal areas had rain in excess of 25 mm; less than 5 mm fell in the interior.

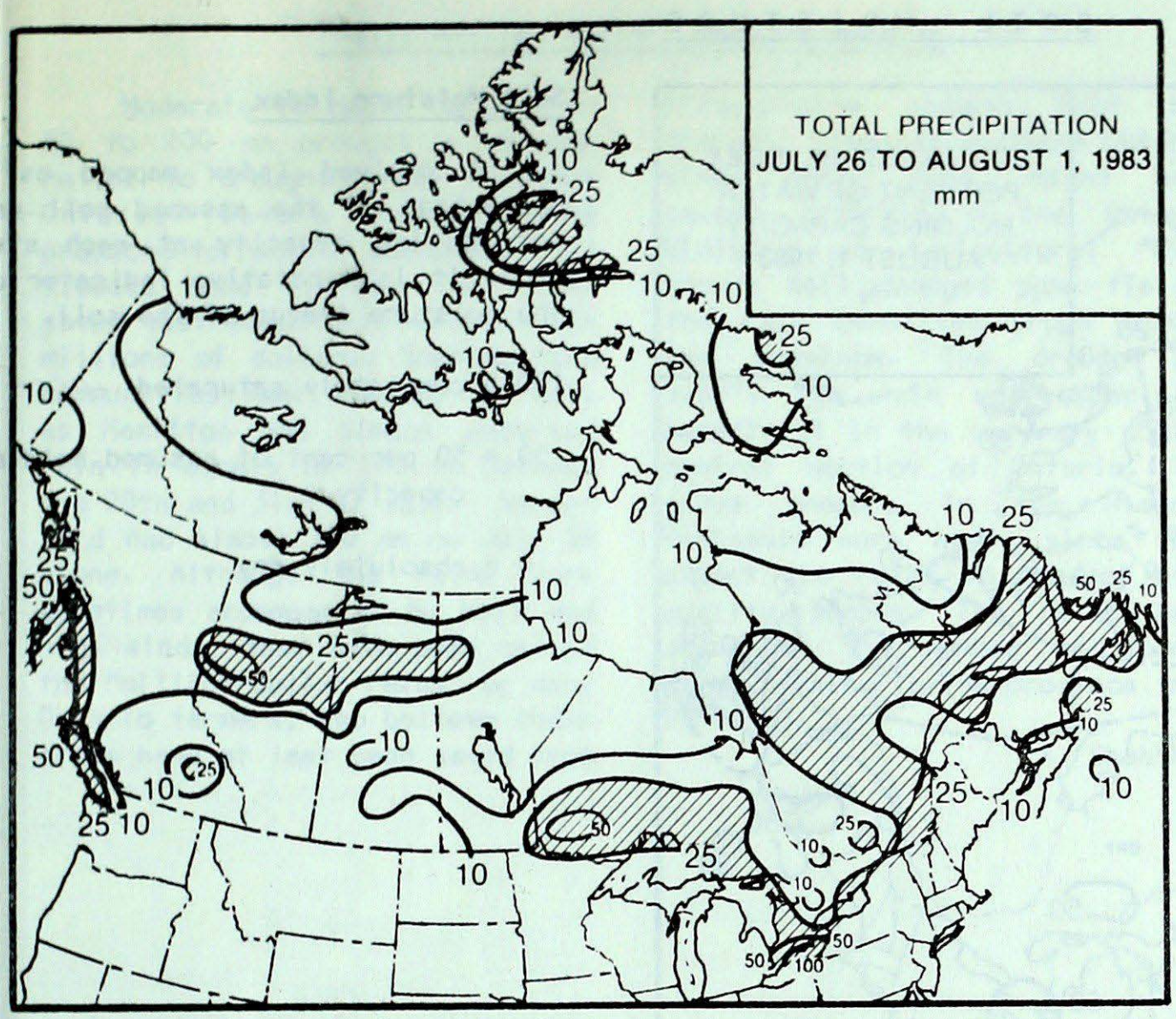
Prairies

Outbreaks of severe thunderstorms highlighted the weather on the Prairies. Between the 26th and the 30th of July at least 4 tornadoes touched down in southern Manitoba. Many southern Saskatchewan and southern Manitoba communities experienced large hail and sudden downpours. Hail as large as golfballs severely damaged crops at Herbert and Central Butte, Saskatchewan. On July 27, thunderstorms dumped 55 mm of rain at Steinbach in 1-½ hours flooding many houses and roadways.

The warm air that covered the Prairies produced temperatures near the mid-thirties in Alberta during the weekend. In Alberta, the wet weather of July has kept the forest fire danger at its lowest level in the past 6 years. However, last week's warm temperatures have increased the hazard to moderate levels in the north.

Ontario

Torrential downpours of 50-100 mm ended southern Ontario's prolonged dry spell. Some southwestern comunities received rain in excess of 100 mm, flooding farmland that until then had been parched. In contrast, a meagre 19.3 mm of rain



HEAVIEST WEEKLY PRECIPITATION (mm)

YUKON	16.7	Dawson
NORTHWEST TERRITORIES	44.4	Cape Dyer
BRITISH COLUMBIA	81.0	Cape St. James
ALBERTA	50.0	Grande Prairie
SASKATCHEWAN	53.0	Collins Bay
MANITOBA	31.7	Lynn Lake
ONTARIO	183.4	Stratford
QUEBEC	43.8	Sutton-Junction
NEW BRUNSWICK	29.1	Charlo
NOVA SCOTIA	25.6	Sydney
PRINCE EDWARD ISLAND	12.0	Summerside
NEWFOUNDLAND	60.6	Comfort Cove

Tornadoes in Ontario and on the Prairies

Severe thunderstorms accompanied by strong winds, large hail and heavy rainfall spawned at least 4 tornadoes in southern Manitoba. On July 30, tornadoes touched down at Plumas, east of Riding Mountain and at Gladstone. Damage was restricted to crops since the twisters passed through open farmland. Two other tornadoes were reported at Oakland (north of Portage) and at Grand Rapids, where hail as large as walnuts covered the ground. On July 29, many southern Saskatchewan com-

...continued on page 5

fell at Toronto; combined with only 29.6 mm in June, the June-July accumulation of 48.9 mm ranks as the lowest this century and rates as the second lowest in 143 years. In many locations, damaging hail and strong winds accompanied the rain. A tornado struck the southern outskirts of Windsor extensively damaging two factories; rain-damage to the machinery inside was estimated in millions of dollars. Large hail struck many areas during the weekend. On August 1, strong winds gusting near 100 km/h buffeted the northern portions of Toronto. Many unfinished houses, large trees and power lines were knocked down. Some areas were without electricity for hours.

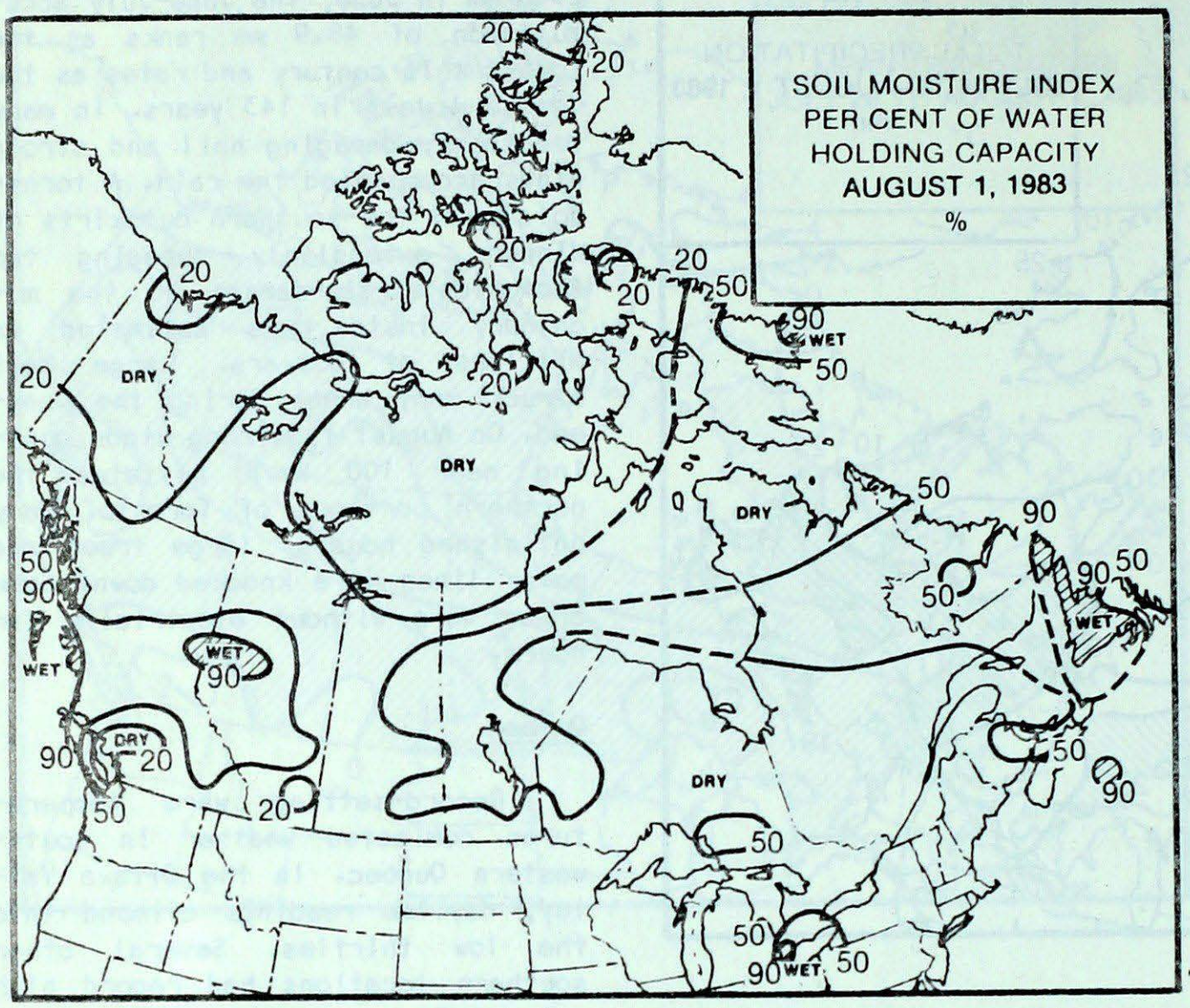
Québec

Record-setting warm temperatures dominated weather in southwestern Québec. In the Ottawa Valley, daytime readings climbed into the low thirties. Several other southern locations had record high values. Elsewhere, the temperatures were slightly below normal. Local thunderstorms dropped 15 to 35 mm of rain in the south. On July 27, a severe thunderstorm accompanied by strong winds struck Québec City. Areas to the south of the city received 40 to 50 mm of rain in a few hours causing some local flooding. In the southwest, the rain and the warmth spurred the growth of the hay crop. According to Forêt-Météo, 27 forest fires were burning in Québec. To date, 867 fires have been reported compared to the 5-year average of 703.

Atlantic Provinces

While generally sunny skies and near-normal temperatures controlled the Maritimes weather, cool and wet weather prevailed in Newfoundland. Weather systems crossing northern Labrador produced 25 to 50 mm of rain throughout most of Newfoundland. In Nova Scotia, timely arrival of the warm weather has accelerated the growth of blueberries. The Winter wheat harvest was about 2 weeks ahead of schedule and the forage crop was in excellent shape with the yield estimated to be twice the earlier expectations.

SOIL MOISTURE



Soil Moisture Index

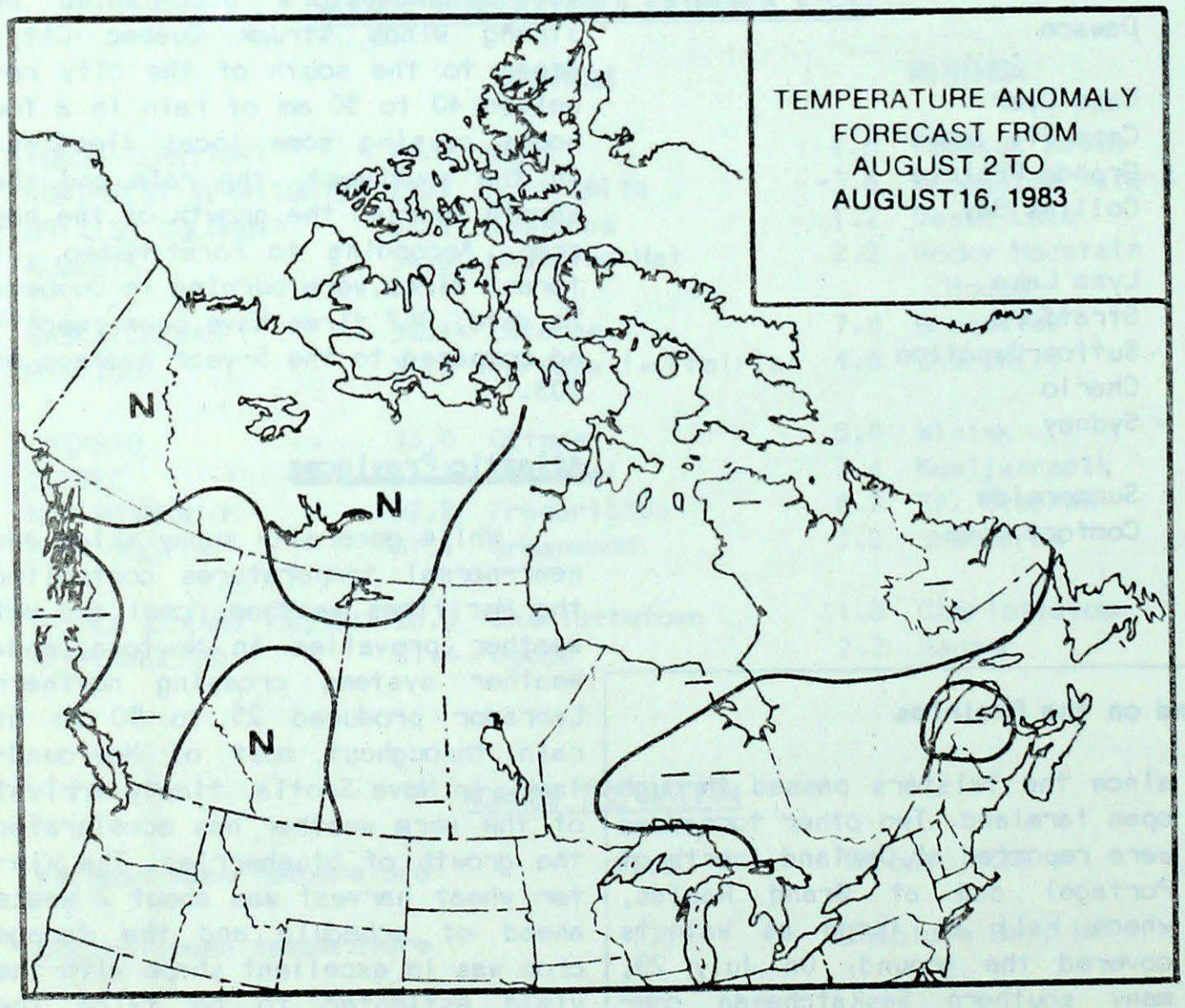
A derived index mapped as a percentage of the assumed soil water holding capacity at each station. It is a relative indicator of the moisture status of the soil.

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 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

"Multi-Million Dollar" Rain in Ontario

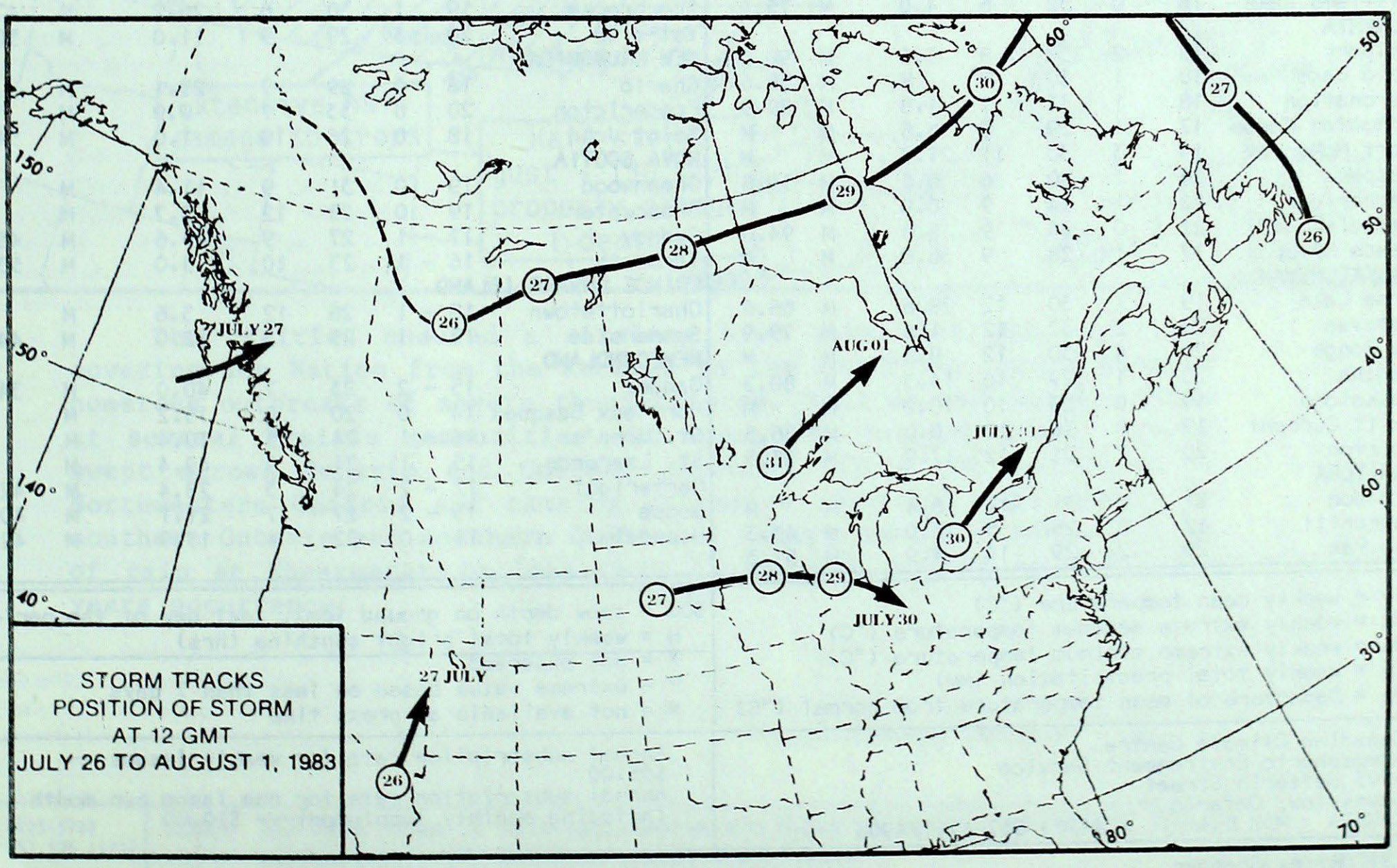
Moderate to heavy rains from 50 to 100 mm brought a welcome relief to drought-struck southern Ontario. Severe thunderstorms produced torrential downpours that flooded some fields. The rains saved vast amounts of crops worth millions of dollars. Southwestern communities near London, as well as Hamilton and Simcoe received rain in excess of 100 mm between the 28th and 31st of July. Stratford had almost 150 mm on July 28 alone. Although the rains were sometimes accompanied by hail and high winds, they have been called the "million-dollar rains" by many Ontario farmers, who believe their crops have at last been saved from irreparable damage that the drought, plaguing southern Ontario since early June, might have caused. According to the Ontario Ministry of Agriculture: "Even though hail damaged some fields, the rain benefited crops across the province. The drought is over". The rain was especially beneficial in the very dry south-central section of Ontario. The grape growers in the Niagara Peninsula were happy since they expect the rains to produce high quality grapes. The rains have decreased the number of forest fires burning in the province from 99 to 52.

A. Shabbar

...continued from page 3

munities experienced marble to golfball size hail; crop damage was extensive and was severe in some localities. On July 27, winds gusting near 100 km/h whipped Edmonton. Although no one was hurt, property damage was estimated in tens of thousands of dollars. The wind storm was the worst at Edmonton this year. Intense lightning, strong winds and torrential downpours ushered in Ontario's weekend. A tornado touched down just south of Windsor and ripped the roofs off two factories. Winds gusting up to 90 km/h uprooted large trees and overturned a few camping trailers. Cars were picked up and dropped like toys. A 45-kilogram rock was blown 30 metres down one road. About 2,000 homes were without electricity for 4 hours. An elderly man was taken to hospital after lightning struck him. On July 29, 82 mm of rain fell at Windsor in 24 hours, establishing a record for that period in July.

STORM TRACKS



TEMPERATURE, PRECIPITATION AND BRIGHT SUNSHINE DATA FOR THE WEEK ENDING 0600 GMT AUGUST 2, 1983

STATION	TEMP				PRECIP		SUN
	Av	Dp	Mx	Mn	Tp	SOG	H
YUKON TERRITORY							
Dawson	16	1	26	3	16.7	M	M
Mayo A	17	2	27	7	10.2	M	M
Watson Lake	16	2	23	8	12.6	M	48.6
Whitehorse	15	0	25	3	14.4	M	M
NORTHWEST TERRITORIES							
Fort Smith	20	5	29	11	0.0	M	89.6
Inuvik	11	- 1	20	4	0.7	M	9.1
Norman Wells	17	2	28	11	5.4	M	29.5
Yellowknife	20	5	28	12	20.4	M	M
Baker Lake	11	1	23	3	1.4	M	M
Cape Dyer	4	- 2	17	- 1	44.4	0.0	M
Clyde	4	- 1	14	0	2.6	M	37.3
Frobisher Bay	8	0	16	2	16.9	M	56.8
Alert	2	- 2	10	- 2	5.8	0.0	45.7
Eureka	5	0	11	2	2.8	M	47.1
Hall Beach	6	0	16	2	4.5	M	M
Resolute	1	- 3	5	- 1	29.0	M	9.3
Cambridge Bay	8	0	19	3	1.1	M	58.0
Mould Bay	2	- 1	9	0	M	M	43.3
Sachs Harbour	3	- 1	15	- 2	M	M	M
BRITISH COLUMBIA							
Cape St. James	14	1	20	11	81.0	M	M
Cranbrook	18	- 2	31	6	0.4	M	M
Fort Nelson	19	2	26	12	33.7	M	54.2
Fort St. John	17	1	27	9	4.9	M	M
Kamloops	22	1	37	10	0.8	M	79.7
Penticton	20	- 1	34	7	0.0	M	63.1
Port Hardy	14	0	23	8	25.9	M	M
Prince George	16	1	27	8	11.5	M	62.3
Prince Rupert	14	0	20	7	69.7	M	9.6
Revelstoke	17	- 2	27	11	26.6	M	56.9
Smithers	14	- 1	22	6	13.3	M	22.8
Vancouver	18	0	25	12	14.6	M	57.8
Victoria	17	1	28	10	5.6	M	57.0
Williams Lake	16	0	32	6	4.0	M	75.1
ALBERTA							
Calgary	18	2	32	8	3.6	M	90.0
Cold Lake	18	1	30	9	M	M	58.6
Coronation	18	1	31	7	1.8	M	89.9
Edmonton Namao	17	1	29	8	6.6	M	M
Fort McMurray	19	3	30	11	27.7	M	M
Jasper	16	1	30	6	6.6	M	59.8
Lethbridge	20	1	34	9	0.0	M	M
Medicine Hat	21	0	34	9	0.0	M	94.0
Peace River	17	1	28	9	36.0	M	M
SASKATCHEWAN							
Cree Lake	19	X	30	12	28.6	M	66.6
Estevan	23	2	32	12	1.6	M	79.9
La Ronge	20	4	30	12	8.3	M	M
Regina	20	1	29	10	14.5	M	80.3
Saskatoon	19	0	28	10	10.0	M	M
Swift Current	19	0	30	10	0.0	M	86.5
Yorkton	20	2	31	12	17.9	M	83.3
MANITOBA							
Brandon	21	1	31	11	18.4	M	M
Churchill	12	0	25	5	15.0	M	43.3
The Pas	20	2	29	14	4.9	M	61.3
Thompson	19	4	31	8	6.9	M	66.0
Winnipeg	23	3	31	13	11.6	M	76.7
ONTARIO							
Big Trout Lake	20	4	29	9	0.7	M	M
Earlton	21	2	31	10	M	M	M
Kapuskasing	21	4	30	13	19.3	M	M
Kenora	22	2	29	15	50.7	M	M
London	22	1	30	13	92.0	M	M
Moosonee	18	2	31	6	9.7	M	M
Muskoka	22	3	31	9	M	M	M
North Bay	21	2	29	14	14.4	M	49.7
Ottawa	23	2	33	15	12.4	M	51.2
Pickle Lake	21	4	29	9	17.8	M	M
Red Lake	22	4	30	13	18.0	M	61.1
Sudbury	21	2	30	14	13.5	M	M
Thunder Bay	22	3	32	13	17.0	M	69.5
Timmins	20	3	29	12	28.8	M	M
Toronto	24	2	32	14	7.2	M	M
Trenton	23	2	32	13	27.1	M	M
Wiarton	21	2	28	11	28.6	M	M
Windsor	23	0	29	17	96.7	M	M
QUEBEC							
Bagotville	18	0	32	7	21.4	M	M
Blanc-Sablon	13	0	17	6	M	M	M
Inukjuak	11	1	22	5	15.4	M	M
Kuujjuaq	12	0	23	3	6.2	M	45.7
Kuujjuarapik	12	0	25	2	25.8	M	45.8
Manawaki	20	1	30	9	18.8	M	43.5
Montréal	23	1	30	15	14.6	M	43.7
Mont-Joli	17	0	27	8	16.3	M	M
Natashquan	14	0	24	6	32.4	M	M
Nitchequon	13	0	21	5	23.0	M	27.0
Québec	21	1	30	12	37.4	M	52.1
Schefferville	13	0	24	6	15.8	M	M
Sept-Iles	15	0	23	7	37.7	M	42.5
Sherbrooke	19	1	30	6	26.2	M	47.6
Val-d'Or	20	3	29	9	11.0	M	50.9
NEW BRUNSWICK							
Charlo	18	0	29	7	29.1	M	M
Fredericton	20	0	33	7	9.9	M	M
Saint John	18	0	26	10	1.0	M	54.1
NOVA SCOTIA							
Greenwood	19	0	31	9	11.4	M	M
Shearwater	19	0	25	12	3.7	M	M
Sydney	17	- 1	27	9	25.6	M	46.6
Yarmouth	16	- 1	23	10	5.0	M	53.2
PRINCE EDWARD ISLAND							
Charlottetown	18	- 1	26	12	3.6	M	M
Summerside	18	- 1	25	13	12.0	M	44.5
NEWFOUNDLAND							
Gander	15	- 2	23	7	40.0	M	34.9
Port aux Basques	14	0	20	8	15.2	M	M
St. John's	16	- 1	24	5	10.4	M	M
St. Lawrence	15	1	21	9	49.4	M	M
Cartwright	12	- 2	24	3	28.4	M	42.5
Goose	15	- 2	27	7	21.1	M	40.1
Hopedale	11	0	22	4	17.9	M	42.8

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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