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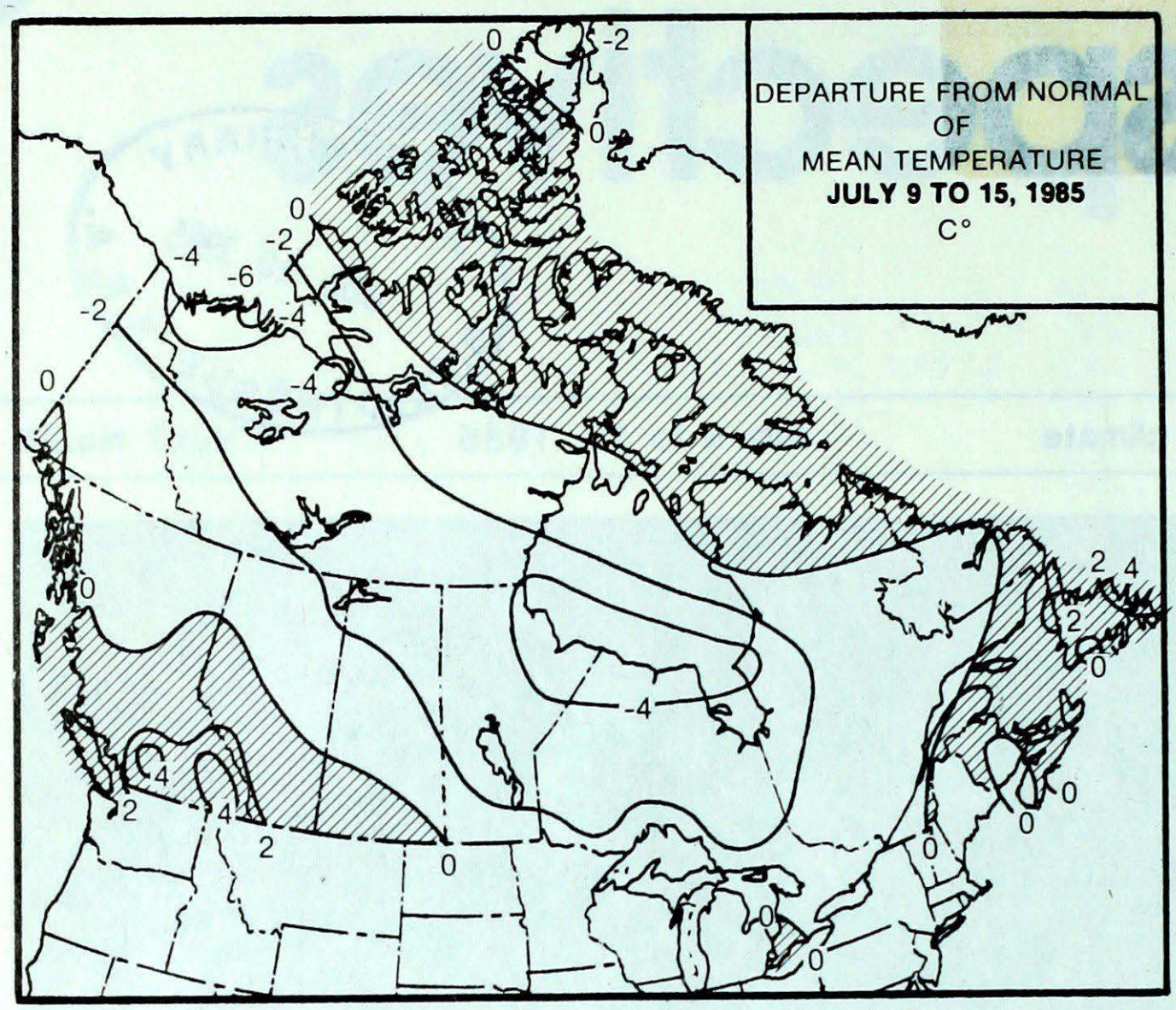
Climatic Perspectives

A weekly review of Canadian climate | July 9 to 15, 1985 | Vol.7 No.28

- ***Raging forest fires in B.C. ease a little***
- ***Drought in southern Alberta and Saskatchewan***
  - some crops ploughed under
  - no hay or pasturelands

Canada

TEMPERATURE



WEEKLY TEMPERATURE EXTREMES (°C)

	MAXIMUM		MINIMUM	
YUKON TERRITORY	25.1	Watson Lake	- 1.4	Komakuk Beach
NORTHWEST TERRITORIES	26.5	Fort Smith	- 4.4	Broughton Island
BRITISH COLUMBIA	38.7	Lytton	- 2.7	Comox
ALBERTA	38.0	Medicine Hat	0.0	Fort Chipewyan
SASKATCHEWAN	37.9	Estevan	2.2	Cree Lake
MANITOBA	29.5	Portage la Prairie	1.4	Churchill
				Thompson
ONTARIO	31.0	Windsor	0.5	Wawa
QUÉBEC	28.9	Bagotville	1.3	Quaqtaq
NEW BRUNSWICK	28.4	Charlo	6.7	St. Stephen
		Chatham		
NOVA SCOTIA	29.0	Greenwood	9.3	Yarmouth
PRINCE EDWARD ISLAND	26.8	Summerside	12.9	Summerside
NEWFOUNDLAND	29.4	Deer Lake	4.2	Battle Harbour

ACROSS THE NATION

Warmest mean temperature	23.6	Windsor, ONT
Coolest mean temperature	0.8	Alert, NWT

ACROSS THE COUNTRY...

Yukon and Northwest Territories

The temperatures were 2 to 6 degrees below normal over the Yukon and the Mackenzie Valley but averaged a few degrees above normal over the eastern areas and the High Arctic. A wide range of precipitation fell across the North. Heavy amounts of rainfall were received in the Yukon (42 mm at Burwash). The wet weather kept the forest fire danger to a minimum; only 4 fires were burning in the Yukon, none of them of any significant size.

British Columbia

Although the searing heat of the past week subsided somewhat, the hot and dry weather continued in southern British Columbia. Major forest fires in the southeastern part of the Province were contained but still not under control. Many forest stands in the area are tinder dry and the potential for fires is extreme. Majority of the locations in the Okanagan Valley had little or no rain in the last 3 to 4 weeks. Some rain (10-20 mm) fell north of Fort Nelson.

Prairies

Severe weather plagued the Prairie Provinces. On July 12, a tornado ripped through the community of Mazenod in southwestern Saskatchewan. Crops were badly damaged, a skating rink was flattened and a few machine sheds were destroyed. On July 13-14, golfball-size hail covered the ground 5 cm deep in some southern Saskatchewan and Manitoba communities. Cooler temperatures have helped eased the forest fire danger in southern Alberta. Beneficial rains fell in southwestern Saskatchewan but some crops on dryland farms are now beyond recovery especially in southern Alberta. Lethbridge received a meagre 3.8 mm of rain since June 1.

PRECIPITATION

Ontario

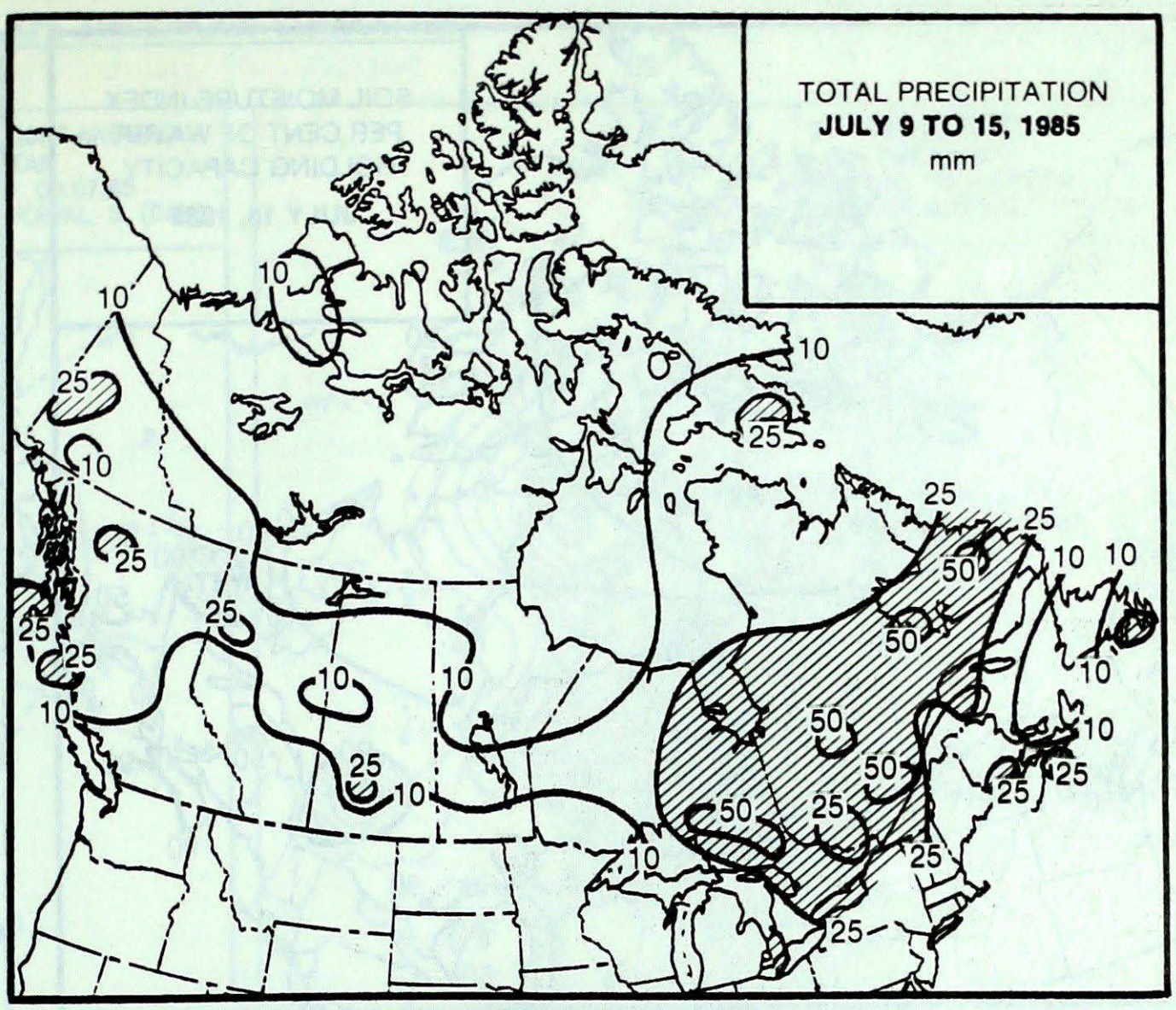
The weather was cool and wet across the Province. The temperatures were nearly 3° below normal in northern Ontario. A warming trend brought near normal temperatures to southern Ontario by the weekend and the mercury reached the 30° mark at some southwestern locations (31° at Windsor). Weather systems crossing the Great Lakes deposited 10 to 50 mm of precipitation; Wawa received the most, 54 mm. On July 15, a small tornado touched down northwest of Uxbridge. Falling trees damaged a few houses and electrical services to about 300 residents were disrupted.

Quebec

Mean temperatures were below normal everywhere except in the Gaspesie (near normal) and Lac St-Jean (0.5°C above normal) regions. Precipitation totals of 41 mm were measured at Kuujjuarapik and 58 mm at Québec City. On July 14, 35 mm of rain was recorded at Ste. Agathe and 26 mm at Chibougameau. By the end of the week two forest fires where reported in activity, bringing the total number since the beginning of the season to 554 with a burnt area of 2,692 hectares.

Atlantic Provinces

Normal to above normal temperatures and coastal fog were reported. New Brunswick received heavy showers on the 10th. Thunderstorms on the following day produced widespread power outages in New Brunswick and a house was hit by lightning and burned. Although precipitation amounts were light in Nova Scotia, the harvesting of forage crops is still slow as farmers are hampered by damp land. Warm weather persisted over Newfoundland and Labrador. On July 8, a fair amount of precipitation fell (30 mm) along the Newfoundland south coast and Goose Bay. The rain was welcomed by fire fighters in Labrador. The wet weather has lessened the potential for further fire outbreaks.



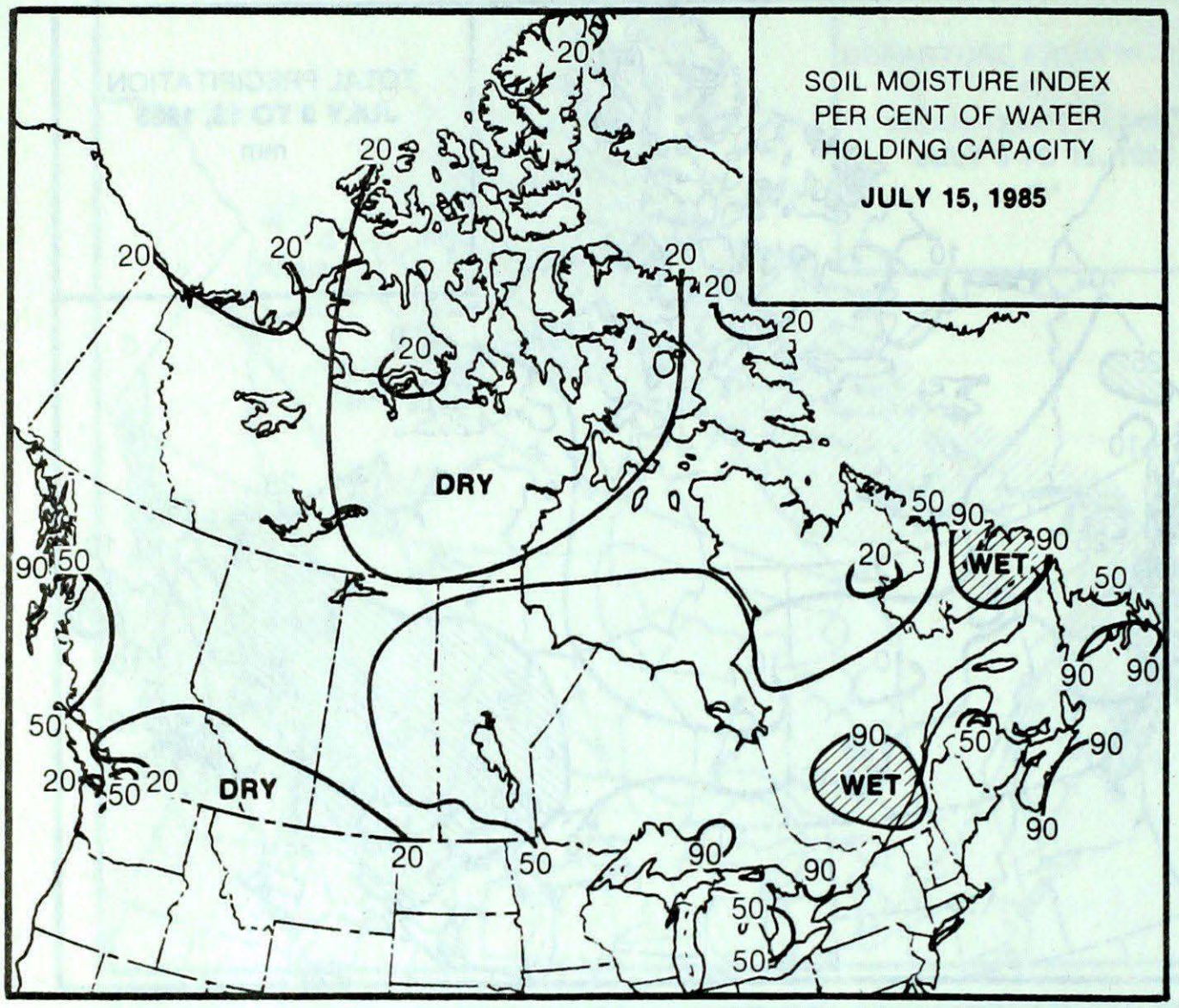
HEAVIEST WEEKLY PRECIPITATION (mm)

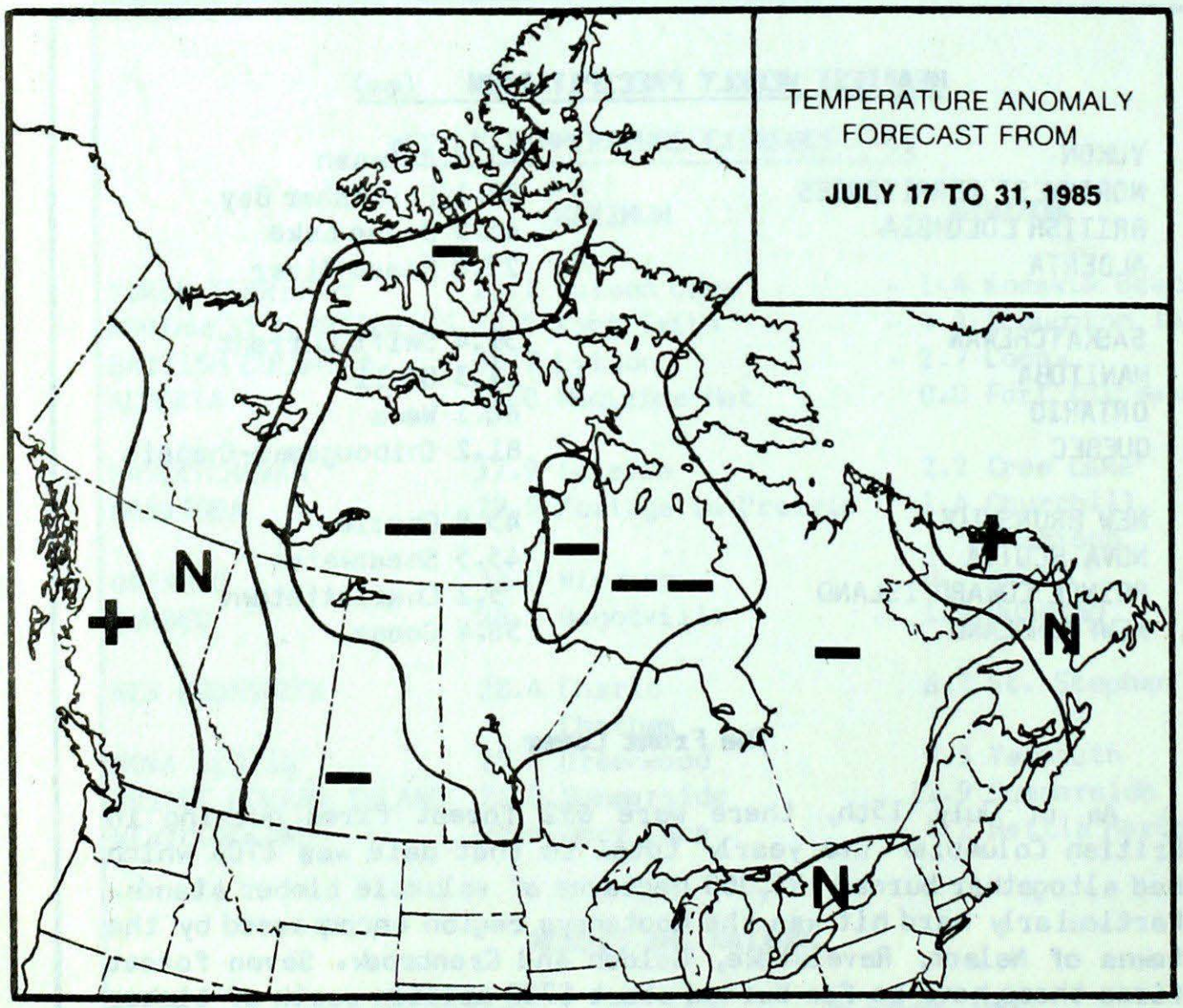
YUKON	41.6	Burwash
NORTHWEST TERRITORIES	31.1	Frobisher Bay
BRITISH COLUMBIA	48.5	Dease Lake
ALBERTA	27.8	Peace River
SASKATCHEWAN	39.4	Swift Current
MANITOBA	14.3	Gimli
ONTARIO	60.1	Wawa
QUEBEC	81.2	Chibougamau-Chapais
NEW BRUNSWICK	45.8	Charlo
NOVA SCOTIA	45.5	Shearwater
PRINCE EDWARD ISLAND	5.2	Charlottetown
NEWFOUNDLAND	56.4	Goose

The Front Cover

As of July 15th, there were 692 forest fires burning in British Columbia. The yearly total to that date was 1706 which had altogether burned 198,000 hectares of valuable timber stands. Particularly hard hit was the Kootenays region encompassed by the towns of Nelson, Revelstoke, Golden and Cranbrook. Seven forest fires there have so far burned about $700 million worth of timber covering an area more than half the size of Prince Edward Island, and one fire fighter lost his life. Over the weekend, several factors combined to ease the wildfire situation - daytime temperatures cooled from the mid-30's to about 28°C, winds diminished, and there was no lightning. However, the weather continues very dry in the region with little or no rain since the last half of June, and the fire hazard is still in the extreme range.

FORECAST





Temperature Anomaly Forecast

This forecast is prepared by searching historical weather maps to find cases similar to the present. The historical outcome during the 15 days subsequent to the chosen analogues is assumed to be a forecast for the next 15 days from now.

++	**much above normal**
+	**above normal**
N	**normal**
-	**below normal**
--	**much below normal**

CLIMATIC PERSPECTIVES VOLUME 7

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It began in 1978 and in 1983 was expanded to include a monthly supplement (formerly known as the Canadian Weather Review). The purpose of the publication is to make topical information available to the public concerning the Canadian Climate and its socioeconomic impact.

Unsolicited articles are welcome but should be at maximum about 1500 words in length. They will be subject to editorial change without notice due to publishing time constraints. Black and white photographs can be used, but not colour. The contents may be reprinted freely with proper credit.

The data shown in this publication are based on unverified reports from approximately 225 Canadian synoptic weather stations. Information concerning climatic impacts is gathered from AES contacts with the public and from the media. Articles do not necessarily reflect the views of the Atmospheric Environment Service.

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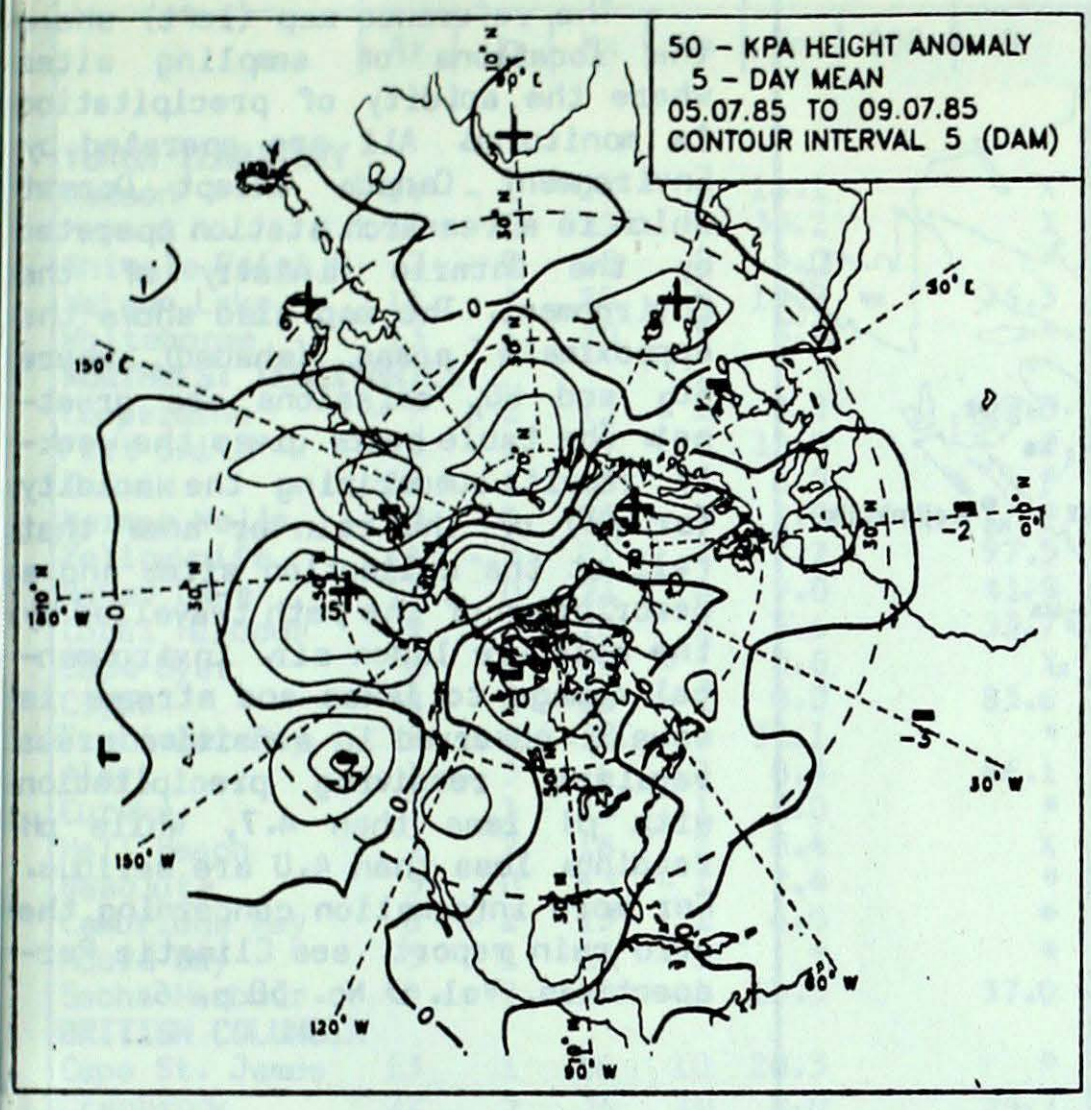
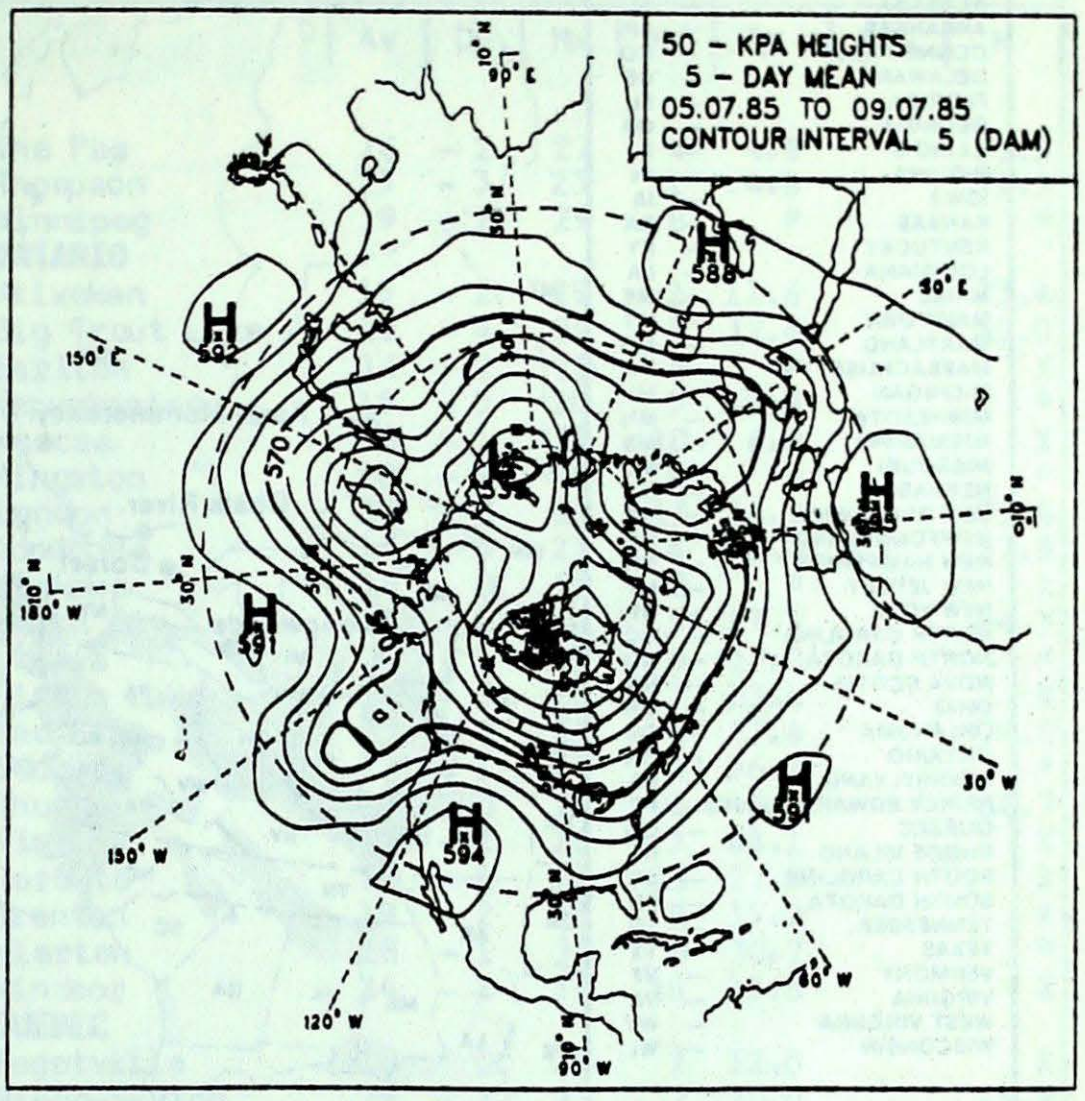
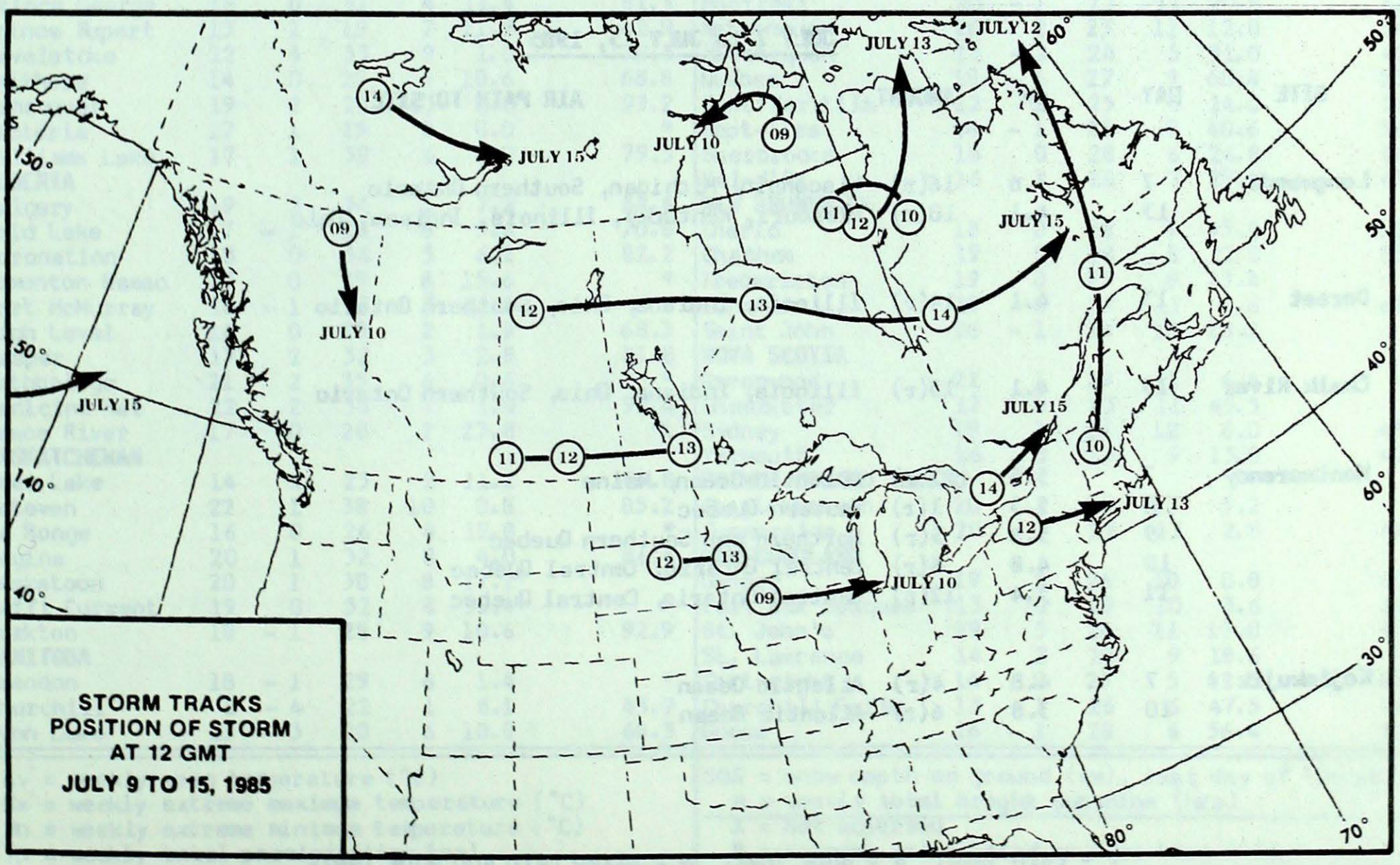
50 KPa ATMOSPHERIC CIRCULATION



MEAN 50 KPa HEIGHT ANOMALY (dam)
July 5 to July 9, 1985

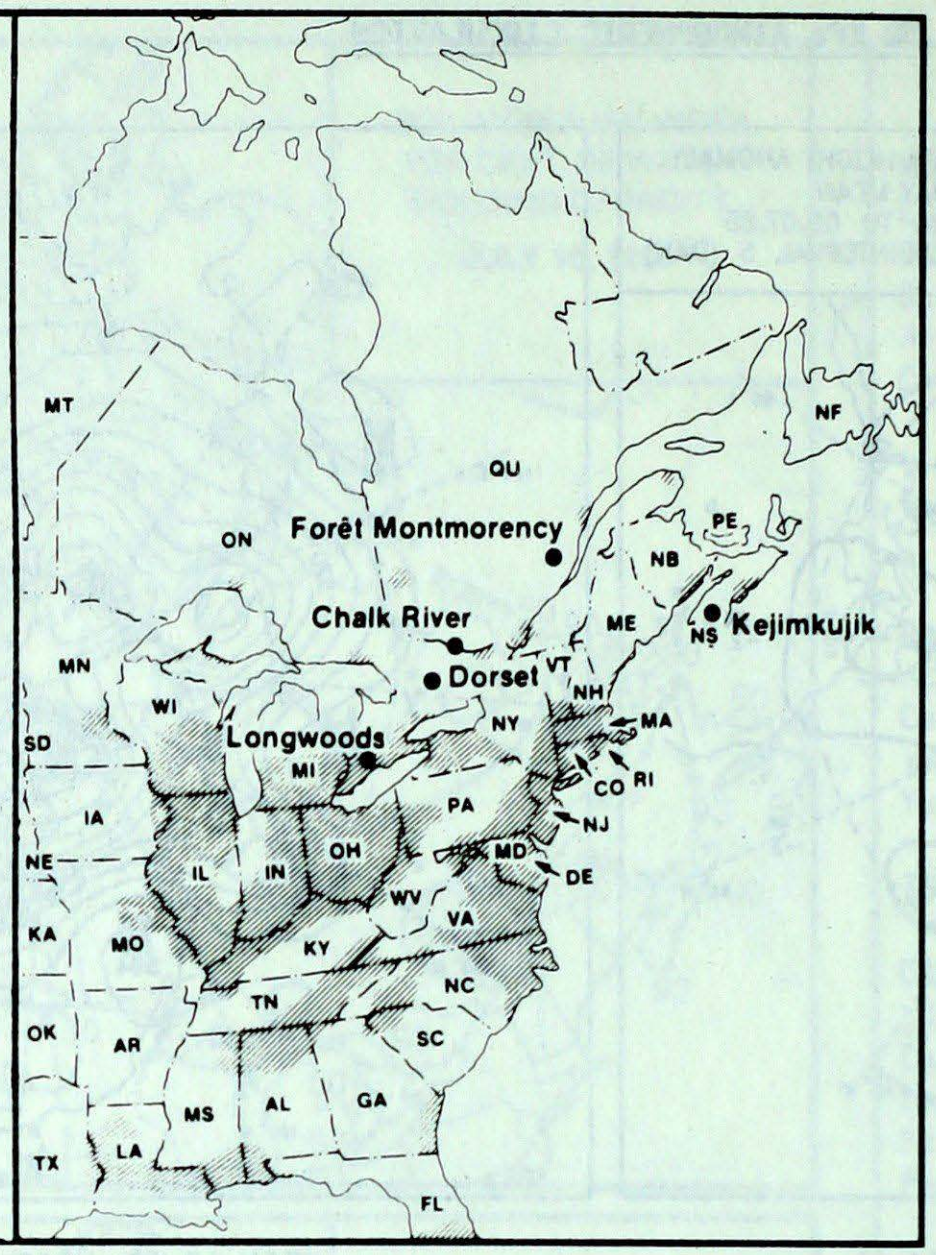


MEAN 50 KPa HEIGHTS (dam)
July 5 to July 9, 1985



ACID RAIN

ALABAMA	—	AL
ARKANSAS	—	AR
CONNECTICUT	—	CO
DELAWARE	—	DE
FLORIDA	—	FL
GEORGIA	—	GA
ILLINOIS	—	IL
INDIANA	—	IN
IOWA	—	IA
KANSAS	—	KA
KENTUCKY	—	KY
LOUISIANA	—	LA
MAINE	—	ME
MANITOBA	—	MT
MARYLAND	—	MD
MASSACHUSETTS	—	MA
MICHIGAN	—	MI
MINNESOTA	—	MN
MISSISSIPPI	—	MS
MISSOURI	—	MO
NEBRASKA	—	NE
NEW BRUNSWICK	—	NB
NEWFOUNDLAND	—	NF
NEW HAMPSHIRE	—	NH
NEW JERSEY	—	NJ
NEW YORK	—	NY
NORTH CAROLINA	—	NC
NORTH DAKOTA	—	ND
NOVA SCOTIA	—	NS
OHIO	—	OH
OKLAHOMA	—	OK
ONTARIO	—	ON
PENNSYLVANIA	—	PA
PRINCE EDWARD ISLAND	—	PE
QUÉBEC	—	QU
RHODE ISLAND	—	RI
SOUTH CAROLINA	—	SC
SOUTH DAKOTA	—	SD
TENNESSEE	—	TN
TEXAS	—	TX
VERMONT	—	VT
VIRGINIA	—	VA
WEST VIRGINIA	—	WV
WISCONSIN	—	WI



ACID RAIN REPORT

The reference map (left) shows the locations of sampling sites where the acidity of precipitation is monitored. All are operated by Environment Canada except Dorset which is a research station operated by the Ontario Ministry of the Environment. The map also shows the approximate areas (shaded) where SO_2 and NO_x emissions are greatest. The table below gives the weekly report summarizing the acidity (or pH) of the rain or snow that fell at the collection sites and a description of the path travelled by the moisture laden air. Environmental damage to lakes and streams is usually observed in sensitive areas regularly receiving precipitation with pH less than 4.7, while pH readings less than 4.0 are serious. For more information concerning the acid rain report, see Climatic Perspectives, Vol. 5 No. 50 p. 6.

JULY 7 to JULY 13, 1985

SITE	DAY	pH	AMOUNT	AIR PATH TO SITE
Longwoods	7	3.6	16(r)	Wisconsin, Michigan, Southern Ontario
	13	4.1	10(r)	Missouri, Kentucky, Illinois, Indiana, Ohio
Dorset	13	4.1	14(r)	Illinois, Indiana, Ohio, Southern Ontario
Chalk River	13	4.1	13(r)	Illinois, Indiana, Ohio, Southern Ontario
Montmorency	7	5.5	12(r)	Atlantic Ocean, Maine
	8	5.3	1(r)	Eastern Quebec
	9	5.4	5(r)	Northern and Southern Quebec
	10	4.8	6(r)	Central Ontario, Central Quebec
	11	5.4	12(r)	Central Ontario, Central Quebec
Kejimkujik	7	4.8	4(r)	Atlantic Ocean
	10	3.8	6(r)	Atlantic Ocean

r = rain (mm), s = snow (cm), m = mixed rain and snow (mm).

STATISTICS

TEMPERATURE, PRECIPITATION AND BRIGHT SUNSHINE DATA FOR THE WEEK ENDING 0600 GMT JULY 16, 1985

STATION	TEMP				PRECIP		SUN
	Av	Dp	Mx	Mn	Tp	SOG	H
YUKON TERRITORY							
Dawson	14	- 1	24	2	14.1		X
Mayo A	15	0	22	6	35.2		X
Shingle Point	7	- 5	18	2	3.0		*
Watson Lake	14	- 1	25	5	15.8		36.3
Whitehorse	13	- 1	20	5	6.7		*
NORTHWEST TERRITORIES							
Coppermine	- 7	- 2	15	1	3.8		39.8
Fort Smith	15	- 1	27	0	18.0		*
Inuvik	10	- 4	23	2	6.0		*
Norman Wells	13	- 3	25	6	1.9		*
Yellowknife	14	- 2	21	7	7.2		97.5
Baker Lake	11	0	21	4	9.0		41.9
Coral Harbour	9	0	18	2	5.6		53.7
Cape Dyer	6	1	16	- 1	0.8		X
Clyde	4	0	10	- 2	0.0		83.6
Frobisher Bay	8	0	18	4	31.1		*
Alert	1	- 3	6	- 2	0.4		46.1
Eureka	7	1	15	1	0.0		*
Hall Beach	7	2	16	2	0.4		X
Resolute	5	0	13	- 1	2.4		*
Cambridge Bay	6	- 2	13	1	4.0		*
Mould Bay	5	1	11	- 1	*		*
Sachs Harbour	5	- 2	10	- 1	15.3		37.0
BRITISH COLUMBIA							
Cape St. James	13	1	16	10	20.3		*
Cranbrook	22	5	36	10	0.0		94.7
Fort Nelson	16	- 1	26	10	13.0		50.6
Fort St. John	17	1	29	6	7.3		X
Kamloops	23	2	37	11	0.6		78.9
Penticton	23	2	34	11	0.0		80.9
Port Hardy	15	1	22	8	4.4		*
Prince George	16	0	31	4	11.4		81.3
Prince Rupert	13	1	19	7	11.9		42.9
Revelstoke	22	4	33	9	1.0		76.5
Smithers	14	0	29	5	10.6		68.8
Vancouver	19	2	29	13	0.0		93.2
Victoria	17	1	25	8	0.0		*
Williams Lake	17	1	30	6	2.0		79.5
ALBERTA							
Calgary	19	2	34	5	7.2		84.6
Cold Lake	17	- 1	28	8	5.6		70.8
Coronation	18	0	34	5	6.2		82.2
Edmonton Namao	17	0	29	8	15.6		*
Fort McMurray	16	- 1	27	7	11.5		*
High Level	14	0	25	2	1.9		68.3
Jasper	17	2	32	3	2.8		81.8
Lethbridge	21	2	35	6	0.6		*
Medicine Hat	22	2	38	7	1.4		92.4
Peace River	17	0	28	7	27.8		X
SASKATCHEWAN							
Cree Lake	14	X	25	2	11.2		85.8
Estevan	22	1	38	10	0.8		85.2
La Ronge	16	0	26	4	12.8		*
Regina	20	1	32	8	4.0		86.4
Saskatoon	20	1	30	8	17.2		*
Swift Current	19	0	32	8	39.4		*
Yorkton	18	- 1	28	9	10.6		92.9
MANITOBA							
Brandon	18	- 1	29	6	1.4		*
Churchill	8	- 4	22	1	8.1		43.9
Lynn Lake	13	- 3	20	6	10.8		68.3

STATION	TEMP				PRECIP		SUN
	Av	Dp	Mx	Mn	Tp	SOG	H
The Pas	16	- 2	27	4	4.8		73.6
Thompson	13	- 3	23	1	4.8		71.3
Winnipeg	19	- 1	29	8	*		*
ONTARIO							
Atikokan	15	- 2	29	2	11.6		73.4
Big Trout Lake	12	- 4	20	5	12.4		49.0
Earlton	16	- 2	28	6	*		X
Kapuskasing	15	- 3	24	5	40.8		*
Kenora	18	- 1	28	10	6.8		X
Kingston	18	- 2	25	10	*		*
London	20	0	29	13	16.7		72.4
Moosonee	13	- 3	23	4	30.4		37.8
Muskoka	18	0	28	8	*		X
North Bay	17	- 2	27	5	27.2		64.3
Ottawa	20	- 1	29	9	19.0		*
Pickle Lake	14	- 3	25	7	13.4		X
Red Lake	15	- 4	25	6	7.4		74.0
Sudbury	17	- 1	27	4	56.2		*
Thunder Bay	17	0	27	6	4.7		68.7
Timmins	15	- 2	26	3	44.1		X
Toronto	20	- 1	28	11	27.9		X
Trenton	19	- 2	28	9	35.2		X
Wiarton	18	- 1	30	8	30.7		*
Windsor	24	2	31	16	25.8		X
QUEBEC							
Bagotville	18	0	29	7	32.0		X
Blanc-Sablon	12	1	25	7	20.0		19.9
Inukjuak	9	0	19	4	12.4		37.2
Kuujjuaq	13	1	24	2	12.4		*
Kuujjuarapik	7	- 4	13	2	41.2		5.8
Maniwaki	17	- 1	28	7	23.0		*
Mont-Joli	18	0	26	8	12.0		57.3
Montréal	20	- 1	27	11	20.8		61.8
Natashquan	16	2	23	11	12.8		54.0
Nitchequon	13	- 2	24	5	31.0		42.5
Québec	18	- 1	27	9	60.4		53.5
Schefferville	12	- 2	25	6	24.0		32.5
Sept-Iles	14	- 1	21	8	40.6		56.0
Sherbrooke	18	0	28	6	24.8		66.3
Val-d'Or	16	- 1	26	7	29.4		62.9
NEW BRUNSWICK							
Charlo	18	0	28	9	45.8		58.4
Chatham	19	0	28	8	22.0		65.8
Fredericton	19	0	27	8	23.4		*
Moncton	19	0	27	11	8.6		68.3
Saint John	16	- 1	24	10	28.2		*
NOVA SCOTIA							
Greenwood	21	1	29	11	6.4		X
Shearwater	17	0	23	11	45.5		*
Sydney	19	1	26	12	6.0		49.0
Yarmouth	16	0	23	9	13.0		41.4
PRINCE EDWARD ISLAND							
Charlottetown	20	1	26	13	5.2		*
Summerside	20	1	27	13	2.8		64.7
NEWFOUNDLAND							
Gander	19	2	26	10	0.8		63.3
Port aux Basques	13	0	19	10	3.6		18.2
St. John's	19	3	26	11	13.0		50.3
St. Lawrence	14	2	20	9	18.6		X
Cartwright	14	0	27	5	42.3		61.2
Churchill Falls	13	- 1	26	6	47.5		46.1
Goose	16	- 1	28	6	56.4		50.4

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
* = missing