Environment Canada Environnement Canada

Climatic Perspectives

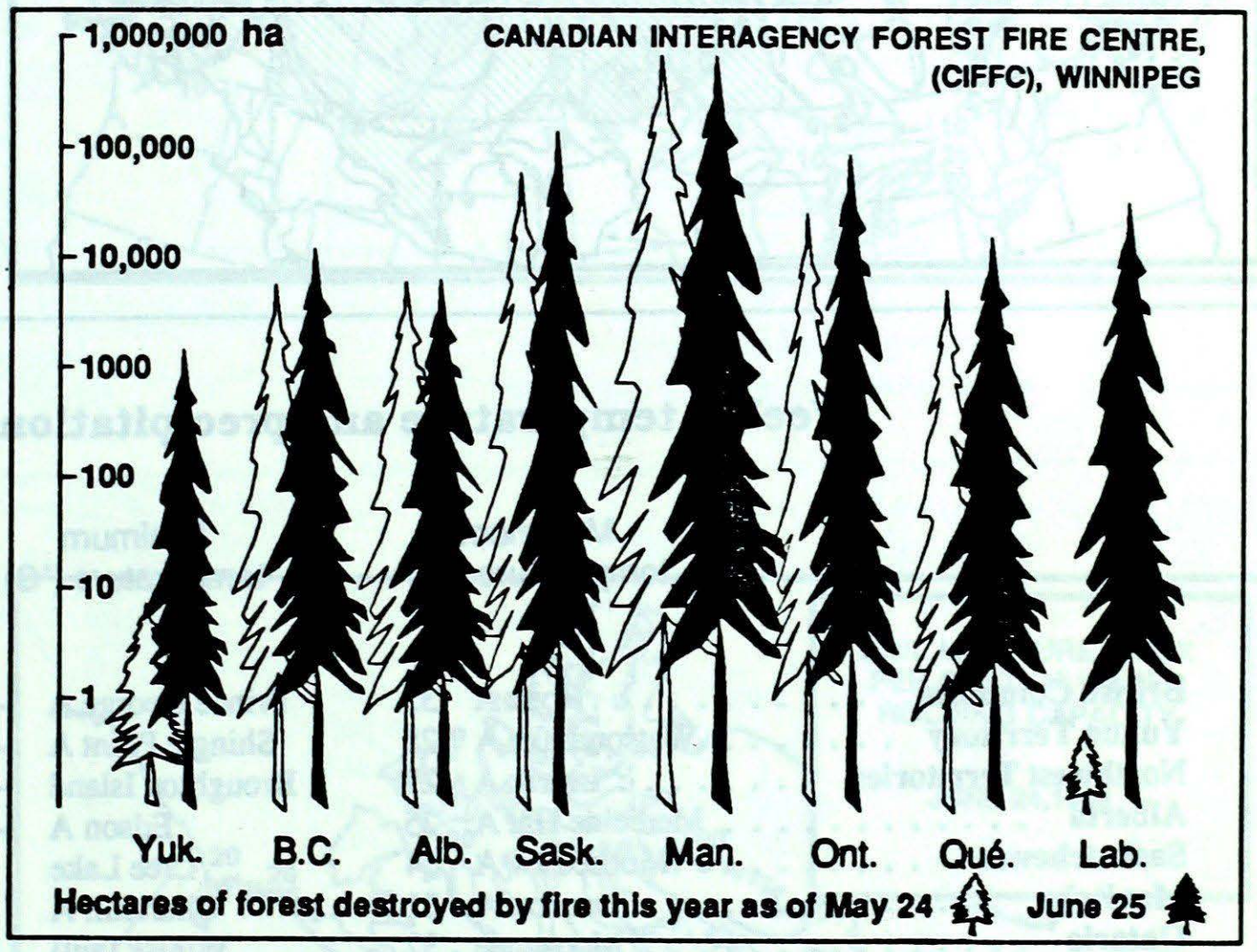
June 19 to 25, 1989 ***A weekly review of Canadian climate*** *Vol. 11 No 26*

Explosive forest fire situation in Labrador

Forest fires burned out of control at the end of the week in Labrador. So far this year, 116 fires have been responsible for burning 34,214 hectares of productive and non-productive forest land. Last year, at this date, 106 fires had destroyed only 1,758 hectares. The areas affected this year have been western Labrador near Wabush, and the Goose Bay area. Hot, dry conditions have combined with south-west winds to fan the fires. Record-breaking temperatures for the month of June were recorded on June 25th. Goose Bay had a maximum of 36.2°C, which beat the old record of 35.4°C set on June 28, 1985. Cartwright also exceeded the old record of 33.4°C set on June 21, 1951, with a temperature of 35.3°C. This area has had above-normal temperatures for each of the past 12 weeks, with the exception of the week of May 15, when the negative anomaly was less than 0.5°C.

The hot and dry conditions have produced a dry ground moisture code of 95, on a scale of 0 to 99, which has caused an explosive effect when a fire has begun. Heavy rains are needed to bring the fires under control. Due to sparse population, there have been no evacuations.

Ivan Downton, Newfoundland Department of Forestry and Agriculture, Cornerbrook



Tornado outbreak on Prairies

On June 19th, an outbreak of severe weather affected central Saskatchewan from near Prince Albert to south of Regina. Eight tornadoes were reported which were associated with several severe thunderstorms and strong winds. The worst damage was reported near Blaine Lake, northwest of Saskatoon, where hail followed the tornadoes and battered some crops. There was some damage to buildings, but there were no personal injuries. On the 24th, 3 funnel clouds were reported near Winnipeg. On the 25th, a tornado was reported in Miami, Manitoba, and in Kendall, Saskatchewan a tornado destroyed a sportsground booth, playground, and farm bin.

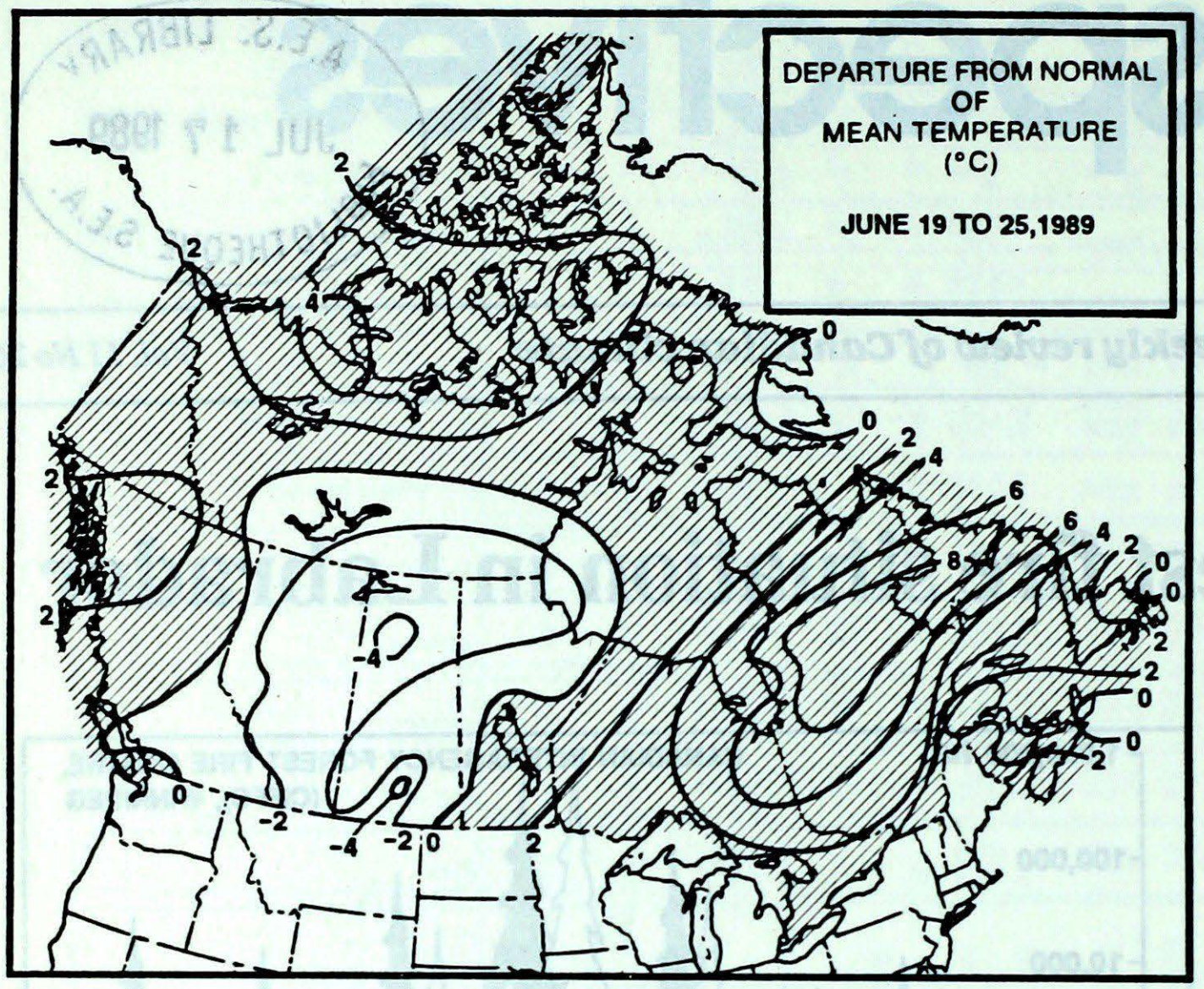
Ken Prokop, Winnipeg Climate Centre

A look ahead...

For the week of July 3rd, temperatures are expected to be near normal in the Yukon, the Mackenzie and Keewatin Districts of the Northwest Territories, British Columbia, and the Prairies. Below-normal temperatures are expected over the Arctic islands, with above-normal temperatures in Ontario, Québec, and the Atlantic provinces.

— *prepared June 27, 1989*

Aaron Gergye, Canadian Climate Centre



Hot and muggy in Ontario and Québec

Summer arrived, accompanied by the first blast of hot and humid weather of 1989. High temperatures hit 32°C in Moosonee, Ontario by mid-week, and hovered around 30°C in southern and central Ontario, on the week-end.

The same heat wave was experienced in all of Québec, and produced all-time record high temperatures in the north. Kuujjuaq recorded 32.7°C on the 22nd, beating the previous high of 32.2°C set on July 14, 1953. On the 24th, Schefferville reached 34.3°C, bettering the previous high of 31.7°C, set on July 25, 1970.

Bryan Smith, Ontario Climate Centre
Roger Gauthier, AES , Montréal

Weekly temperature and precipitation extremes

	Maximum temperature (°C)		Minimum temperature (°C)		Heaviest precipitation (mm)	
British Columbia	Hope A	32	Prince George A	-1	Hope A	18
Yukon Territory	Watson Lake A	28	Shingle Point A	-1	Faro (aut)	7
Northwest Territories	Inuvik A	27	Broughton Island	-4	Alert	16
Alberta	Medicine Hat A	25	Edson A	-1	Fort McMurray A	30
Saskatchewan	Moose Jaw A	34	Cree Lake	2	Cree Lake	44
Manitoba	Brandon A	31	Churchill A	1	The Pas A	51
Ontario	Moosonee	32	Winisk (aut)	0	Sioux Lookout	73
Québec	La Grande IV A	36	Inukjuak A	1	Bagotville A	25
New Brunswick	St Stephen (aut)	30	St Stephen (aut)	8	Moncton A	6
Nova Scotia	Greenwood A	28	Sable Island	9	Sable Island	25
Prince Edward Island	Summerside A	28	East Point (aut)	11	Charlottetown A	4
Newfoundland	Goose A	36	Nain A	1	St John's A	34

Across The Country...

Highest Mean Temperature	Montréal Int'l A(QUE)	23
Lowest Mean Temperature	Broughton Island(NWT)	1

89/06/19-89/06/25

CLIMATIC PERSPECTIVES
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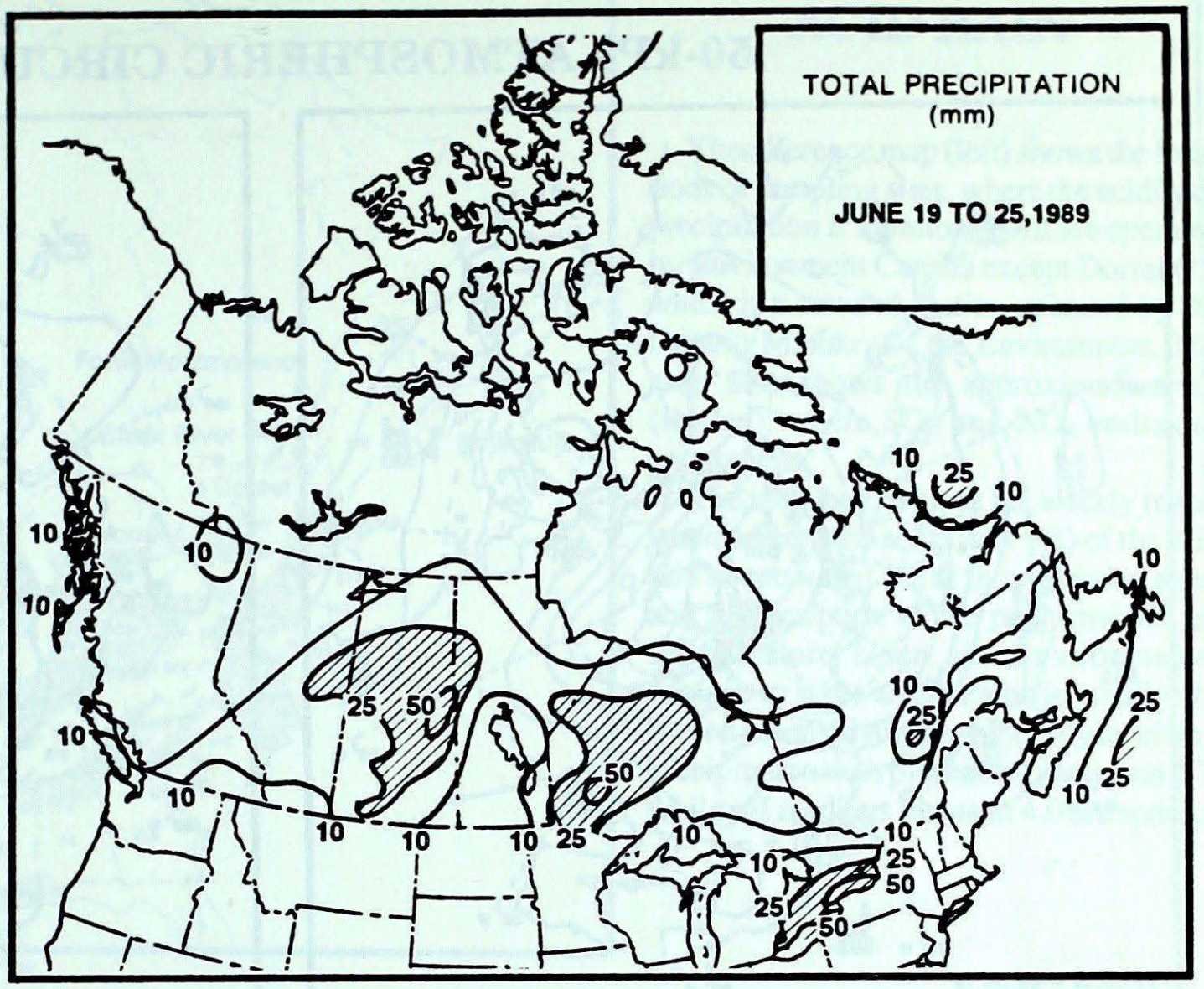
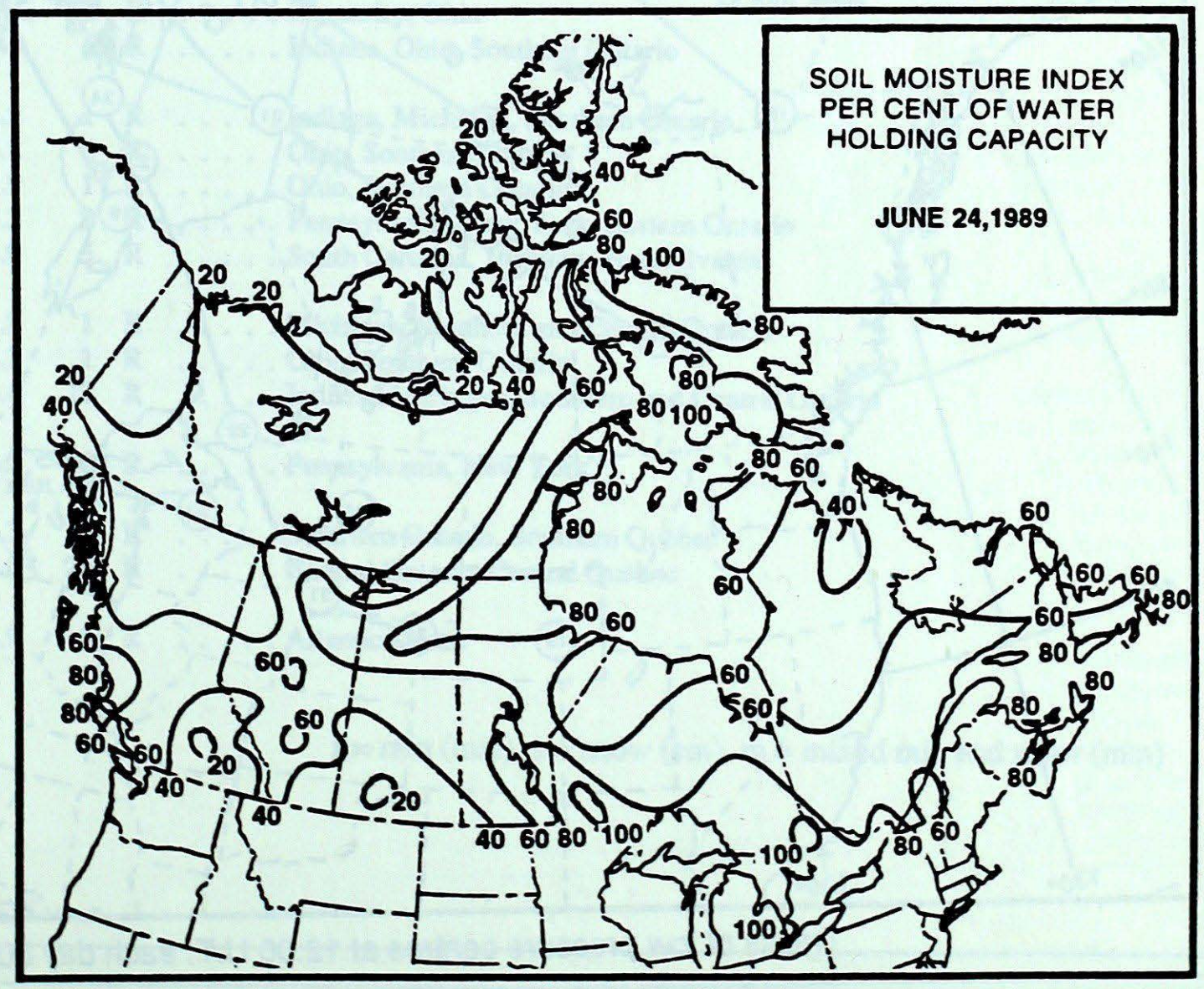
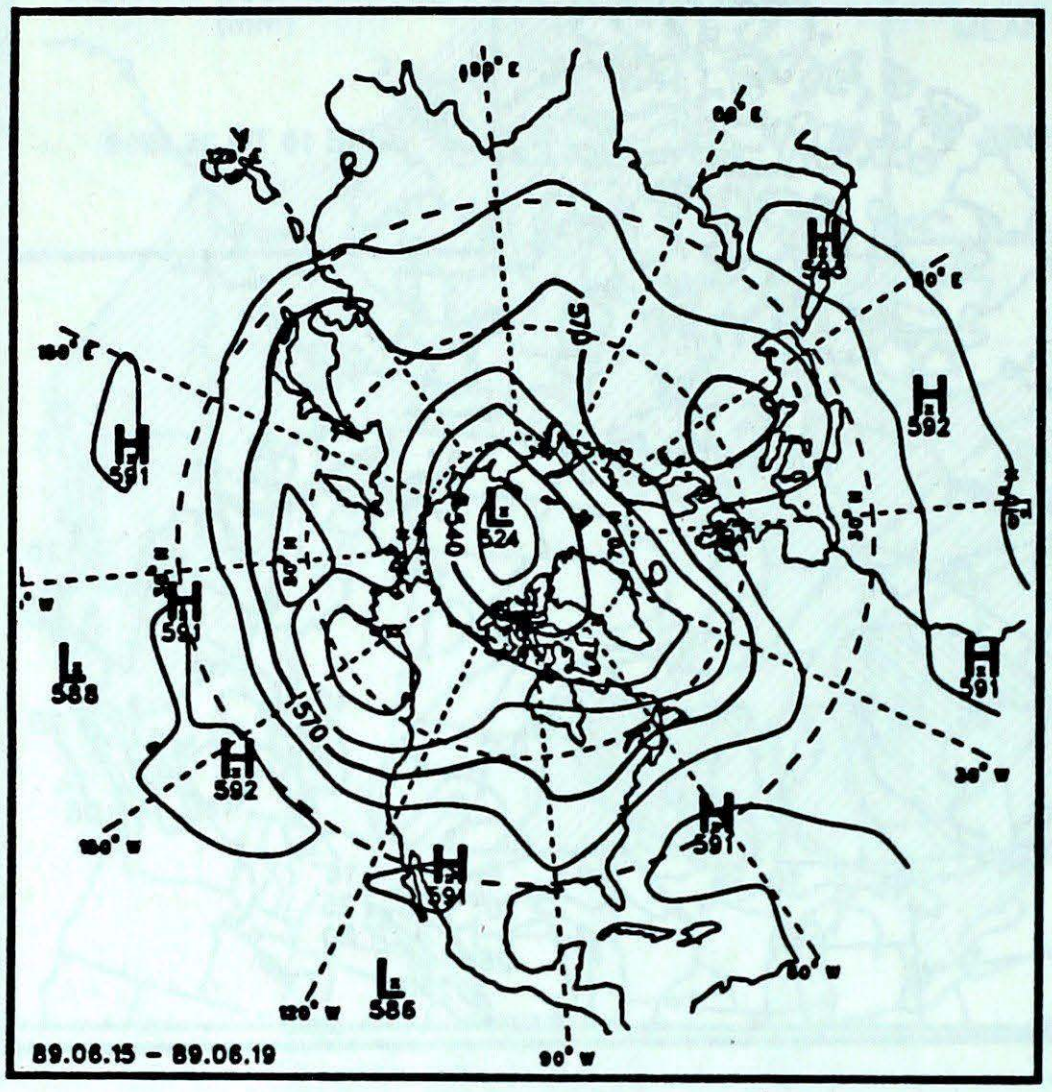
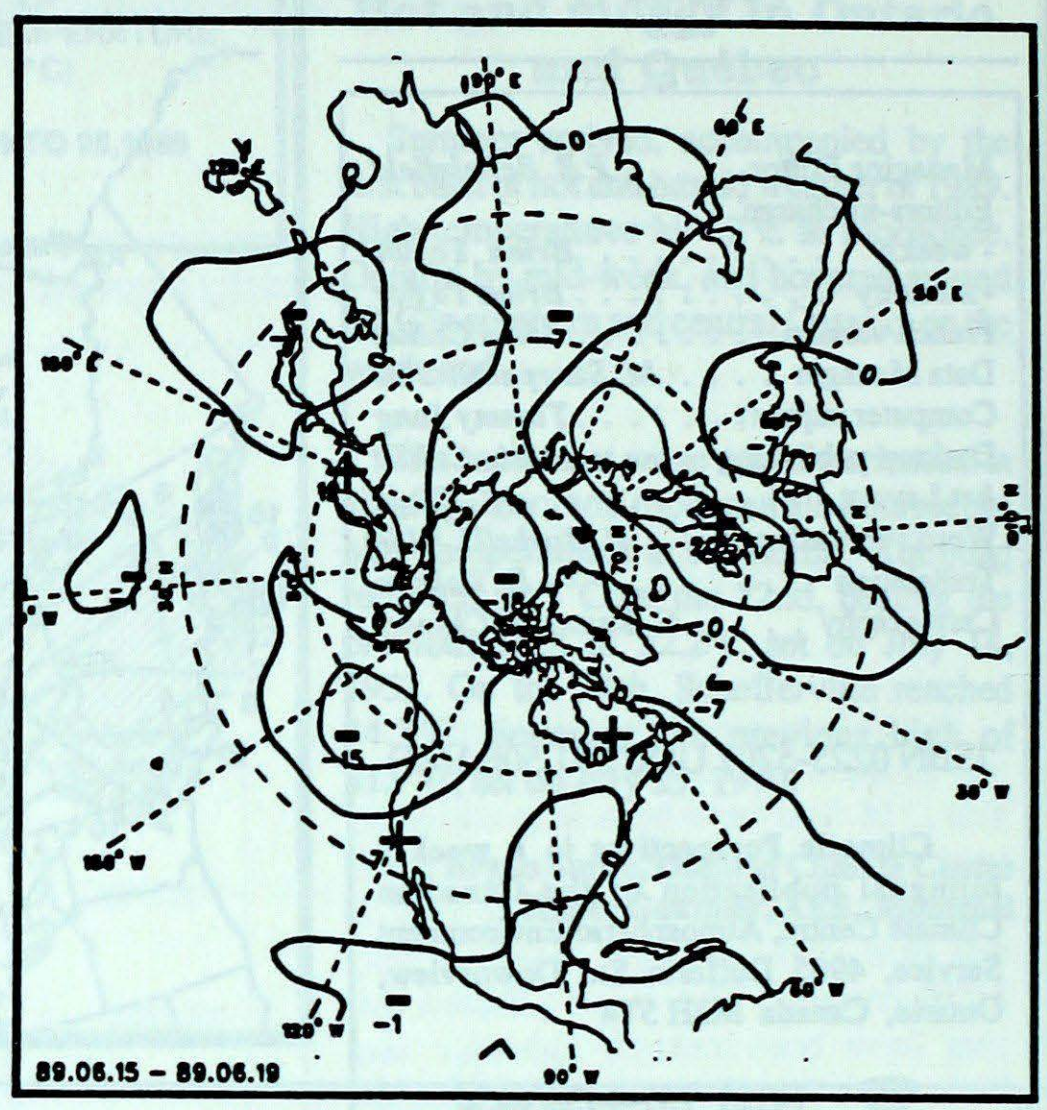




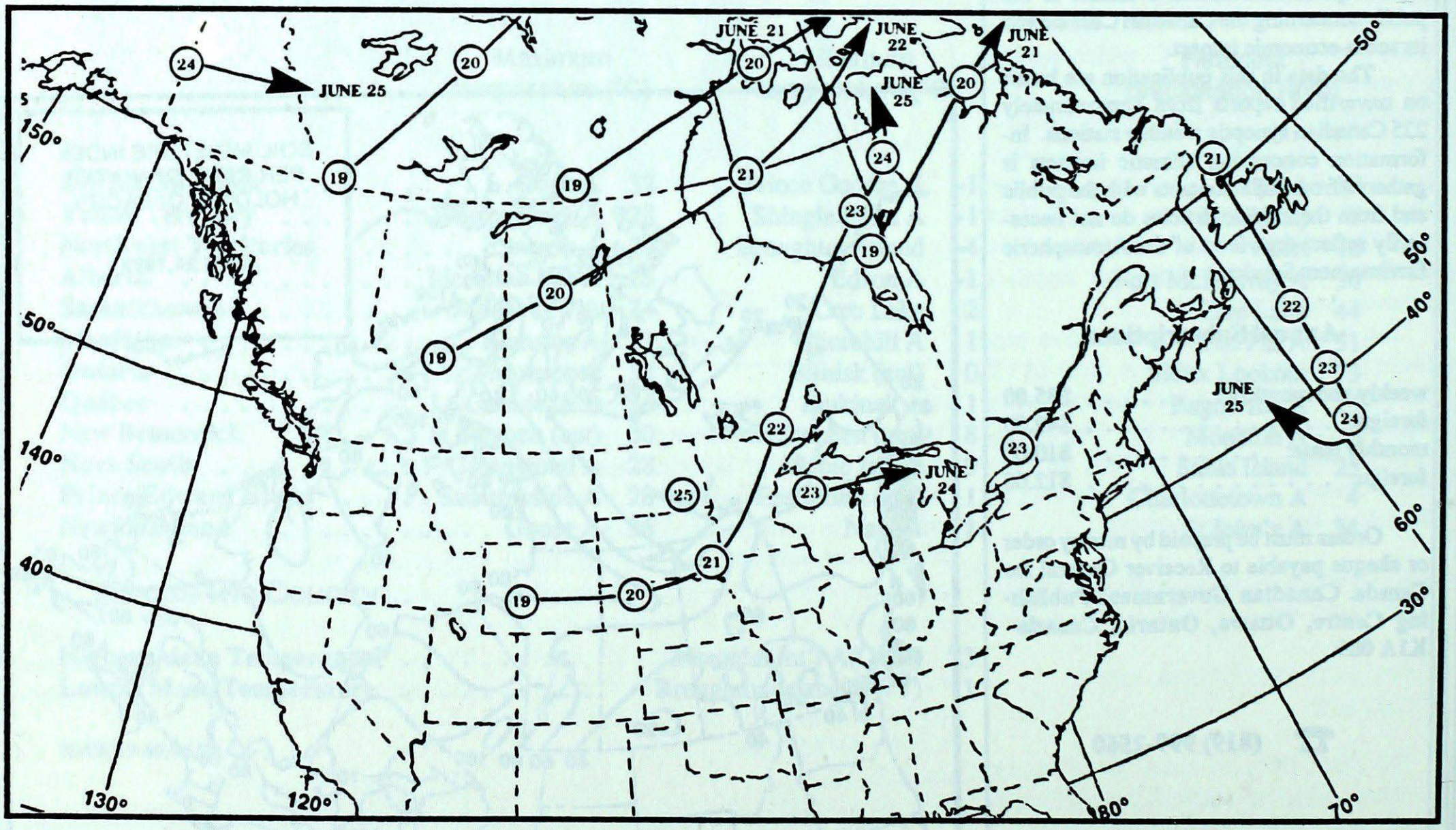
50-kPa ATMOSPHERIC CIRCULATION



Mean geopotential height
50-kPa level (10 decametre intervals)

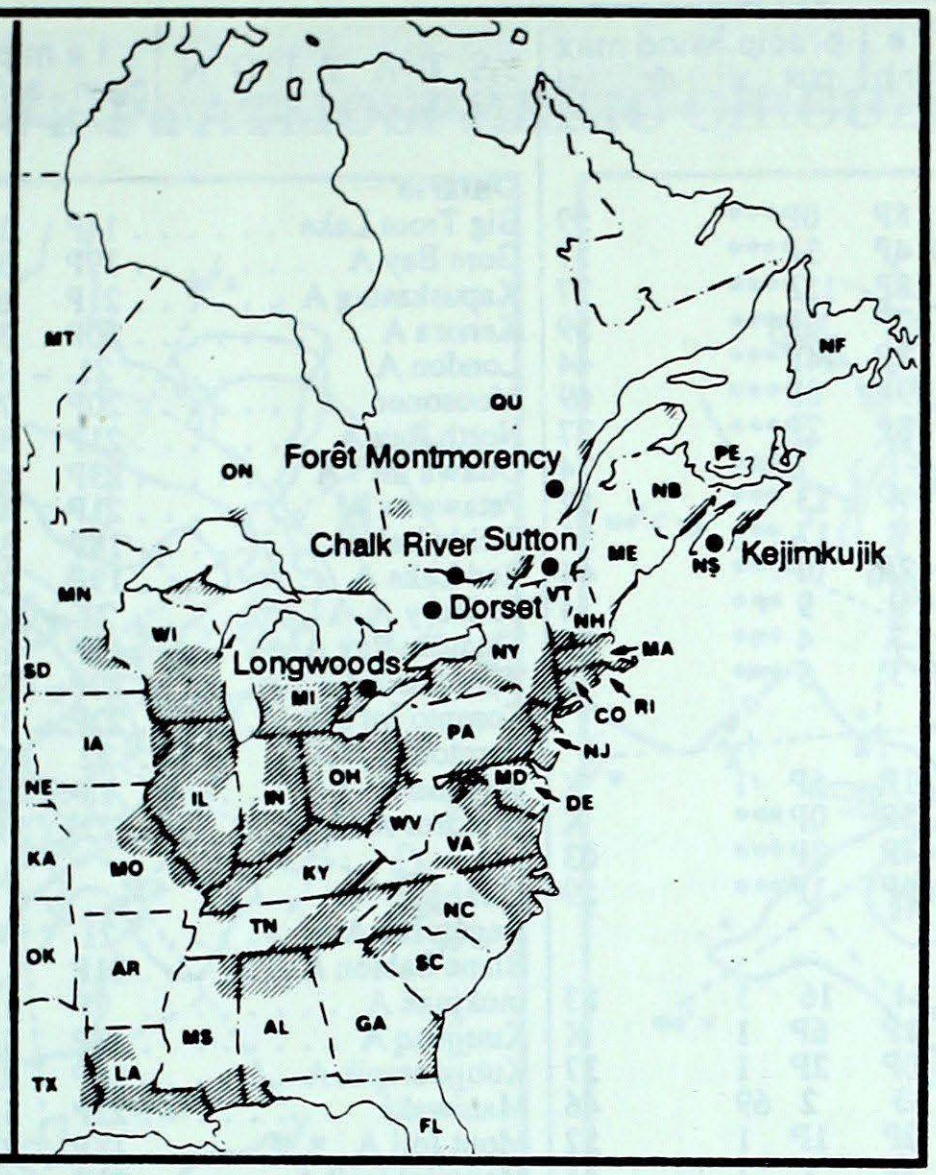


Mean geopotential height anomaly
50-kPa level (10 decametre intervals)



Tracks of low pressure centres at 12:00 U.T. each day during the period.

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

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 acid 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 readings less than 4.7, while pH readings less than 4.0 are serious.

SITE	day	pH	amount		AIR PATH TO SITE
					From June 18 to 24, 1989
Longwoods	19	3.4	32	R	. . . . . Kentucky, Ohio
	23	3.6	6	R	. . . . . Indiana, Ohio, Southern Ontario
Dorset *	18	4.2	1	R	. . . . . Indiana, Michigan, Southern Ontario
	19	4.2	6	R	. . . . . Ohio, Southern Ontario
	20	3.9	1	R	. . . . . Ohio, Southern Ontario
	21	4.2	2	R	. . . . . Pennsylvania, New York, Eastern Ontario
	22	3.9	5	R	. . . . . South Carolina, Virginia, Pennsylvania
Chalk River	18	3.8	1	R	. . . . . Michigan, Southern and Central Ontario
	19	4.1	1	R	. . . . . Ohio, Southern Ontario
	20	4.4	22	R	. . . . . Indiana, Michigan, Southern and Central Ontario
Sutton	18	4.2	6	R	. . . . . Pennsylvania, New York
Montmorency	18	4.3	3	R	. . . . . Southern Ontario, Southern Québec
	20	5.0	25	R	. . . . . Central Ontario, Central Québec
Kejimkujik	18	4.9	5	R	. . . . . Atlantic Ocean

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

STATION	temperature mean	anom	max	min	precip. ptot	st	wind max dir	vel
British Columbia								
Cape St James	13P	2P	17P	8P	0P***			59
Cranbrook A	14P	-2P	26P	4P	3P***			57
Fort Nelson A	16P	1P	25P	8P	15P***			37
Fort St John A	14P	0P	25P	7P	8P***			59
Kamloops A	18P	-1P	30P	8P	14P***			44
Penticton A	18P	0P	30P	9P	8P***			69
Port Hardy A	13P	1P	19P	8P	2P***			37
Prince George A	15	2	27	-1	7 ***			74
Prince Rupert A	13	2	18	4	13 ***			52
Revelstoke A	16	-1	29	8	17 ***			56
Smithers A	16P	3P	30P	2P	0P***			44
Vancouver Int'l A	17	1	26	9	9 ***			4
Victoria Int'l A	17	2	30	7	4 ***			35
Williams Lake A	14	0	26	3	5 ***			46
Yukon Territory								
Komakuk Beach A	6P	2P	16P	-1P	6P	1		X
Teslin (aut)	14P	P	24P	5P	0P***			X
Watson Lake A	16P	2P	28P	4P	3P***			63
Whitehorse A	13P	1P	25P	4P	1P***			59
Northwest Territories								
Alert	2	1	9	-1	16	1		83
Baker Lake A	7P	0P	15P	-1P	6P	1		X
Cambridge Bay A	7P	3P	16P	0P	2P	1		37
Cape Dyer A	2	1	8	-3	2	69		46
Clyde A	3P	1P	8P	-2P	1P	1		52
Coppermine A	9	4	24	0	1	1		41
Coral Harbour A	5P	1P	12P	-1P	2P***			56
Eureka	4P	0P	9P	1P	2P***			76
Fort Smith A	13P	-2P	23P	5P	4P***			46
Hall Beach A	3	2	10	-1	2	5		39
Inuvik A	15P	3P	27P	0P	1P***			56
Iqaluit A	4P	-1P	9P	0P	0P***			63
Mould Bay A	2P	0P	7P	-2P	2P***			54
Norman Wells A	16P	0P	25P	7P	3P***			59
Resolute A	2P	0P	6P	-1P	1P	1		52
Yellowknife A	14P	-1P	21P	7P	9P***			41
Alberta								
Calgary Int'l A	12	-3	18	3	24 ***			80
Cold Lake A	13P	-3P	22P	2P	24P***			50
Edmonton Namao A	12	-3	22	4	16 ***			59
Fort McMurray A	13	-2	21	5	30 ***			37
High Level A	13	-3	21	3	5 ***			52
Jasper	13P	0P	24P	3P	13P***			X
Lethbridge A	13	-3	21	6	17 ***			106
Medicine Hat A	15P	-3P	25P	5P	4P***			56
Peace River A	13P	-1P	23P	3P	7P***			46
Saskatchewan								
Cree Lake	11	-5	21	2	44 ***			61
Estevan A	16P	-1P	33P	6P	4P***			65
La Ronge A	13P	-2P	23P	4P	40P***			44
Regina A	15P	-1P	34P	7P	35P***			50
Saskatoon A	15P	-1P	31P	8P	41P***			70
Swift Current A	14	-2	31	7	24 ***			72
Yorkton A	16P	0P	31P	7P	36P***			54
Manitoba								
Brandon A	17P	1P	31P	6P	5P***			52
Churchill A	5P	-3P	13P	1P	2P	1		56
Lynn Lake A	12P	-2P	26P	3P	47P***			63
The Pas A	16P	0P	29P	7P	51P***			48
Thompson A	12	-1	27	2	14 ***			48
Winnipeg Int'l A	20P	2P	31P	11P	24P***			57

STATION	temperature mean	anom	max	min	precip. ptot	st	wind max dir	vel
Ontario								
Big Trout Lake	14P	1P	27P	6P	12P***			57
Gore Bay A	19P	3P	28P	11P	6P***			X
Kapuskasing A	21P	6P	31P	10P	21P***			37
Kenora A	20P	3P	31P	13P	32P***			48
London A	21	3	30	12	46 ***			46
Moosonee	20P	7P	32P	4P	8P***			39
North Bay A	21P	4P	28P	12P	38P***			33
Ottawa Int'l A	23P	4P	31P	12P	1P***			32
Petawawa A	21P	4P	31P	9P	5P***			33
Pickle Lake	18P	3P	31P	10P	28P***			85
Red Lake A	19P	2P	30P	9P	18P***			67
Sudbury A	21	5	30	13	45 ***			65
Thunder Bay A	15P	1P	28P	9P	11P***			X
Timmins A	20P	5P	29P	10P	6P***			46
Toronto Int'l A	22P	3P	31P	13P	30P***			54
Trenton A	22	3	29	11	25 ***			39
Wiarton A	18	2	27	12	14 ***			X
Windsor A	22	2	31	16	28 ***			X
Québec								
Bagotville A	21	4	34	9	25 ***			33
Blanc Sablon A	11P	P	21P	5P	2P***			X
Inukjuak A	7P	1P	17P	1P	6P***			70
Kuujjuaq A	13P	5P	33P	4P	0P***			39
Kuujjuarapik A	16P	8P	34P	1P	1P***			56
Maniwaki	22P	5P	32P	10P	0P***			X
Mont Joli A	18P	2P	26P	11P	0P***			39
Montréal Int'l A	23P	4P	33P	12P	0P***			
Natashquan A	15P	3P	26P	9P	0P***			X
Québec A	21P	3P	32P	9P	0P***			32
Schefferville A	20	10	34	4	3 ***			48
Sept-Îles A	17	4	26	9	4 ***			43
Sherbrooke A	20P	4P	31P	10P	1P***			X
Val-d'Or A	22P	7P	31P	14P	4P***			37
New Brunswick								
Charlo A	19	3	30	12	3 ***			30
Chatham A	19P	1P	30P	12P	1P***			41
Fredericton A	19P	1P	30P	11P	0P***			41
Moncton A	18P	1P	28P	10P	6P***			44
Saint John A	18P	3P	28P	10P	1P***			44
Nova Scotia								
Greenwood A	19P	2P	28P	11P	2P***			32
Shearwater A	17P	2P	27P	10P	6P***			39
Sydney A	14P	-2P	24P	9P	5P***			X
Yarmouth A	17P	2P	23P	10P	8P***			X
Prince Edward Island								
Charlottetown A	18P	1P	27P	13P	4P***			X
Summerside A	17P	1P	28P	13P	1P***			48
Newfoundland								
Cartwright	17P	7P	35P	4P	1P***			46
Churchill Falls A	21P	8P	33P	7P	3P***			5
Gander Int'l A	15P	1P	27P	8P	1P***			X
Goose A	22P	9P	36P	8P	2P***			50
Port Aux Basques	14	4	20	8	4 ***			50
St John's A	12	-1	22	8	34 ***			57
St Lawrence	13P	4P	19P	7P	5P***			X
Wabush Lake A	20P	8P	33P	9P	8P***			37

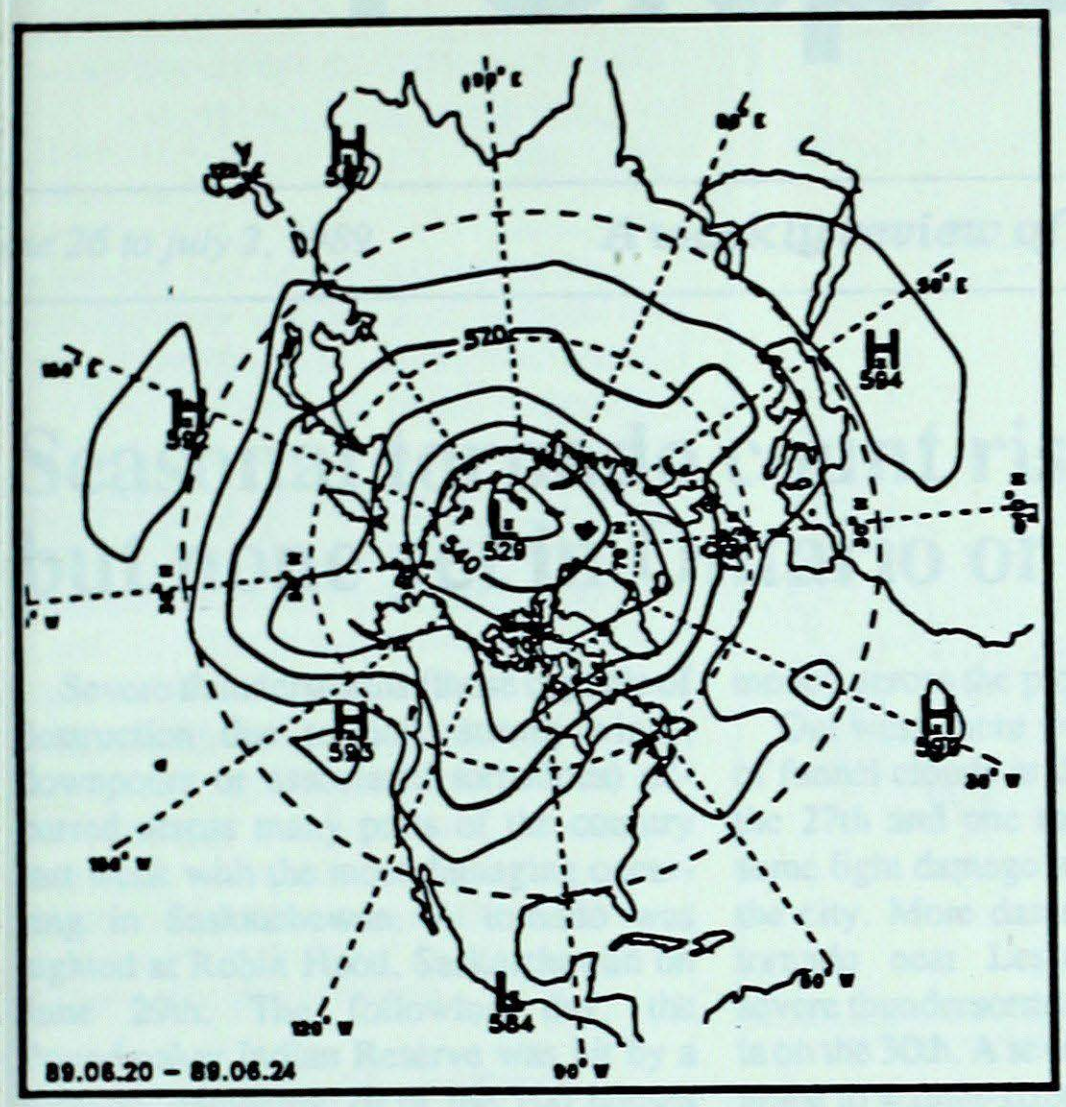
89/06/19 - 89/06/25

mean = mean weekly temperature, °C
max = maximum weekly temperature, °C
min = minimum weekly temperature, °C
anom = mean temperature anomaly, °C

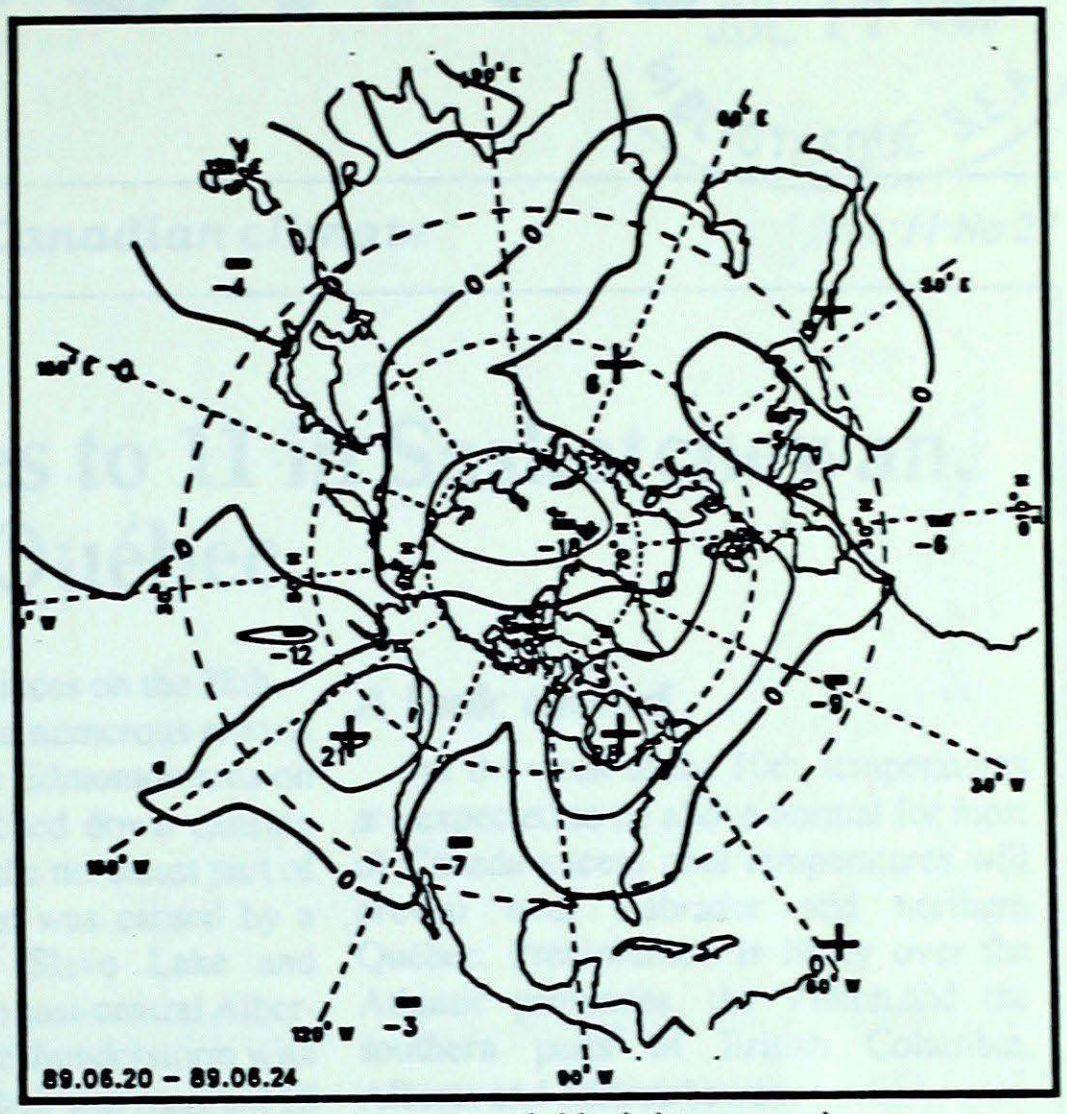
ptot = weekly precipitation total in mm
st = snow thickness on the ground in cm
dir = direction of max wind, deg. from north.
vel = wind speed in km/h

— Annotations —
X = no observation
P = less than 7 days of data
* = missing data when going to printing.

50 k-Pa ATMOSPHERIC CIRCULATION



Mean geopotential height
50 kPa level (10 decametre intervals)



Mean geopotential height anomaly
50 kPa level (10 decametre intervals)