



# Climatic Perspectives

MONTHLY  
SUPPLEMENT  
INCLUDED

July 8 to 14, 1991

A weekly review of Canadian climate and water

Vol. 13 No 28

## When will summer come to Newfoundland?

Over the past two months, generally cool and wet conditions have prevailed over most of Newfoundland and Labrador. This week under cloudy skies, rainfall measured 33 mm over the Northern Peninsula. A cold front caused temperatures to drop five to 10 degrees below normal in Newfoundland and eastern Labrador, respectively. Western Labrador was warm and wet.

On the Island, scattered showers persisted until a ridge of high pressure, over the west coast, brought sunshine on Saturday. The cloudy conditions returned on Sunday, but local citizens, feeling the burden of the recently damp weather, tried to enjoy the warm, sunny day. An exception to the cool, overcast weather was seen in Gander where the weekly daytime maximum temperature reached 20.4 degrees, and while a little rainfall did occur, only 7.8 mm was measured, during the week.

The presence of icebergs across the North shore has made transportation difficult, and interferes with fishery activities as fish stocks have migrated away from the traditional grounds to seek food and more equitable conditions. The ice, originally driven onto the coast by north winds, remains in the Strait of Belle Isle and just north of Notre Dame Bay. Labrador's southeast coast is plagued with bands of pack ice and loose bergs.

Inland on the Island, and to the south, there has been a measured slowdown of the growing season for farms, gardens and wild berries. However, commerce, including tourism, is coping adequately and life

in this most eastern province continues through early summer much as normal. An exception may be voiced by northerners, but they may thankfully take heart in the 30-day outlook for a warming up.

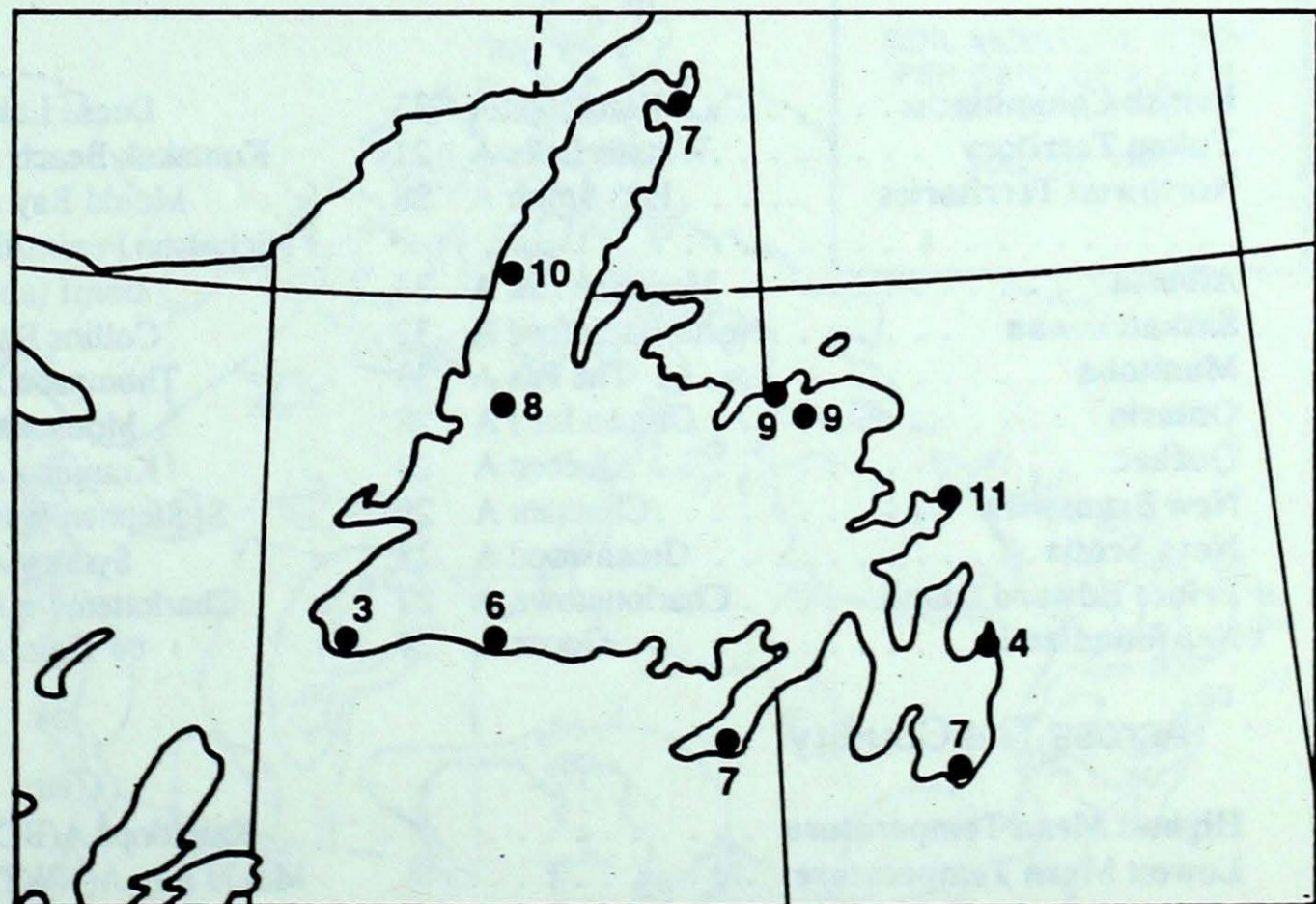
### Forest fire situation

The forest fire threat over the Quebec north shore was greatly reduced when the Baie Comeau area received 58.2 mm of rain. Forest fires have already destroyed over 390,000 ha of land this year. In contrast, the potential in Ontario for burning conditions has become extreme as temperatures soar in the upper twenties accompanied by strong gusts of wind throughout the northern and northeastern

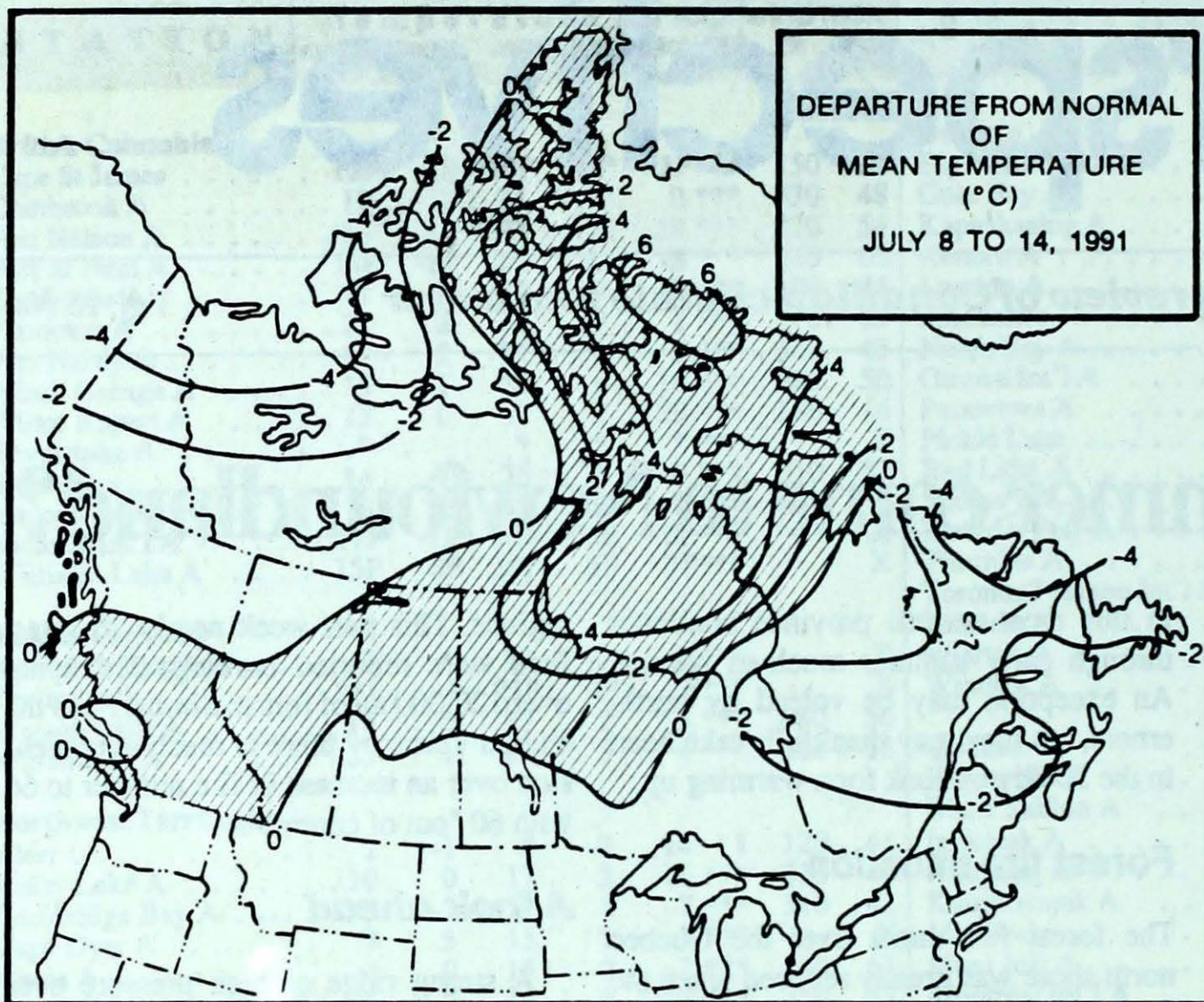
regions. This past week nearly 70 forest fires were reported burning, destroying over 120,000 ha of forest. Similarly, in the Yukon Territory there is much apprehension over an increase in fire number to 66 with 60 "out of control".

### A look ahead ...

A strong ridge of high pressure over Alberta will, for the week of July 22, push warm Pacific air over the Yukon, the N.W.T., B.C. and Alberta. For the same period, Saskatchewan, Manitoba and Ontario should experience cooler than normal temperatures while Quebec and the Atlantic provinces can expect near normal readings.



The number of consecutive weeks with temperatures below normal now exceeds 10 in the region of Newfoundland.



**Weekly normal temperatures (°C)**

	max.	min.
Whitehorse A	20.8	8.2
Iqaluit A	11.2	3.5
Yellowknife A	21.0	12.1
Vancouver Int'l A	21.7	12.6
Victoria Int'l A	21.2	10.7
Calgary Int'l A	23.6	9.6
Edmonton Int'l A	22.5	9.5
Regina A	26.3	12.0
Saskatoon A	25.5	11.9
Winnipeg Int'l A	26.1	13.5
Ottawa Int'l A	26.3	14.8
Toronto (Pearson Int'l A)	26.8	14.0
Montréal Int'l A	26.0	15.5
Québec A	25.0	13.3
Fredericton A	25.7	13.0
Saint John A	22.0	11.4
Halifax (Shearwater)	21.5	12.8
Charlottetown A	23.3	13.9
Goose A	22.2	11.0
St John's A	20.8	10.7

**Weekly temperature and precipitation extremes**

	Maximum temperature (°C)	Minimum temperature (°C)	Heaviest precipitation (mm)
British Columbia	Kamloops A 33	Dease Lake 4	Port Hardy A 65
Yukon Territory	Watson Lake A 21	Komakuk Beach A -2	Watson Lake A 29
Northwest Territories	Fort Smith A 28	Mould Bay A -2	Fort Simpson A 36
		Nicholson Peninsula -2	
Alberta	Medicine Hat A 33	Banff (aut) 3	Fort McMurray A 65
Saskatchewan	North Battleford A 32	Collins Bay 5	Yorkton A 43
Manitoba	The Pas A 33	Thompson A 2	Dauphin A 82
Ontario	Ottawa Int'l A 28	Moosonee 1	Port Weller (aut) 23
Québec	Québec A 28	Kuujuuaq A 2	Sept-iles A 79
New Brunswick	Chatham A 29	St Stephen (aut) 8	Moncton A 51
Nova Scotia	Greenwood A 28	Sydney A 6	Yarmouth A 50
Prince Edward Island	Charlottetown A 27	Charlottetown A 11	Charlottetown A 27
Newfoundland	Goose A 24	Nain A -1	Daniels Harbour 56

**Across The Country...**

Highest Mean Temperature	Kamloops A(BC)	22
Lowest Mean Temperature	Mould Bay A(NWT)	1

CLIMATIC PERSPECTIVES  
VOLUME 13

Managing Editor . . . . . *Bruce Findlay*  
Editor-in-charge  
- weekly/monthly . . . . . *Darlene Lavigne*  
French version . . . . . *Alain Caillet*  
Data Manager . . . . . *M. Skarpathiotakis*  
Computer support . . . . . *Robert Eals*  
Art Set-up . . . . . *K. Czaja*  
Translation . . . . . *D. Pokorn*  
Cartography . . . . . *T. Chivers*

ISBN 0225-5707 UDC 551.506.1(71)

**Climatic Perspectives** is a weekly publication (disponible aussi en français) of the Canadian Climate Centre, Atmospheric Environment Service, 4905 Dufferin St., Downsview, Ontario, Canada M3H 5T4

☎ (416) 739-4438/4436

The purpose of the publication is to make topical information available to the public concerning the Canadian Climate and its socio-economic impact.

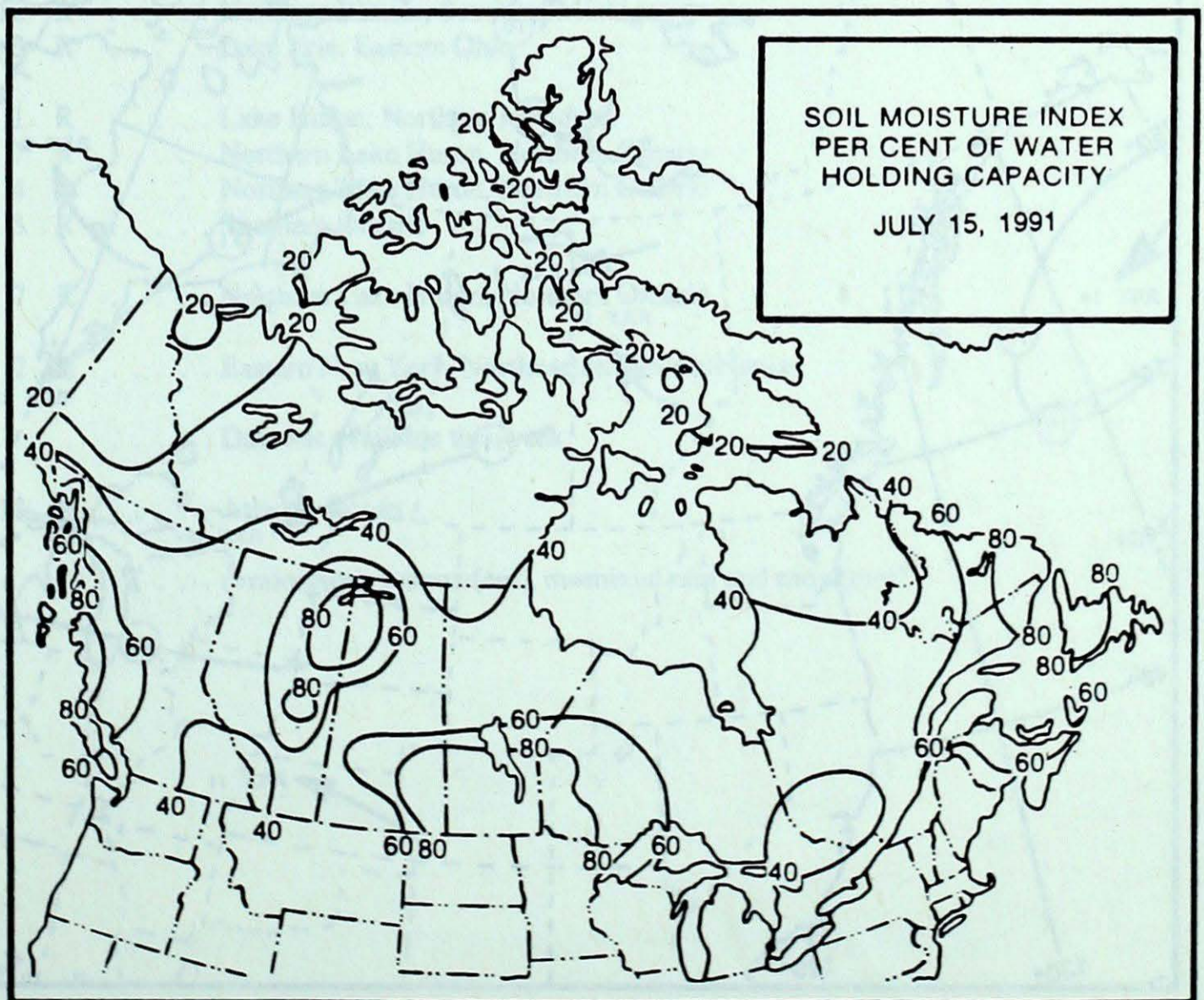
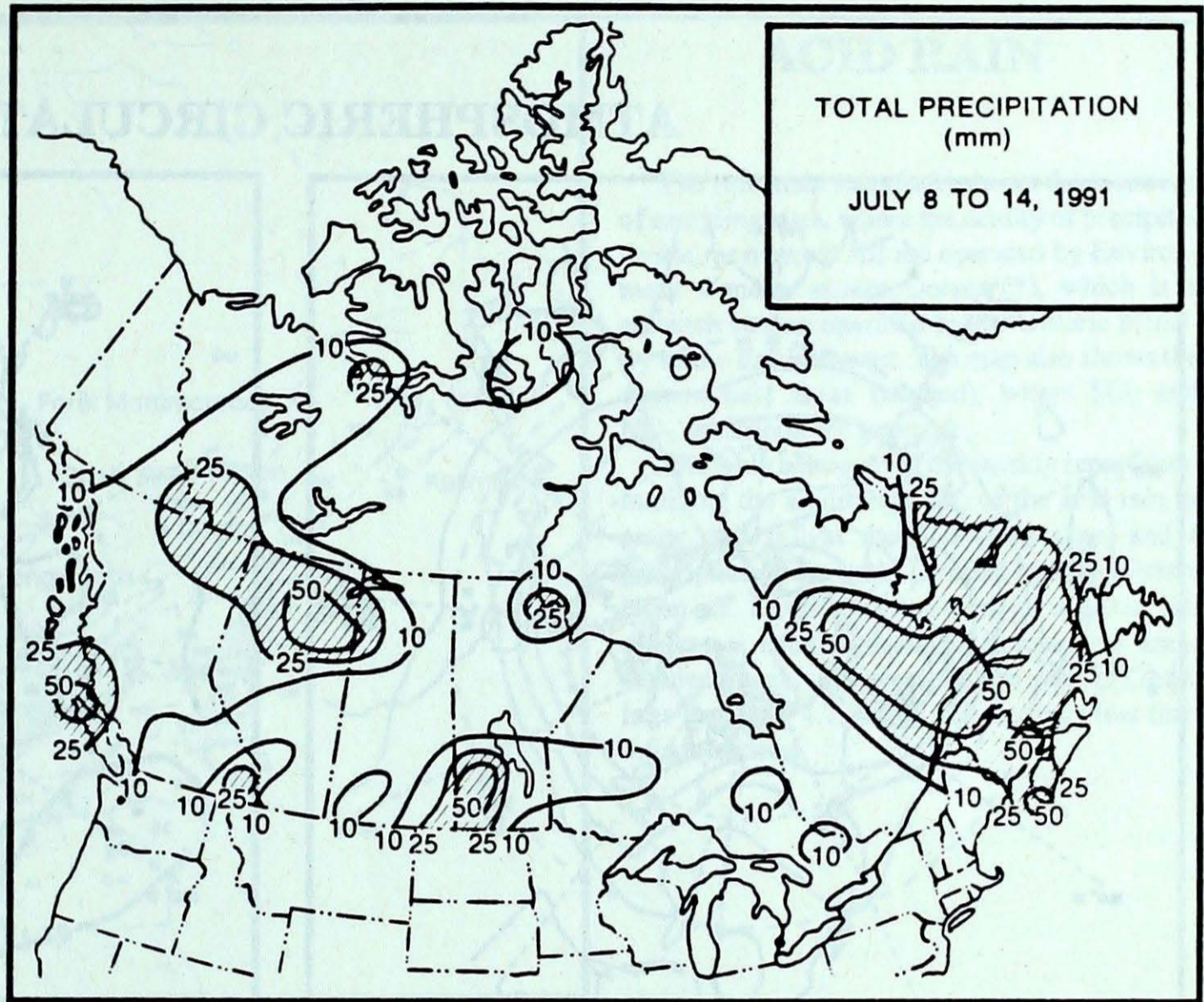
The data in this publication are based on unverified reports from approximately 225 Canadian synoptic weather stations. Information concerning climatic impacts is gathered from AES contacts with the public and from the media. Articles do not necessarily reflect the views of the Atmospheric Environment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

**Annual Subscriptions**

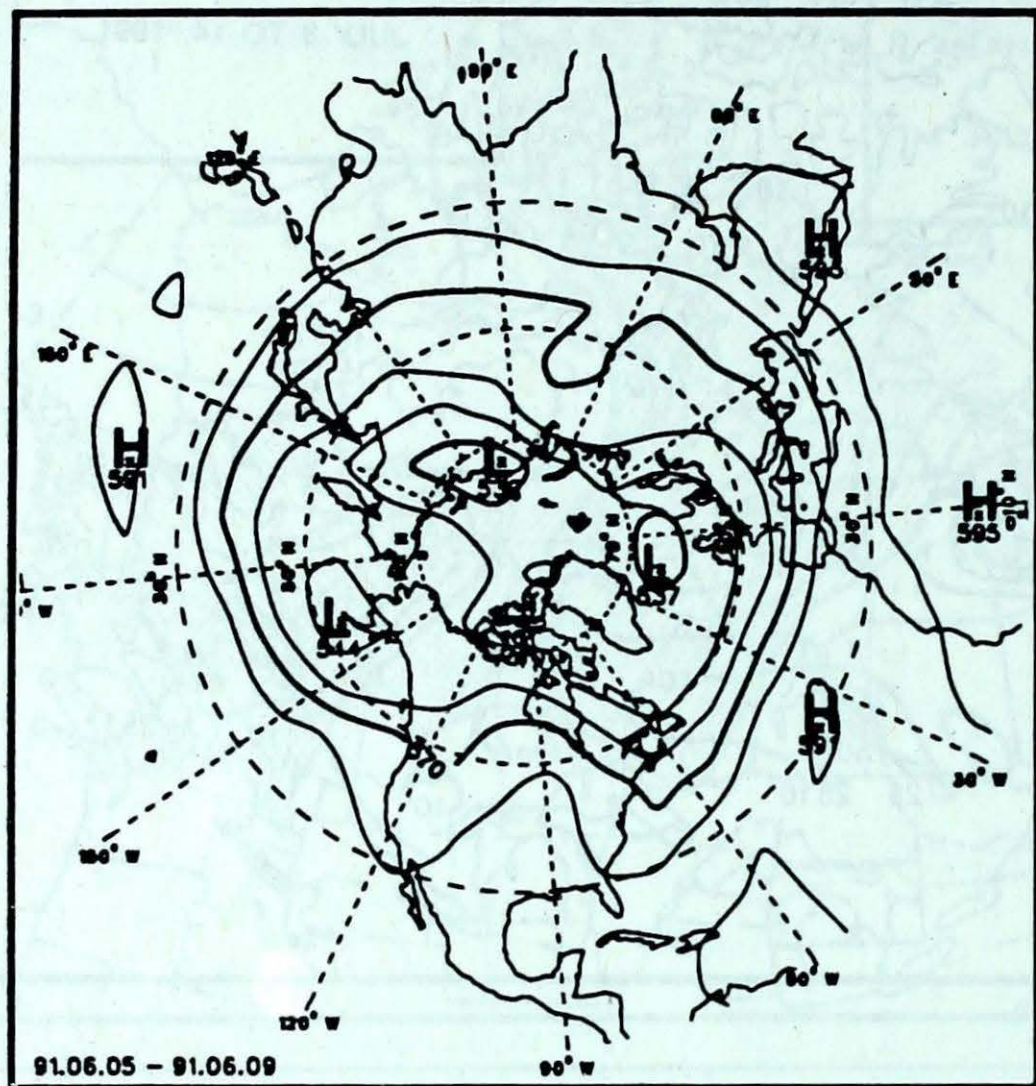
weekly and monthly : . . . . . \$35.00  
foreign: . . . . . \$42.00  
monthly issue: . . . . . \$10.00  
foreign: . . . . . \$12.00

Orders must be prepaid by money order or cheque payable to Receiver General for Canada. Canadian Government Publishing Centre, Ottawa, Ontario, Canada K1A 0S9

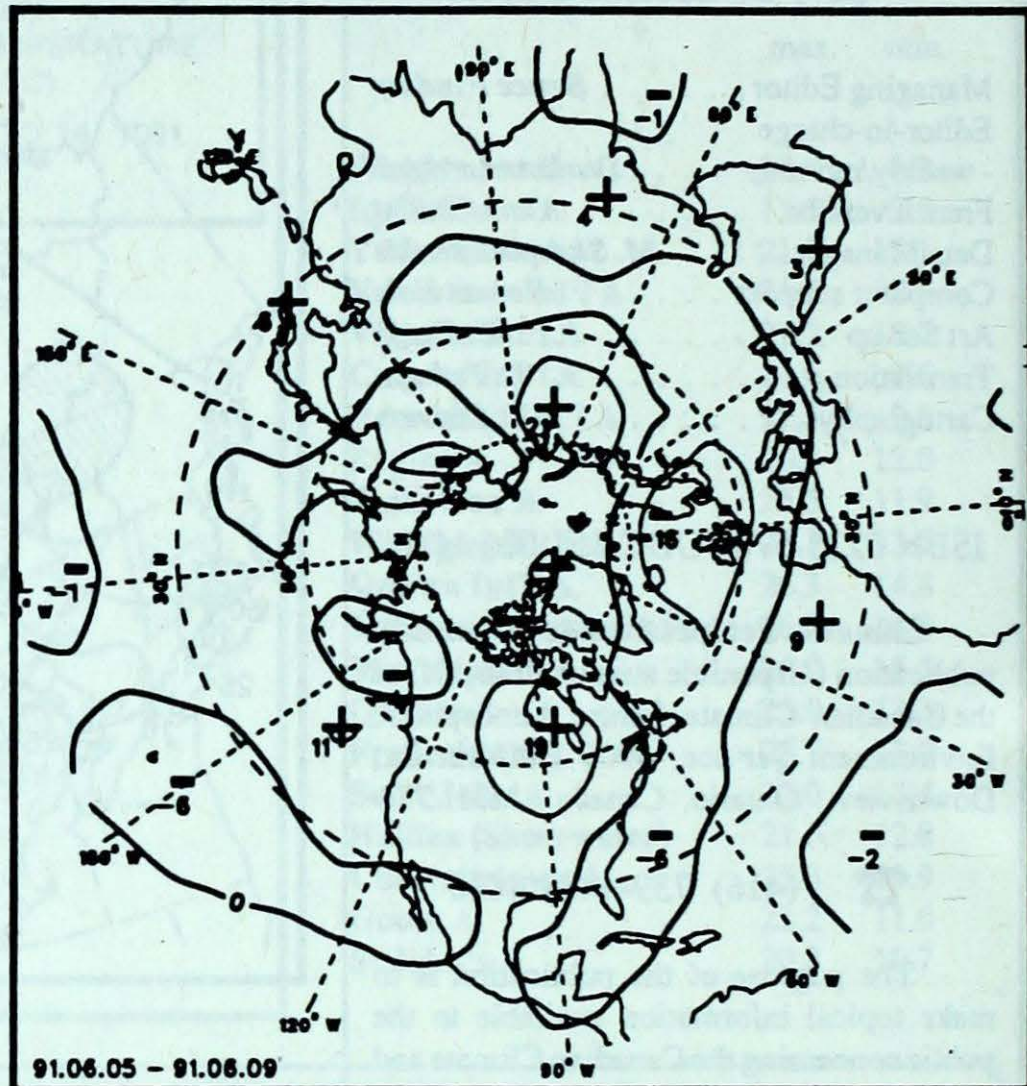
☎ (819) 997-2560



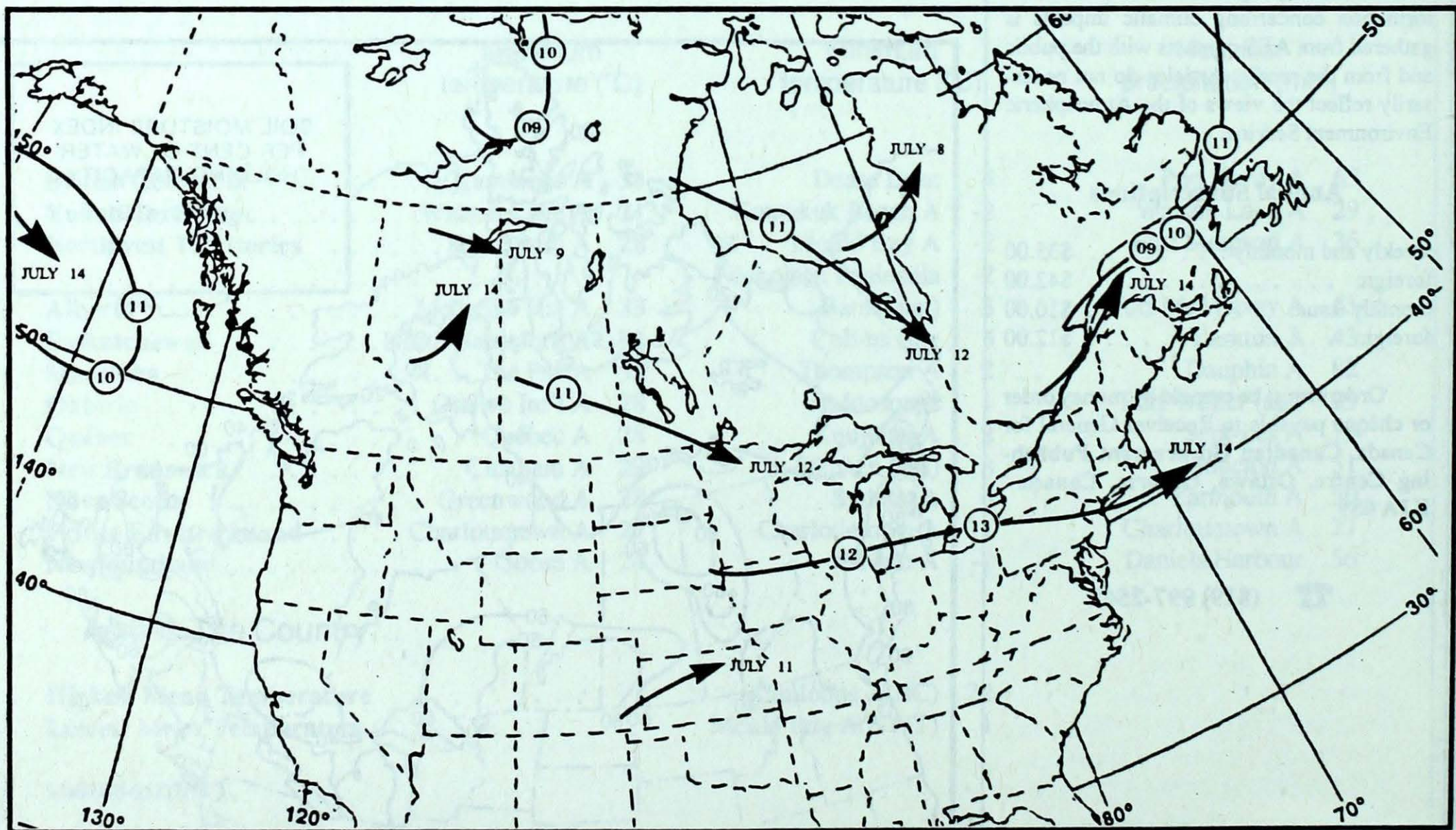
### ATMOSPHERIC CIRCULATION



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



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

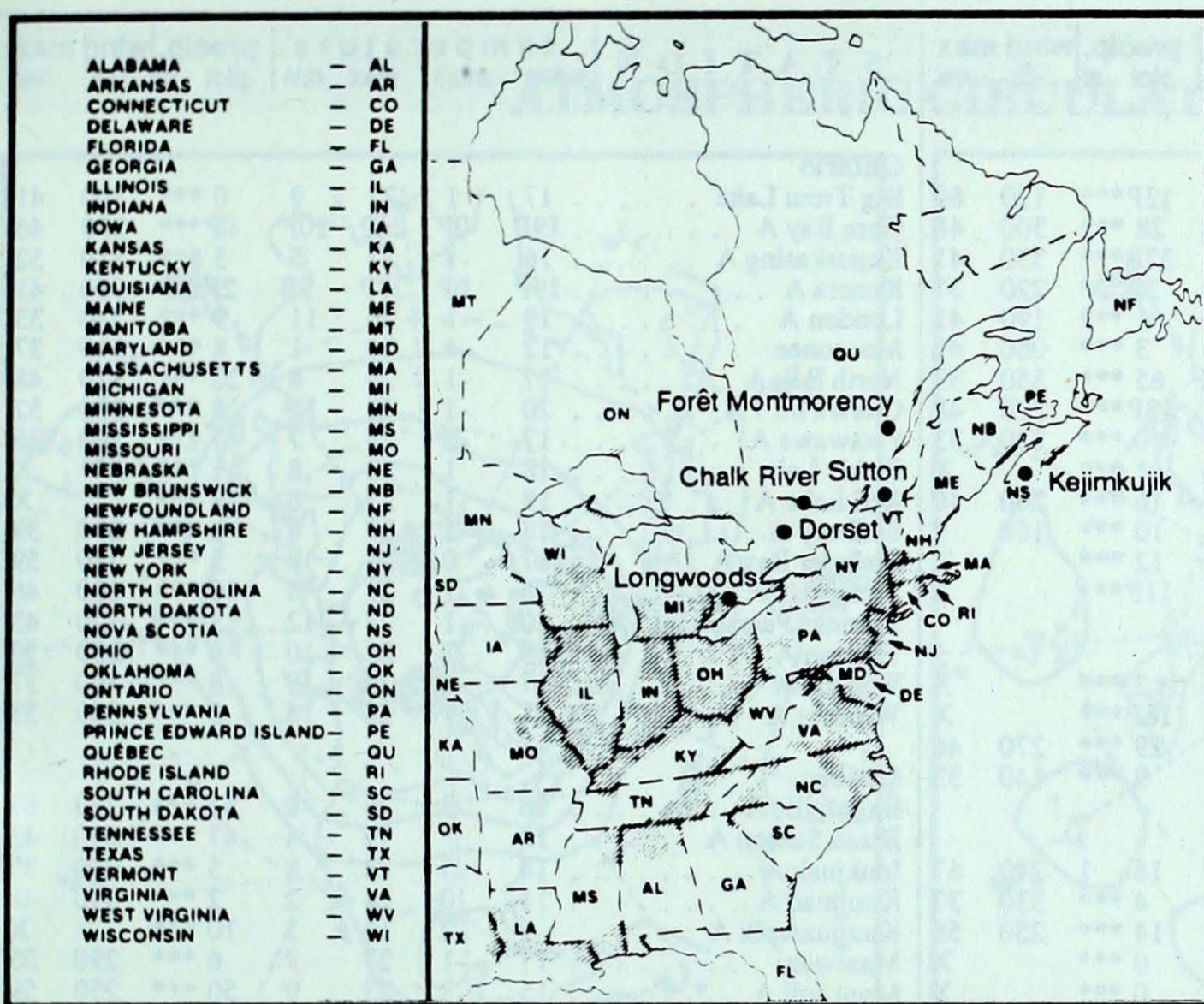


Tracks of low pressure centres at 12:00 U.T. each day during the period.

## 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<sub>2</sub> and NO<sub>x</sub> 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

July 7 to 13, 1991

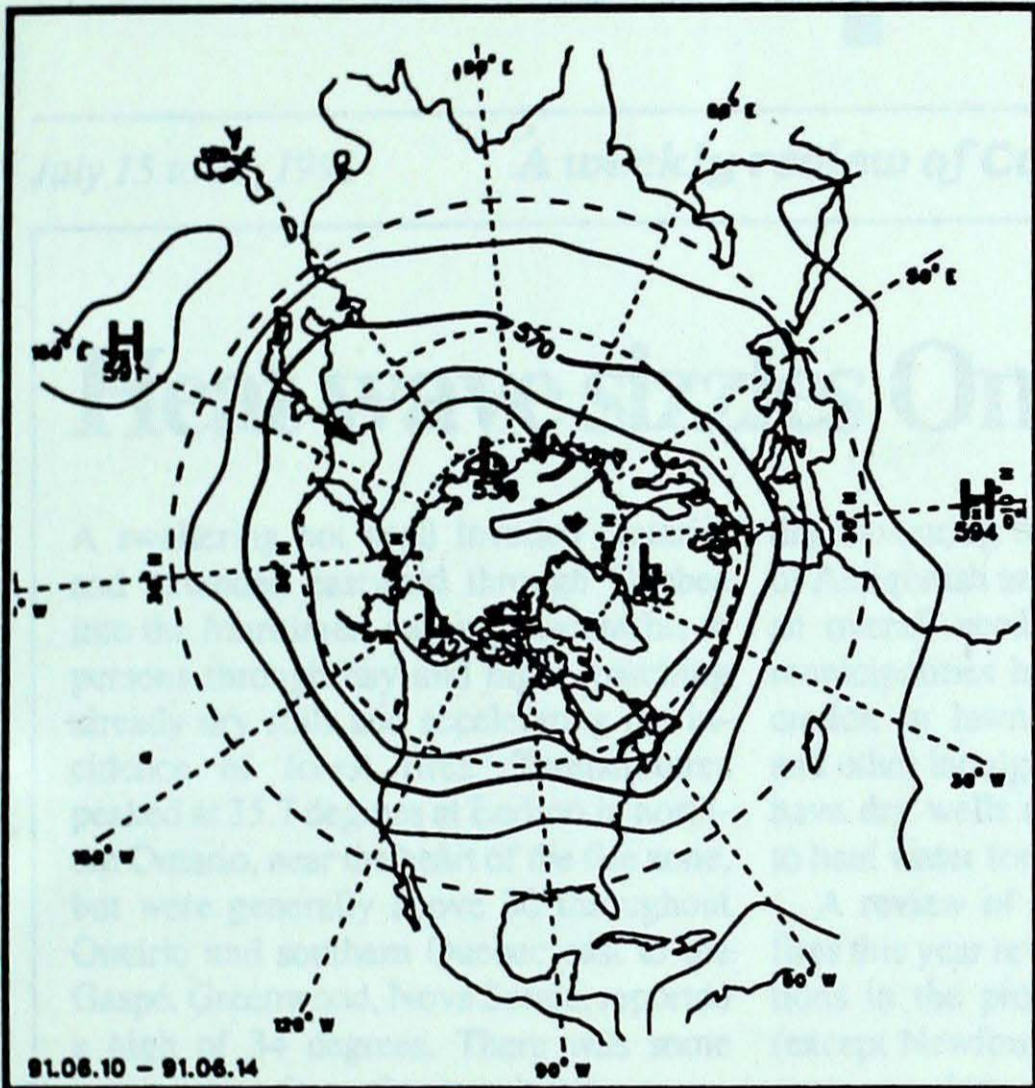
Longwoods	07	4.7	12	R	..... Northern Illinois, Southern Michigan
	12	3.6	3	R	..... Lake Erie. Eastern Ohio
Dorset*	07	4.3	1	R	..... Lake Huron, Northern Michigan
	08	4.5	7	R	..... Northern Lake Huron, Northern Ontario
	10	4.3	4	R	..... Northern Lake Huron, Northern Ontario
	13	4.3	3	R	..... Southern Ontario
Chalk River	08	4.2	7	R	..... Northern Lake Huron, Northern Ontario
Sutton	13	3.9	2	R	..... Eastern New York, Northeastern Pennsylvania
Montmorency					..... Data not available this week
Kejimikujik	13	4.5	18	R	..... Atlantic Ocean

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

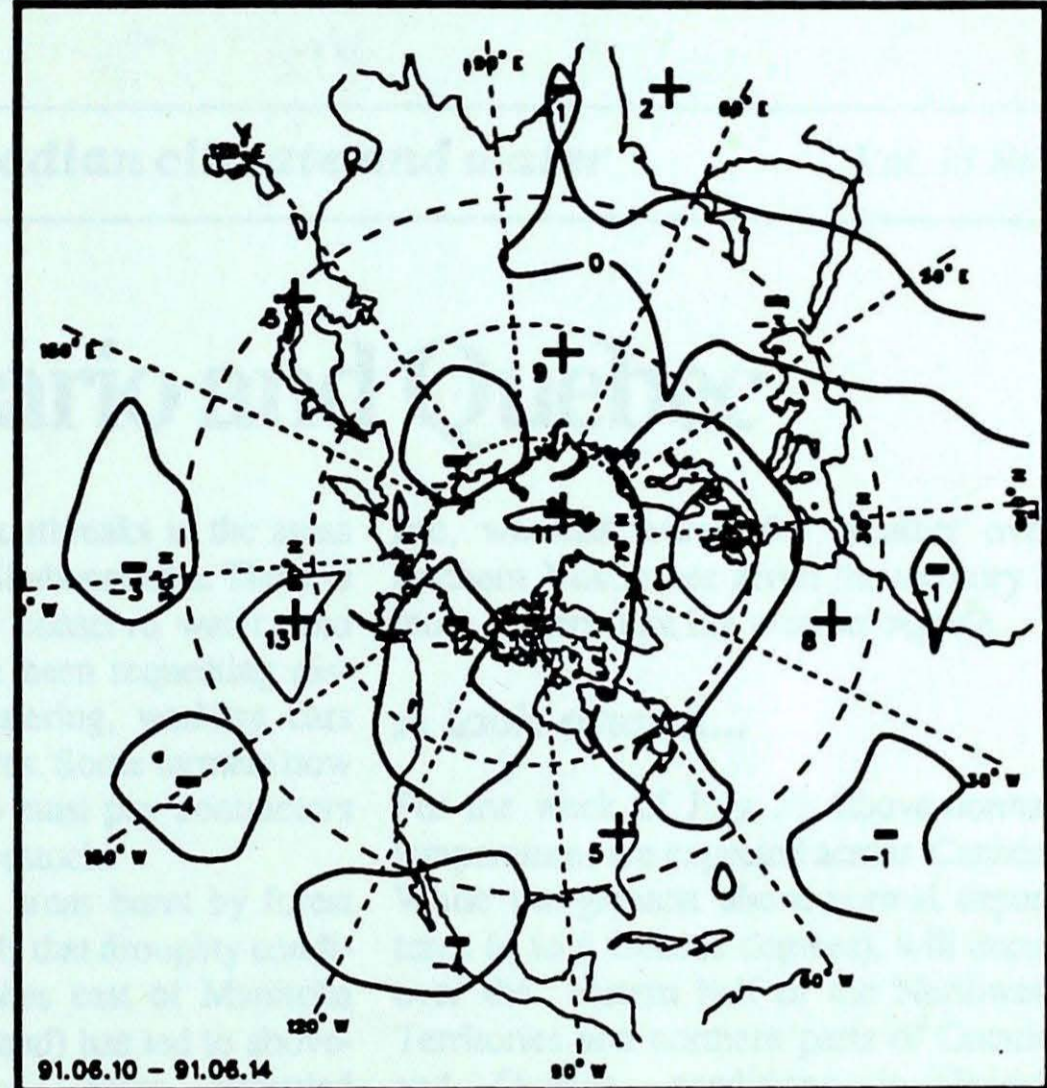
STATION	temperature				precip.		wind max		STATION	temperature				precip.		wind max	
	mean	anom	max	min	ptot	st	dir	vel		mean	anom	max	min	ptot	st	dir	vel
<b>British Columbia</b>								<b>Ontario</b>									
Cape St James	13P	0P	16P	9P	12P***		120	69	Big Trout Lake	17	1	27	9	0***		300	41
Cranbrook A	19	1	30	9	28***		300	48	Gore Bay A	19P	0P	26P	10P	0P***		280	46
Fort Nelson A	15P	-2P	25P	9P	37P***		330	41	Kapuskasing A	16	-1	27	5	5***		310	52
Fort St John A	16P	0P	25P	7P	3P***		220	37	Kenora A	19P	0P	27P	9P	2P***		330	41
Kamloops A	22	2	33	10	1***		190	41	London A	19	-1	26	11	9***		330	33
Penticton A	22	1	32	10	3***		060	41	Moosonee	12	-4	24	1	8***		310	37
Port Hardy A	13	0	18	7	65***		350	33	North Bay A	17	-1	26	8	20***		310	48
Prince George A	16P	1P	26P	7P	18P***		270	48	Ottawa Int'l A	20	-1	28	11	8***		300	52
Prince Rupert A	13	1	17	9	40***		280	33	Petawawa A	17	-2	27	7	7***		320	35
Revelstoke A	*	*	*	*	****		X		Pickle Lake	18	1	28	8	11***		X	
Smithers A	15	0	24	6	16***		240	46	Red Lake A	18	-1	27	6	13***		X	
Vancouver Int'l A	18	1	24	12	10***		160	3	Sudbury A	18	-1	27	8	6***	030	39	
Victoria Int'l A	16	0	25	8	12***		X		Thunder Bay A	17	0	28	8	5***	280	59	
Williams Lake A	15P	0P	25P	4P	11P***		X		Timmins A	16	-1	27	4	10***	290	46	
<b>Yukon Territory</b>								<b>Quebec</b>									
Komakuk Beach A	2	-5	14	-2	2***		X		Bagotville A	16	-3	26	8	51***	260	67	
Teslin (aut)	12P	*	18P	3P	16P***		X		Blanc Sablon A	10	*	16	4	47***	090	43	
Watson Lake A	15	0	21	9	29***		270	46	Inukjuak A	14	5	23	8	5***	040	35	
Whitehorse A	13	-2	20	4	9***		140	33	Kuujuuaq A	11	0	24	2	2***	310	48	
<b>Northwest Territories</b>								<b>New Brunswick</b>									
Alert	2	-1	10	-2	16	1	240	67	Charlo A	*	*	25	*	****		X	
Baker Lake A	9	-2	19	-1	4***		330	37	Chatham A	17	-3	29	10	25***	200	41	
Cambridge Bay A	6	-2	14	0	14***		250	56	Fredericton A	17	-2	27	9	44***	290	65	
Cape Dyer A	9	4	15	3	0***		X		Moncton A	17	-2	26	11	51***	260	50	
Clyde A	8	5	16	0	0***		X		Saint John A	17	0	26	10	31***	290	54	
Coppermine A	6	-4	11	1	18***		320	52	<b>Nova Scotia</b>								
Coral Harbour A	12	3	24	5	1***		080	46	Greenwood A	19	-1	28	11	37***	250	78	
Eureka	6	0	14	1	0***		280	41	Shearwater A	18	1	27	12	23***	260	57	
Fort Smith A	16	0	28	2	14***		X		Sydney A	16	-2	26	6	15***	260	46	
Hall Beach A	9	4	17	2	0***		310	41	Yarmouth A	16	0	22	11	50***	250	52	
Inuvik A	9	-5	24	1	10***		360	48	<b>Prince Edward Island</b>								
Iqaluit A	10	2	23	3	0***		330	43	Charlottetown A	17	-2	27	11	27***	270	48	
Mould Bay A	1	-3	5	-2	0	2	040	39	East Point (auto)	15P	*	20P	12P	11P***			
Norman Wells A	13	-4	22	4	12***		300	37	<b>Newfoundland</b>								
Resolute A	7	3	14	2	3	1	080	76	Cartwright	8	-6	22	1	30***	340	48	
Yellowknife A	16	-1	24	6	7***		320	61	Churchill Falls A	11	-3	23	5	7***	330	43	
<b>Alberta</b>								<b>91/07/08-91/07/14</b>									
Calgary Int'l A	17	0	30	7	17***		270	74	Gander Int'l A	13	-4	20	5	8***	180	43	
Cold Lake A	19	1	32	7	1***		220	46	Goose A	12	-5	24	5	32***	050	50	
Edmonton Namao A	19	2	30	9	9***		290	59	Port Aux Basques	11	-2	16	6	33***	090	56	
Fort McMurray A	18	1	28	5	65***		260	72	St John's A	13	-3	22	6	9***	160	48	
High Level A	16	0	25	5	40***		210	46	St Lawrence	11P	0P	18P	7P	2P***		X	
Jasper	15	0	26	7	16***		X		Wabush Lake A	13	-1	20	7	27***	060	33	
Lethbridge A	19	0	30	7	19***		200	43									
Medicine Hat A	20	0	33	9	9***		180	56									
Peace River A	16	0	27	6	15***		320	52									
<b>Saskatchewan</b>																	
Cree Lake	16	1	28	6	13***		250	61									
Estevan A	19	-2	30	8	39***		240	56									
La Ronge A	18	1	30	6	1***		280	41									
Regina A	19	0	31	9	11***		140	59									
Saskatoon A	19	0	30	9	0***		020	33									
Swift Current A	19	0	29	10	10***		170	96									
Yorkton A	18	0	30	8	43***		210	37									
<b>Manitoba</b>																	
Brandon A	18	-1	29	6	66***		050	52									
Churchill A	16	4	28	6	28***		180	59									
Lynn Lake A	18	2	30	8	4***		260	76									
The Pas A	19	1	33	6	7***		260	56									
Thompson A	17	1	31	2	4***		180	59									
Winnipeg Int'l A	19	-1	28	10	15***		180	57									

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.

### ATMOSPHERIC CIRCULATION



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



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



Environnement  
Canada

Atmospheric  
Environment  
Service

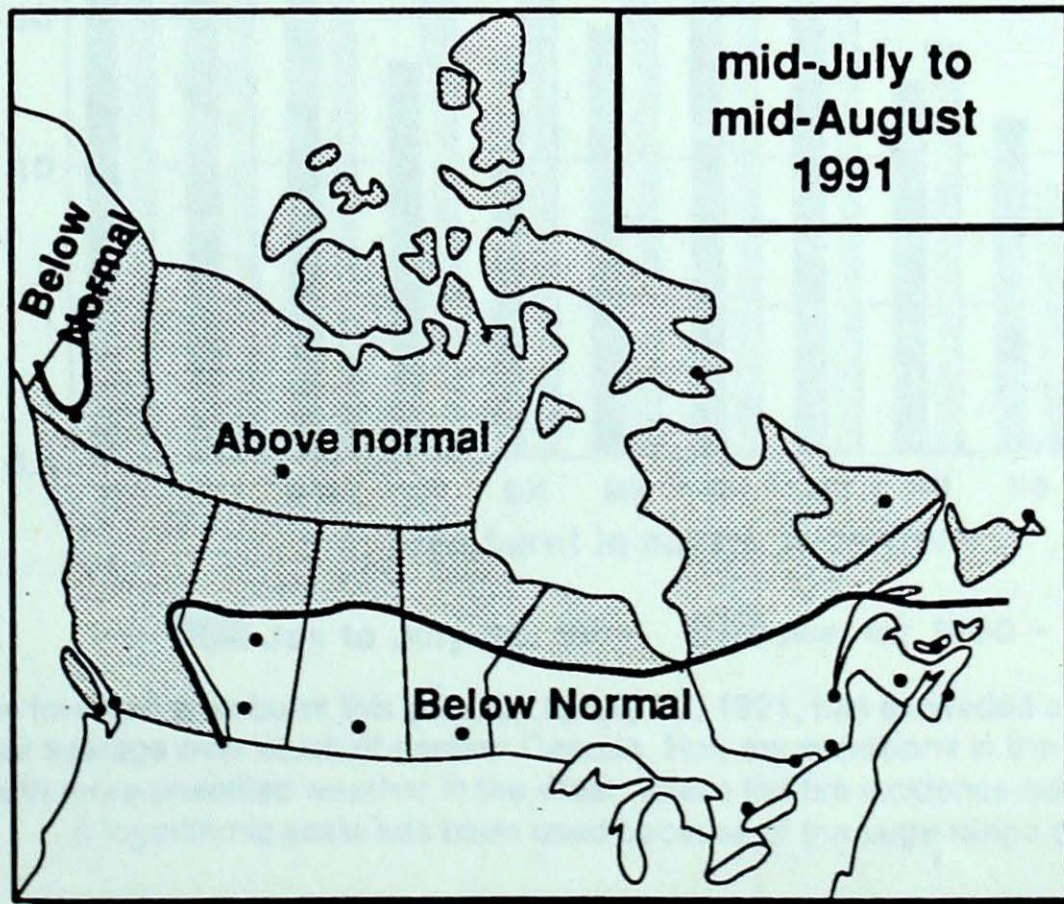
Environnement  
Canada

Service  
de l'environnement  
atmosphérique

### MONTHLY TEMPERATURE FORECAST

*Normal temperatures for  
mid-July to mid-August, °C*

Whitehorse	13	Toronto	20
Yellowknife	15	Ottawa	20
Iqaluit	7	Montréal	20
Vancouver	17	Québec	18
Victoria	16	Fredericton	19
Calgary	16	Halifax	18
Edmonton	16	Charlottetown	18
Regina	18	Goose Bay	15
Winnipeg	19	St. John's	15



Canada