

Climatic Perspectives

C.S. LIBRARY
JUN 22 1989
BIBLIOTHEQUE S.E.A.

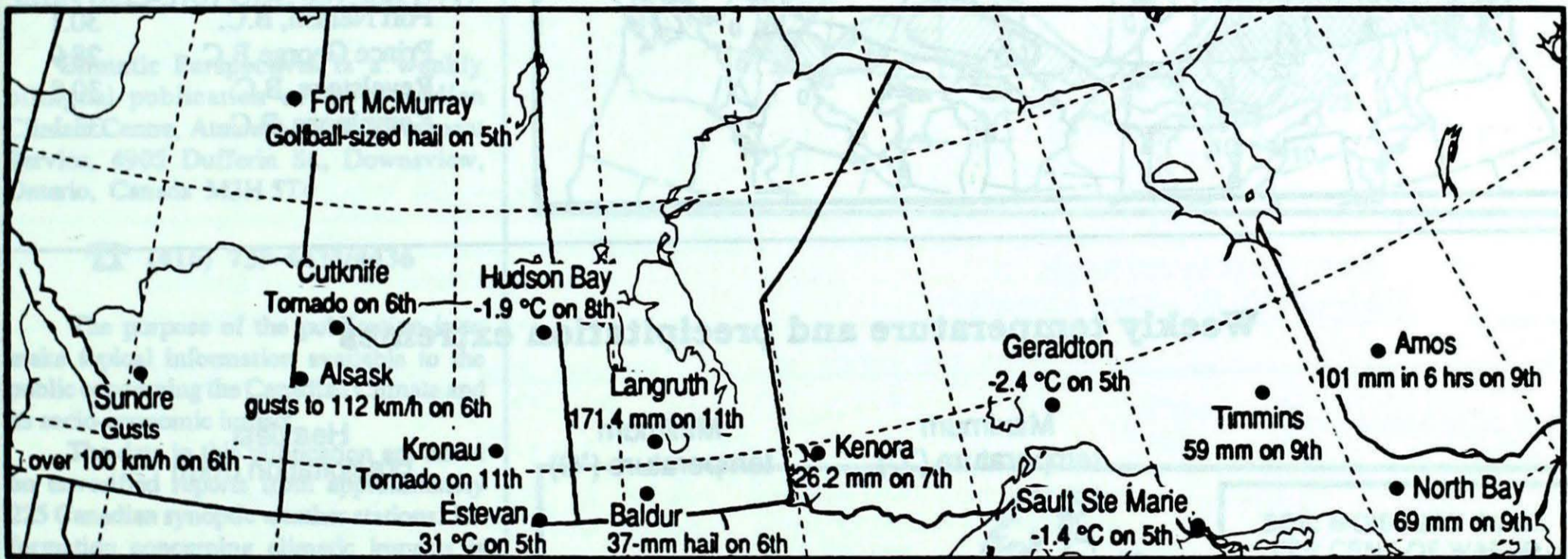
June 5 to 11, 1989

A weekly review of Canadian climate

Vol. 11 No. 24

More heavy rain over Central Canada

Three low pressure systems moved across the central parts of the country during the week causing widespread rainfall and isolated severe weather events.



Wet weekend on the Prairies

It was a wet weekend across the southern Prairies as a slow moving weather system crawled eastwards, leaving substantial rainfalls in its wake. Several stations reported totals of 30 to 60 mm for the three days. On Saturday and Sunday, there were several reports of severe weather in Saskatchewan with some unofficial local heavy rainfalls in excess of 100 mm. The rain was generally welcomed by farmers who have most of their crops planted.

John Bendell, Winnipeg Climate Centre

Unsettled in Ontario and Québec

Heavy rains fell in the central and northern parts of Ontario while the south-west received generally less than 5 mm. Haying operations were hampered in southern Ontario as showers fell on at least three days.

In Québec, forestry stations in the Abitibi-Témiscamingue region reported record six-hour rainfalls of up to 65 mm. At the end of the period, there were no forest fires burning in the province. Only 563 hectares have been destroyed so far this year compared to a five-year normal of 35,412 hectares.

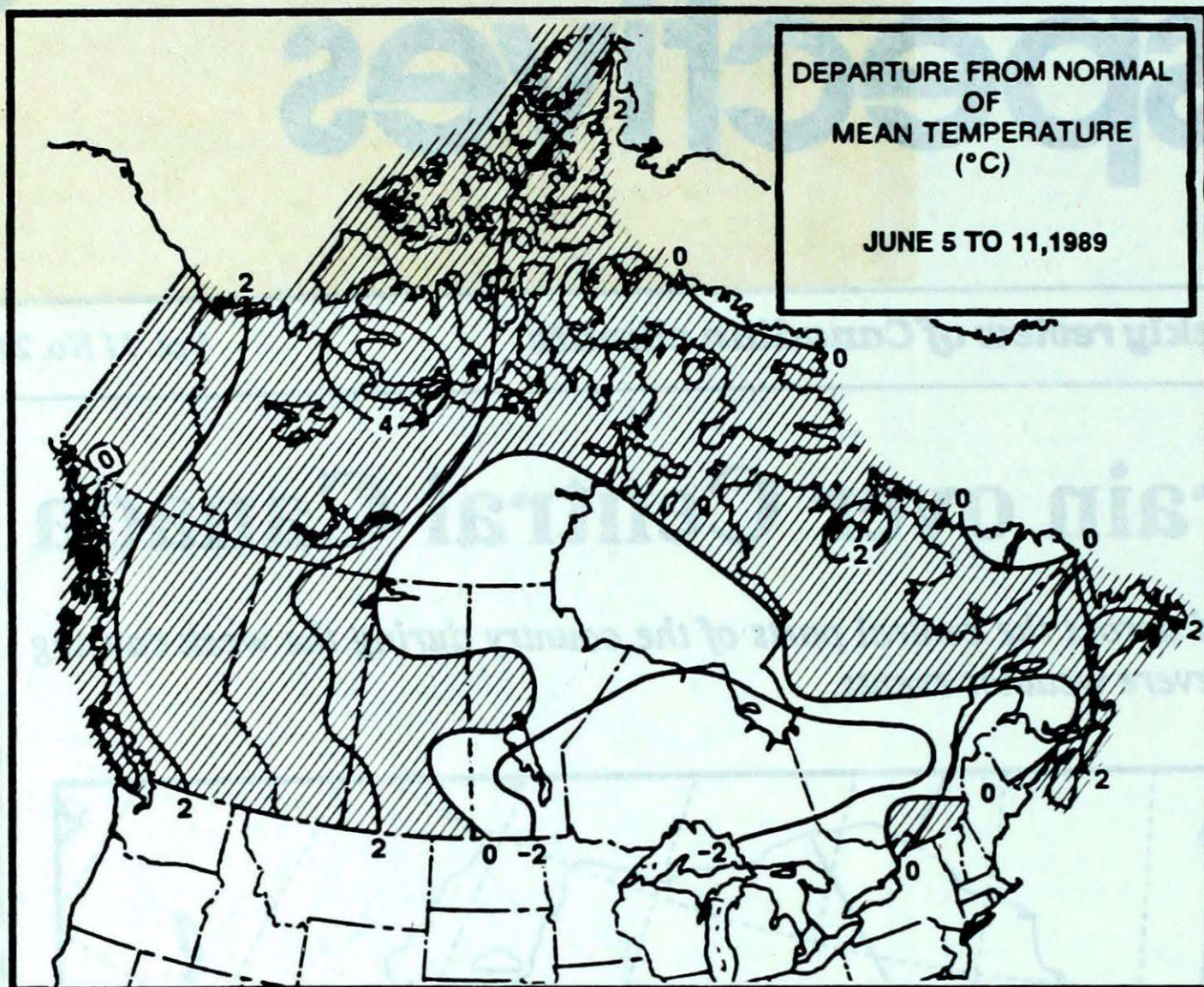
Bryan Smith, Ontario Climate Centre and Roger Gauthier, AES Montréal

Summer-like temperatures across most of the country are expected...

Below-normal temperatures so far this month over central Canada will be replaced by above-normal readings during the week of June 18. A ridge of high pressure over the U.S.A. will push warm air over the Great Lakes and the St. Lawrence Valley. The rest of the country will also experience above-normal temperatures as a flow of air from the west becomes established during mid-June.

— prepared June 14, 1989

A. Shabbar, Canadian Climate Centre



Across the country...

Warm in the West and Northwest

While east of the Rockies was being soaked by a series of low pressure systems, the west basked in warm sunshine under the influence a high pressure system. Temperatures rose to record or near-record daily values (°C) on Sunday the 11th as indicated by the following examples:

Norman Wells, N.W.T.	30.1
Yellowknife, N.W.T.	23.1
Fort Simpson, N.W.T.	31.4
Watson Lake, Yukon:	27.1
High Level, Alta.	27.6
Jasper, Alta.	26.0
Fort Nelson, B.C.	30.1
Prince George B.C.	28.9
Revelstoke, B.C.	30.8
Kamloops, B.C.	33.1

Weekly temperature and precipitation extremes

	Maximum temperature (°C)	Minimum temperature (°C)	Heaviest precipitation (mm)
British Columbia	Kamloops A 34	Dease Lake 1	Fort St John A 35
Yukon Territory	Watson Lake A 27	Komakuk Beach A -2	Komakuk Beach A 12
Northwest Territories	Fort Simpson A 31	Longstaff Bluff -12	Fort Simpson A 16
Alberta	Medicine Hat A 31	Edson A 3	Lloydminster A 46
Saskatchewan	Estevan A 31	Collins Bay 0	Yorkton A 68
Manitoba	Gretna (aut) 26	Grand Rapids (aut) -5	Dauphin A 70
Ontario	London A 28	Moosonee -3	North Bay 73
Québec	Maniwaki 26	La Grande Rivière -4	Val-d'Or 64
New Brunswick	Moncton A 25	Charlo A 1	Saint John A 75
Nova Scotia	Greenwood A 25	Sydney A 4	Shearwater A 81
Prince Edward Island	Summerside A 25	Charlottetown A 4	Summerside A 35
Newfoundland	Badger (aut) 23	Badger (aut) -5	Cartwright 36

Across The Country...

Highest Mean Temperature	Kamloops A(BC)	21
Lowest Mean Temperature	Broughton Island(NWT)	-4

89/06/05-89/06/11

CLIMATIC PERSPECTIVES
VOLUME 11

Managing Editor *P.R. Scholefield*
 Editors-in-charge
 - weekly *Brian Taylor*
 - monthly *Brian Taylor*
 French version *Alain Caillet*
 Data Manager *M. Skarpathiotakis*
 Computer support *Tommy Jang*
 Art Layout *K. Czaja*
 Word Processing *P. Burke/U. Ellis*
 Translation *D. Pokorn*
 Cartography *G. Young/T. Chivers*

ISBN 0225-5707 UDC 551.506.1(71)

Climatic Perspectives is a weekly bilingual publication 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.

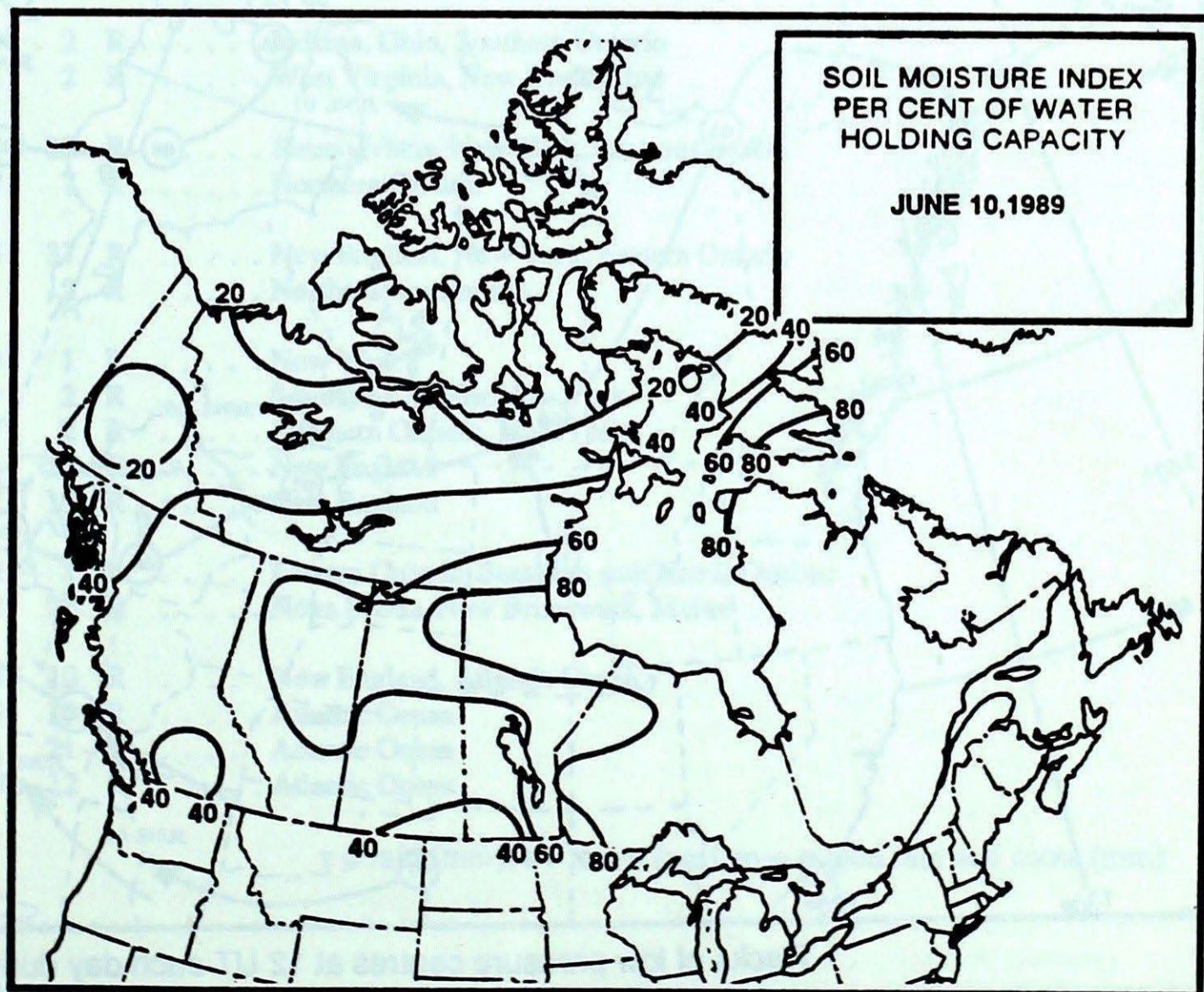
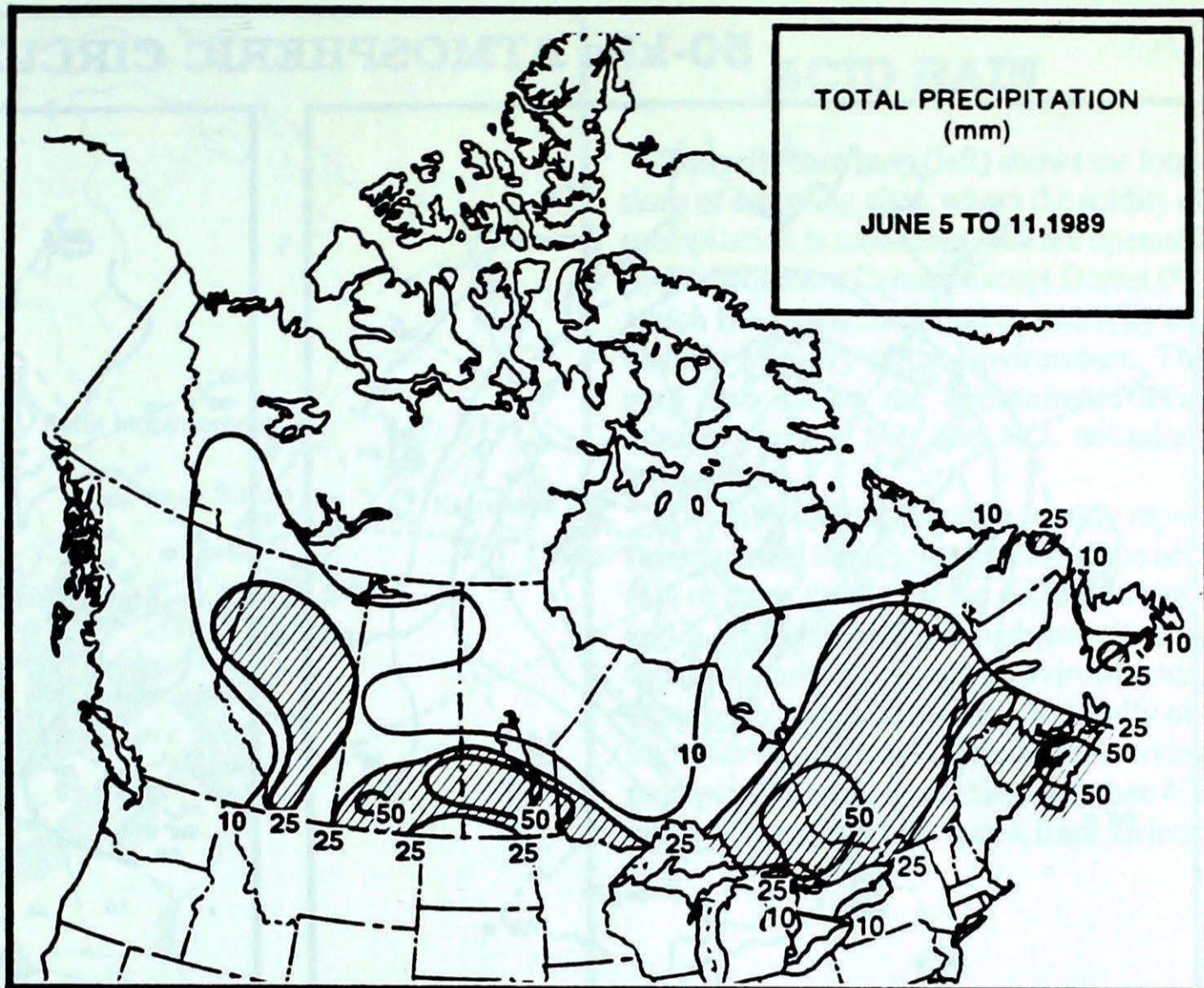
The data in this publication are based on unverified reports from approximately 225 Canadian synoptic weather stations. Information concerning climatic impacts is gathered from AES contacts with the public and from the media. Articles do not necessarily reflect the views of the Atmospheric Environment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

Annual Subscriptions

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

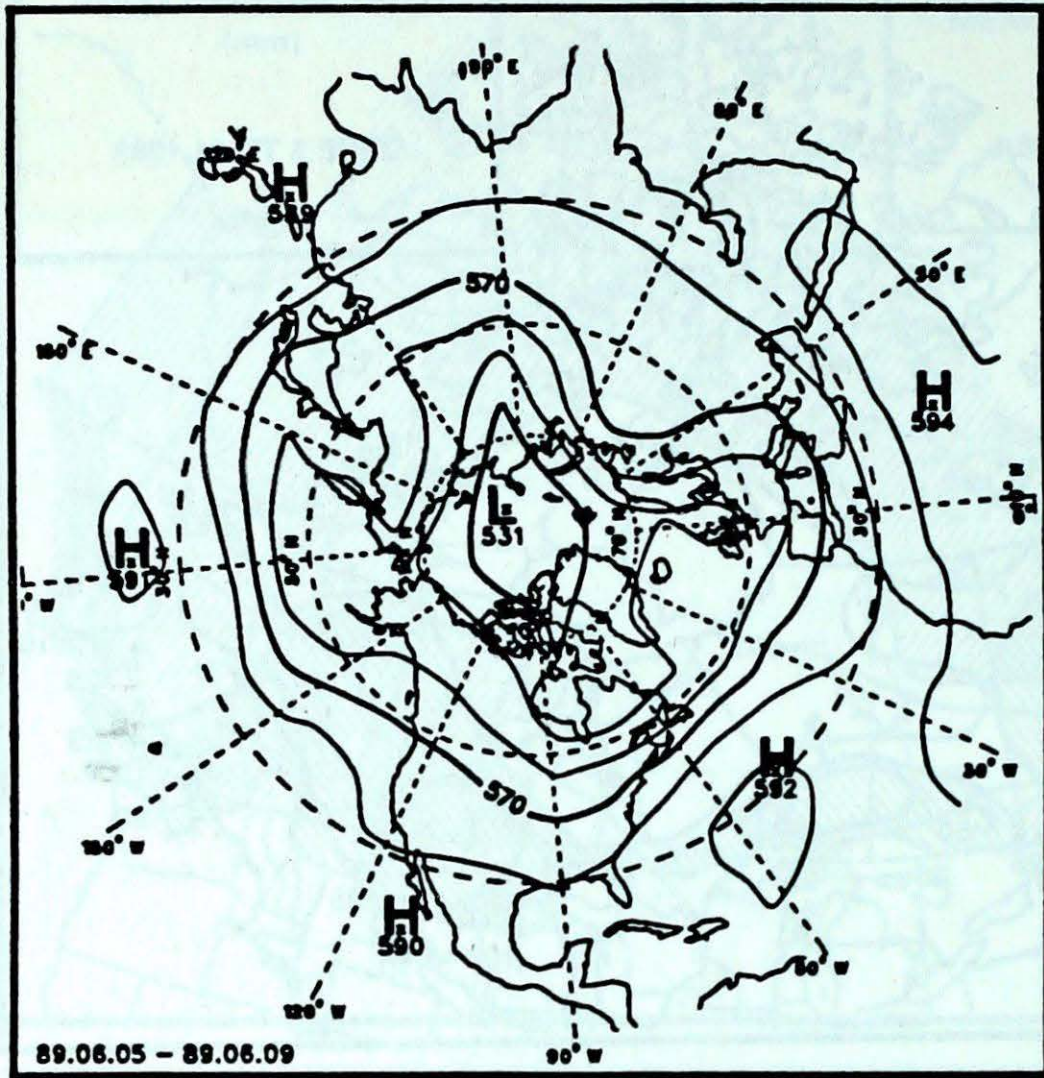
Orders must be prepaid by money order or cheque payable to Receiver General for Canada. Canadian Government Publishing Centre, Ottawa, Ontario, Canada K1A 0S9

☎ (819) 997-2560

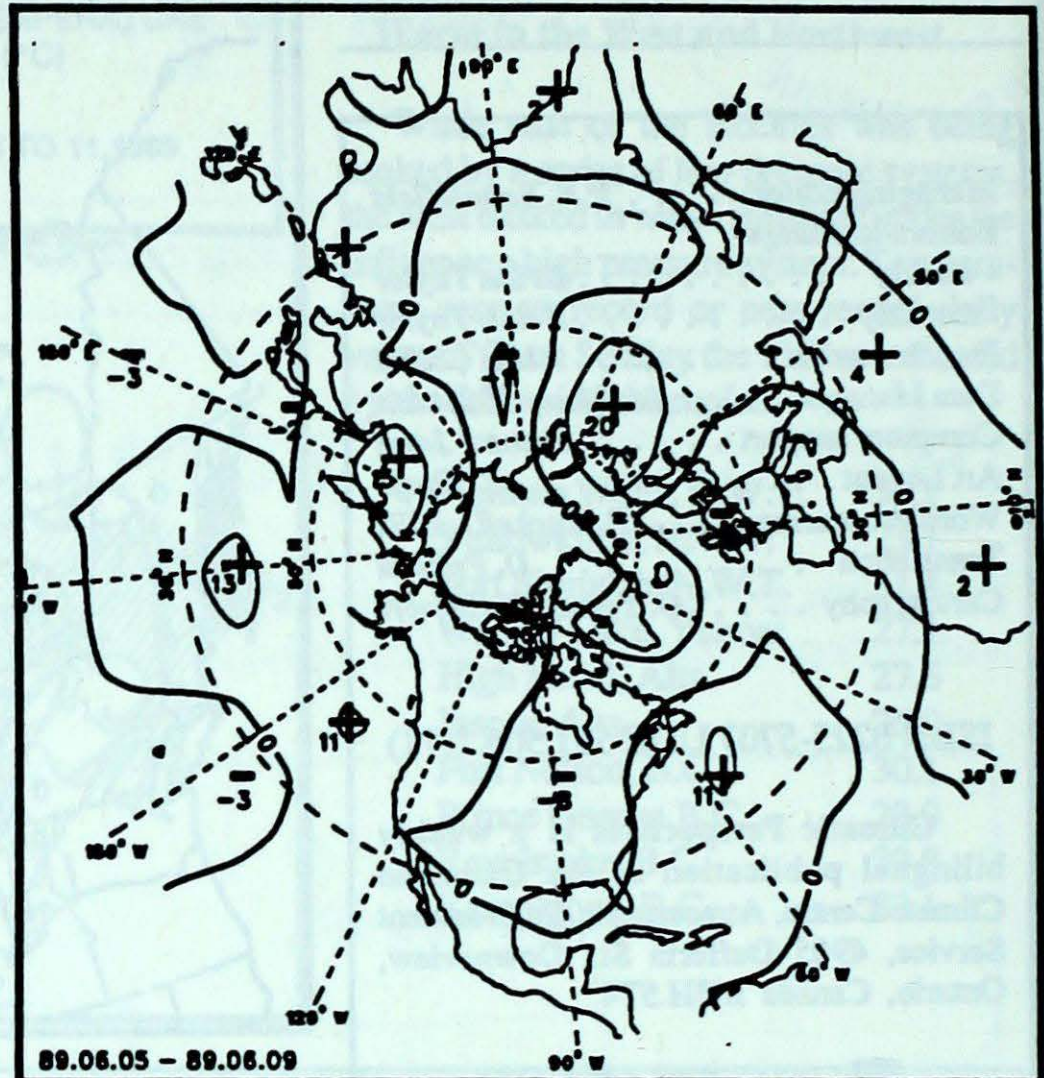


ATMOSPHERIC ENVIRONMENT SERVICE LIBRARY

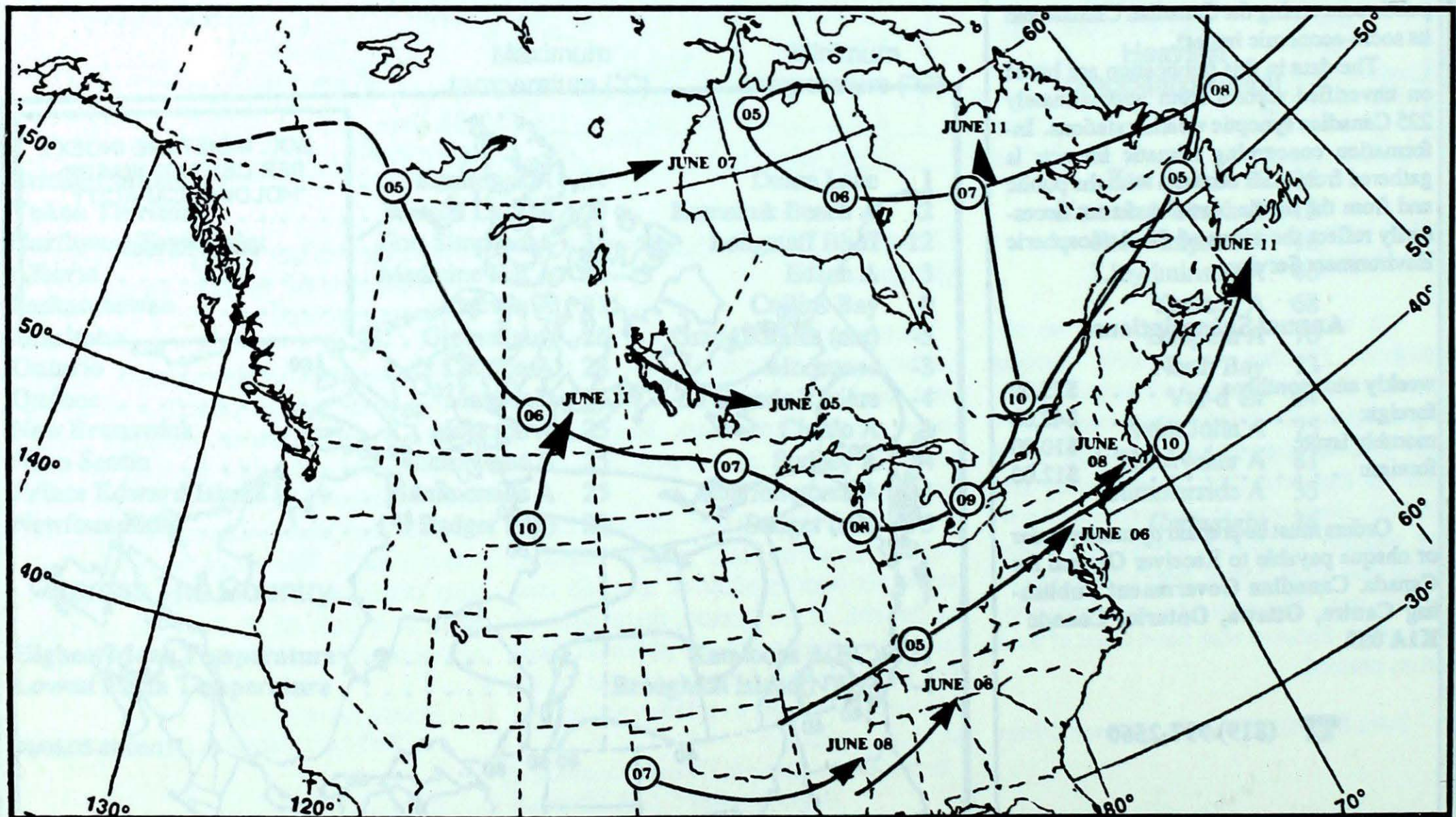
50-kPa ATMOSPHERIC CIRCULATION



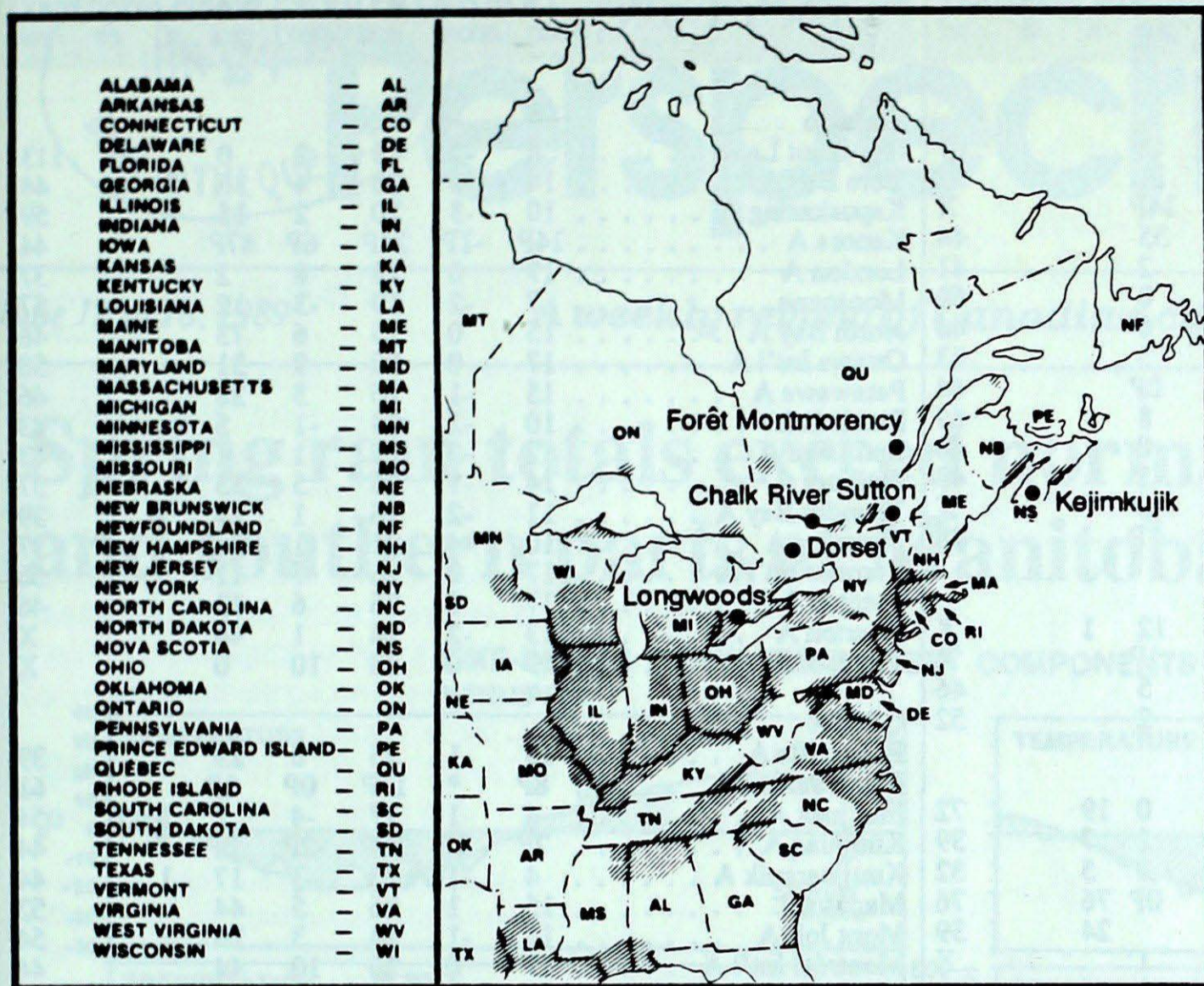
Mean geopotential height
50-kPa level (10 decametre intervals)



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



Tracks of low pressure centres at 12 UT 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 SO₂ 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 4 to 10, 1989

Longwoods	7	5.0	2 R	..... Indiana, Ohio, Southern Ontario
	9	4.6	2 R	..... West Virginia, New York, Ohio
Dorset *	9	4.4	22 R	..... Pennsylvania, New York, Eastern Ontario
	10	4.7	7 R	..... Northern Ontario
Chalk River	9	4.5	37 R	..... New England, New York, Eastern Ontario
	10	4.1	2 R	..... Northeastern Ontario
Sutton	4	4.0	1 R	..... New York
	5	3.9	2 R	..... Southern Ontario, New York
	8	3.9	2 R	..... Southern Ontario, New York
	9	4.5	15 R	..... New England
	10	4.2	19 R	..... New England
Montmorency	4	4.9	3 R	..... Eastern Ontario, Southern and Central Quebec
	10	5.2	26 R	..... Nova Scotia, New Brunswick, Maine
Kejimikujik	4	4.4	10 R	..... New England, Atlantic Ocean
	7	4.5	10 R	..... Atlantic Ocean
	8	5.1	21 R	..... Atlantic Ocean
	10	5.0	12 R	..... Atlantic Ocean

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

STATION	temperature				precip. ptot st	wind max dir vel		STATION	temperature				precip. ptot st	wind max dir vel							
	mean	anom	max	min					mean	anom	max	min									
British Columbia								Ontario													
Cape St James	10P	0P	15P	8P	0P	67	Big Trout Lake	8	-2	18	-2	0	113								
Cranbrook A	17	3	30	6	11	52	Gore Bay A	14	-1	26	4	36	44								
Fort Nelson A	17P	3P	30P	9P	14P	X	Kapuskasing A	10	-3	20	2	15	59								
Fort St John A	16	3	27	7	35	44	Kenora A	14P	-1P	24P	6P	47P	44								
Kamloops A	21	4	34	12	2	41	London A	17	0	28	8	2	37								
Penticton A	21	4	33	11	0	59	Moosonee	7	-2	19	-3	12	57								
Port Hardy A	12	1	17	6	0	46	North Bay A	15	0	25	6	73	46								
Prince George A	15	2	29	5	3	43	Ottawa Int'l A	17	0	28	9	31	50								
Prince Rupert A	11P	1P	15P	7P	0P	44	Petawawa A	15	-1	26	3	28	46								
Revelstoke A	20	4	31	8	8	65	Pickle Lake	10	-2	24	-1	5	43								
Smithers A	16	4	30	5	0	48	Red Lake A	12	-2	24	1	1	43								
Vancouver Int'l A	16	2	26	9	1	43	Sudbury A	14	-1	26	5	33	57								
Victoria Int'l A	14	0	24	6	0	X	Thunder Bay A	11	-2	26	1	24	39								
Williams Lake A	16P	3P	28P	6P	1P	48	Timmins A	10	-4	21	-1	54	37								
Yukon Territory								Quebec													
Komakuk Beach A	2	0	9	-2	12	1	X	Bagotville A	13	-1	25	6	29	39							
Teslin (aut)	12P	*	17P	8P	1P	X	Blanc Sablon A	8P	*	17P	0P	1P	61								
Watson Lake A	14	2	27	4	5	46	Inukjuak A	4	1	17	-4	2	1	54							
Whitehorse A	12	0	21	3	2	52	Kuujuuaq A	7P	2P	20P	-2P	0P	44								
Northwest Territories								New Brunswick													
Alert	0	3	5	-3	0	19	72	Charlo A	10	-3	22	1	23	54							
Baker Lake A	0	-1	6	-5	2	7	39	Chatham A	13	0	24	4	17	46							
Cambridge Bay A	2	3	12	-2	0	5	32	Fredericton A	14	0	25	6	30	57							
Cape Dyer A	-1P	0P	3P	-4P	0P	76	76	Moncton A	14	1	25	4	35	50							
Clyde A	-2	-2	3	-7	24	39	Saint John A	13	1	22	8	75	67								
Coppermine A	6	6	21	-2	1	X	Nova Scotia														
Coral Harbour A	0	1	5	-4	2	15	33	Greenwood A	15	1	25	8	55	63							
Eureka	1	1	5	-3	2	1	41	Shearwater A	15	2	24	9	81	65							
Fort Smith A	14P	2P	27P	4P	0P	X	Sydney A	13	2	25	4	40	54								
Hall Beach A	-2P	1P	3P	-5P	0P	33	X	Yarmouth A	13	1	20	8	20	59							
Inuvik A	11	2	23	1	4	X	Prince Edward Island														
Iqaluit A	2	0	5	-1	3	1	33	Charlottetown A	13	1	23	4	32	46							
Mould Bay A	-1P	2P	3P	-4P	5P	6	48	Summerside A	14	1	25	5	35	56							
Norman Wells A	15	3	30	5	1	52	Newfoundland														
Resolute A	-1	2	4	-5	0	6	50	Cartwright	6	0	20	-1	36	74							
Yellowknife A	13	2	23	5	2	43	74	Churchill Falls A	8	1	20	-1	10	70							
Alberta								89/06/05-89/06/11													
Calgary Int'l A	16	3	28	7	30	57	Gander Int'l A	10P	1P	23P	-1P	8P	59								
Cold Lake A	15	1	25	9	25	74	Goose A	9	0	21	0	12	59								
Edmonton Namao A	16	1	30	8	25	72	Port Aux Basques	11P	3P	18P	6P	4P	57								
Fort McMurray A	15	2	27	8	34	50	St John's A	10	1	22	1	4	59								
High Level A	15P	2P	28P	7P	19P	X	St Lawrence	10	2	18	2	17	X								
Jasper	15	3	28	4	5	X	Wabush Lake A	8	1	19	-1	29	52								
Lethbridge A	18	3	29	10	14	95															
Medicine Hat A	18	3	31	10	22	50															
Peace River A	16	3	26	7	25	74															
Saskatchewan								Manitoba													
Cree Lake						X	Brandon A	14	-2	23	2	12	80								
Estevan A	16	0	31	2	22	78	Churchill A	2P	-1P	21P	-2P	1P	1	39							
La Ronge A	14	1	24	6	0	35	Lynn Lake A	9	-1	22	1	15	33								
Regina A	16	1	26	4	18	69	The Pas A	13	0	25	2	0	39								
Saskatoon A	16	1	26	8	5	56	Thompson A	8	-2	24	-2	8	46								
Swift Current A	15	1	27	6	64	61	Winnipeg Int'l A	14	-2	23	2	55	48								
Yorkton A	13	-2	24	2	68	56															

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.