Climatic Perspectives

October 8 to 14, 1990 — A weekly review of Canadian climate and water — Vol.12 No.41

Wet weather hurting New Brunswick's potato industry

This past weekend tropical storm Lili skirted Nova Scotia's Atlantic coastline, causing some heavy rainfalls. In addition, weather systems developing over the American mid-west, have started to track eastwards up the St. Lawrence Valley and across Atlantic Canada.

The recent wet weather in New Brunswick is causing problems with the potato harvest, especially in the western portions of the province. In Carleton County, farmers cannot get on to the fields with the heavy harvesters to harvest the remaining one third of the crop still in the ground. The potato harvest is normally finished by mid-October. Right now it looks doubtful that farmers will be able to get the rest of the crop out of the ground soon. Should the region be hit by a hard frost within the next few weeks, the $70-million potato industry will face disaster. What is needed is warm, windy weather to dry out the fields enough to support heavy farm machinery. Since the beginning of July, Woodstock, and Grand Falls, located northwest of Fredericton, N.B., near the U.S. border, have received 623.2 and 483.8 millimetres of rain, respectively. This week alone St. Leonard, in northwestern New Brunswick, received 109 mm of rain, which is more than the monthly normal for all of October.

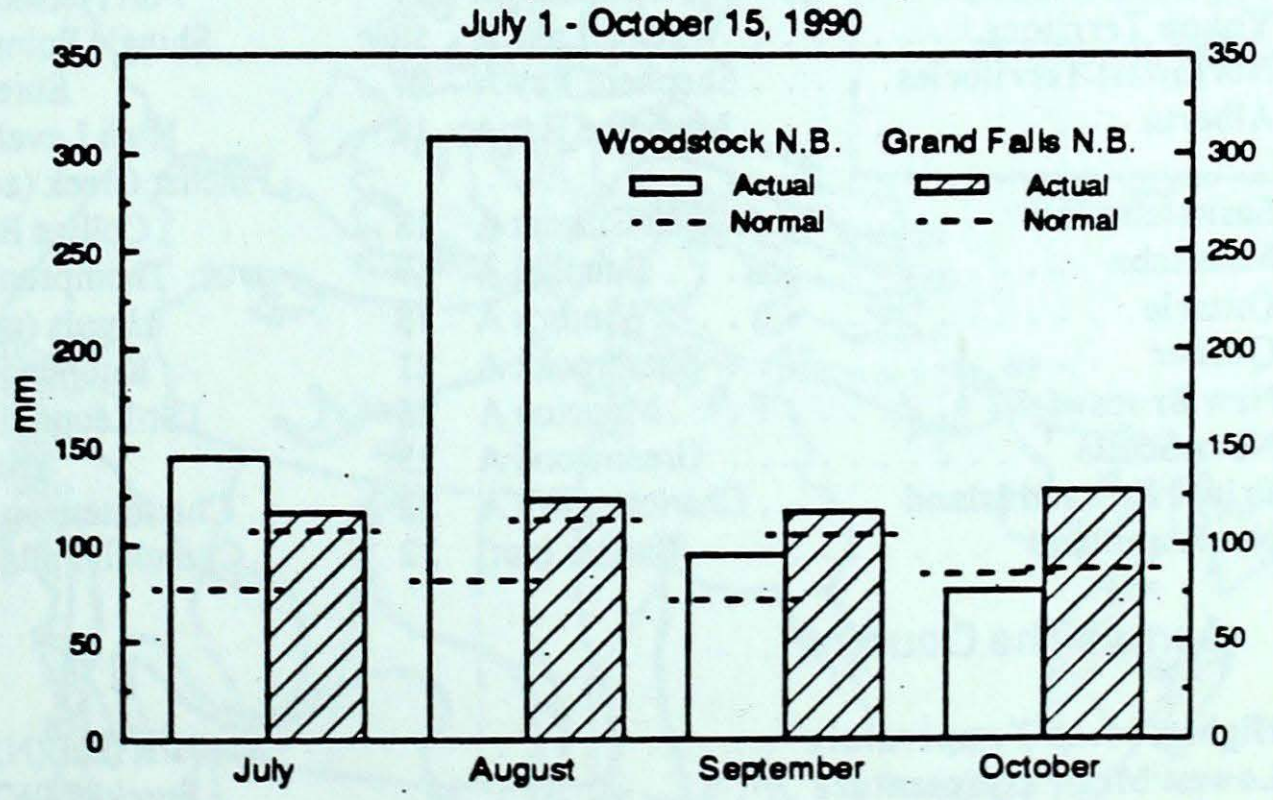
Ontario agriculture update

Another week of rain in southern Ontario served to only aggravate the worsening agricultural situation, with remaining unharvested crops gradually deteriorating in quality. Fields already wet from late September and early October rainfalls suffered five more days of rain this week. As usual southwestern Ontario was hardest hit, with 74 mm of rain. From August 1 to October 15, Windsor has recorded 376 mm of rain compared to a normal of 180 mm. Harvesting is at a standstill on all but the sandiest soils, with some fields of soya beans and corn standing in water.

Warm in the West - cool in the East . . .

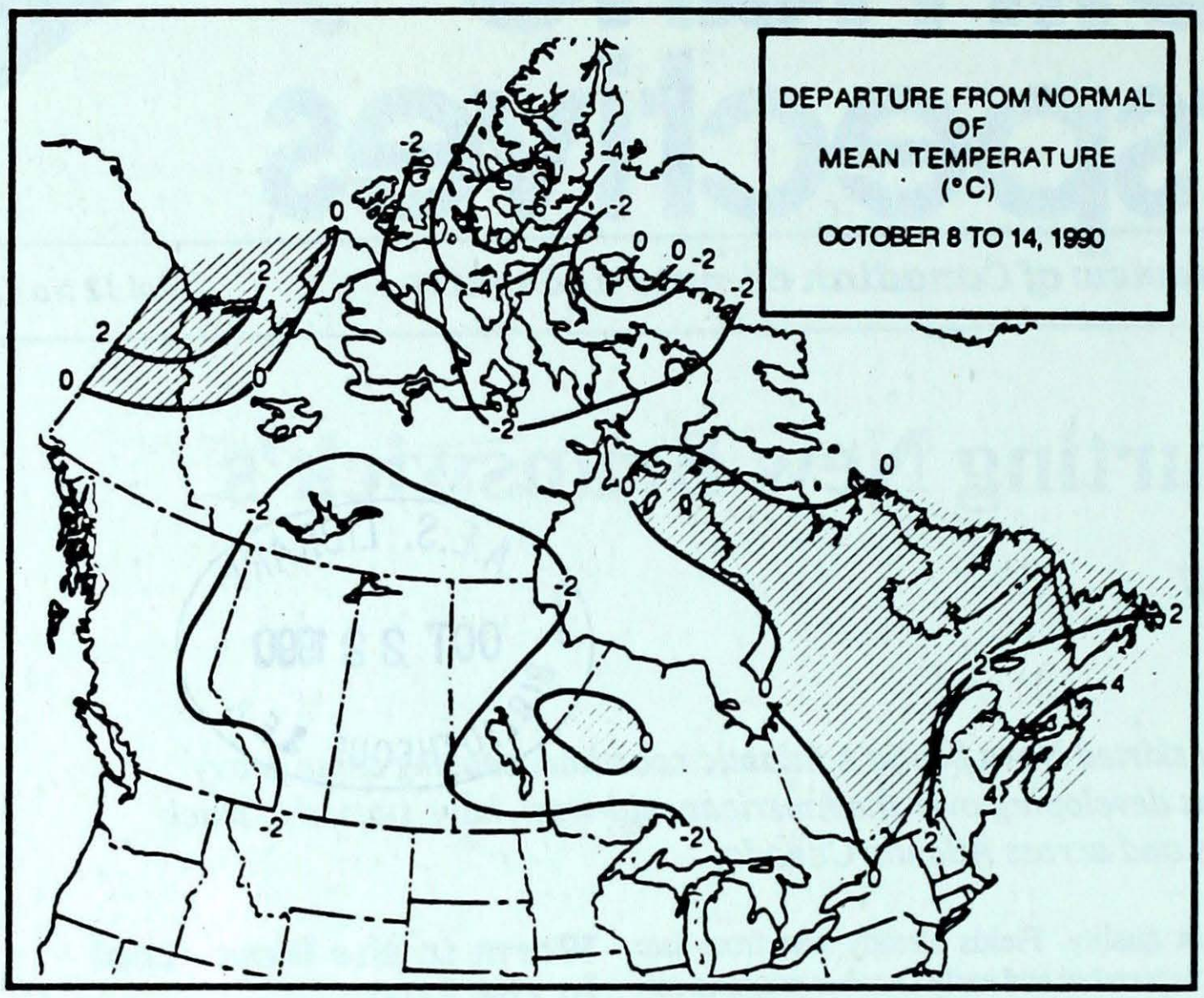
A weak area of high pressure over central Canada will generally bring warmer than normal temperatures to the western half of the country and below normal temperatures to the eastern half for the week of October 22. Southern Ontario will experience near normal temperatures.

Total precipitation (mm)
July 1 - October 15, 1990



Grand Falls and Woodstock, New Brunswick, have had rain every day this October except for 2 and 3 days, respectively.

Canada



Weekly normal temperatures (°C)

	max.	min.
Whitehorse A	5.9	-1.5
Iqaluit A	-0.6	-6.2
Yellowknife A	2.6	-2.3
Vancouver Int'l A	14.4	7.5
Victoria Int'l A	14.9	6.5
Calgary Int'l A	13.5	-0.3
Edmonton Int'l A	12.7	-1.1
Regina A	13.3	-0.5
Saskatoon A	12.9	-0.5
Winnipeg Int'l A	13.0	2.1
Ottawa Int'l A	14.0	3.9
Toronto (Pearson Int'l A)	15.8	4.6
Montréal Int'l A	14.2	4.8
Québec A	11.8	2.7
Fredericton A	13.7	2.5
Saint John A	12.8	3.8
Halifax (Shearwater)	14.0	6.1
Charlottetown A	12.7	4.8
Goose A	7.3	-0.2
St John's A	11.3	4.2

Weekly temperature and precipitation extremes

	Maximum temperature (°C)		Minimum temperature (°C)		Heaviest precipitation (mm)	
British Columbia	Penticton A	17	Fort Nelson A	-9	Prince Rupert A	141
Yukon Territory	Watson Lake A	12	Shingle Point A	-13	Watson Lake A	7
Northwest Territories	Shepherd Bay A	27	Eureka	-37	Rankin Inlet A	14
Alberta	Medicine Hat A	19	High Level A	-7	Slave Lake A	29
			Pincher Creek (aut)	-7		
Saskatchewan	Swift Current A	18	Collins Bay	-14	La Ronge A	19
Manitoba	Dauphin A	19	Thompson A	-13	Lynn Lake A	30
Ontario	Windsor A	18	Upsala (aut)	-8	Windsor A	74
Québec	Sherbrooke A	21	Kuujjuaq A	-8	Québec A	70
New Brunswick	Moncton A	25	St-Léonard A	-11	St-Léonard A	109
Nova Scotia	Greenwood A	25	Truro	8	Sydney A	31
Prince Edward Island	Charlottetown A	22	Charlottetown A	7	Summerside A	28
Newfoundland	Badger (aut)	22	Churchill Falls A	-7	Stephenville A	83

Across The Country...

Highest Mean Temperature	Amherst (aut)(NS)	16
Lowest Mean Temperature	Eureka(NWT)	-23

90/10/08-90/10/14

CLIMATIC PERSPECTIVES
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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.

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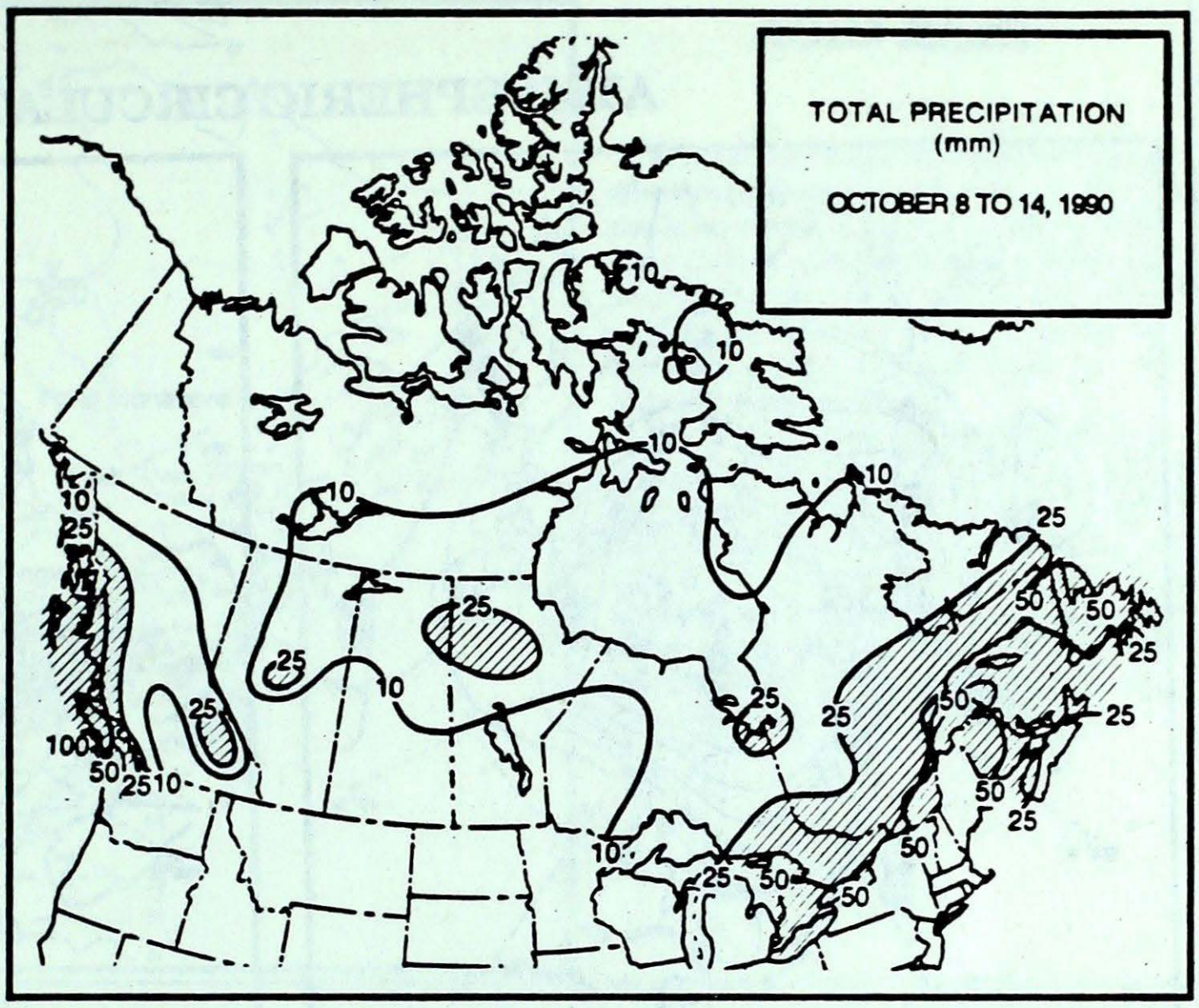
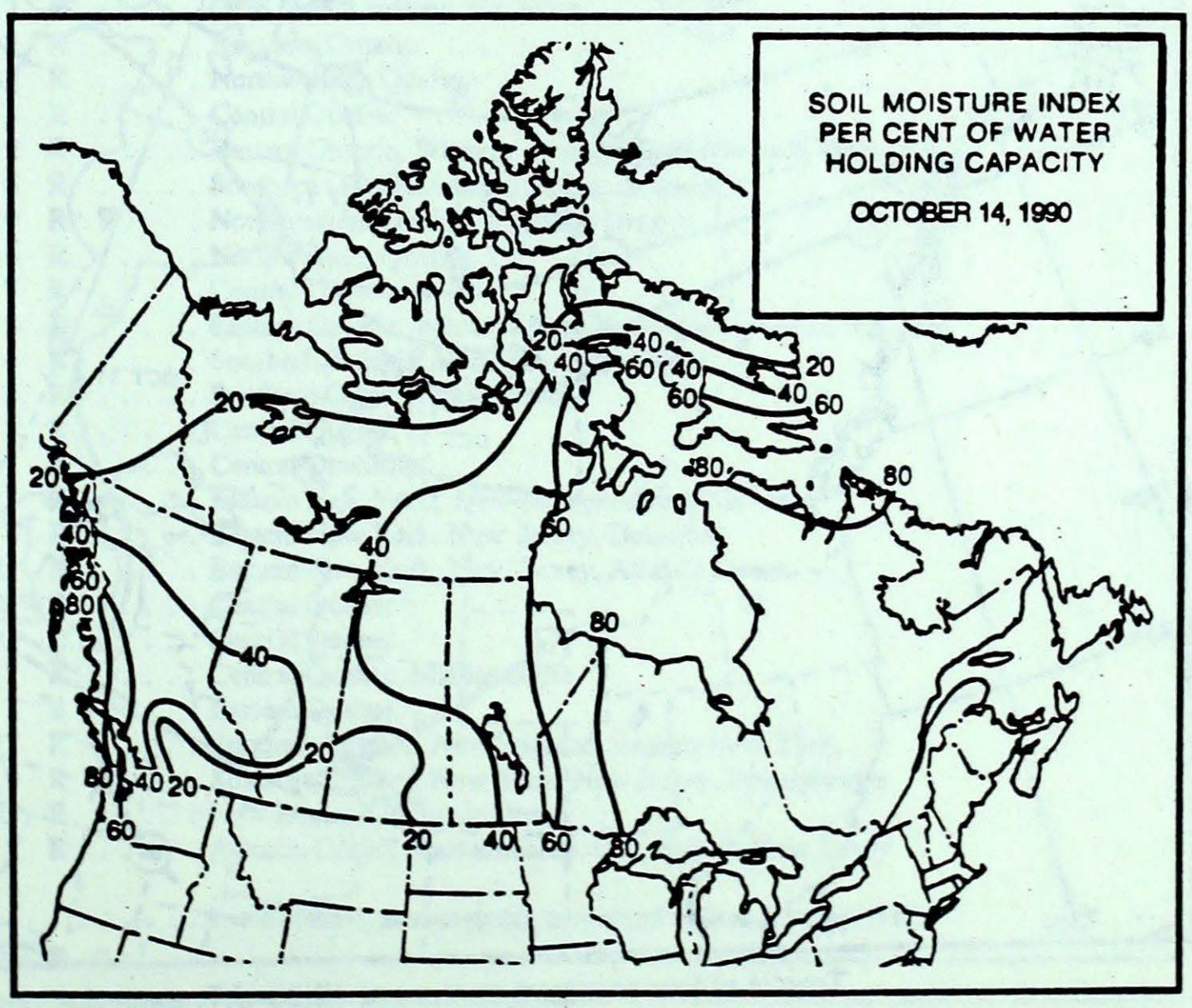
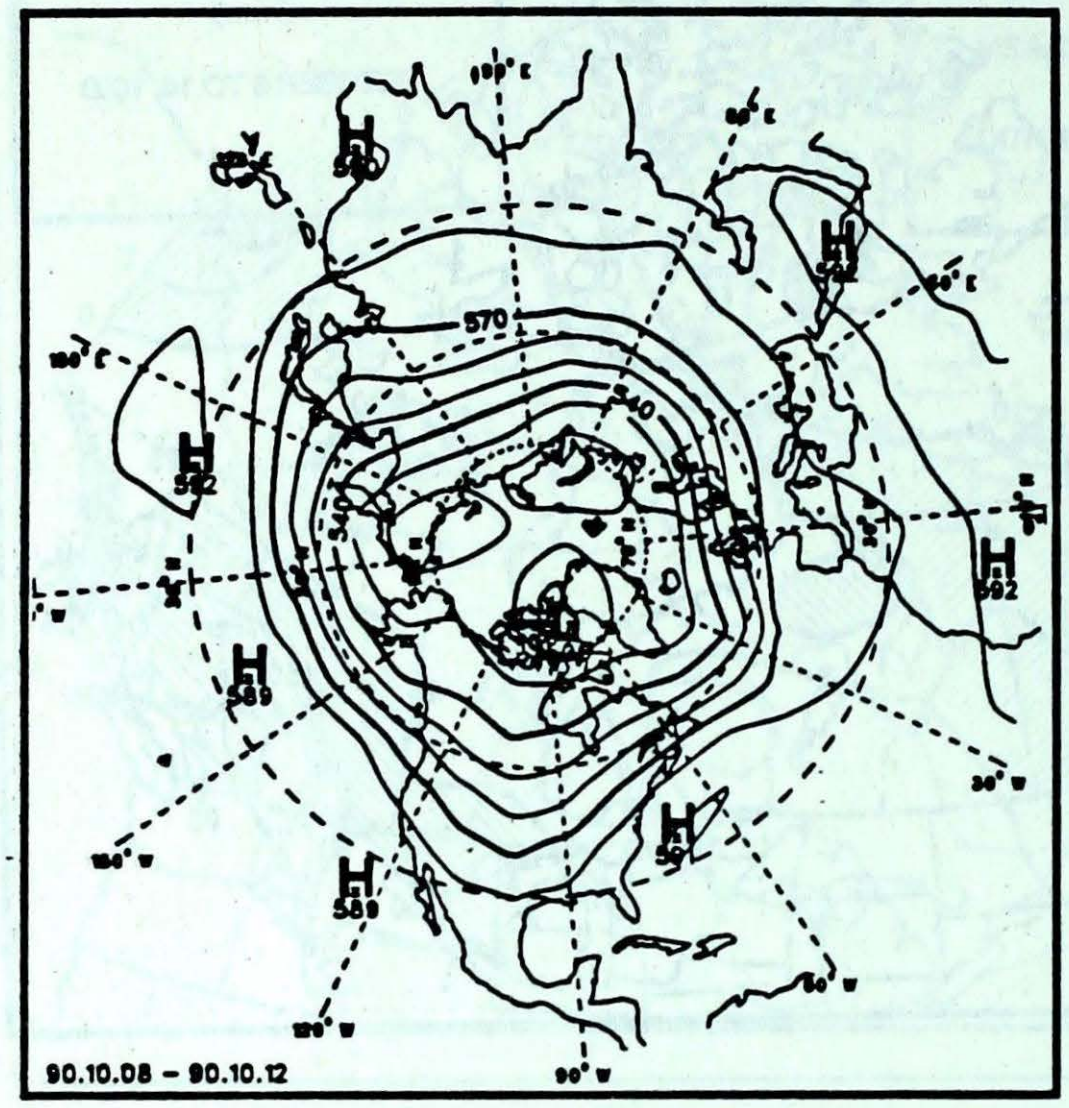
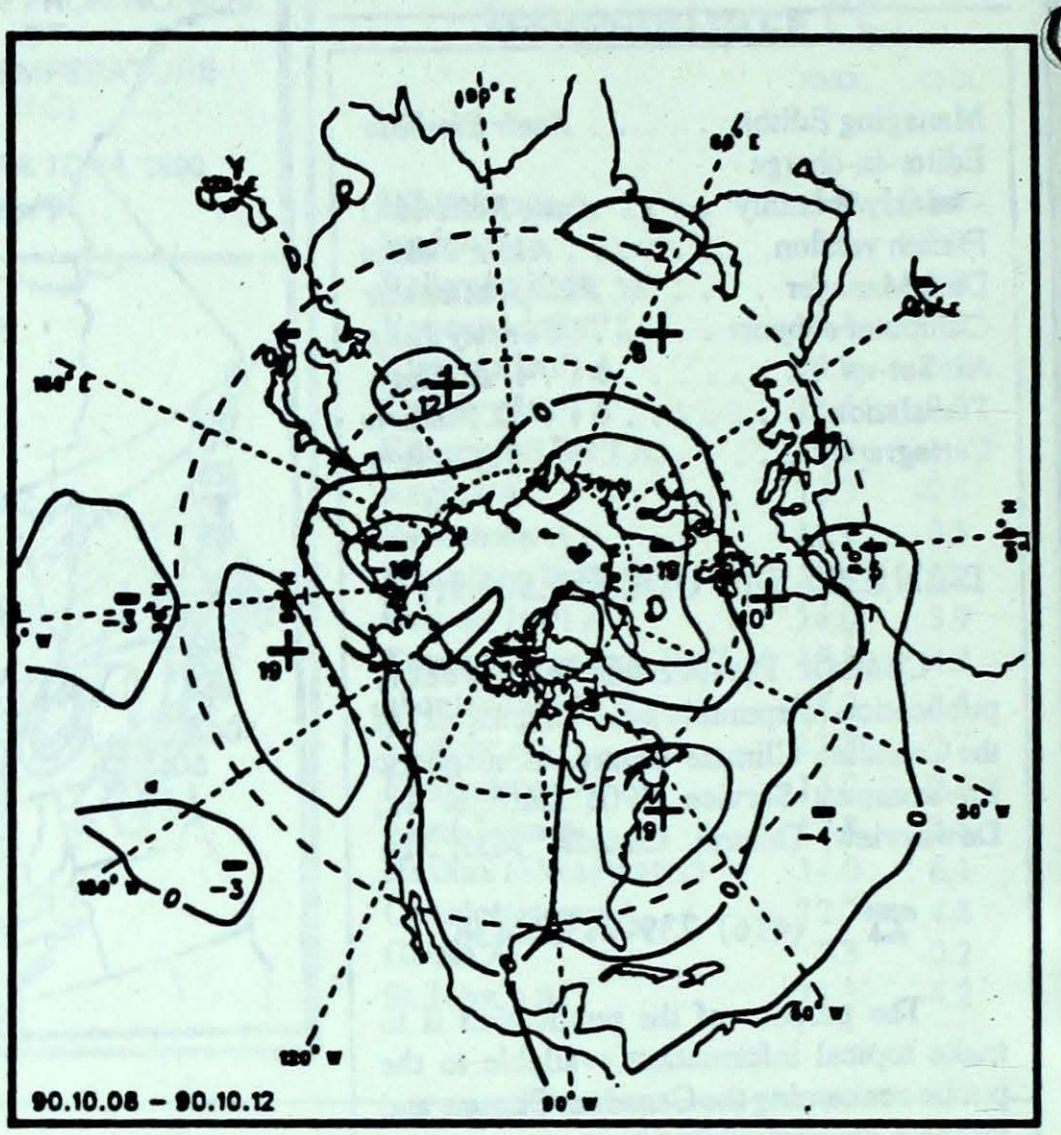




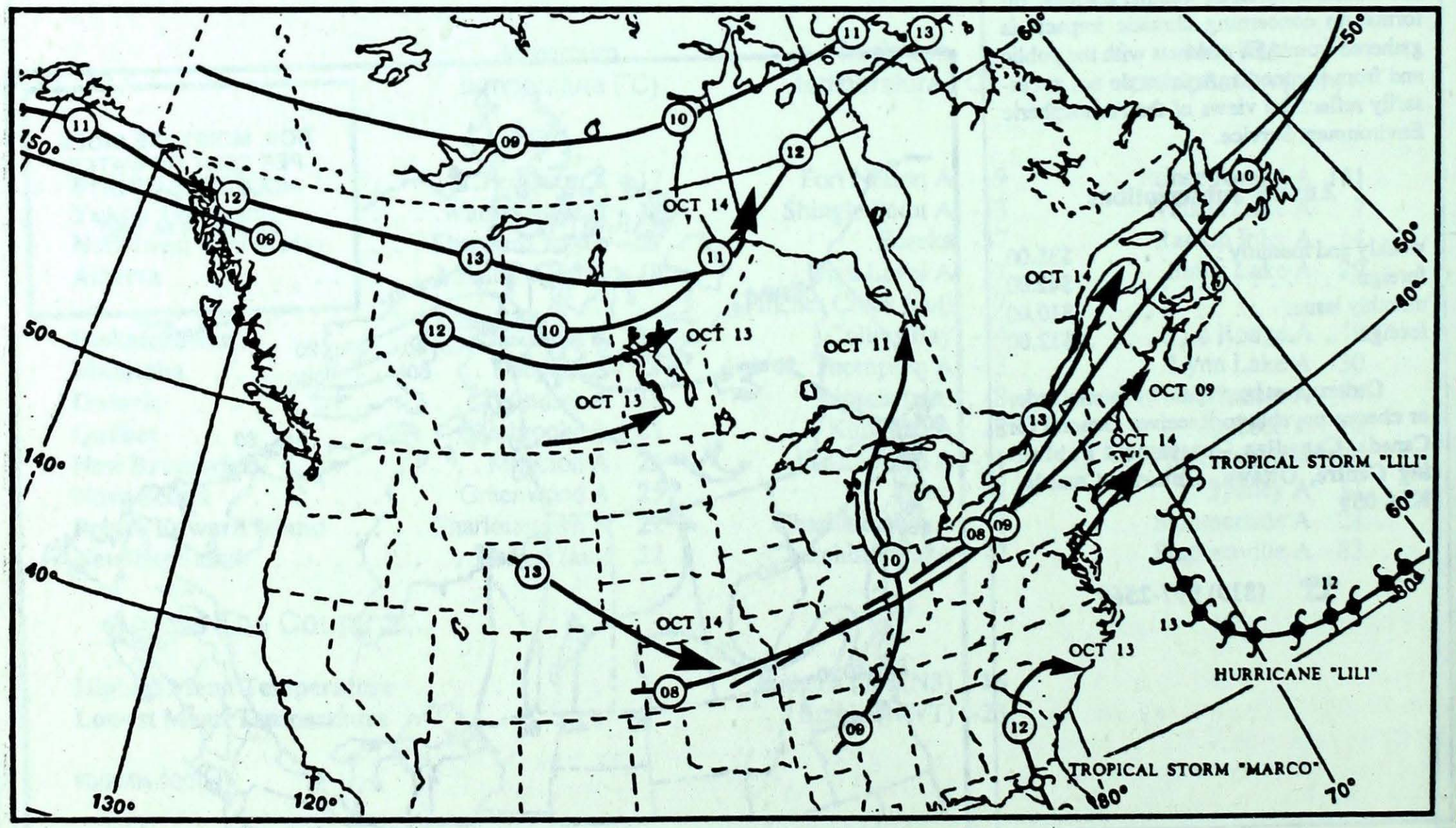
ATMOSPHERIC CIRCULATION



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

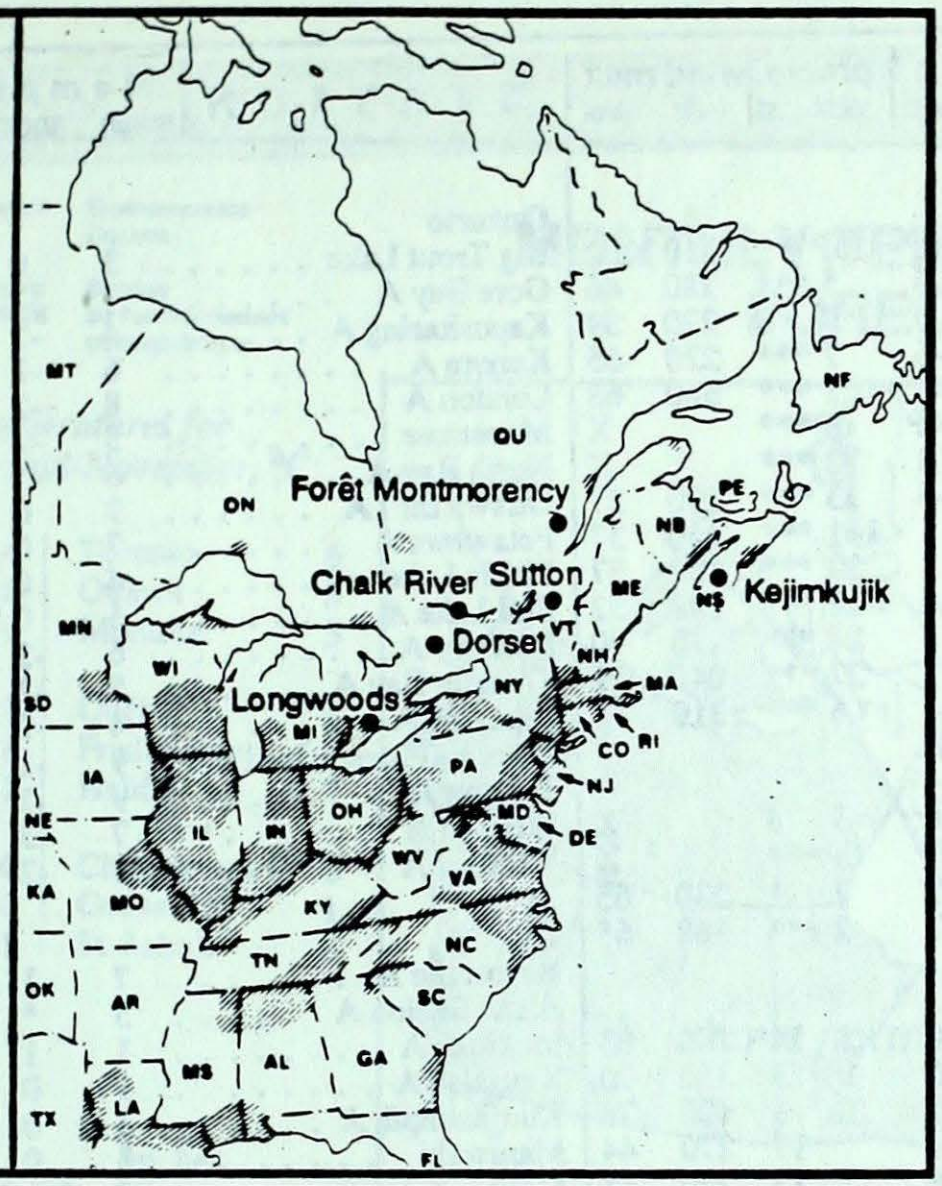


Mean geopotential height anomaly
50-kPa level (10-decametre intervals)



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.

Oct. 7 to Oct. 13, 1990

Site	day	pH	amount		air path to site
Longwoods	8	4.0	16	R	Southern Ontario, Ohio
	9	4.1	12	R	Southern Ontario, Ohio Western Pennsylvania
	10	3.9	9	R	Ohio, South Indiana, Southern Illinois
	12	4.3	7	R	Ohio, South Indiana, Kentucky
Dorset*	7	4.0	7	R	Northern Ontario
	8	4.9	13	R	Northwestern Quebec
	9	4.8	13	R	Central Quebec
	10	4.3	12	R	Eastern Ontario, Western Pennsylvania, Western Virginia
	12	4.8	6	R	Southern Ontario, Ohio, Southern Michigan
Chalk River	7	3.8	19	R	Northwestern Quebec, Northern Ontario
	8	4.9	16	R	Northwestern Quebec
	9	5.1	7	R	Central Quebec
	10	4.4	15	R	Eastern Ontario, Western New York, Pennsylvania, Virginia
	12	4.6	4	R	Southern Ontario, Michigan, Lake Huron
	13	3.9	3	R	Southern Ontario, Lake Huron
Sutton	8	3.7	2	R	Central Quebec
	9	4.0	11	R	Central Quebec
	11	4.8	17	R	Eastern New York, New Jersey, Atlantic Ocean
	12	4.1	1	R	Eastern New York, New Jersey, Delaware
	13	5.1	21	R	Eastern New York, New Jersey, Atlantic Ocean
Montmorency	7	3.8	20	R	Central Quebec
	8	3.8	5	R	Central Quebec
	9	4.4	17	R	Central Quebec, Manicouagan
	10	4.0	2	R	Eastern Quebec
	11	4.7	27	R	Southern Quebec, New England, Eastern New York,
	12	4.2	9	R	Southern Quebec, New York, New Jersey, Pennsylvania
	13	4.7	33	R	New England, Atlantic Ocean
Kejimkujik	9	3.5	1	R	Atlantic Ocean, Massachusetts, Connecticut, New Jersey

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	11P	1P	15P	8P	15P	***	310	102
Cranbrook A	5	-2	14	-5	5	***	280	46
Fort Nelson A	1	-2	16	-9	9	6	270	59
Fort St John A	3	-3	11	-6	7	***	220	65
Kamloops A	7	-2	16	-2	1	***	340	63
Penticton A	10P	1P	17P	4P	0P	***		X
Port Hardy A	9	-1	13	4	72	***		X
Prince George A	4	-2	11	-6	13	***	190	57
Prince Rupert A	7	-2	12	1	141	***	150	57
Revelstoke A	6	-1	11	1	30	***	150	57
Smithers A	4	-2	13	-5	11	***	190	52
Vancouver Int'l A	10	-1	15	5	24	***	270	70
Victoria Int'l A	8	-3	14	1	27	***	040	41
Williams Lake A	3	-3	11	-6	6	***	310	48
Yukon Territory								
Komakuk Beach A	-5	3	0	-10	5	6		X
Teslin (aut)	2P	*	10P	-7P	0P	***		X
Watson Lake A	2	0	12	-7	7	1	230	65
Whitehorse A	2	0	10	-7	2	***	160	65
Northwest Territories								
Alert	-22	-5	-7	-30	1	14	200	63
Baker Lake A	-7	-2	2	-16	6	3	350	70
Cambridge Bay A	-11	-2	0	-16	0	1	020	78
Cape Dyer A	*		-2			17	270	44
Clyde A	-8	-3	2	-16	2	12	220	48
Coppermine A	-7	0	3	-13	0	2	030	46
Coral Harbour A	-4	2	0	-10	11	4	150	54
Eureka	-23	-3	-13	-37	6	8	290	46
Fort Smith A	-1P	-3P	11P	-8P	12P	10	170	37
Hall Beach A	-11	-2	-1	-20	6	6	310	46
Inuvik A	-3	3	2	-9	1	1	150	39
Iqaluit A	-4	-1	4	-15	8	6	320	48
Mould Bay A	-16	-1	-10	-24	0	16	070	37
Norman Wells A	-2	0	2	-6	5	4	120	87
Resolute A	-20	-7	-14	-28	1	22		X
Yellowknife A	-3	-3	8	-9	13	***	010	56
Alberta								
Calgary Int'l A	5	-2	17	-6	1	***	280	67
Cold Lake A	3	-3	15	-4	8	***	310	46
Edmonton Namao A	4	-2	14	-2	3	***	280	70
Fort McMurray A	1	-3	13	-5	12	2	360	48
High Level A	0	-4	11	-7	8	***	350	41
Jasper	3	-3	9	-4	7	***		X
Lethbridge A	6	-2	17	-3	3	***	230	93
Medicine Hat A	6	-3	19	-4	3	***	200	74
Peace River A	2	-2	13	-7	6	***	230	56
Saskatchewan								
Cree Lake	-1	-2	11	-8	12	7	200	57
Estevan A	4	-4	18	-10	0	***	300	67
La Ronge A	1	-2	15	-8	19	2	330	46
Regina A	4	-3	17	-9	0	***	310	72
Saskatoon A	4P	-2P	18P	-5P	0P	***	310	57
Swift Current A	4	-3	18	-7	2	***	270	67
Yorkton A	3	-3	16	-9	0	***	290	59
Manitoba								
Brandon A	4	-3	18	-10	0	***	190	56
Churchill A	-2	-2	5	-10	20	5	320	65
Lynn Lake A	-4	-4	5	-13	30	12	170	43
The Pas A	2	-3	14	-8	20	***	270	44
Thompson A	-2	-2	7	-13	28	8	170	52
Winnipeg Int'l A	6	-2	16	-6	1	***	180	89

STATION	temperature mean	anom	max	min	precip. ptot	st	wind max dir	vel
Ontario								
Big Trout Lake	3	0	11	-4	2	***	190	54
Gore Bay A	7	-2	14	3	36	***	090	57
Kapuskasing A	4	-2	12	-5	20	***		X
Kenora A	6	-1	13	-3	5	***	210	52
London A	8	-2	16	2	56	***	070	61
Moosonee	5	-1	13	-3	27	***		X
North Bay A	6	-1	15	0	36	***	090	54
Ottawa Int'l A	9	0	16	4	50	***	020	32
Petawawa A	7	0	15	1	38	***		X
Pickle Lake	4	0	12	-3	5	***	180	44
Red Lake A	5	0	11	-3	7	***	190	52
Sudbury A	6	-2	14	-1	40	***	210	54
Thunder Bay A	5	-2	16	-7	17	***		X
Timmins A	4	-2	12	-6	20	***	090	41
Toronto(Pearson Int'l A)	9	-1	18	4	50	***	030	37
Trenton A	9	-1	16	5	44	***	010	37
Wiarton A	7	-3	18	1	45	***	190	46
Windsor A	11	-2	18	4	74	***	220	52
Québec								
Bagotville A	7	1	12	0	31	***	090	39
Blanc Sablon A	5	*	14	-5	55	***	080	63
Inukjuak A	1	1	5	-2	6	1	160	57
Kuujjuaq A	1	0	9	-8	14	***	120	50
Kuujjuarapik A	3	0	9	-3	14	***	160	35
Maniwaki	8	0	14	3	45	***	330	33
Mont Joli A	8	2	18	0	49	***	050	35
Montréal Int'l A	11	1	17	5	45	***	050	41
Natashquan A	6	2	13	-3	44	***	080	44
Québec A	10	2	17	5	70	***	070	52
Schefferville A	1	1	6	-5	9	***	310	44
Sept-Îles A	6	2	16	-3	47	***	080	48
Sherbrooke A	11	4	21	5	60	***		X
Val-d'Or A	4	-1	15	-4	24	***	130	33
New Brunswick								
Charlo A	9	3	20	1	84	***		X
Chatham A	12	4	23	5	29	***	200	41
Fredericton A	13	5	24	6	21	***	050	35
Moncton A	14	5	25	8	36	***	350	43
Saint John A	13	5	21	8	47	***	210	41
Nova Scotia								
Greenwood A	16	7	25	9	28	***	260	52
Shearwater A	15	5	19	9	20	***	080	46
Sydney A	14	5	22	8	31	***	360	46
Yarmouth A	16	6	22	11	21	***	190	43
Prince Edward Island								
Charlottetown A	13	5	22	7	18	***	330	46
Summerside A	13	4	22	8	28	***	170	43
Newfoundland								
Cartwright	5	1	14	-2	17	***	340	48
Churchill Falls A	2	0	10	-7	19	***	280	48
Gander Int'l A	8	2	21	0	45	***	020	48
Goose A	4	0	16	-5	11	***	270	59
Port Aux Basques	10	2	16	2	43	***	330	52
St John's A	10	2	19	2	40	***	260	56
St Lawrence	11	3	17	0	10	***		X
Wabush Lake A	2	1	9	-5	15	***	290	32

90/10/08-90/10/14

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.

Environment Canada / Environnement Canada

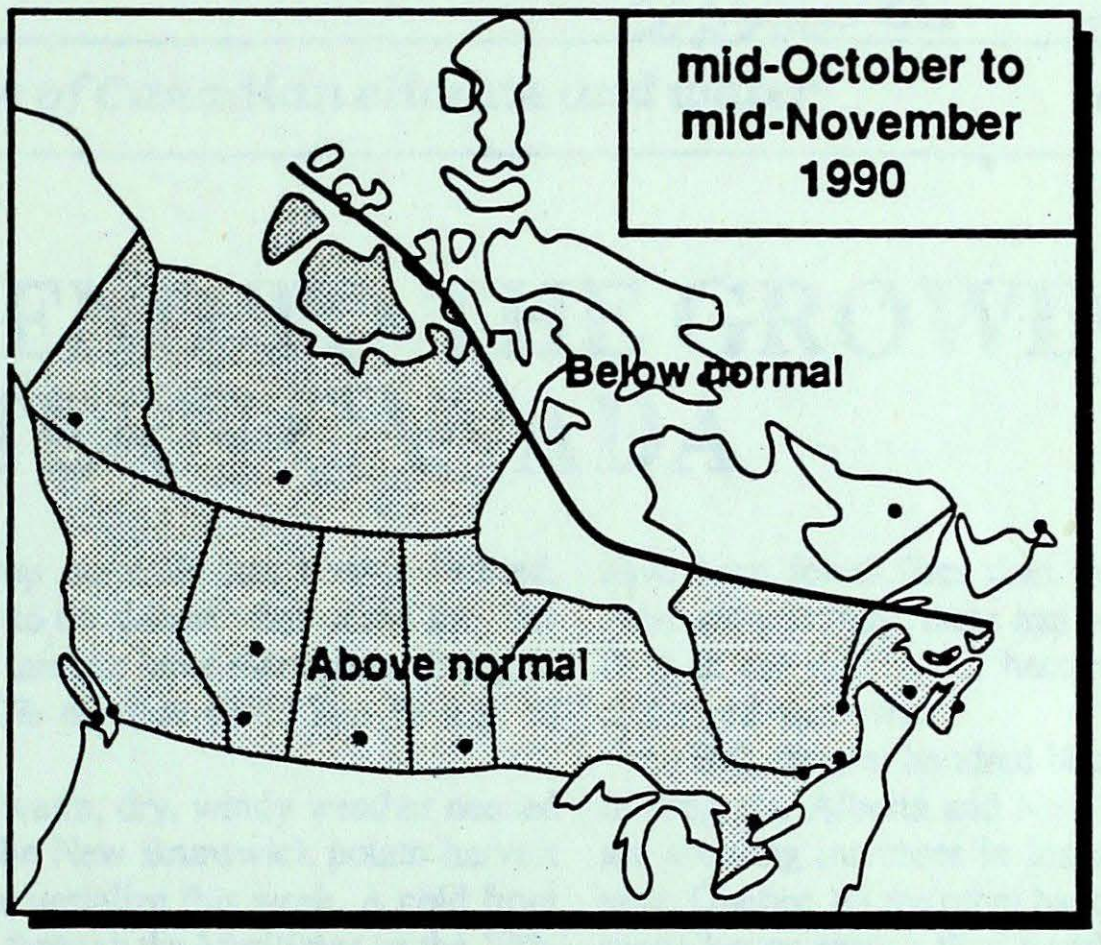
Atmospheric Environment Service / Service de l'environnement atmosphérique

MONTHLY TEMPERATURE FORECAST

Normal temperatures for mid-October to mid-November, °C

Whitehorse	-4	Toronto	6
Yellowknife	-8	Ottawa	5
Iqaluit	-9	Montréal	5
Vancouver	8	Québec	3
Victoria	8	Fredericton	4
Calgary	1	Halifax	7
Edmonton	0	Charlottetown	6
Regina	0	Goose Bay	1
Winnipeg	1	St. John's	5

Canada



Think recycling

Pensez à recycler