

Climatic Perspectives

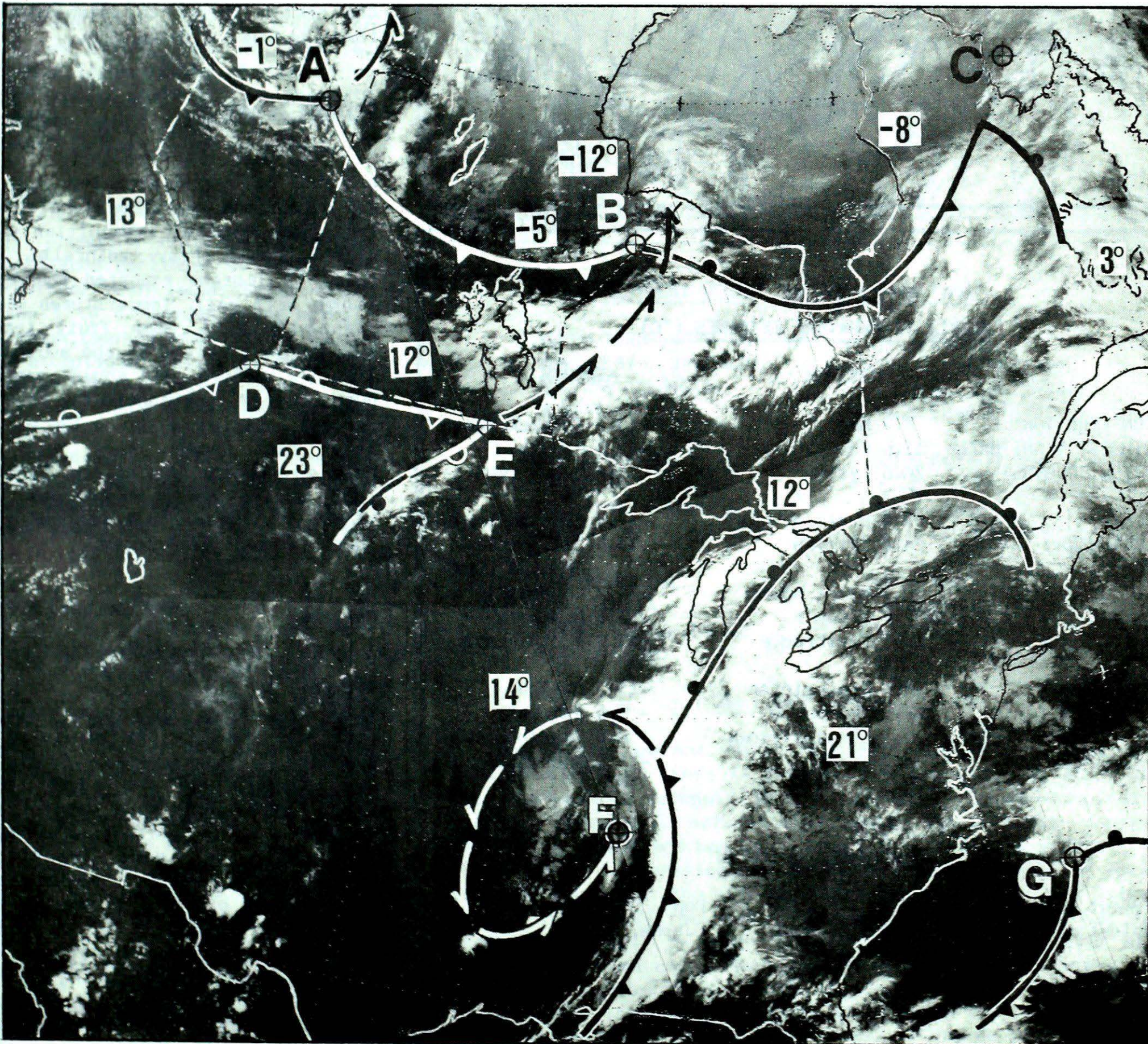


A weekly review of Canadian climate

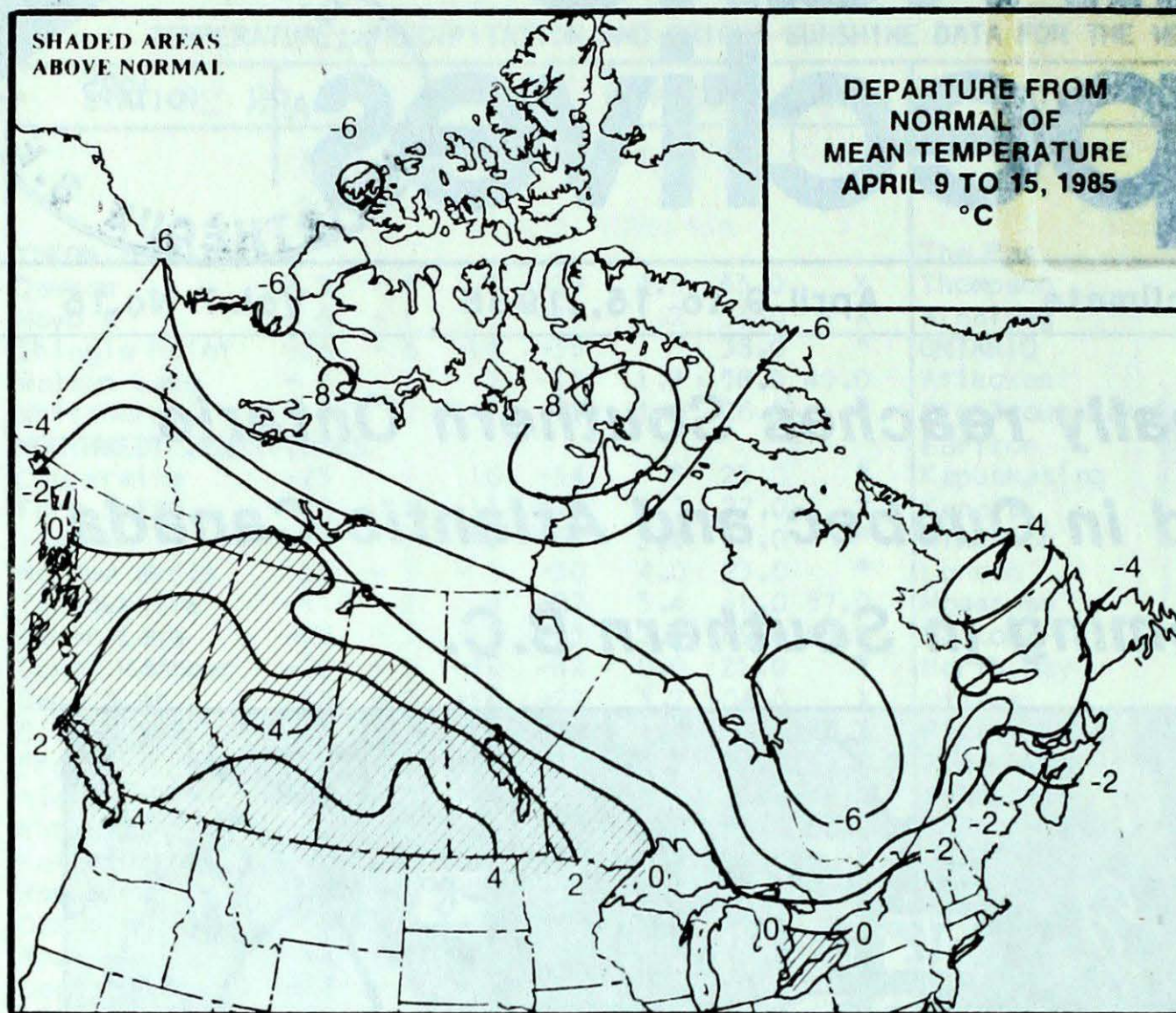
April 9 to 15, 1985

Vol. 7 No.15

- *Balmy weather finally reaches Southern Ontario*
- *Unseasonably cold in Quebec and Atlantic Canada*
- *Fruit trees blossoming in Southern B.C.*



This NOAA 6 satellite image taken on the evening of April 14, 1985 shows the retreat of Arctic air to more northern latitudes. For details see page 3.

ACROSS THE COUNTRY...**Yukon and Northwest Territories**

Wintery type weather returned to the north as a series of weather systems tracked eastward. With the exception of the Mackenzie District, where temperatures managed to climb as high as 11°C, mean temperatures were well below normal. Frequent periods of snow left up to 14 cm of new snow on the ground. Some localities in the Yukon received 30 to 35 centimetres of fresh snow. Windy conditions caused heavy blowing and drifting snow and both the Dempster and Haines Highways were closed for two days. Maximum temperatures in the Arctic failed to climb higher than the minus mid-twenties.

British Columbia

The coast was frequently cloudy and wet, but in the interior, with a few exceptions, sunshine was plentiful. Some coastal communities received locally heavy rainfalls. On April 13 Terrace reported thunderstorms with hail. Temperatures were pleasantly mild. Some fruit trees have begun to bloom in the southern interior valleys. The annual range-burn programs are continuing in the central interior, although two weeks later than normal. Many interior lakes are nearly free of ice. Excellent spring skiing continues at higher elevations, but many of the lower ski runs are closed.

Prairies

Warm and very pleasant spring weather returned. Daytime temperatures in agricultural areas climbed from the teens to the low to mid-twenties by the weekend. Sunshine was plentiful in the south, but cloudy skies were more general in the north, where snowfalls of several centimetres were reported. Several daily maximum temperature records were broken. The mercury at Pilot Mound climbed to 26° on April 14. Field work is well underway in southern Alberta. Good spring skiing continues in the Rockies. The southern two thirds of the Prairies are predominantly snow free.

WEEKLY TEMPERATURE EXTREMES (°C)

	MAXIMUM	MINIMUM
YUKON TERRITORY	8.7 Mayo	-33.5 Komakuk Beach
NORTHWEST TERRITORIES	11.0 Fort Smith	-44.5 Eureka
BRITISH COLUMBIA	24.6 Lytton	-12.6 Dease Lake
ALBERTA	25.0 Medicine Hat	-17.0 Fort Chipewyan
SASKATCHEWAN	24.4 Estevan	-23.8 Collins Bay Uranium City
MANITOBA	25.7 Pilot Mound	-27.7 Churchill
ONTARIO	22.9 Windsor	-30.2 Moosonee
QUÉBEC	18.5 Sherbrooke	-33.9 Kuujuarapik
NEW BRUNSWICK	19.0 Fredericton	-15.3 Charlo
NOVA SCOTIA	17.6 Shelburne	- 9.5 Amherst
PRINCE EDWARD ISLAND	9.1 Charlottetown	- 8.8 Charlottetown
NEWFOUNDLAND	5.7 Goose Bay	-25.0 Churchill Falls

ACROSS THE NATION

Warmest mean temperature	12.5	Hope, B.C.
Coollest mean temperature	-35.9	Eureka, NWT

Ontario

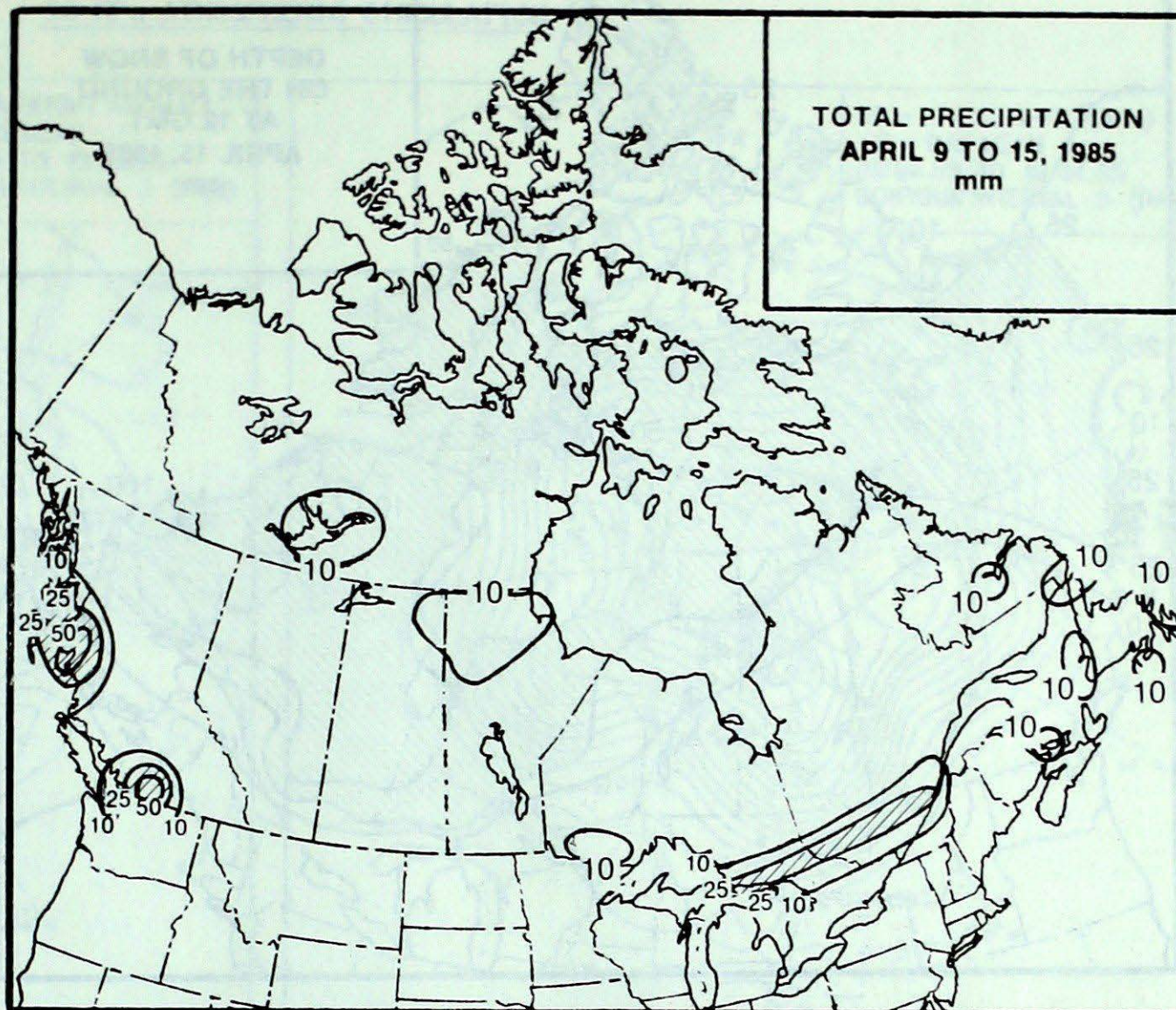
Cold weather finally relinquished its stubborn hold over Ontario. Record low mid-week temperatures were replaced with daytime readings in the 10 to 20 degree range. Over the weekend Windsor was the warmest spot, with a maximum temperature of 23°C on April 14. Communities with winds blowing directly off the cold waters of the Great Lakes failed to experience the first fine spring weather of the season. Earlier in the week, a number of new daily record low temperatures were set. The temperature in Moosonee plunged to -30°C on April 13, smashing the previous -21°C set in 1947. The extreme strong winds on April 6, pushed large plates of ice up on the eastern shore of Lake Simcoe's cottage country, causing extensive damage to boat houses and docks.

Québec

Unusually cold spring weather conditions continued to plague the province. Mean temperatures ranged from 3 to 8 degrees below normal. Maximum temperatures, with a couple of exceptions, failed to reach the double digits. Precipitation was generally light, except in the southwest, where total amounts exceeded 20 mm. The snow cover is gradually dwindling. Some areas in the eastern Townships are nearly snow free, but snow depths in the north still exceed 75 cm.

Atlantic Provinces

Unseasonably cool spring weather plagued the East Coast, and many new low temperature records were established during the latter part of the period. In the Maritimes cloudy skies gradually gave way to sunshine. Over the weekend, the maximum temperature at a number of locations in the Maritimes failed to climb above freezing. On April 10, up to 15 cm of snow fell in northeastern Newfoundland. On April 13, a disturbance moving off the coast gave additional snowfalls to the Island and Labrador. The Maritimes are nearly snow free. Charlo still had 12 cm of snow on the ground.

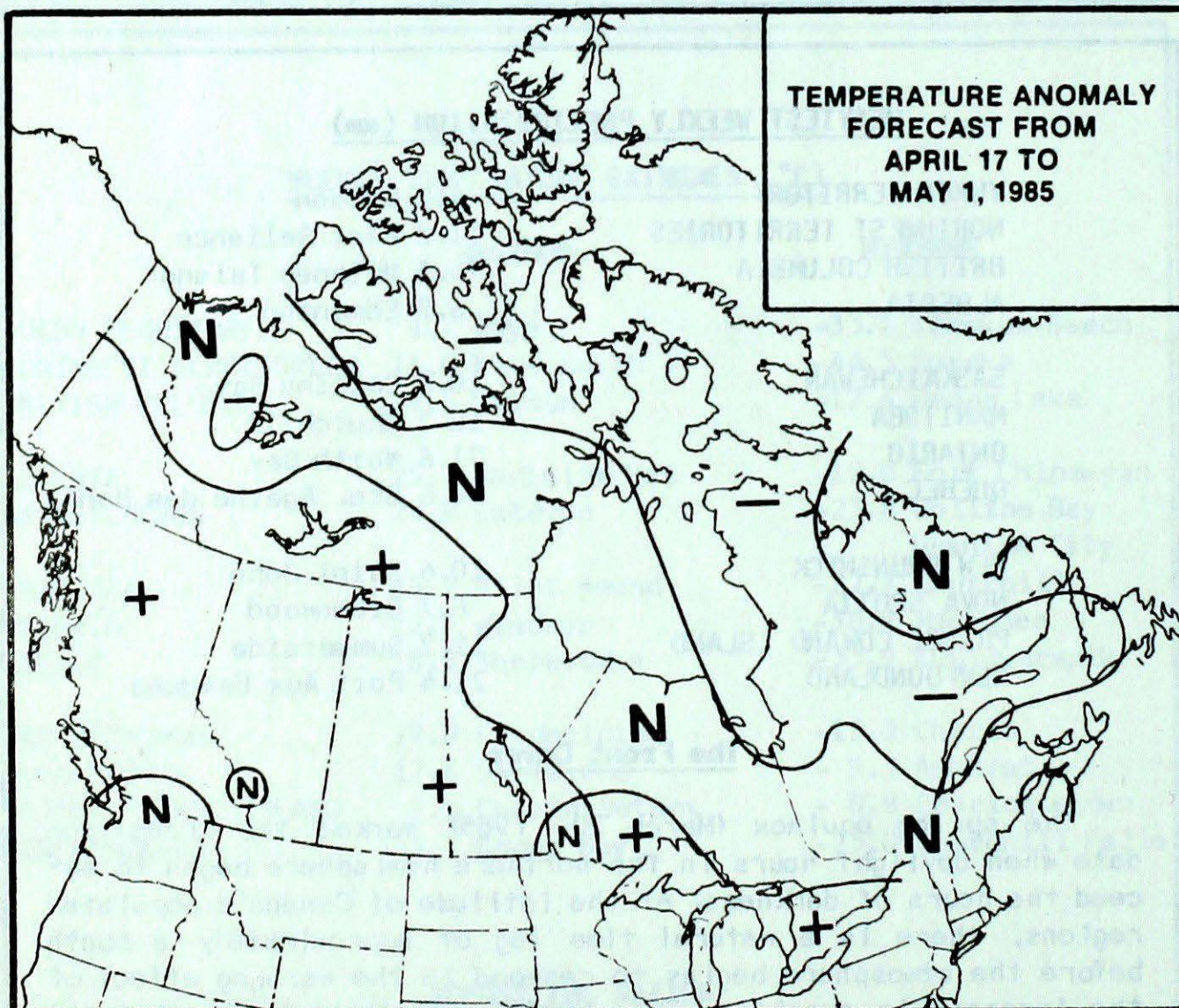
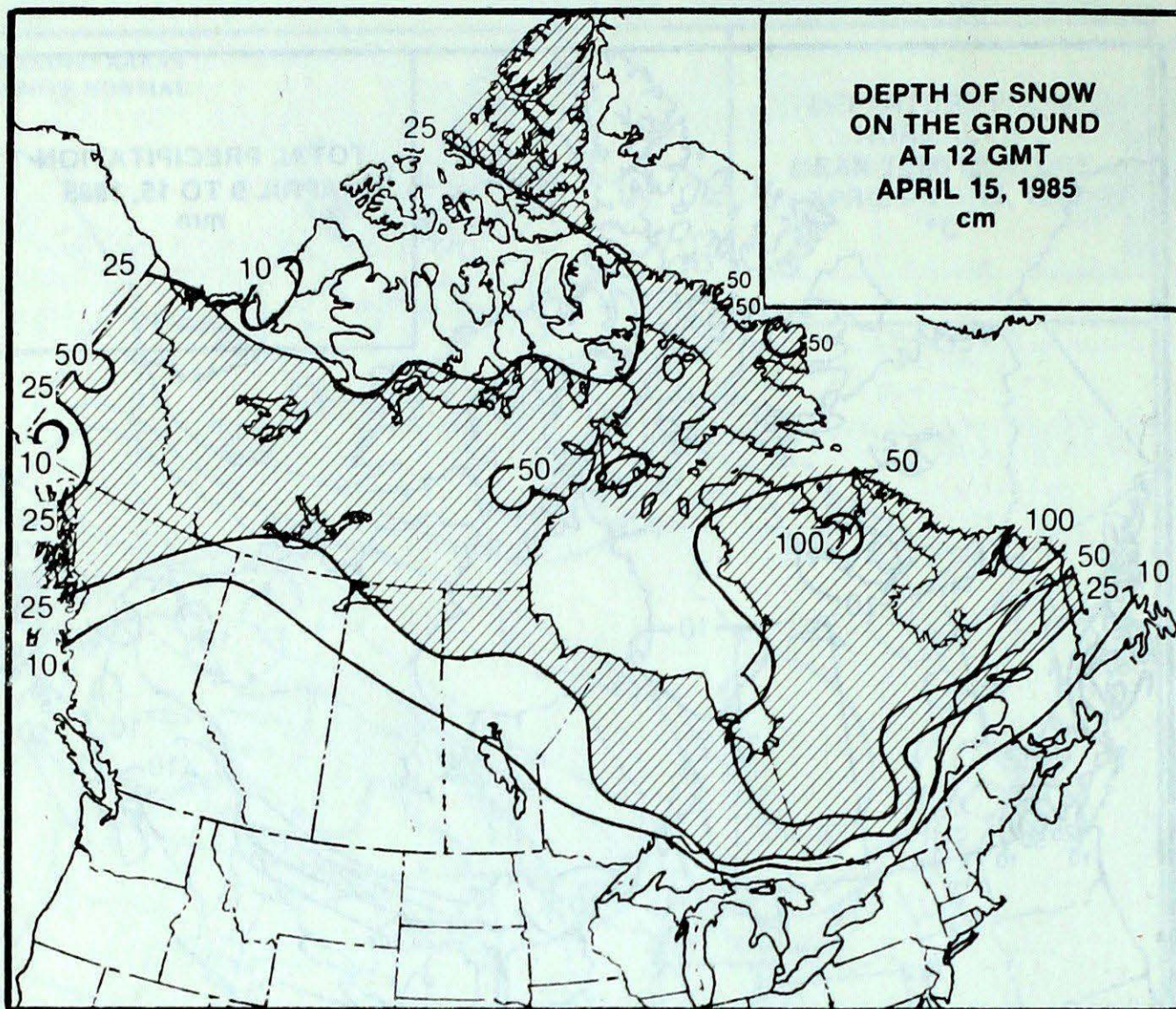


HEAVIEST WEEKLY PRECIPITATION (mm)

YUKON TERRITORY	6.2 Dawson
NORTHWEST TERRITORIES	11.2 Fort Reliance
BRITISH COLUMBIA	75.3 McInnes Island
ALBERTA	6.9 Edmonton
SASKATCHEWAN	10.6 Collins Bay
MANITOBA	12.2 Churchill
ONTARIO	31.6 North Bay
QUÉBEC	34.6 Ste. Agathe des Monts
NEW BRUNSWICK	10.6 Saint John
NOVA SCOTIA	6.7 Greenwood
PRINCE EDWARD ISLAND	12.2 Summerside
NEWFOUNDLAND	21.4 Port Aux Basques

The Front Cover

The spring equinox (March 20, 1985) marked the transition date when daylight hours in the northern hemisphere began to exceed the hours of darkness. At the latitude of Canada's populated regions, there is a natural time lag of approximately a month before the atmosphere begins to respond to the warming effect of the increase in sunshine. This NOAA 6 satellite image of April 14, 1985 shows that the very cold Arctic air mass of winter (north of the frontal system linking storm centres A, B, C) has retreated northwards to about 55°-60°N. A few representative temperatures are indicated. The southern regions of Canada are now beginning to enjoy temperatures more conducive to outdoor comfort. However, outbreaks of the Arctic air are still possible and agriculturists must be vigilant for frosty nights (for the average date of the last spring frost see Vol. 6, No. 16, page 5).



Temperature Anomaly Forecast

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

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.

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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.

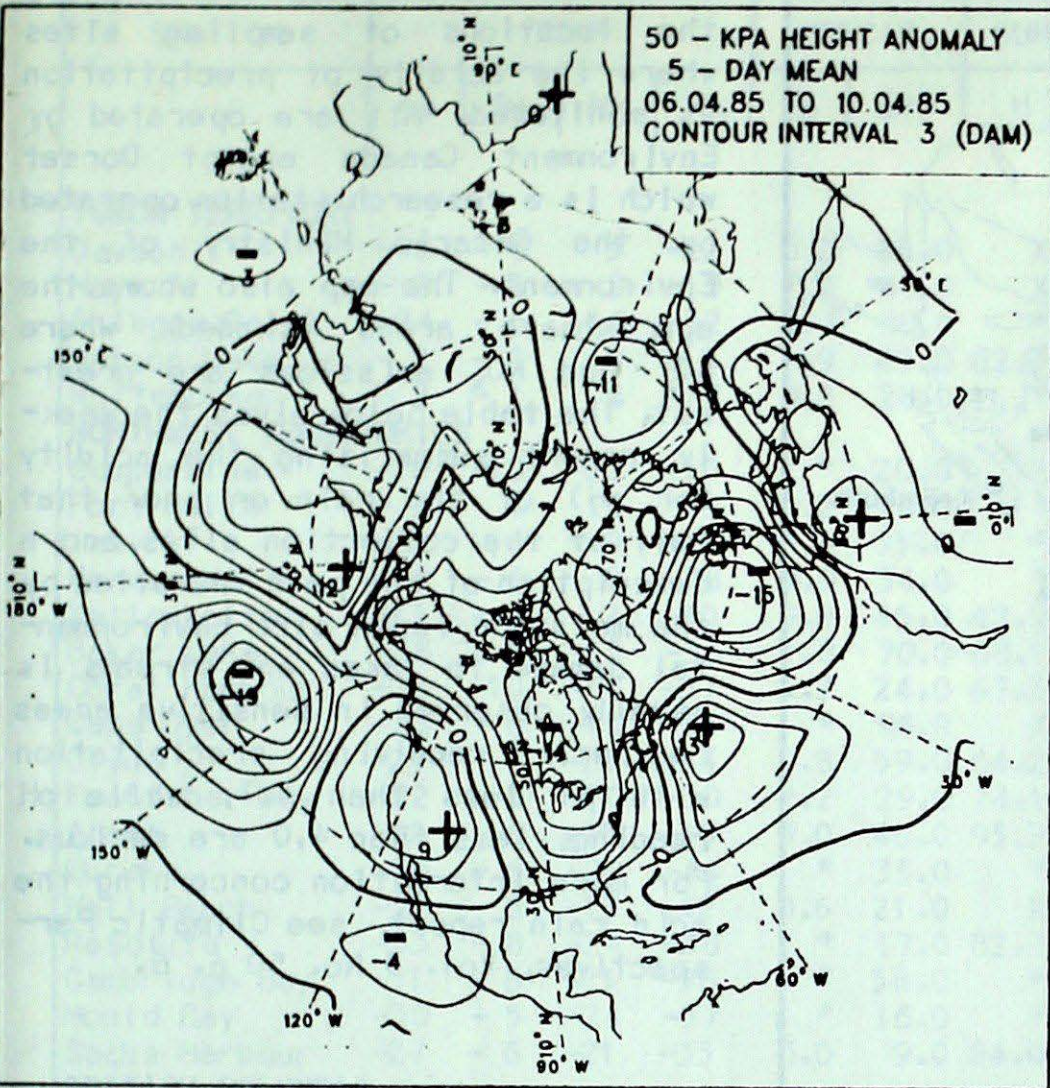
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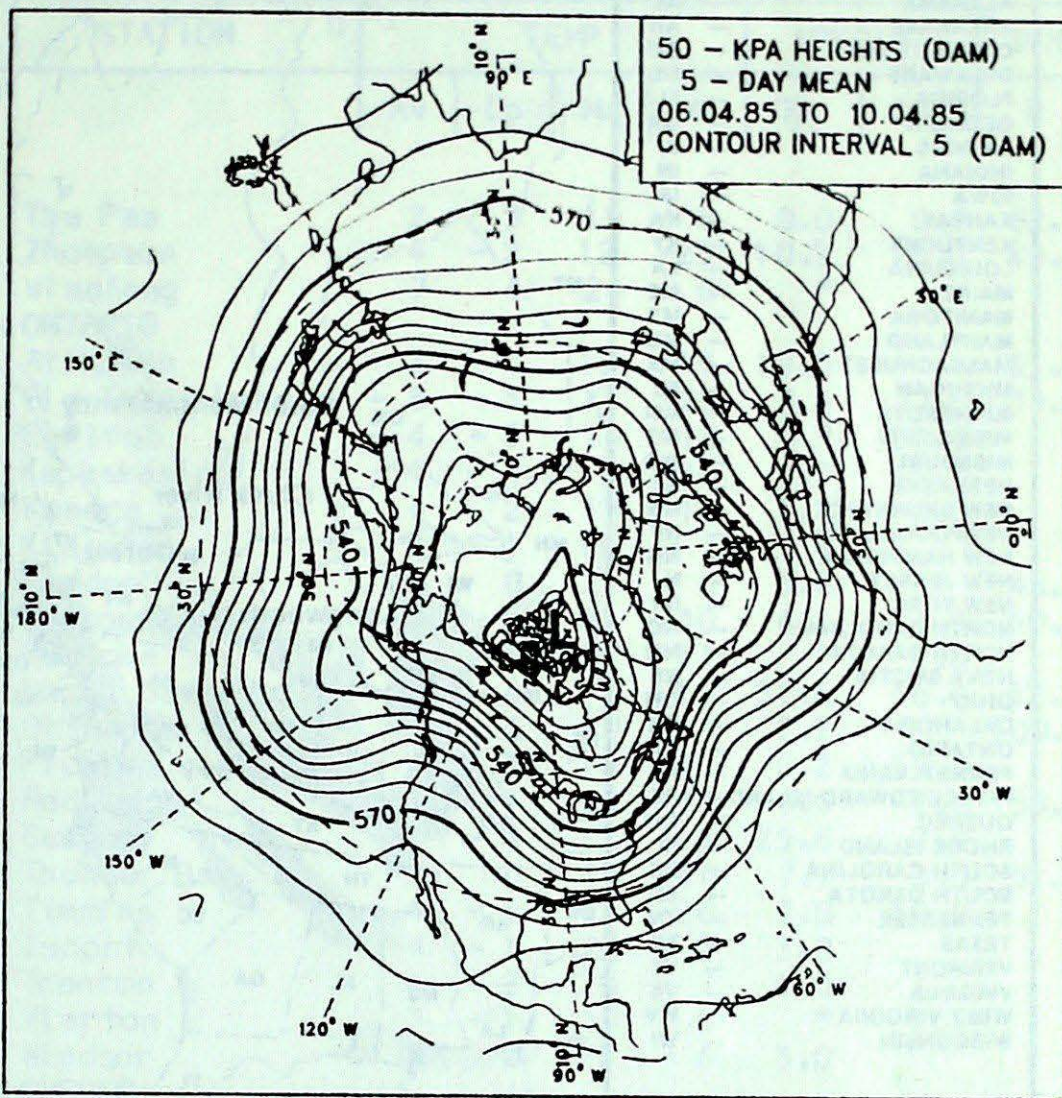
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50 KPa ATMOSPHERIC CIRCULATION

50 - KPa HEIGHT ANOMALY
5 - DAY MEAN
06.04.85 TO 10.04.85
CONTOUR INTERVAL 3 (DAM)

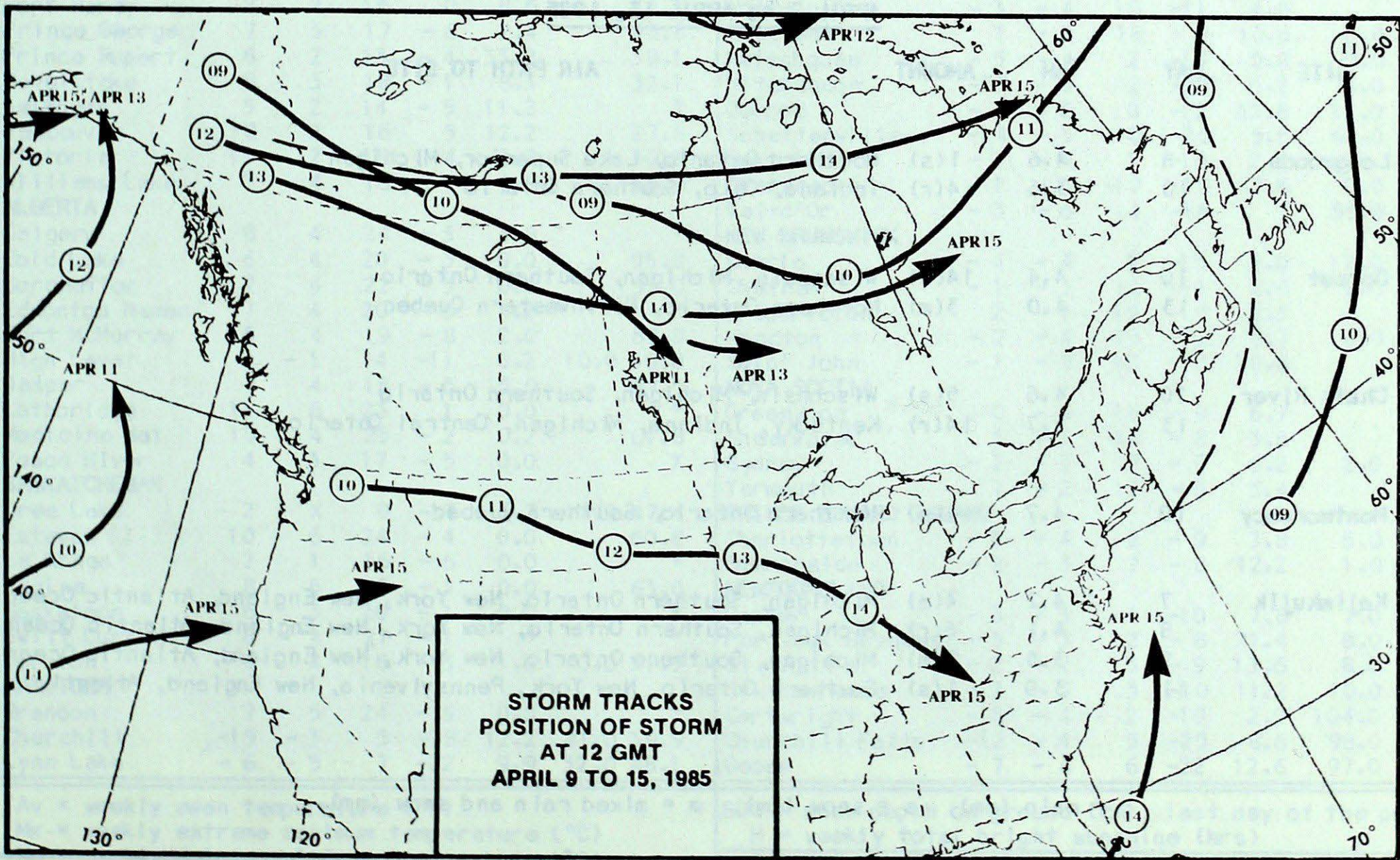


50 - KPa HEIGHTS (DAM)
5 - DAY MEAN
06.04.85 TO 10.04.85
CONTOUR INTERVAL 5 (DAM)

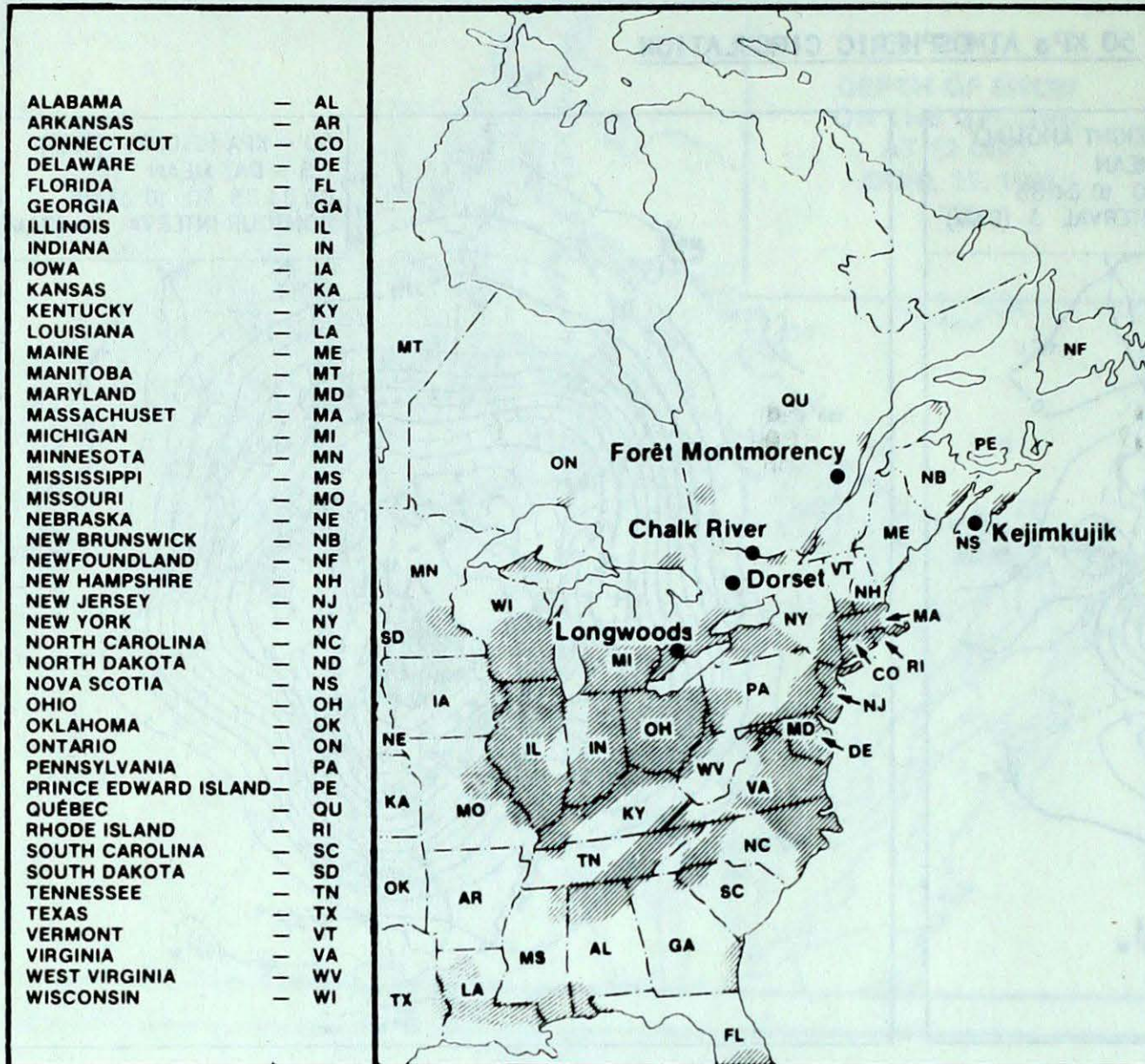


MEAN 50 KPa HEIGHT ANOMALY (dam)
April 6 to April 10, 1985

MEAN 50 KPa HEIGHTS (dam)
April 6 to April 10, 1985



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.

APRIL 7 to APRIL 13, 1985

SITE	DAY	pH	AMOUNT	AIR PATH TO SITE
Longwoods	8	4.6	1(s)	Northern Ontario, Lake Superior, Michigan
	10	3.6	4(r)	Indiana, Ohio, Southern Ontario
Dorset	10	4.4	14(s)	Wisconsin, Michigan, Southern Ontario
	13	4.0	3(m)	Northern Ontario, Northwestern Quebec
Chalk River	10	4.6	5(s)	Wisconsin, Michigan, Southern Ontario
	13	3.7	14(r)	Kentucky, Indiana, Michigan, Central Ontario
Montmorency	10	4.7	4(s)	Northern Ontario, Southern Quebec
Kejimikujik	7	4.2	4(m)	Michigan, Southern Ontario, New York, New England, Atlantic Ocean
	8	4.1	6(r)	Michigan, Southern Ontario, New York, New England, Atlantic Ocean
	9	3.5	2(m)	Michigan, Southern Ontario, New York, New England, Atlantic Ocean
	11	3.9	1(s)	Southern Ontario, New York, Pennsylvania, New England, Atlantic

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

TEMPERATURE, PRECIPITATION AND BRIGHT SUNSHINE DATA FOR THE WEEK ENDING 0600 GMT APRIL 15, 1985

STATION	TEMP				PRECIP		SUN	STATION	TEMP				PRECIP		SUN
	Av	Dp	Mx	Mn	Tp	SOG	H		Av	Dp	Mx	Mn	Tp	SOG	H
YUKON TERRITORY								The Pas	2	3	15	-8	0.0	0.0	62.9
Dawson	-8	-6	3	-22	6.2	65.0	X	Thompson	-4	-2	12	-23	10.2	15.0	49.2
Mayo A	-2	-1	9	-15	1.2	30.0	X	Winnipeg	7	4	24	-6	*	*	
Shingle Point	-24	-6	-16	-32	3.7	40.0	*	ONTARIO							
Watson Lake	-2	-1	8	-15	1.9	49.0	62.3	Atikokan	2	0	18	-15	10.0		51.7
Whitehorse	-2	-1	6	-14	0.2	20.0	*	Big Trout Lake	-8	-3	11	-28	7.3	77.0	34.4
NORTHWEST TERRITORIES								Earlton	-4	-5	10	-16	*	31.0	X
Coppermine	-28	-10	-20	-36	*	20.0	*	Kapuskasing	-4	-4	9	-21	4.0	49.0	*
Fort Smith	-3	0	11	-19	0.2	14.0	*	Kenora	4	2	15	-10	1.6	0.0	X
Inuvik	-22	-6	-9	-35	5.4	51.0	*	Kingston	2	-1	16	-7	*		*
Norman Wells	-15	-6	0	-28	9.9	34.0	*	London	6	0	21	-6	3.6		44.3
Yellowknife	-13	-4	2	-30	10.8	45.0	42.9	Mosonoe	-8	-5	12	-30	4.4	64.0	50.7
Baker Lake	-28	-9	-15	-36	1.8	70.0	68.1	Muskoka	1	-3	17	-11	*	0.0	X
Coral Harbour	-28	-10	-14	-37	5.7	24.0	67.3	North Bay	-2	-4	11	-15	31.6	36.0	32.7
Cape Dyer	-23	-6	-15	-31	*	96.0	X	Ottawa	2	-3	19	-9	2.2		109.0
Clyde	-27	-7	-21	-34	0.8	59.0	64.2	Pickle Lake	-4	-3	10	-27	0.2	55.0	X
Frobisher Bay	-22	-5	-10	-30	2.2	29.0	74.1	Red Lake	1	1	13	-13	0.0	2.0	55.9
Alert	-32	-6	-25	-39	0.0	46.0	93.2	Sudbury	-2	-4	12	-15	25.6	7.0	*
Eureka	-36	-6	-26	-44	*	35.0	*	Thunder Bay	2	0	16	-10	7.7	0.0	51.2
Hall Beach	-31	-8	-18	-42	0.6	21.0	X	Timmins	-4	-5	12	-20	7.8	68.0	X
Resolute	-33	-8	-24	-38	*	17.0	82.7	Toronto	4	-1	22	-7	3.8		X
Cambridge Bay	-31	-8	-23	-38	*	38.0	*	Trenton	4	-2	20	-7	1.0		X
Mould Bay	-30	-5	-24	-37	*	16.0	*	Warton	3	-1	19	-6	*		*
Sachs Harbour	-27	-6	-21	-33	0.0	9.0	84.0	Windsor	9	2	23	-6	3.0		X
BRITISH COLUMBIA								QUEBEC							
Cape St. James	7	1	11	3	21.4		36.5	Bagotville	-5	-7	9	-14	17.4	13.0	X
Cranbrook	10	5	23	-1	1.1		62.3	Blanc-Sablon	-7	-4	2	-17	10.0	44.0	35.7
Fort Nelson	3	2	15	-8	0.0	10.0	64.8	Inukjuak	-16	-4	-3	-26	7.2	69.0	*
Fort St. John	5	3	14	-5	0.0		X	Kuujuuaq	-15	-5	-2	-28	4.8	118.0	*
Kamloops	12	3	22	0	0.0		32.9	Kuujuarapik	-14	-6	1	-34	15.8	47.0	25.1
Pentlcton	11	3	23	0	3.0		46.8	Maniwaki	-2	-5	11	-13	29.8	13.0	39.6
Port Hardy	8	2	16	0	8.6		24.1	Mont-Joli	-3	-4	10	-11	4.8		51.0
Prince George	7	3	17	-6	2.4		48.8	Montréal	1	-5	18	-9	10.6	0.0	42.4
Prince Rupert	6	2	13	-4	33.2		39.1	Natashquan	-5	-4	2	-15	0.8	0.0	*
Revelstoke	8	3	18	-1	8.3		32.1	Nitchequon	-13	-6	2	-29	5.2	74.0	*
Smithers	5	2	14	-5	11.2		*	Québec	-3	-6	8	-12	33.8	32.0	46.6
Vancouver	10	2	16	5	12.2		27.8	Schefferville	-14	-5	0	-26	5.6	64.0	28.4
Victoria	11	2	18	4	2.7		30.3	Sept-Îles	-7	-6	1	-16	2.2		50.4
Williams Lake	7	4	16	-4	0.0		54.9	Sherbrooke	-1	-5	-19	-10	7.6	0.0	41.2
ALBERTA								Val-d'Or	-5	-6	11	-18	*	55.0	33.3
Calgary	8	4	24	-3	3.8		*	NEW BRUNSWICK							
Cold Lake	6	4	20	-3	0.0		55.9	Charlo	-4	-4	5	-15	6.0	12.0	58.1
Coronation	7	4	22	-3	0.0		55.0	Chatham	-1	-3	12	-11	2.6	1.0	51.9
Edmonton Nmao	7	4	20	-5	1.2		*	Fredericton	2	-1	19	-10	2.3		*
Fort McMurray	5	4	19	-8	2.0		67.9	Moncton	-2	-4	13	-12	8.7	0.0	48.5
High Level	2	-1	14	-11	0.2	10.0	56.8	Saint John	-1	-3	12	-10	10.6		55.2
Jasper	7	4	18	-5	5.0		47.5	NOVA SCOTIA							
Lethbridge	11	6	23	1	0.0		*	Greenwood	0	-3	16	-9	6.7		X
Medicine Hat	10	4	25	-2	0.2		61.8	Shearwater	1	-3	16	-8	3.6		47.9
Peace River	4	3	17	-5	0.0		X	Sydney	-2	-3	9	-9	6.2	2.0	46.1
SASKATCHEWAN								Yarmouth	1	-2	11	-5	3.4		51.2
Cree Lake	-2	X	9	-17	6.7	17.0	47.4	PRINCE EDWARD ISLAND							
Estevan	10	6	24	-4	0.0		60.8	Charlottetown	-3	-4	9	-9	7.8	5.0	*
La Ronge	2	1	16	-6	0.0		*	Summerside	-2	-3	7	-8	12.2	1.0	51.7
Regina	8	5	22	-3	0.0		63.0	NEWFOUNDLAND							
Saskatoon	6	3	20	-1	0.0		*	Gander	-3	-3	4	-10	7.8	7.0	41.6
Swift Current	8	4	21	-1	*		*	Port aux Basques	-3	-3	2	-8	21.4	8.0	42.6
Yorkton	6	4	18	-3	1.6	0.0	51.5	St. John's	-2	-2	5	-9	17.6	8.0	40.6
MANITOBA								St. Lawrence	-3	-3	3	-10	11.2	10.0	X
Brandon	7	5	24	-5	0.0		*	Cartwright	-8	-4	2	-19	2.9	104.0	43.7
Churchill	-15	-3	5	-28	12.2	41.0	39.9	Churchill Falls	-12	-4	5	-25	8.6	98.0	48.3
Lynn Lake	-6	-5	7	-22	9.9	32.0	48.1	Goose	-7	-4	6	-22	12.6	97.0	41.7

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