

# Climatic Perspectives

A WEEKLY REVIEW OF CANADIAN CLIMATE

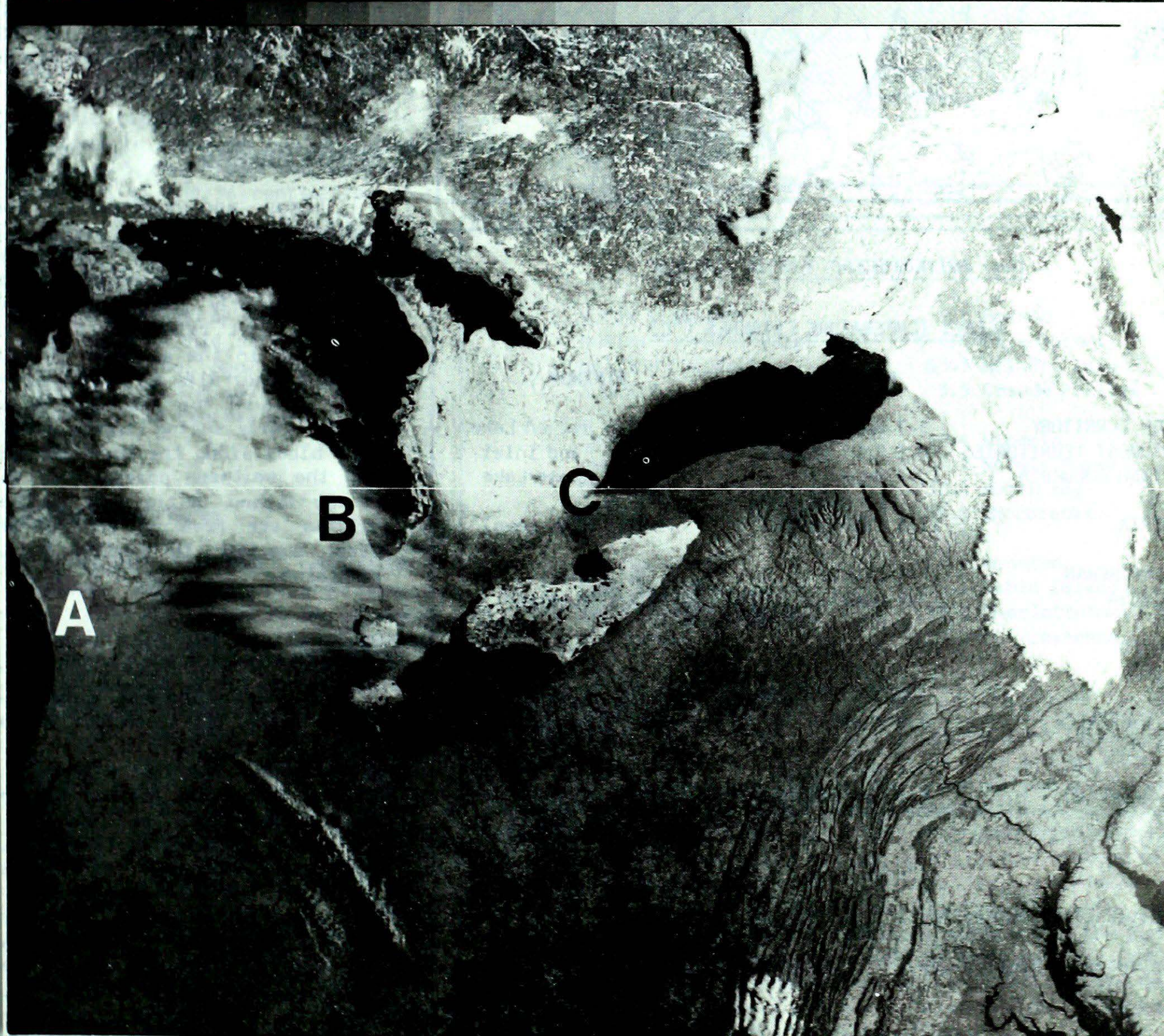
in Climate Centre

For the period March 5 to 11, 1985

Vol.7 No.10

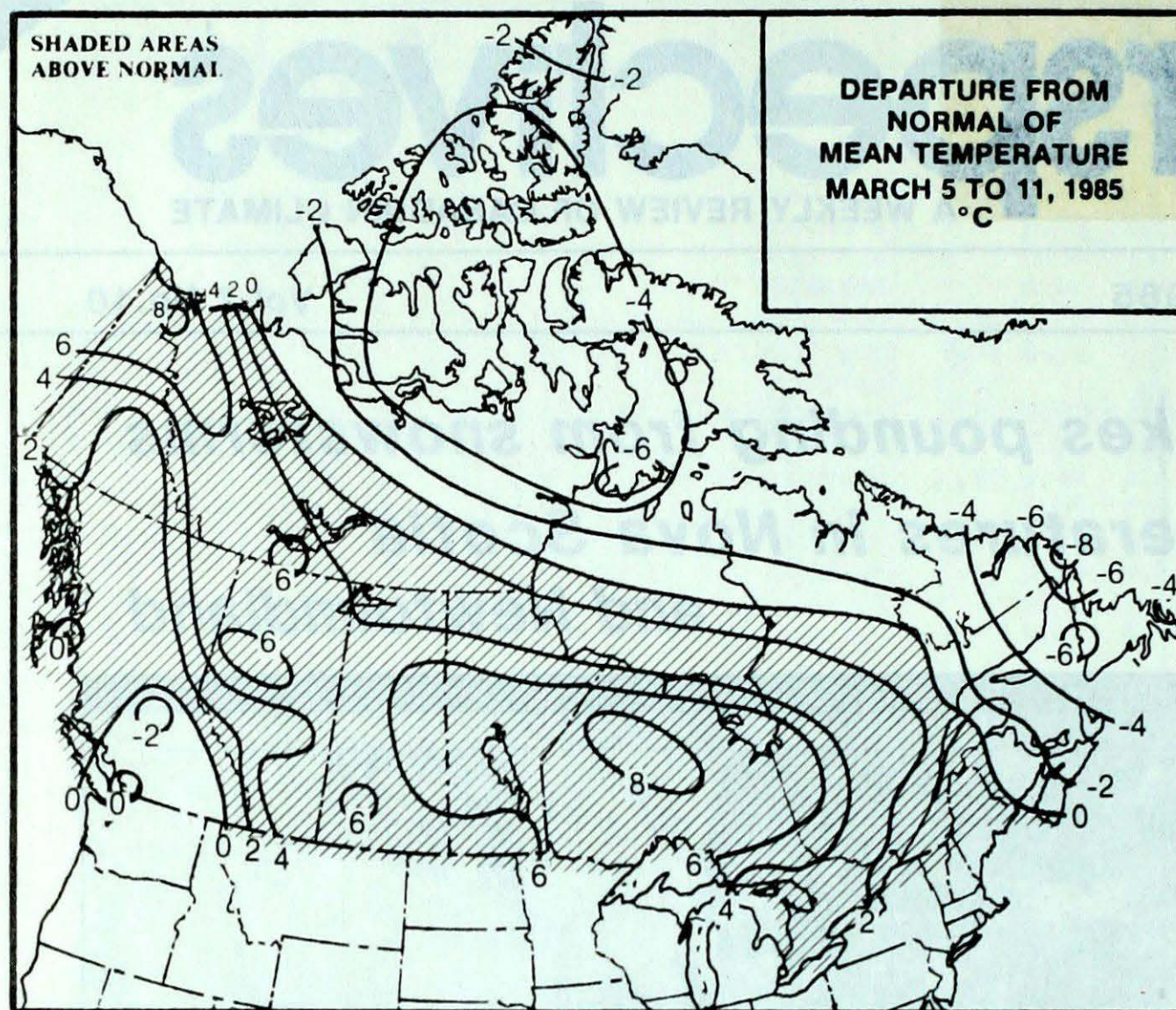
- *Eastern Canada takes pounding from snowstorms*
- *Record cold temperatures in Nova Scotia and Newfoundland*

★AES N-6 29640 NIR 10MR85 1251Z 43.0N 80.0W 1: 4.0M



This NOAA 6 satellite image of March 10, 1985 shows the receding snowline and the advance of Spring. For more details see page 3.



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

Temperatures in the Northwest Territories moderated to above normal values early in the week. Very cold conditions were prevalent in the eastern Arctic, where mean temperatures were 3 to 7 degrees below normal. The minimum temperature at Pond Inlet dropped to  $-51^{\circ}$  on March 6. Snowfalls were light, but snow depths on the ground in the Yukon are now near an all time record and are potential cause for concern. Traveller advisories were issued for the Dempster and Haines Highways due to high winds and blowing snow. The Northwest Territories section of the Dempster Highway was closed for two days because of whiteouts.

**British Columbia**

Sunny and seasonably cool weather conditions were perfect for outdoor recreational activities. Temperatures in the southern interior frequently reached the double digits. Light rain fell along the coast and in the southern interior valleys. Snowfalls at higher elevations allowed for excellent spring skiing. Early spring flowers were in full bloom along the lower mainland and the southern portions of Vancouver Island. While many southern valleys are free of snow a very heavy snowpack is evident in the mountains.

**Prairies**

It was mild and spring-like with plenty of sunshine. Daytime temperatures climbed above the freezing mark everywhere, except in the extreme north. Maximum temperatures ranged from 7 to 10 degrees in the South, breaking or tying daily temperature records. Precipitation was light mostly falling early in the week. Skiing conditions in the Rockies are very good. Southern agricultural districts in Alberta and Saskatchewan are predominantly snow-free, while snow depths of 50 to 60 centimetres are not uncommon in the north.

**WEEKLY TEMPERATURE EXTREMES (°C)**

	MAXIMUM	MINIMUM
YUKON TERRITORY	5.7 Burwash	-37.6 Watson Lake
NORTHWEST TERRITORIES	6.1 Fort Simpson	-51.1 Pond Inlet
BRITISH COLUMBIA	13.7 Hope	-31.6 Dease Lake
	Lytton	
ALBERTA	11.5 Lethbridge	-31.1 High Level
SASKATCHEWAN	7.8 Estevan	-30.3 Uranium City
MANITOBA	6.6 Gimli	-34.8 Thompson
	Hecla Island	
ONTARIO	15.0 Windsor	-25.2 Red Lake
QUÉBEC	11.6 Sutton Junction	-38.5 Kuujuaq
NEW BRUNSWICK	8.8 Chatham	-23.7 Fredericton
NOVA SCOTIA	7.8 Shelburne	-27.9 Truro
PRINCE EDWARD ISLAND	5.4 Summerside	-19.5 Charlottetown
NEWFOUNDLAND	4.9 Comfort Cove	-35.5 Wabush Lake

**ACROSS THE NATION**

Warmest mean temperature	5.4	Cape St. James McInnes Island, BC
Coollest mean temperature	-43.0	Eureka, NWT



### Ontario

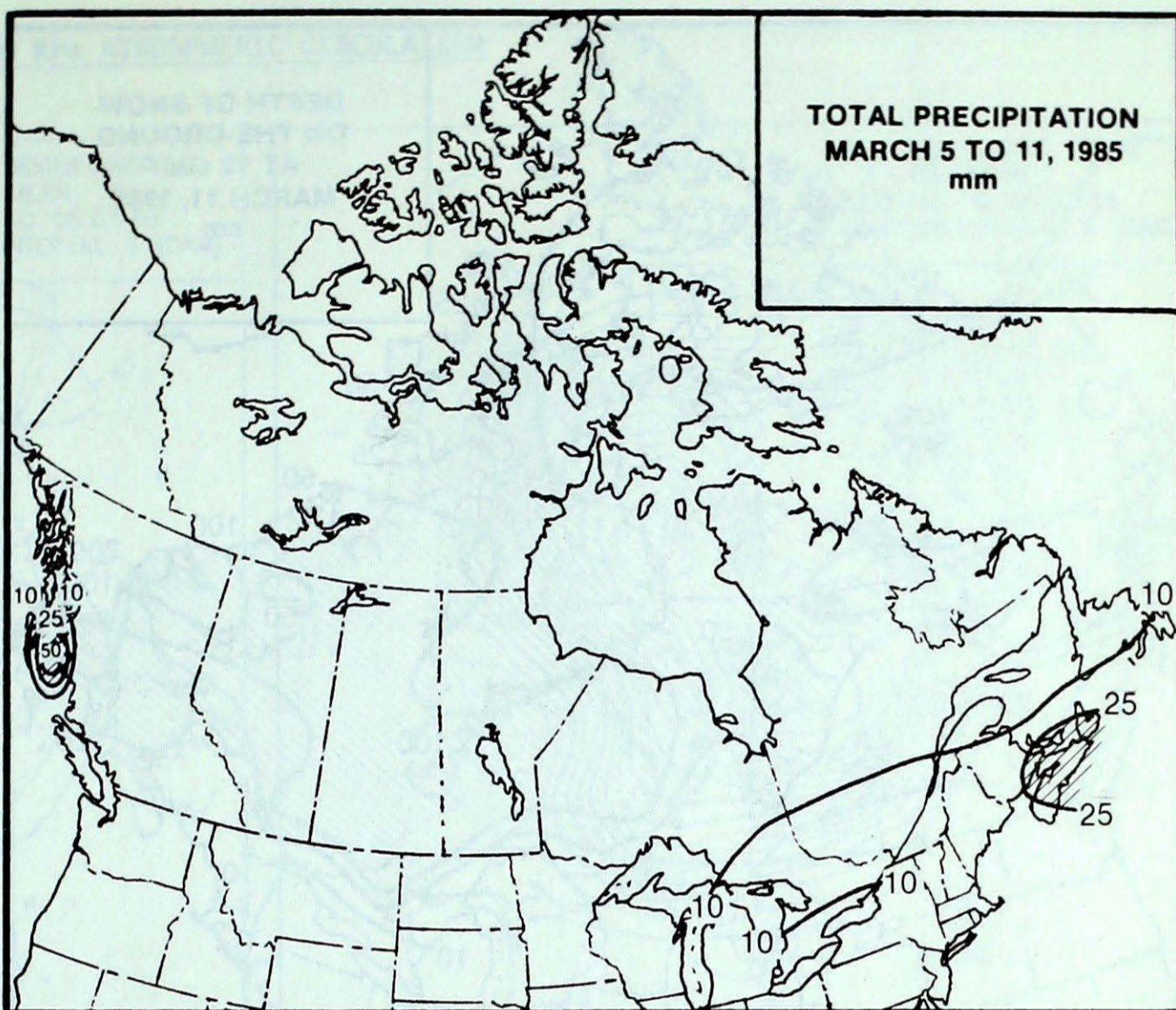
Weather conditions were favourable for the clean-up, which continued after last week's major snow storm. Mean temperatures were well above normal throughout the Province. Under mainly sunny skies, daytime temperatures over the week-end rose above freezing everywhere. The mercury at Windsor reached 15° on March 10. Depth of snow cover at the end of the week ranged from a trace in the southwest to more than 100 cm at Moosonee and Trout Lake.

### Québec

Heavy snow fell across the southern portions of the Province early in the week causing numerous traffic tie-ups and flight cancellations. In a two-day period ending on March 5, Sherbrooke and Montreal received 41 and 36 centimetres of snow, respectively. Earlier, one person was killed in a snow slide in the Laurentians near Bagotville. After mid-week, temperatures began to moderate, and by week's end daytime readings had climbed to well above freezing. Snow depths range from 10 cm in the southwest to more than 90 cm in central Québec.

### Atlantic Provinces

Wintery weather conditions returned, with more snow and freezing rain. More than 20 cm of new snow fell in Nova Scotia on March 5. Newfoundland received up to 30 cm of snow from two storms, which crossed the Island on March 5 and 8. A two-day blizzard ending on March 5, buffeted Labrador, during which time, visibilities remained near zero. A cold Arctic airmass spilled southwards and between March 6 and 8, many new daily low temperature records were established. Truro registered a minimum temperature of -28° on March 7 breaking a long standing record of -25 set in 1893. Under partly sunny skies daily temperatures gradually moderated after mid-week climbing to 4-9 degrees by the weekend.



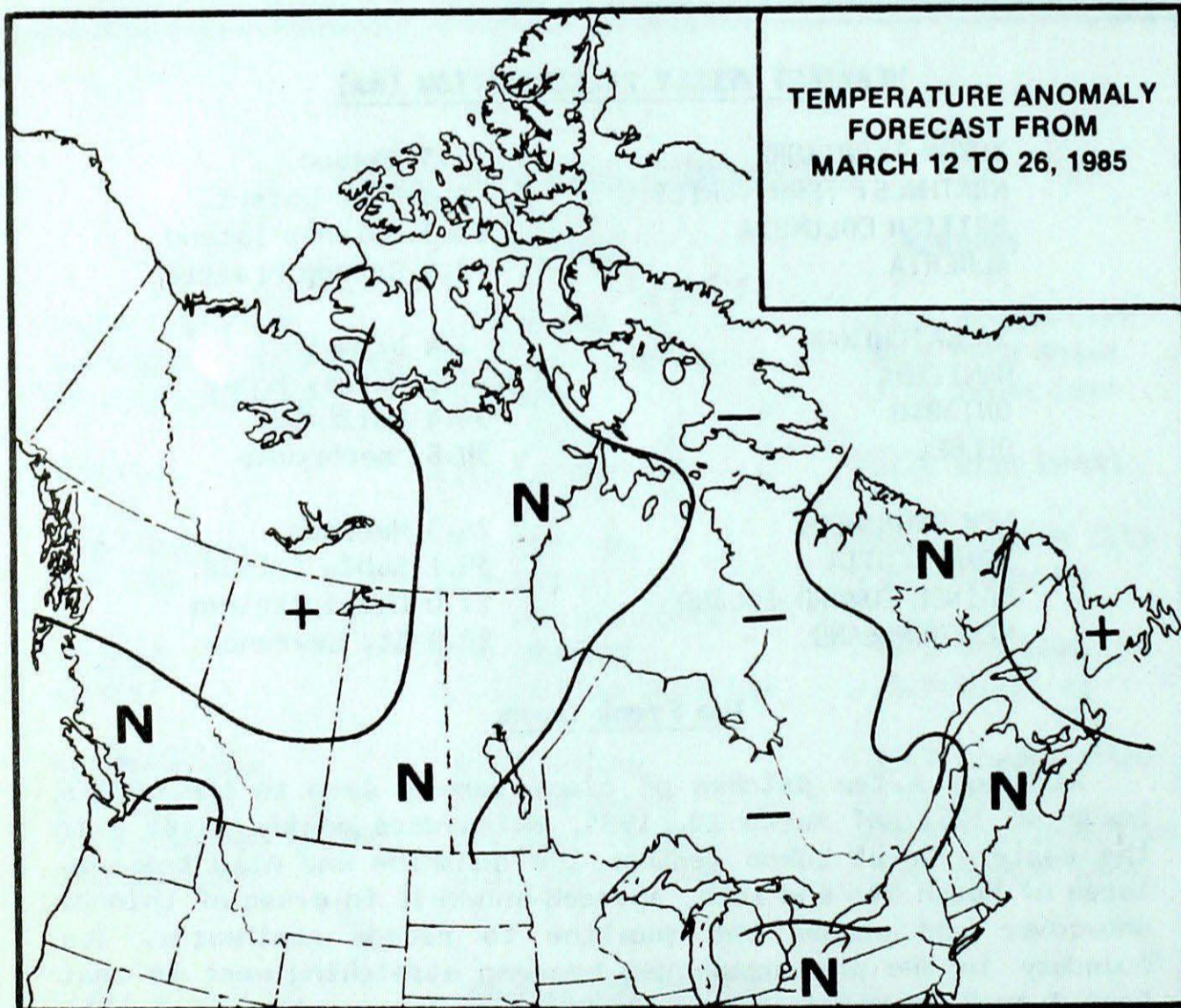
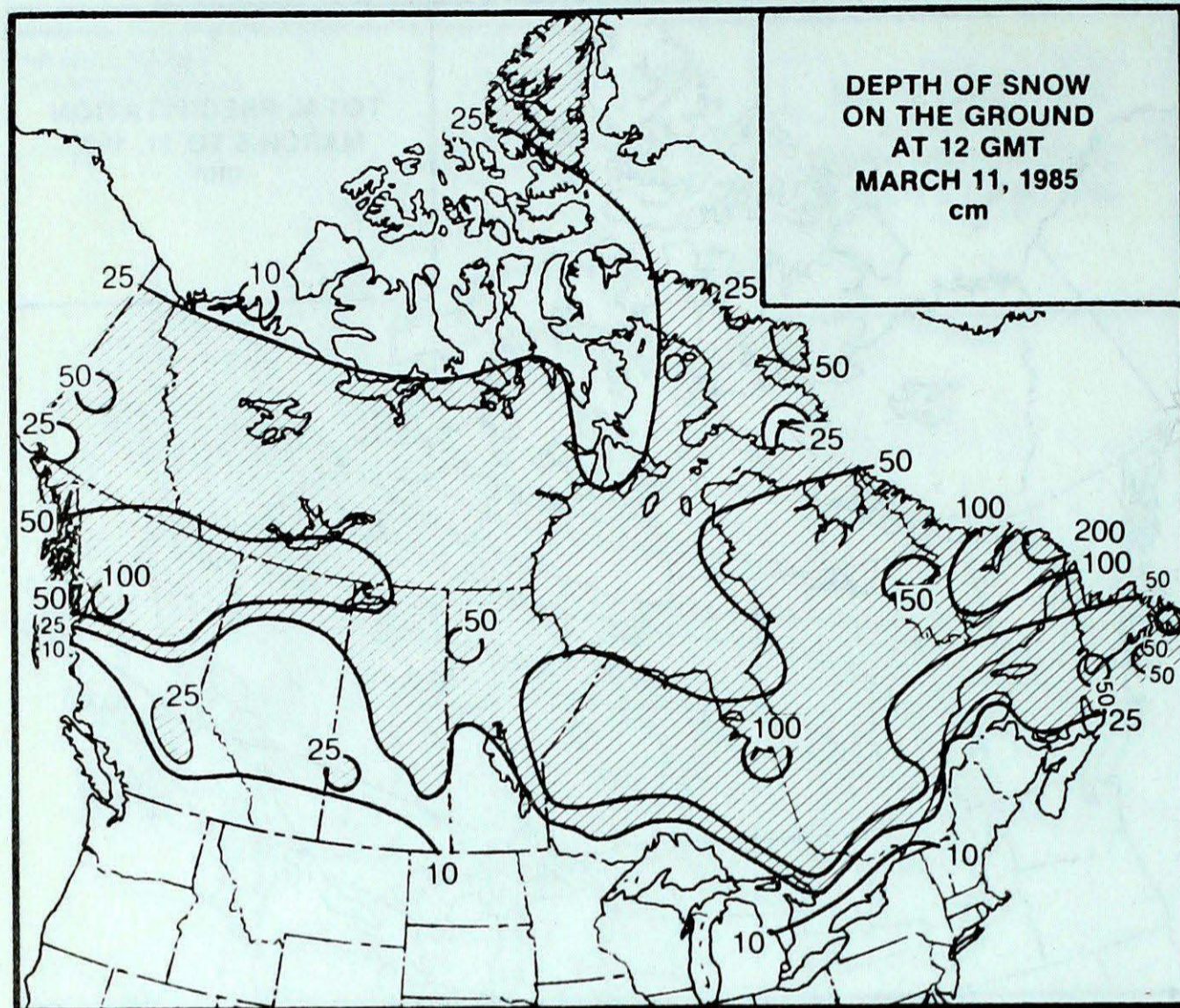
### HEAVIEST WEEKLY PRECIPITATION (mm)

YUKON TERRITORY	5.3 Dawson
NORTHWEST TERRITORIES	4.8 Cape Dorset
BRITISH COLUMBIA	63.3 McInnes Island
ALBERTA	3.5 Grande Prairie
SASKATCHEWAN	2.4 Nipawin
MANITOBA	4.2 Norway House
ONTARIO	30.4 North Bay
QUEBEC	38.8 Sherbrooke
NEW BRUNSWICK	26.3 Moncton
NOVA SCOTIA	39.1 Sable Island
PRINCE EDWARD ISLAND	27.0 Charlottetown
NEWFOUNDLAND	20.0 St. Lawrence

### The Front Cover

Although a few patches of cloud can be seen in the NOAA 6 image of 1251 GMT March 10, 1985, skies were mostly clear over the eastern Great Lakes region. The sunshine and mild temperatures of March 9th and 10th, speeded snowmelt in areas of thinner snowcover and caused the snowline to recede northwards. Its boundary in the photograph can be seen stretching west to east from A to B in Michigan to C in Ontario. Ice can be seen in the eastern half of Lake Erie and along the Canadian shore west of Point Pelee. A fringe of ice is also visible along the Canadian shore of Lake Huron, the eastern half of Georgian Bay, and filling the North Channel (between Manitoulin Island and the Ontario mainland). Lake St. Clair was mostly ice covered, while the ice on Lake Simcoe appeared to be quite solid.





#### 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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Managing Editor	M.J. Newark
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Editor (French)	A. Caillet
Staff Writer	M. Skarpathiotakis
Art Layout and Graphics	W. Johnson K. Czaja J. Rautenberg
Word Processing	U. Ellis, N. Khaja P. Hare

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 AES Satellite Data Lab

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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.

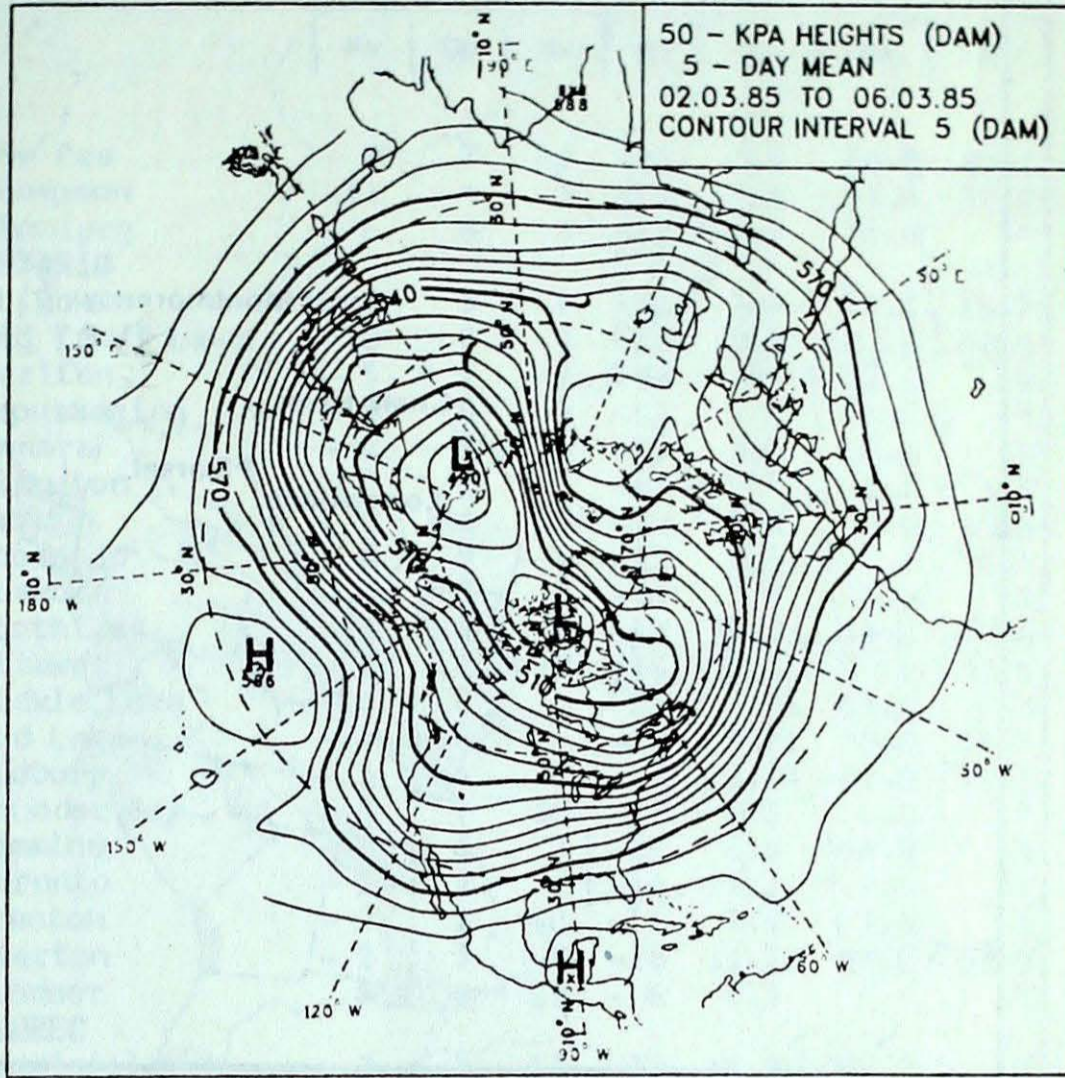
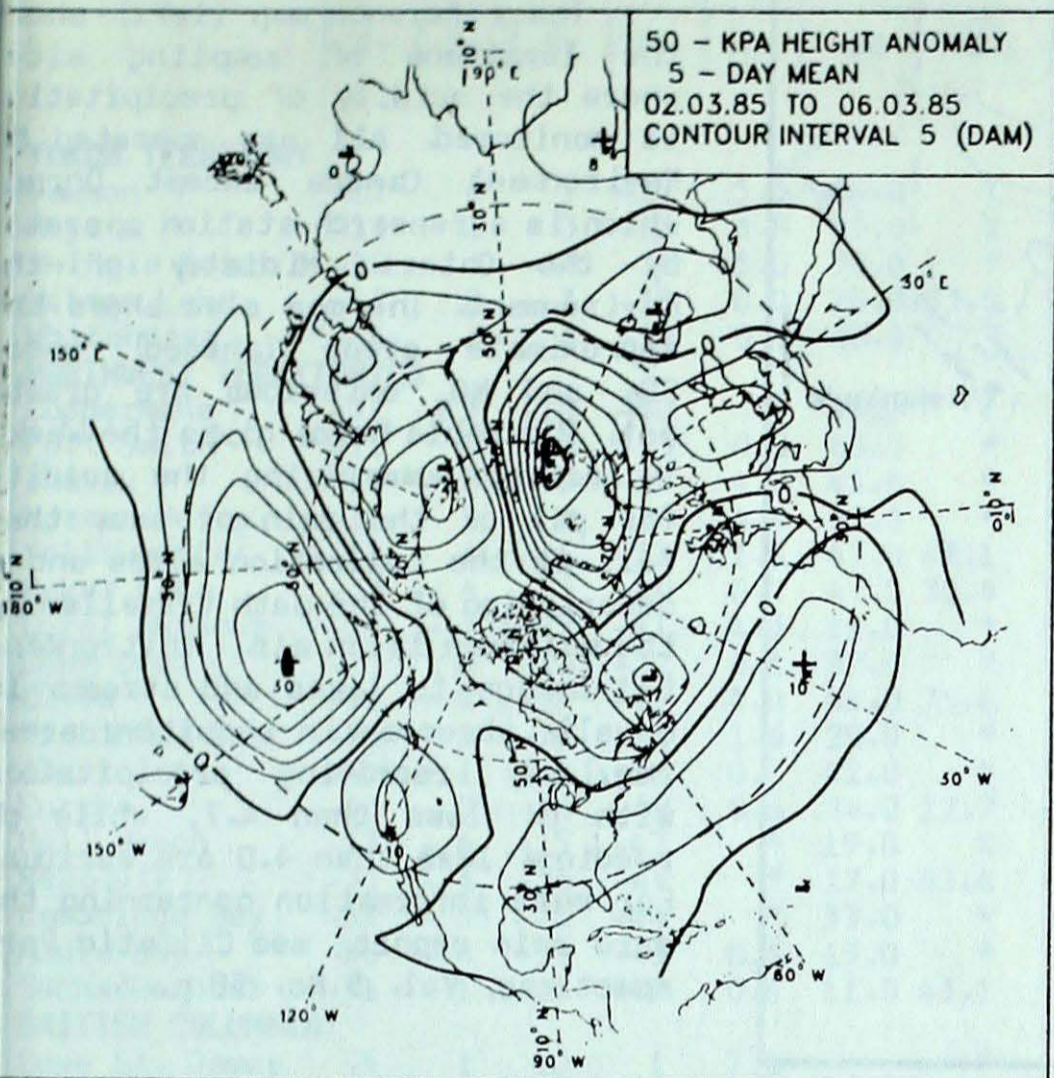
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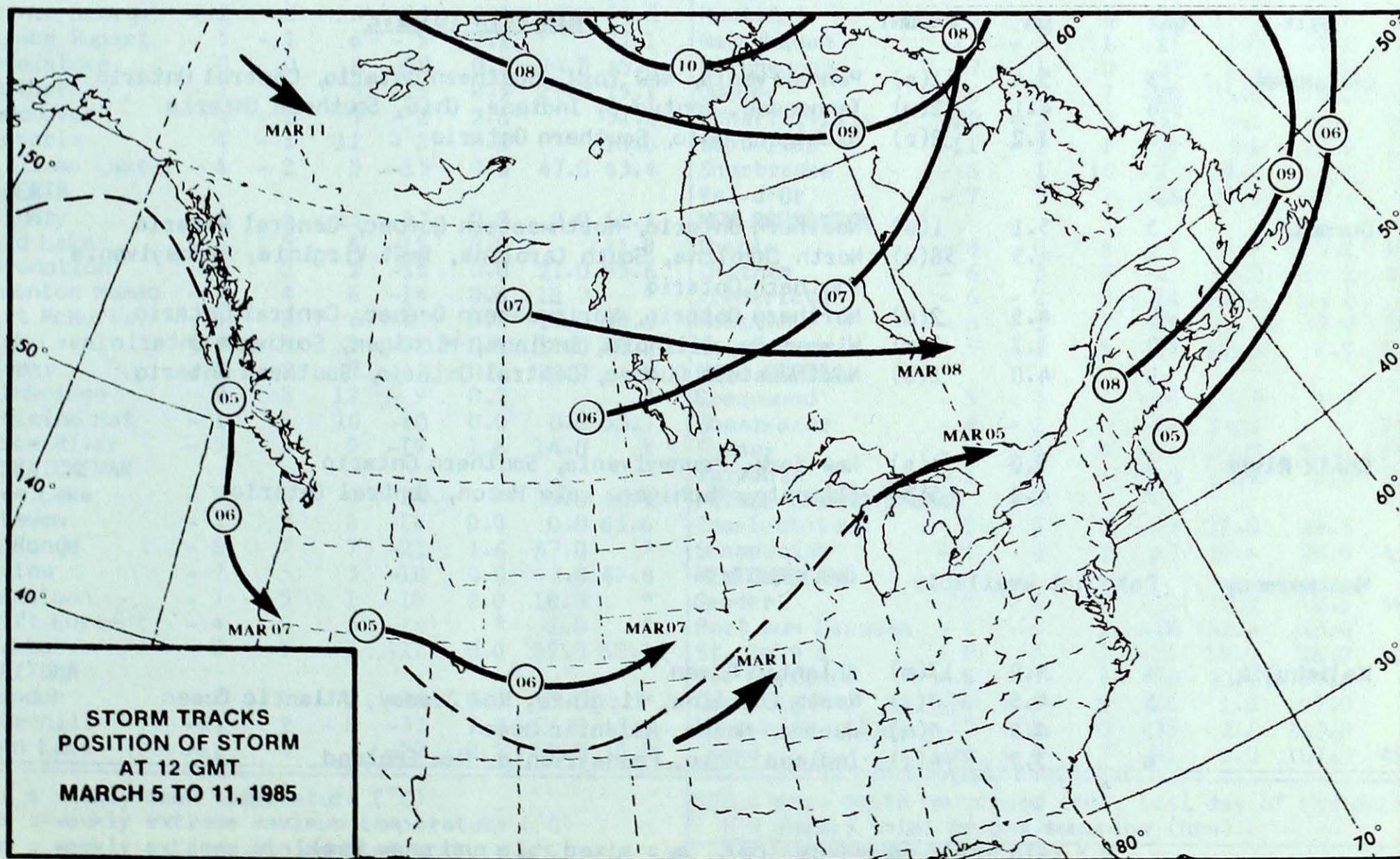


**50 KPa ATMOSPHERIC CIRCULATION**

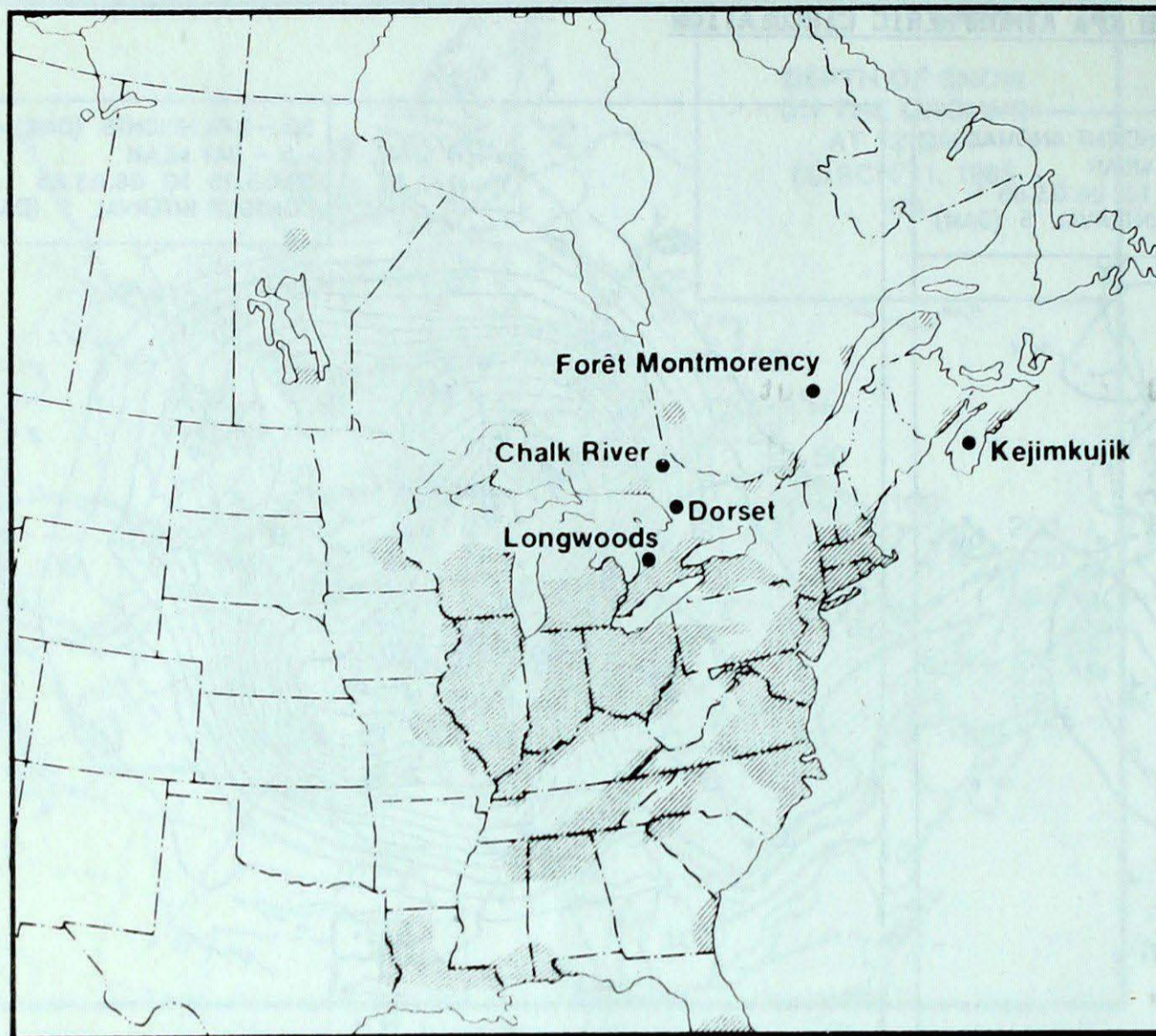


MEAN 50 KPa HEIGHT ANOMALY (dam)  
March 2 to March 6, 1985

MEAN 50 KPa HEIGHTS (dam)  
March 2 to March 6, 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<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 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.

#### MARCH 03 to MARCH 09, 1985

SITE	DAY	pH	AMOUNT	AIR PATH TO SITE
Longwoods	3	5.4	11(s)	Pennsylvania, New York, Southern Ontario, Central Ontario
	4	4.1	32(m)	Tennessee, Kentucky, Indiana, Ohio, Southern Ontario
	7	3.2	2(r)	Michigan, Ohio, Southern Ontario
Dorset	3	5.1	1(s)	Northern Ontario, Northwestern Québec, Central Ontario
	4	4.5	38(s)	North Carolina, South Carolina, West Virginia, Pennsylvania Southern Ontario
	5	4.5	2(s)	Northern Ontario, Northwestern Québec, Central Ontario
	7	3.7	3(m)	Wisconsin, Illinois, Indiana, Michigan, Southern Ontario
	8	4.0	1(s)	Northwestern Québec, Central Ontario, Southern Ontario
Chalk River	4	5.0	21(s)	New York, Pennsylvania, Southern Ontario
	7	4.2	5(s)	Illinois, Michigan, Lake Huron, Central Ontario
Montmorency	Data not available			
Kejimikujik	4	5.0	17(m)	Atlantic Ocean
	5	4.5	3(r)	North Carolina, Virginia, New Jersey, Atlantic Ocean
	7	4.5	4(m)	Quebec, Maine, Atlantic Ocean
	8	3.7	4(r)	Indiana, Ohio, Pennsylvania, New England

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



## TEMPERATURE, PRECIPITATION AND BRIGHT SUNSHINE DATA FOR THE WEEK ENDING 0600 GMT MARCH 12, 1985

STATION	TEMP				PRECIP		SUN	STATION	TEMP				PRECIP		SUN
	Av	Dp	Mx	Mn	Tp	SOG	H		Av	Dp	Mx	Mn	Tp	SOG	H
<b>YUKON TERRITORY</b>								The Pas	-7	7	6	-25	3.8	20.0	45.2
Dawson	-12	4	1	-22	5.3	66.0	X	Thompson	-11	4	3	-35	3.6	34.0	33.7
Mayo A	-13	1	3	-23	4.8	45.0	X	Winnipeg	-6	6	4	-21	2.2	18.0	*
Shingle Point	-20	6	-10	-30	5.0	30.0	*	<b>ONTARIO</b>							
Watson Lake	-12	0	3	-38	0.0	75.0	33.9	Atikokan	-5	5	9	-26	3.4	38.0	45.9
Whitehorse	-6	3	4	-27	0.0	40.0	*	Big Trout Lake	-10	8	3	-25	5.9	102.0	40.6
<b>NORTHWEST TERRITORIES</b>								Earlton	-5	7	7	-22	*	61.0	X
Coppermine	-31	-3	-18	-40	*	25.0	*	Kapuskasing	-5	8	8	-17	5.0	58.0	*
Fort Smith	-12	5	3	-33	0.0	64.0	*	Kenora	-4	6	6	-15	3.2	20.0	X
Inuvik	-18	8	-5	-34	4.0	43.0	*	Kingston	-2	2	6	-15	*	6.0	*
Norman Wells	-13	8	0	-30	4.4	29.0	*	London	0	4	10	-12	3.8	0.0	33.0
Yellowknife	-17	4	-6	-32	1.6	47.0	41.1	Mosonée	-8	8	8	-23	2.8	102.0	34.5
Baker Lake	-33	-4	-25	-40	0.2	47.0	38.4	Muskoka	-4	3	8	-25	*	51.0	X
Coral Harbour	-33	-7	-22	-41	4.3	21.0	*	North Bay	-5	4	6	-19	30.4	64.0	31.6
Cape Dyer	-25	0	-16	-32	4.1	82.0	X	Ottawa	-2	4	10	-16	12.4	24.0	33.6
Clyde	-32	-4	-19	-43	4.0	48.0	35.8	Pickle Lake	-6	8	4	-23	*	69.0	X
Frobisher Bay	-26	-3	-13	-38	1.6	20.0	*	Red Lake	-7	6	6	-25	7.2	55.0	55.9
Alert	-34	-1	-25	-38	0.6	42.0	*	Sudbury	-5	4	6	-17	17.7	61.0	36.7
Eureka	-43	-5	-34	-49	0.6	34.0	12.7	Thunder Bay	-3	7	10	-22	0.2	6.0	*
Hall Beach	-37	-6	-25	-47	*	19.0	X	Timmins	-6	6	7	-22	6.6	64.0	X
Resolute	-37	-4	-25	-44	*	17.0	43.4	Toronto	-1	2	9	-14	2.2	7.0	X
Cambridge Bay	-37	-5	-28	-44	*	33.0	*	Trenton	-2	2	10	-15	7.8	7.0	X
Mould Bay	-38	-4	-31	-45	0.4	19.0	*	Warton	-2	3	7	-18	11.7	15.0	32.0
Sachs Harbour	-31	-1	-24	-40	0.6	11.0	43.1	Windsor	5	6	15	-6	4.3		X
<b>BRITISH COLUMBIA</b>								<b>QUEBEC</b>							
Cape St. James	5	1	10	1	7.8		*	Bagotville	-7	3	11	-22	14.9	44.0	X
Cranbrook	-1	-1	9	-11	0.2	5.0	54.8	Blanc-Sablon	-14	-6	-4	-26	8.8	83.0	*
Fort Nelson	-6	5	7	-28	0.0	59.0	46.8	Inukjuak	-24	-2	-8	-37	6.0	61.0	43.1
Fort St. John	-3	6	5	-19	2.1		X	Kuujuuaq	-22	-3	-5	-38	0.6	92.0	51.1
Kamloops	1	0	10	-7	0.0		52.5	Kuujuarapik	-18	2	-2	-33	6.2	28.0	*
Penticton	1	-1	11	-7	0.0		45.6	Maniwaki	-5	3	7	-23	13.8	53.0	25.9
Port Hardy	4	0	9	-3	2.8		42.9	Mont-Joli	-6	1	7	-18	7.0	14.0	31.0
Prince George	-2	2	6	-11	2.4	7.0	31.6	Montréal	-3	2	8	-19	19.0	10.0	30.5
Prince Rupert	3	-1	6	-5	29.1		27.1	Natashquan	-12	-5	1	-27	3.0	28.0	*
Revelstoke	0	0	8	-10	0.2	74.0	35.6	Nitchequon	-17	1	0	-37	4.4	93.0	*
Smithers	-2	1	5	-13	0.3	21.0	25.1	Québec	-6	0	7	-20	24.4	77.0	30.3
Vancouver	4	-1	9	-2	2.6		51.8	Schefferville	-20	-3	0	-37	3.6	46.0	50.6
Victoria	4	-1	11	-3	0.0		58.0	Sept-Iles	-11	-2	1	-26	4.8	29.0	27.7
Williams Lake	-4	-2	5	-15	0.0	47.0	43.4	Sherbrooke	-6	1	10	-23	38.8	47.0	31.4
<b>ALBERTA</b>								Val-d'Or	-7	5	7	-24	21.2	75.0	30.9
Calgary	-2	5	11	-13	0.2	0.0	52.1	<b>NEW BRUNSWICK</b>							
Cold Lake	-5	5	6	-15	0.0		41.8	Charlo	-8	0	5	-22	9.7	32.0	38.7
Coronation	-8	2	2	-18	0.0	21.0	55.6	Chatham	-6	0	9	-21	10.2	19.0	41.7
Edmonton Nameo	-4	4	6	-14	0.6	10.0	*	Fredericton	-6	-2	8	-24	21.2	12.0	*
Fort McMurray	-5	8	6	-21	0.8	13.0	38.0	Moncton	-6	-1	7	-20	26.3	19.0	39.4
High Level	-8	1	5	-31	0.8	34.0	40.2	Saint John	-5	-1	6	-19	21.0	8.0	42.8
Jasper	-2	2	7	-12	0.0	20.0	*	<b>NOVA SCOTIA</b>							
Lethbridge	0	5	12	-9	0.2		*	Greenwood	-5	-3	7	-20	19.3	8.0	X
Medicine Hat	-1	6	10	-10	0.0	0.0	55.7	Shearwater	-4	-2	5	-18	24.6		42.9
Peace River	-5	5	5	-19	1.8	14.0	X	Sydney	-8	-4	4	-21	26.0	20.0	35.7
<b>SASKATCHEWAN</b>								Yarmouth	-1	0	6	-10	15.4	0.0	37.3
Cree Lake	-9	X	4	-24	*	35.0	40.7	<b>PRINCE EDWARD ISLAND</b>							
Estevan	-2	7	8	-14	0.0	0.0	63.6	Charlottetown	-8	-3	4	-19	27.0	28.0	*
La Ronge	-6	7	7	-21	1.6	47.0	*	Summerside	-6	-2	5	-17	14.6	28.0	41.9
Regina	-7	5	3	-18	0.0	2.0	47.8	<b>NEWFOUNDLAND</b>							
Saskatoon	-7	5	1	-18	2.0	18.0	*	Gander	-10	-5	3	-19	9.0	28.0	38.9
Swift Current	-4	5	5	-14	*	1.0	*	Port aux Basques	-8	-6	-1	-18	12.4	63.0	*
Yorkton	-8	5	3	-27	0.0	32.0	60.2	St. John's	-5	-3	3	-22	18.0	26.0	43.9
<b>MANITOBA</b>								St. Lawrence	-8	-5	2	-20	20.0	52.0	X
Brandon	-7	4	2	-26	0.0	13.0	*	Cartwright	-14	-4	1	-26	1.0	202.0	X
Churchill	-21	2	-8	-32	3.8	26.0	37.3	Churchill Falls	-17	-2	0	-35	2.6	113.0	X
Lynn Lake	-12	4	1	-27	2.2	52.0	35.9	Goose	-14	-4	3	-31	0.0	107.0	49.6

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