

# Climatic Perspectives

MONTHLY SUPPLEMENT

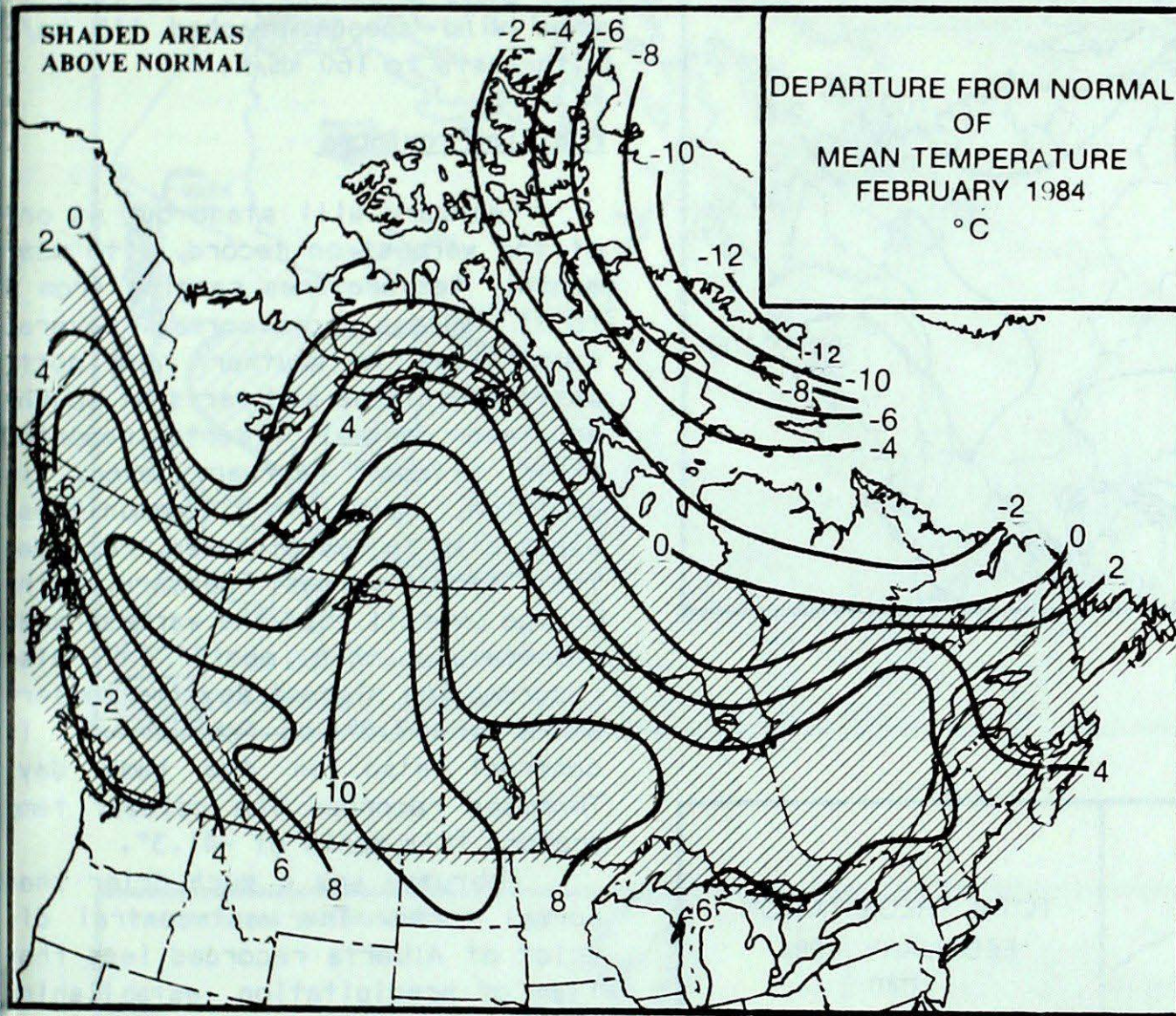
an Climate Centre

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VOL. 6

FEBRUARY, 1984



### ACROSS THE COUNTRY

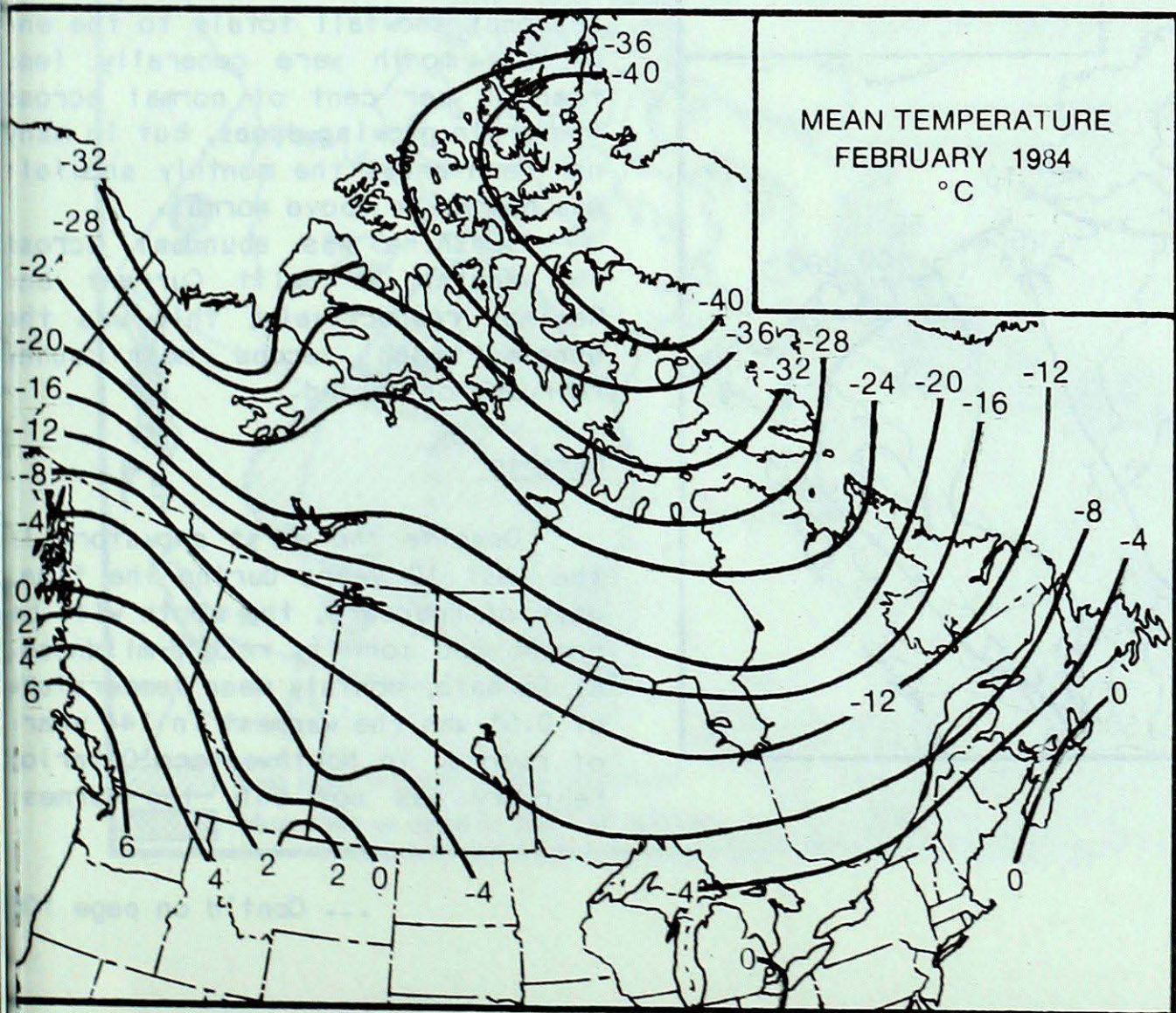
#### Yukon and Northwest Territories

The southern Yukon and the Mackenzie District enjoyed near record-mild temperatures. On several occasions, daytime readings climbed to near 10° in the southwestern Yukon, resulting in rapid snow melt and avalanches in the mountainous areas. During mid-month, the mercury climbed above freezing in the Mackenzie District. In contrast, Baffin Island and the High Arctic experienced 8 to 12 degrees below normal temperatures. In early February, strong winds and low temperatures created extreme wind chill values in the northern Yukon, hampering transportation on the Dempster Highway. Owing to poor visibilities in blowing snow, the Alaska Highway was closed for nearly 2 days. Precipitation was typically variable across the North ranging from 2 per cent of normal at Cape Dyer to 408 per cent of normal at Baker Lake. Most locations received less than 25 cm of snow; however, Fort Simpson and Fort Reliance had more than 40 cm.

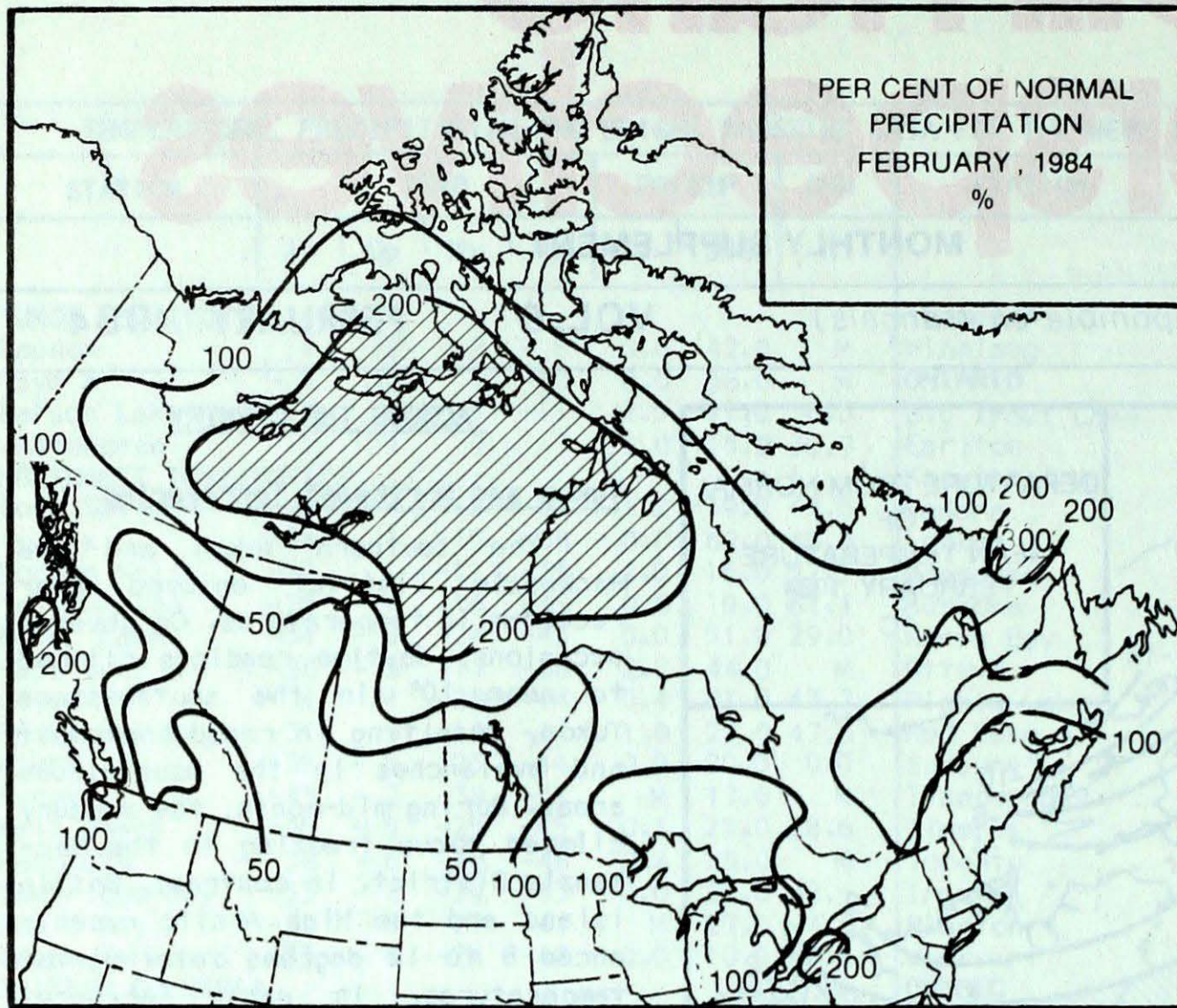
#### British Columbia

It was a cloudy but mild month as the storm track once again moved weather system onshore in rapid succession. Mean temperatures were generally 1 or 2 degrees above normal, with the exception of the Peace River District where they were as high as 9° above normal. No less than six interior communities recorded their warmest February since records began.

Precipitation amounts varied widely with coastal regions tending to be wetter than normal and interior sites drier than usual for this time of the year. Sandspit, on the Queen Charlotte Islands, set a record for the wettest February, with a total of 264.8 mm of rain. In contrast, Princeton in the southern







interior recorded 6.4 mm of precipitation their driest February ever. Cloud cover was extensive, with all but three localities indicating below normal sunshine. Terrace had 32.3 hours of sun, the lowest for any February.

Gales occurred frequently this month; Cape St. James reported gale force winds on 12 days. The strongest winds occurred on February 11 when wind speeds reached 115 km/h with gusts to 160 km/h.

**Prairie Provinces**

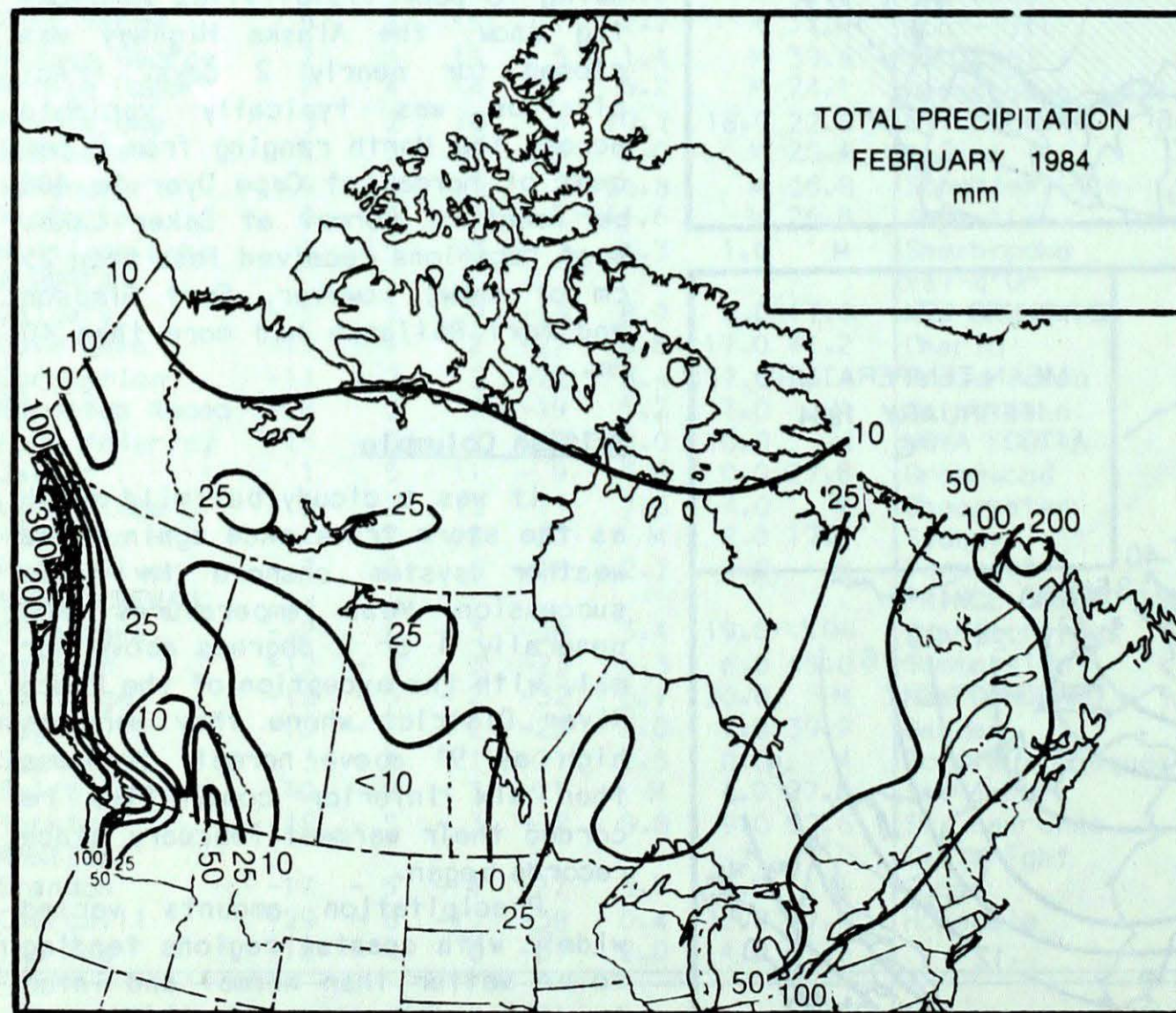
February will stand out as one of the warmest on record, with mean monthly temperatures ranging from 6 to 11 degrees above normal. Several communities in southern and north eastern Manitoba and parts of southern and central Alberta reported their mildest February ever. In addition, many other communities, especially in Saskatchewan, recorded their second warmest February. Lethbridge overall, had the warmest mean temperature this month and also recorded the highest daytime temperature of 17.8° on February 5, in contrast also on the same day, Thompson recorded the coldest temperature this month of -41.3°.

February was a much drier than normal month. The west-central district of Alberta recorded less than 1 mm of precipitation, establishing this as the driest February ever. Seasonal snowfall totals to the end of the month were generally less than 60 per cent of normal across the grain growing areas, but in many northern areas the monthly snowfall was nearer or above normal.

Sunshine was abundant across the south. At Swift Current and Regina, respectively, this was the sunniest and second most sunny February on record.

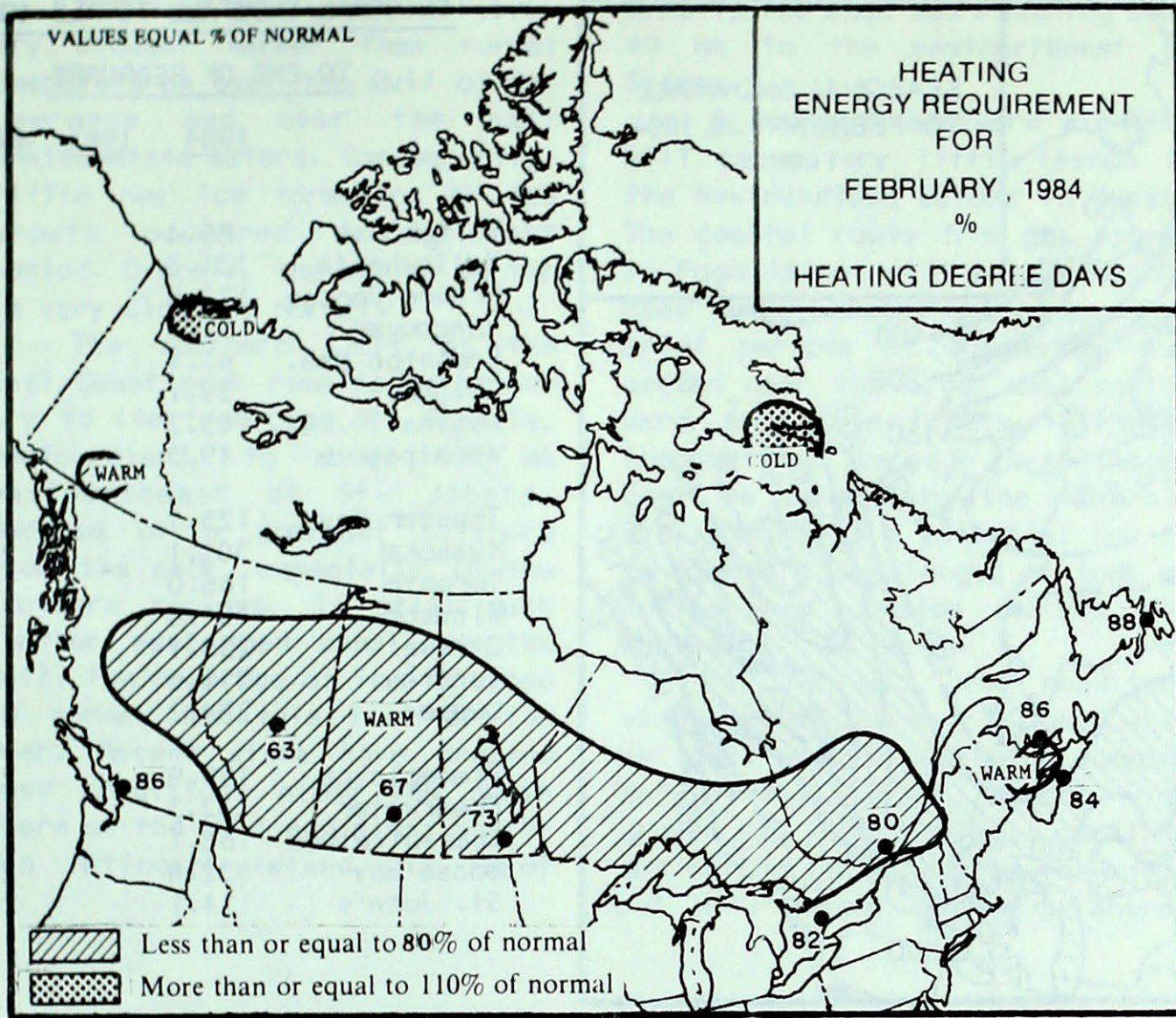
**Ontario**

Despite the worst snowstorm in the last 10 years during the final days of February, the month will be remembered for its record-mildness. At Toronto, monthly mean temperature of 0.5° was the warmest in 144 years of record. In Northwestern Ontario, February was not only the warmest



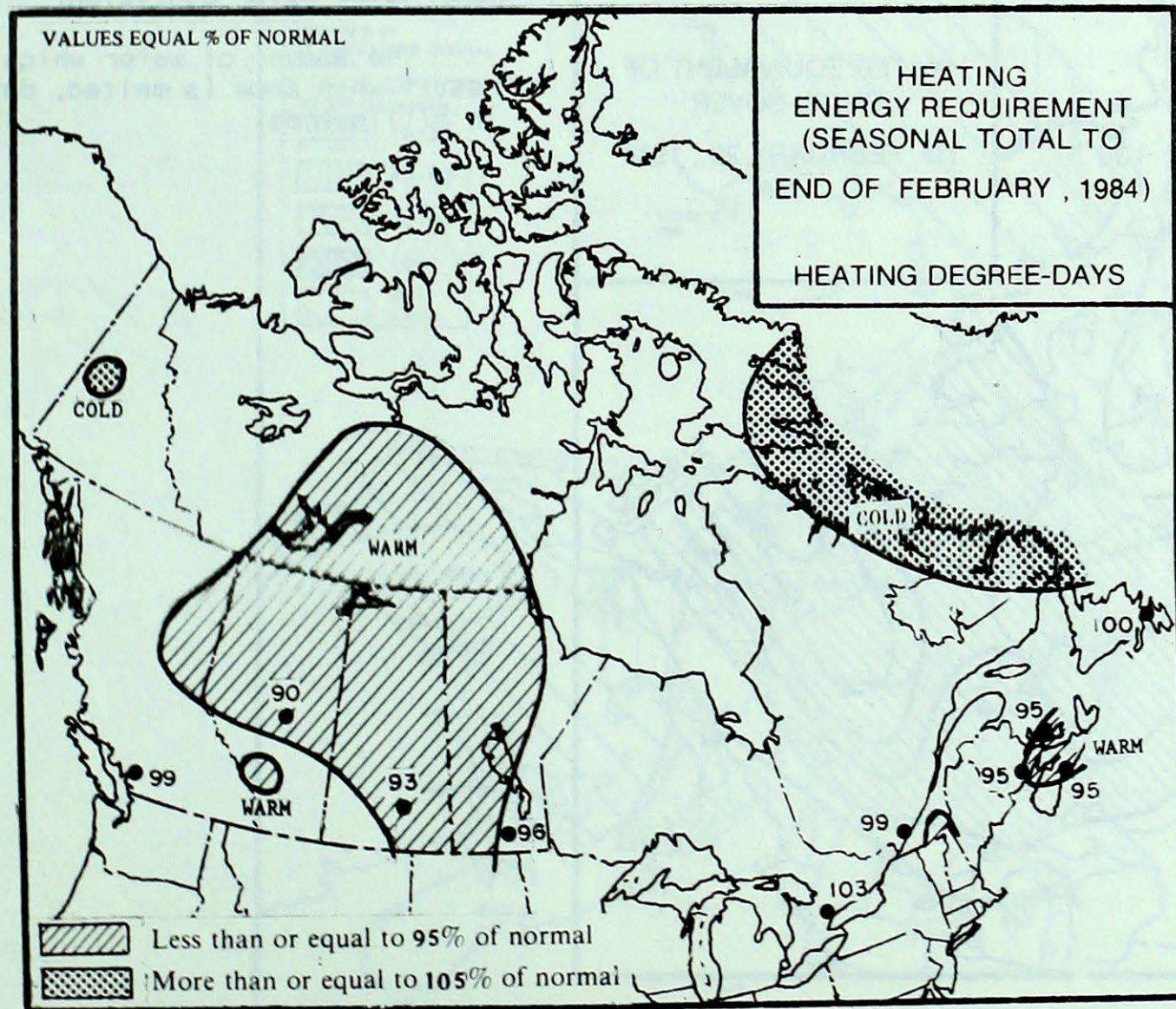


ENERGY REQUIREMENT



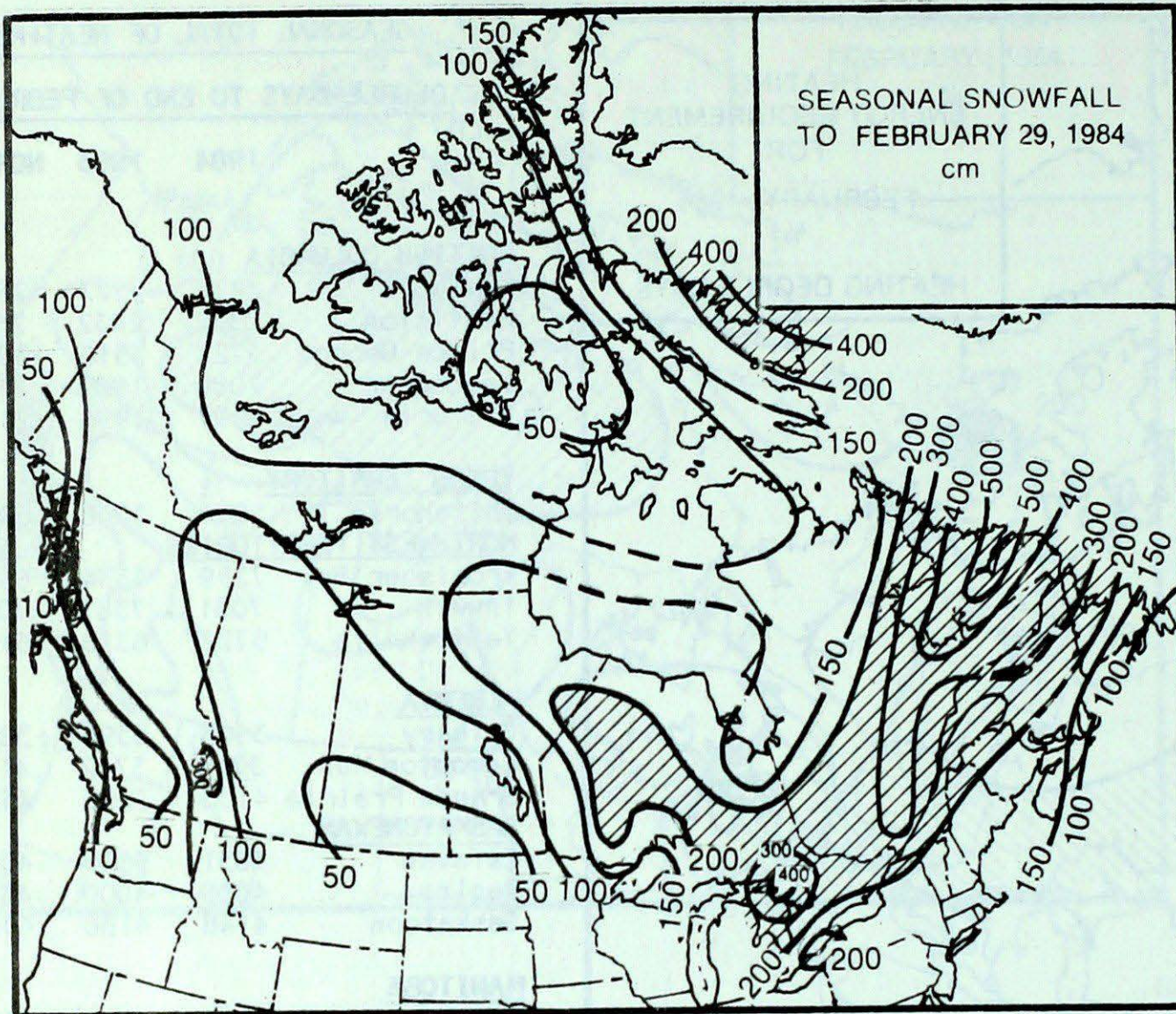
SEASONAL TOTAL OF HEATING DEGREE-DAYS TO END OF FEBRUARY

	1984	1983	NORMAL
<b>BRITISH COLUMBIA</b>			
Kamloops	2828	2522	2871
Penticton	2592	2432	2608
Prince George	3722	3510	3933
Vancouver	2080	1969	2103
Victoria	2097	1996	2116
<b>YUKON TERRITORY</b>			
Whitehorse	5056	5008	5038
<b>NORTHWEST TERRITORIES</b>			
Frobisher Bay	7259	7334	6512
Inuvik	7081	7381	7080
Yellowknife	5722	6318	6100
<b>ALBERTA</b>			
Calgary	3608	3398	3804
Edmonton Mun.	3718	3742	4131
Grande Prairie	4136	3293	4521
<b>SASKATCHEWAN</b>			
Estevan	3831	3695	4090
Regina	4059	4000	4369
Saskatoon	4148	4186	4507
<b>MANITOBA</b>			
Brandon	4111	4057	4452
Churchill	5841	6352	6163
The Pas	4479	4759	4963
Winnipeg	4167	3953	4363
<b>ONTARIO</b>			
Kapuskasing	4498	4476	4574
London	2955	2587	2936
Ottawa	3327	3113	3450
Sudbury	3852	3596	3925
Thunder Bay	3974	3815	4121
Toronto	3008	2650	2933
Windsor	3056	2804	3055
<b>QUÉBEC</b>			
Baie Comeau	4130	4068	4152
Montréal	3253	3025	3289
Quebec	3564	3425	3665
Sept-Îles	4351	4358	4267
Sherbrooke	3546	3414	3796
Val-d'Or	4304	4183	4412
<b>NEW BRUNSWICK</b>			
Charlo	3733	3708	3653
Fredericton	3207	3159	3360
Moncton	3139	3155	3271
<b>NOVA SCOTIA</b>			
Halifax	2595	2601	2726
Sydney	2824	2827	2890
Yarmouth	2540	2754	2672
<b>PRINCE EDWARD ISLAND</b>			
Charlottetown	2951	2978	3098
<b>NEWFOUNDLAND</b>			
Gander	3380	3420	3293
St. John's	3034	2685	3037





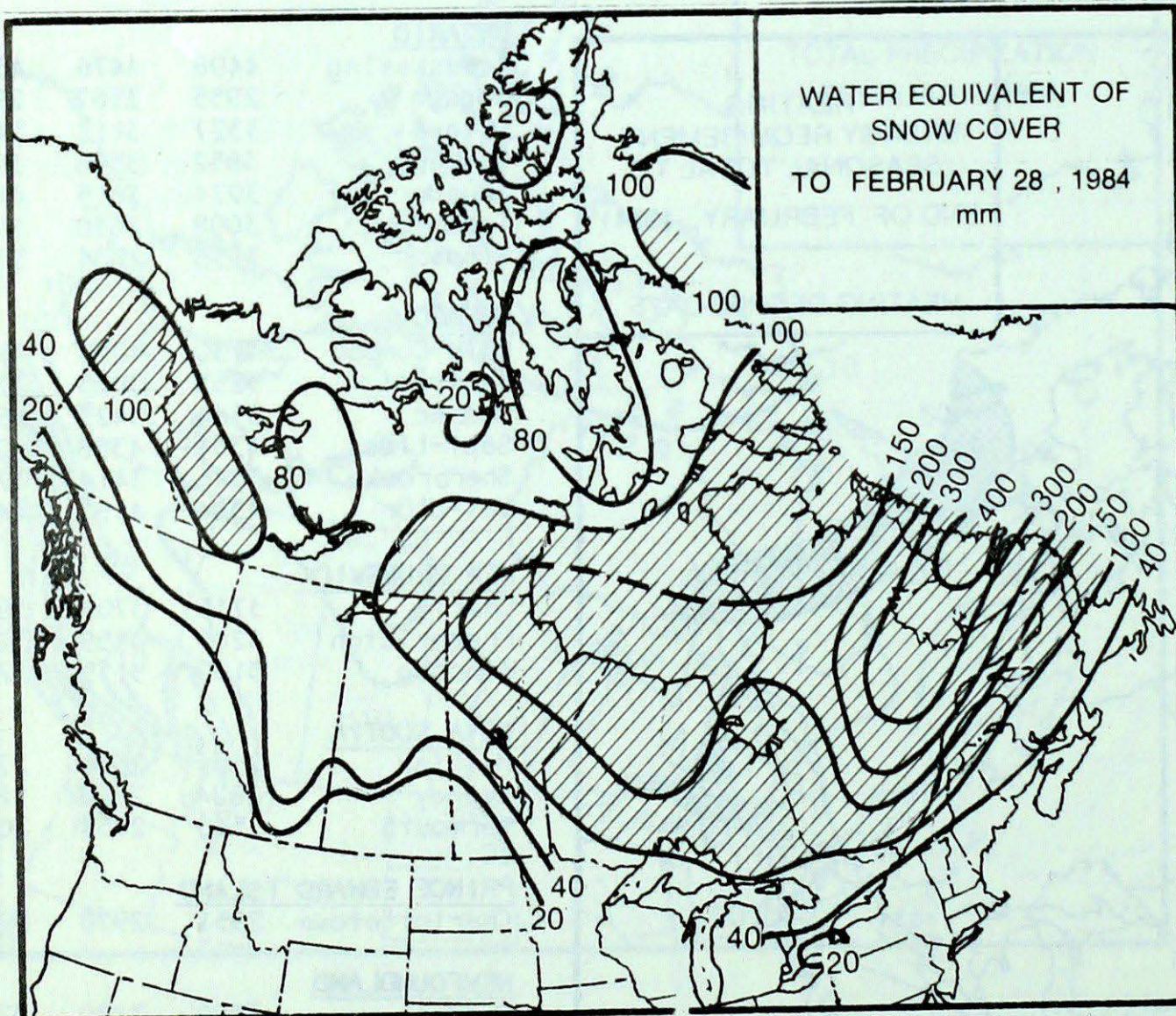
SNOWFALL



SEASONAL SNOWFALL TOTALS (CM)

TO END OF FEBRUARY

	<u>1984</u>	<u>1983</u>	<u>NORMAL</u>
Whitehorse	86.4		105.9
Yellowknife	131.3		107.3
Prince George	122.8		199.7
Vancouver	11.7		53.5
Edmonton Nam.	61.4		99.6
Calgary	59.1		96.4
Regina	45.2		83.3
Winnipeg	49.5		90.6
Thunder Bay	125.7		158.4
Muskoka	301.1		248.7
Toronto	106.0		101.4
Windsor	101.6		93.4
Ottawa	238.7		182.2
Montréal	218.6		188.0
Québec	284.2		272.1
Fredericton	195.9		219.1
Shearwater	132.3		144.9
Charlottetown	168.1		239.6
Goose Bay	532.0		299.9
St. John's	114.1		246.7



Snow Cover Water Equivalent

The amount of water which would result when snow is melted, measured in millimetres.



### ICE FORECAST OFF THE EAST COAST FOR MARCH

The last two weeks of February brought warmer than normal temperatures over the Gulf of St. Lawrence and over the east Newfoundland waters. Consequently, little new ice formation or ice growth occurred during that period. Overall, the winter so far is very close to normal.

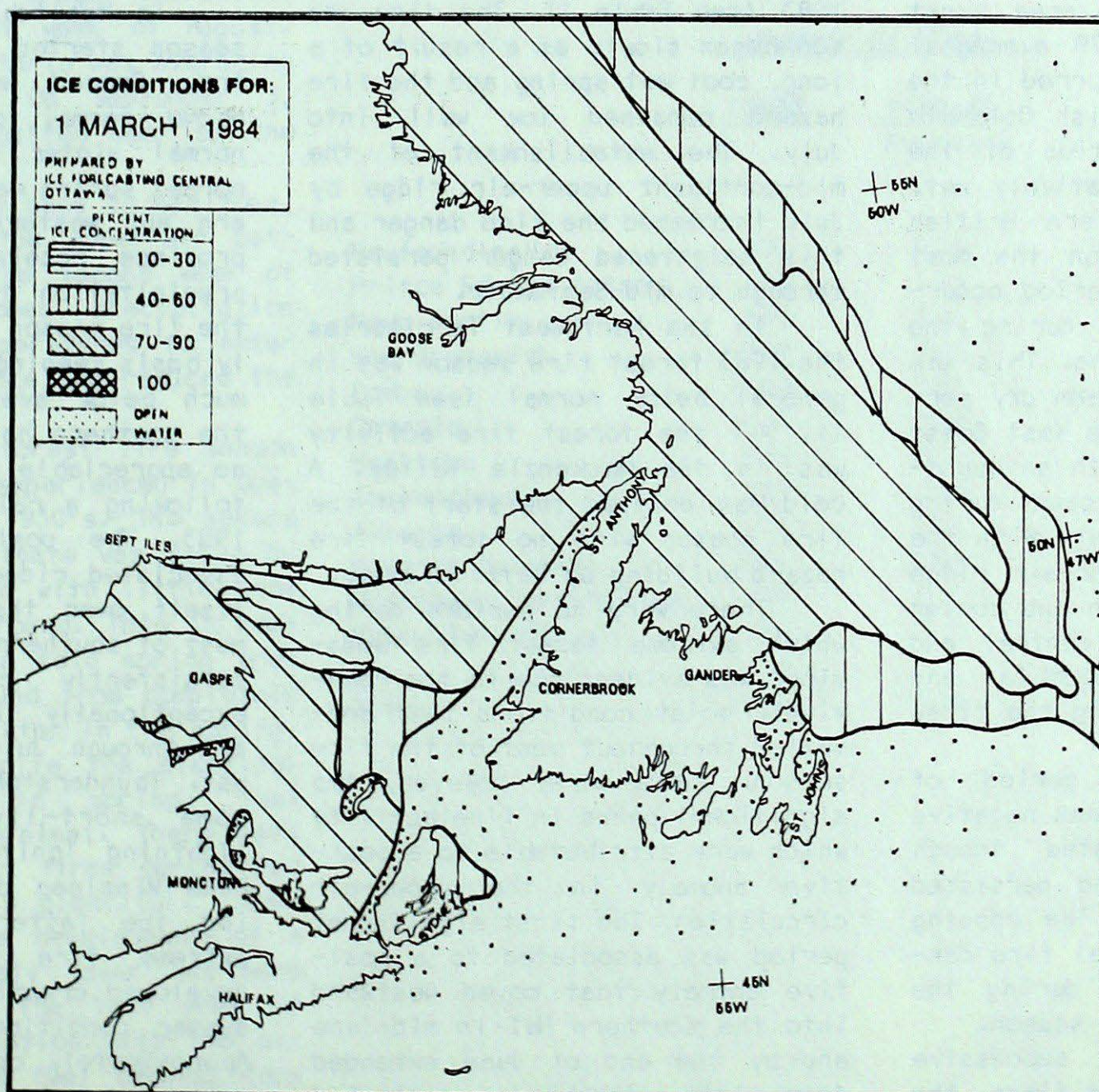
The southern limit of the East Coast pack remained stationary to lie from Cape St. Francis, Newfoundland, to about 430 km eastnortheast of St. John's. Because of a dominant offshore flow the pack, especially in the southern regions, is still much further east than usual. In the Gulf, the coverage of ice is close to normal for this time of the year. Recent winds have created easy conditions along the north shore of the Gulf and along southern Anticosti Island. In Cabot

Strait, the edge was reaching some 40 km to the eastnortheast of Sydney.

A dominant eastward windflow will cause very little change in the Newfoundland waters in March. The coastal route from St. John's to Fogo Island will remain mainly open water except for some very brief periods of congestion expected near the outer cape southward from Cape Freels. Although the southern ice edge is not forecast to move into the Hibernia area, there is a potential for it to happen if prolonged periods of northerlies develop during the second half of March.

In the Gulf, the resultant windflow for the next 30 days will be light with a southward component through Cabot Strait. Ice growth and formation will continue during the first half of the month but will become very slow there-

after. The area of mainly open water in the St. Lawrence River Estuary will gradually expand downstream during March to cover most of the Gaspé Passage by the month's end. It is expected that the west Newfoundland coast north of Cape Anguille will see frequent periods of congestion and that a continuous outflow of heavy Gulf ice through Cabot Strait will allow numerous patches of ice to be steered southwest of Scataria Island during periods of easterly winds. Those temporarily easterlies will also cause congestion to develop very rapidly in Sydney Bight but, as a general feature, the predominant drift will keep easy conditions in the approaches to Sydney in March. By the end of March, southeastward extension of the Gulf ice will have reached its maximum limit.





THE 1983 FOREST SEASON  
A METEOROLOGICAL VIEW

by  
R. Street  
Canadian Climate Centre

The 1983 forest fire season in Canada like the coincident weather was one of extremes. In general the most serious and protracted forest fire conditions occurred in central Canada. The national totals for 1983 (as of October 31, 1983) show 8732 fires burned over 1,233,000 hectares which can be compared to the 1970-79 averages of 9096 fires burning 1,284,160 hectares. In terms of timing the extreme forest fire periods occurred from mid-May to mid-July west of Manitoba, from late June to mid-July in eastern Canada, and from mid-July until mid-September in Manitoba and Ontario. This general synopsis can be directly linked to the changes in the upper-air circulation pattern during the spring, summer and early fall.

Along the West Coast the number of fires and area burnt were below the 1970-79 averages. Most of the fires occurred in the northern half of British Columbia as the southern portion of the province remained relatively wet. In central and northern British Columbia and the Yukon the most serious fire danger period occurred in late May and during the first few days of June. This was the only protracted warm dry period during 1983 on the West Coast and was associated with an upper-air ridge that developed during May over the West Coast. With the breakdown of the upper-air ridge during early June rain and cooler temperatures entered central and northern British Columbia and helped fire crews bring the fires under control.

Following this period of severe fire hazard a weak negative anomaly and associated trough established itself and persisted over the West Coast. The ensuing rain kept the potential fire danger at a low level during the remainder of the fire season.

Following three successive years of extreme forest fires, the 1983 forest fire season in Alberta

well as below normal (see table 1). The potential for a serious forest fire season existed in May following a protracted dry period that began in the fall of 1982. However, May was rather cool. As in British Columbia the latter part of May was critical. The fire danger passed during the first days of June with the establishment of the West Coast trough. Despite below normal precipitation, during the summer, the forest fire danger remained low since there were many rainy days during which some precipitation fell. The fire weather was similar to previous bad years in Alberta except that in August 1983 the upper-air ridge did not build over Alberta and as a consequence the weather was relatively wet.

Saskatchewan experienced a below normal forest fire season in 1983 (see Table 1). The fire season began slowly as a result of a long, cool wet spring and the fire hazard remained low well into July. The establishment of the mid-continent upper-air ridge by July increased the fire danger and this heightened danger persisted through to mid-September.

In the Northwest Territories the 1983 forest fire season was in general below normal (see Table 1). All the forest fire activity was in the Mackenzie Valley. A cold May delayed the start of the fire season with no forest fire hazard building up until mid-May.

There were no periods during which extreme forest fire behaviour was evident due to the relatively moist conditions that prevailed throughout most of the fire season. There were, however, two significant peaks in fire activity which were attributable to a positive anomaly in the upper-air circulation. The first significant period was associated to a positive anomaly that moved westward into the southern NWT in mid-June and by the end of June extended from Lake Athabasca northward along the Mackenzie Valley. As a

result of this weather system fire hazard increased particularly in Fort Simpson area where forty fires were ignited during the three-day period from June 28-July 1, 1983.

Of particular note, the 1983 forest fire season in the Northwest Territories saw increase in the number of fires ignited by lightning associated with frontal thunderstorms whereas normally most of the lightning ignitions are associated with air-mass thunderstorms. This situation can be attributed to the West Coast trough and a positive anomaly over the Aleutians that pushed the westerlies further into high latitudes. The storm track was therefore much further north than usual and more frontal activity and therefore frontal thunderstorms could be expected over the NWT.

In Manitoba the forest fire season started with low fire hazard. Ground water tables were above normal despite the below normal winter snowfall and near normal spring rainfall. The northern and western portions of the province received above average precipitation throughout most of the fire season on a regular weekly basis keeping their fire starts much below average. However, in the southern half of the province no appreciable precipitation fell following a rainfall on June 22, 1983. The positive anomaly and associated ridge that established itself over the Great Lakes and most of southern Manitoba produced persistently clear skies with exceptionally high temperatures all through July and most of August. Thunderstorms contributed to some short-lived but violent lightning ignited fires east of Lake Winnipeg during August. During the latter half of August extreme fire weather condition developed creating the worst late summer conditions in many years. Approximately one thousand people were evacuated from the area around Nopiming Provincial Park



during the Labor Day long weekend. However, with the breakdown of the Great Lakes upper-air ridge and the subsequent replacement with a negative anomaly cooler temperatures and rain moved into the province during the second week of September and reduced the fire hazard.

In Ontario the 1983 forest fire season was very active. Until mid-July, burning conditions were not critical in most of Ontario. However, with the establishment of the upper-air positive anomaly over the Great Lakes in July forest fire danger began to increase. The driest summer in 143 years in the Toronto-Kingston area prompted officials to issue an extreme forest fire warning during the 1st week of July. During the last portion of July, 200 fires occurred across northern Ontario, however, burning conditions were not severe enough to cause major control problems. As August progressed and the upper-air ridge persisted the fire danger increased. During the last week of August, Northwestern Ontario was averaging 10 starts/day. On September 3, major fires engulfed most of the area.

As was the case in Manitoba, the shift in the upper-air pattern, during the second week of September allowed precipitation and cooler temperatures to enter into the province and reduced the fire hazard.

The 1983 forest fire season was the worst experienced in Québec since the 1930's. The severe forest fire climate was setup by the mild winter with little snow covering the ground. This in combination with a cold spring prevented the ground from completely thawing until later in the spring. Therefore, despite the plentiful precipitation in spring, fuel recharge was minimal. There were no major forest fires during May as rainfall was plentiful. However, with the development of a positive anomaly over northern Québec during the last week of May, in combination with the already depressed fuel levels, forest fire severity began to increase. This positive anomaly persisted throughout June and by

mid June, high and extreme forest fire severity conditions were prevalent. Between June 15-18 and on June 23 heavy thunderstorm activity ignited several fires mainly in the Québec City-Mauricie and Saguenay-Lac St Jean regions. A major fire in James Bay Region of northern Québec resulted in the evacuation of four hundred residents and workers from Nemiscau, Québec on June 22, 1983. This fire, estimated at one point to be in excess of 120 square km in size was so large that only a limited effort to control it was made. In addition smoke from this fire was spotted across the province and into some northeastern states.

In the Maritime Provinces, the 1983 forest fire season was one in which fire statistics were generally below to near normal. (see Table 1). There were very few protracted dry periods. In Newfoundland the largest fire occurred during one such dry period in mid-June which was associated with a positive anomaly from Greenland in across northern Québec. The breakdown of this positive anomaly at the end of June and ensuing persistent negative anomaly that developed over the East Coast kept the forest fire danger low throughout July-August and the first half of September.

TABLE 1

	Number of Fires		Area Burned (ha)	
	1983*	1970-79 Averages	1983*	1970-79 Averages
Newfoundland	130	213	398	52610
Prince Edward Island	53	46	304	190
Nova Scotia	328	594	440	3096
New Brunswick	438	466	1721	2112
Québec	1649	1103	217392	52035
Ontario	2243	1905	444296	167238
Manitoba	535	582	101958	73886
Saskatchewan	437	383	48781	172759
Alberta	737	716	2697	44026
British Columbia	1646	2584	66459	70194
Northwest Territories	338	271	290489	557148
Yukon Territories	198	113	58113	55553
Total	8572	9096	1,233,048	1284160



## WINTER OF '83-84 - A REVIEW

by  
A. Shabbar  
Canadian Climate Centre

Although Ontario and Québec experienced one of their worst winter storms in many years in the last 2 days of February, Canadians overall enjoyed a prolonged balmy spell in February. Generally, the winter across Canada has been pleasant with average snowfalls and comfortable temperatures.

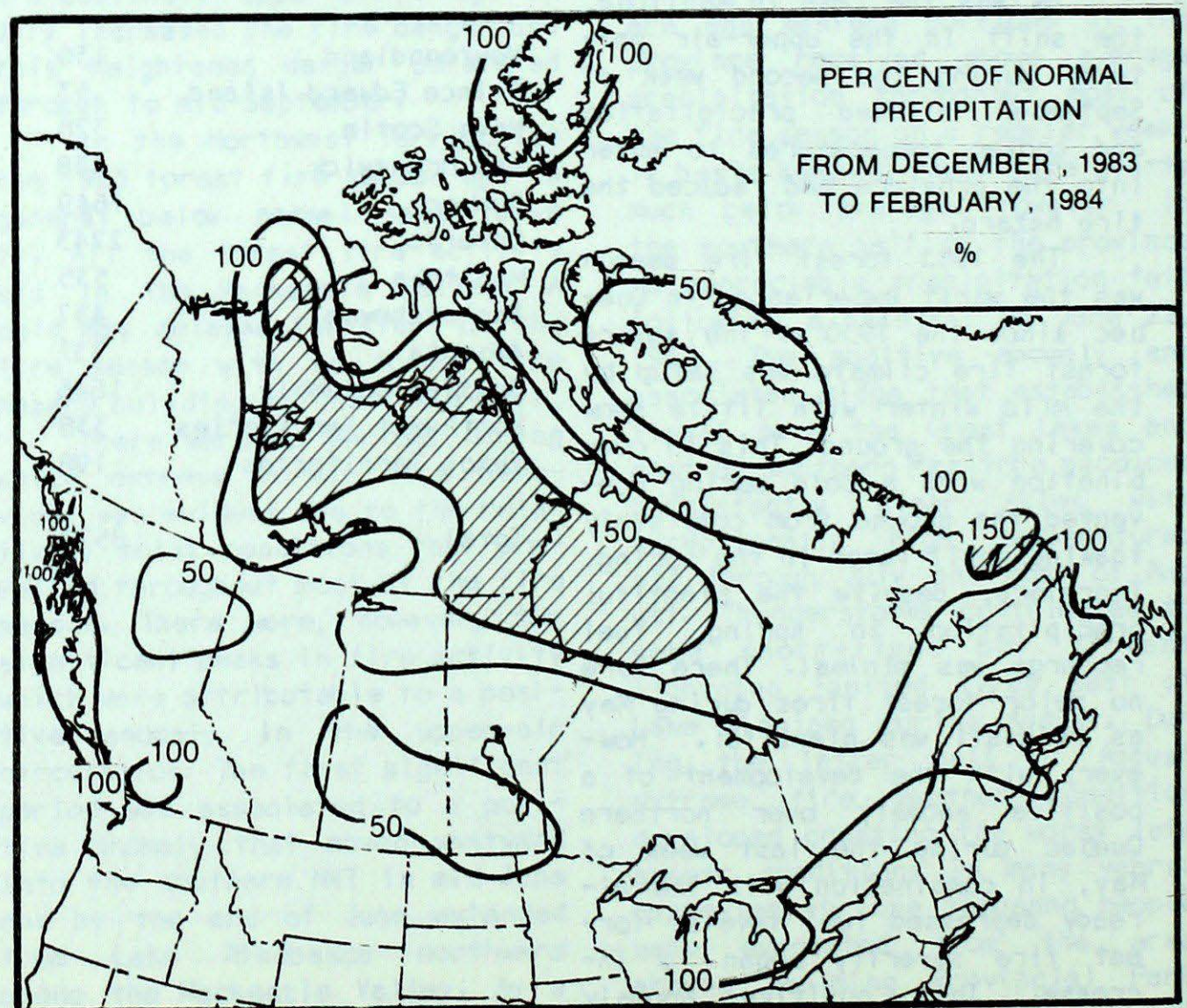
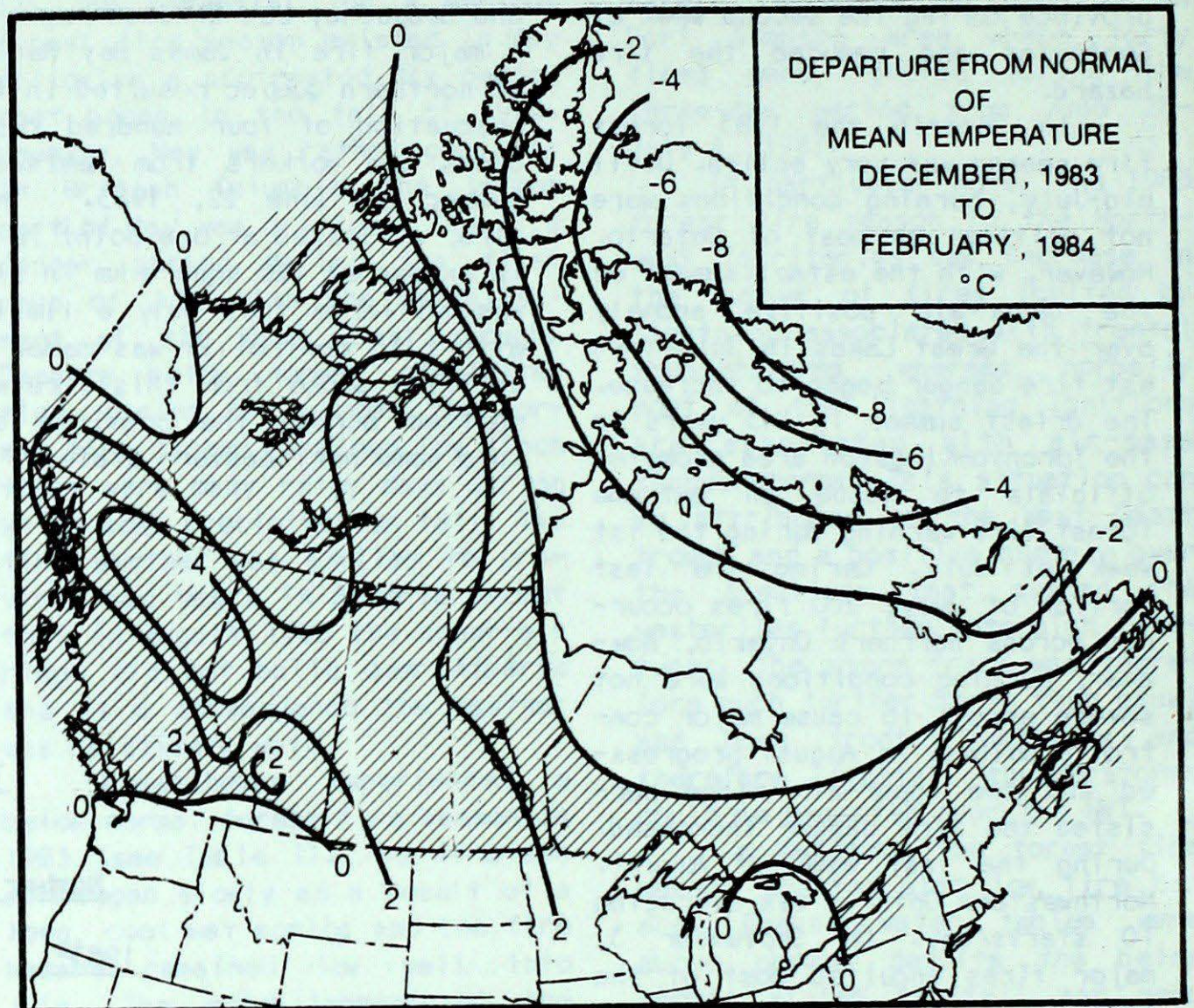
Mean, December through February, temperatures were more than 2° above normal from the southern Yukon to southern Manitoba, and averaged about normal from the Great Lakes Basin to the East Coast. Northeastern Arctic was very cold. Precipitation was about one-half the normal in western Canada, but ranged from 100 to 130 per cent of normal from the Lower Great Lakes to the Maritimes.

Eastern Canada first experienced heavy snow and severe cold spells in December and the first part of January, but February was so mild that maple sap started to flow prematurely in Ontario and Québec. The periods of heavy snow directly benefitted many ski resort operators enjoying their first good season since 1981. Ample snow was also available for the Québec winter carnival which was a booming success. Main sufferers from the early winter cold were deer and other wildlife.

Western Canada had one of the mildest winters in years with above average temperatures all the way from British Columbia to the Ontario border. Snow amounts were only between 50 to 75 per cent of normal. The long, mild winter was interrupted, however, by one bitter, cold spell lasting around nine days at the end of the year.

Far more typical of western Canada's winter was the 18° recorded at Lethbridge, Alta., after a warm January Chinook wind bathed the Alberta foothills; or the fact that tulips started to bloom in Vancouver on Valentine's Day.

Another source of satisfaction for most Canadians living in the southern part of the country





was the realization that their home fuel bills, despite being up in December would be down for the entire winter period due to February's mild weather.

Mean temperature readings for some of Canada's cities indicate that it has generally been a satisfactory winter. Edmonton's mean winter temperature was nearly 4° above average, almost as high as last year's. Winnipeg's mean temperature was about 2° above and Vancouver, though it did not break any mild temperature records, experienced another kind of blessing -- a record number of sunshine hours in December.

Despite a very cold December and early part of January Toronto's mean temperature in February was nearly 5° above normal, the warmest on record. Montréal had many late January and February days when the daytime temperature rose above the 0° level and snow amounts in the city were below normal during this period. Halifax

experienced only slightly below normal temperatures this winter and the principal discomforts were caused by several severe winter storms.

February was particularly mild on the Prairies. Many Saskatchewan and Manitoba locations had one of their mildest February on record, and with a mean temperature of -2.8°, Estevan enjoyed the mildest February since record began in 1900.

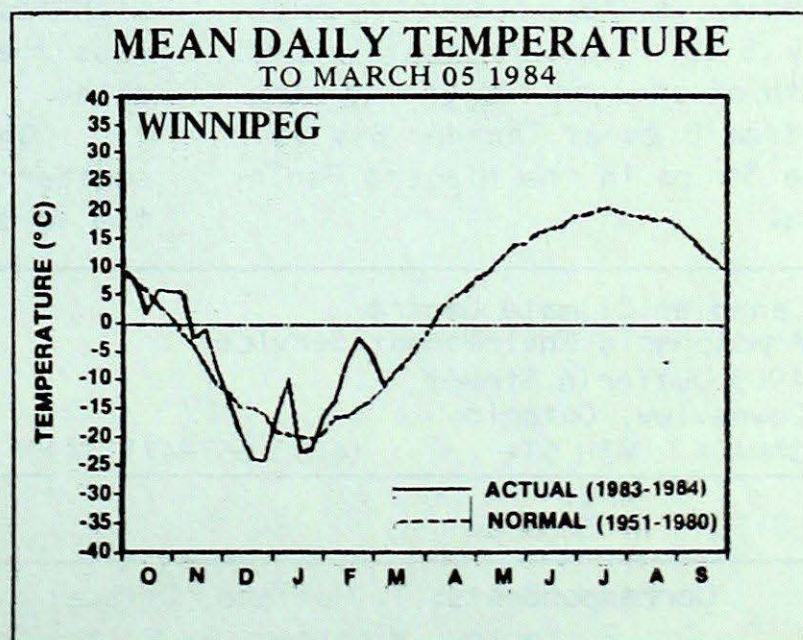
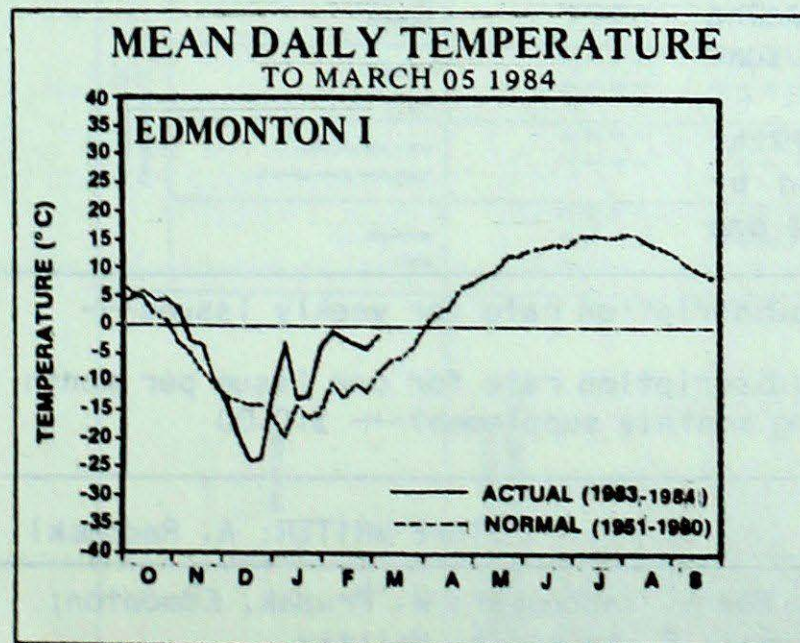
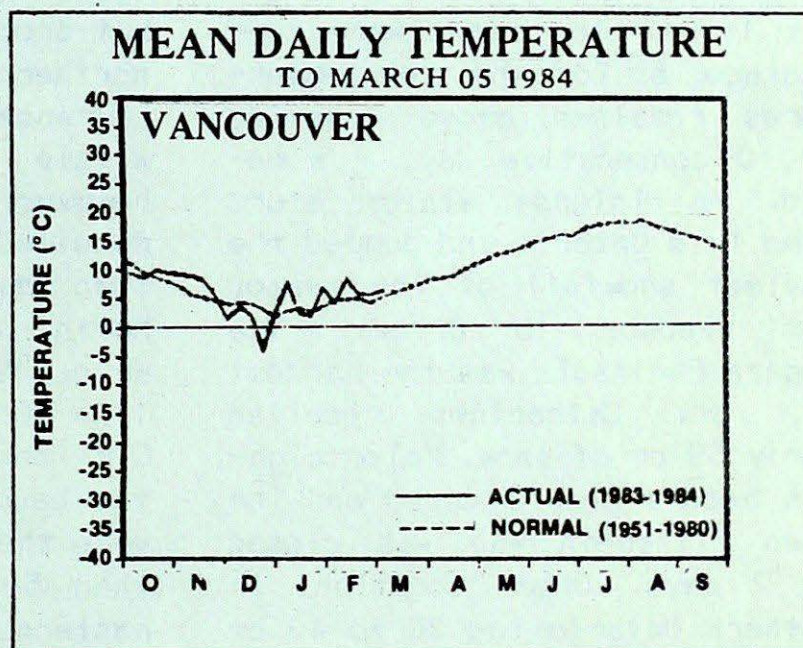
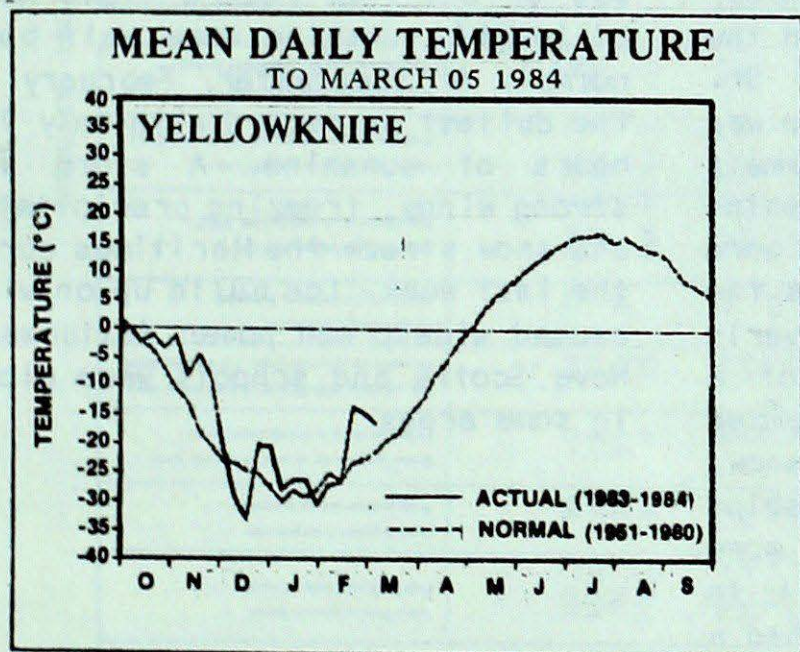
A few unpleasant events did occur. British Columbia was afflicted by floods, avalanches, raging torrents and heavy rain in January. Road and rail links into several main cities were cut for two or three days. There were severe ice storms in the Gulf of St. Lawrence region in December and a shipwreck in the same area. Out in the Atlantic the eastern ice edge was thicker and more advanced than usual. In mid-February a giant ice pack some 300 km long threatened the Hibernia oil-

fields off the East Coast of Newfoundland. Two oil rigs were moved 50 km south to safety.

A late - February winter storm proved to be the worst in about 10 years in southern Ontario. The storm dumped the heaviest snowfall of the season along the lower Great Lakes and the St. Lawrence Valley. Gale-force winds with gusts near 90 km/h whipped snow in some areas to depths of 3 metres and brought communities to a standstill. Southwestern Ontario and the Niagara Peninsula were the hardest hit, receiving 30 to 60 cm of snow. Air, rail and road traffic came to a virtual halt, and schools and businesses were closed from 1 to 3 days.

Despite the cold spells and storms, Canadians in general this year enjoyed an all-round satisfactory winter. It was in fact the third winter in a row to give most people something to feel good about.

WESTERN CANADA MEAN DAILY TEMPERATURES





**CLIMATIC EXTREMES - FEBRUARY, 1984**MEAN TEMPERATURE:

WARMEST	Victoria Gonz. Hts., BC	7.2°
COLDEST	Eureka, NWT	-44.1°
HIGHEST TEMPERATURE:	Big Trout Lake, ONT	19.9°
LOWEST TEMPERATURE:	Eureka, NWT	-49.0°
HEAVIEST PRECIPITATION:	Port Alberni, BC	374.4 mm
HEAVIEST SNOWFALL:	Cartwright, NFLD	249.4 cm
DEEPEST SNOW ON THE GROUND ON FEBRUARY 29, 1984:	Cartwright, NFLD	326 cm
GREATEST NUMBER OF BRIGHT SUNSHINE HOURS:	Calgary, ALTA	169 hrs

that hit the area on January 21, 1979. Snowfall in the 25 to 40 cm range accompanied by gale-force winds gusting near 90 km/h created hazardous weather.

Atlantic Provinces

February was mild but dull on the East Coast. Snowfall was considerably below normal. Record-high temperatures highlighted the weather at many locations. At Yarmouth, a monthly mean of 1° proved to be the warmest since record began in 1880, and at St. John's daytime temperature rose to 15.6° on February 5, setting a record maximum. In Labrador, there were several cold spells in which the readings plunged to near -40°. Precipitation was above normal ranging from 102 per cent at Truro to 148 per cent of normal at Fredericton, but snowfall was well below normal. Sydney received only 11 cm (nearly 58 cm below normal). The accumulation came within a centimetre of breaking the old record. About 8 cm of snow at St. John's established an all-time record for the least snowfall. In contrast, about 249 cm at Cartwright was an all-time record high. Hours of bright sunshine were well below normal. At Shearwater, February was the dullest on record with only 72.5 hours of sunshine. A storm with strong winds, freezing precipitation and snow struck the Maritimes during the last week. Ice build up on wires caused widespread power failures in Nova Scotia and schools were closed in some areas.

... (Cont'd from page 2B)

Québec

ever but it was the warmest winter month ever at Kenora and Sault Ste Marie. Mean values ranged from 10° above normal in the North to about 5° above normal in the eastern areas. Almost every locality experienced record-warmth. During the mid-month mild spell, daytime readings in the low teens were commonplace; at Toronto, the temperatures remained above freezing for 10 consecutive days - a record. An intense winter storm moved into Ontario and dumped the heaviest snowfall of the season from Windsor to Ottawa. The Niagara Peninsula was the hardest hit, St. Catharines received nearly 59 cm of snow. Major highways became snow clogged and the Queen Elizabeth Way was closed for 2 days. Other locations in southern Ontario had 20 to 40 cm of snow. Across the North, February was dry. In Northwestern Ontario, a few places received only 8 to 10 cm. At month's end, depth of snow on the ground ranged from 8 cm at Thunder Bay to a huge 50 cm in the Niagara Peninsula.

Québec's weather was mild and wet. The mild air that arrived during the mid-month produced 4 record high maximums. The prolonged two weeks of mildness was reminiscent of the record-breaking mild spell of February 1981. Mean temperatures were 5 to 7 degrees above normal in southern Québec, but dropped to near average in the northern areas. Along the St. Lawrence Valley, precipitation was within 20 per cent of normal; however, the Eastern Townships received about 60 per cent more than its normal share. Across the North, amounts were quite variable. Most locations west of a line from Ungava Bay to Québec City had less than 50 cm of snow, the Laurentians and the Townships were the exceptions receiving more than 50 cm. Heavy snow fell in eastern Québec, Blanc Sablon had a whopping 150.8 cm. February was rather cloudy across the Province with most communities experiencing less than 90 hours of bright sunshine.

On February 28th-29th, southern Québec was battered by the worst snowstorm since the one

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FEBRUARY 1984 FÉVRIER

STATION	Temperature °C Température °C				Snowfall (cm) Chute de neige (cm)	Total Precipitation (mm) Précipitation totale (mm)	% of Normal Precipitation % de précipitation normale	Snow on ground at end of month (cm) Neige au sol à la fin du mois (cm)	No. of days with Precip. 1.0 or more (mm) Nombre de jours de préc. 1.0 ou plus (mm)	Bright sunshine (hours) Durée de l'insolation (heures)	Degree Days below 18°C Degrés-jours au-dessous de 18°C	Mean Sea Level Pressure (hPa) Pression au niveau moyen de la mer (hPa)	Mean Vapour Pressure (hPa) Pression de vapeur moyenne (hPa)
	Mean Moyenne	Difference from Normal Écart à la normale	Maximum Maximale	Minimum Minimale									
BRITISH COLUMBIA COLOMBIE-BRITANNIQUE													
Abbotsford A	5.9	1.5	15.1	-4.7	TR	150.3	94	0	19	73	349.5	101.6	.76
Alert Bay	5.8	1.2	11.3	-0.4	1.8	160.0	119	0	21		357.8	101.3	.75
Blue River A	1.9	6.4	4.5	-13.2	57.7	49.7	78	93	13	31			
Bull Harbour	5.7	1.1	11.9	-1.0	0.0	276.7	153	0	25		354.8	101.2	.82
Burns Lake													
Cape St. James	6.1	1.3	8.9	1.6	0.0	188.2	137	0	25	58	347.1	100.7	.87
Cape Scott	6.2	0.9	11.8	0.6	0.6	347.6	141	0	25		343.7	101.1	.86
Castlegar A	0.5	1.3	6.7	-8.5	19.1	57.4	98	0	17	55	519.1		
Comox A	5.6	1.6	12.8	-1.6	0	221.4	177	0	19		360.7	101.5	.83
Cranbrook A													
Dease Lake													
Ethelda Bay													
Fort Nelson A	-14.0	2.9	6.2	-29.1	6.8	4.2	22	27	2	101	927.9	101.1	.17
Fort St. John A	-2.6	8.8	8.4	-21.6	13.7	13.0	48	5	3		596.3	101.0	.36
Hope A	4.9	0.5	11.6	-2.2	0.5	162.2	83	0	18	46	381.1	101.8	.73
Kamloops A	2.0	0.7	11.0	-8.2	2.3	6.4	40	0	4	83	463.8	101.7	.53
Kelowna A	0.8	2.4	7.4	-6.6	3.4	10.8	44	0	4	45	497.4	102.0	.53
Langara													
Lytton	4.4	2.9	12.3	-3.2	2.4	20.0	46	0	6	83	393.8	101.6	.61
Mackenzie A	-2.2	6.9	7.6	-18.0	50.4	73.4	130	40	10	61	583.8		
McInnes Island	6.3	1.9	10.6	1.0	TR	298.6	134	0	24		338.2	101.0	.86
Merry Island	6.7	1.2	11.0	1.2	0	110.1	112	0	18	68	328.4		
Penticton A	2.2	2.8	9.0	-5.4	4.0	15.4	78	0	7	57	456.8	102.0	.55
Port Alberni A	4.3	0.5	12.3	-2.3	24.6	374.4	150	0	19	35	384.2		
Port Hardy A	5.4	1.5	11.4	-2.3	TR	201.4	126	0	21	68	365.0	101.2	.78
Prince George A	0.8	6.9	9.4	-14.3	9.3	10.0	26	TR	5	96	500.4	101.2	.44
Prince Rupert A	4.7	2.4	10.4	-2.4	2.0	335.3	145	0	23	26	386.5	100.7	.77
Princeton A	0.5	3.5	9.7	-8.9	2.4	6.4	22	0	2	95			
Quesnel A	1.4	6.3	10.0	-8.4	4.6	8.2	26	0	4		483.4	101.4	.48
Revelstoke A	0.1	2.4	5.7	-7.3	27.8	41.7	48	37	12	32	518.9	102.0	.54
Sandspit A	5.1	1.6	10.1	-0.7	TR	264.8	234	0	22	79	374.8	100.5	.77
Smithers A	0.0	5.3	8.2	-11.5	18.6	37.1	117	TR	8	70	523.1	100.9	.47
Stewart A													
Terrace A	1.8	3.2	7.6	-4.2	52.0	182.9	149	2	17	32	470.2	100.9	.62
Vancouver Harbour	6.6	1.4	12.5	-0.1	4.4	232.7	149	0	19		330.0		
Vancouver Int'l A	6.2	1.6	12.5	-1.4	0	177.6	155	0	20	63	342.8	101.7	.81
Victoria Gonzales Heights	7.2	1.4	12.1	2.3	0	52.2	71	0	11	107	312.6		
Victoria Int'l A	5.9	1.1	12.8	-1.4	0	90.5	91	0	15	84	349.0	101.6	.83
Victoria Marine	6.6	1.2	11.6	0.5	TR	133.5	98	0	17		330.0	101.6	.81
Williams Lake A													

STATION	Temperature °C Température °C				Snowfall (cm) Chute de neige (cm)	Total Precipitation (mm) Précipitation totale (mm)	% of Normal Precipitation % de précipitation normale	Snow on ground at end of month (cm) Neige au sol à la fin du mois (cm)	No. of days with Precip. 1.0 or more (mm) Nombre de jours de préc. 1.0 ou plus (mm)	Bright sunshine (hours) Durée de l'insolation (heures)	Degree Days below 18°C Degrés-jours au-dessous de 18°C	Mean Sea Level Pressure (hPa) Pression au niveau moyen de la mer (hPa)	Mean Vapour Pressure (hPa) Pression de vapeur moyenne (hPa)
	Mean Moyenne	Difference from Normal Écart à la normale	Maximum Maximale	Minimum Minimale									
YUKON TERRITORY TERRITOIRE DU YOKON													
Burwash A	-15.8	2.2	3.3	-36.2	5.8	4.0	65	8	0				
Dawson A	-21.9	2.7	2.5	-40.2	34.5	25.3	102	58	7			981.5	100.2
Mayo A	-14.6	5.3	6.8	-30.5	36.4	21.9	134	53	8			1158.0	100.7
Watson Lake A	-12.2	6.5	9.3	-34.0	27.7	16.9	67	41	5			930.9	100.5
Whitehorse A	-6.3	6.9	5.0	-20.2	15.8	11.0	83	24	2	108		815.0	100.8
												704.9	100.2
NORTHWEST TERRITORIES TERRITOIRES DU NORD-OUEST													
Alert	-36.3	-2.7	-26.0	-44.8	7.7	7.3	140	24	2			1573.1	101.6
Baker Lake	-27.6	5.0	-10.7	-42.7	20.0	20.0	408	50	8	50		1332.8	101.9
Cambridge Bay A	-30.9	3.5	-10.1	-46.8	8.8	8.6	215	32	3	37		1418.6	101.7
Cape Dyer A	-35.2	-12.5		-46.5	2.2	1.1	2	42	1			1542.3	101.4
Cape Parry A	-31.5	-1.8	-18.1	-45.3	12.4	7.2	136	21	3	3		1435.0	101.7
Clyde			-25.1	-43.4	0.6	0.6	10	80	0	87			101.6
Coppermine	-28.1	3.0	-15.4	-44.3	22.2	13.9	224	28	5	37		1337.9	101.7
Coral Harbour A	-29.8	-0.4	-14.3	-44.9	19.9	17.4	198	27	5	95		1374.9	101.9
Eureka	-44.1	-6.1	-27.4	-49.0	2.3	0.8	33	17	0			1800.7	101.8
Fort Reliance	-20.3	6.8	-4.6	-40.3	40.3	25.7	245	33	7			1112.6	101.5
Fort Simpson A	-20.5	2.3	4.5	-38.2	49.6	42.7	265	77	11	63		1113.8	101.4
Fort Smith A	-16.0	5.8	2.8	-38.0	22.2	15.8	99	33	6	65		984.0	101.3
Frobisher Bay A	-31.7	-5.8	-17.1	-43.3	6.2	5.8	25	23	2	101		1441.1	101.7
Hall Beach A	-36.0	-3.9	-22.0	-45.5	2.5	2.5	30	25	1			1567.5	101.8
Hay River A	-17.1	4.6	1.8	-36.6	19.8	20.4	113	31	5			1015.8	101.3
Inuvik A	-34.5	-5.6	-22.2	-49.1	10.6	5.6	53	65	1	31		1523.3	101.8
Mould Bay A	-35.2	0.0	-18.3	-47.6	4.0	2.9	97	27	0	3		1541.7	101.6
Norman Wells A	-26.9	-0.7	-13.9	-41.5	17.3	16.4	102	16	6	69		1344.9	101.6
Pond Inlet A													
Resolute A	-35.5	-2.3	-25.9	-44.0	3.2	2.2	73	25	1	13		1552.6	101.7
Sachs Harbour A	-33.3	-2.4	-15.5	-45.6	4.6	3.7	100	10	2	14		1469.9	101.7
Yellowknife A	-19.8	5.3	-2.2	-38.6	37.2	27.0	241	19	8	67		1095.5	101.4
ALBERTA													
Banff	-1.2	5.1	7.5	-15.5	21.8	15.2	55						
Brooks	0.7	10.2	12.5	-11.5	0.5	0.6	4	0					
Calgary Int'l A	1.0	8.3	17.4	-11.3	2.6	2.6	17	0	1	169		487.1	101.4
Cold Lake A	-5.5	8.1	8.1	-22.8	11.3	8.0	51	12	1	130		682.8	101.3
Coronation A	-6.1	5.6	4.6	-19.5	4.0	3.2	19	15	2	157		700.1	101.5
Edmonton Int'l A	-2.7	8.7	6.6	-15.1	4.4	4.2	24	14	2	148		599.9	101.3
Edmonton Municipal A	-0.3	9.3	11.1	-10.4	5.0	5.3	28	5	3	154		529.2	101.2
Edmonton Namao A	-1.3	9.6	8.3	-11.6	5.8	5.3	26	5	3			559.6	101.2



FEBRUARY 1984 FÉVRIER

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	Mean Moyenne	Difference from Normal Écart à la normale	Maximum Maximale	Minimum Minimale									
Edson A	-2.0	7.9	14.7	-16.4	0.2	0.2	1	11	0	134	577.4	101.3	.36
Fort Chipewyan A	-13.2	7.5	7.0	-36.0	19.1	19.1	139	35					
Fort McMurray A	-9.0	6.4	11.6	-29.2	14.8	8.8	47	3	2	105	783.0	101.3	.28
Grande Prairie A	-1.9	10.2	9.5	-16.9	2.7	4.7	20	TR	2	125	576.2	101.1	.38
High Level A	-12.5	6.0	7.1	-30.9	14.8	9.6	60	47	6	75	912.9	101.2	.18
Jasper	-0.6	5.9	8.1	-14.0	6.0	7.4	36	6	3	93	538.1	101.6	.41
Lethbridge A	2.8	8.2	17.8	-11.2	2.8	2.8	15	0	1		441.7	101.4	.39
Medicine Hat A	2.2	9.9	14.1	-8.7	2.2	2.2	13	0	1	165	458.8	101.4	.43
Peace River A	-4.7	8.8	6.5	-20.2	7.1	6.9	33	5	3		657.8	101.1	.36
Red Deer A	-4.2	6.5	7.4	-21.2	0.9	0.5	3	3	0		643.8	101.4	.37
Rocky Mountain House	-2.8	4.6	13.9	-19.0	0.9	0.5	3	6	0		604.9	101.4	.34
Slave Lake A	-3.1	9.2	11.7	-15.0	8.6	9.7	48	2	2	145	612.2	101.1	.36
Suffield A	1.4	10.2	14.0	-9.5	1.0	0.8	4	0	1	157	479.4		
Whitecourt	-0.9	9.3	12.8	-13.3	1.3	0.9		8	0		553.6	100.5	.37
SASKATCHEWAN													
Broadview	-4.3	10.3	9.4	-26.8	5.0	4.2	34	2	2	150	645.3	101.6	.39
Collins Bay	-13.6	7.5	4.4	-35.0	34.3	24.9	138	71	10	61	922.3	101.5	.22
Cree Lake	-9.7	10.0	8.5	-34.0	34.8	26.8	197	25	6	84	803.5	101.4	.28
Estevan A	-2.8	9.2	11.8	-22.4	7.0	7.0	41	1	4	154	602.5	101.7	.44
Hudson Bay	-5.6	10.4	7.5	-32.1	11.8	7.2	45	22	5	119	701.7	101.5	.33
Kindersley KY	-4.3	8.2	5.7	-17.4	2.0	1.6	10	1	1		648.5	101.4	.40
La Ronge A	-6.8		9.6	-27.3	18.1	16.5	106	22	5		720.1	101.4	.32
Meadow Lake	-7.6	7.2	5.6	-27.9	12.2	12.7	80	15	3	149	743.7	101.4	.31
Moose Jaw A	-1.5	10.0	10.0	-20.7	4.7	7.9	51	1	2	166	565.6	101.5	.45
Nipawin A	-7.7		7.3	-27.0	16.2	16.6		25	7	113	746.8	101.5	.34
North Battleford A	-5.5	8.6	6.5	-20.4	3.2	3.2	22	3	2		674.7	101.5	.35
Prince Albert A	-6.5	10.0	6.7	-23.0	11.9	11.9	80	14	4	127	719.5	101.5	.33
Regina A	-3.7	9.9	8.5	-23.0	1.9	1.9	12	10	1	159	628.4	101.6	.40
Saskatoon	-4.0	10.6	3.8	-21.5	1.4	1.2	7	TR	1		637.2	101.5	.38
Swift Current A	-1.8	8.5	10.9	-17.8	4.8	4.8	28	2	2	161	575.6		
Uranium City A													
Wynyard	-5.2	9.3	5.3	-25.0	5.0	4.8	31	1	3	145	656.4	101.5	.40
Yorkton A	-5.2	10.3	8.3	-27.6	7.5	7.5	42	2	3	106	657.3	101.6	.32
MANITOBA													
Bissett	-8.3	8.4	6.2	-34.3	18.0	20.8	112	32	5	82	765.5	101.6	.33
Brandon A	-4.8	10.9	9.7	-27.2	7.8	7.0	37	2	2		660.4	101.7	.37
Churchill A	-19.7	6.2	-5.8	-39.3	34.4	25.2	192	38	7	67	1093.5	101.8	.12
Dauphin A	-6.2	9.4	6.3	-29.0	14.6	7.6	43	6	3	107	658.0	101.6	.37
Gillam A	-17.2	6.7	1.1	-39.7	22.2	14.0	77	82	6		1021.2	101.8	.17
Gimli	-7.4	9.6	5.0	-30.8	11.2	11.0	62	13	3	108	738.2	101.6	.34
Island Lake	-12.4	7.9	4.9	-39.8	21.0	13.0	82	50	5		881.4	101.7	.24
Lynn Lake A	-13.8	8.4	3.2	-34.7	21.5	15.3	102	34	6	72	921.9	101.6	.21
Norway House A	-11.1		5.4	-38.2	27.8	23.6		59	7		843.5	101.6	.25

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	Mean Moyenne	Difference from Normal Écart à la normale	Maximum Maximale	Minimum Minimale									
Pilot Mound	-4.6	10.5	6.7	-20.7	9.0	11.0	54	1	3		610.1	101.7	.39
Portage la Prairie A	-5.6	9.0	9.2	-28.1	18.5	16.0	75	1	3		683.8		
The Pas A	-7.9	10.1	7.5	-32.8	13.0	9.4	61	15	4	89	750.2	101.6	.30
Thompson A	-15.3	3.0	3.3	-41.8	14.6	14.1	126	33	5	83	964.8	101.8	.18
Winnipeg Int'l A	-6.8	8.8	5.4	-30.1	4.8	8.0	46	2	3	112	717.1	101.7	.36
ONTARIO													
Atikokan	-6.7	8.7	9.8	-32.0	26.6	30.0	133	55	7	100	715.4	101.5	.36
Earlton A													
Geraldton	-9.5	6.4											
Gore Bay A	-4.1	5.6	7.4	-27.4	23.8	26.9	63	7	7		639.7	101.4	.43
Hamilton	-0.2	4.1	16.1	-19.0	52.2	94.8	176	24	9	102			
Hamilton A	-1.5	4.8	14.3	-20.4	63.0	96.0	199	18	10		564.3		
Kapuskasing A	-9.0	7.2	8.2	-33.7	18.3	23.6	55	17	8		783.4	101.6	.30
Kenora A	-6.5	7.9	6.4	-29.0	8.7	28.3	123	22	7		712.1	101.5	.35
Kingston A	-2.9	4.1	8.0	-23.2	51.1	91.5	161	35	13	83	604.9	101.5	.46
Lansdowne House													
London A	-1.4	4.7	14.1	-20.6	53.2	80.1	132	21	11	74	561.3	101.5	.47
Moosonee	-12.4	6.1	8.7	-39.6	39.7	38.2	127	22	9	72	883.0	101.6	.26
Mount Forest	-3.2	5.0	11.0	-19.0	28.2	54.6	102	1	10	94	613.4		.47
Muskoka A	-3.6	6.0	11.3	-32.2	22.6	66.6	107	15	12		629.0	101.5	.43
North Bay A	-5.2	6.1	9.7	-26.2	32.6	70.9	126	11	8	100	671.8	101.5	.39
Ottawa Int'l A	-4.0		10.8	-22.2	49.7	83.4	138	42	10	113	637.4	101.5	.43
Petawawa A													
Peterborough A	-3.1	5.4	12.5	-31.8	35.9	78.8	166	26	10		612.5		
Pickle Lake	-10.6	8.1	4.0		33.0	22.6	89	74	7		829.3	101.6	.29
Red Lake A	-8.6	8.2	5.9	-32.4	22.0	29.1	145	38	8	75	770.5	101.6	.32
St. Catharines A	0.4	4.1	14.5	15.1	68.8	89.2	197	50	9		504.7		
Sarnia A	-0.3	4.2	14.2	-16.2	15.0	37.9	87	6	10	95	511.2		
Sault Ste. Marie A	-4.3	5.7	8.7	-27.5	21.4	38.7	70	8	10	93	645.3	101.5	.41
Simcoe	-1.3	3.7	14.0		69.4	113.0	223	50	11		564.5	101.6	.53
Sioux Lookout A	-7.3	8.4	6.2	-30.6	13.9	19.3	70	57	7		734.6	101.6	.35
Sudbury A	-6.2	6.3	6.6	-26.9	42.8	56.0	119	7	8	67	702.2	101.4	.38
Thunder Bay A	-5.4	7.6	9.7	-30.4	10.3	32.4	114	8	5	96	677.6	101.5	.36
Timmins A	-8.1	7.5	9.4	-34.9	36.2	39.7	87	39	10		757.7	101.4	.32
Toronto	0.5	4.3	13.9	-15.3	47.7	81.6	156	22	9		507.8		
Toronto Int'l A	-1.5	4.6	14.9	-22.3	24.4	59.0	177	18	9		562.2	101.5	.50
Toronto Island A	-0.2	4.6	12.5	-15.5	31.4	68.8	144	24	10		525.5	101.5	.47
Trenton A	-2.1	4.4	12.8	-22.8	57.8	88.2	155	41	13		583.8	101.5	.48
Trout Lake (Big)	-15.1	6.3	19.9	-38.4	31.1	25.6	135	60	8		958.6	101.9	.21
Waterloo-Wellington A	-2.2	4.6	12.9	-22.9	34.6	73.3	143	17	9		585.3		
Wawa A													
Warton A	-2.2	5.3	14.3	-20.9	42.3	30.6	48	17	13	95	584.6	101.4	.43
Windsor A	0.5	4.3	14.8	-16.1	27.8	54.4	108	15	8		508.2	101.5	.51



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	Mean Moyenne	Difference from Normal Écart à la normale	Maximum Maximale	Minimum Minimale									
QUEBEC													
Bagotville A	-7.5	6.3	6.8	-31.0	43.4	44.3	79	67	7	738.0	101.5	.33	
Baie Comeau A	-8.0	4.5	5.3	-29.0	56.2	59.0	83	107	10	753.4	101.5	.33	
Blanc Sablon	-9.9	0.1	2.1	-30.4	150.8	153.4	150	105	19	810.2	101.2	.30	
Chibougamou A	-10.4	7.1	7.6	-37.3	48.0	50.8	50	78	14	825.1	101.4	.28	
Kuujujuaq A	-22.5	-0.1	0.9	-40.4	26.3	25.5	77	46	9	76	101.6	.11	
Gaspé A	-6.5	3.6	8.8	-29.4	5.6	71.2		38	8	711.4	101.4	.34	
Inukjuac A	-24.4	0.6	0.4	-39.1	15.6	15.0	174	35	7	1229.4	101.6	.07	
La Grande Rivière	-16.6		4.2	-39.1	45.3	30.6		17	9	994.4	101.5	.18	
Maniwaki	-5.2	7.0	11.0	-31.3	43.0	68.2	136	34	8	677.0	101.4	.38	
Matagami A	-11.2	6.6	7.0	-38.8	32.0	51.4	125	68	9	847.5			
Mont Joli A	-6.2	4.3	7.0	-25.1	66.9	65.9	88	40	9	702.6	101.4	.35	
Montreal Int'l A	-3.6	5.4	11.5	-23.4	37.0	65.1	100	14	10	625.3	101.5	.43	
Montreal Mirabel Int'l A	-5.3		9.0	-27.0	34.8	67.4		64	10	676.8	101.5	.38	
Natashquan	-9.2	2.1	1.9	-33.1	95.6	89.8	114	61	15	788.6	101.3	.29	
Nitchequon	-16.1	5.2	3.4	41.2	44.4	34.3	117	32	10	989.3	101.5	.22	
Kuujuuarapik A	-19.8	2.8	4.2	-42.6	25.1	23.1	98	26	8	1095.1	101.6	.15	
Qubec A	-5.4	5.4	7.7	-23.6	52.6	86.8	111	82	10	678.9	101.5	.35	
Roberval A	-7.3	7.4	11.5	-27.8	40.0	51.2	86	64	8	755.9	101.4	.31	
Ste. Agathe des Monts	-5.2	6.9	12.0	-25.5	56.2	92.6	124	78	7	672.0	101.4	.36	
St. Hubert A	-4.1	4.9	11.2	-23.3	48.0	76.8	106	27	12	640.6	101.5	.40	
Schefferville A	-19.4	1.8	3.0	-44.5	72.7	56.7	132	82	13	1084.5	101.5	.15	
Sept-Iles A	-8.9	3.6	4.2	-29.3	52.7	65.6	83	69	11	787.0	101.5	.27	
Sherbrooke A	-4.5	6.4	13.9	-31.1	52.2	98.7	164	30	15	650.3	101.5	.40	
Val d'Or A	-8.3	5.6	10.8	-32.2	40.4	56.2	111	26	12	762.7	101.5	.33	
NEW BRUNSWICK NOUVEAU-BRUNSWICK													
Charlo A	-6.8	3.8	7.3	-27.0	63.1	76.4	119	89	10	719.5	101.5	.36	
Chatham A	-5.0	3.8	8.7	-25.4	39.4	90.8	105	37	11	665.9	101.5	.41	
Fredericton A	-3.3	5.1	10.4	-24.6	42.0	133.0	148	19	13	618.9	101.5	.43	
Moncton A	-3.5	4.2	12.6	-24.0	51.9	112.3	113	25	15	622.2	101.4	.42	
Saint John A	-2.5	5.0	9.2	-23.1	41.4	147.4	127	17	14	592.4	101.4	.48	

STATION	Temperature °C Température °C				Snowfall (cm) Chute de neige (cm)	Total Precipitation (mm) Précipitation totale (mm)	% of Normal Precipitation % de précipitation normale	Snow on ground at end of month (cm) Neige au sol à la fin du mois (cm)	No. of days with Precip. 1.0 or more (mm) Nombre de jours de préc. 1.0 ou plus (mm)	Bright sunshine (hours) Durée de l'insolation (heures)	Degree Days below 18°C Degrés-jours au-dessous de 18°C	Mean Sea Level Pressure (hPa) Pression au niveau moyen de la mer (hPa)	Mean Vapour Pressure (hPa) Pression de vapeur moyenne (hPa)
	Mean Moyenne	Difference from Normal Écart à la normale	Maximum Maximale	Minimum Minimale									
NOVA SCOTIA NOUVELLE-ÉCOSSE													
Eddy Point	-3.6	1.5	11.7	-19.0	24.3	150.5	142	TR	17	94	574.8	101.4	.51
Greenwood A	-0.9	4.5	15.9	-21.3	35.4	92.3	102	3	13		547.3	101.4	.52
Halifax Int'l A	-1.4	4.7	11.4	-22.0	28.8	141.9	106	1	15		562.9	101.4	.53
Sable Island	1.3	2.3	11.1	-13.1	1.7	159.9	135	0	14		485.4	101.5	.62
Shearwater A	-0.8	3.7	10.5	-21.1	13.8	162.5	133	TR	11	72	544.3	101.4	.55
Sydney A	-2.7	3.2	11.0	-19.4	11.0	100.4	81	1	13	93	598.9	101.4	.46
Truro	-1.9	5.7	13.4	-22.6	35.0	123.4	138	5	13	74	575.4	101.5	.52
Yarmouth A	1.0	4.2	11.8	-15.3	32.4	193.6	170	0	17	77	494.2	101.4	.59
PRINCE EDWARD ISLAND ILE-DU-PRINCE-ÉDOUARD													
Charlottetown A	-3.7	3.8	8.4	-22.2	35.2	100.7	103	12	15		628.6	101.4	.47
Summerside A	-3.7	3.5	9.5	-21.6	48.2	93.6	114	16	13	88	628.1	101.4	.45
NEWFOUNDLAND TERRE-NEUVE													
Argentia A	-0.6	1.3	14.0	-16.0	7.7	155.7	147	0	12		541.5	101.4	.49
Battle Harbour	-11.0	-1.3	3.6	-30.2	93.9	101.0	129	129	15		839.6	101.2	.28
Bonavista	-3.0	2.2	11.1	-17.4	8.2	101.0	117	1	10		607.7	101.3	.46
Burgeo	-2.9	2.3	7.5	-16.4	18.6	149.8	116	0	16	92	606.0	101.3	.46
Cartwright	-13.5	-0.9	4.7	-31.3	249.4	244.9	361	326	20	67	917.4	101.3	.21
Churchill Falls A	-17.3	1.6	3.8	-36.9	66.4	55.2	101	142	13	94	1024.7	101.5	.18
Comfort Cove	-5.5	1.5	8.2	-23.7	54.3	133.6	163	27	15		677.2	101.2	.38
Janiel's Harbour	-6.6	1.1	5.0	-21.7	70.4	141.0	173	36	15	37	714.9	101.2	.36
Deer Lake A	-6.2	1.6	7.9	-30.6	48.2	78.0	112	23	9		726.3	101.3	.36
Gander Int'l A	-4.7	2.1	8.9	-22.6	51.4	142.7	143	28	14	88	656.9	101.2	.40
Goose A	-14.4	0.1	6.2	-32.1	132.5	90.7	151	104	16	82	943.3	101.5	.18
Hopedale	-17.7	-2.3	4.9	-31.2	111.6	111.6	167	132	14		1003.9	102.6	.15
Port-aux-Basques	-3.7	2.0	6.3	-16.5	35.4	102.8	88	4	17	75	629.3	101.4	.44
St. Anthony	-9.4	0.2	4.0	-26.5	129.4	145.0	176	103	17		787.7	101.1	.31
St. John's A	-1.9	2.6	15.6	-17.2	7.8	151.1	108	1	12	75	577.3	101.3	.51
St. Lawrence	-1.9	2.1	10.2	-16.6	12.4	161.0	149	TR	15		577.1		
Stephenville A	-3.7	2.5	7.8	-12.3	49.0	129.6	144	7	11	68	625.1	101.2	.37
Wabush Lake A	-16.2	4.6	2.7	-35.2	62.3	52.5	109	147	11	93	992.4	101.4	.17



FEBRUARY 1984 FÉVRIER

STATION	Temperature °C Température °C				Snowfall (cm) Chute de neige (cm)	Total Precipitation (mm) Précipitation totale (mm)	% of Normal Precipitation % de précipitation normale	Snow on ground at end of month (cm) Neige au sol à la fin du mois (cm)	No. of days with Precip. 1.0 or more (mm) Nombre de jours de préc. 1.0 ou plus (mm)	Bright sunshine (hours) Durée de l'insolation (heures)	Degree Days above 5°C Degrés-jours au-dessus de 5°C		Mean Dew Point °C Point de rosée moyen °C
	Mean Moyenne	Difference from Normal Écart à la normale	Maximum Maximale	Minimum Minimale							This Month Présent mois	Since Jan. 1st Depuis le 1 <sup>er</sup> janv.	
AGROCLIMATOLOGICAL STATIONS AGROCLIMATOLOGIQUES													
BRITISH COLUMBIA COLOMBIE-BRITANNIQUE													
Agassiz	6.0	1.5	14.5	0.0	0.0	161.2	91	0	19	87	35.8	71.3	
Kamloops													
Sidney													
Summerland	1.7	1.6	8.5	-5.0	2.4	7.2	38	0	4	75	0.0	4.5	
ALBERTA													
Beveridge	-0.7	9.5	10.5	-15.0	3.5	4.7	19	0	2	124	0.0	0.0	
Ellerslie	-3.3		7.0	-15.0	7.0	7.2		7	3	160	0.0	0.0	
Fort Vermilion													
Lacombe	-3.4	7.1	8.0	-18.5	0.0	0.0	0	15	0	127	0.0	0.0	
Lethbridge	3.0	8.7			4.3			0	1	129	16.2	43.9	
Vauxhall	1.6	9.0	16.5	-10.5	0.0	0.0	0	0	0	135	1.4	8.4	
Vegreville	-5.8	7.6	6.5	-19.5	18.4	18.4	132	22	3		0.0	0.0	
SASKATCHEWAN													
Indian Head	-4.3	9.5	8.0	-25.0	3.8	3.6	20	T	1		0.0	0.0	
Melfort	-6.0	10.3											
Regina	-4.8	9.0	8.5	-23.5	2.8	2.6	18	1	2		0.0	0.0	
Saskatoon	-3.9		4.5	-21.5	2.5	2.5		0	2	154	0.0	0.0	
Scott	-6.8	7.6	4.0	-22.0	4.3	4.8	37	7	3	142	0.0	0.0	
Swift Current South	-1.4	9.0	11.0	-18.0	5.8	5.1	34	3	2	149	1.6	1.6	
MANITOBA													
Brandon	-4.7	10.5	10.0	-27.5	8.0	8.0	40	3	3	94	0.0	0.0	
Glenlea	-7.5	8.9	3.5	-29.5	9.6	12.8	47	20	5	100	0.0	0.0	
Morden	-4.0	9.4	9.5	-27.5	5.0	8.2	43	T	4	90	0.0	0.0	
ONTARIO													
Delhi	-1.0	4.4	13.0	-22.0	43.9	112.1	197	43	8	96	6.4	6.4	
Elora	-3.2		10.9	-25.1	18.1	58.9		8	11	80	0.5	0.5	

STATION	Temperature °C Température °C				Snowfall (cm) Chute de neige (cm)	Total Precipitation (mm) Précipitation totale (mm)	% of Normal Precipitation % de précipitation normale	Snow on ground at end of month (cm) Neige au sol à la fin du mois (cm)	No. of days with Precip. 1.0 or more (mm) Nombre de jours de préc. 1.0 ou plus (mm)	Bright sunshine (hours) Durée de l'insolation (heures)	Degree Days above 5°C Degrés-jours au-dessus de 5°C		Mean Dew Point °C Point de rosée moyen °C
	Mean Moyenne	Difference from Normal Écart à la normale	Maximum Maximale	Minimum Minimale							This Month Présent mois	Since Jan. 1st Depuis le 1 <sup>er</sup> janv.	
Guelph	-2.3	4.2	13.5	-27.8	41.5	78.6	156	10	9	87	2.5	2.5	
Harrow	-0.1	3.7	14.0	-19.0	17.7	36.6	69	10	6	129	7.4	7.4	
Kapuskasing													
Merivale													
Ottawa	-4.4	5.1	10.5	-23.7	48.6	64.9	119	43	10	116	0.0	0.0	
Smithfield	-1.7	4.9	12.5	-23.0	-78.8	121.1	169	8	12		2.2	2.2	
Vineland Station	0.1	3.5	13.9	-17.2	53.4	100.0	179	45	11	100	7.8	7.8	
Woodslee													
QUEBEC													
La Pocatiere	-4.9	5.3	8.0	-25.5	56.0	88.2	124	40	8	109	0.0	0.0	
L'Assomption	-4.7	5.9	9.5	-27.5	35.4	82.4	134	38	9	95	0.0	0.0	
Lavaltrie													
Lennoxville													
Normandin	-9.2	6.9	7.0	-34.0	36.3	37.6	70	62	6	104	0.0	0.0	
St. Augustin													
Ste. Clothilde	-3.2	5.9	14.0	-27.0	51.2	63.6	98	14	9	105	2.5	2.5	
NEW BRUNSWICK NOUVEAU-BRUNSWICK													
Fredericton													
NOVA SCOTIA NOUVELLE-ÉCOSSE													
Kentville	-0.7	4.7	15.5	-23.0	37.8	117.7	110	10	11	71	6.4	6.4	
Nappan	-2.3	4.6	12.0	-23.0	37.9	106.3	120	12	11	87	3.8	3.8	
PRINCE EDWARD ISLAND ILE-DU-PRINCE-ÉDOUARD													
Charlottetown	-3.4	3.6	9.0	-22.5	26.0	89.8	111	9	11	85	0.0	0.0	
NEWFOUNDLAND TERRE-NEUVE													
St. John's West	-1.1	3.2	14.0	-17.0	12.0	149.1	90	1	15	73	20.3	20.8	



ACID RAIN REPORT ISSUED BY ENVIRONMENT CANADA FOR MAR. 4-10, 1984

**LONGWOODS  
NEAR LONDON  
ONTARIO**

Longwoods received strongly acidic snow with a pH reading of 4.1 on Mar. 4. This snow was associated with air which came from the north and lingered over southern Ontario. Air which passed over northern Wisconsin and Michigan brought slightly acidic snow with a pH reading of 4.8 to the region on Mar. 10.

**DORSET \*  
MUSKOKA  
ONTARIO**

The region received moderately acidic snow on Mar. 5 and 10 with pH readings of 4.3 and 4.4 respectively. On both occasions the snow was produced in air which had passed over the U.S. midwest and southern Ontario.

**CHALK RIVER  
OTTAWA VALLEY  
ONTARIO**

Air which passed through Virginia, West Virginia, Pennsylvania and New York brought strongly acidic snow to Chalk River on Mar. 5 with a pH reading of 3.8.

**MONTMORENCY  
QUEBEC CITY  
ONTARIO**

Montmorency received strongly acidic snow Mar. 5 with a pH reading of 4.1. This snow fall was produced in air which came from northwestern Quebec and passed through southern Quebec, Maine and the Quebec city region.

**KEJIMKUIK  
SOUTHWESTERN  
NOVA SCOTIA**

Air from northwestern Quebec which passed through southern Quebec and Maine brought moderately acidic snow and rain with a pH reading of 4.3 to the region on Mar. 5. The region received more moderately acidic rain on the next day Mar. 6 with a pH reading of 4.6. This rain was produced in air which had passed through West Virginia, Pennsylvania, New York, New England and Maine. The slightly acidic snow which fell Mar. 9, with a pH reading of 5.0, was produced in air which came from northwestern Quebec and passed through New Brunswick.

\*Data supplied by the Ontario Ministry of the Environment.

Environmental damage to lakes and streams is usually observed in sensitive areas regularly receiving precipitation with pH less than 4.7.

This report was prepared by the Federal Long Range Transport of Air Pollutants (LRTAP) Liaison Office. For further information, please contact Dr. H.C. Martin at (416) 667-4803.