Environment Canada | Environnement Canada

Climatic Perspectives

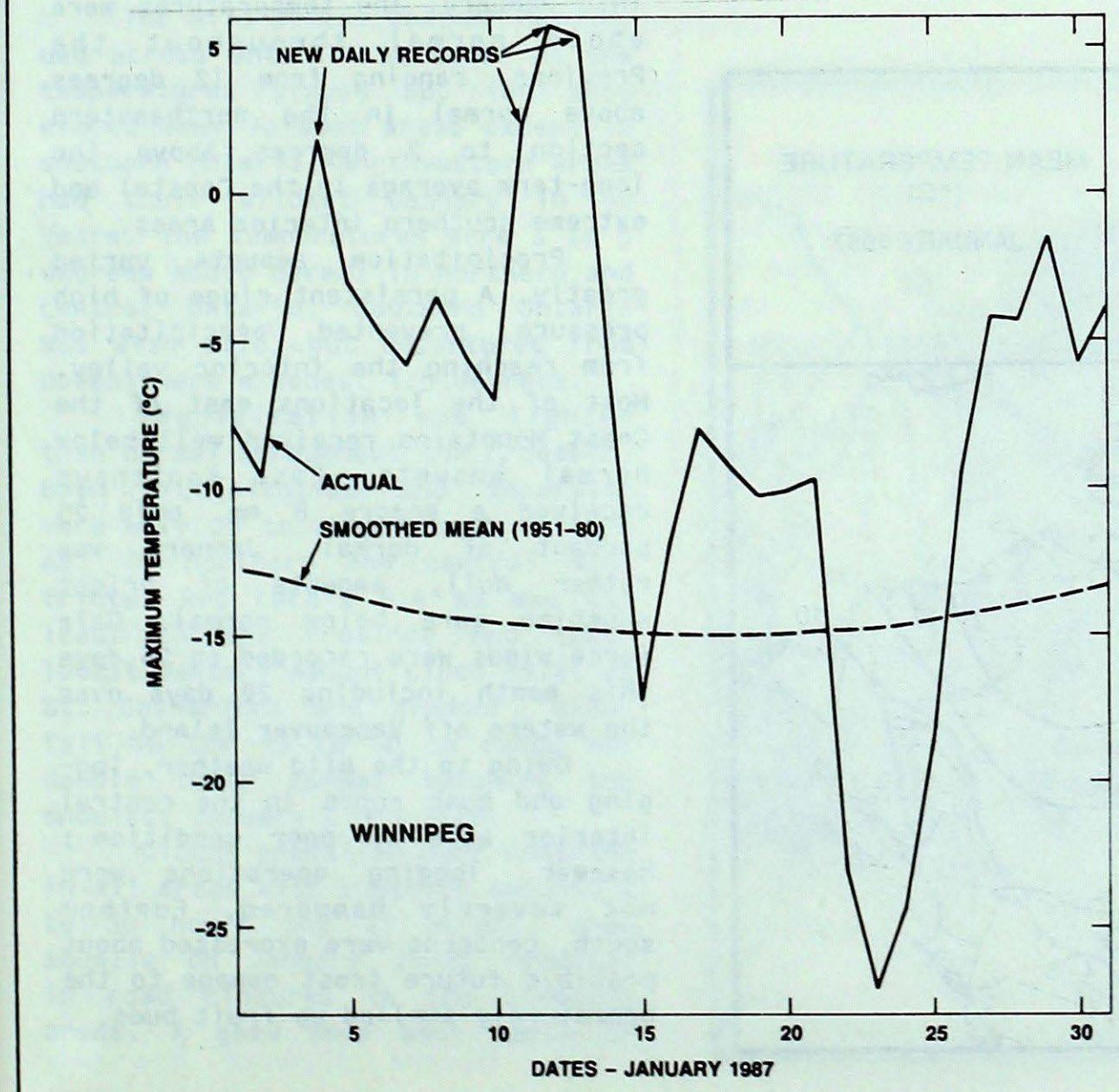
Monthly review | JANUARY | Vol.9 1987

CLIMATIC HIGHLIGHTS

by
P. Scholefield, CCRM

Mild Winter Weather Continues Over Most of Canada

The continuation of the extremely mild winter weather of December through the month of January is remarkable. The extent and configuration of the temperature anomalies in December and January are almost identical. In both months, positive temperature anomalies dominate most of the country except the northeast and extreme eastern parts. Over western Canada, the January anomaly is more intense, being 2 to 4°C warmer than the December anomaly. It is also interesting to note the similarity to January 1986, which was the warmest on on record at several locations in British Columbia, Alberta and Saskatchewan. This year, Red Deer, Fort McMurray and Grand Prairie in Alberta, and Broadview, Wynyard, Kindersley and Yorkton in Saskatchewan experienced their warmest January ever.



At Winnipeg it was the fourth warmest January on record and the warmest since 1942. The accompanying graph illustrates the impact of the mild spell on the maximum temperatures at Winnipeg. Note the dramatic intrusion of fresh Arctic air on the 22nd and the subsequent return to milder conditions at the end of the month.

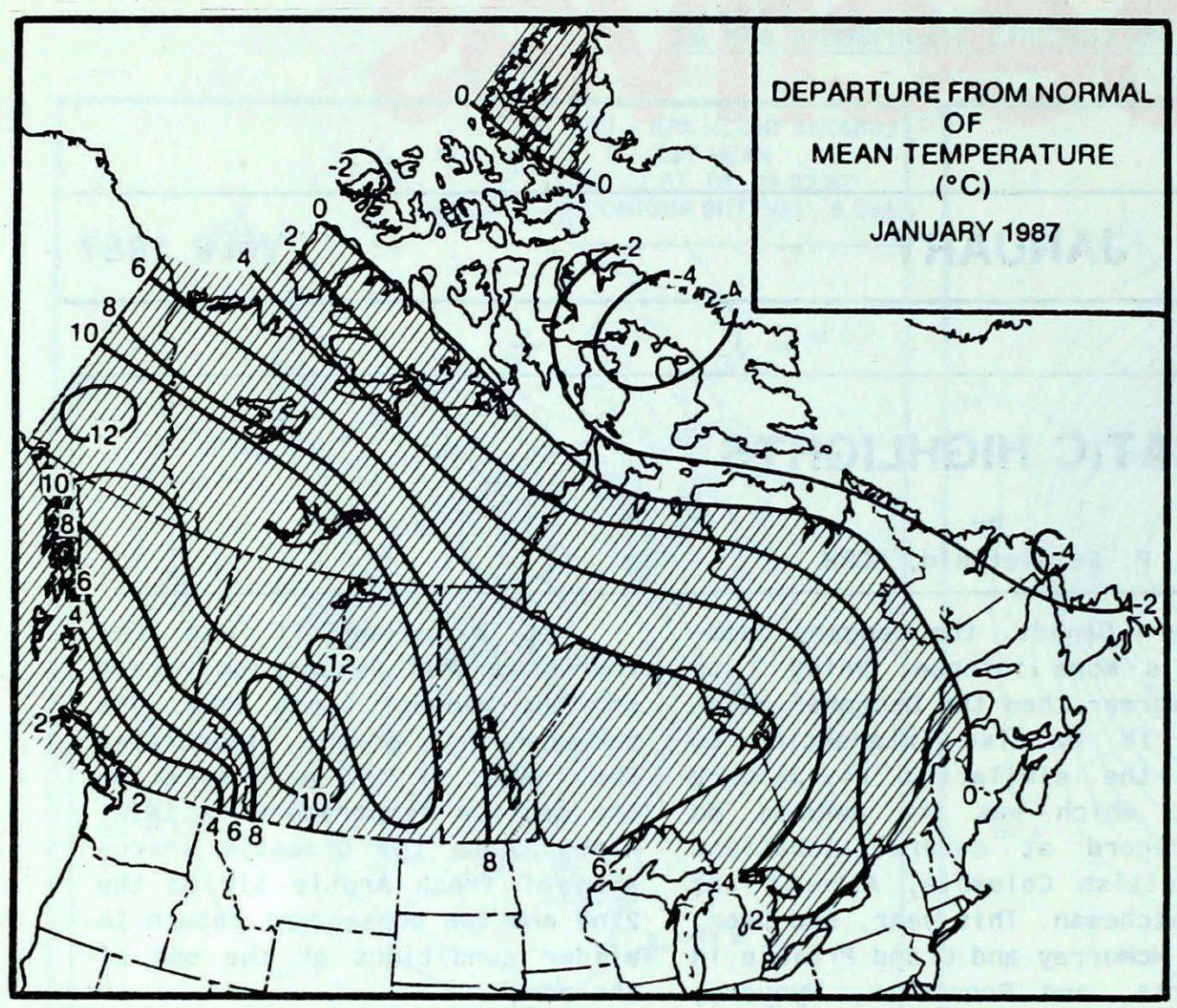
These unusually mild temperatures can be directly related to the strong upper level ridging over western Canada and the associated strong positive height anomaly (see page 5B).

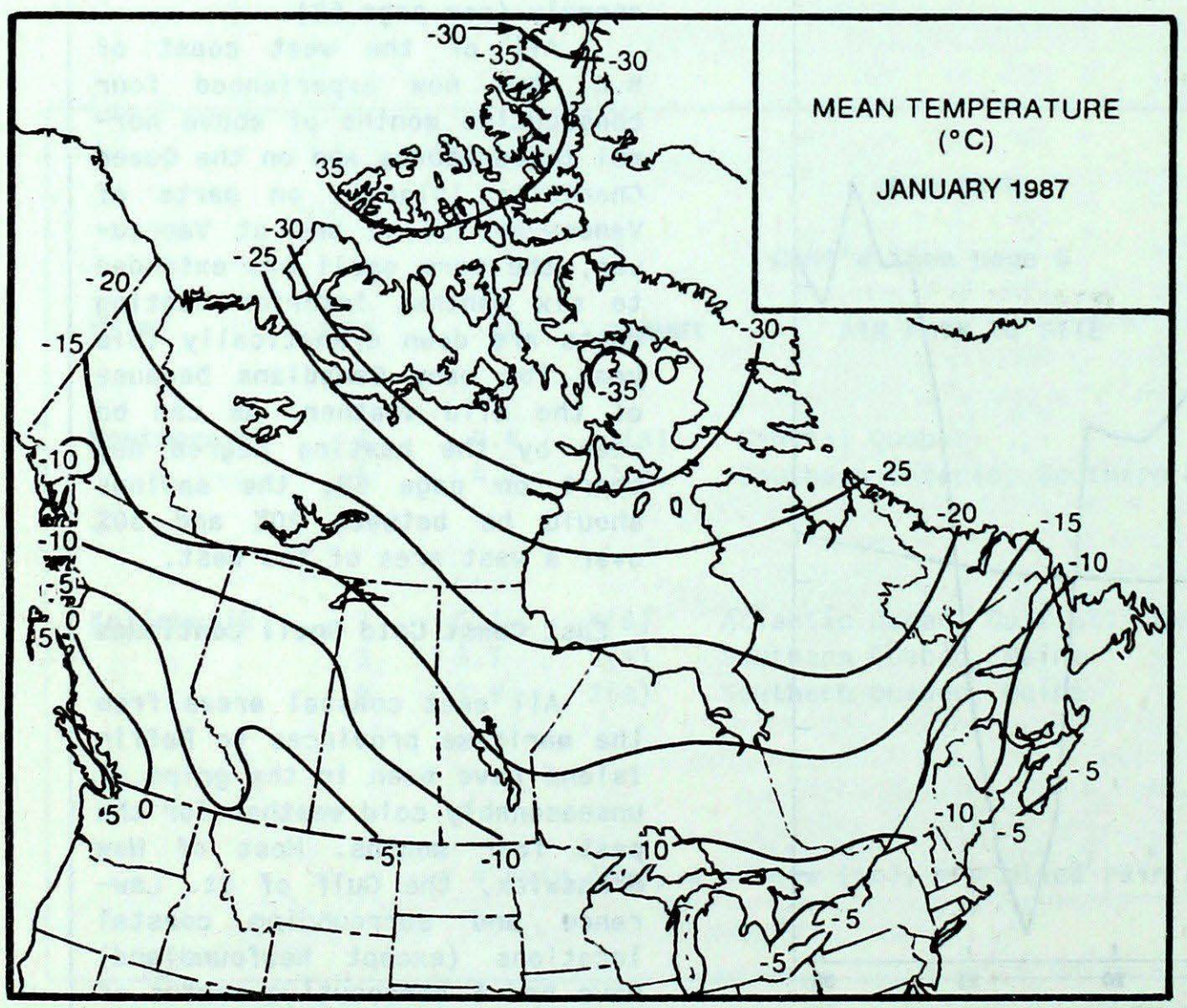
All of the west coast of B.C. has now experienced four consecutive months of above normal temperatures and on the Queen Charlotte Islands, on parts of Vancouver Island and at Vancouver, the warm spell has extended to six months. Interior heating costs are down dramatically this year for many Canadians because of the mild weather. As can be seen by the heating degree day chart on page 6B, the savings should be between 20% and 30% over a vast area of the west.

East Coast Cold Spell Continues

All east coastal areas from the maritime provinces to Baffin Island have been in the grips of unseasonably cold weather for the past four months. Most of New Brunswick, the Gulf of St. Lawrence and surrounding coastal locations (except Newfoundland) have had 8 consecutive months of below normal temperatures.

TEMPERATURE





ACROSS THE COUNTRY

Yukon and Northwest Territories

Balmy temperatures averaging 4 to 14 degrees above normal produced near record values in the Yukon and the Mackenzie Valley. After a record warm December, Whitehorse recorded its 6th warmest January on record (-9 degrees). In sharp contrast, eastern Arctic continued to endure bitterly cold winter weather. On many occasions, the temperatures plummeted to a bone-chilling -50 degrees on Baffin Island. Eastern Arctic has now experienced below normal temperatures for eight consecutive months. Snowfall was well below normal in the Yukon, averaging only 15 to 25 per cent of normal.

Lack of snow and warm weather has adversely affected the sport of dog mushing in the Yukon, the temperatures have been too mild for the dogs to run.

British Columbia

December's warmth continued into January. The temperatures were above normal throughout the Province, ranging from 12 degrees above normal in the northeastern section to 2 degrees above the long-term average in the Coastal and extreme southern interior areas.

Precipitation amounts varied greatly. A persistent ridge of high pressure prevented precipitation from reaching the interior valley. Most of the locations east of the Coast Mountains received well below normal amounts. East Kootenays received a meagre 8 mm, only 25 percent of normal. January was rather dull, amounts of bright sunshine were below normal. Gale force winds were recorded on 26 days this month including 20 days over the waters off Vancouver Island.

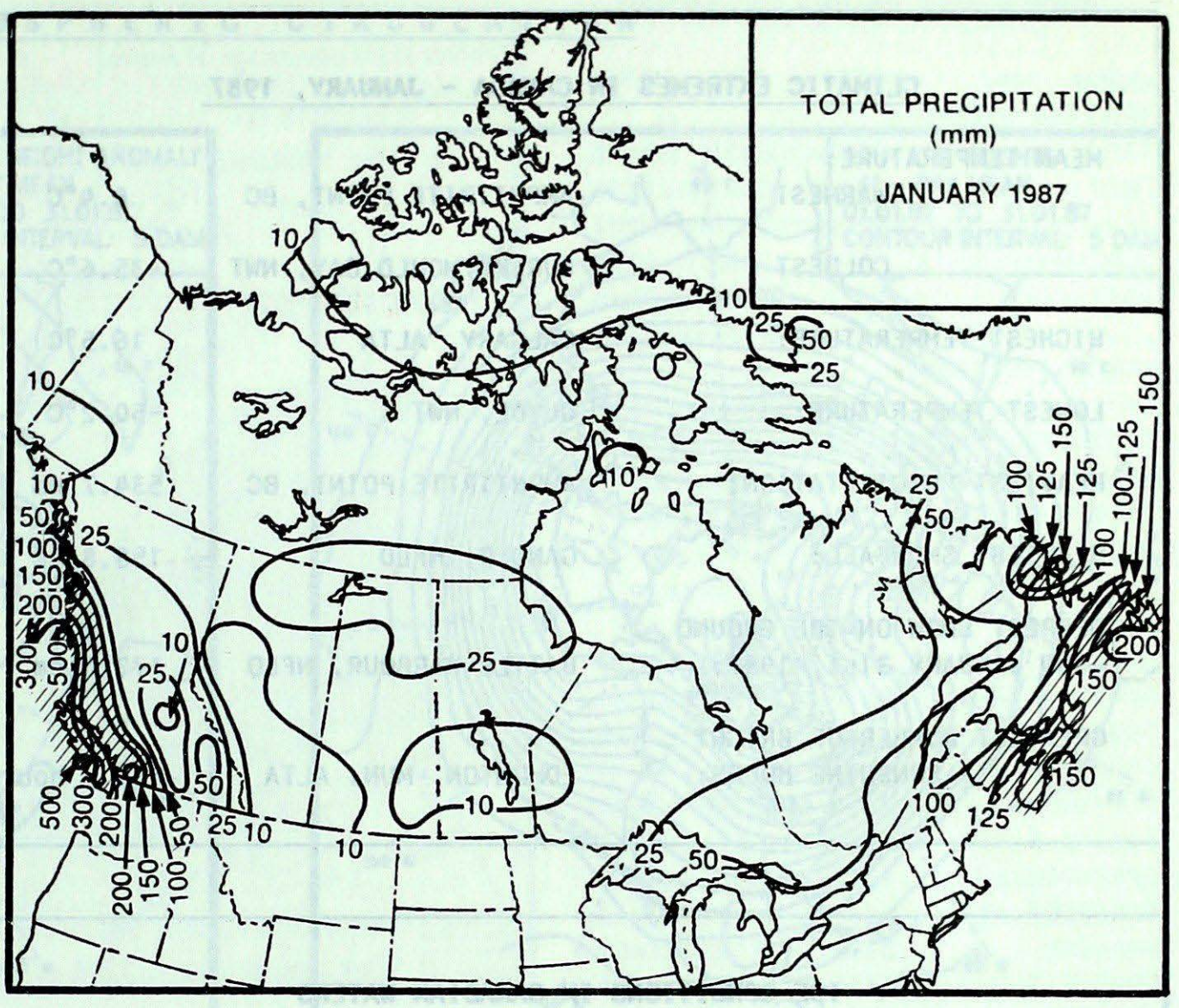
Owing to the mild weather, logging and bush roads in the central interior were in poor condition ; however, logging operations were not severely hampered. Further south, concerns were expressed about possible future frost damage to the prematurely swelled up fruit buds.

PRECIPITATION

Prairie Provinces

Record to near record breaking warmth covered the Prairies. The temperatures were 6 to 13 degrees above normal over the provinces. At least 7 record high monthly temperatures were established including -6.8 degrees at Kindersley. On several occasions, daytime readings climbed well above the freezing mark in southern Saskatchewan. The only hint of winter occurred during the third week of the month when the temperatures dropped to -40 degrees in Manitoba.

Snowfall was a scanty 3 to 15 cm throughout the agricultural areas. At Calgary, 3.4 cm was only 16 percent of normal. By the end of the month, only 6 to 7 cm of snow remained on the ground in southern Manitoba, while in southern Alberta, the ground was free of snow cover. Cattle ranchers were enjoying a substantial saving in the animal feed costs by allowing their cattle on snow free range land.

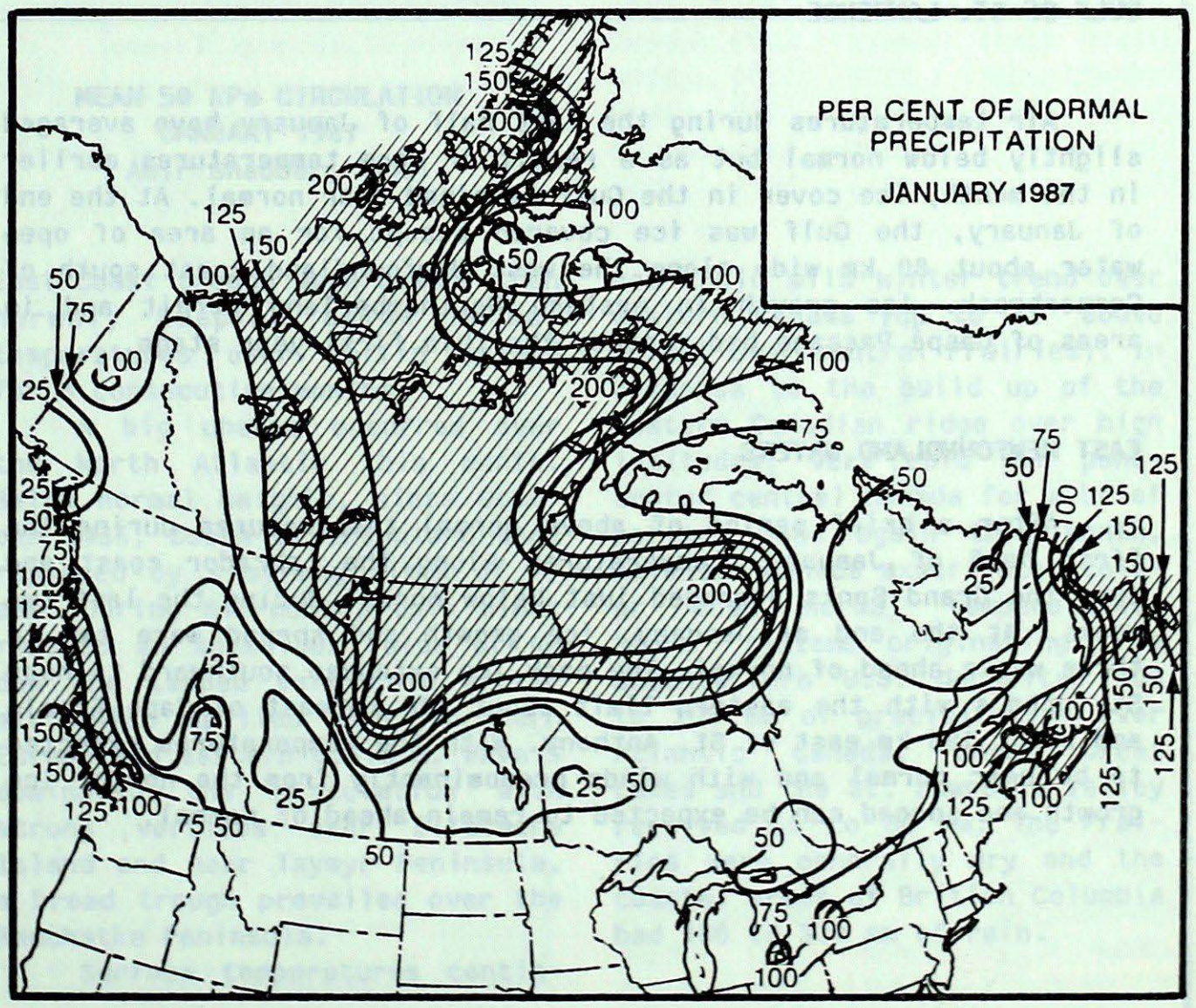


Ontario

The mild winter weather continued across Ontario. Moreover as the temperatures stayed up, the snow stayed away in most areas except in southern Ontario. Northwestern areas had their mildest January in 40 years. The temperatures were 3 to 5 degrees above normal in northern and central Ontario. Southern Ontario was also mild, but departures from normal were a modest 1.5 degrees.

Precipitation was lighter than normal throughout the Province. Both precipitation and snowfalls were only 25 to 75 per cent of normal in northern and central districts. Red Lake's 6.4 mm was the least in the Province and their lowest January amount since 1979. At St. Catharines and Windsor, snowfall in the 55 to 60 cm range was double their normal becoming the snowiest January since 1978.

Clouds prevailed over sunshine in all areas with sunshine amounts 5 to 30 hours shy of normal. Snow squalls on January 24-25 resulted in road closures in the snowbelt areas. A good snow base north of



EXTREMES

CLIMATIC EXTREMES IN CANADA - JANUARY, 1987

MEAN TEMPERATURE:		
WARMEST	AMPHITRITE POINT, BC	6.4°C
COLDEST	EUREKA/MOULD BAY, NWT	-35.6°C
HIGHEST TEMPERATURE:	CALGARY, ALTA	16.5°C
LOWEST TEMPERATURE:	CLYDE, NWT	-50.2°C
HEAVIEST PRECIPITATION:	AMPHITRITE POINT, BC	534.7 mm
HEAVIEST SNOWFALL:	GANDER, NFLD	158.8 cm
DEEPEST SNOW ON THE GROUND ON JANUARY 31st, 1987:	BATTLE HARBOUR, NFLD	173.0 cm
GREATEST NUMBER OF BRIGHT SUNSHINE HOURS:	EDMONTON, MUN. ALTA	149 hours

ICE CONDITIONS IN CANADIAN WATERS

Amir Shabbar, CCRM

GULF OF ST. LAWRENCE

Air temperatures during the last half of January have averaged slightly below normal but as a result of warm temperatures earlier in the month, ice cover in the Gulf remained near normal. At the end of January, the Gulf was ice covered except for an area of open water about 80 km wide along the west Newfoundland coast south of Cornerbrook. Ice growth in eastern Northumberland Strait and in areas of Gaspé Passage had reached the thin first year stage.

EAST NEWFOUNDLAND WATERS

After a brief period of above normal temperatures during the first half of January, temperatures along the Labrador coast and over the Grand Banks averaged just below normal during the last two weeks. At the end of January, ice growth and spread were two to three weeks ahead of normal. The pack ice extended southward to near St. John's with the eastern limit about 130 km east of Cape Freels and about 195 km east of St. Anthony. With the temperatures expected to be near normal and with winds predominantly from the north, ice growth and spread can be expected to remain ahead of normal.

Toronto provided excellent skiing conditions.

Quebec

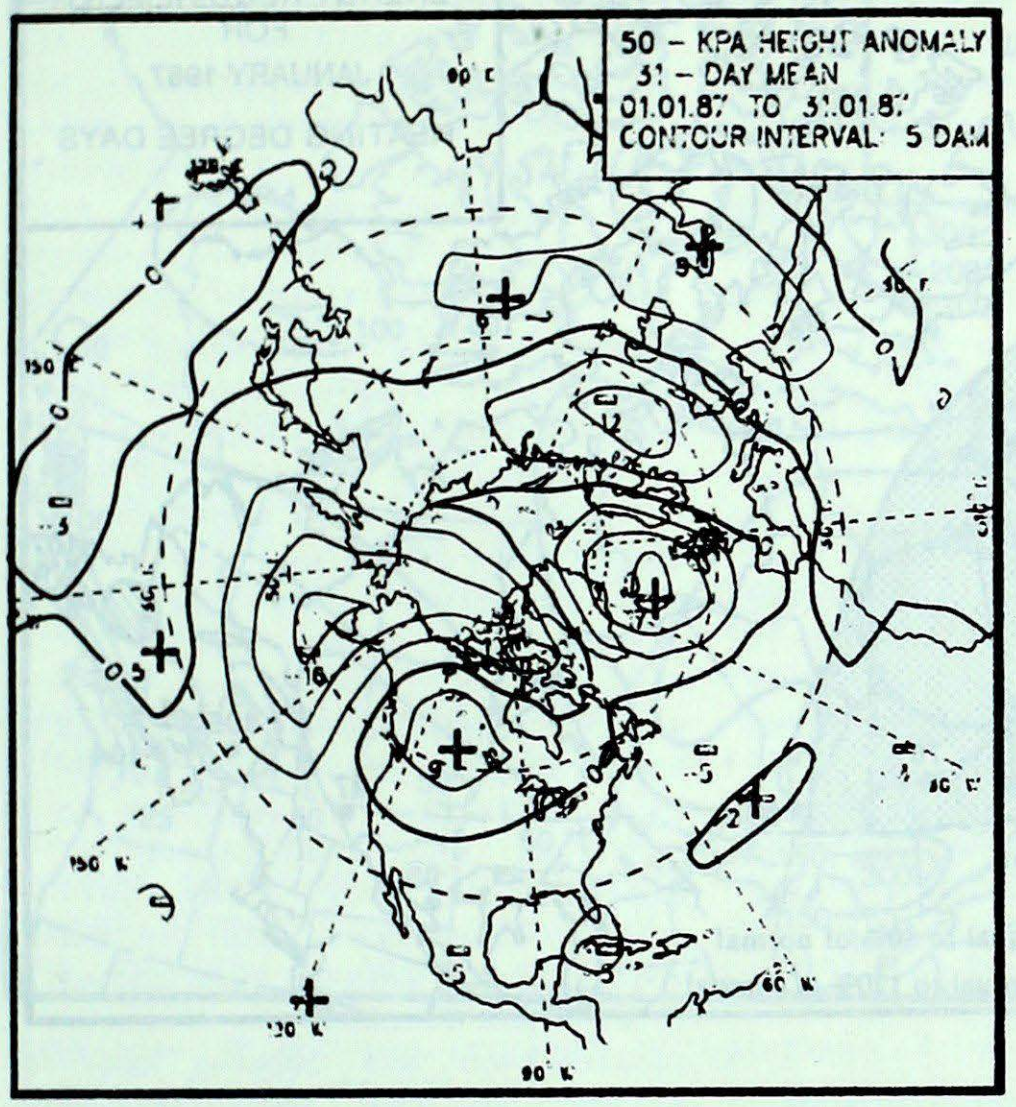
The persistence of mild weather during the first half of January resulted in above normal temperatures throughout most of Quebec. The eastern areas of the Province, however, continued to experience colder than normal conditions. The temperatures were over 5 degrees above normal on the southeast shores of Hudson Bay, but attained near normal values near Sept-Isles and Mont Joli. Monthly record high of -16.5 degrees was established at Chibougamau.

Except for west central Quebec and the lower northshore, precipitation was below normal throughout the Province. At Matagami, 25 mm of precipitation proved to be the lowest January amount since 1977. Blanc Sablon and Gaspé received heavy snowfalls with 144.5 cm and 105.3 cm respectively. Sept-Isles received its least January snowfall, 26 cm. Strong winds in excess of 100 k/mh on January 12 and 23 caused considerable property damage in eastern Quebec. On January 23, wind gust of 132 km/h set a January record at Baie Comeau.

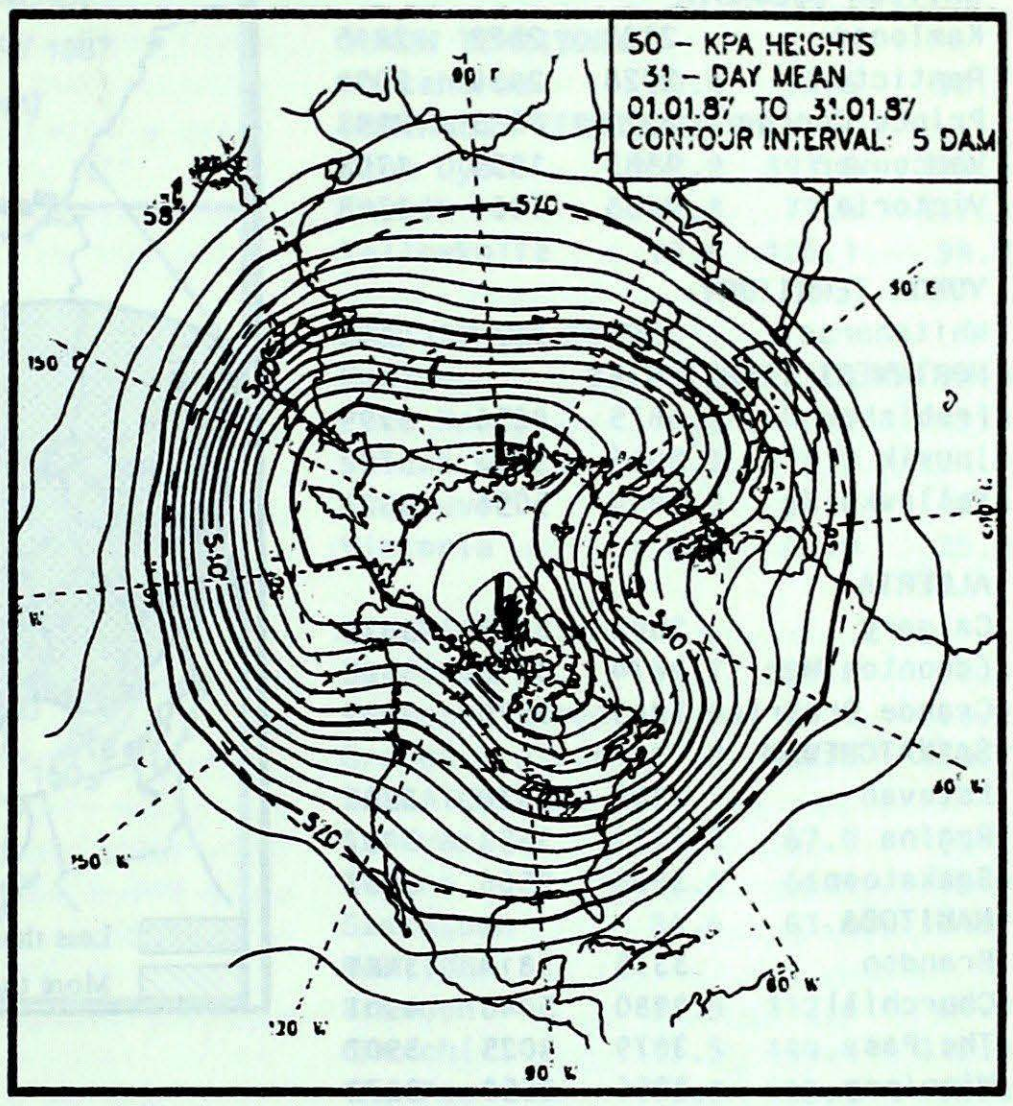
Atlantic Provinces

January was cold and snowy. The temperatures were below normal throughout the Provinces. The values ranged from near normal in western New Brunswick to nearly 5 degrees below the long-term average in Labrador. On January 26, cold weather helped to set a new electrical energy use record in Nova Scotia. A series of Atlantic storms battered the East Coast. These storms deposited up to 160 cm of snow in Newfoundland (see page 12B East Coast Storms). Snowfall was well above normal throughout, the only exception being northern New Brunswick and Labrador. At Fredericton, 134 cm was the largest January amount. By the end of the month, more than 100 cm of snow remained on the ground in parts of Newfoundland. Battle Harbour had the most 173 cm.

ATMOSPHERIC CIRCULATION



Mean 50 kPa height anomaly (dam)
January 1987



Mean 50 kPa heights (dam)
January 1987

MEAN 50 kPa CIRCULATION
JANUARY 1987

Amir Shabbar, CCRM

The January 50 kPa circulation had strong persistent features over North America and the Pacific Ocean. In response to the warming of sea surface temperatures (about 2° warmer than normal east of the dateline) in the equatorial Pacific Ocean, below normal heights continued in the North Pacific. This negative anomaly weakened and moved slightly eastward from its December location to lie just south of the Aleutian Islands. The other persistent feature of the flow was the anomalous western Canadian ridge. Its associated positive anomaly lost the December zonal orientation and became more concentric over the Prairies. The Arctic vortex and the accompanying East Coast trough were deeper than normal, keeping below normal temperatures over Baffin Island for 8 consecutive months.

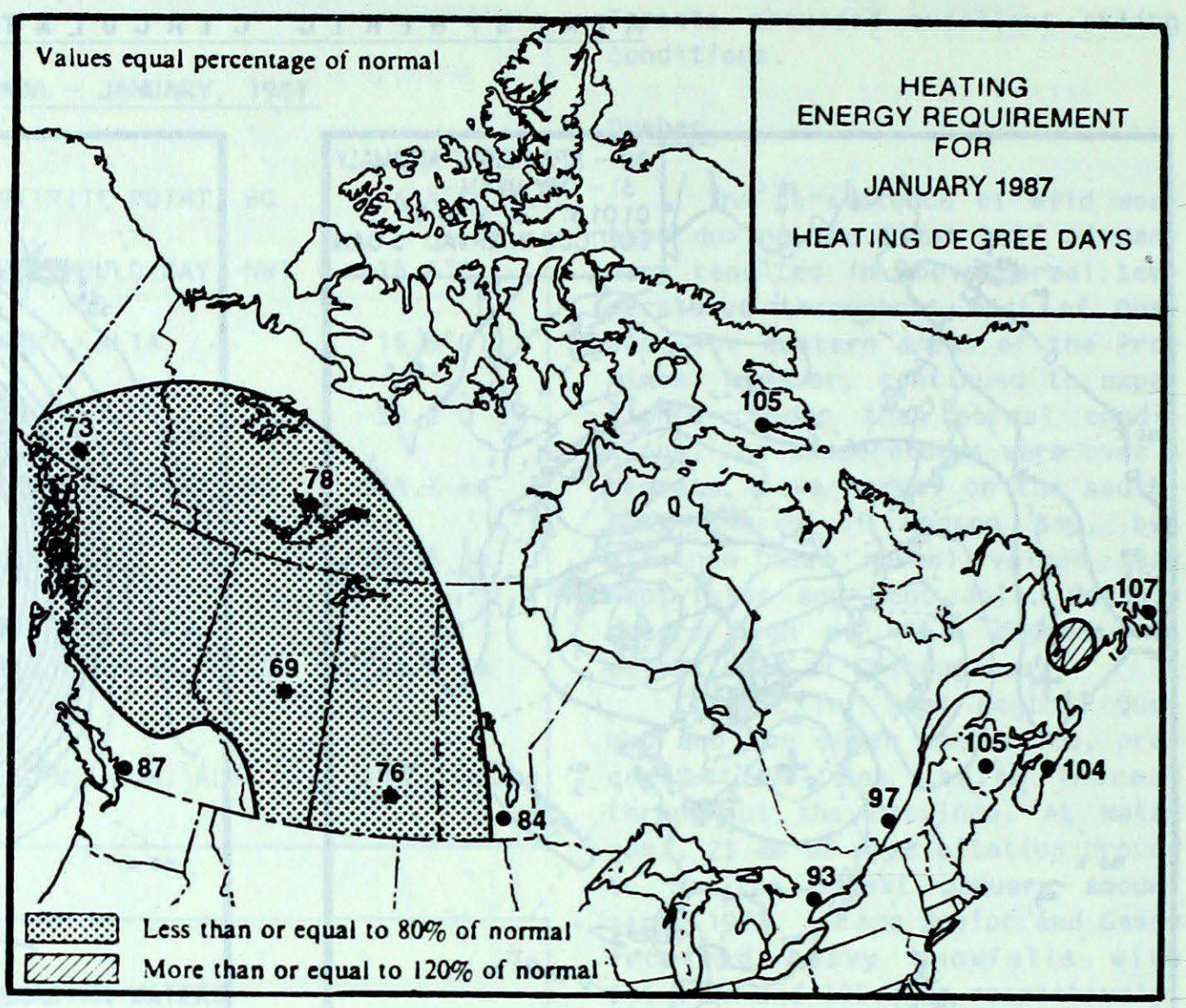
A big change occurred over the North Atlantic this month. Below normal heights, since October 1986, south of Greenland were replaced by a strong block of 17 dam. During mid-month, this block reached an anomalous value of 40 dam and tapped very cold Arctic air which spilled over northern Europe and eastern U.S.S.R. Wave 3 dominated the circulation with strong vortices over Ellesmere Island and near Taymyr Peninsula, a broad trough prevailed over the Kamchatka Peninsula.

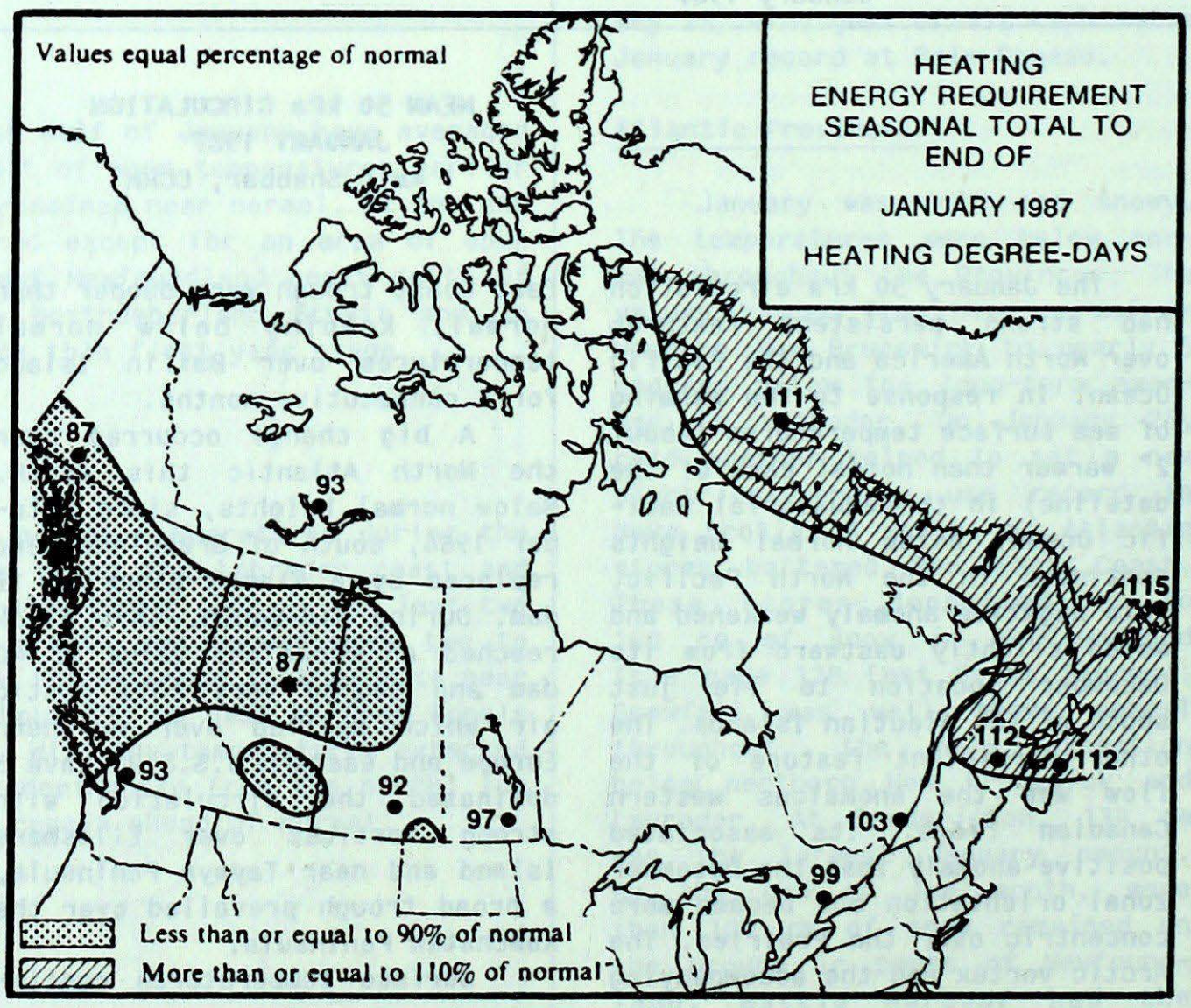
Surface temperatures continued their mild winter trend over western Canada (up to 12° above normal over central Prairies). In response to the build up of the western Canadian ridge over high latitudes, very cold air penetrated central Canada for a brief period. Once again this month, Atlantic Canada experienced colder than normal temperatures. Storm systems originating from southeastern U.S. deposited 100 to 200 mm of precipitation over Atlantic Canada. Lower Great Lakes and the St. Lawrence Valley received 50 to 80 mm. The Prairies were generally dry and the coastal areas of British Columbia had 100 to 300 mm of rain.

ENERGY

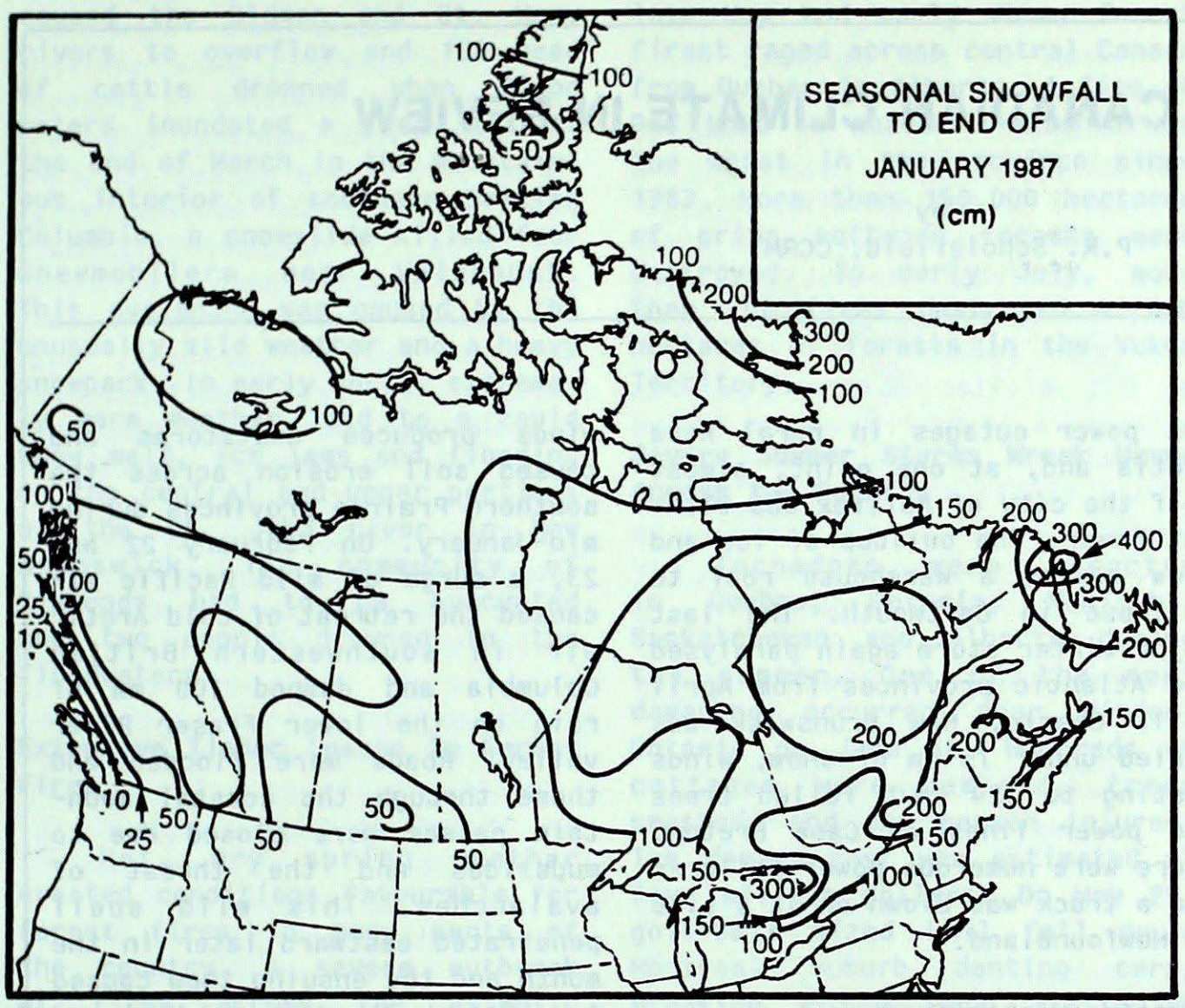
SEASONAL TOTAL OF HEATING DEGREE-DAYS TO END OF JANUARY

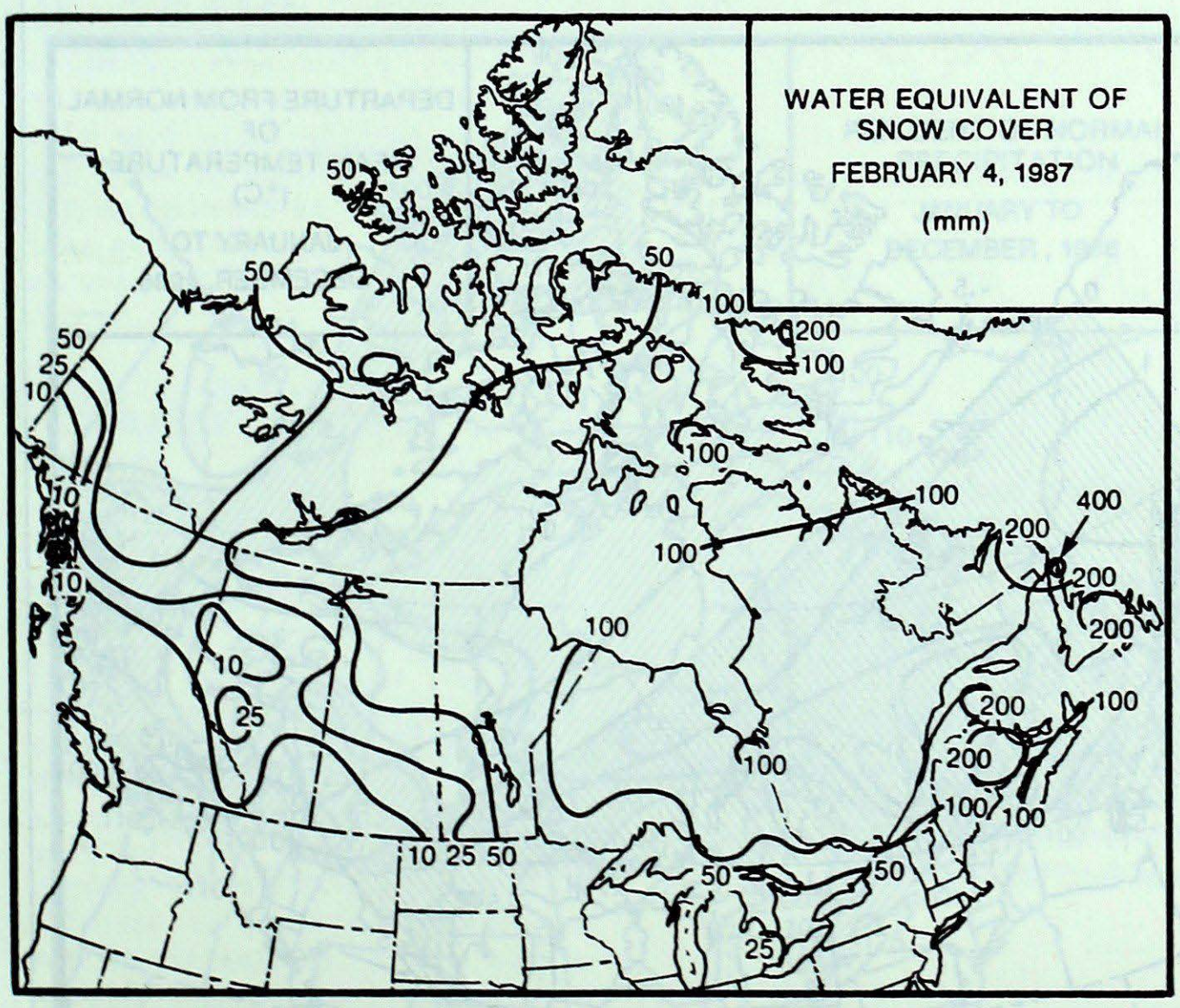
	1987	1986	NORMAL
BRITISH COLUMBIA			
Kamloops	2123	2522	2315
Penticton	2028	2434	2094
Prince George	2921	3383	3243
Vancouver	1583	1855	1708
Victoria	1688	1861	1748
YUKON TERRITORY			
Whitehorse	3595	3974	4145
NORTHWEST TERRITORIES			
Frobisher Bay	5875	4856	5299
Inuvik	5486	5777	5722
Yellowknife	4464	5056	4823
ALBERTA			
Calgary	2695	3073	3079
Edmonton Mun	2874	3218	3306
Grande Prairie	3245	3575	3637
SASKATCHEWAN			
Estevan	2849	3316	3201
Regina	3132	3553	3487
Saskatoon	3208	2566	3537
MANITOBA			
Brandon	3375	3814	3481
Churchill	4980	5046	4901
The Pas	3679	4025	3907
Winnipeg	3266	3658	3372
ONTARIO			
Kapuskasing	3585	3780	3606
London	2232	2209	2240
Ottawa	2616	2631	2641
Sudbury	2956	3104	3044
Thunder Bay	3127	3454	3226
Toronto	2228	2236	2241
Windsor	1934	2011	2000
QUÉBEC			
Baie Comeau	3516	3393	3276
Montréal	2578	2542	2502
Quebec	3002	2885	2833
Sept-Iles	3658	3494	3397
Sherbrooke	2942	2856	2945
Val-d'Or	3502	3602	3471
NEW BRUNSWICK			
Charlo	3251	3041	2835
Fredericton	2899	2723	2596
Moncton	2851	2657	2535
NOVA SCOTIA			
Halifax	2338	2190	2084
Sydney	2609	2338	2216
Yarmouth	2251	2108	2086
PRINCE EDWARD ISLAND			
Charlottetown	2704	2498	2375
NEWFOUNDLAND			
Gander	3017	2787	2623
St. John's	2811	2585	2439





SNOWFALL





SEASONAL SNOWFALL TOTALS (CM)
TO END OF JANUARY

	1987	1986	NORMAL
YUKON TERRITORY			
Whitehorse	80.4	93.6	90.7
NORTHWEST TERRITORIES			
Cape Dyer	357.2	393.6	383.6
Inuvik	107.8	77.6	117.3
Yellowknife	77.8	126.1	94.2
BRITISH COLUMBIA			
Kamloops	49.3	51.2	74.0
Port Hardy	4.8	8.2	49.3
Prince George	111.1	125.0	164.0
Vancouver	0.2	26.2	46.0
Victoria	0.0	62.0	35.4
ALBERTA			
Calgary	31.7	50.2	77.3
Edmonton Namao	41.9	74.3	78.2
Grande Prairie	47.2	67.1	114.7
SASKATCHEWAN			
Estevan	30.8	67.0	63.1
Regina	97.8	66.1	65.0
Saskatoon	34.6	61.0	64.7
MANITOBA			
Brandon	31.5	112.6	64.0
Churchill	115.5	144.4	117.0
The Pas	77.9	95.4	95.6
Winnipeg	65.3	85.0	71.7
ONTARIO			
Kapuskasing	187.4	186.1	193.4
London	119.0	140.4	132.6
Ottawa	110.2	106.8	132.0
Sudbury	144.6	158.7	149.6
Thunder Bay	81.0	154.1	127.7
Toronto	87.2	55.0	74.8
Windsor	83.7	79.8	70.4
QUEBEC			
Baie Comeau	213.2	266.8	203.2
Montréal	135.9	134.0	134.4
Quebec	165.0	214.6	201.9
Sept-Iles	189.7	225.9	243.9
Sherbrooke	191.6	160.5	179.8
Val-d'Or	193.2	175.8	187.3
NEW BRUNSWICK			
Charlo	197.2	168.0	219.1
Fredericton	179.6	163.3	155.9
Moncton	*	193.5	174.6
NOVA SCOTIA			
Shearwater	124.1	99.1	92.9
Sydney	194.9	201.3	154.7
Yarmouth	139.8	115.3	114.2
PRINCE EDWARD ISLAND			
Charlottetown	158.7	150.8	173.8
NEWFOUNDLAND			
Gander	355.2	152.4	193.7
St. John's	246.9	175.1	172.1

FEATURE

1986 - THE CANADIAN CLIMATE IN REVIEW

by
P.R. Scholefield, CCRM

The spectacular climatic anomalies and destructive weather events of 1986 will not be easily forgotten by many Canadians.

Atlantic Winter Storms

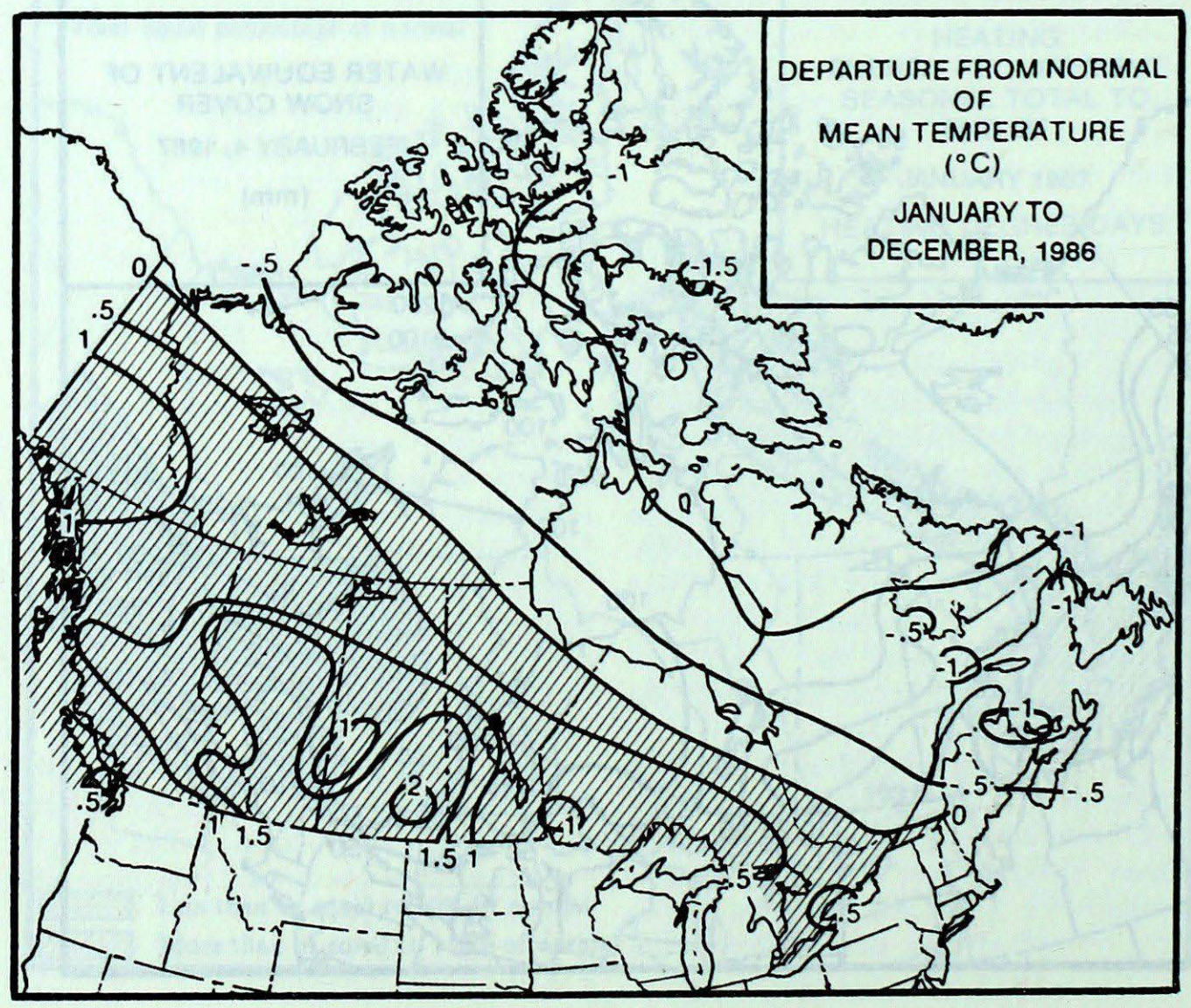
A series of major Atlantic storms inflicted considerable hardship on many communities in eastern Canada. Two successive snowstorms between January 3rd and 4th dumped 91 cm of snow on Moncton, New Brunswick and 70 cm at Gaspé, Quebec causing numerous automobile accidents and several deaths. During the first storm at Moncton, 66 cm of snow fell in 24 hours setting a new all-time record. Many parts of Atlantic Canada received more than 200 cm of snow during January. In eastern Quebec, Blanc Sablon received a monthly record 182 cm of snow. Another intense low pressure system moved into Atlantic Canada on January 14 bringing snow, strong winds and "zero" visibilities which caused business and school closures across Nova Scotia and Prince Edward Island. Wind-gusts reached 148 km/hour at Daniel's Harbour Newfoundland.

Winds gusted to 145 km/h at Twillingate, Newfoundland on February 16 and heavy rains and melting snow from the same storm caused flooding in many parts of St. John's. Later in the month, Cape Breton, Nova Scotia was paralyzed by one of the worst snowstorms of the century. Sydney airport received 75 cm of snow from this storm on February 22 and 23 which was the largest consecutive two-day snowfall since records began in 1870.

On March 15 and 16, a severe freezing rain storm caused numerous power outages in rural Nova Scotia and, at one point, almost half the city of Halifax was without power. The buildup of ice and snow caused a warehouse roof to collapse in Dartmouth. The last major winter storm again paralysed the Atlantic provinces from April 9-11. Charlo, New Brunswick was buried under 75 cm of snow, winds gusting to 124 km/h felled trees and power lines on Cape Breton. There were numerous power failures and a truck was blown on it's side in Newfoundland.

Damaging Winter Thaws

A period of unusually mild, dry weather combined with strong winds produced duststorms and caused soil erosion across the southern Prairie provinces during mid-January. On February 22 and 23, a surge of mild Pacific air caused the retreat of cold Arctic air in southwestern British Columbia and dumped 100 mm of rain on the lower Fraser River valley. Roads were flooded and those through the coastal mountain passes were closed due to mudslides and the threat of avalanches. This mild spell penetrated eastward later in the month and the ensuing thaw caused local flash flooding and hampered construction and logging operations in the interior of British Columbia. Further east



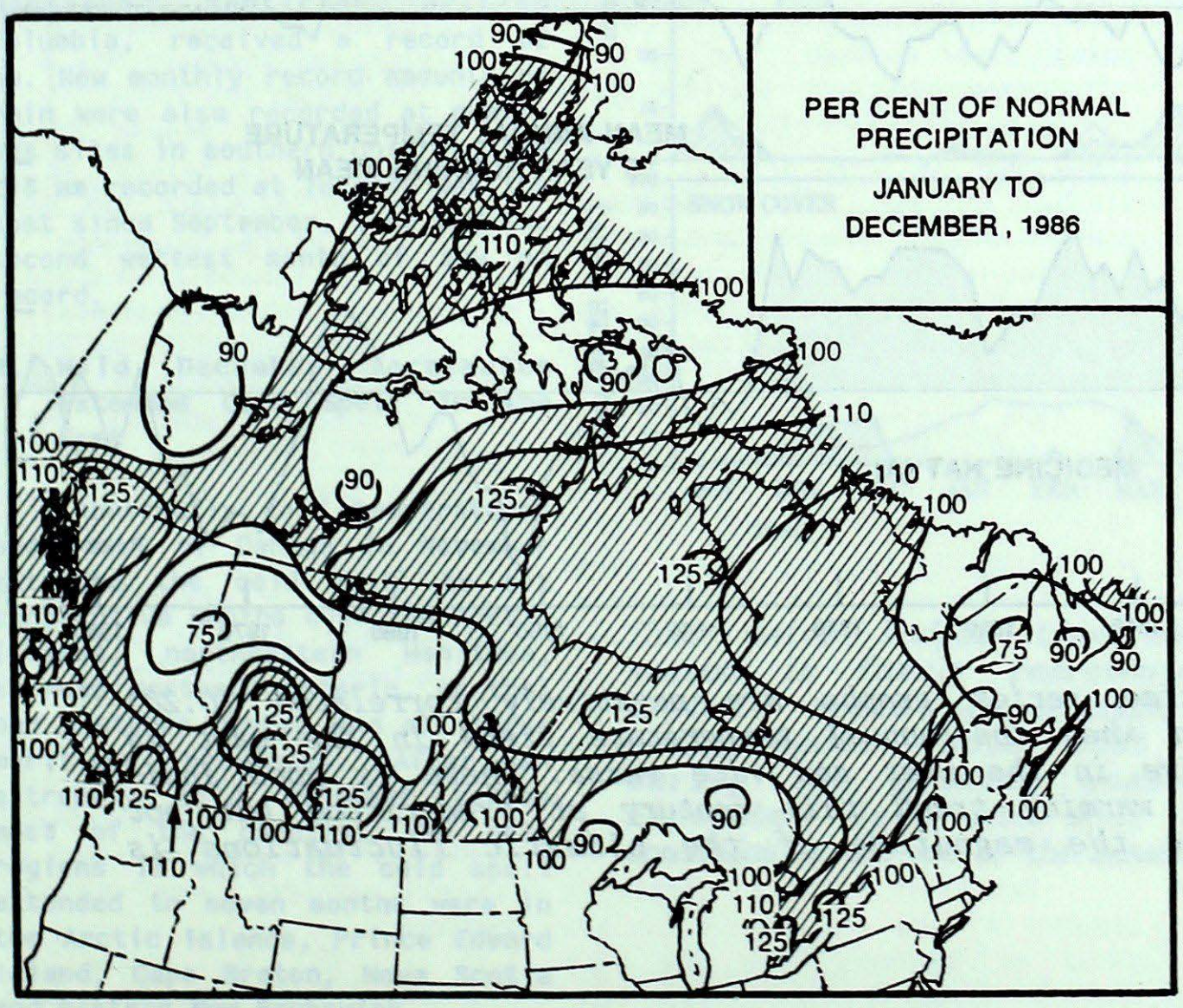
in Alberta, rapid melting of snow caused the Oldman and St. Mary rivers to overflow and 150 head of cattle drowned when flood waters inundated a feed lot. At the end of March in the mountainous interior of southern British Columbia, a snowslide killed four snowmobilers near Valemount. This avalanche was caused by the unusually mild weather and a heavy snowpack. In early April, extremely warm weather lead to a rapid snow melt, ice jams and flooding on the central and upper portions of the St. John river in New Brunswick. The community of Simmonds had to be evacuated and two people drowned in the floodwaters.

Extensive Timber Losses to Forest Fires

Hot, dry spring weather created conditions favourable for forest fires in many parts of the country. A severe outbreak of fires across the Atlantic provinces in mid May resulted in losses of millions of dollars of timber. Thousands of people had to be evacuated and the Trans Canada highway had to be closed. During late May and early June, forest firest raged across central Canada from Quebec to Alberta. A fire at Red Lake in northern Ontario was the worst in the province since 1983. More than 150,000 hectares of prime softwood forests were destroyed. In early July, more than 100 fires destroyed 41,000 hectares of forests in the Yukon Territory.

Severe Summer Storms Wreak Havoc Across the Country

Tornadoes were reported in Quebec, Ontario, Manitoba, Saskatchewan and Alberta during the summer. One of the most damaging occurred near Minden, Ontario on June 16. Hundreds of cottages were damaged, trees smashed, and one person injured. The damage cost was estimated at four million dollars. On May 29, golf-ball sized hail fell on a Montreal suburb denting cars, breaking windows and flattening gardens. A violent squall line caused the death of two girls by lightning near Niagara Falls Ontario on June 29. Torrential rains of 65- 125 mm in mid-July in central Alberta caused extensive river flooding. In Edmonton, 300 river-valley homes were inundated. Two deaths were attributed to the flooding. On July 27, violent thunderstorm winds caused the crash of a helicopter near Quebec City. Severe hailstorms on August 1 struck two of Ontario's principal fruit and vegetable growing areas causing an estimated 20 million dollars worth of damage. A young girl was killed on August 15 when thunderstorm winds toppled a steel and wood archway in Toronto on the grounds of the Canadian National Exhibition.



Disruptive Out-of-Season Winter Weather

The worst Spring snowstorm ever recorded in Alberta dumped 50 cm of snow in the southwest on May 13-15. The heavy wet snow brought down electricity and telephone lines and many roads and schools were closed. A killing frost in early June caused three million dollars damage to blueberry fields in the Lake St. John area of Quebec. In mid July, 15-25 cm of snow disrupted tourists in the national parks in the Rocky Mountains of Alberta and British Columbia. Winter arrived early in the Yukon where Dawson recorded a monthly record low of -8.4°C on August 23. Calgary was surprised by a 20 cm snowfall on September 25.

Extended Wet Spells Plague Most Agricultural Regions

July and August rainfall nearly doubled the normal amounts across southern Ontario during July and August and more than doubled them during September. Crop damage losses were estimated as high as 100 million dollars. More than one million dollars was needed to repair damages and strengthen waterways in Toronto. The yields of warm weather crops were also significantly reduced in Quebec and the Maritimes by the extended spell of cool, wet weather during the harvesting season. September was the wettest month ever recorded at some locations in the

FEATURE

drybelt areas of southern Alberta and southwestern Saskatchewan. The record Prairie grain harvest was delayed and the prolonged wetness diminished the quality of the grain. On the positive side, the rain significantly replenished soil moisture reserves.

Record High Great Lakes Water Levels

The abnormally high rainfalls this summer continued the trend in recent years to higher water levels in the Great Lakes. At the end of October, levels were at a record high. Shoreline residents were forced this past summer to spend considerable resources in efforts to reinforce and protect eroding shorelines. Shoreline damages caused by a windstorm on October 5 were estimated into the the hundreds of millions of dollars.

Early Winter Storms are costly

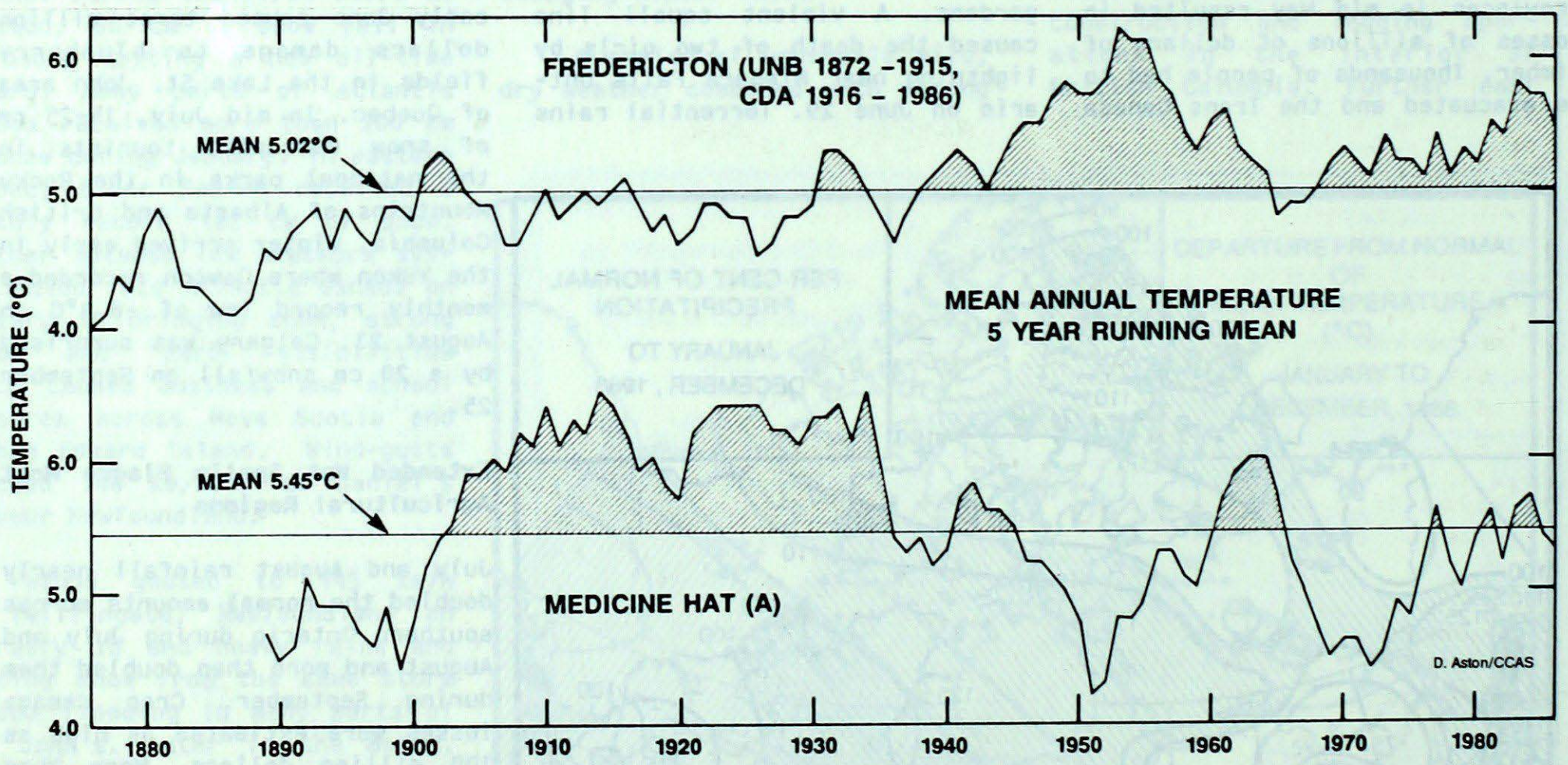
Some of the earliest heavy snowstorms on record struck southern Manitoba, most of Ontario, southern Quebec and northern New Brunswick in November. On November 7-9, the worst winter storm since 1966, paralysed Winnipeg, closing the International airport. Snow clearing costs were estimated at 2.5 million dollars. Halifax received a 24-hour November record snowfall of 28 cm on the 19th. A severe freezing rain storm struck the Ottawa valley on December 24 causing lengthy power outages for more than 20,000 residents.

Extraordinary Climatological Events

1. Record Winter Mild Spells Extend into Spring

The first five months of 1986 were characterized by extensive positive temperature anomalies which, in January, were centred out west then appeared to migrate eastward. Mean monthly temperatures were above normal for the first five months consecutively in parts of northern Alberta, central Saskatchewan, southern and central Manitoba, northwestern and southern Ontario, and southern Quebec. It was the warmest January on record at many locations in British Columbia, Alberta and Saskatchewan. Some of the monthly record maximum temperatures that were established in the subsequent months are as follows:

February 27 :
18.4°C at Vancouver, B.C.
March 20 :
20.3°C at Kelowna, B.C.
March 30 :
26.6°C at Windsor, ONT.



These two long-term time series graphs are negatively correlated (0.28) which means that often when the annual temperature trend in the east is positive, it is negative in the west and vice versa. There is good indication of a long-term warming trend this century at Fredericton but not at Medicine Hat where the magnitude of the climatic fluctuations is greater.

March 31 :
18.8°C at Shearwater, N.S.
April 24 :
24.1°C at St. John's, Nfld
April 25 :
21.2°C at Goose Bay, Labrador
April 28 :
29.9°C at Timmins, ONT.

2. Record Dry Spells on the South Coast of British Columbia

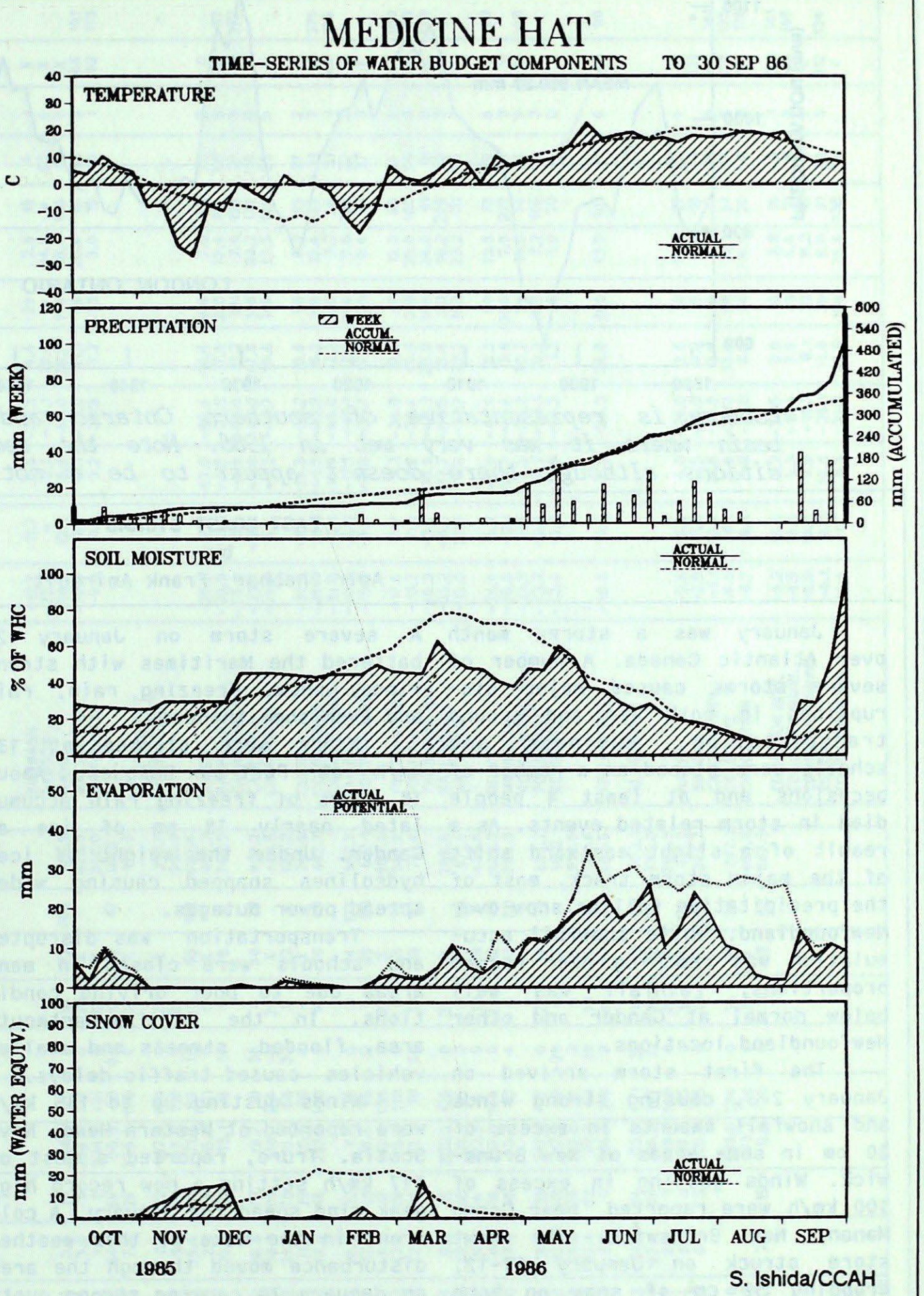
A period of 53 consecutive days without precipitation ended in Vancouver and Victoria on September 9. It was the longest dry spell on record at Victoria and the second longest at Vancouver. During the month of October, no precipitation was recorded for 24 consecutive days at Vancouver which was a new October record.

3. Record Precipitation Amounts in September

In the western drybelt area, Medicine Hat, Alberta received an incredible monthly record of 198 mm of rain which was more than six times the normal for September. Penticton, British Columbia, received a record 62 mm. New monthly record amounts of rain were also recorded at numerous sites in southern Ontario. The 218 mm recorded at Toronto was the most since September, 1843 and the second wettest month of any on record.

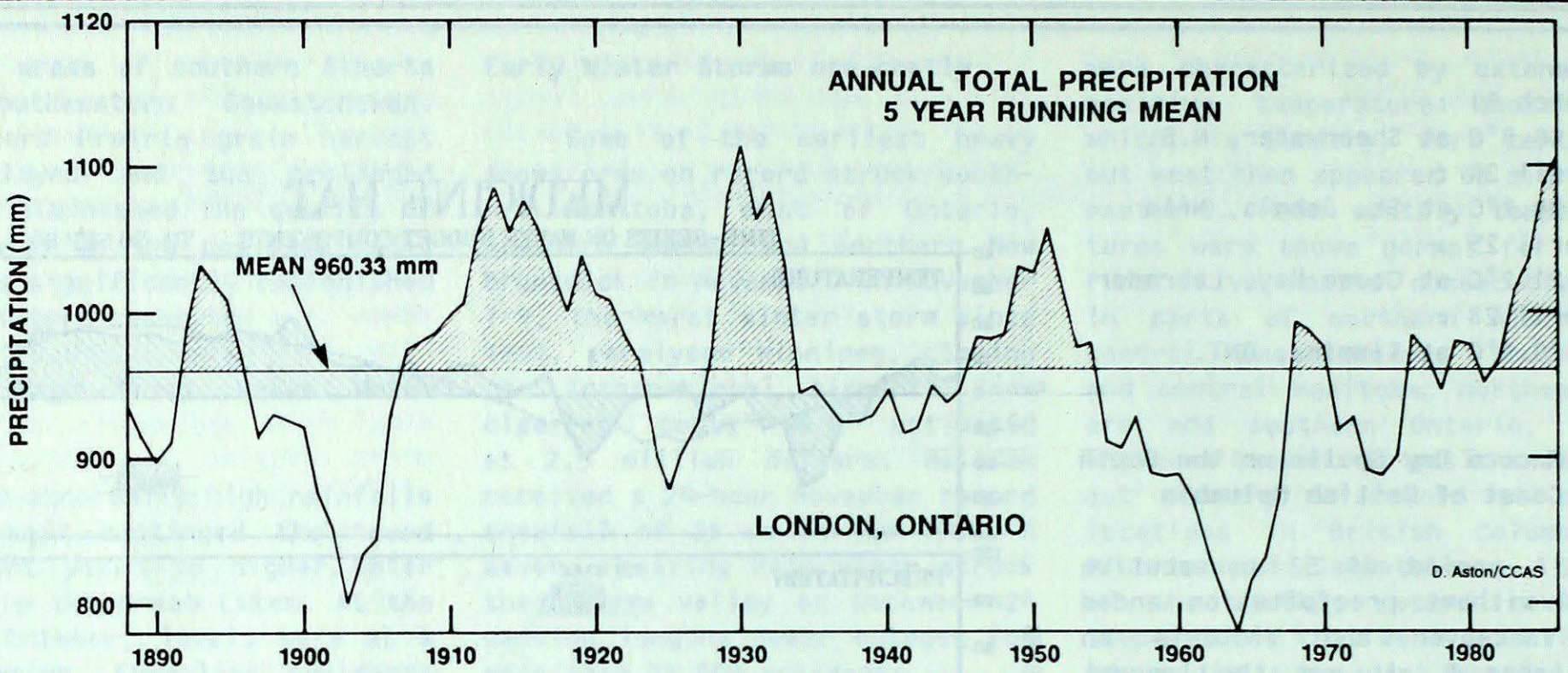
4. Mild December Terminates Extended Cold Spell in the East

Abnormally cold temperatures over most of Canada in November extended the cold spell to six consecutive months over the Arctic Islands, northeastern Manitoba, extreme northern Ontario, central and southern Quebec and all three maritimes provinces. After an extremely mild December across most of the country, the only regions in which the cold spell extended to seven months were in the Arctic Islands, Prince Edward Island, Cape Breton, Nova Scotia and eastern New Brunswick.



This water budget time series for the 1986 growing season is fairly representative of conditions in the drybelt areas of southern Alberta and southwestern Saskatchewan. Note that below normal evaporation during the growing season and heavy rainfall in September left the soil moisture reserves in good condition at the end of the season.

FEATURE



London is representative of southern Ontario and the lower Great Lakes basin where it was very wet in 1986. Note the recent trend to wetter conditions although there doesn't appear to be a noticeable long-term trend.

EAST COAST STORMS

by

Amir Shabbar, Frank Amirault

January was a stormy month over Atlantic Canada. A number of severe storms caused major disruptions in both air and ground transportation. Business and schools were closed on a number of occasions and at least 4 people died in storm related events. As a result of a slight eastward shift of the major storm track, most of the precipitation fell as snow over Newfoundland. While snowfall accumulation was reaching near record proportions, rainfall was well below normal at Gander and other Newfoundland locations.

The first storm arrived on January 2-3, causing strong winds and snowfall amounts in excess of 20 cm in some areas of New Brunswick. Winds gusting in excess of 100 km/h were reported near Grand Manan, New Brunswick. The next storm struck on January 11-12, dropping 52 cm of snow on both Fredericton and Moncton. Late on January 11, St. Paul Island reported a wind gust of 148 km/h. There were power outages and numerous cancellations reported as well as a number of business and schools were closed down.

Up to 16 more centimeters of snow fell over the Maritimes from a storm that passed south of Nova Scotia on January 18-19.

A severe storm on January 23 battered the Maritimes with strong winds, snow, freezing rain, rain and even some thunder.

Winds were clocked at 132 km/h at Port-aux-Basques. About 18 hours of freezing rain accumulated nearly 18 mm of ice at Gander. Under the weight of ice, hydrolines snapped causing widespread power outages.

Transportation was disrupted and schools were closed in many areas due to poor driving conditions. In the Halifax-Dartmouth area, flooded streets and stalled vehicles caused traffic delays.

Winds gusting up to 135 km/h were reported at Western Head, Nova Scotia. Truro, reported a gust of 117 km/h setting a new record high peak wind speed for January. A cold front in the wake of this weather disturbance moved through the area on January 24 causing strong gusty winds, thunder and heavy snow showers. A few days later on January 26, another storm passing south of Nova Scotia produced blizzard conditions that crippled most of the Maritimes. Shelburne reported a total of 32.5 cm, setting a new record 24 hour snowfall.

The final blow was struck on January 31 and continued into the first of February when the East Coast was once again battered by strong winds, heavy snow and freezing precipitation.

A total of 67.4 centimeters of snow fell on Moncton, and totals in excess of 40 cm were reported in Prince Edward Island, southern New Brunswick and some areas of Nova Scotia. The remaining areas received lesser amounts with parts of northern New Brunswick receiving the least.

At least 4 people died in highway accidents related to that storm in northeastern New Brunswick. The storm virtually isolated Prince Edward Island and the Moncton area of New Brunswick; air and land transportation as well as ferry service were cancelled.

On Sunday, February 1st, a number of motorists were left stranded and had to seek refuge in nearby motels in an area near the New Brunswick - Nova Scotia border when a stretch of the Trans-Canada Highway was closed due to heavy blowing and drifting snow.

So far this winter, Gander has received 385 cm of snow, close to the normal winter accumulation of 405 cm. As a result, local snow removal budget was severely strained.

JANUARY 1987

STATION	Temperature C Mean	Difference from Normal	Maximum	Minimum	Snowfall (cm)	% of Normal Snowfall	Total Precipitation (mm)	% of Normal Precipitation	Snow on ground at end of month (cm)	No. of days with Precip 1.0 mm or more	Bright Sunshine (hours)	% of Normal Bright Sunshine	Degree Days below 18 C
BRITISH COLUMBIA													
ABBOTSFORD	3.5	1.9	15.8	-6.0	3.4	10	169.1	80	0	16	72	106	451.5
ALERT BAY	4.3	1.5	9.3	-0.8	3.0	8	268.4	137	0	21	X		423.5
AMPHITRITE POINT	6.4	1.7	11.0	-1.3	1.0	6	534.7	131	0	22	X		359.0
BLUE RIVER	-5.2	5.5	4.6	-20.8	64.7	66	50.3	59	88	12	22	47	MSG
BULL HARBOUR	4.7	1.5	11.7	-1.0	7.4	29	336.4	138	0	24	X		413.9
CAPE SCOTT	5.8	1.7	10.8	0.7	5.1	22	427.9	139	0	27	X		377.7
CAPE ST.JAMES	6.2	2.3	9.2	0.3	5.2	31	193.8	119	0	25			365.9
CASTLEGAR	-2.4	1.4	5.2	-13.8	59.4	71	71.2	84	18	9	55	122	632.4
COMOX	4.9	2.7	12.2	-2.5	2.0	4	215.8	111	0	17	X		407.2
CRANBROOK	-5.9	2.7	5.4	-19.7	15.3	31	13.1	26	14	5	78	*	740.8
DEASE LAKE	-12.0	7.7	3.5	-33.2	26.6	78	19.7	70	56	6	50	79	937.2
ETHELDA BAY	4.2	2.3	9.5	-4.9	18.2	35	510.1	154	0	26	X		426.5
FORT NELSON	-14.6	9.2	6.3	-30.3	24.6	78	16.6	66	33	5	82	*	1011.2
FORT ST.JOHN	-6.2	11.5	6.0	-24.5	11.2	29	10.6	29	4	4	X		749.9
HOPE	2.1	2.5	11.5	6.3	13.5	16	257.2	100	0	16	10	59	492.7
KAMLOOPS	-0.8	5.3	12.6	13.4	10.3	32	7.8	24	0	3	74	127	582.7
KELOWNA	-2.1	3.0	5.7	-13.5	17.8	58	14.4	46	2	5	39	88	622.1
LANGARA	5.1	2.8	9.5	1.2	5.6	17	212.4	134	0	22	X		400.6
LYTTON	0.6	4.4	12.2	-9.1	42.6	76	90.8	118	0	8	45	72	540.9
MACKENZIE	-6.6	7.7	4.0	-23.0	72.6	90	62.4	70	60	13	35	62	761.9
MCINNES ISLAND	5.5	2.6	9.6	-0.7	5.8	15	352.5	126	0	24	X		388.6
PENTICTON	-0.5	2.2	6.8	-10.6	13.3	45	20.8	65	0	8	43	89	571.6
PORT ALBERNI	4.0	*	12.6	-5.7	6.8	*	472.9	*	0	19	28	*	435.5
PORT HARDY	4.3	1.9	9.9	-1.5	4.2	14	347.8	164	0	23	42	65	422.3
PRINCE GEORGE	-4.2	7.9	6.3	-17.8	27.9	45	30.3	52	4	8	52	88	686.3
PRINCE RUPERT	3.9	4.1	10.6	-5.3	19.9	39	267.7	117	0	22	34	70	436.7
PRINCETON	-5.4	2.5	6.1	-22.6	62.2	112	47.5	86	26	6	70	*	MSG
QUESNEL	-3.1	8.0	8.0	-14.0	14.8	24	13.5	24	3	5	X		652.5
REVELSTOKE	-1.8	4.8	5.3	-13.8	92.4	63	72.7	59	19	13	18	40	611.6
SANDSPIT	5.0	3.0	10.8	-3.3	2.0	5	214.9	149	0	24	43	74	403.5
SMITHERS	-4.7	6.2	4.1	-20.3	31.0	54	39.5	71	27	10	38	69	703.1
TERRACE	-0.7	5.2	5.2	-8.7	93.4	80	165.4	107	21	19	18	34	734.0
VANCOUVER HARBOUR	5.1	1.7	12.1	1.7	0.6	2	235.9	108	0	20	X		398.3
VANCOUVER INT'L	4.4	1.9	12.2	-4.4	0.2	0	147.0	95	0	16	59	110	421.2
VICTORIA GONZ. HTS	5.6	1.5	14.3	-1.3	0.8	5	105.4	95	0	13	75	110	384.7
VICTORIA INT'L	5.9	2.8	12.6	-2.0			207.0	134	0	16	55	86	377.1
VICTORIA MARINE	4.9	1.1	14.8	-3.2			173.1	76	0	15	X		406.6
WILLIAMS LAKE	-3.9	6.5	6.4	-18.1	7.9	15	8.9	20	8	3	65	93	662.3

STATION	Temperature C Mean	Difference from Normal	Maximum	Minimum	Snowfall (cm)	% of Normal Snowfall	Total Precipitation (mm)	% of Normal Precipitation	Snow on ground at end of month (cm)	No. of days with Precip 1.0 mm or more	Bright Sunshine (hours)	% of Normal Bright Sunshine	Degree Days below 18 C
YUKON TERRITORY													
BURWASH	-12.7	11.7	3.5	-35.3	4.4	29	2.9	15	4	1	X		948.7
DAWSON	-22.4	*	0.7	-44.1	19.4	*	14.8	*	63	6	X		1254.3
MAYO	-16.7	12.3	5.9	-44.0	28.8	154	18.6	106	19	7	X		1074.5
WATSON LAKE	-18.6	8.1	4.1	-37.0	31.1	76	20.4	61	41	3	46	101	1146.4
WHITEHORSE	-9.0	11.7	3.2	-33.9	7.2	33	3.0	16	18	1	52	113	838.1
NORTHWEST TERRITORIES													
ALERT	-29.7	2.4	-13.0	-40.4	14.4	194	7.0	98	36	2	0		1479.0
BAKER LAKE	-29.9	3.1	-6.5	-37.8	17.6	220	13.4	174	60	5	24	67	1485.8
CAMBRIDGE BAY	-33.0	0.6	-4.9	-44.0	11.2	211	7.6	158	27	3	3	272	1579.6
CAPE DYER	-25.7	-3.6	-2.0	-42.3	107.8	146	89.2	137	110	8	X		1352.2
CAPE PARRY	-24.4	4.4	-7.3	-40.7	16.6	169	13.5	190	20	5	X		1316.1
CLYDE	-31.0	-4.5	-14.3	-50.2	8.6	86	8.2	82	37	2	0		1518.7
COPPERMINE	-25.0	5.1	-1.5	-43.2	15.2	165	12.4	133	21	7	15	375	1331.9
CORAL HARBOUR	-31.8	-2.1	-10.9	-46.0	2.2	25	2.2	26	31	1	46	104	1542.9
EUREKA	-35.6	0.8	-17.1	-48.1	7.8	244	7.8	269	22	3	0		1661.0
FORT RELIANCE	-19.7	9.9	-0.8	-35.7	17.3	120	8.4	70	37	3	X		1168.6
FORT SIMPSON	-17.5	10.7	7.1	-34.8	12.4	59	12.0	60	34	6	48	100	1098.5
FORT SMITH	-15.7	11.1	7.2	-34.4	46.9	219	29.6	160	56	8	38	66	1055.1
FROBISHER BAY	-28.3	-2.7	-10.9	-40.3	28.8	104	24.0	91	17	8	47	133	1435.6
HALL BEACH	-35.2	-4.2	-12.7	-46.5	18.6	211	18.2	209	33	3	X		1650.7
HAY RIVER	-15.0	10.8	6.6	-32.7	23.2	103	23.2	111	50	7	X		1023.7
INUVIK	-24.4	5.2	-2.8	-44.9	18.2	89	13.5	75	39	5	6	82	1316.0
MOULD BAY	-35.6	-2.1	-24.7	-47.4	7.6	230	7.5	277	39	3	0		1661.2
NORMAN WELLS	-21.3	7.6	0.5	-39.3	20.5	99	14.5	74	16	5	32	108	1218.2
POND INLET	-33.7	-2.6	-16.3	-44.1	10.2	127	7.2	146	12	2	X		1603.1
RESOLUTE	-33.4	-1.3	-15.9	-44.2	1.2	35	1.0	30	14	0	0		1595.7
YELLOWKNIFE	-18.6	10.2	0.3	-36.3	24.8	160	13.5	101	17	6	40	90	1136.5
ALBERTA													
BANFF	-5.6	5.9	4.0	-24.0	12.6	28	10.4	27	32	4	X		
BROOKS	-2.9	11.0	14.5	-25.0	6.0	27	4.0	18	1		121	*	
CALGARY INT'L	-1.1	10.7	16.5	-18.5	3.4	16	1.3	8	0	0	144	141	590.1
COLD LAKE	-9.9	9.1	5.6	-26.3	13.4	56	12.7	57	17	5	123	135	862.1
CORONATION	-6.7	9.8	5.9	-21.0	6.8	26	4.4	20	4	2	141	118	765.5
EDMONTON INT'L	-6.2	10.3	6.2	-20.5	3.0	10	3.8	15	5	1	138	141	748.6
EDMONTON MUNI.	-4.5	10.5	9.3	-17.4	3.6	13	5.4	21	8	3	149	165	698.1
EDMONTON NAMAO	-5.0	10.6	7.9	-18.1	8.1	32	11.2	45	3	3	X		712.7
EDSON	-6.1	9.3	10.8	-26.1	11.0	30	8.0	31	20	3	112	134	745.8
FORT CHIPEWYAN	-14.4	11.7	6.5	-31.0	22.6	106	26.4	138	32		X		

JANUARY 1987

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FORT MCMURRAY	-9.2	12.6	9.2	-23.9	30.7	116	20.3	89	31	7	88	99	841.6
GRANDE PRAIRIE	-7.9	9.8	4.8	-27.9	6.0	15	5.9	17	10	2	104	*	807.2
HIGH LEVEL	-14.6	10.0	6.6	-34.9	30.0	112	26.4	128	52	8	24	44	1011.0
JASPER	-4.7	8.1	6.3	-22.3	6.8	17	29.2	85	15	4	75	*	705.0
LETHBRIDGE	-1.0	9.3	13.8	-25.7	9.1	32	8.3	35	0	2	141	147	587.5
MEDICINE HAT	-2.6	10.0	13.3	-25.9	6.9	26	6.8	29	0	3	137	147	638.2
PEACE RIVER	-9.1	11.3	5.5	-23.5	6.6	24	6.8	30	6	2	X		839.2
RED DEER	-5.5	10.0	10.9	-26.4	9.4	37	8.9	37	3	2	X		730.6
ROCKY MTN HOUSE	-4.1	8.9	15.7	-29.6	15.8	51	10.5	38	1	3	X		696.2
SLAVE LAKE	-8.3	9.7	10.3	-26.0	8.4	25	10.4	37	10	4	91	108	816.1
SUFFIELD	-3.0	10.7	13.0	-22.2	8.8	39	7.2	34		3	130	132	650.2
WHITECOURT	-5.9	10.7	6.6	-20.4	13.8	43	12.7	43	13	3	X		739.3
SASKATCHEWAN													
BROADVIEW	-8.3	10.6	8.2	-23.6	9.2	48	7.6	50	2	3	111	92	813.9
COLLINS BAY	-17.5	8.7	3.5	-39.0	36.0	183	26.8	158	33	8	59	*	1099.8
CREE LAKE	-13.6	11.5	5.8	-34.5	26.8	128	20.3	137	37	7	49	57	980.5
ESTEVAN	-6.8	9.5	11.4	-22.2	13.4	65	10.4	54	5	3	120	99	767.8
HUDSON BAY	-11.6	9.7	4.5	-34.6	13.4	52	8.4	42	30	3	95	*	915.9
KINDERSLEY	-6.8	10.4	10.8	-21.0	3.2	17	1.4	8		0	X		767.0
LA RONGE	-12.3	10.3	5.0	-29.5	40.5	183	37.3	189	57	7	X		940.1
MEADOW LAKE	-10.8	8.7	3.4	-29.7	19.8	98	16.2	75	21	4	117	*	891.8
MOOSE JAW	-6.1	9.7	11.5	-21.0	6.6	28	5.4	29	1	2	127	120	
NIPAWIN	-12.0	*	2.1	-32.3	26.2	*	11.4	*	27	2	80	*	931.3
NORTH BATTLEFORD	-9.7	9.3	6.4	-28.1	14.9	67	13.9	70	12	5	X		856.1
PRINCE ALBERT	-11.6	9.9	1.6	-31.1	20.6	113	16.9	101	21	5	98	102	918.9
REGINA	-8.9	9.0	7.6	-25.0	15.8	79	12.0	72	11	4	107	107	835.1
SASKATOON	-9.4	9.9	5.0	-25.5	11.4	57	10.4	58	12	4	X		849.9
SWIFT CURRENT	-5.1	9.6	9.0	-22.1	7.2	32	6.3	29		2	124	134	715.9
URANIUM CITY											X		
WYNYARD	-8.8	10.2	6.5	-24.6	15.2	71	11.7	61	7	3	93	82	830.1
YORKTON	-10.1	9.8	5.3	-27.6	8.0	33	6.9	30	5	3	96	88	869.8
MANITOBA													
BRANDON	-11.3	8.4	3.1	-34.0	11.3	53	9.7	50	6	2	X		911.1
CHURCHILL	-21.9	5.6	-1.4	-37.9	32.7	193	26.5	173	17	7	69	85	1237.5
DAUPHIN	-9.9	9.6	8.0	-36.6	13.0	50	8.4	34	7	4	110	92	865.6
GILLAM	-20.6	7.4	0.0	-42.4	42.0	182	30.0	142	60	6	X		1199.3
GIMLI	-12.5	7.7	6.3	-36.0	9.6	29	4.0	15	21	2	100	81	947.0
ISLAND LAKE	-18.0	6.8	2.7	-39.9	11.2	28	10.4	37	43	2	X		1115.0
LYNN LAKE	-18.5	8.4	1.0	-42.5	44.2	166	31.5	141	38	6	70	74	1130.8
NORWAY HOUSE	-16.7	*	2.4	-42.0	19.8	*	17.2	*	22	6	X		1076.9
PILOT MOUND											X		
PORTAGE LA PRAIRIE	-10.2	8.1	6.3	-37.2	16.2	82	10.2	38	7	4	X		873.6

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THE PAS	-13.6	9.1	4.0	-39.4	16.8	71	11.2	62	21	4	94	91	981.3
THOMPSON	-19.5	7.1	1.5	-45.4	23.9	94	24.4	112	38	6	92	97	1152.2
WINNIPEG INT'L	-11.8	7.5	5.7	-35.4	11.0	46	10.4	48	12	3	99	81	923.4
ONTARIO													
ATIKOKAN	-12.2	6.2	5.4	-38.0	22.0	48	18.3	59	29	5	80	74	935.6
BIG TROUT LAKE	-17.2	7.3	1.9	-39.9	33.6	*	25.0	100	67	4			1090.7
EARLTON	-11.8	4.5	3.0	-34.7	29.8	52	24.4	43	31	10	X		926.8
GERALDTON	-13.9	6.1	4.3	-38.6	19.0	51	11.4	29	36	5	X		980.6
GORE BAY	-6.1	4.0	3.0	-27.2	59.7	104	22.6	36	30	7	X		747.9
HAMILTON RBG	-8.4	*	6.5	-17.0	60.0	*	59.0	*	13	11	91	*	
HAMILTON	-4.8	1.6	5.7	-19.4	68.6	174	57.2	90	16	8	X		706.2
KAPUSKASING	-13.4	5.2	2.8	-33.8	45.6	82	32.7	61	43	8	X		973.2
KENORA	-12.3	6.2	5.8	-35.1	18.5	59	17.3	61	38	4	X		930.7
KINGSTON	-5.7	2.0	4.9	-22.9	56.4	109	60.4	87	22	10	90	89	732.7
LANSDOWNE HOUSE	-15.3	7.4	2.9	-40.4	16.6	45	15.0	49	32	6	X		1033.0
LONDON	-5.2	1.4	5.6	-19.8	57.2	104	64.6	85	20	11	62	87	718.1
MOOSONEE	-14.3	6.1	3.5	-33.1	31.9	74	20.6	50	59	5	72	87	1002.9
MOUNT FOREST													
MUSKOKA	-8.3	2.1	2.2	-28.1	57.0	70	44.6	51	45	11	X		815.9
NORTH BAY	-10.0	3.0	1.3	-32.3	42.5	71	29.1	45	49	7	85	87	867.1
OTTAWA INT'L	-9.1	1.8	2.0	-27.4	50.4	100	43.4	71	47	9	84	*	838.8
PETAWAWA	-10.6	2.2	0.9	-38.3	49.5	106	39.3	84	36	8	X		888.7
PETERBOROUGH	-7.3	2.0	3.9	-26.5	41.5	117	43.3	98	37	10	X		784.7
PICKLE LAKE	-15.3	6.1	2.4	-42.2	17.9	43	10.9	29	57	4	X		1032.0
RED LAKE	-14.3	6.7	5.1	-39.8	8.4	26	6.4	22	39	1	104	*	999.9
ST. CATHARINES	-3.1	1.2	7.9	-16.5	56.0	169	55.9	98	5	10	X		654.8
SARNIA	-4.6	1.1	5.0	-22.5	37.8	131	38.8	74	14	8	75	89	700.8
SAULT STE. MARIE	-7.0	3.1	4.3	-29.2	86.8	113	56.6	76	30	12	61	80	774.3
SIMCOE											X		
SIOUX LOOKOUT	-13.4	6.0	4.7	-36.4	19.6	51	19.0	52	35	6	X		967.5
SUDBURY	-9.9	3.8	3.9	-31.6	38.6	71	30.9	53	44	10	92	91	865.0
THUNDER BAY	-10.5	4.9	3.5	-33.7	30.0	61	23.3	56	18	7	96	81	882.8
TIMMINS	-12.9	4.4	2.7	-32.9	52.0	78	33.8	60	68	7	X		960.4
TORONTO	-2.5	2.1	6.9	-16.0	67.2	184	61.2	100	10	11			636.7
TORONTO INT'L	-4.6	1.8	5.9	-20.7	59.8	179	56.6	112	10	6	X		701.2
TORONTO ISLAND	-2.2	2.7	6.8	-14.8	48.2	154	54.0	96	6	8			625.8
TRENTON	-6.0	1.6	4.4	-24.6	61.0	127	57.4	83	27	12	X		743.0
WATERLOO-WELL	-6.2	1.0	4.7	-22.4	63.2	156	58.6	104	20	8	X		749.1
WAWA	-10.0	*	3.9	-34.4	49.8	*	32.2	*	50	8		*	867.8
WIARTON	-4.8	2.3	4.0	-20.4	101.7	99	70.5	72	56	10	40	58	703.8
WINDSOR	-3.4	1.5	6.2	-19.4	62.4	206	61.8	112	9	9	X		663.3

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STATION	Temperature C Mean	Difference from Normal	Maximum	Minimum	Snowfall (cm)	% of Normal Snowfall	Total Precipitation (mm)	% of Normal Precipitation	Snow on ground at end of month (cm)	No. of days with Precip 1.0 mm or more	Bright Sunshine (hours)	% of Normal Bright Sunshine	Degree Days below 18 C
QUEBEC													
BAGOTVILLE	-14.1	1.7	0.2	-31.0	55.6	81	48.4	76	36	8	X		994.8
BAIE COMEAU	-12.6	1.1	-2.3	-29.3	62.4	73	54.3	59	40	7	107	*	946.2
BLANC SABLON	-13.1	-2.7	1.9	-25.6	144.5	127	144.5	108	81	12	129	*	
CHIBOUGAMAU	-16.5	3.2	-0.5	-36.0	45.0	57	35.8	49	71	10	84	96	1069.5
GASPE	-12.8	-1.9	2.5	-30.6	105.8	112	88.7	84	68	9	113	*	934.9
INUKJUAK	-21.2	3.3	-7.0	-35.0	21.4	214	20.2	206	31	8	60	115	1213.9
KUUJJUAQ	-22.7	0.6	-4.5	-35.7	17.4	53	16.6	50	32	8	77	122	1257.7
KUUJJUARAPIK	-17.1	5.4	-2.3	-34.2	41.1	152	36.3	140	35	11	45	62	1087.7
LA GRANDE RIVIERE													
MANIWAKI	-11.5	2.0	0.8	-35.5	45.8	94	31.6	57	48	9	64	69	914.2
MATAGAMI	-16.1	4.0	1.5	-33.5			25.6	43	55	10	78	100	1039.5
MONT JOLI	-11.2	0.4	-1.8	-25.0	61.6	70	57.0	65	28	9	101	124	907.0
MONTREAL INT'L	-9.0	1.2	1.1	-26.9	68.0	129	60.7	84	27	9	89	83	837.1
MONTREAL M INT'L	-10.4	*	2.5	-28.8	44.8	*	44.0	*	33	8	122	*	880.7
NATASHQUAN	-13.1	-1.0	0.4	-26.8	38.8	56	36.2	39	40	6	141	129	961.4
QUEBEC	-11.3	0.8	-0.4	-27.5	56.0	72	51.2	57	66	10	108	111	907.9
ROBERVAL	-14.0	1.8	-0.3	-28.0	58.0	82	52.0	76	68	9	85	*	993.6
SCHEFFERVILLE	-22.7	0.1	-7.6	-37.5	22.4	46	22.2	47	70	4	77	*	1260.5
SEPT-ILES	-14.4	-0.4	-1.2	-29.1	26.6	28	25.4	26	32	5	113	104	995.2
SHERBROOKE	-10.9	0.8	1.9	-33.0	90.0	144			58	13	65	*	894.7
STE AGATHE DES MONTS	-11.6	1.8	1.0	-31.6	61.4	74	56.2	60	73	10	71	73	918.4
ST-HUBERT	-9.8	0.3	1.3	-29.4	68.8	121	63.9	76	53	11	0		863.0
VAL D'OR	-13.1	3.7	1.2	-34.9	45.0	75	31.8	52	62	12	65	64	965.8
NEW BRUNSWICK													
CHARLO	-11.8	-0.1	3.2	-27.0	82.1	97	68.5	65	80	9	120	102	922.7
CHATHAM	-10.8	-1.1	3.8	-30.0	117.8	177	116.4	117	74	12	122	107	893.7
FREDERICTON	-10.4	-1.2	5.3	-31.2	134.4	210	127.3	123	44	1	121	*	881.7
MONCTON	-9.4	-1.3	5.3	-16.1	152.9	196	165.5	132	21	14	117	108	850.9
SAINT JOHN	-8.7	-0.9	4.4	-24.8	125.0	163	135.0	90	48	15	119	112	827.9

STATION	Temperature C Mean	Difference from Normal	Maximum	Minimum	Snowfall (cm)	% of Normal Snowfall	Total Precipitation (mm)	% of Normal Precipitation	Snow on ground at end of month (cm)	No. of days with Precip 1.0 mm or more	Bright Sunshine (hours)	% of Normal Bright Sunshine	Degree Days below 18 C
NOVA SCOTIA													
GREENWOOD	-7.0	-2.0	8.0	-25.4	114.2	150	115.7	92	43	16	X		775.5
HALIFAX INT'L	-6.3	-0.3	5.4	-18.8	85.9	136	165.7	108	25	14	*		754.1
SABLE ISLAND	-0.6	-0.7	10.1	-7.8	58.1	160	224.6	153	20	15	34	64	576.6
SHEARWATER	-4.8	-0.7	6.8	-16.5	73.4	160	147.9	103	16	15	121	106	707.2
SYDNEY	-5.4	-0.7	3.4	-19.3	119.6	160	159.0	106	29	16	70	81	726.4
TRURO													
YARMOUTH	-3.2	-0.5	9.5	-18.0	106.0	170	179.6	127	30	17	77	107	656.5
PRINCE EDWARD ISLAND													
CHARLOTTETOWN	-8.1	-1.0	4.3	-21.1	93.6	121	96.0	82	29	15	X		810.4
SUMMERSIDE	-8.1	-0.9	4.2	-21.8	*		126.0	122	32	13	100	*	986.6
NEWFOUNDLAND													
ARGENTIA											X		
BATTLE HARBOUR	-14.4	-4.8	0.3	-30.0	72.6	106	91.3	143	173	10	X		1002.0
BONAVISTA	-5.3	-1.0	4.9	-13.7	106.2	208	157.8	174	88	14	X		720.5
BURGEO	-6.0	-1.9	3.3	-17.6	89.7	156	173.4	115	47	15	0		745.8
CARTWRIGHT	-15.2	-2.0	-0.1	-31.7	51.7	62	48.1	53	110	9	94	104	1029.6
CHURCHILL FALLS	-22.0	-1.7	-5.0	-35.2	26.8	31	21.3	24	91	3	117	117	1239.0
COMFORT COVE	-8.5	-2.1	3.4	-20.5	147.4	181	158.5	151	97	15	X		827.0
DANIEL'S HARBOUR	-9.6	-2.7	3.2	-25.0	96.3	108	63.4	63	103	13	86	153	855.1
DEER LAKE	-9.8	-1.7	1.3	-32.6	102.7	118	78.6	84	112	17	X		861.2
GANDER INT'L	-8.2	-2.0	5.2	-19.0	158.8	201	163.2	149	78	19	89	104	810.2
GOOSE	-17.2	-0.8	-0.8	-31.8	21.0	26	14.6	19	52	4	115	130	1092.6
PORT-AUX-BASQUES	-5.7	-1.6	2.1	-15.4	83.8	114	113.2	85	34	20	60	*	735.7
ST ANTHONY	-11.1	*	0.0	-23.2	157.3	275	154.1	159	164	13		*	903.3
ST JOHN'S	-5.5	-1.6	5.6	-15.6	129.2	159	174.4	112	67	19	54	*	727.7
ST LAWRENCE	-5.1	-1.3	4.1	-17.2	125.4	246	203.4	171	60	18		*	
STEPHENVILLE	-7.0	-2.6	4.2	-21.9	102.8	108	114.3	99	49	2	70	*	773.5
WABUSH LAKE	-21.7	0.6	-7.9	-37.0	22.4	31	17.4	27	67	5	104	*	1230.3

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STATION	Temperature C				Snowfall (cm)	Total Precipitation (mm)	% of Normal Precipitation	Snow on ground at end of month (cm)	No. of days with Precip 1.0 mm or more	Bright Sunshine (hours)	Degree days above 5 C	
	Mean	Difference from Normal	Maximum	Minimum							This month	Since jan. 1st
BRITISH COLUMBIA												
AGASSIZ	3.3	2.1	12.5	-6.5	0.0	238.4	104	0	17	61	9.5	9.5
KAMLOOPS												
SIDNEY												
SUMMERLAND	-1.0	2.4	7.0	-10.5	16.1	24.6	75	0	5	55	0.0	0.0
ALBERTA												
BEAVERLODGE	-6.0	9.9	5.0	-22.0	12.0	12.0	36	11	3	87	0.0	0.0
ELLERSLIE												
FORT VERMILLION												
LACOMBE	-5.2	10.3	9.0	-23.0	4.0	3.3	15	16	2	133	0.0	0.0
LETHBRIDGE												
VAUXHALL												
VEGREVILLE	-9.1	9.0	4.5	-26.5	5.5	7.6	46	15	2		0.0	0.0
SASKATCHEWAN												
INDIAN HEAD	-8.5	9.4	8.0	-23.5	9.2	7.6	36	8	3		0.0	0.0
MELFORT	-10.5	10.4	3.5	-26.0	16.1	16.1	85	34	5	84	0.0	0.0
REGINA	-10.1	7.9	8.0	-24.0	10.2	10.4	58	4	5		0.0	0.0
SASKATOON	-9.3	9.8	5.5	-23.5	11.0	11.2	50	5	5	102	0.0	0.0
SCOTT												
SWIFT CURRENT SOUTH	-5.0	9.8	9.0	-22.5	5.0	5.4	33	0	2	126	2.3	2.3
MANITOBA												
BRANDON	-10.9	8.4	5.5	-37.0	7.6	7.6	36	12	2		0.0	0.0
GLENLEA	-13.0	6.7	3.0	-40.0	17.8	17.8	70	42	3	98	0.0	0.0
MORDEN	-9.6	7.7	7.0	-34.5	12.2	12.2	52	11	3	89	0.0	0.0
ONTARIO												
DELHI	-4.9	1.1	6.0	-22.5	58.2	64.0	96	18	11	68	0.0	0.0
ELORA	-6.4	1.8	3.3	-22.9		50.6	87	25			0.0	0.0

STATION	Temperature C				Snowfall (cm)	Total Precipitation (mm)	% of Normal Precipitation	Snow on ground at end of month (cm)	No. of days with Precip 1.0 mm or more	Bright Sunshine (hours)	Degree days above 5 C	
	Mean	Difference from Normal	Maximum	Minimum							This month	Since jan. 1st
GUELPH	-6.2	1.0	3.8	-25.5	30.0	52.0	92	25	10	71	0.0	0.0
HARROW	-3.1	1.7	6.6	-21.0	63.9	63.9	108	23	11	76	0.0	0.0
KAPUSKASING												
MERIVALE												
OTTAWA	-8.5	2.3	1.3	-26.6	43.2	39.7	72	32	8	85	0.0	0.0
SMITHFIELD												
VINELAND STATION	-2.9	1.2	7.7	-17.7	43.6	47.8	76	9	11	82	0.0	0.0
WOODSLEE												
QUEBEC												
LA POCATIERE	-11.3	0.0	0.0	-26.0	105.7	76.7	97	55	12	115	0.0	0.0
L'ASSUMPTION	-11.0	-0.9	2.5	-34.0	64.2	59.9	81	43	8	99	0.0	0.0
LENNOXVILLE												
NORMANDIN	-16.2	1.8	0.0	-35.5	41.4	36.2	57	38	10	100	0.0	0.0
ST. AUGUSTIN												
STE CLOTHILDE												
NEW BRUNSWICK												
FREDERICTON	-10.0	-0.9	5.0	-32.0	84.8	72.0	70	38	10	121	0.0	0.0
NOVA SCOTIA												
KENTVILLE												
NAPPAN												
PRINCE EDWARD ISLAND												
CHARLOTTETOWN												
NEWFOUNDLAND												
ST. JOHN'S WEST												