Environment Canada Environnement Canada

an Climate Centre

Climatic Perspectives

MONTHLY SUPPLEMENT

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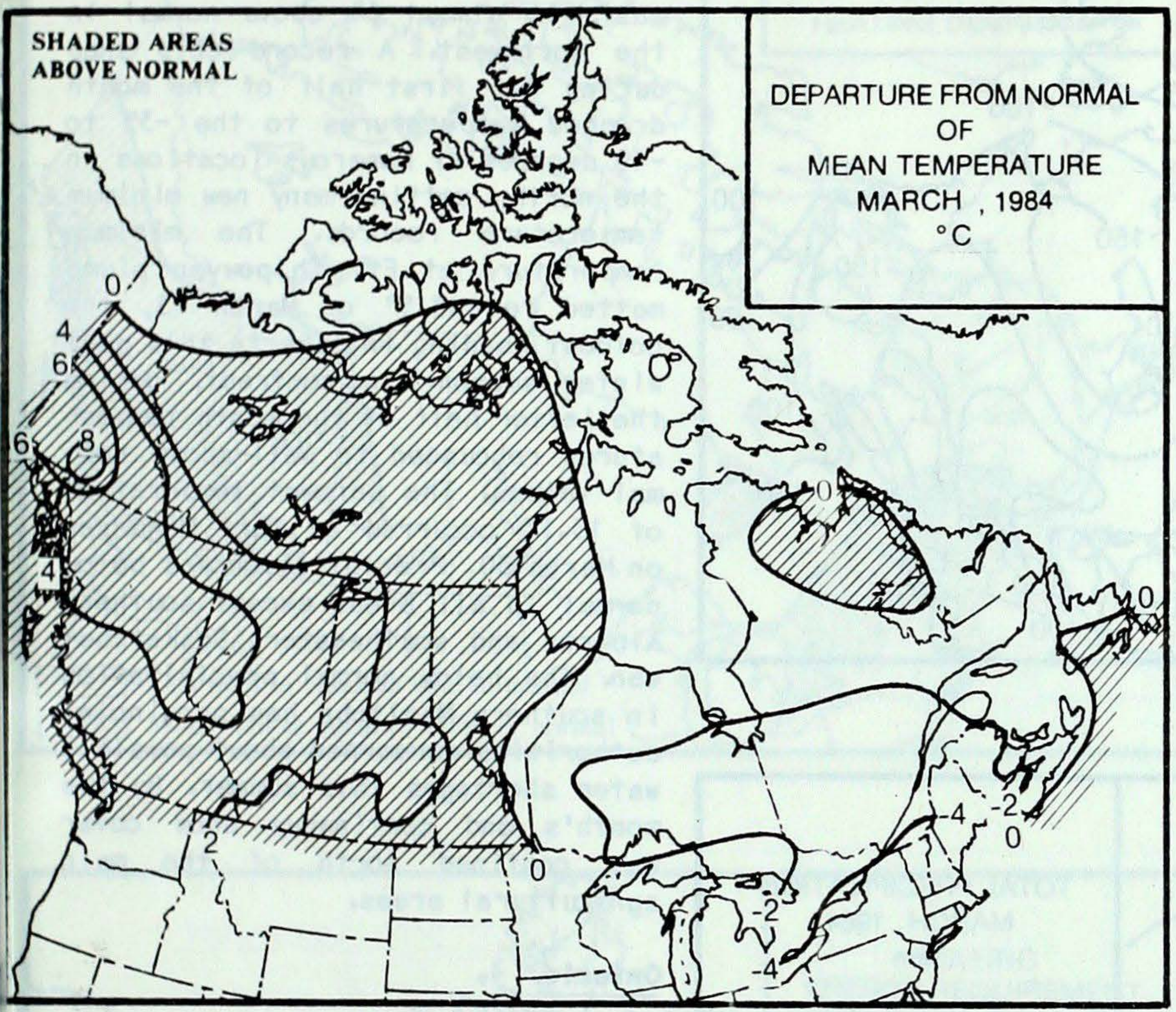
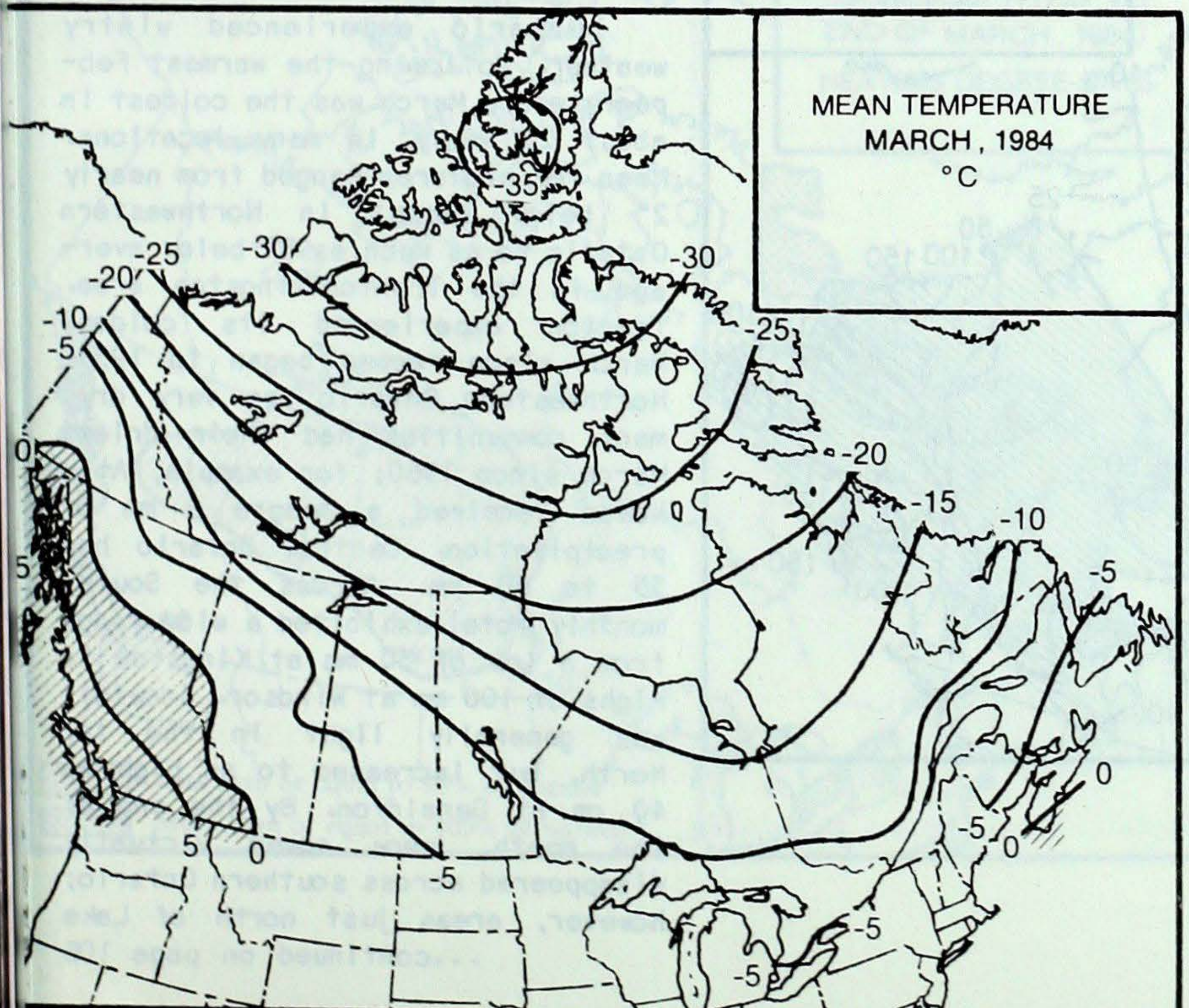




ACROSS THE COUNTRY...

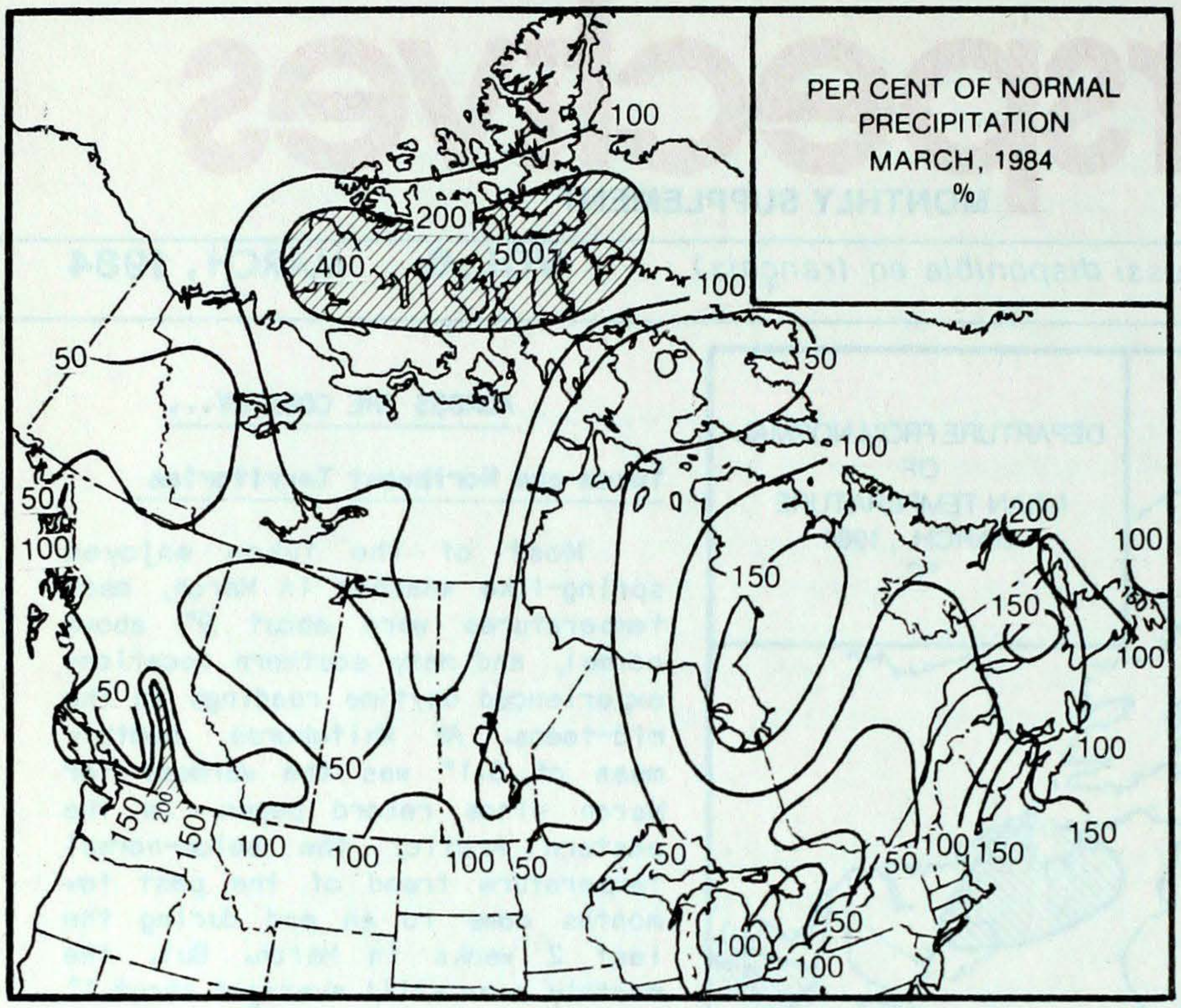
Yukon and Northwest Territories

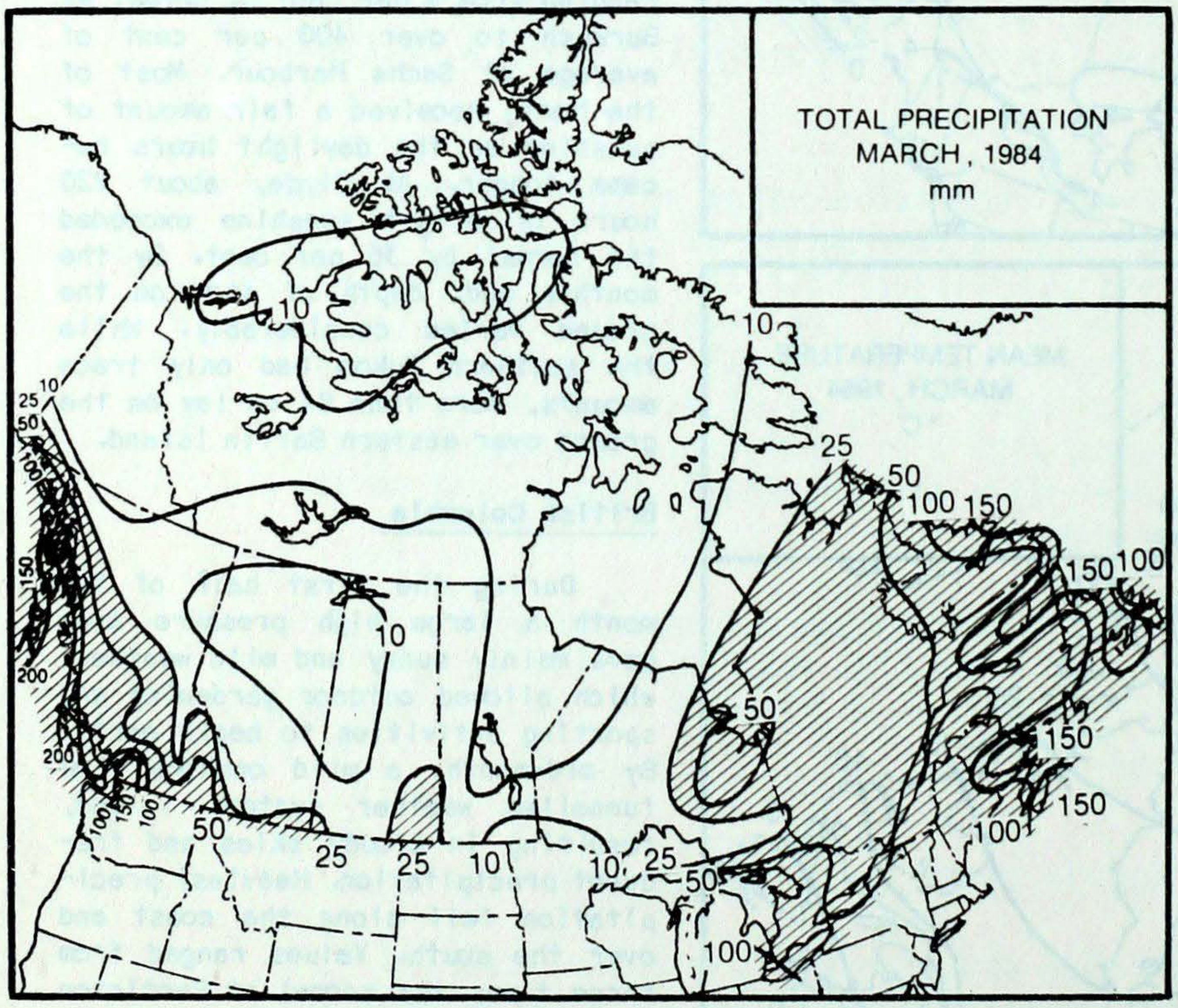
Most of the Yukon enjoyed spring-like weather in March, mean temperatures were about 9° above normal, and many southern locations experienced daytime readings in the mid-teens. At Whitehorse, monthly mean of 0.1° was the warmest for March since record began. In the eastern Arctic, the below-normal temperature trend of the past few months came to an end during the last 2 weeks in March. But, the monthly mean still averaged about 1° below normal. Precipitation was typically variable across the North, ranging from 9 per cent of normal at Burwash to over 400 per cent of avarage at Sachs Harbour. Most of the North received a fair amount of sunshine as the daylight hours became longer. At Clyde, about 220 hours of bright sunshine exceeded the normal by 36 per cent. By the month's end, depth of snow on the ground varied considerably. While the southern Yukon had only trace amounts, more than 84 cm lay on the ground over eastern Baffin Island.

British Columbia

During the first half of the month a large high pressure area gave mainly sunny and mild weather, which allowed outdoor gardening and sporting activities to begin early. By mid-month, a mild onshore flow funnelled weather systems inland, resulting in cloudy skies and frequent precipitation. Heaviest precipitation fell along the coast and over the south. Values ranged from three times the normal at Penticton to only 25 per cent of normal in the north. Above normal mean temperatures, as much as 6° in the north, reflected the absence of any significant cold Arctic air mass intrusion. As a result, many stations

Canada





across the south established new record high monthly mean temperatures.

Prairies

The month overall was milder than normal, with mean temperatures ranging from near normal in the east, to almost 6° above normal in the northwest. A record cold snap during the first half of the month dropped temperatures to the -35 to -40 degrees at numerous locations in the north, setting many new minimum temperature records. The minimum temperature at Ft. Chipewyan plummetted to -43.5° on March 13, the coldest reading in Alberta this past winter season. In contrast, during the latter half of the month temperatures rebounded to well-above normal values. The warmest temperature of 15.1° occurred at Fort McMurray on March 30. Precipitation was below normal in all areas except southern Alberta and southeastern Saskatchewan. The below normal precipitation in southern Manitoba has provincial authorities concerned about possible water shortages this summer. By the month's end continuous snow cover was confined north of the main agricultural areas.

Ontario

Ontario experienced wintry weather. Following the warmest February ever, March was the coldest in about 25 years in many locations. Mean temperatures ranged from nearly 2° below normal in Northwestern Ontario to as much as 5° below average in the Trenton-Kingston area. Trenton experienced its coldest March since record began in 1935. Northwestern Ontario was very dry, many communities had their driest March since 1960; for example, Atikokan received a meagre 6 mm of precipitation. Central Ontario had 35 to 60 mm. Across the South, monthly total exhibited a wide range from a low of 30 mm at Kingston to highs of 106 mm at Windsor. Snowfall was generally light in the far North, but increased to as high as 40 cm at Geraldton. By the end of the month, snow cover virtually disappeared across southern Ontario; however, areas just north of Lake

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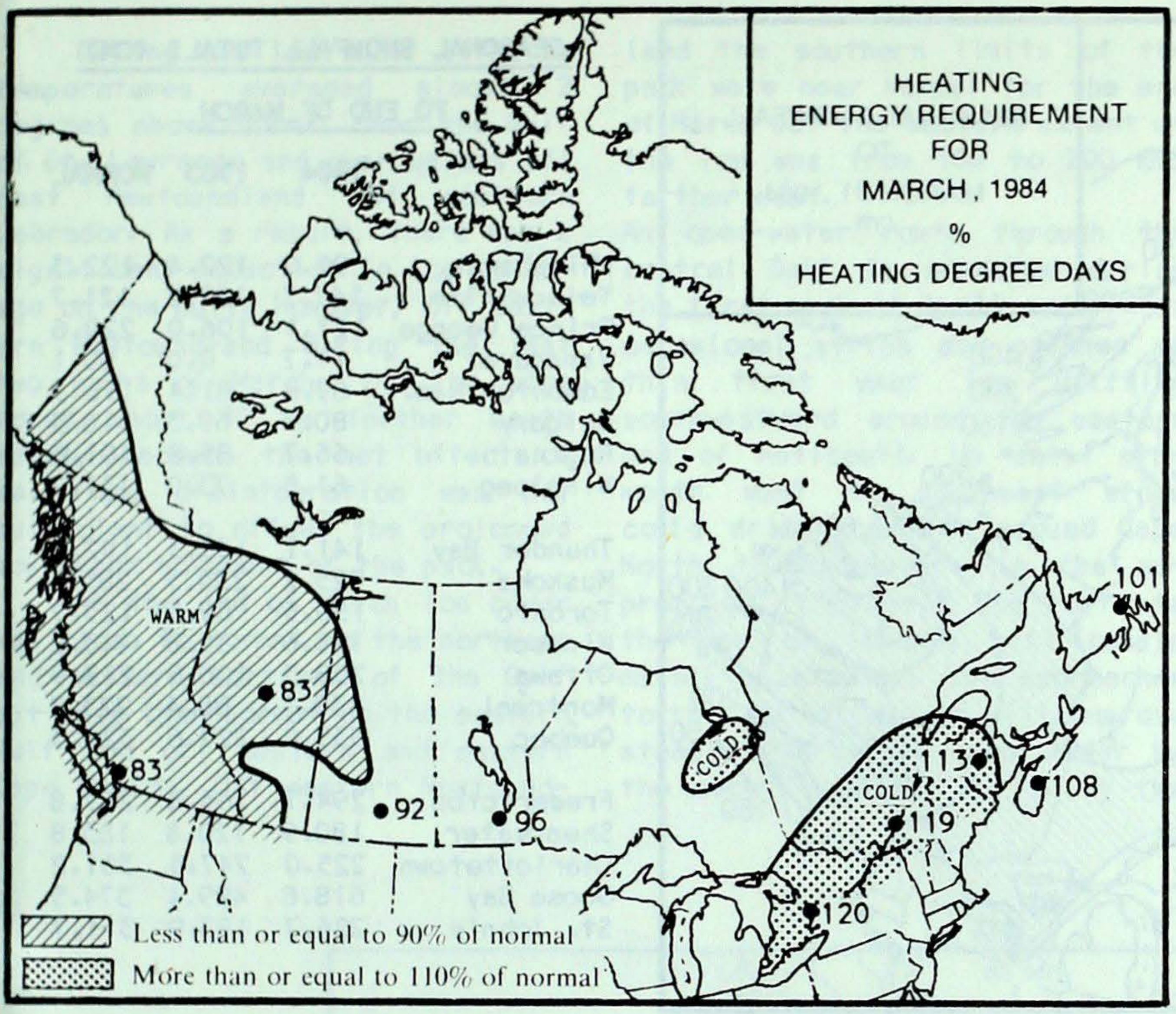
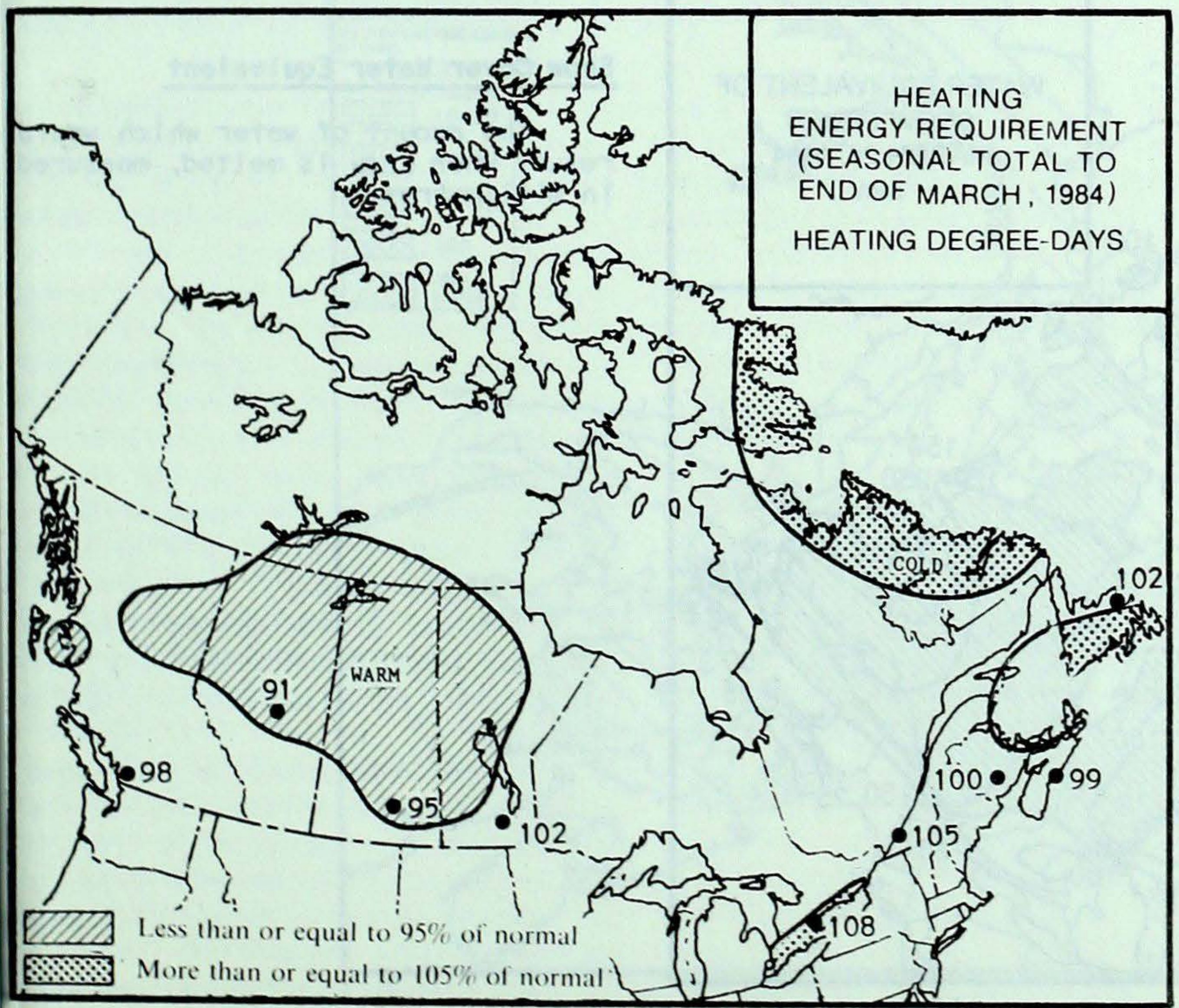
ENERGY REQUIREMENT

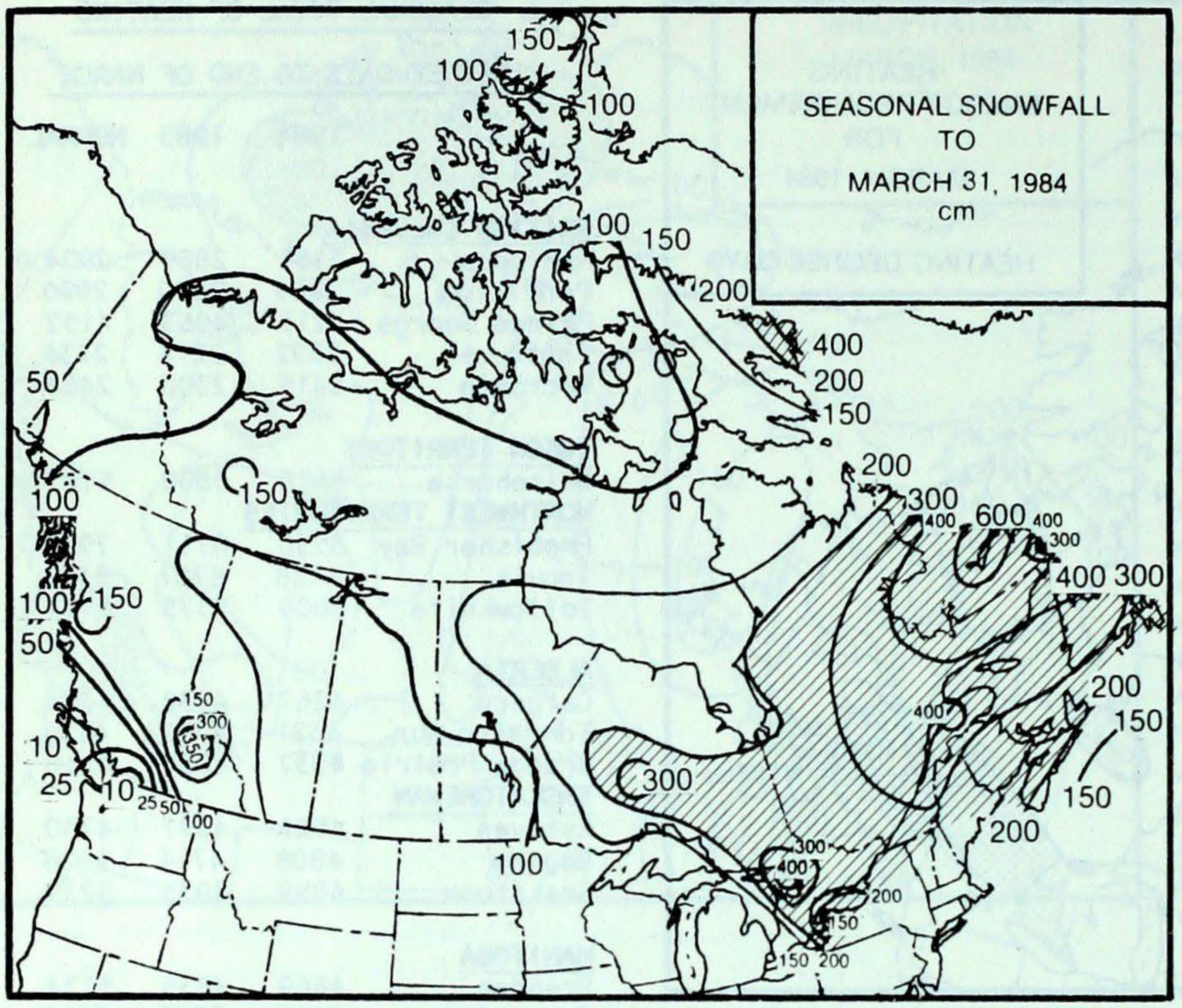




SEASONAL TOTAL OF HEATING DEGREE-DAYS TO END OF MARCH

	1984	1983	NORMAL
BRITISH COLUMBIA			
Kamloops	3181	2889	2924
Penticton	2963	2800	2990
Prince George	4215	4063	4152
Vancouver	2392	2274	2436
Victoria	2415	2306	2463
YUKON TERRITORY			
Whitehorse	5610	5800	5783
NORTHWEST TERRITORIES			
Frobisher Bay	8530	8711	7936
Inuvik	8428	8767	8433
Yellowknife	6809	7575	7121
ALBERTA			
Calgary	4267	4038	4394
Edmonton Mun.	4321	4392	4738
Grande Prairie	4737	4086	4156
SASKATCHEWAN			
Estevan	4521	4397	4730
Regina	4808	4754	5078
Saskatoon	4859	4933	5239
MANITOBA			
Brandon	4869	4836	5134
Churchill	7021	7529	7330
The Pas	5327	5634	5748
Winnipeg	4943	4657	5038
ONTARIO			
Kapuskasing	5436	5312	5392
London	3649	3103	3435
Ottawa	4094	3705	4034
Sudbury	4654	4285	4611
Thunder Bay	4783	4500	4775
Toronto	3709	3192	3445
Windsor	3322	2736	3062
QUEBEC			
Baie Comeau	4962	4762	4912
Montréal	4009	3586	3862
Québec	4371	4064	4316
Sept-Iles	5157	5059	5049
Sherbrooke	4358	4043	4419
Val-d'Or	5211	4951	5212
NEW BRUNSWICK			
Charlo	4495	4366	4330
Fredericton	3924	3733	3931
Moncton	3846	3759	3884
NOVA SCOTIA			
Halifax	3221	3144	3270
Sydney	3486	3417	3502
Yarmouth	3100	3252	3373
PRINCE EDWARD ISLAND			
Charlottetown	3629	3567	3728
NEWFOUNDLAND			
Gander	4057	4061	3980
St. John's	3640	3281	3330

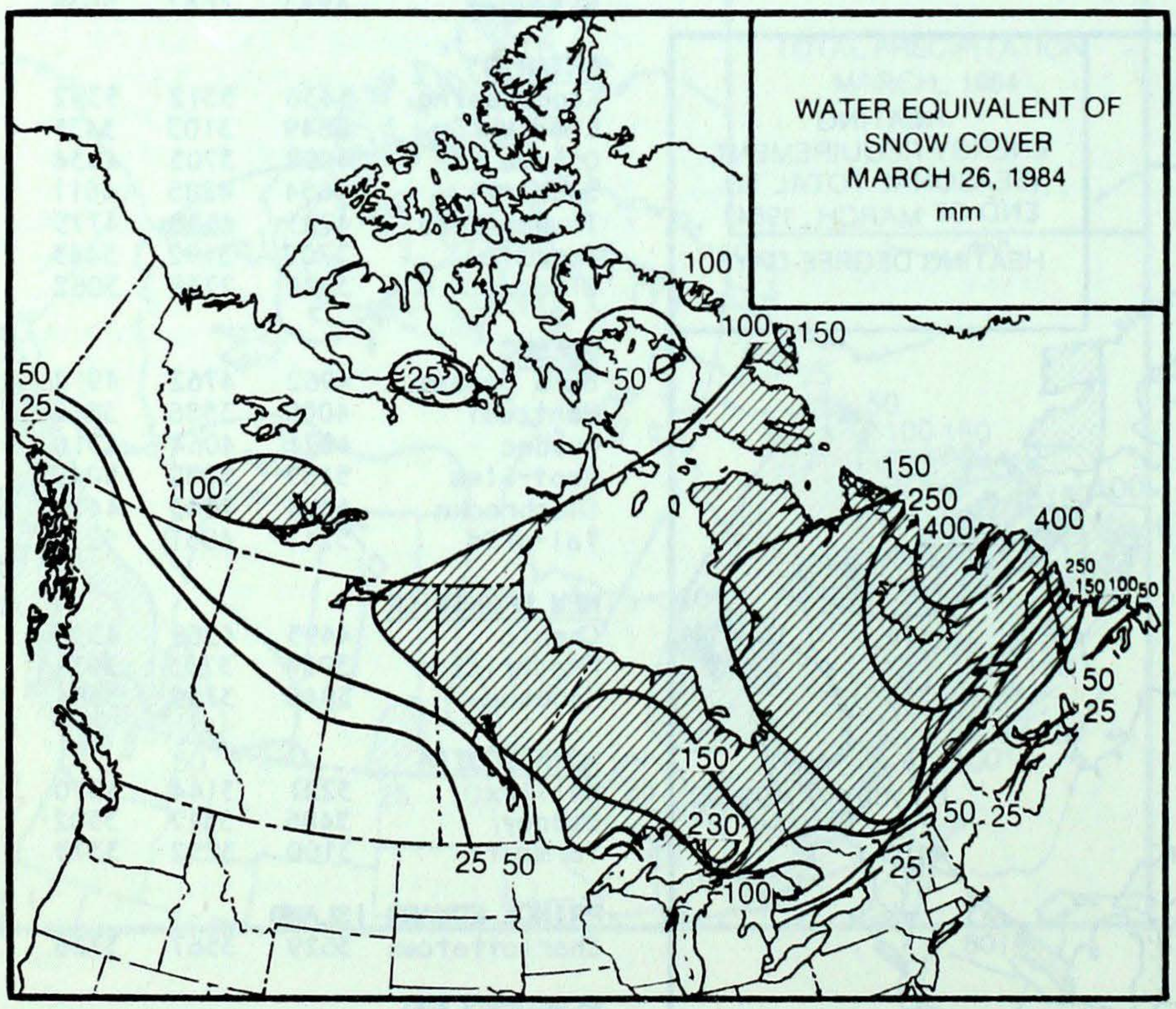
SNOWFALL



SEASONAL SNOWFALL TOTALS (CM)

TO END OF MARCH

	1984	1983	NORMAL
Whitehorse	95.0	122.4	122.3
Yellowknife	147.7	127.2	121.7
Prince George	127.1	106.0	229.6
Vancouver	11.7	0.0	60.1
Edmonton Nam.	69.8	81.4	116.9
Calgary	80.1	69.3	116.3
Regina	66.7	85.8	101.6
Winnipeg	61.5	73.0	111.7
Thunder Bay	141.1	138.3	192.6
Muskoka	325.2	235.5	285.6
Toronto	130.5	69.5	123.7
Windsor	125.6	35.8	113.2
Ottawa	258.3	106.8	217.9
Montréal	238.3	86.4	223.7
Québec	335.0	220.6	326.3
Fredericton	294.7	165.8	267.8
Shearwater	180.9	120.8	183.8
Charlottetown	225.0	247.5	301.2
Goose Bay	618.6	499.4	374.5
St. John's	226.7	183.9	311.7



Snow Cover Water Equivalent

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

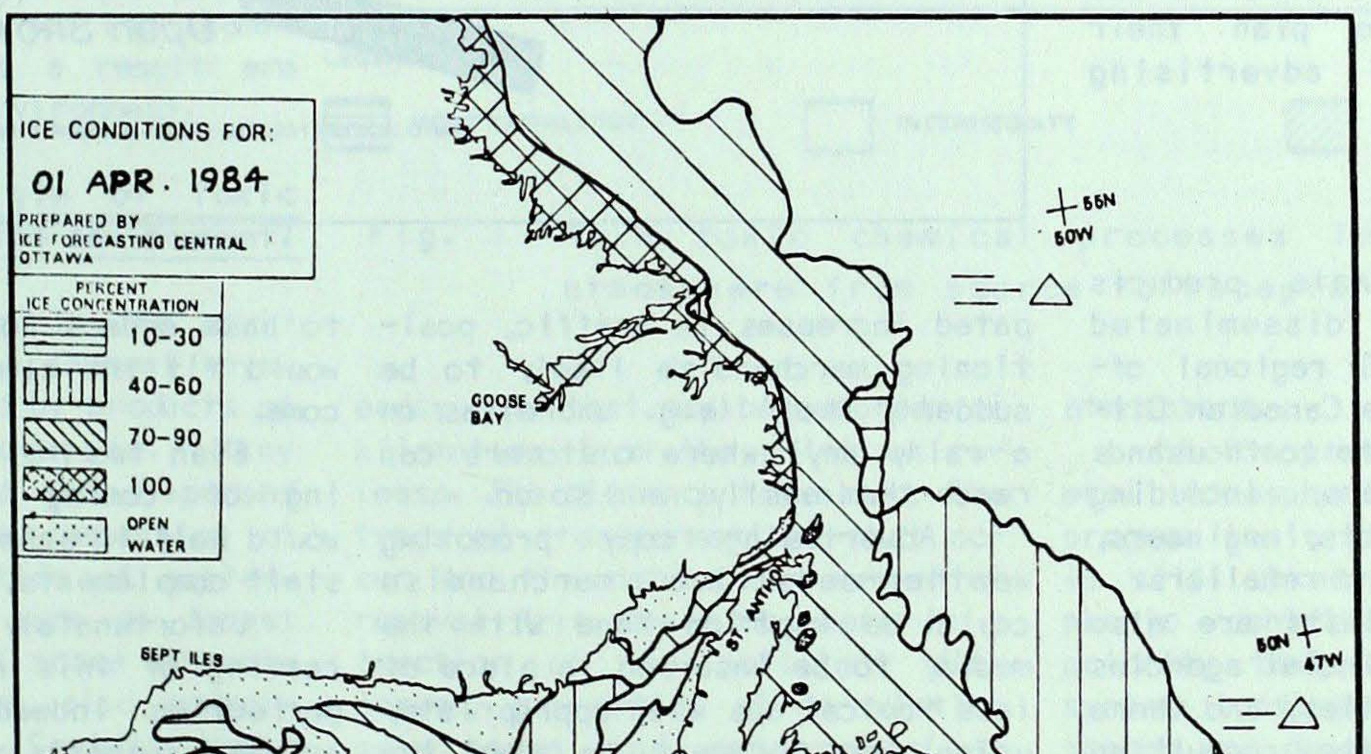
ICE FORECAST FOR APRIL 1984

During the last half of March temperatures averaged almost 2 degrees above normal over the Gulf of St. Lawrence and over waters off east Newfoundland and southern Labrador. As a result, there was a significant reduction in ice coverage on the Gulf. However, off eastern Newfoundland during the last two weeks of March, the ice edge moved about 50 km farther south mainly because the net effect of melt and disintegration was not sufficient to offset the prolonged southward movement of the pack.

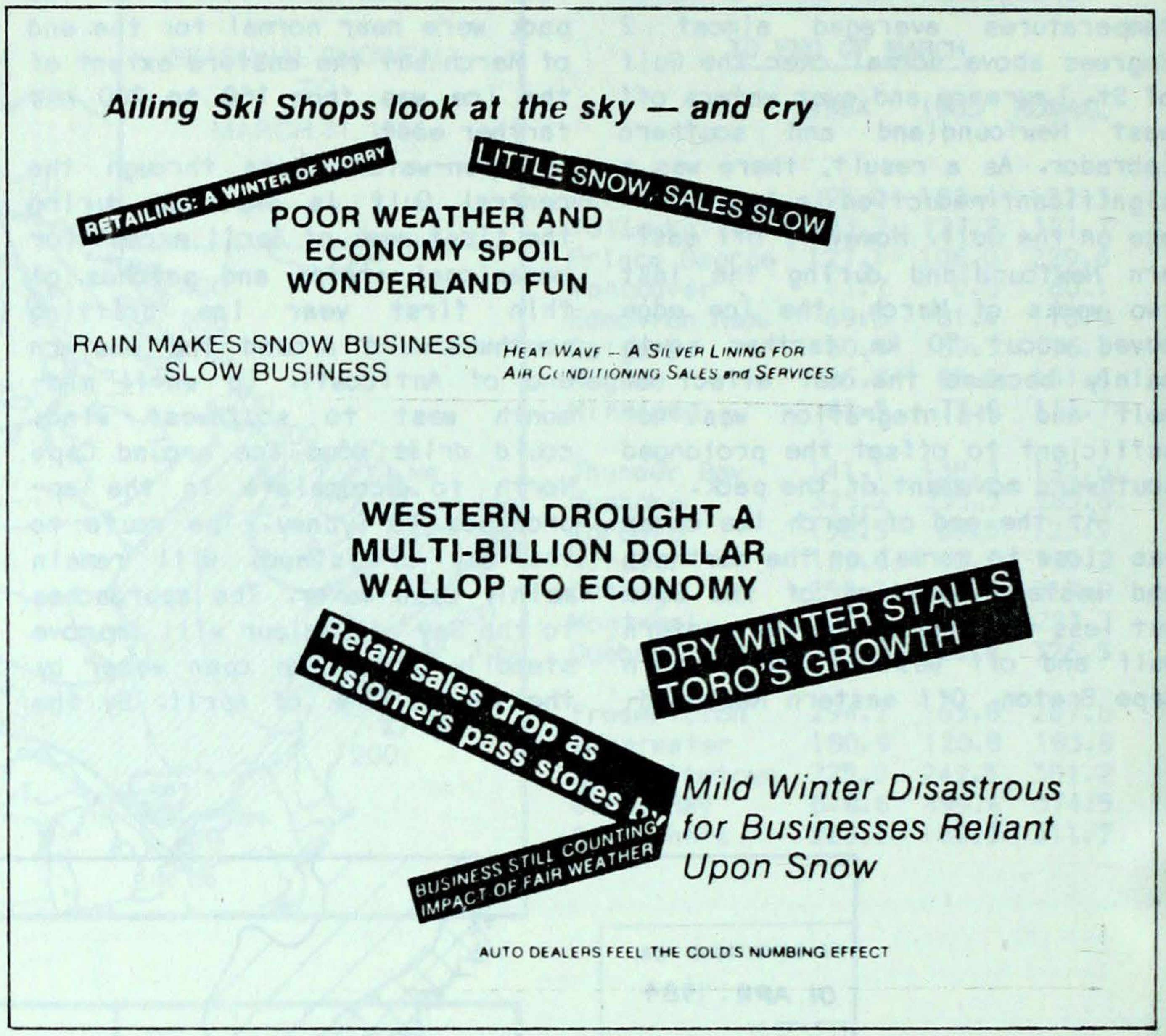
At the end of March ice cover was close to normal on the northern and western portions of the Gulf but less than normal on the eastern Gulf and off western and eastern Cape Breton. Off eastern Newfoundland and the southern limits of the pack were near normal for the end of March but the eastern extent of the ice was from 160 to 200 kms farther east.

An open-water route through the central Gulf is expected during the first week of April except for occasional strips and patches of thin first year ice drifting southwestward around the eastern end of Anticosti. Up until mid-month west to southwest winds could drift some ice around Cape North to accumulate in the approaches to Sydney. The route to the Bay of Islands will remain mainly open water. The approaches to the Bay of Chaleur will improve steadily to become open water by the second week of April. By the end of the month the Gulf will be open water except for some inflow into the Northeast Arm from the Strait of Belle Isle.

Only a slow retreat of the pack off east Newfoundland is expected during April, with the southern ice limits near 49 N at the end of the month. Storms moving through the area off eastern Newfoundland will occasionally create pressure along the coastal route to Botwood, especially in Notre Dame Bay. Coastal leads will develop in the wake of those low pressure systems. A prolonged southward drift may still move ice into the approaches to St. John's up until mid-month. No further ice intrusions into the Hibernia area are expected this spring.



Whither the weather...
Knowledge helps planning



"But boss, it rained...of-course I couldn't sell those swimsuits." Retailers have been blaming weather for everything from slow sales to disasters, through the history of the trade.

Even though that may be a copout in some cases, there is no question that weather can have a profound effect on the economy in general, and on retail sales very specifically in particular.

One just has to look back on the depressed sales of winter sports equipment and heavy outerwear in the mild winter of 1982-83 to have the truth of that statement brought starkly home.

Environment Canada's Atmospheric Environment Service issues more than 30,000 meteorological forecasts and advisories each year, and is ready and anxious to help retailers use its information to plan their merchandising and advertising activities.

Specialized services

Additional climate products and services are disseminated through the six AES regional offices or through the Canadian Climate Centre in Toronto to thousands of specialized users, including businessmen, architects, engineers, farmers, fishermen and retailers.

Climate specialists are also located in some provincial agencies and in most universities, and there are about 20 private consulting firms in the country engaged in interpreting weather data or in tailoring and updating daily or long-range forecasts for clients who have made the decision that forewarned is forearmed.

Environment Canada's daily and five-day forecasts are used by the public to make such important decisions as whether to wear snow boots or carry an umbrella, whether to to plan an indoor or outdoor weekend, etc.

Equally close attention to the forecast could help retailers schedule staff to handle anticipated increases in traffic, positioning merchandise likely to be suddenly "hot" (e.g. umbrellas on a rainy day) where customers can reach them easily, and so on.

Advertising copy promoting weather-sensitive merchandise could be kept on hand with the media, to be inserted in place of less topical ads when appropriate, using the forecast to plan the timing.

Paying attention to the forecast, retailers could decide to replace paper bags with plastic wrap on wet days, even schedule deliveries to get trucks off the street before a pending storm blows up.

Long-range forecasts

In an ideal world, meteorologists would be able to produce reliable forecasts four to six months out, providing retailers with valuable information on which to base orders for merchandise which would fit the climatic conditions to come.

Even two to three months' warning of coming weather conditions would help in scheduling advertising, staff complements, etc.

Unfortunately, long-range forecasting of this nature is far from perfection. Indeed, the state of the science suggests that beyond two or three weeks, it is impossible to predict where it will rain or shine on any specific day.

However, historical data can be used to make some reasonably safe predictions on which action can be taken.

Statistics such as averages, extremes and the probability or risk of particular temperature ranges, precipitation or sunshine values can be worked out by analyzing past weather.

For example, looking at 100 years of figures about Ottawa's

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Toxic Chemicals in the Environment

by
E.E. Wilson and W.H. Schroeder
Atmospheric Environment Service

Over the past decade, the term "toxic chemicals" has been heard with increasing frequency in the context of the environment. Growing quantities of chemicals are produced annually and are an integral part of almost every aspect of our modern living. Inevitably, these man-made chemicals, some more hazardous than others, have found their way into the environment. As a consequence, man and other organisms are in contact with, and unknowingly assimilate, chemicals never before encountered in their evolution. To what extent such exposure has contributed to certain chronic ailments and cancers found in industrialized countries is an important but largely debated topic. There is, nevertheless, much evidence that we do not use chemicals wisely and as a result are contaminating our environment.

What is the origin of toxic chemicals found in the environment?

Toxic chemicals in the environment originate in several ways. They may be unwanted by-products of manufacturing processes. Many tonnes are produced and dispersed annually during the combustion of fuels and incineration of wastes. Natural processes, such as forest fires or leaching of trace elements into aquatic systems also contribute to the problem. Certain chemicals such as pesticides (including insecticides and herbicides) are produced and dispersed purposely for their toxic effects. Another source of growing concern are accidental releases at the site of manufacture or during transportation. In many cases, the atmosphere is the principal dispersion medium.

Once released into the atmosphere, these contaminants may undergo various complex chemical and physical transformations. The original substances and/or their transformation products will eventually return to the surface, impacting

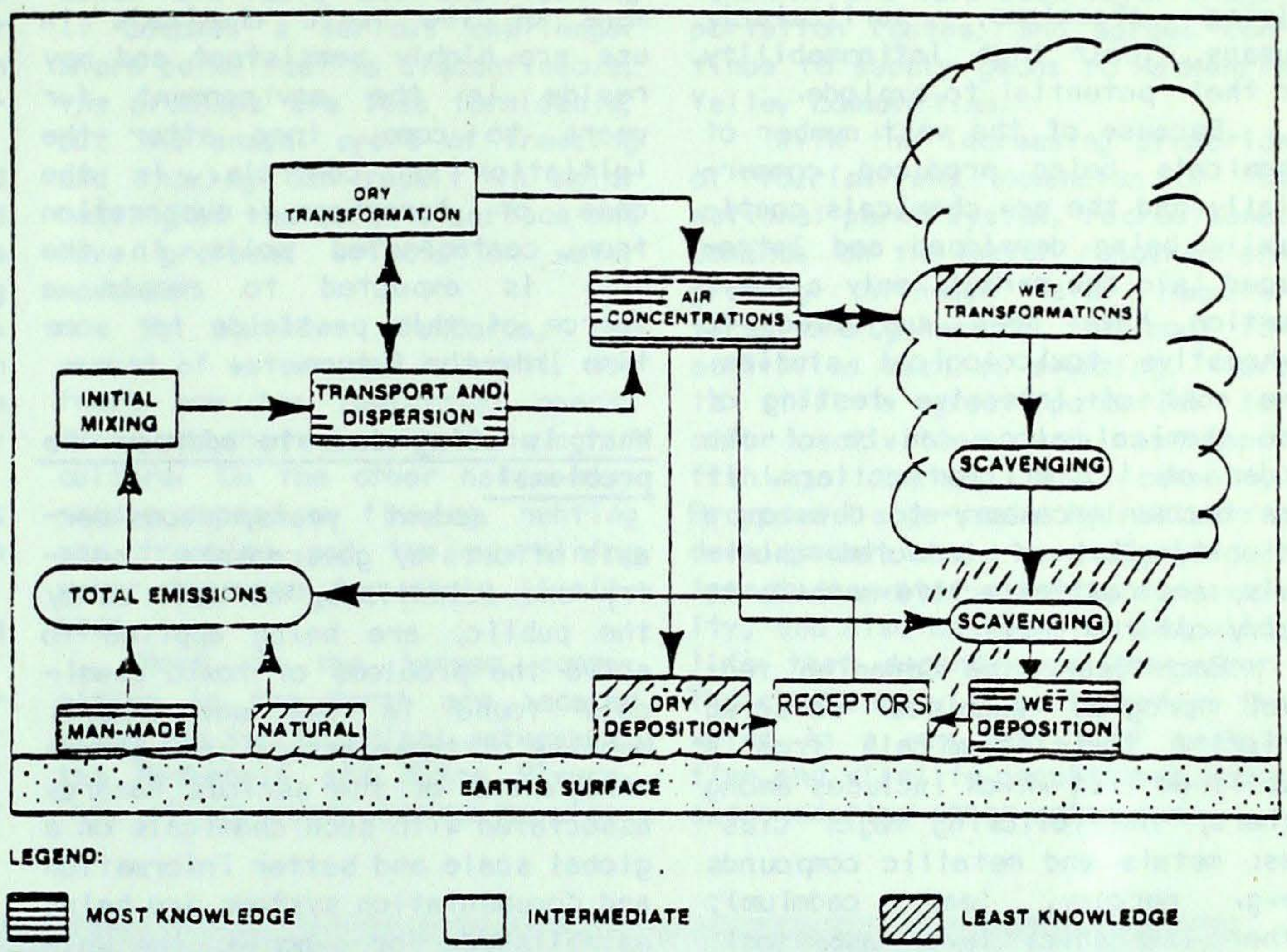

Fig. 1 Main toxic chemical processes in the atmosphere from source to receptor.

ecosystems that may be hundreds of kilometers from the point of release. The distance travelled, the types of transformations that occur and the nature and extent of removal from the atmosphere is a function of the pollutant dispersed, properties of co-existing substances and meteorological conditions. This cycle is illustrated schematically in figure 1 which shows the main processes involved in the atmospheric pathway from source to receptor.

In recent studies, the atmosphere has been shown to be a major pathway through which toxic chemicals are transported. In fact, atmospheric fallout is considered the main source of toxic pollution for the upper Great Lakes. For example, it is estimated that 87% of the total input of the toxic organic PCB to Lake Superior - approximately 8.1 metric tonnes per year - is deposited from the atmosphere.

At the present time, the federal atmospheric toxic chemical program is in its infancy and much is still unknown about the atmospheric contribution of selected priority toxic chemicals to ecosystem loadings. Considerable research and development is required before we are able to determine what types and quantities of toxic chemicals are deposited to ecosystems from the atmosphere and from where these originate.

What are the impacts of toxic chemicals in the environment?

It is generally accepted that the benefits to society from the use of chemicals is demonstrably significant, and can be measured in terms of more food for more people, comfort and convenience in daily activities, and in general better health through combating endemic diseases. But there are also serious inherent risks to consider. Of the approximately 65,000 chemicals in commercial use in North America, several hundred have been decribed as hazardous. This classification is a result of their toxicity to living organisms, particularly humans, their high inflammability or their potential to explode.

Because of the vast number of chemicals being produced commercially and the new chemicals continually being developed and introduced into the market, only a small portion have been subjected to exhaustive toxicological studies. The cost of intensive testing of one chemical alone can be of the order of 1.5 million dollars. It has become necessary to develop a priority list of selected chemicals, and cost-effective methods to carry out the tests.

Each year, the Canadian federal program examines selected priority toxic chemicals from a published list which includes among others, the following major classes: metals and metallic compounds (e.g. mercury, lead, cadmium); other inorganics (e.g. asbestos); organics (e.g. PCBs); radionuclides (e.g. radium isotopes) and pesticides (e.g. toxaphene).

Results of studies into the latter category of chemicals have indicated that, for example, toxaphene which is a pesticide that was used heavily on corn, cereal and cotton crops in the southern U.S. states, but is now banned, has been transported through the atmosphere and deposited in the Great Lakes regions of Canada, hundreds of kilometers from the source. A major concern is that many of the toxic chemicals in use are highly persistent and may reside in the environment for years to come, long after the initiation of controls. In the case of toxaphene, evaporation from contaminated soils in the U.S. is expected to remain a source of this pesticide for some time into the future.

What is being done to address the problems?

In recent years, considerable efforts by governments, industry and scientists, as well as by the public, are being applied to solve the problems of toxic chemicals found in the environment. Members of these groups have become more aware of the serious hazards associated with such chemicals on a global scale and better information and documentation systems are being established. For example, the United Nations has established an International Register of Potentially Toxic Chemicals, in which Canada is taking part. Protective control legislation on the production, transportation, marketing, disposal and use of certain hazardous substances is being implemented by various provincial, state and federal governments.

In 1981, a major federal effort was initiated by Cabinet decision to pool the scientific resources of a number of appropriate departments that could deal with the problems from a "total ecosystem" approach. Comprehensive solutions are being sought based on the entire life cycle of a chemical from its origins, through its transformation, transportation, use and ultimate disposal. Currently, an information program is being put in place to raise the public awareness and understanding of the environmental concerns, to develop a consensus on specific critical "issues" and their resolution, and to focus attention on preventive "managing chemicals better" approach to tackling the problem in Canada. The overall objective of these scientific and communication programs is to ensure that toxic chemicals are managed and used in a way that will achieve and maintain a state of the environment necessary for the health and well-being of man, the health and diversity of species and ecosystems and the sustained use of natural resources for social and economic benefit. Specific components of these programs, such as the Atmospheric Toxic Chemicals Program conducted by AES, will be described in future articles.

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weather, one can say reasonably safely that one January day in two will have some snow; once in four years. January's snowfall will vary by more than 30% from its average of 50 cm for the month; there is an even chance that at least one heavy snowfall lasting two or more days will occur each winter.

Decision-making

Such climate data can be used to contribute to making decisions about capital expenditures, advertising, marketing, product design and packaging, and insurance.

For example, in planning new facilities, climate data can be used to situate buildings and landscape the grounds to reduce snow drifting and problems arising from strong winds and driving precipitation.

Advertising can be scheduled to coincide with the historically likely date of, for instance, the first snowfall of the year, with schedules varying according to regional differences.

Product decisions can depend on climatic conditions. For example, is the market for airconditioners likely to be good in Edmonton? Would handwarmers go over better in Windsor or Nanaimo?

Monitoring current conditions can also be a useful exercise for retailers, making it possible for them to respond more quickly with the appropriate corrective or opportunistic action to such circumstances as a lengthy wet spell or cold snap affecting the demand for particular products.

Weather can be a friend or an enemy; it should, for retailers, be at least a familiar and well-known acquaintance.

- Adapted from Canadian Retailer

Clean Arctic Waters: A treasure for Tomorrow

About half of Canada's land area is north of the 60th parallel, much of it covered by myriad lakes. Its climate and remoteness make waters in the North more difficult to manage than those of southern Canada, and have restricted industrial development.

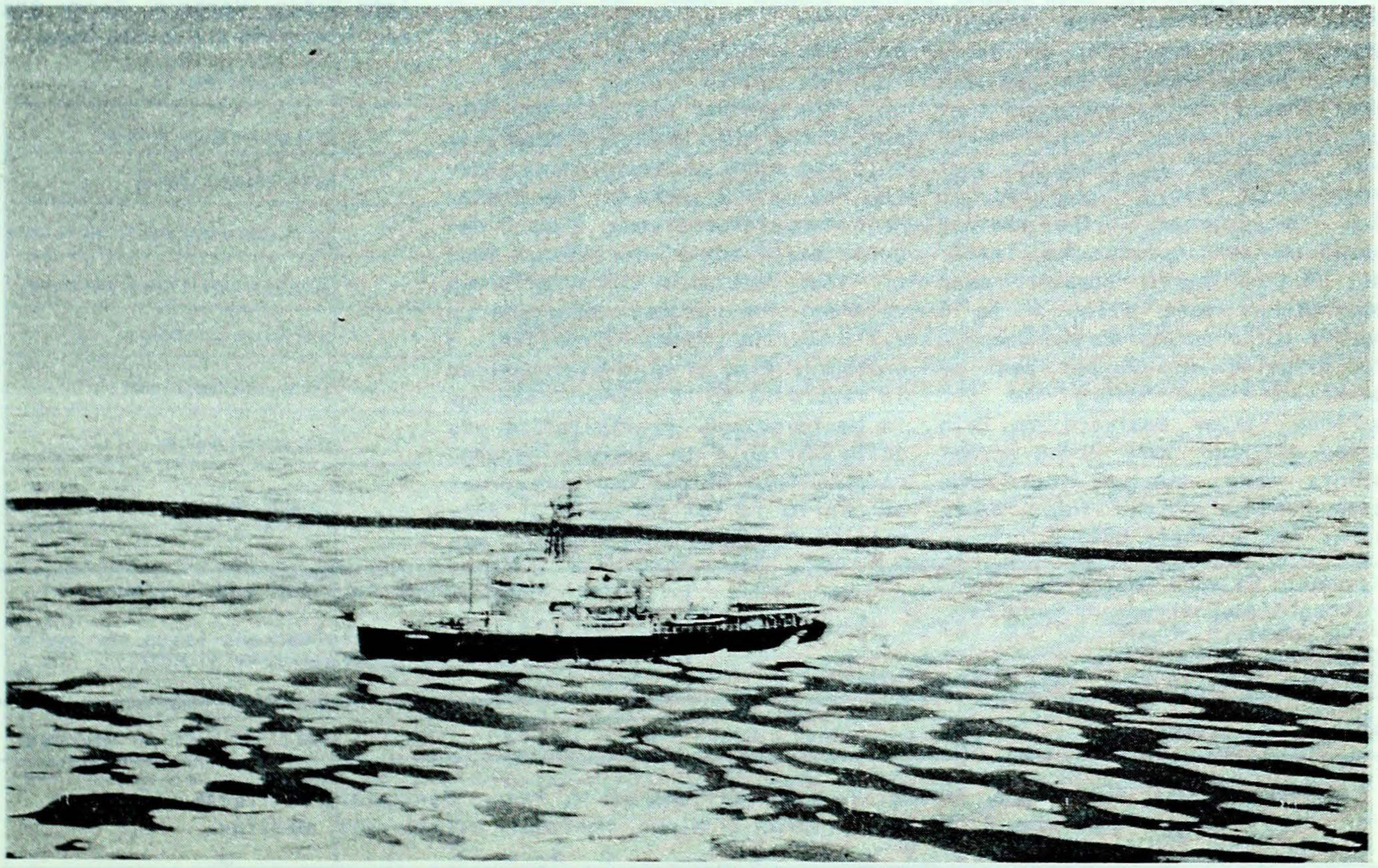
The northern climate is marked by winters of low snowfall and light streamflow, but thick ice forms on lakes and rivers. During the spring, ice jamming becomes a serious problem, particularly on northward flowing rivers whose southern headwaters break up earlier than their lower reaches. Floating ice carried downstream is halted by the solid ice barrier in the unbroken northern reaches, damming the rivers and causing spectacular floods.

Permafrost - permanently frozen ground - lies beneath half of Canada's land surface, to depths of up to hundreds of metres. That presents problems with no easy technical solution. Where permafrost is continuous, just making water available and distributing it becomes a serious challenge. Where permafrost is discontinuous, the problems are less formidable, but the annual cycle of freezing and thawing can result in major heaving at the earth's surface and have profound effects on water movement.

By southern standards, the amount of water used is small, for there are few industrial operations and there is almost no agriculture. On the other hand, many people depend on fishing, hunting and trapping and the sustaining water resource for their livelihood.

Most of the larger communities in the North are located along the two principal waterways: the Mackenzie and Yukon Rivers. They afford ready access to plentiful water supplies for domestic, municipal and industrial needs. Historically, the Mackenzie and Yukon Rivers have been major transportation routes, and barges continue to supply goods to Mackenzie Valley communities.

With the increasing promotion of tourism and expansion of the national parks system, recreational demands on the water resource are growing. Although water temperatures are generally too cool for activities such as swimming, there is still a great potential for other activities such as sport fishing, boating and canoeing. Proposed large-scale hydroelectric developments could have significant impacts on water quantity and quality, and also on the fish and wildlife that depend upon the water. The challenge will be to manage the water in a way that will sustain fish and wildlife populations while accommodating other water uses.



Growing interest in northern resources has contributed to increased ice research.

CLIMATIC EXTREMES - MARCH, 1984

MEAN TEMPERATURE:		
WARMEST	Victoria Gonz. Hts., BC	8.7°
COLDEST	Eureka, NWT	-38.5°
HIGHEST TEMPERATURE:	Lytton, BC	19.0°
LOWEST TEMPERATURE:	Eureka, NWT	-51.3°
HEAVIEST PRECIPITATION:	Ethelda Bay, BC	288.9 mm
HEAVIEST SNOWFALL:	Fredericton, NB	98.8 cm
DEEPEST SNOW ON THE GROUND ON MARCH 31, 1984	Hopedale, NFLD.	176 cm
GREATEST NUMBER OF BRIGHT SUNSHINE HOURS:	Montréal, PQ	224 hrs

...continued from page 2B
Superior had as much as 80 cm of snow on the ground.

Québec

A cold wave covering the Province during the first half of the month produced record-cold temperatures across southern Québec. Between March 7th-14th, 94 daily records were broken. it was the first time since record began that Montréal registered a colder March than the month of February that preceded it (-6.4° compared to -3.6° for February). The weather turned milder during the latter half of the month; however, mean temperatures were still 1 to 6 degrees below normal across Québec. precipitation was 80 per cent of normal or lower along the St. Lawrence Valley eastward to Baie Comeau and Mont Joli. Above normal amounts were received over the Gaspé Peninsula, the lower North Shores and northern Québec. Snowfall exceeded 50 cm in most of the southern location. The North, however, received lesser amounts. Hours of bright sunshine exceeded normal values across southern Québec, over 200 hours of sunshine at Québec City surpassed the average by 44 per cent.

Atlantic Provinces

The weather was cold and dull across the Maritimes, but generally mild and sunny in Newfoundland during the last 2 weeks of the month. Mean temperatures were 1 to 3 degrees below normal throughout most of the Maritimes. Charlottetown recorded the largest departure of 2.7°. During March 22nd-24th, a southerly flow of mild air resulted in record 13 to 15 degrees readings in Newfoundland. Precipitation was quite variable in eastern Canada, ranging from 80 per cent of normal at Charlo to 187 per cent of normal at Fredericton. Snowfall was excessive, but northern New Brunswick, Prince Edward Island and the Annapolis Valley had less than their normal share. Storm events near the middle of the month contributed to excessive river run offs throughout Nova Scotia. Although monthly flows were about 70 per cent above median, no previous records were broken. The flows in the eastern mainland have now been excessive for 3 consecutive months. Hours of bright sunshine were below normal almost everywhere.

March was extremely stormy in Atlantic Canada. Early in the month, an intense storm brought heavy snow, very cold temperatures and 100 km/h winds into Nova Scotia. Eastern Nova Scotia received nearly 40 cm of snow, and two deaths were attributed to the storm. During a mid-month ice storm, heavy ice accretion on wires left about 10,000 homes in the dark on Cape Breton. An early spring blizzard roared into the East Coast in the last few days of March. Gander received a record 83 cm of snow. The storm dumped 20 to 40 cm of snow on the Maritimes. Winds gusting near 130 km/h moved ice into Sydney Harbour. Ferry traffic was disrupted for a few days.

Canadian Climate Centre
Atmospheric Environment Service
4905 Dufferin Street
Downsview, Ontario
CANADA M3H 5T4 (416) 667-4711/4906

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EDITOR: A. Shabbar STAFF WRITER: A. Radomski

Correspondents: T. Mullane, Ottawa; H. Wahl, Whitehorse; N. Penny, Vancouver; W. Prusak, Edmonton; F. Luciow, Winnipeg; B. Smith, Toronto; J. Miron, Montréal; F. Amirault, Halifax.

Subscription enquiries: Supply and Services Canada, Publishing Centre, Ottawa, Ontario, Canada, K1A 0S9

MARCH 1984

STATION	Temperature C				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
	Mean	Difference from Normal	Maximal	Minimal									
BRITISH COLUMBIA													
ABBOTSFORD A	7.8	2.2	18.2	-1.7	0.0	0	177.3	127	0	19	130	116	336.4
ALERT BAY	7.6	2.4	16.6	.3	0.0	0	81.0	66	0	13	MSG	MSG	323.7
BLUE RIVER A	1.9	3.4	14.0	-11.6	31.0	84	40.6	73	15	7	95	99	MSG
BULL HARBOUR	7.0	2.1	14.9	-1.2	0.0	0	156.6	94	0	19	MSG	MSG	341.4
BURNS LAKE	MSG	MSG	MSG	MSG	MSG	MSG	MSG	MSG	MSG	MSG	MSG	MSG	MSG
CAPE ST. JAMES	7.1	2.2	11.1	2.0	0.0	0	134.2	103	0	18	96	MSG	337.3
CAPE SCOTT	7.4	2.0	14.4	1.4	.8	7	271.4	116	0	18	MSG	MSG	328.5
CASTLEGAR A	5.2	2.5	15.2	-4.2	4.0	14	69.6	120	0	10	113	92	396.6
COMOX A	7.8	2.8	14.9	-1.0	0.0	0	80.2	72	0	14	MSG	MSG	336.4
CRANBROOK A	3.5	3.4	13.7	-6.0	1.0	5	17.6	105	0	4	149	MSG	455.6
DEASE LAKE	-1.8	5.6	10.0	-28.8	13.2	50	13.1	59	27	4	109	82	614.1
ETHELDA BAY	6.5	2.3	15.4	-1.1	0.0	0	288.9	103	0	21	MSG	MSG	357.3
FORT NELSON A	-6.5	3.3	14.9	-29.9	20.9	71	13.0	53	29	7	143	MSG	757.0
FORT ST. JOHN A	-1.5	5.1	12.0	-26.1	8.6	26	7.3	25	0	MSG	MSG	MSG	601.8
HOPE A	8.4	2.8	18.0	.4	0.0	0	192.5	131	0	17	109	108	296.8
KAMLOOPS A	6.6	3.1	16.7	-4.2	TR	MSG	16.7	172	0	3	169	116	353.2
KELOWNA A	5.6	3.3	16.6	-5.8	TR	MSG	36.0	194	0	8	131	98	383.9
LANGARA	6.3	2.5	11.3	1.6	3.3	19	178.1	135	0	19	MSG	MSG	362.1
LYTTON	8.1	3.0	19.0	-3.5	TR	MSG	13.8	48	0	1	140	97	307.6
MACKENZIE A	-.7	4.0	12.0	-25.9	22.0	52	41.2	77	11	11	145	116	583.0
MCINNES ISLAND	7.9	2.9	17.6	3.2	.4	3	232.4	106	0	22	MSG	MSG	315.5
MERRY ISLAND	8.2	1.7	12.5	2.9	0.0	0	97.5	129	0	14	145	MSG	302.8
PENTICTON A	6.0	2.1	16.1	-4.5	0.0	0	51.8	299	0	13	132	94	371.8
PORT ALBERNI A	MSG	MSG	MSG	MSG	MSG	MSG	MSG	MSG	MSG	MSG	MSG	MSG	MSG
PORT HARDY A	6.8	2.4	14.7	-1.5	0.0	0	128.2	90	0	17	130	129	347.0
PRINCE GEORGE A	2.0	3.8	13.5	-14.3	4.3	14	34.7	94	0	6	173	126	494.4
PRINCE RUPERT A	6.3	3.3	13.5	-3.2	0.0	0	212.4	106	0	22	65	69	363.9
PRINCETON A	4.8	3.8	16.0	-6.0	0.0	0	25.4	134	0	8	147	MSG	MSG
QUESNEL A	3.3	3.7	15.6	-11.2	15.0	82	51.4	174	0	9	MSG	MSG	455.1
REVELSTOKE A	3.6	2.9	14.8	-6.4	1.0	3	57.7	65	0	15	90	89	446.0
SANDSPIT A	6.6	2.7	11.3	1.0	0.0	0	113.1	114	0	18	110	91	354.6
SMITHERS A	2.7	4.0	13.5	-7.4	10.0	45	20.4	80	0	8	105	86	474.0
STEWART A	MSG	MSG	MSG	MSG	MSG	MSG	MSG	MSG	MSG	MSG	MSG	MSG	MSG
TERRACE A	4.7	3.2	14.1	-1.7	4.8	11	76.8	92	0	16	89	82	414.1
VANCOUVER HARBOUR	8.3	2.2	15.2	1.6	0.0	0	169.7	111	0	18	MSG	MSG	300.9
VANCOUVER INT'L A	7.9	2.1	15.2	.2	0.0	0	128.6	127	0	19	137	106	311.7
VICTORIA GONZ. HTS	8.7	2.0	15.8	2.8	0.0	0	40.7	87	0	11	141	93	287.9
VICTORIA INT'L A	7.7	2.0	15.0	-.4	0.0	0	89.4	125	0	13	134	93	319.3
VICTORIA MARINE	7.7	1.8	13.7	.2	0.0	0	114.5	100	0	17	MSG	MSG	319.4
WILLIAMS LAKE A	2.3	3.3	12.8	-11.8	16.3	74	22.1	98	0	8	160	99	488.6
YUKON TERRITORY													
BURWASH A	-4.2	8.6	7.8	-26.9	2.6	18	1.4	9	0	1	MSG	MSG	689.4
DAWSON A	-6.0	8.9	10.6	-29.9	5.1	42	4.0	38	35	1	MSG	MSG	745.5
MAYO A	-4.0	7.7	11.2	-26.6	13.5	125	5.6	54	28	3	MSG	MSG	678.3
WATSON LAKE A	-5.2	6.1	9.0	-29.4	9.6	34	6.9	30	32	2	112	83	718.3
WHITEHORSE A	.1	8.3	8.8	-14.2	8.6	52	6.9	51	8	4	121	79	554.7
NORTHWEST TERRITORIES													
ALERT	-34.6	-1.4	-17.0	-44.8	1.4	19	MSG	MSG	14	0	89	134	1632.0
BAKER LAKE	-26.5	1.4	MSG	-42.7	9.6	116	21.3	280	MSG	MSG	121	64	1378.8
CAMBRIDGE BAY	-29.1	2.2	-10.7	-42.5	5.6	104	5.4	115	32	2	151	82	1460.9
CAPE DYER A	-24.7	-1.8	-5.5	-38.8	21.6	63	12.5	43	52	4	MSG	MSG	1323.3
CAPE PARRY A	-29.3	-1.7	-8.0	-42.6	10.2	96	8.1	133	22	5	MSG	MSG	1466.2
CLYDE	MSG	MSG	-12.8	-44.1	4.0	67	6.4	107	84	2	219	136	MSG
COPPERMINE	-26.4	.7	-1.8	-43.6	18.8	181	12.6	129	37	4	149	92	1376.0
CORAL HARBOUR A	-26.1	-.9	-4.7	-43.2	6.3	58	5.7	53	25	2	153	77	1367.7
EUREKA	-38.5	-1.1	-20.2	-51.3	2.0	83	1.3	59	12	0	88	75	1756.5
FORT RELIANCE	-20.4	1.5	5.1	-46.4	15.1	122	9.2	89	32	4	MSG	MSG	1189.3
FORT SIMPSON A	-13.9	1.0	14.7	-35.1	15.5	73	13.3	61	72	4	158	99	994.1
FORT SMITH A	-11.8	3.0	14.9	-40.7	15.0	94	11.2	78	2	5	165	94	921.2
FROBISHER BAY A	-23.0	-.3	.5	41.0	14.8	56	13.0	56	22	4	149	84	1270.6
HALL BEACH A	-30.5	-1.0	-11.8	-45.0	5.5	45	4.6	39	28	1	MSG	MSG	1504.1
HAY RIVER A	-14.7	1.6	14.8	-41.6	11.4	59	12.6	69	20	4	MSG	MSG	992.7
INUVIK A	-25.5	-.5	-7.7	-41.3	16.6	111	11.5	96	65	5	152	87	1347.0
MOULD BAY A	-33.5	-.7	-14.8	-48.6	3.2	107	1.4	58	26	1	86	78	1597.1
NORMAN WELLS A	-19.5	.3	1.1	-35.1	5.6	41	5.6	43	14	3	173	103	1161.0
POND INLET A	-32.6	-2.5	-14.5	-43.9	7.2	65	6.8	87	19	2	168	MSG	569.0
RESOLUTE A	MSG	MSG	MSG	MSG	MSG	MSG	MSG	MSG	MSG	MSG	MSG	MSG	MSG
SACHS HARBOUR A	-29.9	-1.5	-10.0	-46.1	17.6	533	12.8	427	12	2	160	96	1485.1
YELLOWKNIFE A	-17.1	1.8	6.4	-41.6	16.4	114	15.0	121	17	5	174	89	1085.6
ALBERTA													
BANFF	-.3	3.1	11.0	-15.0	26.4	106	21.6	103	MSG	MSG	MSG	MSG	MSG
BROOKS	-2.0	2.6	14.0	-21.5	13.9	85	17.0	105	0	MSG	133	MSG	MSG
CALGARY INT'L A	-1.7	2.3	11.1	-25.2	21.0	106	20.2	125	0	6	137	85	660.1
COLD LAKE A	-4.8	2.8	10.9	-26.5	8.8	42	6.4	32	0	2	166	97	707.2
CORONATION A	-5.2	1.9	8.0	-21.5	12.2	52	10.8	52	TR	6	172	94	717.2
EDMONTON INT'L A	-3.1	3.6	12.5	-26.6	10.9	59	13.1	82	TR	4	162	94	652.2
EDMONTON MUN. A	-1.5	3.5	13.4	-21.1	8.9	48	12.9	70	0	5	181	108	603.1
EDMONTON NAMAO A	-2.5	3.1	11.5	-23.1	8.4	49	13.2	73	0	3	MSG	MSG	626.9
EDSON A	-2.0	4.2	13.4	-19.2	18.8	58	16.3	70	TR	6	150	97	615.3
FORT CHIPEWYAN A	-10.4	3.7	14.5	-43.5	7.8	47	7.8	51	10	MSG	MSG	MSG	MSG

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STATION	Temperature C: Mean	Difference from Normal	Maximal	Minimal	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
FORT MCMURRAY A	-5.5	3.7	15.1	-33.5	9.7	40	7.2	35	0	2	180	109	728.4
GRANDE PRAIRIE	-1.4	5.8	13.0	-24.8	12.1	52	11.8	57	TR	3	162	MSG	601.9
HIGH LEVEL A	-7.3	4.5	13.1	-36.9	7.2	34	5.6	35	12	2	205	117	832.1
JASPER	1.3	4.0	12.5	-16.5	4.0	27	6.6	41	0	2	152	MSG	529.6
LETHBRIDGE A	-.2	1.9	13.4	-17.8	19.3	73	22.9	95	0	10	MSG	MSG	560.9
MEDICINE HAT A	-1.2	1.6	14.0	-19.6	19.5	107	25.5	138	0	9	131	81	592.2
PEACE RIVER A	-2.7	5.6	12.3	-27.1	2.7	13	2.7	16	0	1	MSG	MSG	639.7
RED DEER A	-3.1	3.1	12.5	-29.0	21.7	107	22.7	116	0	6	MSG	MSG	651.8
ROCKY MTN HOUSE	-3.1	1.5	11.5	-24.6	27.3	91	22.9	86	TR	7	MSG	MSG	652.3
SLAVE LAKE A	-2.6	4.3	14.5	-28.3	7.8	28	7.4	35	0	3	179	107	637.7
SUFFIELD A	-1.2	2.8	14.8	-18.2	16.1	115	15.8	111	0	5	128	72	598.0
WHITECOURT	-1.7	4.2	12.7	-21.2	24.8	97	20.3	85	TR	5	MSG	MSG	611.1
SASKATCHEWAN													
BROADVIEW	-7.2	1.4	12.8	-32.8	21.2	120	24.4	147	0	7	128	74	780.2
COLLINS BAY	-13.5	2.2	9.8	-40.2	47.6	172	35.1	153	65	10	131	MSG	973.9
CREE LAKE	-10.9	2.7	10.7	-45.0	12.4	59	7.8	50	10	4	167	94	894.5
ESTEVAN A	-4.3	1.6	14.1	-23.4	18.2	105	28.2	146	0	7	121	65	690.8
HUDSON BAY	-8.3	1.4	9.2	-34.9	20.8	62	29.2	103	7	6	156	MSG	816.1
KINDERSLEY KY	-4.6	2.0	11.5	-21.7	15.1	103	10.6	72	0	4	MSG	MSG	701.7
LA RONGE A	-8.9	1.8	9.4	-32.5	17.8	81	17.6	114	7	5	MSG	MSG	832.6
MEADOW LAKE	-6.1	1.5	9.4	-29.4	3.2	18	3.6	18	2	2	156	MSG	776.2
MOOSE JAW A	-3.8	1.8	13.2	-23.8	15.6	84	17.1	98	0	4	103	62	674.3
NIPAWIN A	-9.7	MSG	5.1	-34.7	16.5	MSG	16.3	MSG	15	3	132	80	858.7
NORTH BATTLEFORD A	-5.5	3.1	8.6	-23.5	4.2	20	4.2	20	0	1	MSG	MSG	739.7
PRINCE ALBERT A	-8.0	2.3	8.1	-32.2	20.2	103	18.3	95	TR	4	129	78	806.0
REGINA A	-5.2	2.6	13.0	-23.3	21.5	117	19.8	111	0	7	95	61	749.6
SASKATOON A	-5.0	3.6	12.5	-21.2	12.0	65	11.3	61	0	5	MSG	MSG	711.3
SWIFT CURRENT A	-4.1	1.6	14.0	-22.8	15.9	75	14.4	72	0	7	131	84	690.3
URANIUM CITY A	-12.5	3.0	11.6	-41.0	25.5	108	16.7	95	30	5	MSG	MSG	309.1
WYNYARD	-7.0	1.8	11.1	-26.1	11.2	45	17.0	69	TR	3	110	60	776.2
YORKTON	-7.2	2.4	11.9	-31.8	17.3	66	26.2	100	0	5	135	81	796.5
MANITOBA													
BISSETT	-9.2	0.0	10.4	-35.3	12.8	57	14.7	58	17	2	215	112	843.2
BRANDON A	-6.5	2.2	13.2	-27.2	19.9	101	19.6	98	0	6	MSG	MSG	759.0
CHURCHILL A	-20.1	.3	2.5	-38.7	6.5	35	5.3	29	23	1	177	94	2294.3
DAUPHIN A	-7.2	1.9	11.0	-33.4	13.9	57	17.7	72	0	4	149	84	779.8
GILLAM A	-15.5	1.7	8.8	-40.5	9.2	29	6.6	22	65	3	MSG	MSG	1037.1
GIMLI	-8.4	.6	8.6	-31.5	19.6	84	16.2	63	TR	2	190	98	818.3
ISLAND LAKE	-12.2	.5	7.5	-38.1	5.6	10	2.4	5	33	1	MSG	MSG	934.8
LYNN LAKE A	-13.3	2.0	9.6	-42.8	29.1	117	24.2	112	28	5	129	69	969.5
NORWAY HOUSE A	-10.9	MSG	6.8	-36.9	15.9	MSG	16.0	MSG	12	6	MSG	MSG	891.7
PILOT MOUND	-6.8	.9	10.5	-26.3	12.9	62	15.4	66	0	4	MSG	MSG	769.4
PORTAGE LA PRAIRIE A	-6.8	.6	11.6	-30.2	11.8	67	12.5	46	0	3	MSG	MSG	767.6
THE PAS A	-9.2	2.0	9.2	-32.4	13.0	46	18.7	79	2	3	169	97	848.1
THOMPSON A	-13.2	1.7	10.9	-42.2	10.6	37	10.5	36	20	4	139	71	964.7
WINNIPEG INT'L A	-7.1	1.1	10.3	-27.4	12.0	57	11.7	52	0	3	195	111	776.2
ONTARIO													
ATIKOKAN	MSG	MSG	MSG	MSG	MSG	MSG	MSG	MSG	MSG	MSG	MSG	MSG	MSG
EARLTON A	-9.4	-1.8	8.2	-30.6	15.8	36	18.2	31	4	6	MSG	MSG	850.9
GERALDTON	-13.2	-2.2	5.6	-38.8	45.6	117	34.8	91	77	8	MSG	MSG	968.1
GORE BAY A	-5.9	-1.6	7.5	-24.2	18.3	59	50.5	94	2	6	MSG	MSG	740.3
HAMILTON	MSG	MSG	MSG	MSG	MSG	MSG	MSG	MSG	MSG	MSG	MSG	MSG	MSG
HAMILTON A	-4.6	-3.8	9.0	-19.2	47.8	238	79.3	112	TR	11	MSG	MSG	701.2
KAPUSKASING A	-12.4	-3.0	5.8	-32.7	43.0	91	62.6	113	14	7	MSG	MSG	938.8
KENORA A	-7.5	-.4	MSG	MSG	12.2	41	12.4	41	10	1	MSG	MSG	788.9
KINGSTON A	-5.8	-4.2	9.8	-25.9	22.3	69	30.2	42	TR	6	164	115	736.8
LANSDOWNE HOUSE	-14.1	-1.5	7.2	-34.6	19.4	65	17.0	59	73	3	MSG	MSG	993.5
LONDON A	-4.3	-3.4	7.7	-20.2	43.2	155	81.1	108	0	13	107	88	693.2
MOOSONEE	-15.1	-2.8	6.8	-38.1	49.2	149	62.2	166	28	6	155	105	1026.2
MOUNT FOREST	-6.4	-3.0	7.0	-25.1	40.4	96	70.4	87	0	12	144	107	754.1
MUSKOKA A	-6.8	-3.0	8.8	-31.4	24.1	65	66.7	101	1	7	MSG	MSG	768.8
NORTH BAY A	-8.1	-2.8	7.7	-28.2	22.4	58	37.5	61	TR	6	181	122	807.7
OTTAWA INT'L A	-6.8	-3.8	9.2	-25.5	19.6	55	30.0	44	6	7	199	MSG	767.8
PETAWAWA A	-4.4	2.0	10.4	-31.3	25.6	85	44.8	89	TR	5	MSG	MSG	700.5
PETERBOROUGH A	MSG	MSG	MSG	MSG	MSG	MSG	MSG	MSG	MSG	MSG	MSG	MSG	MSG
PICKLE LAKE	-12.9	-2.2	7.7	-38.0	23.6	61	16.4	39	70	3	MSG	MSG	956.8
RED LAKE A	-10.7	-1.8	9.8	-35.8	21.6	90	18.4	70	25	2	203	MSG	890.6
ST. CATHARINES A	-3.0	-3.7	9.6	-17.2	33.7	188	46.4	66	TR	9	MSG	MSG	651.3
SARNIA A	MSG	MSG	MSG	MSG	MSG	MSG	MSG	MSG	MSG	MSG	MSG	MSG	MSG
SAULT STE. MARIE A	-6.3	-1.2	6.4	-27.3	13.8	46	45.1	75	TR	9	178	118	752.9
SIMCOE	-4.6	-4.3	8.0	-22.0	37.6	152	58.8	72	6	16	MSG	MSG	699.6
SIOUX LOOKOUT A	-9.7	-1.4	7.5	-35.8	19.7	61	19.2	55	52	3	MSG	MSG	853.9
SUDBURY A	-7.9	-1.9	8.4	-26.9	17.6	50	23.6	43	TR	7	184	121	802.4
THUNDER BAY A	-8.1	-1.8	7.9	-28.7	15.4	45	15.7	35	1	4	176	102	809.6
TIMMINS A	-11.0	-2.6	5.9	-34.8	23.2	43	40.4	69	16	9	MSG	MSG	898.8
TORONTO	-2.6	-3.3	9.1	-17.4	23.0	93	58.1	83	0	10	MSG	MSG	638.0
TORONTO INT'L A	-4.6	-3.6	9.1	-23.2	24.5	110	59.5	97	0	9	MSG	MSG	700.8
TORONTO ISLAND A	-2.6	-2.7	7.7	-16.8	27.2	128	58.4	97	0	10	MSG	MSG	639.7
TRENTON A	-5.5	-4.5	-9.5	-26.3	17.2	64	40.5	56	0	6	MSG	MSG	727.5
TROUT LAKE	-9.5	5.0	8.4	-36.0	9.4	MSG	6.2	29	38	3	215	MSG	851.4
WATERLOO-WELL A	-5.3	-3.5	7.7	-23.6	37.2	154	70.7	98	0	9	MSG	MSG	723.9
WAWA A	MSG	MSG	MSG	MSG	MSG	MSG	MSG	MSG	MSG	MSG	MSG	MSG	MSG
WIARTON A	-5.9	-3.1	8.5	27.5	35.9	84	65.5	101	TR	10	161	116	740.0
WINDSOR A	-2.0	-3.2	9.7	-14.1	24.0	120	105.8	148	0	11	MSG	MSG	619.7

STATION	Temperature C Mean	Difference from Normal	Maximal	Minimal	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 A	-10.3	-3.8	7.3	-35.9	21.8	46	25.8	50	52	9	160	MSG	955.2
BAIE COMEAU A	-8.8	-2.4	4.7	-31.9	33.0	55	43.3	63	103	7	161	MSG	831.9
BLANC SABLON	-7.5	-1.7	5.0	-27.3	92.6	112	102.2	112	102	16	97	MSG	781.7
CHIBOUGAMAU A	-12.3	-1.5	8.5	-36.2	35.0	79	42.7	95	64	9	174	111	938.6
KUUJJUAQ A	-16.2	MSG	2.5	-32.1	46.2	MSG	37.0	MSG	65	9	115	MSG	1060.8
GASPE A	MSG	MSG	9.6	-27.5	80.4	92	116.8	111	38	11	111	MSG	754.7
INUKJUAK A	-20.7	-.1	.4	-37.7	12.2	136	11.8	131	37	5	176	110	1198.7
LA GRANDE RIVIERE	-15.8	MSG	2.3	-38.5	81.9	MSG	64.4	MSG	45	9	122	MSG	1046.1
MANIWAKI	-8.9	-3.8	12.2	-32.7	19.4	57	40.1	78	7	6	198	136	834.0
MATAGAMI A	MSG	MSG	MSG	MSG	MSG	MSG	MSG	MSG	MSG	MSG	MSG	MSG	MSG
MONT JOLI A	-7.8	-2.8	5.0	-25.1	50.3	80	51.4	71	16	10	MSG	MSG	800.5
MONTREAL INT'L A	-6.4	-3.9	10.2	-25.3	19.7	55	34.5	47	0	7	186	120	757.1
MONTREAL M INT'L A	-7.9	MSG	8.9	-27.4	15.8	MSG	73.3	MSG	73	11	143	MSG	803.5
NATASHQUAN	-7.4	-1.2	3.7	-30.1	83.8	146	148.4	183	45	14	118	83	784.1
NITCHEQUON	-15.0	-.4	4.1	-40.0	39.0	114	35.3	99	26	8	143	94	1020.6
KUUJJUARAPIK A	-17.4	MSG	2.0	-40.1	33.6	MSG	33.6	MSG	35	8	141	MSG	1112.8
QUEBEC A	-8.0	-3.5	5.2	-26.0	50.8	94	64.2	78	56	10	201	144	808.1
ROBERVAL A	-10.5	-3.6	6.9	-30.2	26.6	45	27.6	45	46	7	193	MSG	881.7
STE AGATHE DES MONTS	-9.1	-3.4	7.9	-30.2	29.8	45	41.2	43	64	9	178	117	940.9
ST HUBERT A	-6.8	-4.4	11.2	-25.2	27.8	73	47.0	59	TR	10	0	MSG	772.2
SCHEFFERVILLE A	-15.1	0.0	3.2	-35.0	49.7	119	49.6	119	75	13	147	MSG	1027.1
SEPT-ILES A	-8.0	-1.4	5.4	-28.8	50.2	72	73.3	89	73	11	143	93	807.4
SHERBROOKE A	-8.2	-3.9	15.2	-31.4	53.8	101	55.1	75	2	9	163	MSG	812.9
VAL D'OR A	-11.3	-3.0	8.3	-36.1	34.8	73	28.7	49	29	5	190	122	906.8
NEW BRUNSWICK													
CHARLO A	-6.5	-1.3	5.5	-26.8	68.4	90	72.5	79	63	7	132	89	762.4
CHATHAM A	-5.5	-2.2	8.1	-25.5	64.8	96	96.0	99	39	12	132	91	728.7
FREDERICTON A	-5.1	-2.7	9.3	-27.1	98.8	203	158.2	187	22	15	141	MSG	717.1
MONCTON A	-4.8	-1.9	13.5	-22.3	89.9	133	197.1	176	24	14	122	88	708.3
SAINT JOHN A	-4.1	-1.6	10.6	-21.1	54.4	109	121.2	106	8	14	135	94	685.2

STATION	Temperature C Mean	Difference from Normal	Maximal	Minimal	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													
EDDY POINT	-1.9	-0.1	9.9	-16.2	57.9	113	101.3	87	20	15	MSG	MSG	113.8
GREENWOOD A	-3.9	-3.0	17.2	-18.8	28.5	59	85.5	102	8	16	0	MSG	619.2
HALIFAX INT'L A	-2.3	-.7	15.0	-18.0	59.6	131	183.9	143	9	14	MSG	MSG	627.4
SABLE ISLAND	1.9	1.2	13.5	-7.9	27.3	96	109.9	94	MSG	14	105	90	499.4
SHEARWATER A	-1.7	-.9	10.2	-16.6	48.6	125	140.3	120	5	14	118	80	609.2
SYDNEY A	-3.4	-.9	9.3	-17.7	88.8	139	107.0	81	23	11	108	86	662.1
TRURO	-2.7	-.4	16.8	-25.3	57.8	121	106.1	116	17	15	93	74	643.3
YARMOUTH A	.4	.1	16.2	-13.3	41.6	127	147.0	149	2	14	88	65	560.3
PRINCE EDWARD ISLAND													
CHARLOTTETOWN A	-3.8	-.7	13.8	-19.0	56.9	92	129.2	136	12	17	MSG	MSG	677.8
SUMMERSIDE A	-4.0	-1.2	13.0	-18.8	49.6	90	112.8	134	7	11	126	89	681.4
NEWFOUND LAND													
ARGENTIA A	-0.4	0.1	13.4	-12.2	54.8	31	83.6	118	22	14	NIL	MSG	568.3
BATTLE HARBOUR	-8.4	2.4	7.8	-30.0	61.0	MSG	74.8	111	100	12	NIL	MSG	803.3
BONAVISTA	-2.0	.7	12.2	-12.5	61.4	157	81.8	94	40	11	MSG	MSG	619.1
BURGEO	-2.6	-0.5	5.8	-17.6	55.9	117	103.3	83	TR	14	MSG	MSG	636.6
CARTWRIGHT	-9.8	-1.7	6.1	-30.9	141.7	165	195.4	209	120	14	96	77	861.2
CHURCHILL FALLS A	-13.0	0.4	6.6	-36.1	49.0	76	55.6	85	126	13	151	109	960.4
COMFORT COVE	-4.4	-0.8	12.9	-21.0	108.3	157	136.5	132	58	12	NIL	MSG	694.9
DANIEL'S HARBOUR	-5.1	-0.6	11.0	-23	88.8	145	112.4	149	28	19	69	60	714.5
DEER LAKE A	-4.9	-.1	14.4	-31.9	78.4	145	66.0	96	11	10	MSG	MSG	670.3
GANDER INT'L A	-3.9	-0.4	12.1	-19.4	115.8	160	174.4	158	58	13	109	104	677.9
GOOSE A	-10.3	-1.7	7.7	-32.6	86.6	116	82.9	115	76	14	95	73	878.5
HOPEDALE	-12.1	-1.1	4.8	-27.6	95.1	149	100.1	149	176	15	NIL	MSG	935.8
PORT-AUX-BASQUES	-2.8	-0.1	5.0	-16.8	54.5	106	83.5	80	3	14	52	MSG	640.4
ST ANTHONY	-7.5	1.6	5.8	-24.0	143.0	161	170.4	228	108	19	NIL	MSG	790.6
ST JOHN'S A	-1.6	0.7	12.5	-12.7	112.6	173	142.7	108	45	14	92	96	606.0
ST LAWRENCE	-1.4	0.2	9.8	-14.9	91.6	207	151.6	119	41	13	MSG	MSG	600.8
STEPHENVILLE A	-2.8	0	11.9	-21.1	88.6	151	82.7	102	TR	17	68	64	639.3
WABUSH LAKE A	-13.9	-.1	5.5	-38.8	46.5	78	42.7	75	104	11	147	100	990.4

STATION	Mean / Moyenne (Temperature °C / Température °C)	Difference from Normal / Écart à la normale	Maximum / Maximale	Minimum / Minimale	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)	This Month / Présent mois (Degree Days above 5°C / Degrés-jours au-dessus de 5°C)	Since Jan. 1st / Depuis le 1er janv.	Mean Dew Point °C / Point de rosée moyen °C
AGROCLIMATOLOGICAL STATIONS AGROCLIMATOLOGIQUES													
BRITISH COLUMBIA COLOMBIE-BRITANNIQUE													
Agassiz	8.8	2.7	19.0	0.0	0.0	166.6	113	0	20	133	116.8	188.1	
Kamloops													
Sidney													
Summerland	5.9	2.2	14.5	-3.0	0.0	36.6	247	0	7	155	41.5	46.0	
ALBERTA													
Beaverlodge	-1.2	4.9	12.5	-25.0	11.8	14.1	57	0	4	175	0.7	0.7	
Ellerslie	-3.2		11.5	-25.5	6.0	9.1		0	3	166	0.8	0.8	
Fort Vermilion													
Lacombe	-3.6	2.4	12.5	-26.0	18.0	23.4	123	0	8	150	1.7	1.7	
Lethbridge	0.2	2.0	14.5	-18.5	23.1	23.4	98	0	8	111	11.9	55.8	
Vauxhall	-1.2	1.8	13.0	-19.0	28.4	22.9	133	0	6	127	4.0	12.4	
Vegreville	-5.2	2.9	10.5	-29.0	4.0	4.0	32	0	2		0.0	0.0	
SASKATCHEWAN													
Indian Head	-6.1	1.8	11.5	-29.0	26.4	16.8	77	0	5		0.5	0.5	
Melfort	-8.5	1.7	7.5	-31.0	18.5	18.5	104	0	5	121	0.0	0.0	
Regina	-6.4	1.8	13.0	-27.0	15.6	22.9	142	0	7		0.0	0.0	
Saskatoon	-5.5		11.5	-22.0	9.3	11.5		0	5	120	0.0	0.0	
Scott	-6.6	2.3	8.5	-26.0	7.3	7.3	38	1.0	2	160	0.0	0.0	
Swift Current South	-3.8	0.9	14.0	-23.0	15.0	14.0	91	0	5	105	0.0	1.6	
MANITOBA													
Brandon	-6.6	1.8	13.5	-30.0	16.0	16.4	70	0	5	136	2.5	2.5	
Glenlea	-7.5	1.5	10.0	-29.5	6.0	9.8	·41		4	188	0.0	0.0	
Morden	-5.9	0.8	11.0	-27.0	10.4	13.4	47	0	5	126	0.5	0.5	

STATION	Mean / Moyenne (Temperature °C / Température °C)	Difference from Normal / Écart à la normale	Maximum / Maximale	Minimum / Minimale	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)	This Month / Présent mois (Degree Days above 5°C / Degrés-jours au-dessus de 5°C)	Since Jan. 1st / Depuis le 1er janv.	Mean Dew Point °C / Point de rosée moyen °C
AGROCLIMATOLOGICAL STATIONS AGROCLIMATOLOGIQUES													
ONTARIO													
Delhi	-4.1	-3.8	8.5	-23.0	28.9	58.8	70	2	14	115	0.0	6.4	
Elora	-5.8		7.1	-25.2	29.1	65.7		0	12	153	0.0	0.5	
Guelph	-5.6	-3.7	7.7	-26.8	49.0	82.7	132	0	12	153	0.0	2.5	
Harrow	1.3	0.1	8.5	-15.0	10.8	85.7	115	0	6	108	0.0	7.4	
Kapuskasing													
Merivale													
Ottawa	-7.0	-4.1	8.2	-27.5	10.1	22.9	39	9	6	188	0.0	0.0	
Smithfield	-5.3	-3.9	8.0	-27.0	17.7	37.2	44	0	8		0.0	2.2	
Vineland Station	-2.7	-2.0	9.2	-14.2	25.4	57.8	82	0	13	137	7.8	7.8	
Woodslee													
QUEBEC													
La Pocatiere	-8.6	-4.2	3.5	-26.0	65.9	87.0	129	5	10	167	0.0	0.0	
L'Assomption	-7.9	-4.2	8.0	-30.5	19.1	40.7	59	11	9	179	0.0	0.0	
Lavaltrie													
Lennoxville													
Normandin	-11.5	-2.8	7.5	-38.0	31.0	29.2	49	40	6	177	0.0	0.0	
St. Augustin													
Ste. Clothilde	-6.5	-4.0	9.5	-28.0	26.0	40.4	55	0	7	162	0.0	2.5	
NEW BRUNSWICK NOUVEAU-BRUNSWICK													
Fredericton													
NOVA SCOTIA NOUVELLE-ECOSSE													
Kentville	-1.9	-0.9	15.5	-19.0	46.8	140.1	142	2	14	110	14.1	20.5	
Nappan	-3.1	-0.8	16.0	-24.0	66.1	123.6	137	18	15	121	9.0	12.8	
PRINCE EDWARD ISLAND ILE-DU-PRINCE-EDOUARD													
Charlottetown	-3.7	-1.0	14.0	-18.5	44.4	115.2	136	8	14	126	4.8	4.8	
NEWFOUNDLAND TERRE-NEUVE													
St. John's West	-1.0	1.0	13.5	-12.0	94.6	132.8	88	56	14	83	1.9	22.7	