Environment Canada Environnement Canada

Climatic Perspectives

Monthly Review **October - 1990** *Vol. 12*

CLIMATIC HIGHLIGHTS

October is considered a transition month, when the atmosphere gradually switches from a summer regime to a more active winter pattern. At the same time, the seasons harvest is slowly being wrapped up, with farmers hoping for settled and dry weather conditions; but with the exception of the Prairie provinces, which experienced ideal harvesting weather this year, this was not the case in many parts of the country.

Worst potato harvest in two decades

In New Brunswick, the harvest of 51,000 acres of potatoes continued under soggy conditions. This was especially true in the western portions of the province, which received more than 250 mm of rain in October. Tropical storm Lili, which brushed past the Maritimes on October 14, and vigorous weather systems tracking eastwards out of the American mid-west contributed to this wet weather phenomena. On October 24, parts of New Brunswick received 50 mm of rain, alone. By month's end, approximately one quarter of the potato crop still remained in the fields unharvested . Many of the potatoes already harvested have a very high moisture content, which will significantly limit the amount of time that they can be stored before being processed.

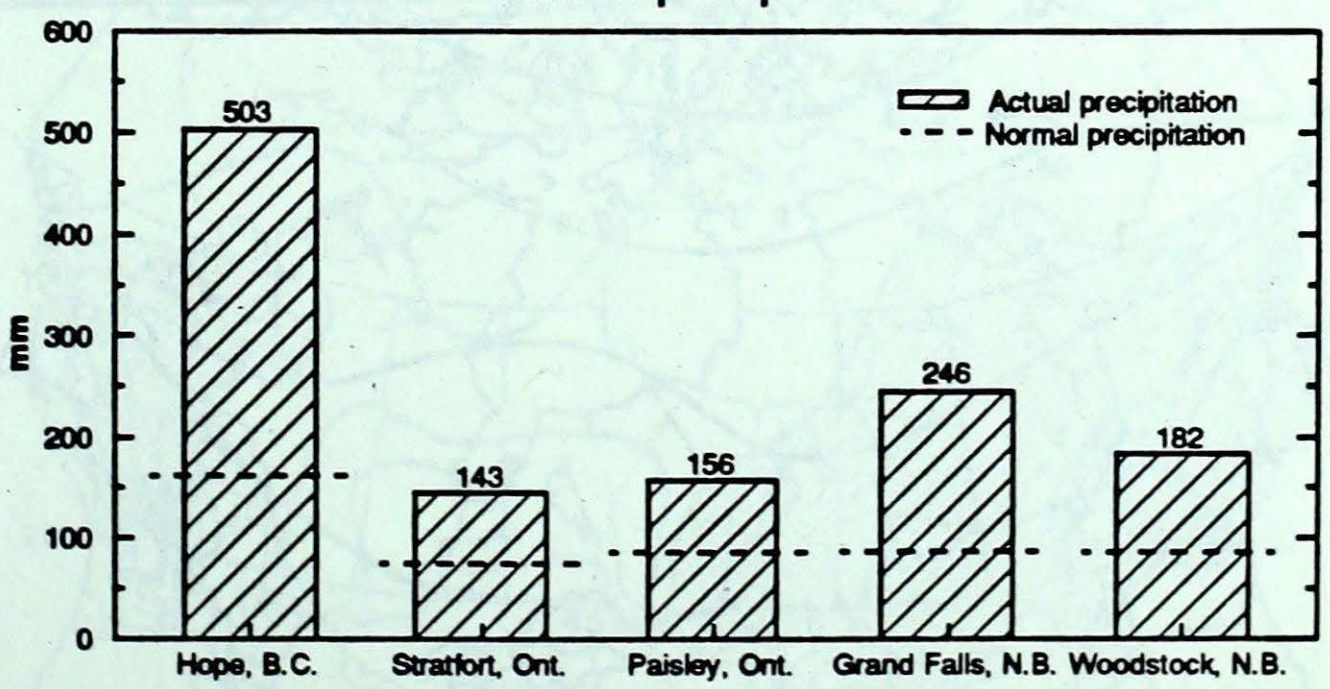
Heavy rain causes mud slides in B.C.

Autumn rains arrived abruptly in British Columbia this month, after pleasantly warm summer weather prevailed right through into September. In October, precipitation amounts averaged well above normal. Heavy rains along the B.C. south coast on the 20th and 21st, caused a land slide on the main highway linking Vancouver with Squamish and Whistler. The road was blocked for several days, causing major problems for tourists and local residents

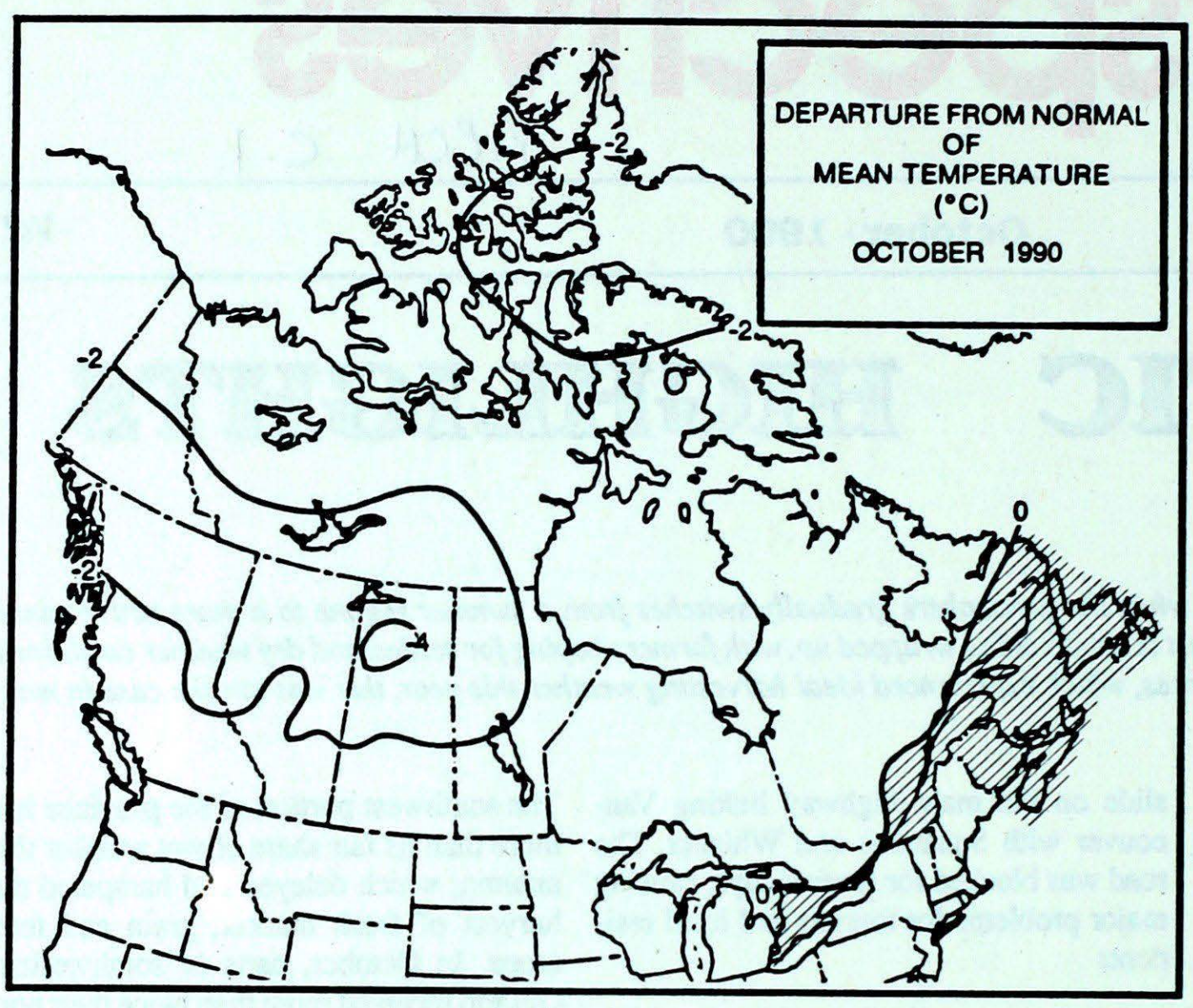
Southwestern Ontario farmers plagued by wet weather

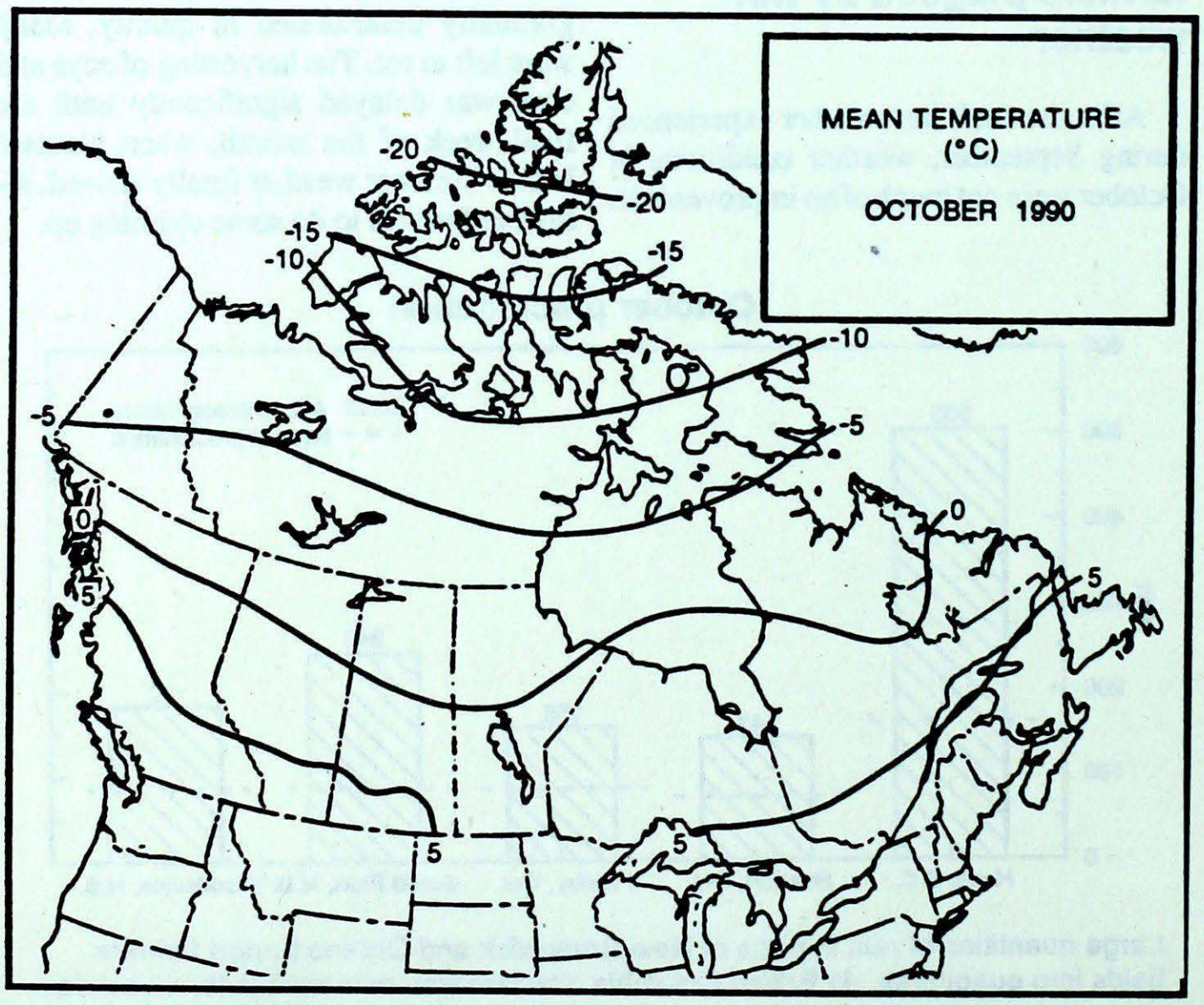
After the cool, wet weather experienced during September, weather conditions in October were not much of an improvement. The southwest portion of the province had more than its fair share of wet weather this autumn, which delayed and hampered the harvest of fresh market, grain and feed crops. In October, parts of southwestern Ontario received more than twice their normal precipitation. Crops remaining unharvested because of muddy, wet fields, gradually deteriorated in quality. Many were left to rot. The harvesting of soya and corn was delayed significantly until the final week of the month, when pleasant Indian Summer weather finally arrived, allowing farmers to do some catching up.

October precipitation



Large quantities of rain in parts of New Brunswick and Ontario turned farmers fields into quagmires. In British Columbia, the rain was responsible for mudslides.





Across the country

Yukon and Northwest Territories

It was a changeable month in the Yukon weatherwise, as winter darkness began to seep into the northern regions of the country. Temperatures were above normal in the north and below normal in the southern part of the territory, where the mercury at times still managed to climb into the double digits. In the northern areas, the highest maximum readings were only a couple of degrees above freezing. Minimum temperatures dropped down to the minus twenties rather frequently. Ogilvie registered -27°C on the 19th. The cold weather made ferry river crossings difficult, and by month's end the ferries were removed, causing motorists to wait until ice bridges were built.

Precipitation fell as a mixture of rain and snow. The northern Yukon had a period of about one week, where blizzard warnings were the daily fare. The greatest monthly precipitation total was 63 mm, at Swift River.

Elsewhere across the north, winter slowly tighten its grip. Snowfall and winter warnings became common place. Gales raced across Hudson Bay and the eastern Arctic. Lakes near the Arctic coastline froze over by mid-month. The coldest temperature reading was -37.0°C, at Eureka. Precipitation in the Keewatin District was less than normal. The greatest deficit was at Baker Lake, where they received a little more than half the normal. Hours of bright sunshine were above normal north of 60 degrees north latitude. Snow depths deepened as the snow line crept southwards. With the exception of the ice-strengthened, M.V. Arctic, all ships had left Arctic waters. The M.V. Arctic was scheduled to leave the first week in November.

British Columbia

After three months of summer weather, autumn arrived quickly in B.C., with much cooler temperatures, copious amounts of precipitation, minimal sunshine and windy

conditions. Northern areas of the province received their first snowfalls.

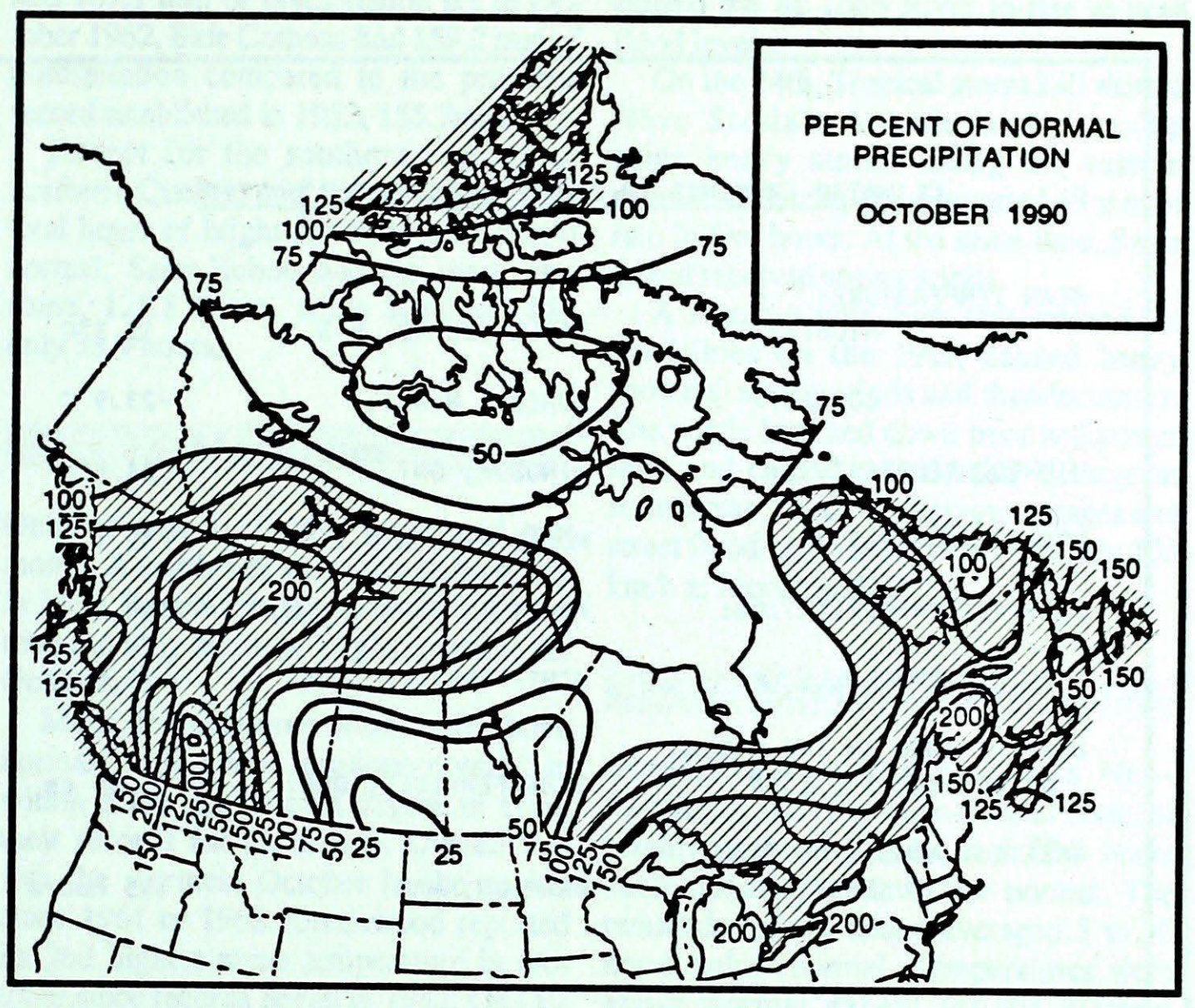
With few exceptions temperatures were generally below average, although no temperature records were established this month.

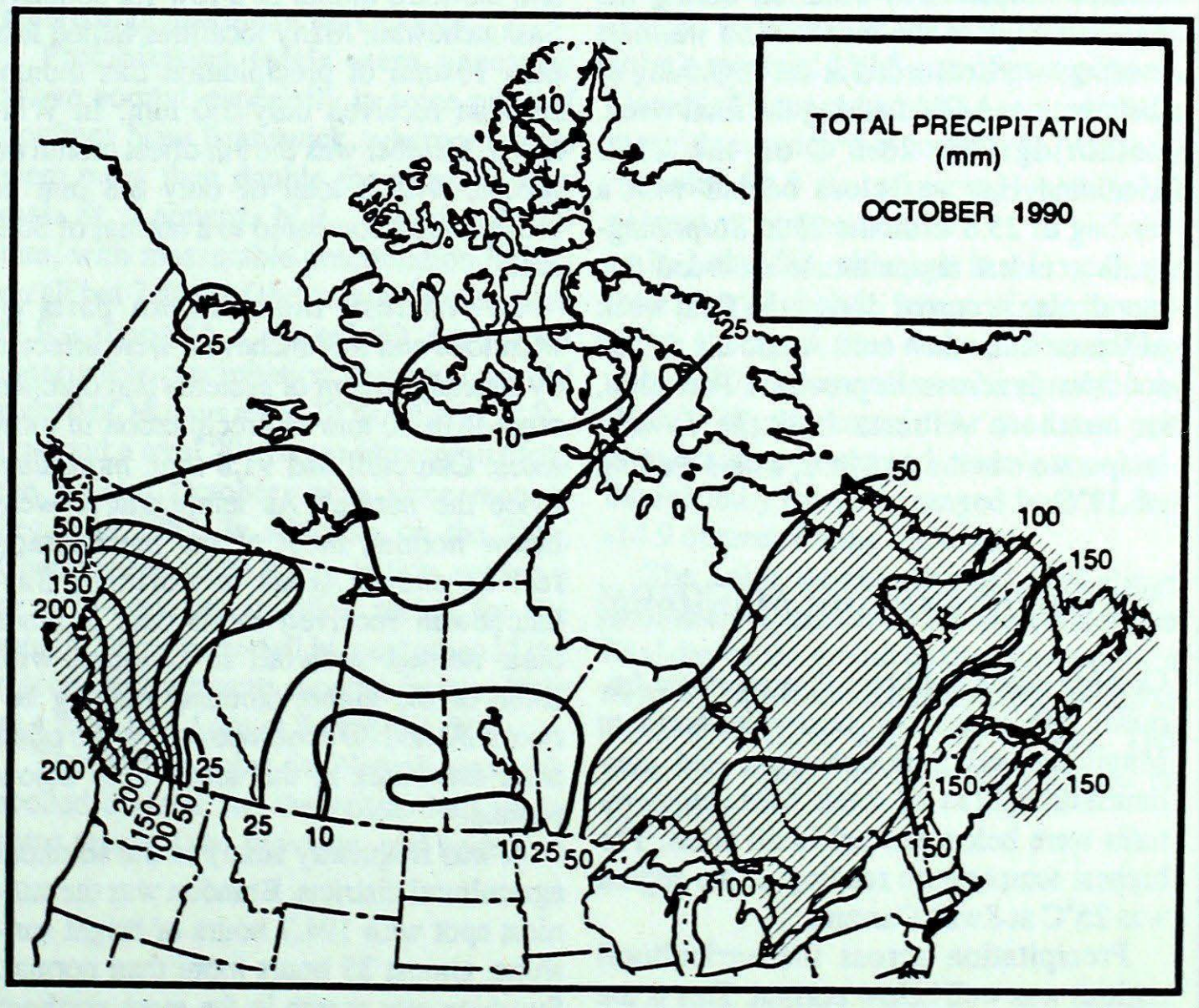
Numerous Pacific weather systems produced above-average precipitation in almost all areas of the province. Open coastal areas received 50 percent more than their normal amount. East of Vancouver, in the Fraser Valley, Hope had almost three times its normal precipitation this month, but downwind, east of the coastal mountains kept some interior valleys drier than normal. In the far north, the Peace River - Fort Nelson districts received twice their normal precipitation. Record high monthly precipitation values were reported at Hope, 502.9 mm, Sandspit, 305.2 mm, Mackenzie, 104.4 mm and Cranbrook, 35.9 mm. Heavy rains in the Howe Sound area on October 20 and 21, caused a land slide on the Squamish Highway, blocking traffic for several days.

In the far north, most of this month's precipitation fell as snow, with snow continuing to cover the ground in most northern regions at month's end. Although snow was recorded in many areas in the south, it generally melted quickly soon after. Mackenzie reported a record high October snowfall of 43.4 cm.

Sunshine was scarce except in the northern portions of the province. Some of the cloudiest areas were along the south coast and in the Fraser Valley. Record low sunshine was recorded at Abbotsford, Hope, Kelowna, and Port Hardy, 69.6, 26.2, 86.2 and 59.3 hours, respectively.

Strong winds were common this month, with gales reported on more than half the days. Storm-force winds were recorded at many coastal stations. There were local reports of sustained hurricane force winds of up to 140 km/h, with gusts to 170 km/h along the open coast of northern Vancouver Island and the Queen Charlottes. At least 3 vessels sank, with the loss of 3 lives.





Alberta

October was a considerably cooler than normal month, and except for the Red Deer - Calgary areas, wetter than normal. The

CLIMATIC EXTREMES IN CANADA - OCTOBER 31, 1990

MEAN TEMPERATURE:		
HIGHEST	SABLE ISLAND, N.S.	13.3°C
COLDEST	EUREKA, N.W.T.	-23.9°C
HIGHEST TEMPERATURE:	WINDSOR, ONT.	28.4°C
LOWEST TEMPERATURE:	MOULD BAY, N.W.T.	-32.9°C
HEAVIEST PRECIPITATION:	AMPHITRITE POINT, B.C.	524.8 mm
HEAVIEST SNOWFALL:	SCHEFFERVILLE, QUE.	95.8 cm
DEEPEST SNOW ON THE GROUND ON OCTOBER 31, 1990	SCHEFFERVILLE, QUE.	35 cm
GREATEST NUMBER OF BRIGHT SUNSHINE HOURS:	BRANDON, MAN.	195 hours

coldest temperatures occurred during the last few days of the month. The warmest readings were recorded at the beginning of the month and again during the final week. Lethbridge hit 26.6°C on the 21st. Medicine Hat was close behind with a reading of 25.8°C on the 25th. Surprisingly, the coldest temperatures recorded this month also occurred during the final week of the month, when cold Arctic air spilled southwards across the province. Fort Chip, in northern Alberta had the lowest temperature in the province, with a reading of -19°C.

Saskatchewan and Manitoba

October was a cold month marked by frequent rain and snow storms in northern Manitoba and Saskatchewan, and continued drought in the south. Mean temperatures were below normal in all areas. The highest temperature reading in the region was 25°C at Swift Current.

Precipitation across the agricultural regions was well below normal. This is the fourth consecutive month with below normal precipitation in southern Manitoba, and the third month in a row for southern Saskatchewan. Many localities tallied less than 10 mm of precipitation this month. Estevan received only 1.0 mm. In Winnipeg, October was the 9th driest month on record, with a total of only 8.8 mm of precipitation compared to a normal of 30.9 mm.

In contrast, the northern parts of Manitoba and Saskatchewan were affected by a steady stream of systems that dumped more than 50 mm of precipitation in most areas. Churchill had 91.8 mm, more than twice the normal. As temperatures were below normal, most of the precipitation fell as snow. Areas in northern Saskatchewan received more than 5 times their normal snowfall in October, with some of the higher amounts ranging between 50 and 80 centimetres. On the other hand snowfalls in the south were below normal.

It was frequently sunny in the southern agricultural districts. Brandon was the sunniest spot with 194.7 hours of bright sunshine, almost 35 hours more than normal. Sunshine was scarce in the more northern regions. Churchill recorded only 28.9 hours of sunshine, less than half the normal, and less than 1 hour per day.

Ontario

The month was mainly cloudy and cool, with abundant precipitation across all but northwestern and northeastern Ontario. In particular, the first three weeks of the month were very wet, while during the final week, sunny and dry Indian Summer weather offered a respite to farmers struggling to harvest in sodden fields.

Coldest mean temperatures were in northwestern Ontario, 2°C below normal. Only Windsor and Toronto's Pearson International Airport achieved above normal temperature anomalies. October 1990 was the coldest October since 1988 across most of Ontario, with the exception of Sault Ste. Marie, where it was the coolest October in 10 years. All areas except Windsor reported frost in October.

Precipitation was heavy during the month east of Thunder Bay, where normal October totals should range from 60 to 80 millimetres; this year's precipitation was in a range from 90 to 160 millimetres. It was a record wet October at: Timmins, 156 mm, Kingston, 157 mm and Peterborough, 114 mm. Other notable amounts included: Earlton, 122 mm - the greatest since 1966, Sudbury 144 mm - greatest since 1969 and Windsor 117 mm - greatest since 1959. Windsor's total was twice the October normal, and followed a very wet September (179 mm) and August (117 mm) that resulted in severe crop damage in southwestern Ontario.

In contrast, northwestern Ontario, as well as Moosonee in the far northeast, were drier than normal. Red Lake and Kenora were the driest locales, with only 18 mm of total precipitation. At Kenora this marked the driest October since 1976. In general, last month's precipitation in the north ranged from 18 to 60 millimetres, while the normal range is from 50 to 75 millimetres.

Snow was confined to a few flurries in the south, while in the Geraldton, Moosonee and Timmins regions, early season snowfalls were heavy. Kapuskasing topped the province with 45 cm (normal is 21 cm); Timmins had 31 cm, Geraldton 26

cm and Moosonee had 24 cm - all 2 or 3 times the normal for October. At Kapuskasing, October was the snowiest October since 1982.

Naturally, given the plentiful moisture, October's total hours of bright sunshine lagged from 5 to 25 hours below normal in all areas east of Lake Superior. In the northwest however, drier conditions allowed for a surplus of sunshine of approximately 20 hours.

At first October 1990 appeared to rival October 1954, as a record wet month, until dry, Indian Summer weather conditions took hold the final week of the month. This was a blessing to many of the province's farmers who were then able to resume the much delayed harvest, fall seeding and field work.

Quebec

October was a typical fall month, with mostly cloudy skies, cool temperatures and variably wet conditions. Above-normal temperatures were evident only across the southern portions of the province. Temperatures ranged from 1.8°C above normal on the Magdalen Islands to -1.0°C at Kuujjuarapik. Precipitation was at above-seasonal values over most of the province, except in the western regions of northern Quebec. In southern Quebec, almost all regions reported total precipitation, exceeding one and a half times the normal for the month. Trois-Rivières received double their normal amount. Precipitation extremes ranged from Sherbrooke's 168.5 mm to Inukjuak's 39.0 mm. All areas of the province received snow this month. Schefferville and La Grande Rivière recorded 96 and 71 centimetres of snow, respectively. In the southern Laurentians and the Ottawa Valley, amounts were less than 5 cm.

Three monthly precipitation records were set during the month. Sherbrooke received 168.1 mm of rain and 168.5 mm of total precipitation compared to the previous records, 142.3 mm of rain in 1981, and 167.1 mm of precipitation set in October 1962. Baie Comeau had 159.2 mm of precipitation compared to the previous record established in 1952, 155.7mm.

Except for the southern regions of northern Quebec and the Sept-Iles area, total hours of bright sunshine were below normal. Saint-Hubert had the most sunshine, 128.8 hours, while Kuujjuaq had only 33.4 hours.

Maritimes

October was a cloudy, warm and wet month. A number of locations, particularly in New Brunswick, reported their lowest total monthly hours of bright sunshine for October.

Mean temperatures were well above normal, with a few locations coming to within a few tenths of a degree of tying their records for the month. Overall this was the warmest October in the region since 1961 or 1968. Greenwood reported its 2nd highest mean temperature in October since records began in 1942. On October 7, Halifax recorded a maximum temperature of 25.8°C, setting a new record high maximum for October.

Precipitation totals were generally above normal, especially in some parts of northern New Brunswick, where amounts were more than double the monthly normal. St. Leonard, N.B., reported 257.0 mm, with measurable precipitation falling on all but 7 days of the month. Fredericton, N.B., reported a record 20 days with measurable precipitation, breaking the old record of 18 days set in 1979. Charlo, N.B., reported a total 201.0 mm of precipitation, the highest October value since records began in 1967. In addition, on the 24th, Charlo received 66.8 mm of rain, setting a new 24-hour precipitation record for the month. Some snow fell in most areas of the region, with amounts ranging from as little as a trace to 2.4 cm at Saint John, N.B.

The heavy rains in New Brunswick spelled disaster for the potato harvest in some areas of the province, and have also caused the St. John River to rise to near flood levels.

On the 14th, Tropical storm Lili skirted Nova Scotia's Atlantic coast, causing some heavy storms along the eastern shoreline. Forchu Head reported 49 mm of rain in five hours. At the same time, Sable Island received strong winds.

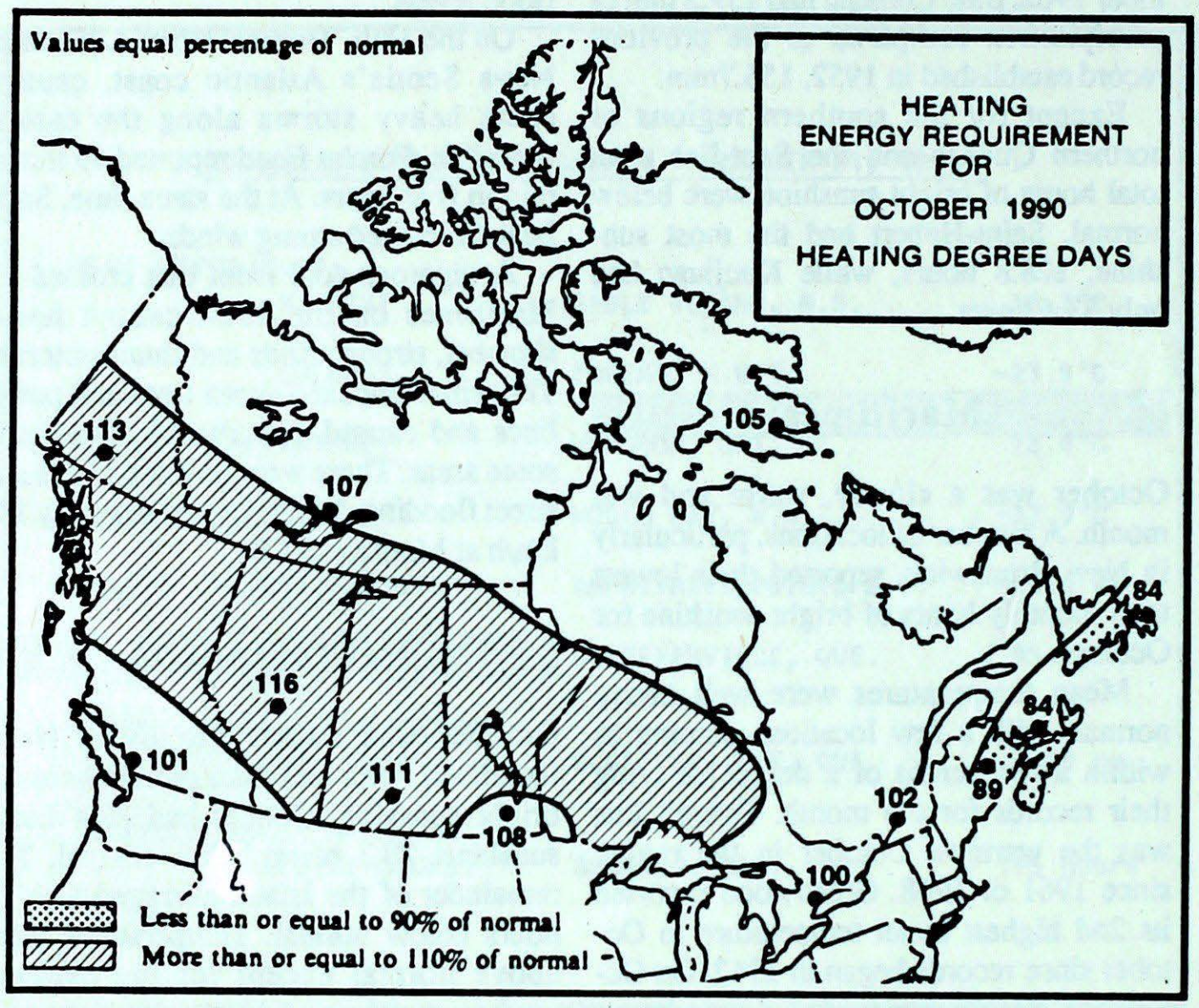
A vigorous cold front that crossed the Maritimes on the 19th, caused heavy showers, strong winds and thunderstorms. The winds knocked down trees and power lines and caused considerable damage in some areas. There were power outages and street flooding. Winds gusted to nearly 100 km/h at Moncton, N.B.

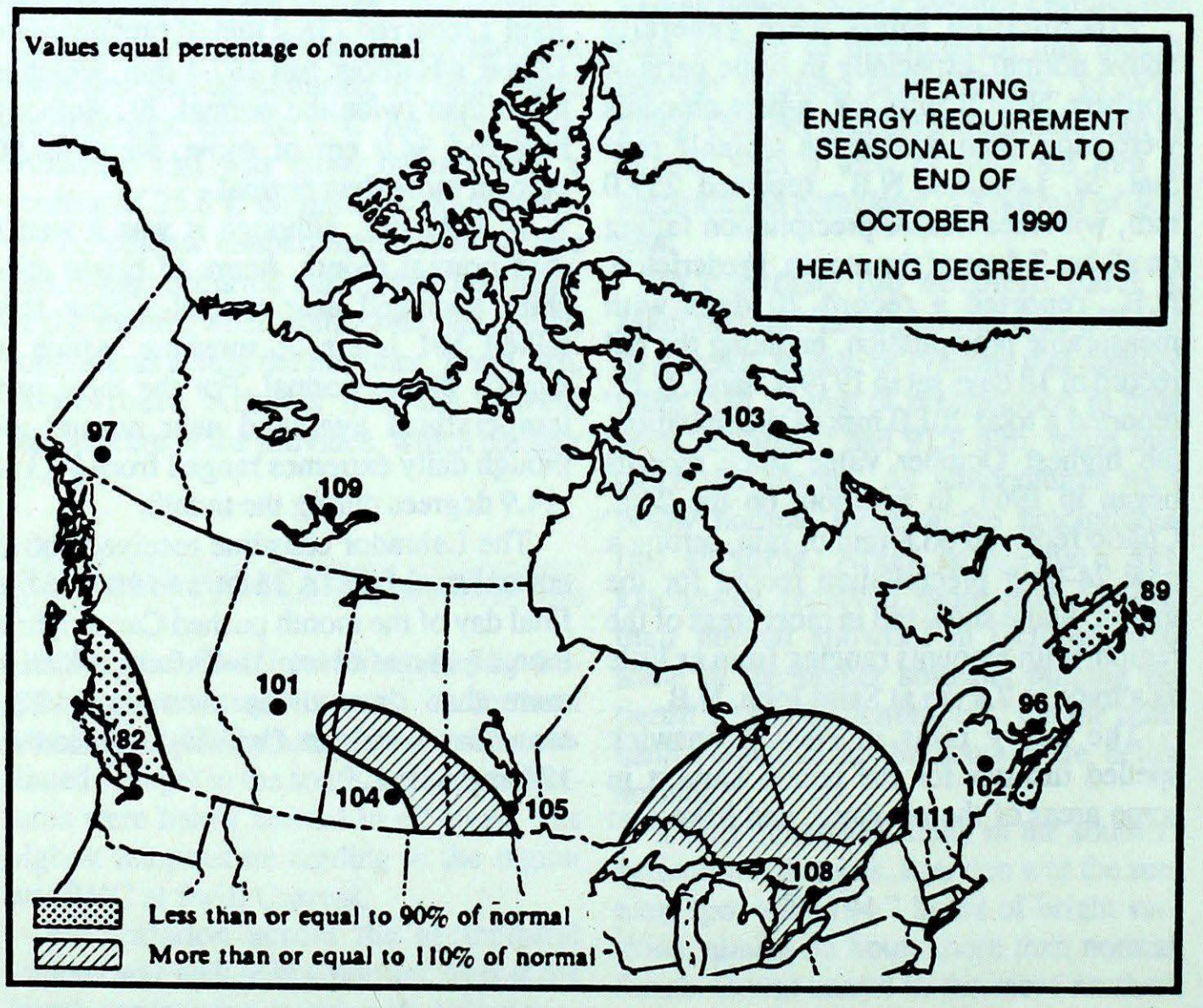
Newfoundland

October was mostly cloudy in Newfoundland, with less-than-normal hours of bright sunshine. Gander had 82.4 hours sunshine, 28.3 hours below normal. The remainder of the Island averaged 5 to 10 hours below normal. Temperatures were above normal except for the extreme northern sections. Precipitation was well above normal across the Island, with above normal snowfalls in the northern half. St. John's received 218.2 mm of precipitation. Daniel's Harbour had 197.4 mm, which is more than twice the normal. St. Anthony recorded 34.0 cm of snow, which is 50 percent more than normal.

In Labrador, although it was a wetter than normal month, hours of bright sunshine averaged near normal. Goose Bay tallied 101 hours of sunshine, which is slightly above normal. For the most part temperatures averaged near normal although daily extremes ranged from 17.3 to -14.9 degrees during the month.

The Labrador coastline received above normal snowfalls. A 33 cm snowfall on the final day of the month pushed Cartwright's monthly snowfall total to 43.6 cm, which is more than three times the normal. The same day winds at Cartwright gusted to 124 km/h.



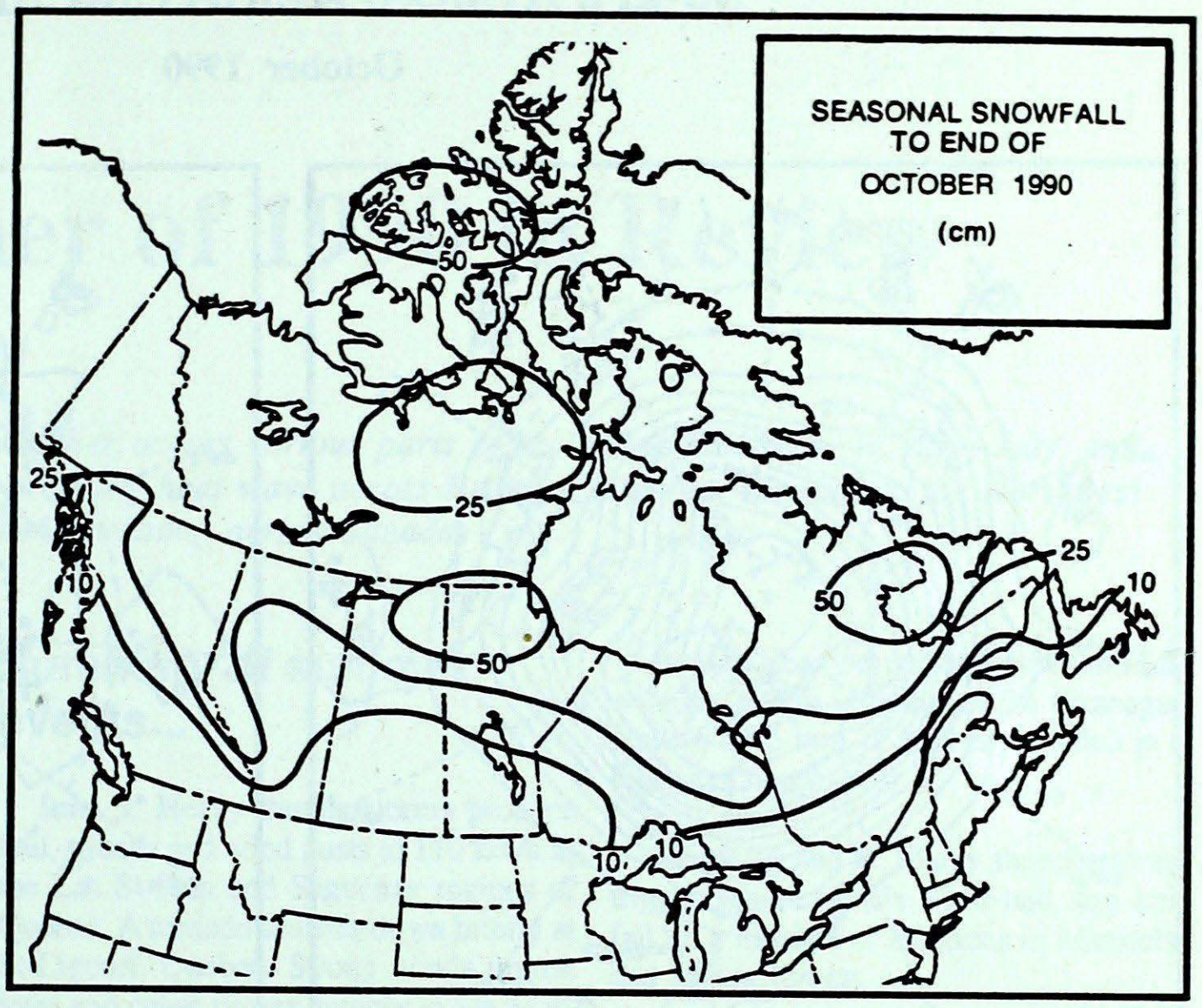


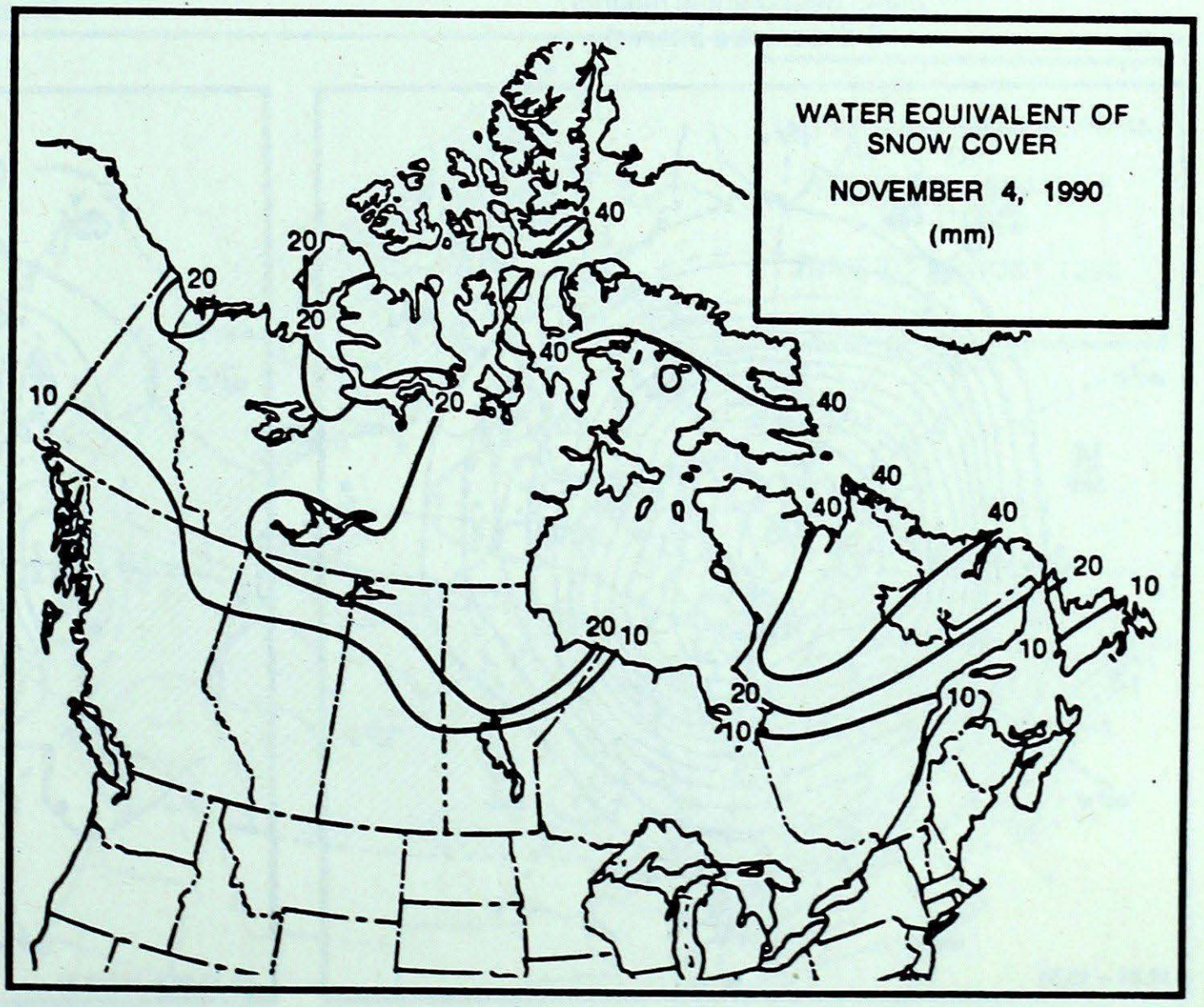
SEASONAL TOTAL OF HEATING DEGREE-DAYS TO END OF OCTOBER

	1990	1989	NORMAL
BRITISH COLUMBIA			
Kamloops	371	384	393
Penticton	363	408	393
Prince George	786	773	874
Vancouver	342	374	416
Victoria	467	503	492
YUKON TERRITORY			
Whitehorse	1112	1031	1149
NORTHWEST TERRITORIES			
Iqaluit	1900	1927	*
Inuvik	1588	1430	1623
Yellowknife	1225	1060	1121
ALBERTA			
Calgary	684	710	748
Edmonton Mun	675	703	667
Grande Prairie	807	814	844
SASKATCHEWAN			
Estevan	595	580	535
Regina	635	628	609
Saskatoon		659	645
MANITOBA			
Brandon	707	657	619
Churchill	1405	1255	1386
The Pas	827	787	770
Winnipeg	573	563	547
ONTARIO			
Kapuskasing	907	771	786
London	402	397	597
Ottawa	468	411	420
Sudbury	662	579	565
Thunder Bay	723	683	658
Toronto	381	382	351
Windsor	282	292	249
QUÉBEC			
Baie Comeau	835	858	848
Montréal	432	390	389
Québec	541	517	540
Sept-Iles	877	913	919
Sherbrooke	569	582	612
Val-d'Or	857	714	752
NEW BRUNSWICK			
Charlo	653	650	664
Fredericton	491	545	483
Moncton	508	555	501
NOVA SCOTIA			
Sydney	438	560	471
Yarmouth	384	517	502
PRINCE EDWARD ISLAND			
Charlottetown	450	539	468
NEWFOUNDLAND			
Gander	665	682	694
St. John's	627	665	702

SEASONAL SNOWFALL TOTALS (cm)
TO END OF OCTOBER

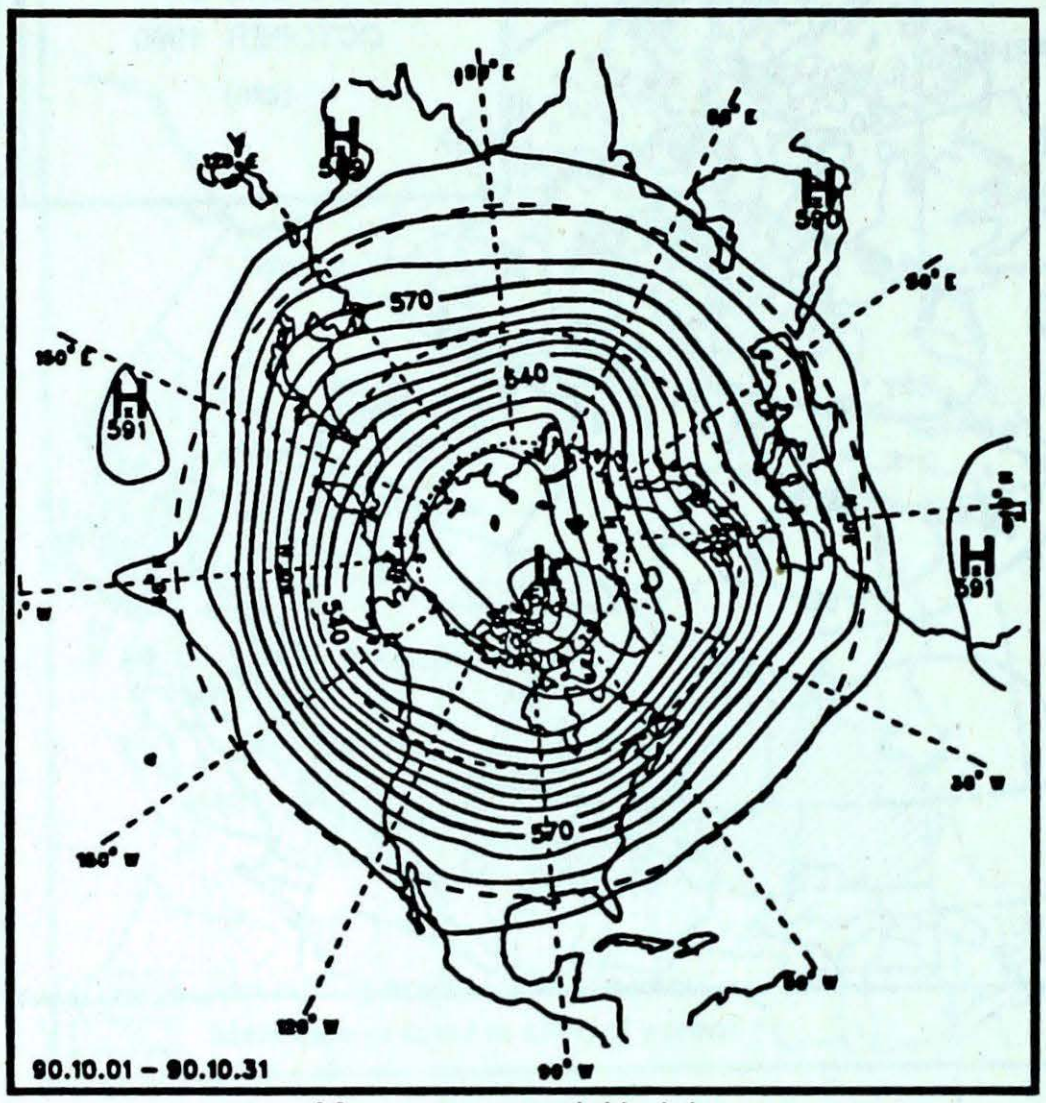
	1990	1989	NORMAL
YUKON TERRITORY			
Whitehorse	27.6	30.4	21.4
NORTHWEST TERRITORIES			
Cape Dyer	47.0	*	81.9
Inuvik	30.4	71.8	53.0
Yellowknife	32.8	17.6	26.7
BRITISH COLUMBIA			
Kamloops	0.0	0.0	0.4
Port Hardy	0.0	0.0	0.2
Prince George	14.4	1.2	10.4
Vancouver	0.0	0.0	0.0
Victoria	0.0	0.0	0.0
ALBERTA			
Calgary	11.0	3.6	19.4
Edmonton Namao	15.0	3.4	9.7
Grande Prairie	19.9	13.4	16.3
SASKATCHEWAN			
Estevan	0.0	5.4	8.2
Regina	1.8	6.4	10.0
Saskatoon	4.2	12.0	10.4
MANITOBA			
Brandon	0.2	0.4	6.7
Churchill	68.4	40.0	35.7
The Pas	14.6	18.3	11.7
Winnipeg	1.2	1.4	5.4
ONTARIO			
Kapuskasing	35.4	42.0	23.5
London	1.6	10.0	1.9
Ottawa	1.0	3.2	2.7
Sudbury	7.2	1.6	6.5
Thunder Bay	13.4	5.0	3.3
Toronto	0.0	0.0	0.9
Windsor	0.0	15.2	0.1
QUEBEC			
Baie Comeau	16.4	11.2	6.1
Montréal	0.0	5.8	1.7
Québec	2.0	2.2	4.4
Sept-Iles	12.6	11.8	10.6
Sherbrooke	0.4	7.6	5.6
Val-d'Or	12.8	20.6	15.7
NEW BRUNSWICK			
Charlo	0.0	0.4	5.8
Fredericton	0.4	2.1	2.3
Moncton	1.0	0.0	3.1
NOVA SCOTIA			
Shearwater	0.0	0.2	5.8
Sydney	0.2	0.4	2.3
Yarmouth	0.0	0.2	3.1
PRINCE EDWARD ISLAND			
Charlottetown	1.6	0.4	2.6
NEWFOUNDLAND			
Gander	21.4	3.8	12.3
St. John's	1.6	0.4	4.4



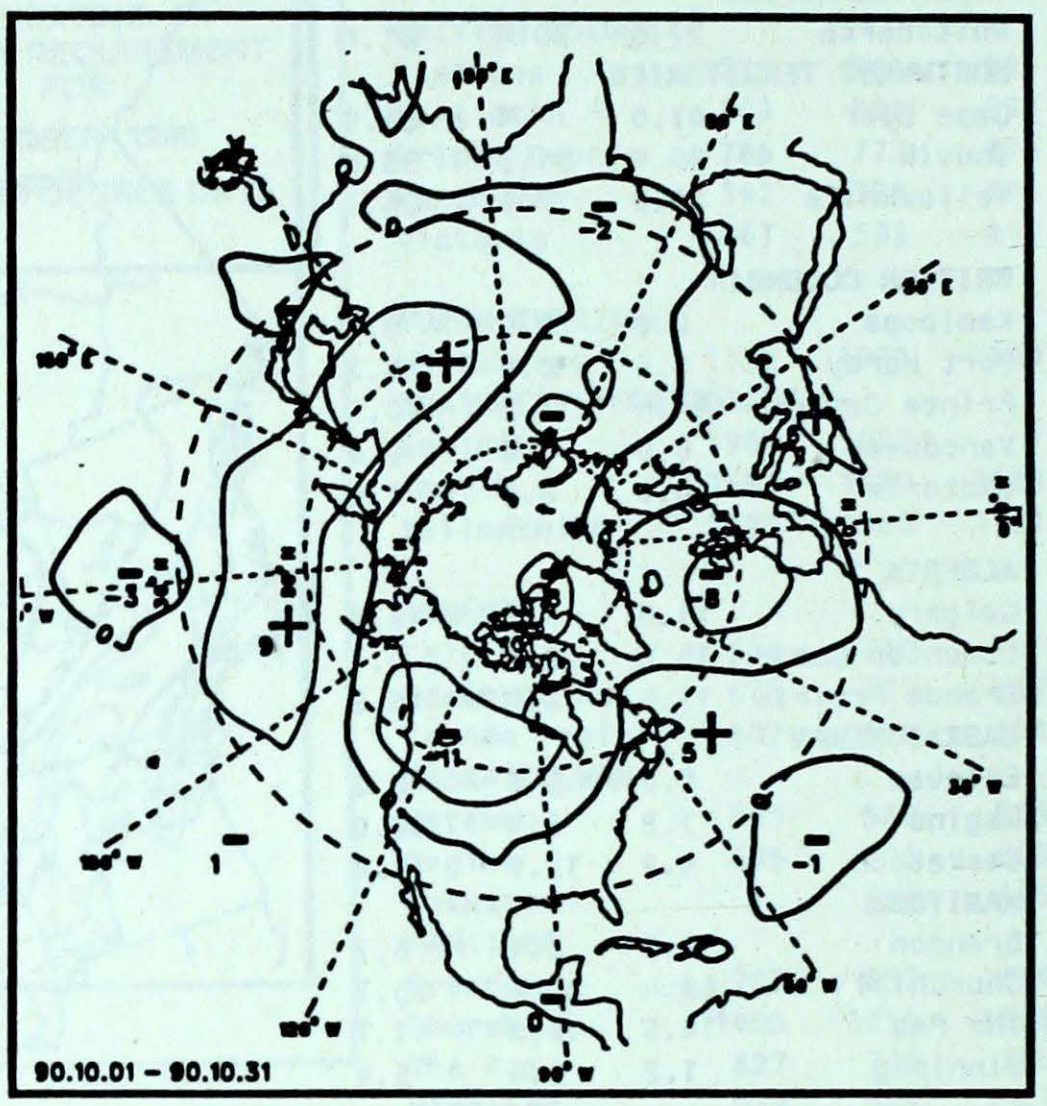


50-kPa ATMOSPHERIC CIRCULATION

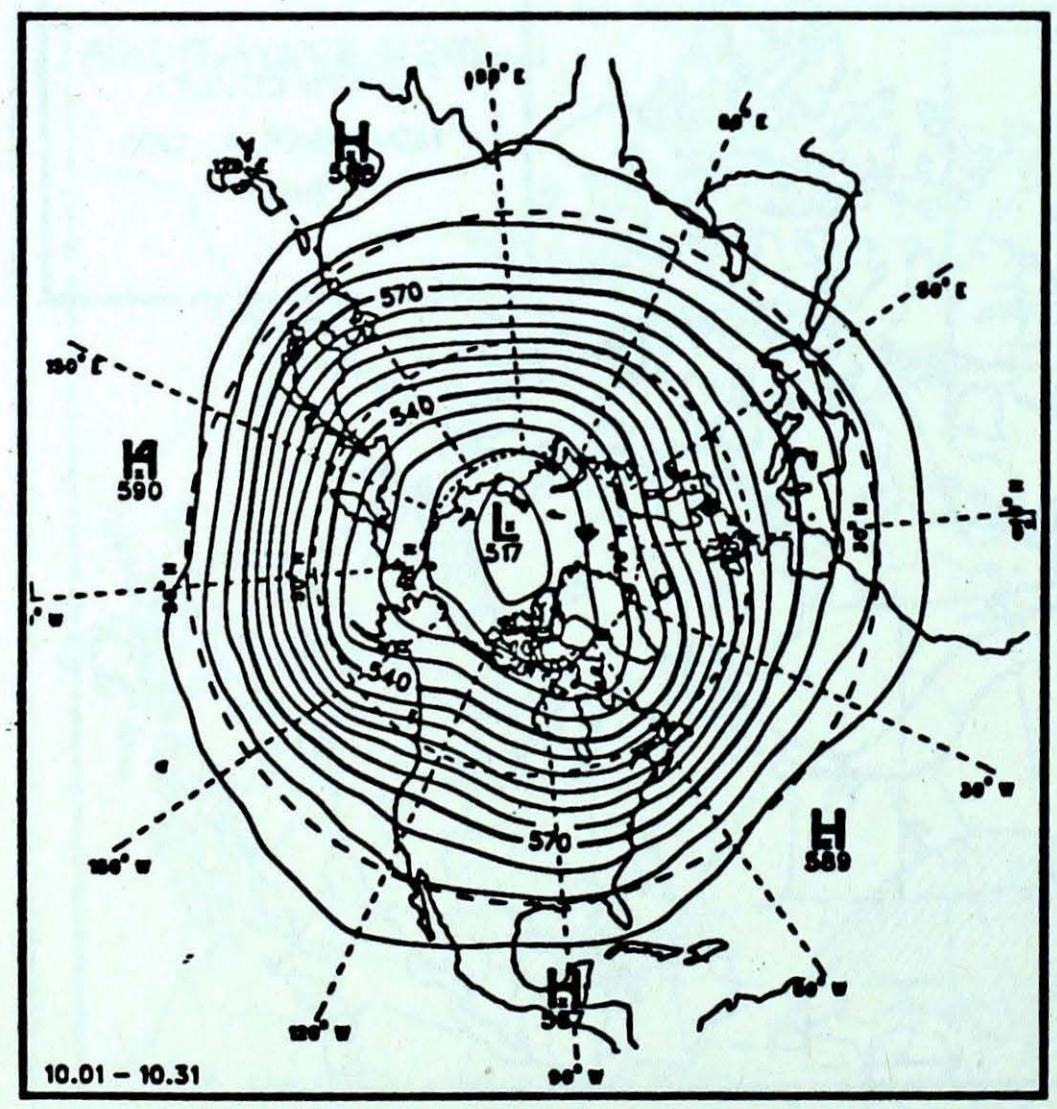
October 1990



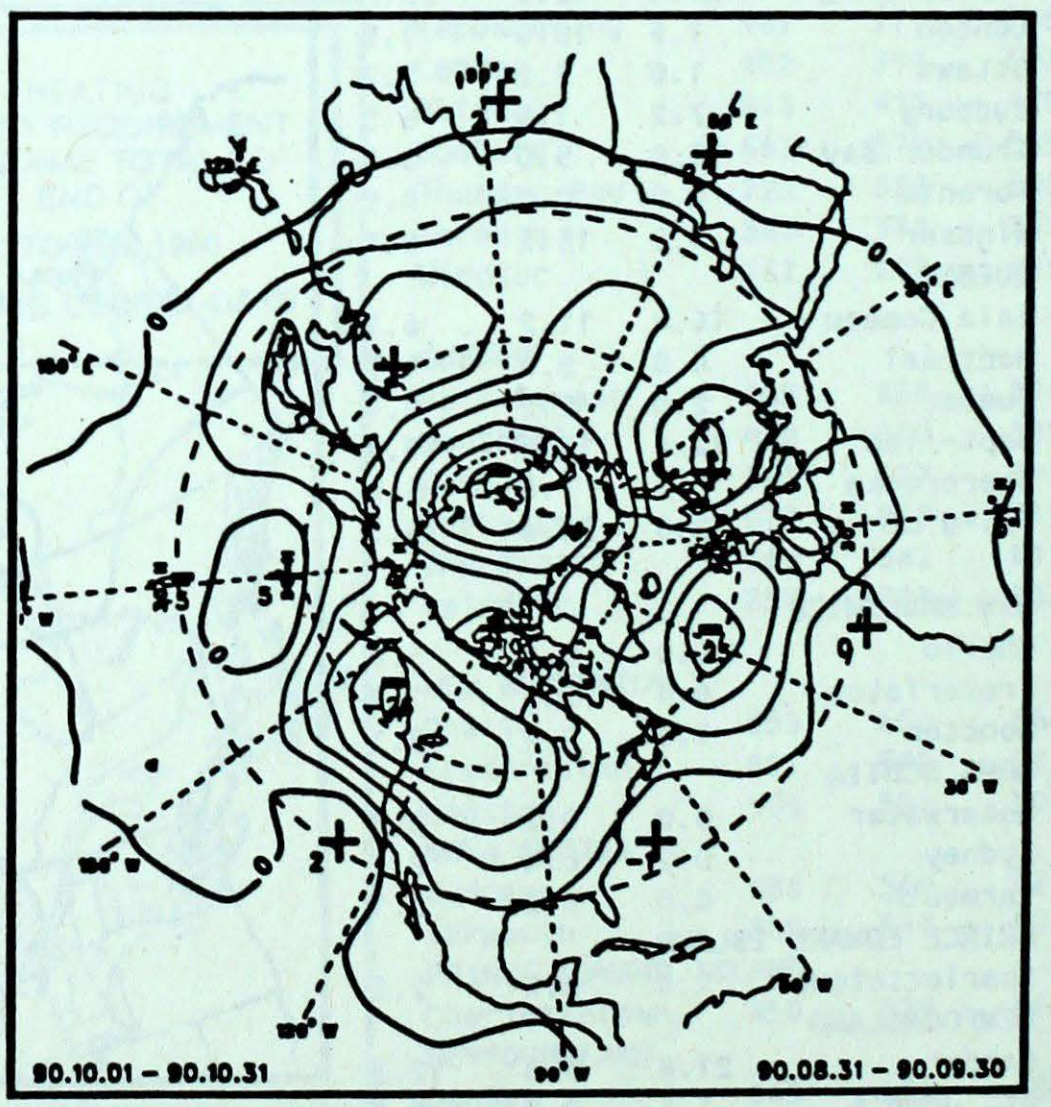
Mean geopotential heights
- 5 decametre interval -



Mean geopotential height anomaly
- 5 decametre interval-



Normal geopotential heights for the month
- 5 decametre interval -



Mean heights difference w/r to previous month
- 5 decametre interval -

Summer of 1990 in Review

Torrential rains and summer severe weather across various parts of the country in June, in early July, and August, along with mid-July's record-breaking heat wave across British Columbia, the Yukon, the Northwest Territories and Ontario highlighted summer weather across Canada.

Thunderstorms and late snow melt caused abnormally high water levels and flooding in Alberta and British Columbia in June, while August's rains washed out roads and bridges and caused other damage in Quebec and B.C. Hurricane Bertha added her quota of the precipitation to the Atlantic provinces. Severe weather conditions brought golf-ball sized hail to many parts of the country during both June and August.

Overall, most parts of the country received above average precipitation over the season, resulting in improved soil moisture levels and bumper crops in the major growing areas of B.C., the Prairies, Ontario and the Maritimes. The two major exceptions were southeastern Alberta, and the border area of central Saskatchewan / Manitoba, which recorded below-normal levels.

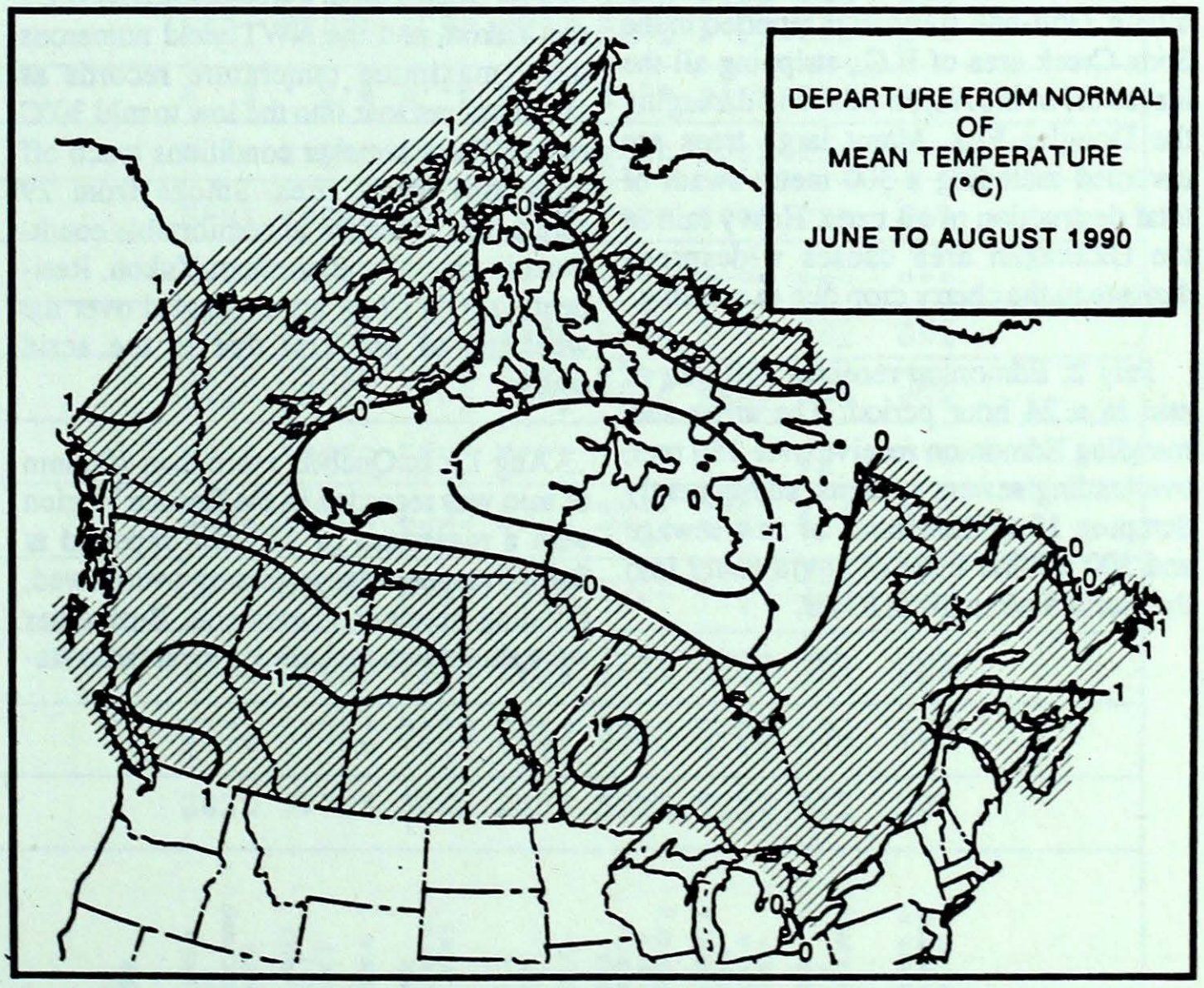
While July's hot, dry spell spawned numerous forest fires in B.C., the Yukon, the Territories and Ontario, the overall damage was minimized by the unusually wet summer. Whereas the annual average loss of forests across the country for the period 1976-1986 was 2 million hectares, the total loss for 1990 was 921,121 hectares. This represents a significant decrease from 1989 when 4.5 million hectares were lost to fire. Up to the end of August, 825,955 hectares were destroyed.

Summary of summer events...

June 3: Heavy thunderstorms produce hail, squalls and wind gusts to 110 km/h in the Lac St-Jean and Saguenay regions of Quebec. A tornado touches down briefly at St-Ligouri, Quebec. Strong winds uproot trees and cause power outages at Ste-Martine and the west island of Montreal.

June 4: Heavy thundershowers and hail wipe out entire orchards in the Okanagan Valley. 56.6 mm of rain is recorded in a couple of hours.

June 4, 5 and 9: Heavy thunderstorms trigger funnel clouds. Golf-ball size hail fall on a number of locations in Manitoba and Saskatchewan.



June 9: Thunderstorms in the southern Georgian Bay area of Ontario produce golf-ball size hail and strong winds. In the Lake Simcoe area of Ontario, hail covers the ground and heavy rain causes flooding.

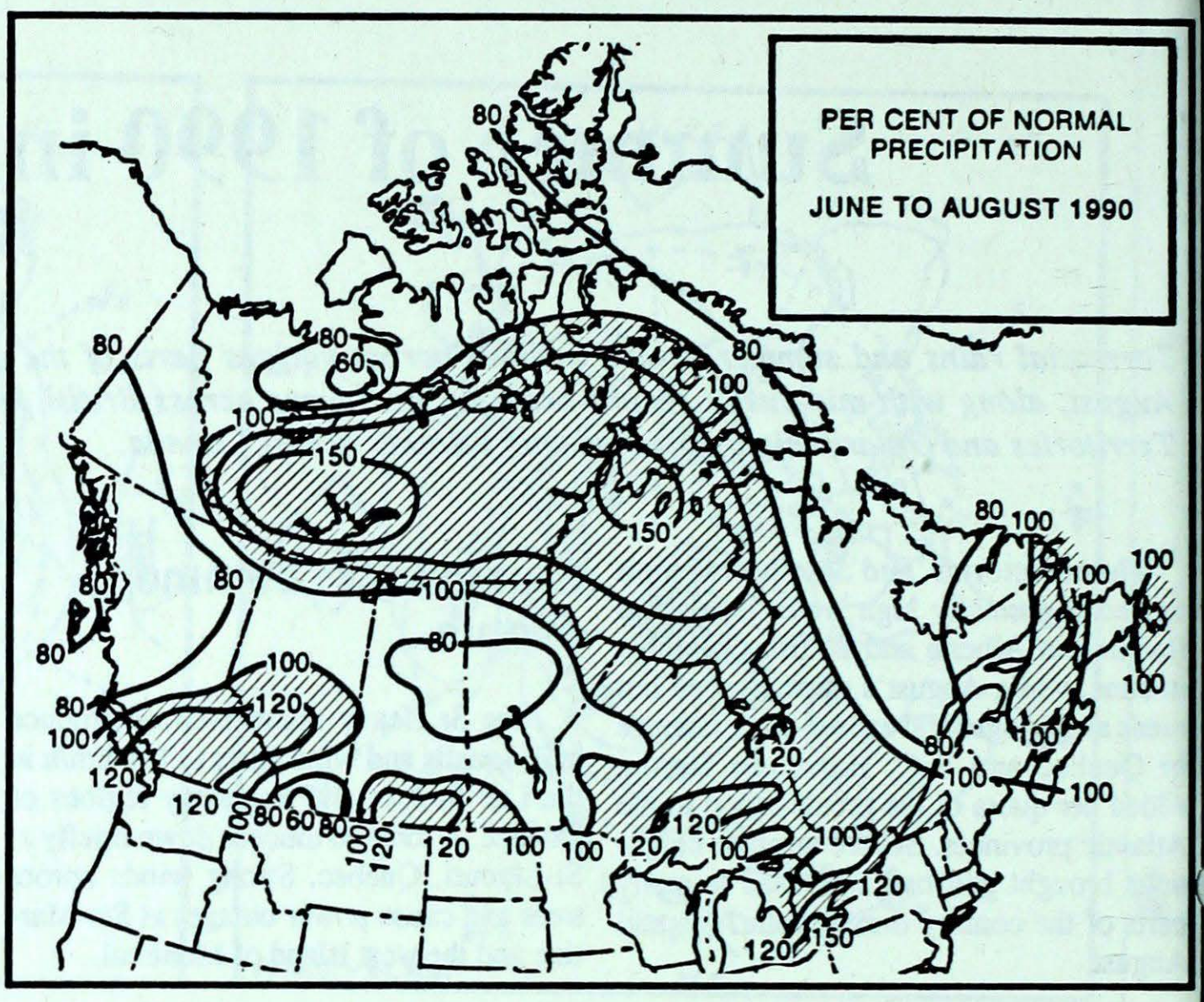
June 10: A squall line forms west of Red Deer, Alberta. Several funnel clouds are sighted and a tornado briefly touches down in the Olds-Sylvan Lake areas.

June 27: A violent tornado slashes through open fields near Saskatoon. Baseball-sized hail is reported near Arran, Saskatchewan. Numerous report of severe weather is reported across the province.

June 28: Heavy hail causes extensive crop damage at Shoal Lake, Manitoba. The next day, the ground is still covered with 5 cm of hail.

Week of July 2: Thundershowers at Kelowna, B.C., dumps 33.8 mm of rain in a 24 hour period - the greatest rainfall ever recorded for a 24 hour period for any month. Golf-ball size hail is reported in the Soda Creek area of B.C., stripping all the leaves off of the Aspen trees and damaging the Douglas Firs. Many large trees are uprooted including a 300 metre swath of total destruction of all trees. Heavy rain in the Okanagan area causes widespread damage to the cherry crop due to splitting.

July 2: Edmonton receives 110 mm of rain in a 24 hour period. The areas surrounding Edmonton receive over 150 mm, overloading sewers systems, subsequently dumping 15 million litres of raw sewage and 300 million litres of storm water into the North Saskatchwan River.



July 9-22: Hot dry weather across B.C., the Yukon, and the NWT yield numerous daily maximum temerature records as temperatures soar into the low to mid 30°C range. These weather conditions touch off numerous forest fires. Smoke from 29 forest fires make for uncomfortable conditions in central and northern Yukon. Residents of Old Crow are evacuated over the weekend of the 21st due to the acrid smoke.

Aug 13: In Quebec, more than 100 mm of rain was recorded in the Beauce Region with a maximum of 135 mm reported at Saint-Prosper. Many streams overflowed, flooding streets and basements. Businesses were shut down including a local radio station. As well, four bridges were washed away. In Saint-Georges, a mud slide flooded a hospital basement.

August 13: In central B.C., a waterspout touched down on Stewart Lake, moved inland towards an Indian village, causing thousands of dollars worth of damage.

August 16, 17: In Calgary, severe thunderstorms caused $5 million worth of flood and structural damage. On the evening of the 16th, a lightning strike tore a gaping hole in the roof of a shopping mall. Overnight on the 17th, 80 mm of rain caused the collapse of a roof of another mall and flooded hundreds of cars and homes.

OCTOBER 1990

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	Maximum	Minimum									
BRITISH COLUMBIA													
ABBOTSFORD A	9.3	-0.8	19.6	2.3	0.0	0	205.7	134	0	21	70	51	271.0
ALERT BAY	8.1	-1.2	14.3	3.5	0.0	0	382.0	182	0	31			307.9
AMPHITRITE POINT	9.7	-0.8	14.6	3.1	0.0	*	524.8	146	0	22			258.7
BLUE RIVER A	3.7	-1.3	18.3	-6.3	10.2	309	145.1	190	0	19	54	60	*
CAPE ST JAMES	9.2	-0.7	14.9	5.5	0.0	0	237.2	120	0	26	89	*	273.7
CAPE SCOTT	9.1	-0.7	13.8	4.9	0.2	100	421.7	118	0	29			276.8
CASTLEGAR A	7.1	-0.7	20.3	-4.0	2.0	143	71.2	125	0	12	107	86	338.8
COMOX A	8.5	-0.7	18.8	0.2	0.0	0	176.5	138	0	18	90	*	293.3
CRANBROOK A	5.0	-0.4	18.2	-5.9	2.4	73	35.9	197	0	13	138	81	404.9
DEASE LAKE	-0.5	-1.8	9.2	-13.6	23.1	131	24.7	70	5	10	89	102	571.8
FORT NELSON A	-1.5	-2.6	16.4	-15.5	30.6	162	48.7	200	6	15	110	*	603.9
FORT ST JOHN A	1.3	-3.0	10.9	-10.5	53.4	297	57.6	208	6	14	*	*	519.1
HOPE A	9.0	-1.4	17.3	3.3	0.0	0	502.9	293	0	26	26	25	279.3
KAMLOOPS A	8.1	-0.3	21.0	-2.6	0.0	0	7.4	49	0	2	123	91	306.2
KELOWNA A	7.4	0.7	20.2	-2.7	0.0	0	23.4	121	0	4	86	58	327.7
LYTTON	9.2	-0.9	18.0	-1.0	0.0	0	81.0	261	0	9	94	69	274.7
MACKENZIE A	1.9	-1.9	10.5	-9.8	43.4	248	104.4	208	1	18	79	68	467.4
PENTICTON A	8.6	-0.1	22.0	-4.4	0.0	0	18.8	123	0	6	100	64	291.4
PORT ALBERNI A	8.8	-1.0	17.2	0.3	0.0	*	326.1	185	0	18	72	*	285.0
PORT HARDY A	7.8	-0.9	13.9	0.4	0.0	0	464.2	190	0	29	59	61	314.1
PRINCE GEORGE A	3.3	-1.5	15.5	-7.5	14.4	158	73.4	124	0	12	77	70	456.5
PRINCE RUPERT A	6.8	-1.3	12.7	-1.6	1.0	***	506.6	138	0	27	74	114	348.1
PRINCETON A	5.5	-1.1	17.0	-5.1	0.0	0	35.6	156	0	10	113	*	*
REVELSTOKE A	6.0	-0.3	13.2	-0.3	0.0	0	124.5	175	0	18	49	55	373.3
SANDSPIT A	8.1	-0.9	14.3	1.7	0.0	*	305.2	157	0	22	80	88	306.3
SMITHERS A	2.7	-2.0	13.0	-4.6	12.9	155	78.5	123	0	13	75	82	474.3
TERRACE A	4.9	-1.5	11.5	0.0	10.4	267	262.6	122	0	20	54	88	406.1
VANCOUVER INT'L A	9.9	-0.1	17.7	2.9	0.0	*	117.3	103	0	17	89	74	251.0
VICTORIA INT'L A	8.8	-1.1	20.7	0.7	0.0	*	97.0	124	0	18	111	77	285.0
VICTORIA MARINE	9.2	-0.5	16.0	2.9	0.0	*	175.6	152	0	20			271.1
WILLIAMS LAKE A	3.1	-2.0	15.2	-7.3	12.8	171	60.9	201	0	10	108	79	461.0

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	Maximum	Minimum									
YUKON TERRITORY													
DAWSON A	-5.2	*	6.6	-20.4	46.2	*	32.5	*	*	*	*	*	*
WATSON LAKE A	-2.5	-2.4	11.7	-19.6	22.7	105	37.5	107	6	10	67	70	636.4
WHITEHORSE A	-1.6	-2.2	10.3	-17.3	27.6	171	18.4	86	2	10	78	84	606.8
NORTHWEST TERRITORIES													
ALERT	-21.3	-1.6	-6.8	-31.4	4.6	29	4.0	30	12	1			1219.2
BAKER LAKE A	-8.7	-1.0	1.5	-26.8	19.9	86	16.0	52	9	7	*	*	831.0
CAMBRIDGE BAY A	-11.1	0.6	-0.3	-25.0	8.6	56	3.2	22	6	1	60	104	900.9
CAPE PARRY A	-6.0	0.8	-0.1	-15.8	17.1	63	10.4	52	3	4	*	*	742.5
CLYDE A	-10.7	-3.8	1.8	-21.7	20.9	56	18.9	55	16	7	51	105	890.1
COPPERMINE A	-8.2	-1.6	3.2	-23.5	23.6	112	16.3	50	18	5	50	110	813.2
CORAL HARBOUR A	-8.6	-0.8	0.6	-23.9	31.1	116	31.9	86	20	6	88	101	824.4
EUREKA	-23.9	-1.8	-6.5	-37.0	9.8	131	9.8	140	10	5	16	172	1298.1
FORT RELIANCE	-3.9	-2.1	8.9	-16.0	16.3	81	21.3	77	5	3	*	*	669.7
FORT SIMPSON A	-2.9	-1.3	9.0	-20.9	32.6	176	32.7	122	29	6	72	85	651.1
FORT SMITH A	-2.2	-2.5	13.9	-21.6	37.1	233	36.4	137	17	9	68	*	602.9
IQALUIT	-6.5	-1.5	4.4	-18.5	31.4	79	26.4	60	16	7	54	93	759.3
HALL BEACH A	-12.4	-1.9	-1.3	-25.8	10.1	47	8.5	40	10	3	*	*	942.2
HAY RIVER A	-1.8	-2.7	11.0	-17.1	27.3	144	33.0	108	16	9	*	*	613.5
INUVIK A	-7.4	0.7	3.7	-26.0	31.0	83	25.8	77	19	6	62	123	788.3
MOULD BAY A	-18.4	-0.8	-6.5	-32.9	13.8	125	13.8	147	22	5	22	203	1128.8
NORMAN WELLS A	-5.4	-0.8	5.3	-19.2	32.9	132	23.3	87	7	5	80	135	726.0
POND INLET A	-15.4	*	0.4	-29.2	28.4	*	18.0	*	15	6	55	*	1034.6
RESOLUTE A	-17.7	-2.6	-4.4	-30.3	18.8	127	13.7	99	27	5	34	141	1108.7
YELLOWKNIFE A	-3.3	-1.7	7.7	-16.2	32.8	142	44.8	130	13	6	44	79	660.0
ALBERTA													
BANFF	2.6	-1.8	16.0	-9.0	57.8	325	80.8	258	0	8	*	*	*
CALGARY INT'L A	4.1	-1.4	22.1	-8.5	11.0	81	12.9	73	0	3	164	93	432.1
COLD LAKE A	1.7	-2.8	15.4	-8.5	11.0	157	18.0	107	0	11	118	76	505.6
CORONATION A	3.0	-1.8	23.1	-9.7	8.8	101	7.8	52	0	3	150	84	466.2

OCTOBER 1990

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	Maximum	Minimum									
EDMONTON INT'L A	2.7	-2.0	20.4	-9.4	21.8	325	21.3	138	0	3	169	104	475.4
EDMONTON MUNICIPAL	3.8	-2.0	18.4	-5.6	17.0	*	22.2	134	0	6	161	100	440.7
EDMONTON NAMAO A	2.9	-2.2	17.6	-7.8	15.0	195	17.2	95	0	6	*	*	466.3
EDSON A	2.1	-1.6	16.6	-10.6	19.5	97	24.7	126	0	3	166	110	494.0
FORT CHIPEWYAN A	-1.8	-3.1	11.5	-19.0	27.6	153	33.0	117	10	*	*	*	*
FORT MCMURRAY A	0.0	-3.3	13.2	-12.3	29.2	230	35.3	126	1	11	70	56	561.7
GRANDE PRAIRIE A	2.2	-2.0	13.7	-8.3	19.9	169	40.8	153	0	10	123	*	490.2
HIGH LEVEL A	-2.1	-4.1	13.0	-16.8	45.6	298	68.4	475	15	10	60	42	623.6
JASPER	2.6	-2.1	14.0	-8.5	35.6	659	60.5	207	0	9	113	*	477.1
LETHBRIDGE A	6.0	-1.5	26.1	-8.7	9.6	82	12.8	72	0	3	166	*	372.4
MEDICINE HAT A	6.3	-1.1	25.8	-7.0	6.6	82	15.2	94	0	4	177	102	362.6
PEACE RIVER A	0.9	-2.8	13.3	-10.4	21.1	220	37.7	188	0	10	*	*	549.8
RED DEER A	3.0	-1.6	21.3	-10.9	18.6	158	19.2	93	0	3	*	*	469.1
ROCKY MTN HOUSE A	2.4	-2.5	19.1	-10.3	33.0	220	30.9	136	0	5	*	*	482.4
SLAVE LAKE A	2.4	-1.8	14.5	-7.2	22.2	141	46.2	186	0	12	120	81	484.7
WHITECOURT A	2.4	-1.0	18.5	-5.7	26.8	172	31.4	114	0	8	*	*	485.4
SASKATCHEWAN													
BROADVIEW	3.8	-0.5	19.5	-9.9	11.0	129	13.4	54	0	4	193	120	440.9
CREE LAKE	-2.8	-4.0	12.5	-17.9	53.4	361	53.0	136	9	9	57	59	642.2
ESTEVAN A	4.8	-1.6	23.5	-11.2	0.0	0	1.0	5	0	0	172	91	409.9
HUDSON BAY A	1.1	*	17.0	-12.3	6.0	*	15.6	*	0	5	95	*	522.4
KINDERSLEY	3.6	-1.7	23.1	-11.2	4.2	62	9.2	66	0	2	148	*	446.5
LA RONGE A	0.1	-2.5	14.5	-9.0	26.6	271	58.0	170	0	8	*	*	551.0
MEADOW LAKE A	1.3	*	17.4	-10.0	12.4	*	14.6	*	0	4	114	*	517.9
MOOSE JAW A	5.5	-0.9	24.0	-7.7	1.4	18	4.4	24	0	2	187	107	387.7
NIPAWIN A	1.0	*	16.1	-10.9	10.6	*	18.6	*	*	4	99	*	528.2
NORTH BATTLEFORD A	2.4	-2.5	19.6	-12.3	4.0	56	5.2	33	0	1	*	*	483.5
PRINCE ALBERT A	1.7	-2.0	16.9	-9.6	7.6	82	14.6	68	0	5	115	78	507.1
REGINA A	3.8	-1.4	22.7	*****	1.8	22	11.8	63	0	3	182	108	439.5
SASKATOON A	3.1	-1.8	19.8	-11.2	4.2	46	5.8	34	0	2	*	*	462.6
SWIFT CURRENT A	4.4	-1.4	25.1	-9.7	1.4	15	3.8	21	0	1	163	96	421.9
YORKTON A	2.9	-1.9	17.3	-10.7	2.8	37	9.6	42	0	4	156	99	469.5
MANITOBA													
BRANDON A	3.3	-1.9	21.6	-13.4	0.2	3	9.0	42	0	2	195	*	455.5
CHURCHILL A	-3.0	-1.5	5.8	-20.3	67.6	231	91.8	213	19	15	29	47	652.1
DAUPHIN A	4.0	-1.5	21.5	-11.7	1.7	20	14.7	51	0	4	165	108	434.0
GILLAM A	*	*	*	*	*	*	*	*	*	*	*	*	*
GIMLI	4.4	*	22.8	-7.7	0.2	*	5.2	*	0	2	143	99	421.1
ISLAND LAKE	1.0	-1.6	11.6	-9.1	16.0	98	17.4	32	*	5	*	*	525.8
LYNN LAKE A	-3.1	-2.6	6.3	-15.3	77.9	279	70.8	151	13	11	52	74	667.6
NORWAY HOUSE A	0.6	*	11.1	-8.5	17.6	*	24.4	*	0	8	*	*	539.2

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	Maximum	Minimum									
PORTAGE LA PRAIRIE	5.1	-1.4	23.0	-6.2	3.0	40	8.5	28	0	2	*	*	398.9
THE PAS A	1.2	-2.4	13.9	-7.9	14.6	143	33.3	100	0	9	71	59	519.8
THOMPSON A	-2.6	-2.3	7.2	-14.6	32.8	119	54.6	103	3	13	65	82	639.3
WINNIPEG INT'L A	5.1	-1.0	23.8	-7.6	1.2	23	8.8	28	0	2	170	112	398.8
ONTARIO													
BIG TROUT LAKE	0.3	-1.5	11.1	-8.9	23.0	95	45.4	81	*	11	*	*	548.4
EARLTON A	4.1	-1.3	19.1	-5.8	4.7	63	122.2	175	0	14	*	*	430.9
GERALDTON A	2.5	*	14.4	-6.7	26.0	*	85.8	*	*	15	*	*	482.6
GORE BAY A	7.7	-0.6	20.6	-0.9	*	*	103.4	153	0	12	*	*	320.3
HAMILTON RBG	10.3	*	26.8	-2.7	0.0	*	99.4	*	0	13	158	*	*
HAMILTON A	9.2	-0.2	25.1	-3.2	0.0	0	86.0	140	0	12	*	*	280.9
KAPUSKASING A	2.9	-1.5	19.0	-7.9	45.0	213	113.1	146	0	16	*	*	469.6
KENORA A	4.8	-0.8	18.9	-5.4	4.2	57	17.8	44	0	5	*	*	408.4
KINGSTON A	9.3	0.3	23.2	-4.9	*	*	157.4	192	0	15	135	90	271.8
LONDON A	9.1	-0.3	25.2	-3.0	1.6	84	108.9	148	0	11	137	96	279.4
MOOSONEE	3.0	-1.1	17.3	-7.7	23.8	164	61.2	82	0	8	100	114	465.7
MUSKOKA A	6.3	-1.2	25.0	-6.3	*	*	141.1	150	0	18	*	*	344.2
NORTH BAY A	5.7	-0.7	19.3	-5.6	7.0	101	131.7	150	0	17	111	93	380.6
OTTAWA INT'L A	7.9	-0.2	25.3	-5.0	1.0	37	95.9	141	0	13	116	86	312.3
PETAWAWA A	6.2	-0.1	27.5	-8.9	0.8	16	103.4	143	0	15	*	*	366.0
PETERBOROUGH A	7.2	-0.3	23.3	-6.8	*	*	113.8	183	0	12	*	*	333.9
PICKLE LAKE	2.1	-0.6	12.0	-5.0	17.0	81	56.7	90	*	10	*	*	487.0
RED LAKE A	3.3	-0.7	15.9	-5.9	2.6	24	18.2	36	0	4	103	*	454.7
ST CATHARINES A	10.7	0.6	26.3	-2.3	0.0	0	91.2	128	0	12	151	*	230.9
SARNIA A	9.6	-0.3	27.4	-1.3	0.0	0	102.8	173	0	11	153	106	260.3
SAULT STE MARIE A	6.1	-1.5	17.0	-6.6	2.0	33	98.2	132	0	10	93	79	367.2
SIOUX LOOKOUT A	3.7	-1.0	16.4	-5.3	7.2	50	46.3	71	0	7	*	*	442.9
SUDBURY A	5.2	-1.1	19.4	-5.6	7.2	114	144.2	193	0	14	101	83	394.9
THUNDER BAY A	4.2	-1.5	18.9	-8.0	13.4	406	82.9	151	0	8	148	116	429.3
TIMMINS A	3.2	-1.6	19.2	-6.4	30.6	243	156.0	227	0	16	*	*	460.3
TORONTO	10.7	*	25.8	-0.5	0.0	*	96.8	*	0	12	*	*	228.3
TORONTO INT'L A	9.5	0.2	26.0	-3.1	0.0	0	87.8	142	0	11	*	*	269.1
TORONTO ISLAND A	10.2	*	19.8	0.0	0.0	0	94.3	*	0	11	*	*	243.0
TRENTON A	8.5	-0.7	23.7	-7.0	*	*	96.7	138	0	12	*	*	294.3
WATERLOO WELLINGTON	8.3	0.1	24.5	-4.3	*	*	108.8	160	0	10	*	*	303.5
WAWA A	3.4	*	19.2	-7.2	5.4	*	139.0	*	0	13	*	*	450.9
WIARTON A	8.1	-0.9	23.6	-2.1	0.8	24	160.7	195	0	14	145	108	309.0
WINDSOR A	11.4	0.3	28.4	0.2	0.0	0	116.6	204	0	8	*	*	216.5

OCTOBER 1990

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 A	4.8	-0.5	15.8	-6.4	3.8	32	99.4	138	0	19	*	*	407.5
BAIE COMEAU A	4.3	0.0	13.1	-7.0	16.4	269	159.2	178	1	15	101	84	425.4
BLANC SABLON A	4.0	0.3	16.2	-10.3	24.4	271	151.0	153	6	16	114	*	435.1
CHIBOUGAMAU CHAPAIS	1.8	*	13.4	-10.3	37.8	*	108.8	*	20	14	69	98	500.7
GASPE A	6.0	*	20.7	-9.4	2.8	*	137.8	*	0	10	121	*	373.8
INUKJUAK A	-1.0	-0.6	6.1	-9.1	24.6	112	39.0	85	5	13	45	87	588.8
KUUJJUAQ A	-1.5	-0.6	9.0	-11.0	44.2	163	79.8	164	9	15	33	68	603.5
KUUJJUARAPIK A	1.0	-1.0	12.1	-6.2	38.2	140	63.9	87	2	17	50	106	528.4
LA GRANDE IV A	-0.4	*	11.2	-16.1	71.8	*	112.2	*	28	19	40	*	567.6
LA GRANDE RIVIERE A	0.0	*	11.5	-16.7	71.2	*	112.2	*	19	22	67	*	559.1
MANIWAKI	5.8	-0.7	25.3	-8.4	3.8	93	138.4	192	0	14	114	94	377.6
MATAGAMI A	*	*	14.4	-6.8	20.4	*	113.0	*	2	14	81	87	481.0
MONT JOLI A	6.0	0.3	19.2	-5.4	5.2	70	135.8	179	0	16	89	76	371.7
MONTREAL INT'L A	8.5	-0.2	25.4	-5.6	0.0	0	118.8	157	0	17	128	94	294.5
MONTREAL MIRABEL I/	7.4	*	24.7	-6.8	0.0	*	104.0	*	0	17	127	*	326.7
NATASHQUAN A	4.3	0.2	13.2	-10.0	7.6	195	112.6	104	0	12	120	93	425.1
QUEBEC A	7.0	0.4	23.0	-4.2	2.0	45	154.8	171	0	17	96	82	337.5
ROBERVAL A	5.4	0.2	19.0	-7.2	10.0	99	71.0	111	0	14	93	*	389.5
SCHEFFERVILLE A	-2.3	-0.9	7.6	-17.5	95.8	212	126.0	167	35	19	43	67	630.6
SEPT-ILES A	3.4	-0.2	15.8	-8.1	12.6	119	144.9	150	5	14	127	101	452.1
SHERBROOKE A	7.6	1.2	25.2	-5.8	0.4	7	168.5	185	0	16	101	*	323.5
STE AGATHE DES MONT	5.6	0.3	22.7	-8.3	4.6	61	118.4	126	0	15	107	83	383.8
ST HUBERT A	8.1	-0.3	26.0	-5.6	0.2	*	124.4	161	0	16	129	*	309.4
VAL D'OR A	3.5	-1.1	16.1	-8.3	7.4	51	117.8	143	0	17	83	93	450.1
NEW BRUNSWICK													
CHARLO A	6.1	0.7	19.6	-7.5	0.0	0	201.0	218	0	19	106	83	359.0
CHATHAM A	7.9	0.8	22.7	-6.5	0.0	0	118.5	124	0	14	99	70	316.5
FREDERICTON A	8.7	1.2	23.6	-6.7	0.4	17	125.3	129	0	12	95	*	290.1
MONCTON A	8.9	1.3	25.2	*	1.0	32	142.5	144	0	15	103	73	284.0
SAINT JOHN A	9.0	1.4	24.2	-5.2	2.4	96	159.1	125	*	15	94	67	280.1

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 A	11.0	2.4	26.3	-3.0	0.0	0	122.4	125	0	14	*	*	224.4
HALIFAX INT'L A	10.4	1.8	25.8	-1.4	0.0	0	214.5	161	0	13	*	*	236.0
SABLE ISLAND	13.3	1.8	19.6	2.1	0.0	*	183.4	158	0	12	116	97	144.4
SHEARWATER A	11.0	1.5	24.0	-1.5	0.0	0	156.6	129	0	13	109	69	217.6
SYDNEY A	10.6	2.2	22.3	1.0	0.2	8	177.4	145	0	13	89	68	231.6
YARMOUTH A	11.1	1.6	21.8	-2.2	0.0	0	126.2	108	0	9	124	83	213.3
PRINCE EDWARD ISLAND													
CHARLOTTETOWN A	9.7	1.6	22.2	0.2	1.6	62	151.4	142	0	13	*	*	259.7
SUMMERSIDE A	9.7	1.1	21.7	-0.3	0.4	19	101.2	108	0	15	82	62	257.3
NEWFOUNDLAND													
BONAVISTA	8.5	1.3	18.8	0.1	3.0	176	153.0	150	0	15	*	*	294.6
BURGEO	8.7	1.8	18.6	-0.4	0.0	0	180.9	111	0	21	*	*	285.4
CARTWRIGHT	3.4	0.3	15.0	-9.0	43.6	363	84.7	118	5	15	92	103	456.0
CHURCHILL FALLS A	-0.8	0.0	10.3	-14.9	37.4	69	109.5	132	10	16	64	96	508.6
COMFORT COVE	6.4	0.6	22.0	-4.6	11.4	90	146.0	123	0	17	*	*	356.1
DANIELS HARBOUR	6.9	1.0	19.6	-4.0	17.8	387	197.4	218	0	16	78	93	345.1
DEER LAKE A	5.6	0.2	20.7	-6.4	15.0	205	136.2	118	0	16	*	*	384.3
GANDER INT'L A	6.9	0.9	21.0	-4.1	21.4	175	140.4	134	0	16	82	74	344.6
GOOSE A	2.4	-0.3	15.9	-13.4	22.0	89	64.0	84	3	12	101	107	492.4
MARY'S HARBOUR	3.4	-0.2	17.3	-9.5	23.8	280	106.0	143	2	13	*	*	452.1
PORT AUX BASQUES	8.2	1.2	16.0	-0.5	0.8	25	198.4	150	0	19	92	*	294.1
ST ANTHONY	3.8	0.6	14.1	-5.0	34.0	395	161.8	153	0	19	*	*	440.0
ST JOHN'S A	8.7	1.8	20.0	0.1	1.6	36	218.2	150	0	14	105	95	289.6
ST LAWRENCE	9.1	1.9	20.6	-3.9	2.2	157	194.5	131	0	16	*	*	272.9
STEPHENVILLE A	8.1	1.1	19.5	-2.0	5.8	161	204.2	183	0	18	81	89	307.3
WABUSH LAKE A	-0.9	-0.2	8.8	-10.6	38.3	76	97.1	115	2	10	66	100	479.1

AGROCLIMATOLOGICAL STATIONS **OCTOBER 90**

STATION	Temperature C: Mean	Temperature C: Difference from Normal	Temperature C: Maximum	Temperature C: Minimum	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: This month	Degree days above 5 C: Since jan. 1st
BRITISH COLUMBIA												
AGASSIZ	9.2	-1.7	18.0	1.0	0.0	322.5	183	0	22	58	130.0	2345.6
KAMPLOOPS	*.*	*.*	*.*	*.*	*.*	*.*	**	***	***	**	*.*	*.*
SIDNEY	9.4	-0.7	12.9	5.8	0.0	117.0	144	0	16	99	136.5	1948.0
SUMMERLAND	8.5	-0.5	21.5	-2.5	0.0	16.6	94	0	8	112	110.3	2279.2
ALBERTA												
BEAVERLODGE	2.0	-2.4	12.5	-9.0	11.4	32.8	115	0	9	123	4.3	1344.3
ELLERSLIE	*.*	*.*	*.*	*.*	*.*	*.*	**	***	***	**	*.*	*.*
LACOMBE	3.4	-1.3	21.5	-13.5	19.0	21.8	124	0	4	159	26.3	1367.2
LETHBRIDGE	*.*	*.*	*.*	*.*	*.*	*.*	**	***	***	**	*.*	*.*
VEGREVILLE	*.*	*.*	*.*	*.*	*.*	*.*	**	***	***	**	*.*	*.*
SASKATCHWAN												
INDIAN HEAD	3.5	-1.8	20.0	-10.5	0.0	9.2	37	0	5	**	81.9	1767.5
MELFORT	1.6	-2.6	17.0	-10.5	8.6	22.0	83	0	8	105	16.0	1704.7
REGINA	2.6	-1.9	22.5	-14.5	0.0	12.4	67	0	4	**	14.3	1681.3
SASKATOON	3.3	-1.9	20.0	-13.0	3.3	4.9	28	0	2	134	25.0	1658.5
SCOTT	1.9	-2.3	21.0	-12.0	7.6	10.0	73	3	4	138	8.3	1509.8
SWIFT CURRENT	4.6	-1.3	25.0	-9.0	0.0	2.5	15	0	0	134	51.8	1736.4
MANITOBA												
BRANDON	4.2	-1.4	22.1	-13.1	0.0	7.0	30	0	2	**	35.2	1789.5
GLENLEA	6.5	0.7	25.0	-7.0	0.6	5.2	14	0	1	207	76.5	2022.5
MORDEN	4.5	-2.5	24.0	-10.0	2.4	10.4	33	0	5	178	44.5	1869.0
ONTARIO												
DELHI	9.4	-0.5	25.0	-4.0	0.0	91.5	122	0	12	**	156.4	2194.3
ELORA	7.5	-1.0	23.1	-4.7	0.0	101.4	153	0	13	**	97.1	1865.8
GUELPH	8.5	-0.7	24.5	-5.9	0.0	125.4	171	0	13	156	122.2	2016.7
HARROW	11.1	-0.2	26.0	-2.5	0.0	93.4	167	0	9	161	194.4	2956.4
KAPUSKASING	3.1	-1.5	19.0	-6.5	60.2	136.9	183	14	815	1306	*.*	*.*
OTTAWA	8.3	-0.2	25.8	-6.1	1.0	101.7	149	0	14	116	119.4	2128.8
SMITHFIELD	9.4	0.5	24.3	-6.4	0.0	101.7	126	0	10	**	144.7	2242.3
VINELAND	*.*	*.*	*.*	*.*	*.*	*.*	**	***	***	**	*.*	*.*
WOODSLIE	*.*	*.*	*.*	*.*	*.*	*.*	**	***	***	**	*.*	*.*

STATION	Temperature C: Mean	Temperature C: Difference from Normal	Temperature C: Maximum	Temperature C: Minimum	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: This month	Degree days above 5 C: Since jan. 1st
QUEBEC												
LA POCATIERE	7.0	0.1	21.0	-4.0	1.0	108.4	152	0	14	101	86.6	1704.5
L'ASSOMPTION	8.3	0.3	25.5	-6.0	0.0	107.2	134	0	16	114	120.5	1996.9
LENNOXVILLE	*.*	*.*	*.*	*.*	*.*	*.*	**	***	***	**	*.*	*.*
NORMANDIN	4.2	-0.4	15.5	-10.0	5.6	53.4	90	0	15	90	36.7	1390.5
STE.CLOTILDE	8.8	0.5	28.0	-5.0	0.0	146.6	176	0	17	120	130.7	2037.8
NEW BRUNSWICK												
FREDERICTON	9.2	1.5	23.0	-5.5	0.0	109.3	108	0	11	95	155.4	1986.2
NOVA SCOTIA												
KENTVILLE	11.8	2.7	26.0	-2.0	0.0	126.8	124	0	12	113	215.8	2046.9
NAPPAN	10.7	2.4	23.0	-3.0	0.0	161.4	159	0	12	90	186.0	1688.5
PRINCE EDWARD ISLAND												
CHARLOTTETWN	10.8	2.1	23.0	0.0	0.0	143.4	138	0	13	76	192.0	1893.0
NEWFOUNDLAND												
ST.JOHN'S WEST	9.1	2.0	20.0	0.0	0.6	229.8	158	0	14	93	134.6	1394.7