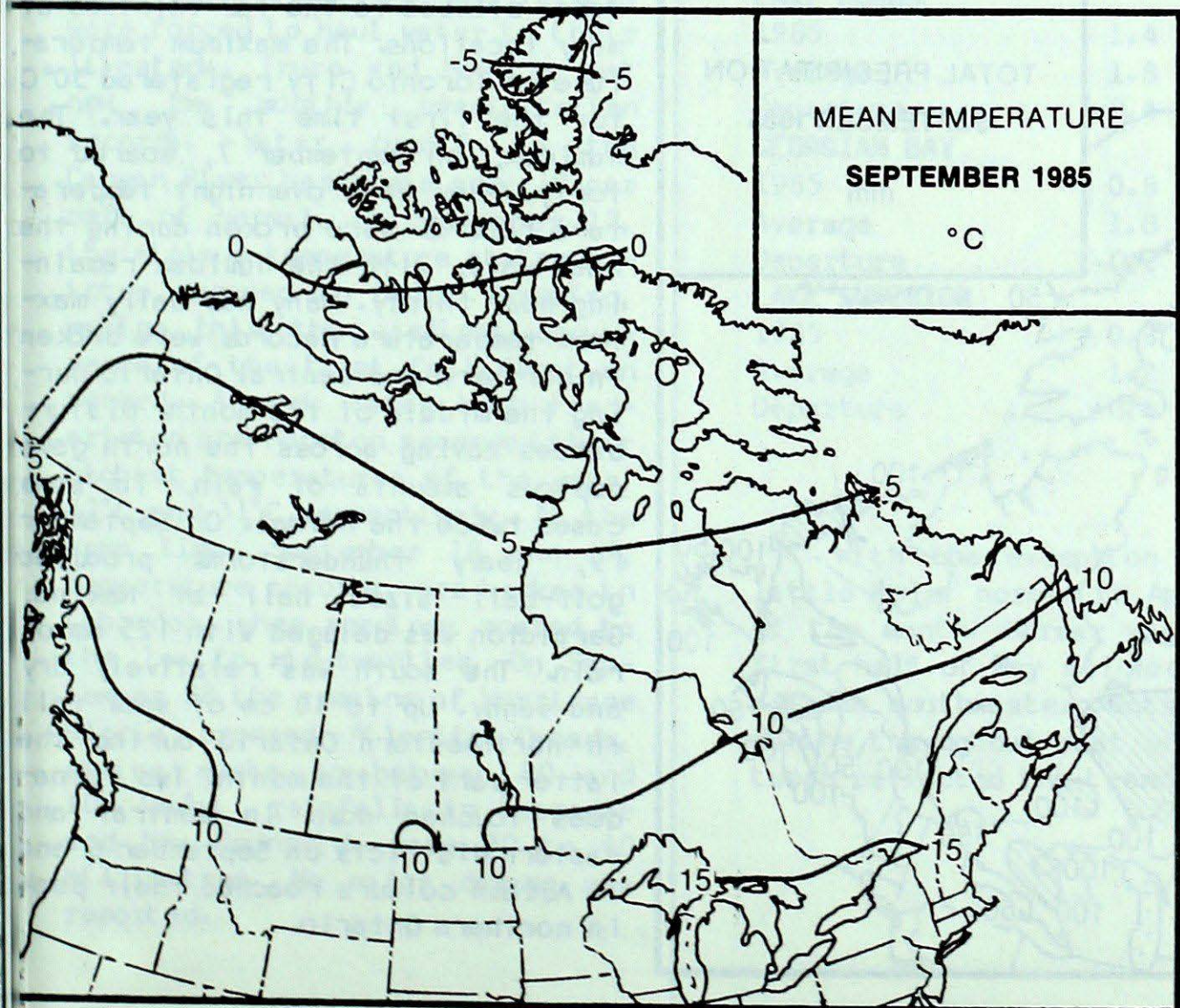
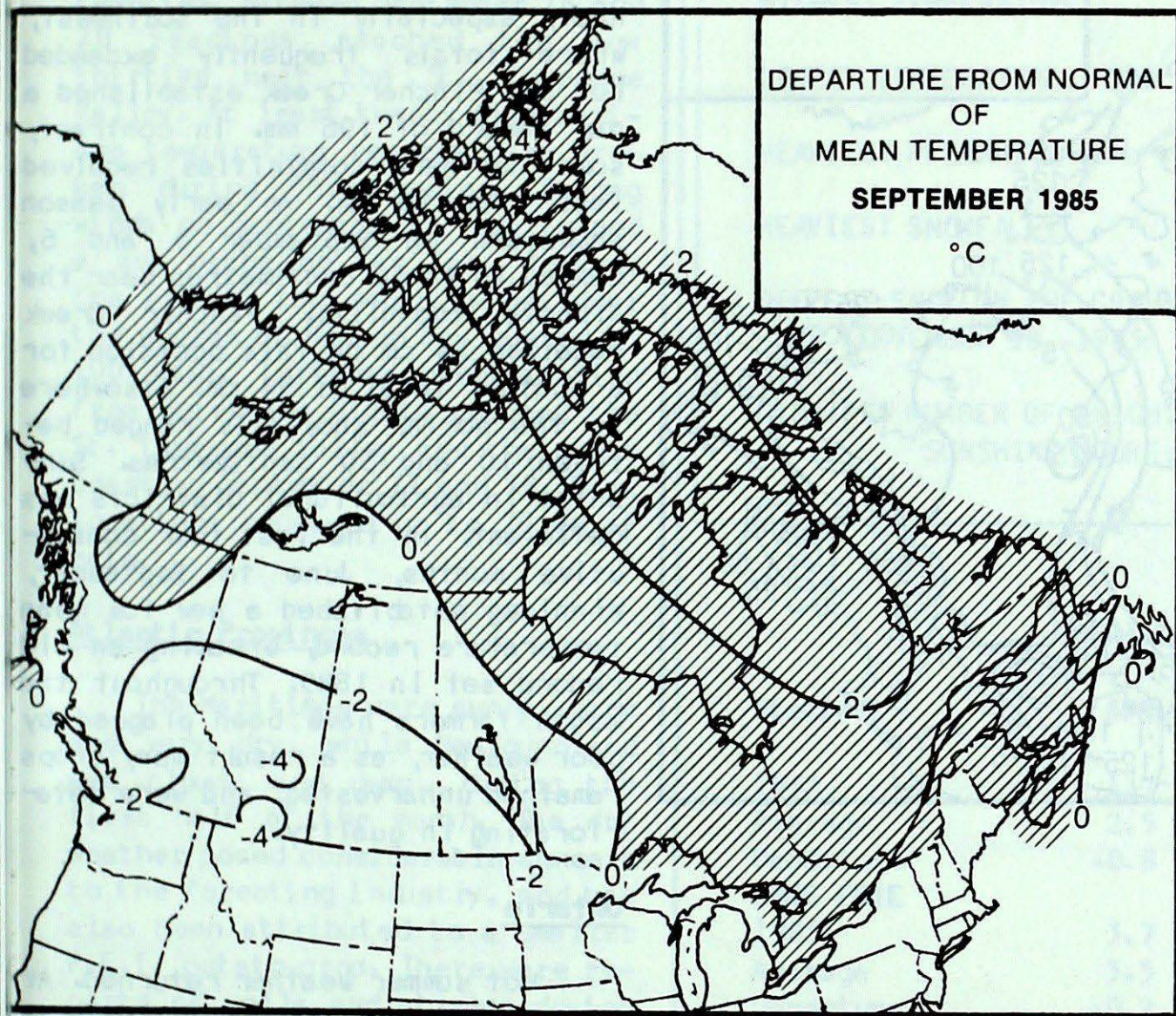


Climatic Perspectives

Monthly Supplement

Vol.7 September, 1985



ACROSS THE COUNTRY

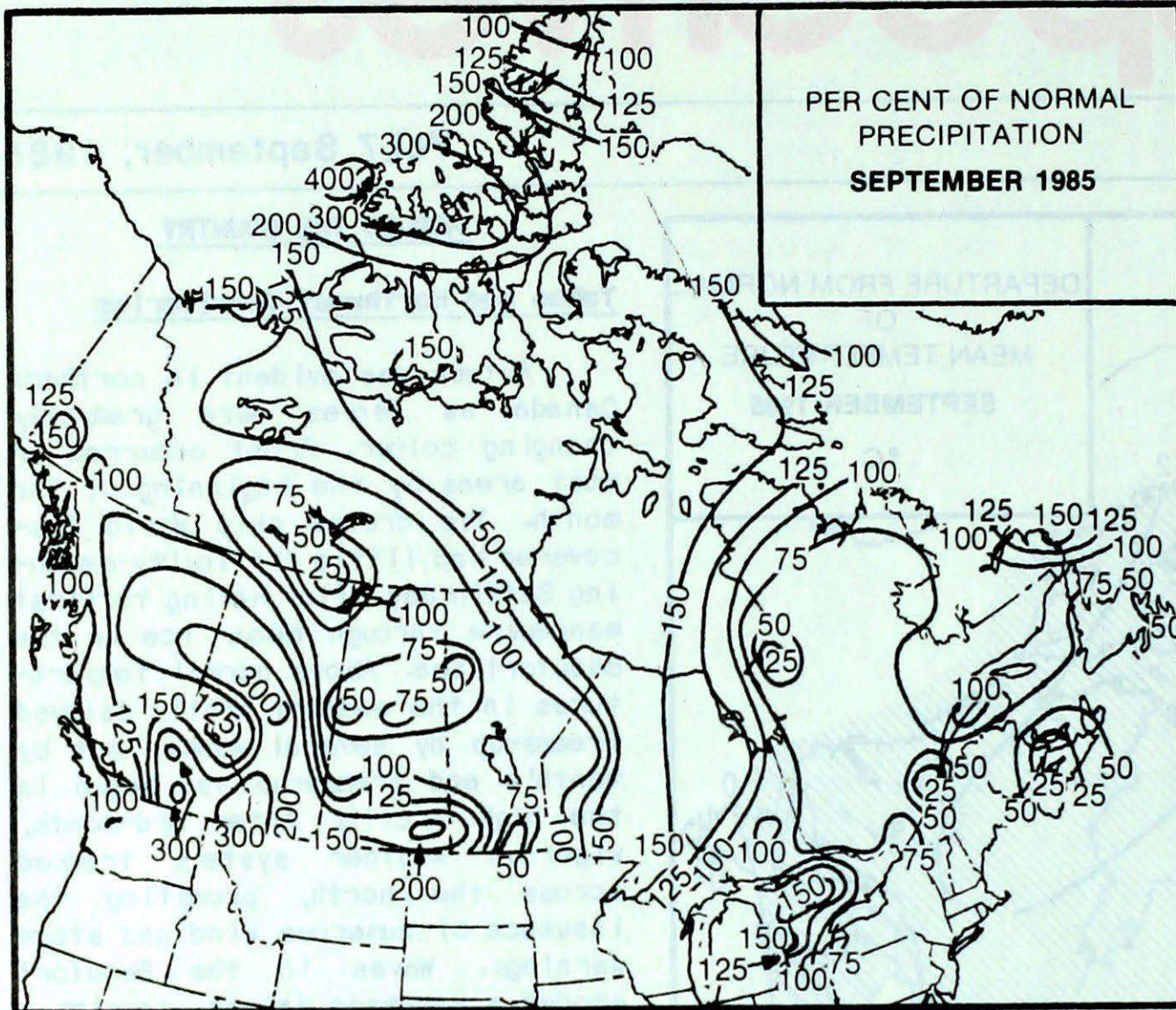
Yukon and Northwest Territories

Autumn was evident in northern Canada as leaves were gradually changing colour. Frost occurred in most areas by the beginning of the month. The cruise ship World Discoverer had little difficulty reaching Baffin Bay after having to first manoeuvre through heavy ice in the Beaufort Sea. Above normal temperatures in the eastern Arctic delayed freeze-up by several weeks, but by month's end freeze-up had begun in the high Arctic. After mid-month, vigorous weather systems tracked across the north, prompting the issuance of numerous wind and storm warnings. Waves in the Beaufort eroded a man-made island, causing a drilling rig to topple over. Ice conditions in the Beaufort worsened, and by the end of the month the Arctic ice pack had drifted southward into Amundsen Gulf, hampering re-supply operations. By month's end, temperatures in the high Arctic failed to climb above freezing, and snow once again had become a common occurrence.

British Columbia

A northwesterly circulation gave cool weather conditions to much of the province. At Princeton and Blue River this was the coolest September on record. Southern Interior valleys were unusually wet. Periods of heavy rain reduced the fire hazard index to a safer level for the first time this season, enabling the annual slash burning program to commence. Cranbrook, Kamloops and Penticton established new precipitation records for the month. Princeton and Sparwood, set new snowfall records. The coast and lower mainland were unusually dry. Several sites recorded only half their normal precipitation. At Victoria, the four month period June to September was the driest and sunniest ever.

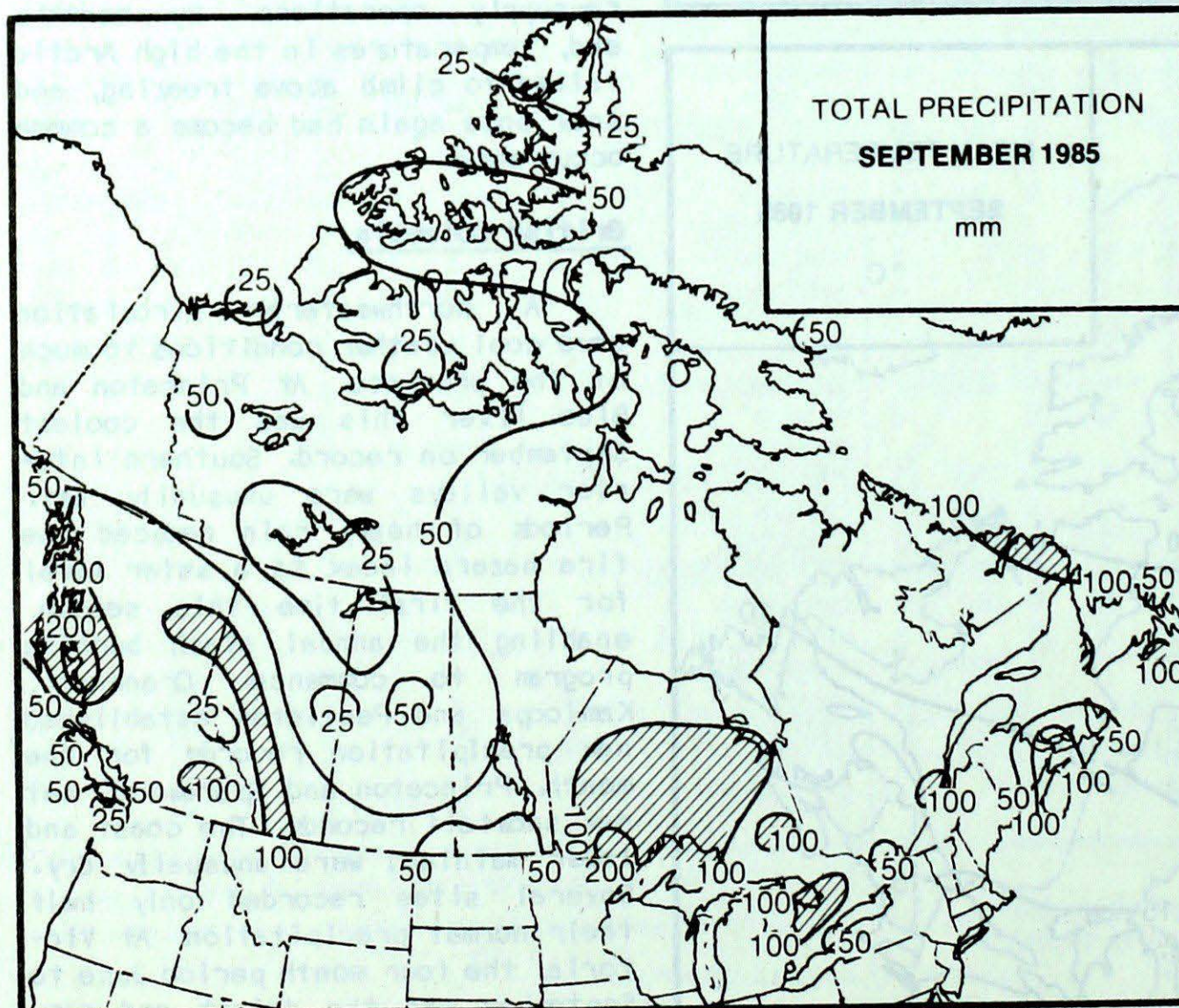
PRECIPITATION



The Prairies

Cold, dull and wet sums up the month. Numerous low temperature records were broken during the course of the month, some dating back to the eighteen hundreds. Widespread killing frosts occurred by the end of the first week. Precipitation was heavy especially in the southwest, where totals frequently exceeded 100 mm. Pincher Creek established a new record of 196 mm. In contrast, some northern communities received less than 10 mm. An early season snowstorm on September 5 and 6, dumped 10 to 30 centimetres near the Alberta foothills. Pincher Creek received 34 cm on this occasion for a monthly total of 54 cm. Elsewhere to the north, snowfalls ranged between 10 and 30 centimetres. Sunshine in agricultural districts was deficient. In the last four consecutive months, June to September, Winnipeg established a new low mean temperature record, breaking an old record set in 1885. Throughout the month farmers have been plagued by poor weather, as a result many crops remained unharvested, and were deteriorating in quality.

Ontario



Hot summer weather returned. At the beginning of the month, temperatures climbed to the low thirties at many locations. The maximum temperature at Toronto City registered 30°C for the first time this year. The humidex, on September 7, soared to forty. Many warm overnight temperature records were broken during the heat wave, with the humidex remaining near thirty. Many new daily maximum temperature records were broken in northern and central Ontario during the middle of the month. Disturbances moving across the north gave copious amounts of rain, in some cases twice the normal. On September 19, heavy thunderstorms produced golf-ball sized hail at Nakina; Geraldton was deluged with 125 mm of rain. The south was relatively dry and sunny. Up to 40 cm of snow fell in northwestern Ontario during the latter part of the month. Two tornadoes touched down in central and eastern districts on September 6 and 7. Autumn colours reached their peak in northern Ontario.

Quebec

Ideal harvesting weather benefited most of the agricultural community. With a few exceptions, it was mild, dry and seasonably sunny. In the south, temperatures frequently climbed to the mid-twenties. Between September 18 and 20 readings reached the low thirties near the St. Lawrence Valley. At least twenty five maximum temperature records were broken during this period. Strong winds on September 21, overturned a sea plane on Lac Eon. Towards the end of the month, winds near the shores of Hudson Bay gusted to 100 km/h. Leftover precipitation from hurricane Gloria reached the St. Lawrence Valley and the north coast on September 27 and 28. Some locations received up to 70 mm of rain.

Atlantic Provinces

The Maritimes were sunny, warm and very dry, while Newfoundland was cloudy and damp, during the first half of the month. The dry weather posed considerable concern to the foresting industry, and has also been attributed to a smaller P.E.I. potato crop. There were reports of wells and streams drying up in New Brunswick, and farmers were forced to haul water to their livestock. Truro and Moncton set new low monthly precipitation records. Water runoff in the Canaan River basin was only 19 per cent of normal. On September 12, the minimum temperature at Fredericton dropped to below freezing, making this the earliest occurrence of the first fall frost on record. A week later both Fredericton and Moncton recorded their highest temperatures of the year, 32°C and 31°C respectively. At the same time, September 18 and 19, temperature records were broken in Labrador, when readings soared to the low to mid-twenties. On September 28 the remains of Hurricane Gloria crossed Atlantic Canada, giving gusts to between 80 and 100 km/h; rainfalls in Labrador and New Brunswick were 30 to 40 millimetres. No major damage was reported.

CLIMATIC EXTREMES IN CANADA - SEPTEMBER 1985

MEAN TEMPERATURE:		
WARMEST	Toronto Island, ONT	18.5°C
COLDEST	Alert, NWT	- 7.8°C
HIGHEST TEMPERATURE:	Windsor, ONT	33.2°C
LOWEST TEMPERATURE:	Mould Bay, NWT	- 20.7°C
HEAVIEST PRECIPITATION:	Ethelda Bay, BC	261.5 mm
HEAVIEST SNOWFALL:	Mould Bay, NWT	52.6 mm
DEEPEST SNOW ON THE GROUND ON SEPTEMBER 30, 1985:	Mould Bay, NWT	18.0 cm
GREATEST NUMBER OF BRIGHT SUNSHINE HOURS:	Montreal Int. A, QUE	237 hrs

GREAT LAKES SURFACE WATER TEMPERATURES

Station	APR.	MAY.	JUN.	JULY
1985	1.7	5.5	10.2	17.2
Average	2.5	5.4	11.6	17.8
Departure	-0.8	+0.1	-1.4	-0.6
LAKE ERIE				
1985	3.7	10.2	16.0	21.9
Average	3.5	9.4	16.7	21.4
Departure	+0.2	+0.8	-0.7	+0.5
LAKE HURON				
1985	1.4	4.4	8.6	15.0
Average	1.8	4.4	9.2	15.5
Departure	-0.4	0.0	-0.6	-0.5
GEORGIAN BAY				
1985	0.8	3.7	8.6	15.1
Average	1.0	3.8	9.1	15.9
Departure	-0.2	-0.1	-0.5	-0.8
LAKE SUPERIOR				
1985	0.8	2.6	4.3	8.4
Average	1.2	2.5	4.4	8.8
Departure	-0.4	+0.1	-0.1	-0.4

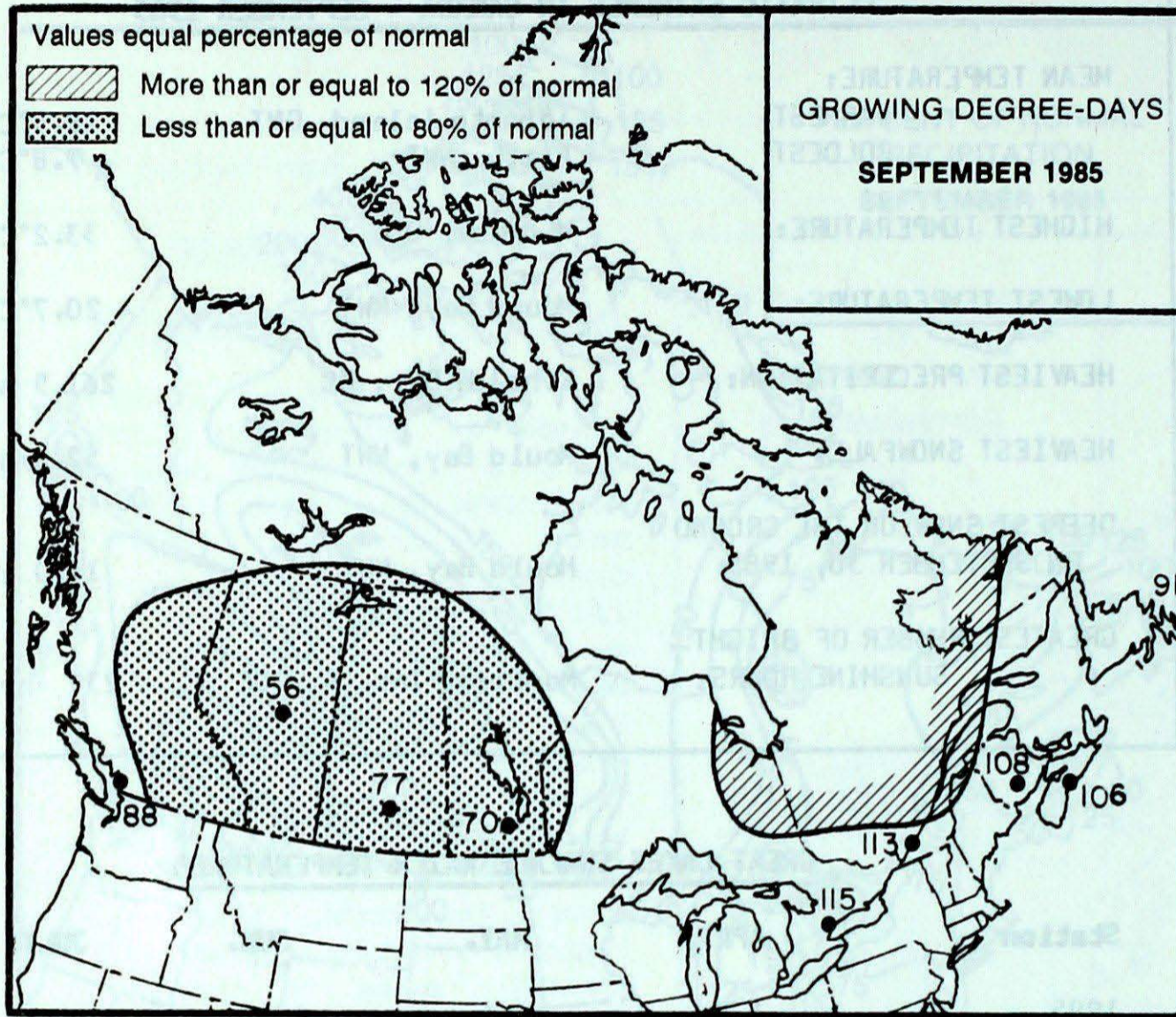
With the exception of Lake Erie, water temperatures were a little below normal in April due to cold weather in the first half of the month. Warmer weather during the latter part of April and first half of May allowed water temperatures to recover. Except in extreme southwestern Ontario, June and July were unseasonably cool months throughout most of the Great Lake Basin, and water temperatures reflected the trend admirably.

GROWING DEGREES

GROWING DEGREE DAYS

SEASONAL TOTAL OF GROWING

DEGREE-DAYS TO END OF SEPTEMBER



BRITISH COLUMBIA

	1985	1984	NORMAL
Abbotsford	1808	1729	1736
Kamloops	2163	2072	2149
Penticton	2085	1919	2059
Prince Rupert	972	1079	1121
Vancouver	1778	1844	1796
Victoria	1638	1664	1654

ALBERTA

Calgary	1327	1328	1323
Edmonton Mun.	1464	1564	1411
Grande Prairie	1226	1137	1297
Lethbridge	1633	1629	1650
Peace River	1190	1121	1249

SASKATCHEWAN

Estevan	1735	1912	1760
Prince Albert	1337	1488	1404
Regina	1569	1735	1674
Saskatoon	1545	1685	1593
Swift Current	1564	1604	1590

MANITOBA

Brandon	1459	1658	1626
Churchill	615	748	544
Dauphin	1418	1622	1563
Winnipeg	1663	1766	1725

ONTARIO

London	2127	1996	2030
Mount Forest	1667	1675	1642
North Bay	1612	1516	1616
Ottawa	2043	2029	1976
Thunder Bay	1396	1479	1395
Toronto	2056	1958	2046
Trenton	1987	1913	2033
Windsor	2515	1325	2356

QUEBEC

Baie Comeau	1125	1099	1146
Maniwaki	1639	1594	1687
Montreal	2031	2048	2040
Quebec	1737	1744	1678
Sept-Îles	1122	1077	1027
Sherbrooke	1648	1524	1692

NEW BRUNSWICK

Charlo	1468	1508	1430
Fredericton	1736	1782	1719
Mncton	1618	1682	1590

NOVA SCOTIA

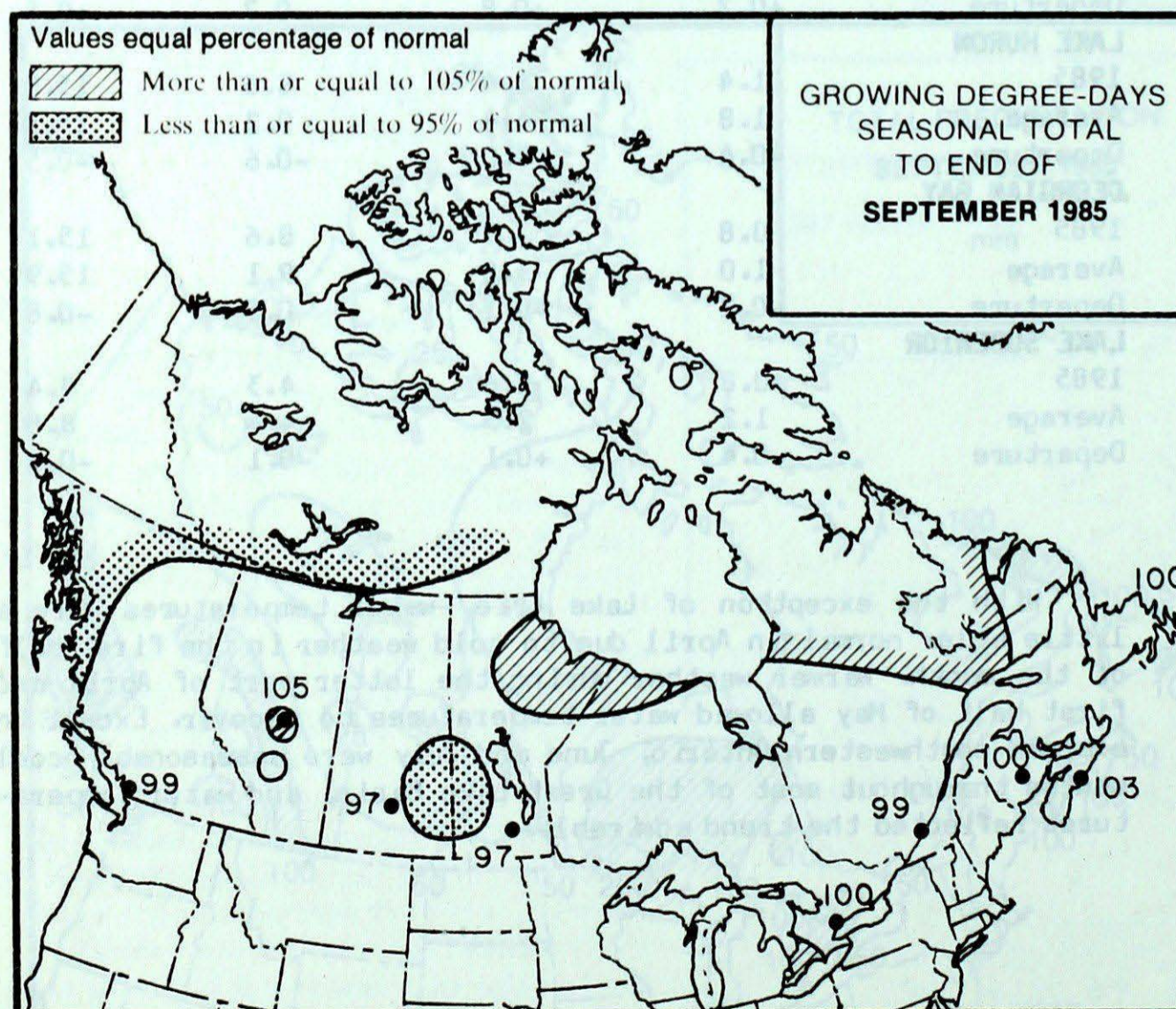
Sydney	1463	1607	1441
Truro	1494	1639	1482
Yarmouth	1469	1527	1450

PRINCE EDWARD ISLAND

Charlottetown	1596	1697	1536
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NEWFOUNDLAND

Gander	1206	1336	1207
St. John's	1108	1376	1101
Stephenville	1293	1470	1241

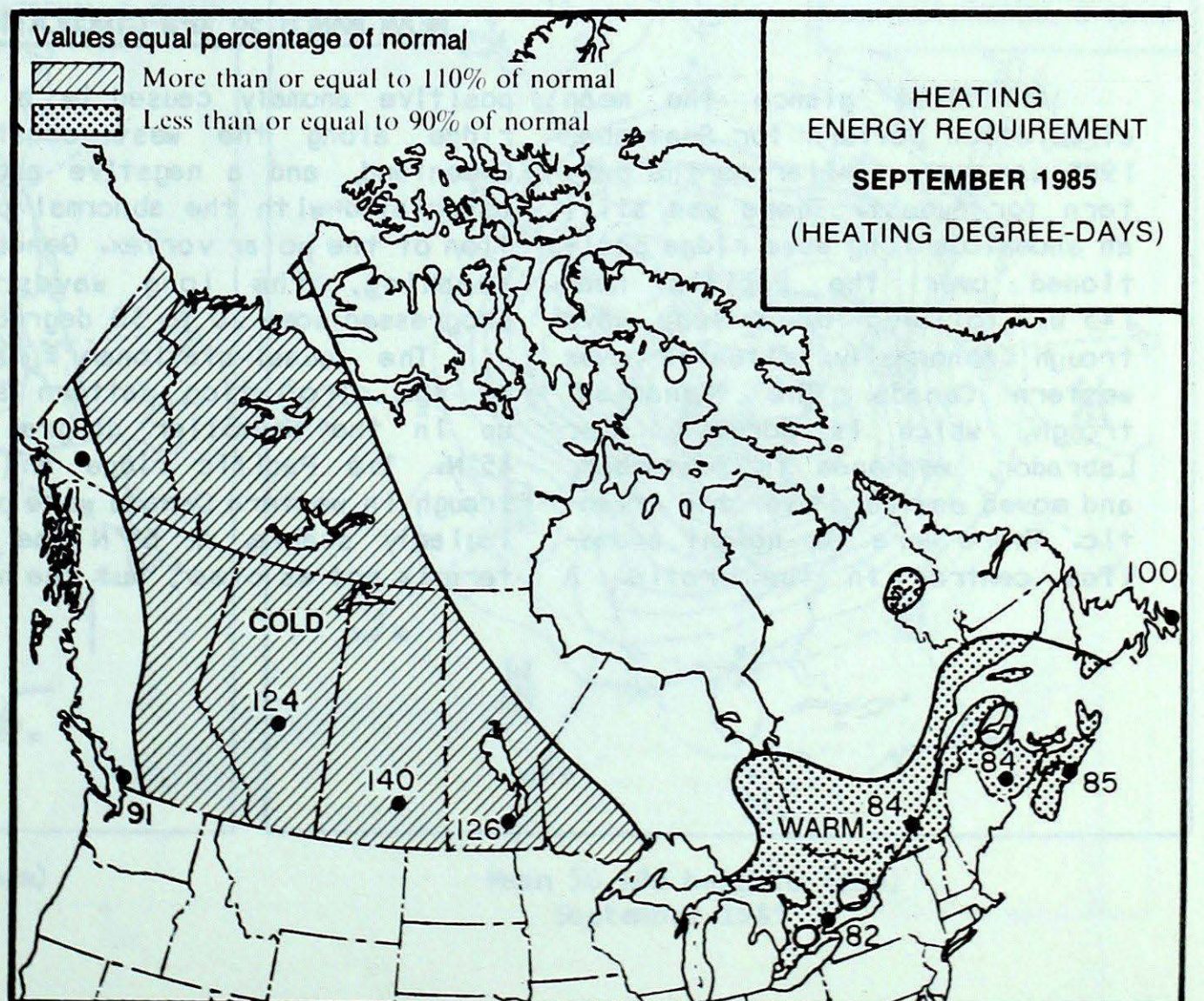
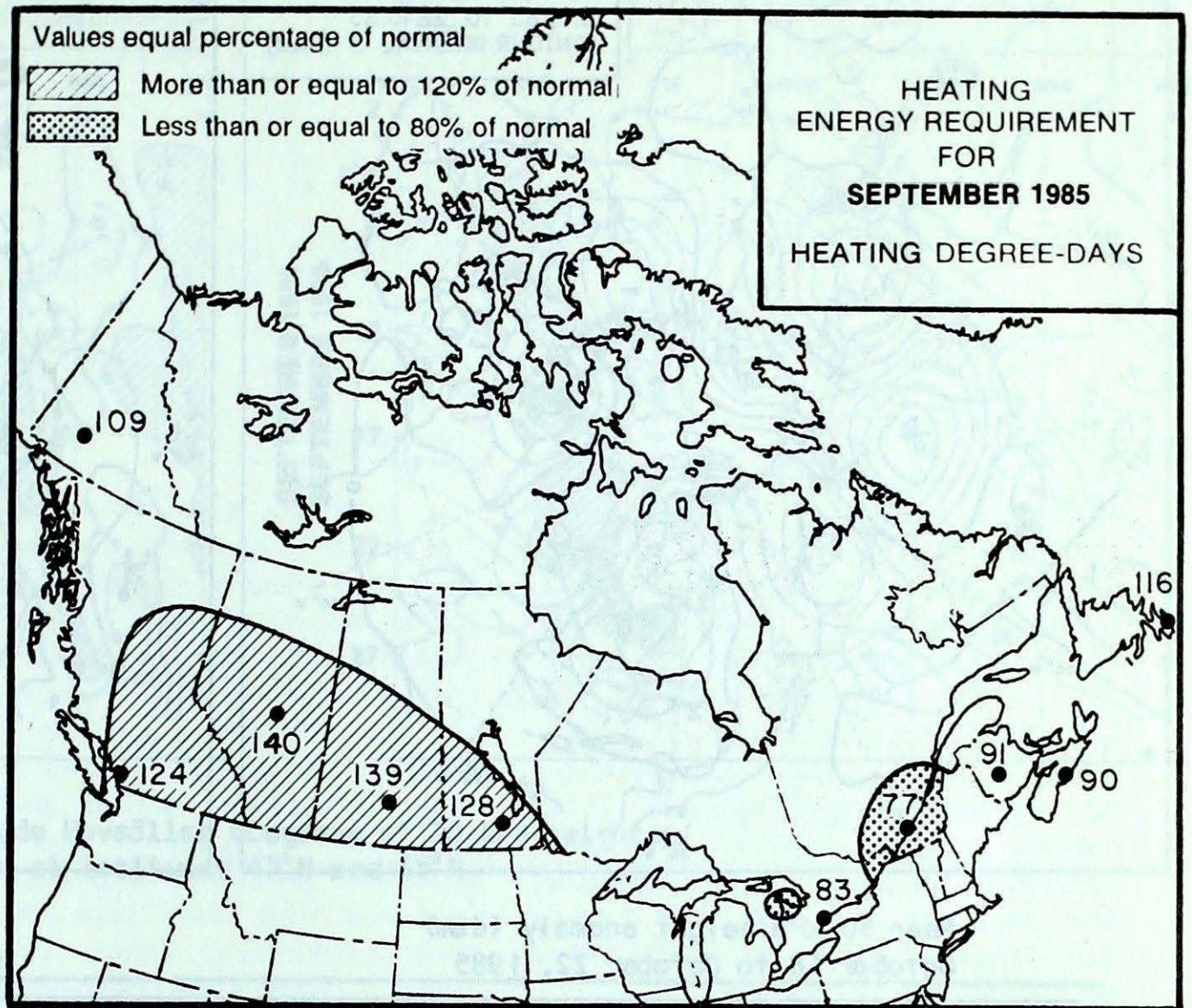


SEASONAL TOTAL OF HEATING

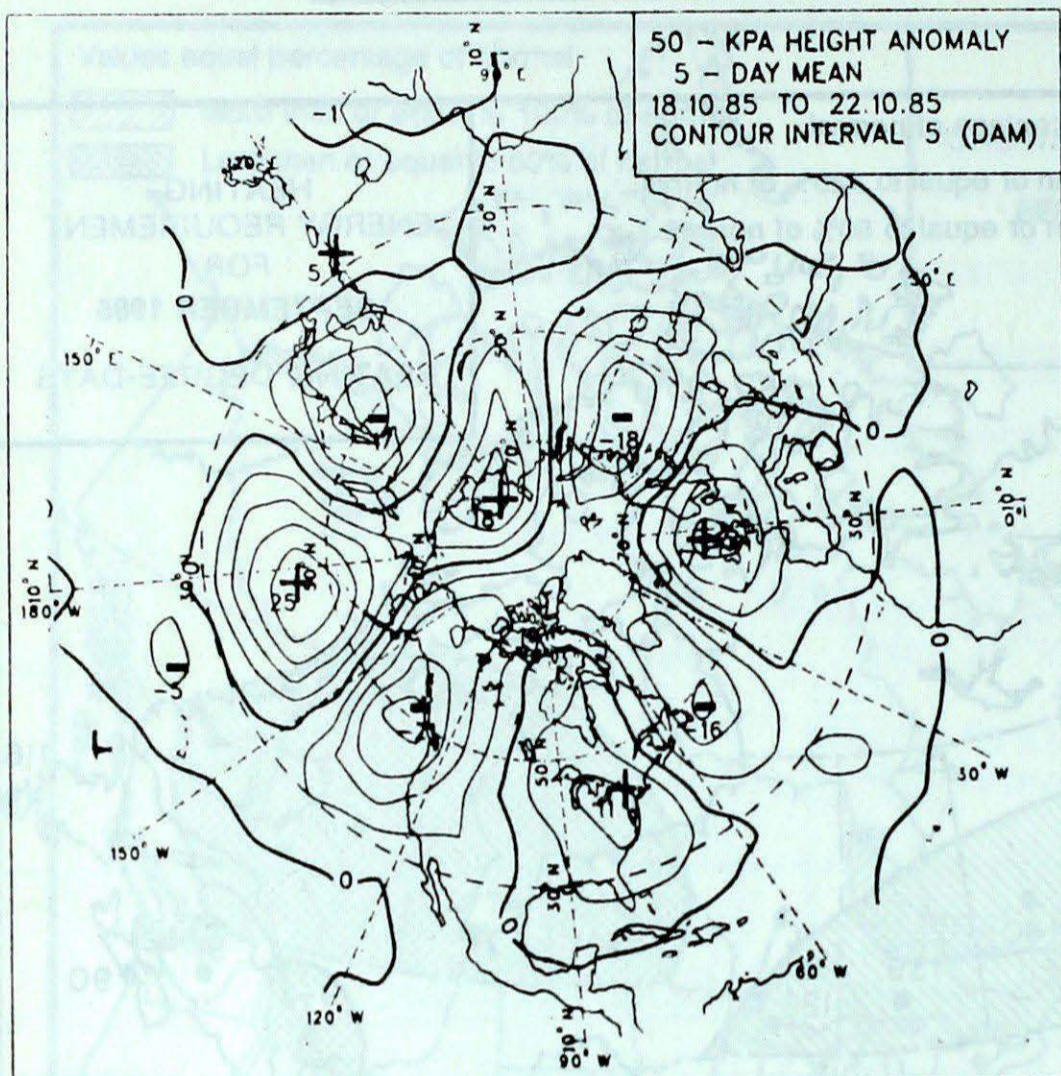
ENERGY REQUIREMENTS

DEGREE-DAYS TO END OF SEPTEMBER

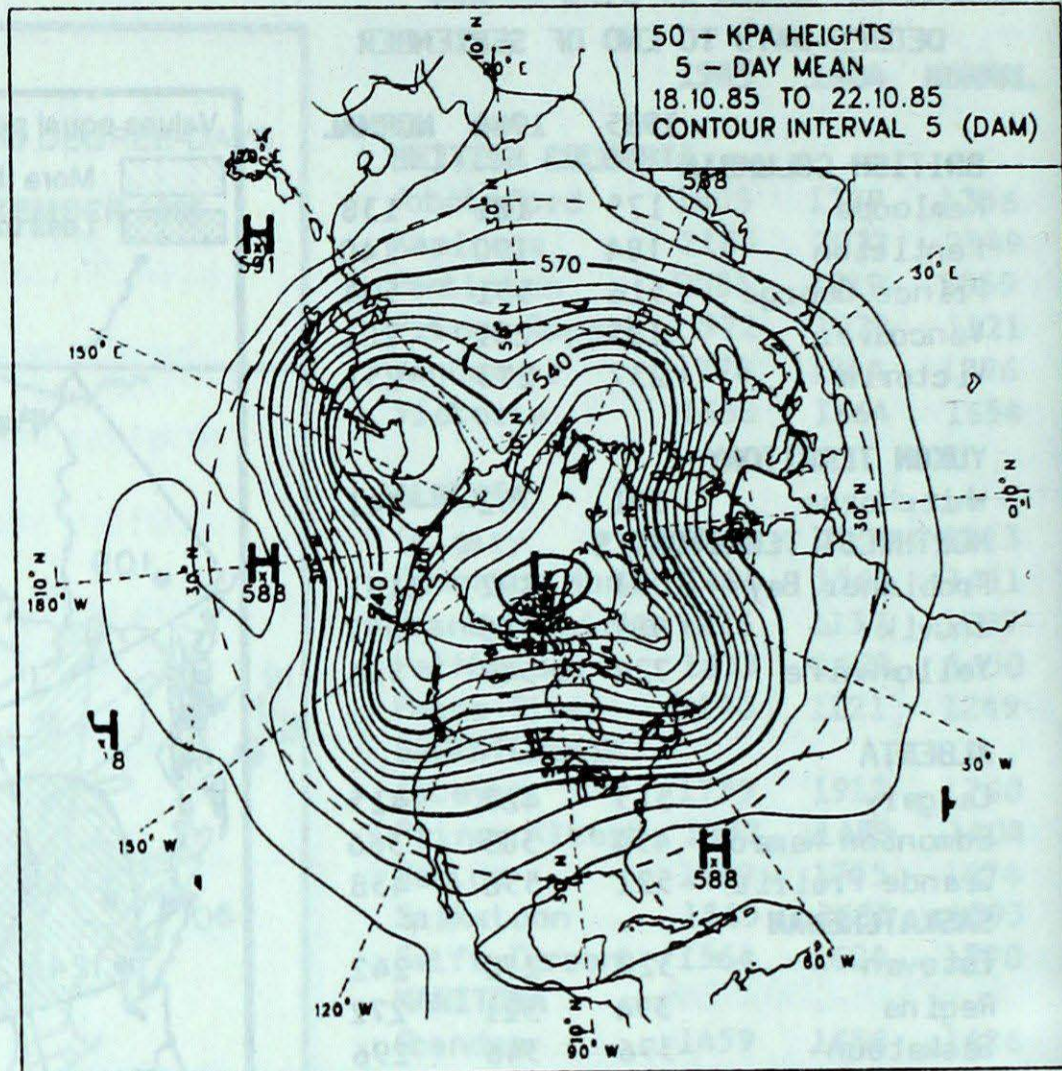
	1985	1984	NORMAL
BRITISH COLUMBIA			
Kamloops	175	181	138
Penticton	184	190	140
Prince George	516	551	504
Vancouver	185	201	201
Victoria	237	273	251
YUKON TERRITORY			
Whitehorse	691	782	641
NORTHWEST TERRITORIES			
Frobisher Bay	1083	1192	1191
Inuvik	981	903	897
Yellowknife	724	549	556
ALBERTA			
Calgary	515	427	415
Edmonton Namao	454	385	366
Grande Prairie	521	556	438
SASKATCHEWAN			
Estevan	329	270	242
Regina	394	321	272
Saskatoon	396	346	296
MANITOBA			
Brandon	414	320	279
Churchill	796	745	813
The Pas	464	372	367
Winnipeg	315	263	240
ONTARIO			
Kapuskasing	357	407	398
London	105	146	128
Ottawa	110	155	156
Sudbury	223	278	271
Thunder Bay	333	313	342
Toronto	100	153	121
Windsor	62	96	76
QUÉBEC			
Baie Comeau	386	431	419
Montréal	102	162	121
Quebec	164	227	225
Sept-Îles	398	429	473
Sherbrooke	224	322	312
Val-d'Or	334	397	380
NEW BRUNSWICK			
Charlo	241	257	254
Fredericton	183	199	227
Moncton	178	198	219
NOVA SCOTIA			
Halifax	147	158	173
Sydney	181	195	211
Yarmouth	240	230	238
PRINCE EDWARD ISLAND			
Charlottetown	153	179	198
NEWFOUNDLAND			
Gander	363	322	358
St. John's	376	256	377



ATMOSPHERIC CIRCULATION



Mean 50 kPa height anomaly (dam)
October 18 to October 22, 1985



Mean 50 kPa heights (dam)
October 18 to October 22, 1985

MEAN MARCH 50 kPa CIRCULATION

At first glance the mean circulation pattern for September 1985 was very similar to the pattern for August. There was still an anomalous long wave ridge positioned over the Pacific near 145°W , followed by a long wave trough abnormally situated over western Canada. The "Canadian" trough, which is normally over Labrador, weakened in September, and moved eastward over the Atlantic. There were two height anomalies centres in the Arctic. A

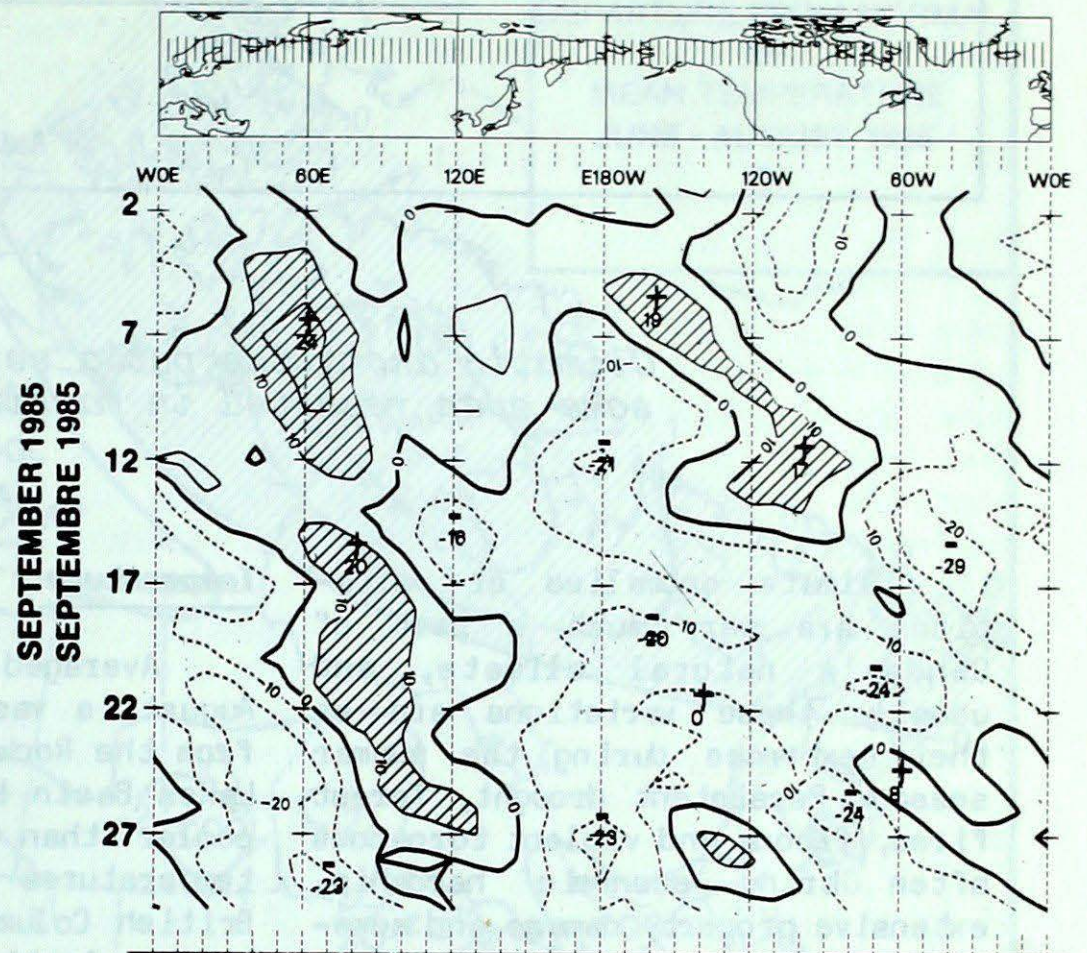
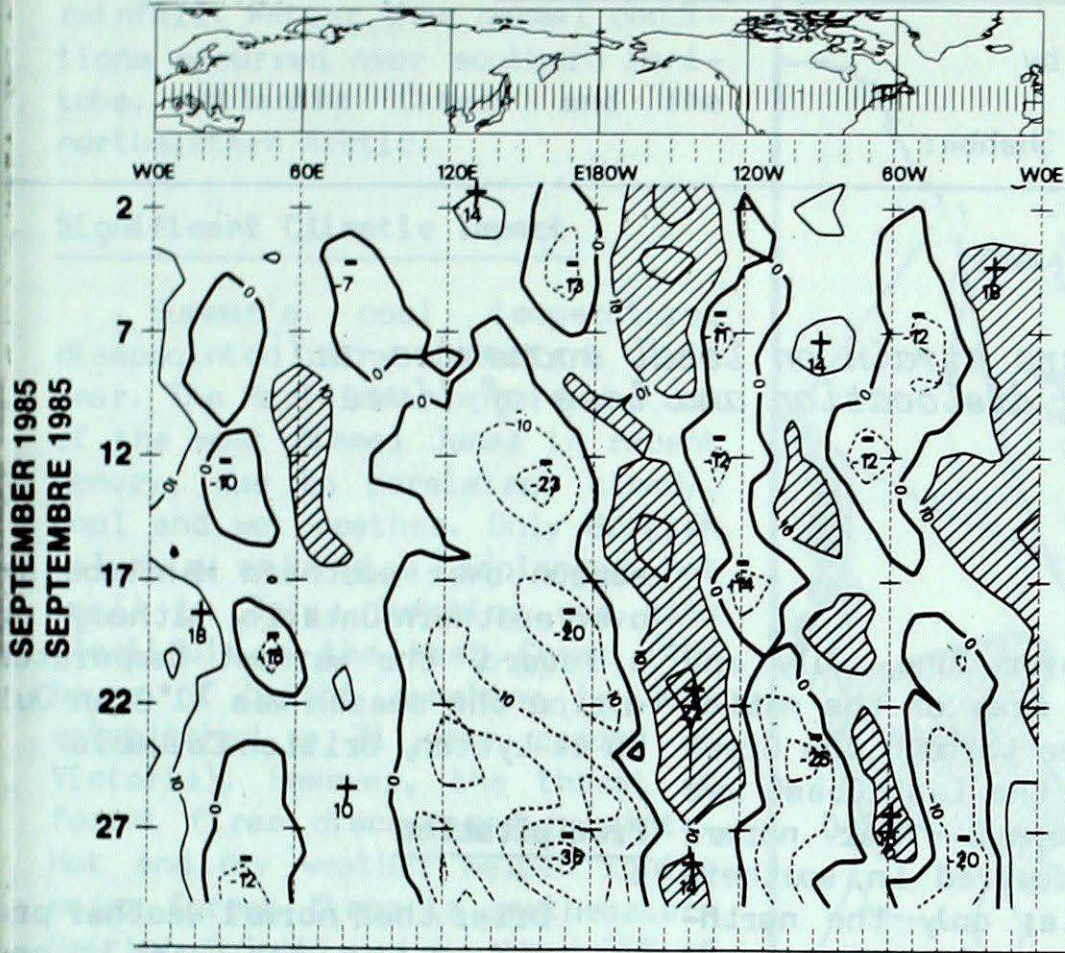
positive anomaly caused by a weak ridge along the west coast of Greenland, and a negative anomaly associated with the abnormal position of the polar vortex. Generally speaking, the long waves had progressed some 20 to 30 degrees.

The quasi-stationary nature of the circulation pattern shows up in the Hovmöller diagram for 45°N . The Pacific ridge and the trough in western Canada were particularly stable. At 65°N the pattern is not as clear, but the nega-

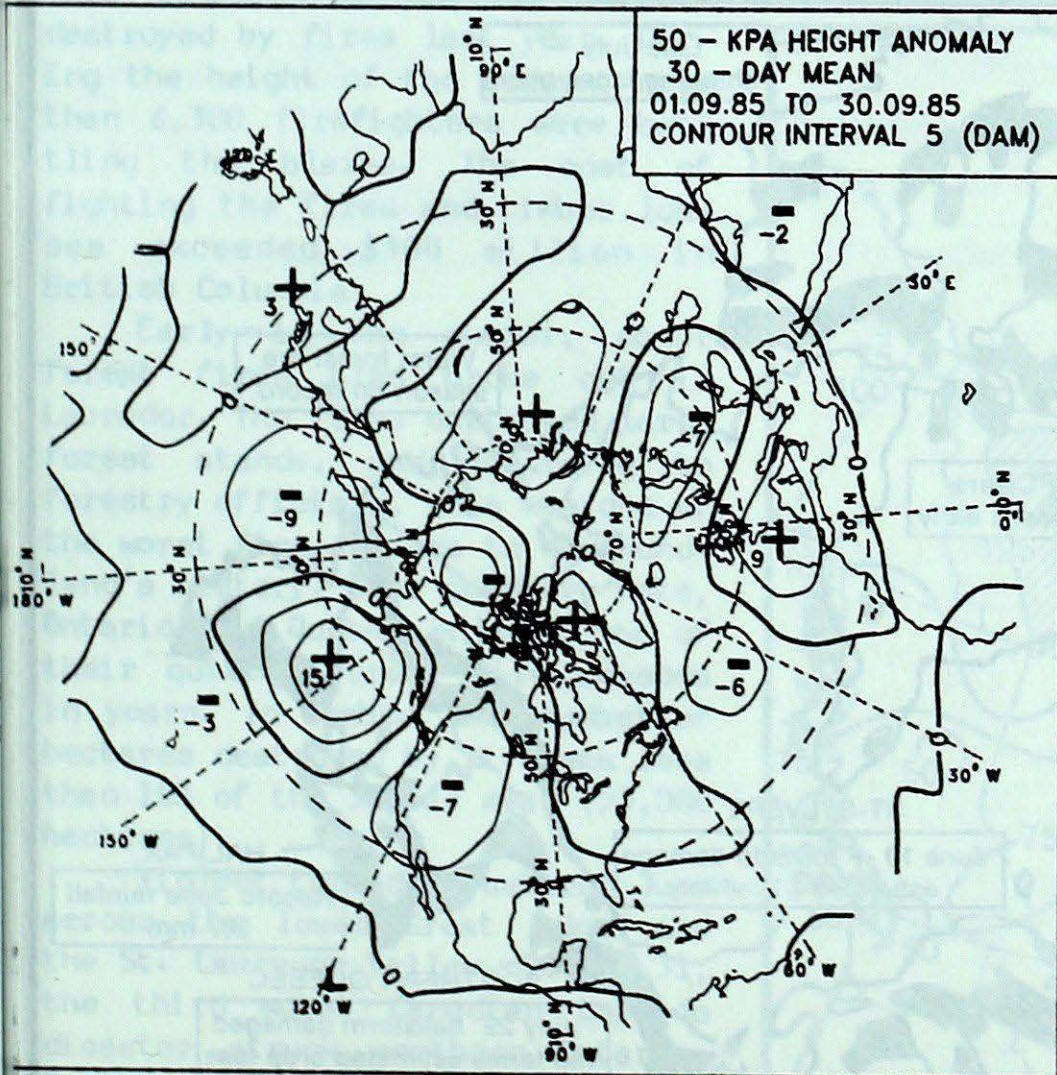
tive values at 180°W show the effect of the Arctic vortex being displaced toward Alaska, away from its normal position at the pole.

The mean atmospheric flow was zonal in the east, but had a northerly component over the Prairies, which explains the near total absence of mean temperature anomalies in eastern Canada and the negative anomalies in the west. Over northern Quebec and Baffin Island, the positive anomaly is related to the ridge mentioned earlier.

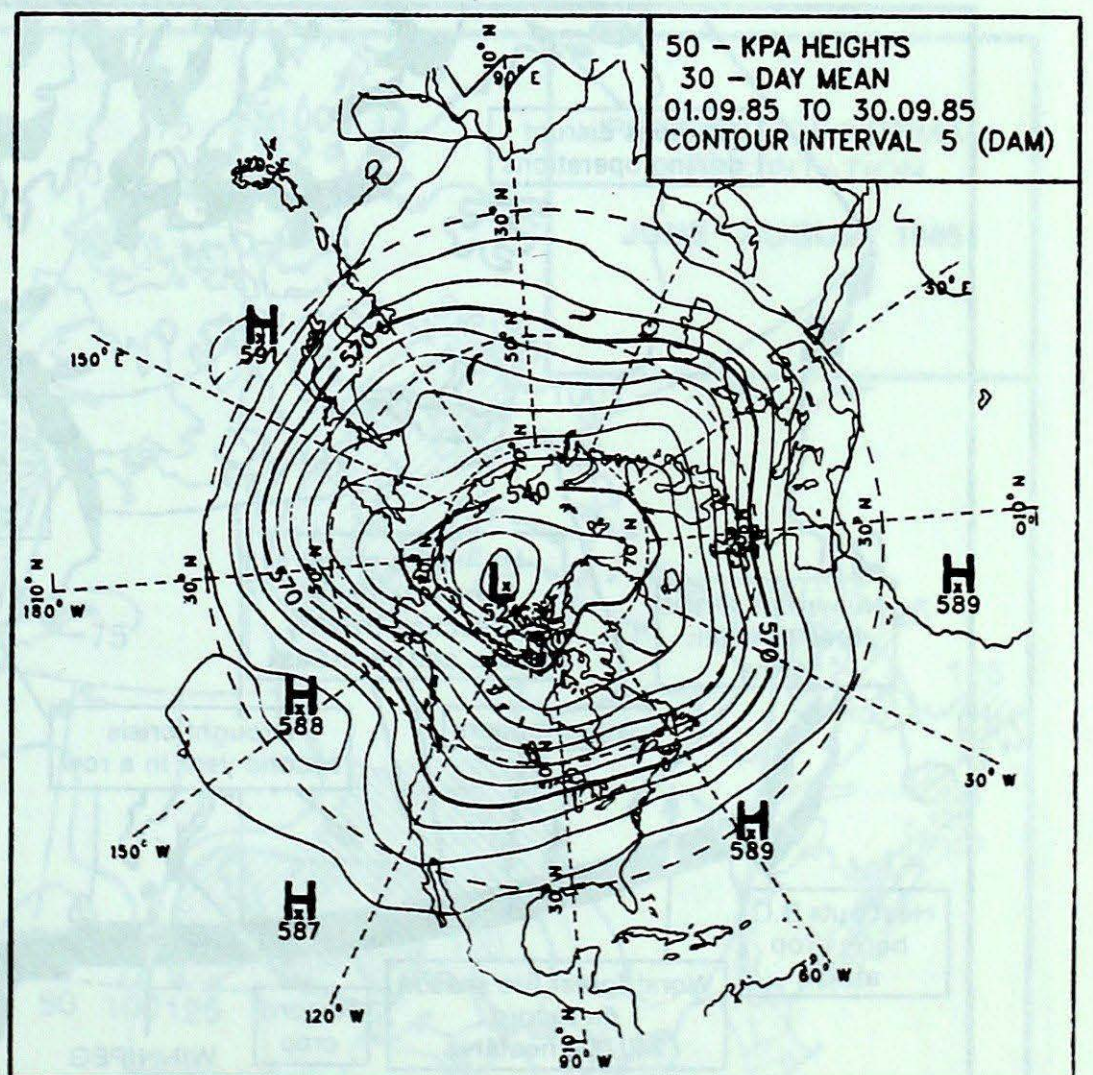
ATMOSPHERIC CIRCULATION



Time-longitude Hovmöller diagrams of 50 kPa heights at latitudes 45°N and 65°N



Mean 50 kPa height anomaly (dam)
September 1985



Mean 50 kPa heights (dam)
September 1985

FEATURE

Summer of '85 -- A season of extremes and costly impacts

by

Amir Shabbar

Climatic anomalies put a severe strain on local economies and some even resulted in massive dislocation and loss of lives.

Climate anomalies or variations are very much a part of Canada's natural climate, and usually these variations are at their extremes during the summer season. Persistent drought, forest fires, floods and violent tornadoes often bring economic hardship, extensive property damage and sometimes loss of lives. This year was no exception. Major forest fires burned valuable timber in British Columbia, severe drought plagued the southern Prairies, and tornadoes brought death and destruction to southern Ontario.

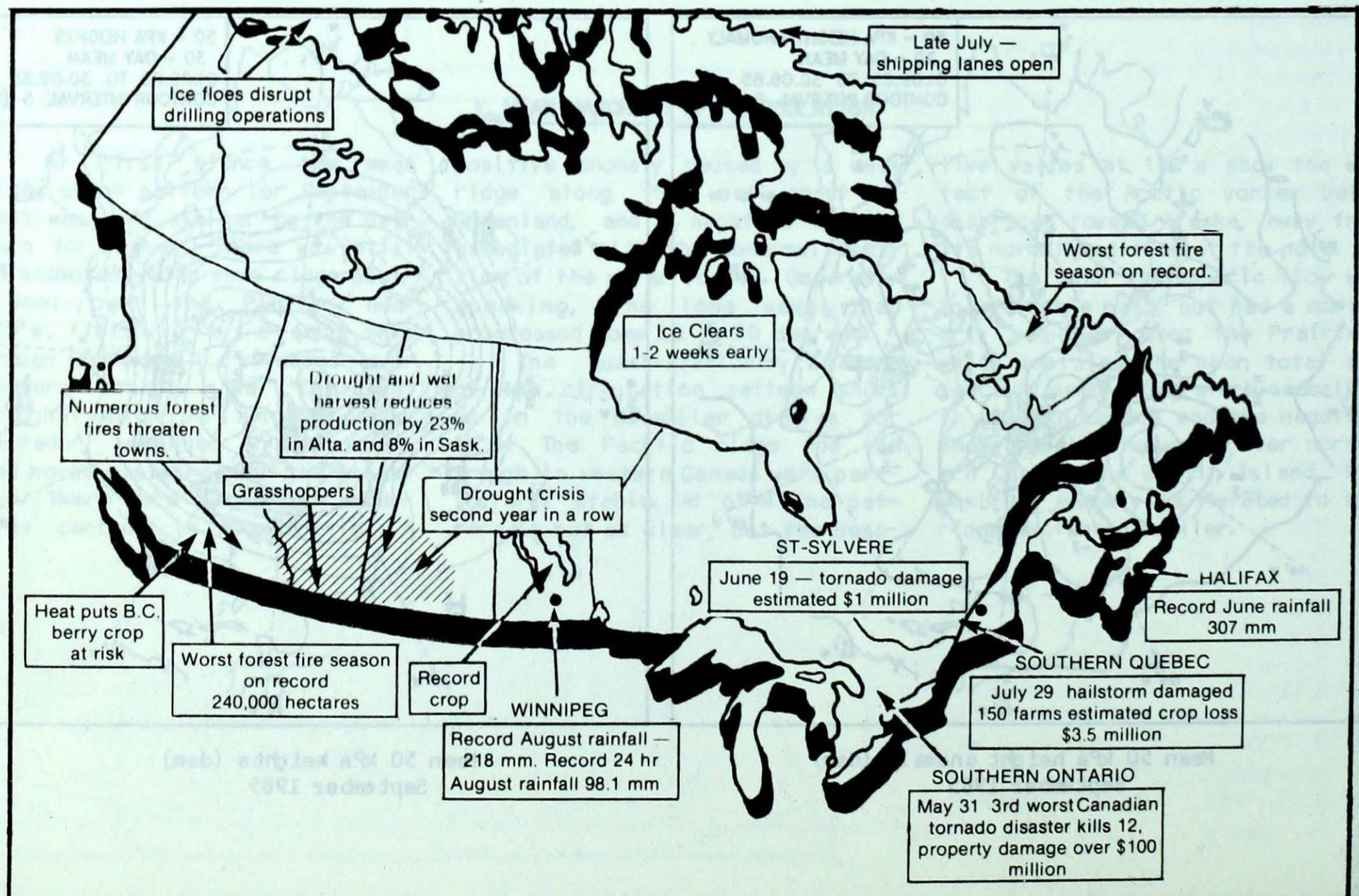
Temperature

Averaged over June, July and August, a vast area of the nation from the Rockies through the Great Lakes Basin to the East Coast was cooler than normal. Near normal temperatures occurred in southern British Columbia; only the north-eastern Arctic experienced a significantly warmer summer (by about 2°C). The majority of the climate stations reported temperature departures that were less than 2°C. Cool conditions, about 1°C below normal, persisted throughout the

season over southern Manitoba and over southern Ontario. Although not a record, the warmest temperature during the season was 41°C on July 30 at Lytton, British Columbia.

Precipitation

Drier than normal weather prevailed from the west coast to central Saskatchewan, in central Quebec and over the northwestern Arctic Islands. Swift Current, Saskatchewan, was one of the driest locations, receiving only 41% of normal summer precipitation. Waterloo,



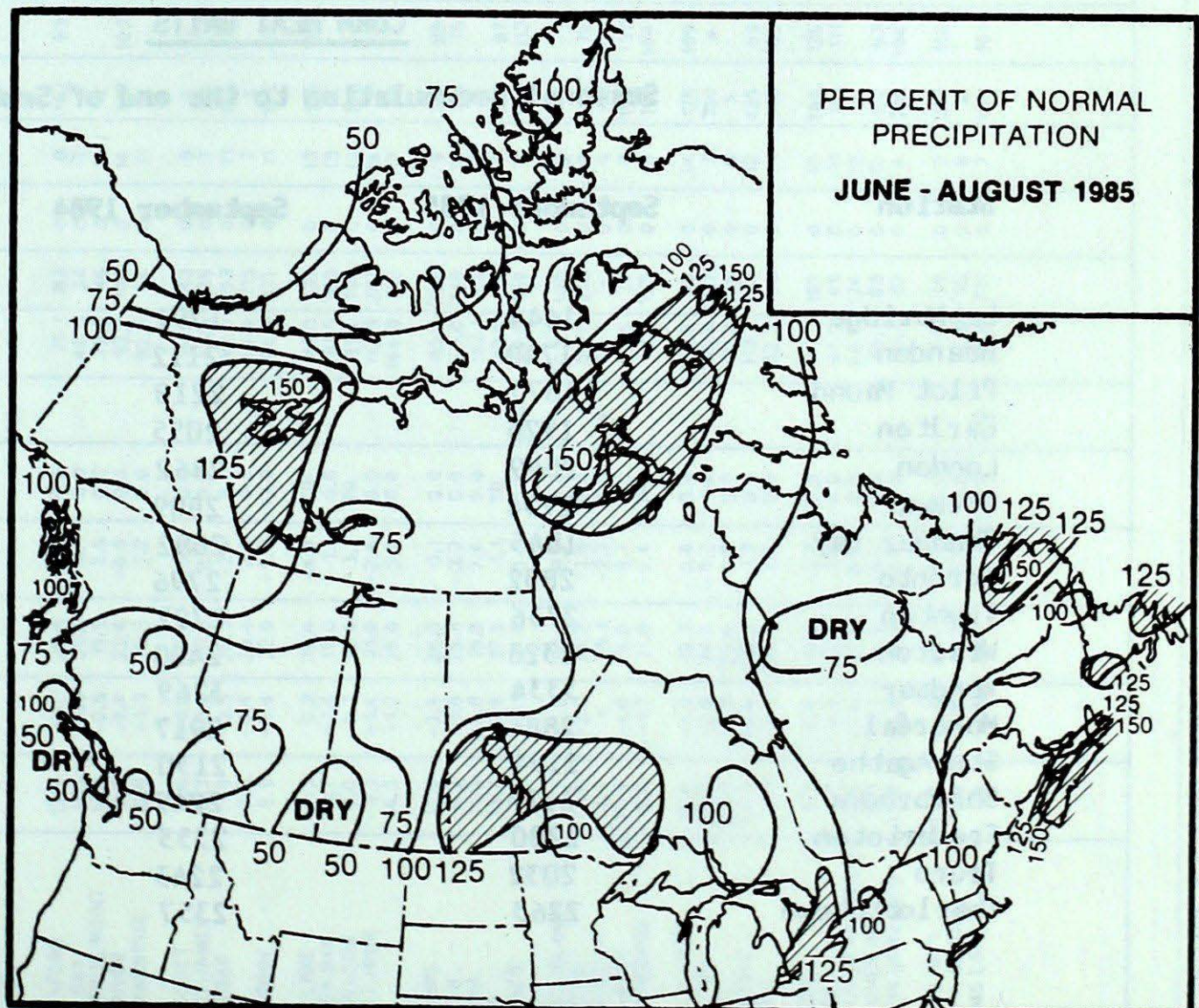
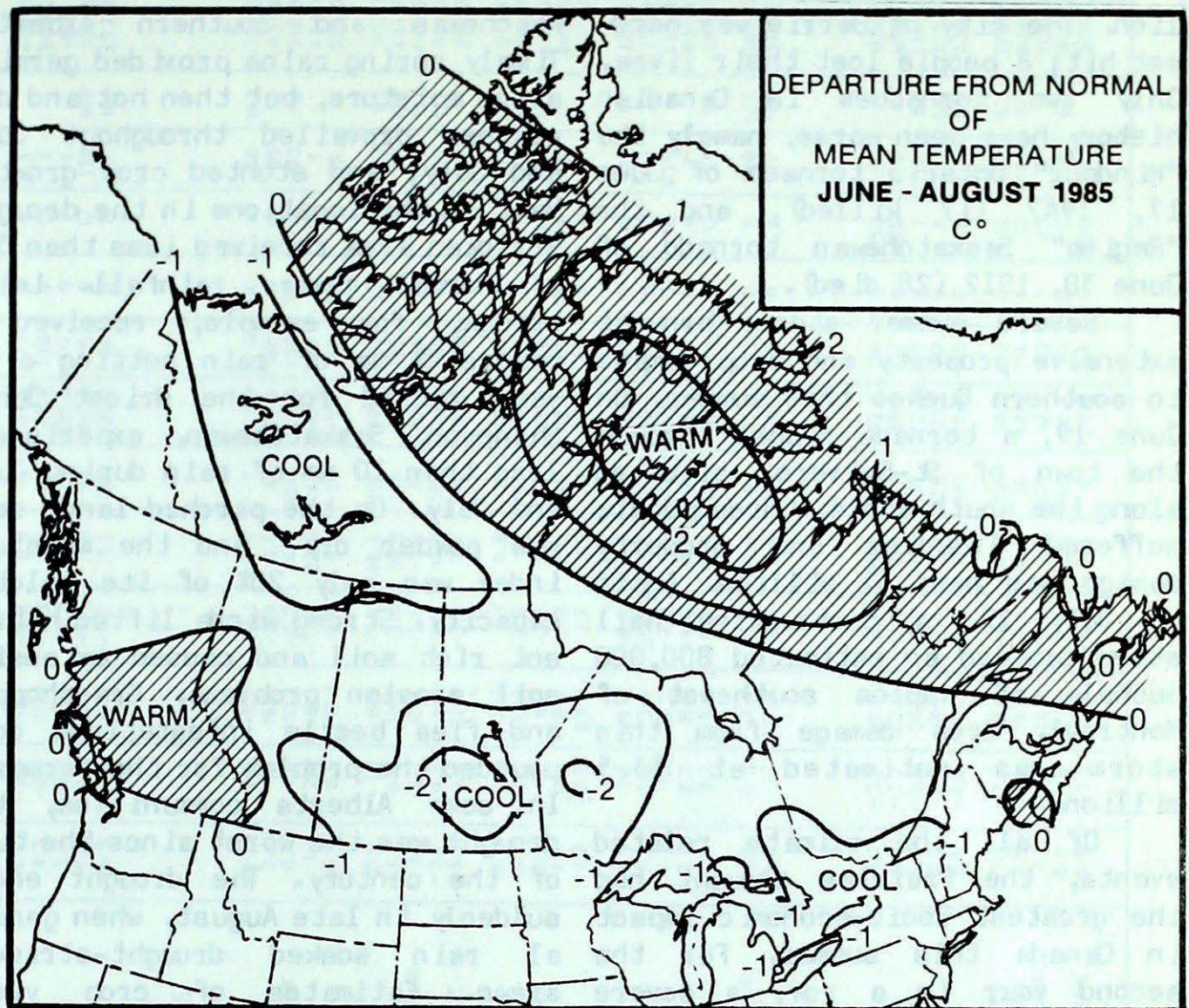
Ontario, was the wettest, reporting 412 mm or 183% of normal summer rainfall. Wetter than normal conditions occurred over southern Manitoba, Atlantic Canada and the northeastern Arctic.

Significant Climatic Impact

Summer's cool temperatures disappointed many Canadians this year. The Maritimes experienced one of the most dismal Junes in recent memory, due to persistent cloudy, cool and wet weather. Only British Columbia enjoyed a prolonged hot spell in July. Sunshine was also plentiful on the West Coast (400 hours of bright sunshine in July established a 71 year record at Victoria). However, the threat of forest fires discouraged tourists. Hot and dry weather helped ignite major forest fires in southeastern British Columbia. Less than 50% of normal precipitation during June and July combined with oppressively hot temperatures resulted in the worst forest fire season ever in British Columbia. The town of Canal Flats was evacuated for several days. Forest fires consumed over 240,000 hectares of prime timber. This compares to 19,500 hectares destroyed by fires last year. During the height of the season, more than 6,300 firefighters were battling the blazes. The cost of fighting the fires and timber losses exceeded \$300 million in British Columbia.

Early in the summer, major forest fires also broke out in Labrador. The fires destroyed large forest stands, and according to forestry officials, this was one of the worst fire seasons in Newfoundland's history. On a positive note, Ontario and Quebec enjoyed one of their quieter forest fire seasons in years. In Quebec, the number of hectares destroyed by fire was less than 10% of the 5-year mean (53,000 hectares).

Violent tornadoes ushered June across the lower Great Lakes and the St. Lawrence Valley. On May 31, the third worst Canadian tornado disaster struck southern Ontario. Twelve people were killed, hundreds were injured or made homeless. Property losses exceeded \$100 mil-



FEATURE

lion. The city of Barrie was hardest hit; 8 people lost their lives. Only two tornadoes in Canadian history have been worse, namely the "Windsor" Ontario tornado of June 17, 1947 (17 killed), and the "Regina" Saskatchewan tornado of June 30, 1912 (28 died).

Severe summer storms brought extensive property and crop damage to southern Quebec this summer. On June 19, a tornado ripped through the town of St-Sylvere, situated along the south shore, three people suffered injuries and property damage was near \$1 million. Again on July 29, a destructive hail storm damaged an estimated 800,000 bushels of apples southeast of Montreal. Crop damage from this storm was estimated at \$3.5 million.

Of all the climate related events, the Prairies drought had the greatest socio-economic impact in Canada this summer. For the second year in a row, a severe drought plagued southwestern Sas-

katchewan and southern Alberta. Timely spring rains provided germination moisture, but then hot and dry weather prevailed throughout June and July, and stunted crop growth. Most of the locations in the drought stricken area received less than 50% of normal summer rainfall. Lethbridge, for example, received a meagre 3 mm of rain setting a 78 year record for the driest June. Shanon, Saskatchewan, experienced less than 10 mm of rain during June and July. On the parched land, soil was powder dry and the moisture index was only 20% of its holding capacity. Strong winds lifted nutrient rich soil and caused extensive soil erosion problems. Grasshopper and flea beetle infestations compounded the problem for the farmers. In some Alberta communities, the drought was the worst since the turn of the century. The drought ended suddenly in late August, when general rain soaked drought-stricken areas. Estimates of crop yield ranged from a record high in Mani-

toba to significantly below average in Alberta. Because of the favourable growing season in Manitoba, the Prairie grain production was expected to be up by 5.5 million tonnes. Grain production in Alberta and Saskatchewan, however, was forecast to be down by 2% and 8% respectively. According to Statistics Canada, the 1985 drought is expected to inflict \$1 billion of direct losses to grain farmers.

Warmer than normal temperatures helped to disintegrate pack ice along the Labrador Coast in June and July about 1 week earlier than usual this year. Shipping lanes to the Arctic stations were open by late July and iceberg population in the Labrador Sea was also low this summer. Clearing of ice in Hudson Bay was about 10 days earlier than average. In the Beaufort Sea, onshore winds pushed pack ice perilously close to the drill sites, where ice conditions were described as the worst since 1978.

CORN HEAT UNITS

Seasonal Accumulation to the end of September

Station	September 1985	September 1984	Normal	Per cent of Normal
Lethbridge	1644	1791	1731	95*
Brandon	1740	2112	2175	80
Pilot Mound	1877	2218	2086	90
Earlton	1923	2055	1702	113
London	2869	2862	2840	101
Ottawa	2734	2809	2761	99
Thunder Bay	1845	2002	1633	113
Toronto	2832	2796	2804	101
Trenton	2736	2792	2942	93
Warton	2328	2400	2335	97
Windsor	3334	3269	3301	101
Montréal	2884	2917	2943	98
Ste Agathe	2154	2130	2092	103
Sherbrooke	2177	2249	2623	83
Fredericton	2200	2355	2245	98
Truro	2032	2243	1814	112
Charlottetown	2263	2357	2241	101

*Lethbridge accumulation to the end of August

SEPTEMBER 1985

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	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											Mean	Difference from Normal	Maximum	Minimum									
QUEBEC														NOVA SCOTIA													
BAGOTVILLE	12.6	1.5	30.5	0.0	0.0	76.4	76	0	8	X		171.3	GREENWOOD	14.4	0.6	28.8	2.4	0.0	16.0	19	MSG	3	X		136.7		
BAIE COMEAU	10.9	1.1	22.2	-0.5	0.0	92.3	89	0	10	162	*		HALIFAX INT'L	14.8	1.0	28.8	4.6	0.0	30.5	32	0	5	0		101.7		
BLANC SABLON	9.0	0.4	15.7	-0.8	0.0	77.0	87	0	12	104	*	259.1	SABLE ISLAND	14.4	-1.3	21.0	3.8	0.0	59.2	64	0	4	111	122	109.2		
CHIBOUGAMAU	10.0	0.8	23.6	-1.5	0.0	72.2	82	0	9	114	*	240.5	SHEARWATER	15.2	0.7	27.3	6.2	0.0	29.8	34	0	7	191	105	90.5		
GASPE	12.0	0.7	26.6	-0.3	0.0	76.6	108	0	10	177	*	183.4	SYDNEY	13.5	0.0	26.9	2.5	0.0	42.3	48	0	8	189	112	137.9		
INUKJUAK	7.3	2.3	15.8	0.6	0.2	59.4	100	0	10	65	73	320.6	TRURO	12.9	0.2	22.4	0.6	0.0	18.0	23	0	3	184	119	153.3		
KUUJJUAQ	7.9	2.5	19.0	-1.0	4.4	49.6	85	0	9	105	105	304.0	YARMOUTH	14.2	0.6	23.3	4.7	0.0	21.7	24	0	2	196	111	112.7		
KUUJJUARAPIK	8.8	1.7	21.6	0.3	2.6	98.4	112	0	13	74	69	267.2	PRINCE EDWARD ISLAND														
LA GRANDE RIVIERE	8.7	*	21.2	-0.7	TR	44.6	*	0	11	117	*	277.9	CHARLOTTETOWN	14.5	1.0	27.6	4.8	0.0	27.0	31	0	4	X		109.6		
MANIWAKI	13.3	1.2	28.4	0.3	0.0	60.0	62	0	8	169	111	145.0	SUMMERSIDE	15.5	1.4	28.9	6.0	0.0	23.6	29	0	5	191	112	85.1		
MATAGAMI	10.1	1.1	22.8	-2.1	0.6	78.5	81	0	9	132	105	235.8	NEWFOUNDLAND														
MONT JOLI	12.6	1.4	25.0	2.1	0.0	83.6	99	0	10	159	103	168.5	ARGENTIA	12.1	-0.4	18.6	4.4	0.0	79.4	95	0	10	X		176.7		
MONTREAL INT'L	16.1	1.3	28.3	3.2	0.0	71.1	80	0	8	212	125	77.2	BATTLE HARBOUR	9.2	0.7	24.6	-1.6	0.0	108.0	142	0	13	X				
MONTREAL M INT'L	14.6	*	29.0	1.6	0.0	73.3	*	0	6	237	*	114.5	BONAVISTA	11.2	-0.5	21.9	3.2	0.0	36.4	42	0	8	X		203.5		
NATASHQUAN	10.0	0.8	18.1	-2.1	0.0	91.6	97	0	8	169	108	242.1	BURGED	11.5	-0.1	20.0	2.8	0.0	82.8	69	11	159	106	191.7			
NITCHEQUON	8.7	2.4	18.4	-1.5	0.4	76.2	77	0	16	102	103	279.5	CARTWRIGHT	8.4	0.1	21.8	-1.3	TR	133.3	147	0	17	107	99	286.7		
QUEBEC	14.4	1.8	28.4	3.4	0.0	136.8	115	0	5	186	122	115.3	CHURCHILL FALLS	7.6	0.9	20.1	-3.4	TR	97.3	102	0	12	127	129	311.8		
ROBERVAL	13.1	1.9	31.3	0.4	0.0	84.1	92	0	9	181	*	164.8	COMFORT COVE	11.3	0.0	26.1	2.2	0.0	58.0	67	0	8	X		192.8		
SCHEFFERVILLE	7.4	2.2	19.3	-3.0	0.8	57.3	68	0	12	109	*	319.2	DANIEL'S HARBOUR	11.2	0.4	16.5	4.0	0.0	55.4	60	0	1	132	101	204.6		
SEPT-ILES	10.9	1.6	26.6	0.6	TR	101.8	90	0	8	165	104	215.4	DEER LAKE	11.2	0.7	23.4	-0.4	0.0	63.1	71	0	9	X		207.1		
SHERBROOKE	13.4	1.3	27.2	-1.0	0.0	75.3	73	0	7	185	*	141.8	GANDER INT'L	11.0	-0.4	24.6	2.2	0.0	75.6	93	0	11	119	81	210.5		
STE AGATHE DES MONTS	12.8	1.9	26.5	0.2	0.0	90.0	87	0	8	207	127	162.4	GOOSE	9.9	0.8	22.2	0.6	9.0	225	81.6	92	0	12	110	90	241.8	
ST-HUBERT	15.2	0.8	28.0	2.3	0.0	114.2	126	MSG	8	0		99.3	PORT-AUX-BASQUES	12.3	1.0	20.2	4.5	TR	82.8	71	0	12	187	*	170.7		
VAL D'OR	11.6	1.2	27.0	-1.0	0.0	63.0	58	0	7	137	97	195.6	ST ANTHONY	8.4	0.1	18.0	-0.4	0.0	137.0	122	0	10	X		257.9		
NEW BRUNSWICK														ST JOHN'S	11.0	-0.6	22.9	0.8	0.0	54.2	46	0	9	154	105	209.8	
CHARLO	12.9	1.8	27.3	1.1	0.0	77.3	77	0	9	MSG		159.5	ST LAWRENCE	11.7	0.2	22.5	3.1	0.0	105.7	86	0	10	X				
CHATHAM	13.8	0.8	32.4	1.2	0.0	45.3	53	0	6	191	106	133.9	STEPHENVILLE	12.3	0.4	20.8	2.8	0.0	113.9	108	0	12	130	97	171.9		
FREDERICTON	13.9	0.7	32.0	-0.5	0.0	52.0	59	0	6	206	*	131.9	WABUSH LAKE	8.4	2.2	21.2	-2.9	0.4	66.6	70	0	16	117	126	288.2		
MONCTON	14.2	1.2	31.2	0.5	0.0	14.8	19	0	4	194	117	122.8															
SAINT JOHN	14.0	1.3	28.1	2.3	0.0	33.5	29	0	6	209	125	121.8															

X = Not observed * = normal missing MSG = data missing

AGROCLIMATOLOGICAL STATIONS

SEPTEMBER 1985

STATION	Temperature C				Snowfall (cm)	Total Precipitation (mm)	% of Normal Precipitation	Snow on ground at end of month (cm)	No. of days with Precip 1.0 mm or more	Bright Sunshine (hours)	Degree days above 5 C	
	Mean	Difference from Normal	Maximum	Minimum							This month	Since jan. 1st
BRITISH COLUMBIA												
AGASSIZ	14.5	-1.0	25.5	4.5	0.0	110.0	104	0	13	182	284.3	1915.2
KAMLOOPS												
SIDNEY												
SUMMERLAND	12.4	-2.8	24.0	0.5	0.0	43.4	231	0	11	173	222.0	2058.5
ALBERTA												
BEAVERLODGE	8.0	-1.5	23.0	4.0	0.0	90.3	215	0	15	124	92.3	1169.8
ELLERSLIE	7.3	-2.8	19.0	-7.0	0.8	47.6	117	0	11	129	89.4	1199.1
FORT VERMILLION												
LACOMBE	7.0	-3.1	20.0	-8.5	2.0	74.4	182	0	13	134	277.9	1349.0
LETHBRIDGE												
VAUXHALL												
VEGREVILLE	6.9	-2.8	20.0	-8.5	1.6	45.3	108	0	12		83.2	1173.6
SASKATCHEWAN												
INDIAN HEAD	8.5	-3.0	27.5	-4.0	4.8	94.4	223	0	13		135.0	1464.0
MELFORT	7.9	-2.4	26.0	-8.0	7.4	24.7	61	0	7	136	116.5	1224.5
REGINA	8.0	-3.2	24.0	-9.0	0.4	69.8	198	0	11		88.8	1333.8
SASKATOON	8.6	-2.9	24.5	-6.0	0.3	40.0	124	0	7	142	137.0	1396.5
SCOTT	7.2	-3.2	22.0	-8.5	1.0	24.4	86	0	8	133	100.0	1273.5
SWIFT CURRENT SOUTH	7.9	-3.9	24.5	-4.5	0.9	42.8	146	0	8	106	126.0	1524.3
MANITOBA												
BRANDON	9.2	-2.6	22.5	-5.5	T	70.2	141	0	10	141	139.4	1492.3
GLENLEA	9.8	-2.4	24.0	-5.0	0	27.6	55	0	9	126	141.0	1592.1
MORDEN	10.3	-2.8	24.0	-2.0	T	23.4	45	0	5	152	169.0	1676.5
ONTARIO												
DELHI	16.7	0.8	30.0	2.0	0.0	59.2	74	0	9	206	368.8	2085.4
ELORA	15.5	1.3	28.0	2.0	0.0	58.2	88	0	6		314.0	1768.0

STATION	Temperature C				Snowfall (cm)	Total Precipitation (mm)	% of Normal Precipitation	Snow on ground at end of month (cm)	No. of days with Precip 1.0 mm or more	Bright Sunshine (hours)	Degree days above 5 C	
	Mean	Difference from Normal	Maximum	Minimum							This month	Since jan. 1st
QUEBEC												
GUELPH	15.9	0.9	28.5	1.0	0.0	67.4	106	0	9	210	328.4	1866.5
HARROW	18.4	0.9	30.5	4.0	0.0	54.6	83	0	8	207	396.5	1869.4
KAPUSKASING												
MERIVALE												
OTTAWA	16.3	1.7	30.6	2.6	0.0	70.5	88	0	8	194	338.8	1967.4
SMITHFIELD					0.0							
VINELAND STATION	18.4	1.4	29.1	6.4	0.0	28.4	38	0	6	205	401.5	2129.7
WOODSLEE												
NEW BRUNSWICK												
FREDERICTON												
NOVA SCOTIA												
LA POCATIERE	13.8	1.2	27.5	1.5	0.0	69.0	72	0	9	189	263.7	1543.6
L'ASSUMPTION	15.2	1.3	29.5	1.5	0.0	100.0	113	0	8	212	304.9	1801.4
LENNOXVILLE												
NORMANDIN	11.5	1.1	30.0	-3.0	0.0	76.8	80	0	9	151	188.4	1206.2
ST. AUGUSTIN												
STE CLOTHILDE	15.8	1.6	29.0	2.0	0.0	100.4	116	0	5	207	325.7	1886.9
PRINCE EDWARD ISLAND												
CHARLOTTETOWN												
NEWFOUNDLAND												
ST. JOHN'S WEST	10.8	-0.8	23.0	0.0	0.0	54.2	51	0	9	146	178.6	1089.0