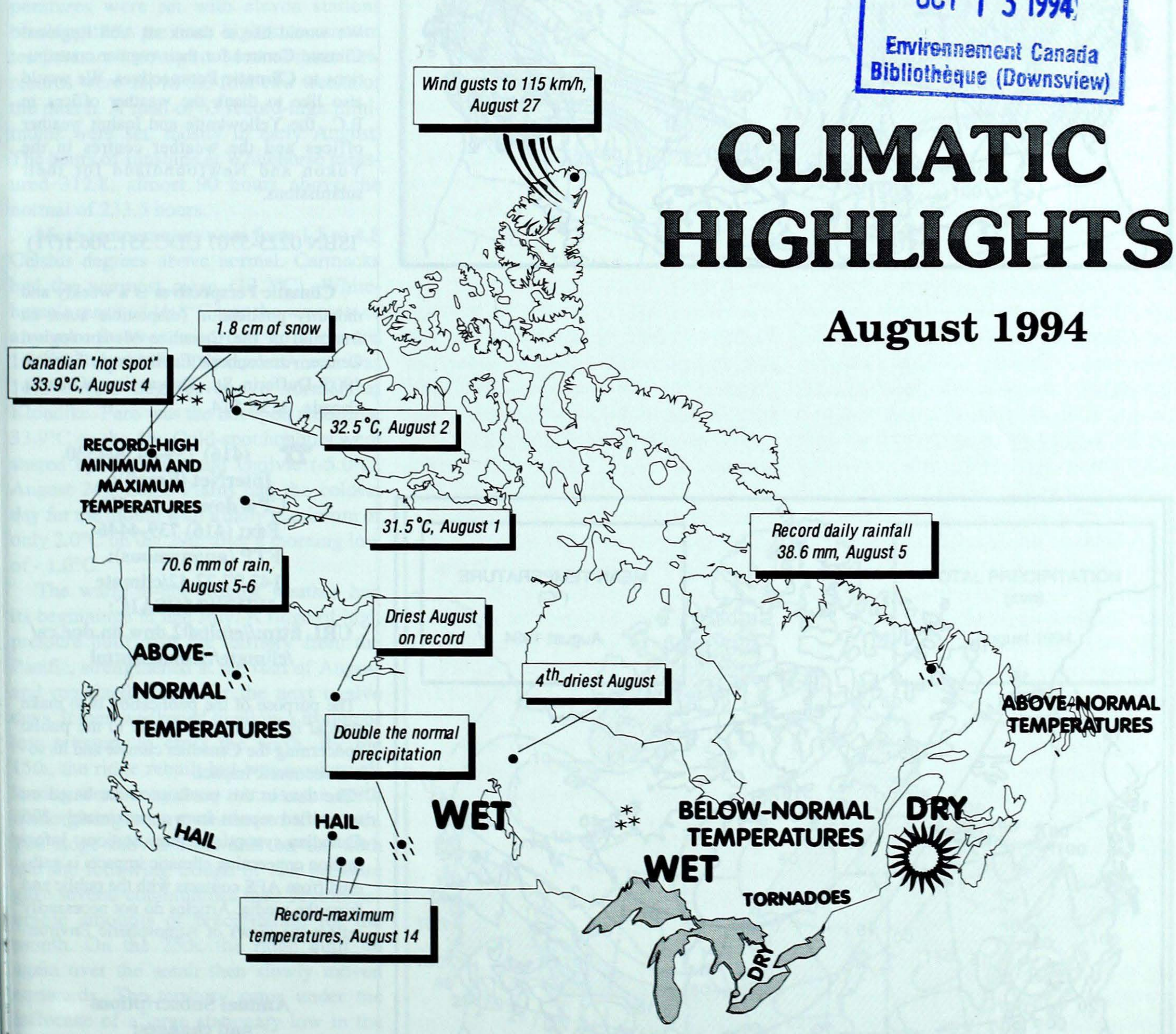
Climatic Perspectives

August 1994 — *Monthly review of Canadian climate and water* — vol. 16

CLIMATIC HIGHLIGHTS

August 1994



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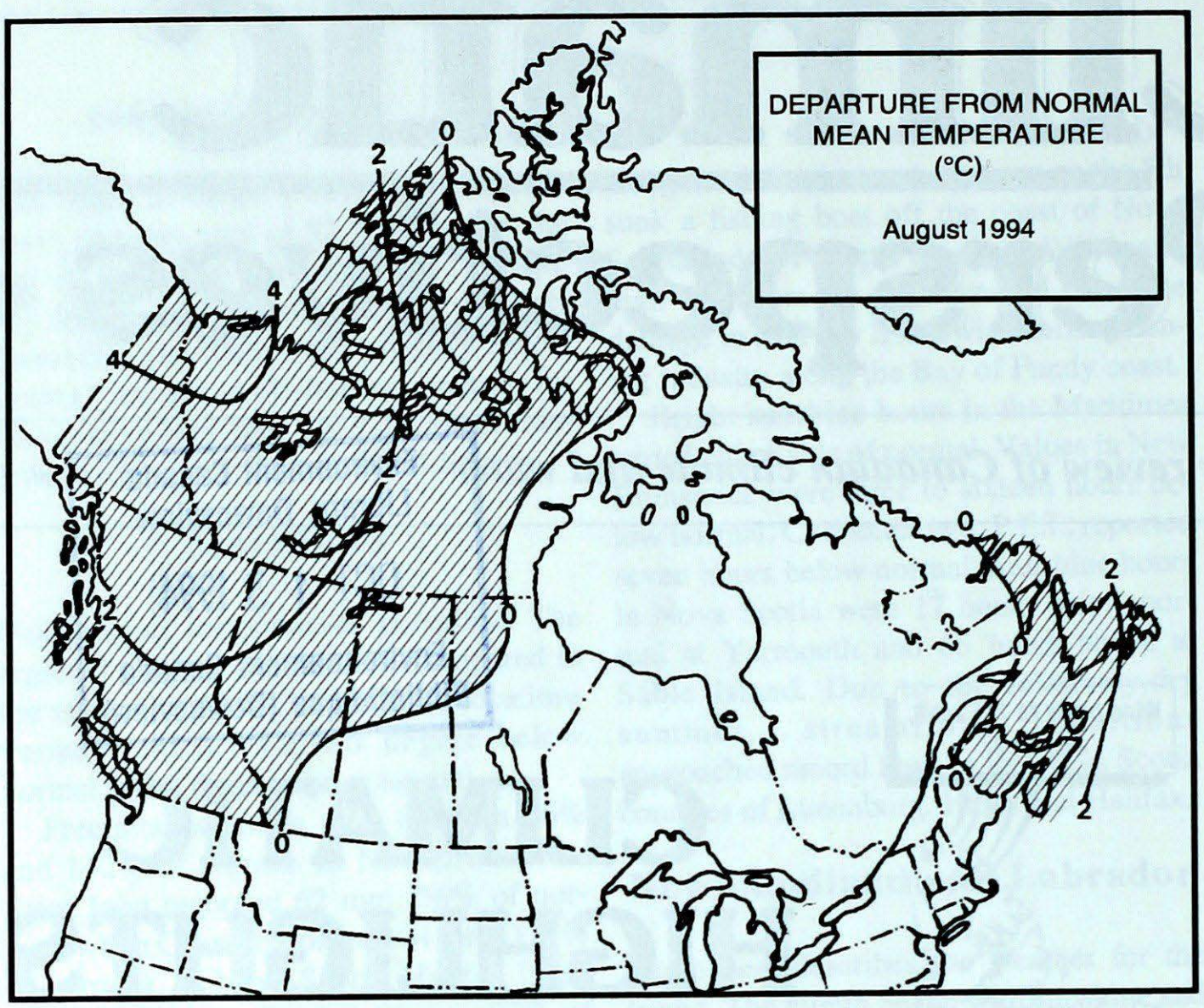

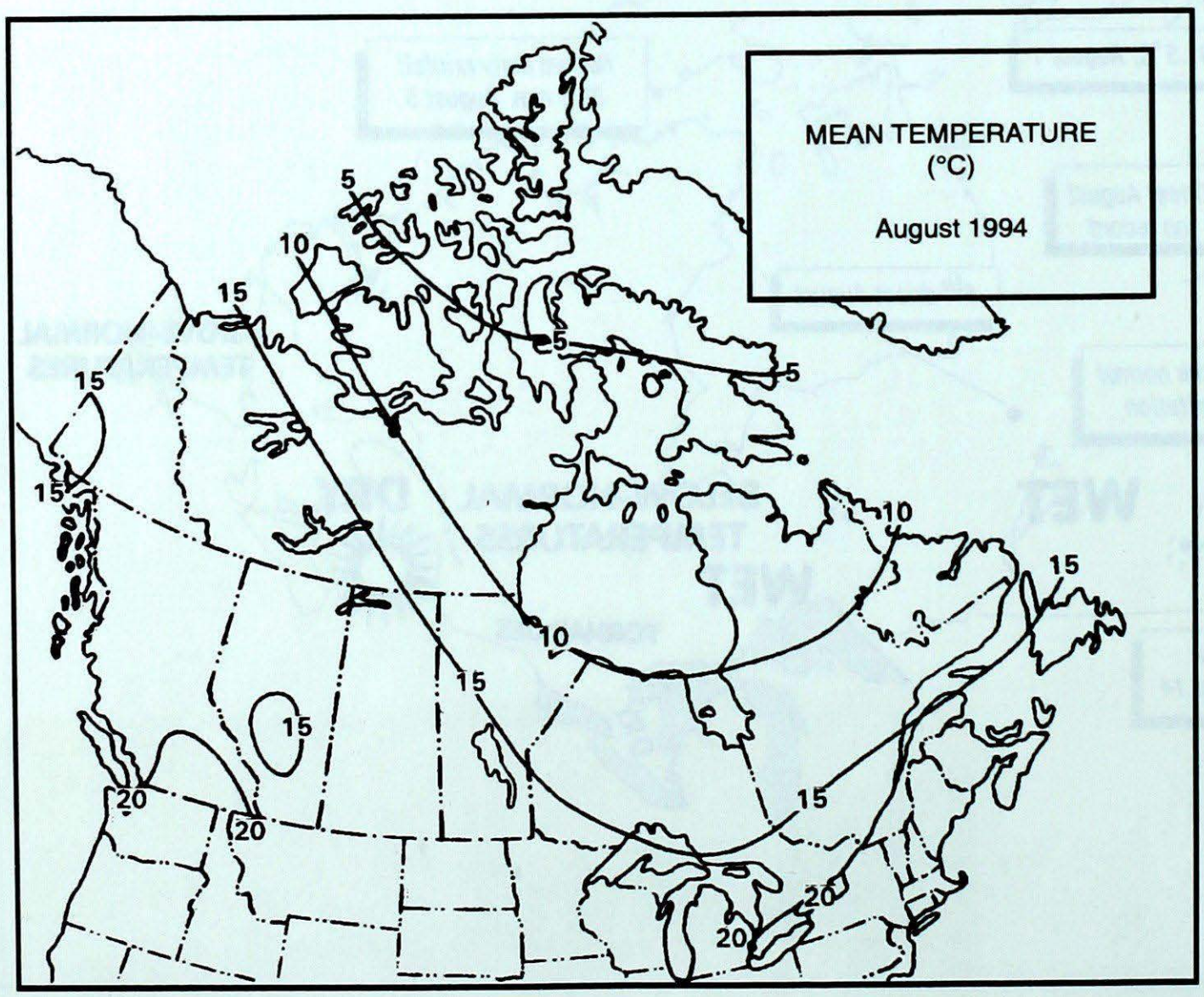

CLIMATIC PERSPECTIVES
VOLUME 16

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The purpose of the publication is to make topical information available to the public concerning the Canadian climate and its socio-economic impact.

The data in this publication are based on unverified reports from approximately 225 Canadian synoptic weather stations. Information concerning climatic impacts is gathered from AES contacts with the public and from the media. Articles do not necessarily reflect the views of Atmospheric Environment Service.

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Across the country

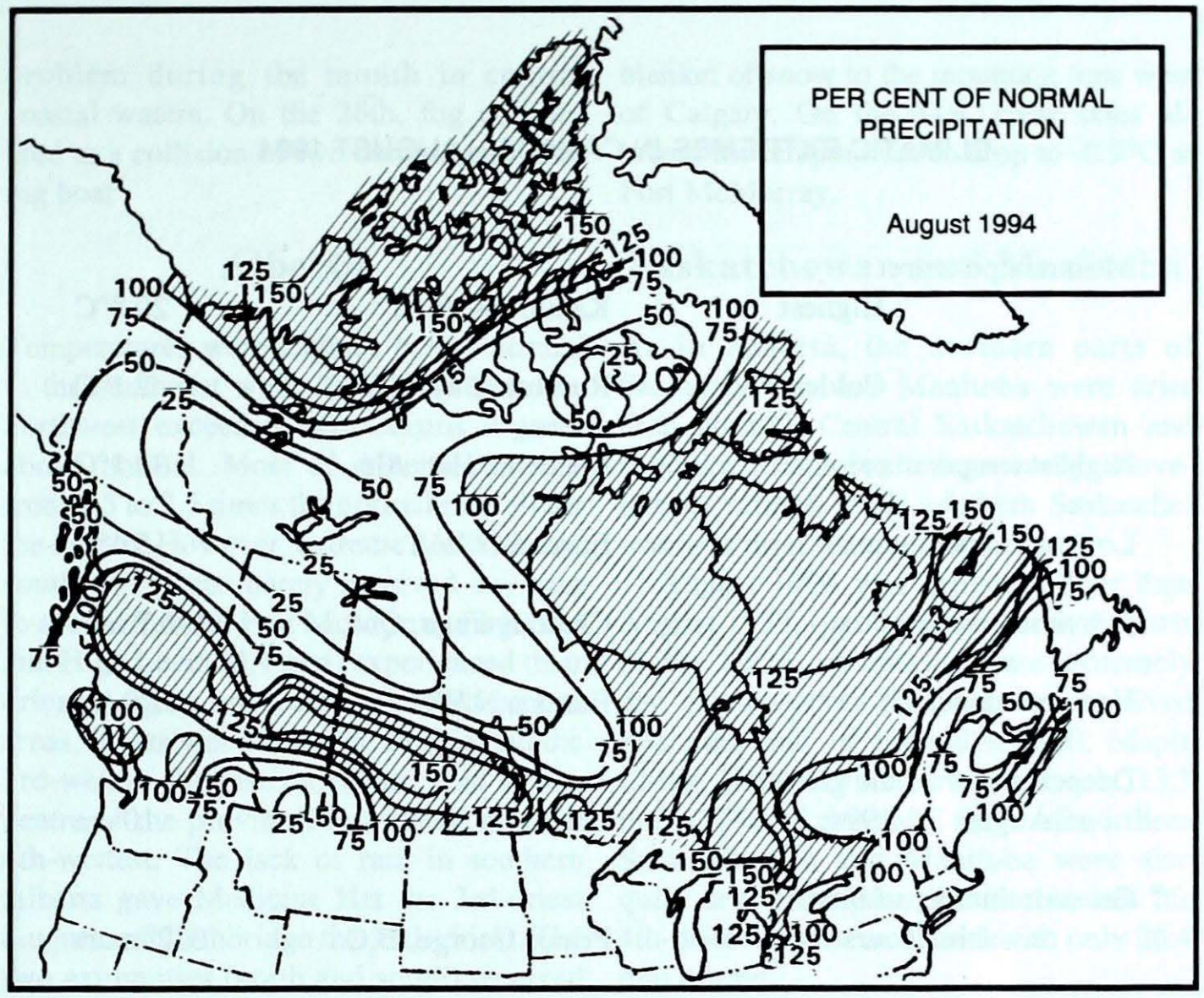
Yukon

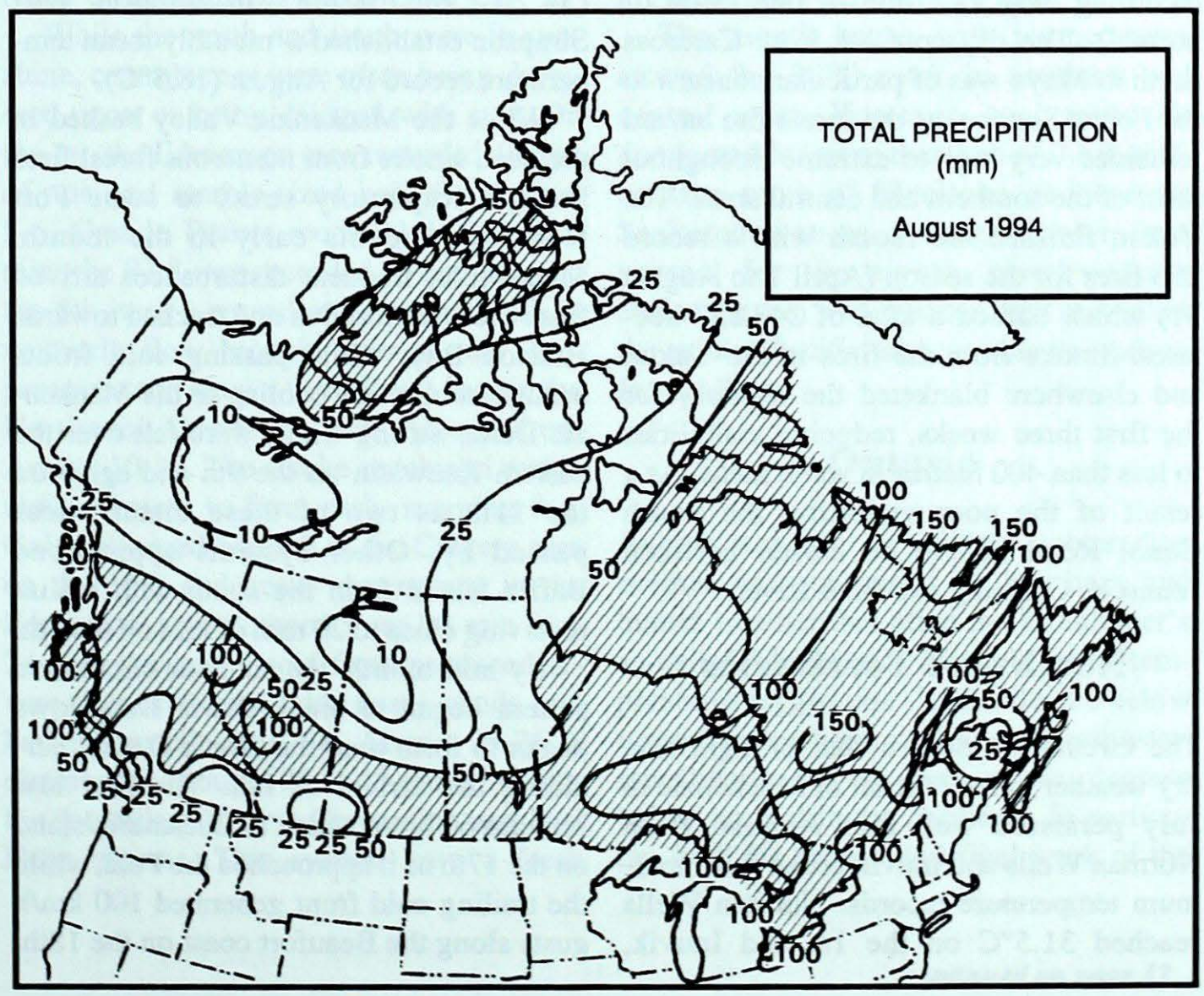
Temperatures of 30°C are rare in the Yukon in August but most communities reached 30°C at least once. Dawson recorded seven days over 30°C. Whitehorse reached 31.1°C on the 4th, its highest August temperature ever and the highest temperature recorded since May 30, 1983 (34.1°C). A total of 136 maximum temperatures were set with eleven stations breaking their previous highest maximum temperature for August. Most of these new records were set in the first two weeks of the month. A total of 63 record-high minimums were set, mostly in early August. The hours of sunshine at Whitehorse measured 312.8, almost 90 hours above the normal of 233.5 hours.

Mean temperatures were from 1.5 to 4.8 Celsius degrees above normal. Carmacks had the warmest mean (17.2°C). Whitehorse's mean of 16.8°C was the warmest of any month ever recorded (old record 16.7°C, July 1958). The coolest mean was 11.6°C (2.8 degrees above normal) at Klondike. Faro was the hot spot, recording 33.9°C on the 4th. Cold-spot honours were shared by Klondike and Ogilvie (-5.0°C, August 24). Eagle Plains had the coldest day for the month with a daily maximum of only 2.0°C on the 29th after a morning low of - 1.0°C.

The warm-to-hot August weather had its beginnings in late July. A ridge of high pressure built over the territory from the Pacific, strengthened at the start of August and remained strong for the next twelve days. It then weakened to allow a trough of low pressure to cross the north. By the 15th, the ridge rebuilt but was weaker, allowing weather systems to cross the north while giving sunny weather to the south. The ridge moved eastwards on the 20th and the following trough of low pressure gave several communities their first measurable amounts of precipitation for the month. On the 25th, the ridge built up again over the south then slowly moved eastwards. The territory came under the influence of a large stationary low in the Gulf of Alaska at the end of the month.

Most of the precipitation was in the form of rain but the low pressure systems tracking across the Yukon in the last half of





CLIMATIC EXTREMES IN CANADA - AUGUST 1994

Mean temperature:		
Highest	Kamloops, B.C.	20.8°C
Coldest	Resolute Bay, N.W.T.	2.1°C
Highest temperature:	Medicine Hat, Alta.	37.1°C
Lowest temperature:	Eureka, N.W.T.	-5.4°C
Heaviest precipitation:	Chibougamau, Que.	196.7 mm
Heaviest snowfall:	Eureka, N.W.T.	11.0 cm
Deepest snow on the ground on August 31, 1994:	Eureka, N.W.T.	10 cm
Greatest number of bright sunshine hours:	Prince George, B.C.	332 hours

the month gave some snow to the northern Yukon and a dusting of snow to higher elevations in the south. Old Crow recorded 1.8 cm of snow. Beaver Creek was the wettest location (73.4 mm, 127% of normal). Whitehorse was the driest location, recording only 11.7 mm of rain (30% of normal). The dry corridor from Carcross north to Mayo was of particular concern to the Forest Service, as the forest fire hazard remained very high to extreme throughout most of the southern and central areas. The Yukon finished the month with a record 253 fires for the season (April 1 to August 31) which burned a total of 243,857 hectares. Smoke from the fires in the Yukon and elsewhere blanketed the territory for the first three weeks, reducing visibilities to less than 400 metres in some areas. As a result of the poor visibility, the South Canol Road had to be closed between Johnsons Crossing and Ross River.

Northwest Territories

The circulation pattern that brought hot, dry weather to the District of Mackenzie in July persisted well into August. Both Norman Wells and Inuvik broke five maximum temperature records. Norman Wells reached 31.5°C on the 1st and Inuvik, 32.5°C (all-time maximum) on the 2nd. Fort Simpson laid claim to being the Canadian hot spot on the 3rd (33.1°C) and the 18th (32.7°C). It also had the distinction of recording the monthly high temperature for the Northwest Territories (34.2°C, on the 4th). In addition, Fort Simpson established a monthly mean temperature record for August (18.5°C).

While the Mackenzie Valley basked in the heat, smoke from numerous forest fires brought respiratory stress to some Fort Norman residents early in the month. Meanwhile, frequent disturbances arrived from the Beaufort Sea and tracked towards Hudson Bay, while passing cold fronts brought temporary cooling to the Mackenzie Delta. Strong winds were felt over the eastern Keewatin on the 9th and again on the 11th as two of these disturbances passed by. Other systems approached Baffin Island from the south with Iqaluit receiving close to 20 mm of rain on the 7th.

By mid-month, the summer circulation pattern began to break down. Deep lows began to form over the Arctic Ocean, heralding the arrival of fall. The first low brought 60 km/h winds to Ellesmere Island on the 17th as it approached the Pole, while the trailing cold front generated 100 km/h gusts along the Beaufort coast on the 18th. Strong winds spread to Cambridge Bay on the 19th and to Rankin Inlet on the 20th as the Arctic air surged southeastwards. Meanwhile, another low developed over Hudson Bay bringing 30 mm of rain to Iqaluit by the 21st as the low tracked eastwards. Fortunately, the weather co-operated for the Queen's visit. Her Majesty arrived in Yellowknife on the 20th and flew to Rankin Inlet and Iqaluit on the 22nd, just after the rain storm.

Another storm tracked eastwards from the Beaufort Sea on the 22nd. Winds approached 80 km/h from the Mackenzie Delta to Cambridge Bay. By this time, cooler, wet weather was becoming prevalent, with Baker Lake receiving 24 mm of rain on the 24th.

By the 25th, another major storm was developing over the Arctic Ocean. Alert reported wind gusts to 115 km/h on the 27th, while 80 km/h winds followed the cold front across the Arctic islands and northern mainland. Strong winds persisted over the northeast until the end of the month.

British Columbia

Most areas reported above-normal temperatures and sunshine. Many areas experienced severe weather and thunderstorms with heavy showers bringing overall precipitation to above-average values. Vancouver reported thunderstorms on five days, which tied the record set in 1963.

Temperature anomalies were greatest in the north where departures were 3 to 7 Celsius degrees above normal. The only location to report a below-average temperature was Port Alberni (0.3 degree) on Vancouver Island. Two monthly mean temperature records were broken: Amphitrite Point, on the west coast of Vancouver Island (16.0°C, old record 15.5°C, 1961) and Fort Nelson (18.1°C, old record 17.1, 1945). Cranbrook tied its record-high maximum for August (35.7°C, originally set in 1981).

Much of the reported precipitation for the month was associated with severe weather and thunderstorms. As a result, departures from normal were highly variable. In the far northwest and northeast, precipitation values were near 25% of normal, rising to 125-150% in more central areas. Farther south, values dropped quickly to 25 to 75% in the Prince George/Williams

Lake/Chilcotins area. In the southern interior, the Kamloops/Okanagan area reported 110 to 200% while the Kootenays reported near 40% rising to 70% in the Rockies and the Columbia region. The northern coast reported 20 to 70%. North and central sections of Vancouver Island recorded 110 to 160%, falling to 40 to 70% in the southern half, except Victoria, 96%. The Lower Mainland/Fraser valley reported 15 to 45%. There were no new monthly records for total precipitation.

Heavy showers reduced the forest fire rating from extreme to moderate in most areas, where for example, 20 mm of rain fell in the Kamloops area on August 8-9. By the end of the month, most forest fires were contained although hazards remained high in some areas. Hazards were highest in the Kootenays.

On August 3-4, a very active weather system crossed the province. There were 34,000 lightning strikes recorded, setting 600 new forest fires. On the 3rd, a probable tornado occurred in the Bowron River Valley, 85 km east-southeast of Prince George. The result was a 75-metre wide and one-kilometre-long path. Trees were damaged or uprooted. Just to the east of Prince George, heavy rain and hail 2.5 cm in diameter was reported. On the 4th, as the system continued across the province, Fort St. John measured 70.6 mm of rain August 5-6, exceeding the total monthly average of 57.5 mm. In the south, heavy rains in Yoho National Park caused a mud slide near Field that closed the Trans-Canada Highway. East of Vernon, hail was reported, 2.5 cm in diameter. In the Salmon Arm area, reports of "chicken egg" sized hail resulted in severe damage to cars, boats, airplanes and recreational vehicles. Damage estimates ranged from five to ten million dollars. A hail storm on the 9th severely damaged fruit crops in the central and northern Okanagan. Hail was reported up to 15 cm deep, with crop damage close to $7 million.

On the 18th, golf-ball-sized hail was reported at Port Alice causing damage to cars, gardens and greenhouses. Port Hardy reported 8.3 mm of rain in five minutes - this intensity of rain for five minutes has a statistical occurrence of less than once in a hundred years. Fog was a recurring problem during the month in central coastal waters. On the 26th, fog contributed to a collision of two commercial fishing boat

Alberta

Temperatures were slightly below normal in the southeast while temperatures in the northwest exceeded two Celsius degrees above normal. Most of Alberta received from 1.5 to 2.5 times the normal rainfall for the month. However, extreme northern and southern regions barely received any rain to speak of. Both Fort McMurray (7.4 mm) and High Level (0.4 mm) experienced their driest August on record. In west-central areas, it was wet as Grande Prairie had the 3rd-wettest August on record, and in the centre of the province, Edmonton saw the 4th-wettest. The lack of rain in southern Alberta gave Medicine Hat the 3rd-driest August and Lethbridge the 15th-driest. The two extremities (north and south) received more sunshine than normal. High Level measured 307.4 hours (41 hours above normal) and Medicine Hat, 316.4 hours (10 hours above normal). Dull weather prevailed in central areas with 20 to 40 hours less bright sunshine than normal. On the 14th, record-maximum temperatures were set at Lethbridge (36.9°C), Calgary (33.0°C) and Pincher Creek (33.8°C).

While the north and south were in sunshine, central areas were often being showered upon or being deluged with rain. On the 1st, the Edmonton area recorded 40 mm of rain and marble-sized hail. On August 5-6, Grande Prairie recorded 115 mm of rain: the 83.8 mm recorded in one hour on the 5th, was a record one-hour rainfall. A northerly flow brought near-normal temperatures and smoke from forest fires in the Northwest Territories into Alberta from August 10-13. The smoke combined with a moist airmass to form early morning fog. Golf-ball-sized hail fell in the Calgary area on the 16th and heavy downpours in the Edmonton area dumped over 90 mm in a 24-hour period. A cold front produced severe thunderstorms with gusty winds and hail in central areas. On August 25-26, a disturbance brought 25 to 45 mm of rain to the foothills, Calgary, Coronation and Red Deer regions. This system gave a fresh blanket of snow to the mountain tops west of Calgary. On the 31st, clear skies allowed the temperature to drop to -0.9°C at Fort McMurray.

Saskatchewan and Manitoba

As in Alberta, the northern parts of Saskatchewan and Manitoba were drier than normal. Central Saskatchewan and southern Manitoba had generally above-normal rainfall while southern Saskatchewan was drier than normal.

August 1994 was generally drier than August 1993, over southern areas. In parts of the south, conditions were extremely dry. Southwestern Saskatchewan received less than half of normal rainfall. Maple Creek, Saskatchewan, received only 13.3 mm (36% of normal). Both of northern Saskatchewan and Manitoba were also quite dry. Thompson, Manitoba, had the 4th-driest August on record with only 26.4 mm of rain.

Above-normal rainfall was measured in an area from southeastern Manitoba through Riding Mountain National Park and Duck Mountain Provincial Park then westwards across south-central Saskatchewan. Some areas between Regina and Saskatoon received more than double their normal amounts. Winnipeg and surrounding areas received over 120 mm.

The month began with temperatures around the 30°C mark in southern and central areas. However, cool arctic air dominated for more than half of the month, causing most of Manitoba and eastern Saskatchewan to average cooler than normal for the month. Northwestern Saskatchewan was warmer than normal as the milder Pacific air was able to push in from Alberta.

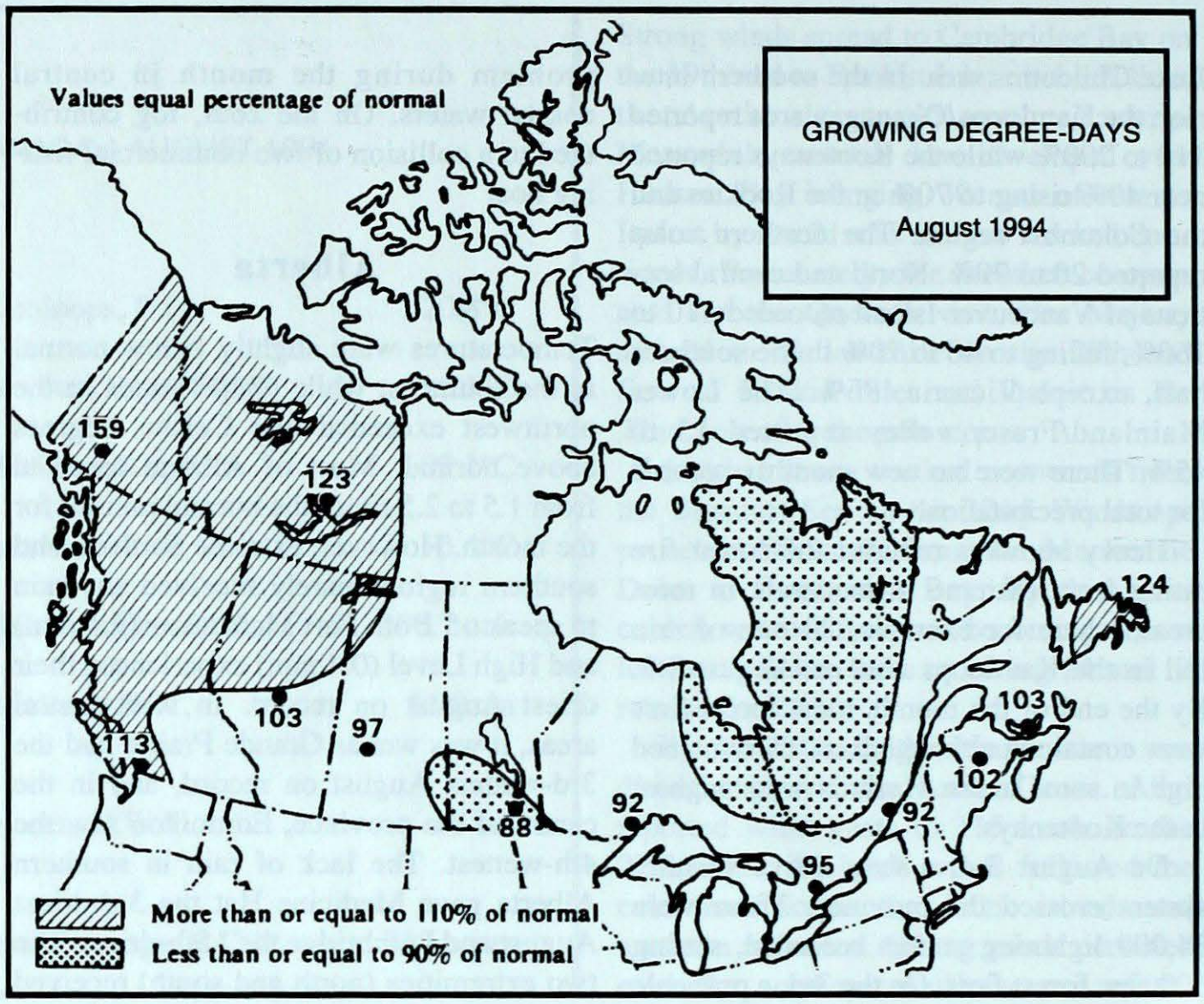
Ontario

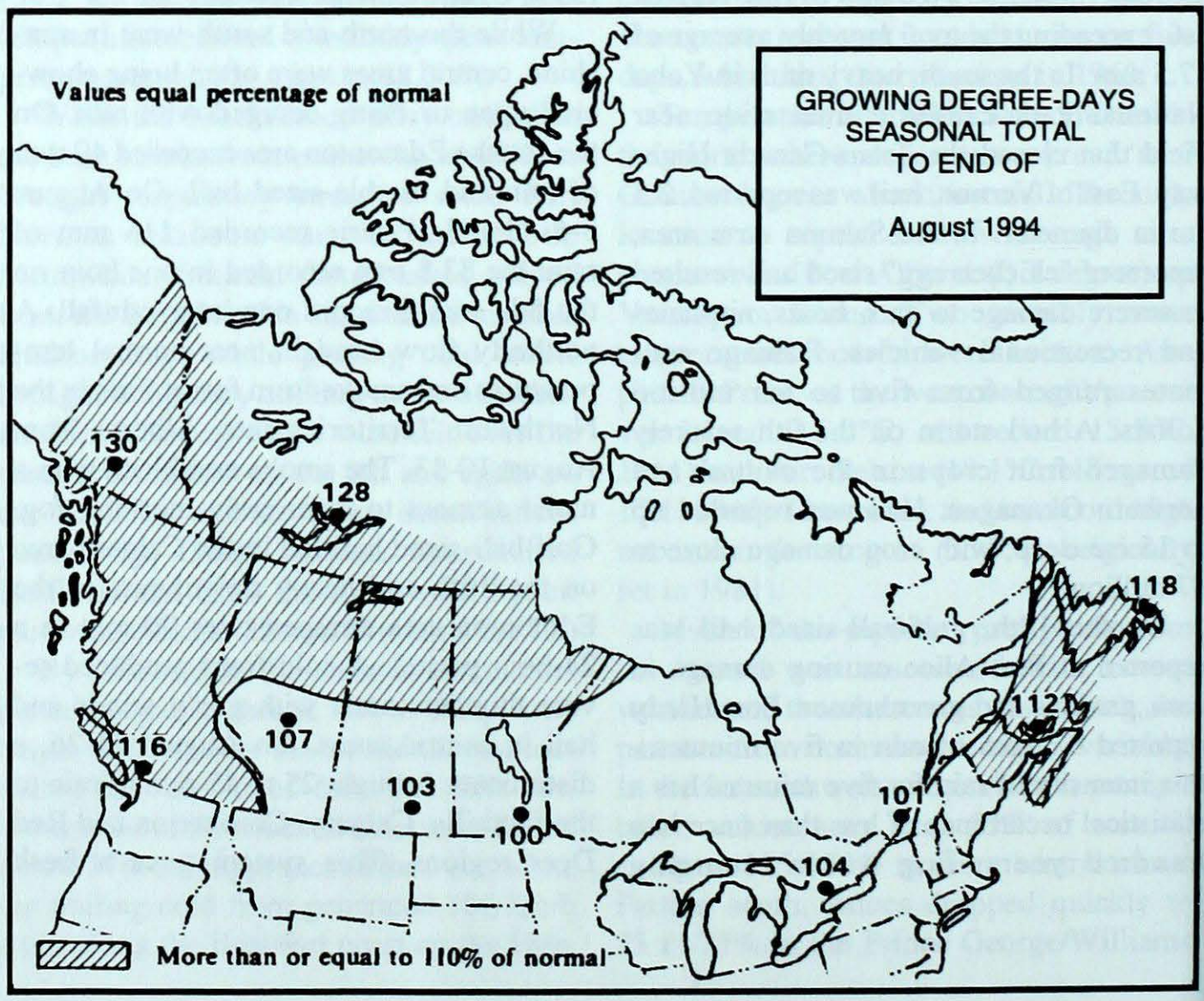
August was near or slightly cooler than normal, without any of the hot, hazy and humid weather that often marks summer's so-called "dog days." Monthly mean temperatures lagged one Celsius degree below normal in southern, central and northwestern Ontario, but as much as two degrees below normal in the northeast. In particular, both the second and final week of the

continued on page 12...

SEASONAL TOTAL OF GROWING DEGREE-DAYS TO END OF AUGUST

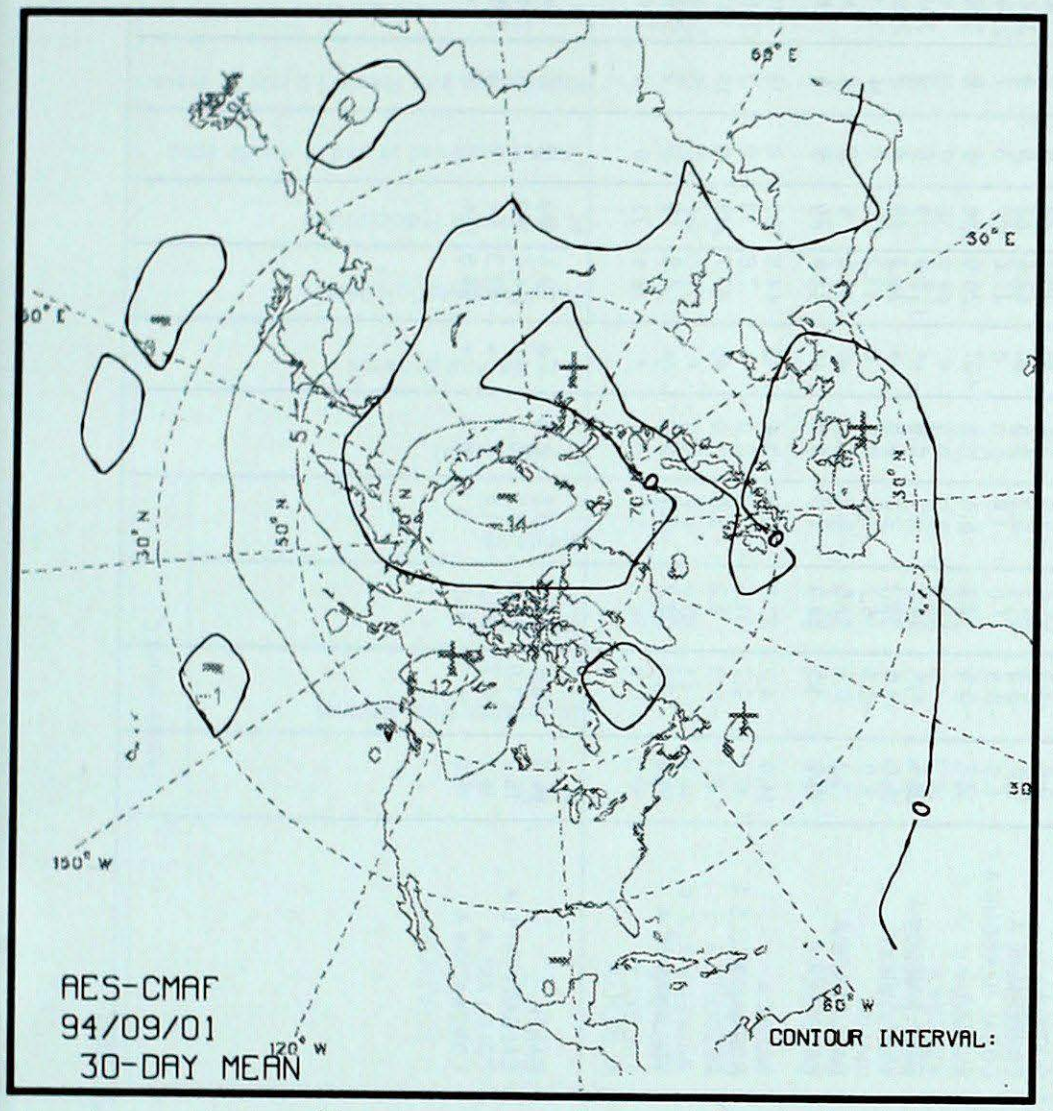
	1994	1993	NORMAL
BRITISH COLUMBIA			
Abbotsford	1667	1457	1361
Kamloops	1917	1586	1704
Penticton	1873	1612	1654
Prince George	1181	1150	971
Vancouver	1623	1435	1396
Victoria	1497	1333	1283
ALBERTA			
Calgary	1035	978	958
Edmonton Mun.	1324	1225	1232
Grande Prairie	1176	1100	1054
Lethbridge	1203	1181	1182
Medicine Hat	1527	1296	1453
Peace River	*	1095	*
SASKATCHEWAN			
Estevan	1331	1159	1384
Prince Albert	1144	1097	1137
Regina	1351	1183	1311
Saskatoon	1240	1119	1270
MANITOBA			
Brandon	1220	1118	1287
Churchill	545	343	442
Winnipeg	1370	1156	1374
ONTARIO			
London	1451	1591	1478
North Bay	1205	1402	1173
Ottawa	1560	1648	1523
Thunder Bay	1091	1040	1116
Toronto	1577	1609	1516
Trenton	1514	1573	1536
Windsor	1764	1865	1745
QUEBEC			
Baie Comeau	868	907	874
Montréal	1584	1635	1574
Québec	1326	1453	1263
Sept-Îles	789	764	782
Sherbrooke	1285	1344	1163
NEW BRUNSWICK			
Fredericton	1292	1299	1179
Moncton	1259	1141	1152
NOVA SCOTIA			
Yarmouth	1196	1114	1058
PRINCE EDWARD ISLAND			
Charlottetown	1159	1081	1033
NEWFOUNDLAND			
Gander	884	559	820
St. John's	894	543	756
Stephenville	862	925	820



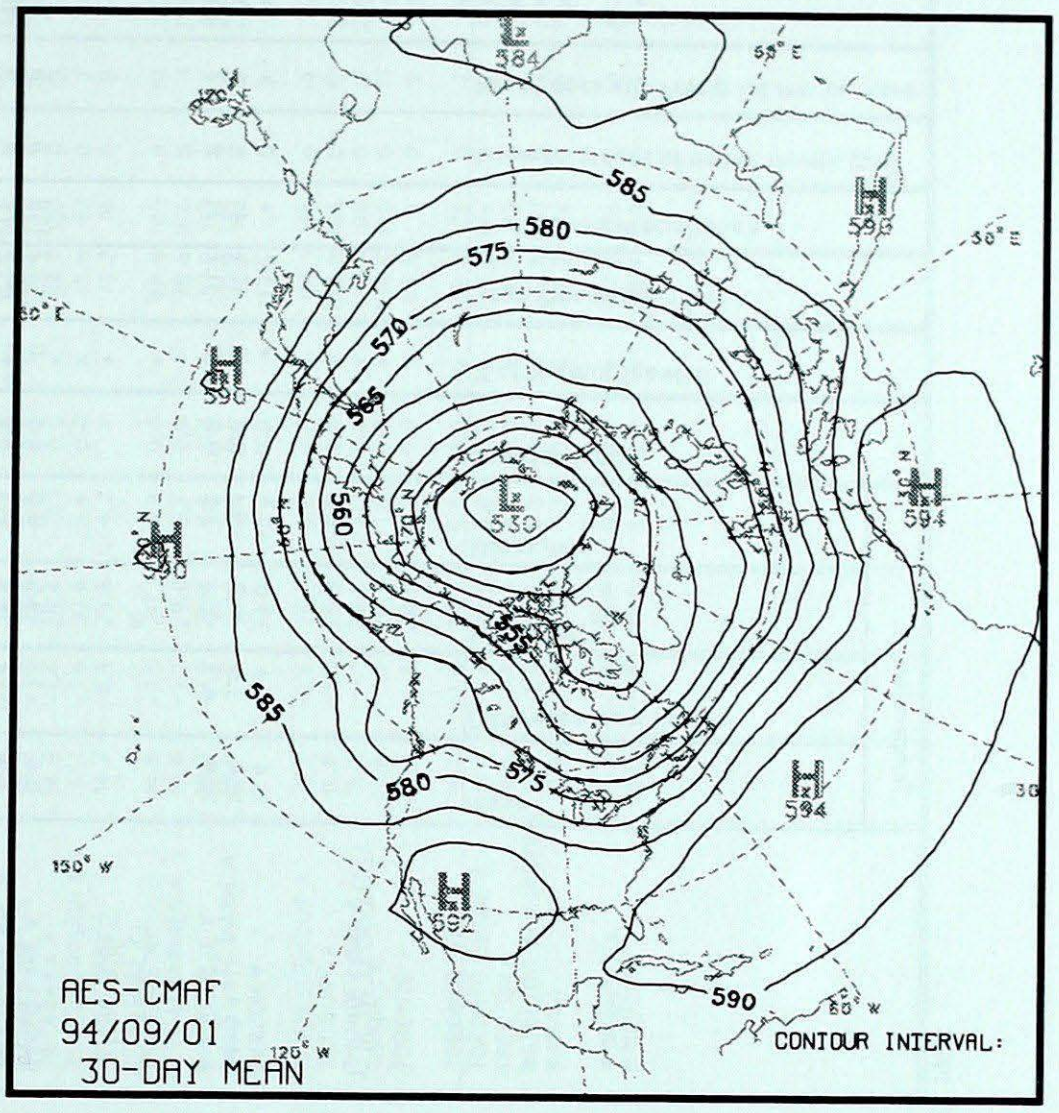


50-kPa ATMOSPHERIC CIRCULATION

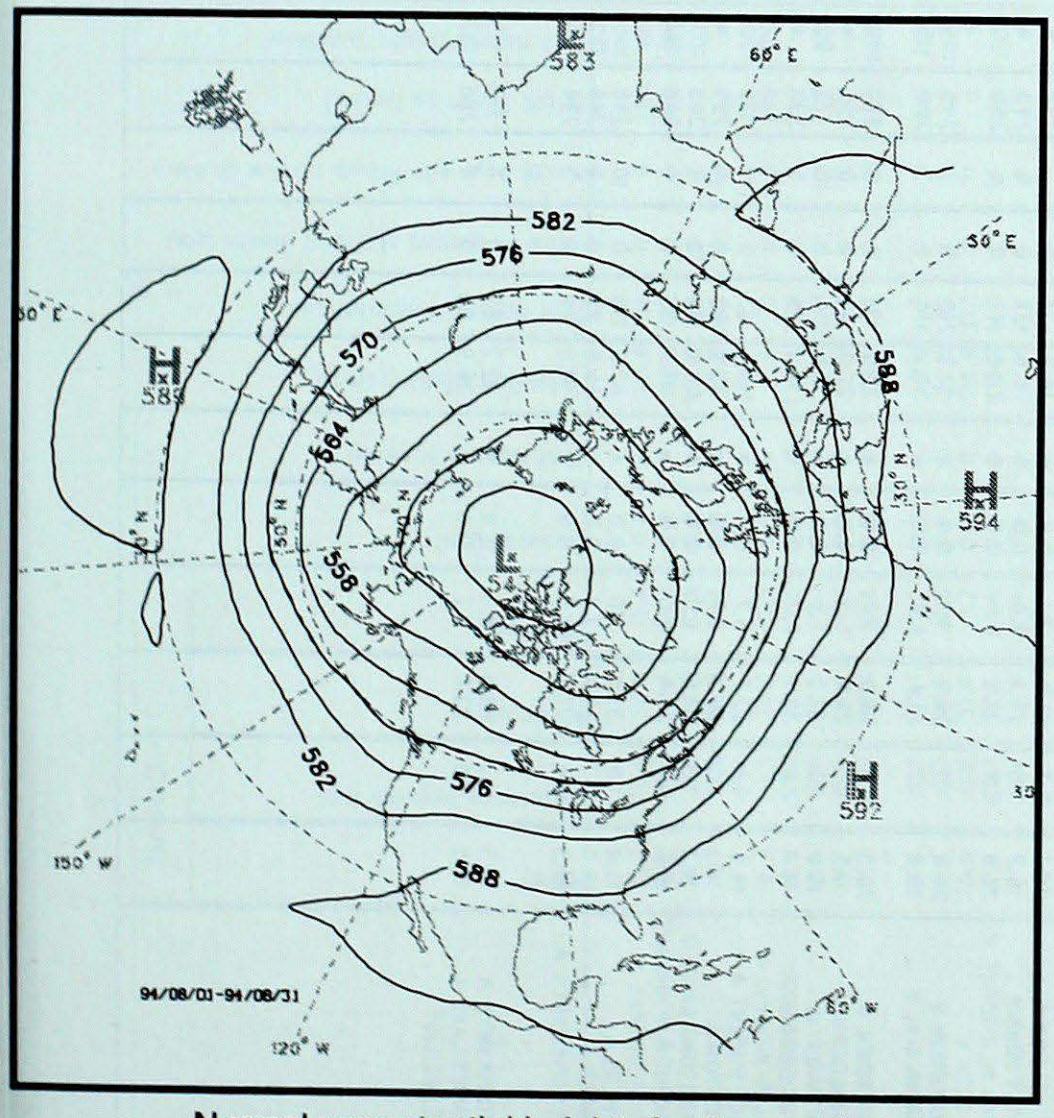
August 1994



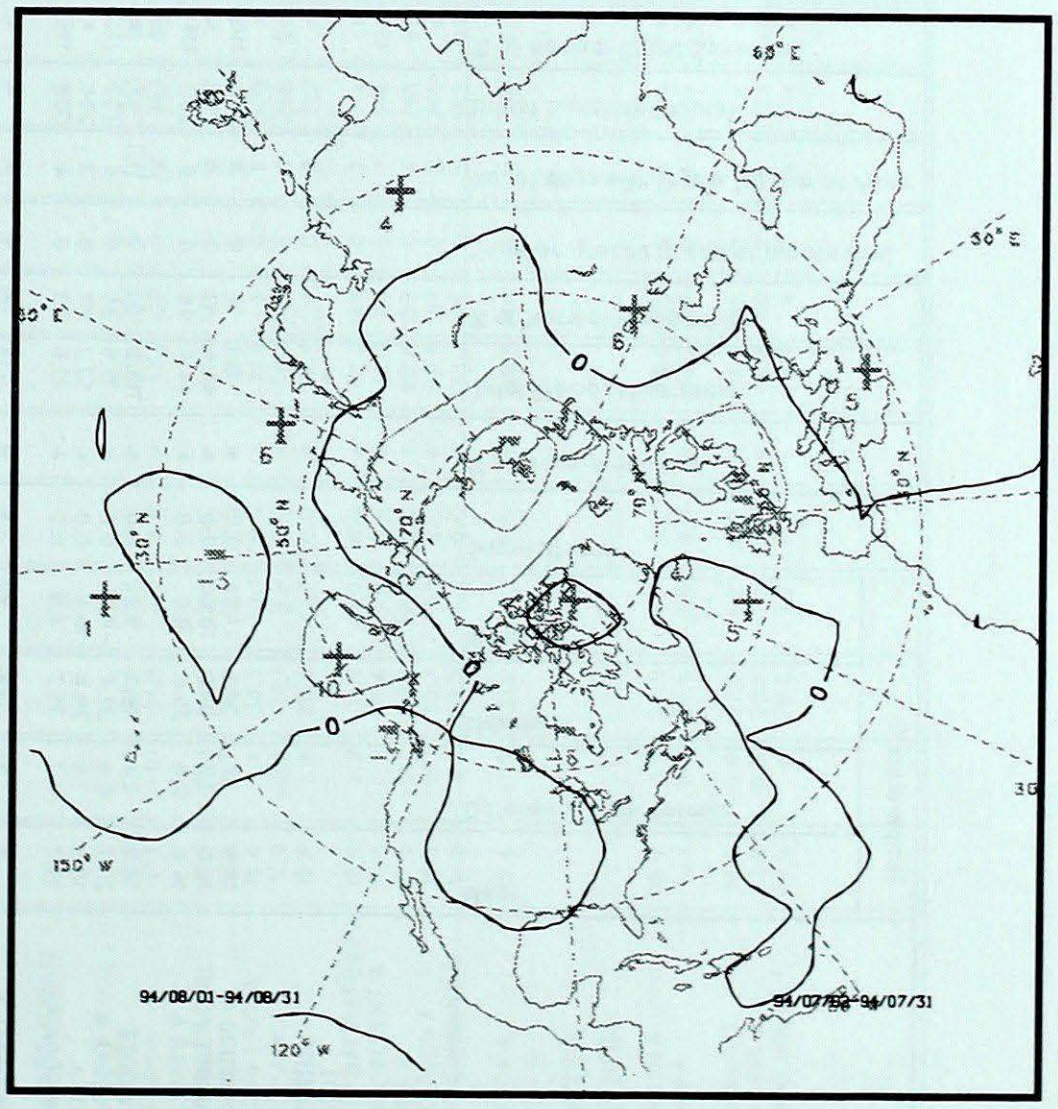
Mean geopotential heights
6 - decametre interval



Mean geopotential height anomaly
6 - decametre interval



Normal geopotential heights for the month
6 - decametre interval



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

AUGUST 1994

STATION	Temperature C Mean	Difference from Normal	Maximum	Minimum	Snowfall (cm)	% of Normal Snowfall	Total Precipitation (mm)	% of Normal Precipitation	Snow on ground at end of month (cm)	No. of days with Precip 1.0 mm or more	Bright Sunshine (hours)	% of Normal Bright Sunshine	Degree Days below 18 C
BRITISH COLUMBIA													
ABBOTSFORD A	18.6	1.7	31.1	7.3	0.0	*	8.1	14	0	3	290	118	12.8
AMPHITRITE POINT	16.0	1.7	21.2	10.8	0.0	*	46.6	41	0	7	*	*	63.6
BLUE RIVER A	16.6	0.6	35.6	0.0	0.0	*	74.4	96	0	9	258	114	*
CAPE SCOTT	14.9	1.4	18.7	9.9	0.0	*	113.8	101	0	11	*	*	65.5
CASTLEGAR A	20.7	0.9	37.4	8.0	0.0	*	15.6	34	0	4	303	110	4.5
COMOX A	18.5	1.5	28.6	10.9	0.0	*	52.2	118	0	3	294	*	9.7
CRANBROOK A	19.2	1.7	35.7	4.9	0.0	*	12.6	33	0	4	328	118	30.9
DEASE LAKE	*	*	*	*	*	*	*	*	*	*	*	*	*
FORT NELSON A	18.1	3.3	32.0	7.1	0.0	*	18.8	31	0	2	289	*	28.0
FORT ST JOHN A	16.2	1.8	29.1	3.8	0.0	0	76.6	127	0	4	293	*	67.4
HOPE A	19.3	0.9	31.5	8.5	0.0	*	23.6	47	0	4	266	120	11.5
KAMLOOPS A	20.8	1.0	35.9	9.1	0.0	*	57.7	210	0	7	295	105	3.6
KELOWNA A	19.4	1.3	35.4	4.4	0.0	*	36.7	114	0	7	298	115	13.9
PENTICTON A	20.3	0.8	34.6	7.7	0.0	*	32.0	121	0	6	279	103	7.2
PORT ALBERNI A	17.5	−0.1	29.9	5.3	0.0	*	27.0	62	0	5	255	*	28.9
PORT HARDY A	15.0	1.2	21.9	7.6	0.0	*	71.6	104	0	10	172	93	93.3
PRINCE GEORGE A	16.1	2.0	32.7	0.3	0.0	*	17.2	25	0	5	332	*	69.3
PRINCE RUPERT A	14.6	1.6	22.7	5.7	0.0	*	112.5	67	0	11	179	130	106.7
PRINCETON A	18.1	1.0	36.3	3.7	0.0	*	50.6	198	0	4	299	*	*
REVELSTOKE A	19.1	1.3	33.6	6.2	0.0	*	43.4	82	0	9	260	107	22.2
SANDSPIT A	15.6	0.9	24.4	8.0	0.0	*	17.2	35	0	4	248	141	77.9
SMITHERS A	15.9	1.8	31.0	1.0	0.0	*	67.6	155	0	10	246	105	79.2
TERRACE A	18.0	2.2	30.2	7.7	0.0	*	55.8	88	0	9	246	122	34.6
VANCOUVER INT'L A	18.5	1.4	27.7	10.6	0.0	*	18.0	44	0	5	294	115	9.8
VICTORIA INT'L A	17.3	1.2	28.0	8.3	0.0	*	22.2	83	0	4	310	113	28.8
WILLIAMS LAKE A	15.5	0.5	32.0	2.2	0.0	*	26.9	63	0	7	285	102	88.1

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
YUKON TERRITORY													
DAWSON A	15.4	*	33.0	−2.5	0.0	*	33.2	*	0	*	*	*	*
MAYO A	16.4	3.8	31.7	−2.1	0.0	0	17.0	41	*	*	*	*	*
WHITEHORSE A	16.8	4.3	31.1	3.0	0.0	0	11.7	31	0	2	313	136	69.6
NORTHWEST TERRITORIES													
BAKER LAKE A	8.6	−1.1	19.5	0.0	0.0	0	40.2	108	0	5	151	71	291.7
CAMBRIDGE BAY A	7.8	1.3	17.0	−3.5	5.0	833	20.6	74	4	6	146	83	317.9
CLYDE A	2.8	−1.2	10.4	−2.0	1.4	18	18.2	70	0	2	*	*	470.5
COPPERMINE A	11.0	2.3	21.7	0.2	0.0	0	62.6	162	0	9	207	108	218.6
CORAL HARBOUR A	6.9	−0.5	17.0	−1.8	0.0	0	47.4	107	0	7	239	106	344.3
EUREKA	2.7	−0.6	12.7	−5.4	11.0	407	24.8	214	10	8	138	58	475.1
FORT SIMPSON A	18.5	4.4	34.2	5.5	0.0	*	8.8	19	0	2	301	122	36.6
FORT SMITH A	15.6	1.4	30.1	2.5	0.0	*	20.2	48	0	3	255	97	86.0
IQALUIT	6.0	−0.9	16.2	−1.6	0.0	0	77.2	131	0	14	143	89	372.6
HALL BEACH A	5.1	0.5	12.5	−0.3	0.0	0	1.6	4	0	0	*	*	400.1
HAY RIVER A	15.9	1.5	32.5	3.0	0.0	*	13.4	36	0	4	*	*	80.3
INUVIK A	14.9	4.2	32.5	0.2	0.4	12	44.5	102	0	12	211	98	132.0
NORMAN WELLS A	17.1	3.7	31.5	3.1	0.0	*	7.8	13	0	3	245	104	76.8
RESOLUTE A	2.1	−0.3	9.2	−3.8	3.0	45	67.7	218	0	14	131	83	494.1
YELLOWKNIFE A	16.2	2.1	27.7	3.7	0.0	*	4.0	9	0	2	317	110	70.5
ALBERTA													
BANFF	14.3	0.5	31.0	0.5	0.0	0	79.4	162	0	10	*	*	125.1
CALGARY INT'L A	16.2	1.0	33.0	3.5	0.0	*	84.4	152	0	9	265	94	84.9
COLD LAKE A	16.2	0.7	30.2	1.5	0.0	*	33.3	44	0	5	275	108	76.9
CORONATION A	15.0	−1.1	31.9	1.1	0.0	*	84.8	164	0	8	*	*	*

AUGUST 1994

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	15.7	0.9	30.5	3.4	0.0	*	106.6	136	0	6	250	88	85.5
EDMONTON MUNICIPAL	16.7	0.5	29.6	6.2	0.0	*	142.0	182	0	5	244	88	64.9
EDMONTON NAMAO A	16.2	0.6	29.8	2.5	0.0	*	138.0	188	0	7	*	*	75.3
EDSON A	14.2	0.8	29.3	1.4	0.0	0	65.0	75	0	10	*	*	*
FORT MCMURRAY A	16.3	1.5	30.2	-0.9	0.0	*	7.4	10	0	3	299	120	70.9
GRANDE PRAIRIE A	16.0	1.2	28.9	2.6	0.0	0	138.6	229	0	7	292	*	77.4
HIGH LEVEL A	16.4	2.6	28.5	2.1	0.0	*	0.4	1	0	0	307	121	60.1
JASPER	14.7	0.5	31.4	0.1	0.0	0	71.2	147	0	11	241	*	113.3
LETHBRIDGE A	17.3	-0.3	36.9	0.4	0.0	0	10.4	22	0	2	290	97	59.5
MEDICINE HAT A	19.6	0.7	37.1	2.2	0.0	*	2.6	7	0	1	316	107	26.8
PEACE RIVER A	16.4	2.2	30.4	3.3	0.0	0	37.8	75	0	3	*	*	66.2
RED DEER A	15.5	0.6	31.4	3.2	0.0	0	116.9	177	0	11	*	*	96.2
ROCKY MTN HOUSE A	14.4	0.1	27.5	0.4	0.0	0	110.2	143	0	14	*	*	*
SLAVE LAKE A	*	*	*	*	*	*	*	*	*	*	*	*	*
SUFFIELD A	19.4	*	37.1	2.4	0.0	*	3.6	*	0	1	277	*	29.6
WHITECOURT A	15.1	1.2	28.7	1.0	0.0	*	82.0	93	0	10	*	*	104.4
SASKATCHEWAN													
BROADVIEW	15.0	-1.3	31.6	3.8	0.0	*	100.1	171	0	12	251	85	81.3
ESTEVAN A	17.5	-1.1	34.5	2.3	0.0	*	57.2	108	0	10	262	84	56.3
KINDERSLEY	17.5	0.1	34.3	2.8	0.0	*	44.6	120	0	8	272	*	60.8
LA RONGE A	15.5	0.7	28.9	0.9	0.0	*	9.2	14	0	3	*	*	98.1
MEADOW LAKE A	15.4	*	30.5	-1.1	0.0	*	21.6	*	0	6	309	*	94.7
MOOSE JAW A	17.9	-0.7	34.1	3.5	0.0	*	58.7	146	0	6	268	90	49.8
NIPAWIN A	15.4	*	30.5	3.7	0.0	*	38.4	*	0	8	262	*	94.3
NORTH BATTLEFORD A	16.0	0.3	31.9	1.0	0.0	*	67.6	148	0	7	*	*	79.5
PRINCE ALBERT A	15.6	-0.3	30.4	3.0	0.0	*	46.2	89	0	7	274	102	90.2
REGINA A	17.6	-0.2	34.1	2.4	0.0	*	68.4	153	0	4	265	90	53.1
SASKATOON A	16.5	-0.7	30.7	3.1	0.0	*	63.6	167	0	8	240	*	70.3
SWIFT CURRENT A	17.6	0.1	33.0	-0.2	0.0	*	23.2	54	0	5	295	99	56.4
YORKTON A	15.4	-1.5	31.2	2.2	0.0	*	89.0	146	0	8	278	98	92.7
MANITOBA													
BRANDON A	16.0	-1.5	30.8	3.7	0.0	*	73.0	113	0	10	269	*	80.2
GILLAM A	13.1	0.0	25.6	2.8	0.0	0	52.2	64	0	4	*	*	152.3
ISLAND LAKE	14.9	-0.6	27.8	6.2	0.0	*	34.8	45	0	6	*	*	106.6
LYNN LAKE A	13.8	0.3	25.5	1.5	0.0	*	46.8	60	0	5	223	96	135.1
NORWAY HOUSE A	14.9	*	28.8	2.2	0.0	*	33.4	*	0	9	*	*	109.0
THE PAS A	15.7	-0.4	28.8	2.0	0.0	*	18.4	32	0	5	274	106	92.1
THOMPSON A	13.3	0.1	28.4	-2.3	0.0	0	26.4	30	0	5	246	108	149.7
WINNIPEG INT'L A	16.6	-1.7	30.6	4.4	0.0	*	123.0	164	0	12	263	93	70.8
ONTARIO													
EARLTON A	15.0	-1.2	26.9	4.5	0.0	*	77.6	93	0	9	*	*	96.8
GERALDTON A	13.5	*	25.8	2.0	0.0	*	130.8	*	0	14	*	*	143.4
HAMILTON A	18.5	-1.5	27.7	7.4	0.0	*	67.6	92	0	7	*	*	29.0
KAPUSKASING A	13.6	-1.7	28.5	0.5	0.0	*	138.4	150	0	11	*	*	142.4
KENORA A	16.3	-1.3	26.7	6.6	0.0	*	66.6	78	0	11	*	*	72.1
KINGSTON A	18.2	-1.4	26.9	8.3	0.0	*	131.8	180	0	8	231	91	27.7
LONDON A	18.1	-1.4	27.5	7.1	0.0	*	70.2	87	0	8	186	76	29.7
MUSKOKA A	16.6	-0.8	26.7	3.9	0.0	*	101.5	114	0	11	*	*	72.1
NORTH BAY A	15.6	-1.4	24.0	4.3	0.0	*	141.8	144	0	11	240	102	80.9
OTTAWA INT'L A	18.2	-1.0	28.9	8.5	0.0	*	120.4	136	0	10	240	99	33.6
PETAWAWA A	16.3	-1.4	28.4	3.1	0.0	*	84.7	107	0	10	*	*	74.1
PETERBOROUGH A	17.1	-1.6	27.6	3.4	0.0	*	45.8	62	0	7	*	*	57.2
PICKLE LAKE	14.2	-0.9	26.6	4.2	*	*	77.2	74	0	8	*	*	123.9
RED LAKE A	14.8	-1.5	27.1	4.0	0.0	*	88.8	100	0	10	232	*	107.7
ST CATHARINES A	19.6	-1.3	29.0	9.7	0.0	*	78.6	104	0	11	238	*	13.1
SARNIA A	18.2	-2.3	28.6	6.9	0.0	*	57.2	113	0	6	218	87	30.0
SAULT STE MARIE A	15.9	-1.0	28.1	3.2	0.0	*	117.3	142	0	12	248	100	76.4
SIOUX LOOKOUT A	15.2	-1.4	26.2	4.4	0.0	*	155.1	176	0	9	*	*	93.4
SUDBURY A	15.8	-1.5	25.8	4.6	0.0	*	138.0	166	0	12	223	89	73.1
THUNDER BAY A	15.3	-1.1	28.8	3.2	0.0	*	75.1	90	0	10	228	89	95.1
TIMMINS A	13.8	-1.7	28.3	1.8	0.0	*	134.6	150	0	11	*	*	134.9
TORONTO	20.3	*	28.8	11.2	0.0	*	63.8	*	0	8	*	*	7.5
TORONTO INT'L A	18.7	-1.0	29.2	8.4	0.0	*	59.8	78	0	7	*	*	24.5
TORONTO ISLAND A	19.1	*	29.5	9.6	0.0	*	47.8	*	0	7	*	*	16.0
TRENTON A	18.0	-1.7	27.3	6.5	0.0	*	81.2	113	0	7	*	*	35.0
WATERLOO WELLINGTON	17.6	-1.3	27.4	6.3	0.0	*	72.6	91	0	9	*	*	39.2
WAWA A	12.8	*	23.9	1.7	0.0	*	88.2	*	0	13	*	*	161.6
WIARTON A	16.3	-1.8	25.9	5.6	0.0	*	107.2	123	0	12	237	93	62.8
WINDSOR A	20.0	-1.3	30.0	9.0	0.0	*	109.4	130	0	7	*	*	13.4

AUGUST 1994

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	15.1	−1.3	28.6	2.3	0.0	*	126.1	127	0	16	*	*	100.9
BAIE COMEAU A	13.6	−1.0	24.2	2.6	0.0	*	104.4	110	0	14	251	125	136.7
BLANC SABLON A	12.3	0.5	23.3	4.0	0.0	*	112.2	104	0	13	193	*	174.1
CHIBOUGAMAU CHAPAIS	12.4	*	24.2	0.0	*	*	196.7	*	*	19	*	*	174.0
GASPE A	15.0	*	29.1	2.1	0.0	*	15.4	*	0	5	263	*	101.8
KUUJJUAQ A	8.9	−1.5	22.8	1.4	0.0	0	73.9	116	0	14	127	76	281.2
KUUJJUARAPIK A	9.0	−1.4	20.6	2.4	0.0	*	99.2	106	0	14	129	77	282.5
LA GRANDE RIVIERE A	10.5	*	25.4	0.7	0.0	*	72.4	*	0	11	170	*	234.4
MONT JOLI A	15.8	−0.2	27.9	5.1	0.0	*	109.4	138	0	90	255	104	79.6
MONTREAL INT'L A	18.2	−1.4	29.0	6.9	0.0	*	84.6	92	0	9	237	99	35.7
MONTREAL MIRABEL I/	16.9	*	27.7	5.1	*	*	76.6	*	0	9	220	*	58.4
NATASHQUAN A	12.3	−1.0	22.3	1.3	0.0	*	72.8	70	0	9	262	113	176.8
QUEBEC A	16.8	−0.7	28.1	5.9	0.0	*	108.2	92	0	13	229	105	58.6
ROBERVAL A	14.9	−1.5	27.4	3.0	0.0	*	44.9	46	0	9	222	*	106.9
SEPT-ILES A	13.2	−0.9	24.1	2.8	0.0	*	145.8	140	0	14	245	110	149.0
SHERBROOKE A	16.0	−0.5	27.7	3.3	0.0	*	81.6	62	0	13	237	*	78.6
ST HUBERT A	18.0	−1.2	29.2	6.3	*	*	84.0	87	0	11	246	*	37.7
VAL D'OR A	13.9	−1.6	24.1	0.1	0.0	*	82.6	82	0	11	218	92	126.6
NEW BRUNSWICK													
CHARLO A	16.2	−0.2	21.8	10.6	0.0	*	33.4	32	0	6	269	111	60.8
FREDERICTON A	18.3	0.1	30.6	4.7	0.0	*	41.8	48	0	6	*	*	30.9
MONCTON A	18.0	0.4	29.0	4.7	0.0	*	17.4	22	0	5	247	108	35.4
SAINT JOHN A	16.7	0.1	28.1	7.2	0.0	*	48.8	48	0	9	213	100	53.7

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	18.5	0.2	30.5	5.0	0.0	*	75.2	84	0	7	*	*	34.3
HALIFAX INT'L A	18.4	0.3	29.2	8.4	0.0	*	61.5	55	0	6	*	*	25.6
SABLE ISLAND	20.4	2.8	26.6	10.7	0.0	*	116.6	100	0	9	201	112	4.9
SHEARWATER A	18.1	0.3	27.2	9.8	0.0	*	100.0	102	*	6	209	93	21.5
SYDNEY A	18.4	0.8	30.2	7.3	0.0	*	111.3	110	0	9	202	*	29.3
YARMOUTH A	17.1	0.7	24.9	7.5	0.0	*	124.8	128	0	7	196	94	41.3
PRINCE EDWARD ISLAND													
CHARLOTTETOWN A	17.9	0.1	28.9	6.2	0.0	*	36.6	42	0	6	*	*	38.9
NEWFOUNDLAND													
BONAVISTA	17.3	2.3	26.6	8.7	0.0	*	77.2	93	0	7	*	*	42.0
BURGEO	15.2	0.5	21.3	6.6	0.0	*	84.7	58	0	13	*	*	85.9
CARTWRIGHT	12.3	0.3	27.7	3.8	0.0	*	169.8	207	0	18	173	99	176.8
COMFORT COVE	16.6	1.3	29.5	*	0.0	*	86.8	82	0	7	*	*	57.3
DANIELS HARBOUR	15.8	1.3	27.0	7.4	0.0	*	72.8	63	0	15	237	132	76.0
DEER LAKE A	16.0	0.7	27.8	3.2	0.0	*	37.9	37	0	7	*	*	76.0
GANDER INT'L A	16.8	1.2	27.9	7.2	0.0	*	51.8	53	0	7	237	127	51.0
GOOSE A	13.4	−0.9	27.8	5.7	0.0	*	163.6	159	0	16	171	97	146.2
MARY'S HARBOUR	13.4	*	28.2	5.2	0.0	*	96.4	118	0	12	*	*	147.1
PORT AUX BASQUES	15.8	1.1	26.0	8.0	0.0	*	56.4	49	0	11	201	*	66.3
ST ANTHONY	13.4	1.3	26.0	3.0	0.0	*	75.1	55	0	12	*	*	143.0
ST JOHN'S A	17.6	2.3	27.7	7.4	0.0	*	76.6	63	0	7	220	*	40.4
ST LAWRENCE	16.6	2.7	23.9	7.7	0.0	*	76.5	54	0	11	*	*	44.9
STEPHENVILLE A	16.6	0.5	24.9	6.2	0.0	*	81.8	79	0	11	226	*	53.1
WABUSH LAKE A	10.8	−1.0	24.8	0.8	0.0	*	106.3	113	0	15	166	*	224.2

AGROCLIMATOLOGICAL STATIONS — AUGUST 1994

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	18.9	1.2	30.0	7.5	0.0	40.4	65	0	7	267	432.3	1858.0
SUMMERLAND	20.4	0.4	34.5	8.0	0.0	35.8	131	0	4	279	478.9	1945.0
ALBERTA												
BEAVERLODGE	15.9	1.7	29.0	1.5	0.0	102.8	161	0	8	274	338.5	1188.8
LACOMBE	15.9	1.0	31.3	2.9	0.0	110.0	161	0	12	**	339.3	1237.2
VEGREVILLE	15.4	0.3	31.0	1.0	0.0	111.2	149	0	6	**	*.*	1149.0
SASKATCHWAN												
INDIAN HEAD	16.7	-0.7	34.0	4.0	0.0	90.0	161	0	7	**	415.5	1365.3
MELFORT	15.9	-0.2	30.5	3.0	0.0	45.3	83	0	7	231	339.5	1258.0
SCOTT	16.0	0.0	30.5	0.5	0.0	72.5	156	0	6	282	340.3	1254.1
SWIFT CURRENT	18.2	0.5	34.5	7.0	0.0	15.6	41	0	3	359	0.0	1024.0
MANITOBA												
BRANDON	16.6	-1.3	32.3	3.4	0.0	73.0	105	0	12	**	358.2	1357.9
MORDEN	17.7	-0.6	31.0	5.0	0.0	52.0	86	0	6	284	401.0	1547.0
GLENLEA	23.1	4.1	31.0	5.0	0.0	100.8	142	0	23	275	378.5	1448.6
ONTARIO												
DELHI	19.1	-0.7	28.5	6.5	0.0	89.1	96	0	8	**	436.1	1705.7
ELORA	17.3	-0.8	27.1	4.4	0.0	39.0	54	0	8	**	380.3	1486.9
HARROW	19.2	-2.0	29.5	6.5	0.0	152.4	193	0	7	194	440.5	1806.5
KAPUSKASING	14.3	-1.2	29.0	0.0	0.0	137.0	153	0	13	179	*.*	1086.7
OTTAWA	18.3	-1.1	28.3	6.7	0.0	121.5	143	0	9	240	413.2	1659.0
SMITHFIELD	19.2	-0.1	29.5	7.8	0.0	65.6	87	0	5	**	440.9	1688.8

Courtesy of Agriculture Canada

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	16.8	-0.5	27.0	4.0	0.0	84.5	86	0	11	257	377.6	1300.3
NORMANDIN	14.9	-0.5	27.4	3.0	0.0	89.7	96	0	13	214	*.*	1115.0
NEW BRUNSWICK												
FREDERICTON	18.6	0.5	30.0	6.5	0.0	48.6	56	0	5	251	423.0	1511.8
NOVA SCOTIA												
KENTVILLE	19.1	0.7	30.5	6.5	0.0	63.4	65	0	5	223	435.8	1586.0
NAPPAN	18.5	1.1	29.0	4.0	0.0	61.8	68	0	9	231	385.0	1408.3
PRINCE EDWARD ISLAND												
CHARLOTTETWN	*.*	*.*	*.*	*.*	*.*	*.*	**	***	***	**	*.*	*.*
NEWFOUNDLAND												
ST.JOHN'S WEST	18.0	2.5	28.0	7.5	0.0	68.8	60	0	8	208	403.7	1097.2

Courtesy of Agriculture Canada

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month were cool in the north with minimums to 0.5°C by month's end and a trace of snow in Pickle Lake, 350 km north of Thunder Bay. Only Windsor and Markham managed to reach 30°C while North Bay and Wawa failed to top 24°C. Southern areas of the province were sunny and dry, whereas much of the province endured above-normal cloud and rain.

In general, rainfall was 120 to 180% of normal except for a dry corridor in the south, stretching from Sarnia to the Kawartha Lakes, where rainfall totals were as little as 50% of normal. In the much larger wet sections to the north, the greatest rainfall totals were from Lake Nipissing to Sioux Lookout which was the wettest location (155 mm, normal 88 mm). Other wet locations included North Bay (142 mm, normal 102 mm), Kapuskasing (138 mm, normal 91 mm), Sudbury (138 mm, normal 87 mm) and Timmins (135 mm, normal 90 mm). Wet locations in the south included Kingston (132 mm, normal 83 mm) and Ottawa (120 mm, normal 92 mm).

Most of the August precipitation was associated with instability and there were several severe thunderstorm events. A tragic lightning strike (on the 4th) in Ancaster, near Hamilton, killed a baseball player and injured several others. A small tornado occurred in a forested area near Parry Sound on the 20th. There were several reports on the 28th from around western Lake Ontario regarding damaging 90-120 km/h wind gusts.

Quebec

As in Ontario, temperatures in Quebec averaged slightly below normal for the month. Based on 23 stations across the province, the provincial mean was 14.5°C, compared to the normal of 15.5°C. The maximum temperature failed to reach 30°C anywhere in the province. Kuujjuarapik recorded the coldest maximum (20.6°C). Minimum temperatures approached the freezing mark at the end of the month as far south as Val-d'Or.

Precipitation totals were generally 60 to 90% of normal in the south. An exception was Trois-Rivières (122% of normal). In central Quebec and along the Lower North Shore of the St. Lawrence River, precipitation totals were near-to or above normal. However, Chibougamau recorded 186% of normal while Natashquan recorded only 69%. Precipitation showed the greatest variability on the Gaspé Peninsula. Mont Joli recorded 124% of normal, greatly contrasting with the town ofGaspé which recorded only 15.4 mm (16% of normal). Below-normal precipitation was recorded in the Magdalen Islands where only 29.8 mm fell (36% of normal). Both Gaspé and the Magdalen Islands' amounts were records for the month of August.

Sunshine totals were near normal except below normal in the north. In extreme eastern Quebec, Blanc Sablon recorded 193.1 hours of sunshine (140% of normal).

A tornado destroyed several houses and damaged close to 100 others in Aylmer, on the 4th. Severe thunderstorms rocked the Sept-Îles area, August 14-15, with a rainfall total of 55.6 mm, including 33.4 mm that fell within an hour-and,-a-half. A tornado occurred west of Montréal on the 28th, during severe thunderstorms, with damage occurring to property and hydro lines.

Maritimes

August was a dry month for many regions. Rainfall totals in New Brunswick were well below normal. Moncton received 17.4 mm, representing 22% of the normal 81 mm. Other locations in southern and eastern New Brunswick reported from 33 to 49 mm. St. Leonard, in the northwest, reported 90 mm. In Prince Edward Island, rainfall varied from 25 mm (28% of normal) at Summerside, to 57 mm (64% of normal) at East Baltic, near the eastern tip of the Island. Following a dry July, the dry August on the Island was a concern for some of the agricultural community. In Nova Scotia, however, several locations along the Atlantic coast had above-normal precipitation. Rainfall totals varied from 125 mm at Yarmouth to 62 mm at Cheticamp.

Mean temperatures were close to the normal range of 17 to 18°C. St. Leonard, New Brunswick, was the exception with a mean of 15.5°C, one Celsius degree below normal. Sable Island, Nova Scotia, where records date to 1897, recorded a new mean monthly temperature of 20.4°C (old record 20.1°C, 1984).

Bright sunshine hours were above normal in New Brunswick and Prince Edward Island. The values in New Brunswick ranged from 30 hours above normal at Charlo, to 15 hours above at Moncton. Below-normal sunshine in mainland Nova Scotia, contrasted with 201 hours in Sable Island (13 hours above normal).

Newfoundland and Labrador

Above-normal temperature and sunshine values and below-normal precipitation prevailed across much of Newfoundland. Western locations were near one Celsius degree above normal and the Avalon Peninsula was two degrees above. Rainfall was light, especially during the latter half of the month. Gander recorded rain on only eight days (normal, 16 days), equalling the record set in 1961. Total monthly rainfall at Deer lake was 37.9 mm, less than 40% of normal while St. John's recorded 76.6 mm, about 60% of normal. Frequent sunshine was evident - Gander recorded 236.6 hours, about 50 hours above normal.

In contrast, most of Labrador reported below-normal temperatures and above-normal rainfall. Several major systems brought extensive cloud cover and copious amounts of rain to the area. Goose Bay recorded 38.6 mm of rain on the 5th, a new daily record and the monthly total of 163.6 mm was over 65 mm above normal. Sunshine was near normal on the coast but inland, Wabush Lake reported 166.4 hours, about 25 hours below normal.