

CLIMATIC PERSPECTIVES

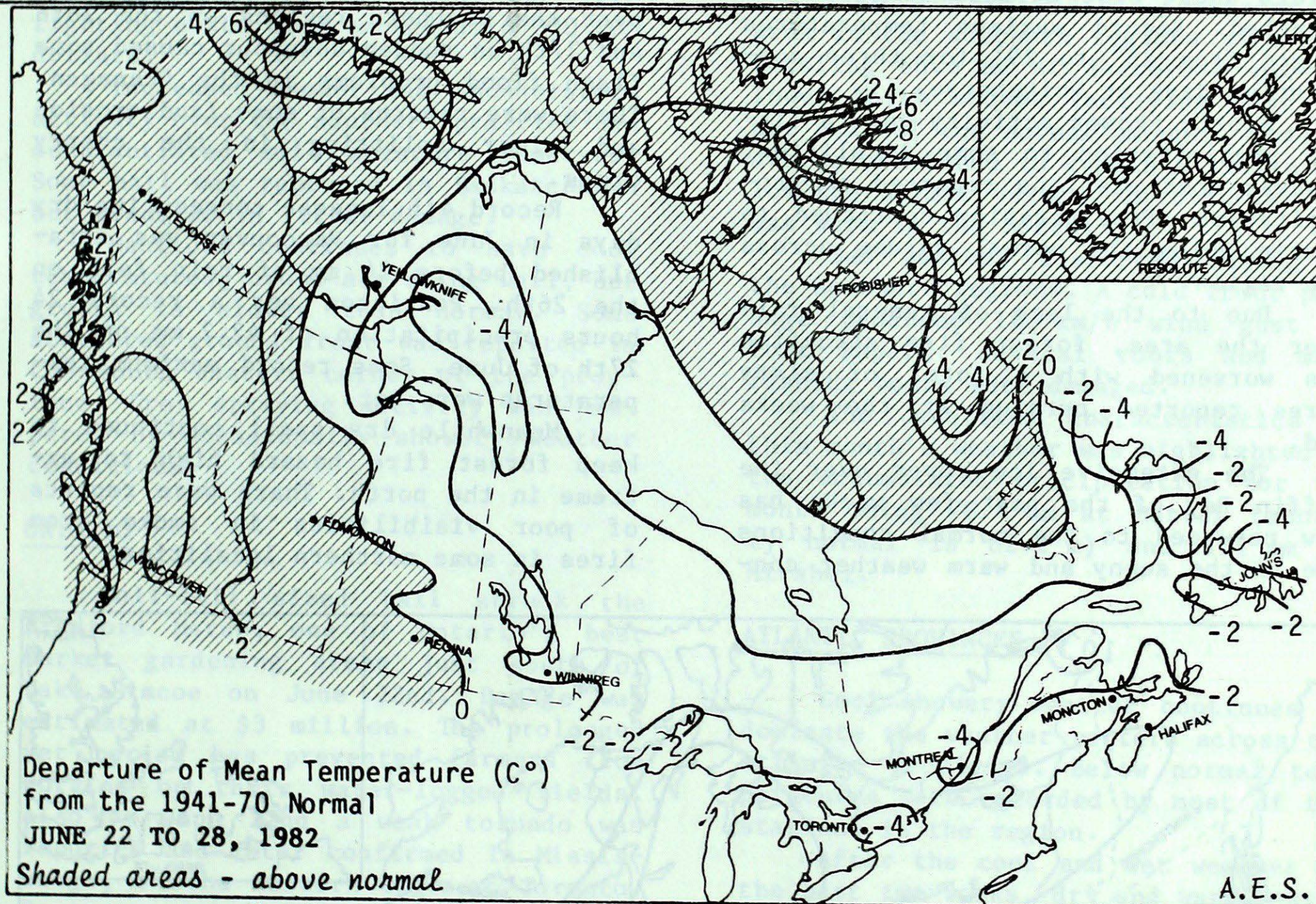


THE CANADIAN CLIMATE CENTRE,
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JULY 2 1982

(Aussi disponible en français)

VOL.4 NO. 25



WEATHER HIGHLIGHTS FOR THE PERIOD - JUNE 22 TO 28, 1982

Hail damages vegetable crop in southern Ontario

Violent thunderstorms struck Bradford, Ontario on June 22nd, (one of Ontario's most fertile market gardening areas), bringing hail damage to the vegetable crop estimated to be at three million dollars.

In addition excessive moisture has prevented southern Ontario farmers from working in their water-logged fields, Rainfall in most areas averaging twice the normal June amount. After two weeks of cool and wet weather some dry weather is badly needed over the maritimes for good haying.

Dry spell in southern British Columbia came to a sudden end with heavy rain over the weekend. Even though somewhat cooler temperatures have resulted in a drop in the number of forest fires in Northern Alberta, 72 fires were still reported to be burning; General rain in the area is badly needed in order to prevent worsening of the forest fire situation. Temperatures varied from 34° at Lytton, British Columbia to -3° at Rankin Inlet, Northwest Territories. Sherbrooke, Québec reported 67 mm of rain.

NOTE: The data shown in this publication are based on unverified reports from approximately 225 Canadian and 115 northern United States Synoptic stations.

YUKON AND NORTHWEST TERRITORIES

In contrast to the last weeks cool weather, very warm air pushed into the western, northern and eastern regions from British Columbia this week. The only exception was the southeastern Mackenzie and western Keewatin districts where cool airmass remained entrenched. Record maximum temperatures ranged from 25° to 29° for three consecutive days at Whitehorse.

Spotty shower activity gave a little precipitation to some localities, however most stations reported no precipitation. Precipitation continued to remain below the normal values across the region.

Due to the lack of general rain over the area, forest fire situation has worsened with a total of sixty fires reported burning at the weeks end.

The extensive ice cover over the Baffin Bay of the past few weeks has now returned to the normal conditions due to the sunny and warm weather con-

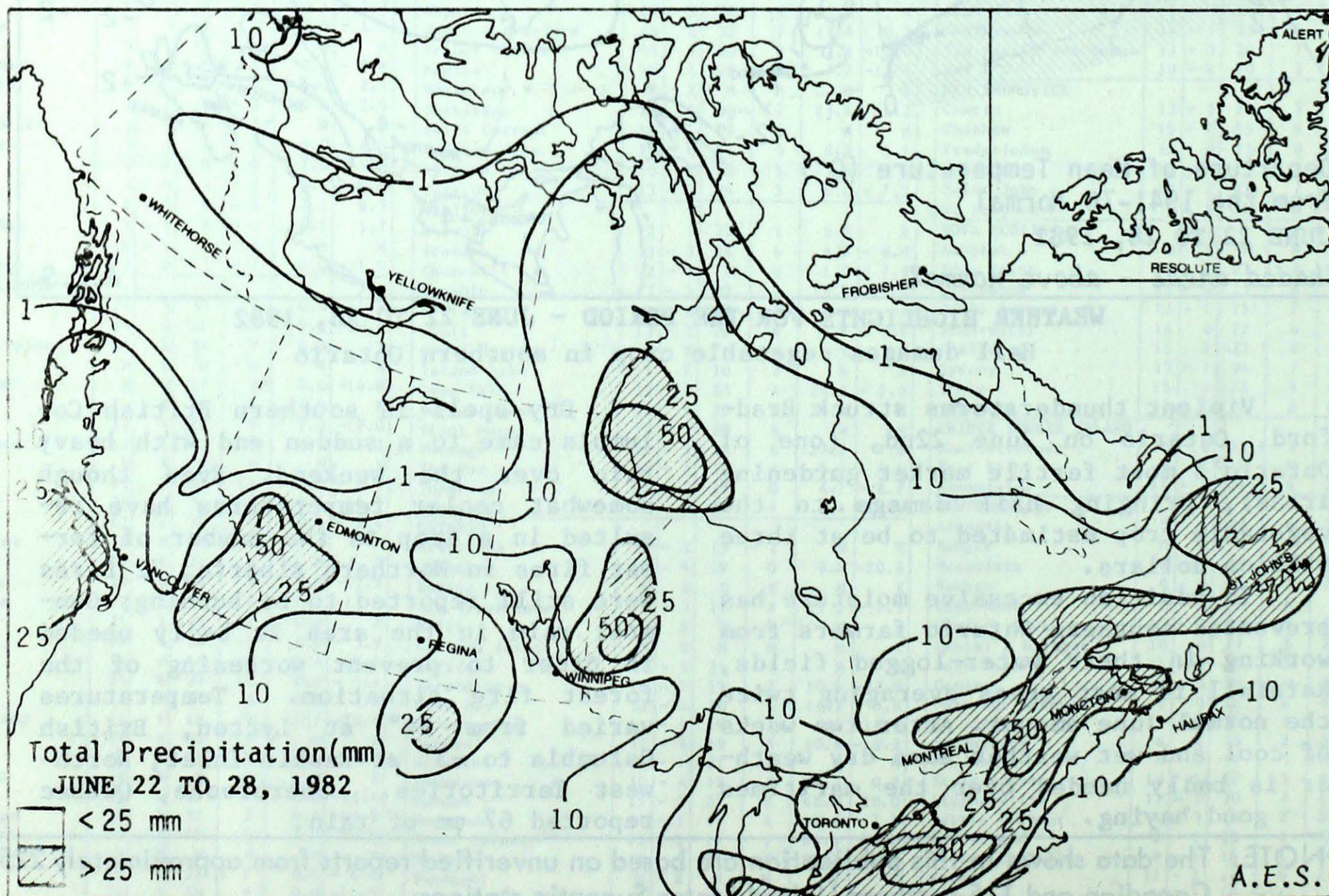
ditions there. Ice breaker MV Arctic and John A. McDonald have crossed Baffin Bay into the Lancaster sound. No drilling activity is taking place in the western Arctic yet.

BRITISH COLUMBIA

Dry spell came to a crashing end over the southern regions on the 26th and 27th as sudden downpour caused some flash flood problems in the Okanagan. There were reports of some land erosion and minor splitting in the cherry crops.

Record 4th longest consecutive dry days in June for Vancouver was established before 24 mm of rain fell on the 26th. Penticton set a record 24 hours precipitation of 42.2 mm on the 27th of June. Some record maximum temperatures were set.

Meanwhile dry spell continues to keep forest fire hazard high to extreme in the north. There were reports of poor visibilities in smoke from fires in some northern localities.



PRAIRIE PROVINCES

Forest fires continued to be a problem in northern Alberta, even though cooler temperatures this week, resulted in a substantial drop in the number of fires. Latest figures showed 72 fires were still burning; 28 of these out of control. Up to date, 900 fires have been reported. So far this year fire fighting costs have exceeded 16 000 000 dollars.

Increased shower and thunderstorm activity over the southern prairies has substantiated soil moisture reserves. Some hail was reported in Saskatchewan but resulted in little damage.

Manitoba continues to have cool temperatures, crops are doing well, but growth is slower than normal. Some scattered ground frost was reported in the south eastern corner of the province. Crop spraying activity was hampered by occasionally showery weather conditions.

ONTARIO

Golf-ball sized hail struck the Bradford Marsh, one of Ontario's best market gardening areas just south of Lake Simcoe on June 22nd. Damage was estimated at \$3 million. The prolonged wet period has prevented farmers from working on their water-logged fields. Also on June 22nd a weak tornado was reported and later confirmed in Mississauga, on the western edge of Toronto. Damage was minimal.

Statistically, June is averaging about 2° to 3° below normal in Ontario

with rain in most areas about twice the expected June amount. Hamilton at the extreme is experiencing its wettest June since records began there in 1866, receiving over 187 mm of rain. (The previous record was 177 mm in 1869).

QUÉBEC

Cool and wet weather dominated the week in the southern regions with rain totaling 66.6 mm at Sherbrooke and the lower North shores receiving some 175 per cent of the normal amount. Temperatures continued to remain a little below the normal values. In contrast, it was warm in the North.

Bad weather disrupted haying in the southern regions. A cold front passage produced 100 km/h wind gust at Fort Rupert, several roofs and many fishing boats were damaged.

The unsettled characteristics of this month's weather was highlighted by the accumulated precipitation for the month being 78.4 mm at Dorval (monthly normal is 82.2 mm) and 151 mm at Mirabel.

ATLANTIC PROVINCES

Cool showery weather continues to dominate the weather pattern across the Atlantic provinces. Below normal temperatures were recorded by most of the stations in the region.

After the cool and wet weather of the past two weeks, dry and warm weather is much needed by the farmers for haying. Due to the lack of warm weather, germination of wheat crop has been poor this year.

CLIMATIC PERSPECTIVES

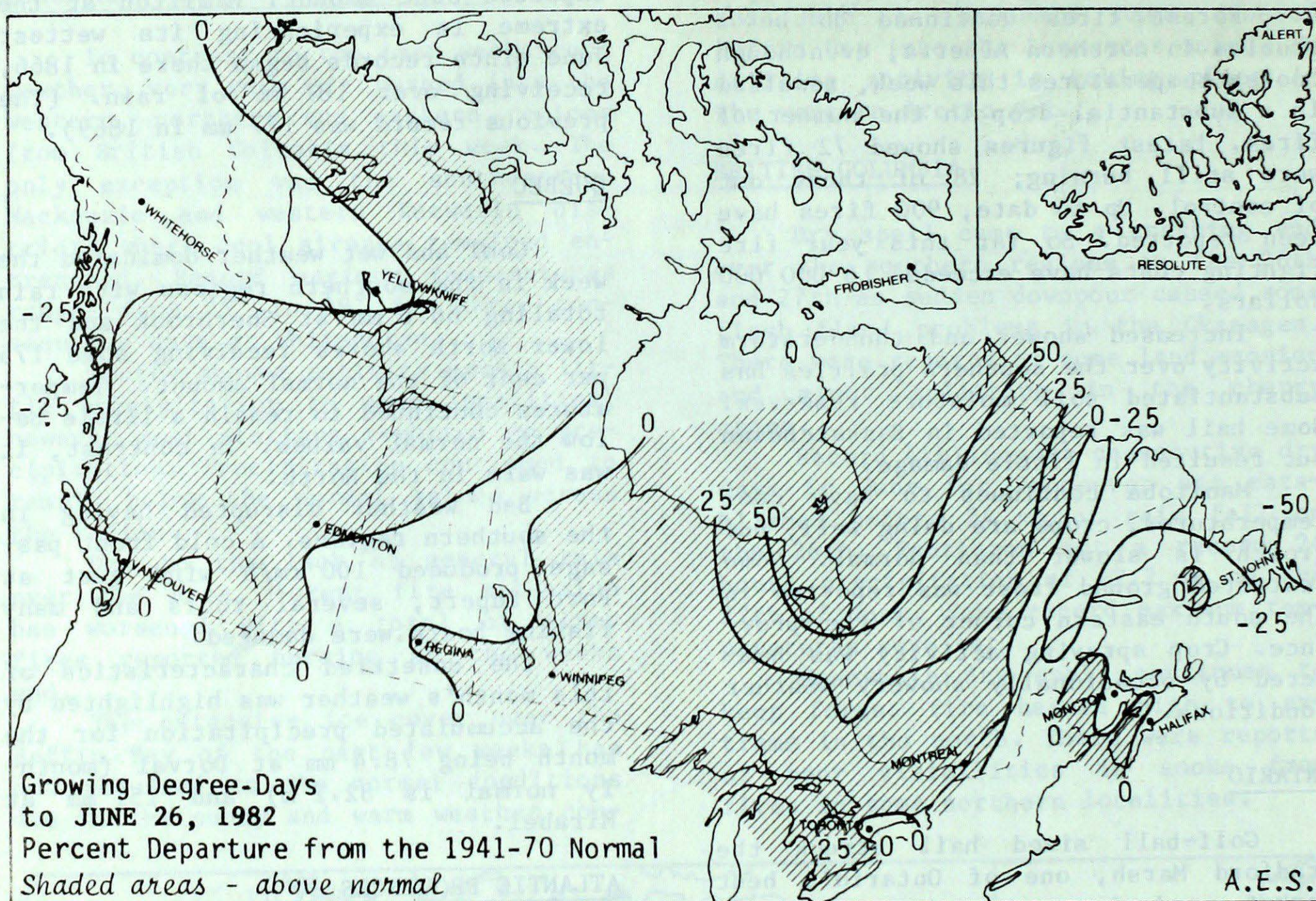
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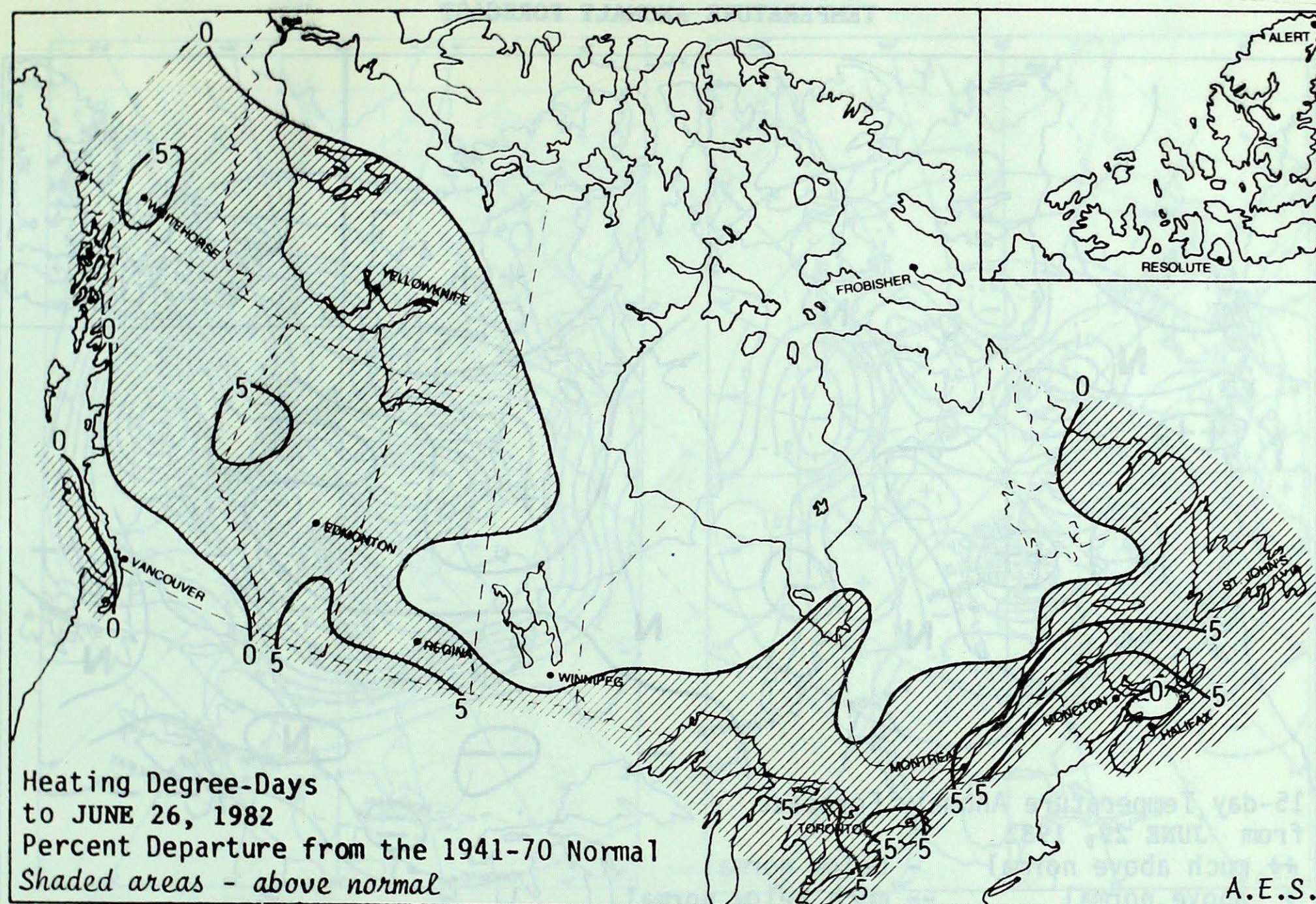
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GROWING DEGREE-DAY SUMMARY TO JUNE 26, 1982



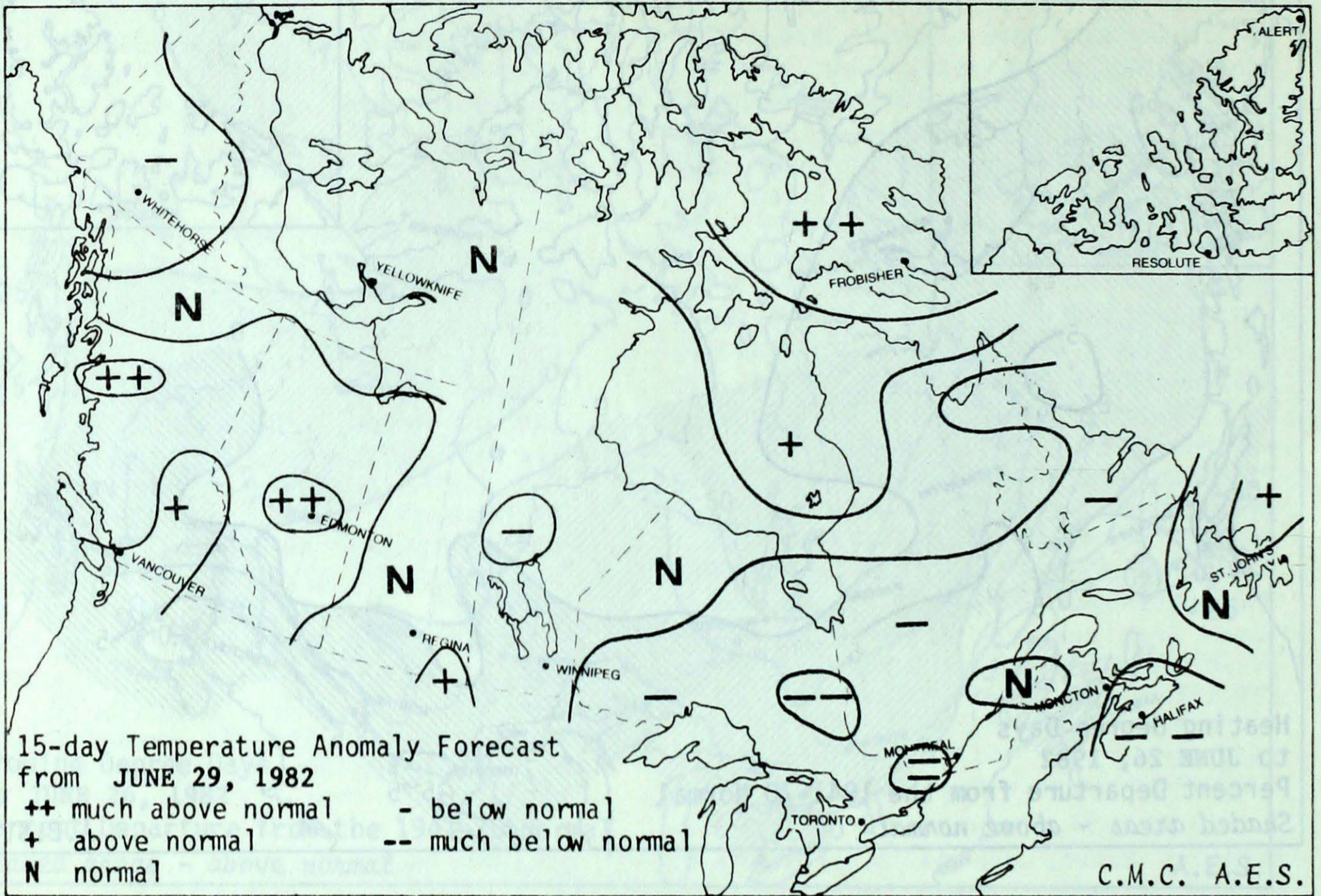
CITY	MONTHLY CUMULATIVE TOTAL	MONTHLY DIFF. FROM 1941-70 NORMAL	SEASONAL TOTAL	SEASONAL DIFF. FROM 1941-70 NORMAL	SEASONAL PERCENT OF NORMAL
Whitehorse	189.0	-1.0	228.5	-24.5	90
Penticton	382.5	67.5	678.5	-28.5	96
Vancouver	301.5	40.5	619.0	-31.0	95
Edmonton	315.5	77.5	499.0	87.0	121
Calgary	234.0	23.0	390.5	25.5	107
Regina	277.5	12.5	491.5	29.5	106
Saskatoon	272.5	8.5	410.5	-51.5	89
Winnipeg	220.5	-70.5	542.0	53.0	111
Thunder Bay	187.0	-37.0	369.5	25.5	107
Windsor	328.5	-47.5	825.0	51.0	107
Toronto	252.0	-79.0	604.0	-19.0	97
Ottawa	299.0	-33.0	685.5	79.5	113
Montreal	305.5	-36.5	681.0	63.0	110
Quebec	259.5	-23.5	499.0	28.0	106
Fredericton	261.5	-14.5	477.0	12.0	103
Halifax	190.0	-45.0	304.0	-62.0	83
Charlottetown	211.5	-15.5	290.5	-32.5	90
St. John's	57.0	-78.0	75.0	-87.0	46

HEATING DEGREE-DAY SUMMARY TO JUNE 26, 1982

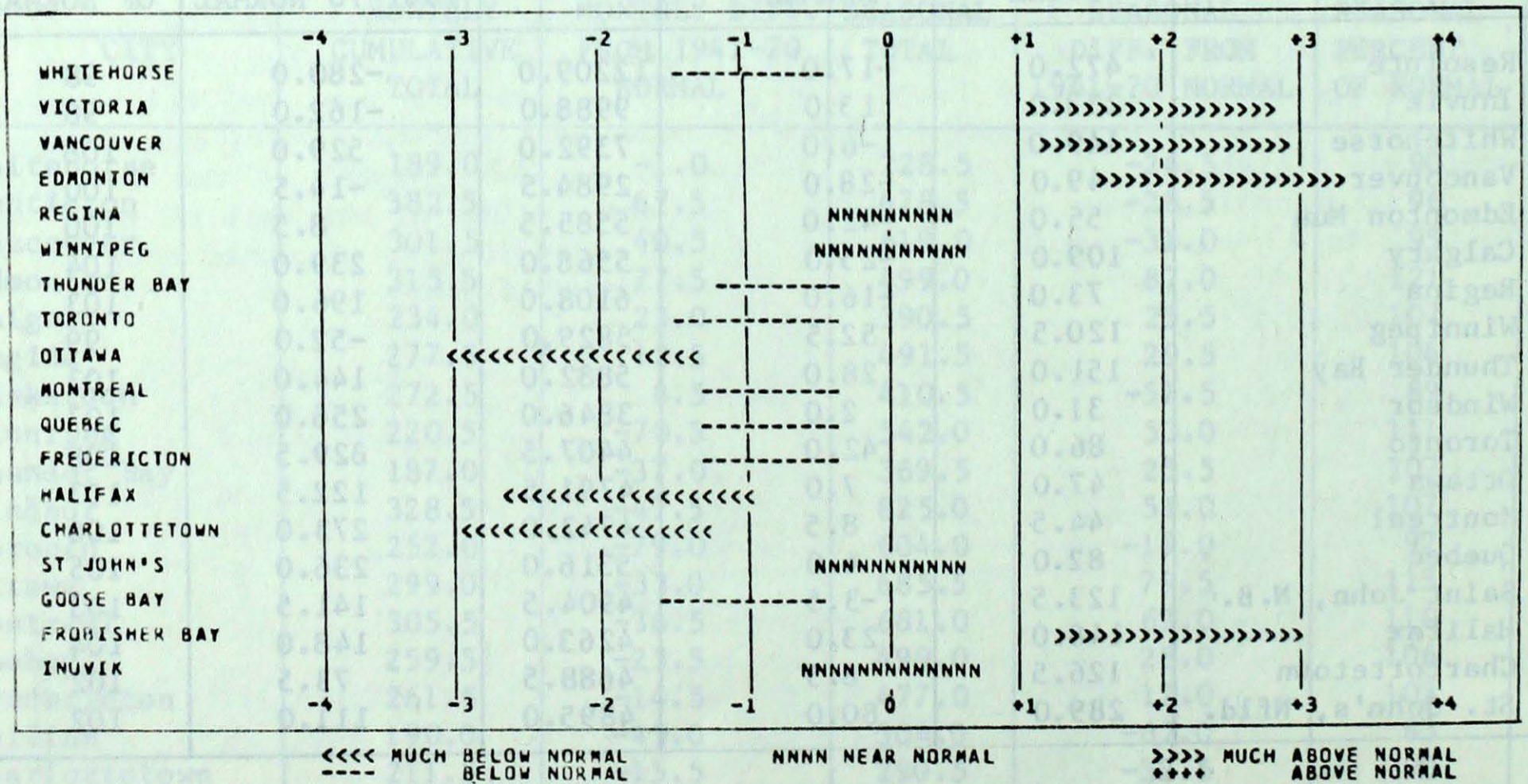


STATION	MONTHLY CUMULATIVE TOTAL	MONTHLY DIFF. FROM 1941-70 NORMAL	SEASONAL TOTAL	SEASONAL DIFF. FROM 1941-70 NORMAL	SEASONAL PERCENT OF NORMAL
Resolute	472.0	-17.0	12209.0	-280.0	98
Inuvik	233.0	13.0	9988.0	-162.0	98
Whitehorse	149.0	-6.0	7392.0	529.0	108
Vancouver	49.0	-28.0	2984.5	-14.5	100
Edmonton Mun	55.0	-42.0	5585.5	8.5	100
Calgary	109.0	-25.0	5568.0	239.0	104
Regina	73.0	-16.0	6108.0	196.0	103
Winnipeg	120.5	52.5	5829.0	-52.0	99
Thunder Bay	151.0	28.0	5882.0	144.0	103
Windsor	31.0	2.0	3846.0	256.0	107
Toronto	86.0	42.0	4407.5	329.5	108
Ottawa	47.0	7.0	4791.5	122.5	103
Montreal	44.5	8.5	4742.0	273.0	106
Quebec	82.0	6.0	5316.0	236.0	105
Saint John, N.B.	123.5	-3.5	4904.5	141.5	103
Halifax	148.0	23.0	4263.0	148.0	104
Charlottetown	126.5	8.5	4688.5	73.5	102
St. John's, Nfld.	289.0	80.0	4895.0	111.0	102

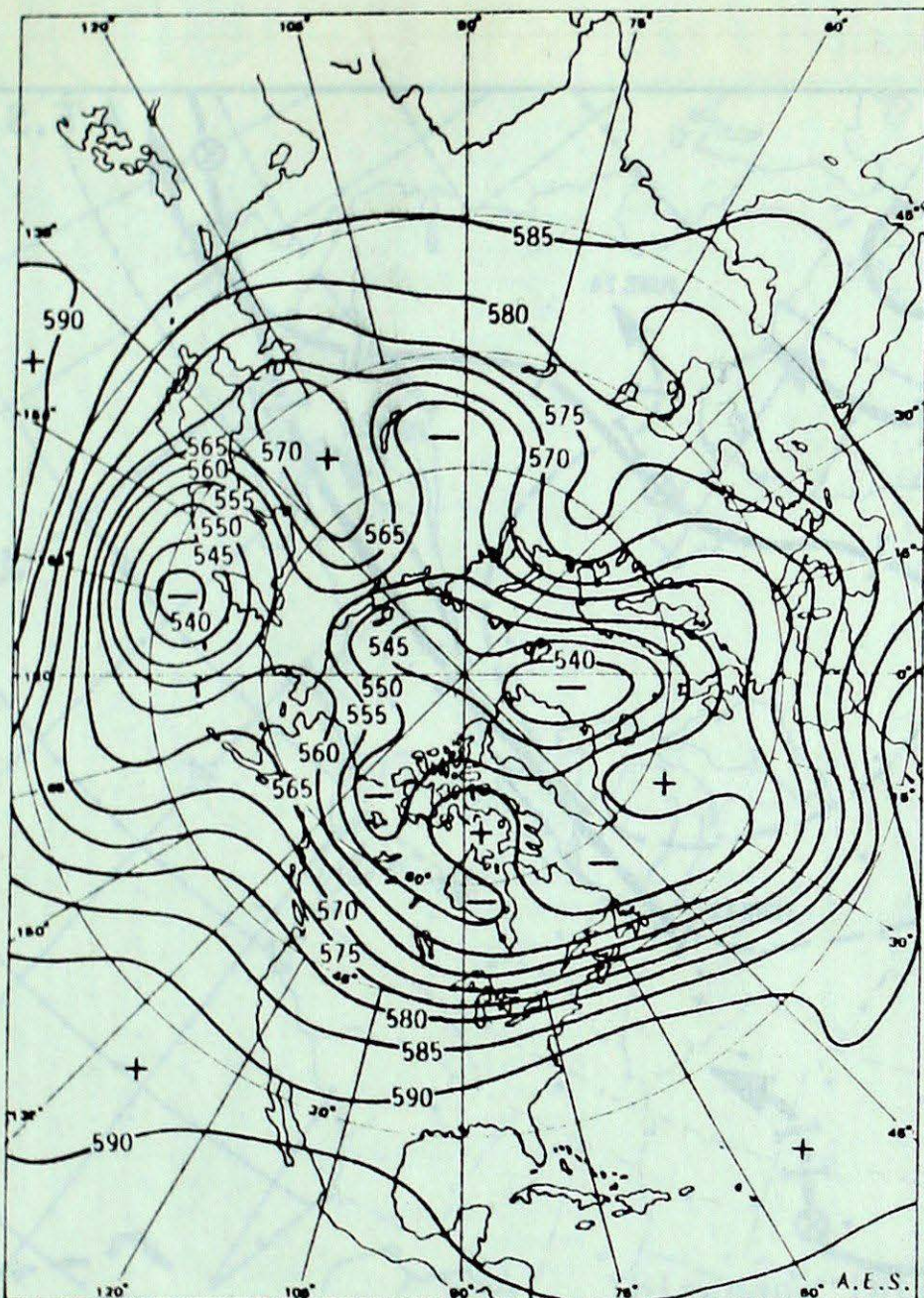
TEMPERATURE ANOMALY FORECAST



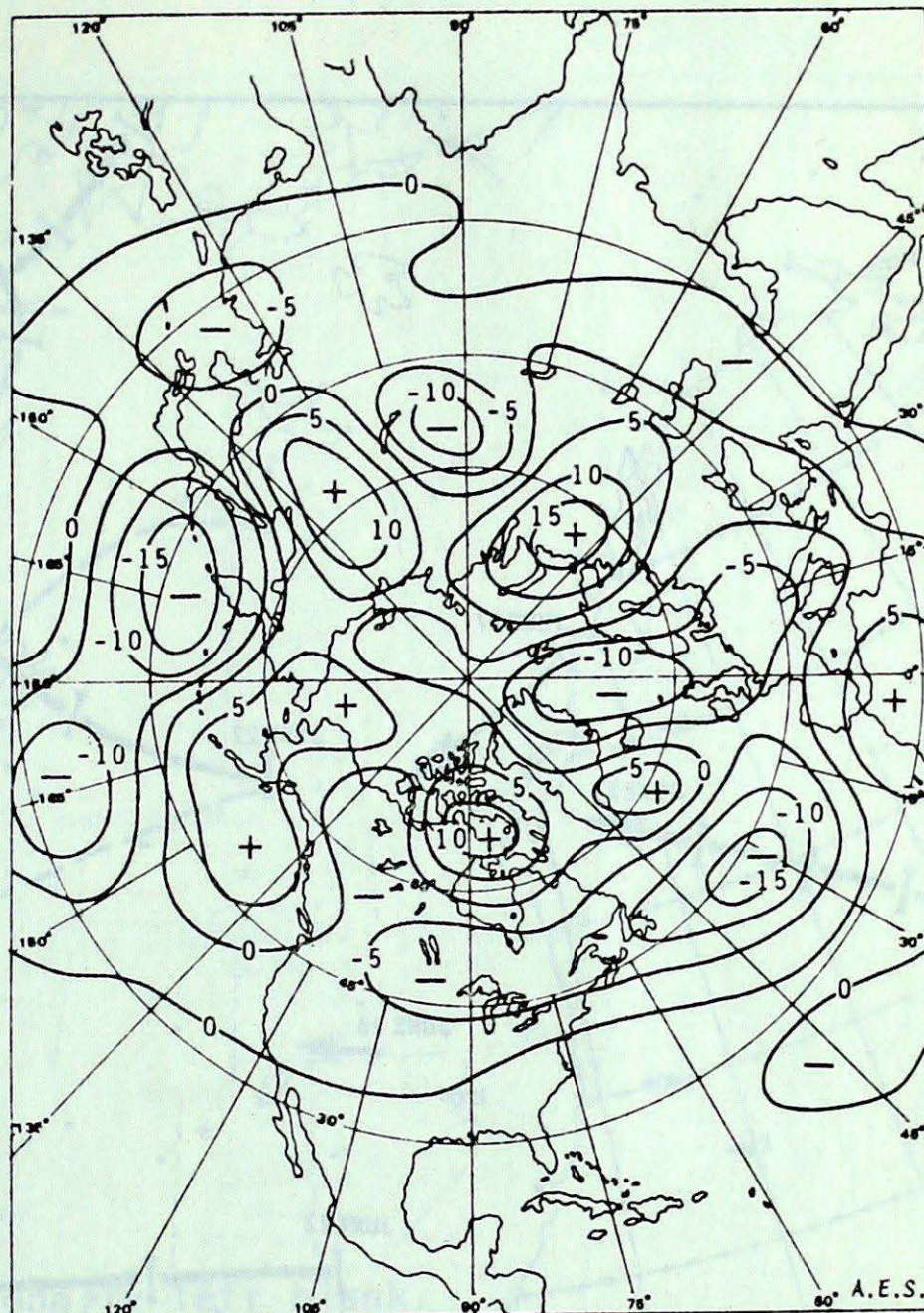
TEMPERATURE ANOMALY FORECAST FOR JUN 29 1982 TO JUL 13 1982



ATMOSPHERIC CIRCULATION



7-day Mean 50 kPa Height (dam)
JUNE 21 TO 27 1982



7-day Mean 50 kPa Height Anomaly
(5 dam intervals)
JUNE 21 TO 27 1982

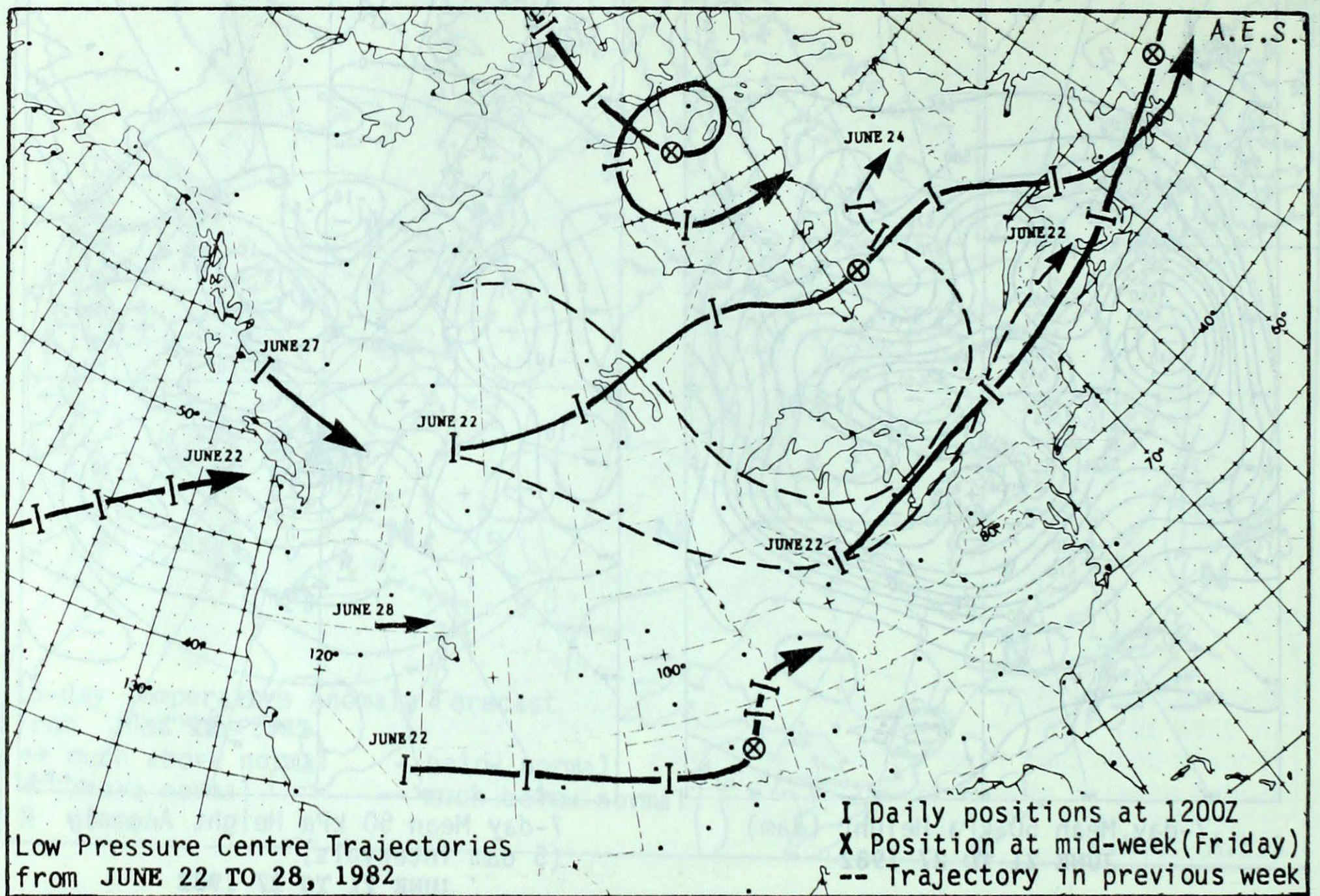
The unusual late spring circulation pattern continues. Strong atmospheric waves and closed vortices controlled the weather regime over the continent. Pools of cold Arctic air spilled southeastward toward James Bay. As a result mean temperatures over much of central and eastern Canada were below normal. On the other hand much milder Pacific air pushed northeast-

wards into northwestern Canada and the Arctic, where fair weather was a predominant feature due to the drying affects of a strong upper ridge.

At the surface numerous disturbances moved eastwards along the frontal zones, bringing changable weather. Areas most affected by this changable weather regime continue to be the lower Great Lakes, St. Lawrence Valley and the Atlantic Provinces.

Andy Radomski

LOW PRESSURE CENTRE TRAJECTORIES



EXTREMES FOR THE WEEK

	MAXIMUM TEMPERATURE	LOCATION	MINIMUM TEMPERATURE	LOCATION	GREATEST PRECIPITATION	LOCATION
YUKON TERRITORY	29.8	KCHAKUK BEACH	.1	WHITEMORSE	11.8	SHINGLE POINT
NORTHWEST TERRITORIES	30.7	INUUVIK	-2.7	RANKIN INLET	30.4	SHEPHERD BAY
BRITISH COLUMBIA	34.1	LYTTON	-1.1	DEASE LAKE	48.9	AMPHITRITE POINT
ALBERTA	31.7	MEDICINE HAT	0.0	FORT CHIPEWYAN	62.4	EDSON
SASKATCHEWAN	32.5	MOOSE JAW	1.8	COLLINS BAY	33.2	MEADOW LAKE
MANITOBA	28.7	PORTAGE LA PRAIRIE	0.0	CHURCHILL	54.9	CHURCHILL
ONTARIO	28.2	WINDSOR	-1.2	ARMSTRONG	51.0	RED LAKE
QUEBEC	25.4	MONTREAL/DORVAL	-1.1	KOARTAK	66.6	SHERBROOKE
NEW BRUNSWICK	26.2	CHATHAM	6.6	CHARLO	35.5	MONCTON
NOVA SCOTIA	25.2	SHELBURNE	4.7	SYDNEY	20.6	TRURO
PRINCE EDWARD ISLAND	23.0	CHARLOTTETOWN	8.1	CHARLOTTETOWN	49.4	SUMMERSIDE
NEWFOUNDLAND	23.1	GOOSE	-1.0	HOPEDALE	47.1	ST LAWRENCE

TEMPERATURE AND PRECIPITATION DATA FOR THE WEEK ENDING 0600 G.M.T. JUNE 29, 1982

Station	Temperature (°C)				Precip. (mm)	
	Average	Departure from Normal	Extreme Maximum	Extreme Minimum	Total	Departure from Normal
YUKON						
Burwash	14	3	27	1	0.0	-12.9
Dawson	16	1	29	4	M	M
Faro	M	X	M	M	M	X
Komakuk Beach	11	7	30	2	0.0	-8.5
Mayo A	17	4	30	4	8.0	-2.1
Shingle Point	14	6	29	2	11.8	4.8
Teslin	M	X	20P	2P	M	X
Watson Lake	16	2	28	1	0.8	-13.6
Whitehorse	16	3	30	0	0.0	-9.2
NORTHWEST TERRITORIES						
Cape Parry	6	3	19	-2	0.0	-2.9
Cape Young	7	3	23	0	0.0	-2.2
Clinton Point	9	4	24	0	0.0	-5.1
Contwoyto Lake	M	M	M	M	M	M
Coppermine	8	2	22	1	0.0	-3.6
Fort Reliance	7	-4	23	1	5.4	0.7
Fort Simpson	16	2	26	5	5.1	-3.3
Fort Smith	12	-2	23	0	0.6	-8.5
Hay River	12	-1	24	4	0.4	-6.5
Inuvik	18	6	31	6	0.0	-5.7
Lady Franklin Point	5	1	15	0	0.0	-1.4
Nicholson Peninsula	9	4	26	-2	0.0	-1.5
Norman Wells	19	4	29	7	1.9	-7.7
Port Radium	M	X	M	M	M	X
Robertson Lake	M	X	M	M	M	X
Tuktoyaktuk	11	4	27	1	0.0	-3.5
Yellowknife	13	-1	21	6	6.2	1.6
Baker Lake	6	0	19	-1	18.3	14.2
Coral Harbour	6	1	14	0	3.1	-3.1
Ennadai Lake	M	M	M	M	M	M
Jenny Lind Island	2	-1	15	-1	5.7	5.5
Pelly Bay	5	2	12	-1	M	M
Rankin Inlet	5	X	16	-3	M	X
Shepherd Bay	5	2	12	-1	30.4	28.6
Alert	2	0	10	-1	M	M
Broughton Island	7	7	14	-1	0.0	-6.8
Cape Dorset	5	X	13	0	0.0	X
Cape Dyer	5	4	11	-2	0.0	-10.4
Cape Hooper	8	8	13	4	0.0	-7.4
Clyde	5	2	11	-2	0.0	-2.3
Dewar Lakes	8	7	15	2	M	M
Eureka	5	1	11	1	M	M
Frobisher Bay	8	2	16	2	0.0	-10.8
Gladman Point	3	0	11	-1	13.2	12.6
Hall Beach	2	0	10	-1	M	M
Longstaff Bluff	7	5	16	0	M	M
Mackay Inlet	6	5	12	2	M	M
Pond Inlet	6	X	11	0	0.2	X
Resolute	3	1	7	0	M	M
Byron Bay	5	0	17	0	5.8	4.6
Cambridge Bay	3	-1	16	-1	3.8	0.9
Mould Bay	3	1	7	-1	M	M
Sachs Harbour	6	2	17	0	0.0	-2.9
BRITISH COLUMBIA						
Abbotsford	18	3	31	9	19.7	3.9
Alert Bay	14	1	25	5	18.0	3.4
Amphitrite Point	14	X	20	9	48.9	X
Blue River	M	X	M	M	M	X
Bull Harbour	13	1	19	7	18.3	0.5
Burns Lake	16	X	28	5	M	X
Cape Scott	12	1	17	9	22.1	-10.0
Cape St James	13	2	19	9	11.1	-5.7
Clinton	M	X	M	M	M	X
Comox	18	3	30	10	31.8	19.2
Cranbrook	17	2	26	9	33.2	21.1
Dease Lake	15	4	28	0	0.5	-11.5
Estevan Point	M	M	M	M	M	M
Ethelda Bay	13	X	21	4	M	X
Fort Nelson	17	2	28	7	0.4	-19.9
Fort St John	16	2	25	7	0.0	-18.6
Hope	19	X	31	11	7.3	X
Kamloops	23	4	32	14	10.6	0.9
Langara	11	0	16	8	13.2	-5.3
Lytton	22	4	34	15	6.6	0.5
Mackenzie	17	X	27	3	M	X
McInnes Island	14	1	18	9	M	M
Nanaimo A	18	X	30	10	M	X
Penticton	22	5	33	13	47.4	40.2
Port Alberni	M	X	M	M	M	X
Port Hardy	14	2	22	5	M	M
Prince George	17	4	28	7	11.2	-7.8
Prince Rupert	13	2	22	6	15.4	-15.5
Puntzi Mountain	M	X	M	M	M	X
Quesnel	18	4	29	8	0.6	-21.8
Revelstoke	19	3	29	11	32.3	12.0
Sandspit	14	2	19	9	8.1	-5.4

Station	Temperature (°C)				Precip. (mm)	
	Average	Departure from Normal	Extreme Maximum	Extreme Minimum	Total	Departure from Normal
SMITHERS						
Smithers	18	4	29	7	23.9	13.6
Stewart	17	X	32	6	M	X
Terrace	19	5	31	9	21.2	7.9
Vancouver	18	2	26	12	24.4	11.8
Victoria	16	1	29	9	20.2	12.5
Williams Lake	17	4	27	8	8.6	-7.0
ALBERTA						
Banff	15	3	23	7	M	M
Calgary	14	1	24	8	31.0	-0.7
Cold Lake	16	0	30	5	12.8	-2.6
Coronation	15	0	27	7	21.2	7.6
Edmonton Intl	14	0	25	3	12.1	-5.7
Edmonton Nanao	16	0	24	7	4.0	-19.3
Edson	13	0	21	2	62.4	23.4
Fort Chipewyan	13	-4	24	0	M	M
Fort McMurray	14	0	26	4	0.8	-17.4
Grande Prairie	16	2	26	7	M	M
High Level	14	-1	26	3	0.0	-15.0
Jasper	15	2	24	5	21.4	5.3
Lac La Biche	M	X	M	M	M	X
Lethbridge	17	1	26	9	5.2	-20.6
Medicine Hat	19	2	32	9	5.0	-14.8
Peace River	16	2	25	4	0.0	-16.4
Red Deer	14	0	23	8	35.4	13.2
Rocky Mountain House	12	-1	21	2	27.0	3.3
Slave Lake	15	1	24	5	0.0	-44.8
Vermillion	15	1	29	7	12.5	-4.2
Whitecourt	14	1	23	6	16.8	-6.5
SASKATCHEWAN						
Broadview	16	X	30	5	10.2	X
Buffalo Narrows	15	0	26	5	M	M
Collins Bay	11	X	25	2	0.4	X
Cree Lake	12	X	25	3	2.6	X
Eastend Cypress	M	X	M	M	M	X
Estevan	18	1	32	7	20.4	1.8
Hudson Bay	15	0	28	5	M	M
Kindersley	17	0	32	8	14.0	-3.3
La Ronge	14	-2	27	3	10.5	-22.2
Meadow Lake	14	X	31	3	33.2	X
Moose Jaw	18	1	33	6	2.2	-9.0
Nipawin	16	X	30	7	7.8	X
North Battleford	16	0	30	6	20.6	5.0
Prince Albert	16	1	30	4	9.4	-7.3
Regina	17	1	32	5	3.6	-18.9
Rockglen	M	X	M	M	M	X
Saskatoon	16	0	30	6	23.6	3.6
Swift Current	16	0	30	6	M	M
Uranium City	13	-2	22	4	0.0	-13.1
Wynyard	16	X	29	6	12.7	X
Yorkton	15	-1	27	6	14.2	-5.9
MANITOBA						
Bissett	14	X	23	0	26.1	X
Brandon	16	-1	27	5	15.5	-7.8
Churchill	7	-1	17	0	54.9	44.9
Dauphin	16	0	27	6	M	M
Gillam	11	X	22	2	19.2	X
Gimli	16	-2	27	4	1.0	-24.5
Grand Rapids	M	X	M	M	M	X
Island Lake	13	X	22	5	M	X
Lynn Lake	11	-4	22	3	5.9	-12.9
Norway House	13	X	23	5	8.0	X
Pilot Mound	16	-2	25	6	M	M
Portage	16	-2	29	4	1.8	-19.6
The Pas	15	-1	25	5	13.8	-8.3
Thompson	11	-3	21	3	18.3	-0.2
Winnipeg	16	-2	27	4	3.6	-21.4
ONTARIO						
Armstrong	12	-2	24	-1	M	M
Atikokan	13	-3	24	2	8.8	-6.5
Barrie	M	X	M	M	M	X
Big Trout Lake	12	-3	22	4	10.9	-6.2
Britt	M	X	M	M	M	X
Caribou Island	M	X	M	M	M	X
Earlton	14	-3	24	2	M	M
Geraldton	13	-2	24	4	9.9	-1.6
Core Bay	14	-3	24	6	11.3	-10.2
Kapusking	13	-3	23	3	21.2	-4.1
Kenora	16	-1	24	8	0.0	-23.3
Kingston	15	-3	22	9	M	M
Lansdowne	13	-3	22	6	14.4	-6.5
London	17	-3	26	9	25.9	3.7
Moosonee	13	-1	23	1	M	M
Mount Forest	M	M	24P	4P	M	M
Muskoka	15	-2	27	5	M	M
Nagagami	M	X	M	M	M	X
North Bay	14	-3	23	6	11.9	-13.5
Ottawa	16	-4	26	9	12.6	-11.2

Station	Temperature (°C)				Precip. (mm)	
	Average	Departure from Normal	Extreme Maximum	Extreme Minimum	Total	Departure from Normal
PATAWAWA						
Patawawa	15	X	27	5	11.8	-19.3
Pickle Lake	13	-3	23	3	10.8	-19.3
Red Lake	13	-4	24	1	51.0	23.3
Simcoe	M	M	25P	8P	M	M
Sioux Lookout	14	-2	24	4	6.6	-15.1
Sudbury	15	-2	24	5	6.2	-22.2
Thunder Bay	14	-1	25	4	12.0	-9.9
Timmins	13	-3	25	0	18.7	-2.2
Toronto	15	-5	25	7	21.2	3.3
Trenton	16	-4	23	8	25.0	8.8
Upsala	M	X	M	M	M	M
Wawa	9	X	18	1	6.7	-15.1
Warton	15	-3	24	7	M	M
Windsor	19	-3	28	10	13.3	-1.1
QUÉBEC						
Bagotville	14	-3	24	3	9.4	-15.1
Baie Comeau	12	-2	21	4	22.3	3.3
Blanc Sablon	7	-2	13	2	M	M
Border	M	M	M	M	M	M
Chevery	M	X	M	M	M	M
Chibougamau	12	X	22	5	6.4	-15.1
Gaspé	11	X	21	3	32.4	3.3
Grindstone Island	11	-2	17	7	18.6	3.3
Inoucdjouac	8	2	17	0	18.4	10.8

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NON-CIRCULATING