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A WEEKLY REVIEW OF CANADIAN CLIMATE

CLIMATIC PERSPECTIVES

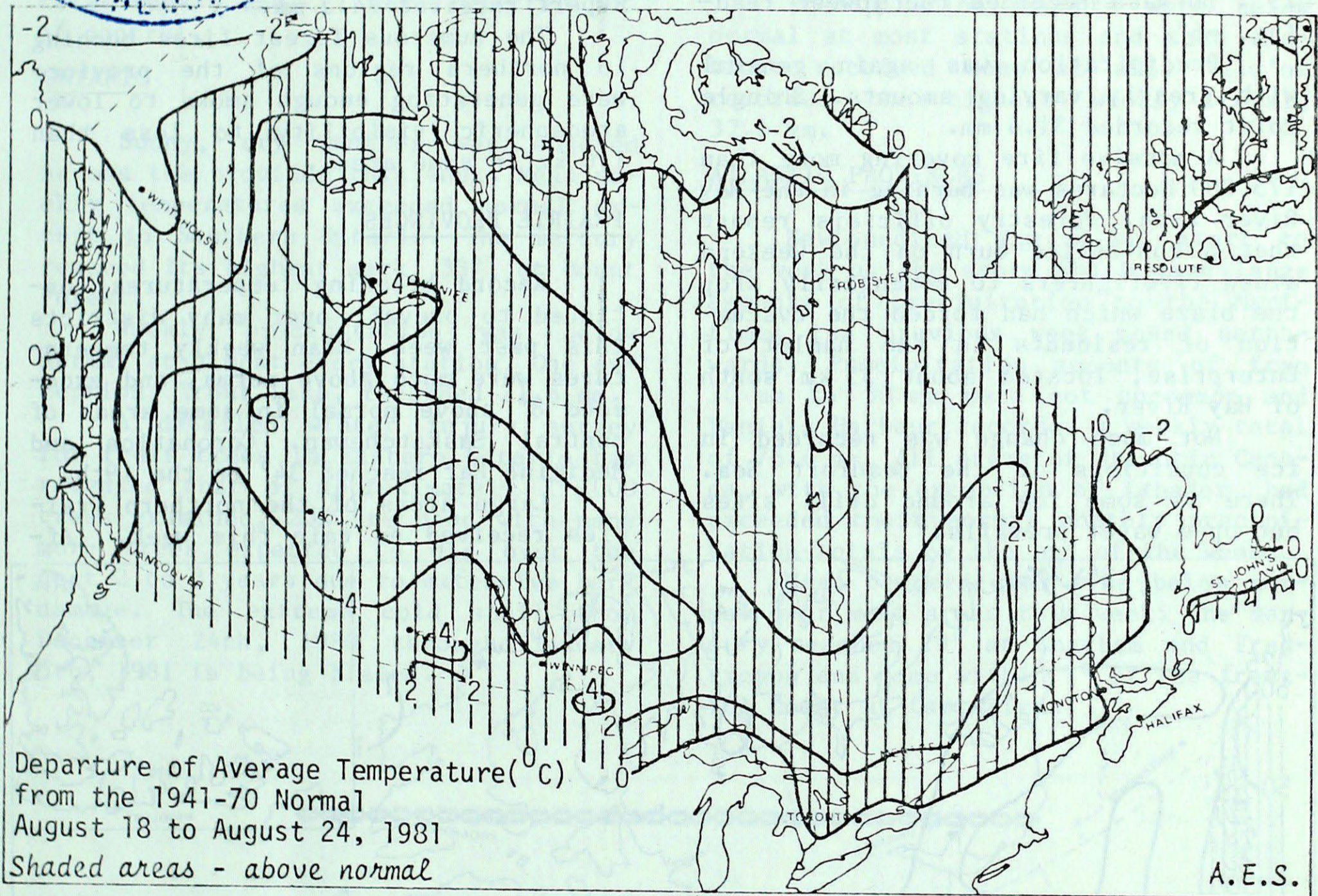
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A.E.S.
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AUGUST 28, 1981

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WEATHER HIGHLIGHTS FOR THE PERIOD - AUGUST 18 - 24, 1981

Warm and dry weather prevails in the West

The continuing warm, dry conditions across the West were most favourable to farmers harvesting crops, but detrimental to the forest fire situation. Harvesting was 50% complete in Saskatchewan and yields should exceed the 10 year average.

A massive forest fire covering 175 000 hectares was raging across the southern Mackenzie District. Forestry officials reported that a controlled burn in the Hay river area over the weekend momentarily stopped the blaze.

A winter injury survey for fruit trees in Eastern Ontario has revealed that of 25 000 trees examined, 20% are dead with many more expected to die over the next 3 years due to extensive bark damage. The extreme cold spell from December 24th, 1980 through January 5th, 1981 is blamed.

Temperatures varied from a maximum of 37° at Lytton, British Columbia to a minimum of -6° at Burwash, Yukon. Pilot Mound, Manitoba recorded 89 mm of precipitation.

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

Warm weather dominated most regions of the Territories this week. Mean temperatures were below normal only in the northern and western Yukon and in the northern Baffin Island area. Mean temperatures exceeded 4° above normal in the Great Slave Lake area and Fort Simpson and Fort Smith reached 29° . Burwash recorded the lowest reading, -6° .

Precipitation was again general with greatly varying amounts. Shingle Point recorded 31.4 mm.

A massive fire covering more than 175 000 hectares was burning in the Hay River area. Forestry officials report that a controlled burn on the weekend aided firefighters to momentarily stop the blaze which had forced the evacuation of residents in the hamlet of Enterprise, located about 35 km south of Hay River.

Not much change was recorded in ice conditions in the Beaufort Sea. There is some ice around drill sites but open water prevails.

BRITISH COLUMBIA

Mean temperatures exceeded normal at most stations again this week and some central areas experienced mean temperatures of more than 5° above normal. The mercury reached 37° at Lytton.

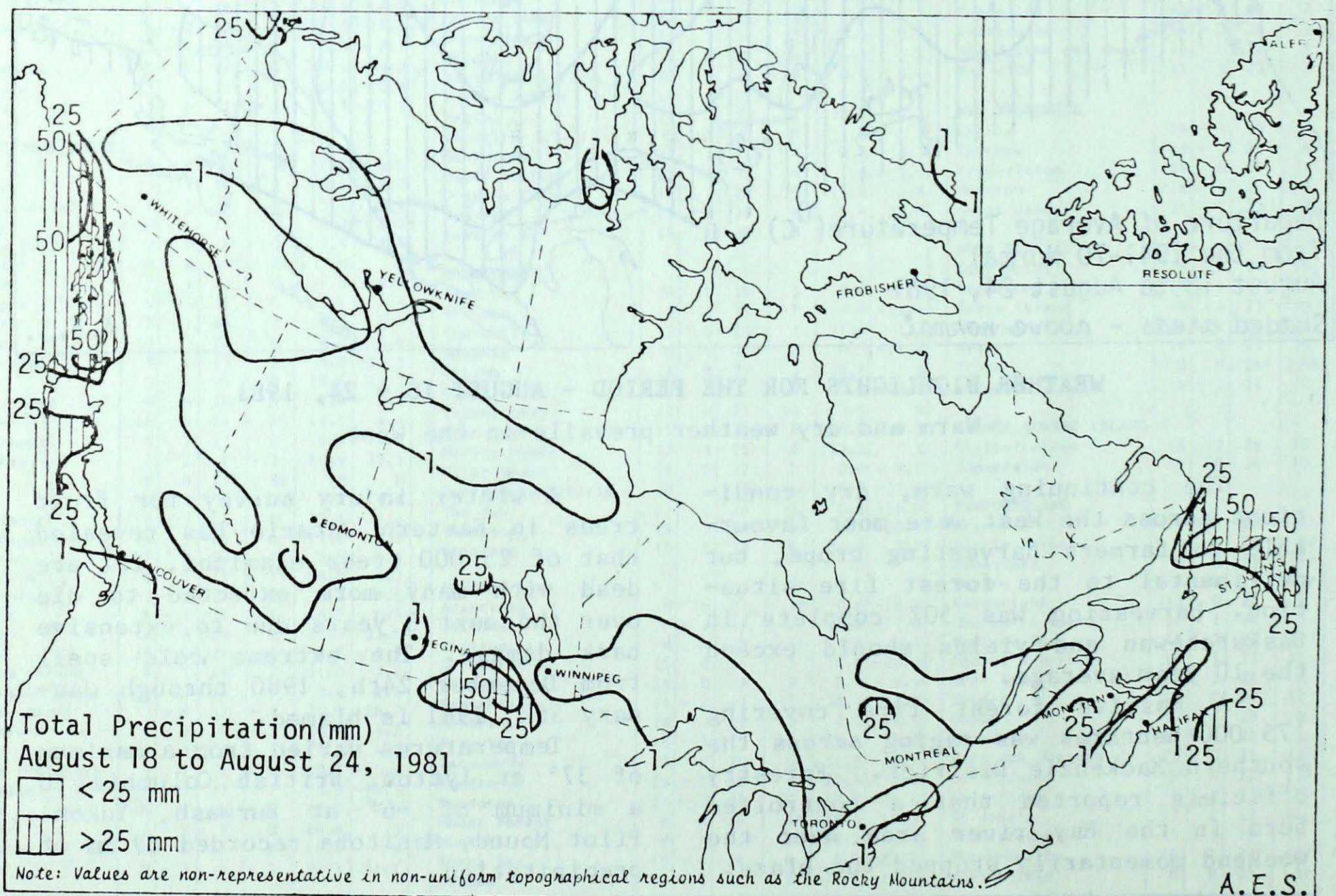
Precipitation was general but amounts varied widely. Abbotsford recorded no rain all week while Prince Rupert received 74.3 mm.

The numerous forest fires burning in northern regions of the province were generating enough smoke to lower atmospheric visibility to less than 1.0 km in some areas.

PRAIRIE PROVINCES

Record breaking temperatures continued to prevail over many districts this past week. Mean weekly temperatures were much above normal and exceeded 8° above normal in some areas of central Saskatchewan. Coronation and Medicine Hat reached 34° on the 19th.

Large areas of the northern Prairies received no rain this week. Af-



ternoon showers were common in eastern Saskatchewan and southern Manitoba with some heavy showers reported. Pilot Mound recorded 89.0 mm, most of which was received on the 23rd.

The high temperatures and low humidities were most favourable to the farmers who are now harvesting crops, but most detrimental to those involved in controlling the forest fire situation. Out of 65 fires burning in Alberta at week's end, 21 were reported out of control.

ONTARIO

Sunny, dry weather was enjoyed across the province this week. Mean weekly temperatures exceeded normal except in Southern Ontario. The mercury reached its highest mark, 33°, at Mount Forest.

Weekly precipitation was below normal at almost every station. One exception, Trout Lake, recorded 21.6 mm.

A detailed winter injury survey for fruit trees in Eastern Ontario has revealed that of approximately 25,000 trees examined, 20% are dead with many more trees expected to die over the next 2 to 3 years due to extensive bark damage. The extreme cold spell from December 24th, 1980 through January 5th, 1981 is being blamed.

QUÉBEC

The cool, wet weather of the previous two weeks was replaced by sunny, dry weather this week. Mean temperatures were generally 2° to 3° above normal in the majority of the regions. The mercury rose to 30° at Bagotville on the 22nd and fell to 1° below the freezing point at Blanc Sablon on the 24th.

Precipitation amounts were below normal at most stations and some stations received none at all. Val-d'Or recorded the highest weekly total, 32.6 mm.

ATLANTIC PROVINCES

Newfoundland saw a wet start to the week as the storm which gave large amounts of precipitation to the Maritimes the previous week moved northwards. Precipitation amounts of from 30 mm to 50 mm were not uncommon and Daniels Harbour recorded a weekly total of 76.6 mm. All areas of Atlantic Canada, with the exception of Labrador, had exceeded their normal monthly precipitation totals by the end of the week.

Mean temperatures were below normal over most areas this week. The mercury reached 29° at Chatham and Fredericton and came within 1° of the freezing point at Cartwright.

CLIMATIC PERSPECTIVES

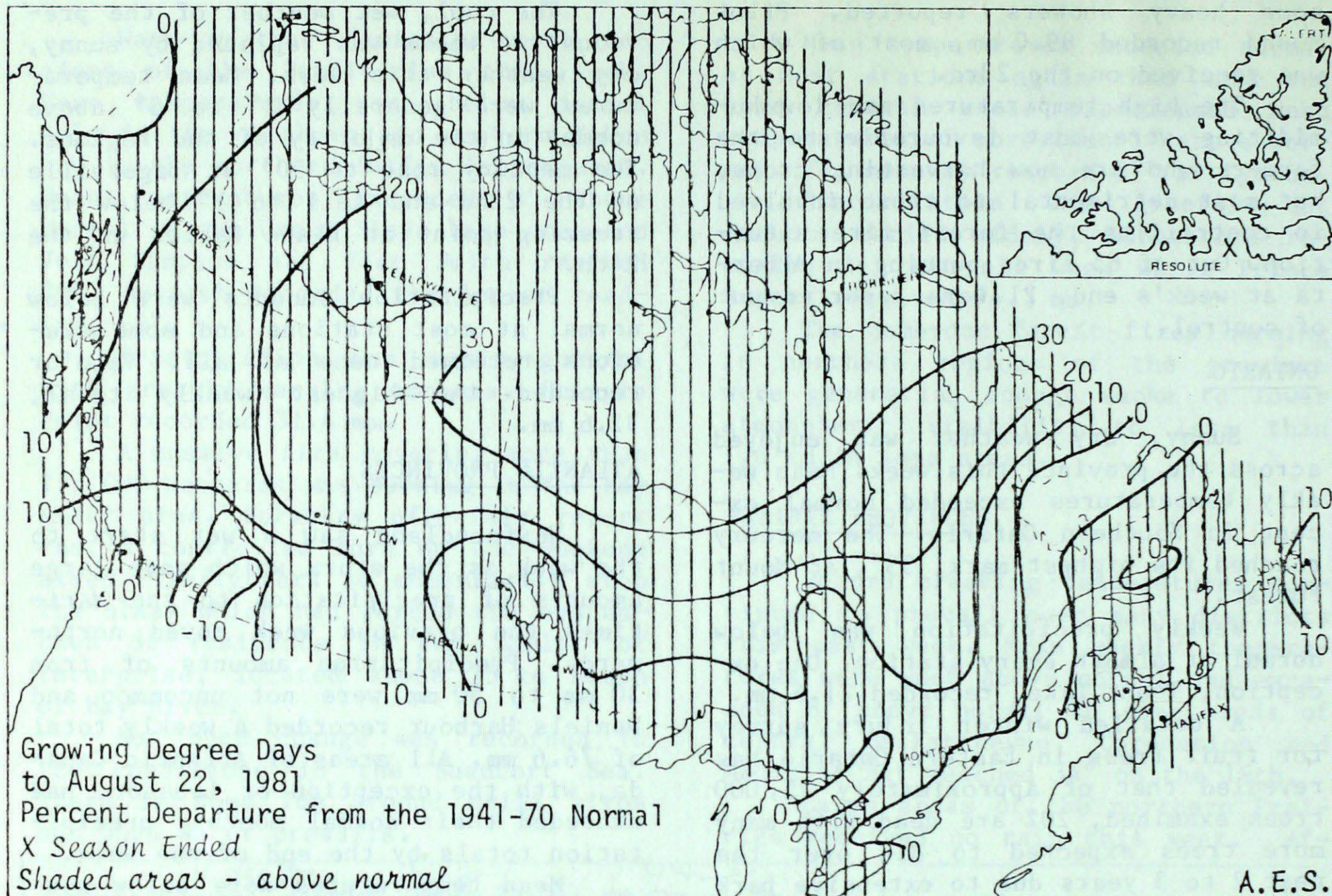
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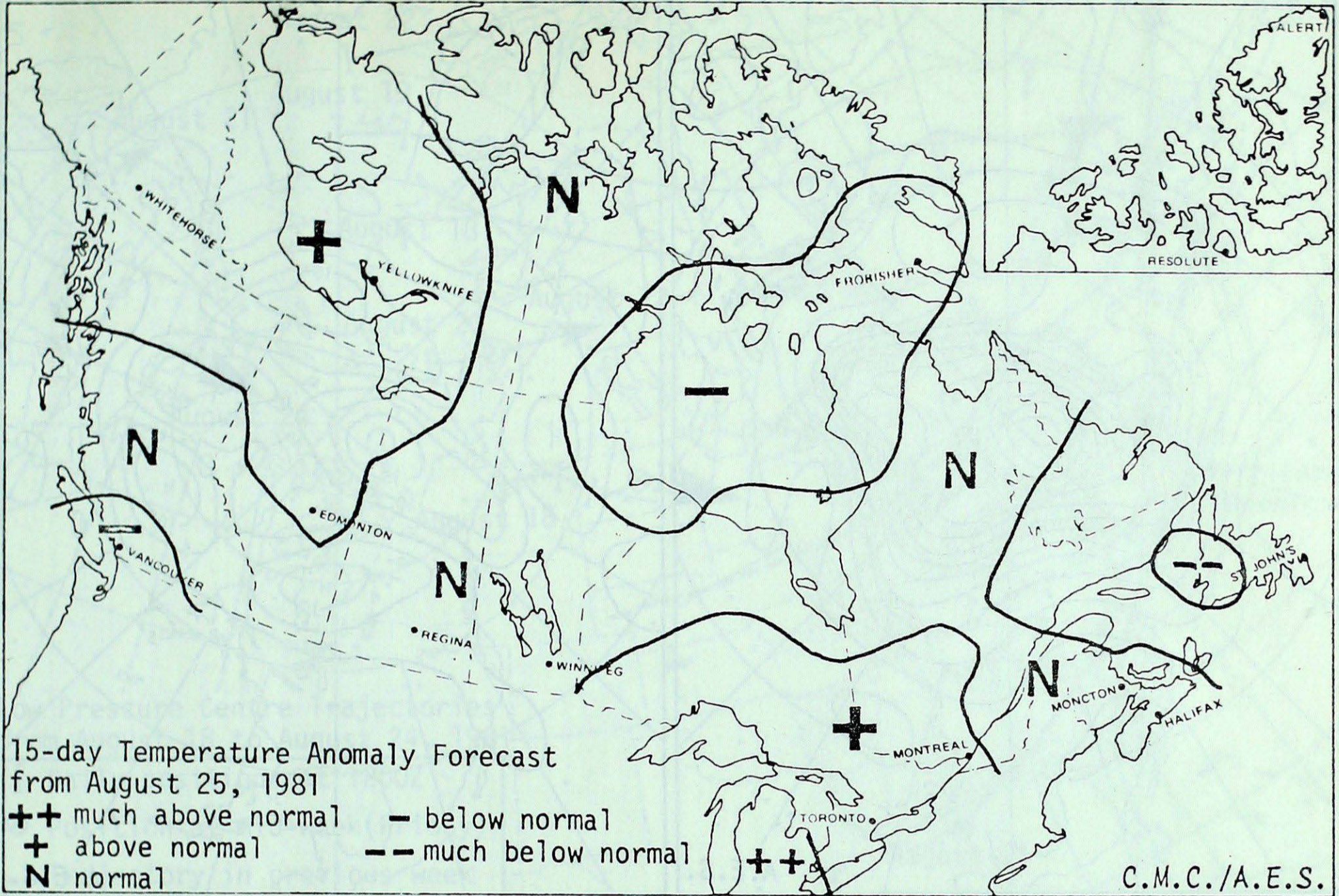
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GROWING DEGREE-DAY SUMMARY TO AUGUST 22, 1981

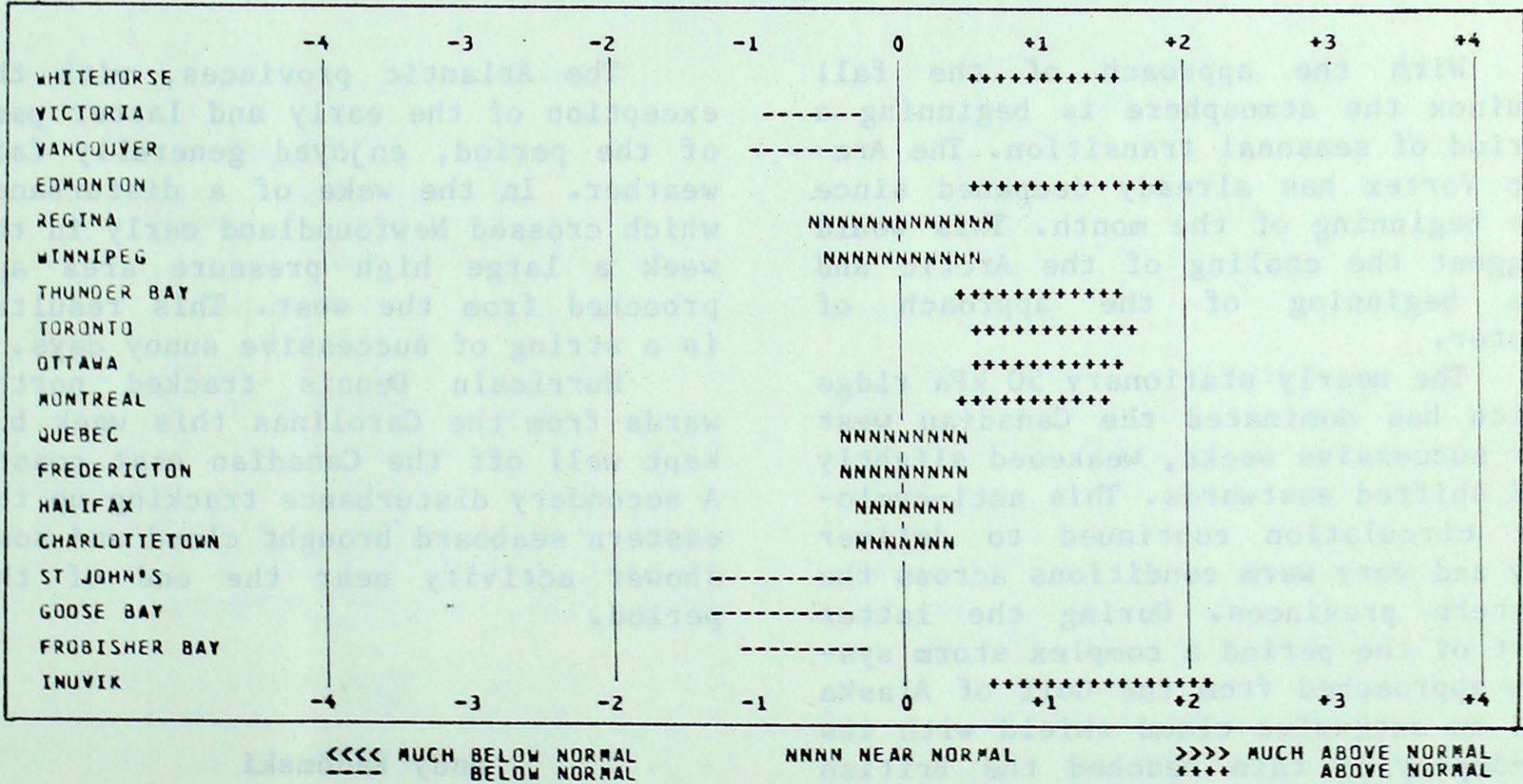


CITY	MONTHLY CUMULATIVE TOTAL	MONTHLY DIFF. FROM 1941-70 NORMAL	SEASONAL TOTAL	SEASONAL DIFF. FROM 1941-70 NORMAL	SEASONAL PERCENT OF NORMAL
Whitehorse	181.5	10.5	772.0	35.0	105
Penticton	398.5	75.5	1530.0	-20.0	99
Vancouver	319.5	47.5	1438.5	83.5	106
Edmonton	347.5	102.5	1340.5	292.5	128
Calgary	283.5	44.5	1043.5	47.5	105
Regina	342.0	46.0	1414.0	181.0	115
Saskatoon	348.5	64.5	1380.5	161.5	113
Winnipeg	324.0	12.0	1360.5	47.5	104
Thunder Bay	296.0	38.0	1103.0	72.0	107
Windsor	364.0	4.0	1821.5	80.5	105
Toronto	317.0	-20.0	1403.5	-109.5	93
Ottawa	323.0	2.0	1481.5	6.5	100
Montreal	318.5	-16.5	1481.5	-37.5	98
Quebec	280.0	-6.0	1260.5	7.5	101
Fredericton	314.5	18.5	1331.5	74.5	106
Halifax	280.0	-10.0	1105.0	-1.0	100
Charlottetown	288.0	-3.0	1181.0	103.0	110
St John's	235.0	-6.0	856.5	103.5	114

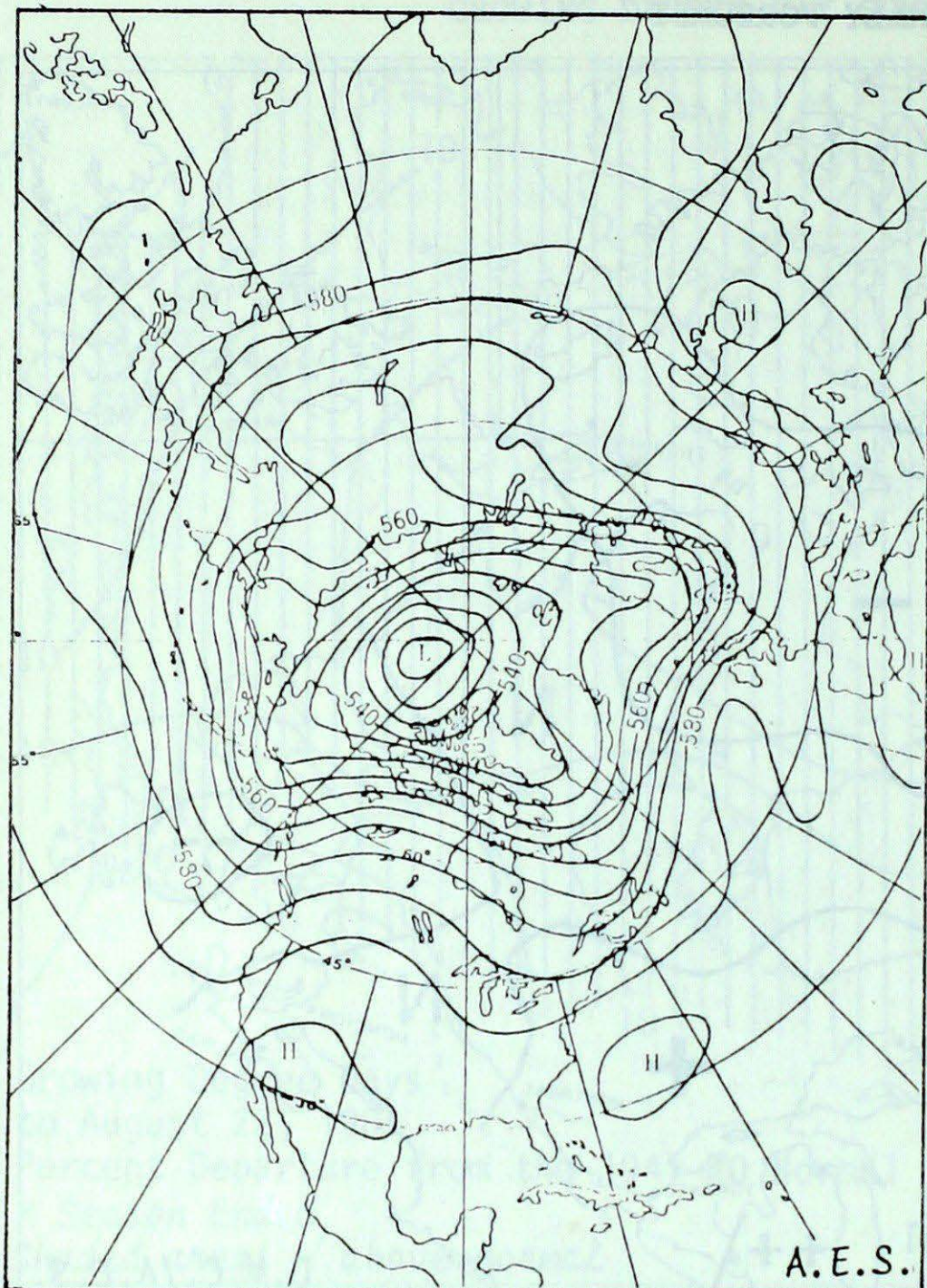
TEMPERATURE ANOMALY FORECAST



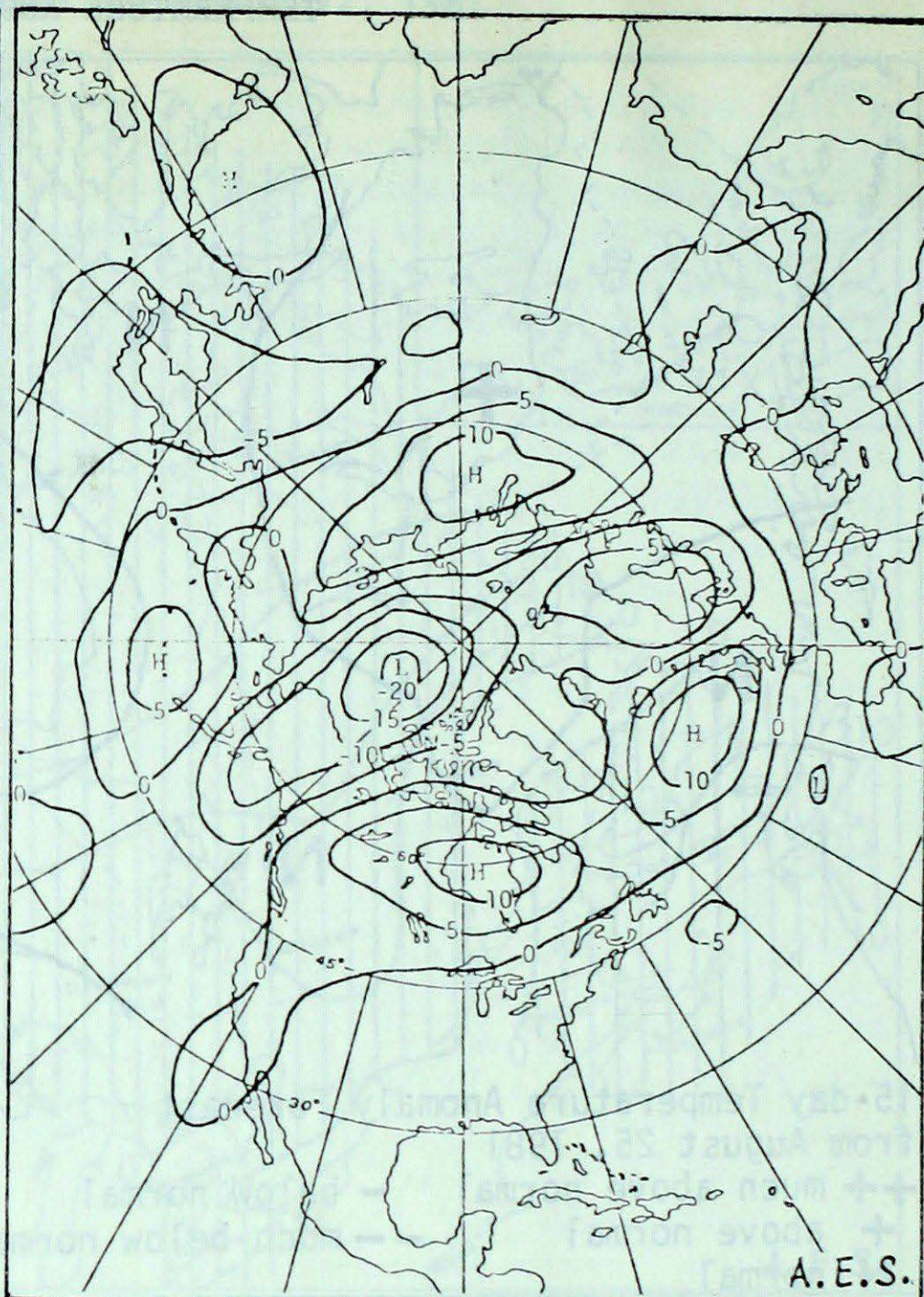
TEMPERATURE ANOMALY FORECAST FOR AUG 25 1981 TO SEP 8 1981



Atmospheric Circulation



7-day Mean 50 kPa Height Map (in dam)
August 17 to August 23, 1981



7-day Mean 50 kPa Height Anomaly
(in 5 dam intervals)
August 17 to August 23, 1981

With the approach of the fall equinox the atmosphere is beginning a period of seasonal transition. The Arctic Vortex has already deepened since the beginning of the month. This would suggest the cooling of the Arctic and the beginning of the approach of winter.

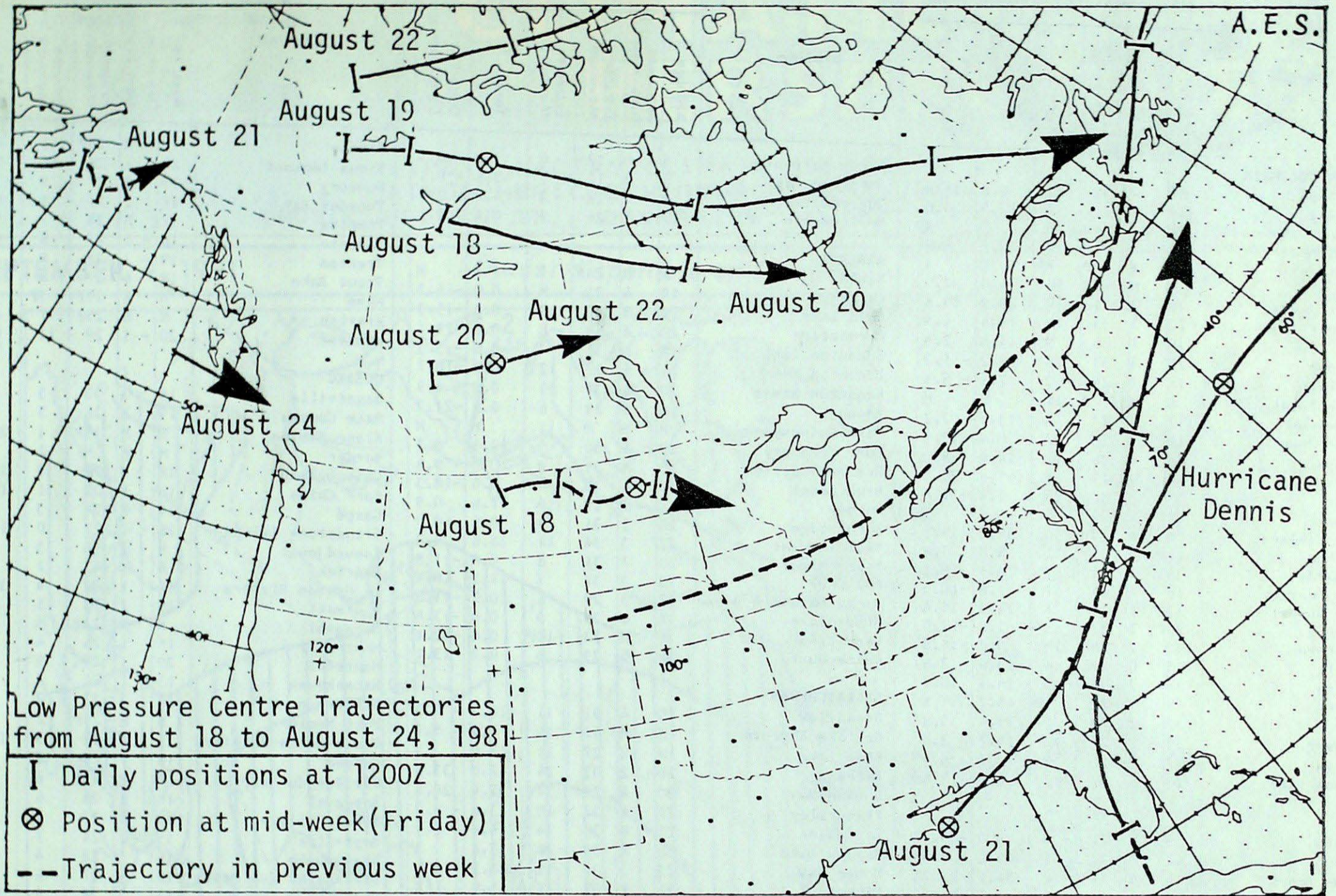
The nearly stationary 50 kPa ridge which has dominated the Canadian west for successive weeks, weakened slightly and shifted eastwards. This anti-cyclonic circulation continued to deliver dry and very warm conditions across the western provinces. During the latter part of the period a complex storm system approached from the Gulf of Alaska and an extensive cloud shield with its accompanying rain reached the British Columbia coast line.

The Atlantic provinces, with the exception of the early and latter part of the period, enjoyed generally fair weather. In the wake of a disturbance which crossed Newfoundland early in the week a large high pressure area approached from the west. This resulted in a string of successive sunny days.

Hurricane Dennis tracked northwards from the Carolinas this week but kept well off the Canadian east coast. A secondary disturbance tracking up the eastern seaboard brought cloud and some shower activity near the end of the period.

Andy Radomski

LOW PRESSURE CENTRE TRAJECTORIES



TEMPERATURE AND PRECIPITATION DATA FOR THE WEEK ENDING 0600 G.M.T. AUGUST 25, 1981

Station	Temperature (°C)				Precip. (mm)		Station	Temperature (°C)				Precip. (mm)		Station	Temperature (°C)				Precip. (mm)	
	Average	Departure from Normal	Extreme Maximum	Extreme Minimum	Total	Departure from Normal		Average	Departure from Normal	Extreme Maximum	Extreme Minimum	Total	Departure from Normal		Average	Departure from Normal	Extreme Maximum	Extreme Minimum	Total	Departure from Normal
BRITISH COLUMBIA							Sachs Harbour	5	0	12	0	7.9	-0.3	Simeoe	M	M	26P	11	0.0	-21.2
Abbotsford	19	2	32	12	0.0	-14.5	Shepherd Bay	6	0	12	-1	2.6	-6.1	Sioux Lookout	20	4	28	14	0.0	-18.0
Alert Bay	14	-1	21	7	17.5	4.0	Tuktoyaktuk	9	-1	18	3	4.0	-2.3	Sudbury	19	2	27	9	7.0	-6.5
Blue River	M	X	26P	8	M	X	Yellowknife	17	4	26	9	0.4	-9.1	Thunder Bay	18	2	27	8	0.0	-17.0
Bull Harbour	14	0	21	9	22.6	6.8	ALBERTA							Timmins	17	3	28	7	5.4	-18.8
Burns Lake	M	X	29P	8P	M	X	Banff	M	M	24P	3	M	M	Toronto	18	-1	27	8	0.7	-14.9
Cape Scott	M	M	17P	10	34.0	2.0	Calgary	19	4	31	8	0.0	-16.5	Trenton	19	-1	28	9	1.0	-15.6
Cape St James	16	2	21	12	29.9	14.6	Calgary	20	5	32	9	0.0	-15.3	Trout Lake	18	4	27	8	21.6	4.8
Castlegar	22	3	33	10	19.8	6.9	Cold Lake	20	4	34	8	0.0	-11.1	Wawa	M	X	23P	3P	M	X
Comox	18	1	26	9	14.6	2.9	Coronation	20	4	34	8	0.0	-11.1	Warton	M	M	25P	7	8.2	-10.8
Cranbrook	20	3	33	8	3.2	-5.3	Edmonton Intl	19	4	31	7	0.0	-5.3	Windsor	20	-1	29	11	0.0	-15.7
Dense Lake	12	1	24	-2	2.1	-5.9	Edmonton Mun	21	6	32	12	0.0	-10.7	QUÉBEC						
Estevan Point	M	M	17P	11	M	M	Edmonton Namoo	20	4	31	11	0.0	-6.9	Bagotville	18	3	30	5	0.0	-19.0
Fort Nelson	17	3	27	5	13.6	2.2	Edson	18	5	29	6	0.8	-21.3	Baie Comeau	15	1	26	3	3.8	-22.5
Fort St John	19	5	28	7	0.4	-12.8	Fort Chipewyan	M	M	M	11	M	M	Blanc Sablon	M	M	15P	-1	24.3	0.3
Kamloops	23	4	36	12	14.9	9.0	Fort McMurray	19	5	30	5	22.3	6.7	Border	M	M	M	2	M	M
Langara	13	0	19	9	45.6	21.5	Grande Prairie	20	5	31	8	0.0	-9.8	Chibougamau	18	X	28	9	16.3	X
Lytton	23	3	37	13	1.4	-1.6	High Level	18	4	30	4	0.0	-18.3	Fort Chimo	10	1	22	1	18.2	5.9
Mackenzie	M	X	29	4P	0.0	X	Jasper	17	3	29	6	11.6	0.9	Gaspé	14	X	28	3	2.4	X
McInnes Island	M	M	19P	10	38.8	15.1	Lethbridge	20	2	31	9	0.5	-10.0	Grindstone Island	16	-1	22	10	10.8	-11.0
Pentteton	22	3	35	11	9.8	3.8	Medicine Hat	22	3	34	11	16.6	6.2	Inoucdjouac	8	-1	15	3	5.4	-7.1
Port Hardy	14	1	21	7	8.6	-8.1	Peace River	20	7	31	8	0.0	-11.8	Koartak	6	X	12	2	M	X
Prince George	18	5	29	7	2.8	-10.5	Red Deer	18	3	31	7	14.2	0.1	la Grande Rivière	16	X	27	4	13.4	X
Prince Rupert	13	1	19	6	74.3	35.6	Rocky Mountain House	17	3	29	6	0.2	-11.9	Mindwaki	18	2	28	5	4.7	-20.9
Quesnel	20	5	32	6	2.6	-11.0	Slave Lake	18	6	29	9	0.0	-13.8	Matagami	M	X	28P	5	0.4	X
Revelstoke	19	2	28	10	0.2	-16.6	Vermilion	M	M	33	10P	0.0	-12.1	Mont-Joli	16	1	26	4	0.2	-21.1
Sandspit	15	0	21	8	13.4	3.6	Whitecourt	18	5	29	6	0.2	-13.1	Montréal	20	1	29	9	5.0	-11.2
Smithers	16	2	30	4	16.3	10.2	SASKATCHEWAN							Natashquan	13	1	21	3	6.2	-24.6
Stewart	M	X	22	7P	45.7	X	Broadview	20	4	31	11	16.3	-4.2	Nitchequan	14	3	23	3	5.0	-19.1
Terrace	17	1	29	10	15.4	5.8	Buffalo Narrows	M	M	31P	11	7.4	-5.7	Port Menier	M	M	24P	2	M	M
Vancouver	19	2	27	12	14.7	3.0	Cree Lake	19	X	27	11	17.0	X	Poste-de-la-Baleine	11	1	28	3	14.0	-3.3
Victoria	17	1	26	10	0.7	-6.9	Estevan	21	2	33	14	47.0	35.5	Québec	18	1	28	8	0.4	-23.7
Williams Lake	20	5	30	10	0.6	-3.6	Hudson Bay	20	4	29	11	37.4	28.1	Rivière du Loup	M	M	25P	6	-M	M
YUKON							Kindersley	21	4	32	10	3.6	-6.3	Roberval	18	3	28	6	0.0	-13.0
Burwash	9	-1	21	-6	0.0	-9.1	La Ronge	23	8	30	14	4.4	-8.1	Schefferville	12	3	22	2	7.6	-12.0
Dawson	12	0	22	1	5.2	-8.5	Meadow Lake	20	X	31	8	7.4	X	Sept-Îles	15	2	24	7	2.4	-17.4
Komakuk Beach	5	-1	13	-2	34.1	25.7	Noose Jaw	22	3	31	12	14.2	5.4	Sherbrooke	16	1	28	4	2.8	-32.8
Mayo	12	1	22	1	0.5	-8.2	Nipawin	21	X	29	11	5.0	X	Ste Agathe des Monts	18	3	27	6	1.2	-21.7
Shingle Point	6	-3	19	0	31.4	19.5	North Battleford	21	4	31	10	0.2	-14.2	Val d'Or	17	3	28	4	32.6	11.6
Watson Lake	14	1	23	0	0.6	-9.1	Prince Albert	21	5	31	10	11.0	-2.9	NEW BRUNSWICK						
Whitehorse	11	-1	23	-2	1.6	-5.2	Regina	21	3	30	11	0.9	-8.7	Charlo	16	1	28	4	0.4	-23.1
NORTHWEST TERRITORIES							Rockglen	M	X	M	16P	M	X	Chatham	17	0	29	7	5.5	-19.1
Alert	3	4	8	-3	4.0	-2.3	Saskatoon	22	5	31	10	4.6	-4.5	Fredericton	18	1	29	7	34.9	13.4
Baker Lake	11	2	17	3	5.0	-3.1	Swift Current	M	M	32P	11	M	M	Moncton	16	-1	27	7	13.0	-5.0
Broughton Island	2	0	8	-3	6.9	2.2	Uranium City	19	4	28	12	0.8	-12.2	Saint John	16	0	26	8	4.0	-16.5
Byron Bay	8	1	15	1	5.4	2.1	Wynyard	20	4	28	13	5.4	-1.7	NOVA SCOTIA						
Cambridge Bay	8	1	13	3	9.3	1.4	Yorkton	20	3	28	13	12.8	1.9	Eddy Point	16	X	25	9	2.0	X
Cape Dorset	M	X	11P	2P	M	X	MANITOBA							Greenwood	16	-1	27	5	0.6	-25.9
Cape Dyer	5	1	11	0	0.4	-17.5	Bissett	22	5	28	11	3.4	-12.8	Sable Island	M	M	22	9P	25.2	3.5
Cape Hooper	3	1	8	-2	5.2	-2.3	Brandon	22	4	30	13	56.0	43.9	Shearwater	16	-1	26	8	0.2	-22.5
Cape Parry	7	1	13	3	3.8	-5.2	Churchill	15	3	29	6	6.6	-7.8	Sydney	17	-1	25	7	0.0	-23.6
Cape Young	9	2	16	4	3.6	-5.2	Dauphin	21	4	31	14	8.6	-5.4	Truro	M	M	23P	4	M	M
Clinton Point	9	2	17	3	5.6	-0.6	Gillam	17	X	28	7	0.0	X	Yarmouth	16	0	24	8	0.0	-26.0
Clyde	5	1	12	-1	5.4	-1.9	Gimli	22	4	30	14	15.8	3.9	PRINCE EDWARD ISLAND						
Contwoyto Lake	12	2	18	4	7.7	0.6	Island Lake	20	X	27	11	1.5	X	Charlottetown	16	-1	26	8	2.7	-25.6
Coppermine	11	2	21	2	8.9	-1.8	Lynn Lake	19	6	29	11	0.8	-12.1	Summerside	17	-1	25	8	11.8	-8.9
Coral Harbour	8	1	17	-1	7.2	-3.4	Norway House	20	X	28	10	6.8	X	NEWFOUNDLAND						
Dowar Lakes	3	-1	9	-1	23.0	12.3	Pilot Mound	21	3	31	11	89.0	69.2	Argentia	15	X	22	9	34.3	X
Ennadai	M	M	22P	8	M	M	Portage la Prairie	22	4	31	14	9.4	-4.8	Battle Harbour	9	-2	24	5	7.8	-12.0
Eureka	3	1	8	-1	3.9	3.2	The Pas	20	4	27	12	4.2	-9.4	Bonavista	15	0	25	8	38.5	15.6
Fort Reliance	17	4	26	9	1.2	-7.8	Thompson	18	5	29	5	2.2	-12.8	Burgeo	15	0	21	7	M	M
Fort Simpson	18	3	29	7	7.2	-3.0	Winnipeg	22	4	29	14	0.2	-10.9	Cartwright	8	-3	22	1	12.6	-12.4
Fort Smith	18	4	29	8	0.0	-10.6	ONTARIO							Churchill Falls	12	1	24	2	5.0	-25.0
Frobisher Bay	8	1	14	3	5.6	-7.9	Armstrong	M	M	26P	4	0.6	-17.6	Comfort Cove	13	-1	27	5	52.0	24.6
Gladman Point	7	1	12	1	0.8	-2.3	Atikokan	18	3	27	7	0.4	-19.7	Daniel's Harbour	12	-2	19	2	76.6	46.0
Hall Beach	6	1	11	1	9.6	-1.3	Earlton	18	3	28	6	18.2	2.7	Deer Lake	14	0	25	4	24.7	-0.2
Hay River	18	4	28	11	1.8	-12.0	Geraldton	17	3	27	7	0.0	-15.8	Gander	14	-1	26	6	25.6	-5.1
Inuvik	10	-1	22	0	6.8	-6.4	Gore Bay	18	0	26	9	5.7	-11.8	Goose	13	0	28	4	13.2	-11.4
Jenny Lind Island	6	2	13	2	2.2	-0.6	Kapuskasing	18	3	28	6	13.7	-8.7	Hopedale	10	0	23	4	11.9	-11.7
Lady Franklin Point	9	2	13	3	3.0	-0.6	Kenora	21	4	27	15	0.4	-13.8	Port aux Basques	14	0	20	7	2.2	-28.5
Longstaff Bluff	4	-2	9	-1	13.4	5.3	Kingston	19	0	26	9	0.4	-14.3							