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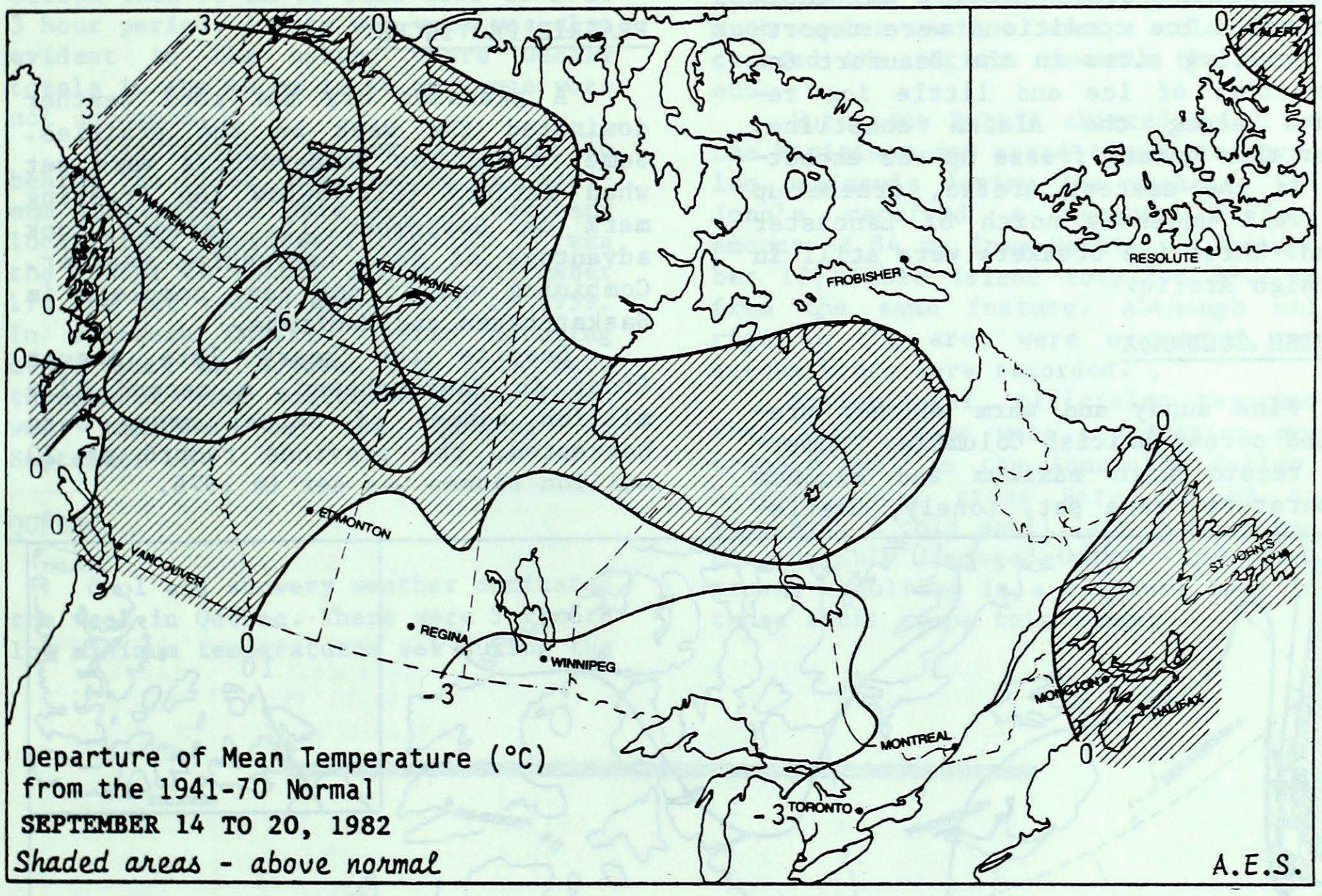
A WEEKLY REVIEW OF CANADIAN CLIMATE

CLIMATIC PERSPECTIVES

Canada

THE CANADIAN CLIMATE CENTRE,
ATMOSPHERIC ENVIRONMENT SERVICE,
4905 DUFFERIN ST., DOWNSVIEW, ONTARIO M3H 5T4

EPTEMBER 24, 1982 (Aussi disponible en français) VOL.4 NO.37



Departure of Mean Temperature (°C)
from the 1941-70 Normal
SEPTEMBER 14 TO 20, 1982
Shaded areas - above normal

A.E.S.

WEATHER HIGHLIGHTS FOR THE PERIOD - SEPTEMBER 14 TO 20, 1982

A record Harvest in Saskatchewan

Farmers on the prairies took advantage of dry weather of the last two weeks and nearly completed the harvesting. Despite the widespread frost of late August, Saskatchewan produced a record 22.4 million tonnes of cereal crop.

A remnant of Hurricane Debbie dumped nearly 100 mm of rain over extreme southern portions of the Atlantic regions during the weekend. Temperatures of the week ranged from 30.8° at Gaspé, Qué. to -17.7° at Eureka, N.W.T. Sable Island totalled 117.8 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 THE NORTHWEST TERRITORIES

Very warm weather prevailed across the Yukon. In addition to the establishment of daily record temperatures at several localities, Beaver Creek set highest maximum temperature for the month when mercury climbed to 26.5° on September 15 (previous record 23.3°). Spotty precipitation was reported across the region.

In the western Arctic, extremely favourable ice conditions were reported. Drilling sites in the Beaufort Sea were clear of ice and little ice remained along the Alaska coastline. Later than normal freeze up was expected. In the eastern Arctic, freeze up was well underway north of Lancaster Sound. Three ice breakers were still in the high Arctic.

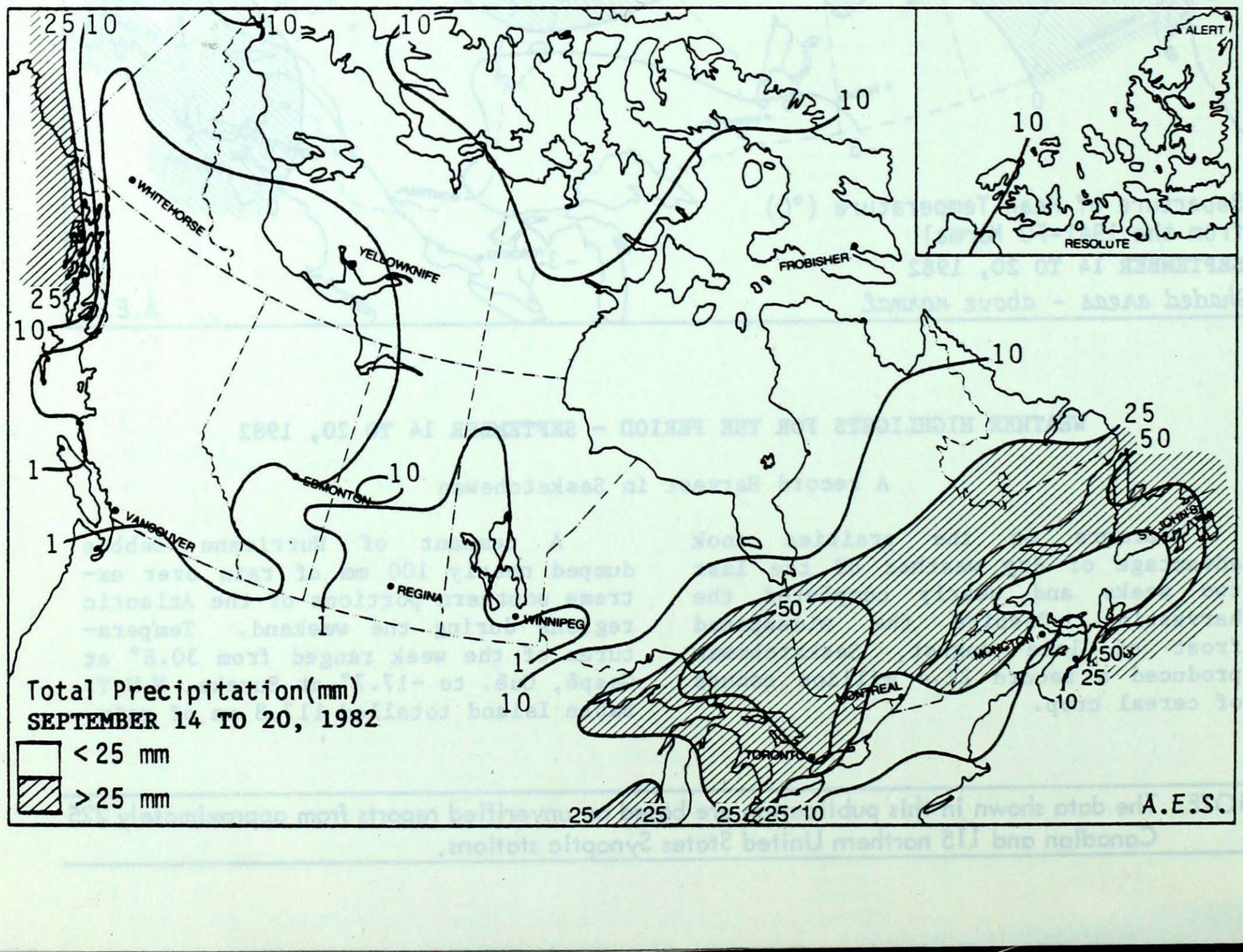
BRITISH COLUMBIA

Fine sunny and warm weather prevailed across British Columbia. Numerous record high maximum and minimum temperatures were set. Lonely, Castlegar set record low maximum temperature on September 14 and September 15, when mercury remained below the 10° mark. Fort St. John reported first frost of the season on September 13, some damage to the crops was evident. Precipitation was well below normal across all of the regions. A scanty 1.2 mm, at Kelowna, was the highest precipitation amount of the week. Harvesting of the hay crop was complete near Kamloops.

PRAIRIE PROVINCES

A pleasant dry but cool weather dominated the week on the prairies. Some record low temperatures were set when mercury fell below the freezing mark on September 15. Farmers took advantage of good harvesting weather. Combining was 75 per cent complete in Saskatchewan and Manitoba.

Despite the heavy late August frost in Saskatchewan, a record 22.4 million tonnes of cereal crops were harvested, the previous record of 20 million tonnes was set in 1976.



ONTARIO

With the passage of a vigorous cold frost on September 14, warm and hazy weather come to an abrupt end. The same system brought heavy downpour which saw local flooding in several communities. Flooded roads and power outages were reported northwest of Toronto. Heaviest rain was recorded at Guelph when 95 mm of rain fell in 2 to 3 hour period. A very wet week was also evident in the north, where weekly totals in the 40 mm to 80 mm range were not uncommon.

Significantly colder air moved in behind the front, when record low maximum temperatures were set in northern localities. Moosonee's high of 7° was the lowest on record for any September 17. The old record dates back to 1959. In southern Ontario, later maturing crops such as soybean and corn were threatened when scattered light frost was reported on the morning of September 18.

QUÉBEC

Cool and showery weather dominated the week in Québec. There were 5 record low minimum temperatures set during the week. A variable precipitation pattern prevailed over the province; while 60 mm fell at Val D'Or, Poste-de-la-Baleine received only 3 mm during the period.

ATLANTIC PROVINCES

Record setting warm weather early in the week, which saw daytime temperatures in the high twenties, gave way to much cooler weather when a cold front crossed the regions towards the weekend.

Hurricane Debbie skirted south of the Maritimes and moved toward the Avalon peninsula during the weekend. St. John's received a record rainfall amount of 84 mm from Debbie on September 18, Sable Island totalled 99.2 mm from the same feature. Although oil rigs in the area were evacuated, no strong winds were recorded.

Agricultural officials reported that apple crops were progressing extremely well in the Annapolis Valley, however, pear crops were not up to standard. A cold spell last January had considerably damaged peach and plum trees, resulting in a complete loss in those fruit crops this summer.

PERSPECTIVES CLIMATIQUES

Personnel

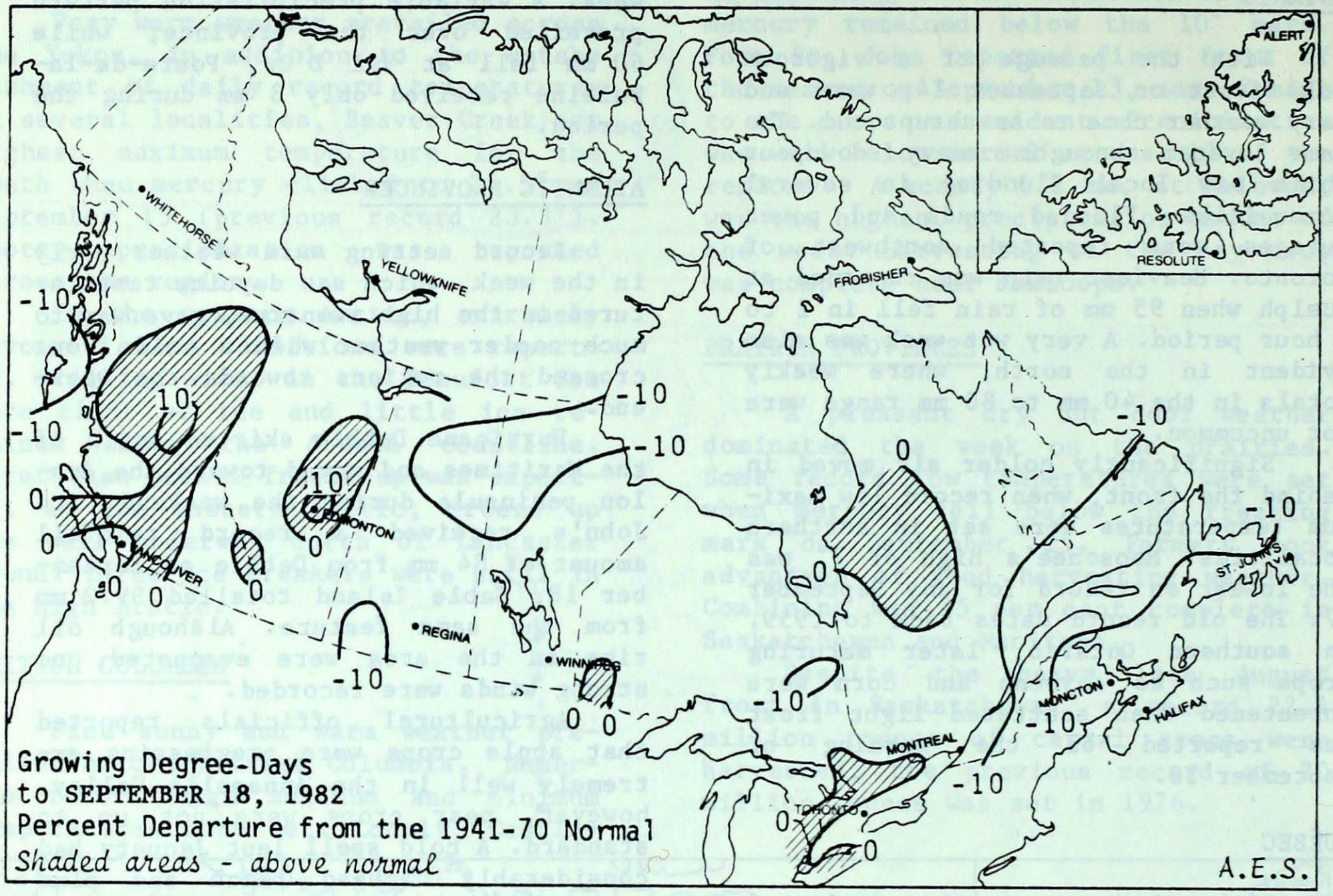
Rédacteur en chef: Yves Durocher
Rédacteur adjoint: Amir Shabbar
Personnel technique: Fred Richardson, Andy Radomski
Graphiques et mise en page: B. Johnson, J. Rautenberg
Composition des caractères: Una Ellis

Correspondants

Terry Mullane, (Centre de prévision de glaces)
H.E. Wahl, (Whitehorse)
Bill Prusak, (Région de l'Ouest)
Fred Luciow, (Région du Centre)
Bryan Smith, (Région de l'Ontario)
Guy Borne (Région du Québec)
Frank Amirault (Région de l'Atlantique)
Earl Coatta (Région du Pacifique)

Information - Téléphone (416) 667-4711/4906

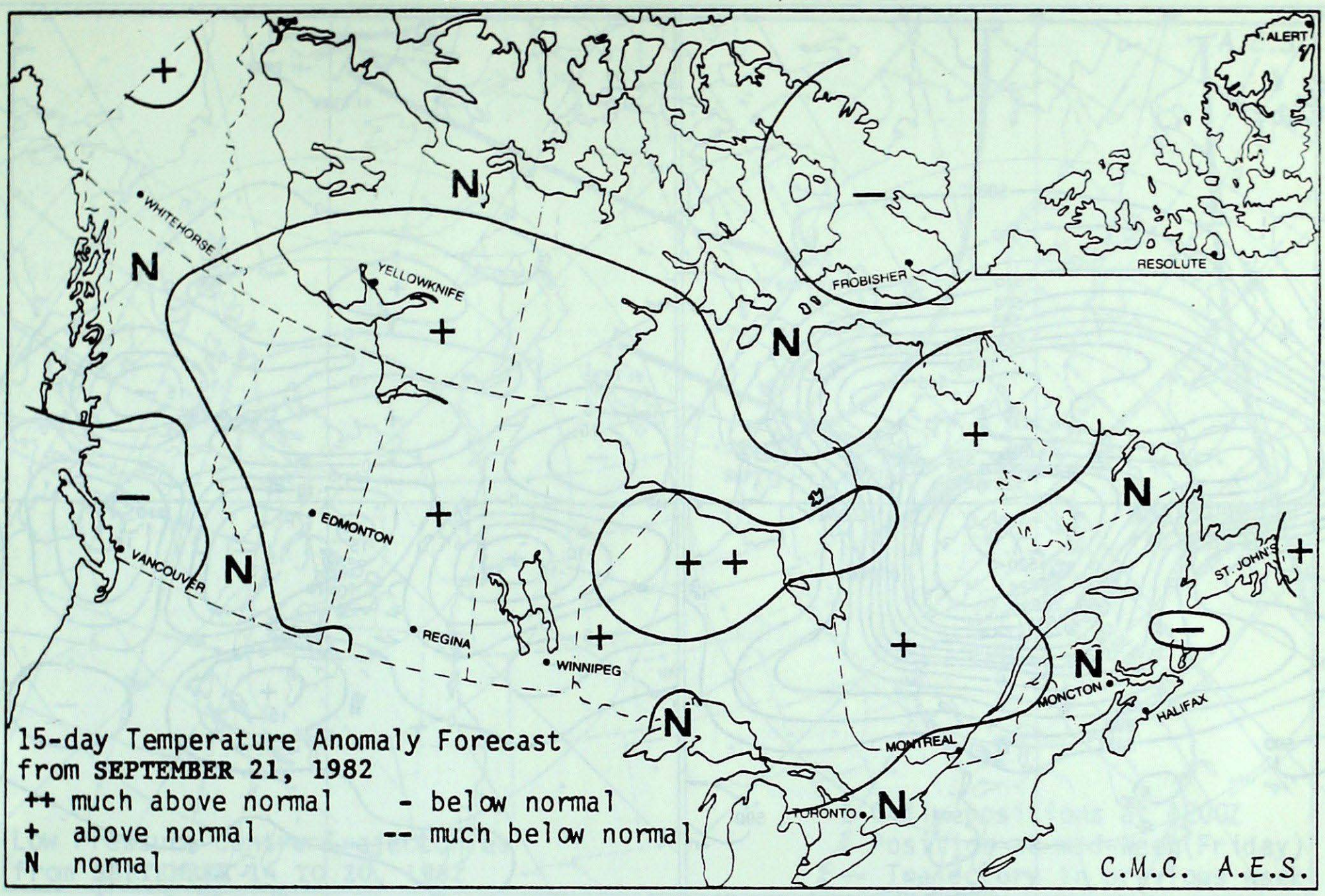
GROWING DEGREE-DAY SUMMARY TO SEPTEMBER 18, 1982



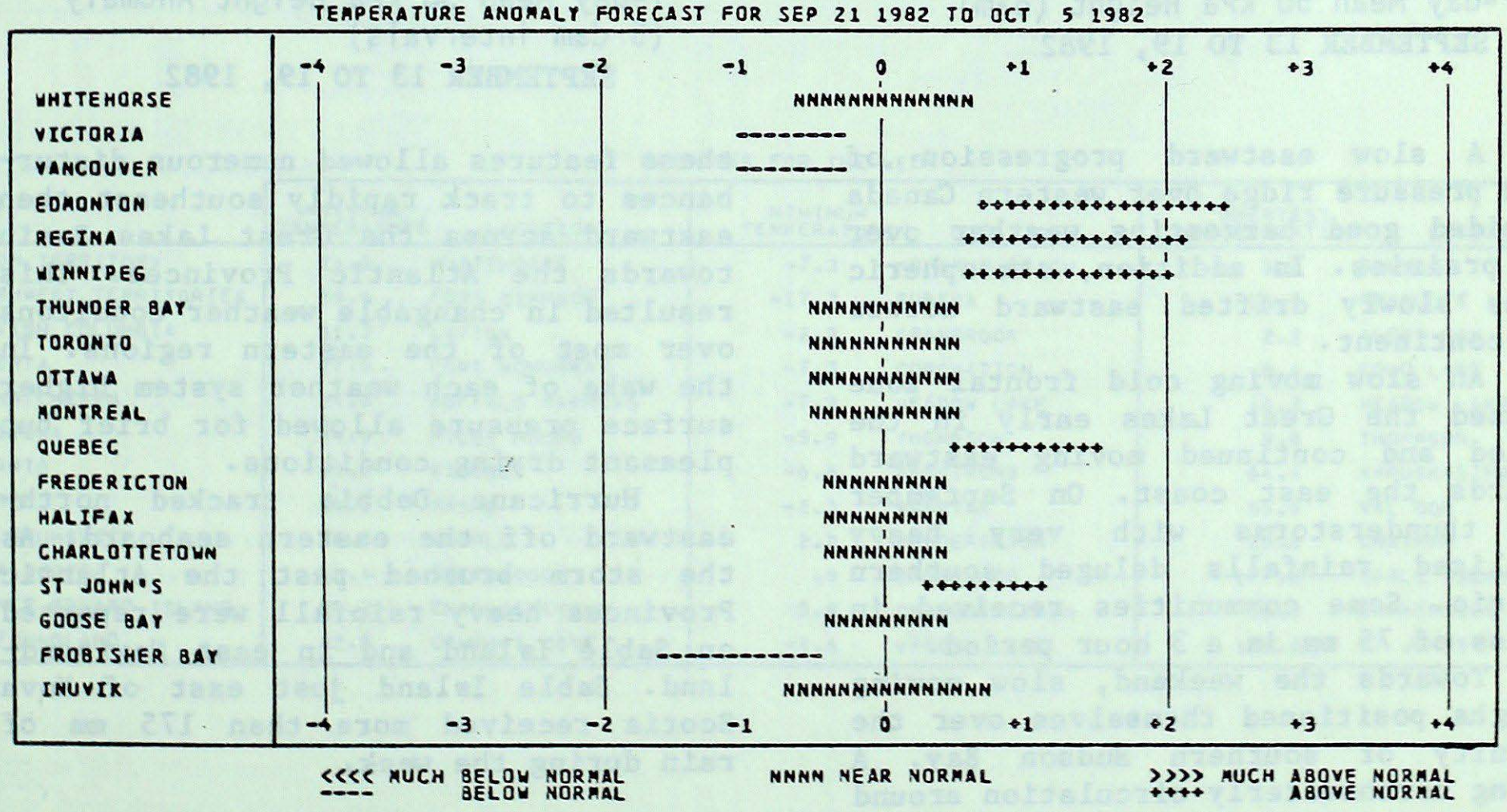
STATION	MONTHLY CUMULATIVE TOTAL	MONTHLY DIFF. FROM 1941-70 NORMAL	SEASONAL TOTAL	SEASONAL DIFF. FROM 1941-70 NORMAL	SEASONAL PERCENT OF NORMAL
Whitehorse*	31.5	-40.5	820.5	-45.5	95
Penticton	195.5	1.5	1811.5	-51.5	97
Vancouver	192.0	11.0	1599.0	-39.0	98
Edmonton	145.0	34.0	1384.5	150.5	112
Calgary*	109.0	-21.0	1186.0	-18.0	99
Regina*	129.0	-19.0	1475.5	-10.5	99
Saskatoon	139.5	-1.5	1357.5	-104.5	93
Winnipeg*	144.0	-24.0	1570.5	-21.5	99
Thunder Bay*	127.0	-10.0	1208.0	-59.0	95
Windsor	245.0	-6.0	2149.5	10.5	100
Toronto	195.0	-22.0	1726.0	-132.0	93
Ottawa	189.0	-5.0	1791.5	-0.5	100
Montréal	192.5	-17.5	1789.5	-66.5	96
Québec	170.5	4.5	1466.5	-62.5	96
Fredericton	189.0	27.0	1509.0	-18.0	99
Halifax	186.5	5.5	1276.5	-120.5	91
Charlottetown	173.0	-7.0	1290.5	-75.5	94
St. John's	145.0	4.0	892.0	-85.0	91

*season ended

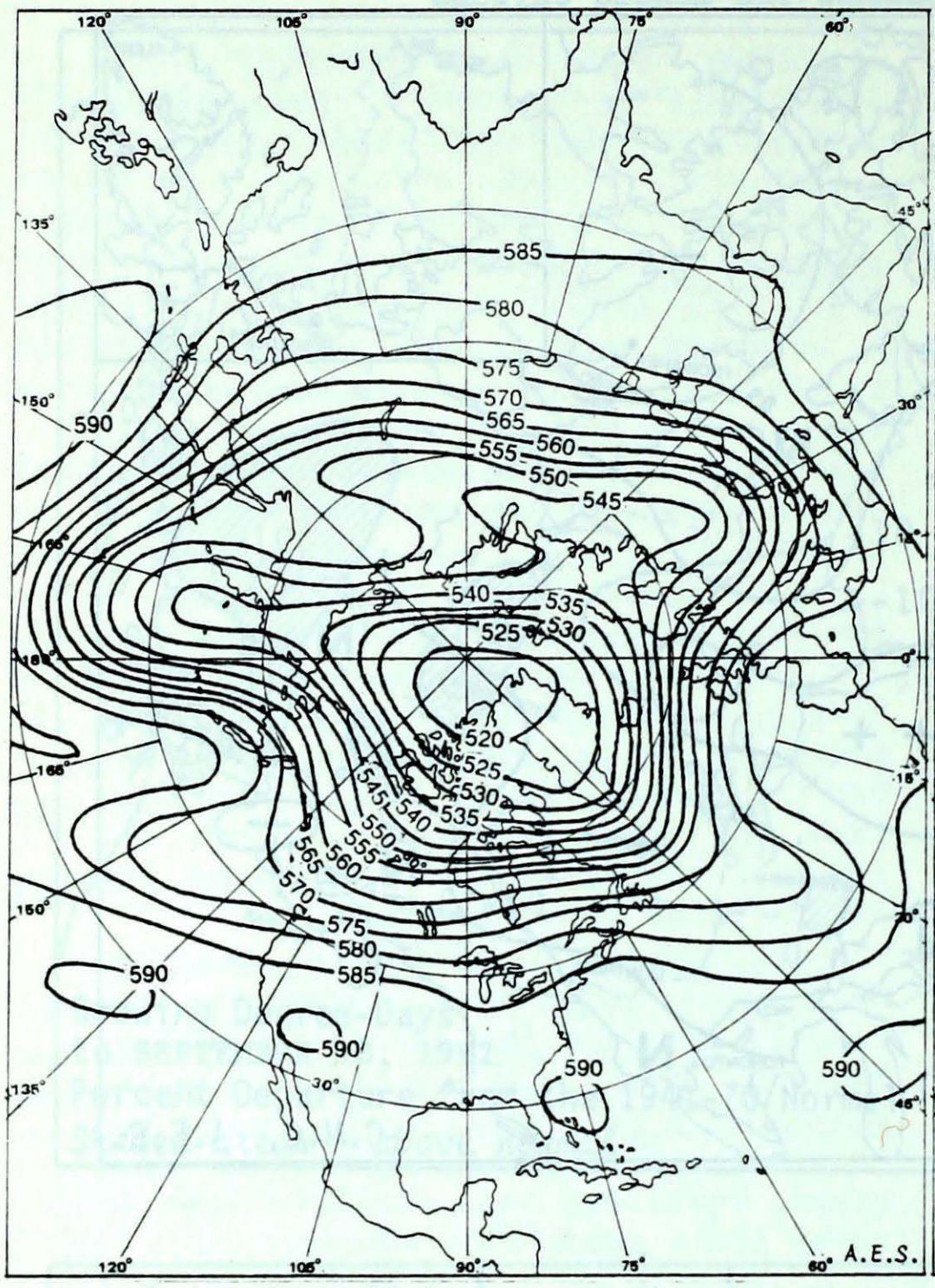
TEMPERATURE ANOMALY FORECAST



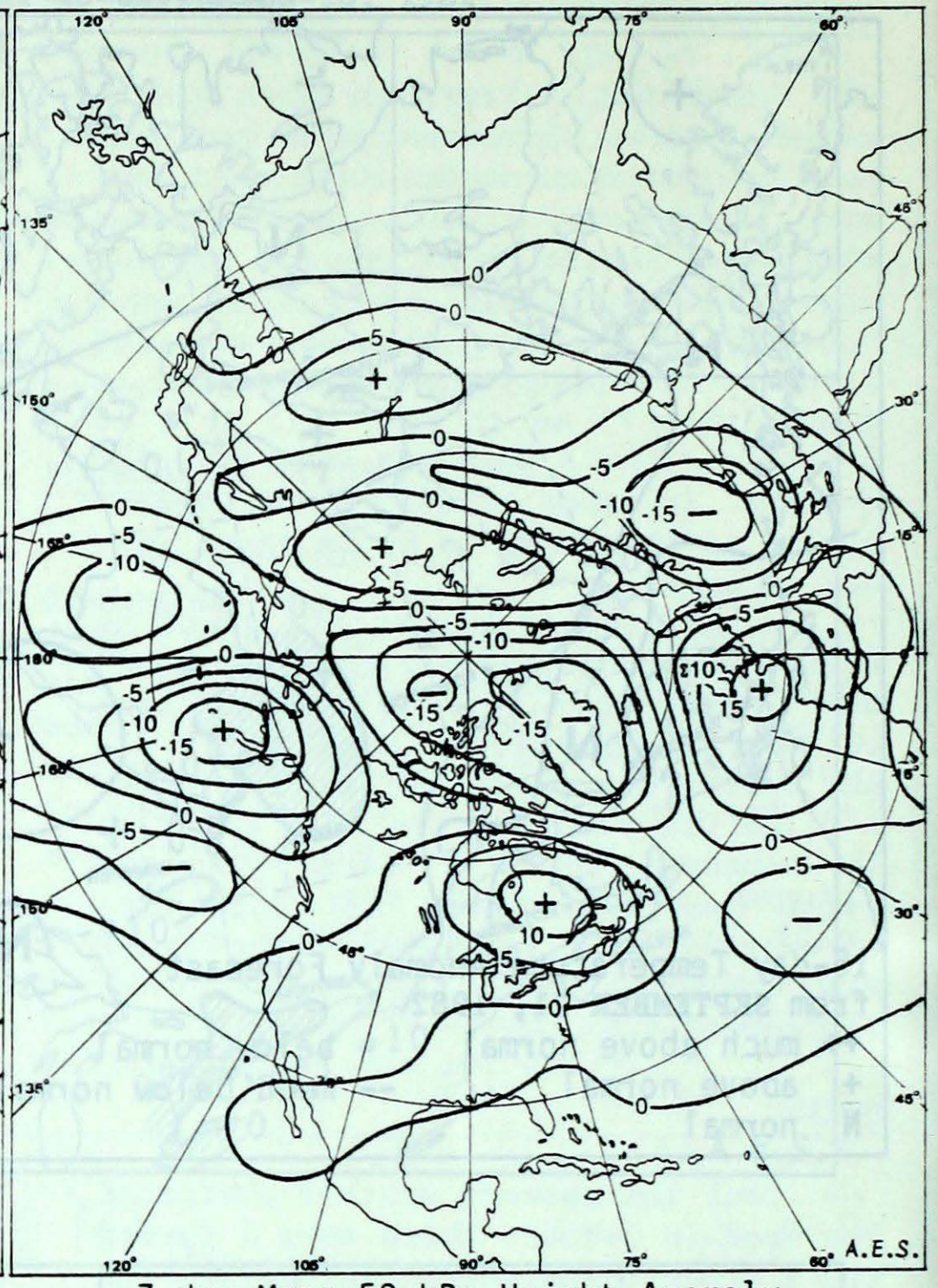
TEMPERATURE ANOMALY FORECAST FOR SEP 21 1982 TO OCT 5 1982



ATMOSPHERIC CIRCULATION



7-day Mean 50 kPa Height (dam)
SEPTEMBER 13 TO 19, 1982



7-day Mean 50 kPa Height Anomaly
(5 dam intervals)
SEPTEMBER 13 TO 19, 1982

A slow eastward progression of high pressure ridge over western Canada provided good harvesting weather over the prairies. In addition, atmospheric waves slowly drifted eastward across the continent.

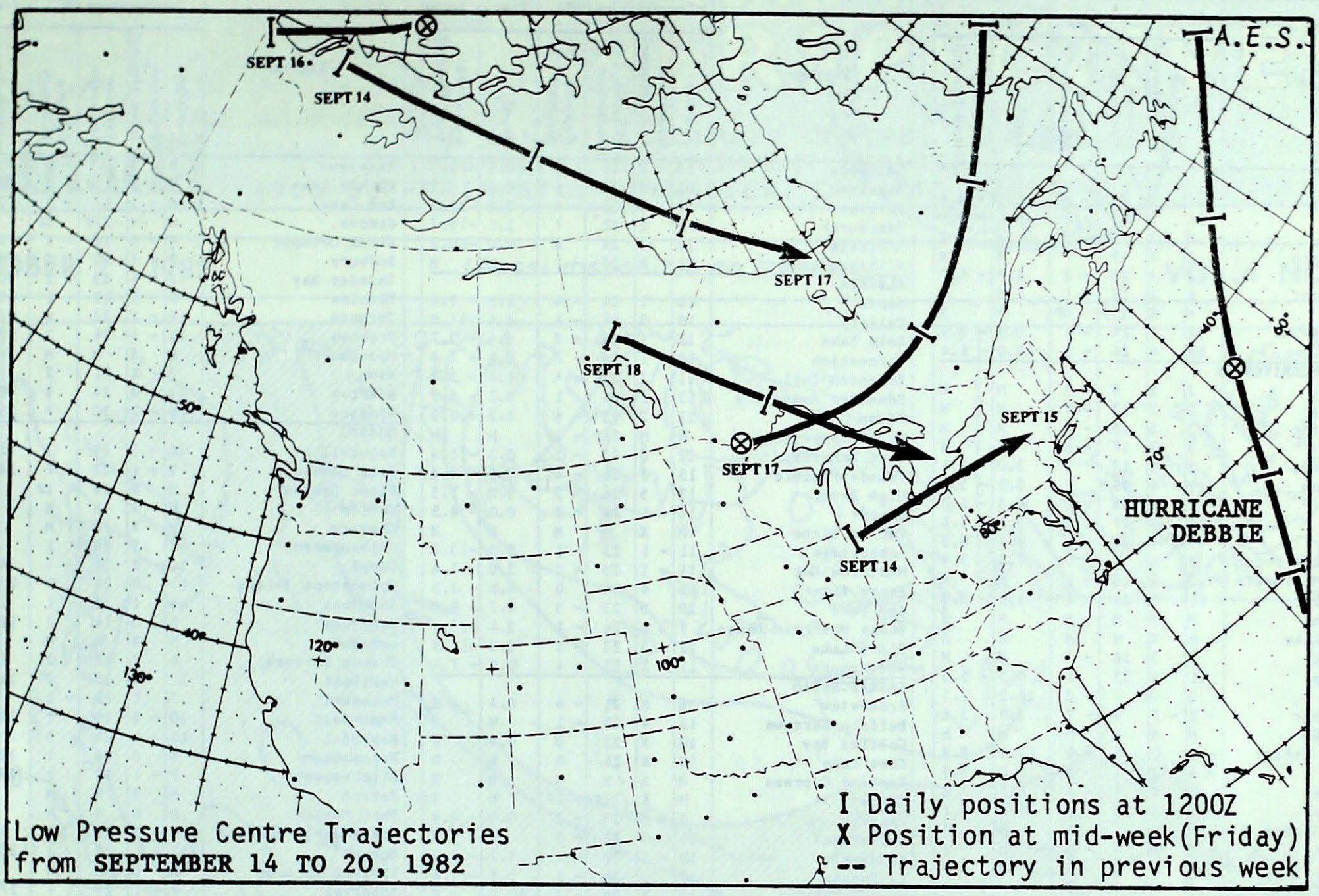
An slow moving cold frontal zone crossed the Great Lakes early in the period and continued moving eastward towards the east coast. On September 14, thunderstorms with very heavy localized rainfalls deluged southern Ontario. Some communities received in excess of 75 mm in a 3 hour period.

Towards the weekend, slow moving troughs positioned themselves over the vicinity of southern Hudson Bay. A strong northwesterly circulation around these features allowed numerous disturbances to track rapidly southeast then eastward across the Great Lakes Basin towards the Atlantic Provinces. This resulted in changable weather conditons over most of the eastern regions. In the wake of each weather system higher surface pressure allowed for brief but pleasant drying conditions.

Hurricane Debbie tracked northeastward off the eastern seaboard. As the storm brushed past the Atlantic Provinces heavy rainfall were reported on Sable Island and in east Newfoundland. Sable Island just east of Nova Scotia received more than 175 mm of rain during the week.

Andy Radomski

LOW PRESSURE CENTRE TRAJECTORIES



Low Pressure Centre Trajectories
from **SEPTEMBER 14 TO 20, 1982**

I Daily positions at 1200Z
X Position at mid-week(Friday)
-- Trajectory in previous week

EXTREMES FOR THE WEEK

	MAXIMUM TEMPERATURE	LOCATION	MINIMUM TEMPERATURE	LOCATION	GREATEST PRECIPITATION	LOCATION
YUKON TERRITORY	24.0	WHITEHORSE	-7.3	KOMAKUK BEACH	3.6	DAWSON
NORTHWEST TERRITORIES	28.6	FORT SIMPSON	-17.7	EUREKA	16.6	RESOLUTE
BRITISH COLUMBIA	31.3	LYTTON	-2.2	CRANBROOK	2.2	ALERT BAY
ALBERTA	27.0	FORT MCMURRAY	-7.3	CORONATION	6.4	COLD LAKE
SASKATCHEWAN	24.6	BUFFALO NARROWS	-7.2	MEADOW LAKE	10.2	MEADOW LAKE
MANITOBA	24.0	PILOT MOUND	-5.9	THOMPSON	9.8	THOMPSON
ONTARIO	30.2	WINDSOR	-6.6	ARMSTRONG	64.4	KAPUSKASING
QUEREC	30.8	GASPE	-2.3	KOARTAK	60.0	VAL DOR
NEW BRUNSWICK	28.0	CHARLO	2.2	FREDERICTON	25.0	CHATHAM
NOVA SCOTIA	26.4	GREENWOOD	.9	GREENWOOD	177.8	SABLE ISLAND
PRINCE EDWARD ISLAND	23.2	CHARLOTTETOWN	5.9	CHARLOTTETOWN	10.0	SUMMERSIDE
NEWFOUNDLAND	27.5	COMFORT COVE	-2.6	WABUSH LAKE	118.6	ST JOHNS

TEMPERATURE AND PRECIPITATION DATA FOR THE WEEK ENDING 0600 G.M.T. SEPTEMBER 21, 1982

Station	Temperature (°C) Average	Departure from Normal	Extreme Maximum	Extreme Minimum	Precip. (mm) Total	Departure from Normal
YUKON						
Burwash	11	6	24	- 4	0.0	- 3.6
Dawson	11	4	23	- 4	3.6	- 3.6
Faro	M	X	M	M	M	X
Komakuk Beach	2	1	19	- 7	M	M
Mayo A	11	4	23	- 2	2.9	- 5.2
Shingle Point	4	2	19	- 1	M	M
Teslin	M	X	13P	0P	M	X
Watson Lake	12	4	24	- 1	0.0	- 8.4
Whitehorse	13	6	24	- 1	0.0	- 6.4
NORTHWEST TERRITORIES						
Cape Parry	2	2	9	- 1	M	M
Cape Young	3	2	13	- 2	M	M
Clinton Point	3	2	16	- 2	M	M
Coppermine	5	2	17	- 2	M	M
Fort Reliance	9	2	17	3	3.0	- 3.4
Fort Simpson	14	6	29	1	0.0	- 3.0
Fort Smith	12	4	28	0	0.5	- 6.0
Hay River	14	6	27	3	0.2	- 7.6
Inuvik	7	4	21	- 1	4.0	0.5
Lady Franklin Point	3	1	8	- 1	7.5	3.9
Nicholson Peninsula	3	2	15	- 2	M	M
Norman Wells	11	5	23	2	1.8	- 5.4
Port Radium	M	X	M	M	M	X
Robertson Lake	M	X	M	M	M	X
Tuktoyaktuk	5	3	16	- 1	M	M
Yellowknife	11	4	22	4	0.2	- 5.2
Baker Lake	2	0	7	- 2	14.2	7.1
Coral Harbour	- 2	- 3	4	- 7	3.0	- 5.8
Ennadai Lake	M	M	M	M	M	M
Jenny Lind Island	- 1	0	4	- 6	11.4	9.9
Pelly Bay	- 4	- 1	1	- 9	16.0	9.5
Rankin Inlet	2	X	7	- 3	0.2	X
Shepherd Bay	- 2	- 2	3	-10	16.3	9.1
Broughton Island	M	M	1P	- 8	M	M
Cape Dorset	- 1	X	4	- 5	M	X
Cape Dyer	M	M	0P	-18	M	M
Cape Hooper	M	M	- 1P	- 7	M	M
Clyde	- 1	- 1	3	- 9	12.6	2.4
Dewar Lakes	- 7	- 3	- 1	-15	M	M
Frobisher Bay	0	- 3	3	- 4	M	M
Longstaff Bluff	- 3	- 2	3	- 8	3.0	- 5.9
Pond Inlet	- 4	X	2	-16	M	X
Alert	-10	1	- 1	-17	M	M
Eureka	- 9	- 1	- 1	-18	M	M
Gladman Point	- 1	0	5	- 8	M	M
Hall Beach	- 2	- 2	4	- 7	2.6	- 2.1
Mackar Inlet	- 6	- 2	- 1	-10	11.1	3.0
Resolute	- 7	- 2	0	-12	16.6	12.1
Byron Bay	1	1	8	- 4	3.6	- 1.4
Cambridge Bay	0	0	7	- 6	14.0	8.9
Mould Bay	- 7	- 1	0	-14	8.9	6.3
Sachs Harbour	- 2	- 1	6	- 9	9.0	6.9
BRITISH COLUMBIA						
Abbotsford	16	2	27	7	0.0	-27.7
Alert Bay	12	0	21	6	2.2	-26.1
Amphitrite Point	14	X	21	10	1.0	X
Blue River	M	X	M	M	M	X
Bull Harbour	11	- 1	18	6	0.7	-31.8
Burns Lake	13	X	24	2	0.0	X
Cape Scott	11	- 2	18	9	1.2	-41.1
Cape St James	15	2	24	9	0.0	-27.5
Clinton	M	X	M	M	M	X
Comox	15	2	24	6	0.0	-14.1
Cranbrook	11	1	24	- 2	0.0	- 8.6
Dease Lake	12	4	23	0	0.8	- 8.0
Estevan Point	M	M	M	M	M	M
Ethelda Bay	M	X	21P	7P	M	X
Fort Nelson	15	7	27	3	0.0	- 9.8
Fort St John	14	5	25	3	0.0	- 9.6
Hope	17	X	27	8	2.0	X
Kamloops	15	1	27	3	0.0	- 5.7
Langara	11	- 1	16	9	1.3	-38.2
Lytton	18	2	31	7	0.0	- 2.7
Mackenzie	M	X	22P	0P	M	X
McInnes Island	13	0	18	10	1.6	-44.8
Nanaimo A	M	X	26P	6P	M	X
Penticton	14	0	24	3	0.0	- 6.6
Port Alberni	M	X	M	M	M	X
Port Hardy	12	0	20	6	0.9	-29.3
Prince George	13	3	23	- 1	0.0	-14.7
Prince Rupert	12	0	19	5	0.9	-61.1
Puntzi Mountain	M	X	M	M	M	X
Quesnel	14	2	23	3	0.0	-11.0
Revelstoke	12	0	21	1	0.0	-14.1
Sandspit	14	1	21	9	0.4	-19.0
Smithers	13	3	25	1	0.0	-12.5
Stewart	12	X	25	6	0.0	X
Terrace	16	5	25	6	0.0	-23.5
Vancouver	15	1	22	7	1.0	-16.7
Victoria	15	2	24	6	0.0	-10.2
Williams Lake	12	2	23	- 1	M	M
ALBERTA						
Banff	10	1	24	- 4	1.6	- 9.6
Calgary	10	0	24	- 4	1.4	-11.0
Cold Lake	11	1	24	- 2	6.4	- 3.7
Coronation	10	- 1	23	- 7	0.6	- 7.4
Edmonton Intl	11	1	24	- 4	1.4	- 5.6
Edmonton Namao	13	2	24	1	0.7	- 8.9
Edson	11	2	25	- 6	1.2	-10.9
Fort Chipewyan	M	M	26P	- 1P	M	M
Fort McMurray	12	3	27	- 2	0.3	-11.4
Grande Prairie	13	3	26	- 4	0.6	- 9.6
High Level	13	5	26	- 3	0.0	- 5.5
Jasper	11	1	24	- 3	0.0	- 8.3
Lac La Biche	M	X	M	M	M	X
Lethbridge	11	- 1	25	- 1	0.0	-13.4
Medicine Hat	11	- 1	25	- 1	2.0	- 7.6
Peace River	13	4	24	0	0.0	- 4.3
Red Deer	10	0	23	- 5	4.7	- 9.0
Rocky Mountain House	9	0	24	- 5	2.4	-13.1
Slave Lake	12	3	23	- 2	0.3	-11.9
Whitecourt	11	2	23	- 4	0.6	- 7.4
SASKATCHEWAN						
Broadview	8	X	21	- 4	0.4	X
Buffalo Narrows	12	4	25	- 1	M	M
Collins Bay	10	X	22	0	5.4	X
Cree Lake	10	X	24	0	7.8	X
Eastend Cypress	M	X	M	M	M	X
Elbow	M	X	21P	- 1P	M	X
Estevan	9	- 3	23	- 2	0.0	- 6.8
Hudson Bay	10	0	22	- 3	M	M
Kindersley	10	- 1	22	- 1	1.2	- 6.5
La Ronge	10	0	24	- 4	5.5	-11.6
Meadow Lake	10	X	24	- 7	10.2	X
Moose Jaw	10	- 2	21	0	0.0	- 6.7
Nipawin	9	X	23	- 1	2.6	X
North Battleford	10	- 1	24	- 1	0.0	- 5.4
Prince Albert	9	- 1	22	- 2	0.5	- 6.5
Regina	9	- 2	21	- 3	1.1	- 7.2
Rockglen	M	X	M	M	M	X
Saskatoon	10	- 1	22	0	0.0	- 6.7
Swift Current	9	- 2	21	- 2	0.4	- 9.7
Uranium City	10	3	22	1	1.9	- 5.3
Wynyard	9	X	21	0	0.0	X
Yorkton	9	- 2	21	- 3	0.2	-11.2
MANITOBA						
Bissett	7	X	18	- 4	9.6	X
Brandon	8	- 3	22	- 6	0.0	-11.6
Churchill	6	0	13	1	8.4	- 1.0
Dauphin	9	- 2	21	- 3	0.6	-10.4
Gillam	7	X	21	- 3	2.8	X
Gimli	9	- 3	20	- 3	1.4	-11.1
Grand Rapids	M	X	M	M	M	X
Island Lake	7	X	15	2	M	X
Lynn Lake	8	2	23	- 3	1.0	-13.5
Norway House	9	X	16	- 2	4.0	X
Pilot Mound	8	- 4	24	- 2	0.4	-10.7
Portage	9	- 3	21	- 3	3.5	- 7.7
The Pas	9	- 1	22	- 3	0.0	-13.4
Thompson	7	0	22	- 6	9.8	- 5.5
Winnipeg	9	- 4	23	- 3	M	M
ONTARIO						
Armstrong	6	- 4	15	- 7	M	M
Atikokan	6	- 5	15	- 2	17.8	2.5
Barrie	M	X	M	M	M	X
Big Trout Lake	7	- 2	14	- 1	1.8	-14.5
Britt	M	X	M	M	M	X
Caribou Island	M	X	M	M	M	X
Earlton	8	- 3	20	0	M	M
Geraldton	6	X	15	- 2	17.2	X
Gore Bay	10	- 4	20	4	29.6	11.1
Kapuskasing	5	- 5	14	- 3	64.4	45.7
Kenora	9	- 3	20	2	0.2	-21.3
Kingston	14	- 1	23	3	M	M
Lansdowne	7	- 3	15	1	10.0	- 5.0
London	14	- 2	27	3	17.0	1.7
Moosonee	6	- 4	13	- 3	10.9	- 2.7
Mount Forest	12	- 2	24	2	35.0	19.6
Muskoka	11	- 2	22	- 1	M	M
Nagagami	M	X	M	M	M	X
North Bay	9	- 3	21	1	57.1	33.8
Ottawa	13	- 1	25	2	24.3	8.1
Petawawa	10	X	20	- 1	32.2	
Pickle Lake	6	- 5	15	- 2	8.6	-
Red Lake	6	- 5	17	- 5	7.2	-
Simcoe	M	M	27P	5P	M	
Sioux Lookout	6	- 5	16	- 2	1.8	-2
Sudbury	9	- 3	20	2	58.9	4
Thunder Bay	8	- 4	15	- 2	10.7	-1
Timmins	5	- 5	12	- 1	61.8	4
Toronto	14	- 2	27	4	62.4	4
Trenton	13	- 3	24	3	19.9	
Upsala	M	X	M	M	M	
Wawa	7	X	11	2	M	
Wiarton	11	- 3	24	1	49.9	3
Windsor	16	- 2	30	7	25.3	1
QUÉBEC						
Bagotville	10	- 1	29	3	42.8	2
Baie Comeau	9	- 1	22	0	36.7	2
Blanc Sablon	M	M	16	1P	M	
Border	M	M	M	M	M	
Chevery	M	X	M	M	M	
Chibougamau	M	X	20P	1	M	
Gaspé	10	X	31	- 1	34.4	
Grindstone Island	13	0	20	9	23.6	
Inukjuak	6	1	15	1	3.4	-
Kuujjuaq	5	0	14	0	10.4	-
Lac Eon	M	X	M	M	M	
Grande Riviere	6	X	13	0	6.9	
Maniwaki	11	0	20	3	24.3	
Matagami	7	X	13	- 1	M	
Mont-Joli	10	- 2	29	1	32.0	1
Montréal	13	- 1	28	5	13.4	-
Natashquan	9	0	18	1	32.8	1
Nitchequon	5	- 1	1	1	19.6	-
Parent	M	X	M	M	M	
Port Menier	M	M	M	M	M	
Poste-de-la-Baleine	8	0	16	2	3.0	-1
Québec	12	- 1	28	3	36.8	1
Rivière du Loup	M	M	M	M	M	
Roberval	9	- 1	24	4	37.0	2
Schefferville	5	- 1	11	0	19.5	-
Sept-Iles	8	- 1	20	2	41.7	2
Sherbrooke	11	- 1	28	- 1	27.8	1
Ste Agathe des Monts	10	- 1	23	0	15.2	-
Val D'Or	8	- 2	20	0	60.0	4
NEW BRUNSWICK						
Charlo	12	1	28	4	24.6	1
Chatham	13	1	27	3	25.0	
Fredericton	13	1	25	2	20.9	
Moncton	14	1	25	3	14.3	-
Saint John	13	1	18	4	3.6	-1
St Stephen	M	X	M	M	M	
NOVA SCOTIA						
Amherst	M	X	M	M	M	
Eddy Point	15	X	25	9	52.1	
Greenwood	15	1	26	1	8.2	-1
Sable Island	18	2	22	11	177.8	15
Shearwater	15	1	21	7	8.8	-1
Shelburne	14	X	21	1	11.8	
Sydney	15	2	25	7	14.4	-1
Truro	15	3	24	3	M	
Yarmouth	15	1	24	5	3.4	-1
PRINCE EDWARD ISLAND						
Charlottetown	14	1	23	6	9.8	-1
East Point	M	X	M	M	M	
Summerside	14	0	23	9	10.0	-1
NEWFOUNDLAND						
Argentia	14	X	18	9	43.1	
Badger	M	X	M	M	M	
Bonavista	M	M	23	6P	M	
Burgeo	12	1	18	6	12.6	-
Cape Race	M	X	M	M	M	
Comfort Cove	11	1	28	3	25.6	1
Daniel's Harbour	10	0	17	2	50.8	3
Deer Lake	12	2	25	4	26.2	1
Gander	12	1	27	3	27.6	1
Port aux Basques	13	2	21	8	13.0	-
St Albans	M	M	23	7P	M	
St Anthony	9	X	24	3	58.0	
St John's	13	2	26	7	118.6	9
St Lawrence	14	3	22	7	29.9	1
Stephenville	13	2	19	6	M	
Battle Harbour	9	0	22	3	24.4	
Cartwright	7	- 1	19	1	16.0	-
Churchill Falls	5	0	19	- 1	31.4	1
Goose	8	- 1	25	1	27.1	1
Hopedale	7	- 1	13	2	19.4	
Wabush Lake	5	- 2	20	- 3	28.2	

P = extreme value based on less than 7 days X = no normal due to short period M = not available at press time