



Environment
Canada

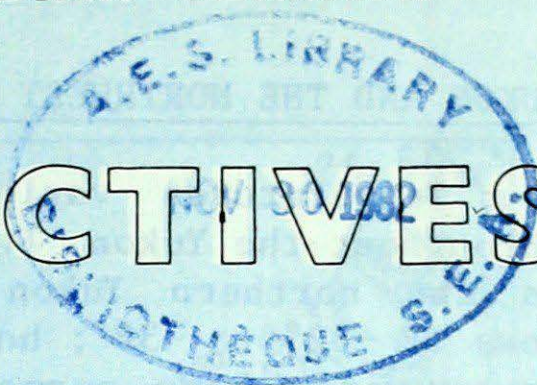
Environnement
Canada

A WEEKLY REVIEW OF CANADIAN CLIMATE

Atmospheric
Environment

Environnement
atmosphérique

CLIMATIC PERSPECTIVES



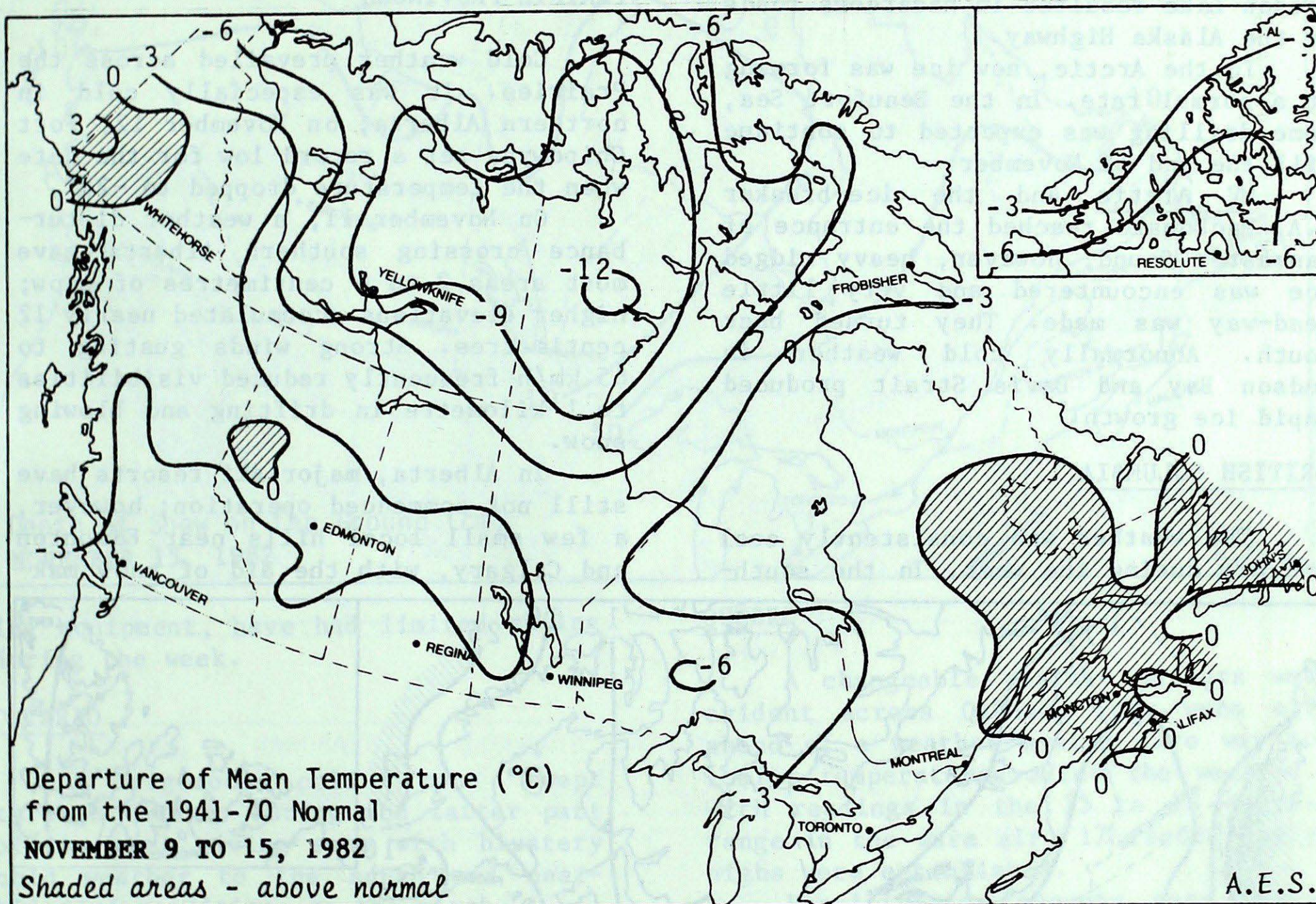
THE CANADIAN CLIMATE CENTRE,
ATMOSPHERIC ENVIRONMENT SERVICE,
4905 DUFFERIN ST., DOWNSVIEW, ONTARIO M3H 5T4

Canada

NOVEMBER 19, 1982

(Aussi disponible en français)

VOL.4 NO.45



WEATHER HIGHLIGHTS FOR THE PERIOD - NOVEMBER 9-15, 1982

First significant snowfall of the season in eastern Canada

Major weather system generated widespread snowfall from Ontario to the Atlantic Provinces. Snow combined with strong winds created treacherous roads in Ontario and New Brunswick; several highways were closed. Numerous power outages occurred in New Brunswick. Following these storms, cold air moved over most of the eastern areas establishing record low temperatures.

In western Canada, average weekly temperatures were 3 to 5 degrees below normal. Except for the northern coastal areas of British Columbia, precipitation was light.

Temperatures ranged from 18.7° at Greenwood, Nova Scotia to -43.2° at Eureka, Northwest Territories. Prince Rupert, British Columbia received 69.7 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

Temperatures varied considerably throughout the Yukon. Frigid Arctic air in the northern Yukon accounted for lows of -32° to -38° ; however, southern areas were above normal. Towards the end of the week, milder air covered all regions; temperatures rose above the freezing mark in the south. On November 13, freezing rain in the vicinity of Watson Lake resulted in hazardous roads on the Alaska Highway.

In the Arctic, new ice was forming at a normal rate. In the Beaufort Sea, some drilling was expected to continue till the end of November.

MV Arctic and the ice-breaker J.A. MacDonald reached the entrance of Lancaster Sound; however, heavy ridged ice was encountered and very little head-way was made. They turned back south. Abnormally cold weather in Hudson Bay and Davis Strait produced rapid ice growth.

BRITISH COLUMBIA

The weather was consistently cool and dry during the week. In the south-

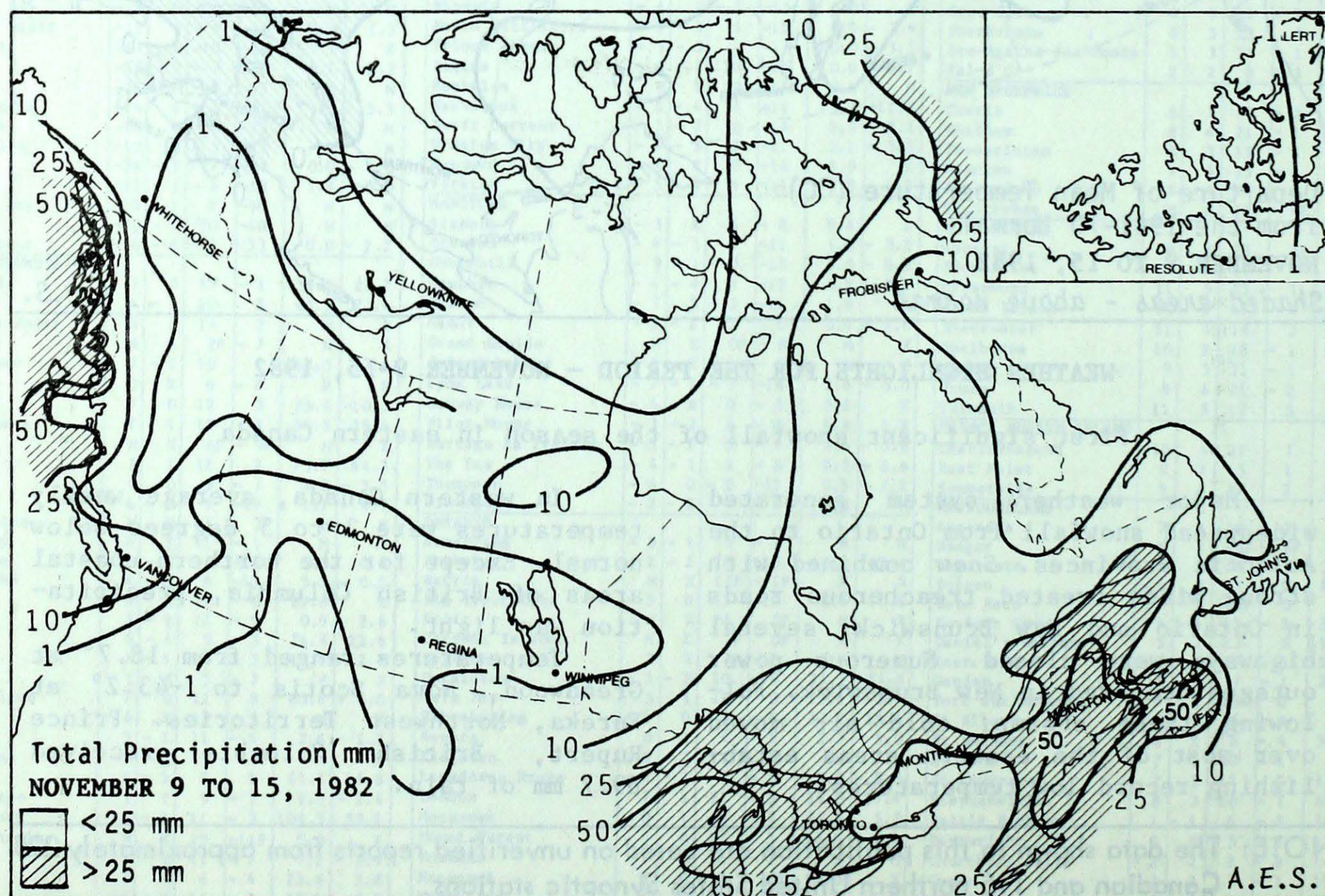
ern half, temperatures were 3 to 4 degrees below normal. Precipitation amounts were low everywhere, generally less than 1/3 of their normal values. Cranbrook's average weekly temperature was 5.4°C below normal. In the Fort St. John area, a few lakes were frozen. Grain spoilage in east central British Columbia was attributed to the abundant moisture remaining from early autumn.

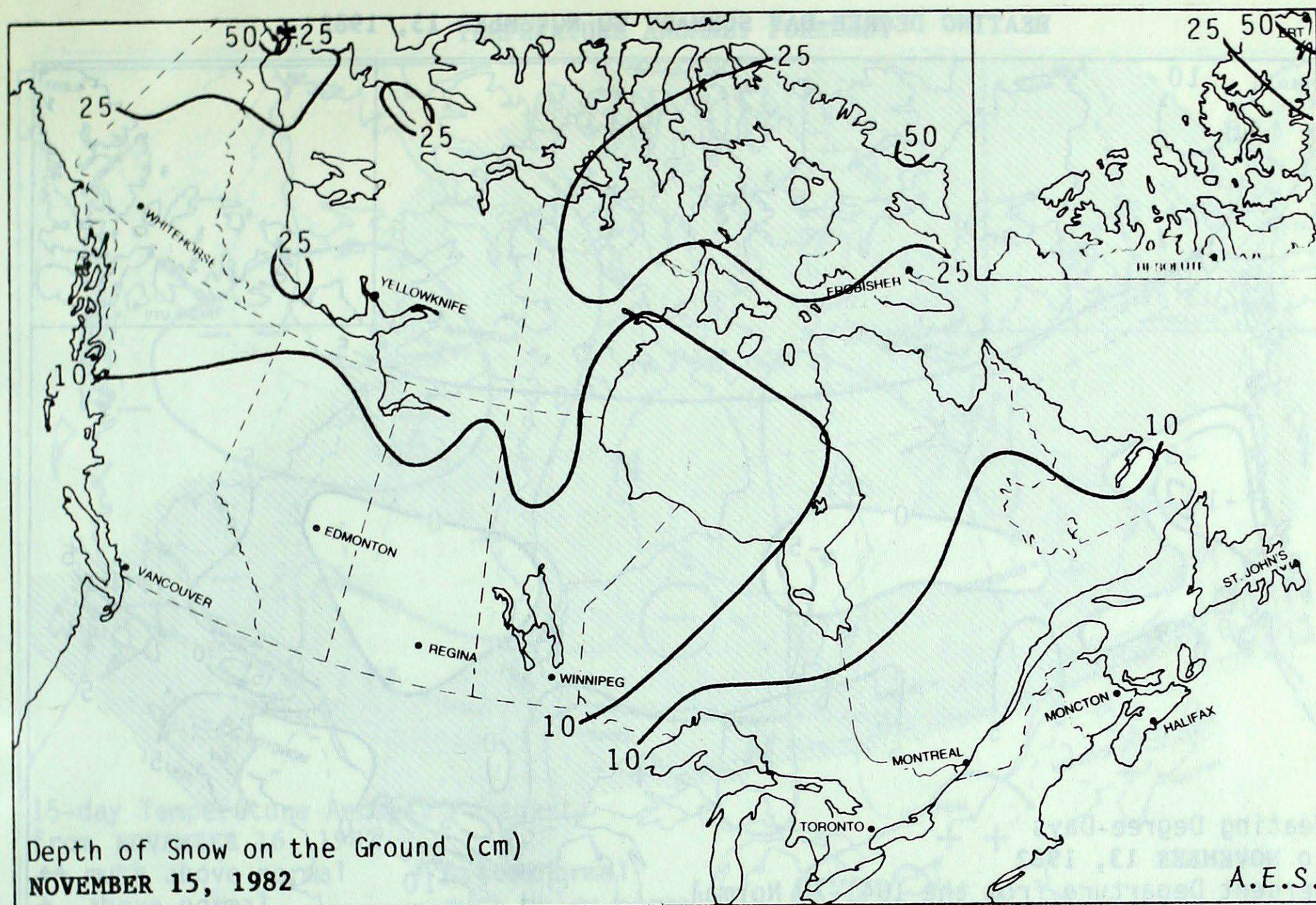
PRAIRIE PROVINCES

Cold weather prevailed across the Prairies. It was especially cold in northern Alberta; on November 12, Fort Chipewyan set a record low for the date when the temperature dropped to -28° .

On November 11, a weather disturbance crossing southern Alberta gave most areas 2 to 6 centimetres of snow; higher elevations accumulated nearly 12 centimetres. Strong winds gusting to 65 km/h frequently reduced visibilities to 1 kilometre in drifting and blowing snow.

In Alberta, major ski resorts have still not commenced operation; however, a few small local hills near Edmonton and Calgary, with the aid of snow mak-





ing equipment, have had limited skiing during the week.

ONTARIO

A vigorous cold front swept through Ontario during the latter part of the week giving snow with blustery cold weather to the south and near-blizzard conditions to the north.

Central Ontario felt the brunt of the storm; Kapuskasing received nearly 40 centimetres of snow forcing highways throughout the area to be closed.

Farther south, snowfalls were lighter; Sudbury 15 cm, Muskoka 6 cm and Mount Forest 10 cm. High winds gusting to 80 km/h created extremely treacherous roads in most areas.

Following the cold front, very cold air moved in; on November 15, an overnight temperature reading of -26° at Moosonee was a record for the date; old record: -25 , set in 1966. In contrast to these temperatures as of November 15, the city of Toronto has not experienced a below freezing temperature this fall.

QUÉBEC

A changeable weather pattern was evident across Québec. Very warm air ahead of a weather system gave way to cooler temperatures after the weekend. With readings in the 15 to 18 degree range in the warm air, 17 record daily highs were established.

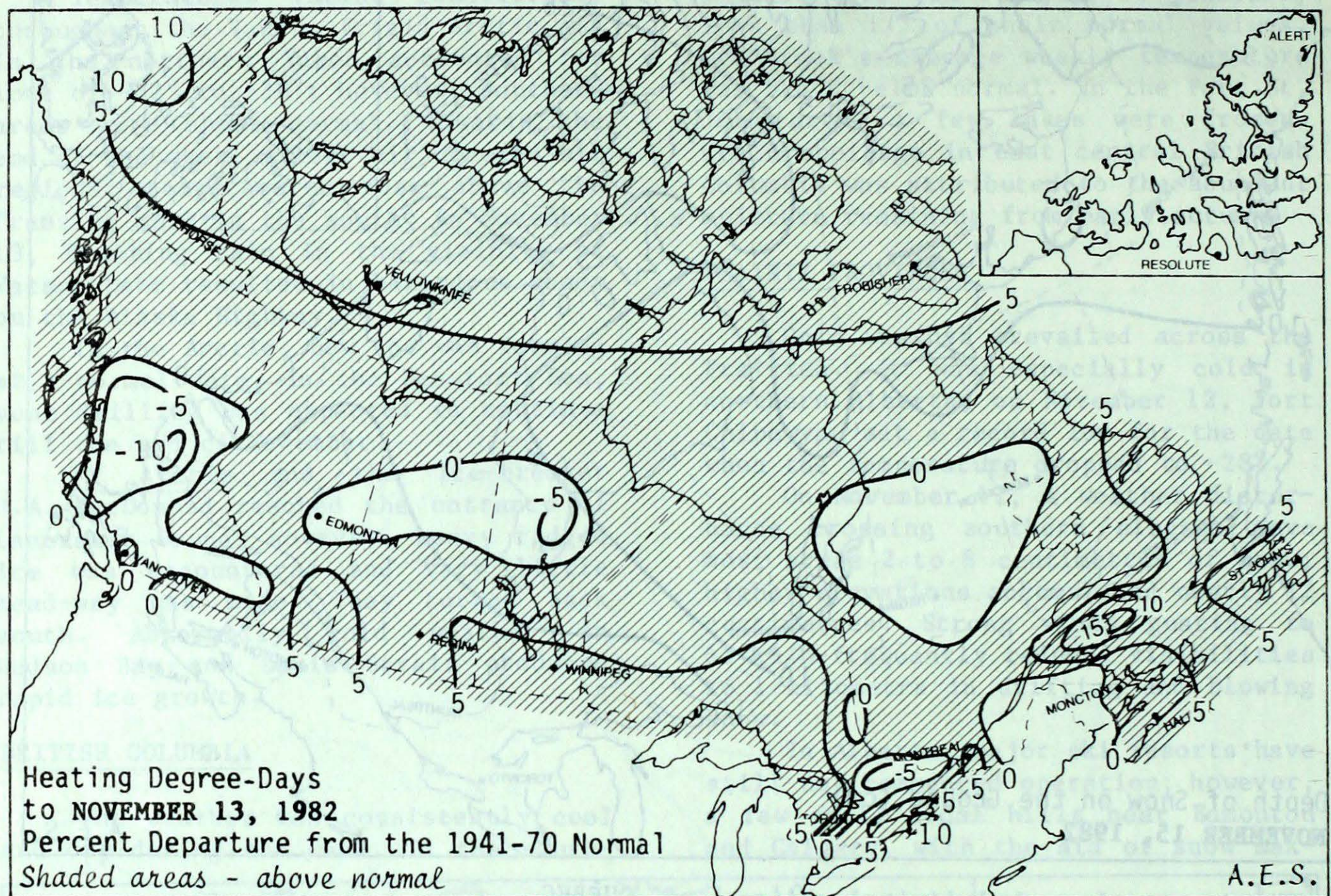
Precipitation amounts were variable, with 2 centimetres of snow falling in the extreme southern portion, and up to 10 centimetres in the Val-d'Or area. Some snow remained on the ground.

ATLANTIC PROVINCES

Two major storms affected the Atlantic Provinces. First, on November 13, an intense low pressure system produced strong winds and heavy rain in the Maritimes. Winds were clocked at 95 km/h at Fredericton. Southern New Brunswick experienced numerous power outages, and ferry crossings between

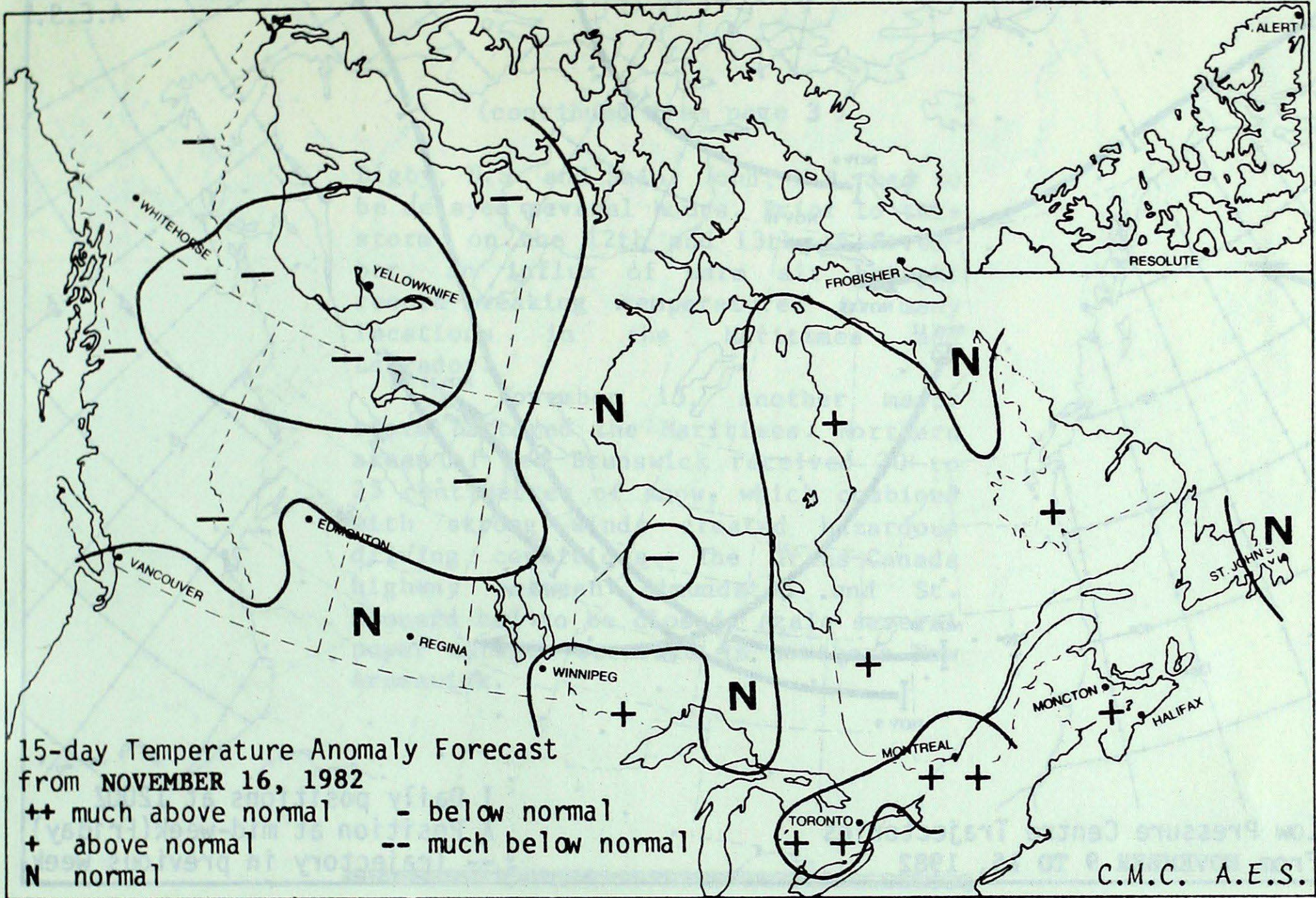
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HEATING DEGREE-DAY SUMMARY TO NOVEMBER 13, 1982

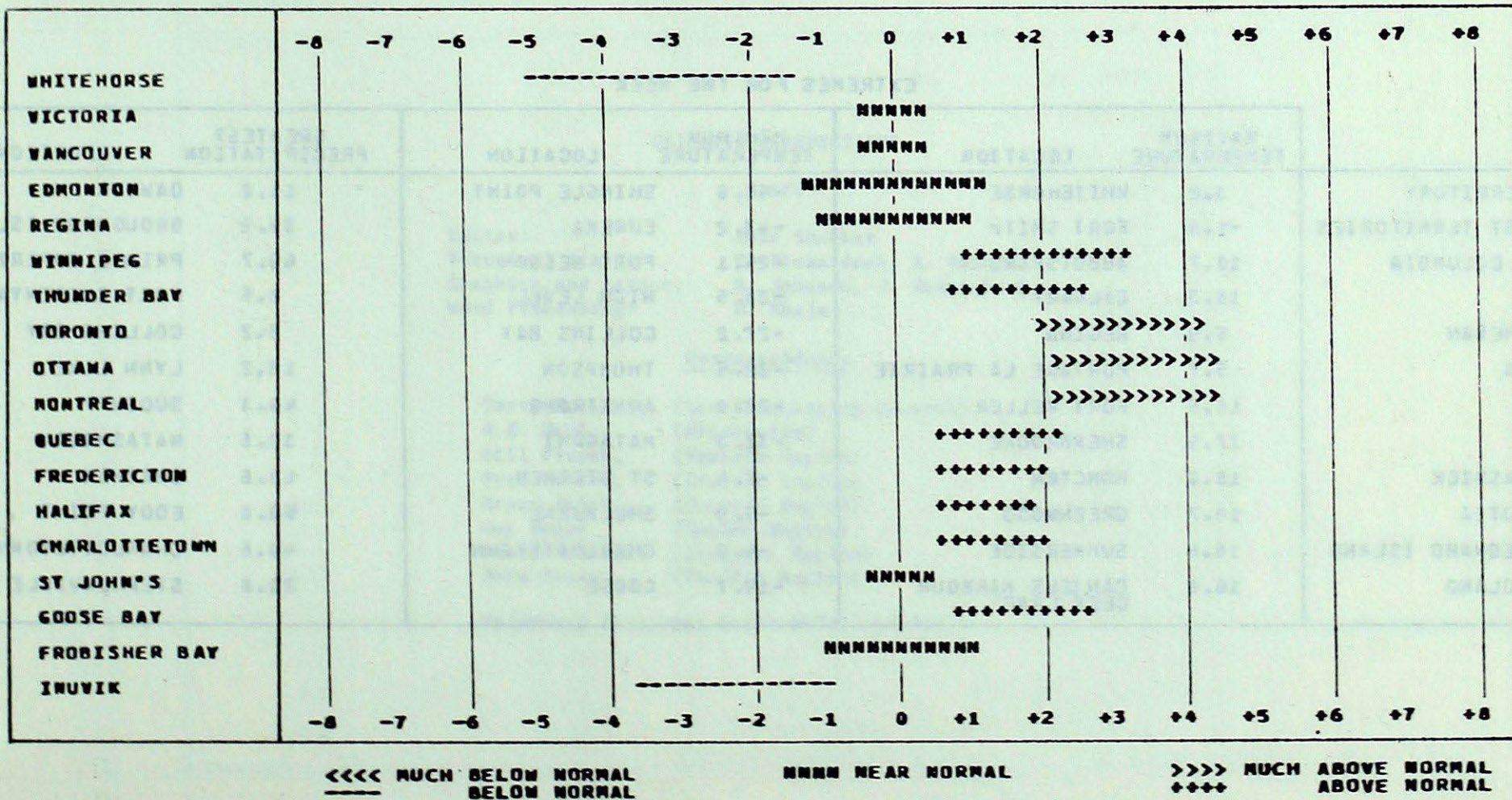


STATION	MONTHLY CUMULATIVE TOTAL	MONTHLY DIFF. FROM 1941-70 NORMAL	SEASONAL TOTAL	SEASONAL DIFF. FROM 1941-70 NORMAL	SEASONAL PERCENT OF NORMAL
Resolute	595.0	72.0	3081.0	146.0	105
Inuvik	568.0	91.0	2068.5	90.5	105
Whitehorse	342.5	24.5	1440.5	69.5	105
Vancouver	166.5	24.5	553.0	14.0	103
Edmonton	272.0	25.0	862.5	-46.5	95
Calgary	270.0	32.0	923.0	-12.0	99
Regina	304.0	47.0	885.5	26.5	103
Winnipeg	278.5	28.5	831.5	47.5	106
Thunder Bay	256.0	29.0	923.5	72.5	109
Windsor	137.5	-5.5	405.0	8.0	102
Toronto	154.5	-3.5	535.5	31.5	106
Ottawa	154.5	-24.5	579.0	-7.0	99
Montreal	145.5	-24.5	572.0	42.0	108
Quebec	162.0	-38.0	690.0	-8.0	99
Saint John	139.5	-35.5	699.0	-11.0	98
Halifax	118.0	-27.0	535.5	9.5	102
Charlottetown	136.5	-29.5	617.5	14.5	102
St John's	158.0	-15.0	828.0	3.0	100

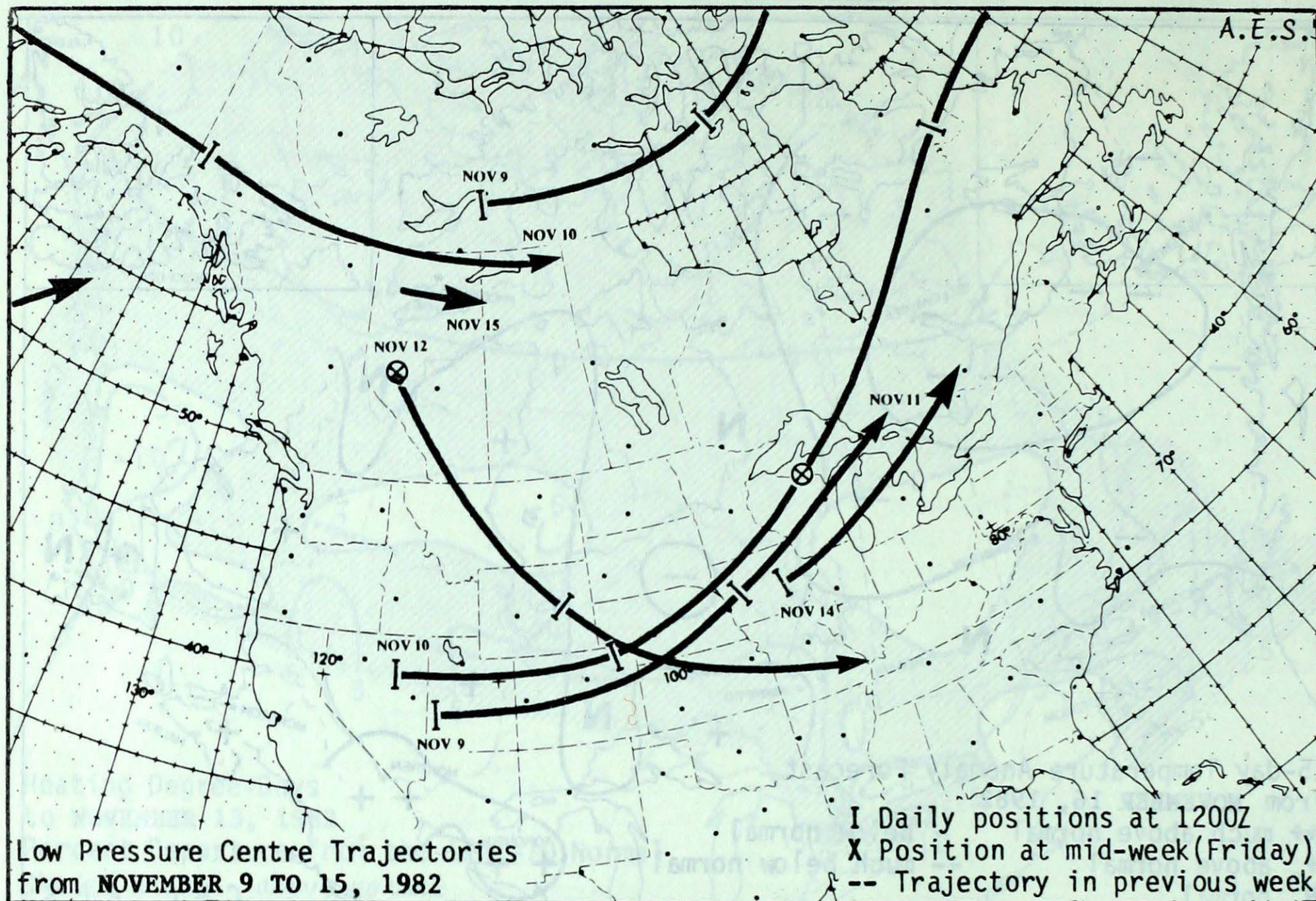
TEMPERATURE ANOMALY FORECAST



TEMPERATURE ANOMALY FORECAST FOR NOV 16 1982 TO NOV 30 1982



LOW PRESSURE CENTRE TRAJECTORIES



EXTREMES FOR THE WEEK

STATION	MAXIMUM TEMPERATURE		MINIMUM TEMPERATURE		GREATEST PRECIPITATION	
	TEMPERATURE	LOCATION	TEMPERATURE	LOCATION	PRECIPITATION	LOCATION
YUKON TERRITORY	3.2	WHITEHORSE	-40.0	SHINGLE POINT	11.2	DAWSON
NORTHWEST TERRITORIES	-1.8	FORT SMITH	-43.2	EUREKA	35.9	BROUGHTON ISLAND
BRITISH COLUMBIA	10.7	ABBOTSFORD	-25.1	FORT NELSON	69.7	PRINCE RUPERT
ALBERTA	10.3	CALGARY	-28.5	HIGH LEVEL	8.5	FORT CHIPEWYAN
SASKATCHEWAN	5.9	REGINA	-27.2	COLLINS BAY	5.2	COLLINS BAY
MANITOBA	5.7	PORTAGE LA PRAIRIE	-32.5	THOMPSON	13.2	LYNN LAKE
ONTARIO	18.5	PORT WELLER	-28.0	ARMSTRONG	49.3	SUDBURY
QUEBEC	17.9	SHERBROOKE	-31.3	MATAGAMI	32.6	NATASHQUAN
NEW BRUNSWICK	18.0	HONCTON	-7.4	ST STEPHEN	60.6	CHATHAM
NOVA SCOTIA	18.7	GREENWOOD	-5.9	SHELBURNE	50.0	EDDY POINT
PRINCE EDWARD ISLAND	16.6	SUMPERTIDE	-4.0	CHARLOTTETOWN	40.6	CHARLOTTETOWN
NEWFOUNDLAND	16.8	DANIELS HARBOUR DEER LAKE	-19.7	GOOSE	20.8	STEPHENVILLE

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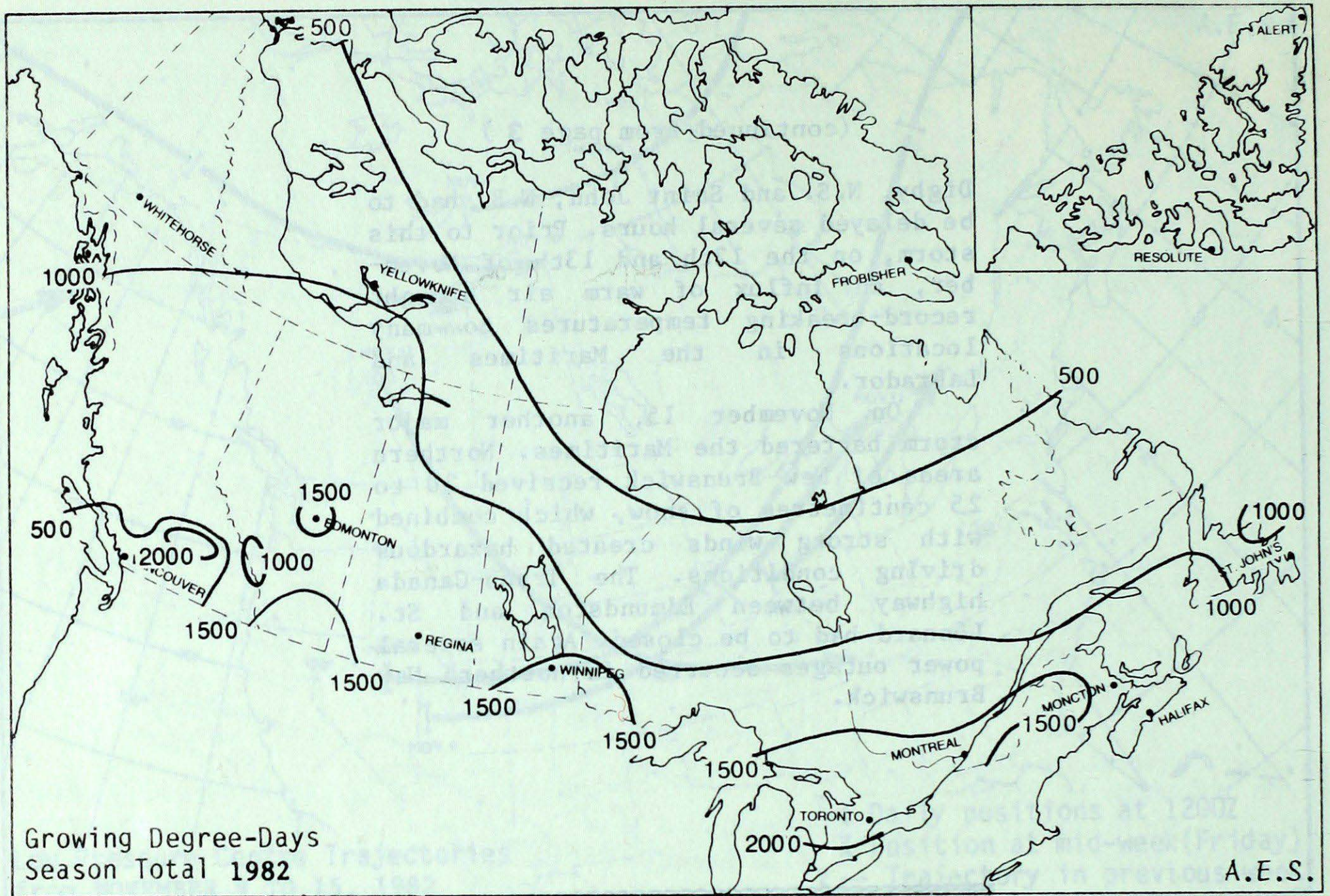
Digby, N.S. and Saint John, N.B. had to be delayed several hours. Prior to this storm, on the 12th and 13th of November, an influx of warm air brought record-breaking temperatures to many locations in the Maritimes and Labrador.

On November 15, another major storm battered the Maritimes. Northern areas of New Brunswick received 20 to 25 centimetres of snow, which combined with strong winds created hazardous driving conditions. The Trans-Canada highway between Edmundston and St. Léonard had to be closed. Again several power outages occurred in northern New Brunswick.



STATION	SEASONAL TOTAL	SEASONAL DIFF. FROM 70-NORMAL	SEASONAL PERCENT OF NORMAL
Whitehorse	120.5	-24.2	94
Edmonton	118.7	-12.2	94
CLIMATIC PERSPECTIVES			
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ANNUAL MAP

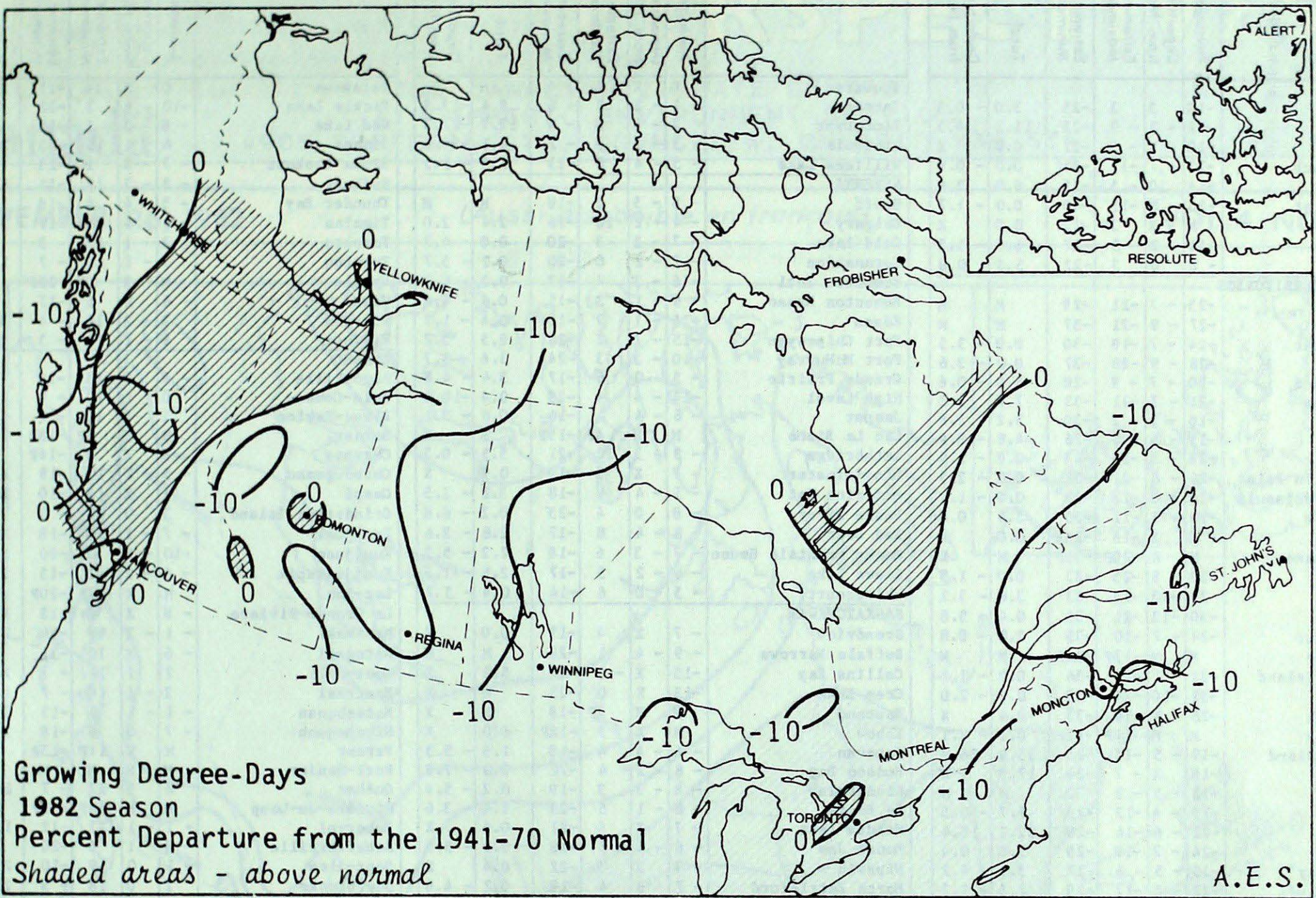


GROWING DEGREE-DAY SUMMARY 1982

STATION	SEASONAL TOTAL	SEASONAL DIFF. FROM 1941-70 NORMAL	SEASONAL PERCENT OF NORMAL
Whitehorse	820.5	-54.5	94
Penticton	1910.5	-125.5	94
Vancouver*	1830.0	-27.0	99
Edmonton	1516.0	220.0	117
Calgary	1186.0	-86.0	93
Regina	1475.5	-71.5	95
Saskatoon	1427.0	-103.0	93
Winnipeg	1570.5	-126.5	93
Thunder Bay	1208.0	-146.0	89
Windsor	2349.5	-76.5	97
Toronto	1890.5	-190.5	91
Ottawa	1933.0	-34.0	98
Montréal	1934.0	-109.0	95
Québec	1588.0	-40.0	98
Fredericton	1589.0	-56.0	97
Halifax	1435.0	-155.0	90
Charlottetown*	1475.0	-54.0	96
St. John's	963.0	-134.0	88

* season not ended

ANNUAL MAP



TEMPERATURE AND PRECIPITATION DATA FOR THE WEEK ENDING 0600 G.M.T. NOVEMBER 16, 1982

Table with columns: Station, Temperature (°C) [Average, Departure from Normal, Extreme Maximum, Extreme Minimum], Precip. (mm) [Total, Departure from Normal]. Rows include Yukon, Northwest Territories, and British Columbia.

Table with columns: Station, Temperature (°C) [Average, Departure from Normal, Extreme Maximum, Extreme Minimum], Precip. (mm) [Total, Departure from Normal]. Rows include Alberta, Saskatchewan, Manitoba, Ontario, and Ottawa.

Table with columns: Station, Temperature (°C) [Average, Departure from Normal, Extreme Maximum, Extreme Minimum], Precip. (mm) [Total, Departure from Normal]. Rows include Petawawa, Québec, New Brunswick, Nova Scotia, Prince Edward Island, and Newfoundland.

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