

WEATHER HIGHLIGHTS FOR THE WEEK - APRIL 8 - 14, 1980

Violent Squalls in British Columbia; Sinking of a  
Fishing Boat on the Labrador Coast

During the afternoon of April 14, the interior British Columbia valleys experienced thunderstorms accompanied by violent wind squalls. Gusts reached 130 km/h near the bridge at Kelowna. Numerous trees were uprooted and two barns were demolished; in addition, a brick wall collapsed onto an automobile. Electrical power was restored in a few communities only late in the evening. Several light aircraft were also damaged.

Ice off the Labrador Coast punctured the hulls of three fishing vessels: The Cape d'Or II sank but all the crew were saved; the two other boats took on water but returned to port with the help of their pumps.

Canadian temperatures ranged from  $-39^{\circ}$  (at Shepherd Bay and Mould Bay) to  $25^{\circ}$  (at Abbotsford and Medicine Hat). Abbotsford received 84.7 mm of rain, and some stations in southern Québec and Ontario reported nearly 70 mm.

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

Cold air with mean temperatures below normal still lies poised over northwestern Mackenzie District, northern Yukon and the Arctic islands, serving as a source for future incursions of Arctic air into southern Canada. Some areas in the southwestern Territories recorded temperatures above  $10^{\circ}$  from April 10 to 12. Extreme temperatures were  $18^{\circ}$  at Hay River and  $-39^{\circ}$  at Mould Bay and Shepherd Bay.

Snowfall was light with heaviest amounts recorded in the Mackenzie delta and bordering areas and in southeastern Baffin Island. The first measurable rain of the spring fell at Whitehorse, Watson Lake and Teslin on the 11th.

Greatest precipitation amounts for the week were 13.6 mm at Cape Dorset and 13.4 mm at Tuktoyaktuk.

Severe drifting snow in the Richardson mountains closed the Dempster Highway from the 8th to the 11th. Early April snow surveys indicated below normal snowpacks throughout the Yukon, with Dawson, Mayo and northern areas having the lowest, only 50-60% of normal. However, Kluane Park and Aishihik areas have snowpacks, 15-20%

above normal.

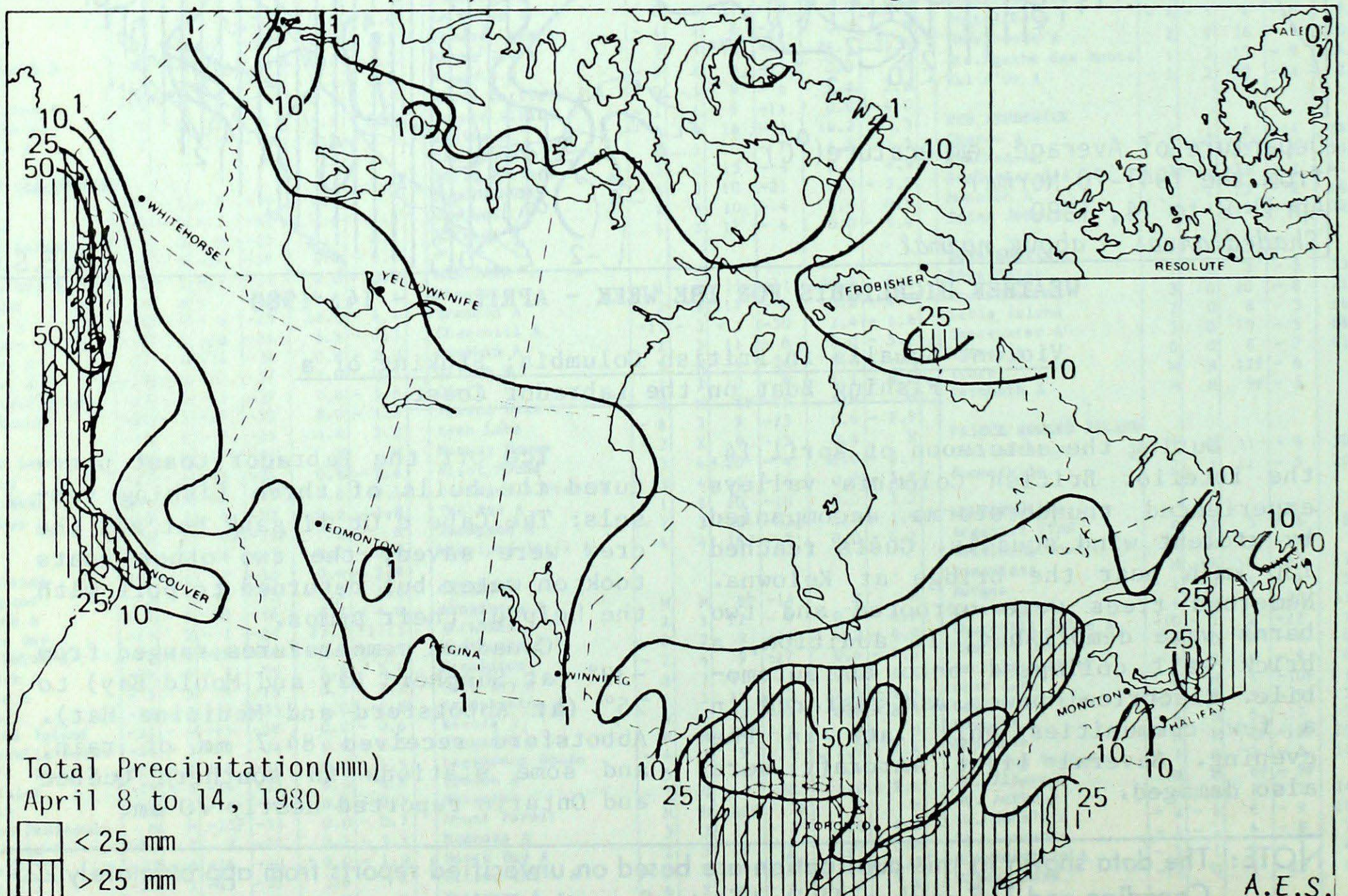
## BRITISH COLUMBIA

All regions enjoyed warmer weather this week. The mercury rose to  $25^{\circ}$  at Abbotsford (April 13) but dropped to  $-12^{\circ}$  at Dease Lake (April 3). Several stations broke daytime temperature records on the 12th, some previously set at the turn of the century.

Sunshine was plentiful even though most stations had above normal precipitation, for example, 84.7 mm at Abbotsford.

During the afternoon of the 14th, thunderstorms, triggered by a cold front, generated gusts up to 139 km/h near the bridge at Kelowna, and all-time record gusts of 100 km/h at the airport. A wall of blowing dust reached a height of about 100 m above the ground, while temperatures dropped  $10^{\circ}$  within 15 minutes.

Violent wind squalls caused several power failures, uprooted numerous trees, damaged a few light aircraft and demolished two barns; also, a brick wall collapsed on top of an automobile. Fortunately, no injuries were reported as resulting from the storm.



Note: Values are non-representative in non-uniform topographical regions such as the Rocky Mountains.

PRAIRIE PROVINCES

Almost every region had plenty of sunshine, with little or no precipitation. However, snow fell in isolated areas and in southwestern Alberta, where on April 9-10 at Calgary and Lethbridge water equivalents of about 19 and 17 mm were measured.

Eastern Prairie stations are starting to experience temperatures near or above 10° while those in the western regions enjoy temperatures above 20° fairly frequently. However, the mercury still continues to drop below freezing at night in most areas. Above normal mean temperatures occurred throughout the provinces except in southeastern Manitoba. Departures from normal exceeded +5° in west central Alberta. Temperatures ranged from 25° at Medicine Hat (13th) to -24° at Churchill (8th).

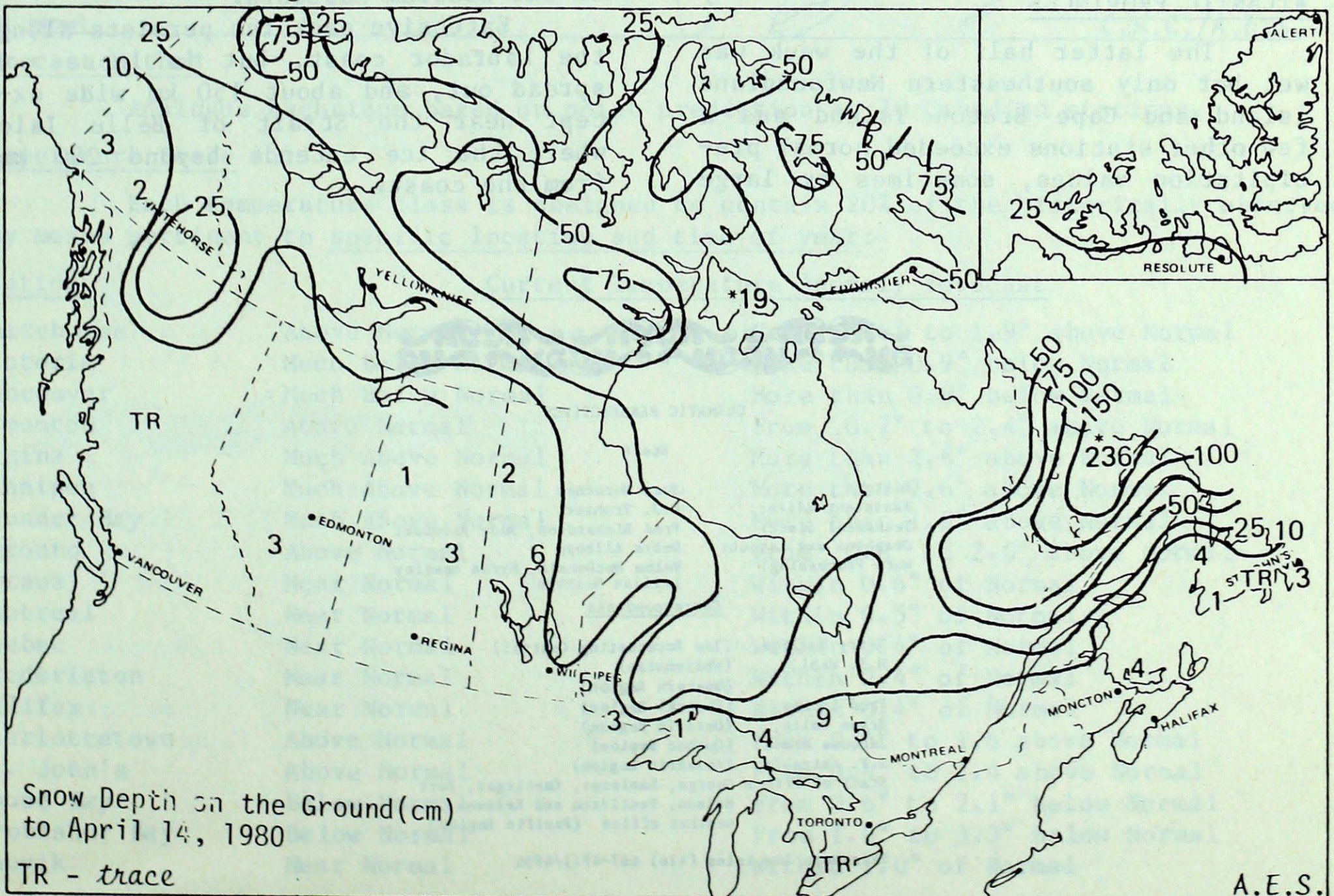
ONTARIO

Several weather systems brought persistent cloud cover, above normal temperatures and daily rain to southern Ontario regions. North of Lake Superior temperatures and precipitation averaged below normal during the week.

Mild temperatures dominated early in the week with record high minimum marks being set on April 7 and 8 across the province from Kapuskasing to Kingston. However, an outbreak of cold air brought winter back to the north as record low maximum temperatures were set in Moosonee and Geraldton by the week-end. On April 8, while Wiarton was basking in a record warm 19° afternoon temperature, Moosonee was setting a record low maximum, a shivering -7°. The mercury fell below normal in the south, but no records were broken. Lowest temperature during the week was -21° at Lansdowne House on the 8th.

In accord with the temperatures, precipitation was in the form of rain until mid-week when snow fell in central and northern areas. By the 13th, a wet snow cover extended south into the Muskoka's, where 68.6 mm of precipitation was measured for the week. Gore Bay reported 43.4 mm on the 8th.

Strips of ice persist in the eastern end of Lake Erie, while fast ice lies along the shores of eastern Georgian Bay. Ships on Lake Superior in Whitefish Bay and near the Sault re-



Note: Values are non-representative in non-uniform topographical regions such as the Rocky Mountains.

quire ice breaker assistance, but have encountered no real difficulties.

#### QUEBEC

Two different climatic regimes dominated the province this week. Northern regions benefited from 50% of the total sunshine possible, even though temperatures had dropped perceptibly. In contrast, southern regions were covered by clouds producing heavy rain. More than 40 mm fell at several places; the week's total at Sainte Agathe was 71.2 mm. During the first two weeks of April, the total amount of precipitation at Montréal has already exceeded the normal for the month.

However, the cloudy weather was accompanied by mild temperatures, resulting in numerous record maximum temperatures on days from April 8 to 12 (including four or five consecutive days at some stations). During the same period some low temperature records were set in northern areas. Extreme temperatures were reported on the same date, the 8th:  $-31^{\circ}$  (Poste-de-la-Baleine) and  $17^{\circ}$  (Maniwaki and Montréal).

#### ATLANTIC PROVINCES

The latter half of the week was wet but only southeastern Newfoundland island and Cape Breton Island and a few other stations exceeded normal precipitation values, sometimes by large

amounts. For example, Port-aux-Basques and Stephenville reported 43.7 and 38.2 mm, respectively, which were 74 and 140% above normal for the week.

Near normal temperatures prevailed throughout the provinces, but departures greater than  $+3\frac{1}{2}^{\circ}$  occurred in New Brunswick and along the north shore of the Bay of Fundy. Highest temperature was  $18^{\circ}$  at Greenwood on April 13; lowest,  $-23^{\circ}$  at Churchill Falls on April 9.

Off the coast of Labrador the hulls of several fishing vessels were punctured by heavy ice. The Cape d'Or II sank, but its crew of 16 were rescued. Two other vessels took on water which could be discharged by their inboard pumps.

Patches of ice present no hindrance for shipping in the Gulf of St. Lawrence but a large pack about 15-50 km wide still lies outside Sydney harbour. The Strait of Belle Isle is ice covered, but favourable winds should accelerate breakup. Most ice breakers have headed back to port, however, the Tupper is still breaking ice in the coastal harbours.

Extensive pack ice persists along the Labrador coast, but is loose and spread out, and about 150 km wide except near the Strait of Belle Isle where the ice extends beyond 280 km from the coast.



#### CLIMATIC PERSPECTIVES

##### Staff

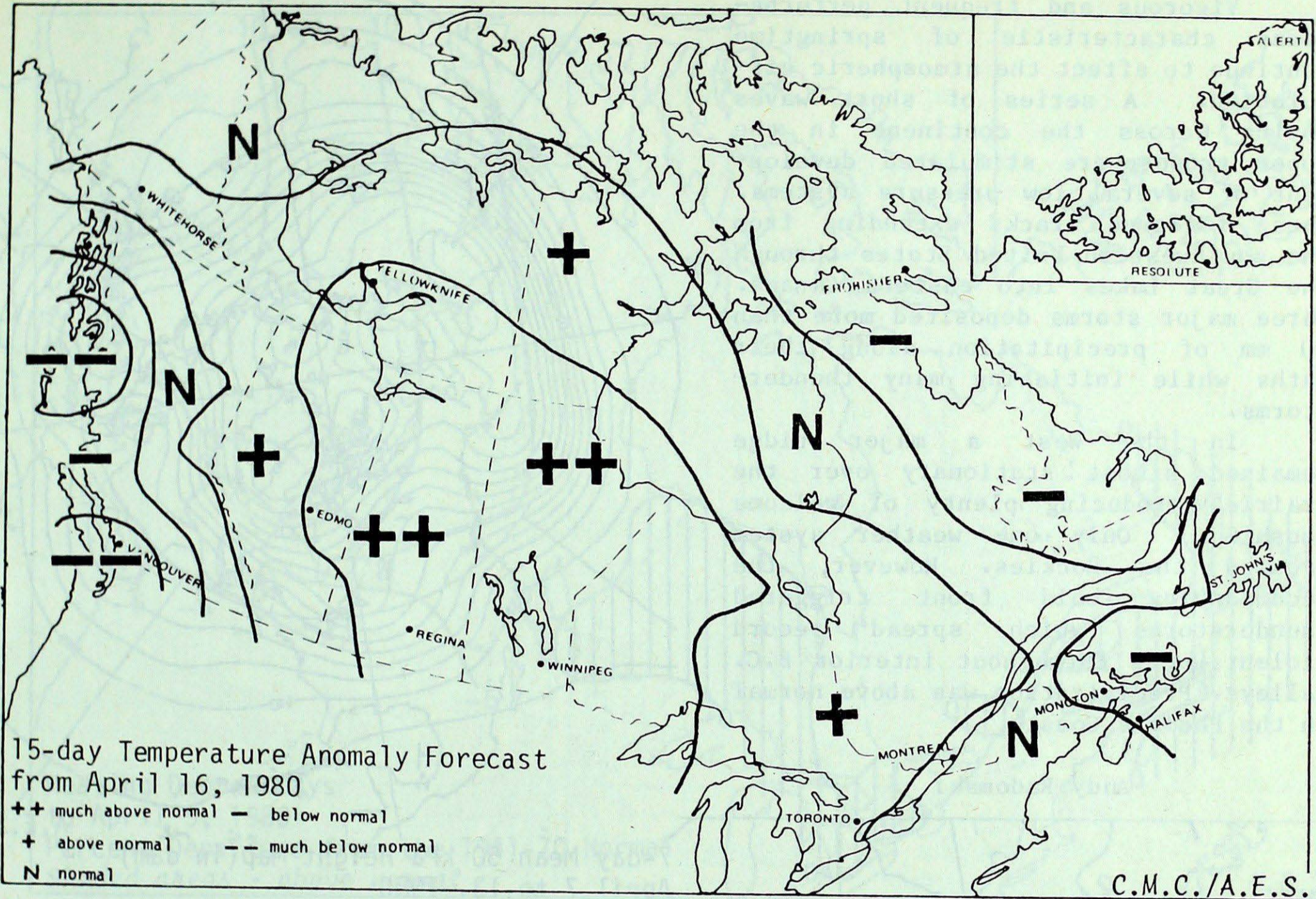
Editor:	Yves Durocher
Assistant Editor:	E.J. Truhlar
Technical Staff:	Fred Richardson, Andy Radomski
Graphics and Layout:	Debra Allsopp
Word Processing:	Velma MacDonald, Myrna Headley Lillian Methven

##### Correspondents

Terry Mullane,	(Ice Forecasting Central)
H.E. Wahl,	(Whitehorse)
	(Western Region)
Fred Luclow,	(Central Region)
Bryan Smith,	(Ontario Region)
Jacques Miron,	(Quebec Region)
J.F. Amirault,	(Atlantic Region)
Staff of Prince George,	Kamloops, Castlegar, Fort
	Nelson, Penticton and Kelowna
	weather office (Pacific Region)

Telephone Inquiries (416) 667-4711/4956

15 DAY TEMPERATURE ANOMALY FORECAST



Forecast Method

Analogue technique based on point prediction at 70 Canadian stations.

Temperature Scale

Each temperature class is designed to contain 20% of the historically observed 15 day means pertinent to specific location and time of year:

Station

Current Temperature Anomaly Forecast

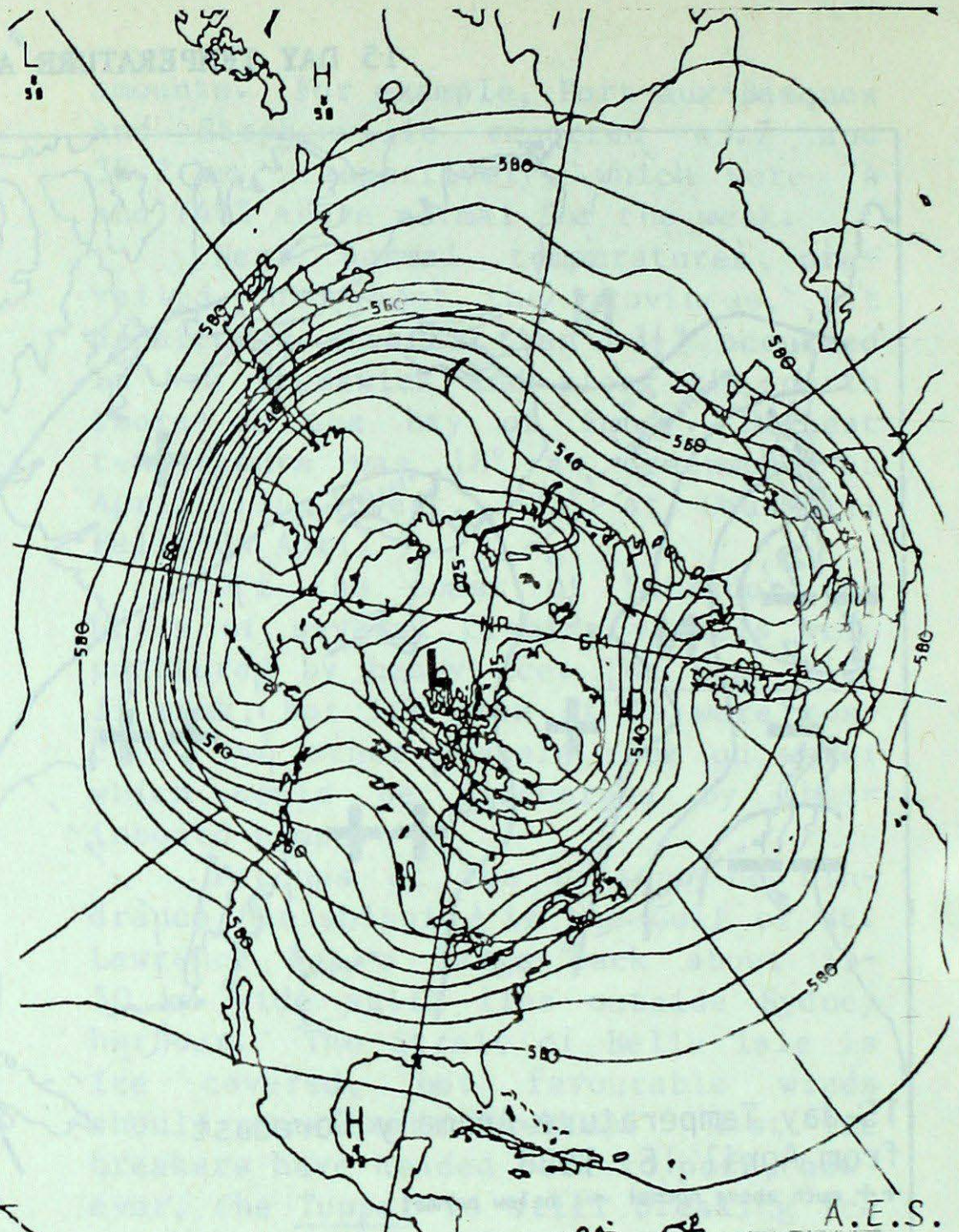
<u>Station</u>	<u>Current Temperature Anomaly Forecast</u>
Whitehorse	Above Normal From 0.6° to 1.9° above Normal
Victoria	Much Below Normal More than 0.9° below Normal
Vancouver	Much Below Normal More than 0.9° below Normal
Edmonton	Above Normal From 0.7° to 2.4° above Normal
Regina	Much Above Normal More than 2.6° above Normal
Winnipeg	Much Above Normal More than 2.6° above Normal
Thunder Bay	Much Above Normal More than 1.8° above Normal
Toronto	Above Normal From 0.6° to 2.0° above Normal
Ottawa	Near Normal Within 0.6° of Normal
Montreal	Near Normal Within 0.5° of Normal
Quebec	Near Normal Within 0.4° of Normal
Fredericton	Near Normal Within 0.4° of Normal
Halifax	Near Normal Within 0.4° of Normal
Charlottetown	Above Normal From 0.5° to 1.6° above Normal
St. John's	Above Normal From 0.4° to 1.4° above Normal
Goose Bay	Below Normal From 0.6° to 2.1° below Normal
Frobisher Bay	Below Normal From 1.0° to 3.3° below Normal
Inuvik	Near Normal Within 1.0° of Normal

### Atmospheric Circulation Features

Vigorous and frequent perturbations characteristic of springtime continue to affect the atmospheric circulation. A series of short waves moving across the continent in the upper troposphere stimulated development of several low pressure systems. These followed tracks extending from the southwestern United States through the Great Lakes into eastern Canada. Three major storms deposited more than 50 mm of precipitation along their paths while initiating many thunderstorms.

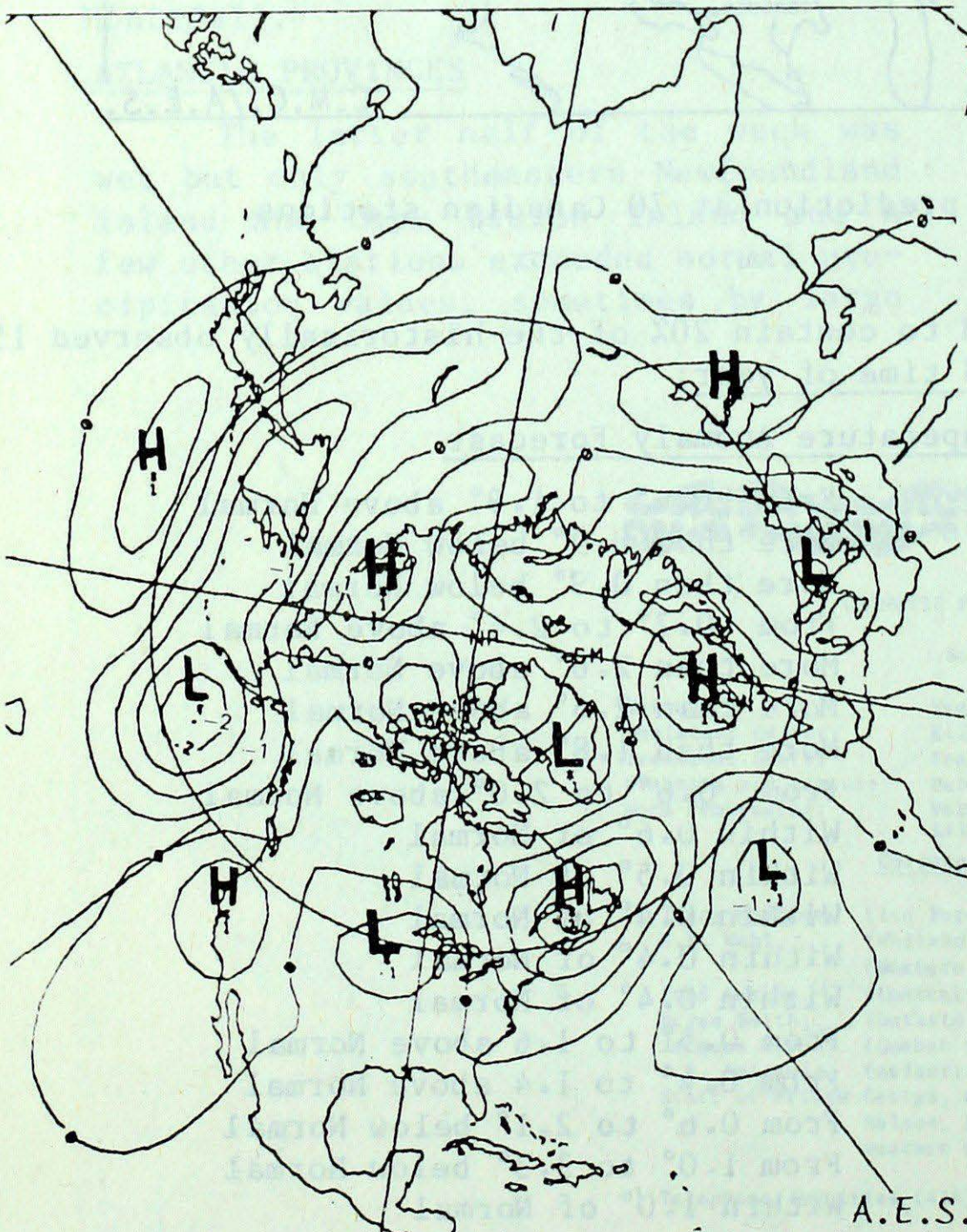
In the West a major ridge remained almost stationary over the Prairies producing plenty of welcome sunshine. Only one weather system crossed the Rockies. However, the accompanying cold front triggered thunderstorms which spread record violent gusts throughout interior B.C. valleys. Precipitation was above normal on the Pacific Coast.

Andy Radomski



A.E.S.

7-day Mean 50 kPa Height Map (in dam)  
April 7 to 13, 1980

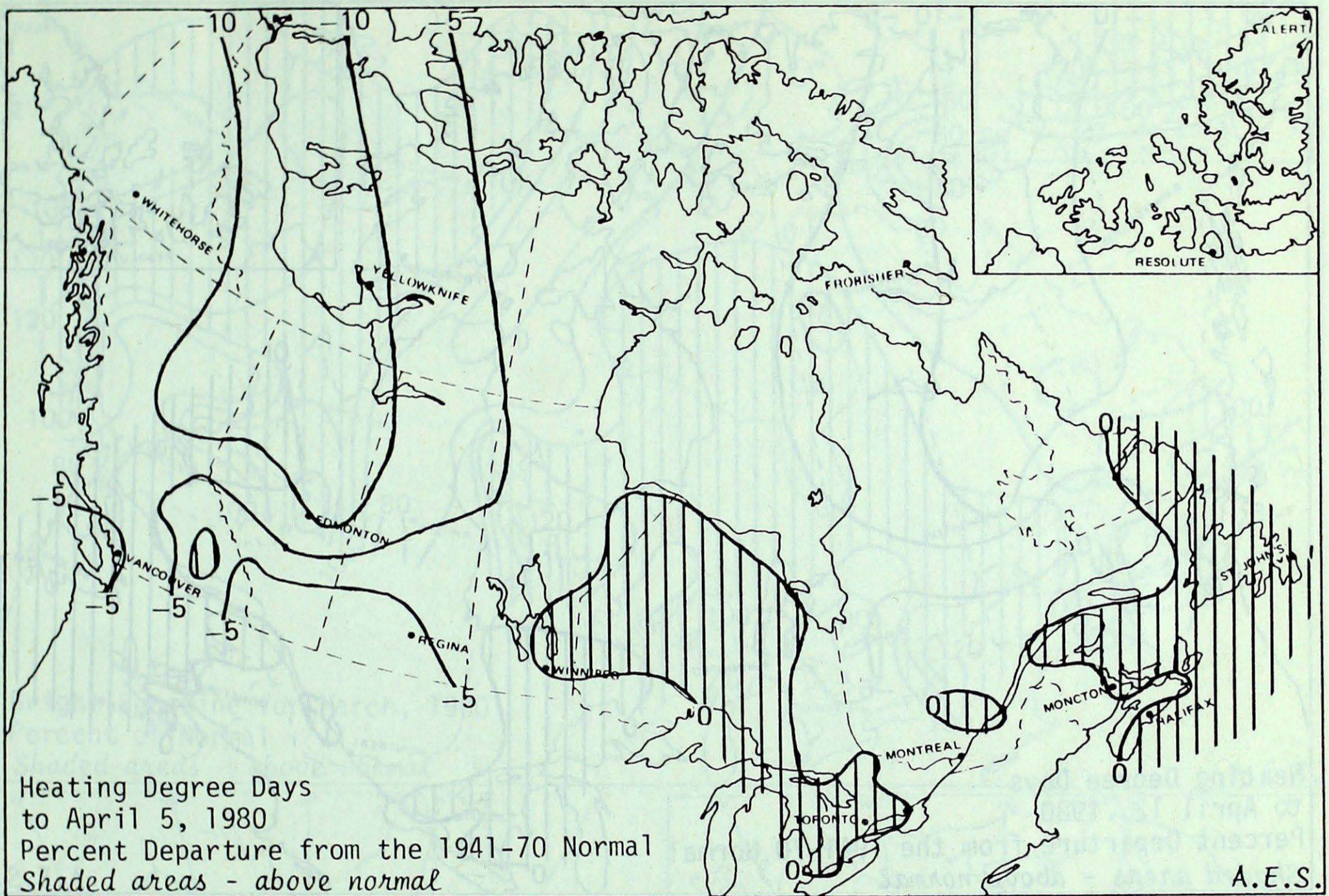


A.E.S.

7-day Mean 50 kPa Height Anomaly  
(in 5 dam intervals) April 7 to 14, 1980

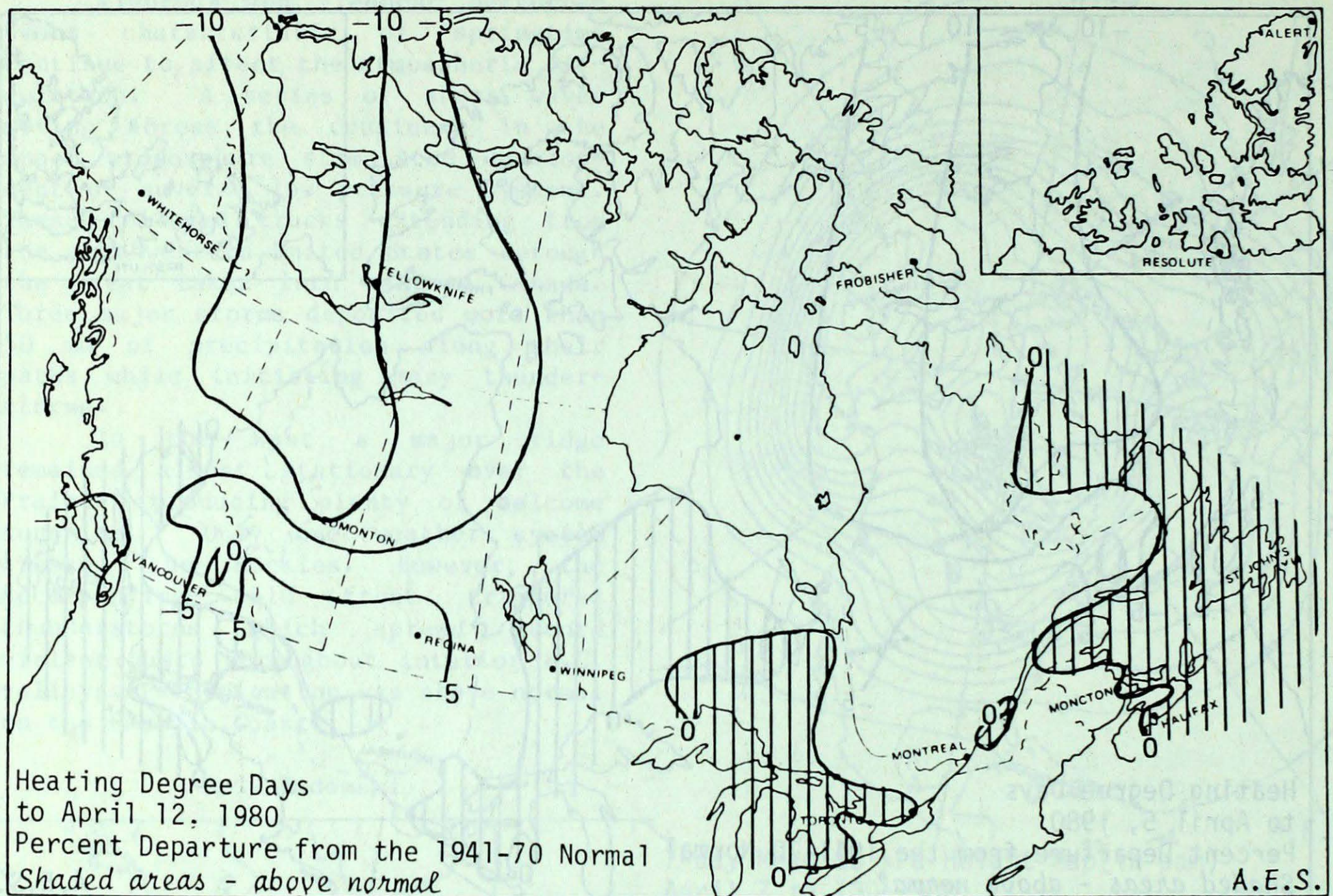


HEATING DEGREE-DAY SUMMARY TO APRIL 5, 1980



STATION	MONTHLY CUMULATIVE TOTAL	MONTHLY DIFF. FROM 1941-70 NORMAL	SEASONAL TOTAL	SEASONAL DIFF. FROM 1941-70 NORMAL	SEASONAL PERCENT OF NORMAL
Resolute	240.5	14.5	10014.0	-142.0	99
Inuvik	196.5	10.5	7547.0	-1064.0	88
Whitehorse	77.0	-29.0	5515.0	-447.0	93
Vancouver Int'l A	44.5	-5.5	2454.0	-85.0	97
Edmonton Mun A	75.0	-13.0	4437.0	-516.0	90
Calgary Int'l A	83.5	-4.5	4365.0	-234.0	95
Regina	70.0	-26.0	4967.5	-307.5	94
Winnipeg Int'l A	80.0	-16.0	5283.5	19.5	100
Thunder Bay	72.0	-23.0	4911.0	-58.0	99
Windsor	62.0	-4.0	3222.0	11.0	100
Toronto Int'l A	68.5	-4.5	3626.5	31.5	101
Ottawa Int'l A	68.5	-9.5	4041.5	-140.5	97
Montreal Int'l A	69.5	-11.5	3958.5	-42.5	99
Quebec	78.0	-14.0	4498.5	49.5	101
Saint John, N.B.	75.0	-10.0	3912.5	-99.5	98
Halifax	72.0	-8.0	3479.5	76.5	102
Charlottetown	78.5	-11.5	3891.0	42.0	101
St. John's, Nfld.	98.0	4.0	3864.0	68.0	102

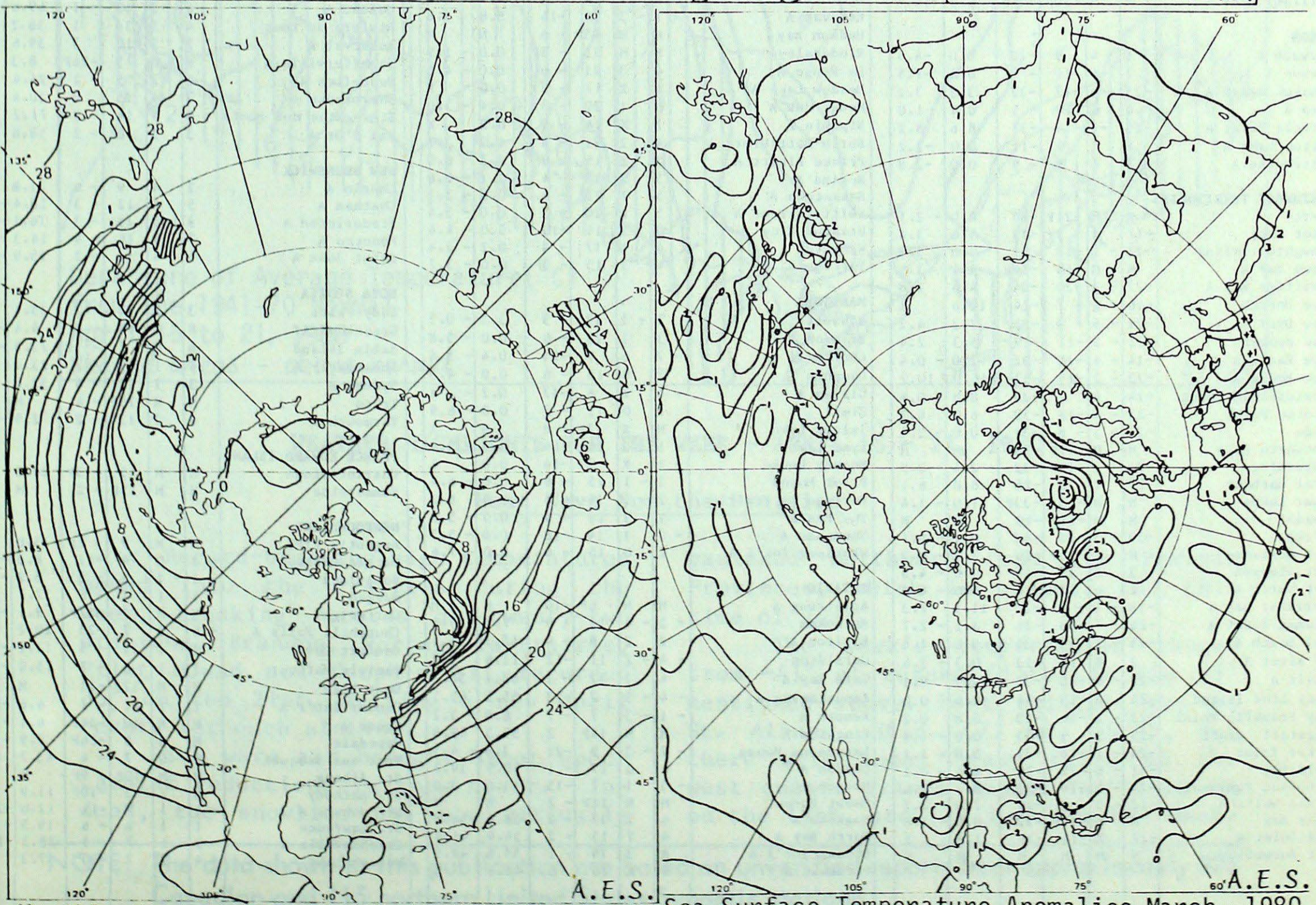
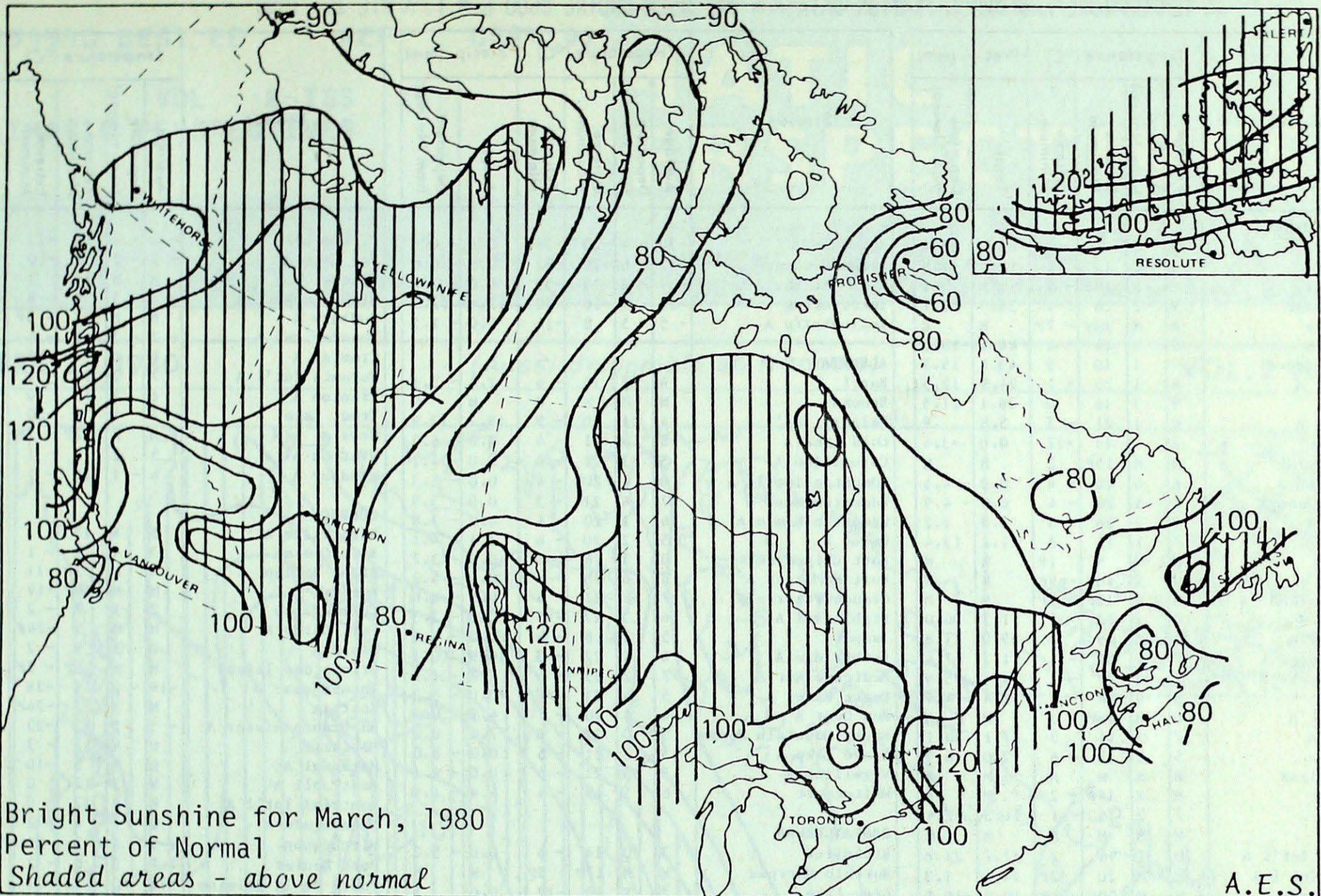
HEATING DEGREE-DAY SUMMARY TO APRIL 12, 1980



Heating Degree Days  
to April 12, 1980  
Percent Departure from the 1941-70 Normal  
Shaded areas - above normal

STATION	MONTHLY MULATIVE CU TOTAL	MONTHLY DIFF. FROM 1941-70 NORMAL	SEASONAL TOTAL	SEASONAL DIFF. FROM 1941-70 NORMAL	SEASONAL PERCENT OF NORMAL
Resolute	563.5	36.5	10337.0	-128.5	99
Inuvik	487.0	56.0	7837.5	-1018.5	88
Whitehorse	185.0	-59.0	5623.0	-477.0	92
Vancouver Int'l A	113.5	-5.5	2523.0	-85.0	97
Edmonton Mun A	171.5	-27.5	4533.5	-536.5	90
Calgary Int'l A	196.5	-4.5	4478.0	-234.0	95
Regina	169.5	-44.5	5067.0	-326.0	94
Winnipeg Int'l A	187.0	-26.0	5390.5	9.5	100
Thunder Bay	202.0	-15.0	5041.0	-50.0	99
Windsor	135.0	-10.0	3295.0	5.0	100
Toronto Int'l A	142.5	-24.5	3700.5	11.5	100
Ottawa Int'l A	140.5	-35.5	4113.5	-166.5	96
Montreal Int'l A	142.5	-34.5	4031.5	-65.5	98
Quebec	173.5	-33.5	4594.0	30.0	101
Saint John, N.B.	175.0	-23.0	4012.5	-112.5	97
Halifax	179.5	-3.5	3578.0	81.0	102
Charlottetown	178.0	-28.0	3990.5	25.5	101
St. John's, Nfld.	233.5	15.5	3999.5	79.5	102





Monthly Mean Sea Temperature for March, 1980      Sea Surface Temperature Anomalies March, 1980

