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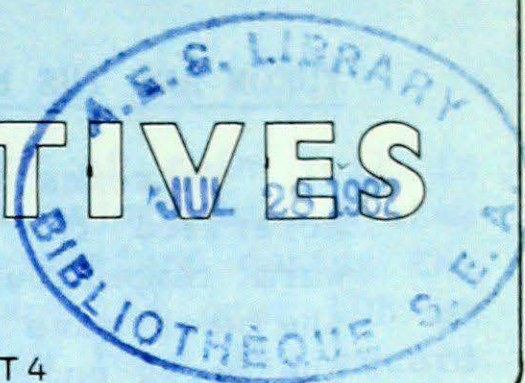
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# A WEEKLY REVIEW OF CANADIAN CLIMATE

# CLIMATIC PERSPECTIVES



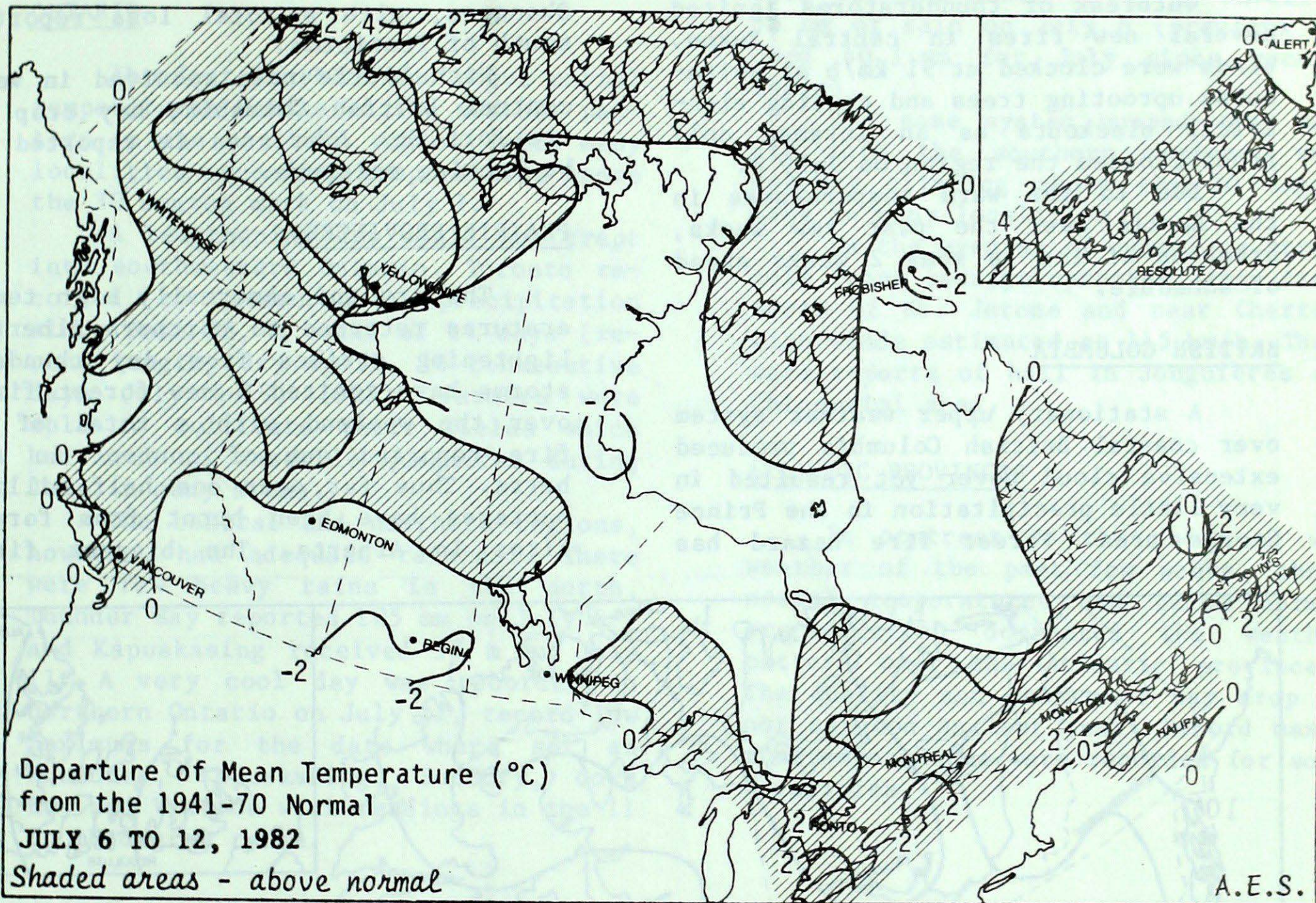
# Canada

THE CANADIAN CLIMATE CENTRE,  
ATMOSPHERIC ENVIRONMENT SERVICE,  
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JULY 16 1982

(Aussi disponible en français)

VOL.4 NO.27



## WEATHER HIGHLIGHTS FOR THE PERIOD - JULY 6-12, 1982

### Lightening strikes re-ignite major forest fires in northern Alberta

Eight new forest fires were started by lightening in northern Alberta as hot and dry weather returned to north-western Prairies. The largest fire was reported near High Level, which has already burned over 100,000 hectares. Over ½ million hectares of forest are burned by fires in Alberta this year.

With rain continuing in southern British Columbia, there has been reports of damage to the fruit crops in the Okanagan Valley, with a total loss in the cherry crop south of Penticton.

A major weather system moved into the Ontario-Québec area, bringing with it over 100 mm of rain to the central and northern regions of both provinces. Strong winds associated with the same system uprooted some large trees in southern Québec.

Temperatures ranged from a high of 34° at Chatham, New Brunswick to a low of -4° at Cape Hooper, Northwest Territories. Highest precipitation of the week was reported at Nitchequon, Québec, 108 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 THE NORTHWEST TERRITORIES

Extremes in the temperatures characterized the week in Yukon as very warm temperatures at the beginning of the week gave way to cooler values by the weeks end. Dawson reported a record maximum of 30° on July 7 and Whitehorse a record minimum of 4.5° on July 11.

Outbreak of thunderstorms ignited several new fires in central Yukon. Winds were clocked at 91 km/h at Whitehorse uprooting trees and causing electrical blackouts as an intense cold front crossed the region on July 8.

Due to the warm temperatures in the Arctic over the past few weeks, break-up of ice is some 2 weeks ahead of schedule.

BRITISH COLUMBIA

A stationary upper weather system over coastal British Columbia produced extensive cloud cover yet resulted in very little precipitation in the Prince George area. Forest fire hazard has

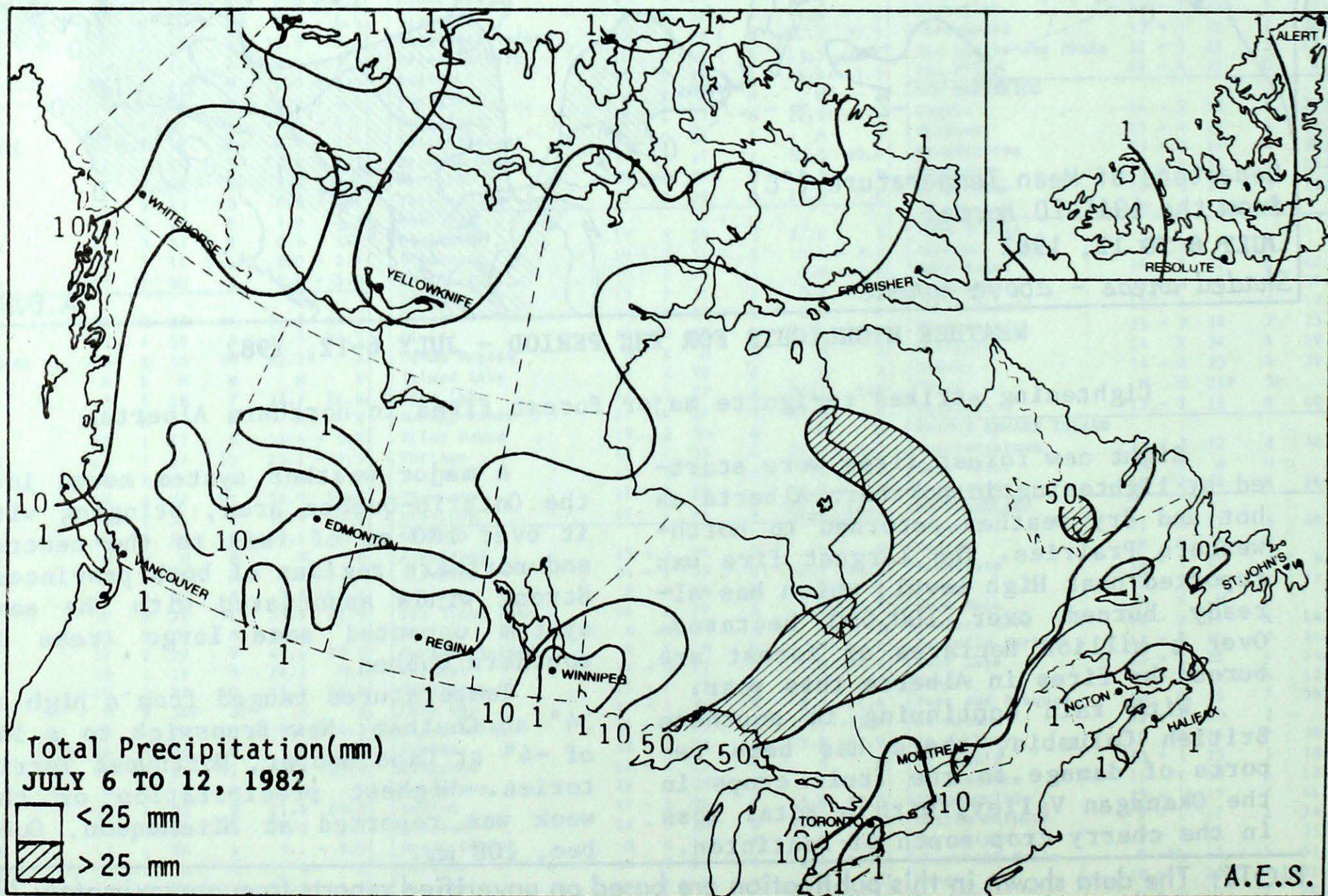
arisen near Kamloops due to abundant sunshine.

Kelowna, on the other hand has received 48 mm of rain this month, record rainfall amount for the month of July is 57 mm, set in 1980. As a result of excessive rain in the extreme southern regions, splitting in the cherry crop resulted in 50 per cent loss in the Okanagan, with a total loss reported south of Penticton.

With little rain received in west central British Columbia, hay crop in the Fort St. John area is reported to be lacking moisture.

PRAIRIE PROVINCES

The dry and abnormally high temperatures returned to northern Alberta. Lightning strikes from dry thunderstorms have ignited 8 new forest fires over the weekend with a total of 18 fire reported out of control in Alberta. Thus far over one half million hectares have been burnt from forest fires in Alberta. The biggest fire,





which was reported near High Level, had already consumed over 100,000 hectares.

Generally sunny fair weather prevailed over Saskatchewan and Manitoba. There were reports of some hail in Saskatchewan. Southeast corner of Saskatchewan has received only one half of its normal precipitation quota this far.

#### ONTARIO

Abundant sunshine and above normal temperatures dominated the weather pattern in the southern region, with many localities recording temperatures above the 30 degree mark on July 7.

A lengthening dry spell has crept into southwestern Ontario. Toronto recorded no measureable precipitation since June 28, a total of 14 days (recent lengthy dry spell, 16 consecutive days July 4-19, 1978). Farmers were able to cultivate their fields which had come to resemble quagmires during June in many areas.

The central and northern regions, however, had adequate rainfall. There were few heavy rains in the north, Thunder Bay reported 105 mm on July 6-7 and Kapuskasing received 57 m on July 11. A very cool day was recorded in northern Ontario on July 12, record low maximums for the date were set at Moosonee, Kapuskasing, Sudbury, Gore Bay and Wiarton with readings in the 11 to 18 degree range.

#### QUÉBEC

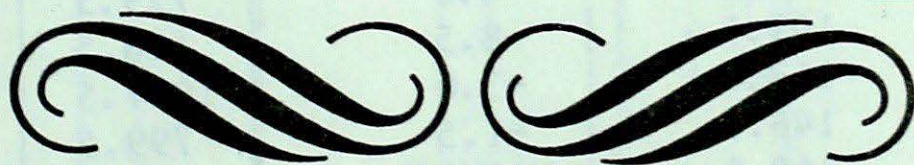
Copious amounts of rain fell in central Québec as a major storm system passed through the province during the week. Nitchequon reported over 108 mm of rain. In addition to a few record rainfall amount set for the day for some localities, Inoucdjouac set a record for the month of July, receiving 56 mm of rain on July 8 (previous record 40.1 mm for July since records began).

The same system pumped very warm air into the southern regions, with mercury climbing above the 30 degree mark in many localities.

On the evening of July 7, a strong cold front passage uprooted large trees north of St. Jerome and near Chertsey with winds estimated at 115 km/h. There were reports of hail in Jonguères and Chicoutimi area.

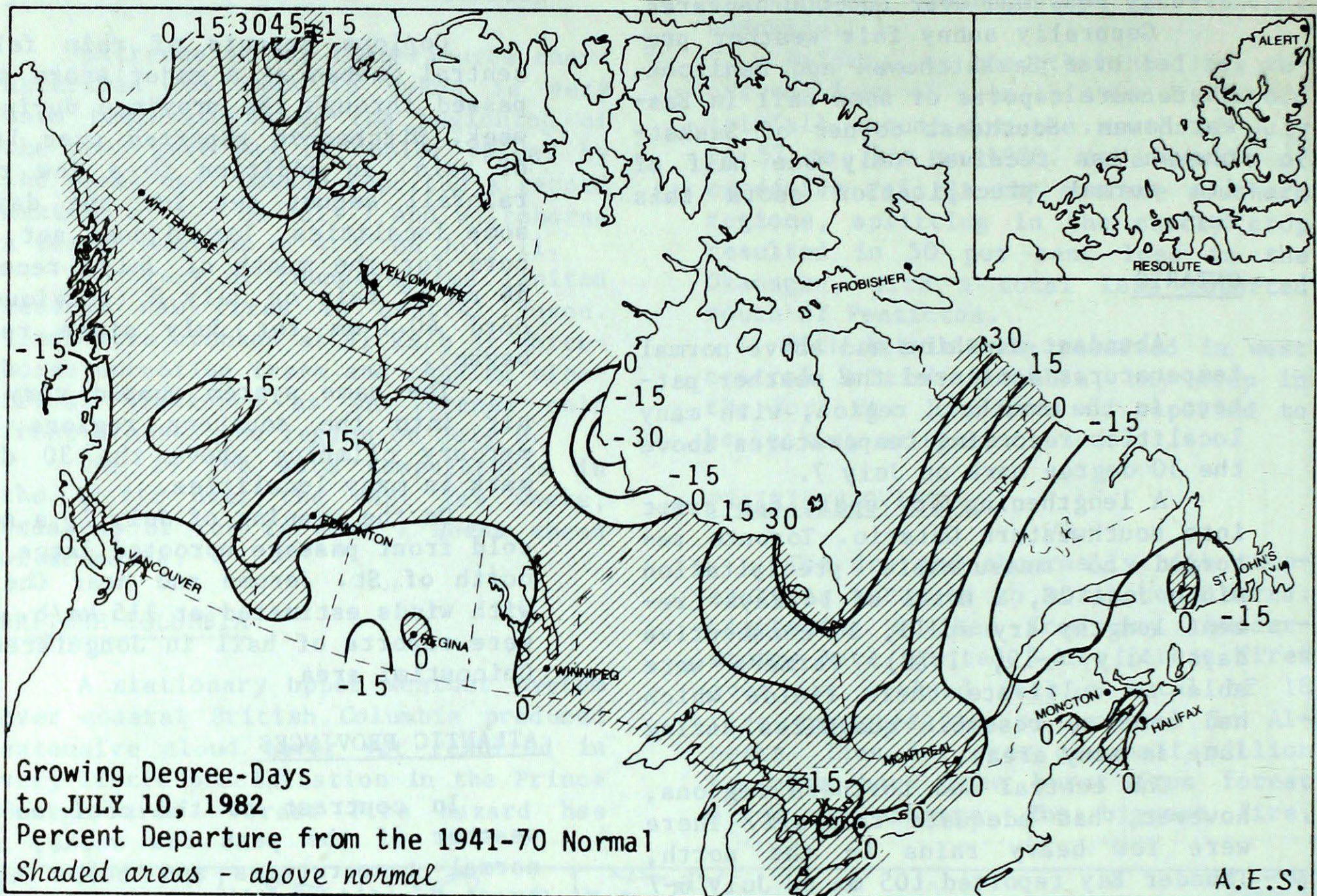
#### ATLANTIC PROVINCES

In contrast to the cool and wet weather of the past few weeks, above normal temperatures and below normal precipitation dominated the weather pattern over the Atlantic provinces. The quality and volume of hay crop is not as good as last year. Record maximum temperatures were recorded for some localities.





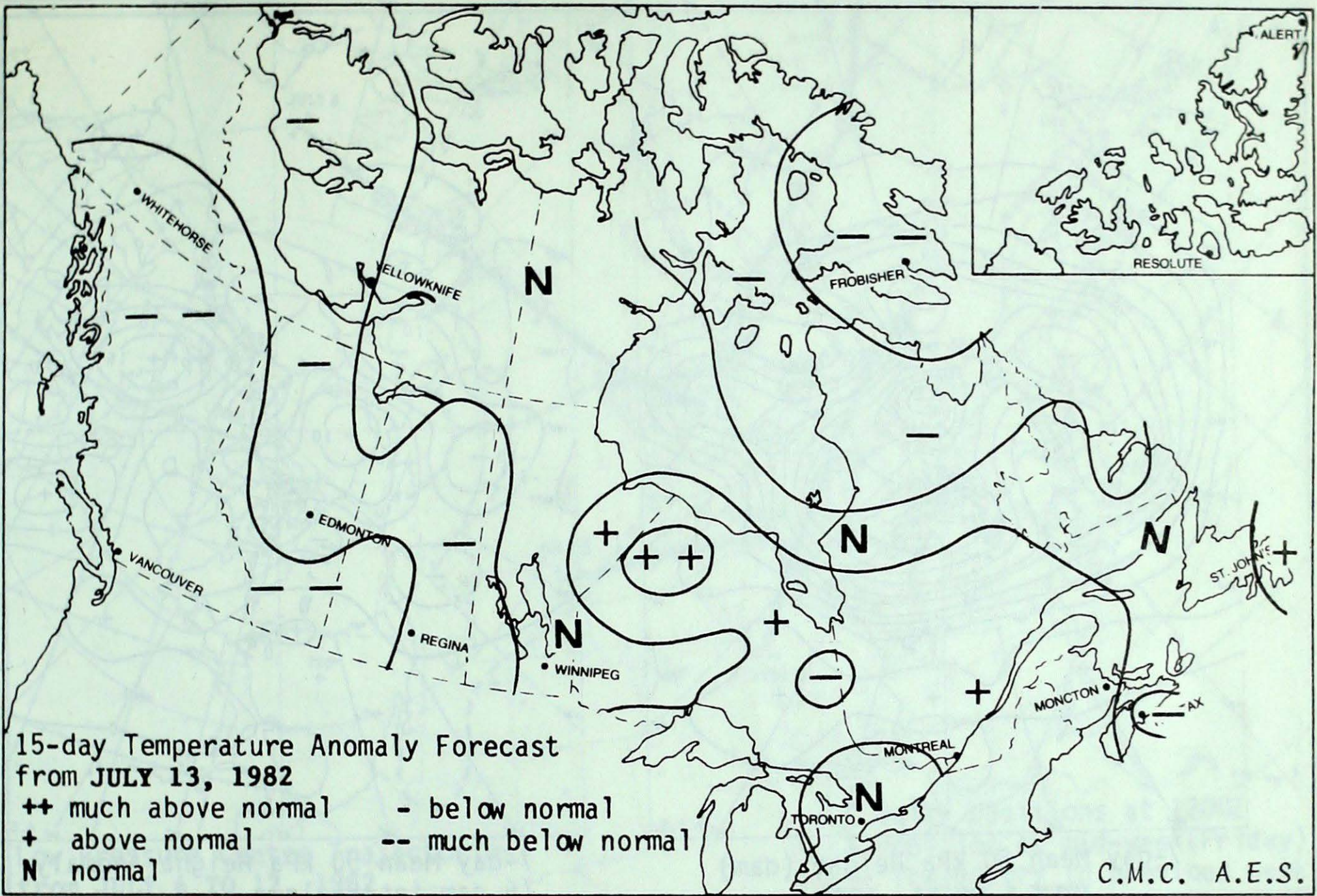
## GROWING DEGREE-DAY SUMMARY TO JULY 10, 1982



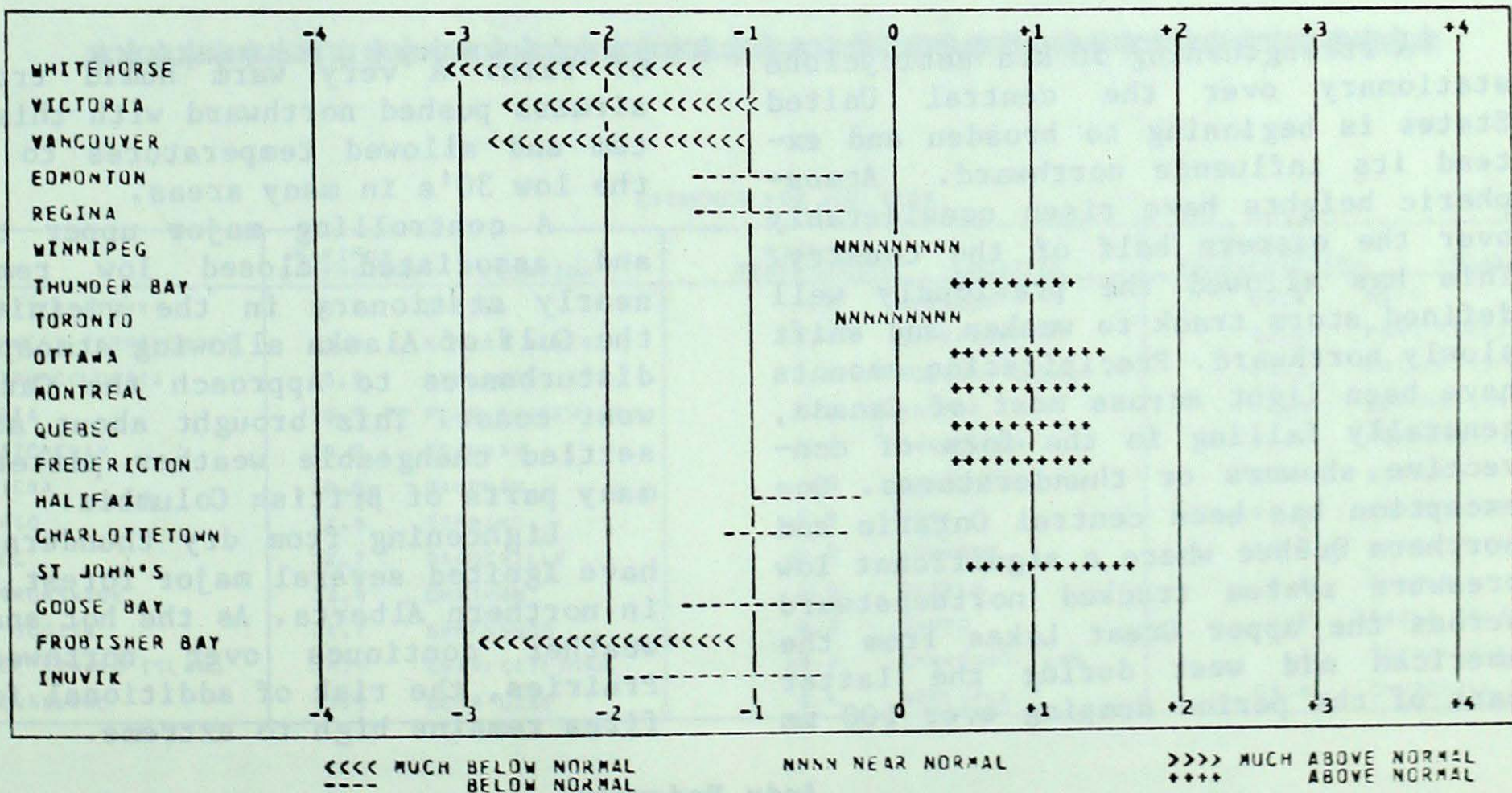
STATION	MONTHLY CUMULATIVE TOTAL	MONTHLY DIFF. FROM 1941-70 NORMAL	SEASONAL TOTAL	SEASONAL DIFF. FROM 1941-70 NORMAL	SEASONAL PERCENT OF NORMAL
Whitehorse	101.0	13.0	376.0	3.0	101
Penticton	132.5	-4.5	874.0	-20.0	98
Vancouver	112.5	-7.5	783.5	-34.5	96
Edmonton	120.5	9.5	667.0	105.0	119
Calgary	98.0	-7.0	527.5	23.5	105
Regina	129.0	-4.0	666.0	27.0	104
Saskatoon	129.5	-1.5	584.5	-53.5	92
Winnipeg	149.0	4.0	729.5	40.5	106
Thunder Bay	109.5	-8.5	516.5	12.5	102
Windsor	167.0	-3.0	1057.5	41.5	104
Toronto	146.5	-1.5	799.5	-35.5	96
Ottawa	142.5	-9.5	877.0	56.0	107
Montréal	138.0	-18.0	868.0	30.0	104
Québec	119.5	-14.5	661.0	1.0	100
Fredericton	130.0	0.0	654.0	3.0	100
Halifax	117.0	-8.0	457.0	-82.0	85
Charlottetown	121.0	-7.0	452.5	-45.5	91
St. John's	115.5	20.5	205.0	-83.0	71



TEMPERATURE ANOMALY FORECAST

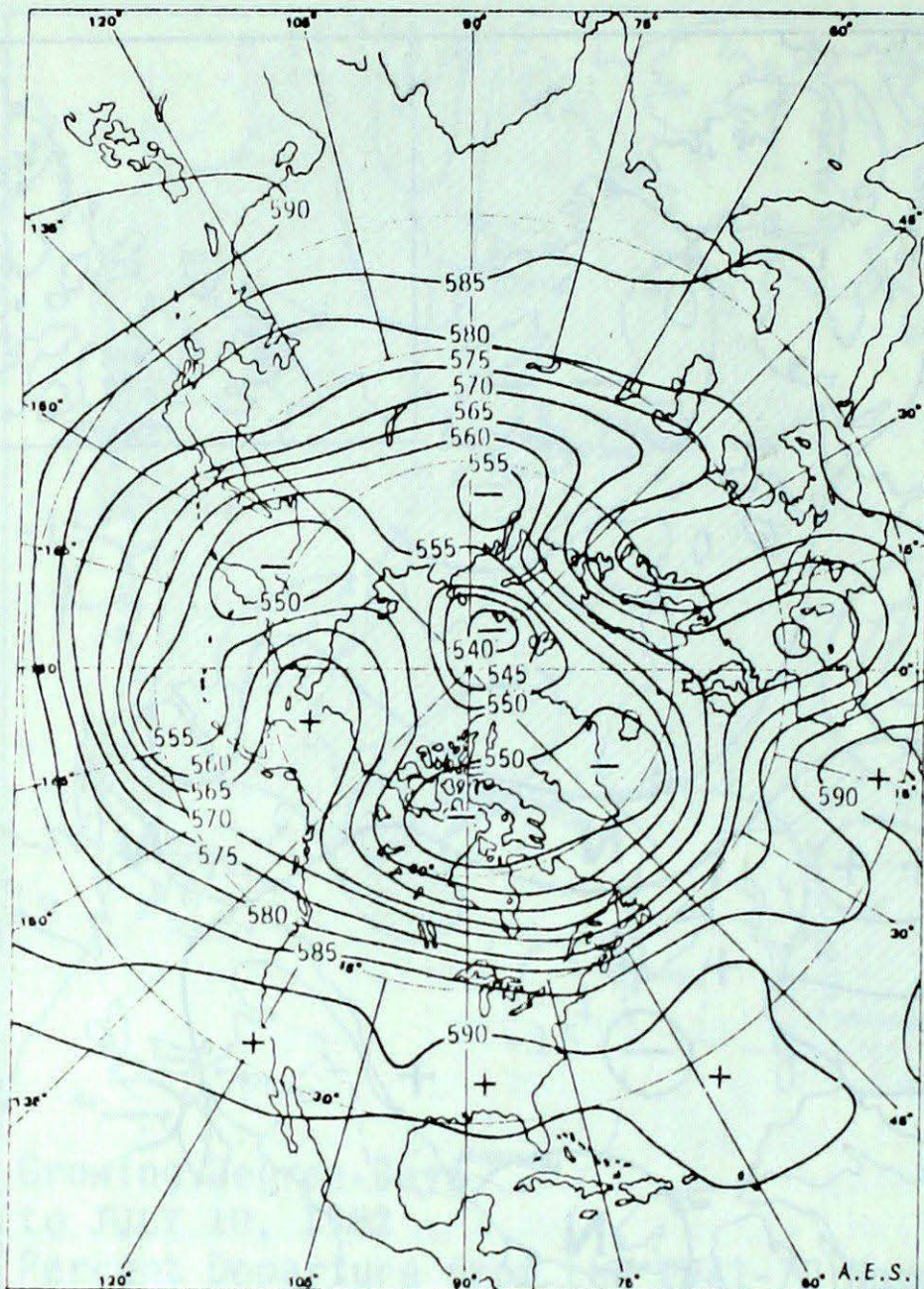


TEMPERATURE ANOMALY FORECAST FOR JUL 13 1982 TO JUL 27 1982

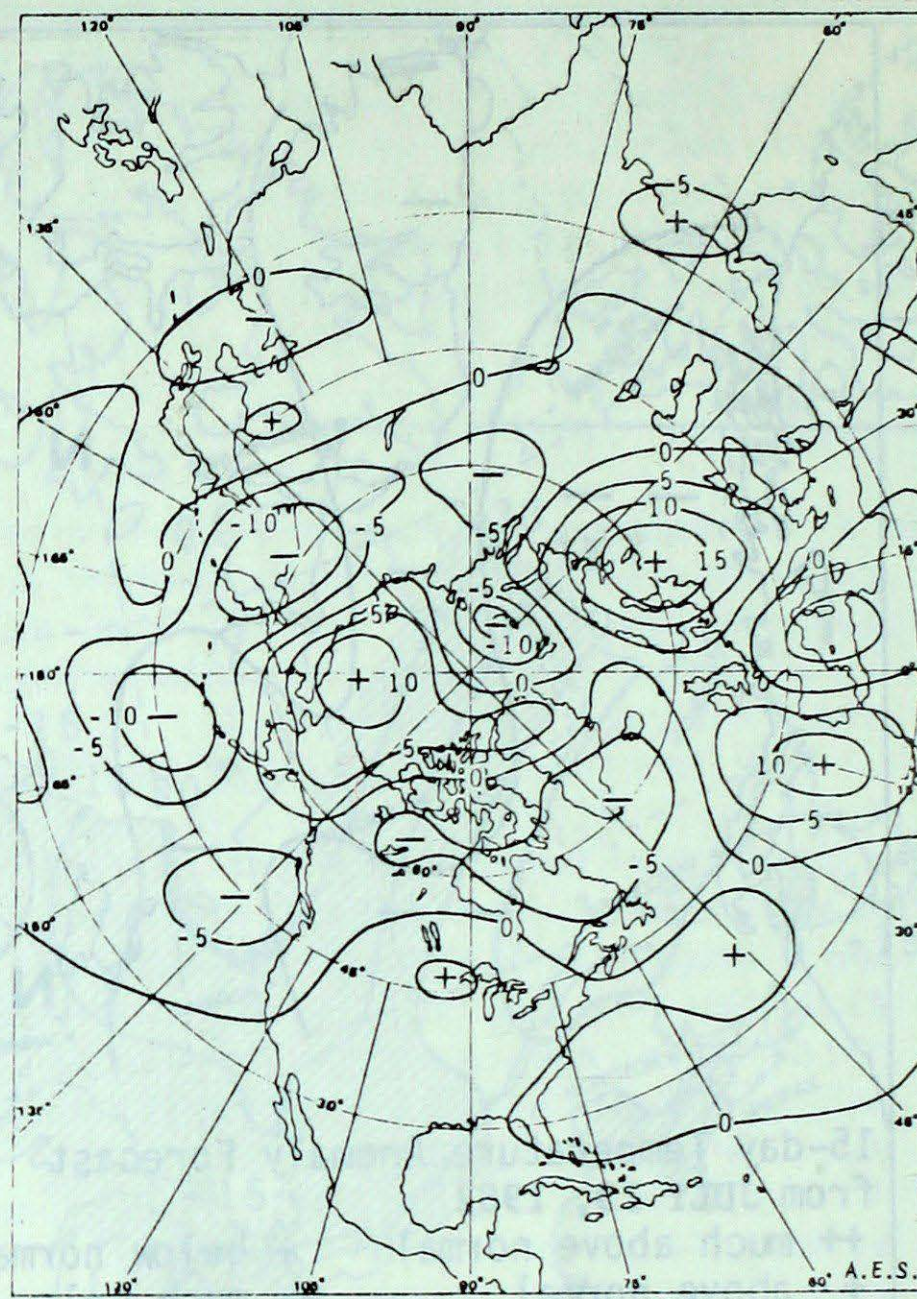




## ATMOSPHERIC CIRCULATION



7-day Mean 50 kPa Height (dam)  
JULY 5 TO 11, 1982



7-day Mean 50 kPa Height Anomaly  
(5 dam intervals)  
JULY 5 TO 11, 1982

A strengthening 50 kPa anticyclone stationary over the central United States is beginning to broaden and extend its influence northward. Atmospheric heights have risen considerably over the eastern half of the country. This has allowed the previously well defined storm track to weaken and shift slowly northward. Precipitation amounts have been light across most of Canada, generally falling in the form of convective showers or thunderstorms. One exception has been central Ontario and northern Québec where a significant low pressure system tracked northeastward across the upper Great Lakes from the American mid west during the latter part of the period dumping over 100 mm

of rain. A very warm humid tropical airmass pushed northward with this system and allowed temperatures to reach the low 30's in many areas.

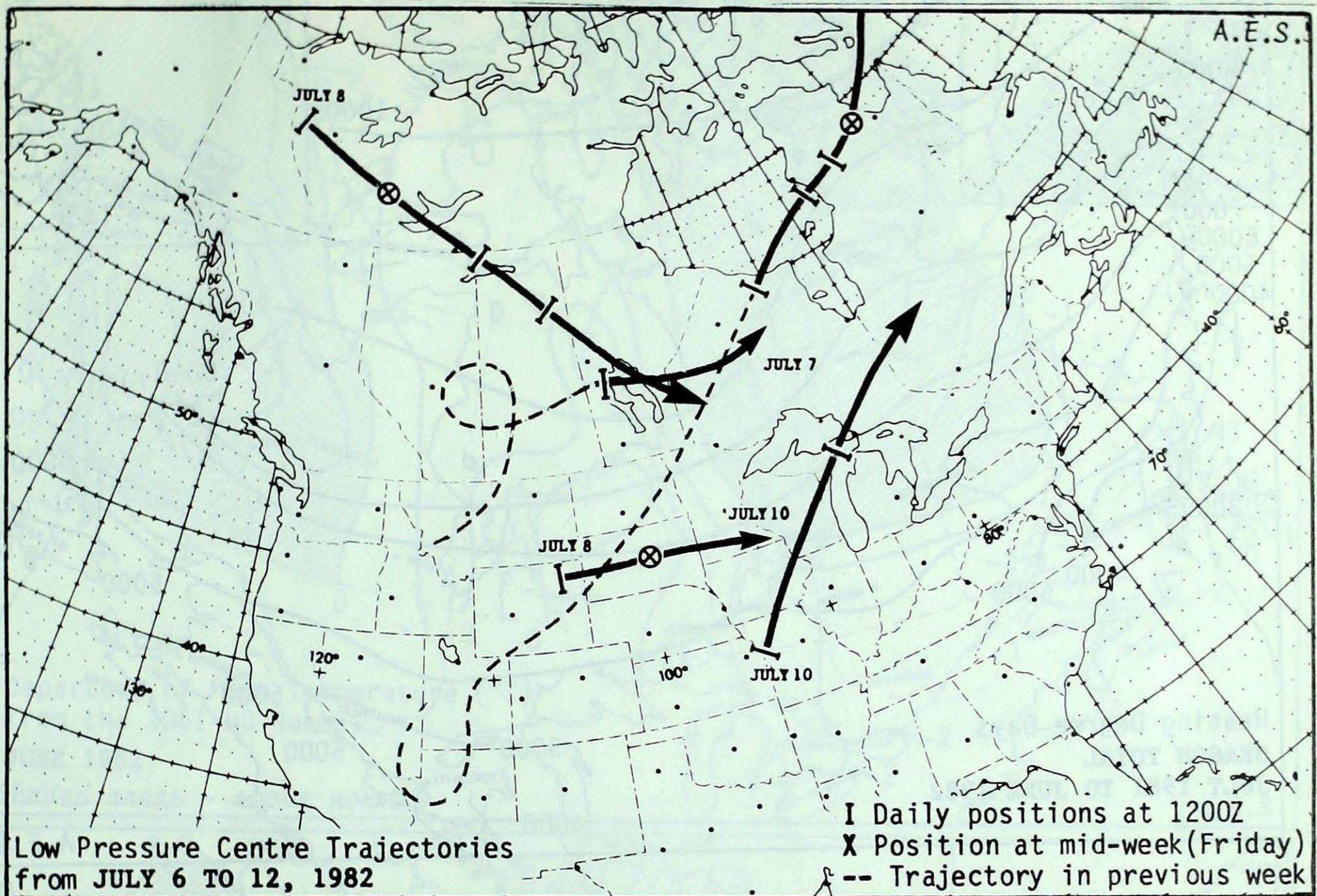
A controlling major upper trough and associated closed low remained nearly stationary in the vicinity of the Gulf of Alaska allowing atmospheric disturbances to approach the Canadian west coast. This brought about an unsettled changeable weather pattern to many parts of British Columbia.

Lightening from dry thunderstorms have ignited several major forest fires in northern Alberta. As the hot and dry weather continues over northwestern Prairies, the risk of additional forest fires remains high to extreme.

Andy Radomski



LOW PRESSURE CENTRE TRAJECTORIES



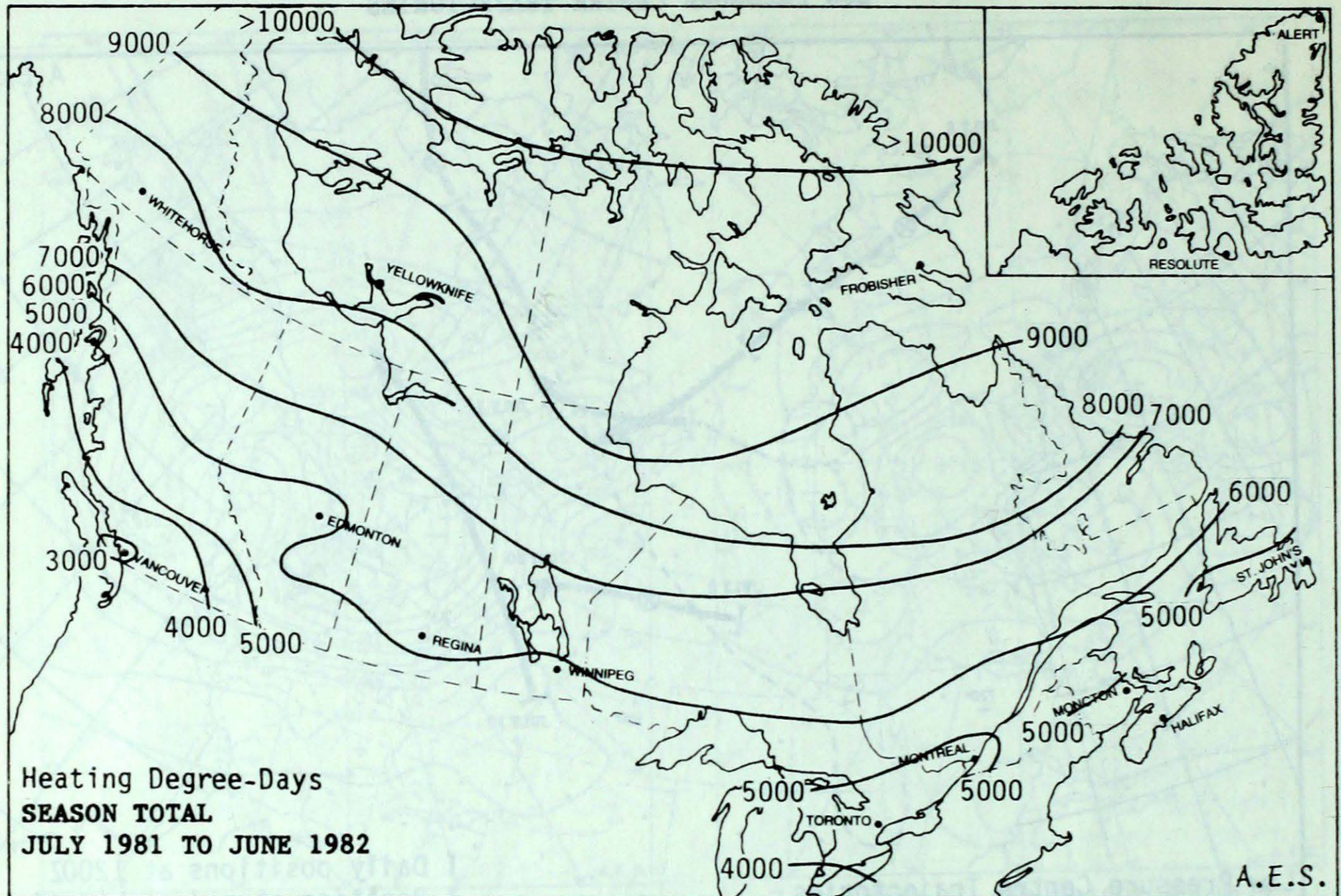
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EXTREMES FOR THE WEEK

	MAXIMUM TEMPERATURE	LOCATION	MINIMUM TEMPERATURE	LOCATION	GREATEST PRECIPITATION	LOCATION
YUKON TERRITORY	30.0	DAWSON	.4	BURWASH	15.9	MAYO
NORTHWEST TERRITORIES	33.0	NORMAN WELLS	-3.9	CAPE HOOPER	32.1	FORT SIMPSON
BRITISH COLUMBIA	30.9	KAMLOOCS	1.2	MCINNES ISLAND	39.2	PRINCE RUPERT
ALBERTA	30.5	FORT CHIFEWYAN	5.0	JASPER	39.8	CORONATION
SASKATCHEWAN	30.2	ESTEVAN	2.2	BROADVIEW	35.4	NIPAWIN
MANITOBA	30.9	DAUPHIN	.9	CHURCHILL	36.2	BRANDON
ONTARIO	33.5	TIMMINS	2.5	WANA	104.5	KAPUSKASING
QUEBEC	32.7	BAGOTVILLE	-1.3	KOARTAK	108.3	NITCHEQUON
NEW BRUNSWICK	33.9	CHATHAM	6.5	CHARLO	6.8	CHARLO
NOVA SCOTIA	31.7	GREENWOOD	6.0	TRURO	4.8	SABLE ISLAND
PRINCE EDWARD ISLAND	28.5	CHARLOTTETOWN	10.8	CHARLOTTETOWN	.2	SUMMERSIDE
NEWFOUNDLAND	33.5	DEER LAKE	1.6	HOPEDALE	58.8	CHURCHILL FALLS



## SEASONAL MAPS

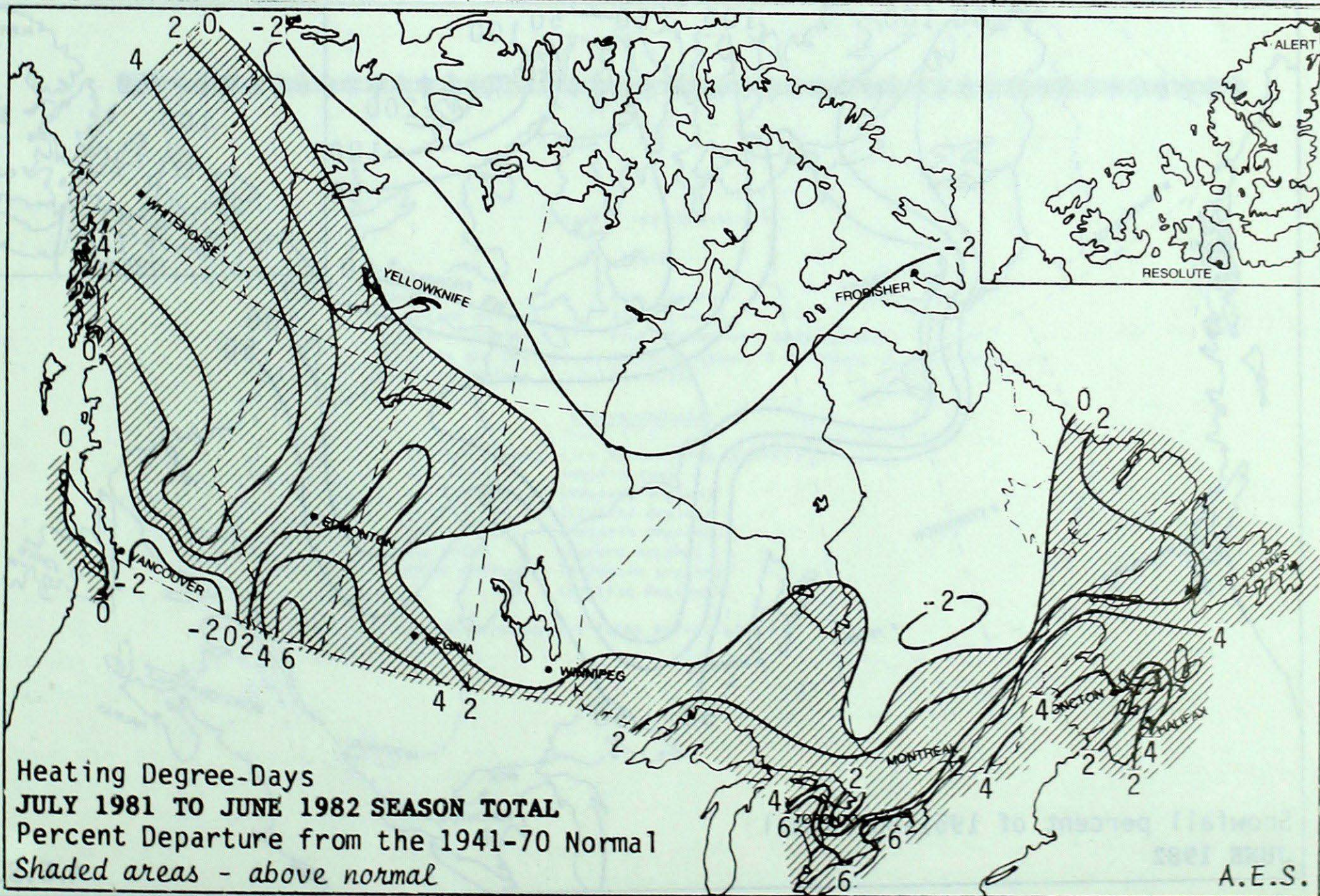
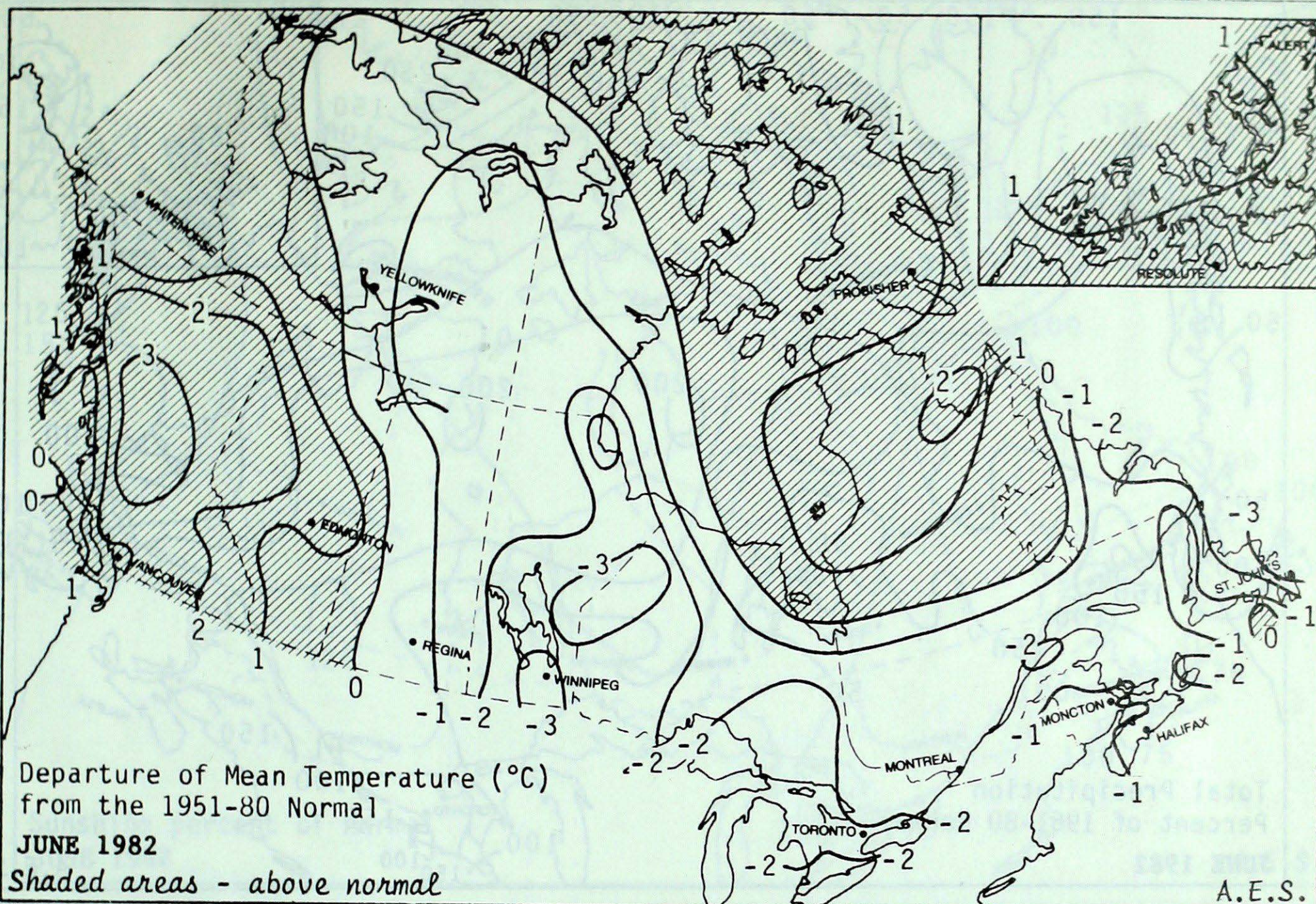


## HEATING DEGREE-DAY SUMMARY TO JUNE 30, 1982

CITY	SEASONAL TOTAL	SEASONAL DIFF. FROM 1941-70 NORMAL	SEASONAL PERCENT OF NORMAL
Resolute	12267.5	-281.5	98
Inuvik	9989.0	-185.0	98
Whitehorse	7398.0	519.0	108
Vancouver	3144.0	68.0	102
Edmonton	5590.0	1.0	100
Calgary	5582.0	237.0	104
Regina	6114.5	194.5	103
Winnipeg	5842.5	-46.5	99
Thunder Bay	5896.5	150.5	103
Windsor	3846.0	256.0	107
Toronto	4413.0	331.0	108
Ottawa	4795.5	122.5	103
Montreal	4746.0	275.0	106
Quebec	5325.5	245.5	105
Saint John	4917.0	146.0	103
Halifax	4279.0	156.0	104
Charlottetown	4699.5	76.5	102
St John's	4932.5	128.5	103

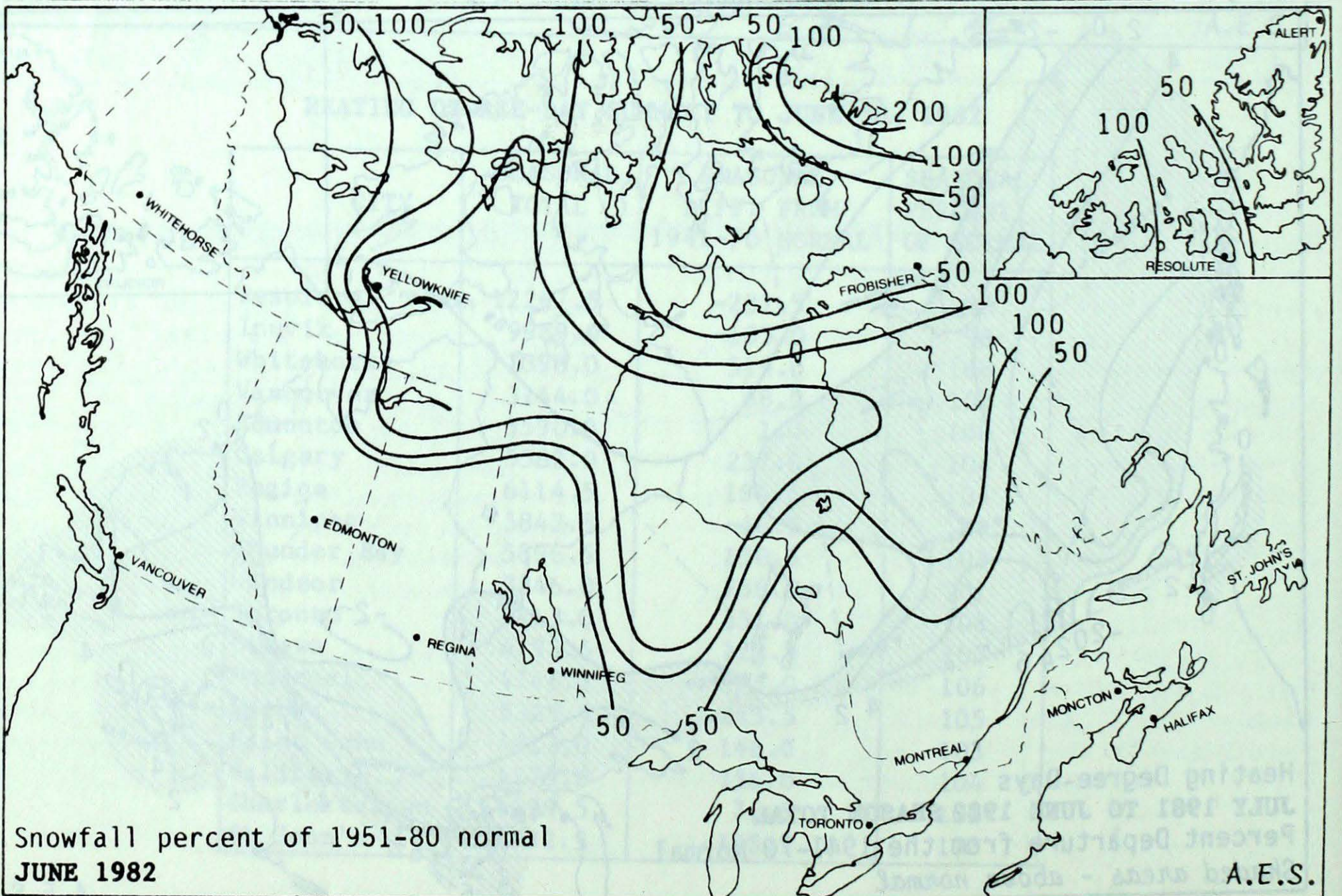
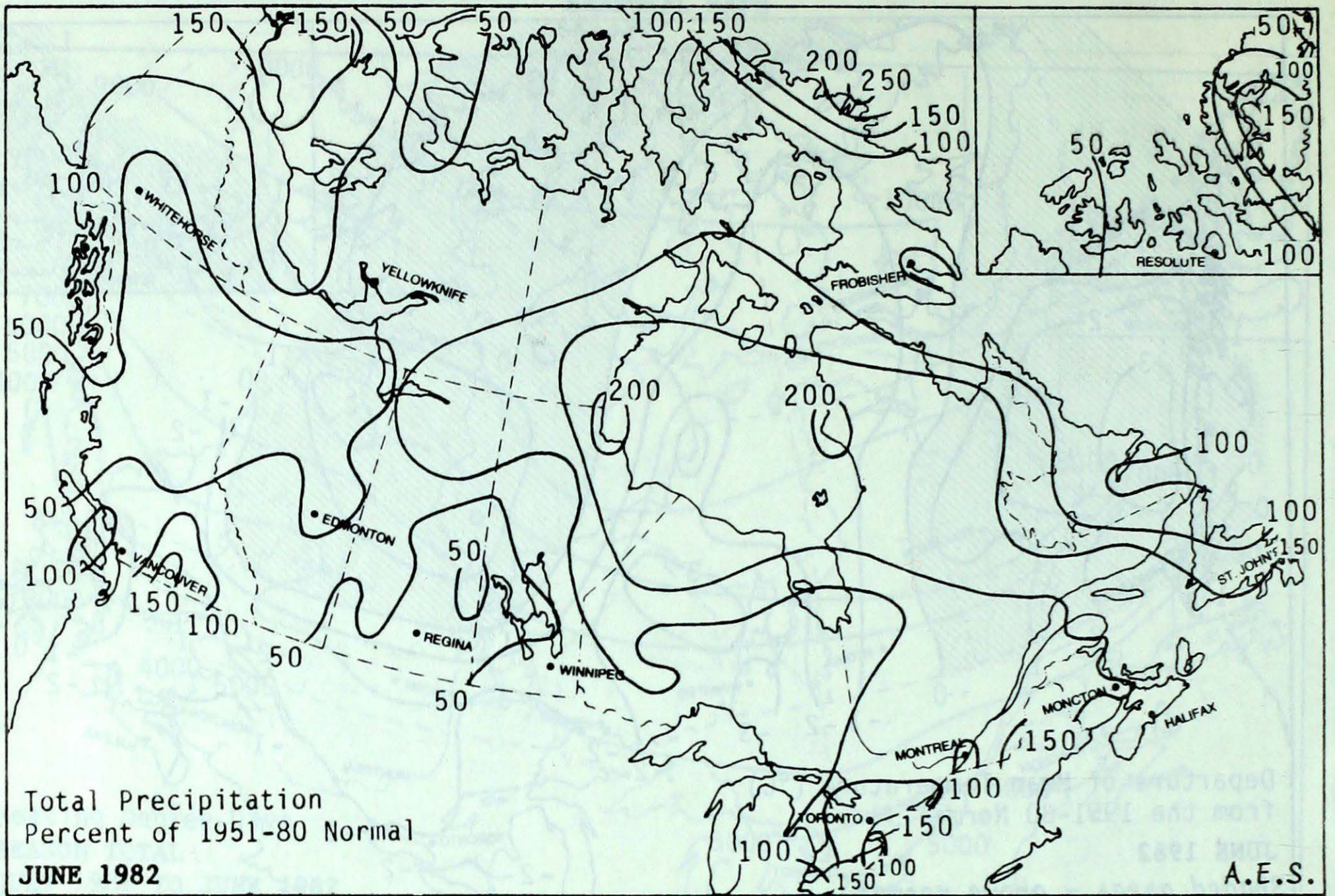


SEASONAL MAPS



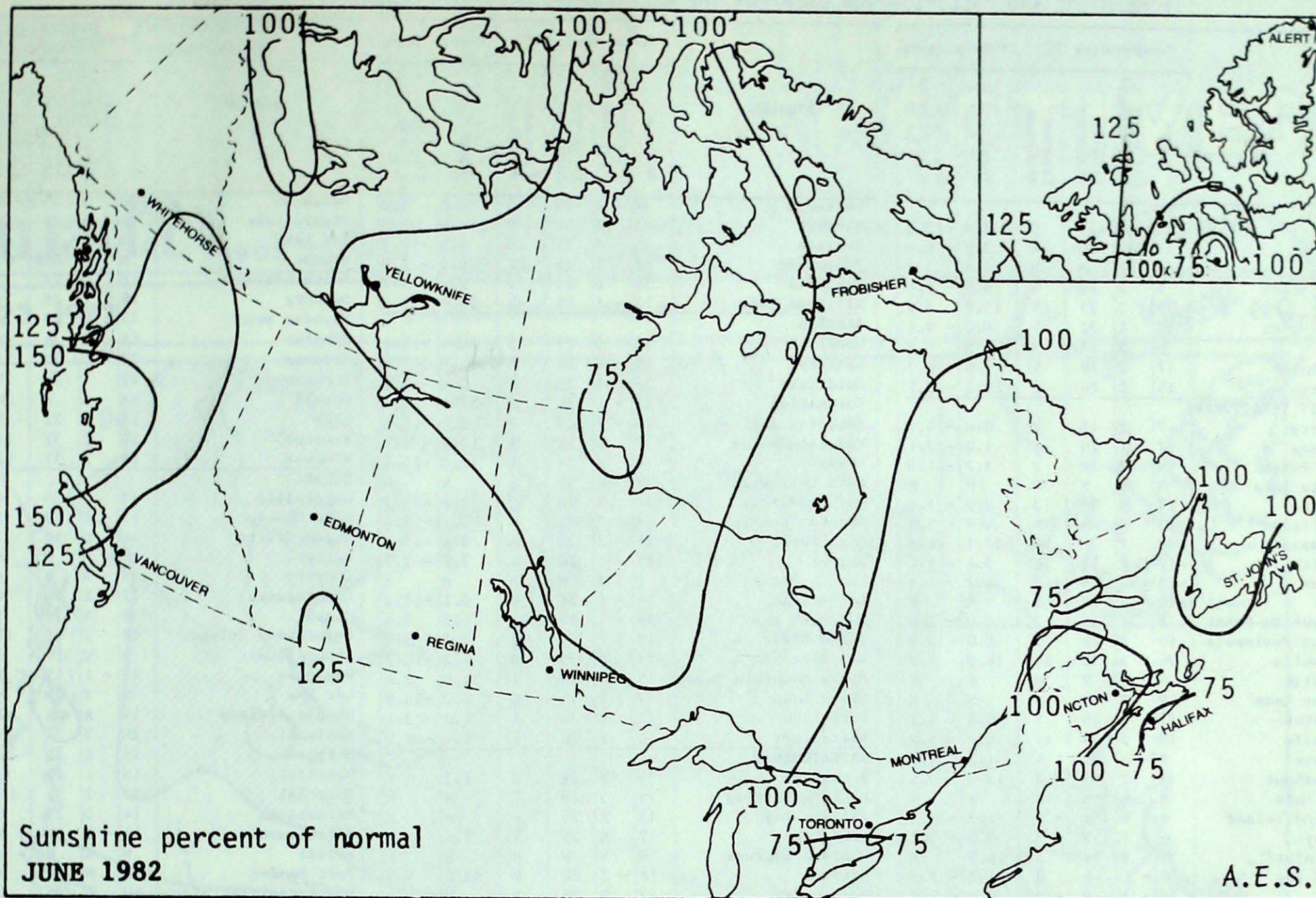


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SEASONAL MAPS





SEASONAL MAPS



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CLIMATIC PERSPECTIVES

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TEMPERATURE AND PRECIPITATION DATA FOR THE WEEK ENDING 0600 G.M.T. JULY 13, 1932

Table with columns for Station, Temperature (°C) (Average, Departure from Normal, Extreme Maximum, Extreme Minimum, Total), and Precip. (mm) (Total, Departure from Normal). Rows are categorized by region: YUKON, NORTHWEST TERRITORIES, BRITISH COLUMBIA, SASKATCHEWAN, MANITOBA, ONTARIO, and various provinces (PETAWAWA, QUÉBEC, NEW BRUNSWICK, PRINCE EDWARD ISLAND, NEWFOUNDLAND). Data includes numerical values and codes (M, X, P) for extreme values and normality.

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