



Environment  
Canada

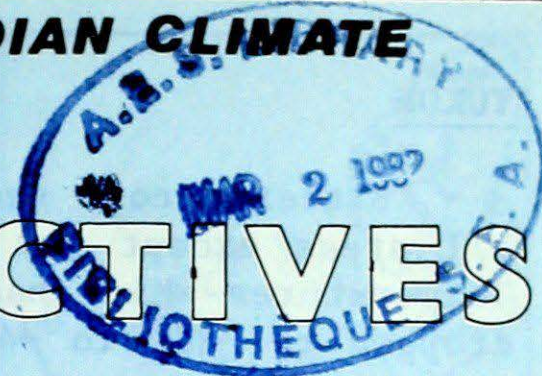
Environnement  
Canada

Atmospheric  
Environment

Environnement  
atmosphérique

# A WEEKLY REVIEW OF CANADIAN CLIMATE

# CLIMATIC PERSPECTIVES



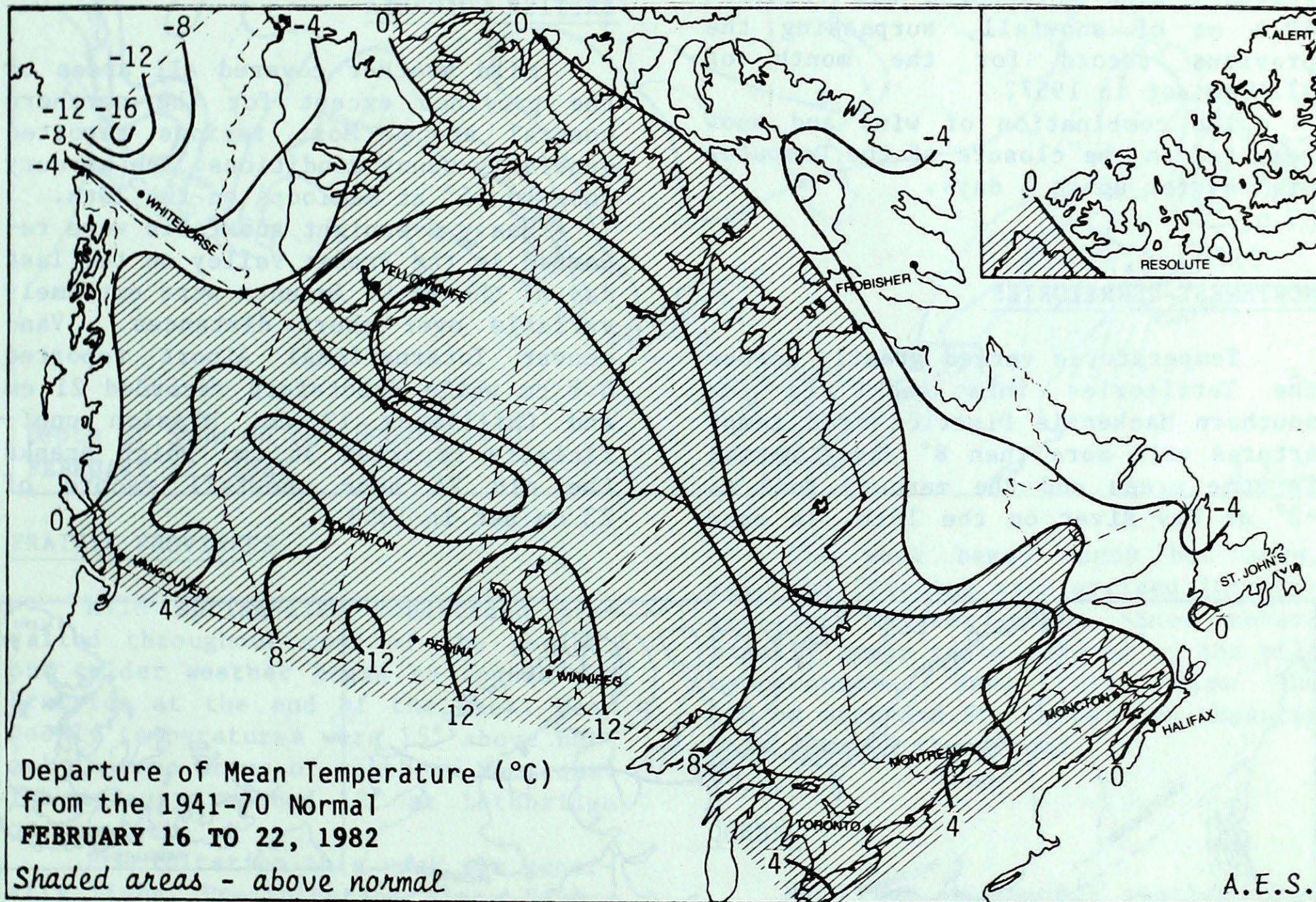
## Canada

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

FEBRUARY 26, 1982

(Aussi disponible en français)

VOL.4 NO.7



### WEATHER HIGHLIGHTS FOR THE PERIOD - FEBRUARY 16-22, 1982

Most of Canada enjoys spring-like weather

Mild weather this week brought above normal weekly mean temperatures to most of the country. Mean temperatures were 15° above normal in some areas of southern Manitoba. The mercury rose above 10° at several southern prairie locations.

A heavy snowfall struck the lower Fraser Valley. Amounts were extremely variable over short distances. Vancouver International Airport reported 0.8 cm while Mission reported 36 cm.

A winter storm struck the Maritimes over the weekend of February 20th to 21st. Moncton measured 51.7 cm of snow. Police had to escort 10 car convoys across the Tantramar Marshes between New Brunswick and Nova Scotia.

Temperatures varied from 15° at Kamloops, British Columbia to -49° at Shepherd Bay, Northwest Territories. The greatest weekly precipitation total, 160.7 mm was recorded at Amphitrite Point, British Columbia.

NOTE: The data shown in this publication are based on unverified reports from approximately 225 Canadian and 115 northern United States Synoptic stations.



YUKON

Bitterly cold weather returned to all areas except for the Liard Basin. Temperatures which had been above  $-10^{\circ}$  dropped to  $-25^{\circ}$  to  $-48^{\circ}$  by the end of the week. Mean temperatures in some southwestern areas were more than  $17^{\circ}$  below normal.

Snow fell in most areas with amounts ranging from 2 cm to 15 cm. By February 22nd Whitehorse had recorded 40.4 cm of snowfall, surpassing the previous record for the month of 37.1 cm set in 1957.

The combination of wind and snow resulted in the closure of the Dempster Highway for up to 4 days.

NORTHWEST TERRITORIES

Temperatures varied greatly across the Territories this week. In the southern Mackenzie District mean temperatures were more than  $8^{\circ}$  above normal in some areas and the mercury rose to  $-2^{\circ}$  at Hay River on the 19th. In con-

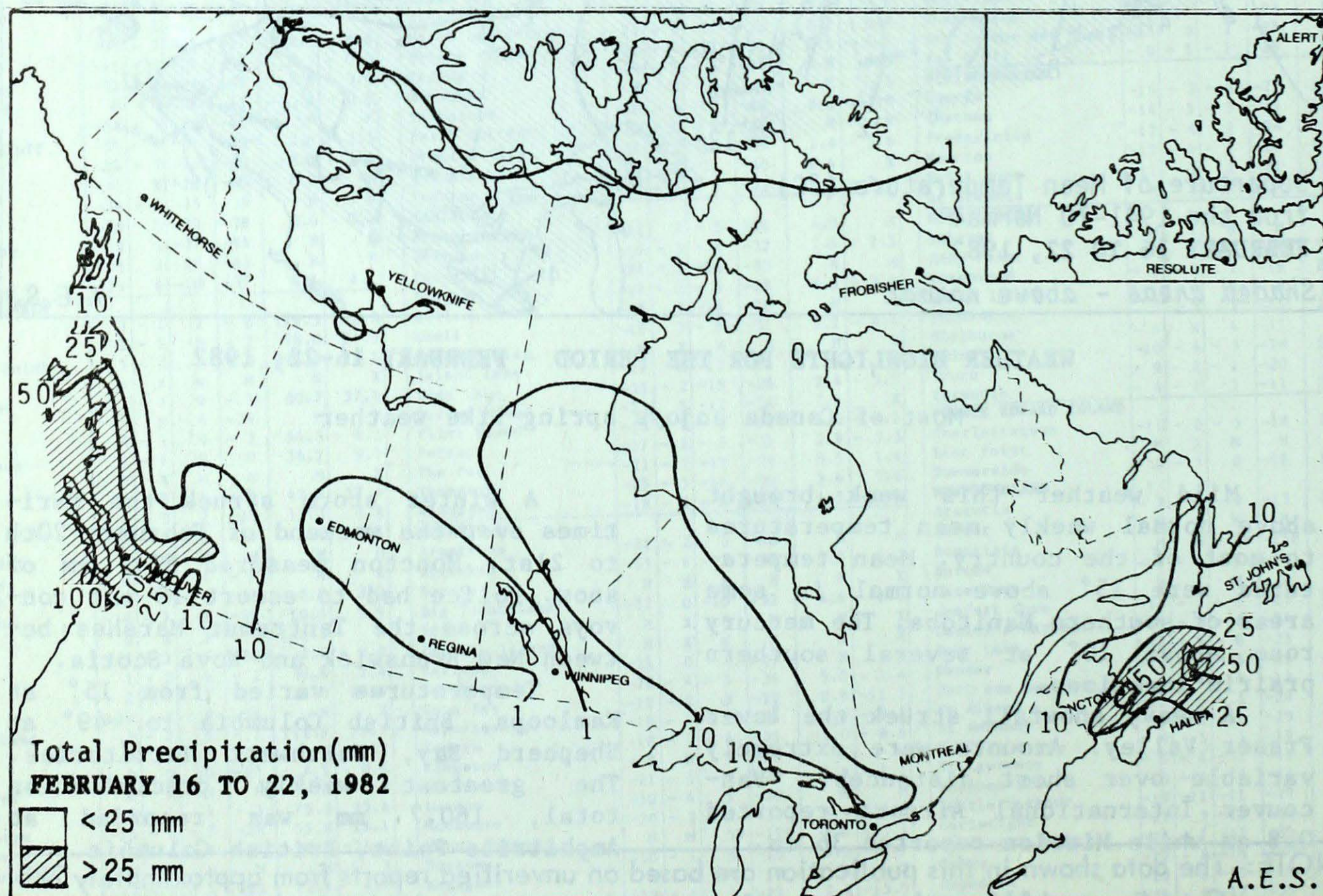
trast, mean temperatures were below normal in the northern Mackenzie District, Baffin Island and the Arctic Archipelago. The temperature fell to  $-49^{\circ}$  at Shepherd Bay.

Precipitation totals were very light, but this is normal for this time of year. Hay River recorded 11.6 mm.

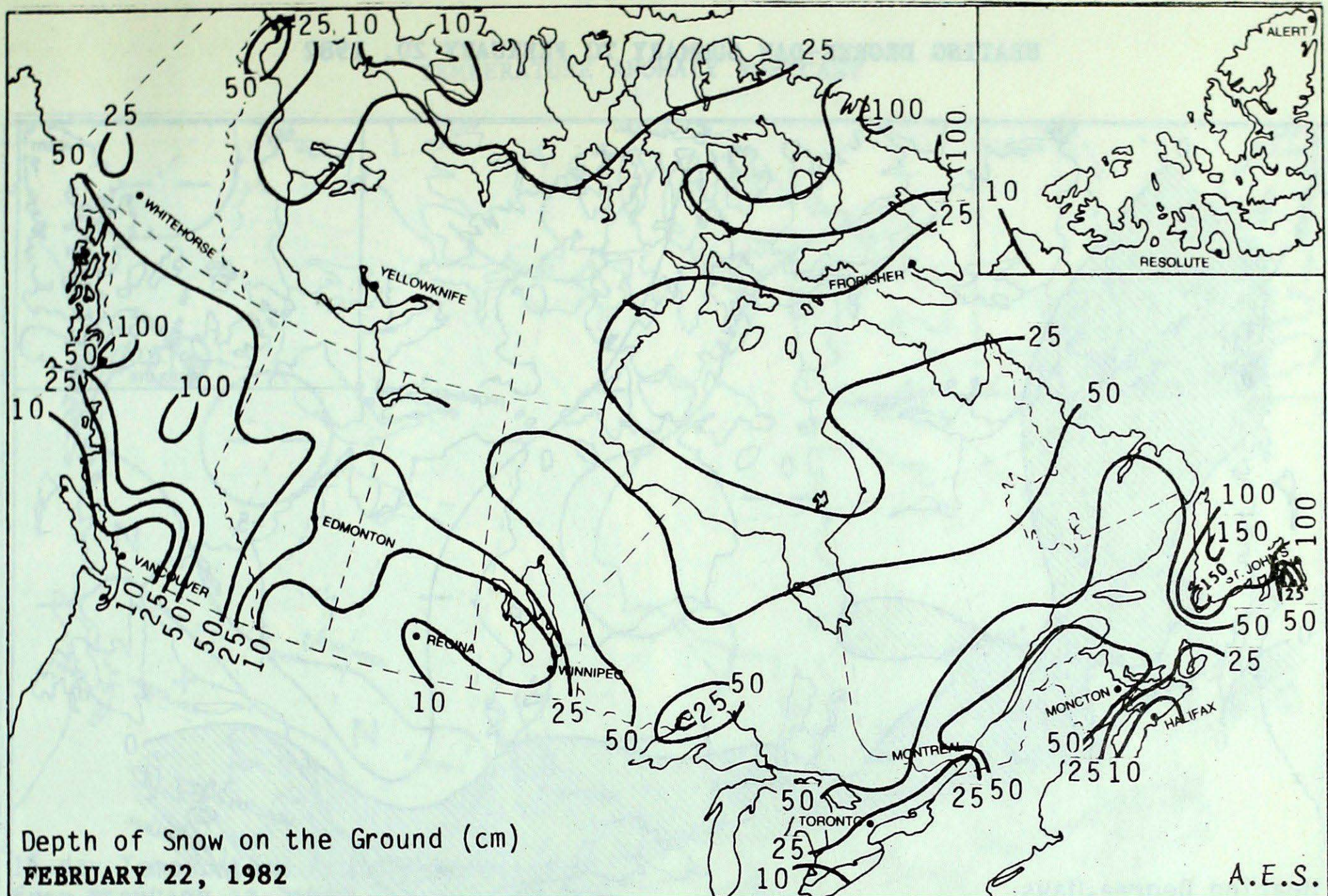
BRITISH COLUMBIA

Mild weather covered all areas of the province except for the northern coastal areas. Most regions reported generally sunny conditions. The mercury rose to  $15^{\circ}$  at Kamloops on the 20th.

Heavy overnight snowfalls were reported in the Fraser Valley on the last day of the week. Amounts were extremely variable over short distances. Vancouver International Airport reported 0.8 cm while Abbotsford recorded 21 cm and Chilliwack 13 cm. Mission unofficially reported 36 cm, which breaks the old 24 hour snowfall record of 23 cm set in 1953.







### PRAIRIE PROVINCES

Mild spring-like conditions prevailed throughout most of the period, but colder weather began to invade the prairies at the end of the week. Mean weekly temperatures were  $15^{\circ}$  above normal in some areas of southern Manitoba. The mercury reached  $12^{\circ}$  at Lethbridge on the 20th.

Precipitation this week was generally light. Precipitation since November 1st in the Dauphin-Hudson Bay-Saskatoon area has been less than 50% of normal.

An avalanche 50 km south of Jasper claimed one life over the weekend.

### ONTARIO

Mild weather dominated the province this week. Mean weekly temperatures varied from  $4^{\circ}$  above normal in southern Ontario to  $12^{\circ}$  above normal in extreme western areas. The mercury rose  $4^{\circ}$  above the freezing mark at many stations in the south.

The week began sunny but snow, rain and freezing rain arrived in typical late winter style. Snow covers finally began to be reduced by the mild temperatures. Wawa fell below the 100 cm mark and St. Catherines measured only 2 cm on the ground.

### QUEBEC

Mild and uneventful weather prevailed over most of the province. Mean temperatures were more than  $5^{\circ}$  above normal in many southern areas. The mercury rose to  $3^{\circ}$  at Maniwaki on February 21st.

Precipitation totals were below normal with the exception of Sept-Îles which recorded 62.0 mm.

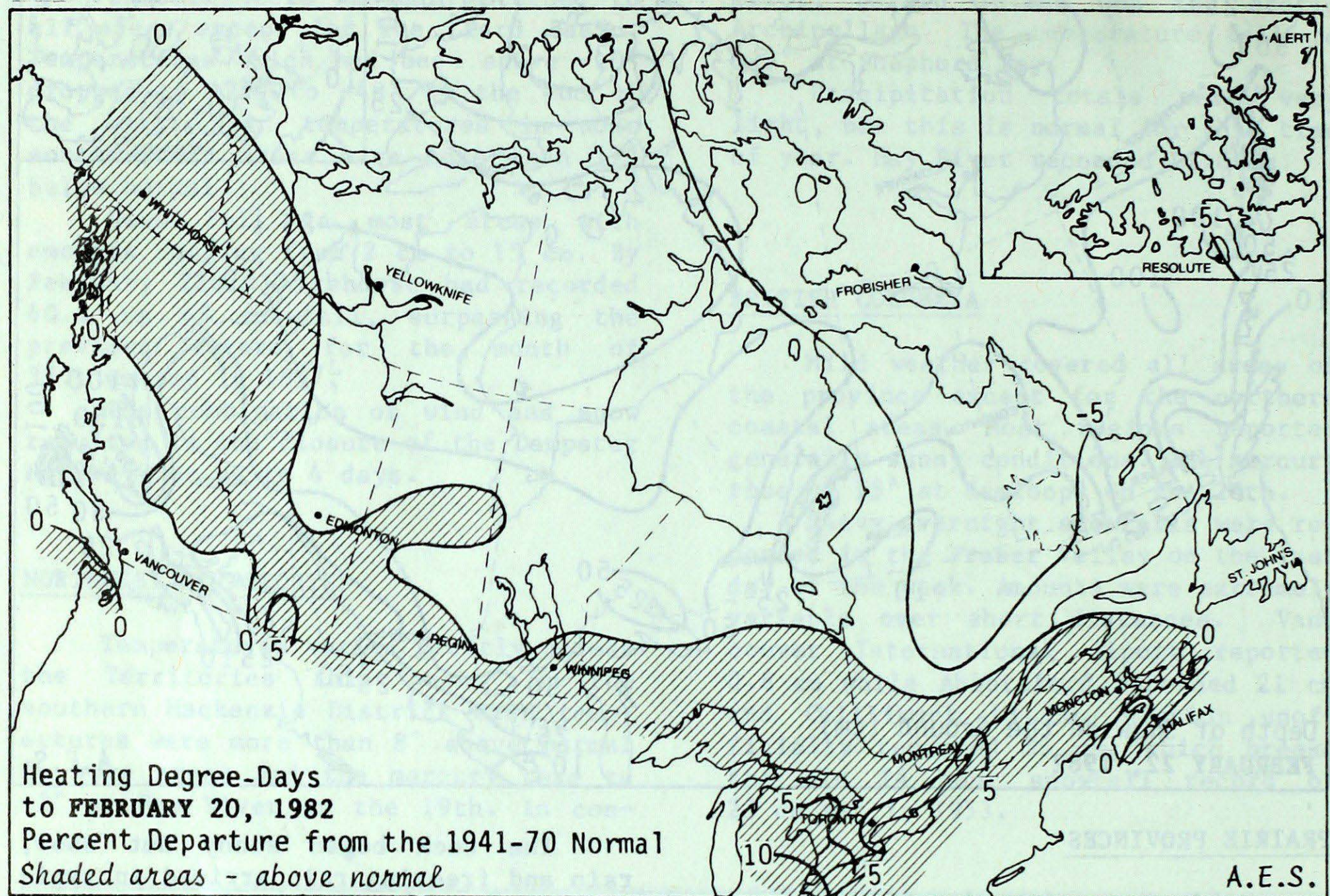
### ATLANTIC PROVINCES

A major snowstorm struck the Maritimes during the weekend. The heaviest snowfalls were in southern New Brunswick, Prince Edward Island and northern

(continued on page 7)



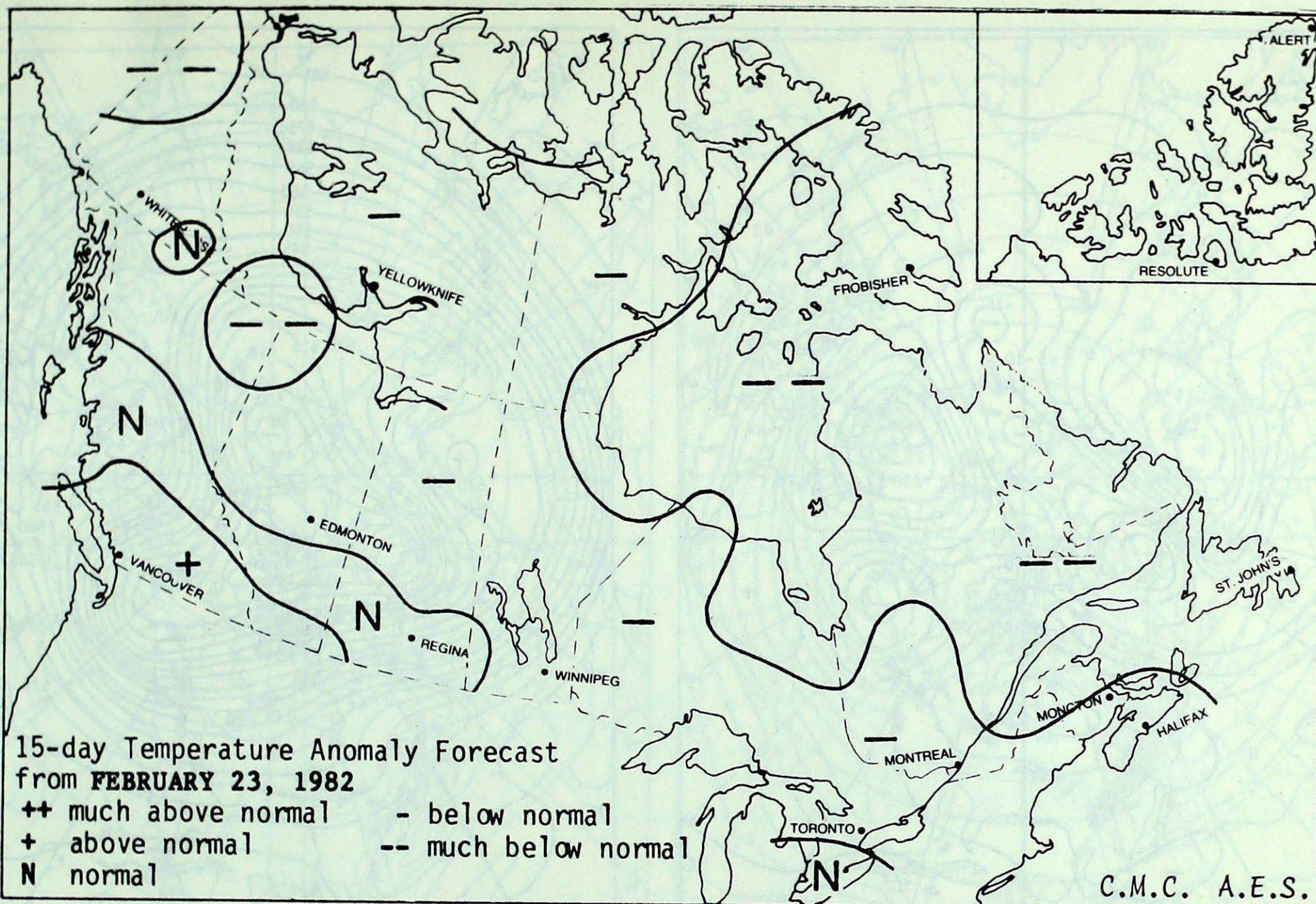
## HEATING DEGREE-DAY SUMMARY TO FEBRUARY 20, 1982



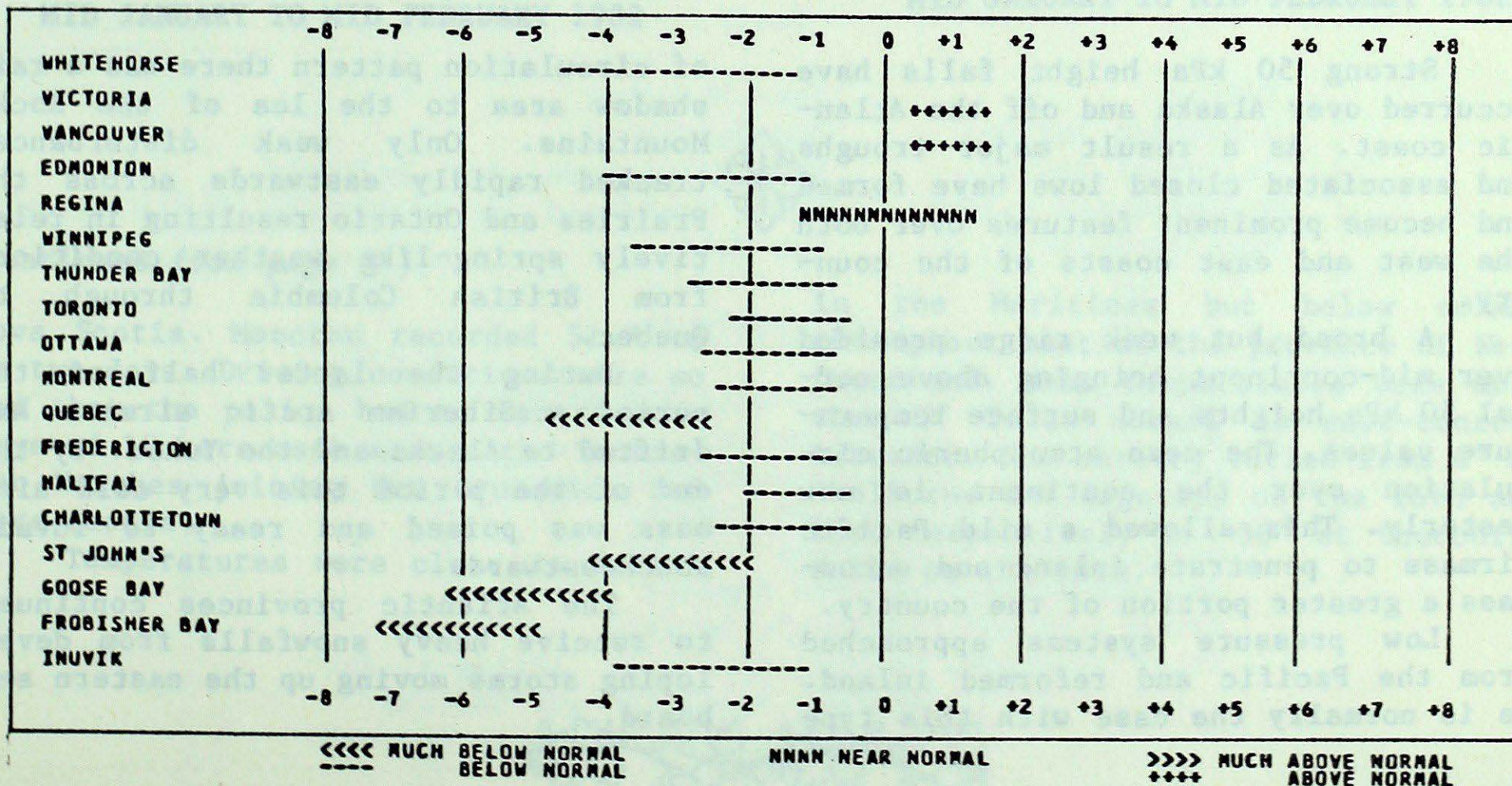
STATION	MONTHLY CUMULATIVE TOTAL	MONTHLY DIFF. FROM 1941-70 NORMAL	SEASONAL TOTAL	SEASONAL DIFF. FROM 1941-70 NORMAL	SEASONAL PERCENT OF NORMAL
Resolute	1008.0	-34.0	7543.5	-394.5	95
Inuvik	793.5	-176.5	6467.0	-226.0	97
Whitehorse	639.0	-8.0	5024.5	229.5	105
Vancouver	275.5	-3.5	1940.5	-54.5	97
Edmonton Mun	624.0	42.0	3816.5	-69.5	98
Calgary	570.5	43.5	3707.0	103.0	103
Regina	709.0	46.0	4202.5	122.5	103
Winnipeg	684.5	-7.5	4086.0	21.0	101
Thunder Bay	669.5	29.5	3992.5	133.5	103
Windsor	512.5	70.5	2702.5	261.5	111
Toronto	524.0	37.0	2989.0	261.0	110
Ottawa	549.5	-12.5	3346.5	139.5	104
Montreal	539.0	-21.0	3284.5	221.5	107
Quebec	590.0	-3.0	3572.0	150.0	104
Saint John, N.B.	516.0	-11.0	3134.5	65.5	102
Halifax	451.5	-3.5	2593.0	55.0	102
Charlottetown	517.5	-1.5	2897.5	14.5	101
St. John's, Nfld.	506.0	45.0	2863.0	-16.0	99



TEMPERATURE ANOMALY FORECAST

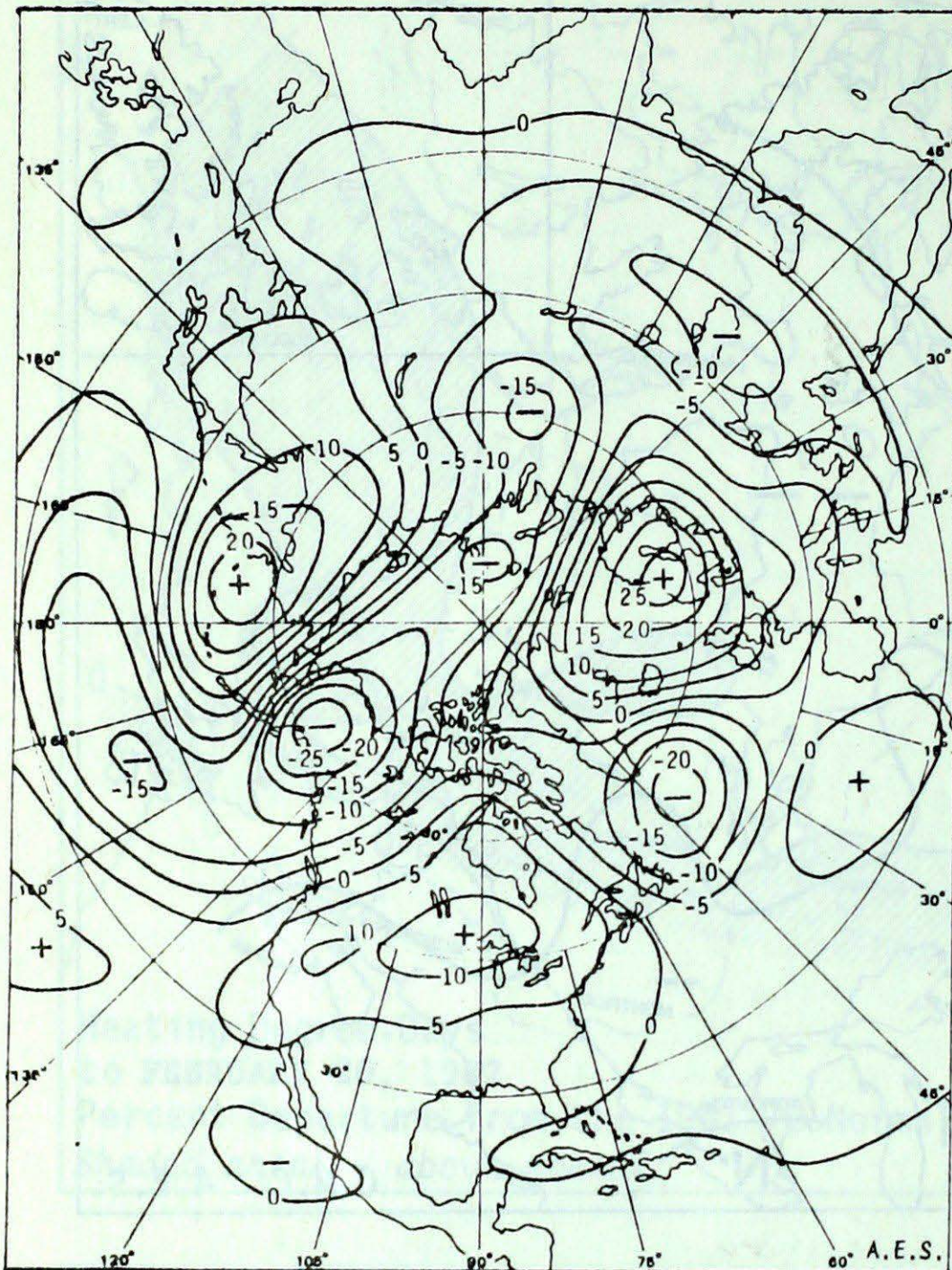


TEMPERATURE ANOMALY FORECAST FOR FEB 23 1982 TO MAR 9 1982

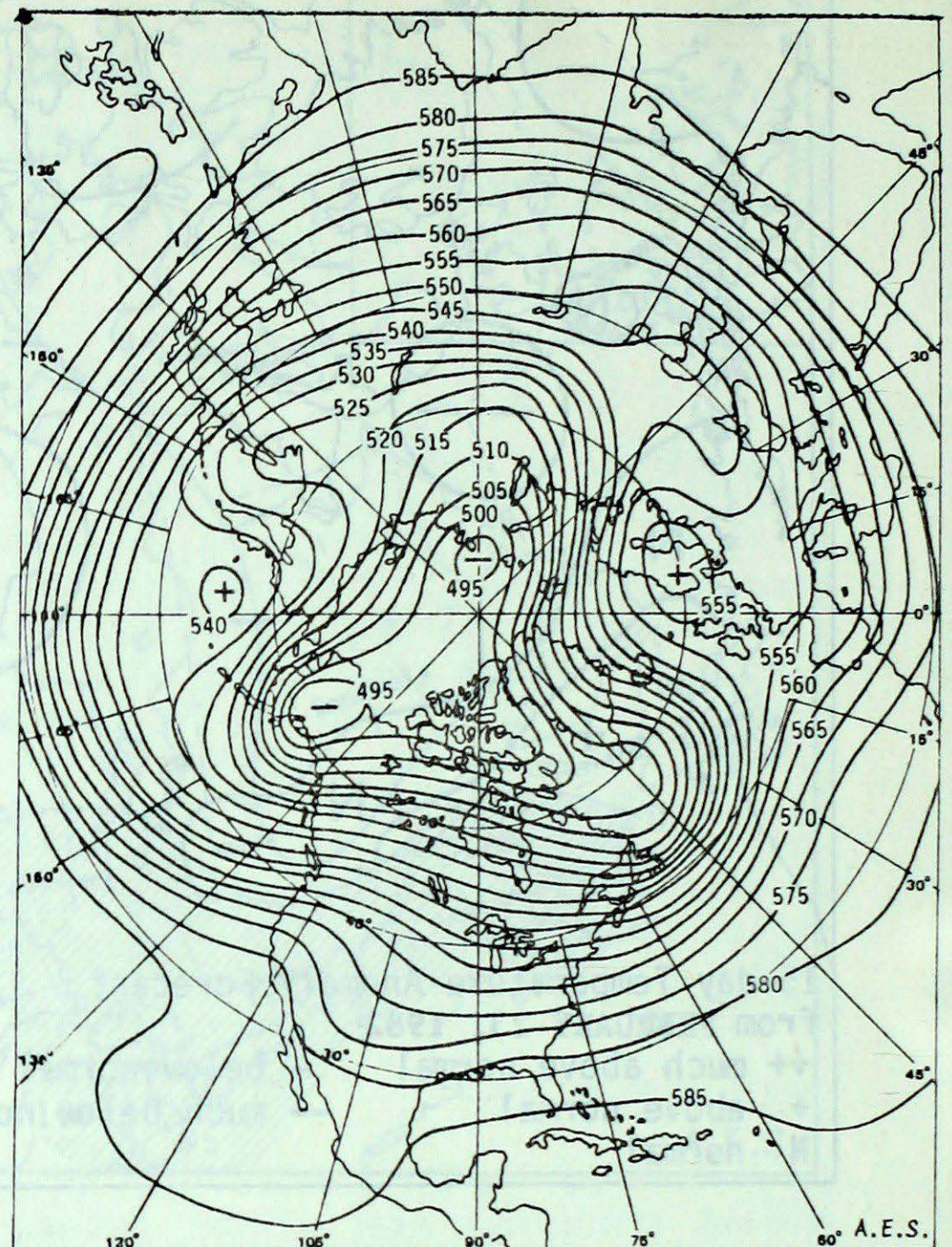




## Atmospheric Circulation



7-day Mean 50 kPa Height Anomaly  
(5 dam intervals)  
**FEBRUARY 15 TO 21, 1982**



7-day Mean 50 kPa Height (dam)  
**FEBRUARY 15 TO 21, 1982**

Strong 50 kPa height falls have occurred over Alaska and off the Atlantic coast. As a result major troughs and associated closed lows have formed and become prominent features over both the west and east coasts of the country.

A broad but weak ridge presided over mid-continent bringing above normal 50 kPa heights and surface temperature values. The mean atmospheric circulation over the continent is now westerly. This allowed a mild Pacific airmass to penetrate inland and encompass a greater portion of the country.

Low pressure systems approached from the Pacific and reformed inland. As is normally the case with this type

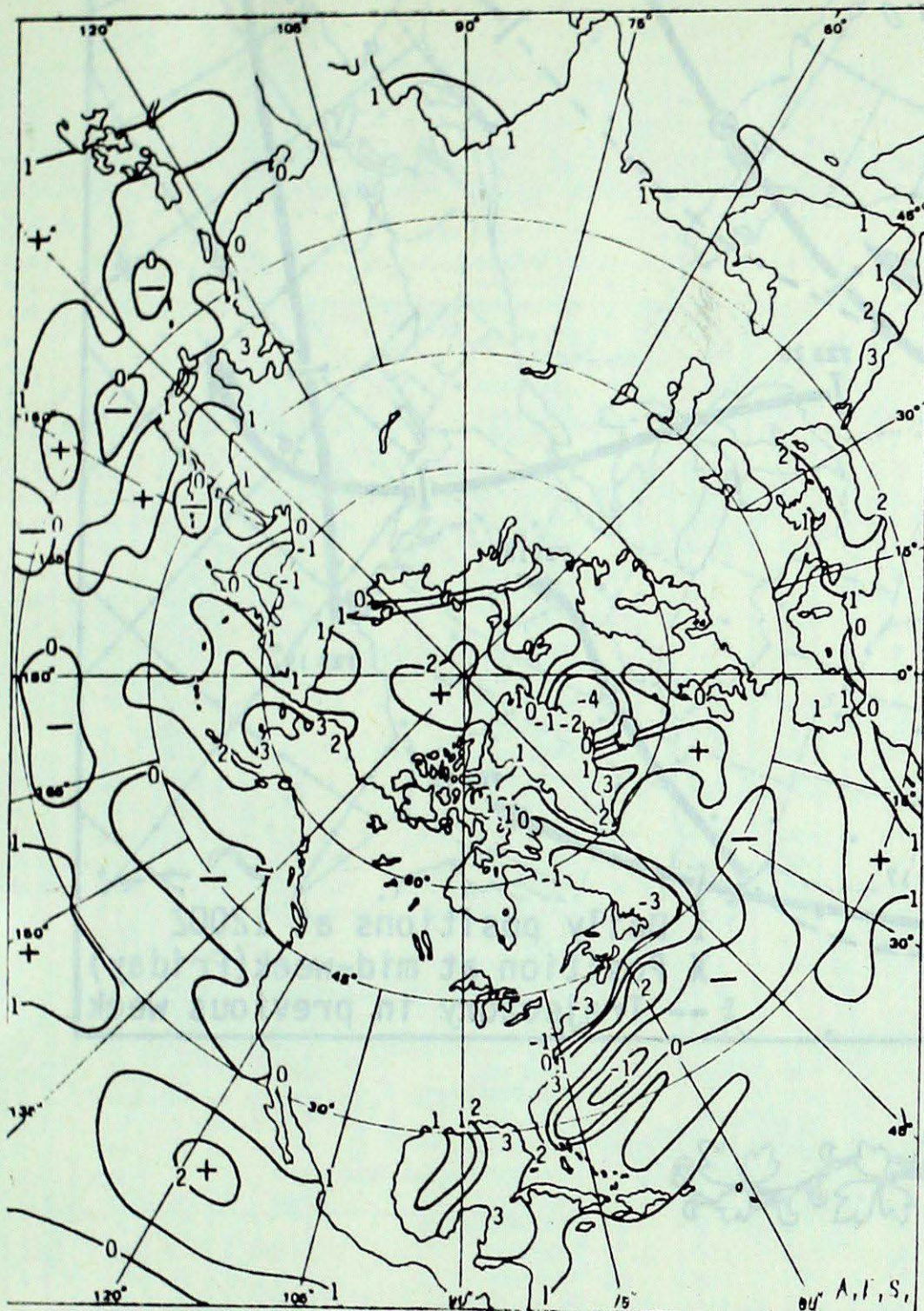
of circulation pattern there was a rain shadow area to the lea of the Rocky Mountains. Only weak disturbances tracked rapidly eastwards across the Prairies and Ontario resulting in relatively spring-like weather conditions from British Columbia through to Quebec.

During the latter half of the period a Siberian Arctic airmass had drifted to Alaska and the Yukon. By the end of the period this very cold airmass was poised and ready to invade southeastwards.

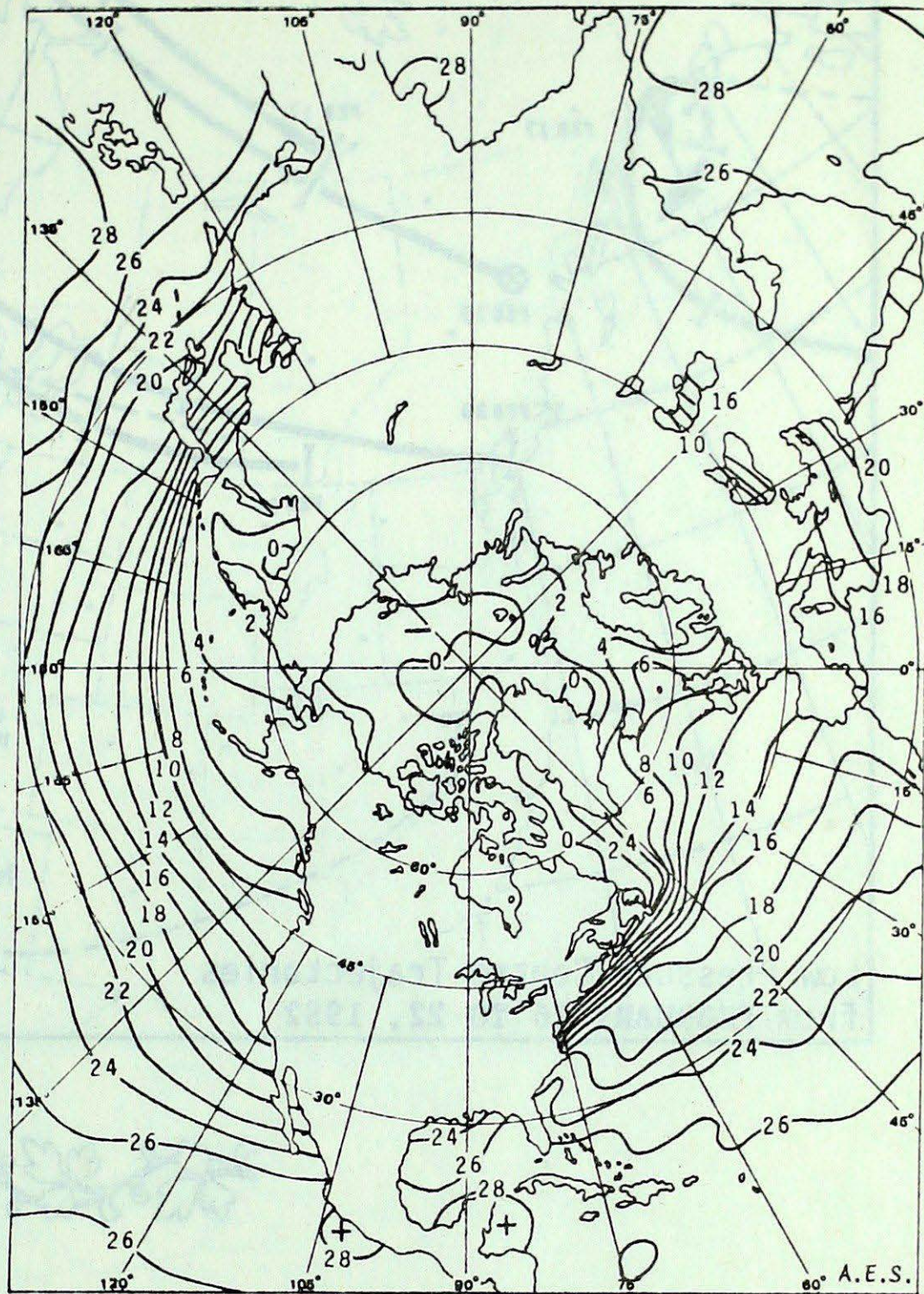
The Atlantic provinces continued to receive heavy snowfalls from developing storms moving up the eastern seaboard.



## SEA SURFACE TEMPERATURE



Sea Surface Temperature Anomaly  
MID JANUARY TO MID FEBRUARY 1982



Mean Sea Surface Temperature  
MID JANUARY TO MID FEBRUARY 1982



(continued from page 3 )

Nova Scotia. Moncton recorded 51.7 cm in two days. Driving conditions were so bad that the police had to escort convoys of 10 cars each across the Tantram Marshes joining New Brunswick and Nova Scotia.

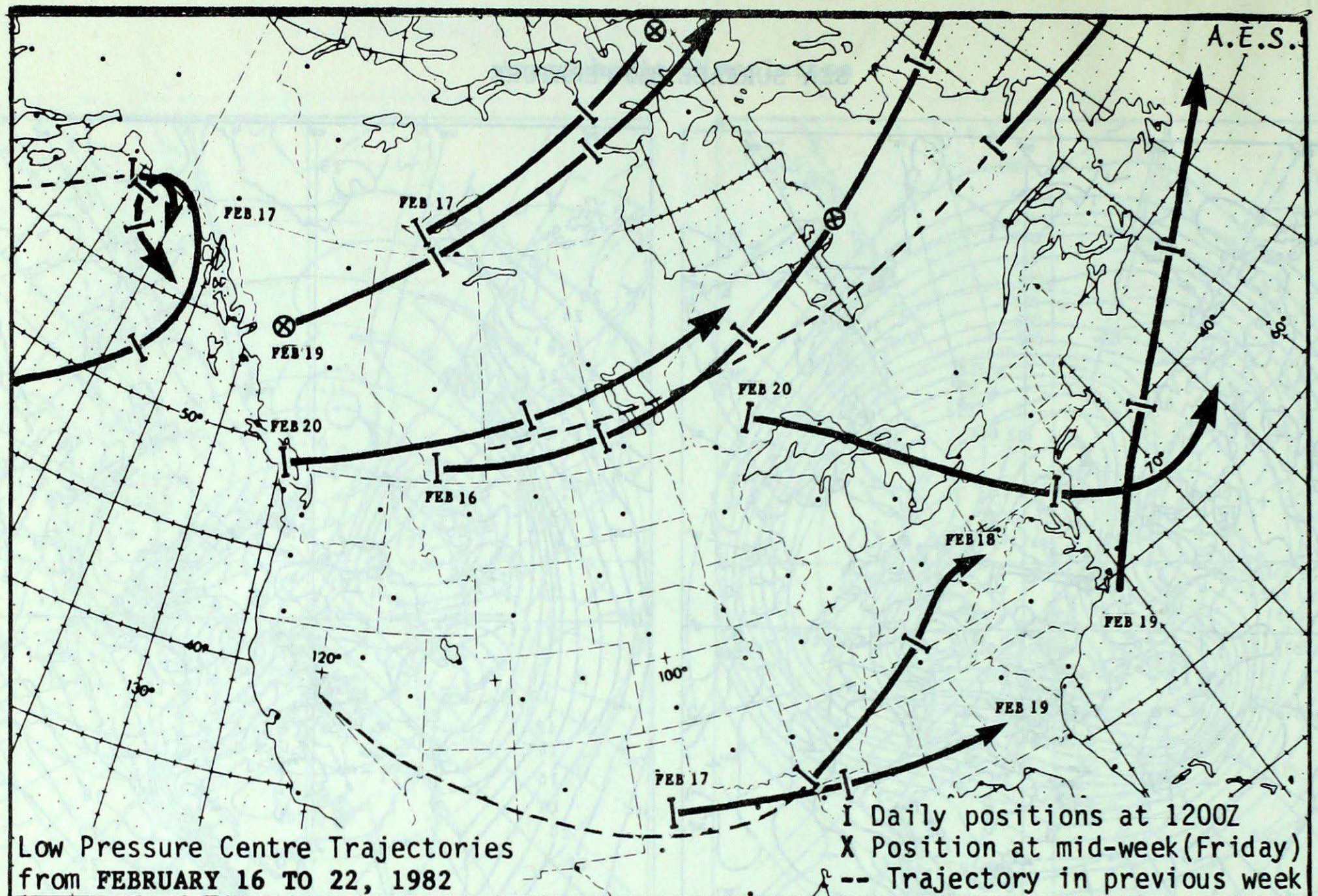
Temperatures were close to normal

in the Maritimes but below normal throughout most of the province of Newfoundland. Mean temperatures were more than 5° below normal in east-central Labrador. The mercury varied from 6° at Shelburne and Argentia on the 16th and 21st respectively to -36° at Churchill Falls on the 18th.





## LOW PRESSURE CENTRE TRAJECTORIES



## CLIMATIC PERSPECTIVES

## Staff

Editor:	Yves Durocher
Assistant Editor:	Bob Paterson
Technical Staff:	Fred Richardson, Andy Radomski
Graphics and Layout:	Velma MacDonald, J. Rautenberg, Lubna Malik
Word Processing:	Una Ellis

Correspondents

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

Telephone Inquiries (416) 667-4711/4906



TEMPERATURE AND PRECIPITATION DATA FOR THE WEEK ENDING 0600 G.M.T. FEBRUARY 23, 1982

Table with 7 columns: Station, Temperature (°C) [Average, Departure from Normal, Extreme Maximum, Extreme Minimum], Precip. (mm) [Total, Departure from Normal]. Includes sections for YUKON, NORTHWEST TERRITORIES, and BRITISH COLUMBIA.

Table with 7 columns: Station, Temperature (°C) [Average, Departure from Normal, Extreme Maximum, Extreme Minimum], Precip. (mm) [Total, Departure from Normal]. Includes sections for ALBERTA, SASKATCHEWAN, MANITOBA, and ONTARIO.

Table with 7 columns: Station, Temperature (°C) [Average, Departure from Normal, Extreme Maximum, Extreme Minimum], Precip. (mm) [Total, Departure from Normal]. Includes sections for QUEBEC, 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