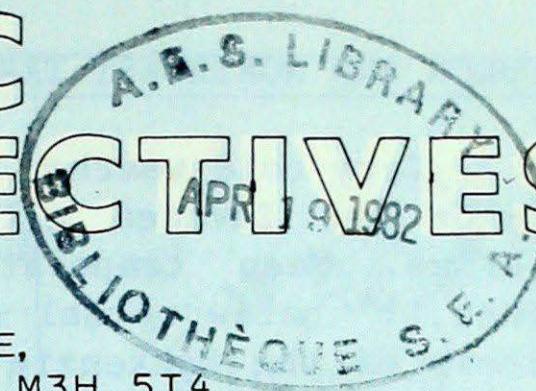
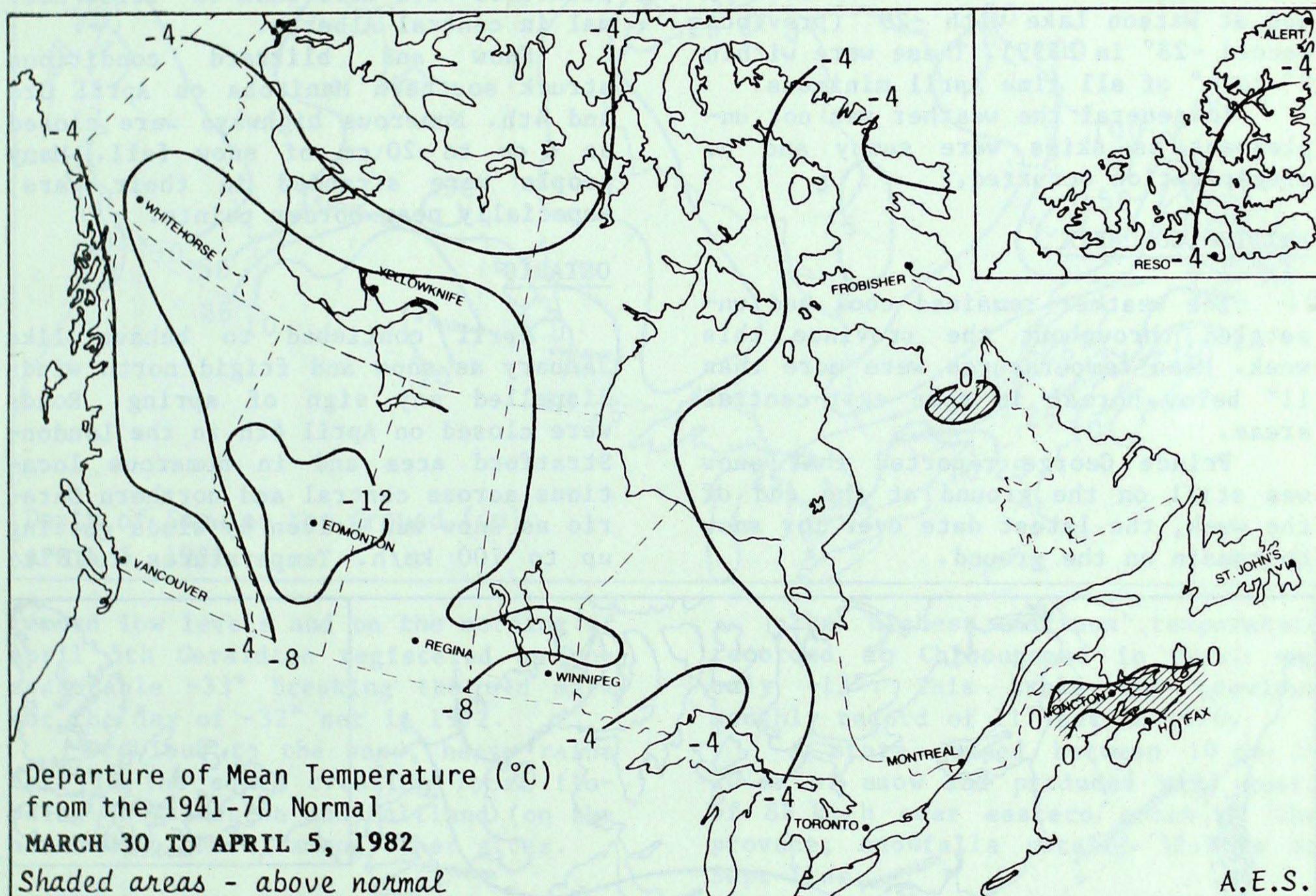


Environment  
CanadaEnvironnement  
CanadaAtmospheric  
EnvironmentEnvironnement  
atmosphérique**A WEEKLY REVIEW OF CANADIAN CLIMATE****CLIMATIC PERSPECTIVES****Canada**

APRIL 8, 1982

(Aussi disponible en français)

VOL.4 NO.13

**WEATHER HIGHLIGHTS FOR THE PERIOD - MARCH 30 TO APRIL 5, 1982**

Very cold weather covers most of Canada

Most of the country was under the influence of very cold record setting weather this week. Minimum temperature records were broken from Yukon to Newfoundland.

Snow and blizzard conditions struck Manitoba on April 3rd and 4th. Many people were stranded in their cars, especially near border points, as 6 cm to 20 cm of snow fell.

Numerous roads were closed in central and northern Ontario as snow was driven by winds gusting up to 100 km/h. Previous to the snow, heavy rains fell in southern Ontario creating local flooding.

The temperature varied between  $18.2^{\circ}$  at Windsor, Ontario and  $-45.2^{\circ}$  at Eureka, N.W.T. Amphitrite Point, B.C. recorded 69 mm of precipitation.

**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

Very cold weather continued in the Yukon and invaded all of the Territories. Mean temperatures were more than  $11^{\circ}$  below normal in some southern areas of the Mackenzie District. Daily minimum temperature records were established on April 4 at Whitehorse with  $-26.2^{\circ}$  (previous record  $-24.4^{\circ}$  in 1950) and at Watson Lake with  $-29^{\circ}$  (previous record  $-28^{\circ}$  in 1939). These were within  $2^{\circ}$  to  $4^{\circ}$  of all time April minimums.

In general the weather was not unpleasant as skies were sunny and no precipitation occurred.

## BRITISH COLUMBIA

The weather remained cool and unsettled throughout the province this week. Mean temperatures were more than  $11^{\circ}$  below normal in some east-central areas.

Prince George reported that snow was still on the ground at the end of the week, the latest date ever for snow to remain on the ground.

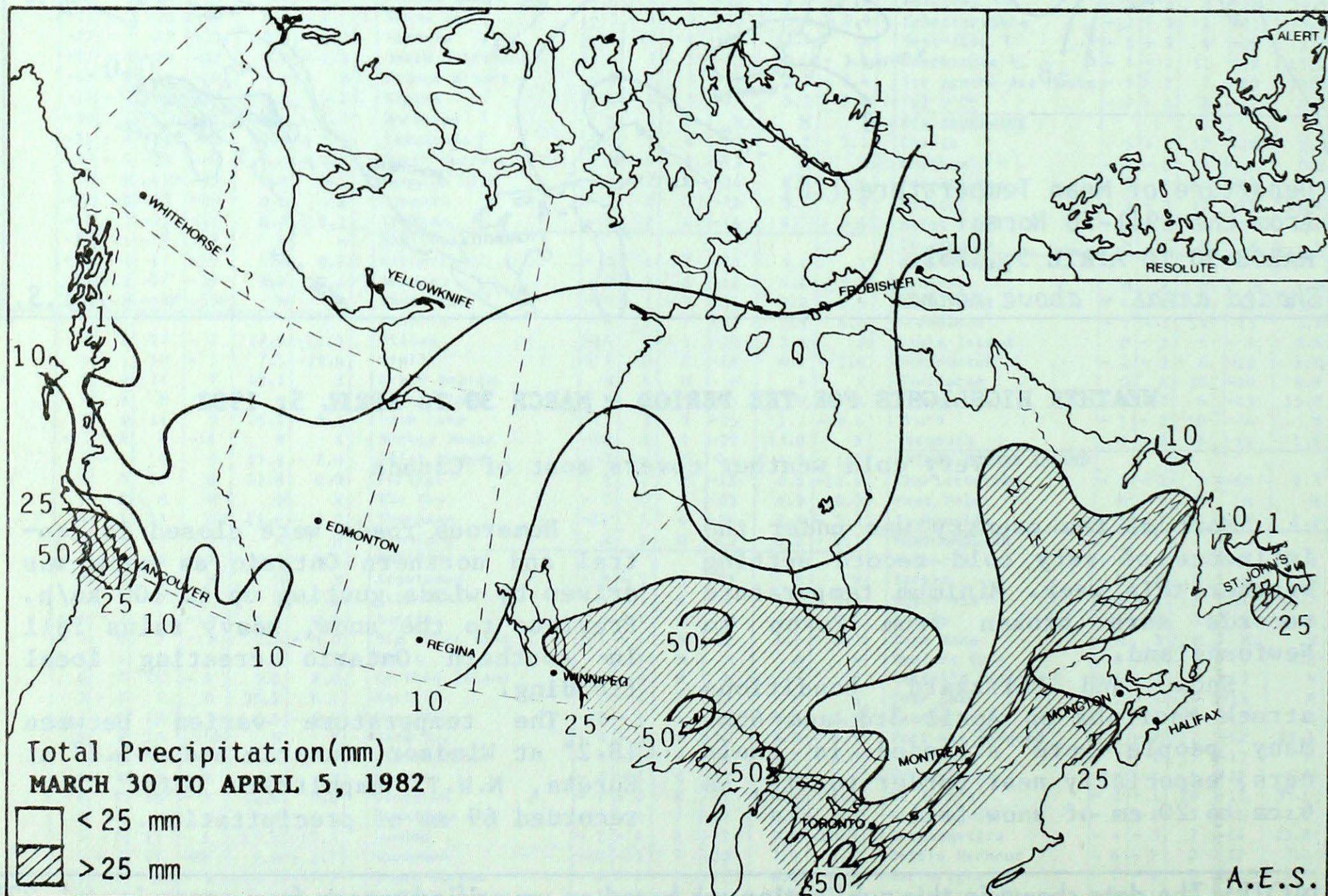
## PRAIRIE PROVINCES

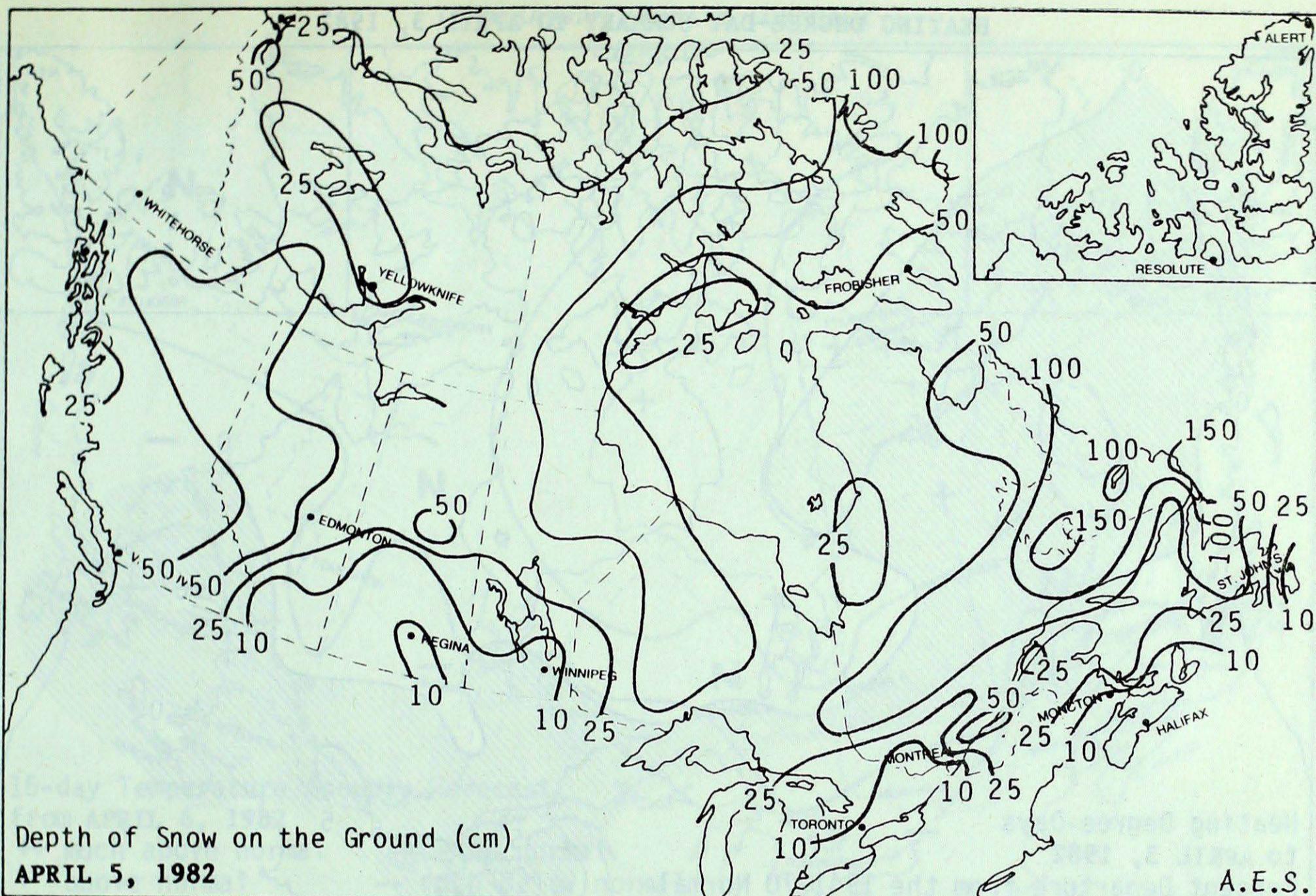
Very cold, record setting weather covered the Prairies this week. Numerous daily minimum temperature records were set; Rocky Mountain House being one of the most notable with  $-23^{\circ}$  breaking the previous record of  $-19^{\circ}$  set in 1945 and 1975. Weekly mean temperatures were more than  $18^{\circ}$  below normal in central Alberta.

Snow and blizzard conditions struck southern Manitoba on April 3rd and 4th. Numerous highways were closed as 6 cm to 20 cm of snow fell. Many people were stranded in their cars, especially near border points.

## ONTARIO

April continued to behave like January as snow and frigid north winds dispelled any sign of spring. Roads were closed on April 4th in the London-Stratford area and in numerous locations across central and northern Ontario as snow was driven by winds gusting up to 100 km/h. Temperatures fell to





record low levels and on the morning of April 5th Geraldton registered an unseasonable  $-33^{\circ}$  breaking the old mark for the day of  $-32^{\circ}$  set in 1972.

Previous to the snow, heavy rains fell in the south creating local flooding at Walkerton and Maitland (on the north Erie shore) among other sites.

#### QUEBEC

Cold weather remained over Québec. Although weekly mean temperatures were below normal, some daily and monthly high minimum temperature records were set. The mercury rose to  $5^{\circ}$  at Poste-de-la-Baleine on March 31st (previous  $2^{\circ}$  on March 2nd, 1976). As well, 18 daily low temperature records and 3 monthly low maximum temperature records were set or equalled.

The highest maximum temperature recorded at Chibougamau in March was only  $-13^{\circ}$ . This broke the previous monthly record of  $11^{\circ}$  set in 1976.

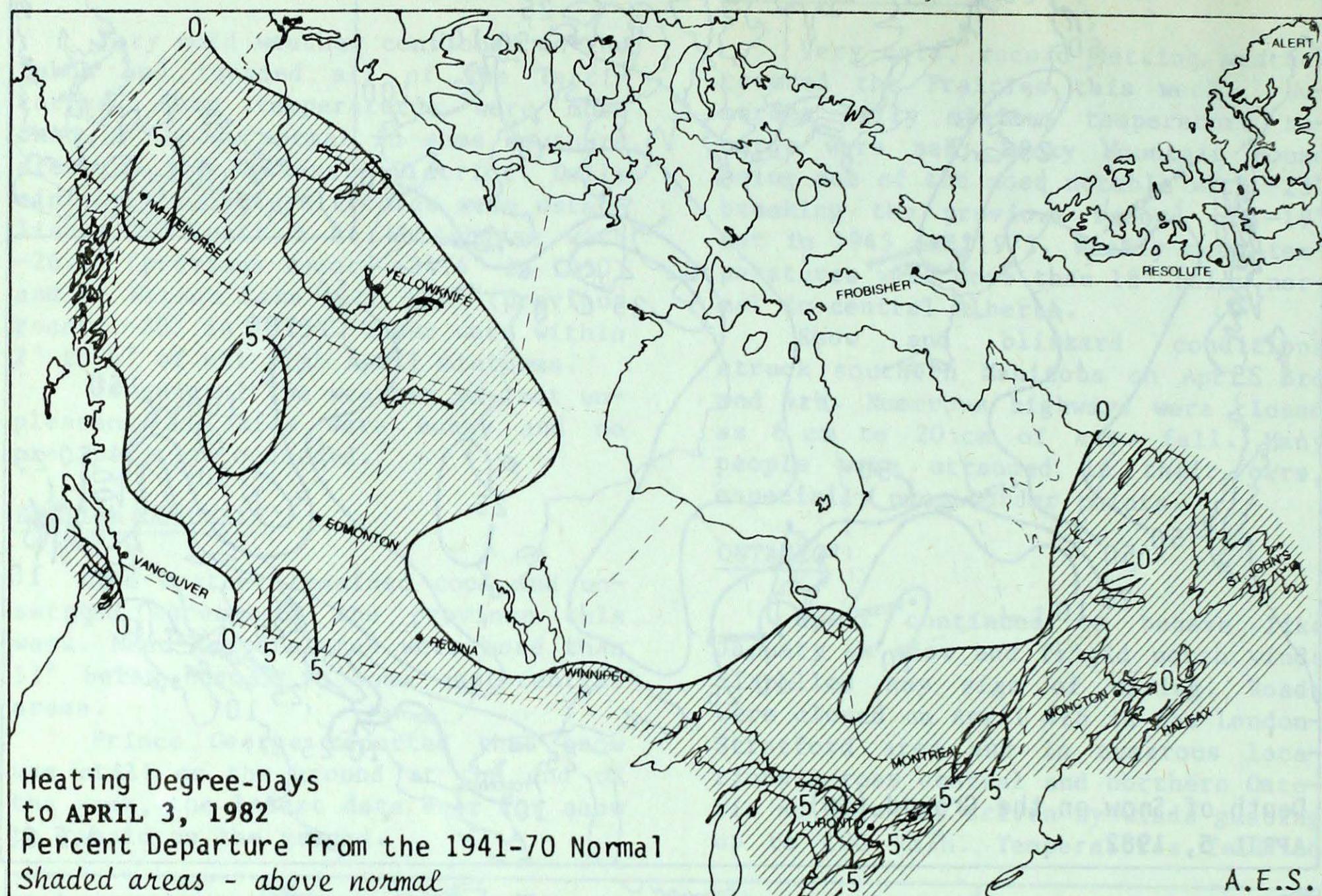
A storm dumped between 10 cm to 20 cm of snow and produced wind gusts of 83 km/h over eastern areas of the province; snowfalls totaled 32.3 cm at Sept-Iles.

#### ATLANTIC PROVINCES

Mean temperatures were close to normal throughout the Maritimes but averaged  $2^{\circ}$  to  $3^{\circ}$  below normal in the province of Newfoundland. Some daily minimum temperature records were set in Labrador.

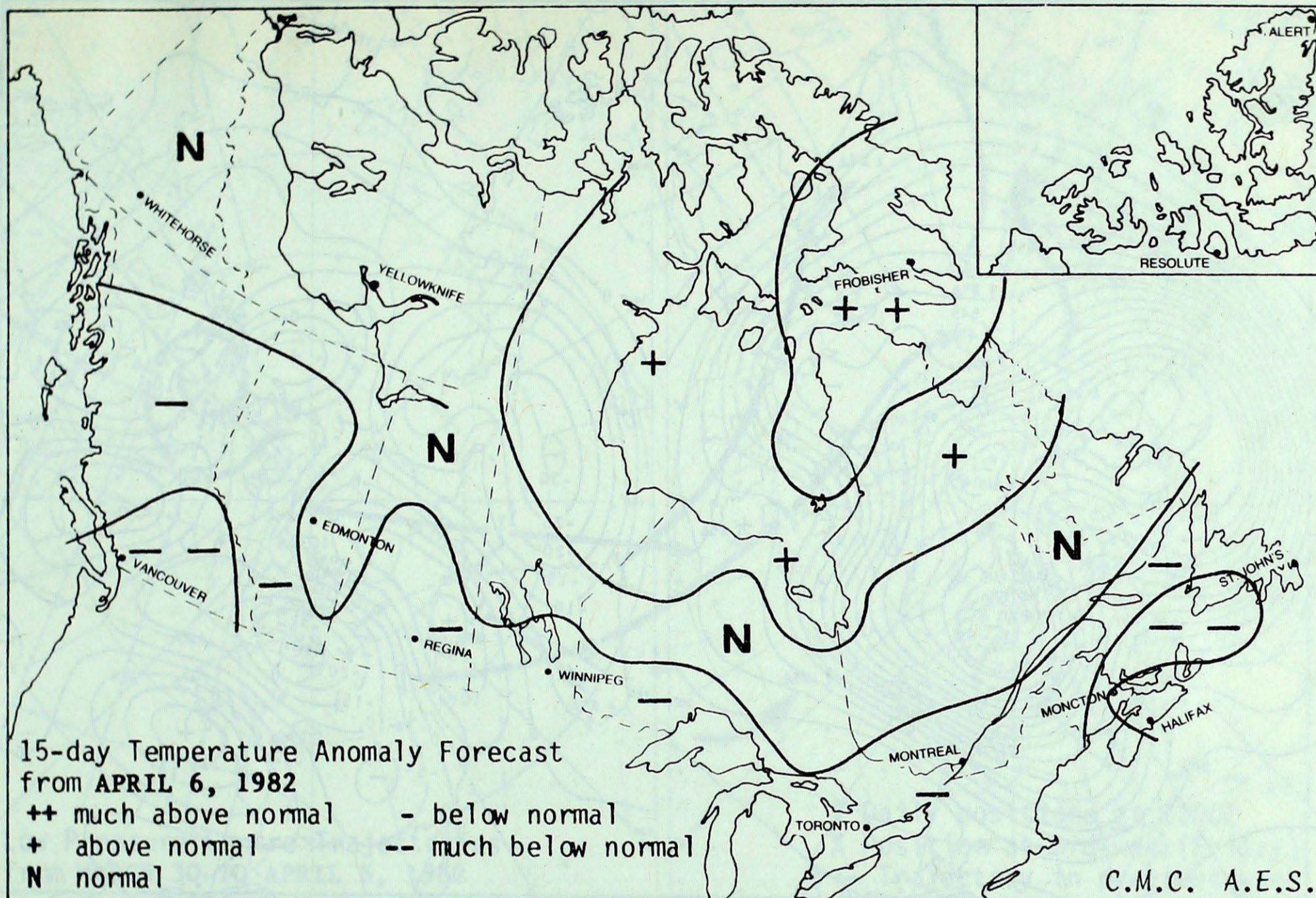
Strong winds forced the Zapata Scotian drilling platform into Country Harbour (northeast of Halifax) after leaving Halifax on April 2nd for Sable Island.

## HEATING DEGREE-DAY SUMMARY TO APRIL 3, 1982

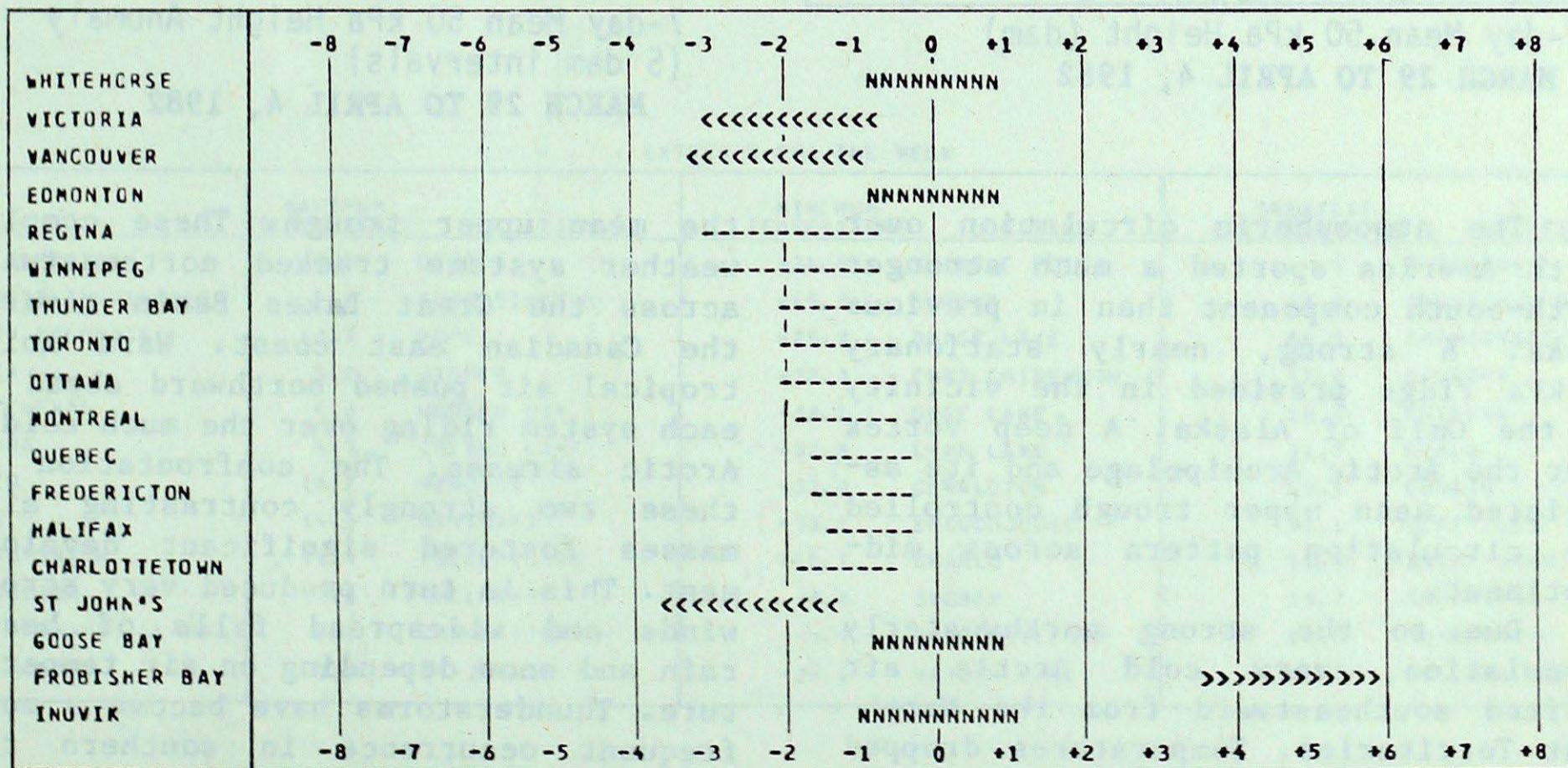


STATION	MONTHLY CUMULATIVE TOTAL	MONTHLY DIFF. FROM 1941-70 NORMAL	SEASONAL TOTAL	SEASONAL DIFF. FROM 1941-70 NORMAL	SEASONAL PERCENT OF NORMAL
Resolute	149.0	12.0	9705.0	-311.0	97
Inuvik	135.5	22.5	8289.0	-204.0	98
Whitehorse	90.5	26.5	6337.5	446.5	108
Vancouver	33.5	3.5	2479.5	-26.5	99
Edmonton Mun	98.0	44.0	4928.0	37.0	101
Calgary	95.5	41.5	4753.5	212.5	105
Regina	86.0	27.0	5365.0	158.0	103
Winnipeg	80.0	21.0	5173.5	-21.5	100
Thunder Bay	67.5	9.5	5046.5	143.5	103
Windsor	39.0	-1.0	3456.5	291.5	109
Toronto	48.0	3.0	3851.5	307.5	109
Ottawa	57.5	9.5	4282.5	157.5	104
Montreal	57.5	7.5	4219.5	273.5	107
Quebec	65.0	9.0	4602.5	215.5	105
Saint John, N.B.	53.0	2.0	4075.5	121.5	103
Halifax	47.5	-0.5	3438.0	97.0	103
Charlottetown	54.5	0.5	3853.0	64.0	102
St. John's, Nfld.	56.0	-1.0	3796.0	58.0	102

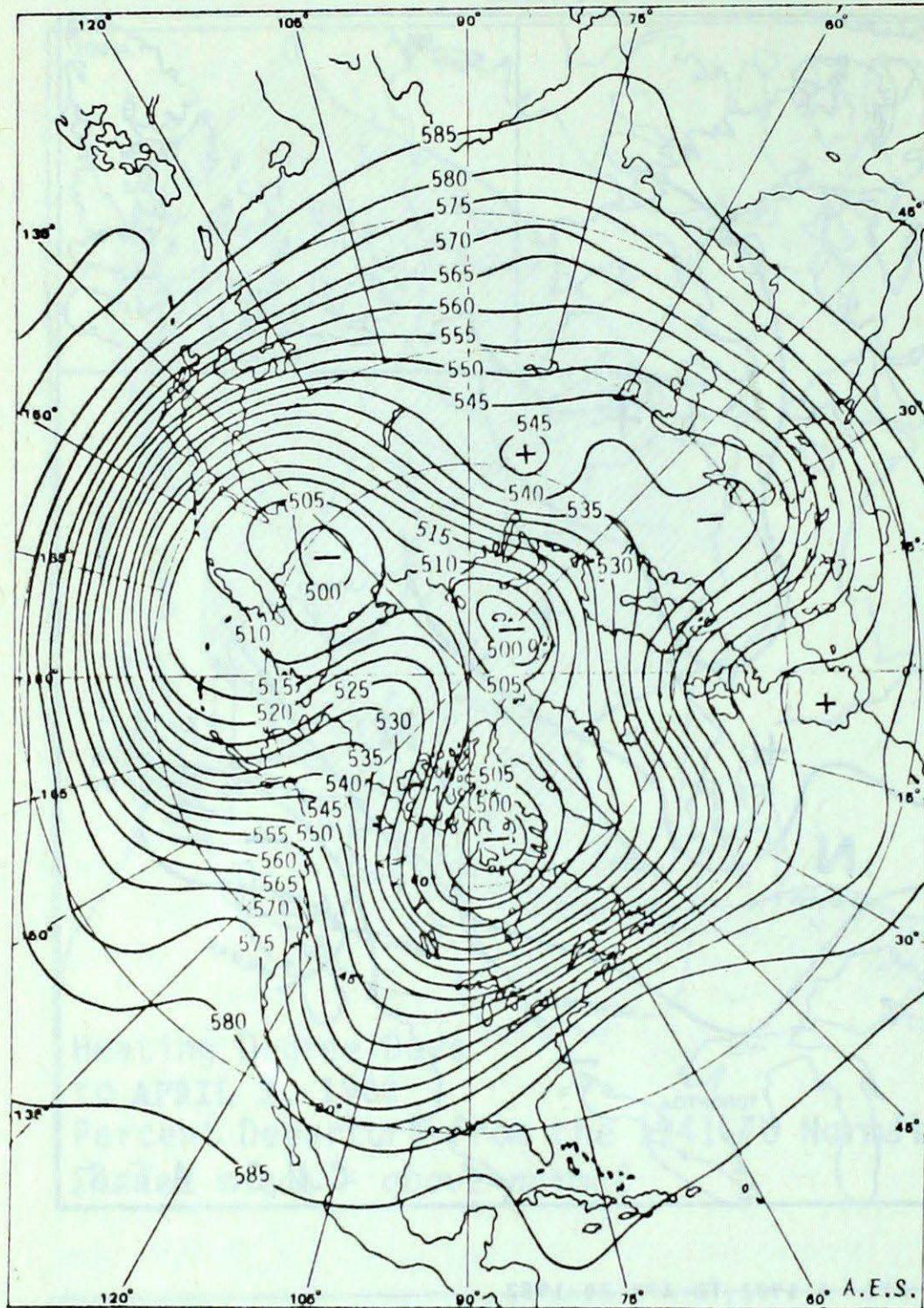
## TEMPERATURE ANOMALY FORECAST



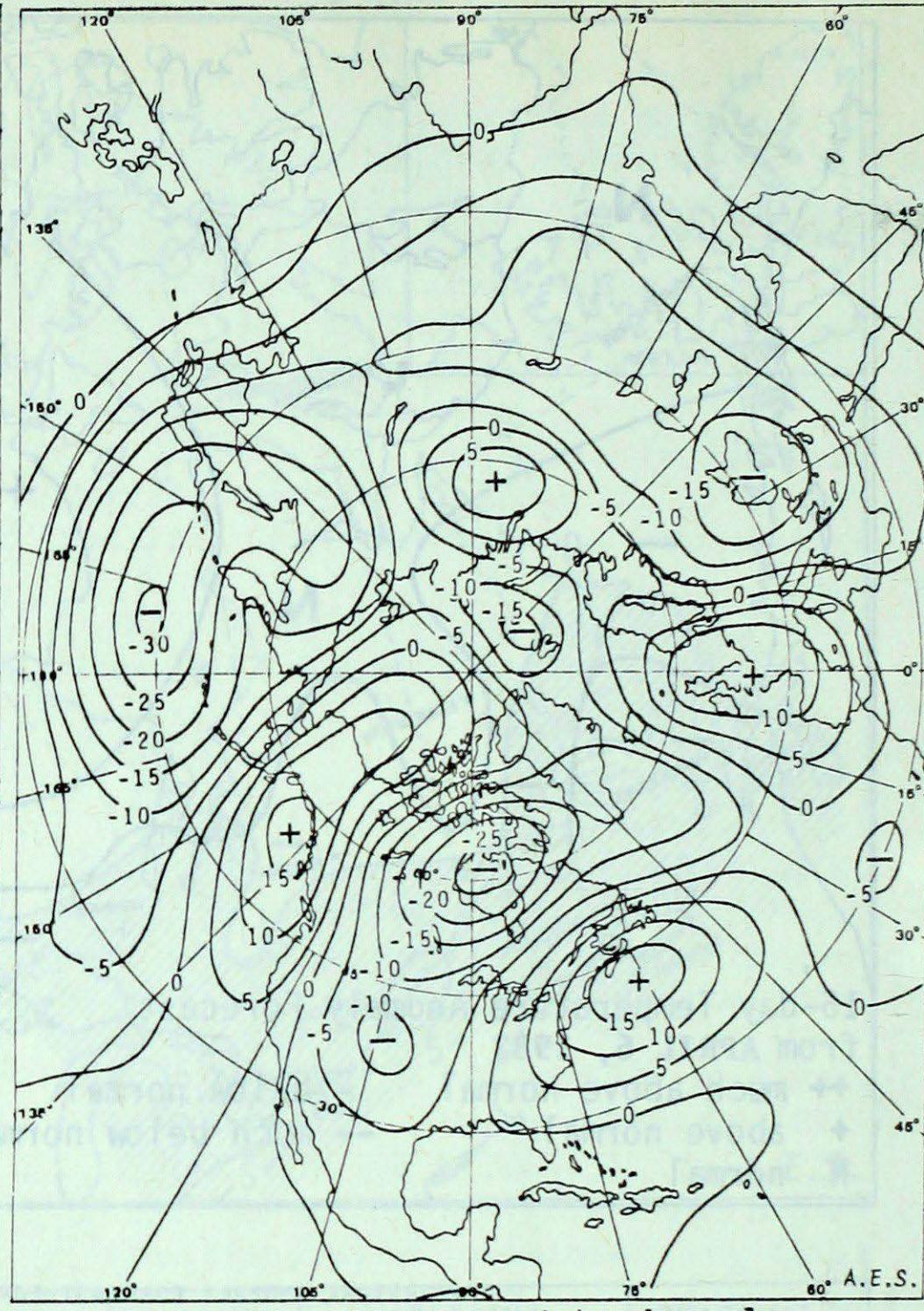
## TEMPERATURE ANOMALY FORECAST FOR APR 6 1982 TO APR 20 1982



## ATMOSPHERIC CIRCULATION



7-day Mean 50 kPa Height (dam)  
MARCH 29 TO APRIL 4, 1982



7-day Mean 50 kPa Height Anomaly  
(5 dam intervals)  
MARCH 29 TO APRIL 4, 1982

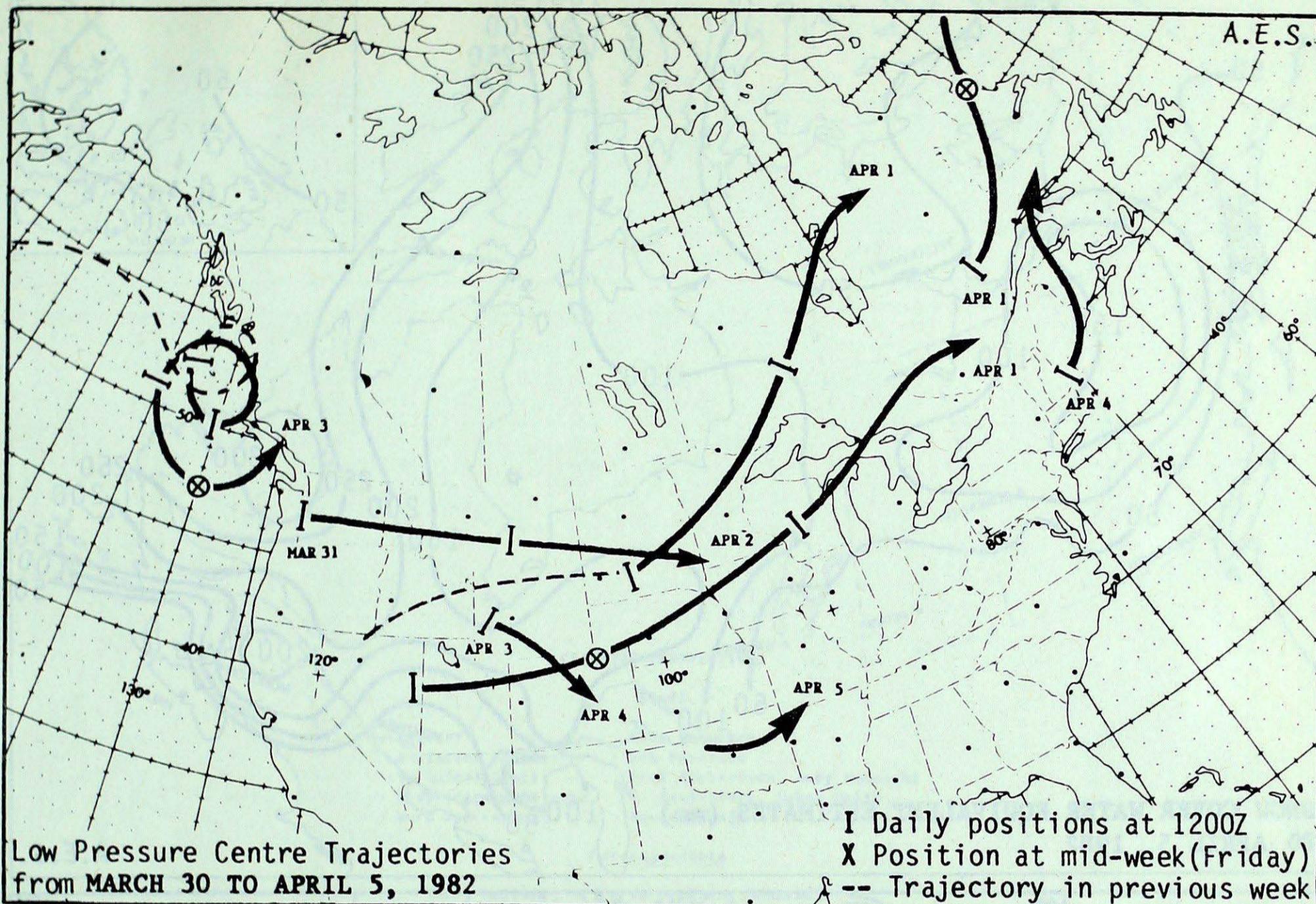
The atmospheric circulation over North America sported a much stronger north-south component than in previous weeks. A strong, nearly stationary 50 kPa ridge presided in the vicinity of the Gulf of Alaska. A deep vortex over the Arctic Archipelago and its associated mean upper trough controlled the circulation pattern across mid-continent.

Due to the strong northwesterly circulation, very cold Arctic air drifted southeastward from the Northwest Territories. Temperatures dropped to near record values over much of the country.

Numerous disturbances formed over the American mid-west at the base of

the mean upper trough. These complex weather systems tracked northeastward across the Great Lakes Basin towards the Canadian east coast. Warm moist tropical air pushed northward ahead of each system riding over the much colder Arctic airmass. The confrontation of these two strongly contrasting air-masses fostered significant development. This in turn produced very strong winds and widespread falls of heavy rain and snow depending on air temperature. Thunderstorms have become a more frequent occurrence in southern regions, even though southern Canada has not experienced the severe weather that occurred in the American mid-west.

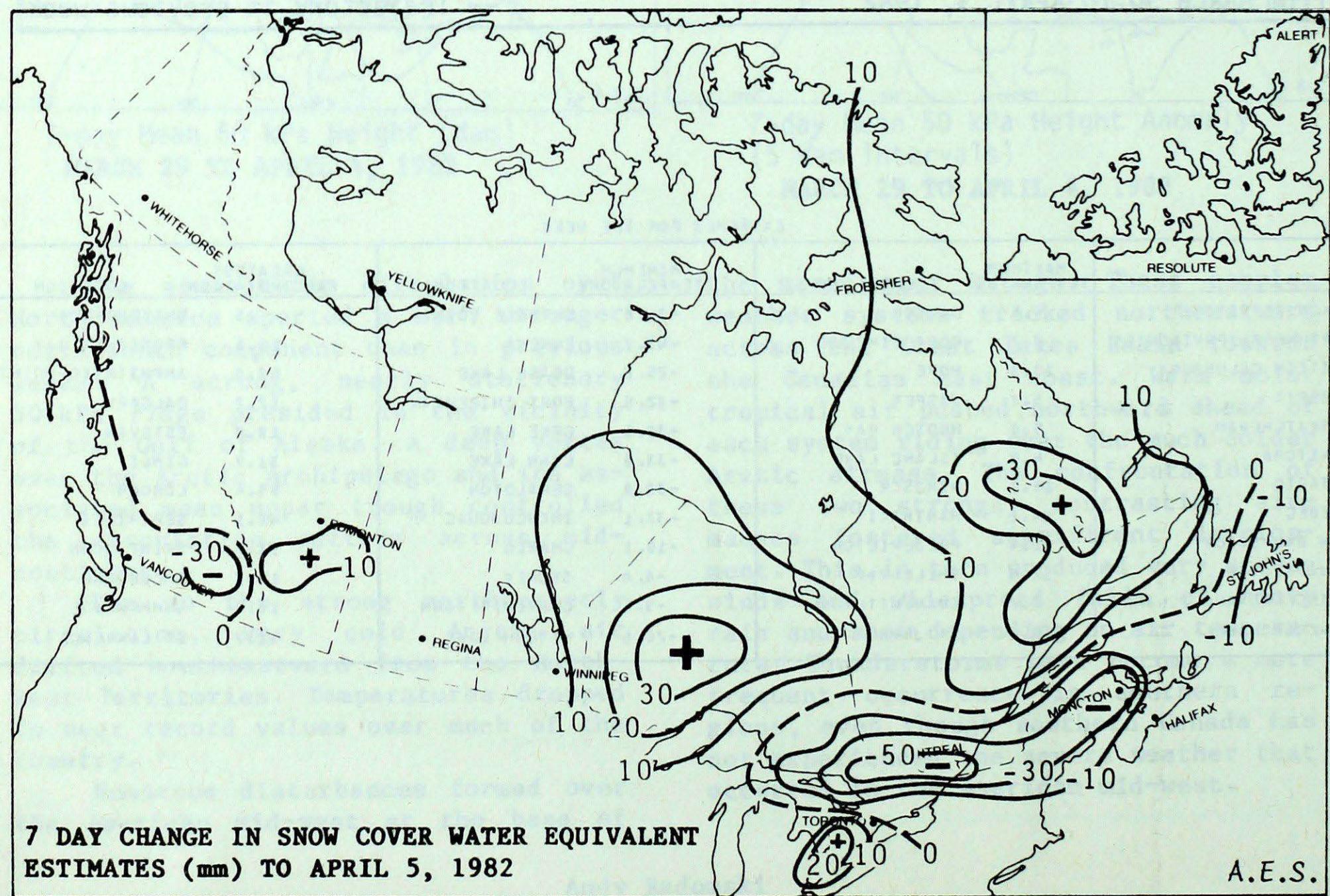
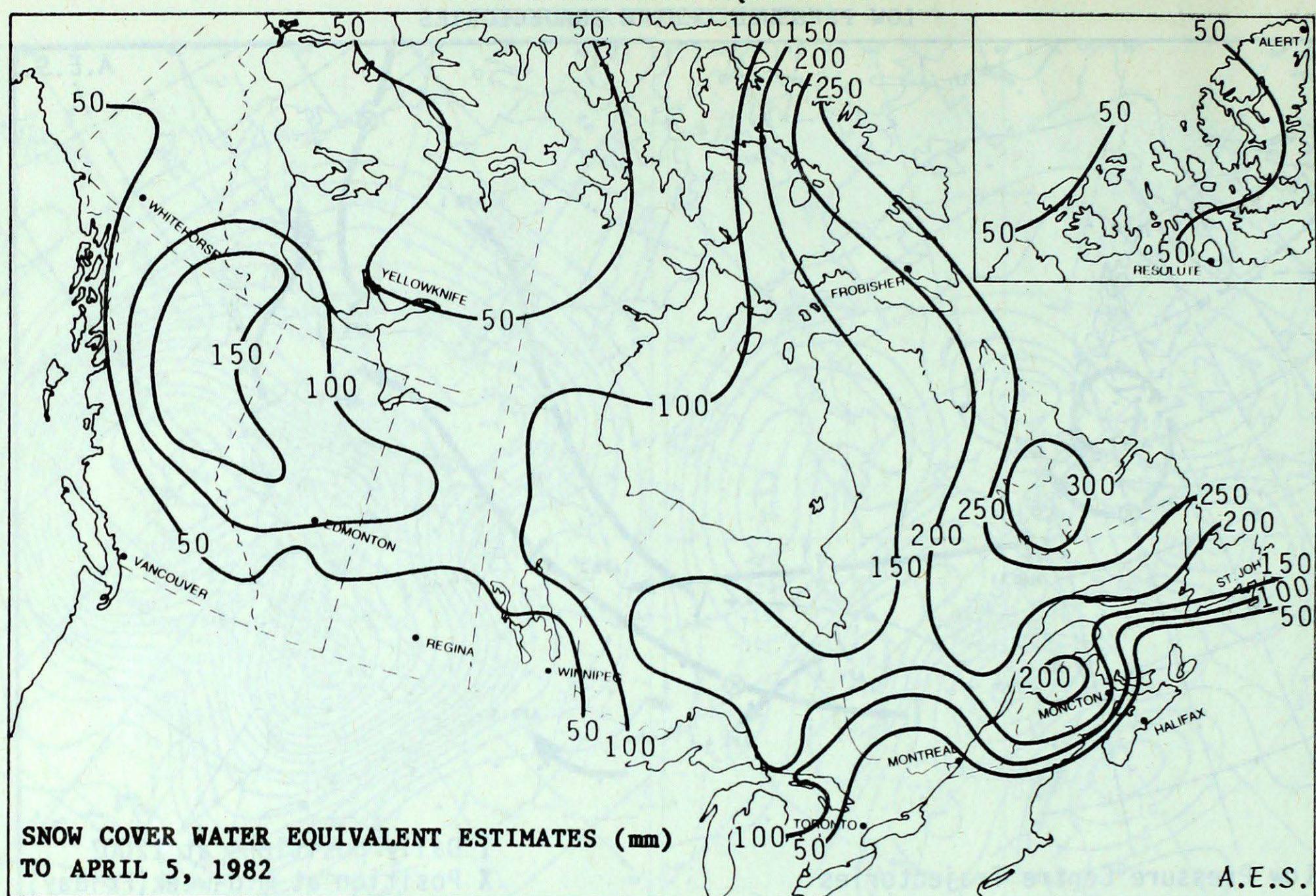
LOW PRESSURE CENTRE TRAJECTORIES



EXTREMES FOR THE WEEK

	MAXIMUM TEMPERATURE	LOCATION	MINIMUM TEMPERATURE	LOCATION	GREATEST PRECIPITATION	LOCATION
YUKON TERRITORY	5.8	DAWSON	-34.8	SHINGLE POINT	.8	WHITEHORSE
NORTHWEST TERRITORIES	-7	FORT SIMPSON	-45.2	EUREKA	16.6	FROBISHER BAY
BRITISH COLUMBIA	13.3	HOPE	-25.2	DEASE LAKE	69.0	AMPHITRITE POINT
ALBERTA	5.2	JASPER	-32.0	FORT CHIPEWYEN	12.2	CALGARY
SASKATCHEWAN	5.0	HUDSON BAY	-38.1	CREE LAKE	10.0	ESTEVAN
MANITOBA	4.9	ISLAND LAKE	-33.0	LYNN LAKE	31.7	GIMLI
ONTARIO	18.2	WINDSOR	-33.0	GERALTON	59.4	LONDON
QUEBEC	14.1	MANIWAKI	-33.1	INCUDJOUAC	46.1	SEPT-ILES
NEW BRUNSWICK	11.4	FREDERICTON	-10.1	CHARLO	51.8	SAINT JOHN
NOVA SCOTIA	12.8	SHELBOURNE	-8.8	SYDNEY	19.7	SHELBOURNE
PRINCE EDWARD ISLAND	7.7	CHARLOTTE TOWN	-9.5	CHARLOTTETOWN	16.0	SUMMERSIDE
NEWFOUNDLAND	9.0	ST. JOHN'S	-26.6	WABUSH LAKE	41.7	ST. LAWRENCE

## SNOW COVER WATER EQUIVALENT



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## TEMPERATURE AND PRECIPITATION DATA FOR THE WEEK ENDING 0600 G.M.T. APRIL 6, 1982

Station	Temperature (°C)			Precip. (mm)		Station	Temperature (°C)			Precip. (mm)		Station	Temperature (°C)			Precip. (mm)			
	Average	Departure from Normal	Extreme Maximum	Extreme Minimum	Total		Average	Departure from Normal	Extreme Maximum	Extreme Minimum	Total	Departure from Normal	Average	Departure from Normal	Extreme Maximum	Extreme Minimum	Total	Departure from Normal	
<b>YUKON</b>													<b>PETAWAWA</b>	-2	X	16	-14	12.6	X
Burwash	-14	-8	5	-32	0.2	-2.5	Smithers	-2	-4	6	-10	2.4	Pickle Lake	-11	-6	5	-29	47.4	38.2
Dawson	-15	-7	6	-31	0.0	-2.0	Stewart	M	X	8	-6P	M	Red Lake	-11	-8	4	-29	30.5	24.0
Faro	M	X	M	M	M	X	Terrace	2	-2	9	-4	0.6	Simcoe	M	M	16P	-8P	29.8	10.0
Komakuk Beach	-23	-1	-11	-33	0.0	-1.6	Vancouver	6	-2	12	2	48.0	Sioux Lookout	-9	-7	4	-26	28.0	20.2
Mayo A	-12	-7	3	-27	0.0	-2.7	Victoria	5	-2	11	-1	20.4	Sudbury	-4	-2	8	-18	34.1	20.0
Shingle Point	-22	-1	-5	-35	0.0	-2.3	Williams Lake	-3	-6	5	-12	20.8	Thunder Bay	-5	-3	5	-21	50.2	36.5
Teslin	M	X	OP	-23P	M	X	ALBERTA	-7	-7	3	-19	M	Timmins	-5	-2	10	-22	20.3	9.1
Watson Lake	-14	-9	0	-29	0.0	-4.7	Banff	-11	-12	1	-19	12.2	Toronto	1	-2	17	-9	28.0	12.8
Whitehorse	-12	-8	2	-26	0.8	-2.4	Calgary	-14	-12	0	-27	9.5	Trenton	1	-3	15	-11	44.4	28.2
<b>NORTHWEST TERRITORIES</b>																			
Cape Parry	-25	-1	-16	-35	1.8	0.0	Edmonton Intl	-15	-14	5	-27	5.8	Upsala	M	X	M	M	M	X
Cape Young	-26	-1	-16	-33	M	M	Edmonton Nameo	-15	-15	6	-23	8.5	Wawa	-6	X	-9	-25	47.4	X
Clinton Point	-22	0	-16	-31	0.0	-1.7	Edson	-13	-12	1	-22	7.2	Wiarton	-1	-2	12	-13	33.2	17.9
Contwoyto Lake	M	M	M	M	M	M	Fort Chipewyan	-19	-10	-2	-32	1.0	Windsor	4	-1	18	-7	42.0	17.8
Coppermine	-26	-2	-16	-36	0.0	-3.9	Fort McMurray	-15	-13	-2	-27	6.8	QUEBEC						
Fort Reliance	-26	-11	-7	-38	0.0	-3.6	Grande Prairie	-13	-12	-2	-24	4.0	Bagotville	-4	-2	8	-16	27.0	14.1
Fort Simpson	-18	-12	-1	-36	0.0	-3.0	High Level	-16	-11	-2	-26	0.0	Bale Comeau	-4	-1	4	-14	35.2	18.5
Fort Smith	-18	-10	-4	-32	0.0	-4.8	Jasper	-8	-9	5	-18	0.6	Blanc Sablon	-6	-2	4	-17	30.1	7.1
Hay River	-20	-10	-2	-34	0.0	-3.2	Lac La Riche	M	X	M	M	X	Border	M	M	M	M	M	X
Inuvik	-23	-4	-4	-40	0.0	-3.7	Lethbridge	-8	-11	0	-17	7.9	Chevery	M	X	M	M	M	X
Lady Franklin Point	-27	-2	-21	-32	0.0	-1.5	Medicine Hat	-6	-10	1	-14	2.9	Chibougamau	-8	X	10	-23	30.0	X
Nicholson Peninsula	-25	-2	-12	-33	0.0	-0.2	Peace River	-13	-12	4	-24	2.4	Gaspé	-3	X	9	-13	34.6	X
Norman Wells	-19	-5	-3	-33	0.0	-3.2	Red Deer	-13	-13	3	-23	M	Grindstone Island	-2	0	5	-7	9.0	-8.1
Port Radium	M	X	M	M	M	X	Rocky Mountain House	-13	-14	1	-24	8.8	Inouedjouac	-19	-3	1	-33	M	M
Robertson Lake	M	X	M	M	M	X	Slave Lake	-14	-12	3	-23	2.8	Kuujjuaq	-12	1	6	-27	24.2	15.8
Tuktoyaktuk	-23	-1	-12	-34	0.0	-1.4	Vermillion	-15	-13	5	-23	7.9	Lac Eon	M	X	M	M	M	X
Yellowknife	-21	-8	-8	-34	0.0	-3.4	Whitecourt	-13	-13	1	-24	8.0	Grande Riviere	-14	X	5	-26	23.1	X
Baker Lake	-28	-6	-18	-37	M	M	SASKATCHEWAN						Maniwaki	-1	0	14	-14	16.9	5.3
Coral Harbour	-27	-7	-17	-34	M	M	Broadview	-9	X	3	-18	2.3	Matagami	-6	X	9	-21	M	X
Ennandai Lake	M	M	M	M	M	M	Buffalo Narrows	-16	-10	-1	-32	M	Mont-Joli	-3	-1	6	-11	24.9	11.3
Jenny Lind Island	-28	-2	-21	-37	0.0	-0.4	Collins Bay	-21	X	-3	-34	8.0	Montréal	0	-2	14	-12	24.1	5.6
Pelly Bay	-31	-7	-22	-38	0.0	-1.0	Cree Lake	-22	X	-1	-38	8.1	Natashquan	-6	-2	1	-19	26.9	8.0
Rankin Inlet	-28	X	-19	-33	3.1	X	Eastend Cypress	M	X	M	M	X	Nitchequon	-12	-3	3	-30	11.7	3.9
Shepherd Bay	-32	-6	-25	-39	0.0	-0.2	Estevan	-9	-9	1	-20	10.0	Parent	M	X	M	M	M	X
Alert	-32	-1	-27	-40	M	M	Hudson Bay	M	M	5	-28P	M	Port Menier	M	M	M	M	M	X
Broughton Island	-23	-5	-17	-29	1.0	-2.0	Kindersey	-11	-11	2	-19	5.2	Poste-de-la-Baleine	-15	-4	5	-31	3.0	-6.1
Cape Dorset	-23	X	-16	-38	0.6	X	La Ronge	-16	-10	1	-31	2.2	Québec	-3	-2	7	-14	29.9	9.7
Cape Dyer	-22	-6	-15	-32	6.8	-9.6	Meadow Lake	-17	X	1	-32	4.7	Rivière du Loup	M	M	M	M	M	X
Cape Hooper	-24	-4	-16	-30	0.4	-5.5	Moose Jaw	-10	-11	1	-19	1.1	Roberval	-4	-1	7	-18	14.1	2.7
Clyde	-24	-2	-16	-31	7.0	4.7	Nipawin	-14	X	4	-26	7.0	Schefferville	-12	-2	3	-28	35.4	24.2
Dewar Lakes	-25	-4	-18	-30	2.2	0.4	North Battleford	-12	-11	1	-23	3.6	Sept-Iles	-5	-2	3	-17	46.1	27.2
Eureka	-38	-4	-29	-45	0.0	-0.7	Prince Albert	-14	-10	1	-29	4.0	Sherbrooke	-2	0	10	-14	29.2	11.1
Frobisher Bay	-20	-3	-10	-28	16.6	10.8	Regina	-10	-9	1	-20	M	Ste Agathe des Monts	-3	-2	13	-16	28.0	-0.4
Gladman Point	-30	-3	-23	-38	0.0	-0.8	Rockglen	M	X	M	M	X	Val D'Or	-4	-1	11	-19	19.2	7.7
Hall Beach	-30	-6	-22	-39	0.0	-2.4	Saskatoon	-11	-10	1	-21	4.6	NEW BRUNSWICK						
Longstaff Bluff	-25	-4	-16	-31	M	M	Swift Current	-9	-10	2	-18	M	Charlo	-3	0	8	-10	22.9	-0.5
Mackar Inlet	-31	-7	-17	-35	0.0	-1.2	Uranium City	-21	-11	4	-32	2.5	Chatham	0	0	9	-10	22.8	5.5
Pond Inlet	-29	X	-23	-33	1.2	X	Wynnyrd	-10	X	3	-17	1.1	Fredericton	1	0	11	-8</td		