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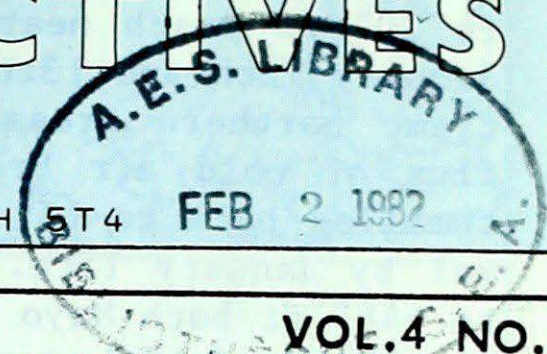
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A WEEKLY REVIEW OF CANADIAN CLIMATE

CLIMATIC PERSPECTIVES

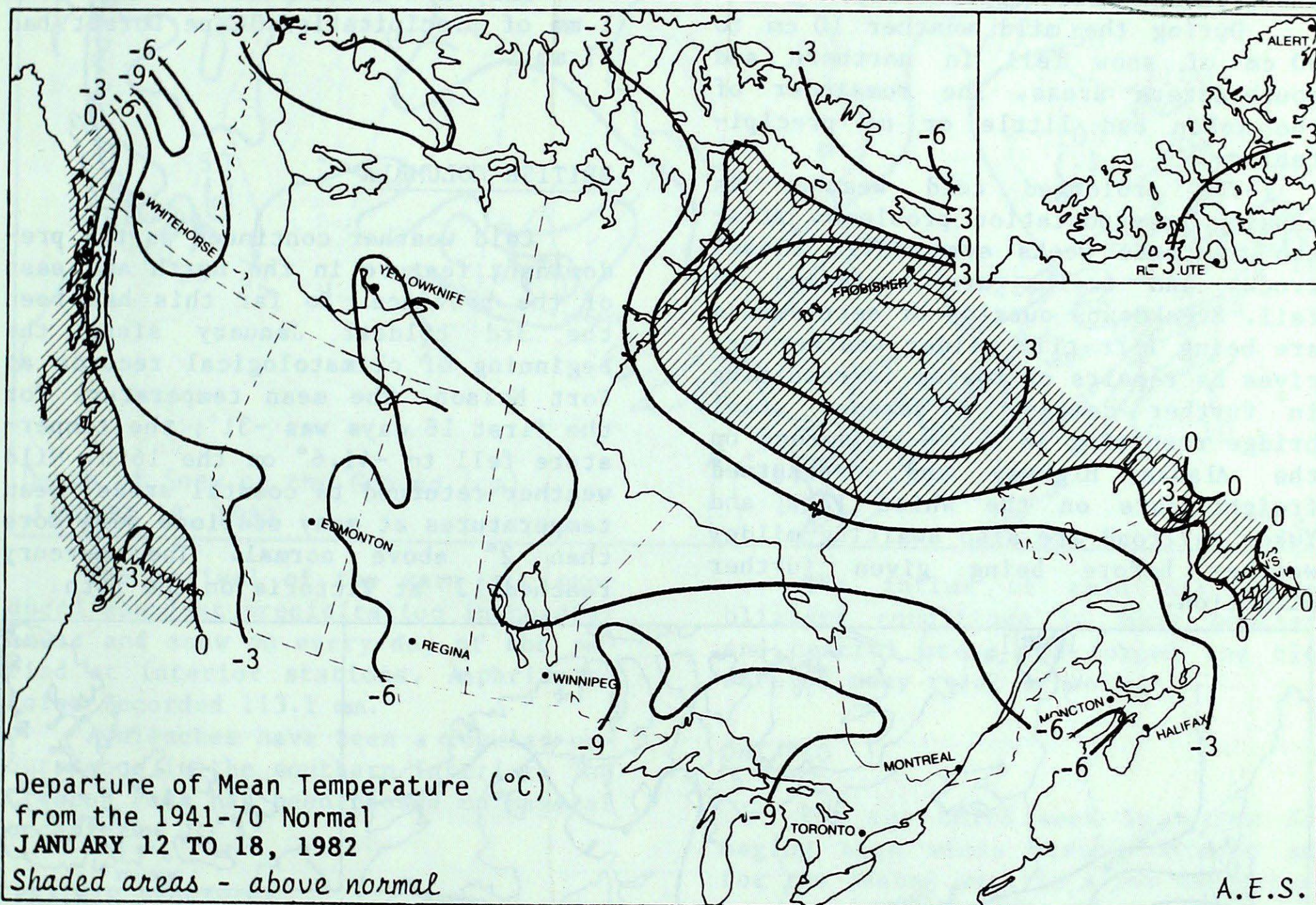
Canada

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



JANUARY 22, 1982

VOL. 4 NO. 2



WEATHER HIGHLIGHTS FOR THE PERIOD - JANUARY 12 TO 18, 1982

The cold persists

With the exception of some brief mild air incursions, the cold kept its grip on most of the areas of Canada. The cold wave spread to include the Atlantic provinces. A storm on the 15 literally paralyzed the area; schools were closed for 4 days in Nova Scotia and New Brunswick. The temperature fell to -30.4° at Charlottetown, an all time record at this station.

Winds hit eastern Canada and produced severe wind chill factors. A power outage forced the evacuation of some 2000 people without heating in Wabush Lake.

The temperature fluctuated between the maximum of 12° recorded at Victoria B.C. and the minimum of -50° recorded at Pond Inlet, N.W.T. The precipitation totaled 113.1 mm at Amphitrite Point, B.C.

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

YUKON

Temperatures had finally risen 20° to 30° to reach near normal values on January 12th and 13th over all but extreme northern areas, but another influx of cold air brought temperatures tumbling back to 15° to 25° below normal by January 15th. Temperatures fell to -48° at both Mayo and Watson Lake on the 17th and 18th respectively.

During the mild weather 10 cm to 60 cm of snow fell in northern and southeastern areas. The remainder of the Yukon had little or no precipitation.

The prolonged cold weather is causing transportation problems. After two to three weeks even large diesel trucks and trains are beginning to fail. Breakdowns outside of settlements are being left till milder weather arrives as repairs or towing is resulting in further damage. A damaged steel bridge resulting in a 200 km detour on the Alaska Highway and overturned freight cars on the White Pass and Yukon railroad are also awaiting milder weather before being given further attention.

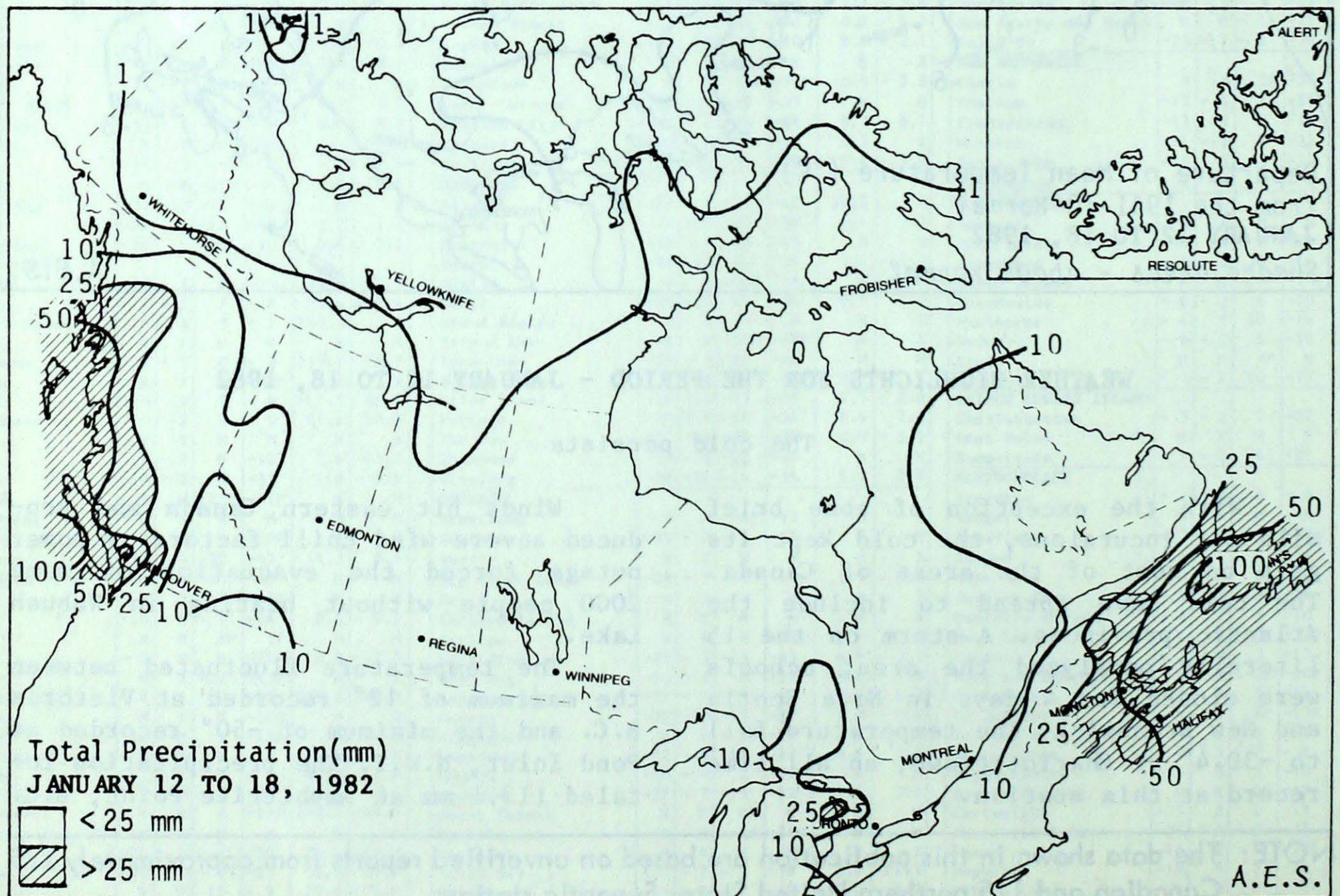
NORTHWEST TERRITORIES

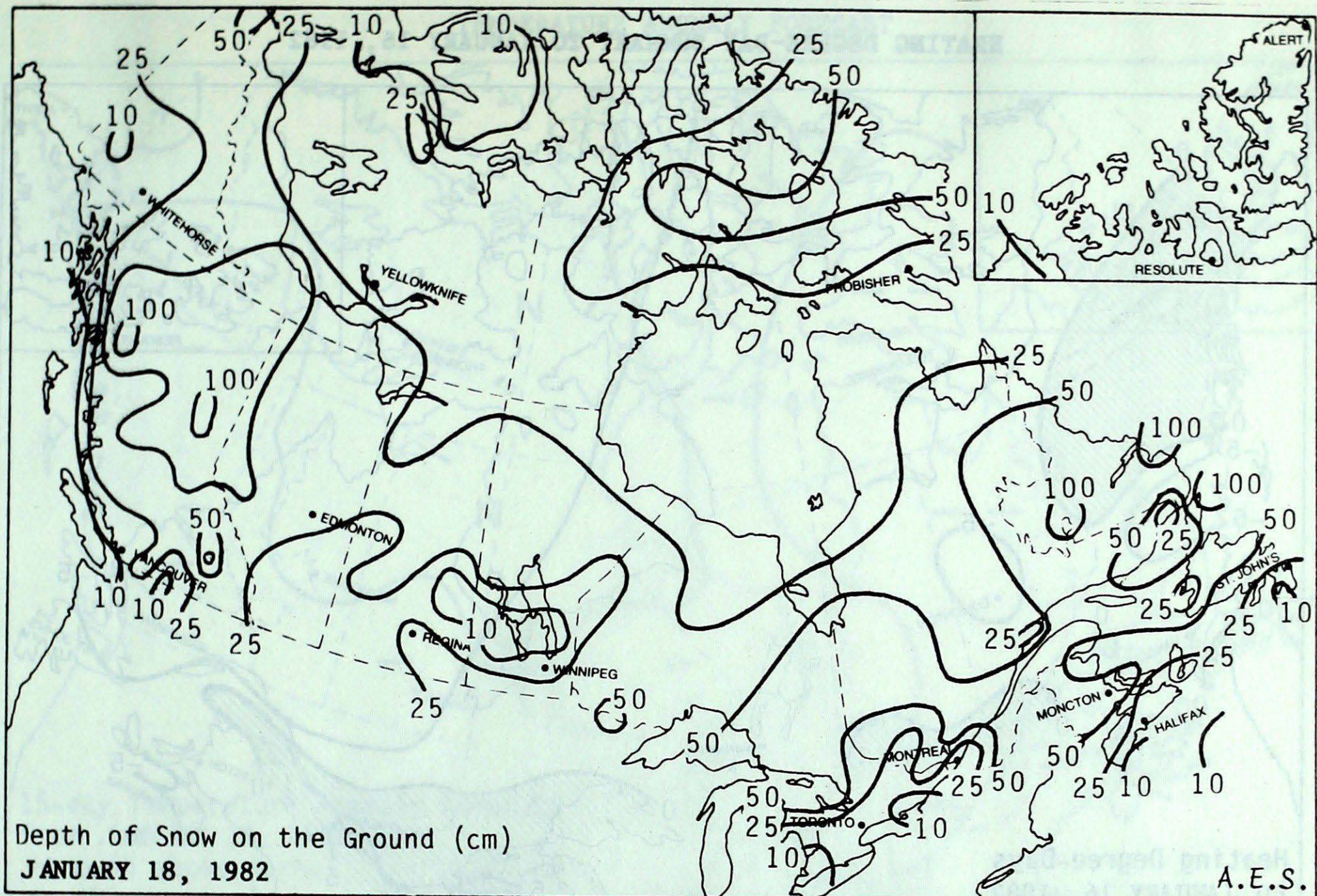
For the first time in many weeks, mean temperatures were below normal throughout most of the Territories. Only the north-eastern Keewatin District and southern Baffin Island recorded above normal mean temperatures. The mercury reached -10° at Cape Dorset and fell to -50° at Pond Inlet.

Only a few stations recorded over 1 mm of precipitation. Cape Dorset had 11 mm.

BRITISH COLUMBIA

Cold weather continued as the predominant feature in the north and east of the province. So far this has been the 3rd coldest January since the beginning of climatological records at Fort Nelson. The mean temperature for the first 18 days was -31°; the temperature fell to -41.6° on the 16th. Mild weather returned to coastal areas; mean temperatures at many stations were more than 2° above normal. The mercury reached 12° at Victoria on the 14th.





The arrival of the warm air produced abundant precipitation in coastal areas and snow on every day of the period at interior stations. Amphritrite Point recorded 113.1 mm.

Avalanches have been a regular occurrence in the southern Interior. The Creston Pass has been closed on several occasions.

PRAIRIE PROVINCES

A surge of mild air on the 13th and 14th brought temperatures above the freezing point for the first time in several weeks in southern and west-central Alberta and in southern Saskatchewan. These mild conditions came to an abrupt end, however, as cold air once again moved rapidly southward. As a result, temperatures varied from 7° at Calgary on the 13th to -46° at Uranium City on the 16th.

Rain or freezing rain fell within the warmer airmass and resulted in extremely treacherous highway conditions. Grande Prairie recorded the greatest precipitation total, 16.8 mm.

The influx of cold air caused blizzard conditions in many southern and central areas and forced the closure of many rural schools.

ONTARIO

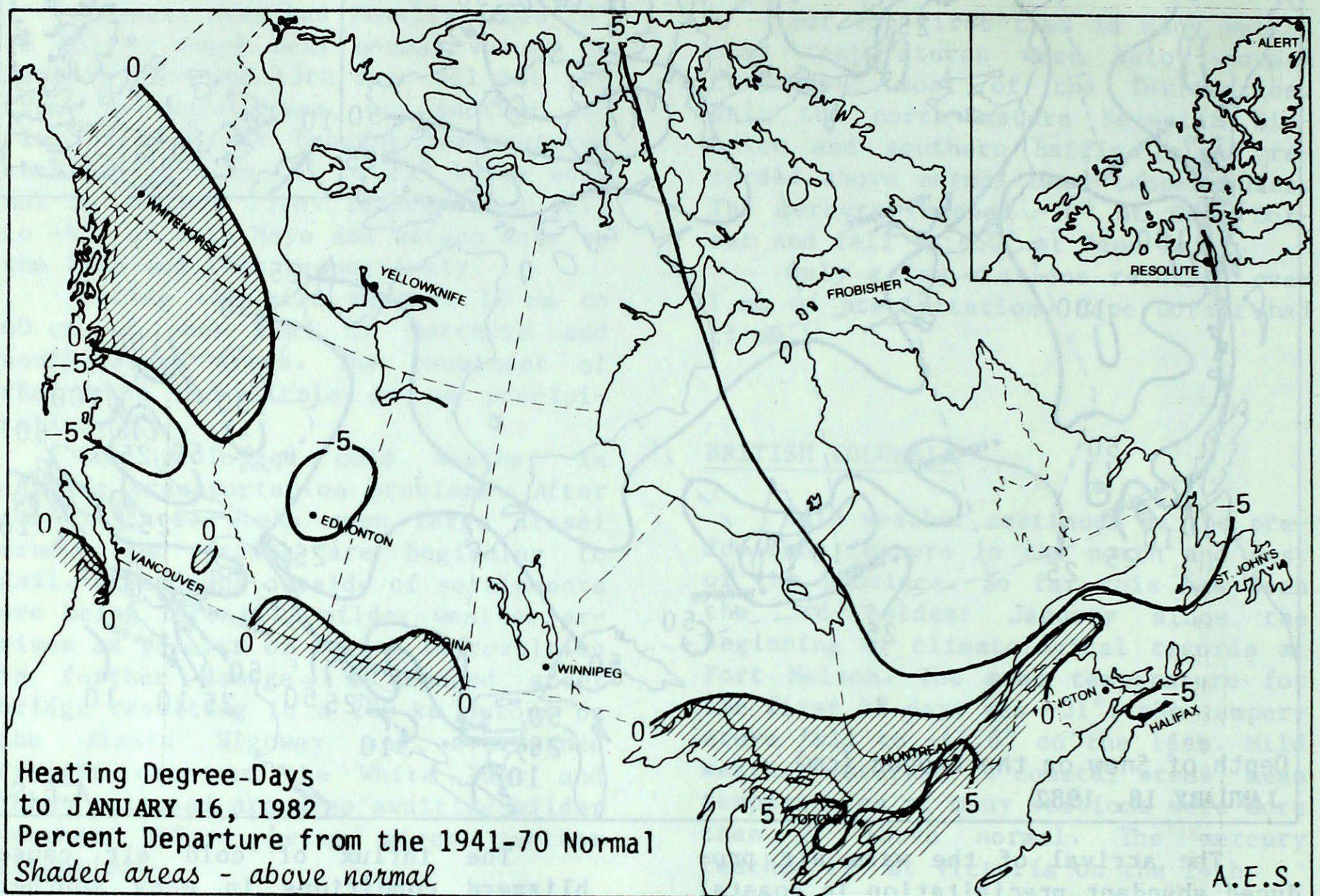
For the third week in a row damaging high winds struck Ontario and for the second week in a row dangerously high wind chill factors prompted warnings not to venture outside unless absolutely necessary. On January 16th and 17th, winds gusting to 70 km/hr, and temperatures in the -20's in the South brought wind chill factors rivaling those of last weekend.

In the North, temperatures fell to the -40's on the mornings of January 17th and 18th. Geraldton fell to -47 on January 18th setting a record minimum for the day and Kapuskasing's minimum of -45° shattered the daily mark set in 1934.

Meanwhile the extreme cold gave Toronto the lowest maximum for any January 18th in 142 years of record, as the high read a meagre -16.6°C.

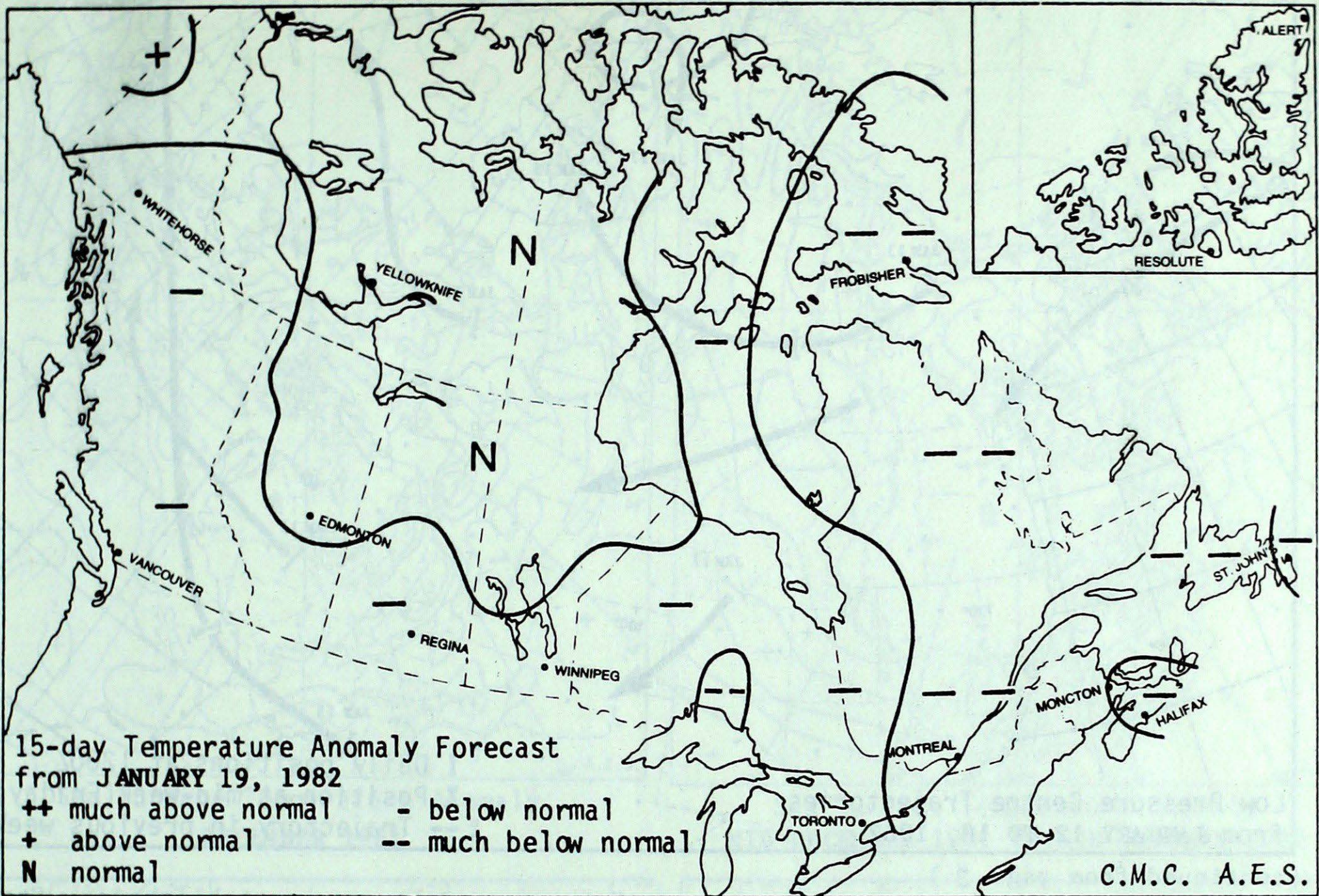
(continued on page 6)

HEATING DEGREE-DAY SUMMARY TO JANUARY 16, 1982

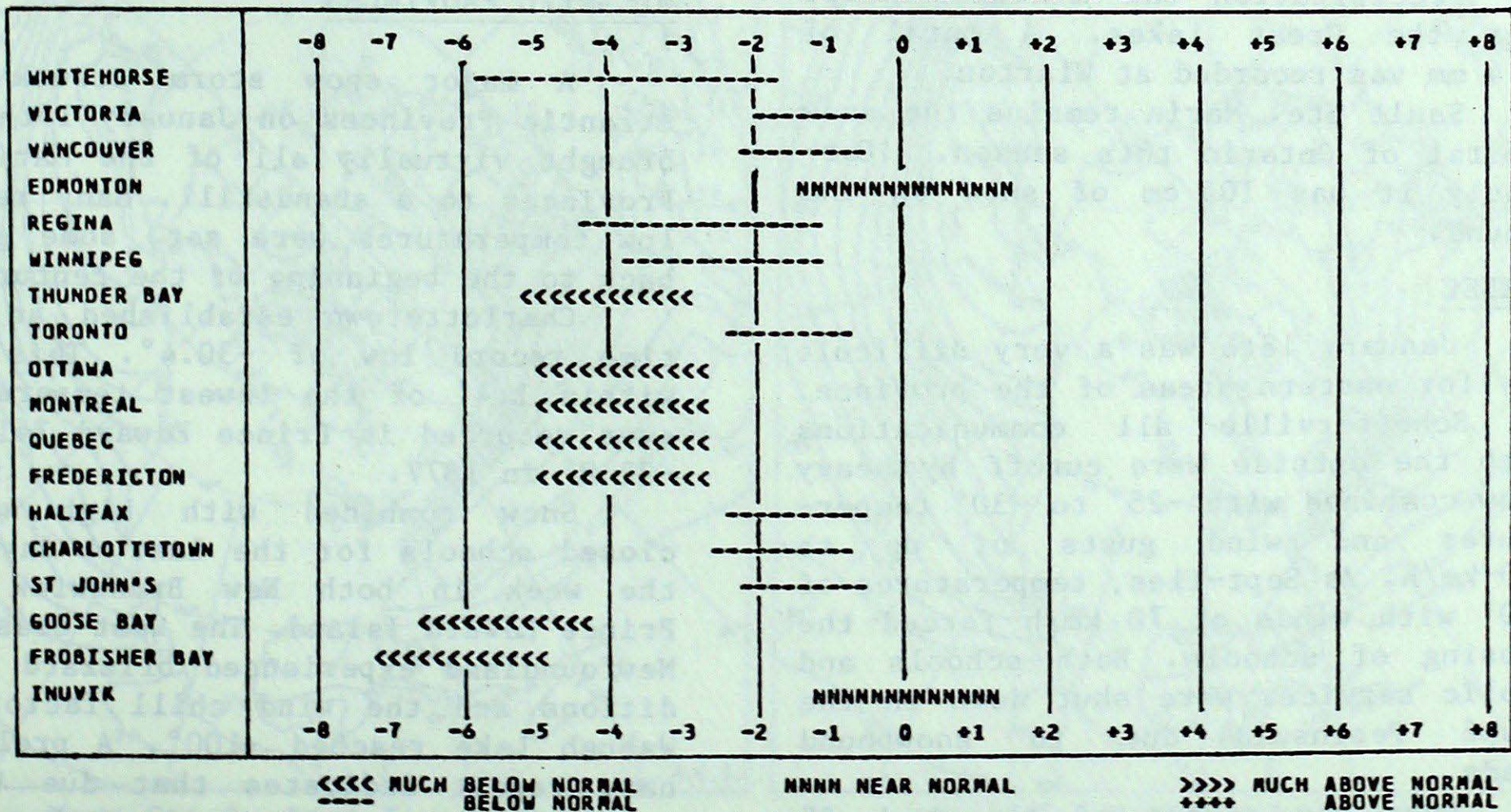


STATION	MONTHLY CUMULATIVE TOTAL	MONTHLY DIFF. FROM 1941-70 NORMAL	SEASONAL TOTAL	SEASONAL DIFF. FROM 1941-70 NORMAL	SEASONAL PERCENT OF NORMAL
Resolute	778.5	-17.5	5832.0	-293.0	95
Inuvik	830.5	59.5	4869.0	-119.0	98
Whitehorse	788.0	190.0	3643.5	40.5	101
Vancouver	288.5	39.5	1455.5	-25.5	98
Edmonton Mun	646.0	130.0	2603.5	-200.5	93
Calgary	618.0	166.0	2600.0	-30.0	99
Regina	723.5	163.5	2874.5	-8.5	100
Winnipeg	704.0	138.0	2765.5	-47.5	98
Thunder Bay	634.0	112.0	2744.0	20.0	101
Windsor	415.0	63.0	1785.5	125.5	108
Toronto	438.5	54.5	2030.5	160.5	109
Ottawa	523.5	59.5	2269.5	59.5	103
Montreal	511.5	67.5	2225.0	143.0	107
Quebec	510.5	47.5	2429.5	56.5	102
Saint John, N.B.	440.0	45.0	2123.5	-23.5	99
Halifax	361.5	23.5	1720.0	-25.0	99
Charlottetown	403.5	18.5	1905.5	-76.5	96
St. John's, Nfld.	328.0	-6.0	1996.0	-82.0	96

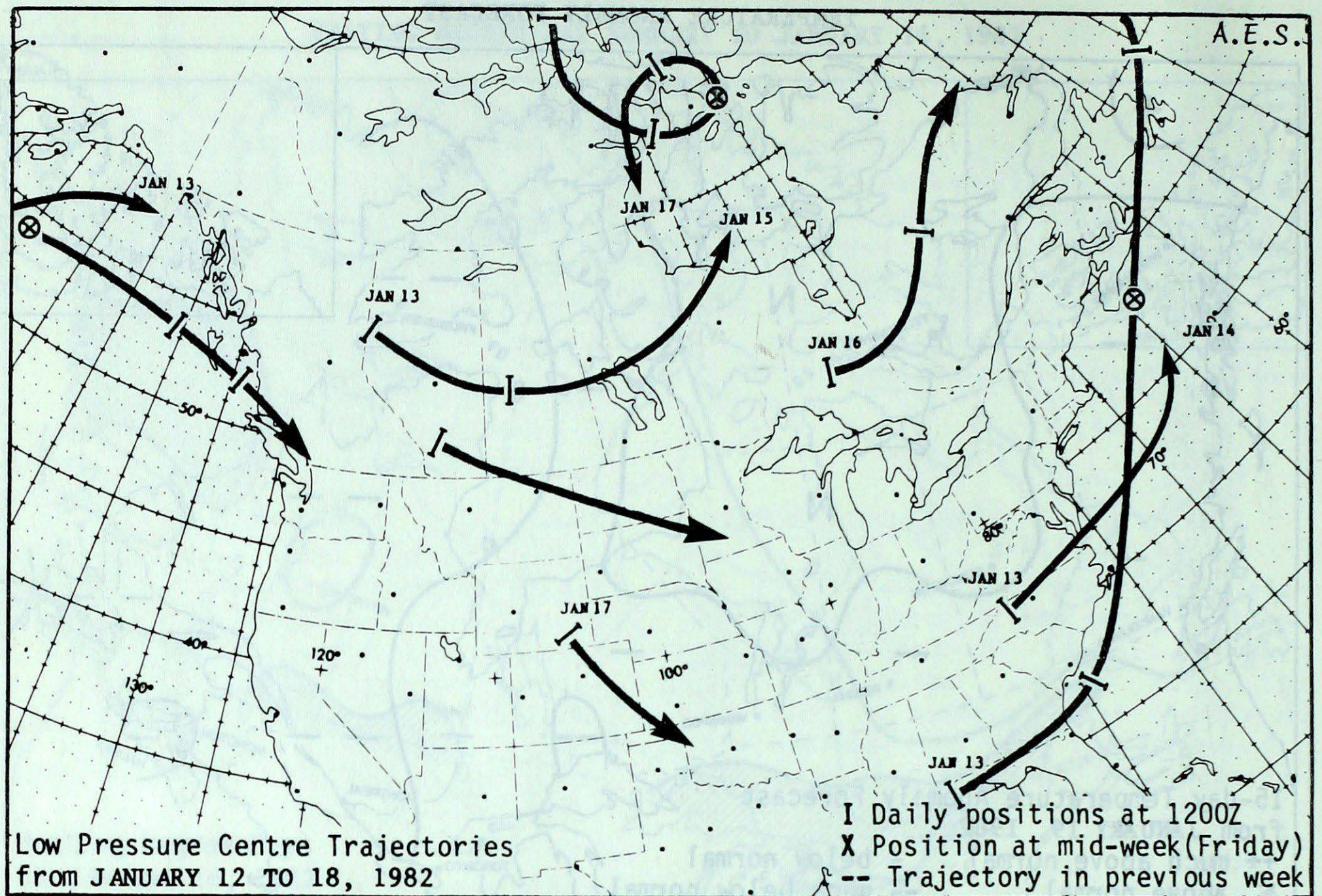
TEMPERATURE ANOMALY FORECAST



TEMPERATURE ANOMALY FORECAST FOR JAN 19 1982 TO FEB 2 1982



LOW PRESSURE CENTRE TRAJECTORIES



(continued from page 3)

Ontario Hydro reported the greatest one day usage of electricity ever on January 11th and attributed the record to Ontarians' attempts to maintain comfortable home temperatures during the brunt of the "Arctic Cold".

Precipitation was minimal except near the Great Lakes. A total of 33.4 mm was recorded at Wiarton.

Sault Ste. Marie remains the snow capital of Ontario this season. Currently it has 105 cm of snow on the ground.

QUEBEC

January 18th was a very difficult day for eastern areas of the province. At Schefferville all communications with the outside were cutoff by heavy snow combined with -25° to -30° temperatures and wind gusts of up to 110 km/h. At Sept-Îles, temperatures of -30° with winds of 70 km/h forced the closing of schools. Both schools and public services were shut down in the Gaspé Peninsula due to snowbound roads.

Over the course of the week 25 daily low temperature records were set. On the 18th, two monthly low tempera-

ture records were established. Ste-
Agathe des Monts recorded -39° breaking the old record of -37° set on January 4th, 1981 and Roberval recorded -39° breaking the old record of -37.3° set on January 17, 1974.

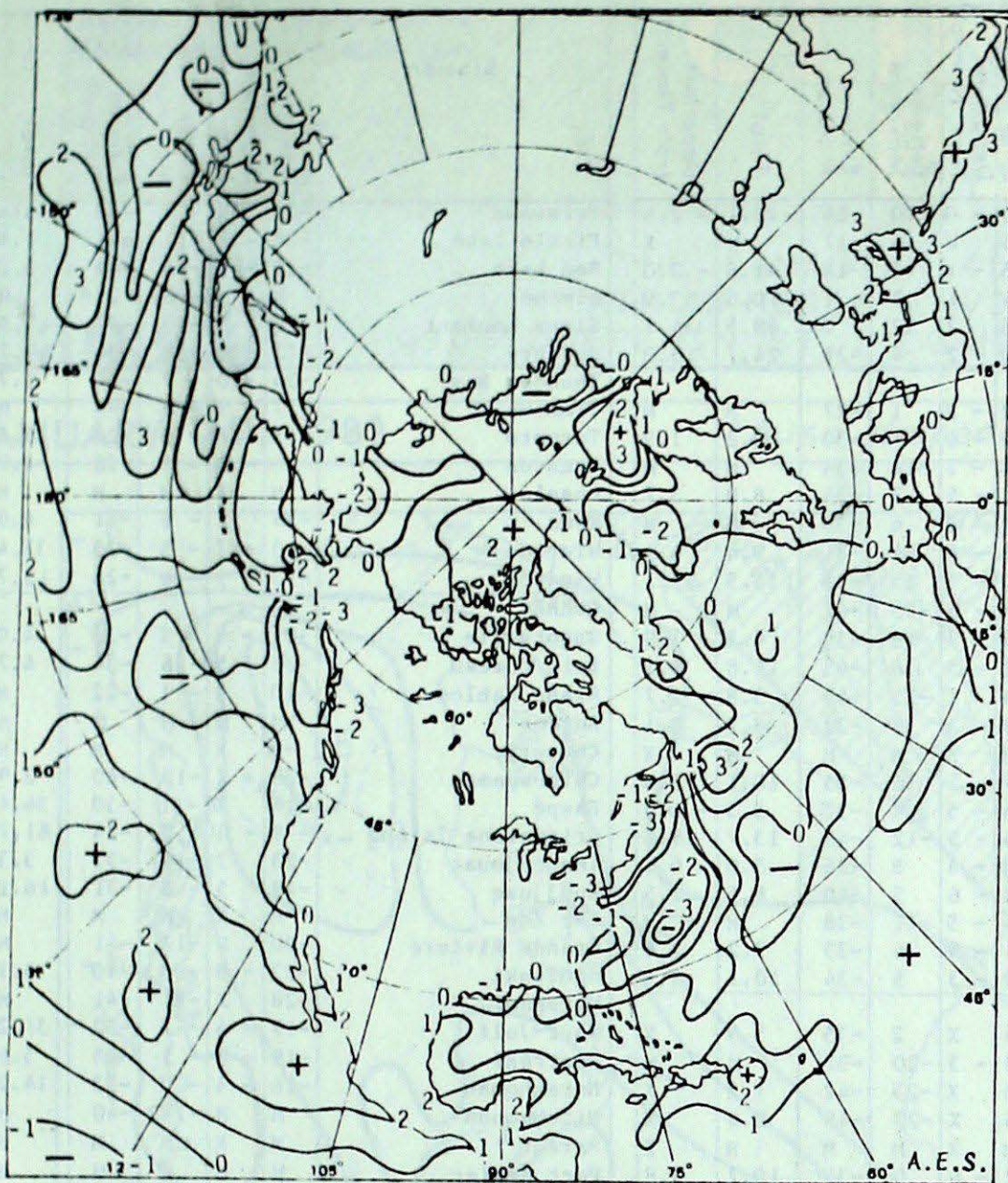
ATLANTIC PROVINCES

A major snow storm struck the Atlantic Provinces on January 15th and brought virtually all of the Maritime Provinces to a standstill. Many record low temperatures were set, some going back to the beginning of the century.

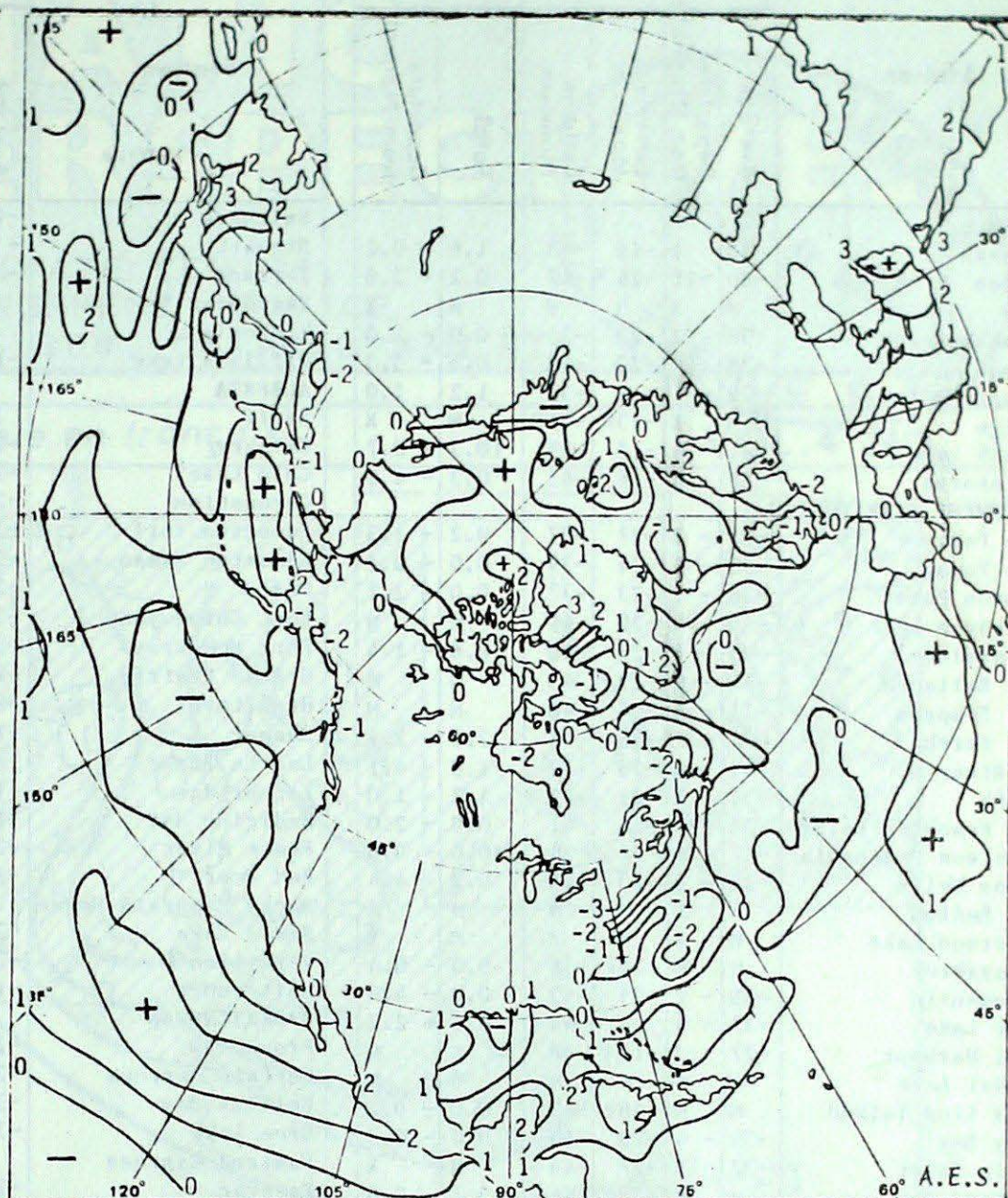
Charlottetown established an all time record low of -30.4° . This was within 2.4° of the lowest temperature ever recorded in Prince Edward Island, -32.8° in 1877.

Snow combined with high winds closed schools for the last 4 days of the week in both New Brunswick and Prince Edward Island. The west coast of Newfoundland experienced blizzard conditions and the wind chill factor at Wabush Lake reached -100° . A preliminary report indicates that due to a power failure, 2000 people had to be evacuated from their homes and lodged at a school at Wabush Lake.

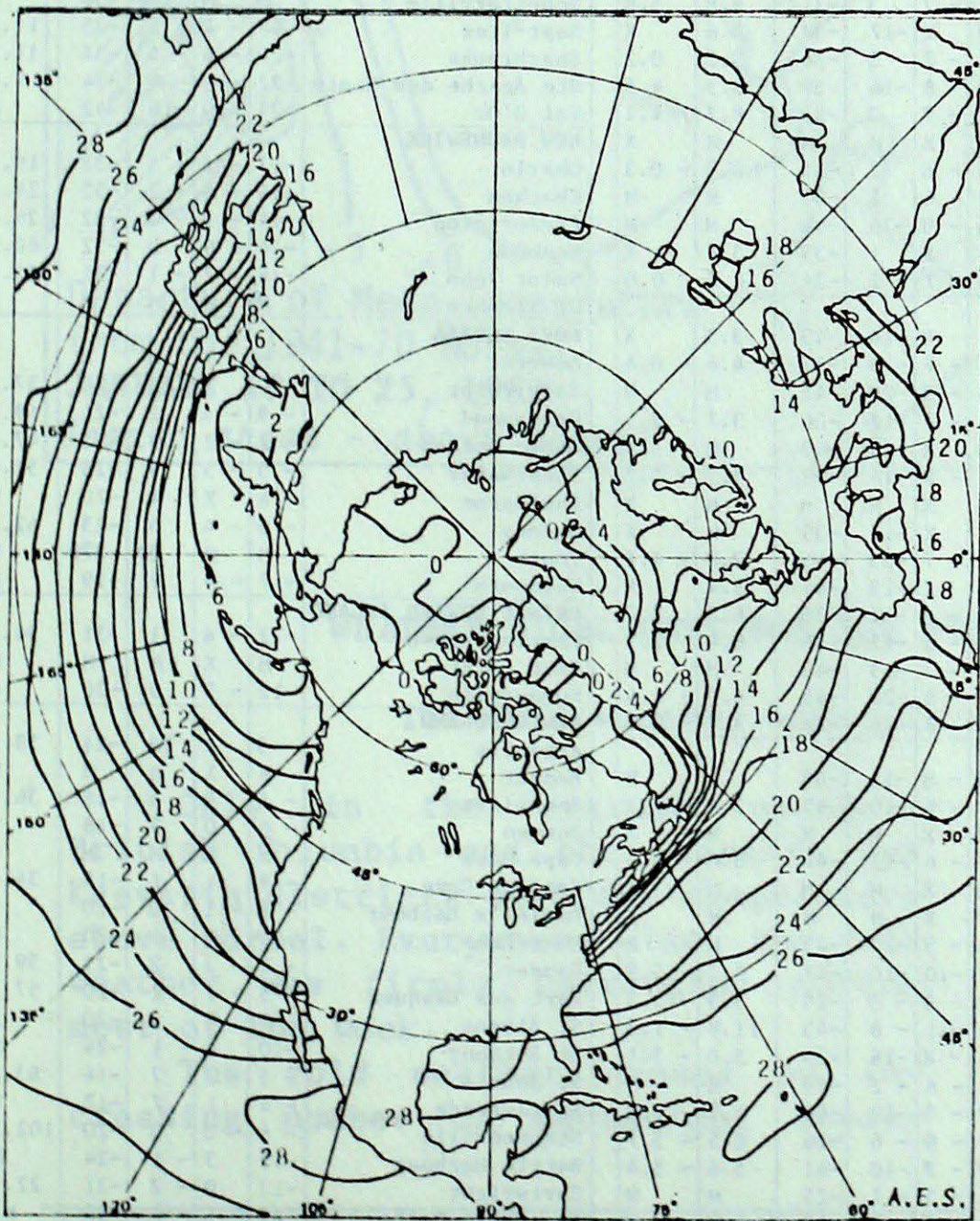
SEA SURFACE TEMPERATURE



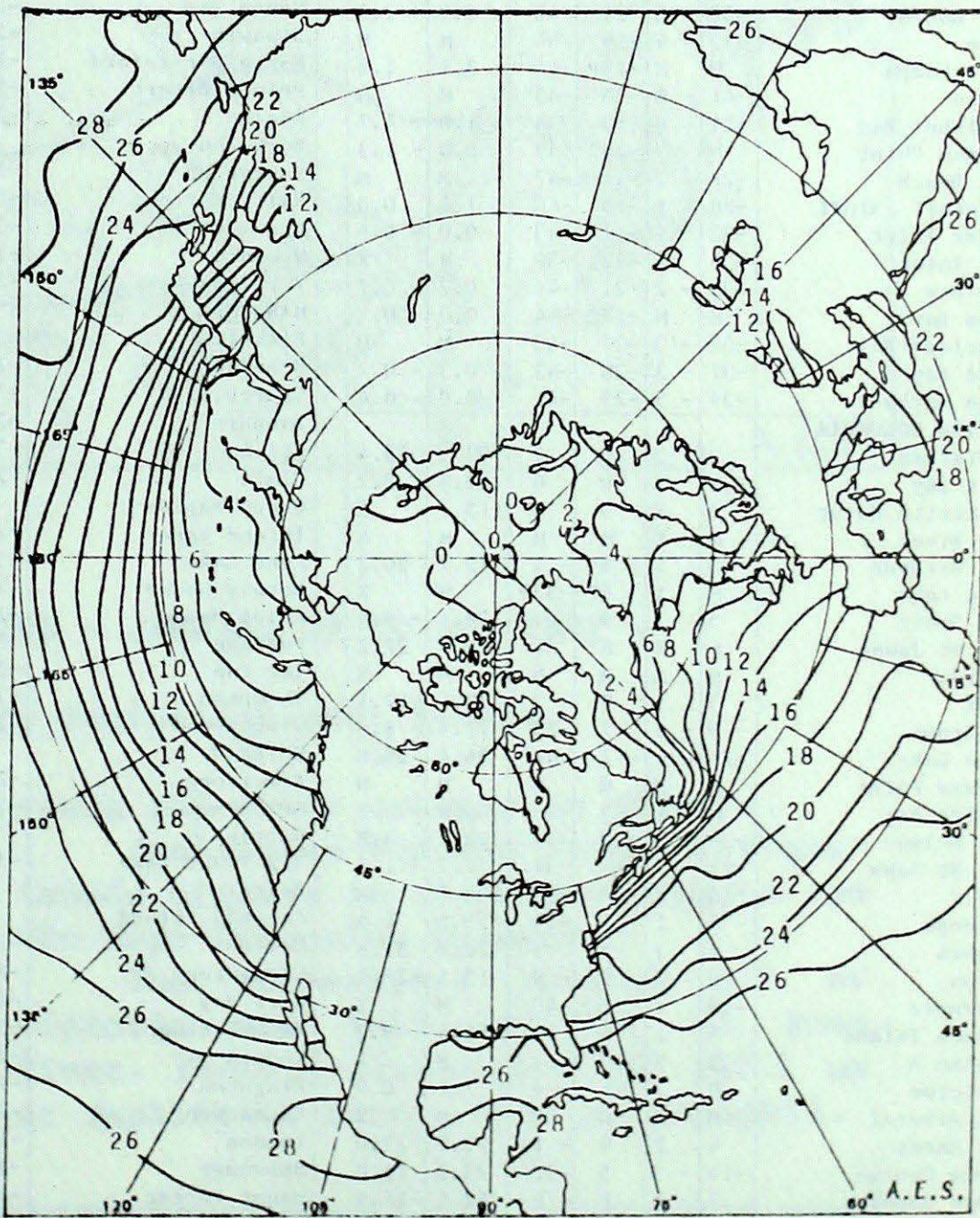
Sea Surface Temperature Anomaly
DECEMBER 1981



Sea Surface Temperature Anomaly
MID-DECEMBER 1981 TO MID-JANUARY 1982



Mean Sea Surface Temperature
DECEMBER 1981



Mean Sea Surface Temperature
MID-DECEMBER 1981 TO MID-JANUARY 1982

TEMPERATURE AND PRECIPITATION DATA FOR THE WEEK ENDING 0600 G.M.T. JANUARY 19, 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	Departure from Normal		Average	Departure from Normal	Extreme Maximum	Extreme Minimum	Total	Departure from Normal		Average	Departure from Normal	Extreme Maximum	Extreme Minimum	Total	Departure from Normal
YUKON							Smithers	-10	-0	10	-24	13.1	-2.6	Petawawa	-22	X	-7	-38	3.6	X
Burwash	-30	1	-18	-43	1.6	-0.2	Stewart	-5	X	6	-17	M	X	Pickle Lake	-28	-7	-11	-41	1.4	-8.9
Dawson	-40	-11	-24	-47	0.2	-3.8	Terrace	-5	-1	5	-14	41.8	-2.0	Red Lake	-29	-9	-16	-44	3.2	-8.1
Faro	M	X	M	M	M	X	Vancouver	4	1	8	-1	70.5	33.9	Simcoe	M	M	-8P	-25P	M	M
Komakuk Beach	-30	-3	-23	-35	0.0	-1.0	Victoria	5	2	12	0	68.5	34.1	Sioux Lookout	-28	-9	-13	-43	3.6	-5.3
Mayo A	-38	-10	-23	-48	0.5	-5.3	Williams Lake	-10	-2	4	-24	24.7	15.0	Sudbury	-23	-8	-8	-36	11.7	3.9
Shingle Point	-29	-1	-19	-37	1.2	1.0	ALBERTA							Thunder Bay	-24	-10	-7	-40	1.7	-8.5
Teslin	M	X	-13P	-41P	M	X	Banff	12	-2	1	-27	M	M	Timmins	-27	-9	-8	-44	M	M
Watson Lake	-31	-6	-15	-48	10.3	-0.7	Calgary	-14	-4	7	-30	6.2	1.9	Toronto	-15	-8	-5	-26	9.1	-1.1
Whitehorse	-28	-8	-16	-41	0.3	-4.2	Cold Lake	-26	-7	-14	-34	M	M	Trenton	-16	-8	-2	-28	4.7	-10.4
NORTHWEST TERRITORIES							Coronation	-21	-5	3	-34	8.0	3.7	Upsala	M	X	M	M	M	X
Cape Parry	-32	-2	-27	-37	0.2	-1.3	Edmonton Intl	-19	-3	6	-39	M	M	Wawa	-24	X	-6	-41	4.0	X
Cape Young	-32	-2	-24	-39	0.0	-0.8	Edmonton Namao	-19	-4	4	-31	9.4	4.1	Warton	-13	-7	-5	-23	33.4	13.9
Clinton Point	-30	-2	-23	-37	0.0	-2.2	Edson	-20	-5	5	-38	15.5	11.1	Windsor	-13	-9	-6	-26	13.7	3.3
Contwoyto Lake	-36	-4	-29	-41	M	M	Fort Chipewyan	-33	-5	-25	-42	M	M	QUÉBEC						
Coppermine	-33	-4	-26	-40	0.6	-1.4	Fort McMurray	-28	-7	-19	-39	4.1	-1.9	Bagotville	-21	-6	-9	-35	4.0	-10.9
Fort Reliance	-36	-6	-29	-43	M	M	Grande Prairie	-22	-5	6	-43	16.8	8.1	Bale Comeau	-18	-5	-6	-34	4.7	-11.8
Fort Simpson	-33	-4	-24	-46	M	M	High Level	-29	1	-21	-44	3.8	-1.7	Blanc Sablon	-10	3	-1	-22	M	M
Fort Smith	-34	-7	-26	-45	2.4	-2.1	Jasper	-13	-2	3	-33	8.1	0.1	Border	M	M	M	M	M	M
Hay River	-32	-6	-26	-42	1.8	-4.1	Lac La Biche	M	X	M	M	M	X	Chevery	M	X	M	M	M	X
Inuvik	-34	-2	-23	-42	1.2	-1.0	Lethbridge	-14	-5	6	-35	10.1	5.0	Chibougamau	-28	X	-13	-40	2.9	X
Lady Franklin Point	-33	-2	-26	-41	0.0	-2.0	Medicine Hat	-16	-5	4	-32	5.3	-0.6	Gaspé	-14	X	-1	-30	36.4	X
Nicholson Peninsula	-32	-4	-27	-38	0.0	-0.6	Peace River	-25	-5	-12	-45	13.7	9.6	Grindstone Island	-9	-3	0	-24	81.7	60.3
Norman Wells	-33	-3	-23	-45	0.2	-4.4	Red Deer	-18	-4	6	-35	5.0	-0.1	Inoucdjouac	-23	2	-14	-31	3.3	1.0
Port Radium	M	X	M	M	M	X	Rocky Mountain House	-18	-6	5	-40	8.5	2.5	Kuujuuaq	-19	5	-5	-31	16.1	8.2
Robertson Lake	M	X	M	M	M	X	Slave Lake	-24	-5	-11	-38	M	M	Lac Eon	M	X	M	M	M	X
Tuktoyaktuk	M	M	-24P	-38	0.0	-0.4	Vermilion	-21	-3	6	-35	7.2	2.6	Grande Riviere	-30	X	-17	-41	M	X
Yellowknife	-36	-7	-29	-43	0.0	-4.0	Whitecourt	-19	-3	5	-34	10.1	3.5	Maniwaki	-23	-8	-8	-40	6.1	-3.0
Baker Lake	-37	-4	-28	-44	0.3	-2.2	SASKATCHEWAN							Matagami	-28	X	-11	-41	M	X
Baker Lake	-37	-4	-28	-44	0.3	-2.2	Broadview	-24	X	2	-35	5.9	X	Mont-Joli	-17	-6	-7	-32	31.2	8.4
Coral Harbour	-27	3	-12	-38	M	M	Buffalo Narrows	-29	-3	-20	-37	M	M	Montréal	-19	-9	-5	-28	5.6	-10.7
Ennadai Lake	M	M	M	M	M	M	Collins Bay	-35	X	-25	-42	1.2	X	Natashquan	-16	-4	0	-33	14.2	-9.3
Jenny Lind Island	M	M	-28P	-43	0.0	-0.2	Cree Lake	-34	X	-23	-45	0.6	X	Nitchequon	M	M	-14P	-40	M	M
Pelly Bay	-36	-4	-23	-44	0.0	-0.3	Eastend Cypress	M	X	M	M	M	X	Parent	M	X	M	M	M	X
Rankin Inlet	-37	X	-27	-44	M	X	Estevan	-22	-6	0	-34	10.2	4.8	Port Menier	M	M	M	M	M	M
Shepherd Bay	M	M	-28P	-44	3.7	2.6	Hudson Bay	-28	-7	-15	-36	M	M	Poste-de-la-Baleine	-26	-3	-14	-36	5.8	0.0
Alert	-36	-4	-29	-45	0.1	-1.0	Kindersley	-22	-6	2	-33	7.9	4.9	Québec	-19	-7	-6	-35	6.2	-10.0
Broughton Island	-29	-5	-21	-38	0.0	-2.4	La Ronge	-30	-6	-20	-39	5.2	0.1	Rivière du Loup	M	M	M	M	M	M
Cape Dorset	-21	X	-10	-31	11.0	X	Meadow Lake	-27	X	-15	-39	4.5	X	Roberval	-22	-6	-9	-39	2.8	-9.5
Cape Dyer	-27	-6	-13	-41	0.0	-15.1	Moone Jaw	-21	-7	3	-31	9.8	5.8	Schefferville	M	M	10P	-36	M	M
Cape Hooper	-30	-5	-21	-40	0.0	-2.0	Nipawin	-29	X	-17	-38	5.6	X	Sept-Iles	-18	-4	-5	-35	11.4	-12.6
Clyde	-32	-4	-19	-44	M	M	North Battleford	-25	-7	3	-36	5.2	0.2	Sherbrooke	-20	-6	-6	-34	11.1	2.8
Dewar Lakes	M	M	-19P	-45	2.1	1.8	Prince Albert	-29	-8	-16	-39	9.3	4.5	Ste Agathe des Monts	-22	-6	-8	-34	7.2	-4.8
Eureka	-41	-4	-35	-45	M	M	Regina	-23	-7	0	-35	8.7	4.1	Val D'Or	-27	-10	-10	-42	M	M
Frobisher Bay	-21	6	-13	-34	1.8	-4.7	Rockglen	M	X	M	M	M	X	NEW BRUNSWICK						
Gladman Point	M	M	-28P	-49	0.0	-1.3	Saskatoon	-24	-6	2	-35	3.9	-0.3	Charlo	-17	-2	-5	-32	19.1	3.6
Hall Beach	-28	2	-16	-47	M	M	Swift Current	-19	-6	2	-35	M	M	Chatham	-14	-5	-2	-32	28.2	2.5
Longstaff Bluff	-28	-1	-19	-40	1.4	0.0	Uranium City	-36	-8	-26	-46	M	M	Fredericton	-14	-5	-1	-32	26.4	3.1
Mackar Inlet	-32	-2	-17	-43	0.0	-0.6	Wynyard	-25	X	1	-35	5.9	X	Moncton	-14	-6	0	-32	60.0	35.9
Pond Inlet	-36	X	-22	-50	M	X	Yorkton	-25	-7	2	-34	7.0	0.6	Saint John	-14	-7	-1	-31	35.5	-0.4
Resolute	-35	-2	-21	-44	0.2	-0.7	MANITOBA							St Stephen	M	X	M	M	M	X
Byron Bay	M	M	-27P	-44	0.0	-0.1	Bissett	-27	X	-14	-43	3.3	X	NOVA SCOTIA						
Cambridge Bay	-37	-3	-27	-43	M	M	Brandon	-25	-7	-5	-35	4.6	-0.6	Amherst	M	X	M	M	M	X
Mould Bay	-37	-3	-28	-43	0.3	-0.1	Churchill	-33	-5	-20	-41	M	M	Eddy Point	-10	X	3	-28	57.5	X
Sachs Harbour	-34	-5	-29	-41	0.0	-0.4	Dauphin	-25	-7	-12	-36	3.7	-2.1	Greenwood	-9	-4	2	-24	49.0	24.7
BRITISH COLUMBIA							Gillam	-33	X	-19	-43	M	X	Sable Island	-2	-2	9	-15	47.9	21.1
Abbotsford	3	2	10	-2	92.1	48.4	Gimli	-26	-6	-16	-38	3.3	-2.7	Shearwater	-9	-5	4	-25	52.9	19.2
Alert Bay	4	1	8	0	62.8	8.2	Grand Rapids	M	X	M	M	M	X	Shelburne	-6	X	4	-20	M	X
Amphitrite Point	6	X	9	0	113.1	X	Island Lake	-29	X	-17	-39	M	X	Sydney	-9	-4	5	-25	62.0	29.6
Blue River	M	X	M	M	M	X	Lynn Lake	-35	-7	-23	-45	2.0	-4.7	Truro	M	M	2P	-27P	M	M
Bull Harbour	5	1	8	-1	79.7	20.2	Norway House	-31	X	-19	-44	3.4	X	Yarmouth	-7	-4	2	-19	M	M
Burns Lake	M	X	5P	-33P	M	X	Pilot Mound	-26	-8	-11	-35	6.3	2.2	PRINCE EDWARD ISLAND						
Cape Scott	5	1	9	1	88.4	-9.4	Portage	-25	-8	-12	-35	8.4	2.8	Charlottetown	-12	-6	1	-31	54.8	32.1
Cape St James	6	2	8	1	62.9	27.2	The Pas	-30	-7	-19	-43	M	M	East Point	M	X	M	M	M	X
Clinton	M	X	M	M	M	X	Thompson	-35	-8	-20	-45	4.0	-1.4	Summerside	-12	-5	0	-30	M	M
Comox	3	1	9	-3	33.1	-17.4	Winnipeg	-26	-8	-16	-36	3.7	-2.9	NEWFOUNDLAND						
Cranbrook	-9	-1	7	-23	11.5	-6.6	ONTARIO							Argentia	-3	X	10	-24	53.4	X
Dease Lake	-25	-6	-7	-41	36.4	29.0	Armstrong	-28	-8	-11	-48	M	M	Badger	M	X	M	M	M	X
Estevan Point	M	M	M	M	M	M	Atikokan	-27	-8	-10	-45	2.8	-4.5	Bonavista	-4	0	5	-18	36.6	18.3
Ethelda Bay	M	X	9	-3P	M	X	Barrie	M	X	M	M	M	X	Burgeo	-6	0	3	-18	M	M
Fort Nelson	-28	-5	-20	-42	13.2	4.8	Big Trout Lake	-30	-6	-13	-41	3.0	-3.5	Cape Race	M	X	M	M	M	X
Fort St John	-25	-7	-14	-34	7.3	-1.5	Britt	M	X	M	M	M	X	Comfort Cove	-8	1	1	-19	34.6	13.9
Hope	3	X	10	-5	104.8	X	Caribou Island	M	X	M	M	M	X	Daniel's Harbour	-8	-1	0	-20	M	M
Kamloops	-5	1	6	-14	15.8	8.4	Earlton	-26												