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A WEEKLY REVIEW OF CANADIAN CLIMATE

CLIMATIC PERSPE

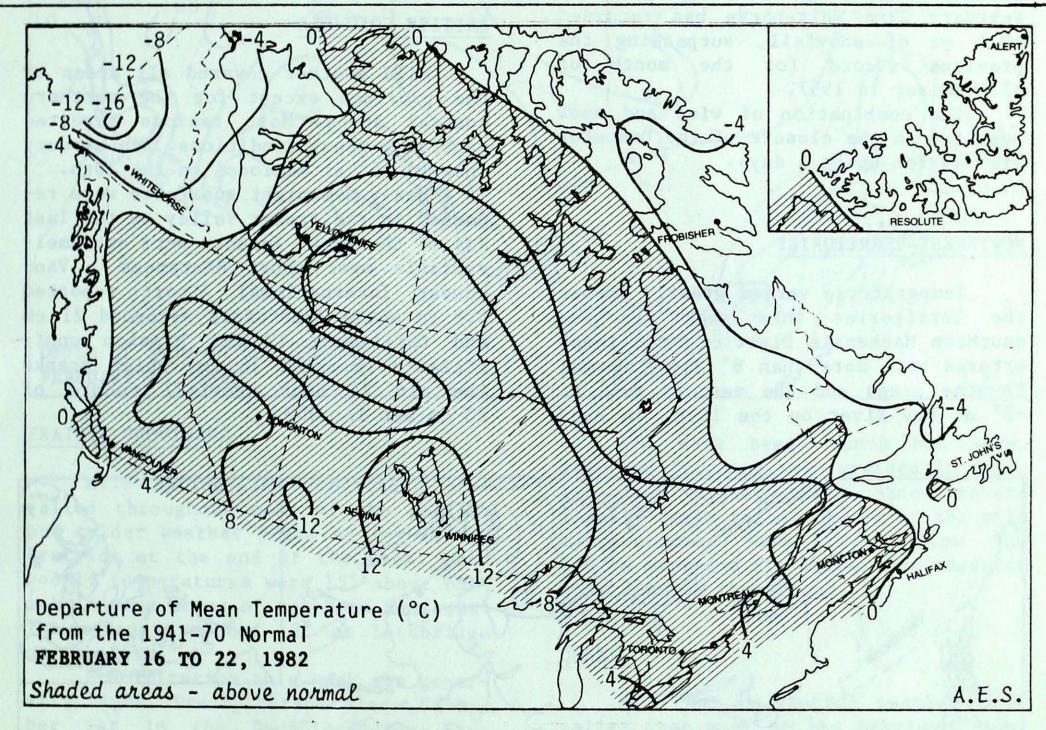
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THE CANADIAN CLIMATE CENTRE,
ATMOSPHERIC ENVIRONMENT SERVICE,
4905 DUFFERIN ST., DOWNSVIEW, ONTARIO M3H 5T4

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° dropped to -25° to -48° by the end of the week. Mean temperatures in some southwestern areas were more than 17° 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

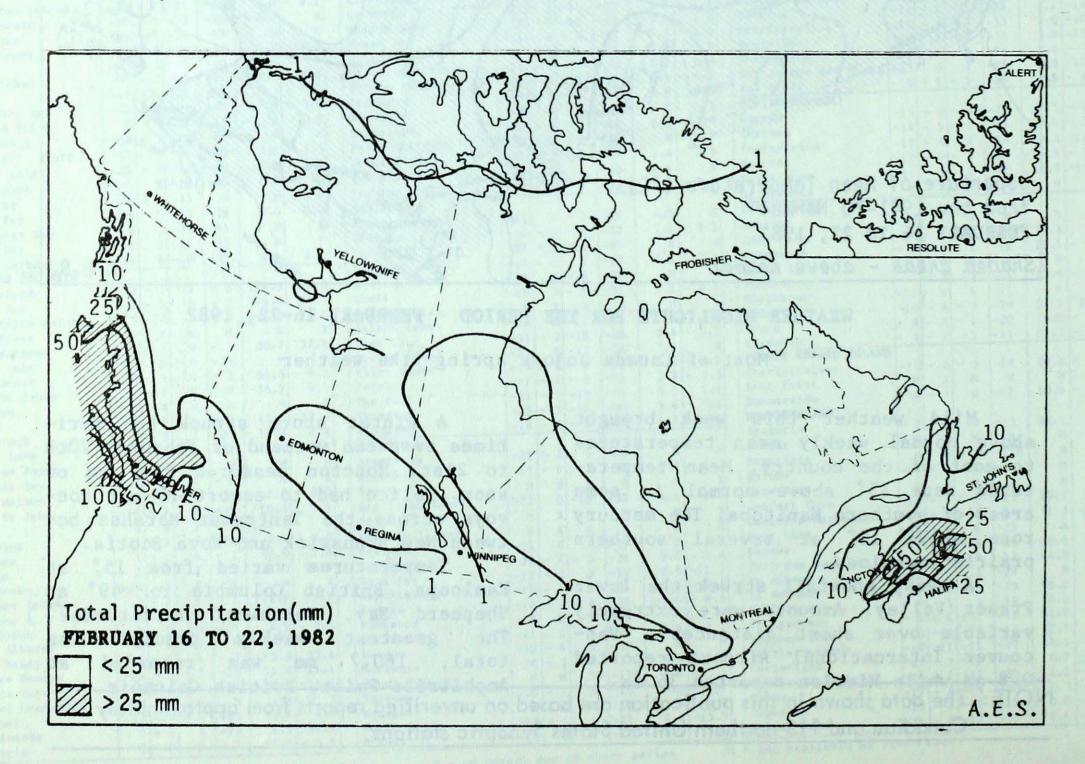
Temperatures varied greatly across the Territories this week. In the southern Mackenzie District mean tempertures were more than 8° above normal in some areas and the mercury rose to -2° at Hay River on the 19th. In contrast, mean temperatures were below normal in the northern Mackenzie District, Baffin Island and the Arctic Archipellago. The temperature fell to -49° at Shepherd Bay.

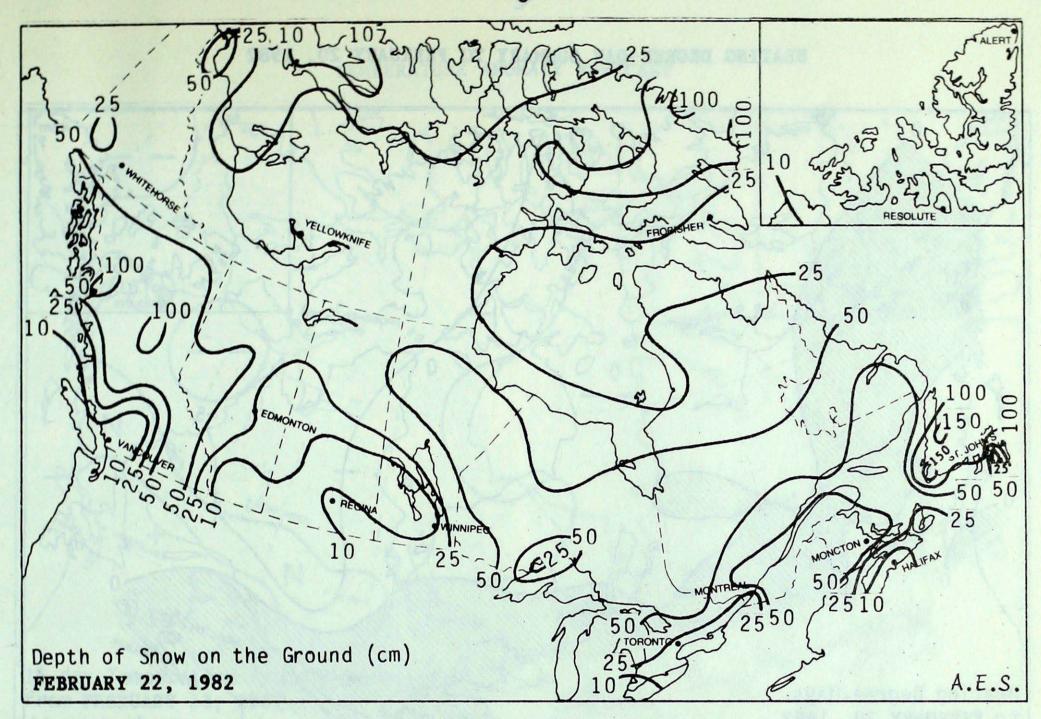
Precipitation totals were very light, but this is normal for this time of year. Hay River recorded 11.6 mm.

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° 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 Aiport 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° above normal in some areas of southern Manitoba. The mercury reached 12° 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° above normal in southern Ontario to 12° above normal in extreme western areas. The mercury rose 4° 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° above normal in many southern areas. The mercury rose to 3° at Maniwaki on February 21st.

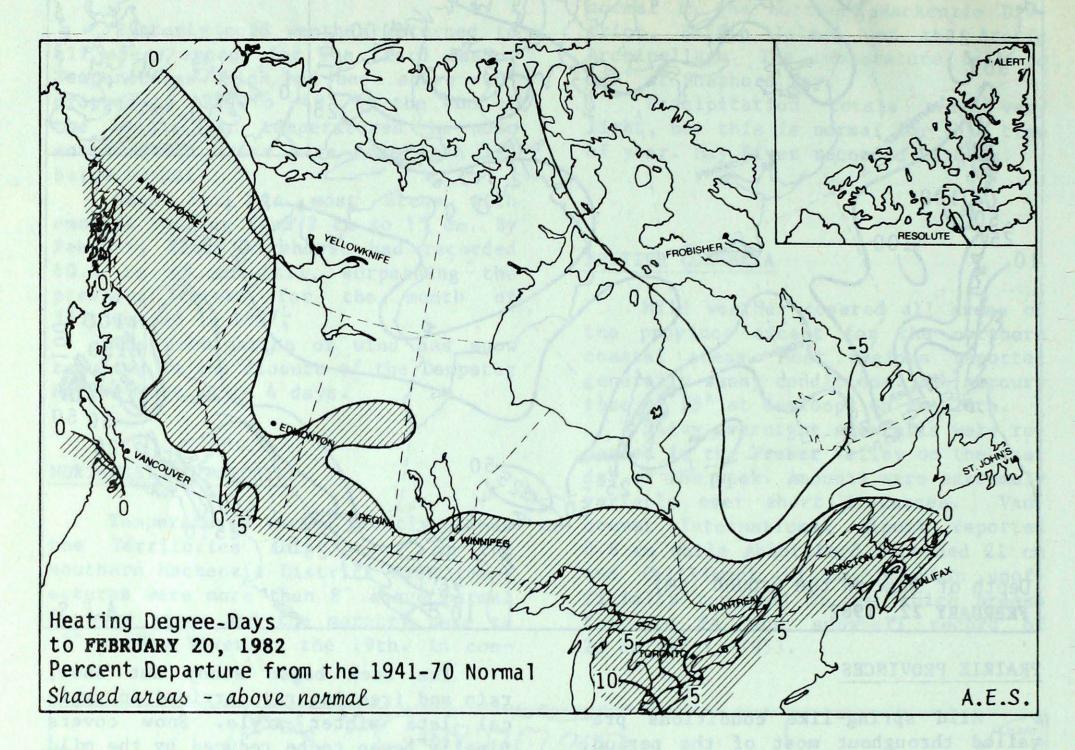
Precipitation totals were below normal with the exception of Sept-Iles which recorded 62.0 mm.

ATLANTIC PROVINCES

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

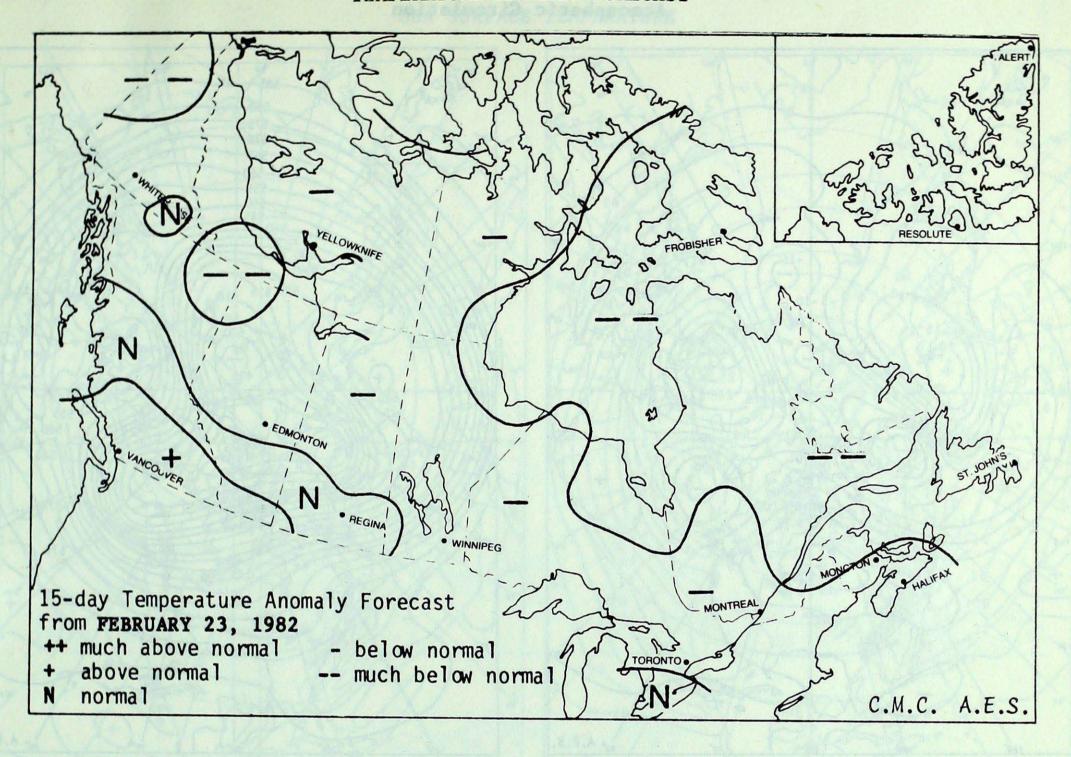
(continued on page 7)

HEATING DEGREE-DAY SUMMARY TO FEBRUARY 20, 1982

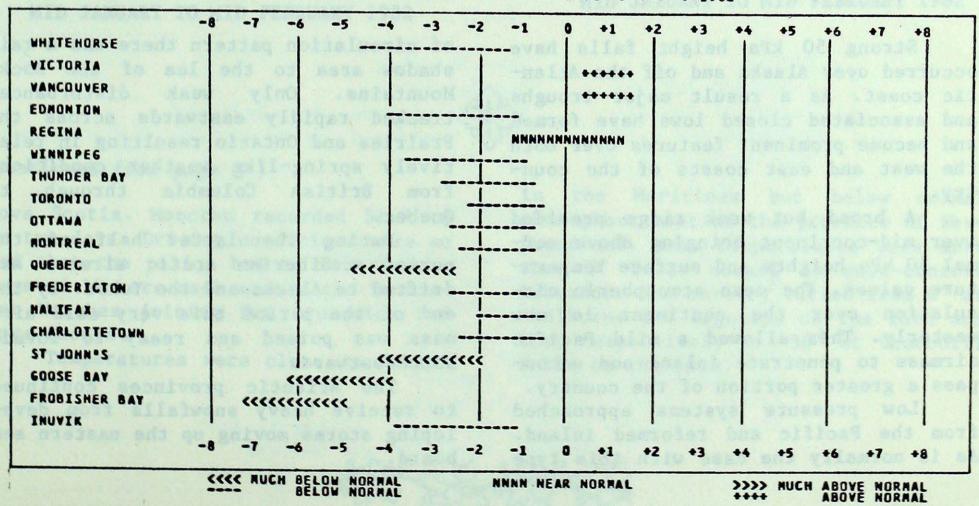


STATION	MONTHLÝ CUMULATIVE TOTAL	MONTHLY DIFF. FROM 1941-70 NORMAL	SEASONAL TOTAL	SEASONAL DIFF. FROM 1941-70 NORMAL	SEASONAL PERCENT OF NORMAL
Resolute	1008.0	-34.0	7543.5	-394.5	95
Inuvik	793.5	-176.5	6467.0	-226.0	97
Whitehorse	639.0	-8.0	5024.5	229.5	105
Vancouver	275.5	-3.5	1940.5	-54.5	97
Edmonton 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	lifax 451.5		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

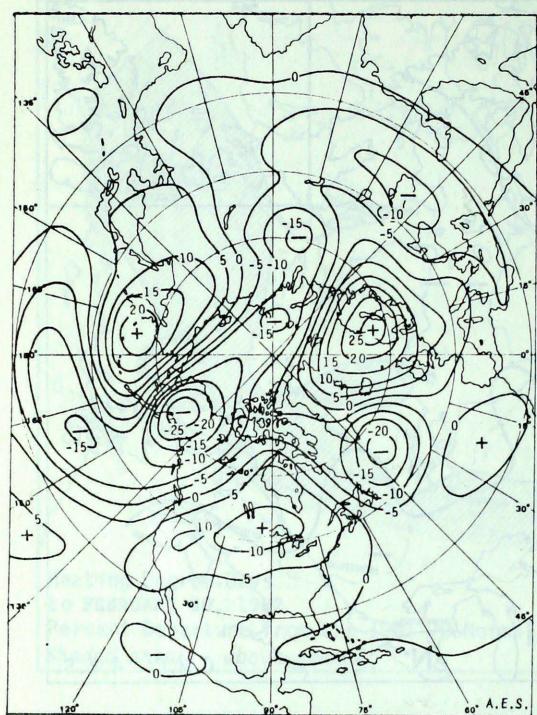
TEMPERATURE ANOMALY FORECAST



TEMPERATURE ANOMALY FORECAST FOR FEB 23 1982 TO MAR 9 1982

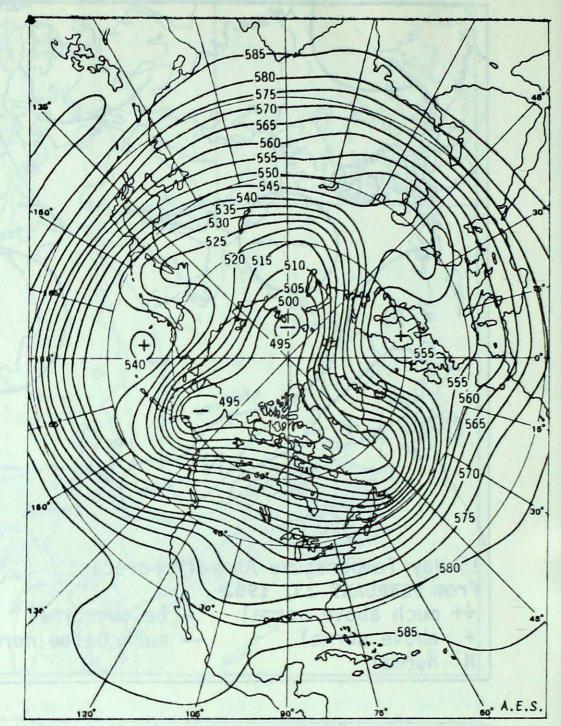


Atmospheric Circulation



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.

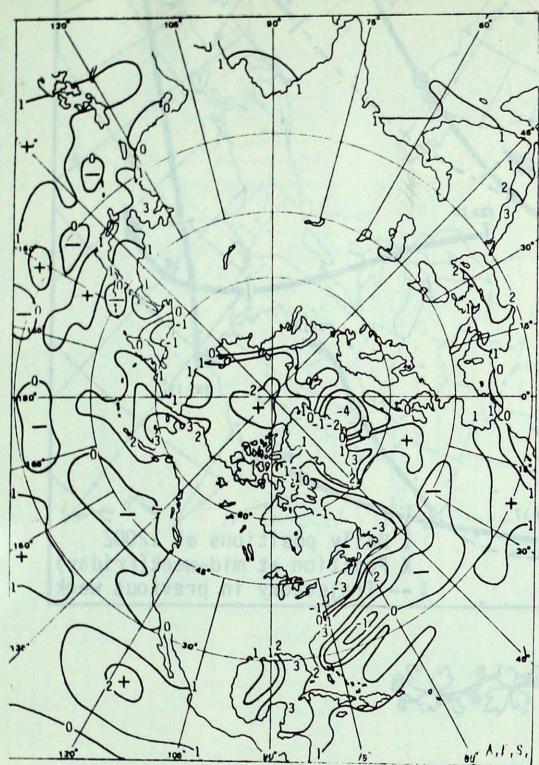
Low pressure systems approached from the Pacific and reformed inland. As is normally the case with this type

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 Ouebec.

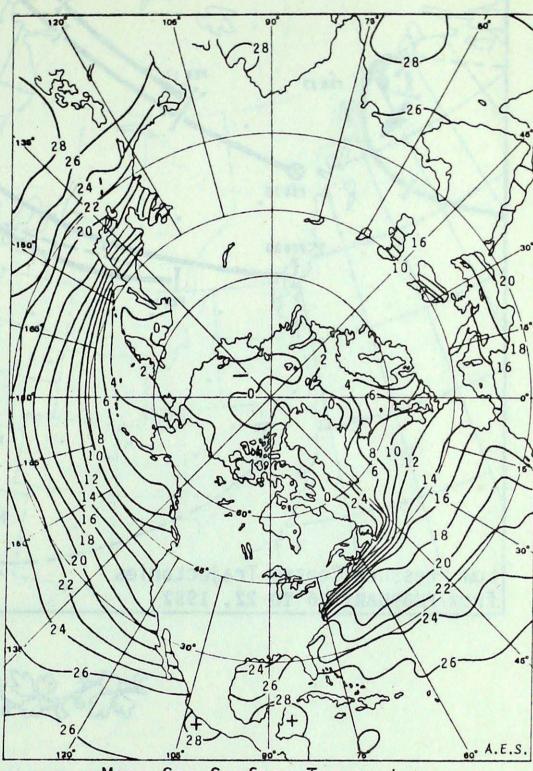
During the latter half of the period a Siberian Arctic airmass had drifted to Alaska and the Yukon. By the end of the period this very cold airmass was poised and ready to invade southeastwards.

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

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)

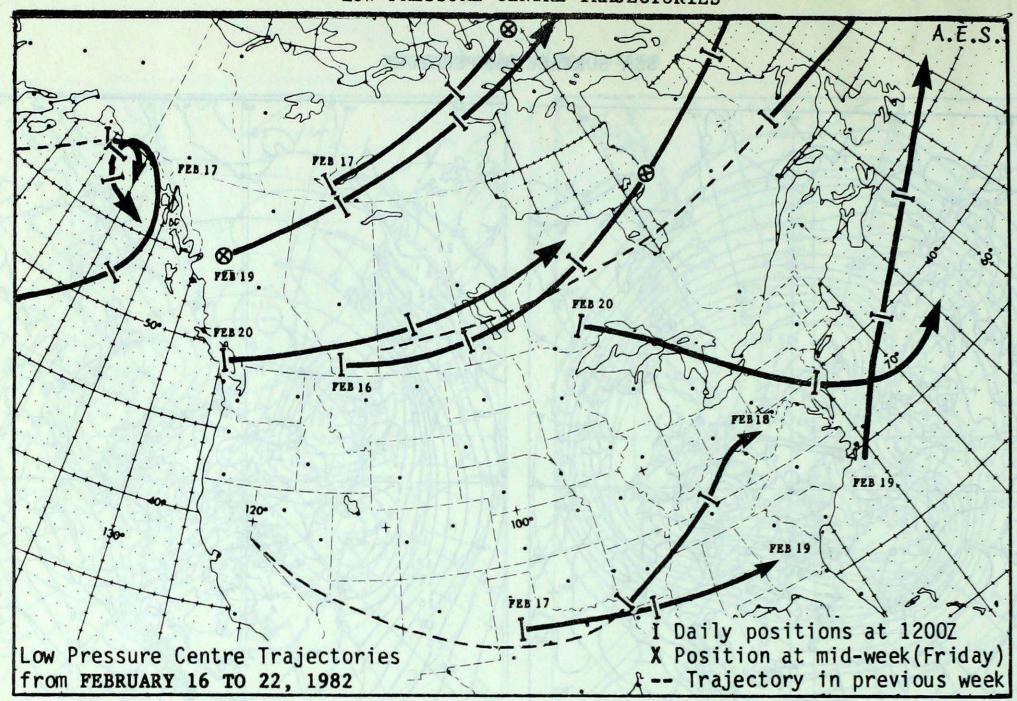
Nova Scotia. Moncton recorded 51.7 cm in two days. Driving conditions were so bad that the police had to escort convoys of 10 cars each across the Tantramar Marshes joining New Brunswick and Nova Scotia.

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

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	TEMPERATURE AND PRECIPIT							
gas transcent	Te	Temperature (°C)			Preci	Precip. (mm)		
Station'	Average	Departure from Normal	Extreme	Extreme	Total	Departure from Normal		
YUKON Burwash	-32	-17	-25	-41	1.6	0.0		
Dawson	-34 M	-11 X	-25 M	-42 M	4.1 M	- 0.2 X		
Komakuk Beach Mayo A	-34 -28	- 6	-27 -20	-38 -38	6.4	- 0.7		
Shingle Point	-33	- 5	-25	-40	1.5	0.6		
Teslin Watson Lake	-20	- X	- 4P - 6	-27P	4.4	- 2.6		
Whitehorse NORTHWEST TERRITORIE	-19 S	- 6	- 5	-30	9.3	5.8		
Cape Parry Cape Young	-32 -32	- 1	-25 -27	-37 -40	0.9	0.1		
Clinton Point	-31	- 1	-27	-36	3.1	2.4		
Contwoyto Lake Coppermine	-30	M 2	-23	-39	M	М		
Fort Reliance Fort Simpson	-20 -25	9 - 1	- 5 - 9	-36 -32	6.7	4.6		
Fort Smith	-16	8	- 2 - 2	-37	3.0	- 0.4		
Nay River Inuvik	-17 -35	- 5	-28	-33 -43	11.6 M	8.3 M		
Lady Franklin Point Nicholson Peninsula	-30 M	1 M	-20 -27P	-37 -45	0.0	0.5		
Norman Wells	-31	- 4	-28	-37	M	M		
Port Radium Robertson Lake	H	X	H	M	M H	X		
Tuktoyaktuk Yellowknife	-33 -21	- 2	-27 - 6	-37 -39	1.2 M	0.9 M		
Baker Lake	-27	7	-11	-41	6.9	6.3		
Coral Harbour Ennadai Lake	-28 M	1 M	-12 M	-40 M	8.3 H	6.5 M		
Jenny Lind Island Pelly Bay	M		-23P -22P	-40 -42	2.2	0.0		
Rankin Inlet	-25	X	- 8	-39	2.6	X		
Shepherd Bay Alert	-35		-23P -29	-49 -41	0.0 M	- 0.6 M		
Broughton Island	-27 -26	- 3	-19 -11	-36 -36	0.0 M	- 1.8 X		
Cape Dorset Cape Dyer	-25	- 4	-16	-35	2.1	-12.4		
Cape Hooper Clyde	-28 -31		-20 -23	-36 -38	0.0	- 2.5		
Dewar Lakes Eureka	-39	M	-21P -25	-44 -46	0.0 M	- 0.5 M		
Frobisher Bay	-29	- 5	-11	-39	4.4	- 2.9		
Gladman Point Hall Beach	-34		-22P -22	-44	0.1 M	- 0.4 M		
Longstaff Bluff Macker Inlet	-33 -32		-22 -23	-43 -41	0.3	0.7		
Pond Inlet	-36	X	-29	-42	0.7	X		
Resolute Byron Bay	-35 M	M	-27 -24P	-42 -40	0.0	- 0.2		
Cambridge Bay Mould Bay	-33 -37		-24 -29	-41 -43	0.7	0.2		
Sachs Harbour	-33		-24	-39	0.9	0.3		
BRITISH COLUMBIA Abbotsford	6	2	12	- 1	99.0	58.1		
Alert Bay Amphitrite Point	6	- 2 X	9	- 1	66.9	43.4 X		
Blue River Bull Harbour	H 3	- X	M 8	M	100.0	69.8		
Burns Lake	- 5	X	7	-20	M	X		
Cape Scott Cape St James	4	- 2 - 1	8	- 1 - 1	51.1	10.2		
Clinton	M 6	X	M 12	- 3	56.3	29.8		
Cranbrook	3	5	10	- 6	13.7	9.1		
Dease Lake Estevan Point	-13 M	1 M	0 M	-25 H	2.8 H	- 5.3 H		
Ethelds Bay Fort Nelson	3 -17	X O	7	0 -28	M 2.7	- 3.9		
Fort St John	- 6	7	- 5	-26	1.7	- 5.8		
Hope Kamloops	5	X 6	10 15	- 3	30.1	26.7		
Langara Lytton	1 5	- 3	6 12	- 3	37.6	7.0		
Mackenzie	- 6	X	3	-19	M	X		
McInnes Island Nanaimo A	6	- 1 X	7	0	91.4 M	46.1 X		
Penticton Port Alberni	4 H	3 X	12 M	- 6 M	8.6 M	4.3 X		
Port Hardy	3	- 1	9	- 2	85.2	51.0		
Prince George Prince Rupert	- 3	- 4	6	-14	80.6	3.5		
Puntzi Mountain Quesnel	- M	X 3	M	M -16	8.6	X - 0.1		
Revelstoke	1	2	8	- 9	28.3	16.4		
Sandepit	1	- 3	7	- 5	44.5	20.8		

_	TON DATA FOR THE	WEEK ENDING UDOU G.M. I. FEE								
No.		Те	Temperature (°C);				Precip. (mm)			
	Station	Average	Departure from Normal	Extreme	Extreme	Total.	Departure from Normal			
	Smithers Stewart Terrace Vancouver Victoria Williams Lake	- 5 - 2 - 3 6 7 0	- 2 2 2 2	5 4 3 13 14 9	-16 -15 - 8 - 1 - 1	7.7 M 78.4 64.2 48.0 7.2	0.6 X 51.0 39.2 27.6 0.7			
	ALBERTA Banff Calgary Cold Lake Coronation Edmonton Intl	0 1 - 7 - 5 - 7	8 10 10 9 6	6 11 6 4 6	-13 - 9 -22 -16 -21	M 1.4 0.1 0.1	M - 3.8 - 5.3 - 4.0 - 5.3			
	Edmonton Namso Edson Fort Chipewyan Fort McMurray Grande Prairie High Level Jasper	- 6 - 7 -15 - 9 - 9 -14 - 1	8 M 2 10 5 3 6	6 7 0 5 4 - 2 7	-18 -21 -31 -27 -23 -28 -17	0.1 5.4 4.7 9.0 4.4 5.1 16.8	- 5.9 4.4 2.1 3.9 - 3.6 4.4 9.5			
	Lac La Biche Lethbridge Medicine Hat Peace River Red Deer Rocky Mountain House	M 3 0 - 8 - 5 - 4	X 10 10 8 7 6	H 12 11 4 7	M - 8 -13 -24 -17 -18	M 2.2 5.0 2.7 0.4 1.8	X - 4.1 - 0.1 - 3.4 - 4.8 - 4.2			
	Slave Lake Vermilion Whitecourt SASKATCHEWAN Broadview Buffalo Narrows Collins Bay	- 7 - 8 - 6 - 5 - 7 -13	M 9 6	8 5 7 6 5 - 1	-21 -23 -20 -14 -18 -31	0.0 4.2 0.2 M 15.4	- 2.5 - 3.5 - 3.6 X M			
	Cree Lake Eastend Cypress Estevan Hudson Bay Kindersley La Ronge	-13 -11 M - 3 - 6 - 3 - 8	X X 12 13 12 7	4 M 5 5 5	-37 M -10 -18 -15	3.5 M 5.5	1.9 - 4.1 - 4.9			
	Meadow Lake Moose Jaw Nipawin North Battleford Prince Albert Regina	- 9 - 2 - 8 - 7 - 7 - 5	X 11 X 10 11	5 8 5 6 7 4	-30 -12 -24 -20 -22 -13	0.0 M 0.0 0.2 0.0	X M X - 2.7 - 3.4 - 2.6			
	Rockglen Saskatoon Swift Current Uranium City Wynyard Yorkton	M - 5 0 -16 - 4	X 12 12 9 X 13	M 5 6 - 1 5 5	M -17 -12 -29 -15 -14	0.0 M 7.1 0.0	X - 2.7 M 3.1 X - 2.0	1000		
,-	MANITOBA Bissett Brandon Churchill Dauphin Gillam	- 4 - 4 -18 - 3 -15	X 13 10 14 X	2 7 - 6 10 - 5	-22 -14 -33 -16 -34	1.5 0.5 13.3 0.2 16.8	X - 2.2 10.2 - 2.7 X	N A F C S		
	Gimli Grand Rapids Island Lake Lynn Lake Norway House Pilot Mound	- 4 M - 8 -14 - 8 - 4	X 13	3 M - 1 - 5 - 1 8	-17 M -30 -32 -32 -14	1.0 H M 15.3 15.5 3.5	2.7 X X 10.1 X 0.0	SSTYPO		
1	Portage The Pas Thompson Winnipeg ONTARIO Armstrong	- 1 - 7 -13 - 2	15 12 6 15	1	-15 -25 -35 -16	н	4.0 0.8 14.3 3.5	ESNABB		
-	Atikokan Barrie Big Trout Lake Britt Caribou Island Earlton Geraldton	- 3 M -11 M M - 9	11 X 11 X X 5 9	H 1 H H 1	-13 H -32 H H -29	6.7 M 11.8 M M M	3.0 X 6.9 X X M 3.7	BCCDDG		
	Geraldton Gore Bay Kapuskasing Kenora Kingston Lansdowne London	- 4 -10 - 4 - 2 -11	5 5 12 4 9	2 1 1 3 1	-32 -13 -28 -15 -13 -29 - 7	6.1 - 9.7 - 7.3 M M	2.5 2.2 1.6 M	PSSSS		
	Moosonee Mount Forest Muskoka Nagagami North Bay Ottawa	-12 M - 2 M - 5 - 5	6 M 7 X 6 4	0 1P 3 M	-34 -12P -12 M -16 -16		10.3 M 3.1 X 1.7 4.2	Ba Ca		

State of the state	Te	Temperature (°C).			Precip. (mr		
Station	Average	Departure from Normal	Extreme	Extreme	Total	Departure	
Petawawa Pickle Lake Red Lake Simcoe Sioux Lookout Sudbury Thunder Bay Timmina Toronto Trenton Upsala Wawa Wiarton Windsor	- 6 - 9 - 6 M - 5 - 7 - 4 - 9 - 1 - 2 M - 6 - 2	10 11 M 11 5 9 8 4 4 X X	0 1 31 1 0 4 2	-32 -27	3.0 16.0 11.3 M 18.0 14.4 3.2 6.3 9.8 9.7 M 11.0 7.1		
QUEBEC Bagotville Baie Comeau Blanc Sablon Border Chevery Chibougamau Gaspé Grindstone Island Inoucdjouac Kuujjuaq Lac Eon Grande Riviere Maniwaki Matagami Mont-Joli Montréal Natashquan Nitchequon Parent Port Menier Poste-de-la-Baleine	-11 -10 -15 M M -13 -10 - 8 -22 -26 M -17 - 7 -10 - 6 -13 -22 M M	2 4 4 M X X X X 1 3 - 4 X X 5 X 0 3 - 3 - 1 X M 3	1 0 - 5 M M - 4 1 - 10 - 13 M - 4 3 - 1 0 3 - 4 - 7 M M - 5	-28 -21 -24 -29 -20 -19 -35 -37 -32 -24 -28 -22 -16 -26 -33 -36	2.6 1.6 13.4 M 4.0 3.8 46.8 M 3.0 M 4.8 4.6 M 4.0 5.5 3.8 3.2 M M	-11. -17. -17. 28. - 3. - 7. -18. -14. -17. - 5.	
Québec Rivière du Loup Roberval Schefferville Sept-Iles Sherbrooke Ste Agathe des Monts Val D'Or NEW BRUNSWICK Charlo Chatham Fredericton Moncton	- 8 M -10 -21 -12 - 8 - 7 -10 - 9 - 7 - 7	5 5 4 2 1 1	0 M 2 - 7 - 2 3 2 0	-21 M -25 -37 -23 -27 -21 -26 -23 -21 -25 -21	1.4 2.0 1.9 4.4 8.7 15.2 22.7 22.0 62.7	- 8.4 -14.0 - 3.9 - 4.9 2.5 - 0.4 38.6	
Saint John St Stephen NOVA SCOTIA Amherst Eddy Point Greenwood Sable Island Shearwater Shelburne Sydney Truro Yarmouth PRINCE EDWARD ISLAND	- 7 M - 6 - 5 - 2 - 4 - 3 - 6 - 5 - 3	0 x x x 0 - 1 0 x 0 4	3 M M 3 4 6 4 6 4 5	-22 M -18 -19 -10 -17 -18 -18 -21 -14	29.4 M 37.5 12.1 11.7 15.5 M 59.6 13.2		
Charlottetown East Point Summerside NEWFOUNDLAND Argentia Badger Bonavists Burgeo Cape Race Comfort Cove Daniel's Harbour Deer Lake Gander Port aux Basques St Albans St Anthony St John's St Lawrence Stephenville Battle Harbour Cartwright Churchill Falls Goose	- 6 - 6 - 6 - 7 - 7 - 7 - 7 - 10 - 12 - 13 - 10 - 5 - 9 - 15 - 18 - 22 - 19	1 X X X 3 2 X 3 5 -2 X 3 5 -2 -4 0 -4 X 3 2 5 5 6 6 7 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7	2 4 5 5 1 3 3 4 4 7 2	-20 -22 -26 -24 -36 -32	15.7 M 24.7 14.2 M 23.9 7.4 8.2 24.8 15.6 M 23.9 15.7 22.1 M 1.2 1.3 1.5	17.0 13.3 1.1 14.0 M X 13.9 8.5 4.2 M 17.6 6.4	
lopedale	20 -	4 -	9 -	-27 -32	4.9	5.4	