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A WEEKLY REVIEW OF CANADIAN CLIMATE

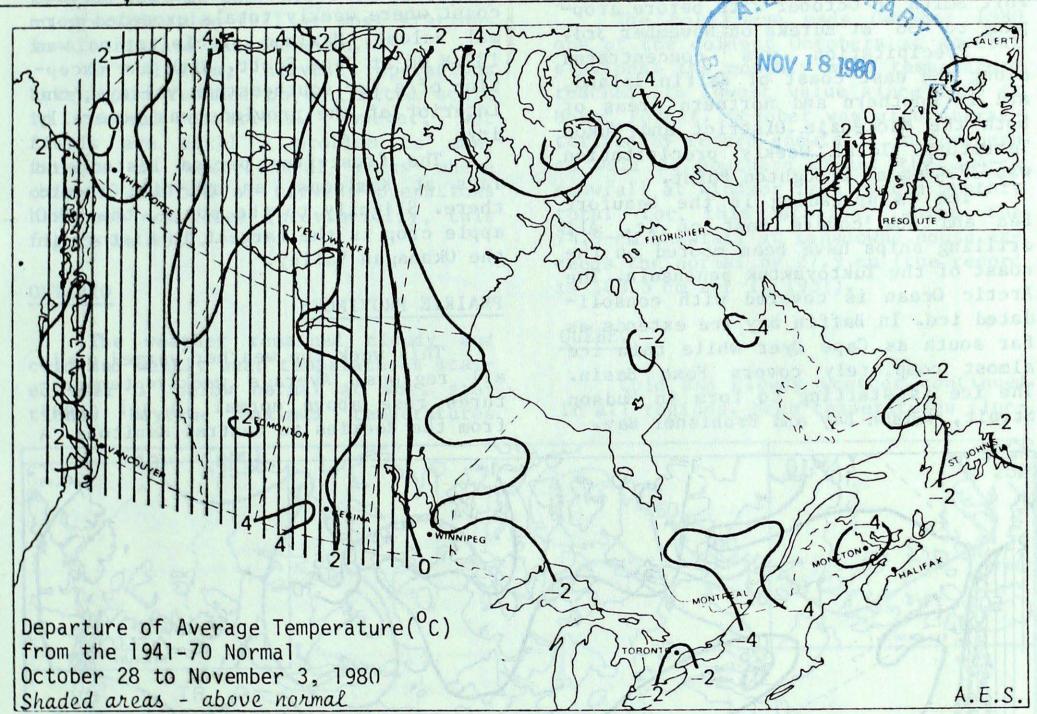
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temporatile spiritemano, eveds exprisent THE CANADIAN CLIMATE CENTRE, ATMOSPHERIC ENVIRONMENT SERVICE, 4905 DUFFERIN ST., DOWNSVIEW, ONTARIO M3H 5T4

NOVEMBER 7, 1980

(Aussi disponible en français)

VOL.2 NO.44



WEATHER HIGHLIGHTS FOR THE WEEK - OCTOBER 28 TO NOVEMBER 3, 1980

Warm out West, Cold in the East

The temperature regime was characterized by a strong east-west gradient near the centre of Canada. Warm and generally sunny weather was enjoyed in the West while cold and cloudy weather prevailed in the East. This resulted in a few high temperature records out West and numerous low temperature records in the East.

Some fields are still too wet for harvest operations in west-central Alberta but the overall harvesting is 95% complete in this province.

Temperatures ranged from 19° at Medicine Hat, Alberta and Windsor, Ontario to -38° at Eureka, N.W.T. Maximum precipitation was 132.8 mm at Cape Scott, 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 AND NORTHWEST TERRITORIES

Temperatures cooled considerably in eastern regions but remained above normal in western areas. Weekly temperature averages were more than 5° above normal on the Beaufort Sea shoreline, but were nearly 7° below in the Foxe Basin area. With this varied temperature regime, the mercury reached 9° at Fort Smith on October 29th before dropping to -38° at Eureka on November 3rd.

Precipitation was concentrated along the east coast of Baffin Island, and in southern and northern areas of both the Mackenzie District and Yukon Territory. Total weekly precipitation was 37.4 mm at Broughton Point.

Ice is spreading in the Beaufort Sea and now covers most of it. All drilling ships have been moored on the coast of the Tuktoyaktuk peninsula. The Arctic Ocean is covered with consolidated ice. In Baffin Bay ice extends as far south as Cape Dyer while thin ice almost completely covers Foxe Basin. The ice is starting to form in Hudson Strait, Hudson Bay and Frobisher Bay.

BRITISH COLUMBIA

A mild air mass spread into all regions during the week. Mean temperatures rose above normal in all areas, thus producing a few high records. The mercury reached 18° on November 1st at Abbotsford and Kamloops and fell to -10° on October 28th at McInnes Island.

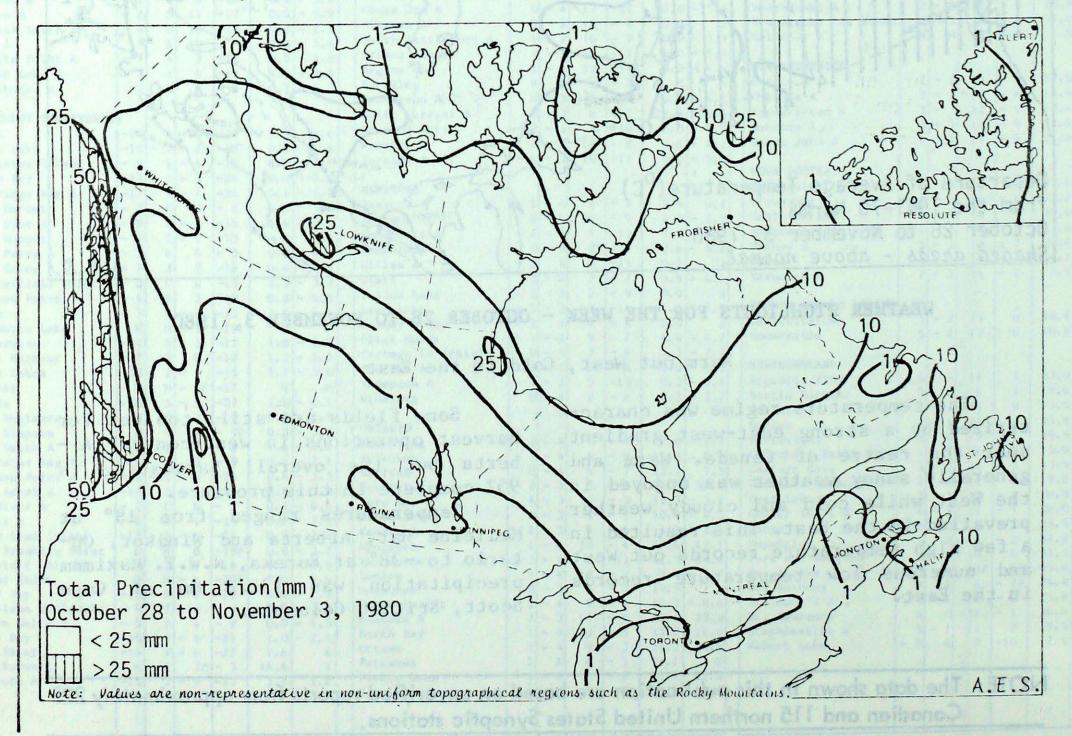
MIRCHARD MINE

Precipitation was abundant on the coast where weekly totals exceeded normal values. Maximum precipitation was 132.8 mm at Cape Scott. With the exception of a few southeastern valleys, the interior of the province was generally dry.

The frost-free period lasted 188 days at Kamloops, an all-time record there. Slightly to the south, the 1980 apple crop is the largest in history in the Okanagan Valley.

PRAIRIE PROVINCES

This week the weather warmed up in all regions. Average weekly temperatures rose above normal in all areas from the Rockies to central Manitoba. A



maximum of 19° was recorded on November 1st at Medicine Hat following a minimum of -11° at Uranium City on October 31st. With the return to above seasonal temperatures, the snowcover has disappeared throughout all but a few extreme northern districts.

Significant precipitation was recorded in northern Manitoba; a total of 25.8 mm fell at Churchill. In contrast, no precipitation fell at most stations in Alberta and Saskatchewan.

In Alberta, harvest operations have again resumed on a limited scale in central districts. However, wet fields are still a problem to many farmers in west-central areas where only 20 to 50% of harvest operations has been completed (provincially, this figure is 95%).

ONTARIO

The weather remained cloudy and cold and weekly mean temperatures stayed near 3° below normal at most stations. Daytime maximum temperatures

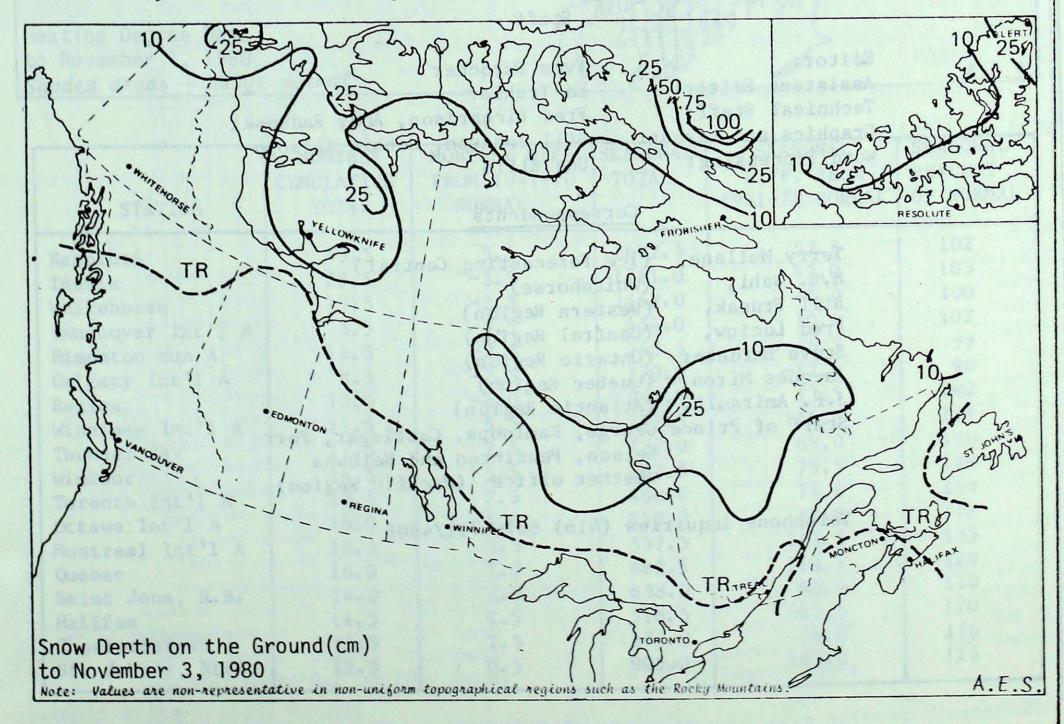
reached 19° on November 3rd at Windsor 5 days after the minimum of -19° at Armstrong.

Precipitation was light, the largest accumulation being only 18.0 mm at Moosonee. The snowcover has diminished considerably; only 11 cm of the 25-cm snowfall which occurred on October 28th at Lansdowne House remains on the ground.

The cold wave made October 1980 one of the coldest Octobers at several stations: the monthly mean temperature reached its lowest value since 1925 at Mount Forest. October was also characterized by record snowfalls in northern as well as southern areas: the 2.4-cm snowfall at Windsor is a record monthly total for this station, while the 74.9-cm snowfall at Lansdowne House exceeds the normal by 27.9 cm (the record is 108.5 cm set in 1951).

QUÉBEC

Cold and cloudy weather continued in all regions. Mean temperatures fluc-



tuated between 2 and 5° below normal at most stations. The cold air produced several low temperature records on October 28th and during the first few days of November. Extreme values were 11° at Montréal on October 31st and -16° at Fort Chimo two days later.

Eastern regions of the province enjoyed some sunshine, reaching 57% of the total possible at Baie Comeau. Despite the generally cloudy weather, precipitation was light everywhere, with a maximum of 20.6 mm reported at La Grande Rivière.

ATLANTIC PROVINCES

It was a dry and cool week. Most regions experienced cooler weather than the previous week's with temperatures averaging between 2 to 4° below normal. A few low temperature records were set in Newfoundland. Temperatures ranged between 13 and -13°, extremes being recorded at Sable Island and Churchill Falls, respectively.

Precipitation was below normal except at Battle Harbour which recorded a weekly total of 21.6 mm.

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CLIMATIC PERSPECTIVES

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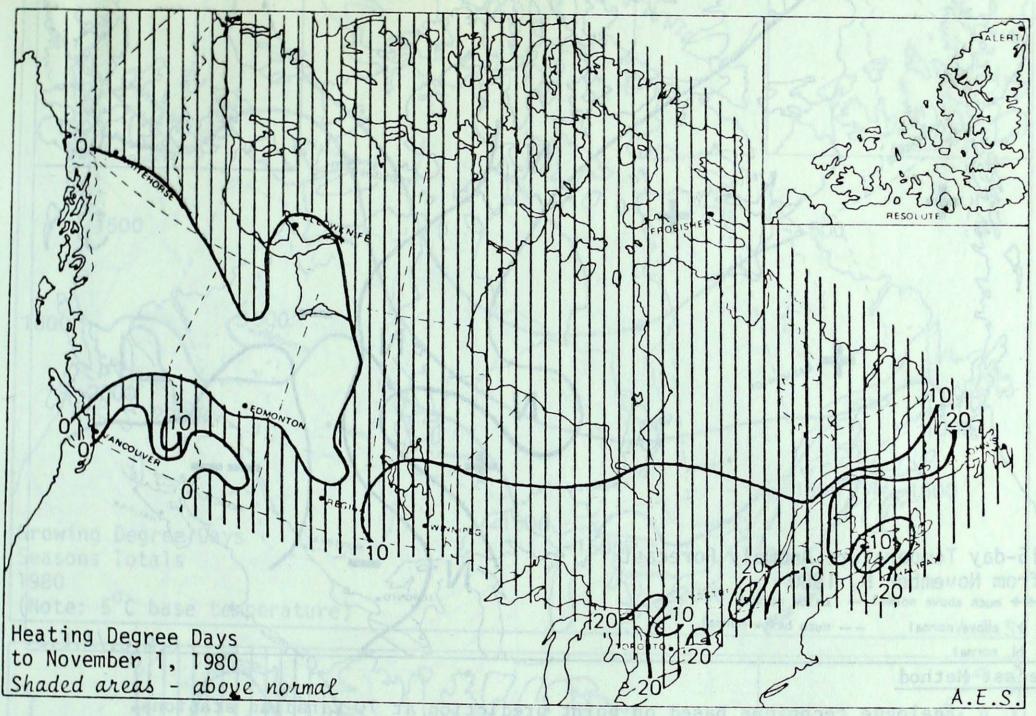
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HEATING DEGREE-DAY SUMMARY TO NOVEMBER 1, 1980

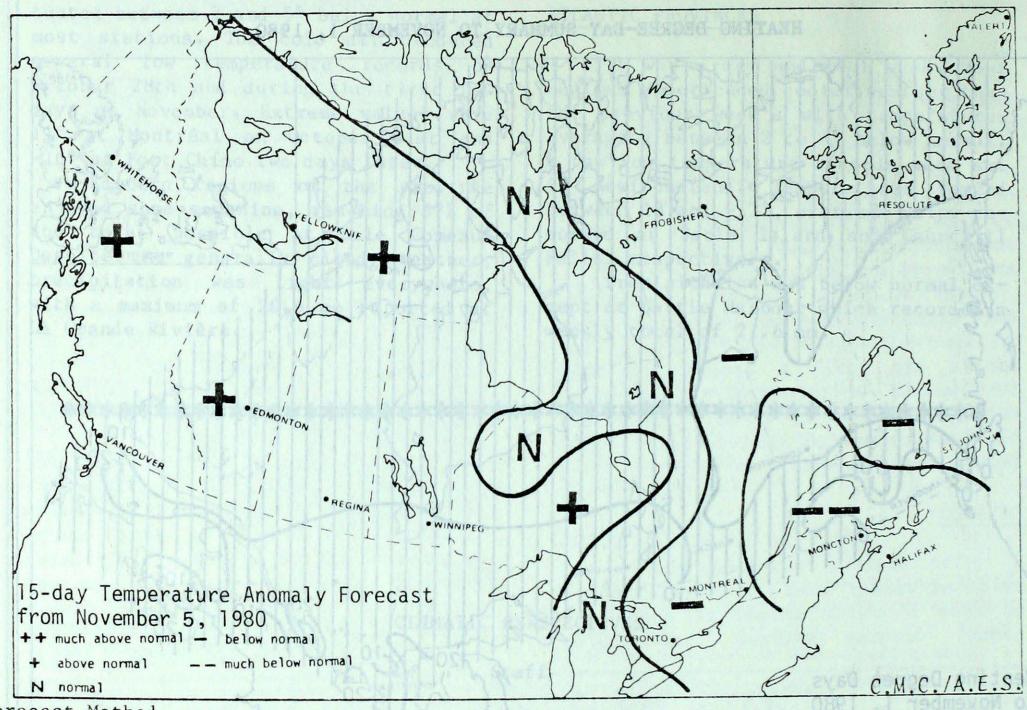


STATION	MONTHLY CUMULATIVE TOTAL	MONTHLY DIFF. FROM 1941-70 NORMAL	SEASONAL TOTAL	SEASONAL DIFF. FROM 1941-70 NORMAL	SEASONAL PERCENT OF NORMAL
Resolute	43.5	5.5	2692.5	52.5	102
Inuvik	28.5	-3.5	1711.0	42.0	103
Whitehorse	19.5	-2.5	1162.0	-5.0	100
Vancouver Int'l A	5.5	-4.5	454.0	10.0	102
Edmonton Mun A	14.5	-2.5	740.5	-8.5	99
Calgary Int'l A	8.5	-7.5	770.0	-12.0	98
Regina	13.0	-4.0	897.5	13.5	102
Winnipeg Int'l A	21.5	5.5	722.5	116.5	119
Thunder Bay	17.5	2.5	777.0	69.0	110
Windsor	14.5	5.5	367.5	79.5	128
Toronto Int'l A	13.5	2.5	466.0	74.0	119
Ottawa Int'l A	16.0	4.0	552.0	89.0	119
Montreal Int'l A Quebec	14.5	2.5	557.5	143.5	135
	16.0	1.0	682.5	113.5	120
Saint John, N.B. Halifax	14.0	2.0	658.0	60.0	110
Charlottetown	11.5	1.5	518.5	85.5	120
St. John's, Nfld.	13.5	1.5	574.0	78.0 183.0	116 125

Note: & Inchesty denotes departure from the 1949-73 mend.

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15 DAY TEMPERATURE ANOMALY FORECAST



Forecast Method

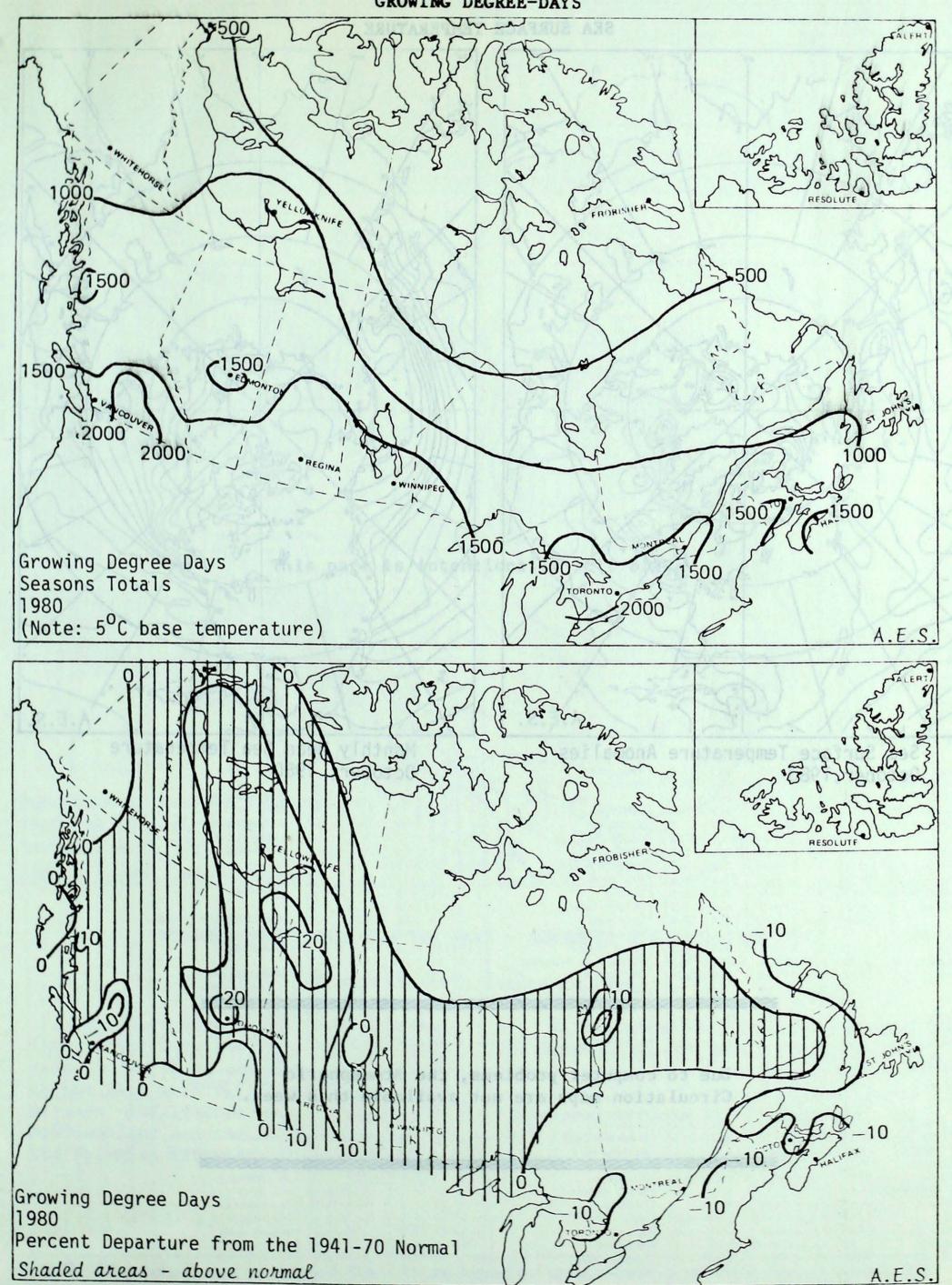
Analogue technique based on point prediction at 70 Canadian stations.

Temperature Scale

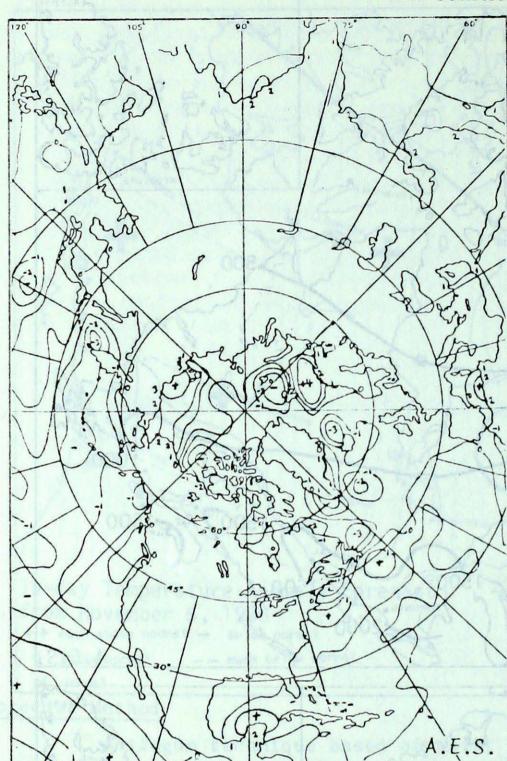
Each temperature class is designed to contain 20% of the historically observed 15 day means pertinent to specific location and time of year:

Station	Current Temperatur	re Anomaly Forecast
Whitehorse	Above Normal	From 1.2° to 4.2° above Normal
Victoria	Above Normal	From 0.4° to 1.2° above Normal
Vancouver	Above Normal F	from 0.4° to 1.3° above Normal
Edmonton	Above Normal F	From 1.1° to 3.7° above Normal
Regina	Above Normal	From 1.0° to 3.2° above Normal
Winnipeg	Above Normal	From 0.9° to 3.0° above Normal
Thunder Bay	Above Normal F	From 0.7° to 2.4° above Normal
Toronto	Below Normal	From 0.5° to 1.8° below Normal
Ottawa	Below Normal F	From 0.6° to 2.1° below Normal
Montreal	Below Normal F	From 0.6° to 2.0° below Normal
Quebec	Much Below Normal M	lore than 1.9° below Normal
Fredericton	Much Below Normal	Nore than 1.9° below Normal
Halifax	Much Below Normal M	lore than 1.6° below Normal
Charlottetown	Much Below Normal	Nore than 1.7° below Normal
St. John's	Below Normal F	rom 0.4° to 1.3° below Normal
Goose Bay	Below Normal	From 0.7° to 2.2° below Normal
Frobisher Bay		From 0.9° to 3.0° below Normal
Inuvik	Above Normal	From 1.0° to 3.4° above Normal

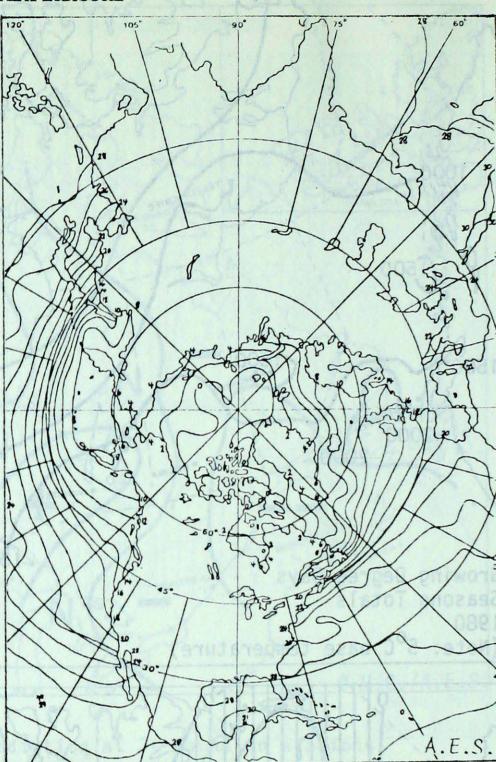
Note: Anomaly denotes departure from the 1949-73 mean.



SEA SURFACE TEMPERATURE



Sea Surface Temperature Anomalies October, 1980



Monthly Mean Sea Temperature October, 1980

Due to computer problems, the Atmospheric Circulation maps are not available this week.

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	Temperature (°C)			Precip. (mm)		
Station	Average	Departure from Normal	Extreme	Extreme	Total	Departure from Normal
Abbotsford A	10	2	18	2	59.7	19.0
Alert Bay	10	2	13	7	44.9	0.5
Blue River	M	Х	121	- 2	М	X
Bull Harbour	10	2	15	5	63.2	7.9
Burns Lake Cape Scott	M 11	X 3	12P	- 1P	M 132.8	50.0
Cape St. James	10	2	14	7	91.2	44.7
Castlegar A	7	2	14	2	13.8	- 2.2
Comox A Cranbrooke	10	3	13	- 3	74.4	43.8
Dease Lake	1	3	7	- 7	8.0	- 0.0
Estevan Point	M	M	12P		М	M
Fort Nelson A	0	5	10	- 6 - 3	3.6	- 2.5 - 8.2
Fort St. John A Kamloops A	8	3	18	- 2	7.2	2.5
Langara	10	3	14	5	95.2	34.7
Lytton	9	3	15	1	12.0	- 4.2
Mackenzie A McInnes Island	M 9	X	11P 14	- 5P -10	M 58.8	-22.1
Penticton A	9	3	14	0	4.4	- 0.7
Port Hardy A	10	3	13	5	64.0	12.3
Prince George A Prince Rupert A	5	3 2	14	- 2	10.4	- 4.3 21.1
Quesnel A	6	2	16	- 2	9.6	- 4.6
Revelstoke A	6	3	12	. 0	29.0	8.1
Sandspit Smithers A	10	2	14	- 3	85.1 13.8	45.2
Spring Island	м	M	12P	8	M	M
Stewart A	M	X	9	OP	162.8	
Terrace A Vancouver Int'l A	7	2 2	12	2	62.7 57.3 41.2	29.0
Victoria Int'l A	10		15	4	41.2	16.4
Williams Lake A	6	3	14	- 1	8.0	0.4
YUKON						
CONTRACTOR	- 9 - 6	100		-19 -14	2.7	13.0
		5		-18		9.9
Mayo A	- 3	3	5	-15	8.5	1.0
	-10 - 2			-21 - 9	8.5	
Whitehorse A	- 2 - 1			-11	16.6	2.1
NORTHWEST TERRITORIES						
				-33	5.2	200 Million (COS)
				-23	9.3	26.2
Byron Ray	-17	- 1	- 3	-28	0.0	- 1.5
Cambridge Bay A	-19	- 3	- 6	-30	No. 1	- 3.5
Cape Dorset Cape Dyer A			- 3P - 5		3.6	-10.5
Cape Hooper	-14	- 3	- 7	-19	6.1	- 3.5
Cape Parry A	- 7	5	- 1	-14	7.1	
		- 3		-21 -21	13.6	
Clinton Point	- 8	4	1	-17	5 3	0 0
		- 3		-21	6.9	0.9
Contwoyto Lake Coppermine	- M			-27P -21	7.4	2.3
Coral Harbour	3750	7		-26		- 5.3
Dewar Lakes	-20	- 5	-10	-28	0.4	- 8.4
Ennadai Eureka	-31	1		-18 -38	M 0.0	- 1.3
Fort Reliance	- 5	1	2	-14		14.5
Fort Simpson	M	M	1 P	-16P	7.0	- 0.3
Fort Smith A Frobisher Bay A	0	- 3	9	- 6 -21		0.7
	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	- 4		-21 -27		- 4.6
Hall Beach A	-23	- 7	-11	-29	0.0	- 4.5
	- 1	2	8	- 9 -25	6.9	- 4.0
		- 4	- 6	-25 -27		- 0.6
	-11	2	0	-21	3.8	1.3
Lady Franklin Point	-171	- 4		-25 -28	2.0	- 1.2 - 3.1
Lady Franklin Point Longstaff Bluff		- 1				
Lady Franklin Point Longstaff Bluff Mackar Inlet	-22			-31	0.2	- 0.6
Lady Franklin Point Longstaff Bluff Mackar Inlet Mould Bay Nicholson Peninsula	-22 -20 - 8	3 -	-14 - 2	-18	4.8	1.6
Lady Franklin Point Longstaff Bluff Mackar Inlet Mould Bay Nicholson Peninsula Norman Wells A	-22 -20 - 8 - 6	3 · 5 ·	-14 - 2 - 1	-18 -16	4.8	1.6
Lady Franklin Point Longstaff Bluff Mackar Inlet Mould Bay Nicholson Peninsula Norman Wells A Pelly Bay Pond Inlet	-22 -20 - 8 - 6	3 - 5 - 4 - M -	-14 - 2 - 1 -16	-18	4.8	1.6
Lady Franklin Point Longstaff Bluff Mackar Inlet Mould Bay Nicholson Peninsula Norman Wells A Pelly Bay Pond Inlet Port Burwell	-22 -20 - 8 - 6 M	3 - 5 - 4 - M - X - X	-14 - 2 - 1 -16 - 8	-18 -16 -27P	4.8 4.0 0.0 2.9 M	1.6 - 2.0 - 1.6

IUN DATA FOR THE	,				Precip. (mm)		
Station	Average	Departure from Normal	Extreme	Extreme Minimum	Total	Departure from Normal	
Sachs Harbour Shepherd Bay A Tuktoyaktuk Yellowknife A	-16 -21 M - 3	- 4 M		-27 -31 -17 -10	4.5 1.0 15.5 25.6	The Contract of the Contract o	
ALBERTA Banff Calgary Int'l A Cold Lake A Coronation A Edmonton Int'l. A Edmonton Mun. A Edmonton Namao A Edmonton Namao A Fort Chipewyan Fort McMurray A Grande Prairie A High Level A Jasper Lethbridge A Medicine Hat A Peace River A Red Deer A Rocky Mountain House Slave Lake A Vermilion A Whitecourt	4 6 3 4 4 5 4 3 - 1 2 3 0 5 8 6 3 4 M M M M M M M M M M M M M M M M M M	4 3 3 2 3 2 3 3 3 3 3 3 3 M 3 3 3	11 17 13 14 13 13 15 11 13 12 13 12 18 19 12 15 14P 17 14 12	- 3 - 5 - 5 - 7 - 8 - 3 - 4 - 6 - 9 - 10 - 3 - 2 - 6 - 4 - 7 - 7 - 7 - 4 - 5 - 7	0.0 0.0 0.0 0.0 0.0 0.0 1.6 0.3 0.2 3.2 0.2 0.0 0.6 0.0	- 3.4 - 4.9 - 1.9 - 1.7 - 4.5 - 2.5 - 3.2 - 4.1 - 5.2 - 6.9 - 2.2 - 7.1	
SASKATCHEWAN Broadview Buffalo Narrows Cree Lake Estevan A Hudson Bay Kindersley La Ronge A Meadow Lake A Moose Jaw A Nipawin A North Battleford A Prince Albert Regina A Rockglen Saskatoon A Swift Current A Uranlum City Wynyard Yorkton A	3 3 3 3 7 1 4 M 5 1 2 6 1 4 2 2 3 M 3 5 5 - 2 3 2	4 2 X 4 X 3 3 2 X	15 12 10 17 9P 15 12 14 17 10 15 16 14 13P 16 15 8 12	- 9 - 4 - 6 - 5 - 8 - 10 - 4 - 7 - 6 - 8 - 10 - 3 - 6 - 5 - 11 - 5 - 9	0.0 1.6 0.5 0.0 0.0 0.0 0.7 0.0 0.0 0.9 M 0.6 0.6 6.0 3.4	X - 3.5 - 3.2 - 2.0 X - 1.7 - 2.7 - 0.6	
MANITOBA Bissett Brandon A Churchill A Dauphin A Gillam A Gimli Island Lake Lynn Lake Norway House Pilot Mound Portage la Prairie The Pas A Thompson A Winnipeg	0 2 - 8 2 - 5 1 M - 3 - 2 2 2 2 0 - 6 1	- 2 1 - 2 0 X 0 X 0 X 0 X 0 0 1 - 3 0	8 17 1 11 3 10 4P 7 6 16 14 8 4	-10 - 9 -16 - 9 -13 - 8 -16 -13 - 8 - 8 - 9 - 19 - 9	1.4 25.8 0.0 10.5 0.4 7.0 8.8 1.6 0.6 1.8 0.0 5.2	15.6 - 4.6 X - 7.5 X 1.0 X - 2.7	
ONTARIO Armstrong Atikokan Earlton Geraldton Gore Bay A Kapuskasing Kenora A Kingston Lansdowne London Moosonee Mount Forest Muskoka A North Bay Ottawa Petawawa Pickle Lake Red Lake A	- 1 - 2 4 - 3 1 5 - 4 4 - 3 4 3 0	- 3 - 1 - 3 - 4 - 2 - 4 - 1 - 2 - 3 - 3 - 4 - 2 - 3 - 4 - 2 - 3 - 4 - 2 - 3 - 4 - 2 - 3 - 4 - 2 - 3 - 4 - 2 - 3 - 4 - 2 - 3 - 4 - 2 - 3 - 4 - 2 - 3 - 4 - 2 - 3 - 4 - 4 - 2 - 3 - 4 - 4 - 2 - 3 - 4 - 4 - 2 - 3 - 4 - 4 - 2 - 3 - 4 - 4 - 2 - 3 - 4 - 4 - 2 - 3 - 4 - 4 - 2 - 3 - 4 - 4 - 2 - 3 - 4 - 4 - 2 - 3 - 4 - 4 - 2 - 3 - 4 - 4 - 2 - 3 - 4 - 4 - 2 - 3 - 4 - 4 - 4 - 2 - 3 - 4 - 4 - 2 - 3 - 4 - 4 - 4 - 4 - 4 - 4 - 4 - 4 - 4 - 4	8 7 9 7 8 11 5 16 5 13 13 12 11 12 5	-19 -14 - 7 -15 - 2 -13 - 3 -13 - 2 -14 - 1 - 3 - 8 - 5 - 7 -13 -13	0.2 3.0 2.4 0.2 11.3 0.0 0.0 14.6 1.4 18.2 3.2 4.2 0.6 1.0 1.0 2.2	-13.7 -11.6 -12.4 -10.6 -14.2 -5.3 -9.6 -13.8 -1.2 -15.8 2.8 -16.5 -15.0 -19.6 -16.6 X -10.4 -5.1	

TEMBER 4, 1960	r -					
	Temperature (°C)			Precip. (mm		
Station	Average	Departure from Normal	Extreme	Extreme	Total	Departure from Normal
Simcoe Sioux Lookout A Sudbury A Thunder Bay A Timmins A Toronto Int'l A Trenton A Trout Lake Wawa A Wiarton A Windsor A	6 - 1 0 2 2 - 2 5 3 3 - 4 4 5 5		2 8 3 9 1 13 4 6 2 14 4 12 2 3 X 9 3 16	0 -13 - 8 - 9 - 9 1 - 4 -11 -10 - 2 - 3	0.0 0.3 0.2 5.3 0.0 0.0 19.2 7.1 3.2	4
QUÉBEC Bagotville A Baie Comeau Blanc Sablon Border Chibougamau Fort Chimo A Gaspé A Grindstone Island Inoucdjouac Koartak La Grande Rivière A Maniwaki Matagami A Mont-Joli A Montréal (A int.) Natashquan A Nitchequon Port Menier Poste-de-la-Baleine Québec A Rivière du Loup Roberval A Schefferville A Sept-Iles Sherbrooke A Ste-Agathe des Monts	- 6 0 0 - 2 0 0 M - 1 - 7 - 2 0 - 2		1 - 8P 2 1 8 8 6 1 1 0P 1 8 8 8 2 7 1 1 5 0 4 2 8 8 7 7 1 8 8 8 7 7 7 8 8 8 8 9 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6	-14 -16 - 7 - 3 - 8 -13P -13 - 9 -12 - 5 - 7 - 7 -12 - 4 -11 - 9 - 6 - 10 - 14 - 8 - 11 - 12	4.0 8.3 M 15.9 11.1 2.0 3.8 8.8 M 20.6 1.6 7.4 0.0 2.2 3.6 8.4 2.8 10.7 4.8 M 1.1 10.1 6.8 6.2 6.0	X 0.9 X -16.9 1.0 X -13.5 X -16.2 -15.4 -20.4 -21.9 -1.0 -13.3 M -14.8 -5.4 -10.8 -19.2
Val d'Or A NEW BRUNSWICK Charlo A Chatham A Fredericton A Moncton A Saint John A	0 0 1	- 4	6 7 9 8	- 8 - 8	0.0 1.8 0.0 1.0	- 8.1 -13.8 -26.6 -33.4 -24.2 -35.5
NOVA SCOTIA Eddy Point Greenwood A Sable Island Shearwater A Sydney A Truro Yarmouth A	3 7 4 3 3	X - 4 - 3 - 3 - 4 - 3 - 2	10 13° 11 10 9	- 3 - 4 - 3 - 4 - 3 - 1	0.9 18.7 1.4 3.8	-23.6 -11.4 -26.4 -32.2 -24.1
PRINCE EDWARD ISLAND Charlottetown Summerside	2 2	- 4 - 4	8 7		1.6	
NEWFOUNDLAND Argentia VTMS Battle Harbour Bonavista Burgeo Cartwright Churchill Falls A Comfort Cove Daniel's Harbour Deer Lake Gander Int'l A Guome A Hopedale Port aux Basques St. Albans St. Anthony St. John's A St. Lawrence Stephenville A Wabush Lake	4 3 - 1 - 6	- 3 - 2 - 2 - 2 - 2 - 2 - 2	6 9 8 4 0 8 7 7P	-13	3.6 1.8 1.1 2.8 2.0 17.4 8.1 3.5 0.6 10.0 17.0 4.6 18.6 14.0 0.0 11.0	2.5 -19.6 -26.9 -16.7 - 8.0 -20.6 - 2.2 -11.5 -18.2