

The below average temperatures

An intense storm brought heavy

centred in eastern Canada have extended westward to incorporate nearly all of Alberta and the southern half of British Columbia. The Yukon and Northwest Territories, however, remained well above normal.

Conditions were generally dry throughout the north, the west, and the Atlantic Provinces. Only portions of Ontario, Quebec and Labrador recorded considerably above normal amounts of precipitation. rain and high winds to southeastern Canada. Power failures and some flooding resulted. In addition, a fishing vessel went aground.

The highest recorded temperature during the past week was 18° at Prince Rupert on the 23rd. The coldest reported places in Canada were Eureka and Shepherd Bay which recorded temperatures of -27°. Langara, B.C. recorded the greatest weekly total precipitation, 75.0 mm.

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

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#### YUKON

Last week's dry weather continued throughout the Yukon. Only 2 of 7 stations reported any precipitation at all. The maximum amount fell at Watson Lake, 4.6 mm. The Liard Valley also received some precipitation.

Temperatures generally remained 2° to 4° above normal. Dawson recorded the extreme high of 11° on the 24th while Shingle Point recorded -18° on the 22nd, the extreme low temperature.

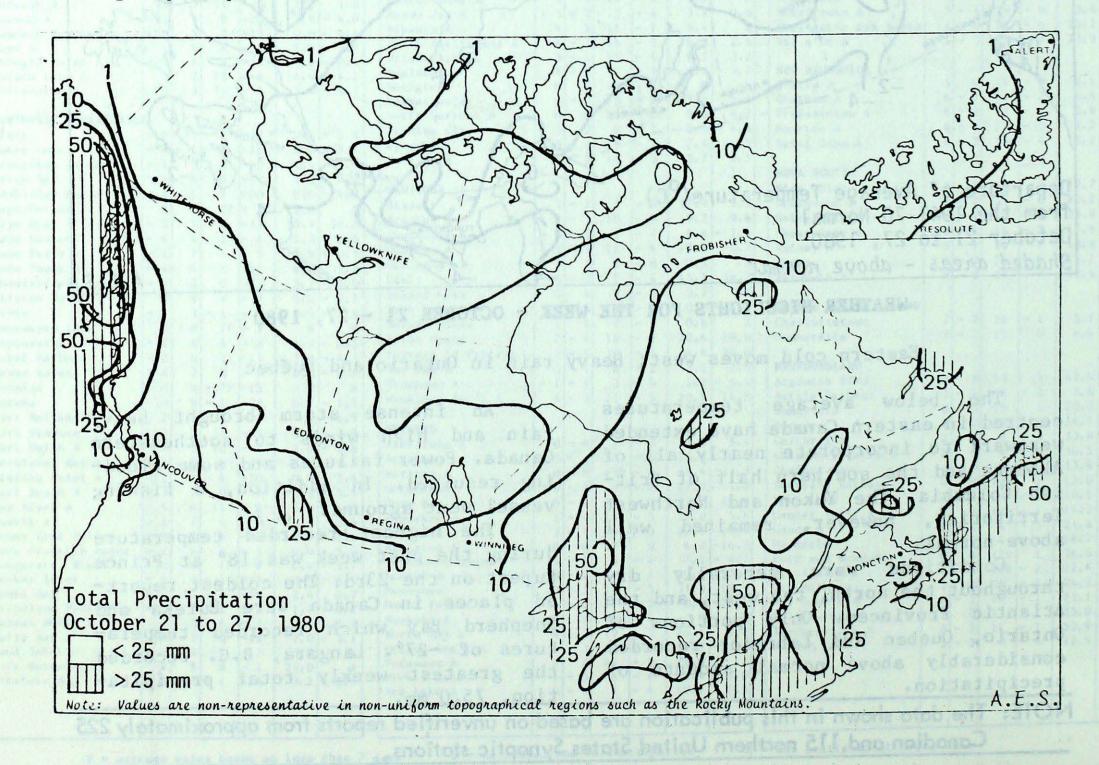
Precipitation has consisted of both rain and snow but to date, the snow has melted in the valley floors of the southern Yukon.

#### NORTHWEST TERRITORIES

The below average precipitation patterns of last week were maintained, as many locations throughout the Northwest Territories remained completely dry. Only Alert, in the far north and 3 other eastern stations reported above average precipitation. The maximum, 14.4 mm, fell at Port Burwell, much of it on Monday the 27th.

Temperature trends also remained consistent for another week as most of the Northwest Territories was warmer than normal. Fort Smith recorded the extreme high temperature of 8° on the 21st. The extreme low temperature, -27°, was recorded at Eureka on the 23rd and at Shepherd Bay on the 26th and 27th.

In the Beaufort Sea, ice conditions are as good as could be expected for this time of year. Some open water persists but new ice growth continues. Although dredging operations are continuing, all drilling has ceased. In the eastern Arctic, Baffin Bay ice has reached just south of Clyde. Normal ice growth is also reported in Fox Basin. New ice is beginning to form along the coasts of Hudson Bay and Hudson Strait. The MV Arctic, now at Pond Inlet, may depart for Admiralty Inlet for heavyice testing. The St. Laurent will also be doing ice trials, probably in Lancaster Sound.



#### BRITISH COLUMBIA

Below average precipitation continued for yet another week in British Columbia. Only the southeastern corner of the province and the Queen Charlotte Islands recorded above normal precipitation. Langara, for example, received 75.0 mm, the maximum for the province.

Temperatures continued to deviate little from the normal. Northern regions averaged somewhat above normal while the south experienced slightly cooler conditions. On the 23rd Prince Rupert recorded 18°, the extreme high temperature for the province. The extreme low temperature, -8°, was recorded at Dease Lake on October 22, at Fort Nelson on the 23rd, and at Mackenzie on both those dates.

Castlegar reported a thunderstorm on the 21st, somewhat unusual for this time of the year. Good grape and apple harvests, almost complete, are reported in the Okanagan Valley. At Fort Nelson, the ground is now frozen and remained snow-covered all week. Seven centimetres of snow fell on the 21st.

#### PRAIRIE PROVINCES

Dry conditions prevailed throughout the Prairies except for some stations in southern Alberta. Many areas, especially in Saskatchewan, received no precipitation at all during the week. Medicine Hat received the greatest amount, 28.8 mm.

The colder than average conditions also continued for another week. The highest recorded temperature was 12° at Estevan and Regina on the 21st. Regina and Lynn Lake both recorded extreme low temperatures of -14° on the 27th. Edson ground surfaces freezing, and a rash of traffic accidents occurring throughout central and southern Alberta.

# ONTARIO

The above normal precipitation of the previous week continued throughout much of the province, with only some northwestern and southwestern locations reporting dry conditions. Kingston recorded the greatest amount, 57.5 mm, 42.1 mm above normal. Most of this, 49.8 mm, fell on Saturday the 25th.

Low temperatures also continued across Ontario. The extreme high temperature, 15°, was recorded at Windsor on the 24th. Lansdowne House and Trout Lake both recorded the extreme low temperature of -11° on the 27th.

The storm and subsequent heavy rainfall occurring on Saturday throughout southern Ontario was followed on Sunday by gale to storm force winds. Peak gusts of 96 km/h were recorded at Toronto.

Snow depth at the end of the week measured 26 cm at Lansdowne House. A Windsor snowfall of 2.4 cm on the 27th set a monthly record.

Heating degree-days at Toronto are 67 above the normal of 336 for this time of year.

# QUÉBEC

above Much of Quebec recorded average precipitation but a few areas in the east and north were drier than normal. Maniwaki recorded a total precipitation of 57.8 mm, 26.4 mm of which fell on Saturday and 28.7 mm of which were reported Sunday. Val d'Or recorded a snowfall of 19 cm on the 26th. Cool conditions also continued for a second week. Only a few areas were warmer than average. The extreme high temperature of 12° was recorded at Mont Joli on the 25th and 26th, as well as at Gaspé on the latter date. Poste-dela-Baleine (21st), Chibougamau and Val d'Or (both on the 27th) recorded the extreme low temperature of -10°. Heavy rains and high winds also affected southern Quebec. Wind gusts of

recorded both the provincial extreme high (10°) and provincial extreme low (-11°) on the same day, the 23rd.

Last week's Indian summer weather in Alberta ended abruptly as the first significant snowfall of the approaching winter occurred southeast of Grande Prairie on the 25th and 26th. Maximum snow depths of 14 cm were measured at Edson on the evening of the 26th. Plummeting temperatures resulted in wet 70 km/h to 90 km/h were recorded at several locations and power failures also occurred. At Sept-Iles on the 26th, winds gusting to 95 km/h combined with high tides, which produced very high waves in the mouth of the St. Lawrence. The basements of houses along the river were flooded as a result.

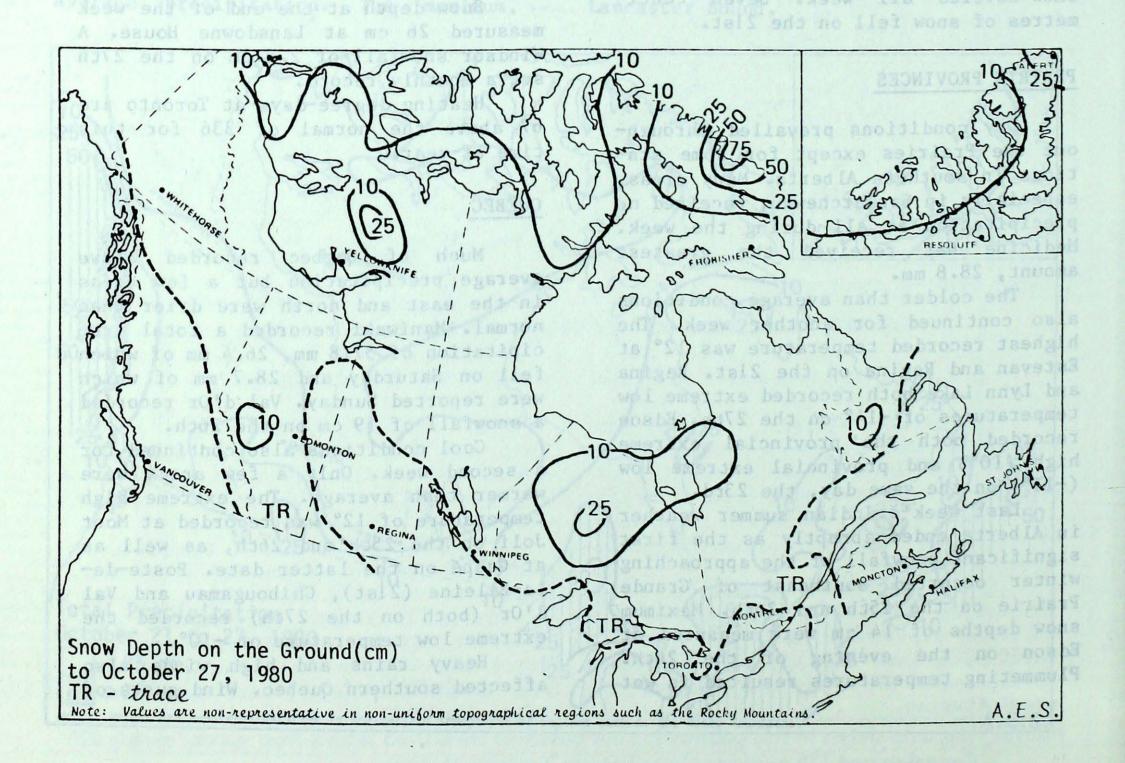
### ATLANTIC PROVINCES

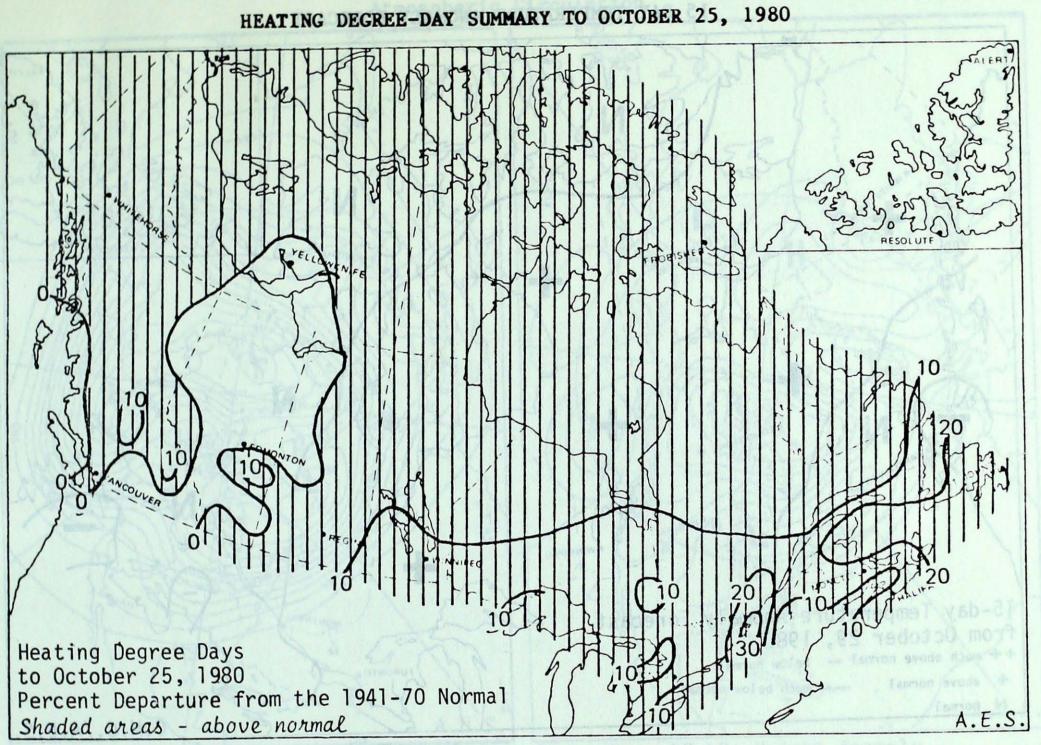
Precipitation patterns over the Atlantic Provinces were mixed. Much of New Brunswick, Nova Scotia and Prince Edward Island were drier than normal. Only a few areas recorded slightly above average precipitation. Labrador was wet throughout much of the week but most of the Island of Newfoundland reported below average precipitation values. Argentia recorded the maximum fall, 53.0 mm. Of this, 30.8 mm fell on the 23rd.

All of Nova Scotia, New Brunswick and Prince Edward Island were cooler than average, as was much of Newfoundland. No station in Newfoundland was more than 2.0° above average. On the 26th, Sable Island recorded the extreme high temperature of 16°. The extreme low,  $-10^{\circ}$ , was reported on the 27th at Wabush.

A weekend storm provided considerable quantities of rainfall over a short period of time and strong winds. The storm began late Saturday night and winds reached their peak velocities Sunday morning. At Greenwood gusts of 106 km/h were recorded and more than 40 mm of rain fell at Halifax. One fishing vessel ran aground and sustained damage to the keel. Power failures occurred in Halifax and other areas in Nova Scotia and New Brunswick.

Approximately 85% of the apple crop has been harvested. Minor damage due to wind and frost has occurred to the remainder. The late June frosts have resulted in a poor cranberry crop in some areas.

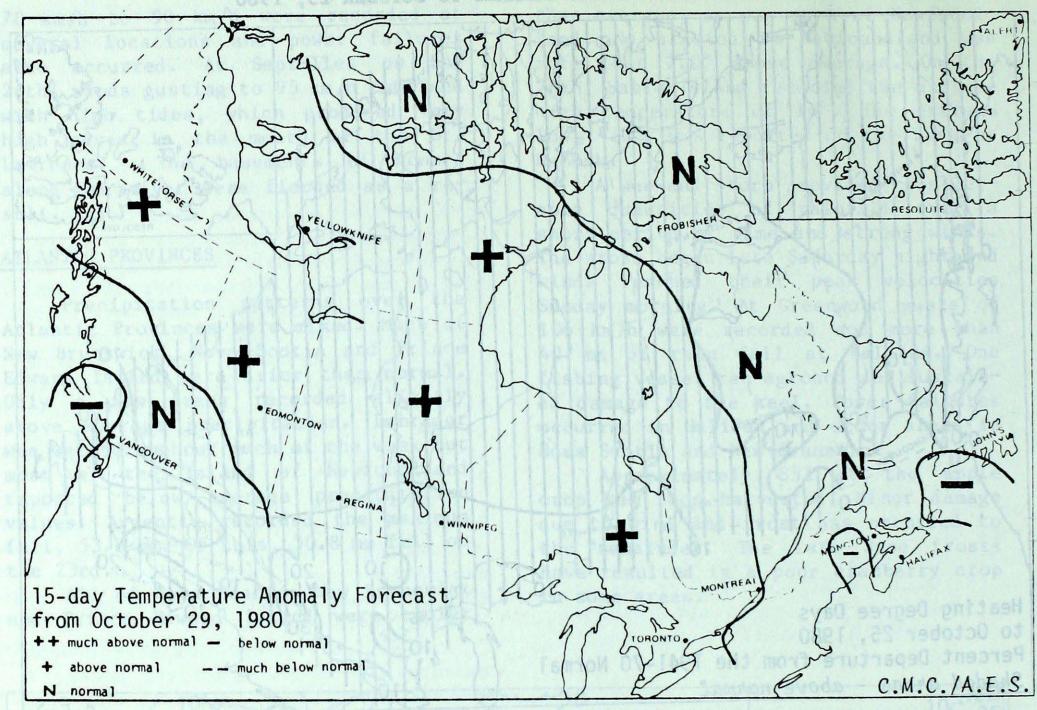




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Whitehorse	341.5	-72.5	A DE LES	23.5	106
Vancouver Int'l A	172.0	-14.0	398.5		99
Edmonton Mun A	231.0	-66.0	635.0	-6.0	99
Calgary Int'1 A	228.5	-65.5	671.0	-6.0	
Regina	280.5	-18.5	575.0	3.0	101
Winnipeg Int'l A	326.0	58.0	594.5	92.5	118 3600
Thunder Bay	359.5	72.5	656.0	47.0	108 0100
Windsor	213.0	60.0	267.0	39.0	117
Toronto Int'l A	259.0	71.0	373.5	58.5	119
Ottawa Int'l A	286.5	65.5	444.0	62.0	116
Montreal Int'l A	283.5	84.5	450.5	118.5	136
Quebec	324.5	73.5	568.5	95.5	120
Saint John, N.B.	271.0	30.0	537.5	23.5	105
Halifax	211.5	18.5	436.0	71.0	119
Charlottetown	248.0	28.0	480.0	66.0	116
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15 DAY TEMPERATURE ANOMALY FORECAST

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Forecast Method

Analogue technique based on point prediction at 70 Canadian stations.

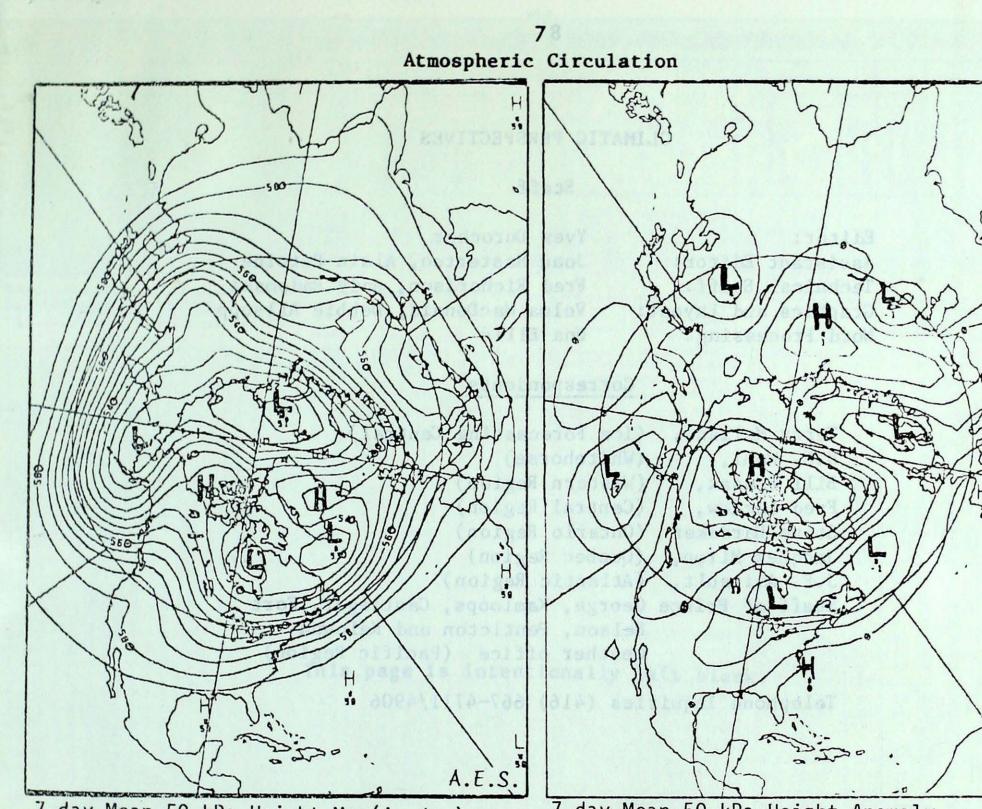
#### Temperature Scale

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	Temperature Anomaly Forecast
Whitehorse	Above Normal	From 1.1° to 3.7° above Normal
Victoria	Below Normal	From 0.3° to 1.2° below Normal
Vancouver	Near Normal	Within 0.4° of Normal
Edmonton	Above Normal	From 1.0° to 3.4° above Normal
Regina	Above Normal	From 0.9° to 3.0° above Normal
Winnipeg	Above Normal	From 0.8° to 2.8° above Normal

Thunder Bay Toronto Ottawa Montreal Quebec Fredericton Halifax Charlottetown St. John's Goose Bay Frobisher Bay Inuvik Above Normal Above Normal Above Normal Near Normal Above Normal From 0.7° to 2.3° above Normal From 0.5° to 1.8° above Normal From 0.6° to 1.9° above Normal Within 0.5° of Normal Within 0.5° of Normal Within 0.4° of Normal Within 0.4° of Normal Within 0.4° of Normal Within 0.6° of Normal Within 0.6° of Normal Within 0.8° of Normal From 1.0° to 3.2° above Normal

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



7-day Mean 50 kPa Height Map(in dam) October 20 to 26, 1980

A mean troposheric ridge continued to dominate western Canada, especially over the Arctic Islands where 50 kPa height anomalies have been strongly positive for the past few weeks. Mean surface temperatures in the Yukon and ad jacent areas of the Canadian northwest were as much as 8° above normal this week, which, however, at this time of year translates to daytime temperature readings of near or below the freezing mark. The eastern half of the country continued under the influence of a mean 50 kPa trough and closed vortex. Unsettled changeable weather was the rule. A mean northwesterly circulation pushed cold Arctic air southwards, and all of southern and central Canada had below normal temperatures as a result.

7-day Mean 50 kPa Height Anomaly (in 5 dam intervals)October 20 to 26, 1980

A.E.S.

northwestern Ontario. By Saturday morning it had begun to weaken and reform along the eastern seaboard tracking northward into the province of Québec. This extremely deep low pressure system gathered strength rapidly, dropping to a central pressure of 97 kPa and becoming nearly stationary over central Québec Monday morning.

Snow fell across southern Manitoba, northern Ontario and Québec, while rain, heavy at times, fell over more southern areas. Strong gusty winds associated with the cyclonic storm were common across most of eastern Canada, especially the Atlantic Provinces where wind gusts exceeding 100 km/h were reported. In the wake of this weather system, northwesterly winds and cold Arctic air reinforced their grip, triggering heavy snow squall activity to the ice of the Great Lakes.

A major autumn storm developed in the American mid-west early in the period and moved north eastward into

Andy Radomski

#### CLIMATIC PERSPECTIVES

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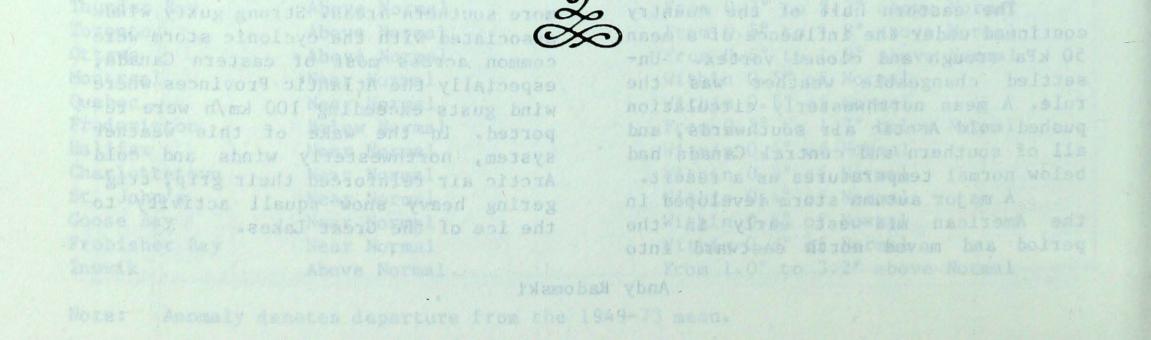
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# TEMPERATURE AND PRECIPITATION DATA FOR THE WEEK ENDING 0600 G.M.T. OCTOBER 27, 1980

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A Edmonton Namao A Edson 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 SASKATCHEVAN Broadview Buffalo Narrows Cree Lake Estevan A Hudson Bay Kindersley La Ronge A Meadow Lake A Noorth Battleford A Prince Albert Regina A North Battleford A Prince Albert Regina A North Battleford A Prince Albert Regina A Swift Current A Uranium City Wynyard Yorkton A MANITOBA Bissett Bissett Brandon A Churchill A Dauphin A Gillam A Gimli Island Lake Lynn Lake Norway House Pilot Mound Portage Ia Prairie The Pas A Thompson A Winnipeg ONTARIO Armstrong Atikokan Earlton Geraldton Gora Bay A Kapuskasing Kunstrong Atikokan Earlton Gora Bay A Kapuskas A Kingston Landowne London Mosonee Muskok Bay Ottawa Pitake Norway House Pilot Mound Portage Ia Prairie The Pas A Thompson A Winnipeg	$\begin{array}{c} - 5 \\ -17 \\ - 4 \\ - 1 \\ 0 \\ 0 \\ 0 \\ 1 \\ - 1 \\ - 1 \\ 0 \\ 0 \\ 0 \\ - 1 \\ 1 \\ 0 \\ 0 \\ - 1 \\ 1 \\ 1 \\ 0 \\ 0 \\ - 1 \\ 1 \\ 1 \\ 0 \\ 0 \\ - 1 \\ 1 \\ 0 \\ 0 \\ - 1 \\ 1 \\ 0 \\ 0 \\ - 1 \\ 1 \\ 0 \\ 0 \\ - 1 \\ 1 \\ 0 \\ 0 \\ - 1 \\ 1 \\ 0 \\ 0 \\ - 1 \\ 1 \\ 0 \\ 0 \\ - 1 \\ 1 \\ 0 \\ 0 \\ - 1 \\ 0 \\ - 1 \\ 0 \\ - 1 \\ 0 \\ - 2 \\ 0 \\ - 1 \\ 0 \\ - 2 \\ - 1 \\ 0 \\ - 3 \\ 0 \\ - 2 \\ - 1 \\ - 4 \\ 0 \\ - 3 \\ - 2 \\ - 1 \\ - 3 \\ - 2 \\ - 1 \\ - 3 \\ - 2 \\ - 1 \\ - 3 \\ - 2 \\ - 1 \\ - 3 \\ - 2 \\ - 1 \\ - 3 \\ - 2 \\ - 1 \\ - 3 \\ - 2 \\ - 1 \\ - 3 \\ - 2 \\ - 1 \\ - 3 \\ - 2 \\ - 1 \\ - 3 \\ - 2 \\ - 1 \\ - 3 \\ - 2 \\ - 1 \\ - 3 \\ - 2 \\ - 1 \\ - 3 \\ - 2 \\ - 1 \\ - 3 \\ - 2 \\ - 1 \\ - 3 \\ - 2 \\ - 1 \\ - 3 \\ - 2 \\ - 1 \\ - 3 \\ - 2 \\ - 1 \\ - 3 \\ - 2 \\ - 1 \\ - 3 \\ - 2 \\ - 1 \\ - 3 \\ - 2 \\ - 3 \\ - 2 \\ - 3 \\ - 3 \\ - 2 \\ - 3$	$\begin{array}{c} -2 \\ -2 \\ -2 \\ -2 \\ -2 \\ -2 \\ -2 \\ -2 $	- 2 - 5 0 3 7 8 9 9 9 8 7 10 3P 9 9 8 7 10 3P 9 9 8 7 10 3P 9 9 8 7 10 3P 9 8 7 10 3P 9 8 7 10 3P 9 8 7 10 3P 9 8 7 10 3P 9 8 7 10 8 7 9 8 8 7 7 5 8 9 8 7 7 5 8 9 8 7 7 5 8 9 8 7 7 5 8 9 8 7 7 5 8 9 8 9 8 7 7 5 8 8 9 9 8 7 7 5 8 8 9 9 8 7 7 5 8 8 9 9 8 7 7 5 8 8 9 9 8 7 7 5 8 8 9 9 8 7 7 5 8 8 9 9 8 7 7 5 8 8 9 9 8 7 7 5 8 8 9 10 10 10 10 10 10 10 10 10 10	-13 -27 -10 -5 -8 -10 -5 -10 -5 -10 -7 -10 -7 -7 -11 -6 -7 -7 -7 -10 -6 -7 -7 -10 -6 -7 -7 -10 -6 -7 -7 -10 -6 -7 -7 -5 -10 -7 -7 -10 -6 -7 -7 -10 -6 -7 -7 -5 -10 -10 -9 -7 -12 -4 -10 -9 -12 -4 -10 -9 -12 -4 -10 -9 -12 -4 -10 -9 -12 -4 -10 -9 -12 -4 -10 -9 -12 -10 -9 -12 -4 -10 -9 -12 -10 -9 -12 -14 -7 -5 -10 -7 -10 -8 -7 -12 -7 -12 -10 -9 -12 -7 -12 -7 -12 -7 -12 -7 -12 -7 -12 -7 -12 -7 -12 -7 -12 -7 -7 -12 -7	1.0         0.0         2.5         0.6         10.6         15.2         0.0         1.6         5.3         1.5         0.0         1.6         5.6         2.5         3.8         5.1         2.5         3.8         5.1         2.5         3.8         0.0 <td< td=""><td><math display="block">\begin{array}{c} 0 \\ 0 \\ - \\ 0 \\</math></td><td>Sioux Lookout A Sudbury A Thunder Bay A Timmins A Toronto Int'l A Trenton A Trout Lake Wawa A Wlarton A Windsor A QUÉBEC Bagotville A Baie Comeau Blane Sablon Border Chibougamau Fort Chimo A Gaspé A Grindstone Island Inoued jouae Koartak Ia Grande Rivière A Maniwaki Matagami A Mont-Joli A Montréal (A int.) 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