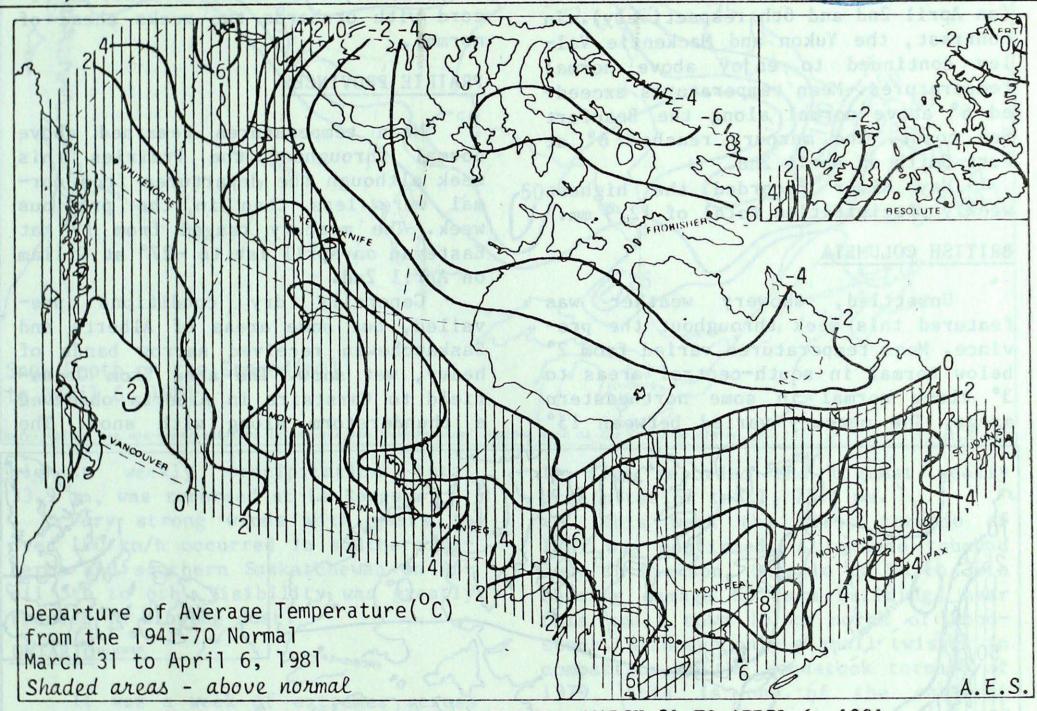


APRIL 10,1981

(Aussi disponible en français)

JOTHE VOL.3 NO.14



WEATHER HIGHLIGHTS FOR THE PERIOD - MARCH 31 TO APRIL 6, 1981

The East experiences record setting weather

An almost uncountable number of high temperature records were set in of April 4th to 5th. Mean temperatures normal 8° exceeded above southeastern Quebec.

The first thunderstorms of the year occurred in Quebec this week, some associated with pea-sized hail. first tornado of the year was confirmed as touching down in Hickson, Ontario. This is one of the earliest sightings ever.

Very strong winds with gusts to over 100 km/h occurred in southern Aleastern Canada, mostly on the weekend berta and southern Saskatchewan on April 5th to 6th. Visibility was greatly reduced in the blowing dust.

> The highest temperature of the week, 25°, occurred at Petawawa, Ontario and the lowest temperature, -43°, occurred at Eureka and Shepherd Bay, Northwest Territories. McInnes Island, British Columbia recorded the highest precipitation total again this week, 112.8 mm.

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

The cold airmass which occupied the central Territories during the previous week held its western flank and invaded all eastern regions this week. Mean temperatures were more than 8° below normal in extreme eastern Baffin Island. Shepherd Bay and Eureka experienced -43° temperatures again this week (on April 2nd and 6th respectively). In contrast, the Yukon and Mackenzie Valley continued to enjoy above normal temperatures. Mean temperatures exceeded 6° above normal along the Beaufort Sea coast. The mercury reached 6° at Fort Smith on April 2nd.

Hay River recorded the highest weekly precipitation total of 12.9 mm.

BRITISH COLUMBIA

Unsettled, showery weather was featured this week throughout the province. Mean temperatures varied from 2° below normal in south-central areas to 3° above normal in some northeastern areas. The mercury varied between 15°

at Kamploops on March 31st to -11° at Dease lake on April 4th.

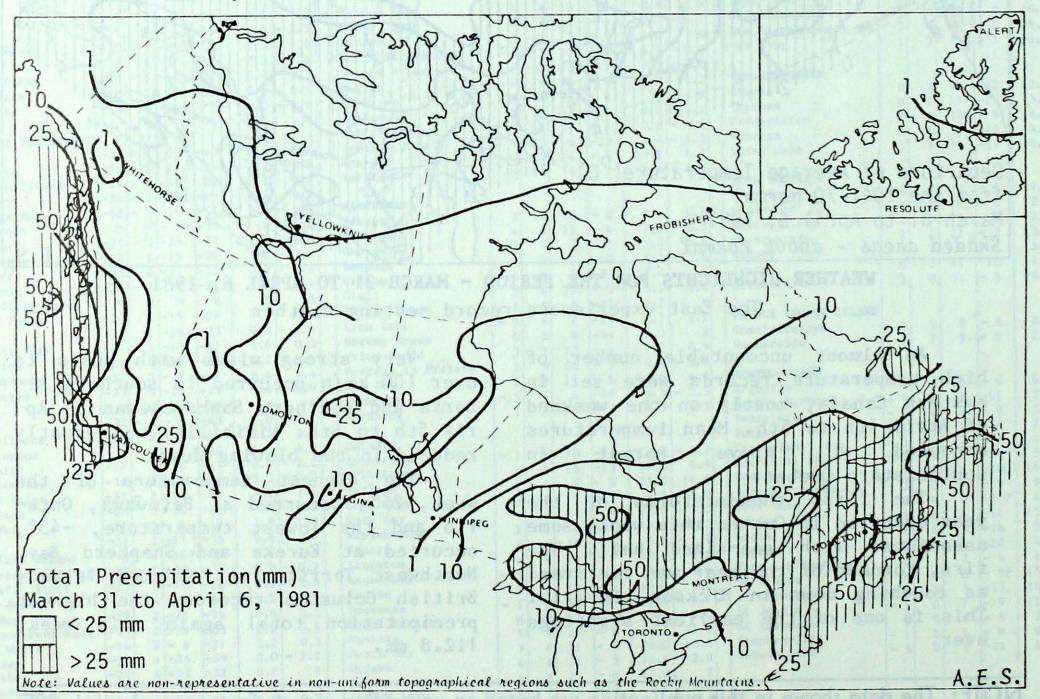
Most stations received above normal precipitation for the week. McInnes Island recorded the highest total, 112.8 mm.

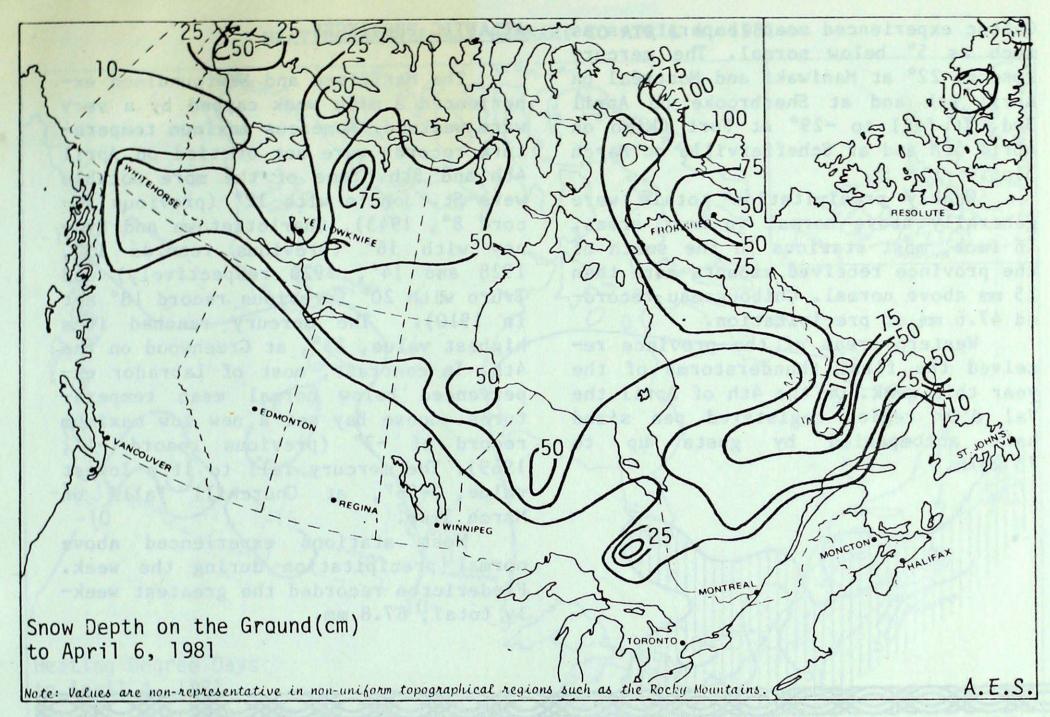
Logging activity in northern and central areas is at a standstill waiting for spring breakup. In the south, crop development is the earliest on record with orchards two weeks ahead of normal.

PRAIRIE PROVINCES

Mean temperatures remained above normal throughout the Prairies this week although the departures from normal were less than in the previous week. The mercury ranged from 19° at Eastevan on April 1st to -27° at Gillam on April 2nd.

Generally dry conditions prevailed, but some areas of Alberta and Saskatchewan received narrow bands of heavy, wet snow. The area from Crossfield to Carstairs in Alberta observed a thunderstorm along with snow. The





highest weekly precipitation total 33.9 mm, was recorded at La Ronge.

Very strong winds with gusts to over 100 km/h occurred in southern Alberta and southern Saskatchewan on April 5th to 6th. Visibility was greatly reduced in blowing dust.

ONTARIO

It was a week of extremes across Ontario last week highlighted by record breaking high temperatures, some heavy snowfalls in the North and by a tornado. On April 3rd and 4th, maximum temperatures reached above 20° in much of the province. At Toronto on April 3rd, a high of 20.8° broke the old daily record established in 1892 (18.3°). Muskoka hit 23° smashing their old mark by 10°. The highest temperature, 25°, was recorded at Petawawa, and the lowest, -26°, at Trout Lake, both on April 3rd.

Cold air quickly replaced these balmy temperatures bringing snow and strong winds. Kapuskasing went from a snowfree condition on Friday morning to 53 cm of snow-cover over the weekend.

It also recorded the highest weekly precipitation total, 75.1 mm.

This week the first tornado of 1981 was confirmed. A tornado touched down in Hickson, Ontario on March 30th causing damage to farm buildings near this small town 15 km north of Woodstock. Although only a small twister in comparison to the Woodstock tornado of 1979, this is one of the earliest sightings ever.

The ice in eastern Lake Erie has reduced considerably and should last about another week. Whitefish Bay and the coastal areas of Lake Superior still have ice.

QUÉBEC

Mean temperatures in southern and eastern areas of the province were above normal again this week rising to more than 10° above normal in the Sherbrooke region. More than 30 temperature records were established during the course of the week, mainly on the 3rd and 4th. These two days represent the earliest dates that temperatures have risen above 20°. In contrast, northern

Québec experienced mean temperatures as much as 5° below normal. The mercury rose to 22° at Maniwaki and Montréal on April 4th and at Sherbrooke on April 3rd. It fell to -29° at Fort Chimo on April 5th and at Schefferville on March 31st.

Weekly precipitation totals were generally above normal in most areas. In fact, most stations in the south of the province received amounts more than 25 mm above normal. Chibougamau recorded 47.6 mm of precipitation.

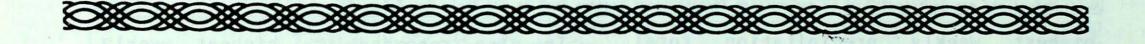
Western areas of the province received the first thunderstorms of the year this week. On the 4th of April the Val d'Or region registered pea sized hail accompanied by gusts up to 75 km/h.

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ATLANTIC PROVINCES

The Maritimes and Newfoundland experienced a mild week capped by a very warm weekend. Numerous maximum temperature records were set or tied on April 4th and 5th. Some of the more notable were St. John's with 12° (previous record 8°, 1943), Charlottetown and Sydney with 16° (previous records 13°, 1928 and 14°, 1920 respectively) and Truro with 20° (previous record 18° set The mercury reached it's in 1910). highest value, 23°, at Greenwood on the 4th. In contrast, most of Labrador experienced below normal mean temperatures. Goose Bay set a new low maximum record of -7° (previous record -4°, 1969). The mercury fell to it's lowest value, -26°, at Churchill Falls on March 31st.

Most stations experienced above normal precipitation during the week. Fredericton recorded the greatest week-ly total, 67.8 mm.



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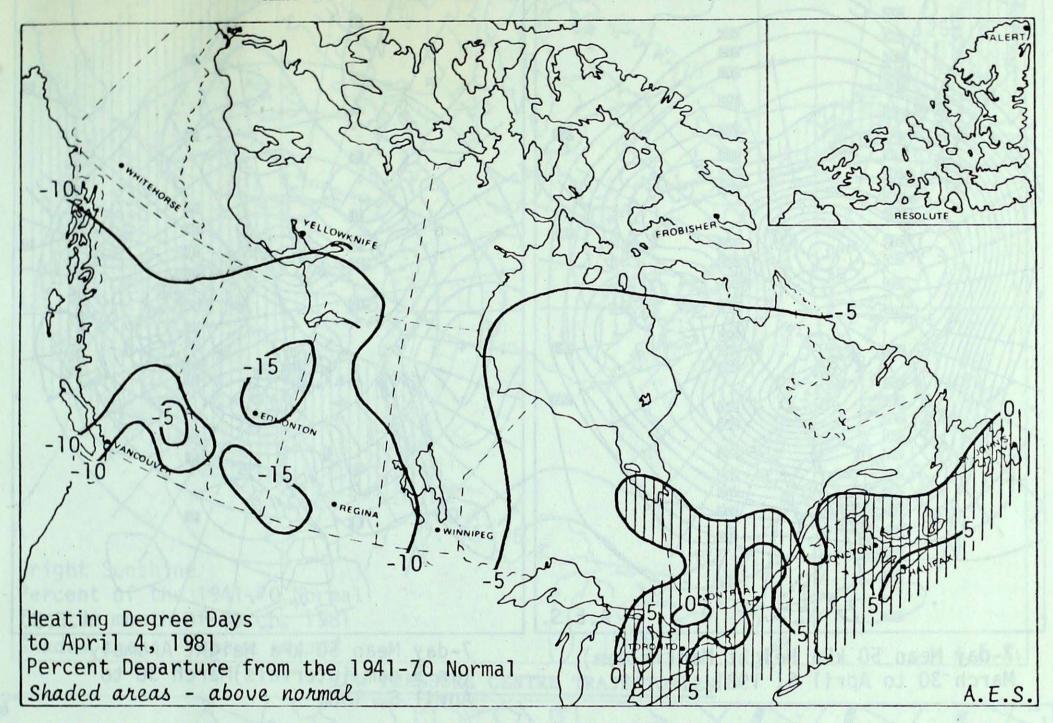
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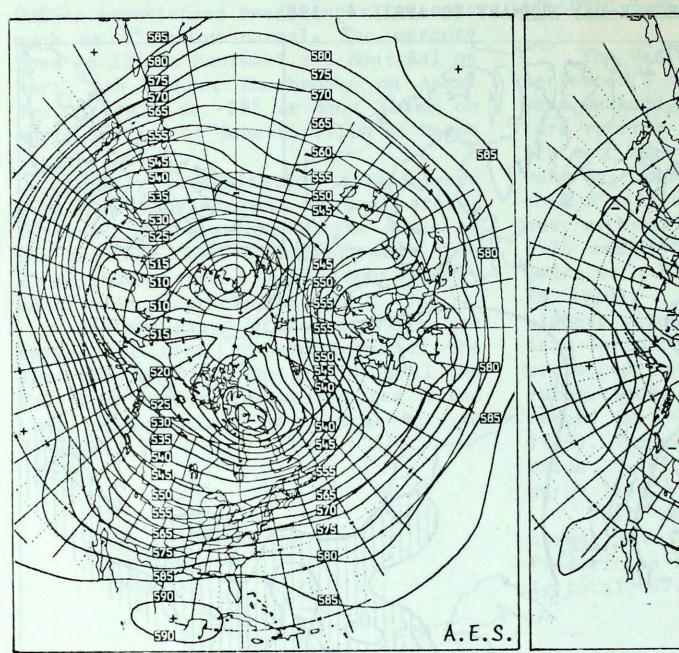
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HEATING DEGREE-DAY SUMMARY TO APRIL 4, 1981

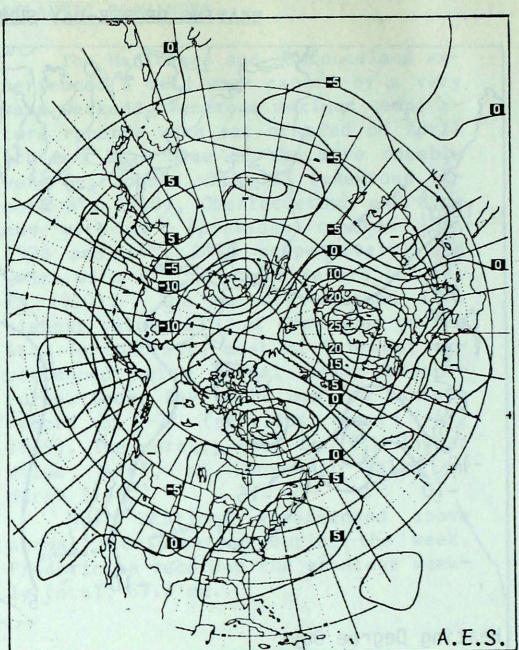


| | MONTHLY CUMULATIVE | MONTHLY DIFF. FROM 1941-70 | SEASONAL TOTAL | SEASONAL DIFF. FROM | SEASONAL PERCENT |
|-------------------|-----------------------|-------------------------------|-------------------|------------------------|---------------------|
| STATION | TOTAL | NORMAL | etinos val | 1941-70 NORMAL | OF NORMAL |
| Resolute | 199.5 | 17.5 | 9685.0 | -376.0 | 96 |
| Inuvik | 111.5 | -38.5 | 7851.5 | -678.5 | 92 |
| Whitehorse | 83.0 | -2.0 | 5404.5 | -507.5 | 91 |
| Vancouver | 44.5 | 4.5 | 2302.0 | -214.0 | 91 |
| Edmonton Mun | 56.0 | -15.0 | 4128.5 | -779.5 | 84 |
| Calgary | 61.5 | -9.5 | 3828.5 | -729.5 | 84 |
| Regina | 59.5 | -18.5 | 4518.0 | -708.0 | 86 |
| Winnipeg | 62.0 | -16.0 | 4772.0 | -442.0 | 92 |
| Thunder Bay | 68.0 | -9.0 | 4783.5 | -138.5 | 97 |
| Windsor | 17.0 | -36.0 | 3276.0 | 98.0 | 103 |
| Toronto | 22.0 | -37.0 | 3710.0 | 152.0 | 104 |
| Ottawa | 26.5 | -36.5 | 4236.5 | 96.5 | 102 |
| Montreal | 30.5 | -35.5 | 4217.0 | 255.0 | 106 |
| Quebec | 49.0 | -25.0 | ,4651.5 | 246.5 | 106 |
| Saint John, N.B. | 53.5 | -14.5 | 4109.5 | 138.5 | 103 |
| Halifax | 48.0 | -16.0 | 3547.5 | 190.5 | 106 |
| Charlottetown | 47.5 | -24.5 | 3901.0 | 94.0 | 102 |
| St. John's, Nfld. | 67.0 | -9.0 | 3849.0 | 92.0 | 102 |

Atmospherio Circulation



7-day Mean 50 kPa Height Map(in dam) March 30 to April 5, 1981



7-day Mean 50 kPa Height Anomaly (in 5 dam intervals)March 30 to April 5, 1981

A zonal mean 50 kPa flow continued the pattern of the preceeding week but with slightly lower and higher 50 kPa heights over western and eastern Canada respectively.

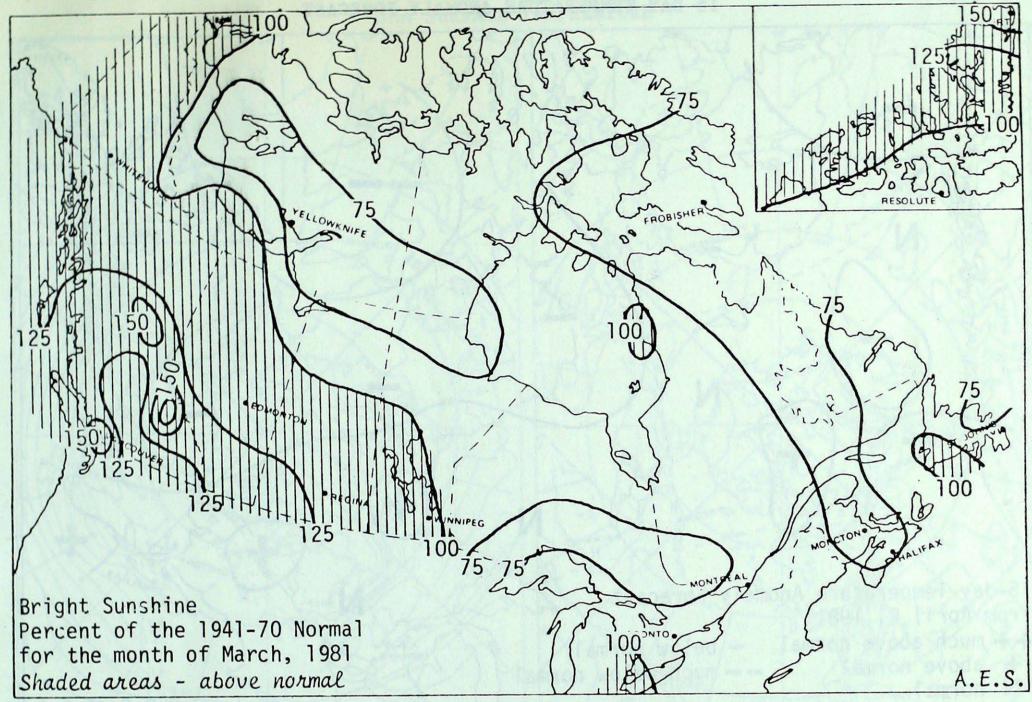
Vigorous and frequent perturbations characteristic of springtime moved eastward in the upper atmosphere. An on-shore trajectory permitted a series of these atmospheric triggering pulses to approach the Pacific coast and move inland across the continent. This stimulated the development of several low pressure systems following two distinct tracks; one track crossing British Columbia and the Prairie Provinces, the other extending from the southwestern United States through the Great Lakes.

Strong pressure gradients around these cyclonic storms resulted in high winds which caused numerous problems in both western Canada and Ontario.

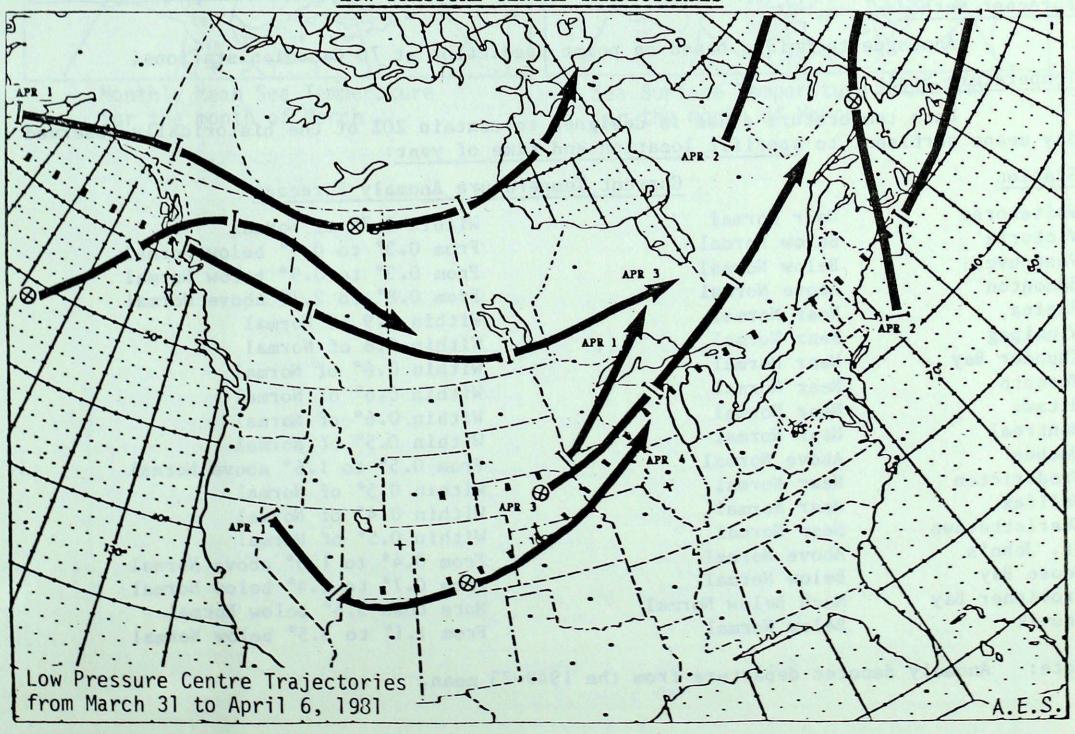
The accompanying cold fronts have become increasingly active due to greater temperature contrasts. Thunderstorms are starting to become a common weather phenomina across the country.

Even though southern Canada has not yet experienced the severe weather that occurred in the American mid-west, a small tornado has already been sighted in southwestern Ontario this month.

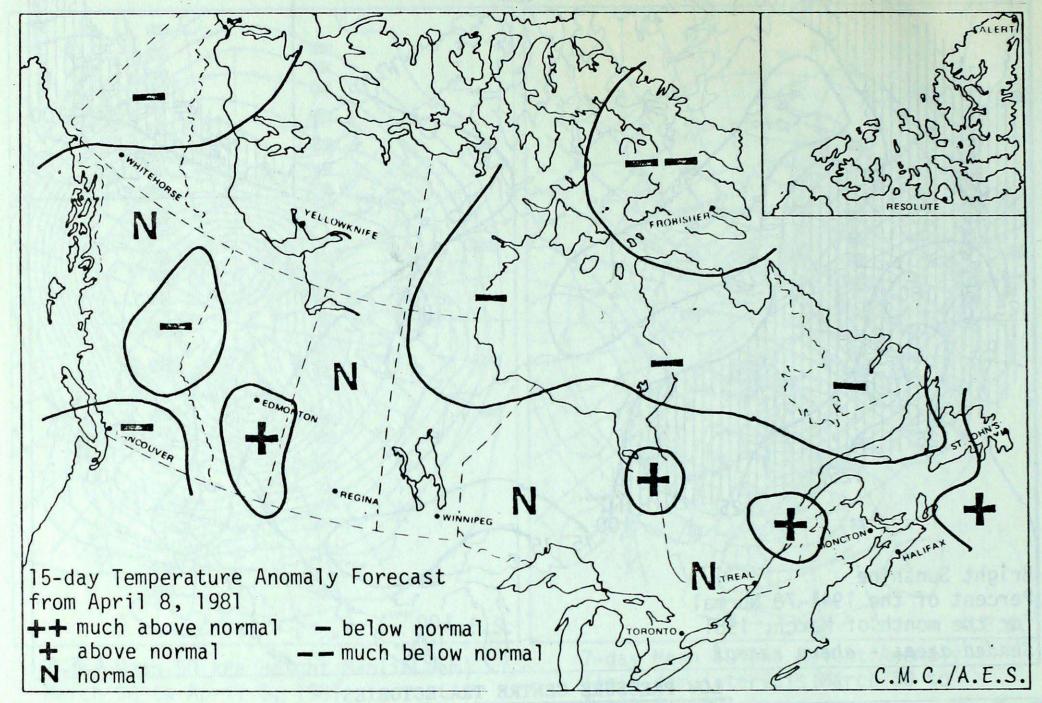
SUNSHINE



LOW PRESSURE CENTRE TRAJECTORIES



15 DAY TEMPERATURE ANOMALY FORECAST



Forecast Method

Analogue technique based on point prediction at 70 Canadian stations.

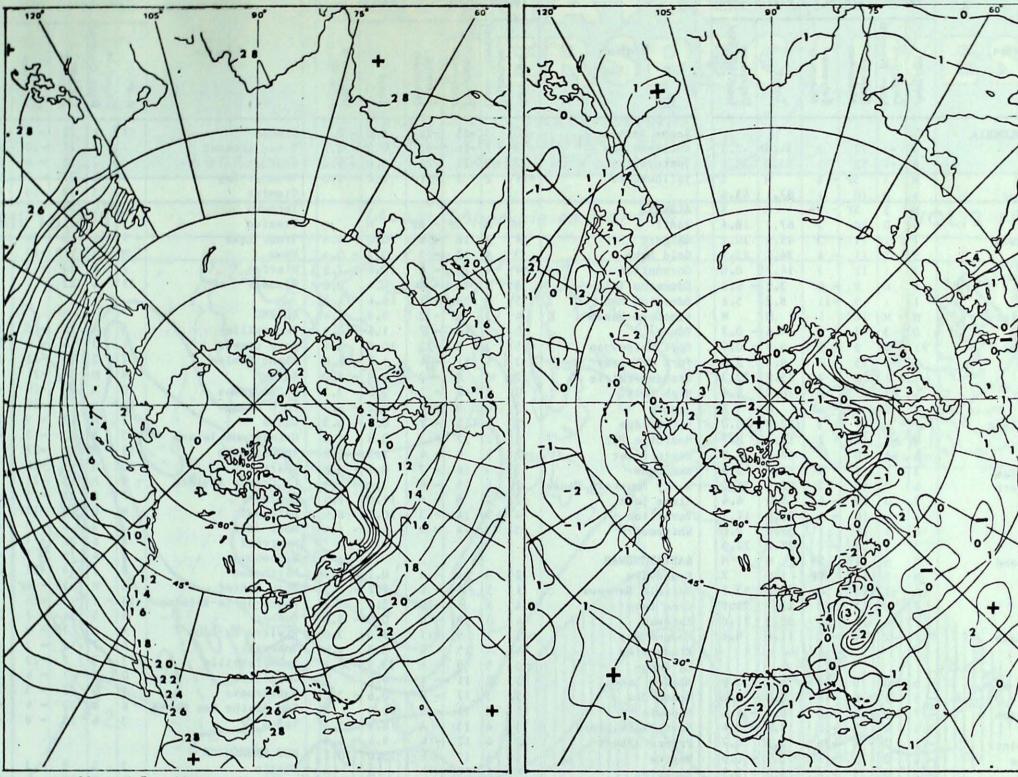
Temperature Scale

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 Temperat | ture Anomaly Forecast |
|---------------|-------------------|--------------------------------|
| Whitehorse | Near Normal | Within 0.7° of Normal |
| Victoria | Below Normal | From 0.3° to 0.9° below Normal |
| Vancouver | Below Normal | From 0.3° to 0.9° below Normal |
| Edmonton | Above Normal | From 0.8° to 2.7° above Normal |
| Regina | Near Normal | Within 0.9 of Normal |
| Winnipeg | Near Normal | Within 0.8 of Normal |
| Thunder Bay | Near Normal | Within 0.6° of Normal |
| Toronto | Near Normal | Within 0.6° of Normal |
| Ottawa | Near Normal | Within 0.6° of Normal |
| Montreal | Near Normal | Within 0.5° of Normal |
| Quebec | Above Normal | From 0.5° to 1.6° above Normal |
| Fredericton | Near Normal | Within 0.5° of Normal |
| Halifax | Near Normal | Within 0.4° of Normal |
| Charlottetown | Near Normal | Within 0.5° of Normal |
| St. John's | Above Normal | From 0.4° to 1.5° above Normal |
| Goose Bay | Below Normal | From 0.7° to 2.4° below Normal |
| Frobisher Bay | Much Below Normal | More than 3.6° below Normal |
| Inuvik | Below Normal | From 1.1° to 3.5° below Normal |

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

SEA SURFACE TEMPERATURE



Monthly Mean Sea Temperature for the month of March

Sea Surface Temperature Anomalies for the month of March

| | TEMPERATURE AND PRECIPITATI | | | | | | |
|---|---|---|--|---|---|--|---|
| | Temperature (°C) Precip. (mm) | | | | | | |
| Station | Average | Departure from Normal | Extreme | Extreme Minimum | Total | Departure from Normal | |
| BRITISH COLUMBIA Abbotsford Alert Bay Blue River Bull Harbour Burns Lake Cape Scott Cape St James Castlegar Comox Cranbrook Dease Lake Estevan Point Fort Nelson Fort St John Kamloops Langara Lytton Mackenzie McInnes Island Penticton Port Hardy Prince George Prince Rupert Quesnel Revelstoke Sandspit Smithers Spring Island Stewart Terrace Vancouver Victoria Williams Lake | 7 6 M 6 M 6 7 5 7 4 1 M 0 1 6 5 6 M 7 6 6 3 6 3 4 6 3 M M 4 7 7 1 | | 12 12 5P 10 8P 10 11 11 12 9 5 10P 7 9 15 9 11 6P 11 12 10 10 10 11 11 12 10 10 11 11 11 12 10 10 11 11 11 11 11 11 11 11 11 11 11 | 2 2 2 - 6 1 - 7P 3 3 - 4 2 - 6 - 11 1 - 7 - 5 - 4 2 0 - 6P 3 - 2 1 - 3 3 - 4 1 - 2 5P 0P 0 3 0 - 5 | 34.6 53.8 M 87.1 M 87.2 45.9 34.4 14.7 3.2 8.2 M 4.6 4.8 4.2 65.0 10.8 M 112.8 14.1 67.8 10.7 92.7 9.0 22.0 31.7 27.2 M M 73.0 43.7 32.3 11.6 | 26.7 | S S S T T Y A B B C C C C E E E E E E F F G H J L M F R R S V W S E E E E E E E E E E E E E E E E E E |
| YUKON Burwash Dawson Komakuk Beach Mayo Shingle Point Watson Lake Whitehorse | - 6 - 5 -17 - 3 -14 - 4 - 3 | 2 5 2 7 0 | 5 - 4 5 | -21 -18 -26 -12 -26 -17 -14 | 0.0 1.1 2.2 | - 2.0 - 1.6 - 1.4 0.7 - 0.5 | 1 |
| NORTHWEST TERRITORIE Alert Baker Lake Broughton Island Byron Bay Cambridge Bay Cape Dorset Cape Dyer Cape Hooper Cape Parry Cape Young Chesterfield Inlet Clinton Point Clyde Contwoyto Lake Coppermine Coral Harbour Dewar Lakes Ennadai Eureka Fort Reliance Fort Simpson Fort Smith Frobisher Bay Gladman Point Hall Beach Hay River Inuvik Jenny Lind Island Lady Franklin Point Longstaff Bluff Mackar Inlet Mould Bay Nicholson Peninsula Norman Wells Pelly Bay Pond Inlet Port Burwell Resolute | -31 -28 -24 -30 -31 -25 -25 -27 -26 -26 -27 -26 -27 -27 -26 -27 -27 | - 5 - 6 - 4 - 4 - 5 - 6 - 4 - 4 - 5 - 6 - 4 - 4 - 5 - 6 - 6 - 6 - 6 - 6 - 6 - 6 - 6 - 6 | -12 -15 -17 -19 M -18 -19 -10P -18 -15 -17 -2P -31 -5 4 6 -13 -25 -23 2 7 -14 -24 -24 -22 -16 -16 -25 -25 -25 -25 -25 -25 -25 -25 | -35 -32 -35 -27 -43 -25 -16 -15 -29 -40 -39 -16 -24 -39 -32 -35 -37 -35 -27 -21 -36 -35 M | 3.8 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.6 M 0.8 0.4 0.0 0.8 4.2 0.0 0.8 1.5 6.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 | - 2.9 - 0.4 - 1.0 X -16.7 - 6.2 - 1.9 - 0.4 - 1.7 - 2.6 - 1.7 - 2.6 - 1.7 - 2.6 - 1.9 N 1.5 - 0.4 - 2.2 1.7 - 2.6 - 1.9 N 1.5 - 0.4 - 1.9 N 1.5 - 0.4 - 1.9 N 1.5 - 0.4 - 1.9 N 1.5 - 1.9 N 1.5 - 1.9 N 1.5 - 1.9 N 1.5 - 1.9 N 1.5 - 1.9 N 1.5 - 1.9 N 1.5 - 1.0 N 1.5 - 1.0 N 1.0 - 1.0 N 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 | 1 5 6 6 5 5 8 4 4 1 3 0 0 0 X X |

| ION DATA FOR THE | WEEK ENDING OBQO G.M.I. APR | | | | | | |
|--|--|---|---|--|--|---|---|
| | Ter | nperd | ature (| °C) | Precip | . (mm) | |
| Station | Averoge | Departure from Normal | Extreme Maximum | Extreme Minimum | Total | Departure from Normal | |
| Sachs Harbour Shepherd Bay Tuktoyaktuk Yellowknife | -20 -33 -17 -11 | 5 - 7 5 2 | -15 -26 -11 - 2 | -26 -43 -26 -21 | 0.0 0.0 0.0 0.4 | - 0.2 - 0.3 - 1.4 - 2.8 | |
| ALBERTA Banff Calgary Cold Lake Coronation Edmonton Intl Edmonton Mun Edmonton Namao Edson Fort Chipewyan Fort McMurray Grande Prairie High Level Jasper Lethbridge Medicine Hat Peace River Red Deer Rocky Mountain House Slave Lake Vermilion Whitecourt | M 4 3 4 3 5 4 3 5 4 3 2 0 2 5 6 2 3 2 2 4 3 | M 2 4 4 3 3 3 3 3 5 3 3 0 1 2 3 3 3 1 4 5 3 3 | 6P 16 12 17 14 14 14 13 6 11 8 7 8 15 17 9 16 15 9 | - 8P - 6 - 5 - 6 - 4 - 1 - 2 - 7 - 23 - 4 - 2 - 7 - 6 - 2 - 3 - 4 - 7 - 9 - 4 - 3 - 4 | M 0.0 3.2 10.6 4.4 16.4 9.9 1.1 10.8 1.7 0.9 2.6 3.2 0.2 5.8 1.3 0.7 3.4 11.0 10.2 5.3 | - 4.0 - 3.3 - 2.3 - 5.3 1.5 - 0.9 | |
| SASKATCHEWAN Broadview Buffalo Narrows Cree Lake Estevan Hudson Bay Kindersley La Ronge Meadow Lake Moose Jaw Nipawin North Battleford Prince Albert Regina Rockglen Saskatoon Swift Current Uranium City Wynyard Yorkton | 2 1 - 4 4 - 1 4 0 3 5 1 1 3 2 2 4 4 M 4 - 5 3 2 2 | 3 1 4 5 X 3 X 4 4 4 4 X 4 M 6 | 8 6 19 9 15 9 11 17 11 13 12 17 14P 14 14P 4 14 | - 4 | 0.2 1.2 3.6 0.0 5.3 8.3 33.9 9.7 0.6 12.0 8.9 9.8 13.0 M 1.3 5.3 7.6 | 3.0 4.6 30.1 X - 3.0 X 5.1 6.4 10.2 X 9.7 M - 1.9 2.6 | |
| MANITOBA Bissett Brandon Churchill Dauphin Gillam Gimli Island Lake Lynn Lake Norway House Pilot Mound Portage la Prairie The Pas Thompson Winnipeg | - 3 | 5 - 2 4 XX 3 3 3 3 3 3 3 3 3 3 | 13 0 13 1 11 12 9 4 9 14 14 15 14 15 16 17 18 18 18 18 18 18 18 18 18 18 18 18 18 | -10 - 7 -24 - 8 -27 - 6 -15 -21 -14 - 7 - 7 -10 -19 - 6 | 0.2 0.0 0.4 1.0 20.3 0.8 0.0 5.3 14.0 0.0 0.3 10.9 9.4 | - 4.4 - 3.8 - 3.3 X - 2.2 X 2.1 X - 8.7 - 5.3 7.4 4.8 | |
| ONTARIO Armstrong Atikokan Earlton Geraldton Gore Bay Kapuskasing Kenora Kingston Lansdowne London Moosonee Mount Forest Muskoka North Bay Ottawa Petawawa Pickle Lake Red Lake | - | 1 55 65 65 65 65 65 65 65 65 65 65 65 65 | 120 | - 7 - 3 - 5 | 1.6 14.1 5.4 21.0 36.2 19.1 14.8 38.0 | 18.0 22.2 1.5 22.6 63.0 - 0.2 18.8 -22.4 -13.7 3.5 2 21.8 3.2 3.2 3.2 3.3 |))))))))))))))))))) |

| | Temperature (°C) | | | Precip. (mm) | | | |
|---|---|---|---|---|--|---|--|
| Station | Average | Departure from Normal | Extreme Maximum | Extreme Minimum | Total | Departure from Normal | |
| Simcoe Sioux Lookout Sudbury Thunder Bay Timmins Toronto Trenton Trout Lake Wawa Wiarton Windsor | 11 1 5 1 10 9 - 7 M 7 | 8 3 7 2 5 6 5 1 X 6 6 | 22 11 16 11 13 23 21 6 11P 20 22 | - 1 -10 - 6 - 7 -10 - 2 - 3 -26 -12 - 3 - 1 | 9.7 0.0 M | -22.2 9.0 41.6 12.4 34.5 -13.7 - 8.5 - 4.4 X -11.9 -22.4 | |
| QUÉBEC Bagotville Baie Comeau Blanc Sablon Border Chibougamau Fort Chimo Gaspé Grindstone Island Inoucdjouac Koartak La Grande Rivière Maniwaki Matagami Mont-Joli Montréal Natashquan Nitchecun Port Menier Poste-de-la-Baleine Québec Rivière du Loup Roberval Schefferville Sept-Iles Sherbrooke | 3 1 1 - 2 2 M 0 0 -18 2 3 -19 -20 - 8 7 7 M 2 2 8 1 1 - 9 M 4 4 -13 3 0 0 8 8 | 3 6 4 1 M - 1 5 M 7 - 3 4 | 3 16 7P 16 2 7 22 | - 2 - 3 - 3 -29 - 6 - 5 | 5.9 29.4 M 18.4 26.9 39.6 32.6 | - 3.7 8.5 M 7.0 15.4 20.1 15.0 | |
| Ste Agathe des Monts Val d'Or NEW BRUNSWICK Charlo Chatham Fredericton Moncton | 3 3 5 6 6 4 | 5 5 4 5 | 9 20 19 19 | - 4 - 8 - 3 - 6 - 5 - 5 | 43.8 43.8 32.1 48.2 67.8 56.2 57.2 | 8.9 30.5 46.7 31.9 | |
| St. John's NOVA SCOTIA Eddy Point Greenwood Sable Island Shearwater Sydney Truro Yarmouth | 6 6 6 6 7 7 7 | X 5 5 4 4 6 6 7 | 15 23 11 14 19 22 | - 1 - 2 1 - 2 | 48.2 40.0 16.1 32.4 42.4 43.6 | X 15.0 -10.0 2.7 18.4 | |
| PRINCE EDWARD ISLAND Charlottetown Summerside | 1 6 | 31 | | - 3 - 4 | 27.6 35.7 | The second second second second | |
| NEWFOUNDLAND Argentia Battle Harbour Bonavista Burgeo Cartwright Churchill Falls Comfort Cove Daniel's Harbour Deer Lake Gander Goose Hopedale Port aux Basques St Albans St Anthony St. John's St Lawrence Stephenville Wabush Lake | - 6 - 6 - 7 - 8 - 8 | 14 | 3 3 4 11 8 6 6 2 4 4 5 5 3 11 13 10 13 10 2 5 4 4 6 3 6 3 9 9 K 2 | - 7 - 3 -20 -26 - 6 -10 | 57.44 40.4 M 59.1 25.3 12.6 33.2 46.2 34.0 22.7 22.1 50.2 56.0 24.6 27.2 67.0 52.0 | 23.0 M 21.9 7.4 - 8.6 11.3 32.0 15.2 16.5 6.4 8.4 23.3 16.9 X 3.5 37.3 36.2 | |
| | | | | | | | |