

WEATHER HIGHLIGHTS FOR THE WEEK - MAY 20-26, 1980
Severe forest fires reported in many areas of Canada

The forest fire situation is the worst in many years. The most serious are located in Northwestern Ontario. Many people have been evacuated from small communities, and the towns of Red Lake and Kenora are threatened. Hundreds of smaller fires are burning across the northern Prairies. Over one million hectares have been burned.

Rains brought relief from drought over southern Alberta, but crops over the remainder of the southern Prairies are suffering badly from drought.

Record-breaking high temperatures in the mid- to upper thirties occurred on a number of days over the southern Prairies. The highest, $39^{\circ}$, occurred at Estevan, Sask., and Dauphin, Man., on the 22 nd and at Moose Jaw, Sask, on the 23rd, a new record high at that station for the month. The low was $-20^{\circ}$ at Pelly Bay, N.W.T., on the 23 rd .

The heaviest weekly precipitation was 108.2 mm at Lethbridge, Alta., of which 85.4 mm fell on the 23 rd .

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

Below normal precipitation was reported for the week across most of the Yukon and Northwest Territories. Many stations received less than 5 mm over the seven-day period. The major exception was the southern District of Mackenzie, where a number of stations reported showers on most days of the week with total accumulations of 15 mm or more. Fort Smith received rain or showers on six days with a weekly total of 36.2 mm .

Temperatures averaged $2^{\circ}$ to $4^{\circ}$ above normal over the District of Keewatin, but the northern archipelago ran about $2^{\circ}$ below normal for the week. Most other places in the Northwest Territories and the Yukon averaged within a degree or two of normal. In the Yukon, the weekly high was $24^{\circ}$ at Dawson and Mayo on the 25 th and at Dawson again on the 26 th. The low was $-11^{\circ}$ at Shingle Point on the 20th. In the Northwest Territories the weekly high was $23^{\circ}$ at Norman Wells on the 25 th, while the low was $-20^{\circ}$ at Pelly Bay on the 23 rd .

Some open leads are appearing in the ice, both in the Beaufort Sea and in the eastern Arctic. In Hudson Bay and Hudson Strait, open areas are more extensive than normal for this time of year,

As of May $26 t h$, Clyde River still reported 140 cm of snow on the ground.

Twenty-two forest fires have occurred in the Yukon so far this season, but only one would be classed as major.

## BRITISH COLUMBIA

Many regions reported above normal precipitation for the week. The heaviest amounts, in excess of 40 mm , fell in some southern interior valleys. Cranbrook, for instance, reported rain on five days out of the week, with a total fall of 53.6 mm . Meantime, most of the north coastal areas, normally the wettest part of the province, received very little precipitation.

Temperatures averaged near normal over the north coast, but over most of the province, weekly departures ran from $1^{\circ}$ to $3^{\circ}$ below normal. The highest temperature for the week was $26^{\circ}$ at



Cranbrook on the 21 st, while the lowest was $-4^{\circ}$ at Dease Lake on the 22 nd .

The cool, showery weather has extinguished previous forest fires in southern B.C. and has been an aid to farming.

## PRAIRIE PROVINCES

Heavy rain fell over most of the western Prairies during the latter part of the week. Southern Alberta received the heaviest falls with a number of stations receiving 50 mm or more. Lethbridge reported 108.2 mm , of which 85.4 mm fell on the 23 rd . Farther east, precipitation totals were much less. Prince Albert, Sask., received 31.8 mm on the 26 th and Pilot Mound, Man., 32.2 mm on the 25 th and 26 th , but precipitation was spotty, and many stations in the southern agricultural regions of Saskatchewan and Manitoba received only negligible amounts if any.

Temperatures averaged well above normal across most of the Prairies for the week. Departures over parts of southern Saskatchewan and southern Manitoba were as much as $10^{\circ}$ to $12^{\circ}$. In
contrast, temperatures averaged about $2^{\circ}$ below normal over the foothills of Alberta. The mercury climbed well into the thirties on most days over the southern Prairies. The 22 nd and 23 rd were the hottest with new daily records broken at most stations. Estevan, Sask., and Dauphin, Man., reached $39^{\circ}$ on the 22 nd. Moose Jaw, Sask., reached the same temperature on the 23 rd, a new record not only the date, but also for the whole month of May. The lowest temperature during the week on the Prairies was $-3^{\circ}$ at Churchill, Man., on the 24 th .

A tornado was reported at Hilda, 60 km north of Medicine Hat, on the 25 th. Damage to farms was estimated at $\$ 400,000$.

The heavy rain over southern Alberta was the first major rainfall since last summer. In the mountains, heavy snow fell above the 1500 -metre elevation, and stream flows were well above normal. As a result, pasture and seeded crops should do well now. Farther east, much more rain is needed. Seeding is now completed in southern parts of Saskatchewan and

Manitoba, but grass and hay supplies are in short supply due to the dry weather. The hot weather has also caused concern as there may be an epidemic of grasshoppers, flea beatles and cut worms.

In spite of the heavy precipitation over most of Alberta, northeastern regions of the province remained dry, and out of 33 fires still burning, seven are still of of control. Over 530,000 hectares have been burned in Alberta so far this year. In Saskatchewan, 63 fires are still burning. The biggest one at Hudson Bay Junction covers 110,000 hectares. In Manitoba, 97 fires are still burning. So far this year, 160,000 hectares have burned in this province.

## ONTARIO

Ontario was very dry all week, many stations reporting no precipitation at all. A few brief thunderstorms fell over parts of northwestern Ontario on the 26 th . At ikokan received 18.6 mm of rain that day, but precipitation amounts were mostly negligible.

Temperatures averaged well above normal over all of the province. Weekly departures ranged from more than $10^{\circ}$ over northwestern Ontario to about $3^{\circ}$ over southern and eastern regions. The weekly high temperature was $35^{\circ}$ at Armstrong and Thunder Bay on the 22nd, while the weekly low was $-2^{\circ}$, reported at several stations over the weekend. High temperature records were recorded at several stations.

Forest fires dominated the headlines all week. The area most severely affected was northeastern Ontario, where numerous people have been evacuated from small towns. The most dangerous fire in Canada was burning in a $70-\mathrm{km}$ front near Kenora. Both this community and Red Lake have been threatened. The thundershowers on the 26th gave little relief as precipitation was light. The lightning, however, started six new firest for a total of 94 burning at the end of the week.

The warm, dry weather of the past week provided excellent drying conditions, allowing farmers to move equip-
ment onto fields that were previously too wet to work.

## QUÉBEC

Most regions enjoyed sunshine this week. With the exception of the southwestern regions, temperatures became milder in all areas. The mercury reached $31^{\circ}$ at Bagotville on the 21 st, but dipped to $-6^{\circ}$ at Shefferville on the 20 th and at Inoucdjouac on the 23 rd.

Precipitation exceeded normal at some central and northern stations, but was light in southern regions.

Since May 26th, the Provincial Ministry of Energy and Resources has banned any open fires in several sectors of the Ottawa River, Maurice River, Saguenay, lac St-Jean and southern regions. This followed the break-out of 18 new fires on May 25th. On that day, water bombers dropped more than three million litres of water. Four of those fires were still out of control as of May 26th, three north of Matagami and the other south of Chibougamau. All others were brought under control.

## ATLANTIC PROVINCES

The Maritimes reported negligible precipitation during the week. Most stations in Newfoundland and Labrador, on the other hand, were wet, and many places received 30 mm or more precipitation over the seven-day period. Argentia received the largest amount 59.8 mm , most of which fell on the 22 nd and 23 rd. Some of this precipitation fell as snow over higher elevations on the Island and over most of Labrador. Goose received 20.3 cm of snow during the week, bringing the 1979-1980 seasonal snowfall to 572.6 cm , a new record since the airport was opened in 1941. The previous record was 572.3 cm in the 1956-1957 season. Goose frequently gets snow as late as June.

Mean temperatures for the week ranged from about near normal to about $2^{\circ}$ below normal. The weekly high for the Maritimes was $28^{\circ}$ at Charlo and for Newfoundland and Labrador, $23^{\circ}$ at Goose, both occurring on the 21 st. The weekly low for the Maritimes was $-3^{\circ}$ at

Truro on the 25 th, while a number of stations in Labrador reached $-4^{\circ}$ on the weekend. On the 24 th , new record low maximum temperatures were established at St John's and Gander, when the mercury refused to rise higher than $2^{\circ}$ and $4^{\circ}$, respectively.

A severe thunderstorm was reported in Prince Edward Island on the 22nd. Pea-size hall was reported and lightning hit an electrical substation, causing an hour-long blackout over most of the island.

Provided the sunny weather continues, Nova Scotia is headed toward a bumper strawberry crop. Elsewhere in

Nova Scotia, grass crops are running about two weeks behind normal schedules due to low temperatures.

A number of forest fires are burning in southwestern Nova Scotia. The largest was burning within 6 km of the village of Jordan Falls, but was brought under control over the weekend. A fire is also burning near Shubenacadie.

The edge of pack ice along the Labrador Coast is still retreating northward. Ships are now able to use the Strait of Belle Isle, about two weeks earlier than normal for this time of year.


Climatic perspectives

|  | Staff |
| :--- | :--- |
| Editor: | Yues Durocher |
| Assistant Editor: | Ron Crowe |
| Technical Staff: | Fred Richardson, Andy Radomski |
| Graphics and Layout: | Debra Allsopp, Bill Johnson |
| Word Processing: | Lillian Methven, Una Ellis |

Correspondents

```
Terry Mullane, (Ice Forecasting Central)
H.E. Wahl, (Whitehorse)
    (Western Region)
Fred Luciow, (Central Region)
Bryan Smith, (Ontario Region)
Jacques Miron, (Quebec Region)
J.F. Aalrault, (Atlantic Region)
Staff of Prince George, Kamloops, Castlegar, Fort
    Nelson, Penticton and Kelowna
    weather office (Pacific Region)
    Telephone Inquiries (416) 667-4711/4956
```

heating degree-day sumanir to may 24,1980


| CITY | MONTHLY <br> CUMULATIVE <br> TOTAL | MONTHLY DIFF. <br> FROM 1941-70 <br> NORMAL | SEASONAL <br> TOTAL | SEASONAL <br> DIFF. FROM <br> 1941-70 NORMAL | SEASONAL <br> PERCENT <br> OF NORMAL |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Resolute | 628.0 | -86.0 | 11728.5 | -147.5 | 99 |
| Inuik | 512.0 | 20.0 | 8898.0 | -985.0 | 90 |
| Whitehorse | 272.0 | -6.0 | 6153.0 | -524.0 | 92 |
| Vancouver | 139.5 | -5.5 | 2789.5 | -116.5 | 96 |
| Edmonton | 92.5 | -94.5 | 4707.0 | -766.0 | 86 |
| Calgary | 143.5 | -79.5 | 4723.5 | -449.5 | 91 |
| Regina | 117.0 | -84.6 | 5276.5 | -544.5 | 91 |
| Winnipeg | 130.0 | -68.0 | 5643.5 | -163.5 | 97 |
| Thunder Bay | 167.5 | -76.5 | 5416.5 | -170.5 | 97 |
| Windsor | 94.5 | -28.5 | 3562.0 | -1.0 | 100 |
| Toronto | 118.5 | -43.5 | 4030.5 | -1.5 | 100 |
| Ottawa | 125.5 | -30.5 | 4438.0 | -193.0 | 96 |
| Montreal | 130.0 | -19.0 | 4351.5 | -86.5 | 98 |
| Quthei. | 165.0 | -30.0 | 4990.5 | -2.5 | 100 |
| Saint John, N.B. | 217.5 | -21.5 | 4451.0 | -162.0 | 96 |
| Halifax | 222.5 | -10.5 | 4024.5 | 58.5 | 101 |
| Charlottetown | 252.0 | 9.0 | 4475.5 | 3.5 | 100 |
| St. John's, Nfld. | 340.0 | 26.0 | 4621.0 | 98.0 | 102 |

GROWING DEGREE-DAY SUMMARY TO MAY 24, 1980


| CITY | MONTHLY <br> CUMULATIVE <br> TOTAL | MONTHLY DIFF. <br> FROM 1941-70 <br> NORMAL | SEASONAL <br> TOTAL | SEASONAL <br> DIFF. FROM <br> 1941-70 NORMAL | SEASONAL <br> PERCENT <br> OF NORMAL |
| :--- | ---: | ---: | ---: | ---: | :---: |
| Whitehorse | 49.5 | 14.5 | 54.0 | 19.0 | 154 |
| Penticton | 227.5 | 35.5 | 451.0 | 127.0 | 139 |
| Vancouver | 172.5 | 3.5 | 344.0 | 16.0 | 105 |
| Edmonton | 222.5 | 14.5 | 386.0 | 265.0 | 319 |
| Calgary | 168.5 | 70.5 | 301.0 | 193.0 | 279 |
| Regina | 235.5 | 114.5 | 379.5 | 244.5 | 281 |
| Saskatoon | 229.0 | 10.5 | 397.5 | 260.5 | 290 |
| Winnipeg | 234.0 | 103.0 | 360.5 | 218.5 | 254 |
| Thunder Bay | 160.5 | 79.5 | 214.5 | 130.5 | 255 |
| Windsor | 228.0 | 29.0 | 299.0 | -18.0 | 94 |
| Toronto | 207.5 | 47.5 | 247.0 | 21.0 | 109 |
| Ottawa | 192.5 | 25.5 | 266.5 | 58.5 | 128 |
| Montréal | 186.5 | 15.5 | 269.0 | 67.0 | 133 |
| Québec | 147.0 | 24.0 | 176.5 | 44.5 | 134 |
| Fredericton | 133.0 | 17.0 | 177.0 | 43.0 | 132 |
| Halifax | 92.5 | 9.5 | 108.0 | 21.0 | 124 |
| Charlottetown | 65.0 | 12.0 | 65.0 | 12.0 | 123 |
| St John's | 15.0 | 7.0 | 15.0 | 7.0 | 188 |

## 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
Whitehorse
Victoria Vancouver Edmonton Regina
Winnipeg
Thunder Bay
Toronto
Ot tawa
Montreal
Quebec
Fredericton
Halifax
Charlottetown
St. John's
Goose Bay
Frobisher Bay
Inuvik

Current Temperature Anomaly Forecast

Much Below Normal Below Normal Below Normal Near Normal Near Normal Near Normal Below Normal Above Normal Above Normal Above Normal Above Normal Near Normal Near Normal Near Normal Be low Normal Near Normal Near Normal Below Normal

More than $1.6^{\circ}$ below Normal
From $0.3^{\circ}$ to $1.1^{\circ}$ below Normal
From $0.3^{\circ}$ to $1.1^{\circ}$ below Normal
Within $0.5^{\circ}$ of Normal
Within $0.5^{\circ}$ of Normal
Within $0.5^{\circ}$ of Normal
From $0.4^{\circ}$ to $1.4^{\circ}$ below Normal
From $0.5^{\circ}$ to $1.6^{\circ}$ above Normal
From $0.5^{\circ}$ to $1.6^{\circ}$ above Normal
From $0.4^{\circ}$ to $1.5^{\circ}$ above Normal
From $0.4^{\circ}$ to $1.4^{\circ}$ above Normal
Within $0.4^{\circ}$ of Normal
Within $0.3^{\circ}$ of Normal
Within $0.4^{\circ}$ of Normal
Fron $0.5^{\circ}$ to $1.7^{\circ}$ below Normal
Within $0.5^{\circ}$ of Normal
Within $0.5^{\circ}$ of Normal
From $0.7^{\circ}$ to $2.3^{\circ}$ below Normal

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

Atmospheric Circulation Features


7-day Mean 50 kPa Height Map(in dam) May 19 to 25, 1980

A significant change has taken place in the upper air stream across North America. A strong upper closed low associated with an influx of cold air moved inland and became quasistationary over southern B.C. Unsettled cool showery weather was predominant over much of B.C. and Alberta. Surface low pressures and a resultant easterly upslope flow increased precipitation totals significantly east of the Continental Divide and the Alberta foot hills. Much needed rain in amounts exceeding a 100 mm were reported at many communities.

The major upper ridge previously over Western Canada has now repositioned itself in the vicinity of the Great Lakes Basin with positive height anomalies extending over Saskatchewan, Manitoba, Ontario. West of the ridge, a southerly flow both at the surface and aloft continued pumping very warm but


7-day Mean 50 kPa Height Anomaly(in 5 dam intervals)May 19 to 25, 1980
dry air northward from the American southwest to as far east as Ontario. Record breaking hot dry weather continued across the Prairies with only widely scattered shower and thunderstorm activity present.

Generally seasoned weather with near normal temperatures prevailed across Québec and the Maritimes due to the influence of higher surface pressures. On the other hand, a low pressure system which moved rapidly eastward from Hudson Bay strengthened and stalled over the island of Newfoundland Friday, remaining quasistationary throughout the rest of the period due to the formation of an upper closed centre. As a result, unsettled cool weather prevailed over Newfoundland and Labrador with above normal precipitation amounts and snow reported in some locations.

TEMPERATURE and PRECIPITATION DATA FOR The WEEK ENDING 0600 G.M.T. MAY 27, 1980


