# Climatic Perspectives

Monthly review

JUNE

Vol.9 1987

### CLIMATIC HIGHLIGHTS

P. Scholefield, CCRM

#### Drought Conditions Effect Parts of the Prairies

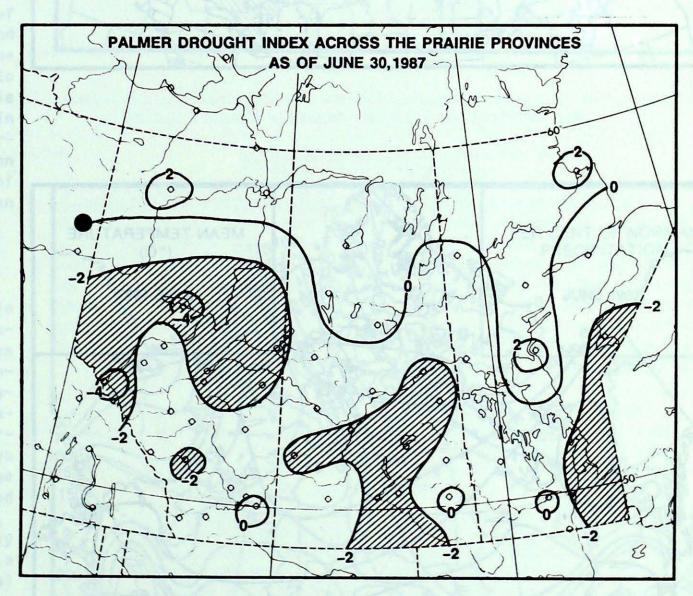
Precipitation patterns are seldom uniform or coherent, particularly during the spring and summer months when precipitation often falls in the form of erratic showers. It is not surprising to find considerable variability in the amounts of rainfall that have fallen on the Prairies during recent months. In June, for example, totals varied between only 24% of normal at Calgary to 171% at Broadview, Saskatchewan while being generally below normal across the Prairies. This has been the third consecutive month that has been generally drier than normal across the Prairies at a time of the year when evaporation is high. It was also extremely dry in January. The cumulative effect of the recent extended periods of warm, dry weather can be seen by examining the Palmer drought index which is displayed on the accompanying map. Significant areas of drought exist in each province (shaded areas) but there are also many regions where drought is not yet a problem.

The seriousness of the situation prompted the Weekly Weather and Crop Bulletin (U.S.A.) to publish a feature page showing the extent of the Canadian Prairie dry weather based on cumulative temperature and precipitation statistics since January of this year (see maps on page 14B).

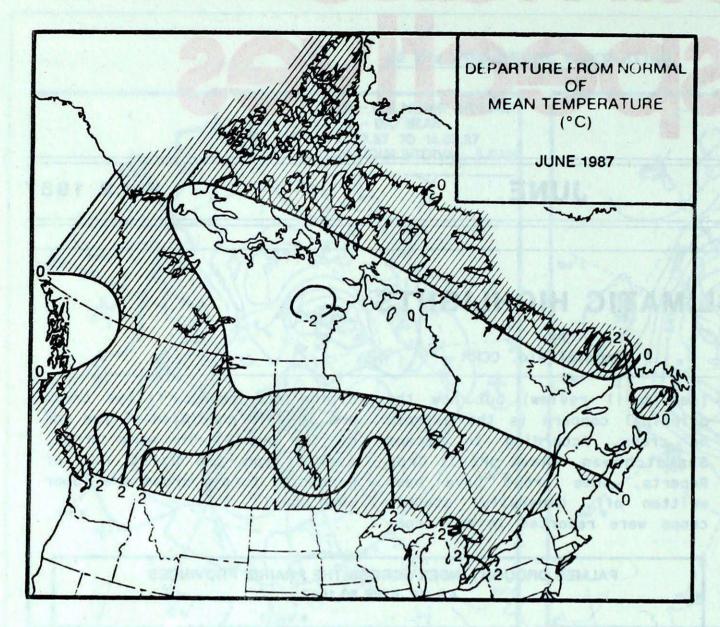
Earlier in the spring, the concern was forest fire hazards

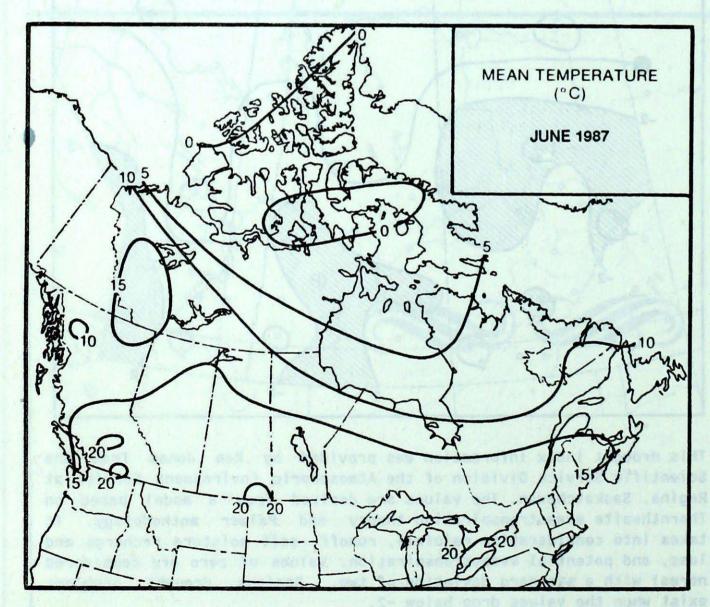
(see April review) but now the principal concern is the effects on crops. According to recent Saskatchewan Wheat Pool Crop Reports, some crops have been written off. Generally, stubble crops were reported in poor con-

dition and summer fallow crops are in fair condition at the end of the month. In many areas, yields from the first cut of perennial forage crops are lower than usual.



This drought index information was provided by Ken Jones from the Scientific Service Division of the Atmospheric Environment Service at Regina, Saskatchewan. The values are derived from a model based on Thornthwaite evapotranspiration theory and Palmer methodology. takes into consideration rainfall, runoff, soil moisture recharge and loss, and potential evapotranspiration. Values of zero are considered normal with a standard deviation of two. Serious drought exist when the values drop below -2.





#### ACROSS THE COUNTRY

#### Yukon and Northwest Territories

The anomalously cold weather pattern that has persisted over the past several months over the eastern Arctic shifted this month to the Keewatin District. Most other areas reported above-normal values, but an exception was southern Yukon, which was also below normal.

Several periods of showery weather in the Keewatin and eastern Mackenzie Districts resulted in above-normal monthly precipitation. It was the same story in eastern Baffin Island, as a number of disturbances moving northward in Davis Strait were accompanied by heavy precipitation. Most of the remainder of the Territories was dry.

#### British Columbia

Temperatures across most of the province averaged well- above normal for the month, thus continuing the trend that has continued for several consecutive months. The southern interior valleys were warmest, many stations reporting a mean temperature two or three degrees above normal. While coastal areas were near or even below normal, most stations reported an occasional hot day. For instance, Port Alberni, on the west coast of Vancouver Island, reported 34°C one day, and normally cool Sandspit, in the Queen Charlottes, boasted a 26°C. These two values were both new record highs for the month of June.

The south coast and southern interior reported relatively dry weather in June, but it was much wetter than normal over the remainder of the province. Cape Scott was deluged with 293 mm of rain, almost three times normal and a new record for the month. In sharp contrast, Lytton received only 5% of its normal June rainfall.

Agriculture generally continued ahead of schedule in June because of the persistent above normal temperatures. Thunderstorms, however, caused some fruit tree damage in the Okanagan and other southern interior valleys.

#### Prairie Provinces

The warm temperatures of the past few months continued in June over all the Prairies. It was, in fact, the seventh consecutive month with above-normal mean temperatures. The heat peaked about mid-month, and on the 15th, many communities reported excessively hot conditions. The mercury at Saskatoon soared to 39°C, a new record for the date.

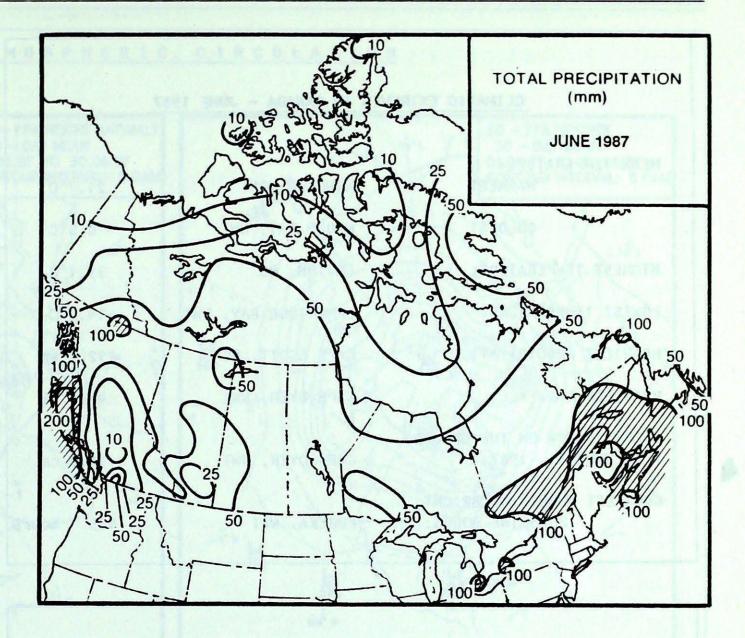
Rainfall was generally below normal for the month, especially over southern agricultural areas. What little rain fell, occurred as a result of heavy thunderstorms. One exception was the Lethbridge area of Alberta, which received about 25 mm on the 20th, this greatly assisted agriculture in the area.

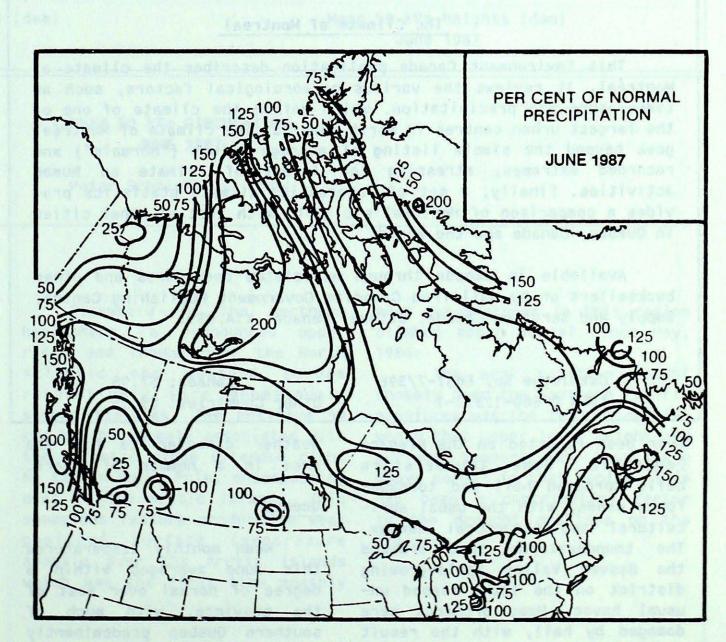
Severe weather occurred on a number of days in the month. The outbreaks of heavy thunderstorms and funnel clouds on the 16th was particularly noteworthy. A number of communities in Saskatchewan and Manitoba reported crop damage due to hail, tornado and wind damage to barns and buildings. Most notable was the destruction of a building in Gravelbourg, Saskatchwan, by a tornado on the 16th and the report on the 21st at Rossburn, Manitoba, of an airport hanger roof having been torn off by gusty winds.

#### Ontario

Summer arrived early in Ontario this year with mean June temperatures averaging about two degrees above normal over most of the province. It was the seventh consecutive warm month. Daily maximum temperatures in Southern Ontario surpassed the 30°C mark on seven days this June compared with the same number for the whole summer period last year.

Monthly precipitation anomaly patterns during June resembled a patchwork quilt, with above-normal and below normal areas often occurring in close proximity. Much of the heavier rain was the result of thunderstorm torrential downpours, which occurred on several days during the month. One of the notable occurrences was the 154 mm of rain that deluged Fort Erie on the 22nd, the greatest 24-hour amount that has





#### CLIMATIC EXTREMES IN CANADA - JUNE 1987 **MEAN TEMPERATURE:** WARMEST WINDSOR, ONT 21.7°C COLDEST MOULD BAY, NWT - 0.3°C HIGHEST TEMPERATURE: LYTTON, BC 39.1°C LOWEST TEMPERATURE: -14.2°C CAMBRIDGE BAY, NWT **HEAVIEST PRECIPITATION:** CAPE SCOTT, BC 292.7 mm **HEAVIEST SNOWFALL:** CAPE DYER, NWT 45.0 cm DEEPEST SNOW ON THE GROUND ON JUNE 31, 1987: CAPE DYER. NWT 18.0 cm GREATEST NUMBER OF BRIGHT SUNSHINE HOURS: EUREKA, NWT hours 465

#### New Publication from the Canadain Climate Centre

#### The Climate of Montreal

This Environment Canada publication describes the climate of Montréal. It reviews the various meteorological factors, such as temperature and precipitation, which define the climate of one of the largest urban centres in North America. The climate of Montréal goes beyond the simple listing of average values ("normals") and recorded extremes, stressing the impact of climate on human activities. Finally, a set of interesting climate statistics provides a comparison of Montréal's climate with that of other cities in Quebec, Canada and the world.

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Canada: \$7.95 Other Countries: \$9.55

ever been reported on the Niagara Peninsula. Some thunderstorm cells sprouted hail and tornadoforce winds, with the usual agricultural and structural damage. The thunderstorms that crossed the Beaver Valley apple-growing district on the 12th, reaped unusual havoc. Many orchards were damaged by hail, with the result that this was the largest single

weather disaster to hit the area in a number of years.

#### Quebec

Mean monthly temperatures this June averaged within a degree of normal over most of the province, with much of southern Quebec predominantly above normal and the northern

and eastern regions below normal. There were some hot, sticky days in the south, particularly on the 2nd and 3rd, when many stations reported record-high temperatures for the day.

Northern Quebec reported a dry month, but many disturbances and fast-moving cold fronts swelled rainfall amounts in southern regions to well-above normal values, with the heaviest falls occurring along the Saint Lawrence River Valley from Montréal to the Gaspé. Much of the rain fell in heavy cloudbursts associated with severe thunderstorms. The area around Montréal got hit on a number of occasions, and local torrential rains provided such impressive statistics as 87 mm in two hours at St. Amable, 44 mm in one hour at Dorval, and 110 mm in 24 hrs at Marieville. Other parts of Quebec did not escape flooding from heavy downpours on at least one occasion. particularly the Abitibi region and Québec City. The latter was deluged with 73 mm of rain on the 27th. Some of the heavy thunderstorms were accompanied by hail and strong gusty winds, causing agricultural and structural damage.

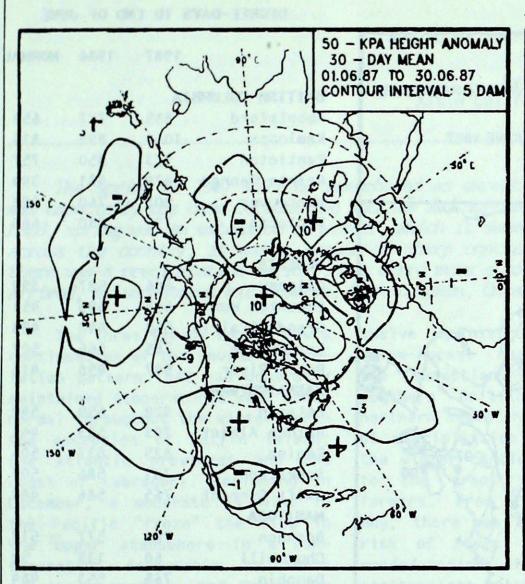
#### **Atlantic Provinces**

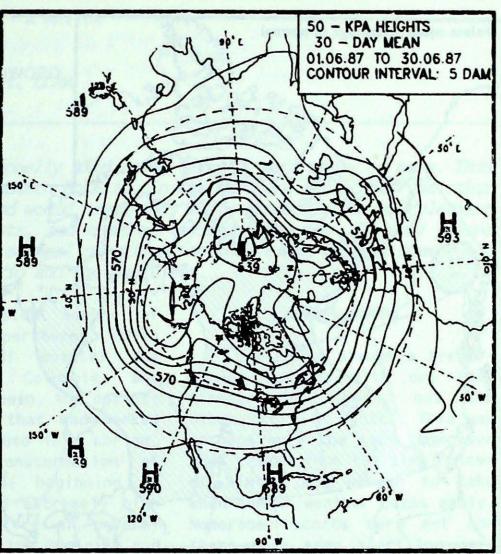
Mean temperatures this month averaged near to slightly-below normal over most of Atlantic Canada. Most of the warmer days occurred early in the month, but the last two weeks were well-below normal in all four provinces, with patchy frost being reported on a few occasions.

Precipitation averaged well-above normal for the month in the Maritime Provinces. Much of the rain occurred from thunderstorms or showers, but Sydney received a heavy dousing on the 6th as a travelling disturbance dumped 40 mm of rain in one day.

In Newfoundland, there was considerable variability in the weather with temperature extremes varying between a surprising -2°C at Badger on June 23 to 27°C at Goose Bay on June 3. Sunshine was above normal. Several forest fires flared up in western Labrador early in the month due to the sunny, warm conditions.

#### ATMOSPHERIC CIRCULATION





Mean 50 kPa height anomaly (dam) June 1987

Mean 50 kPa heights (dam) June 1987

# MEAN 50 kPa CIRCULATION JUNE 1987

Peter Scholefield, CCRM

The 50 kPa flow pattern across the Pacific Ocean and over North America during June closely resembled the long-term normal and also the mean flow pattern for the previous month. It is not surprising then to find that 50 kPa height anomalies in this region were rather weak. The significant change from the May mean flow pattern was a weakening of the gradient in the eastern Canadian trough which one would expect at this time of the year.

Elsewhere in the northern hemisphere, a pronounced upper ridge and trough over the North Atlantic and western Europe respectively were anomalously strong features. The positive 50 kPa height anomaly associated with the Atlantic ridge extended right up to the North Pole, encompassing most of the Arctic Islands. This anomalous feature produced a weak positive surface temperature anomaly over the Arctic Islands which was the first time monthly

mean temperatures in this region climbed above normal since May, 1986.

The weak positive height anomaly over the southern Prairie provinces was the 7th consecutive month that upper level height and surface temperatures have been above normal in that region. This has been a contributing factor to the drought problems on the Prairies.

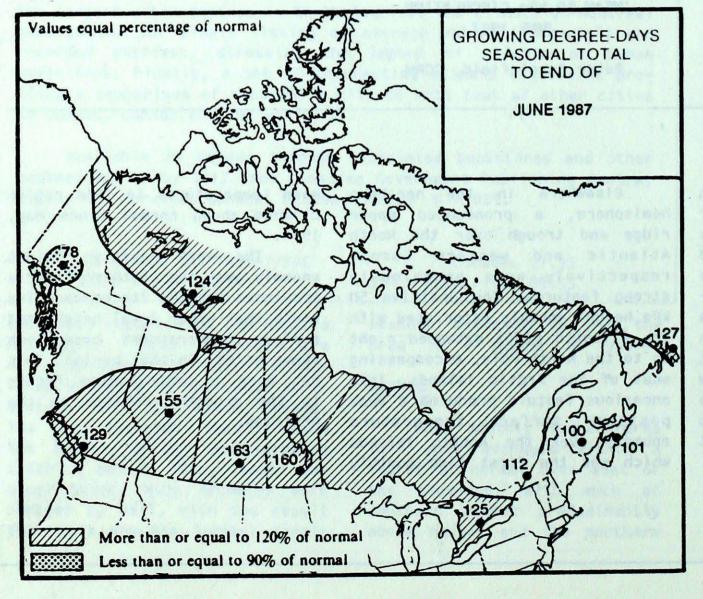
#### GROWING DEGREE DAYS

SEASONAL TOTAL OF GROWING

U	EGR	CE-I	DATS	10	CNU	UF	JUNE

Values equal percentage of normal	GROWING DEGREE-DAYS
Ser Sold Services	JUNE 1987
Annual Selection of the	Em Em
	The state of the s
130	97 96
1210	101
More than or equal to 120% of normal Less than or equal to 90% of normal	WAY S

	1987	1986	NORMAL
BRITISH COLUMB	IA		
Abbotsford	855	777	653
Kamloops	1060	898	816
Penticton	973	850	757
Prince George	479	431	394
Vancouver	902	760	698
Victoria	791	680	640
ALBERTA			
Calgary	666	527	399
Edmonton Mun.	698	596	451
Grande Prairie	560	440	428
Lethbridge	765	666	507
Peace River	547	458	415
SASKATCHEWAN			
Estevan	920	659	549
Prince Albert	703	533	443
Regina	825	637	506
Saskatoon	781	586	507
Swift Current	765	586	484
MANITOBA			
Brandon	766	577	513
Churchill	60	133	50
Dauphin	765	553	484
Winnipeg	870	685	544
ONTARIO			
London	896	735	694
Mount Forest	659	627	520
North Bay	546	572	514
Ottawa	790	775	669
Thunder Bay	539	489	386
Toronto	861	755	687
Trenton	828	752	673
Windsor	1033	950	846
QUEBEC	11-11-2	FIG. 18	
Baie Comeau	301	270	300
Maniwaki	530	571	510
Montréal	806	744 526	682 526
Quebec	540 244	217	231
Sept-Iles Sherbrooke	534	606	583
Man and a second	prof s		300
NEW BRUNSWICK			
Charlo	418	371	401
Fredericton	521	449	520
Moncton	466	447	438
NOVA SCOTIA			
Sydney	310	306	305
Truro	413	511	387
Yarmouth	463	447	401
	ISLAND 394	422	370
Charlottetown NEWFOUNDLAND	394	422	3/0
Gander	289	298	245
St. John's	246	265	193
Stephenville	286	335	270



The spring of 1987 will be remembered as exceptionally mild, even warm, a mari usque ad mare. This was especially the case between the Rockies and northwestern Ontario. In the northern Arctic, on the other hand, spring was an extension of winter, which it seemed would never end. While temperatures were pleasant across the country, it was a season of sharp contrasts, and numerous records were set. In many places there was a precipitation deficit, but there were also several surprises for people who thought summer had arrived, as snowstorms hit Alberta, Saskatchewan, Ontario and the Maritimes.

The three spring months saw a continuation of the unusual circulation pattern that had generally maintained temperatures well above normal throughout the winter (with the exception of Baffin Island, the Atlantic provinces and the coast of Labrador). Beginning in December, a moderate El Nino in the Pacific "froze" the flow in the upper atmosphere in a configuration favourable to North America generally, and Canada in particular. The positive height anomalies were generally maintained (see vol 9 N°15, 19 and 23 page 5A), with ridges of high pressure over the southern half of the country and long periods of sunny weather. Negative anomalies over the Pacific, maintained a southwesterly flow of warm air onto the continent.

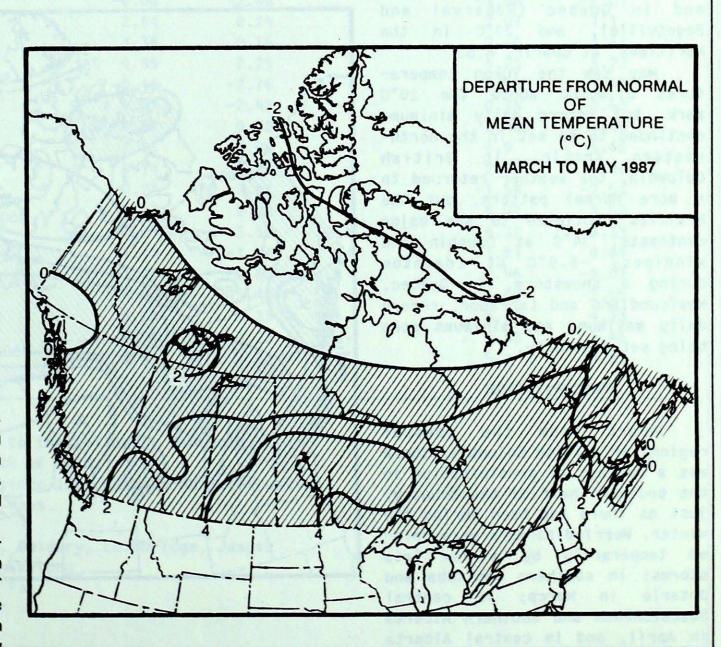
This persistent circulation pattern gave rise to unusually warm spring weather. All the provinces, as well as the Yukon, recorded above-normal mean temperatures. On the Prairies, the mean anomaly for the three months of March. April and May reached +4.8°C at Regina. Table 1 gives the mean anomaly for several cities in the southern Prairies provinces, and shows that spring 1987 was the second warmest in Saskatchewan for at least 32 years (just 1/10 of a degree behind 1977).

By the end of May, all southern regions west of Quebec were in their sixth consecutive month of above-normal temperatures. The negative anomalies in the northern Arctic were less striking, but by the end of May there had been over

twelve uninterrupted months of below-normal temperatures. With the exception of coastal and southern British Columbia, and northern Saskatchewan, the deficit of precipitation that had marked the winter continued into spring, to the great consternation of farmers. From the beginning of May, there was an extremely high risk of forest fire in several wooded regions of the Prairies and northwestern Ontario.

#### **TEMPERATURES**

Spring is always a transitional season, with one foot already in summer, but the other still in winter. This was perhaps more the case than ever this year, since the final blows of winter are harder to take when summer weather comes early. Numerous records were set and there were some startling contrasts in temperature.



## **FEATURE**

In March, despite record sunshine and a few daily maximum temperature records, the Yukon was still seeing overnight lows of -50°C under clear skies, at a time when temperatures in the Arctic were finally getting back up to levels that had not been seen since November. At Abbotsford, British Columbia, the temperature reached 22°C on March 31st, a record for the month. On the Prairies, early March temperatures ranged from 23°C at Medicine Hat in the south to -36°C at Fort Chipewyan in the north. The mercury almost hit the 20°C mark in southern Ontario, which had the mildest March since 1977, and it nearly hit 19°C in Quebec, even though the night-time minimums were near the lowest on record. Meanwhile the Atlantic Provinces still had a few weeks to wait: the effects of the equinox were not felt until Easter.

In April, record maximums were being set all across the country: 33°C in Kamloops, B.C.; 31°C in Lethbridge, Atla.; over 30°C in northwestern Ontario and in Quebec (Roberval and Bagotville), and 29°C in the Maritimes, at Charlo, N.B.

May saw the Yukon temperatures climbing above the 20°C mark, but record daily minimums continued to be set in the northeastern Arctic. In British Columbia, the weather returned to a more normal pattern, but the Prairies continued to see major contrasts: 34°C at Dauphin and Winnipeg; -8.9°C at Edmonton during a snowstorm. In Quebec, Newfoundland and Labrador, record daily maximums and minimums were being set regularly.

#### **PRECIPITATION**

Apart from the coastal regions of British Columbia, there was a deficit of precipitation in the southern half of the country, just as there had been during the winter. Worried farmers were calmed temporarily by a few late storms: in southern Manitoba and Ontario in March; in central Saskatchewan and southern Alberta in April, and in central Alberta on May 19th (which gave the

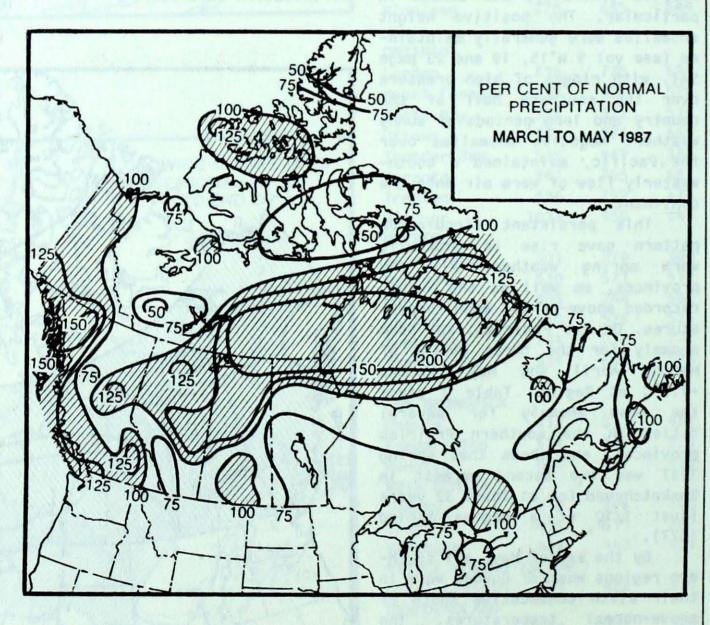
heaviest snowfall in 12 months to Edmonton). Several snowstorms hit the Maritimes. All modes of transport were disrupted by a mid-March storm in New Brunswick.

#### IMPACT

The unusual spring weather naturally had both direct and indirect effects on economic activities and on the life of the country more generally. On the plus side, British Columbia farmers got a two-week headstart and the weather was beneficial for spring seeding on the Prairies; the levels of the Great Lakes, which had been too high, dropped as a result of the dry weather and the increased evaporation brought about by the higher temperatures; and heating costs were reduced everywhere except on the Arctic islands. On the minus side, it was rough going at times for those involved in forest fire surveillance and control; the low moisture reserves in the soil were a concern for farmers, leading to fears of a shortfall in grain production; and in the Arctic, the continuation of winter weather meant a 2-3 week delay in the shipping season.

Among the more direct effects of the weather: an avalanche caused by mild temperatures. buried 7 skiers at Blue River, B.C.; the March snowstorm in new Brunswick left 8 people dead on the highways; April floods carried away a railway bridge across the Sainte-Anne River in Quebec, and many riverside inhabitants had to be evacuated when the same thing happened on the Saint John River in New Brunswick; finally, a severe storm in late May, accompanied by hail, caused several thousand dollars' damage in Montréal.

According to the Canadian Climate Centre's seasonal fore-cast, above-normal temperatures are likely to continue across the country for several more months.



Regional Mean Temperatures over the Southern Prairies During the Spring (March, April and May) from 1955-1987

(means calculated for a select group of stations in each province)

TABLE 1

1956       2.81       0.33       0.44       -2.16       -1.24       -0         1957       4.21       1.07       3.01       0.41       2.39       1         1958       3.81       0.67       4.15       1.55       4.14       3         1959       4.12       0.99       4.22       1.66       2.24       1         1960       2.65       0.49       1.78       -0.82       0.54       -0         1961       4.29       1.15       3.52       0.92       1.88       0         1962       2.84       -0.3       1.91       -0.69       0.38       -0         1963       4.65       1.51       3.82       1.22       2.24       1         1964       2.53       -0.51       2.04       -0.69       0.38       -0         1964       2.53       -0.51       2.04       -0.56       1.02       0         1965       1.39       -1.75       -0.17       -2.77       -0.32       -1         1966       3.77       0.62       2.56       -0.04       0.97       0         1967       -0.08       -3.22       -0.12       -2.73       -0.88	aly 51
1955       0.69       -2.45       1.10       -1.50       1.48       0         1956       2.81       0.33       0.44       -2.16       -1.24       -0         1957       4.21       1.07       3.01       0.41       2.39       1         1958       3.81       0.67       4.15       1.55       4.14       3         1959       4.12       0.99       4.22       1.66       2.24       1         1960       2.65       0.49       1.78       -0.82       0.54       -0         1961       4.29       1.15       3.52       0.92       1.88       0         1962       2.84       -0.3       1.91       -0.69       0.38       -0         1963       4.65       1.51       3.82       1.22       2.24       1         1964       2.53       -0.51       2.04       -0.56       1.02       0         1965       1.39       -1.75       -0.17       -2.77       -0.32       -1         1966       3.77       0.62       2.56       -0.04       0.97       0         1967       -0.08       -3.22       -0.12       -2.73       -0.88       -	51 21 42
1956       2.81       0.33       0.44       -2.16       -1.24       -0         1957       4.21       1.07       3.01       0.41       2.39       1         1958       3.81       0.67       4.15       1.55       4.14       3         1959       4.12       0.99       4.22       1.66       2.24       1         1960       2.65       0.49       1.78       -0.82       0.54       -0         1961       4.29       1.15       3.52       0.92       1.88       0         1962       2.84       -0.3       1.91       -0.69       0.38       -0         1963       4.65       1.51       3.82       1.22       2.24       1         1964       2.53       -0.51       2.04       -0.56       1.02       0         1964       2.53       -0.51       2.04       -0.56       1.02       0         1965       1.39       -1.75       -0.17       -2.77       -0.32       -1         1966       3.77       0.62       2.56       -0.04       0.97       0         1967       -0.08       -3.22       -0.12       -2.73       -0.88       -	21 42 17
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1959       4.12       0.99       4.22       1.66       2.24       1         1960       2.65       0.49       1.78       -0.82       0.54       -0         1961       4.29       1.15       3.52       0.92       1.88       0         1962       2.84       -0.3       1.91       -0.69       0.38       -0         1963       4.65       1.51       3.82       1.22       2.24       1         1964       2.53       -0.51       2.04       -0.56       1.02       0         1965       1.39       -1.75       -0.17       -2.77       -0.32       -1         1966       3.77       0.62       2.56       -0.04       0.97       0         1967       -0.08       -3.22       -0.12       -2.73       -0.88       -1         1968       4.87       1.74       4.53       1.93       3.05       2         1969       4.17       1.03       2.68       0.36       1.48       0         1970       2.72       -0.42       -0.06       -2.66       -1.04       -2         1971       3.66       0.52       2.84       0.24       2.07	
1960       2.65       0.49       1.78       -0.82       0.54       -0         1961       4.29       1.15       3.52       0.92       1.88       0         1962       2.84       -0.3       1.91       -0.69       0.38       -0         1963       4.65       1.51       3.82       1.22       2.24       1         1964       2.53       -0.51       2.04       -0.56       1.02       0         1965       1.39       -1.75       -0.17       -2.77       -0.32       -1         1966       3.77       0.62       2.56       -0.04       0.97       0         1967       -0.08       -3.22       -0.12       -2.73       -0.88       -1         1968       4.87       1.74       4.53       1.93       3.05       2         1969       4.17       1.03       2.68       0.36       1.48       0         1970       2.72       -0.42       -0.06       -2.66       -1.04       -2         1971       3.66       0.52       2.84       0.24       2.07       1         1972       3.79       0.65       3.36       0.76       2.60	27
1961       4.29       1.15       3.52       0.92       1.88       0         1962       2.84       -0.3       1.91       -0.69       0.38       -0         1963       4.65       1.51       3.82       1.22       2.24       1         1964       2.53       -0.51       2.04       -0.56       1.02       0         1965       1.39       -1.75       -0.17       -2.77       -0.32       -1         1966       3.77       0.62       2.56       -0.04       0.97       0         1967       -0.08       -3.22       -0.12       -2.73       -0.88       -1         1968       4.87       1.74       4.53       1.93       3.05       2         1969       4.17       1.03       2.68       0.36       1.48       0         1970       2.72       -0.42       -0.06       -2.66       -1.04       -2         1971       3.66       0.52       2.84       0.24       2.07       1         1972       3.79       0.65       3.36       0.76       2.60       1         1973       4.9       1.76       4.85       2.25       4.25       3 </th <th>51/5) III.</th>	51/5) III.
1962       2.84       -0.3       1.91       -0.69       0.38       -0         1963       4.65       1.51       3.82       1.22       2.24       1         1964       2.53       -0.51       2.04       -0.56       1.02       0         1965       1.39       -1.75       -0.17       -2.77       -0.32       -1         1966       3.77       0.62       2.56       -0.04       0.97       0         1967       -0.08       -3.22       -0.12       -2.73       -0.88       -1         1968       4.87       1.74       4.53       1.93       3.05       2         1969       4.17       1.03       2.68       0.36       1.48       0         1970       2.72       -0.42       -0.06       -2.66       -1.04       -2         1971       3.66       0.52       2.84       0.24       2.07       1         1972       3.79       0.65       3.36       0.76       2.60       1         1973       4.9       1.76       4.85       2.25       4.25       3         1974       2.03       -1.11       -0.16       -2.76       -0.96 <td< th=""><th>13</th></td<>	13
1963       4.65       1.51       3.82       1.22       2.24       1         1964       2.53       -0.51       2.04       -0.56       1.02       0         1965       1.39       -1.75       -0.17       -2.77       -0.32       -1         1966       3.77       0.62       2.56       -0.04       0.97       0         1967       -0.08       -3.22       -0.12       -2.73       -0.88       -1         1968       4.87       1.74       4.53       1.93       3.05       2         1969       4.17       1.03       2.68       0.36       1.48       0         1970       2.72       -0.42       -0.06       -2.66       -1.04       -2         1971       3.66       0.52       2.84       0.24       2.07       1         1972       3.79       0.65       3.36       0.76       2.60       1         1973       4.9       1.76       4.85       2.25       4.25       3         1974       2.03       -1.11       -0.16       -2.76       -0.96       -1         1975       0.63       -2.51       0.17       -2.43       0.34 <t< th=""><th>91</th></t<>	91
1964       2.53       -0.51       2.04       -0.56       1.02       0         1965       1.39       -1.75       -0.17       -2.77       -0.32       -1         1966       3.77       0.62       2.56       -0.04       0.97       0         1967       -0.08       -3.22       -0.12       -2.73       -0.88       -1         1968       4.87       1.74       4.53       1.93       3.05       2         1969       4.17       1.03       2.68       0.36       1.48       0         1970       2.72       -0.42       -0.06       -2.66       -1.04       -2         1971       3.66       0.52       2.84       0.24       2.07       1         1972       3.79       0.65       3.36       0.76       2.60       1         1973       4.9       1.76       4.85       2.25       4.25       3         1974       2.03       -1.11       -0.16       -2.76       -0.96       -1         1975       0.63       -2.51       0.17       -2.43       0.34       -0	9
1965       1.39       -1.75       -0.17       -2.77       -0.32       -1         1966       3.77       0.62       2.56       -0.04       0.97       0         1967       -0.08       -3.22       -0.12       -2.73       -0.88       -1         1968       4.87       1.74       4.53       1.93       3.05       2         1969       4.17       1.03       2.68       0.36       1.48       0         1970       2.72       -0.42       -0.06       -2.66       -1.04       -2         1971       3.66       0.52       2.84       0.24       2.07       1         1972       3.79       0.65       3.36       0.76       2.60       1         1973       4.9       1.76       4.85       2.25       4.25       3         1974       2.03       -1.11       -0.16       -2.76       -0.96       -1         1975       0.63       -2.51       0.17       -2.43       0.34       -0	27
1966       3.77       0.62       2.56       -0.04       0.97       0         1967       -0.08       -3.22       -0.12       -2.73       -0.88       -1         1968       4.87       1.74       4.53       1.93       3.05       2         1969       4.17       1.03       2.68       0.36       1.48       0         1970       2.72       -0.42       -0.06       -2.66       -1.04       -2         1971       3.66       0.52       2.84       0.24       2.07       1         1972       3.79       0.65       3.36       0.76       2.60       1         1973       4.9       1.76       4.85       2.25       4.25       3         1974       2.03       -1.11       -0.16       -2.76       -0.96       -1         1975       0.63       -2.51       0.17       -2.43       0.34       -0	)5
1967       -0.08       -3.22       -0.12       -2.73       -0.88       -1         1968       4.87       1.74       4.53       1.93       3.05       2         1969       4.17       1.03       2.68       0.36       1.48       0         1970       2.72       -0.42       -0.06       -2.66       -1.04       -2         1971       3.66       0.52       2.84       0.24       2.07       1         1972       3.79       0.65       3.36       0.76       2.60       1         1973       4.9       1.76       4.85       2.25       4.25       3         1974       2.03       -1.11       -0.16       -2.76       -0.96       -1         1975       0.63       -2.51       0.17       -2.43       0.34       -0	24
1968       4.87       1.74       4.53       1.93       3.05       2         1969       4.17       1.03       2.68       0.36       1.48       0         1970       2.72       -0.42       -0.06       -2.66       -1.04       -2         1971       3.66       0.52       2.84       0.24       2.07       1         1972       3.79       0.65       3.36       0.76       2.60       1         1973       4.9       1.76       4.85       2.25       4.25       3         1974       2.03       -1.11       -0.16       -2.76       -0.96       -1         1975       0.63       -2.51       0.17       -2.43       0.34       -0	
1969       4.17       1.03       2.68       0.36       1.48       0         1970       2.72       -0.42       -0.06       -2.66       -1.04       -2         1971       3.66       0.52       2.84       0.24       2.07       1         1972       3.79       0.65       3.36       0.76       2.60       1         1973       4.9       1.76       4.85       2.25       4.25       3         1974       2.03       -1.11       -0.16       -2.76       -0.96       -1         1975       0.63       -2.51       0.17       -2.43       0.34       -0	35
1970     2.72     -0.42     -0.06     -2.66     -1.04     -2       1971     3.66     0.52     2.84     0.24     2.07     1       1972     3.79     0.65     3.36     0.76     2.60     1       1973     4.9     1.76     4.85     2.25     4.25     3       1974     2.03     -1.11     -0.16     -2.76     -0.96     -1       1975     0.63     -2.51     0.17     -2.43     0.34     -0	80
1971       3.66       0.52       2.84       0.24       2.07       1         1972       3.79       0.65       3.36       0.76       2.60       1         1973       4.9       1.76       4.85       2.25       4.25       3         1974       2.03       -1.11       -0.16       -2.76       -0.96       -1         1975       0.63       -2.51       0.17       -2.43       0.34       -0	51
1972     3.79     0.65     3.36     0.76     2.60     1       1973     4.9     1.76     4.85     2.25     4.25     3       1974     2.03     -1.11     -0.16     -2.76     -0.96     -1       1975     0.63     -2.51     0.17     -2.43     0.34     -0	)1
1973     4.9     1.76     4.85     2.25     4.25     3       1974     2.03     -1.11     -0.16     -2.76     -0.96     -1       1975     0.63     -2.51     0.17     -2.43     0.34     -0	1
1974     2.03     -1.11     -0.16     -2.76     -0.96     -1       1975     0.63     -2.51     0.17     -2.43     0.34     -0	53
1975 0.63 -2.51 0.17 -2.43 0.34 -0	27
	13
1976 5.06 1.92 3.52 0.92 2.46 1	53
	19
1977 5.52 2.38 7.06 4.46 6.9 5	53
1978 3.96 0.82 4.14 1.54 2.93 1	96
1979 3.07 0.07 -0.21 -2.81 -1.54 -2	51
1980 5.05 1.92 5.17 2.58 4.04 3	)7
1981 6.04 2.9 6.19 3.59 4.32 3	35
1982 1.46 -1.68 1.13 -1.47 1.81 0	34
1983 4.22 1.08 1.77 -0.83 0.96 -0	)1
1984 4.39 1.25 4.09 1.49 3.02 2	)5
1985 5.56 2.42 5.83 3.23 5.10 4	13
1986 5.9 2.76 5.83 3.23 4.43 3	CONTRACTOR OF THE PARTY OF THE
1987 5.54 2.4 6.97 4.37 5.0 4	46

<sup>\*</sup> Stations were chosen according to the following criteria:

geographically situated south of 55°N

Alberta: Coronation, Edmonton N., Calgary, Lethbridge, Jasper

Saskatchewan: Estevan, Regina, Saskatoon Manitoba: Brandon, Winnipeg, The Pas

<sup>-</sup> temperature data available since 1955 without an interruption of more than 10 consecutive days.

10B

													JUNE	1987													
	Tem	peratur	e C						(cm)	more					Tem	peratur	e C				E., V		(cm)	more			
STATION	Mean	Difference from Normal	Maximum	Minimum	Snowfall (cm)	% of Normal Snowfall	Total Precipitation (mm)	% of Normal Precipitation	Snow on ground at end of month (c	No. of days with Precip 1.0 mm or n	Bright Sunshine (hours)	% of Normal Bright Sunshine	Degree Days below 18 C	STATION	Mean	Difference from Normal	Maximum	Minimum	Snowfall (cm)	% of Normal Snowfall	Total Precipitation (mm)	% of Normal Precipitation	Snow on ground at end of month (c	No. of days with Precip 1.0 mm or m	Bright Sunshine (hours)	% of Normal Bright Sunshine	Degree Days below 18 C
BRITISH COLUMBIA														YUKON TERRITORY													
ABBUTSFORD ALERT BAY AMPHITRITE POINT BLUE RIVER	16.0 12.1 12.1 15.5	1.3 -0.2 -0.3 1.8	31.7 15.9 18.5 31.9	2.5 8.2 5.7 1.0	0.0 0.0 0.0		25.6 178.4 182.1 50.4	39 271 197 61	0000	5 9 9 12	304 X X 247	140	74.5 177.8 179.5	BURWASH DAWSON MAYO WATSON LAKE WHITEHORSE	10.3 13.2 14.3 11.5 10.5	0.0 0.3 0.9 -1.2 -1.5	26.1 30.8 30.4 29.2 26.6	-3.0 0.3 1.5 -0.2 -1.3	0.0 0.0 0.0 0.0 1.0	111	21.9 51.8 33.2 105.8 26.4	48 119 94 205 85	0 0 0 0 0	6 9 5 8 6	X X X 259 246	97 90	231.2 143.7 112.5 186.0 225.6
CAPE SCOTT CAPE ST.JAMES CASTLEGAR COMOX	10.7 11.2 10.6 18.8 16.0	-0.7 -0.3 0.0 1.9 1.0	15.8 16.2 15.9 35.7 31.2	2.5 6.2 5.8 3.7 6.8	0.0 0.0 0.0 0.0 0.0			224 283 145 56 31	0 0000	13 13 11 7 3	X 156 310 X	128	217.9 202.9 221.6 38.3 77.3	NORTHWEST TERRITORIES	0.1	1.1	9.2	-10.5	13.0	132	12.1	100			408	124	537.0
CRANBROOK  DEASE LAKE ETHELDA BAY FORT NELSON FORT ST.JOHN	9.4 11.0 14.6 14.4	4.0 -1.0 -0.3 0.2	35.9 27.0 22.8 28.1 26.6	2.0 -2.3 1.5 3.1	0.0 0.0 0.0 0.0		38.7 55.4 261.8 94.4	129 267 137	0 000	6 8 12 9	189 X 308	87 *	51.4 260.2 209.8 107.8	BAKER LAKE CAMBRIDGE BAY CAPE DYER CAPE PARRY	1.2 -0.2 0.7 0.6	-2.9 -1.7 0.5 -1.0	16.6 11.2 11.0 9.0	-7.0 -14.2 -9.8 -5.9	2.0 6.6 45.0 1.0	71 165 156 32	31.7 30.0 73.8 9.0	151 227 187 62	0 18 0	3 11 3	193 140 X X	134 73 52	506.7 546.5 521.1 523.4
KAMLOOPS KELOWNA LANGARA	17.0 20.8 18.6 10.1	0.9 1.2 2.8 2.7 0.0	32.9 37.7 37.1 16.5	3.4 7.0 8.9 3.0 6.0	0.0 0.0 0.0 0.0		91.8 64.0 10.3 17.4 119.7	135 98 34 64 134	000	9 7 3 3 16	320 301 X	122 125 111	111.5 56.3 11.0 33.8 237.7	CLYDE COPPERMINE CORAL HARBOUR EUREKA FORT RELIANCE	0.2 2.6 1.8 3.6 9.1	-0.4 -1.2 -0.3 1.8 -0.4	8.9 14.6 16.1 16.6 26.7	-12.0 -7.3 -11.7 -0.3 -4.5	37.8 10.6 1.6	393 130 66	37.0 45.2 14.2 2.2 50.2	296 265 52 40 192	0 0 0	6 2 2 8	265 309 297 465 X	101 100 105 114	536.0 464.3 485.4 431.8 266.2
MACKENZIE  MCINNES ISLAND PENTICTON PORT ALBERNI	20.6 13.5 12.6 19.6 15.4	2.5 1.0 0.6 2.4	39.1 29.0 19.4 37.7 34.3	7.0 -2.0 8.3 2.3 2.6	0.0		1.0 39.4 245.6 13.8 62.7	5 58 200 50	0 0 0 0	14 4 5	315 292 X 299 247	117 116	19.8 136.8 24.2 97.2	FORT SIMPSON FORT SMITH IQALUIT HALL BEACH HAY RIVER	15.7 14.3 3.5 0.2 13.4	1.3 0.7 0.1 0.2 1.5	29.2 28.8 17.2 12.4 23.1	0.8 -2.0 -6.5 -13.6 0.3	0.0 0.0 21.2 6.6 0.0	209 106	34.6 42.2 66.9 7.8 77.4	46	0 0	8 11 11 3 5	345 298 169 X X	122 99 96	72.1 123.1 435.8 534.5 143.7
PORT HARDY PRINCE GEORGE PRINCE RUPERT PRINCETON	11.7 14.1 11.0 16.9	-0.1 1.2 0.2 2.4	20.9 30.6 19.9 34.3	3.0 -0.6 3.4 -0.5	0.0 0.0 0.0		236.9 23.4	172 32 182 88	0 0 0	10 5 12 3	209 323 141 334	121 124 93 *	189.2 123.7 209.4	INUVIK MOULD BAY NORMAN WELLS POND INLET RESOLUTE	12.8 -0.3 14.9 2.0 0.9	2.7 0.0 0.9 0.5 1.5	26.8 10.0 29.7 11.5 13.7	-3.9 -11.6 0.8 -7.6 -7.8	15.0 0.0 27.8 3.8	428 505 54	0.4 13.4 30.2 22.6 5.2	1 212 81 269 42	0 3 0 0 0 0	0 2 4 7 1	378	123 153 119 96	161.8 549.0 115.1 479.0 515.0
QUESNEL REVELSTOKE SANDSPIT SMITHERS	15.9 17.3 11.8	1.9 1.4 0.2 0.6	33.2 32.9 25.9 32.0	-0.2 4.1 4.4 -1.1	0.0		22.0 77.6 60.2 24.5	34 119 116	0 0	5 10 11 5	X 234 149 265	108 85 106	82.0 49.2 190.2	YELLOWKNIFE ALBERTA	13.1	0.2	25.8	0.1	0.0			295	0	7	380	96	151.2
TERRACE VANCOUVER HARBOUR VANCOUVER INT'L VICTORIA GONZ. HTS	13.2 16.2 16.0 14.6	-0.5 0.9 0.9 0.8	31.7 28.2 28.9 28.2	3.3 9.0 7.6 6.4	0.0 0.0 0.0 0.0		65.6 21.8 17.8 1.8	154 34 39 8	0 0 0	8 4 4 0	216 X 297 352	112 124 128	155.3 67.0 74.5 103.8	BANFF BROOKS CALGARY INT'L	14.3 17.9 16.7	2.7 2.4 3.2	28.0 33.0 31.8	-0.5 4.5 4.7	0.0		61.4 22.1 21.8	100 30 24	0 0	7	X 307 328	* 122	59.4
VICTORIA INT'L VICTORIA MARINE WILLIAMS LAKE	14.9 12.9 15.2	0.6 0.4 2.2	28.3 26.0 30.8	4.7 4.0 *	0.0		9.6 8.2 19.9	33 31 44	0 0	3 3	316 X	122	97.2 152.4 100.3	COLD LAKE CORONATION EDMONTON INT'L	15.9 16.6 15.5	1.4	30.3 33.9 28.0	0.6 2.2 3.0	0.0		37.9 36.6 67.7	52 63 88	0	11 7 12	262 322 311	122 92 103 108	58.4 72.3 62.1 79.1
							1947							EDMONTON MUNI, EDMONTON NAMAO EDSON FORT CHIPEWYAN	16.9 16.1 14.2 15.0	1.8 1.4 2.4 1.4	28.0 28.1 26.5 28.5	5.6 5.6 0.1 -1.5	0.0 0.0 0.0		40.0 38.6 74.8 47.8	51 49 84 115	0 0 0	9	327 X 262 X	120	47.6 75.4 115.7

													JUNE	1987													
	Tem	peratur	e C						(cm)	more					Tem	peratur	e C						(cm)	more			
STATION	Mean	Difference from Normal	Moximum	Minimum	Snowfall (cm)	% of Normal Snowfall	Total Precipitation (mm)	% of Normal Precipitation	Snow on ground at end of month (ci	No. of days with Precip 1.0 mm or m	Bright Sunshine (hours)	% of Normal Bright Sunshine	Degree Days below 18 C	STATION	Меал	Difference from Normal	Maximum	Minimum	Snowfall (cm)	% of Normal Snowfall	Total Precipitation (mm)	% of Normal Precipitation	Snow on ground at end of month (c.	No. of days with Precip 1.0 mm or m	Bright Sunshine (hours)	% of Normal Bright Sunshine	Degree Days below 18 C
FORT MCMURRAY GRANDE PRAIRIE HIGH LEVEL JASPER LETHBRIDGE	15.5 15.4 14.2 14.7 17.6	1.5 1.7 0.6 2.3 2.2	31.8 27.2 27.8 28.7 34.3	-0.8 3.1 2.8 1.6 4.4	0.0 0.0 0.0 0.0 0.0		56.9 78.1 77.2 26.4 63.8	68 111 145 48 81	0 0 0 0 0	10 7 8 6 6	282 323 288 323	103 * 94 113	94.1 146.7 117.0 101.3 41.9	THE PAS THOMPSON WINNIPEG INT'L ONTARIO	16.3 14.4 19.0	1.9 2.2 2.2	32.5 30.5 35.0	1.7 -3.0 2.2	4.4	110	51.8 77.3 55.2	82 134 68	0 0 0	11 9 9	289 296 366	105 112 132	79.8 121.1 39.9
MEDICINE HAT PEACE RIVER RED DEER ROCKY MTN HOUSE SLAVE LAKE SUFFIELD	18.8 14.8 15.5 14.1 14.9	2.2 1.1 1.9 1.3 1.6	35.1 27.4 29.2 27.5 28.4 34.8	4.9 3.8 0.0 -0.8 4.8	0.0 0.0 0.0 0.0 0.0		21.9 79.7 48.8 48.9 34.8	34 133 57 46 42	0 0 0 0 0 0 0	7 10 8 9 10	342 X X 288 321	122	20.1 101.6 78.6 116.5 98.0	ATIKOKAN BIG TROUT LAKE EARLTON GERALDTON GORE BAY	16.3 14.1 16.6 15.3 17.6	1.8 2.1 1.4 1.8 2.0	32.6 30.6 33.4 31.0 30.6	-0.8 -1.0 1.8 -1.0 5.1	0.0 3.6 0.0 0.0	•	52.6 82.8 63.4 47.0 78.2	55 125 71 51	0000	10 10 13 13	312 255 X X	130	79.1 132.1 74.6 103.7 48.4
WHITECOURT SASKATCHEWAN BROADVIEW COLLINS BAY	15.0 17.4 12.9	2.3 2.5 2.4	36.7 27.6	2.5 2.5 -4.1	0.0	181	45.4 92.1 100.8 35.5	100 157 62	0 0	10	338 339	114	94.8	HAMILTON RBG HAMILTON KAPUSKASING KENORA KINGSTON	20.5 19.4 15.7 18.9 18.2	1.9 1.4 1.6 2.8 1.5	34.8 33.5 31.6 35.0 29.5	7.1 5.1 -1.2 3.8 6.1	0.0 0.0 0.0 0.0 0.0		76.9 106.4 76.8 60.7 59.6	113 164 90 72 93	0 0 0 0	6 9 13 10 11	280 X X X 242	100	28.0 98.4 46.2 30.6
CREE LAKE ESTEVAN HUDSON BAY KINDERSLEY	14.3 19.7 16.2	1.4 3.2 1.6 2.0	29.6 36.6 34.0 37.2	-1.1 6.7 -0.5	0.0		57.0 26.2 75.4 36.0	112 33 105 63	0 0	9 7 10 7	281 351 312	105 115 *	120.2 29.8 79.4 44.5	LANSDOWNE HOUSE LONDON MODSONEE MUSKOKA	14.9 19.9 12.4 16.9	1.4 2.0 0.5	31.4 33.6 28.7 30.6	2.4 5.6 -1.8 0.8	0.2 0.0 0.0	10	95.2 48.7 52.9 78.6	117 66 67	0 0	13 7 10 16	X 244 252	100	116.7 25.2 175.4 63.8
LA RONGE MEADOW LAKE MODSE JAW NIPAWIN	15.6 16.0 19.2 17.2	1.6 1.1 2.6	30.9 31.3 38.4 35.0	0.3 -0.8 6.0 -0.6	0.0 0.0 0.0 0.0		78.2 47.6 50.6 69.6	92 64 76 *	0 0 0	12 9 13 9	288 320 305	112 *	91.2 72.1 32.2 60.5	NORTH BAY DTTAWA INT'L PETAWAWA PETERBOROUGH	16.8 18.7 16.7 17.9	1.1 0.7 0.4 1.1	30.0 33.0 33.6 31.1	2.9 7.5 1.0 2.7	0.0 0.0 0.0 0.0		117.6 90.4 60.9 73.1	138 123 69 121	0 0 0	12 10 9	271 267 X X	108	58.9 31.1 55.8 40.5
NORTH BATTLEFORD PRINCE ALBERT REGINA SASKATOON SWIFT CURRENT	17.9 17.9 18.4 18.7 17.5	2.5 3.3 2.5 3.0 2.4	34.4 30.9 37.2 38.7 36.4	5.5 3.8 2.7 4.7 3.8	0.0 0.0 0.0 0.0		40.2 62.2 55.0 28.9 59.2	66 90 69 48 78	0 0 0	11 9 10 8 9	313 320 X 315	119 113 112	43.1 39.2 43.0 33.6 53.7	PICKLE LAKE  RED LAKE ST. CATHARINES SARNIA SAULT STE. MARIE	16.1 16.5 20.2 20.1 15.9	1.3 1.2 2.0 1.3	32.9 34.0 33.5 34.5 31.4	1.4 1.8 7.0 4.1 1.7	0.0 0.0 0.0		75.8 34.0 75.8 50.8 62.6	40 111 75 84	0000	8 9 8 9 7	284 X 271 282	99	56.4 80.6 20.2 21.6 82.3
WYNYARD YORKTON MANITOBA	17.4 17.4	2.2	34.0	4.2 *	0.0		54.2 54.3	71 76	0	7 8	X 299 318	102 110	55.2 61.9	SIOUX LOOKOUT SUDBURY THUNDER BAY TIMMINS TORONTO	17.8 17.4 16.1 15.1 20.8	2.6 1.4 2.1 0.5 1.7	33.0 32.7 33.2 33.4 34.2	2.6 2.6 2.0 1.5 8.8	0.0 0.0 0.0 0.0		48.2 58.2 35.9 89.2 70.2	46 99	0 0 0 0	7 8 7 12 10	X 265 298 X	107 113	66.5 56.9 84.4 99.5 14.9
BRANDON CHURCHILL DAUPHIN GILLAM GIMLI	17.7 5.9 17.9 13.3 18.0	1.6 -0.3 2.1 3.0 2.2	35.2 24.0 35.3 28.1 35.1	2.4 -3.7 1.0 -2.2 2.0	0.0 1.2 0.0 1.4 0.0	34 35	60.2 59.6 62.2 22.6 47.2	78 137 72 73 51	0 0 0 0	10 8 10 6	X 251 293 X 354	107 107 120	55.2 362.2 53.5 146.6 56.5	TORONTO INT'L TORONTO ISLAND TRENTON WATERLOO-WELL WAWA	19.6 18.9 18.5 13.5	1.9 1.1 1.1	34.9 30.5 32.6 28.4	7.1 3.8 -0.4	0.0 0.0 0.0 0.0		68.3 90.2 39.8	138 117 *	0 0 0	10 11 11 8	X		28.9 27.3 35.3 138.9
ISLAND LAKE LYNN LAKE NORWAY HOUSE	15.9 14.0 16.2	2.7 2.0	29.7 29.4 33.6	-0.2 -3.3 0.6	3.0	119	81.2 58.4 74.8	174 96 *	0 0	9 7 11	X 317 X	120	88.0 128.1 84.3	WIARTON	17.3	1.7	29.7 33.1	3.1 7.3	0.0		84.7 158.4	126 177	0	14 12	286 X	98	55.6 9.7
PORTAGE LA PRAIRIE	19.0	2.0	35.3	5.0	0.0		50.1	66	0	10	X		40.8				-										

	Tem	peratu	•c					month (cm)	<b>W</b> III		Degree above			Tem	peratur	e C			1 ·		month (cm)			Degree	loye 5 C
STATION	Meen	Difference from Normal	Maximum	Minimum	Snowfall (am)	Total Precipitation (mm)	% of Normal Precipitation	Snow on ground at and of me	No. of days with Precip 1.0 m or more	Bright Sunshine (hours)	This month	Since jan. 1st	STATION	Mean	Difference from Normal	Maximum	Minimum	Snowfall (cm)	Total Precipitation (mm)	% of Normal Precipitation	Snow on ground at end of mo	No. of days with Precip 1.0 mm or more	Bright Sunshine (hours)	This month	Since jan. 1st
BRITISH COLUMBIA AGASSIZ	16.7	1.1	32.0	4.0	0.0	39.2	49		5	269	351.0	881.6	GUELPH	18.5		32.9	2.3	0.0	81.5	115		A STATE OF S	287	404.1	202.2
KAMLOOPS SIDNEY SUMMERLAND	15.5	2.7	30.0 37.0	6.0	0.0	10.4	* 39	000	1	285 315	309.0 452.1	810.3 1012.1	HARROW KAPUSKASING MERIVALE	21.4 15.6	1.7 1.5	32.0 31.0	6.0 -1.5	0.0	111.2	147	000	12	257 280 278	495.5	802.3 1073.4 573.5
ALBERTA													SMITHFIELD VINELAND STATION	18.6 19.2 20.1	0.5 1.9 1.7	32.2 30.5 33.1	6.9 6.5 7.5	0.0	90.8 79.6 76.1	113 128 110	0 0	11 14 10	267 263	408.5 427.7 452.1	849.1 922.7 874.9
BEAVERLODGE ELLERSLIE FORT VERMILLION LACOMBE	15.0	2.0	26.0	3.0	0.0	35.4	88	0	8	326	293.3	517.3	WOODSLEE												
LETHBRIDGE VAUXHALL VEGREVILLE	16.6	2.4	29.5	3.0	0.0	28.9	39	0	6	320	348.5	628.0	LA POCATIERE L'ASSUMPTION LENNOXVILLE	15.6 18.1	-0.1 0.5	26.0 32.0	5.0 5.0	0.0	105.8	118 141	0	14	252 237	318.7 392.2	557.1 758.2
SASKATCHEWAN													NORMANDIN ST. AUGUSTIN STE CLOTHILDE	15.3	0.7	28.5	0.0	0.6	60.6 99.3	79 115	0	12	273 240	296.4 399.3	484.6 787.9
INDIAN HEAD MELFORT REGINA	17.9	2.8	36.5 35.0 33.5	5.0 4.0 4.0	0.0	56.2 25.0 49.8	76 35 69	000	13 8 9	277	403.0 392.2 378.2	898.0 742.5 757.5	NEW BRUNSWICK												
SASKATOON SCOTT SWIFT CURRENT SOUTH	17.1	2.6 2.7	36.5 37.5	4.5	0.0	43.4 43.7	65 59	0	9	307 289	465.6 385.3	595.2 829.1	NOVA SCOTIA	16.1	0.1	28.0	4.5	0.0	94.0	108	0	10	239	333.0	600.2
MANITOBA BRANDON GLENLEA MORDEN	18.8 16.1 19.7	2.5 1.2 2.3	37.0 34.0 34.5	2.2 2.0 6.0	0.0 0.0 0.0	55.0 54.1 63.2	68 61 83	0	9 8 8	368 348	414.0 392.0 373.5	858.5 837.8 954.0	KENTVILLE NAPPAN PRINCE EDWARD ISLAND	15.6 15.0	-0.3 0.3	27.5 24.5	5.0 3.5	0.0	89.1 84.6	125 108	0	11	219 222	318.3 298.7	582.1 516.0
ONTARIO													CHARLOTTETOWN	14.3	-0,5	23.5	3.5	0.0	138.8	188	0	12	230	278.7	457.9
DELHI	19.8 18.5	1.5	34.5 33.0	4.0 4.6	0.0	73.7 77.8	104 90	0	11 9	265	431.4 404.7	901.7 811.0	NEWFOUNDLAND ST. JOHN'S WEST	10.4	-0.7	25.0	0.5	0.0	40.2	50	0	13	195	164.0	271.7

#### DRY WEATHER IN CANADA'S SOUTHWESTERN PRAIRIES

(from the Weekly Weather and Crop Bulletin, June 23, 1987, Vol 74, No 25 USA.)

Canada's southwestern prairies have been very dry, receiving less than 50 percent of normal precipitation from January 1 to June 18, 1987. Temperatures over all of western Canada have been much above normal for the same period. This warm anomaly often appears during an El Nino event which occurred this past winter (Weekly Weather and Crop Bulletin, May 19, 1987, Vol. 74, No. 20).

