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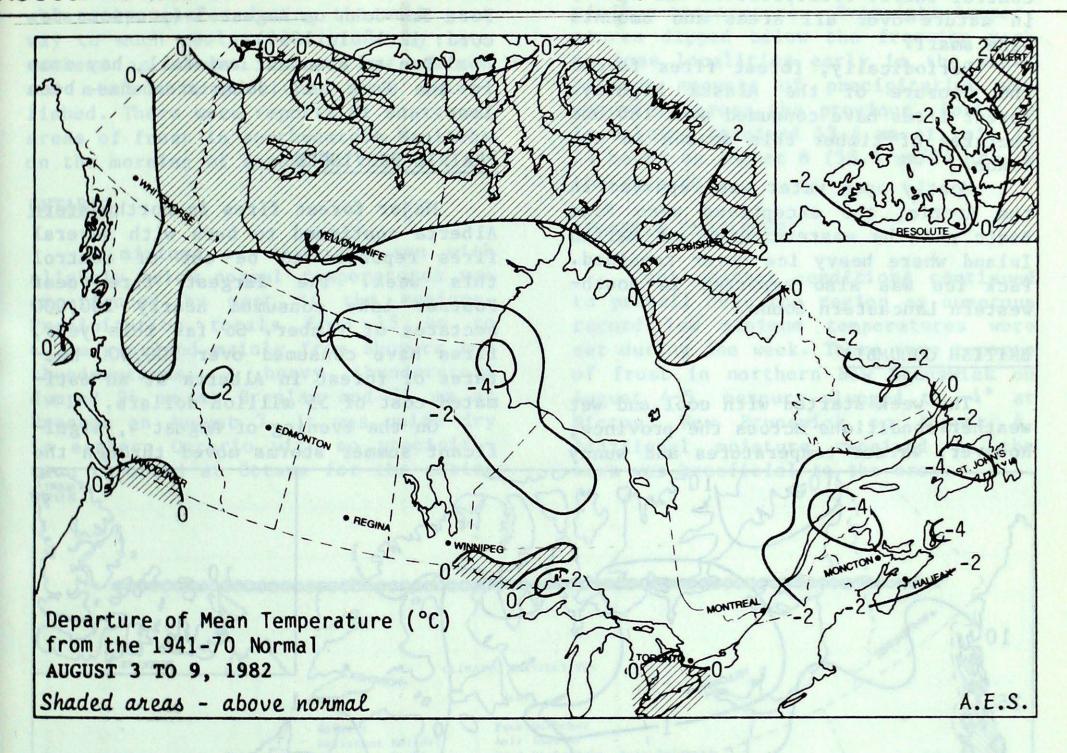
A WEEKLY REVIEW OF CANADIAN CLIMATE

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THE CANADIAN CLIMATE CENTRE, ATMOSPHERIC ENVIRONMENT SERVICE. 4905 DUFFERIN ST., DOWNSVIEW, ONTARIO M3H

AUGUST 13 1982 (Aussi disponible en français)

VOL.4 NO. 31



WEATHER HIGHLIGHTS FOR THE PERIOD - AUGUST 3-9, 1982

Major forest fires rages on in northern Alberta

Several major forest fires were reported to be out of control in northern Alberta. The largest fire near Footner Lake had consumed 200,000 hectares of timber, bringing the total to 700,000 hectares for the season; at a cost of \$55 million in Alberta this year.

Much cooler air moved into eastern prairies and into New Brunswick, where mercury plunged to near the freezing mark.

Temperatures varied from a high of 36° at Lytton, B.C. to a low of -4° at Nictou, N.B. Breslau, Ont. received 96 mm of rain.

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

YUKON AND NORTHWEST TERRITORIES

Temperatures dropped to near normal values during the week in the Yukon which helped to ease the forest fire situation. However, with the hot weather continuing in the Liard Basin, large fires were still reported to be out of control there. Precipitation was spotty in nature over all areas and amounts were small.

Periodically, forest fires forced the closure of the Alaska highway. Forest fires have consumed over 160,000 hectares of timber this season in the Yukon.

Mostly open water was reported in the Arctic, the exceptions were Foxe Basin and the eastern shore of Baffin Island where heavy ice cover remained. Pack ice was also reported in southwestern Lancastern Sound.

BRITISH COLUMBIA

The week started with cool and wet weather conditions across the province, however, warmer temperatures and sunny skies returned on the weekend.

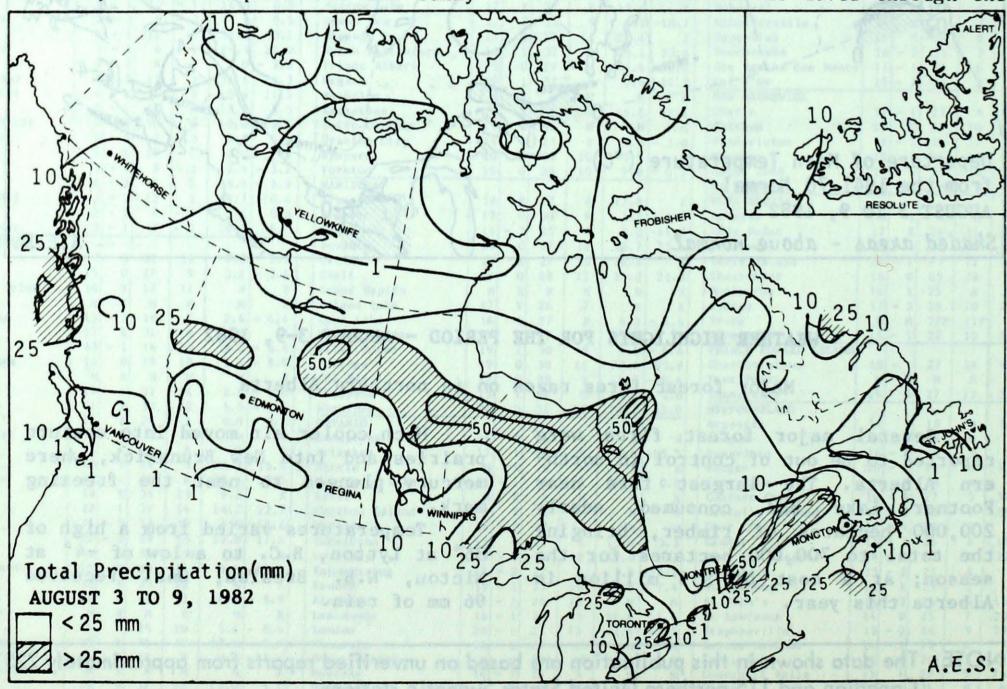
The cool and wet weather during the week had substantially helped the forest fire situation with fire weather index back to normal across much of British Columbia. Below normal temperatures established record low maximum of 14.1° at Terrace on August 5, (previous record: 14.6° in 1975) and 10.4° at Fort St. John on August 3 (previous record: 12.1° in 1964).

Due to abundant rainfall, hay crop in the Fort St. John area has been lost.

PRAIRIE PROVINCES

Major forest fires in northwestern Alberta continued to burn with several fires reported to be out of control this week. The largest fire near Footner Lake consumed nearly 200,000 hectares of timber. So far this year, fires have consumed over 700,000 hectares of forest in Alberta at an estimated cost of 55 million dollars.

On the evening of August 4, significant summer storms moved through the



Edmonton area. Lightning from these storms ignited 15 fires, one blaze was reported at the meat packing plant, damage to the plant was estimated at a quarter of a million dollars. With the dry weather conditions moving into southern Alberta, crops were reported to be progressing well.

Elsewhere in the Prairies, seasonable temperatures during the week gave way to much cooler conditions by late weekend as several record low maximum and minimum temperatures were established. There were reports of scattered areas of frost in southwestern Manitoba on the morning of August 9.

ONTARIO

A mixture of rain and sun with slightly below normal temperatures was experienced by most of the regions. Precipitation totals from 15 mm to 40 mm resulted mainly from showers and thunderstorms. A heavy thunderstorm dumped 96 mm at Breslau and 51 mm at Preston on August 3. It was quite dry in eastern Ontario with no precipitation reported at Ottawa for the entire week.

Agricultural crops appear to be in excellent shape with fresh fruits and vegetables making their annual appearance on schedule.

QUÉBEC

Below normal temperatures during the week resulted in some record low minimum temperatures. Overnight temperatures dipped below the freezing mark in some localities early in the week. Various amounts of precipitation was recorded across the province. Poste de la Baleine received 53.4 mm of rain in 24 hours on August 8 (58.4 mm/24 hrs is the record).

ATLANTIC PROVINCES

Cool weather conditions continued to prevail over the region as numerous record low minimum temperatures were set during the week. There were reports of frost in northern New Brunswick on August 4-5, mercury plunged to -4° at Nictou, New Brunswick on August 4. Additional moisture received in the week was beneficial to the crop.

CLIMATIC PERSPECTIVES

Staff

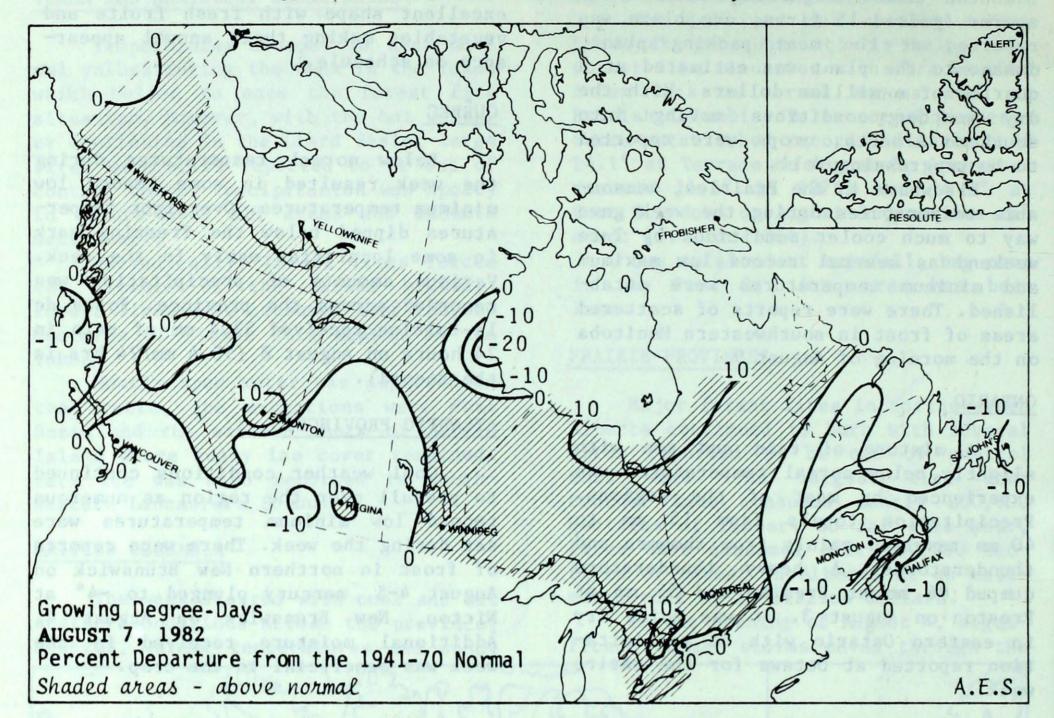
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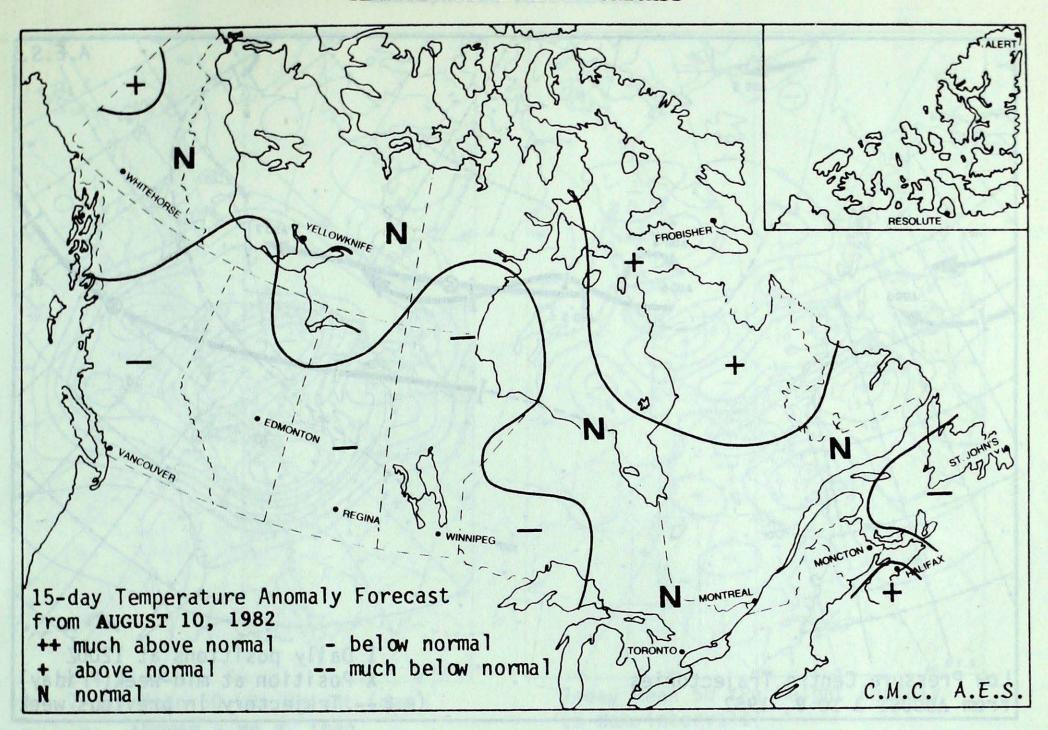
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GROWING DEGREE-DAY SUMMARY TO AUGUST 7, 1982



STATION	MONTHLY CUMULATIVE TOTAL	MONTHLY DIFF. FROM 1941-70 NORMAL	SEASONAL TOTAL	SEASONAL DIFF. FROM 1941-70 NORMAL	SEASONAL PERCENT OF NORMAL
Whitehorse	46.0	-13.0	634.0	9.0	101
Penticton	100.0	-7.0	1283.0	-51.0	96
Vancouver	80.0	-11.0	1121.5	-52.5	96
Edmonton	80.0	-3.0	1018.5	132.5	115
Calgary	79.5	-2.5	849.5	10.5	101
Regina	108.5	8.5	1066.5	29.5	103
Saskatoon	97.5	0.5	971.0	-61.0	94
Winnipeg	108.0	2.0	1155.5	48.5	104
Thunder Bay	66.0	-18.0	855.0	-2.0	100
Windsor	125.0	8.0	1560.5	62.5	104
Toronto	104.0	-2.0	1252.0	-30.0	98
Ottawa	94.0	-10.0	1323.0	65.0	105
Montréal	93.5	-18.5	1314.0	18.0	101
Quebéc	76.5	-16.5	1049.5	-10.5	99
Fredericton	74.0	-24.0	1048.0	-11.0	99
Halifax	78.0	-15.0	816.0	-93.0	90
Charlottetown	74.5	-22.5	837.0	-47.0	95
St. John's	60.5	-19.5	480.0	-112.0	81

TEMPERATURE ANOMALY FORECAST

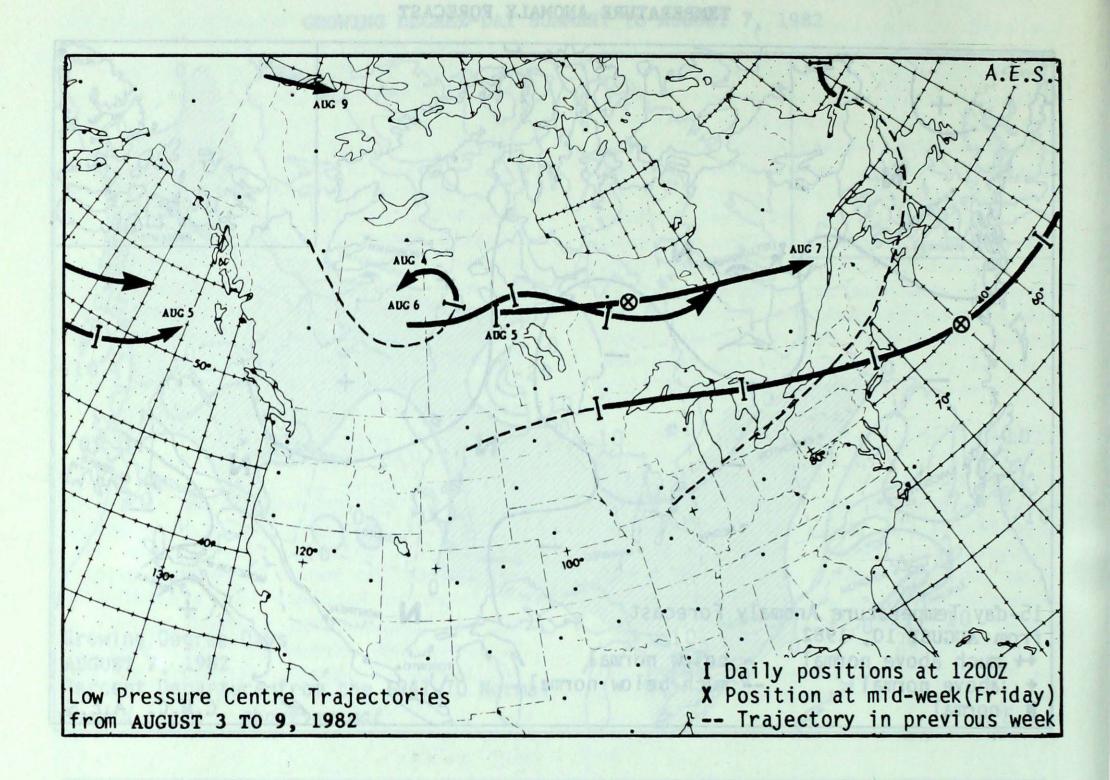


TEMPERATURE ANGMALY FORECAST FOR AUG 10 1982 TO AUG 24 1982 NNNNNNNN VICTORIA VANCOUVER EDMONTON REGINA MINNIPEG THUNDER BAY NHNNNNNNNN TORONTO нининини AWATTO нинирини MONTREAL HHHHHHHHH QUEBEC ниницинии FREDERICTON HALIFAX ининини CHARLOTTETOWN ST JOHN'S инининии GOOSE BAY FROBISHER BAY NANAHAHAHAMA INUVIK

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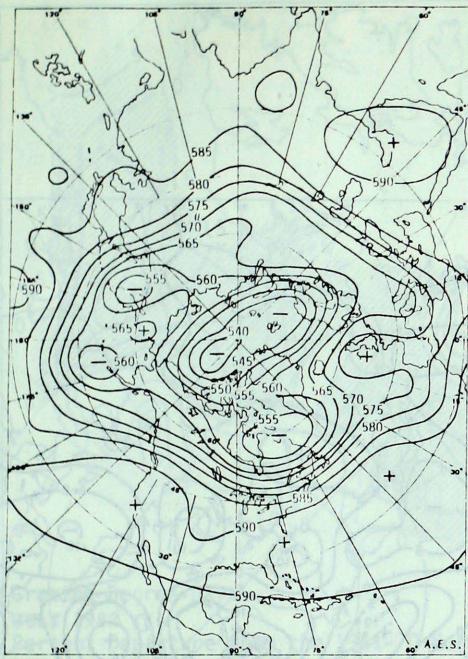
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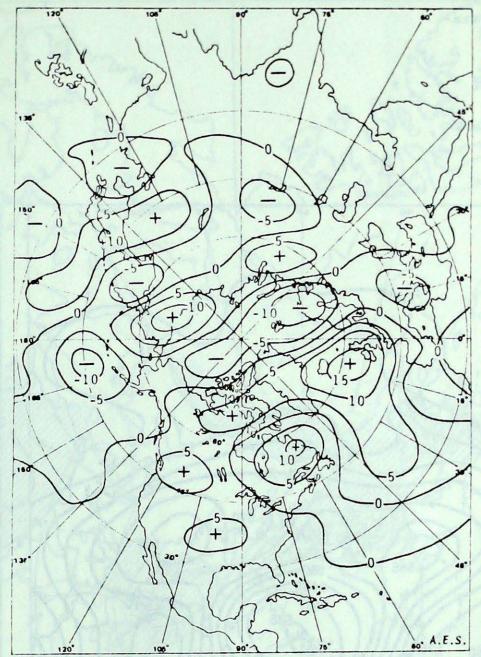
EXTHEMES FOR THE WEEK

Randouver	TEMPERATURE	LOCATION	MINIMUM TEMPERATUR	LOCATION	PRECIPITATIO	N LOCATION		
ANKUN LEBELLUNA	28.5	WATSON LAKE	0.0	DAWS IN HEACH	11.6	KOMATIK BEACH		
NORTHWEST TEUDITORIES	30.3	FORT SIMPSON	-2.5	MOULD PAY	19.4	CLINTON POINT		
ARITISH COLUMNIA	36.1	LYTTON	.5	DEASE LAKE	47.4	LAKGARA		
ALAFATA	31.5	LE THORIDOR	2.4	EUSON	38.4	PEACE PIVER		
SASKATCHEWAN	37.8	MOOSE JAW	1.5	NIPAVIN	56.6	CHEE LAKE		
MANITORA	30.4	PORTACE LA PHAIPLE	1.9	CHUMCHILL	51.2	THOMPSON		
ONTARIO	31.1	WINDSOP	1.9	MOUSONER	95.0	BRESLAU		
QUEREC	28.2	MANIWAKI MANIWAKI	6	POSTE DE LA BALEINE	The same of the sa	MONTHFAL/DORVA		
NEW RRUNSWICK	24.1	FREDERICTON	7.6	CHARLO	27.0	MONCTON		
NOVA SCOTIA	23.Н	GPF F MINONO	5.2	SYDNEY	29.0	YARROUTH		
PRINCE FOWARD ISLAND	21.7	SHMMERSIDE	10.4	CHAPLOTTETO	20.4	SHAMERSIDE		
NEWFOUNDLAND	26.4	GOOSE	3.1	DEFO LAKE	24.9	HUPFOALE		

Atmospheric Circulation



7-day Mean 50 kPa Height (dam)
AUGUST 2 TO 8, 1982



7-day Mean 50 kPa Height Anomaly (5 dam intervals)

AUGUST 2 TO 8, 1982

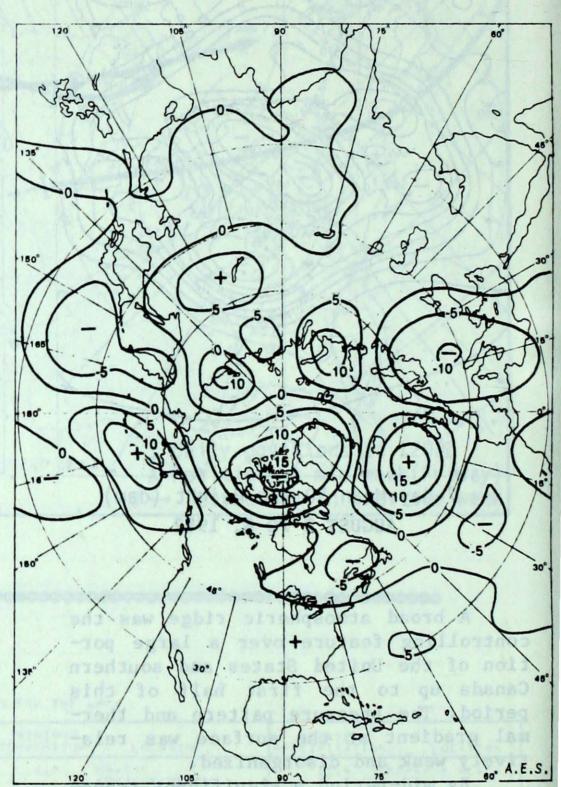
A broad atmospheric ridge was the controlling feature over a large portion of the United States and southern Canada up to the first half of this period. The pressure pattern and thermal gradient at the surface was relatively weak and disorganized.

By mid-period a significant transition was initiated. The previously
stationary upper ridge reorganized and
shifted its influence to the western
part of the continent with strong amplitudinal ridging northward. This
effectively tapped a large pool of
Arctic air over extreme northwestern
Canada and allowed it to push southeastward. The resulting thermal gradi-

ent provided support for cyclonic development over the northern prairies during the weekend. A significant low pressure system emerged and tracked eastward towards Québec. Associated with this system was a large cloud shield and significant rainfall amounts. In the wake a large cold high pressure cell dropped temperatures to record levels.

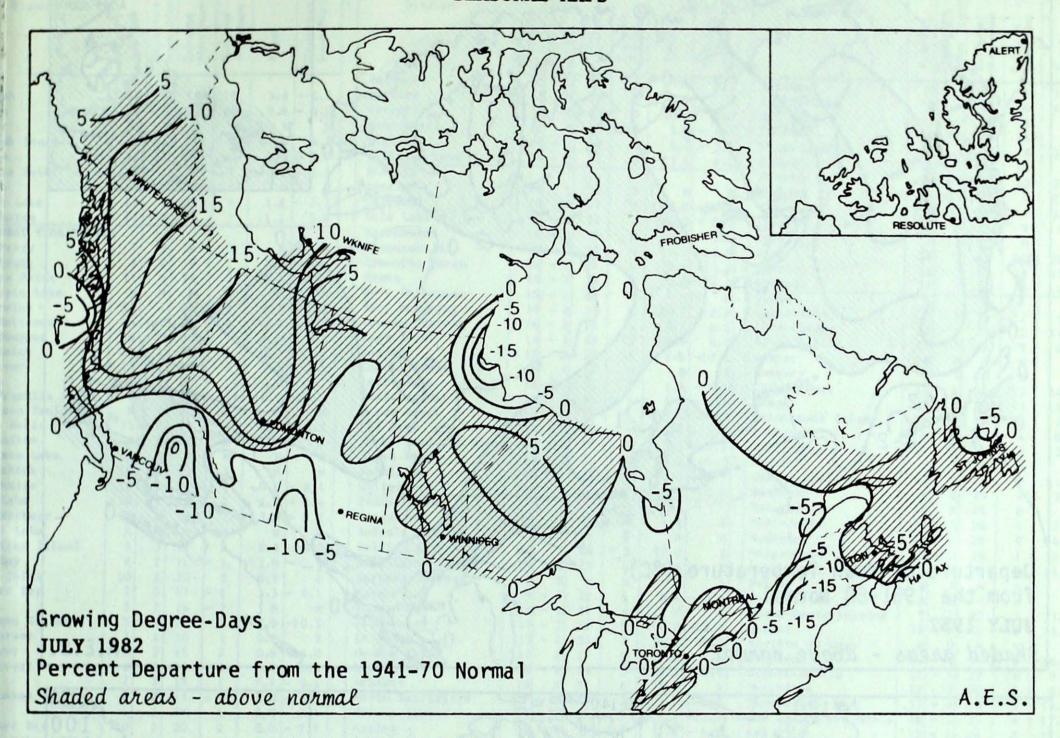
Due to major waves slowing moving eastward the atmospheric circulation over the continent had a much stronger north-south component towards the end of the week; an ominous reminder that the fall season is near at hand.

7-day Mean 50 kPa Height (dam)
JULY 26 TO AUGUST 1, 1982



7-day Mean 50 kPa Height Anomaly (5 dam intervals) JULY 26 TO AUGUST 1, 1982

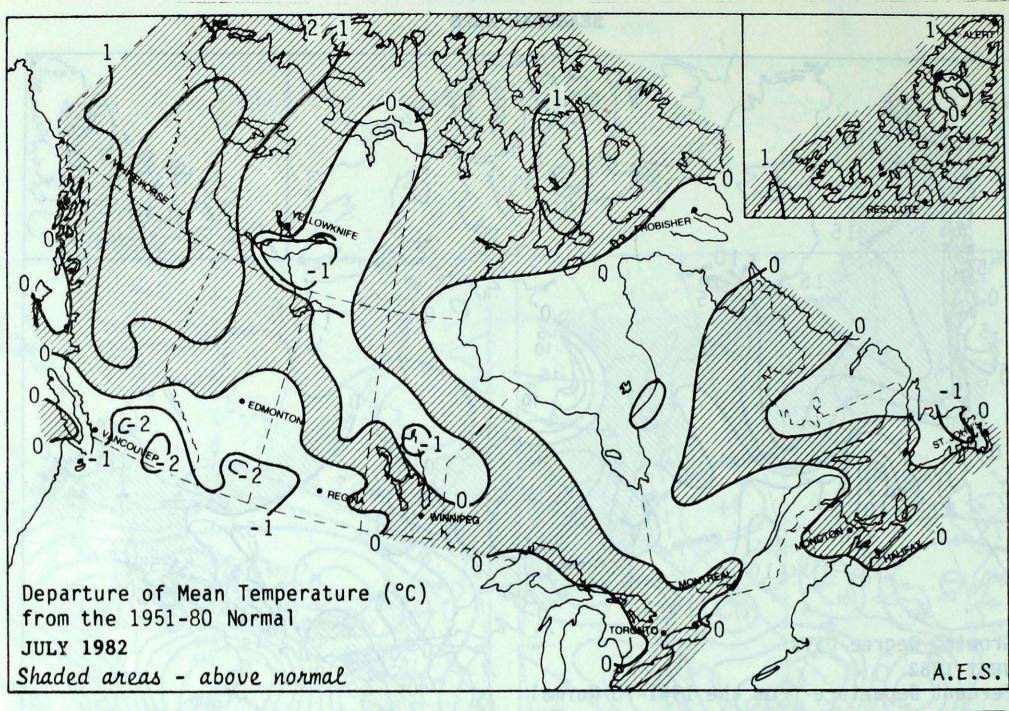
SEASONAL MAPS

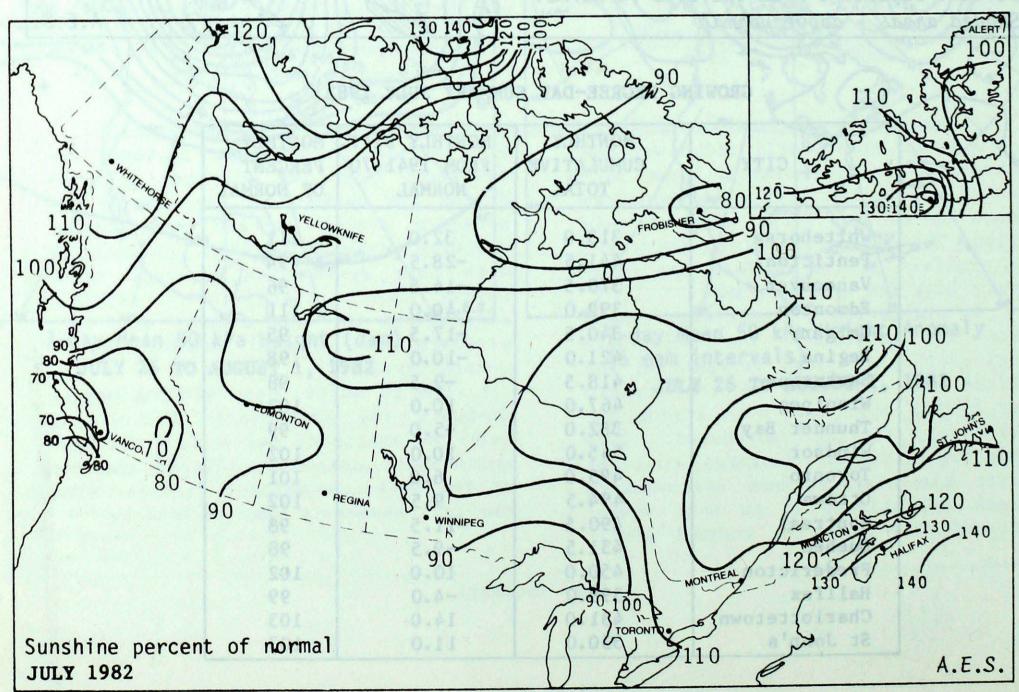


GROWING DEGREE-DAY SUMMARY JULY 1982

	CITY	MONTHLY CUMULATIVE TOTAL	MONTHLY DIFF. FROM 1941-70 NORMAL	MONTHLY PERCENT OF NORMAL
4	Whitehorse	313.0	32.0	111
4	Penticton	441.5	-28.5	94
	Vancouver	370.5	-14.5	96
	Edmonton	392.0	40.0	111
	Calgary	340.5	-17.5	95
	Regina	421.0	-10.0	98
	Saskatoon	418.5	-9.5	98
	Winnipeg	467.0	10.0	102
	Thunder Bay	382.0	-5.0	99
	Windsor	545.0	10.0	102
	Toronto	495.0	6.0	101
	Ottawa	494.5	9.5	102
	Montreal	490.5	-11.5	98
	Quebec	431.5	-9.5	98
	Fredericton	450.0	10.0	102
	Halifax	398.0	-4.0	99
	Charlottetown	431.0	14.0	103
	St John's	330.0	11.0	103

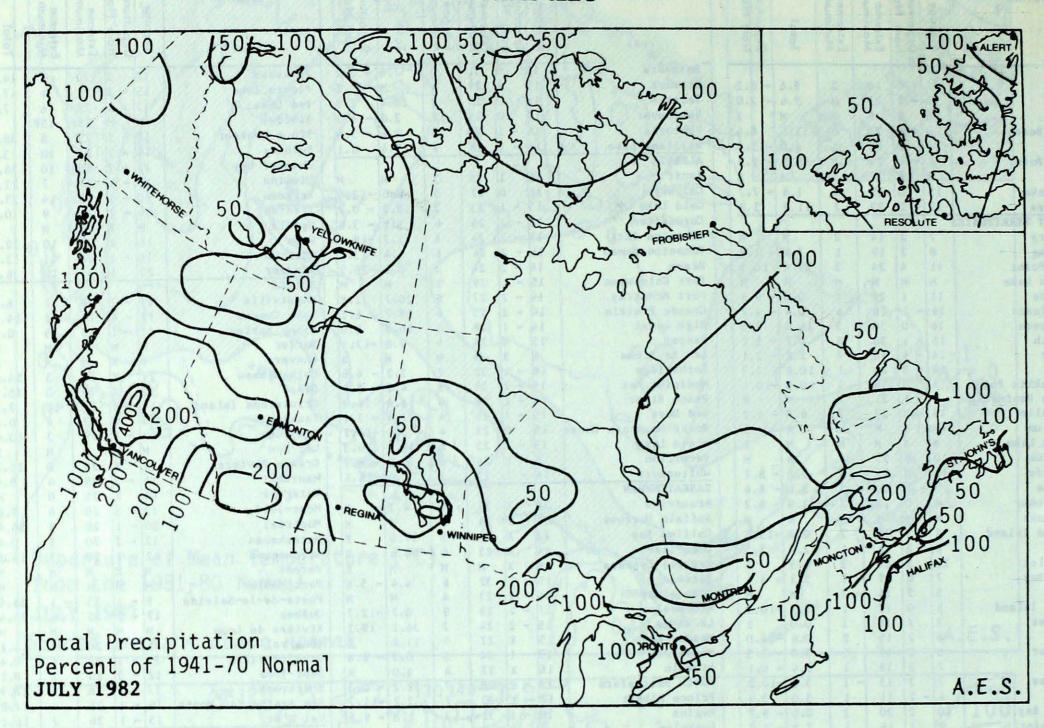
SEASONAL MAPS

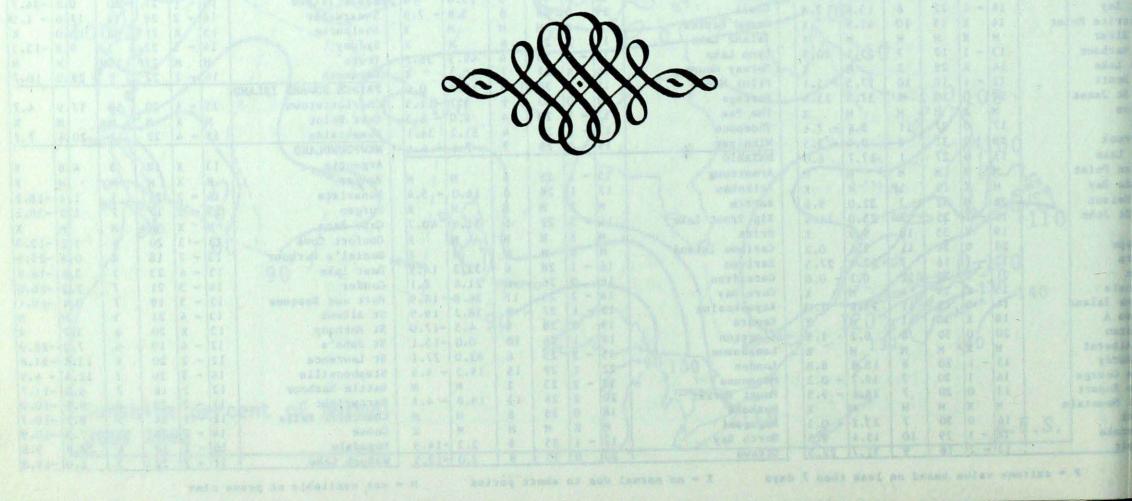




- Control of the	TEMPERATURE AND PRECIPITA					CIPITA	41	TON DATA FOR THE	WEEK ENDING ODGO G.M. 1. AU						10, 1302	_					
Serveral .	Temperature (°C) Precip. (mm)					Temperature (°C)						Temperature (°C),				Precip. (mm)					
Station	Average	Deporture from Normal	Extreme	Extreme	Total	Departure from Normal		Station			Extreme	Extreme Minimum	7.8	From Normal	Station'	Average	Departure From Normo	Extreme Moximum	Extreme Minimum	14.7	Departure from Normo
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SEASONAL MAPS





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