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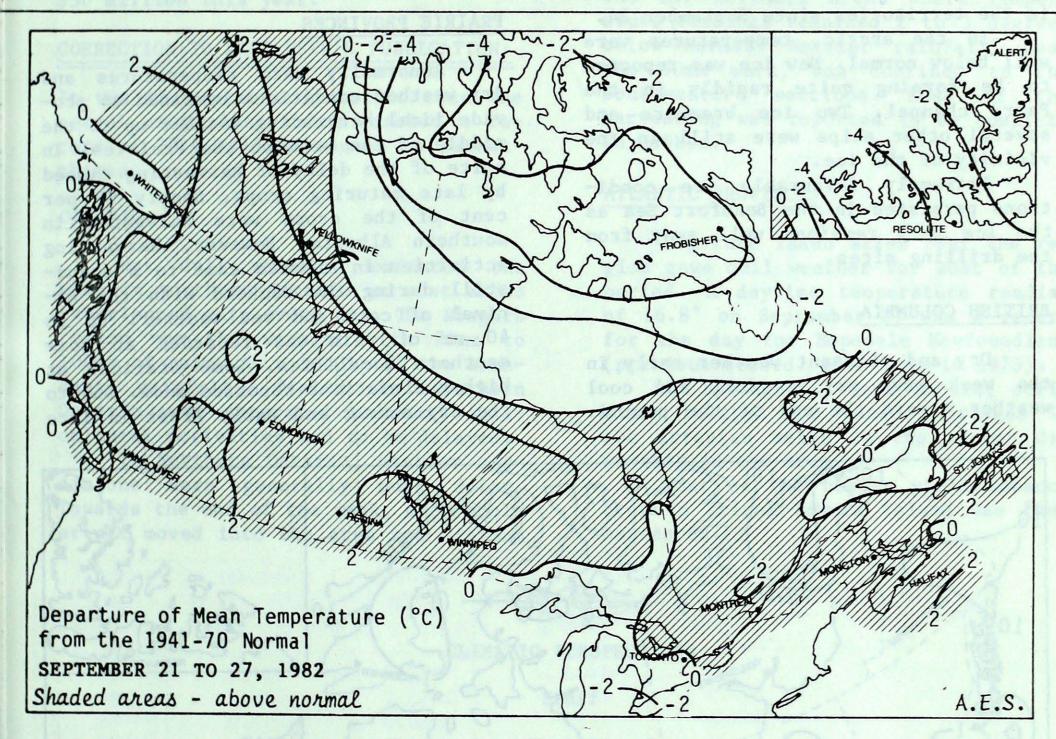
A WEEKLY REVIEW OF CANADIAN CLIMATE

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de the Kawloops area had to he delawed THE CANADIAN CLIMATE CENTRE, anada ATMOSPHERIC ENVIRONMENT SERVICE,
4905 DUFFERIN ST., DOWNSVIEW, ONTARIO M3H 5T4

CTOBER 1 1982 (Aussi disponible en français)

VOL.4 NO. 38



# WEATHER HIGHLIGHTS FOR THE PERIOD - SEPTEMBER 21 TO 27, 1982

Rain delays harvesting in some areas.

The arrival of rain in southern Alberta by the end of the week prevented farmers from harvesting the crops remaining in their fields. Up to 100 mm of rain was, also recorded in southwestern Ontario, where fields were saturated and many agricultural activities had to be delayed.

The period ended with an influx of cooler air from the north which brought earlier than normal snow cover to some communities in southern Alberta.

Temperatures ranged from 27.3° at Lytton, B.C. to -21.7° at Mould Bay, N.W.T. St. Williams, Ont. recorded 104.3 mm of rain for the week.

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 THE NORTHWEST TERRITORIES

Seasonable temperatures early in the week were followed by a drop of several degrees by the week's end as cool arctic air moved over the area from the north. Daytime temperatures remained near the freezing mark on September 26 at Komakuk, Yukon Territory. Snow came and stayed on the hills in the territories since September 24.

In the arctic, temperatures were well below normal. New ice was reported to be forming quite rapidly in the Parry channel. Two ice breakers and several other ships were still in the vicinity of the ice.

Extremely favourable ice conditions persisted in the Beaufort Sea as the ice pack remained well away from the drilling sites.

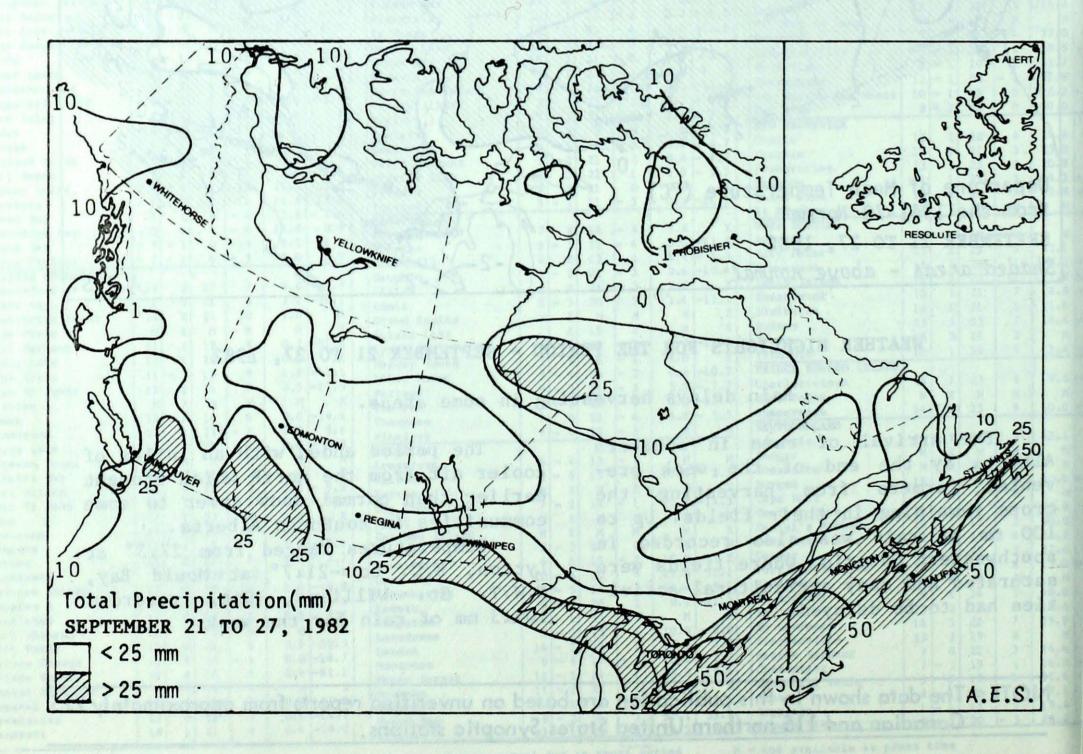
## BRITISH COLUMBIA

Dry and pleasant weather early in the week gave way to dull and cool weather toward the end of the period. For most areas, temperatures were near normal except in the northeastern sections where it was 2 to 3 degrees above the normal values. Slash burning in the Kamloops area had to be delayed due to excessive moisture. The third cutting of the hay crop was underway in the Okanagan Valley.

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## PRAIRIE PROVINCES

Abnormally warm temperatures and dry weather conditions combined to provide ideal harvesting weather up to the middle of the week on the Prairies. In spite of the delay of harvesting caused by late maturing crops, nearly 95 per cent of the crops were harvested in southern Alberta. However, harvesting activities in Alberta came to a standstill during the weekend with the arrival of cool and wet weather. Up to 40 mm of rain was recorded at some southern localities. Some stations at higher elevations reported snow. Due to the dry summer and early frost in late



August, losses in both yield and grade of crops was evident in the Peace District of Alberta.

In Manitoba, claims for crop damage to date are \$9.2 million greater than the total for last year. Agriculture officials estimated that the damage due to early frost along with higher than normal incidence of crop disease will cost the government some \$30 million this year.

## CORRECTION TO LAST WEEK'S PUBLICATION:

It was the total crop rather than the cereal crop alone which reached a record of 22.4 million tonnes in Saskatchewan.

## ONTARIO

Wet dull weather dominated the week in southern Ontario as most areas experienced rain every day. The Niagara region was the wettest with 75mm to 100mm of rain. As a result of the abundant rainfall, fields in southern Ontario were saturated and many agricultural activities had to be delayed.

In Northern Ontario, weather conditions were generally much drier. Towards the end of the week, much cooler air moved into the area and minimum temperatures fell below the freezing point. On the morning of September 27, Trout Lake reported a trace of snow on the ground.

## QUÉBEC

Well above normal temperatures and a variable precipitation pattern was evident across the province except for the far northern areas where temperature readings remained 2 to 3 degrees below normal. Heavier rainfall, near the 30mm mark, was confined to the southwestern sections. Most of the harvesting was reported to be complete in Québec.

## ATLANTIC PROVINCES

Moisture laden skies over the region gave dull weather for most of the period. A daytime temperature reading of 16.8° on September 27 was a record for the day for Hopedale Newfoundland (previous record: 15.6° set in 1973).

In Springhill, Nova Scotia, officials related the water shortages in the artesian wells to the recent dry weather in the area.

Most of the bumper yield tobacco crop in Prince Edward Island has been harvested.



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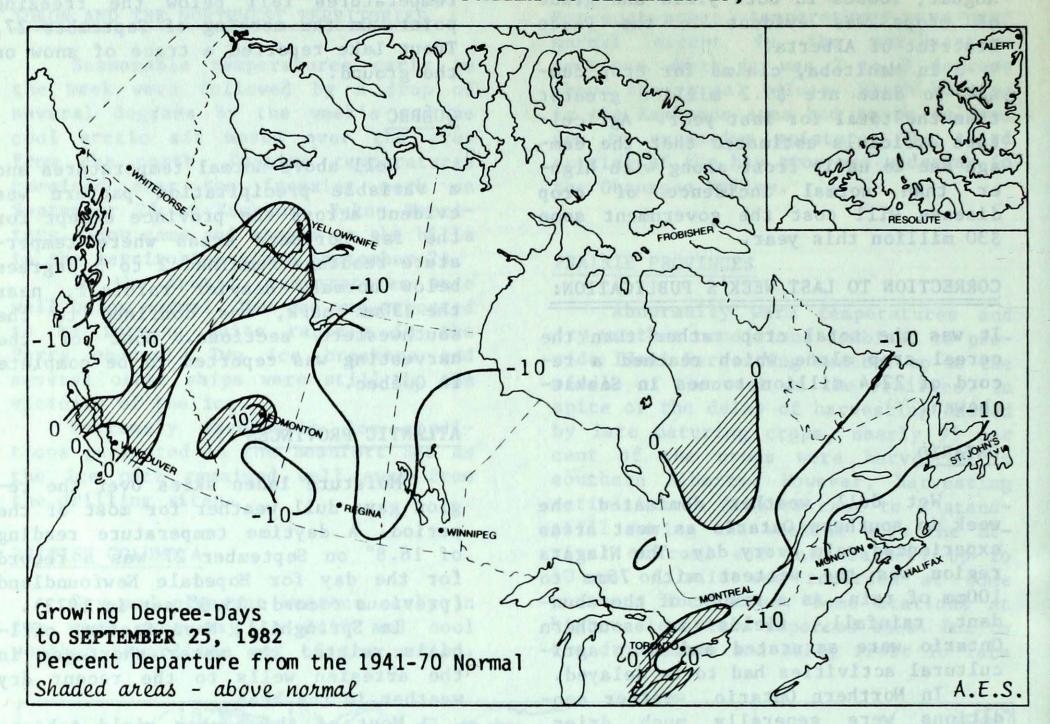
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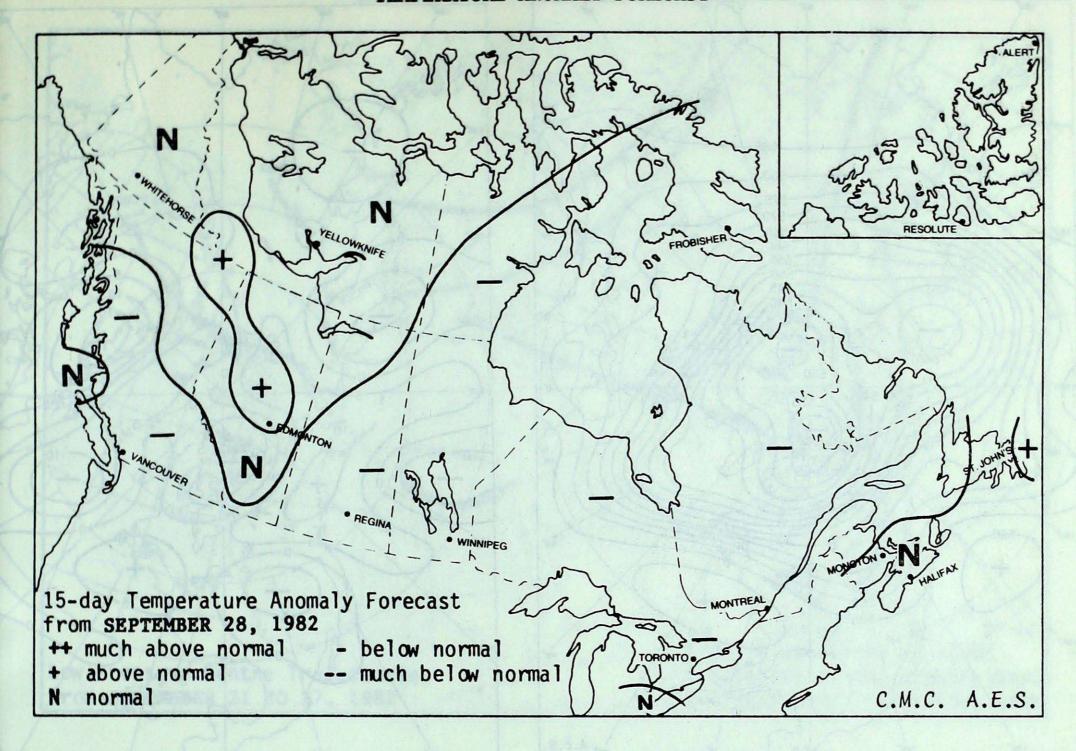
# GROWING DEGREE-DAY SUMMARY TO SEPTEMBER 25, 1982



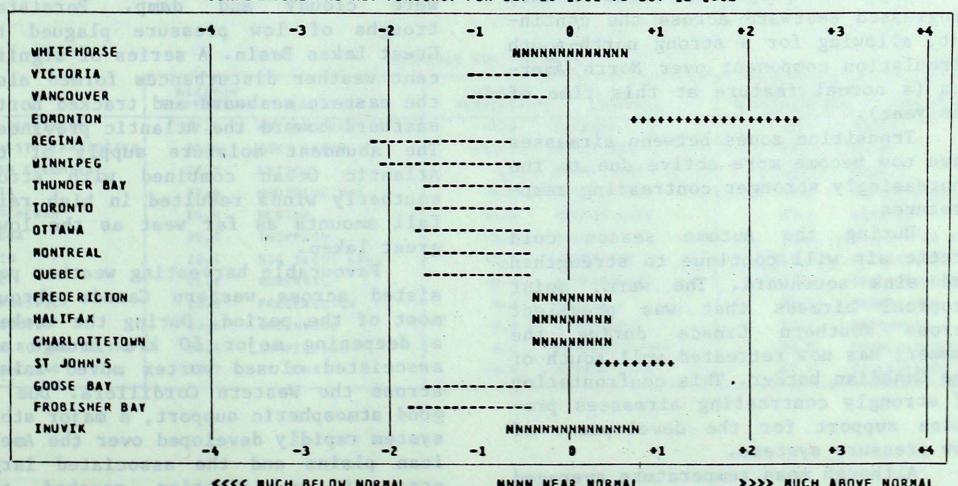
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STATION	MONTHLY CUMULATIVE TOTAL	MONTHLY DIFF. FROM 1941-70 NORMAL		SEASONAL DIFF. FROM 1941-70 NORMAL	SEASONAL PERCENT OF NORMAL
Whitehorse*	31.5	-49.5	820.5	-54.5	94
Penticton	269.0	17.0	1885.0	-36.0	98
Vancouver	257.0	18.0	1664.0	-32.0	98
Edmonton	216.5	75.5	1456.0	192.0	115
Calgary*	109.0	-52.0	1186.0	-49.0	96
Regina*	129.0	-57.0	1475.5	-48.5	97
Saskatoon	198.0	21.0	1416.0	-82.0	95
Winnipeg*	144.0	-68.0	1570.5	-65.5	96
Thunder Bay*	127.0	-51.0	1208.0	-100.0	92
Windsor	300.5	-26.5	2205.0	-10.0	100
Toronto	249.5	-36.5	1780.5	-146.5	92
Ottawa	244.0	-11.0	1846.5	-6.5	100
Montréal	251.0	-21.0	1848.0	-70.0	96
Quebéc	220.0	6.0	1516.0	-61.0	96
Fredericton	236.5	19.5	1556.5	-25.5	98
Halifax	252.0	12.0	1342.0	-114.0	92
Charlottetown	229.0	-6.0	1346.5	-74.5	95
St. John's	202.5	19.5	949.5	-69.5	93

<sup>\*</sup>season ended

## TEMPERATURE ANOMALY FORECAST



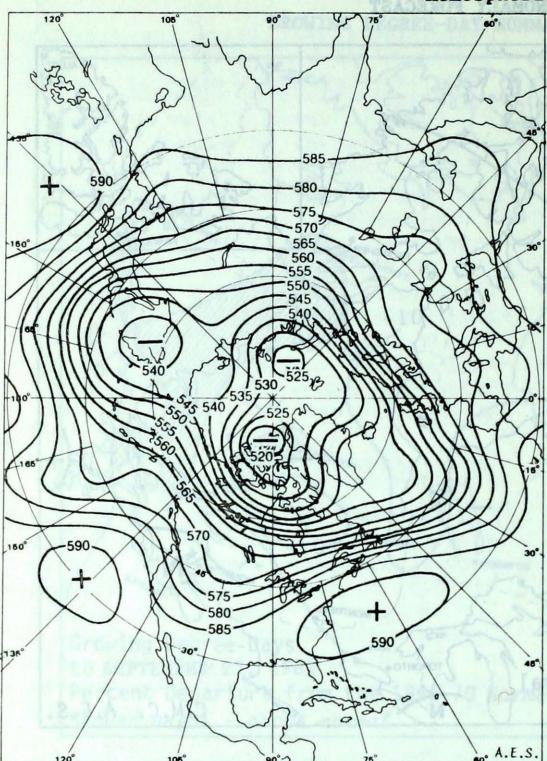
#### TEMPERATURE ANOMALY FORECAST FOR SEP 28 1982 TO OCT 12 1982



CCCC MUCH BELOW NORMAL BELOW NORMAL

NNNN NEAR NORMAL

>>>> MUCH ABOVE NORMAL ABOVE NORMAL



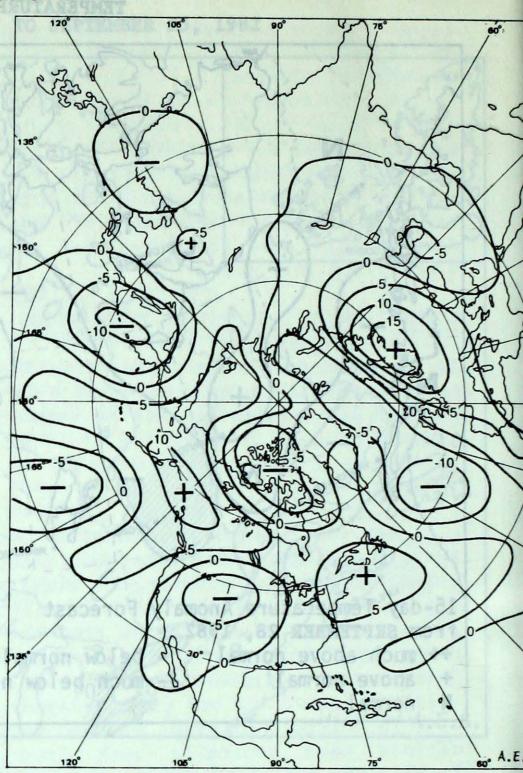
7-day Mean 50 kPa Height (dam) SEPTEMBER 20 TO 26, 1982

Major tropospheric waves slowly progressed eastward across the continent, allowing for a strong north-south circulation component over North America (a normal feature at this time of the year).

Transition zones between airmasses have now become more active due to the increasingly stronger contrasting temperatures.

During the Autumn season cold arctic air will continue to strengthen and sink southward. The warm, moist tropical airmass that was prevalent across southern Canada during the summer, has now retreated well south of the Canadian border. This confrontation of strongly contrasting airmasses provides support for the development of low pressure systems.

Although mean temperature averaged near normal, weather conditions over much of the eastern half of the country

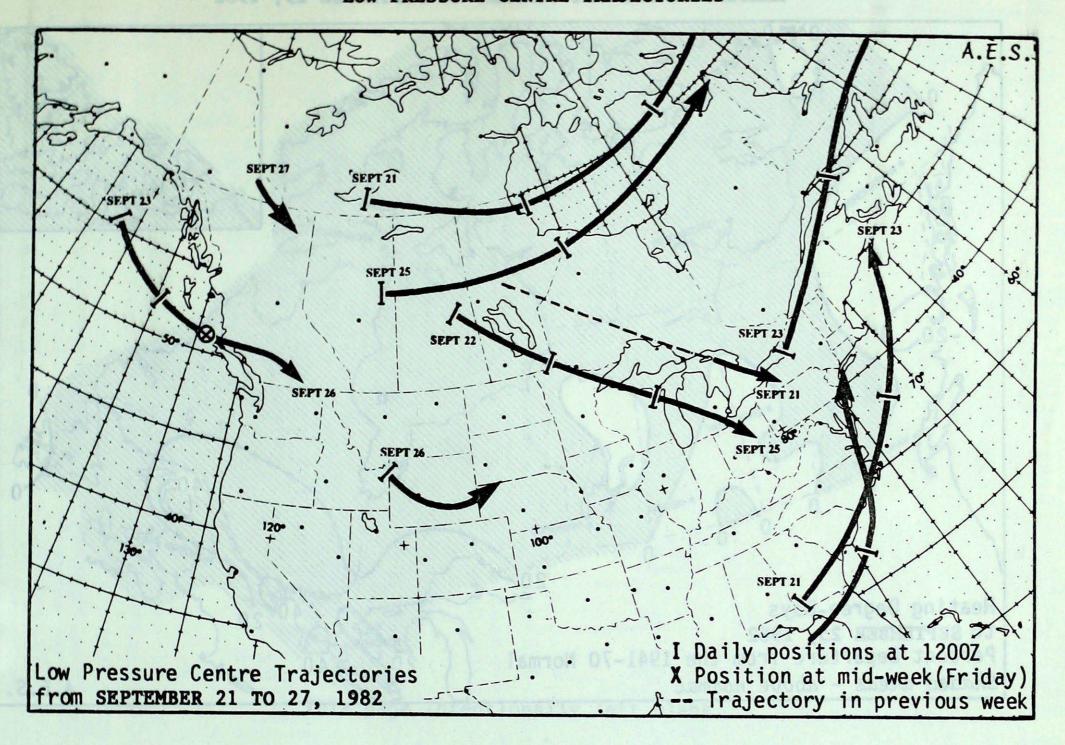


7-day Mean 50 kPa Height Anomaly (5 dam intervals)
SEPTEMBER 20 TO 26, 1982

were cloudy and damp. Persistant troughs of low pressure plagued the Great Lakes Basin. A series of significant weather disturbances formed along the eastern seaboard and tracked northeastward toward the Atlantic provinces. The abundant moisture supply of the Atlantic Ocean combined with strong southerly winds resulted in high rainfall amounts as far west as the lower great lakes.

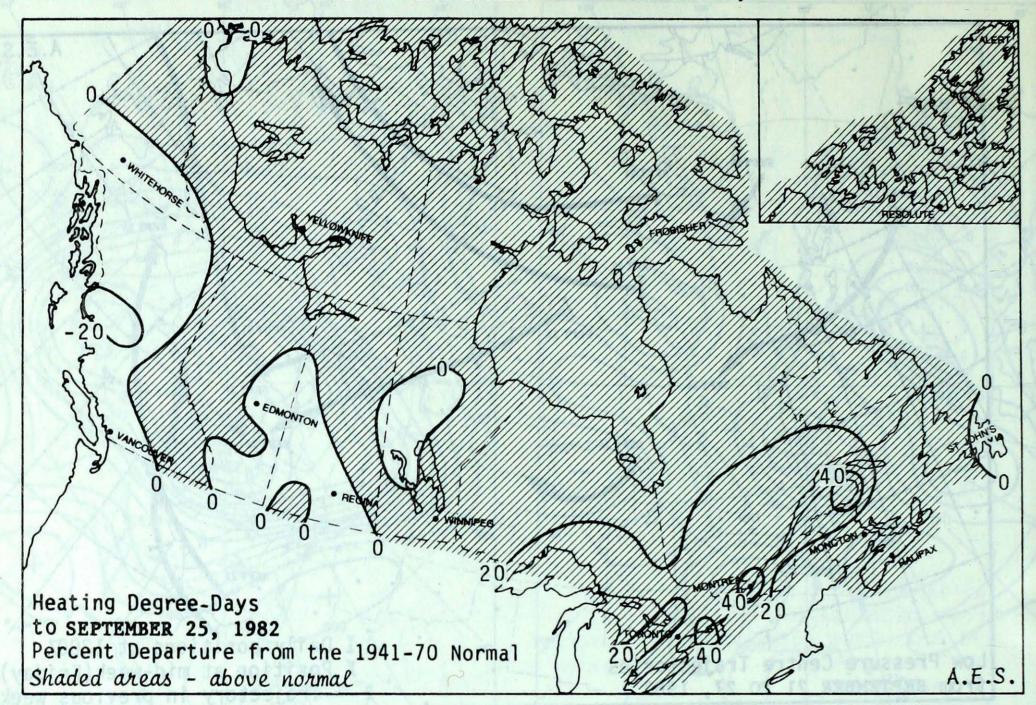
Favourable harvesting weather persisted across western Canada through most of the period. During the weekend a deepening major 50 kPa trough and associated closed vortex moved inland across the Western Cordillera. Due to good atmospheric support, a major storm system rapidly developed over the American plains and the associated large area of precipitation reached the Canadian prairies by Monday.

## LOW PRESSURE CENTRE TRAJECTORIES



#### EXTREMES FOR THE WEEK

38	MAXINUH TENPERATUR	E LOCATION	MINI HUN TEMPERATUR	LOCATION	GREATEST PRECIPITATION	ON LOCATION
YUKON TERRITORY	17.1	WATSCO LAKE	-7.0	BURNASH	15.4	HAYO
NORTHHEST TERRITORIES	23.4	FORT SHITH	-21.7	HOULD BAY	22.8	CLYDE
BRITISH CCLUMEIA	27.3	LYTICH	5	DEASE LAKE	41.2	HOPE
ALBERTA	27.0	HEDICINE HAT	-4.9	HIGH LEVEL	39.7	MEDICINE HAT
SASKATCHENAN	26.9	REGINA	-4.3	MEADON LAKE	17.8	ESTEVAN
MANITOBA	25.8	THOMPSON	-5.7	GILLAN	39.2	PORTAGE LA PRAIRIE
CHTARIO	22.1	BIG TROUT LAKE	-7.9	ARHSTRONG	104.3	ST WILLIAMS
QUEREC	21.8	ROBERVAL	-6.7	NITCHEGUON	30.2	STE AGATHE DES MONTS
NEW BRUNSHICK	21.0	FRECERICTON	4.0	CHARLO	35.6	SAINT JCHN
NOVA SCOTIA	23.1	GREENWOOD	2.8	GREENWOOD	52,6	GREENHOOD
PRINCE EDNARD ISLAND	18.9	SUMPERSIDE	8.1	CHARLOTTETCHN	44.5	CHARLCTTETONN
NEWFOUNCLAND	23.7	ST JOHNS	-4.3	WABUSH LAKE	67.0	ST LANRENCE



STATION	MONTHLY CUMULATIVE	MONTHLY DIFF. FROM 1941-70	SEASONAL TOTAL	SEASONAL DIFF. FROM	SEASONAL PERCENT
Mejor troposph	TOTAL	NORMAL		1941-70 NORMAL	OF NORMAL
	504.0	21 0	1521 5	70. 5	105
Resolute	584.0	31.0	1531.5	79.5	105
Inuvik	280.5	-81.5	641.5	-98.5	87
Whitehorse	219.5	-23.5	514.0	-30.0	94
Vancouver	68.5	-20.5	161.0	-3.0	98
Edmonton	111.5	-53.5	262.5	-31.5	89
Calgary	143.5	-28.5	317.5	-16.5	95
Regina	131.0	-22.0	213.0	-15.0	93
Winnipeg	142.0	7.0	217.0	23.0	112
Thunder Bay	174.5	19.5	335.0	62.0	123
Windsor	57.5	10.5	73.5	15.5	127
Toronto	85.5	12.5	136.5	34.5	134
Ottawa	95.0	2.0	163.0	32.0	124
Montreal	89.5	13.5	160.0	57.0	155
Quebec	114.5	-0.5	235.0	53.0	129
Saint John	116.0	-11.0	252.5	14.5	106
Halifax	73.0	-2.0	155.0	13.0	109
Charlottetown	98.0	1.0	188.5	27.5	117
St John's	124.5	-19.5	302.0	-31.0	91

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TEMPERATURE AND PRECIPITA									
	Temperature (°C) Precip. (mm								
Station	Average	Departure from Normal	Extreme	Extreme Minimum	Total	Departure from Normal			
YUKON Burwash Dawson Faro Komakuk Beach Mayo A	4 4 M O 5 5 2 M	1 1 X 2 1 3 X	15 16 M 5	- 7 - 5 M - 6 - 2	12.2 2.6 M 13.0 15.4	6.3 - 2.1 X 10.9 8.9			
Shingle Point Teslin Watson Lake Whitehorse NORTHWEST TERRITORIE	6 6 8	0 - 1	7 7P 17 16	- 3 - 3P - 5 - 5	12.2 M 2.5 6.4	8.7 X - 8.6 1.3			
Cape Parry Cape Young Clinton Point Coppermine Fort Reliance Fort Simpson Fort Smith Hay River	0 - 2 - 1 0 3 8 9	- 1 0 0 - 1	2 1 4 7 9 20 23 22	- 7 - 7 - 6 - 3 1 - 2 - 1	9.0 0.5 M 0.7 8.2 2.4 5.0	5.9 - 6.6 M - 5.9 - 5.9			
Inuvik Lady Pranklin Point Nicholson Peninsula Norman Wells Port Radium Robertson Lake Tuktoyaktuk	8 9 8 3 - 2 0 6 M M 2	4 3 2 3 - 1 1 3 X X 2	8 2 4 17 M M 5	- 5 - 7 - 4 - 1 M	5.8 1.9 M 8.2 M M	1.5 0.7 M 2.4 X X			
Yellowknife Baker Lake Coral Harbour Ennadai Lake Jenny Lind Island Pelly Bay Rankin Inlet	6 - 3 - 7 M - 7 - 9 - 2	1 - 3 - 5 M - 4	11 3 - 3 M - 3 - 4	- 2 - 8 -11 M -11 -13	0.2 3.0 4.1 M 4.0 20.0	- 5.9 - 1.9 - 1.3 M 2.4 13.7			
Shepherd Bay Broughton Island Cape Dorset Cape Dyer Cape Hooper Clyde Dewar Lakes	- 7 - 6 - 4 - 5 - 6 - 5 - 10	- 4 - 2 - 3 - 3 - 5	- 3 - 3 - 1 - 1 - 2 - 1 - 4	-11 - 8 - 8 -15 -10 -10 -15	21.0 0.9 21.0 11.0 22.8 0.4	M 10.2 X 8.5 3.1 15.4			
Frobisher Bay Longstaff Bluff Pond Inlet Alert Eureka Gladman Point Hall Beach	- 4 - 7 - 8 -14 -13 - 7 - 6	- 5 - 4 X	0 - 3 - 2 - 9 - 6 - 3 - 1	- 9 -11 -16 -20 -21 -14 -12	8.0 3.0 2.7 3.0 M M	- 2.1 - 1.8 X - 4.1			
Mackar Inlet Resolute Byron Bay Cambridge Bay Mould Bay Sachs Harbour BRITISH COLUMBIA	-10 -11 - 7 - 7 -14 - 3	- 5 - 4 - 5 - 5	- 7 - 5 - 1 - 2 - 4	-15 -18 -16 -14 -22 - 8	9.0 5.1 6.3 3.2	3.6 1.0 3.8			
Abbotsford Alert Bay Amphitrite Point Blue River Bull Harbour Burns Lake	14 12 14 M 11 12	0 0 X X - 1 X	25 19 18 M 15 22	5 7 9 M 6 3 7	7.0 5.8 15.3 M 5.3	-13.1 -24.7 X X -32.7			
Cape Scott Cape St James Clinton Comox Cranbrook Dease Lake Estevan Point	12 14 M 13 11 8 M	- 1 2 X 1 1 2 M	17 20 M 18 21 17 M	9 M 7 3 - 1 M	7.7 8.0 M 4.8 33.5 1.6	-37.6 -22.4 X - 9.6 24.1 - 7.5			
Ethelda Bay Fort Nelson Fort St John Hope Kamloops Langara	11 10 11 15 15	X 3 2 X 2 0	16 22 22 26 25 15	4 2 4 9 8 9	7.7 6.7 41.2 26.0 0.4	X 0.3 0.9 X 21.3 -45.3			
Lytton Mackenzie McInnes Island Nanaimo A Penticton Port Alberni Port Hardy	15 M 12 14 14 M 12	1 X 0 X 1 X	27 20P 15 23 24 M	9 1 9 5 6 M 6	8.0 M 9.2 M 16.2 M 3.7	0.3 X -56.6 X 12.6 X			
Prince George Prince Rupert Puntzi Mountain Quesnel Revelstoke Sandspit	12 11 M 13 13	3 0 X 3 3	22 17 M 22 20 17	4 4 M 7 8	15.6 2.4 M 8.4 11.6 0.2	- 1.5 -72.4 X - 3.8 - 5.7 -23.9			

	Temperature (°C)				Precip. (mm)		
Station	Average	Departure from Normal	Extreme	Extreme Minimum	Total	Departure from Normal	
Smithers Stewart	11	X	21 20	7	2.6	-13.6 X	
Terrace Vancouver	14	0	21 18	8	5.0	-32.1 -10.6	
Victoria Williams Lake	13 12		20	6 5	1.4	16.1	
ALBERTA Banff	10	2	21	1	м	м	
Calgary Cold Lake	11	2	23	1 1	27.2	20.2	
Coronation	11	2	25	0	3.8	- 7.6	
Edmonton Intl Edmonton Namao	11	3	23	- 2		- 4.6	
Edson Fort Chipewyan	10	3	23 24	- 3	20.6 M	M	1
Fort McMurray Grande Prairie	9	3	26 24	- 4	1.8		
High Level Jasper	9		23	- 5	0.7 5.2	-11.5	
Lac La Biche	M	X	M 26	M	M	X	
Lethbridge Medicine Hat	13	3	27	2	30.4	32.1	
Peace River Red Deer	10	2	24 23	- 1	3.5		
Rocky Mountain House Slave Lake	10	1	22	- 1 - 1	26.4	18.5	
Whitecourt	11		22	2	2.7	- 1.6	
SASKATCHEWAN Broadview	10		26	- 2	7.3	x	
Buffalo Narrows Collins Bay	11 8	X	25 23	- 3	8.4		
Cree Lake Eastend Cypress	9 M		23 M	1 M	3.2 M	X	
Elbow Estevan	12	X		- 2	17.8	The second second	
Hudson Bay	10	3	24	- 2	M	M	
Kindersley La Ronge	13 10	3	25 25	0	5.6	- 8.3	
Meadow Lake Moose Jaw	10		25 27	- 4	0.0		
Nipawin North Battleford	10	X	24 25	- 1 2	0.4		
Prince Albert	10	2	24	- 2	0.0	- 7.9	
Regina Rockglen	12 M	X		M	6.8 M	X	
Saskatoon Swift Current	12	2	25 26	2 2	0.2 M	M	
Uranium City Wynyard	8	2 X	19 26	- 2	2.0	- 8.4 X	
Yorkton MANITOBA	10	2	25	- 2	0.4	-11.2	
Bissett	10		22	1 - 1	5.9		
Brandon Churchill	3	- 1	9	- 4	29.5	17.3	
Dauphin Gillam	11 7	2 X	24	- 6	6.4	X	
Gimli Grand Rapids	10 M	X	22 M	3 M	11.2 M	0.1 X	
Island Lake Lynn Lake	10		22 24	- 2 - 4	0.2		
Norway House Pilot Mound	10		21 25	- 3	34.6		1
Portage	11	1 3	24 25	1 0	39.2	26.4	1
The Pas Thompson	8	3	26	- 4	0.4	- 9.8	1
Winnipeg ONTARIO	11		25		26.6	14.5	
Armstrong Atikokan	7 8	0	20 19	- 8 - 5	20.0	0.2	
Barrie Big Trout Lake	M 8	X 2	M 22	- 3	M 2.1	-14.4	
Britt	M	X	M	M	M M	X X	
Caribou Island Earlton	10	1	20	- 1	M		
Geraldton Gore Bay	12	0	20 18	- 3	3.4	5.4	
Kapuskasing Kenora	8 10		20	- 2	36.0	19.0	
Kingston Lansdowne	15	2 2	20 22	11 0	1.2	-19.2	
London	13	- 1	18	- 3	68.3	46.6	
Mount Forest	12	1	18	4	37.2	12.4	
Muskoka Nagagami	13 M	2 X	21 H	5 M	M	X	1
North Bay Ottawa	12	2	18	7 8	2.8	12.4	L
		-		rt ne		м	

TENDER 20, 1502	Te	mper	oture	(00)	Precip	. (1
		=1				
(Station)		Norma	Ε.	-		9
	oge.	The second second	Extreme	mum	-	Departure
	Average	Departure from Nor	Extr	Extreme	Total	Dep
Petawawa	12	X	20	3	14.6	
Pickle Lake Red Lake	8 9	1 2	20	- 2	1.6	-2
Simcoe Sioux Lookout	M 9		19P	3P - 1	12.4	-1
Sudbury	11	0	19	5	16.3	-1
Thunder Bay Timmins	7 9	- 2	20	- 3	9.6	-1
Toronto Trenton	13 14	0	19	8	51.9	3
Upsala	M	X	M	M	M	
Wawa Wiarton	8 13		16	- 1 7	3.4	-1
Windsor QUEBEC	13	- 2	20	4	40.8	2
Bagotville	11	1	21	1 0	5.0	-1
Baie Comeau Blanc Sablon	8	0	16 13	1	8.5	-2 -1
Border Chevery	M	4	M	M	M	
Chibougamau	10 10	X	18	2	0.2	
Gaspé Grindstone Island	13	1	18	9	27.3	
Inukjuak Kuujjuaq	1	- 2	8 15	- 4	21.6 H	
Lac Eon Grande Riviere	H 7	X	M 18	- H	3.5	
Maniwaki	12	1	21	3	13.9	-
Matagami Mont-Joli	10		20 19	- 1	6.0	-1
Montréal Natashquan	14	1	20	8	28.6	1
Nitchequon	6	1	16	- 7	2.6	
Parent Port Menier	M	M		M	M	
Poste-de-la-Baleine Québec	13	1	18	7	29.0	-1
Rivière du Loup	M	M	M	M 2	3.6	-1
Roberval Schefferville	12	2	22 16	- 3	9.6	-1
Sept-Iles Sherbrooke	13		15 22	- 1	7.2	-1
Ste Agathe des Monts	11	2	21	5 - 1	30.2	-
Val D'Or NEW BRUNSWICK	10	1	18	107		
Charlo Chatham	11		20	6	13.0	-1 1
Fredericton Moncton	13 13		21 20	6	28.2	1
Saint John	13	1	21	5	35.6 M	1
St Stephen NOVA SCOTIA	М		М	M		
Amherst Eddy Point	15		M 20	11	49.0	
Greenwood Sable Island	14	Ö	23	3 14	52.6 M	3
Shearwater	15	1	20	8	44.3	2
Shelburne Sydney	14		20 21	5	24.0	2
Truro Yarmouth	13	1 100	22	6	45.4	2
PRINCE EDWARD ISLAND	13		19	8	44.5	2
Charlottetown East Point	M	X	M	М	M	
Summerside NEWFOUNDLAND	14	0	19	9	24.8	
Argentia Badger	12 M	1	16 M	10 M	52.9 M	
Bonavista	13	1	20 18	7 6	16.0	-
Burgeo Cape Race	11 M		M	M	M	
Comfort Cove Daniel's Harbour	12	3	21	5 2	11.6	- -1
Deer Lake	10	1	20	- 2	6.4	-1 -1
Cander Port aux Basques	12	1	19	- 2 - 6 5 4	31.4 M	
St Albans St Anthony	12	X	17	2	6.8	
St John's St Lawrence	13 13	2 2	24	2 9 7 3	52.6	2
Stephenville	11	- 1	19	3	14.2	-1 -
Battle Harbour Cartwright	9	1	20	3	9.6	-1 -2
Churchill Falls Goose	7 9	1	17	- 4	14.0	-2 -
Hopedale Wabush Lake	7 8	0	18	- 4	0.0	-1 -2
not available at pre-		ime				
	1 50	1	1111			-