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A WEEKLY REVIEW OF CANADIAN CLIMATE

CLIMATIC TRANSPERSIVES

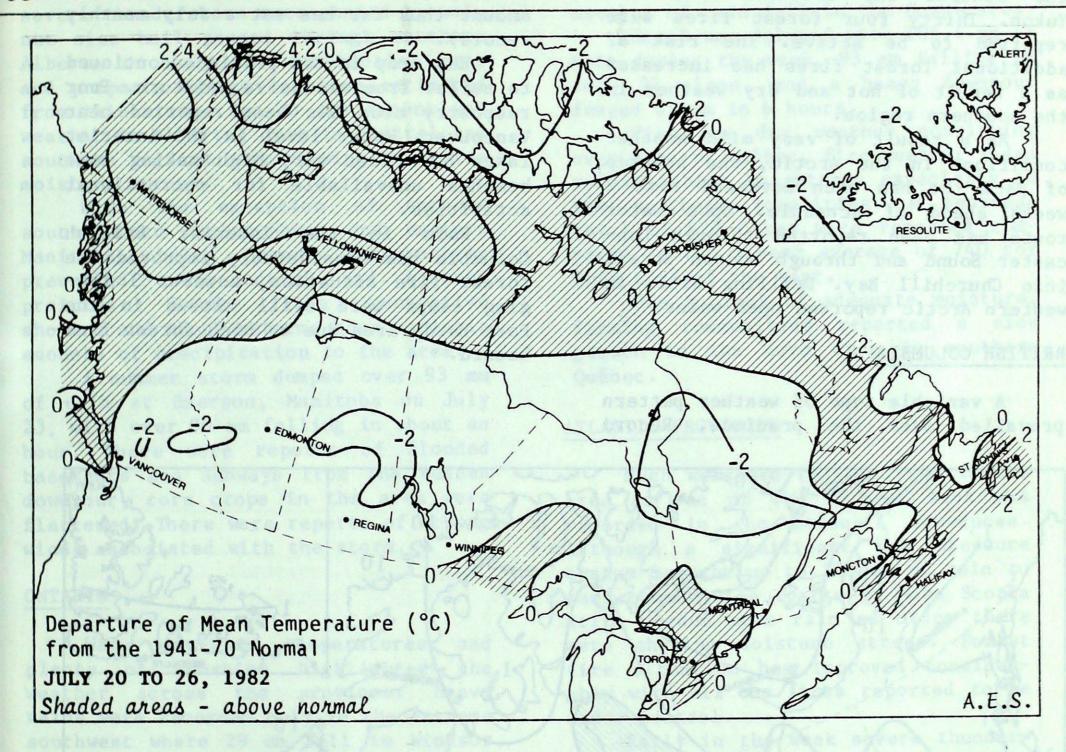
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THE CANADIAN CLIMATE CENTRE,
ATMOSPHERIC ENVIRONMENT SERVICE,
4905 DUFFERIN ST., DOWNSVIEW, ONTARIO M3H, 5

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(Aussi disponible en français)

VOL.4 NO. 29



WEATHER HIGHLIGHTS FOR THE PERIOD - JULY 20-26, 1982

Torrential Rain in the Maritime provinces

Copious amounts of rain fell in the Maritimes as a weather disturbance moved into the area. Over 100 mm of rain was recorded by many locations which caused some local flooding. Meanwhile severe thunderstorms continued to batter western prairies. Numerous outbreaks of severe weather, accompanied by heavy downpour and walnuts size hail were reported in southern Alberta.

Power outages and local flooding were common, as well, substantial damage to crop and property has been reported from these storms.

Temperatures ranged from a high of 37° at Lytton, British Columbia to a low of -7° at Cape Hooper, Northwest Territories. Greatest rainfall amount of the week, equalling 109 mm, fell at Fredericton, New Brunswick.

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

Mercury climbed near the 30° mark in southern Yukon as very warm Pacific air pushed into the Territories. Significant precipitation for the week resulted from shower and thundershower activities and was mainly confined to the central and northern areas of Yukon. Thirty four forest fires were reported to be active. The risk of additional forest fires has increased as a result of hot and dry weather in the southern region.

As a result of very mild weather conditions in the Arctic, the breakup of pack ice has been advanced some 2 weeks ahead of schedule. Open water route has been reported through Lancaster Sound and through Hudson Strait into Churchill Bay. Drilling sites in western Arctic reported open water.

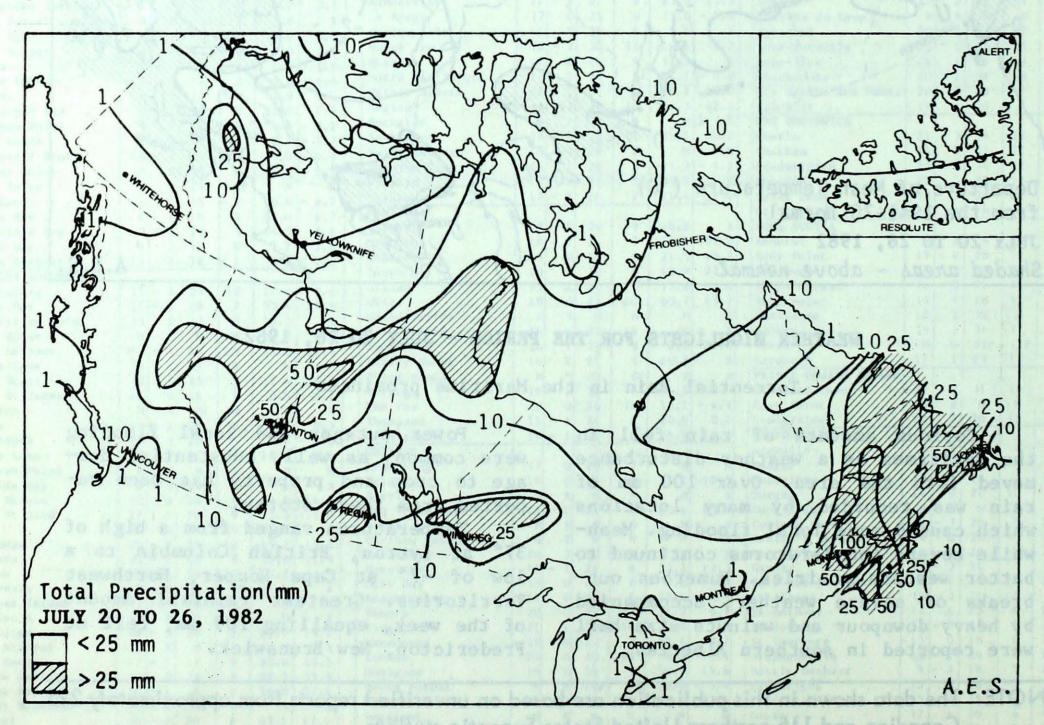
BRITISH COLUMBIA

A variable type of weather pattern prevailed over the province. Record

high maximum temperatures as well as record low minimum temperatures were recorded in some communities. A cold low over central British Columbia brought monthly precipitation above the normal value to the previously dry Fort St. John area. Prince George received over 45 mm of rain from the same system on July 21-22 (the accumulated rainfall amount thus far has set a July monthly record).

Hay crop in the province continued to suffer from excessive moisture. Poor raspberry crop has been reported near Vancouver. Water level in the interior lakes have been very high making some beaches unavailable for recreational activities.

Rain in the interior British Columbia has considerably improved the forest fire situation, however 3 logging camps were still closed in the Port Hardy area due to high forest fire hazard.



PRAIRIE PROVINCES

Unsettled weather conditions prevailed over the prairies. A series of disturbance crossing western Prairies triggered numerous outbreak of severe summer thunderstorms in Alberta during the week. A funnel cloud was reported near Rocky Mountain House on July 21. A severe thunderstorm accompanied by walnut size hail passed through southern Alberta on July 25. Substantial crop and property damage has been estimated from this storm. Due to the recent wet weather in Alberta, crop in central and southern regions were showing excessive moisture stress.

With the exception of extreme southeastern Saskatchewan and eastern Manitoba, below normal temperatures prevailed over central and eastern prairies. Summer time convective showers and thunderstorms gave variable amounts of precipitation to the area.

A summer storm dumped over 93 mm of rain at Emerson, Manitoba on July 23, with over 80 mm falling in about an hour. There were reports of flooded basements and subways from the sudden downpour, corn crops in the area were flattened. There were reports of strong winds associated with the storm.

ONTARIO

Warm day-time temperatures and plenty of sunshine highlighted the weather across the province. Heavy rains were recorded only in the extreme southwest where 29 mm fell in Windsor and 46 mm in Chatham during a July 19 downpour.

With the dry conditions continuing to prevail in the south central regions, farmers are looking for a significant rainfall soon. Cold air plunged into the extreme northern regions early in the week establishing a record low minimum temperature of -0.5° at

Moosonee on July 20 (previous record 1°, 1981).

QUÉBEC

Cool and dry weather prevailed across most of the province. The only area with above normal temperature was northern Québec, as well, copious amounts of rain fell in the Gaspé area.

Gaspé was deluged with 106.4 mm of rain during the week, 93 mm falling on July 22 alone, and a heavy downpour dumped 45 mm in 6 hours.

With the dry weather continuing over most of Québec, fire weather index remained high to extreme especially in the southern localities. A seasonal total of 822 fires were reported compared to the 5 year average of 740 for this time of the year.

Due to lack of adequate moisture, farming communities reported a slow growth in the corn crop in southern Québec.

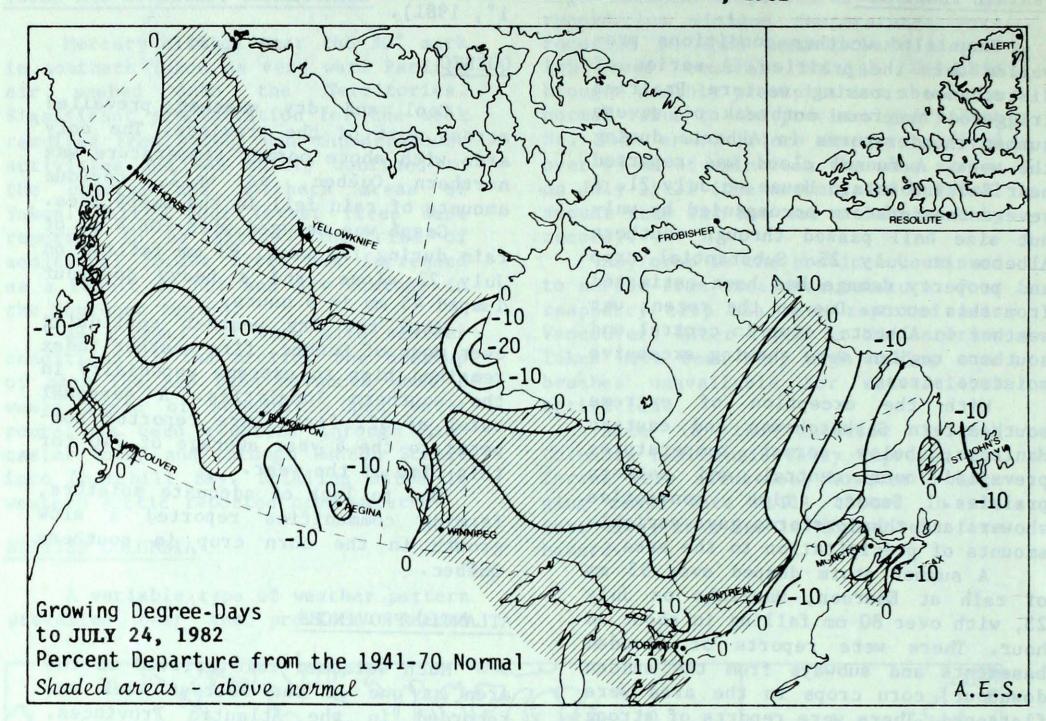
ATLANTIC PROVINCES

Much welcomed rain arrived in the area as one of the wettest week was recorded in the Atlantic Provinces. Although a significant low pressure system brought up to 100 mm of rain to many communities, parts of Nova Scotia still needed more rain as crops there were showing moisture stress. Forest fire situation has improved considerably with all the fires reported to be under control.

Early in the week severe thunderstorms moved into the region. Hardest hit was Halifax-Dartmouth area, where reports of power outages, lightning strikes and torrential rain were received. Local flooding caused several major roadways to be closed.

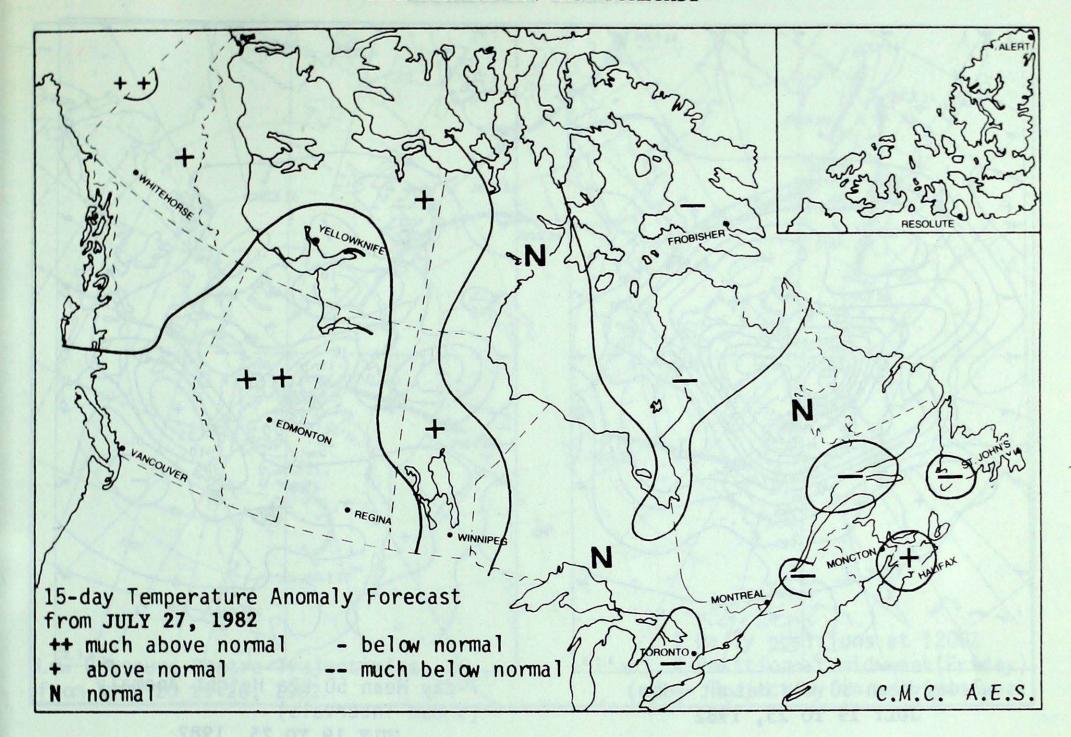
Due to the timely arrival of rain, growers in the Cumberland County, Nova Scotia are expecting one of the largest blueberry crop this year.

GROWING DEGREE-DAY SUMMARY TO JULY 24, 1982

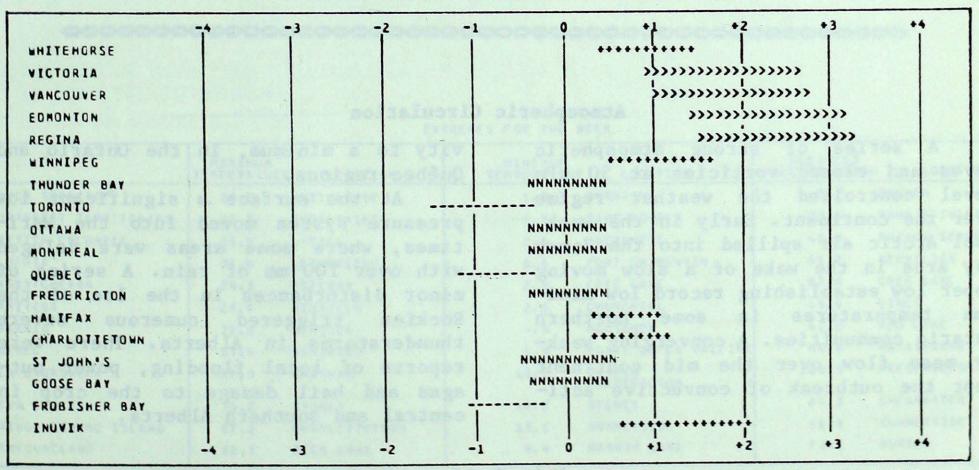


				olerand dibe bed	
NOT BENT TO LONG	MONTHLY	MONTHLY DIFF.	SEASONAL	SEASONAL	SEASONAL
STATION	CUMULATIVE	FROM 1941-70	TOTAL	DIFF. FROM	PERCENT
PROTECTION OF THE PARTY OF THE	TOTAL	NORMAL	* # 2	1941-70 NORMAL	OF NORMAL
			100 100 100	overelation to the comme	
Whitehorse	227.0	12.0	502.0	2.0	100
Penticton	319.5	-38.5	1061.0	-54.0	95
Vancouver	272.5	-21.5	943.5	-48.5	95
Edmonton	285.5	13.5	832.0	109.0	115
Calgary	248.5	-25.5	678.0	5.0	101
Regina	321.0	-8.0	858.0	23.0	103
Saskatoon	317.5	-12.5	772.5	-64.5	92
Winnipeg	359.0	7.0	939.5	43.5	105
Thunder Bay	283.0	-13.0	690.0	8.0	101
Windsor	422.0	13.0	1312.5	57.5	105
Toronto	383.5	11.5	1036.5	-22.5	98
Ottawa	385.5	16.5	1120.0	82.0	108
Montréal	379.0	-5.0	1109.0	43.0	104
Quebéc	340.0	4.0	881.5	19.5	102
Fredericton	348.0	13.0	872.0	16.0	102
Halifax	299.5	-9.5	639.5	-83.5	88
Charlottetown	336.5	17.5	668.0	-21.0	97
St. John's	266.5	27.5	356.0	-76.0	82

TEMPERATURE ANOMALY FORECAST



TEMPERATURE ANOMALY FORECAST FOR JUL 27 1982 TO AUG 10 1982

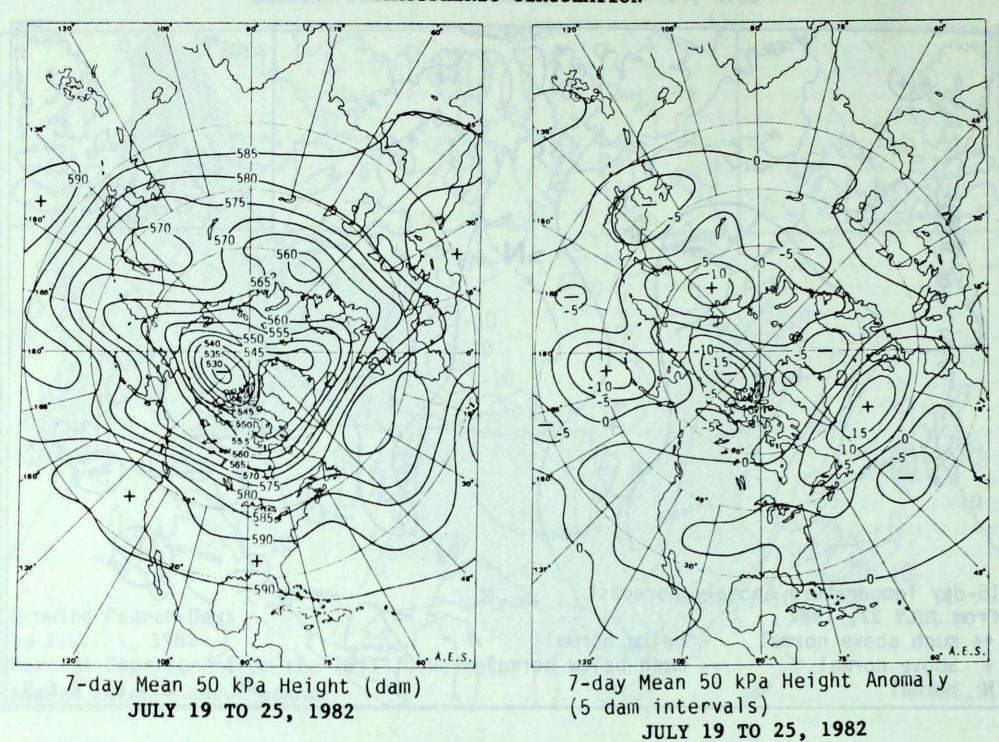


CCCC MUCH BELOW NORMAL BELOW NORMAL

NNNN NEAR NORMAL

>>>> MUCH ABOVE NORMAL ABOVE NORMAL

ATMOSPHERIC CIRCULATION



Atmospheric Circulation

A series of strong atmospheric waves and closed vorticies at 50 kPa level controlled the weather regime over the continent. Early in the week, cool Arctic air spilled into the James Bay area in the wake of a slow moving upper low establishing record low minimum temperatures in some northern Ontario communities. A converging weekly mean flow over the mid continent kept the outbreak of convective acti-

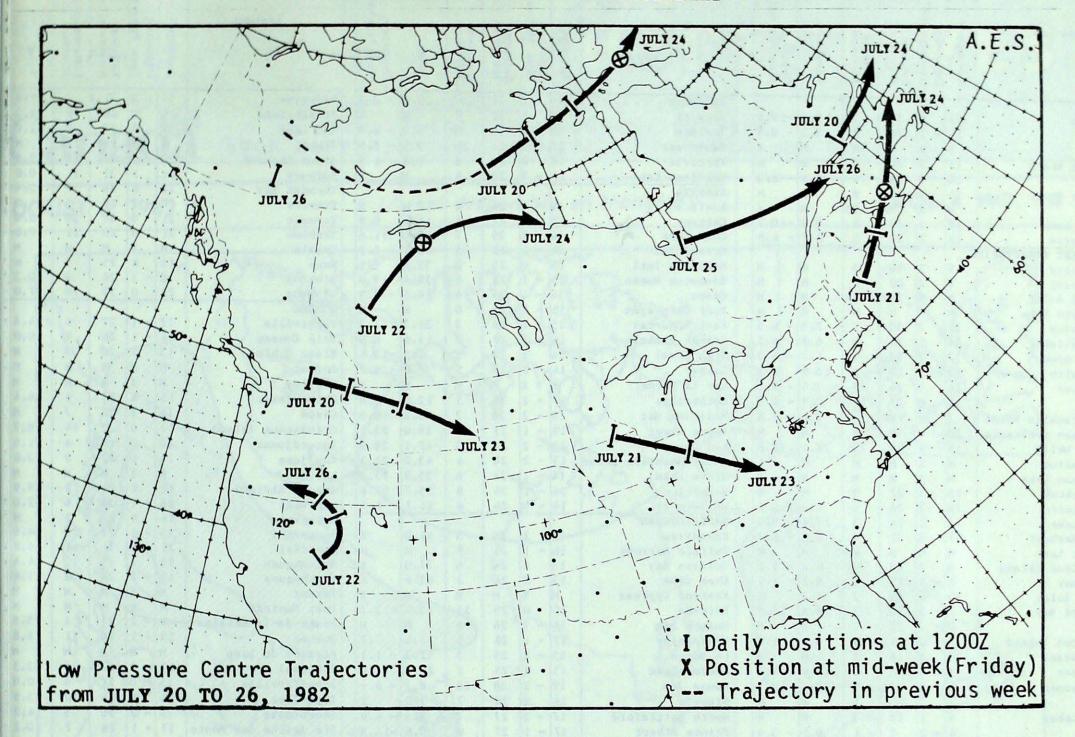
vity to a minimum, in the Ontario and Québec regions.

At the surface a significant low pressure system moved into the Maritimes, where some areas were deluged with over 100 mm of rain. A series of minor disturbances in the lee of the Rockies triggered numerous severe thunderstorms in Alberta. There were reports of local flooding, power outages and hail damage to the crop in central and southern Alberta.

350.6

27.5

LOW PRESSURE CENTRE TRAJECTORIES



EXTREMES FOR THE WEEK

	MAXIMUM TEMPERATUR	E LCCATION	HINI HUH TEMPERATUR	LOCATION	GREATEST LOCATION		
YUKCH TERRITORY	29.5	WHITEHORSE	1.5	BURWASH	9.2	DAMSON	
NORTHWEST TERRITORIES	29.5	CCPPERMINE	-6.8	CAPE HOOPER	37.3	RANKIN INLET	
BRITISH COLUMBIA	36.5	LYTTCN	2.6	MACKENZIE	45.8	PRINCE GEORGE	
ALBERTA	30.6	LETHBRICGE	0.0	FORT CHIPEHYAN	55.7	VERMILION	
SASKATCHENAN	29.3	ESTEVAN	2.6	CREE LAKE	62.6	CREE LAKE	
MANITCHA	28.0	WINNIFEG	2.0	CHURCHILL	49.6	GIHLI	
CHTARIO	32.0	WINCSCR	5	MOGSONEE	42.0	RED LAKE	
QUEBEC	33.5	MANIWAKI	1.4	POSTE DE LA BALEINE	64.4	NATASHQUAN	
NEW BRUNSHICK	27.0	CHATHAM	10.5	CHARLO FREDERICTON	108.8	FREGERICTON	
NCVA SCOTIA	30.2	SYONEY	10.2	SYDNEY	84.3	SHEARMATER	
PRINCE ECHARC ISLAND	27.2	CHARLCTTETOWN	13.1	SUMMERSIDE	50.8	SUMMERSIDE	
NEWFOUNCLAND	28.3	DEER LAKE	4.4	WABUSH LAKE	73.2	BURGEO	

TEMPERATURE AND PRECIPITATI								
	Ter	nper	ature (°C) Precip. (mm			. (mm)		
		100				lou		
Station		Norma	HOE.	еше		Departure from Norma		
	Average	Departure from Non	Extreme	Extreme	Total	Tod E		
	A	Depar	X X	ŭ Z	2	Prof		
YUKON Burwash	14	2	25	2	0.0	-10.6		
Dawson	14	- 1	28	3	9.2	- 0.9		
Faro Komakuk Beach	M 12		M 21	M 6	M M	X		
Mayo A	16 15	1	28 26	8	3.4 M	- 8.0 M		
Shingle Point Teslin	М	X	298	6P	М	X	- 1	
Watson Lake Whitehorse	18	1000	30	5	0.0	-10.2 -6.8		
NORTHWEST TERRITORIE Cape Parry	S 9	3	16	3	м	м		
Cape Young	8	2	20	- 1 1P	м	м		
Contwoyto Lake	M	М	М	м	м	М		
Coppermine Fort Reliance	12		30 26	1 4	2.9 6.8			
Fort Simpson	17		27 27	7 - 1	4.7	-13.5 4.5		
Fort Smith Hay River	16	1	26	7	3.4	- 9.1		
Inuvik Lady Franklin Point	18	1	27 16	10	0.9			
Nicholson Peninsula	12 19		19	6	M 28.1	M 12.8		
Norman Wells Port Radium	М	X	М	М	м	X		
Robertson Lake Tuktoyaktuk	15	26		M 9	M M	X		
/ellowknife daker Lake	18		26 26	6 3	1.0	- 9.6 9.1		
Coral Harbour	11	1	22	4	0.6	- 8.3		
Ennadai Lake Jenny Lind Island	M 8		100	0	0.0			
Pelly Bay Rankin Inlet	10	- 1 X	22 25	0 2	9.2 37.3	- 1.2 X		
Shepherd Bay	7	- 2	20	2 - 1	18.4 M	12.9 M		
Alert Broughton Island	6	0	15	- 3	0.2	- 1.8		
Cape Dorset Cape Dyer	8 7		16	0	10.8	100		
Cape Hooper	6 7		17 20	- 7 1	18.6 M	15.1 M		
Dewar Lakes	9	1	16	3	М	М		
Eureka Frobisher Bay	10	- 2 1	8	- 1	20.6	10.7		
Gladman Point Hall Beach	7 6	- 1	16	0	3.6	- 2.4 - 6.3		
Longstaff Bluff	7 7	- 1 - 2	15	- 2 - 2	2.0 M			
Mackar Inlet Pond Inlet	6	X	14	1	М	X		
Resolute Byron Bay	10	- 2 1	7 20	- 3 0	7.2	- 1.4		
Cambridge Bay Mould Bay	8		21	- 3	1.4			
Sachs Harbour BRITISH COLUMBIA	5	0	13	0	12.6	8.0		
Abbotsford	17	9357	32	8	14.1	4.1		
Alert Bay Amphitrite Point	14		28 17	7 9	1.7	- 7.6 X		
Blue River Bull Harbour	M 12		M 20	M 6	0.8	-10.3	1 1	
Burns Lake	14	X	29 19	6 9	M 5.8	X		
Cape Scott Cape St James	14	1	23	9	0.6	-14.2		
Clinton	18	1000	100	M 11	1.6			
Cranbrook Dease Lake	18 15	1	0 . HOCF-SEED I.	5	1.2			
Estevan Point	M	М	М	М	М	М		
Ethelda Bay Fort Nelson	14			6	10.3	- 5.2		
Fort St John	16		B688234	6 9	29.7	14.9 X		
Kamloops Langara	19	- 2	34	8 9	0.5			
Lytton	20	- 2	37	10	2.0	1.6		
McInnes Island	15	0	30	11	1.0			
Nanaimo A Penticton	17		31 29	9	0.7	- 1.9		
Port Alberni Port Hardy	M 14	X		. M	0.9	- 9.7		
Prince George	15	0	28	7	45.8	34.8	1	
Prince Rupert Puntzi Mountain	13 M	X		. 7 H	7.2 M	-12.1 X		
Quesnel Revelstoke	16 16		2 9 26	9	38.4	28.6		
Sandapit	15		21	10	3.0	- 4.5	L	

	Ten	perc	iture (Precip. (mm)			
2011年10日日本		Tom				lom	
Station	ge ge	Norma	non non	e E	7	Departure from Norma	19
	Average	Departure from Nor	Extreme	Extreme	Total	epar om l	B
			37. 14				
Smithers Stewart	16	2 X	31	7	9.9 M	- 2.2 X	
Terrace	18	2	34	8	3.0	- 8.9	
Vancouver Victoria	17 17	- 1 0	26 28	10	0.9	- 5.6 - 1.9	
Williams Lake ALBERTA	14	- 2	28	6	М	М	1
Banff	14	- 1 - 2	26 27	3 6	M	M	
Calgary Cold Lake	15 16		26	7	16.2		
Coronation Edmonton Intl	16	- 1 0	25 25	5 8	10.6		
Edmonton Namao	16	- 2	25	8	39.4	19.0	
Edson Fort Chipewyan	14		25 25	6	14.5 M	- 0.3	
Fort McMurray Grande Prairie	15		26 27	3	34.3	17.3	
High Level	16	2	29	1	1.2	-13.5	
Jasper Lac La Biche	14 M		27 M	5 M	7.6 M	- 4.7 X	1
Lethbridge Medicine Hat	17	- 2 - 2	31 30	5 7	12.0		
Peace River	15	- 1	27	3	39.0	23.2	
Red Deer Rocky Mountain House	15	- 2	24	5 4	47.1		-
Slave Lake Vermilion	14	111 11 11 11 11 11	24	6 8	35.9 55.7	23.5	
Whitecourt	14	400	26	6	21.7	- 4.5	
SASKATCHEWAN Broadview	17	x	26	5	41.8	x	
Buffalo Narrows Collins Bay	16		25	9	27.0	M X	
Cree Lake	13	X	24	3	62.6	X	1
Eastend Cypress Estevan	M 20	1000	M 29	12	12.7	- 2.7	77
Hudson Bay Kindersley	16 17		26 26	6 9	17.1	7.7	
La Ronge	15	- 2	25	3	12.3	- 1.1	
Meadow Lake Moose Jaw	15		25 28	7	29.0	- 8.1	
Nipawin North Battleford	16	The second	24 27	7	1.0	- 6.6	0.00
Prince Albert	17	- 1	27	8	0.8	-14.9	
Regina Rockglen	19 M	- 1 X	27 M	10 M	28.4 M	17.1 X	
Saskatoon Swift Current	17 18		28 28	9 8	8.9 M	0.1 M	
Uranium City	15	- 1	25	3	7.4	- 5.5	1
Wynyard Yorkton	17	- X	26 26	7 8	26.6	11.3	
MANITOBA Bissett	19	x	27	6	31.0	x	
Brandon	19	- 1	26 24	10	10.8	- 6.0	-
Churchill Dauphin	12 18		28	9	8.4	-11.1	1
Gillam Gimli	15		28	12	25.8	29.5	
Crand Rapids Island Lake	M 18		M 26	M 11	M	X X	
Lynn Lake	14	- 2	23	7	7.5	- 7.2	
Norway House	17	- 1	26 27	7	4.0 M	X	
Portage The Pas	20	- 1 - 2	28 25	12	0.0	-11.3 -17.2	
Thompson	15	0	26	4	12.0	-10.4	
Winnipeg ONTARIO	20	0	28	11	2.4	-19.0	
Armstrong Atikokan	18 18	0	27 29	6 8	6.6	-16.1	
Barrie	M 17	X	M 25	M 10	М	X -12.9	
Big Trout Lake Britt	M	X	M	М	м	X	
Caribou Island Earlton	M 19	0	M 30	M 6	M M	X M	B
Geraldton Gore Bay	17	1 0	27 28	7	M 1.4	-14.4	
Kapuskasing	17	- 1	27	2	4.0	-17.6	
Kenora Kingston	21	1	30 27	14	40.2 M	21.6 M	
Lansdowne London	18 21	0	28 30	12		-11.2 -12.0	
Moosonee	14	- 3	27	- 1	10.1	- 7.6	
Mount Forest Muskoka	20	M 1	26P 28	9P 8	0.0	-20.6 -21.2	
Nagagami North Bay	M 20	X 1	M 27	M 9	M 1.4	-21.7	
Ottawa	21	0	31	13		-12.4	l

	Ter	mper	Precip. (r			
		OE				
Station'	96	Norma	non mon	E C		ture
	Average	Departure from Nor	Extreme	Extreme Minimum	Total	Departure
Petawawa Pickle Lake	19 19	X 1	31 28	7 9	4.6	
Red Lake Simcoe	19 M	0	27 28P	7 12P	42.0 M	2
Sioux Lookout	20 21	1	31	11	19.9	- -1
Sudbury Thunder Bay	18	0	28	7	3.4	-14
Timmins Toronto	17 21	- 1	29 31	5	0.0	-1
Trenton Upsala	21 M	0 X	29 M	11 M	0.0 M	-1
Wawa Wiarton	15 18	- X	25 26	5 8	M 0.2	-1
Windsor	22	0	32	14	7.0	-1
QUEBEC Bagotville	17	- 1	27	6	14.4	-
Baie Comeau Blanc Sablon	16	1000	26 20	8	10.0 M	
Border Chevery	M	1 - 2 0 00	1000	M	M	
Chibougamau Gaspé	15 16		27 25	5 7	16.4 M	
Grindstone Island	17	0	23	14	48.9	3
Inoucdjouac Kuujjuaq	10	0	19 22	3	21.6	-
Lac Eon Grande Riviere	12		M 24	M 3	19.9	
Maniwaki Matagami	18 16		34 27	6 3	2.0 M	-1
Mont-Joli Montréal	15	- 3	23	7	4.4	-1 -1
Natashquan	15	1	21 23	10	64.4	-2
Nitchequon Parent	13 M	X	M	M	м	
Port Menier Poste-de-la-Baleine	M 9	- M	22	M 1	5.6	-1
Québec Rivière du Loup	19 M	1	28 M	11 M	8.8 M	-
Roberval	17 13	- 2	27 21	8 6	22.3	-1
Schefferville Sept-Iles	16	1	26	10	5.5	-1
Sherbrooke Ste Agathe des Monts	16 17	- 1	26 28	5	0.2	-2
Val D'Or NEW BRUNSWICK	16	- 2	27	5	6.0	-1
Charlo Chatham	17	0	25	11	85.5	5
Fredericton Moncton	18		26 26	11	108.8	9
Saint John	18 M	1	27 M	11 M	95.9 M	8
NOVA SCOTIA			1			
Amherst Eddy Point	18	X		13	15.8	
Greenwood Sable Island	17	1	29	13	39.7	-1
Shearwater Shelburne	19	Land Land	28	13	84.3	ŧ
Sydney	19 M	1	30 30P	10 14P	M M	
Yarmouth	17	0	1	11	17.0	
PRINCE EDWARD ISLAND Charlottetown	19		27	14	50.1	
East Point Summerside	M 19	0	M 27	M 13	50.8	7
NEWFOUNDLAND Argentia	15	x	21	12	29.9	
Badger	M 16	X	M 24	M 10	M 39.2	
Bonavista Burgeo	14	0	20	10	73.2 M	4
Cape Race Comfort Cove	M 15	- 1	M 26	M 9	44.6	14 14
Daniel's Harbour Deer Lake	15	70.00	21 28	8	41.4 M	
Gander Port aux Basques	16 15	100	18	11	35.6 47.0	2
St Albans St Anthony	17 12		22 21	10 7	19.4	
St John's St Lawrence	18		26 20	10	8.4	-1
Stephenville	18	1 - 1	27	11 6	M	4
Battle Harbour Cartwright	10	- 1	26	5	26.2	N
Churchill Falls Goose	14	0	23 28	7 8	28.2	-1
Napedale Wabush Lake	13	- 1	25 22	7 4	3.0	-1 -2
not available at pre-	88 t	ine				-