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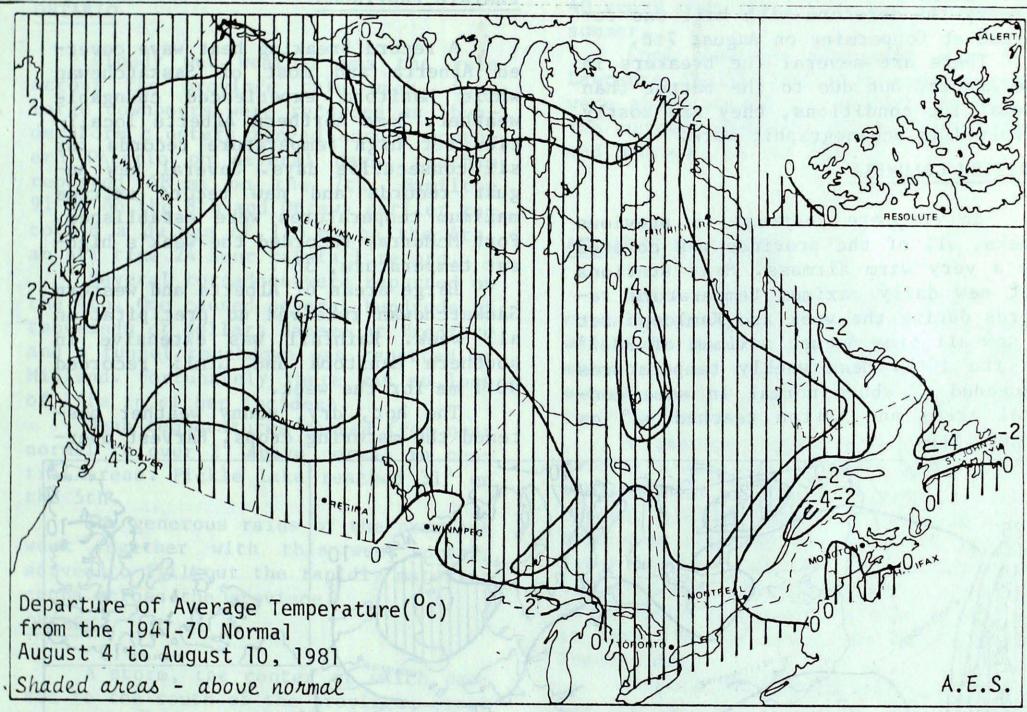
A WEEKLY REVIEW OF CANADIAN CLIMATE

THE CANADIAN CLIMATE CENTRE, ATMOSPHERIC ENVIRONMENT SERVICE, 4905 DUFFERIN ST., DOWNSVIEW, ONTARIO M3H 5T4

AUGUST 14, 1981

(Aussi disponible en francuis)

VOL.3 NO.32



WEATHER HIGHLIGHTS FOR THE PERIOD - AUGUST 4 - 10, 1981

Heat wave in the West while East receives deluge

Most of the West experienced rerecords were set.

The hot dry weather pushed the forest fire hazard index to very high to extreme in many areas. Many new fires broke out, some major. One fire in Alberta caused the evacuation of the 2500 residents of Swan Hills.

The hot weather also hastened the maturing crops. Harvesting operations were starting and should be in full swing in 7 to 10 days.

A storm dropped large amounts of cord breaking warm dry weather this rain on eastern regions. Ottawa set an week. Some extreme maximum temperature all time 24 hour rainfall record, 115 mm. Montmagny, Québec was flooded when the river Bras Saint-Nicolas overflowed. The St. John River basin received 100 mm to 200 mm of rain.

Tropical storm Cindy passed close to the Atlantic Provinces but had little effect.

Temperatures varied from 42° at Lytton, B.C. to -2° at Alert and Mould Bay, N.W.T. Ottawa recorded 124.1 mm of precipitation 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 NORTHWEST TERRITORIES

Warm weather was enjoyed throughout the Territories. With only a few exceptions mean temperatures were above normal and exceeded 5° above normal in the south of the Mackenzie District. Hay River reached 37° on the 9th.

Precipitation was widespread and most stations received significant amounts. Cape Parry recorded 37.4 mm. A heavy thunderstorm with hail was reported at Coppermine on August 7th.

There are several ice breakers in the Arctic, but due to the better than normal ice conditions, they are mostly involved in oceanographic work.

BRITISH COLUMBIA

In complete contrast to previous weeks, all of the province was covered by a very warm airmass. Many stations set new daily maximum temperature records during the week and Kamloops set a new all time August maximum of 38.7° on the 10th. Mean weekly temperatures exceeded 6° above normal in some central areas and Lytton reached 42° on August 9th.

Only a few stations received any precipitation at all this week. Prince Rupert and Stewart recorded 37.6 mm and 37.2 mm respectively.

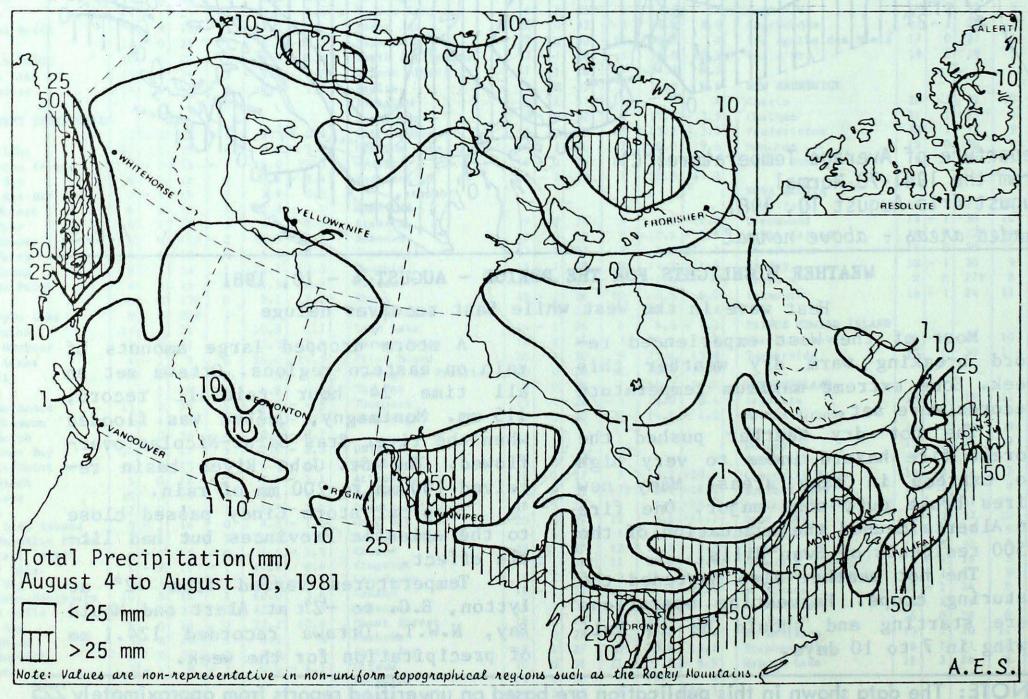
The hot dry weather pushed the forest fire hazard index to extreme in many central and northern areas. Major fires were reported in some central regions.

PRAIRIE PROVINCES

A record breaking heat wave covered Alberta and most of Saskatchewan while Manitoba experienced changable weather. Some northern Alberta localities set high temperature records for six consecutive days. Several new August records and new record extreme maximum temperatures were established. Fort McMurray recorded the week's highest temperature, 36°.

Large areas of Alberta and western Saskatchewan received no precipitation all week. Rainfall was extensive in southern Manitoba and Gimli recorded 90.1 mm for the week.

The hot, dry, sunny weather hastened the maturing crops. Harvest oper-



ations were close to starting in many areas at the end of the week.

Eleven new forest fires broke out in northern Alberta during the last day of the week. The fire hazard is rated at very high to extreme. The most serious fire covers 7300 hectares only 8 km from the town of Swan Hills. Evacuation of the 2500 residents began Monday evening.

ONTARIO

Cloudy wet weather was the rule across the province this week. Some large downpours were recorded as thunderstorm clusters ranged across southern Ontario on several days. Chatham reported 58 mm on the 7th, Hamilton 91 mm on the 8th and Ottawa earlier recorded a deluge of 115 mm on the 4th, an all time 24 hour rainfall record.

Several tornadoes were reported on the 4th. One caused several hundreds of thousands of dollars damage at Bradford and a funnel touchdown was reported at Midland. Fortunately there was no loss of life in either incident.

Mean temperatures ranged from near normal to over 2° above normal in central areas. Pickle Lake reached 31° on the 5th.

The generous rains of the previous week together with this week's rain served to fill out the rapidly maturing crops across the province.

OUÉBEC

A storm, the center of which passed to the south of the province, dropped abundant quantities of precipitation in the Quebec City and Appalachian regions. Mont Joli recorded 102.7 mm.

The river Bras Saint-Nicolas and its southern arm, which join in the center of Montmagny (near Québec City), overflowed their banks and flooded the southern parts of the municipality. More than 250 homes were affected by the flood which crested 6 metres above the normal level. More than 400 people were evacuated. According to some residents, this was the first time in over 40 years that the rivers had flooded in summer.

Cool weather dominated the St. Lawrence Valley but mean temperatures were above normal in northern regions. The mercury reached 28° at Bagotville and Maniwaki on the 4th.

ATLANTIC PROVINCES

Mean temperatures were close to normal throughout the Maritimes and were more than 4° below normal in some areas of northern Newfoundland. The mercury varied from 31° at Fredericton to 3° at Hopedale.

A midweek storm generated heavy rainfalls over the St. John River basin where 100 mm to 200 mm of rain was recorded, most of which fell on the 6th. Edmunston received 114 mm in 24 hours. Water levels in the St. John River rose 4.5 m in less than 24 hours at a point 20 km above Edmunston. A rise of 2.5 m in less than 12 hours was recorded at Fredericton.

A small low 600 km south of Halifax turned into tropical storm Cindy and passed close to southern Newfoundland on the 4th. St. Lawrence received 40 mm of rain from the storm.

CLIMATIC PERSPECTIVES

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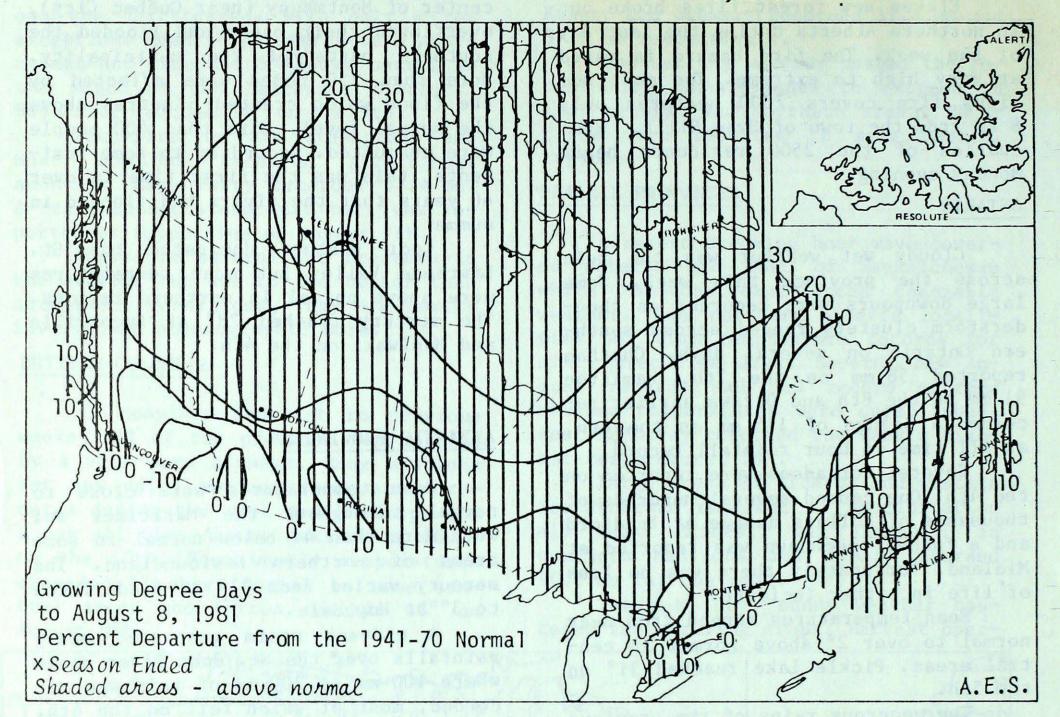
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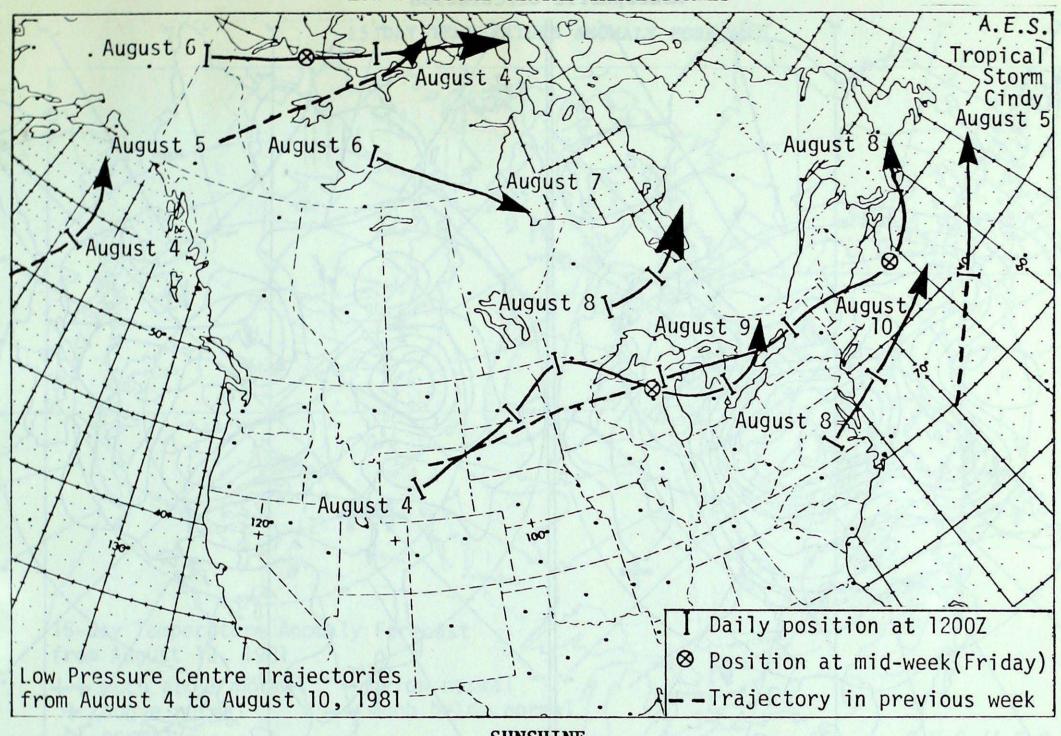
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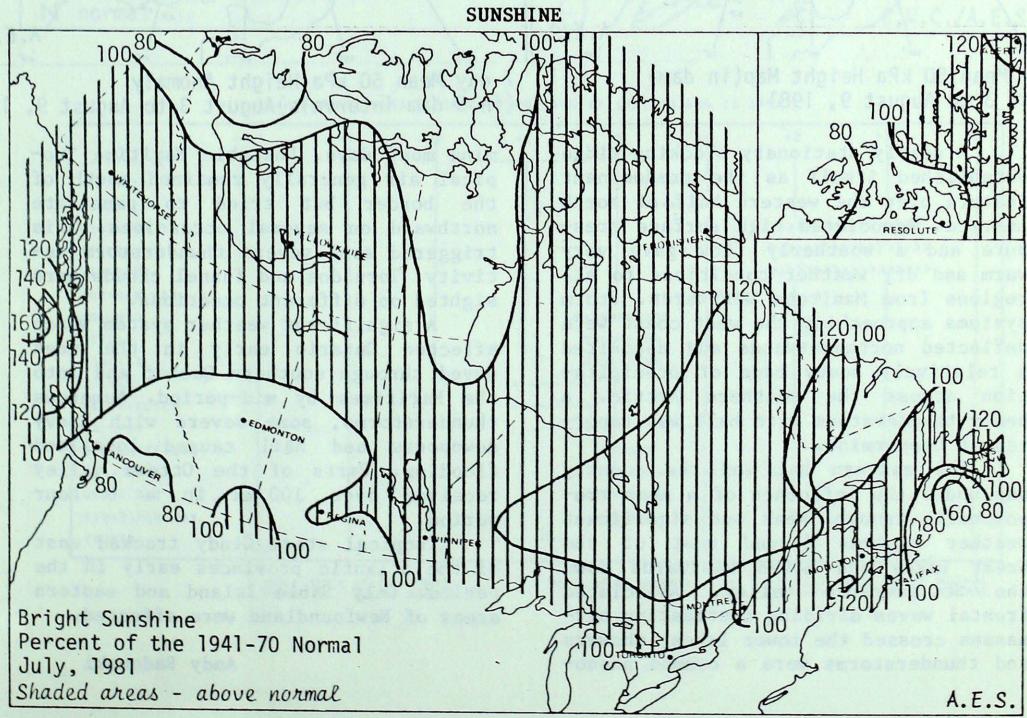
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GROWING DEGREE-DAY SUMMARY TO AUGUST 8, 1981

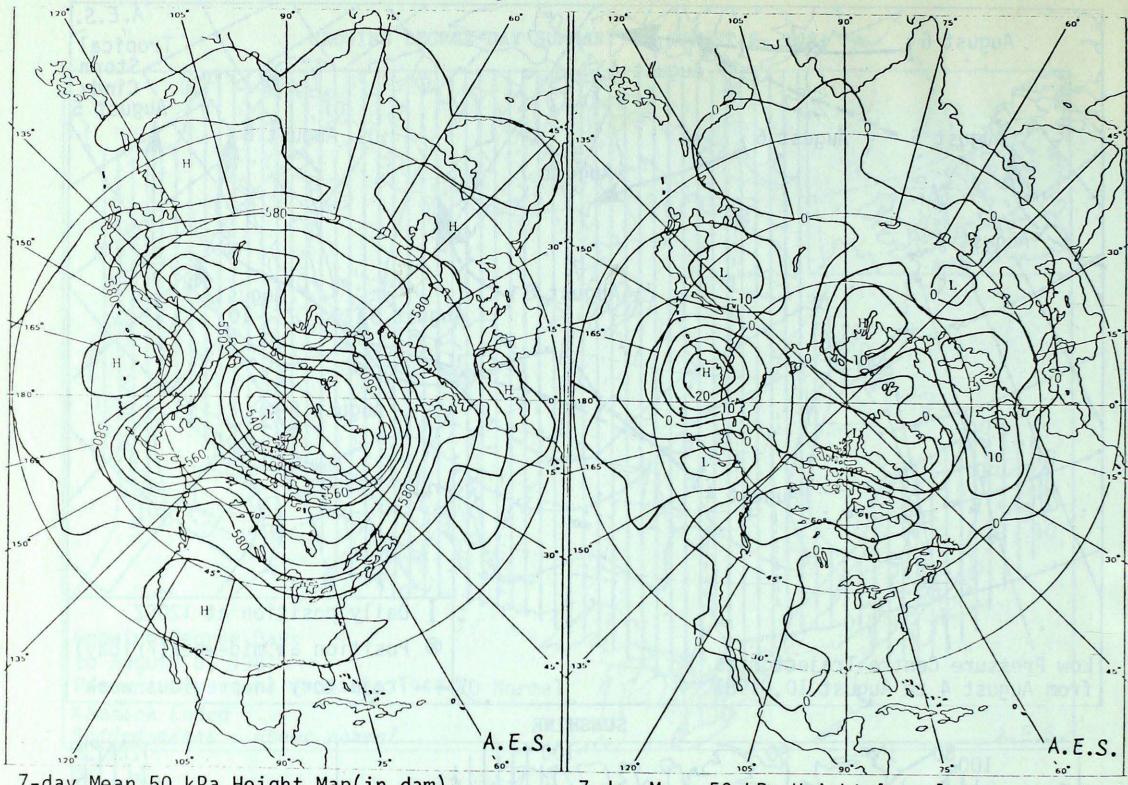


CITY	MONTHLY CUMULATIVE TOTAL	MONTHLY DIFF. FROM 1941-70 NORMAL	SEASONAL TOTAL	SEASONAL DIFF. FROM 1941-70 NORMAL	SEASONAL PERCENT OF NORMAL
Whitehorse	75.0	8.0	665.5	32.5	105
Penticton	136.5	14.5	1268.0	-81.0	94
Vancouver	112.0	8.0	1231.0	44.0	104
Edmonton	122.0	27.0	1115.0	217.0	124
Calgary	90.0	-3.0	850.0	0.0	100
Regina	116.5	2.5	1188.5	137.5	113
Saskatoon	118.0	7.0	1150.0	104.0	110
Winnipeg	113.0	-8.0	1149.5	27.5	102
Thunder Bay	118.5	22.5	925.5	56.5	107
Windsor	144.5	11.5	1602.0	88.0	106
Toronto	127.0	6.0	1213.5	-83.5	94
Ottawa	129.0	9.0	1287.5	13.5	101
Montreal	122.5	-5.5	1285.5	-26.5	98
Quebec	109.5	3.5	1090.0	17.0	102
Fredericton	129.0	17.0	1146.0	73.0	107
Halifax	115.5	9.5	940.5	18.5	102
Charlottetown	113.0	3.0	1006.0	109.0	112
St John's	95.5	4.5	717.0	114.0	119





Atmospheric Circulation



7-day Mean 50 kPa Height Map(in dam) August 3 to August 9, 1981

A nearly stationary blocking ridge established itself as the predominant feature over the western half of North America. Associated high surface pressure and a southerly flow gave very warm and dry weather conditions to all regions from Manitoba westwards. Storm systems approaching the west coast were deflected northeastwards and deposited a relatively heavy band of precipitation across the southern Arctic. A heavy thunderstorm with hail was reported at Coppermine.

The eastern half of the country was under the influence of a mean tropospheric trough. Weak but significant weather systems formed west of the Great Lakes and moved eastwards down the St. Lawrence valley. Associated frontal waves dividing contrasting airmasses crossed the lower lakes; showers and thunderstorms were a common pheno-

7-day Mean 50 kPa Height Anomaly (in 5 dam intervals) August 3 to August 9, 1981

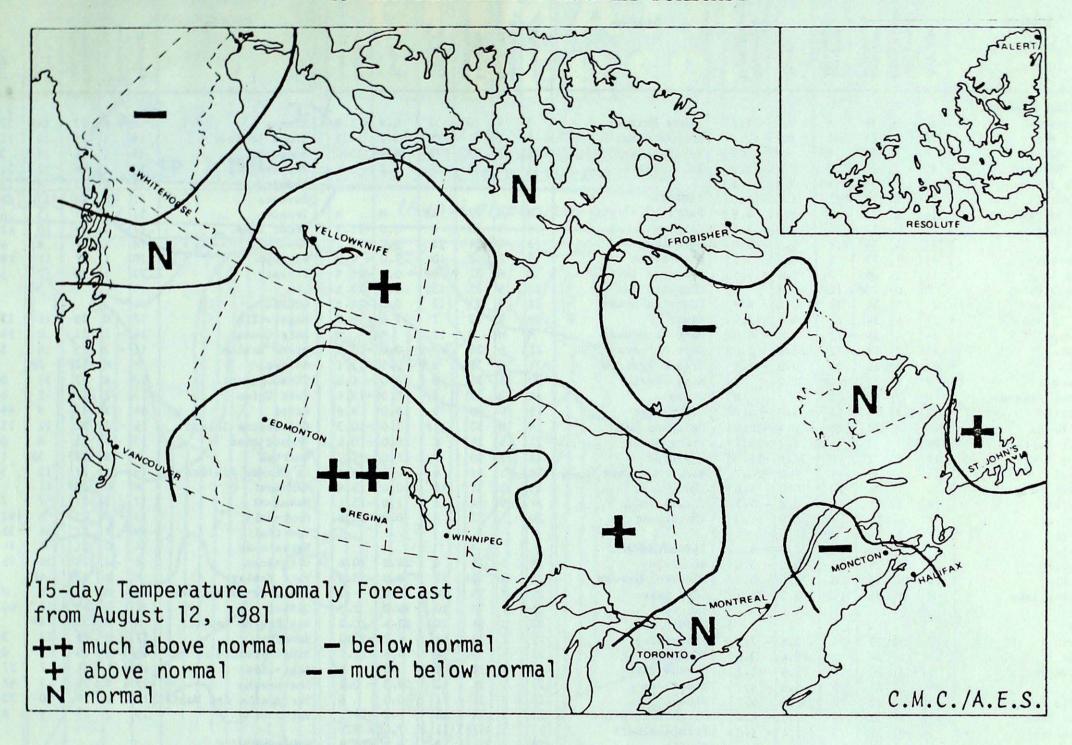
mina most days. Unstable Maritime Tropical air generally remained south of the border but tried to penetrate northward on several occassions. This triggered some severe thunderstorm activity. Tornados and funnel clouds were sighted on different occations.

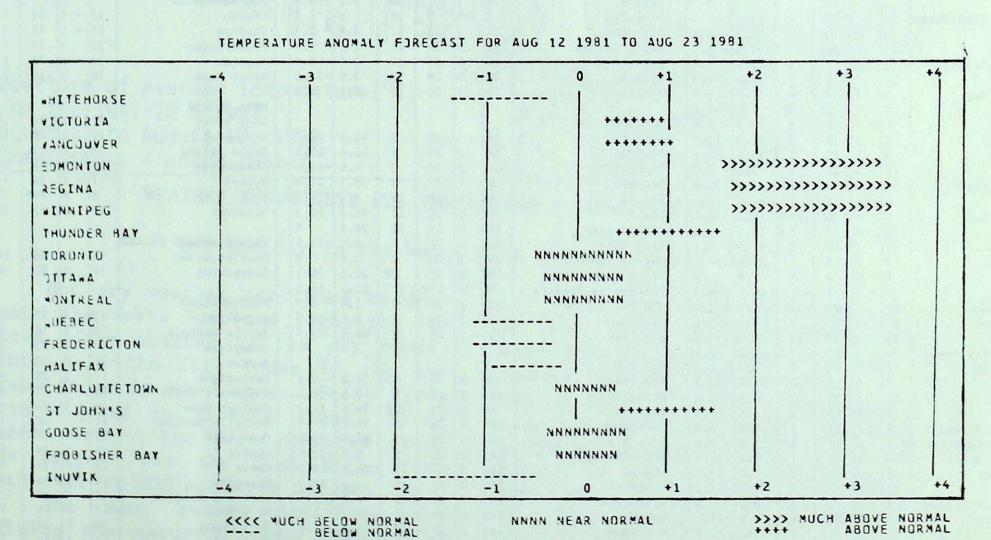
A significant weather system which affected Ontario early in the week moved through southern Quebec and into the Maritimes by mid-period. Numerous thunderstorms, some severe with heavy downpours and hail caused localised flooding. Parts of the Ottawa valley received over 100 mm in a 6 hour period.

Tropical storm Cindy tracked east of the Atlantic provinces early in the period. Only Sable Island and eastern areas of Newfoundland were affected.

Andy Radomski

15 DAY TEMPERATURE ANOMALY FORECAST





BRITISH COLUMBIA Abbotsford Alert Bay Bull Harbour Bull Harbour Burns Lake Cape Scott Cape St James Castlegar Comox Cranbrook Dease Lake Estevan Point Fort Nelson Fort Nelson Fort St John Call Candrate McInnes Island	Deporture 1 X 2 X 1 2 0 5 1 2 M 5 5 4 2 3 X	36 23 34P 20 33P 19 22 33 34 33 28 20P 34 34 39	9 10 8P 10 11 10 11 8 3 12P	0.0 1.1 M 2.3 0.6 1.8 18.0 0.0	- 7.8 -12.1 X -11.7 X -18.5 4.9
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Mayo Shingle Point Watson Lake Whitehorse NORTHWEST TERRITORIES Alert Baker Lake Broughton Island Byron Bay Cambridge Bay Cape Dorset Cape Dyer Cape Hooper Cape Hooper Cape Young Clinton Point Clyde Contwoyto Lake Coppermine Coral Harbour Dewar Lakes Ennadai Eureka Fort Reliance Fort Simpson Fort Smith Frobisher Bay Gladman Point Hall Beach Hay River Inuvik Jenny Lind Island Longstaff Bluff Mackar Inlet MI TONORTHWEST TERRITORIES Ale 17 10 10 10 10 10 10 10 10 10 10 10 10 10	1	20	0	8.9	1.2
Watson Lake	2	25	3	5.5	- 4.1
Whitehorse 15 NORTHWEST TERRITORIES Alert 3 Baker Lake 15 Broughton Island 6 Byron Bay 10 Cambridge Bay 9 Cape Dorset M Cape Dyer 6 Cape Hooper 7 Cape Parry 7 Cape Young 10 Clinton Point 10 Clyde M Contwoyto Lake M Coppermine 14 Coral Harbour 11 Dewar Lakes 5 Ennadai M Eureka 4 Fort Reliance 19 Fort Simpson 20 Fort Smith 22 Frobisher Bay 9 Gladman Point 8 Hall Beach 6 Hay River 21 Inuvik Jenny Lind Island 7 Lady Franklin Point 9 Longstaff Bluff 5 Mackar Inlet 8	2	30	5	32.6	23.2
Baker Lake Broughton Island Byron Bay Cambridge Bay Cape Dorset Cape Dyer Cape Hooper Cape Hooper Cape Young Clinton Point Clyde Contwoyto Lake Coppermine Coral Harbour Dewar Lakes Ennadai Eureka Fort Reliance Fort Simpson Fort Smith Point Beach Hall Beach Hay River Inuvik Jenny Lind Island Longstaff Bluff Mackar Inlet By 10 10 10 10 10 10 10 10 10 10 10 10 10 1	2	25	3	The second secon	- 1.0
Baker Lake Broughton Island Byron Bay Cambridge Bay Cape Dorset Cape Dyer Cape Hooper Cape Hooper Cape Young Clinton Point Clyde Contwoyto Lake Coppermine Coral Harbour Dewar Lakes Ennadai Eureka Fort Reliance Fort Simpson Fort Smith Point Beach Hall Beach Hay River Inuvik Jenny Lind Island Longstaff Bluff Mackar Inlet By 10 10 10 10 10 10 10 10 10 10 10 10 10 1	P	1330	3		378
Broughton Island Byron Bay Cambridge Bay Cape Dorset Cape Dorset Cape Dyer Cape Hooper Cape Parry Cape Young Clinton Point Clyde Contwoyto Lake Coppermine Coral Harbour Dewar Lakes Ennadai Eureka Fort Reliance Fort Simpson Fort Smith Probisher Bay Gladman Point Beach Hay River Inuvik Jenny Lind Island Lady Franklin Point JO Longstaff Bluff Mackar Inlet M	0	-	- 2		- 6.6
Byron Bay Cambridge Bay Cape Dorset Cape Dyer Cape Dyer Cape Hooper Cape Parry Cape Young Clinton Point Clyde Contwoyto Lake Coppermine Coral Harbour Dewar Lakes Ennadai Eureka Fort Reliance Fort Simpson Fort Smith Frobisher Bay Gladman Point Beach Hay River Inuvik Jenny Lind Island Lady Franklin Point Longstaff Bluff Mackar Inlet Mackar Inl	4 2	26	7	2.7	- 5.2 4.8
Cambridge Bay Cape Dorset Cape Dyer Cape Hooper Cape Hooper Cape Young Clinton Point Clyde Contwoyto Lake Coppermine Coral Harbour Dewar Lakes Ennadai Eureka Fort Reliance Fort Simpson Fort Smith Frobisher Bay Gladman Point Hall Beach Hay River Inuvik Jenny Lind Island Lady Franklin Point Longstaff Bluff Mackar Inlet Mackar Inlet Mackar Inlet Mackar Sarvard Mackar	2	18	3	13.4	6.0
Cape Dyer Cape Hooper Cape Hooper Cape Parry Cape Young Clinton Point Clyde Contwoyto Lake Coppermine Coral Harbour Dewar Lakes Ennadai Eureka Fort Reliance Fort Simpson Fort Smith Frobisher Bay Gladman Point Hall Beach Hay River Inuvik Jenny Lind Island Lady Franklin Point Longstaff Bluff Mackar Inlet 6 7 7 8 7 8 7 8 7 8 7 8 8 8 8 8 8 8 8	1	17	4	15.7	8.8
Cape Hooper Cape Parry Cape Parry Cape Young Clinton Point Clyde Contwoyto Lake Coppermine Coral Harbour Dewar Lakes Ennadai Eureka Fort Reliance Fort Simpson Fort Smith Probisher Bay Gladman Point Hall Beach Hay River Inuvik Jenny Lind Island Lady Franklin Point Longstaff Bluff Mackar Inlet 7	X	12P	4P	8.3	- 8.4
Cape Young Clinton Point Clyde Contwoyto Lake Coppermine Coral Harbour Dewar Lakes Ennadai Eureka Fort Reliance Fort Simpson Fort Smith Fort Smith Cladman Point Hall Beach Hay River Inuvik Jenny Lind Island Lady Franklin Point Longstaff Bluff Mackar Inlet Mackar In	2	13	0	21.6	15.9
Clinton Point 10 Clyde M Contwoyto Lake M Coppermine 14 Coral Harbour 11 Dewar Lakes 5 Ennadai M Eureka 4 - Fort Reliance 19 Fort Simpson 20 Fort Smith 22 Frobisher Bay 9 Gladman Point 8 Hall Beach 6 Hay River 21 Inuvik Jenny Lind Island 7 Lady Franklin Point 9 Longstaff Bluff 5 - Mackar Inlet 8	1 4	15	2 5	37.4	32.8
Clyde Contwoyto Lake Coppermine Coral Harbour Dewar Lakes Ennadai Eureka Fort Reliance Fort Simpson Fort Smith Probisher Bay Gladman Point Hall Beach Hay River Inuvik Jenny Lind Island Lady Franklin Point Longstaff Bluff Mackar Inlet Macka	99	19	4	31.9	22.6
Coppermine 14 Coral Harbour 11 Dewar Lakes 5 Ennadai M Eureka 4 Fort Reliance 19 Fort Simpson 20 Fort Smith 22 Frobisher Bay 9 Gladman Point 8 Hall Beach 6 Hay River 21 Inuvik 14 Jenny Lind Island 7 Lady Franklin Point 9 Longstaff Bluff 5 Mackar Inlet 8	M	15	19	11.6	4.4
Coral Harbour 11 Dewar Lakes 5 Ennadai M Eureka 4 Fort Reliance 19 Fort Simpson 20 Fort Smith 22 Frobisher Bay 9 Gladman Point 8 Hall Beach 6 Hay River 21 Inuvik 14 Jenny Lind Island 7 Lady Franklin Point 9 Longstaff Bluff 5 Mackar Inlet 8	M 4	26 27	7 P	11.7	0.4
Ennadai M Eureka 4 - Fort Reliance 19 Fort Simpson 20 Fort Smith 22 Frobisher Bay 9 Gladman Point 8 Hall Beach 6 Hay River 21 Inuvik 14 Jenny Lind Island 7 Lady Franklin Point 9 Longstaff Bluff 5 - Mackar Inlet 8	2	20	3	11.5	1.8
Eureka 4 - Fort Reliance 19 Fort Simpson 20 Fort Smith 22 Frobisher Bay 9 Gladman Point 8 Hall Beach 6 Hay River 21 Inuvik 14 Jenny Lind Island 7 Lady Franklin Point 9 Longstaff Bluff 5 - Mackar Inlet 8	0 M	10 M	l M	29.6 M	17.1 M
Fort Reliance 19 Fort Simpson 20 Fort Smith 22 Frobisher Bay 9 Gladman Point 8 Hall Beach 6 Hay River 21 Inuvik 14 Jenny Lind Island 7 Lady Franklin Point 9 Longstaff Bluff 5 Mackar Inlet 8	2	11 -		10.5	8.7
Fort Smith 22 Frobisher Bay 9 Gladman Point 8 Hall Beach 6 Hay River 21 Inuvik 14 Jenny Lind Island 7 Lady Franklin Point 9 Longstaff Bluff 5 Mackar Inlet 8	5	29	12	4.2	- 1.4
Frobisher Bay 9 Gladman Point 8 Hall Beach 6 Hay River 21 Inuvik 14 Jenny Lind Island 7 Lady Franklin Point 9 Longstaff Bluff 5 Mackar Inlet 8	5	33	8		-11.6 - 7.9
Gladman Point 8 Hall Beach 6 Hay River 21 Inuvik 14 Jenny Lind Island 7 Lady Franklin Point 9 Longstaff Bluff 5 - Mackar Inlet 8	2	17	4	18.0	6.7
Hay River 21 Inuvik 14 Jenny Lind Island 7 Lady Franklin Point 9 Longstaff Bluff 5 - Mackar Inlet 8	2	15	3 0		22.7
Inuvik 14 Jenny Lind Island 7 Lady Franklin Point 9 Longstaff Bluff 5 - Mackar Inlet 8	5	37	9		- 3.4
Lady Franklin Point 9 Longstaff Bluff 5 - Mackar Inlet 8	2	26	4	13.4	6.2
Longstaff Bluff 5 - Mackar Inlet 8	2 3	14	4	19.4	6.5
	44.00	11	1	20.4	12.2
Marcal of Marca	2	16 7 -	1 2	3.0	13.5
Mould Bay 2 - Nicholson Peninsula 10	2	21	3	19.2	12.4
Norman Wells 18		30	5	1.6	-11.4
Pelly Bay 10 Pond Inlet 6	2 1 2 3	16	3 0	11.0	3.2 X
Port Burwell 8	2 1 2 3 3	15	2	0.7	X '
Resolute 2 -	2 1 2 3	9 -	1	6.6	- 2.3

TION DATA FOR THE	1	-	ature			. (mm)	
Station		0 1					
1/493	Average	Departure from Norr	Extreme	Extreme	Total	Departure from Norma	
Sachs Harbour	. 5	1	10	0	0.9	- 1.8	
Shepherd Bay Tuktoyaktuk Yellowknife	9 12 21	1 2 5	17 23 28	3 3 12	14.2 18.9 3.2	5.3 13.9 - 6.1	
ALBERTA Banf f	м	м	27P	4P	м	м	
Calgary Cold Lake	18 21	1 4	30 34 32	8	0.0	-11.9	
Coronation Edmonton Intl Edmonton Mun	19 M 22	2 M 5	32 33	10 10P 13	State of the state	- 6.3 -21.5 -22.1	
Edmonton Namao Edson Fort Chipewyan	21 18 M	4 3 M	33 32 M	12 7 12	0.0 17.6 M	-24.8 - 6.8 M	
Fort McMurray Grande Prairie	22 21	6	36 35	10 8	0.0	-17.0 -12.1	
High Level Jasper Lethbridge	20 18 19	5 3 0	35 32 30	8 7 9	0.0 0.0 19.0	- 6.6 -13.4 9.8	
Medicine Hat Peace River	M 21	- M	33	11P 8	1.0	-10.3 -10.6	
Red Deer Rocky Mountain House Slave Lake	18 18 19	2 3 3	30 31 32	7 6 10	0.0 0.0	1.7 -18.2 -15.9	
Vermilion Whitecourt	21 20	5 5	34 32	8	2.0	-15.1 -25.6	
SASKATCHEWAN Broadview	19	1	29	6	24.2	10.6	
Buffalo Narrows Cree Lake Estevan	M 21 21	M X	35P 35 30	12 10 10	0.0 0.0 14.2	-13.3 X 2.5	
Hudson Bay Kindersley	20	3 2	31	10	23.4	10.2	
La Ronge Meadow Lake Moose Jaw	21 20 21	5 X 1	33 32 31	10 8 12	0.0	-12.5 X - 0.2	
Nipawin North Battleford Prince Albert	20 21 21	X 3	31 33 32	11 11 11		-13.1 - 6.5	
Regina Rockglen	20 M	1 X	31 M	9 M	0.2 M	-10.8 X	
Saskatoon Swift Current Uranium City	21 20 22	1 5	33 31 31	11 10 14	1.0	- 3.3 - 9.9 - 8.4	
Wynyard Yorkton	20 19	2	29 29	11	2.8	0.2	
MANITOBA Bissett	18	- 1	29	9	44.6	20.7	
Brandon Churchill Dauphin	20 14 19	1 2 1	29 27 30	8 8 9	32.6 4.6 38.1	22.6 -11.4 21.6	
Gillam Gimli	16 19 18	X O X	25 26 27	8 11 12	5.5 90.1 28.5	74.2 X	
Island Lake Lynn Lake Norway House	18 19	2 X	27 28	8 8	3.8	-11.6 X	
Pilot Mound Portage la Prairie The Pas	M M 20	M M 2	28 29P 29	8P 11 9	30.5	16.1 15.8 - 8.9	
Thompson Winnipeg	18	- 1	29 29	7 10	66.8	-15.0 53.9	
ONTARIO Armstrong	м	м	28	8P		- 0.2	
Atikokan Earlton Geraldton	18 M 18	2 M 2	27 29 28	9 10P 8	19.9 29.6 35.2	12.3	
Core Bay Kapuskasing Kenora	19 18 19	0 2 0	26 30 27	13 5 13	42.0 5.7 20.8	30.2	
Kingston Lansdowne	21 18	1	27 26	15	51.9	38.2	
London Moosonee Mount Forest	21 16 M	0 1 M	28 27 27P	13 2 10P	9.6	4.2 -11.4 - 6.9	
Muskoka North Bay Ottawa	20 19 20	1 1 0	27 26 29	9 14	53.4 10.8	39.1 - 7.7 104.5	
Petawawa Pickle Lake	20 18	X 1	28	12	50.6	2.9	
Red Lake	17	1	29	8	64.8	53.0	

Simcoe Sioux Lookout Sudbury Thunder Bay Timmins Toronto Trenton Trout Lake Wawa Wiarton Windsor QUÉBEC Bagotville Baie Comeau Blanc Sablon Border Chibougamau Fort Chimo Gaspé Grindstone Island Inoucdjouac Koartak La Grande Rivière Maniwaki Matagami Mont-Joli Montréal Natashquan Nitchecun Port Menier Poste-de-la-Baleine	W 19 19 20 18 21 21 17 18 20 23 17 14 11 M 17 13 14 16 15 M 19 M 17 17 17		M 1 1 2 2 0 0 1 X 1 1 0 2 2 M X 2	27 29 26 28 28 27 26 27 27 30 28 21 15 12P	14P 10 14 12 8 13 13 10 8 11 17	27.2 11.4 3.5 21.8 13.0 43.9 18.0 42.3 8.0 19.0 5.2	144-5-1633-55288329.
Sioux Lookout Sudbury Thunder Bay Timmins Toronto Trenton Trout Lake Wawa Wiarton Windsor QUEBEC Bagotville Baie Comeau Blanc Sablon Border Chibougamau Fort Chimo Gaspé Grindstone Island Inoucdjouac Koartak La Grande Rivière Maniwaki Matagami Mont-Joli Montréal Natashquan Nitchecun Port Menier	19 19 20 18 21 21 17 18 20 23 17 14 11 M 17 13 14 16 15 M 19 M		1 1 2 2 0 0 0 1 X 1 1 1	29 26 28 28 27 26 27 27 30 28 21 15	10 14 12 8 13 13 10 8 11 17	11.4 3.5 21.8 13.0 43.9 18.0 42.3 8.0 19.0 5.2	- 5 -16 -3 - 5 28 -3 29 -13
Sudbury Thunder Bay Timmins Toronto Trenton Trout Lake Wawa Wiarton Windsor QUÉBEC Bagotville Baie Comeau Blanc Sablon Border Chibougamau Fort Chimo Gaspé Grindstone Island Inoucdjouac Koartak La Grande Rivière Maniwaki Matagami Mont-Joli Montréal Natashquan Nitchecun Port Menier	19 20 18 21 21 17 18 20 23 17 14 11 M 17 13 14 16 15 M 19 M		1 2 2 0 0 1 X 1 1 1 0 2 2 M X	26 28 28 27 26 27 27 30 28 21 15	14 12 8 13 13 10 8 11 17	3.5 21.8 13.0 43.9 18.0 42.3 8.0 19.0 5.2	-16 3. - 5. 28. 3. 29. -13.
Thunder Bay Timmins Toronto Trenton Trout Lake Wawa Wiarton Windsor QUEBEC Bagotville Baie Comeau Blanc Sablon Border Chibougamau Fort Chimo Gaspé Grindstone Island Inoucdjouac Koartak La Grande Rivière Maniwaki Matagami Mont-Joli Montréal Natashquan Nitchecun Port Menier	20 18 21 21 17 18 20 23 17 14 11 M 17 13 14 16 15 M 19 M		2 0 0 1 X 1 1 0 2 2 M X	28 28 27 26 27 27 30 28 21 15	12 8 13 13 10 8 11 17	21.8 13.0 43.9 18.0 42.3 8.0 19.0 5.2	3. - 5. 28. 3. 29. -13.
Toronto Trenton Trout Lake Wawa Wiarton Windsor QUEBEC Bagotville Baie Comeau Blanc Sablon Border Chibougamau Fort Chimo Gaspé Grindstone Island Inoucdjouac Koartak La Grande Rivière Maniwaki Matagami Mont-Joli Montréal Natashquan Nitchecun Port Menier	21 21 17 18 20 23 17 14 11 M 17 13 14 16 15 M 19 M	-	0 0 1 X 1 1 1	28 27 26 27 27 30 28 21 15	13 13 10 8 11 17	43.9 18.0 42.3 8.0 19.0 5.2	28. 3. 29. 2. -13.
Trout Lake Wawa Wiarton Windsor QUÉBEC Bagotville Baie Comeau Blanc Sablon Border Chibougamau Fort Chimo Gaspé Grindstone Island Inoucdjouac Koartak La Grande Rivière Maniwaki Matagami Mont-Joli Montréal Natashquan Nitchecun Port Menier	17 18 20 23 17 14 11 M 17 13 14 16 15 M 19 M		1 X 1 1 1 0 2 2 M X	26 27 27 30 28 21 15	10 8 11 17	42.3 8.0 19.0 5.2	29. -13.
Wawa Wiarton Windsor QUÉBEC Bagotville Baie Comeau Blanc Sablon Border Chibougamau Fort Chimo Gaspé Grindstone Island Inoucdjouac Koartak La Grande Rivière Maniwaki Matagami Mont-Joli Montréal Natashquan Nitchecun Port Menier	18 20 23 17 14 11 M 17 13 14 16 15 M 19 M		X 1 1 0 2 2 M X	27 27 30 28 21 15	8 11 17 11 8	8.0 19.0 5.2	2. -13.
Windsor QUÉBEC Bagotville Baie Comeau Blanc Sablon Border Chibougamau Fort Chimo Gaspé Grindstone Island Inoucdjouac Koartak La Grande Rivière Maniwaki Matagami Mont-Joli Montréal Natashquan Nitchecun Port Menier	17 14 11 M 17 13 14 16 15 M 19 M		1 0 2 2 M X	28 21 15	17 11 8	23.8	-13. 3.
Bagotville Baie Comeau Blanc Sablon Border Chibougamau Fort Chimo Gaspé Grindstone Island Inoucdjouac Koartak La Grande Rivière Maniwaki Matagami Mont-Joli Montréal Natashquan Nitchecun Port Menier	14 11 M 17 13 14 16 15 M 19 M	-	2 M X	21 15	8		
Bagotville Baie Comeau Blanc Sablon Border Chibougamau Fort Chimo Gaspé Grindstone Island Inoucdjouac Koartak La Grande Rivière Maniwaki Matagami Mont-Joli Montréal Natashquan Nitchecun Port Menier	14 11 M 17 13 14 16 15 M 19 M	-	2 M X	21 15	8		
Blanc Sablon Border Chibougamau Fort Chimo Gaspé Grindstone Island Inoucdjouac Koartak La Grande Rivière Maniwaki Matagami Mont-Joli Montréal Natashquan Nitchecun Port Menier	11 M 17 13 14 16 15 M 19 M	-	2 M X	15		29.5	0
Border Chibougamau Fort Chimo Gaspé Grindstone Island Inoucdjouac Koartak La Grande Rivière Maniwaki Matagami Mont-Joli Montréal Natashquan Nitchecun Port Menier	M 17 13 14 16 15 M 19 M	-	M X		6	5.6	-20
Fort Chimo Gaspé Grindstone Island Inoucdjouac Koartak La Grande Rivière Maniwaki Matagami Mont-Joli Montréal Natashquan Nitchecun Port Menier	13 14 16 15 M 19 M	-	1000		48	М	
Gaspé Grindstone Island Inoucdjouac Koartak La Grande Rivière Maniwaki Matagami Mont-Joli Montréal Natashquan Nitchecun Port Menier	14 16 15 M 19 M 17	-	-	27	11 2	0.2 6.8	- 7.
Inoucdjouac Koartak La Grande Rivière Maniwaki Matagami Mont-Joli Montréal Natashquan Nitchecun Port Menier	15 M 19 M 17	-	X	23	9	49.5	
Koartak La Grande Rivière Maniwaki Matagami Mont-Joli Montréal Natashquan Nitchecun Port Menier	M 19 M 17		1 6	22 25	12	12.6	- 1. -12.
Maniwaki Matagami Mont-Joli Montréal Natashquan Nitchecun Port Menier	M 17		X	22P	3P	1.8	
Matagami Mont-Joli Montréal Natashquan Nitchecun Port Menier	17		X	27 28P	12	5.0 M	
Montréal Natashquan Nitchecun Port Menier			X	27	7	2.4	
Natashquan Nitchecun Port Menier	13	-	4	21 27	8 14	102.7 35.6	15.
Port Menler	14		0	21	4	16.2	1.
	16 M		3 M	22 22P	10 6P	26.6 M	1.
	18	1	В	27	8		-16.
Québec Rivière du Loup	17 M		2 M	25 23P	12 8P	60.2 M	42.
Roberval	17		0	26	12		-17.
Schefferville Sept-Iles	15		3	23 21	5 7	0.8	-23.
Sherbrooke	17		0	26	7	42.3	6.
Ste Agathe des Monts Val d'Or	17 19		0 2	26 27	10 9	32.0	-17.
NEW BRUNSWICK							
Charlo Chatham	17 18		1000	24 25	12	56.5	
Fredericton	20		1	31	15	67.7	45.
Moncton Saint Jean	18	-	0	28 26	13	0.4	7. -24.
NOVA SCOTIA				H			
Eddy Point	17		X	23	14	42.3	- 0.
Greenwood Sable Island	18		0	22	15	60.3	21.
Shearwater Sydney	18		0	24	14	29.2	7.
Truro	М		M	28P	12P	17.3	- 3.
Yarmouth	17		0	22	12	19.7	- 0.
PRINCE EDWARD ISLAND						2.7	12
Charlottetown Summerside	18		0	26 27	14	2.7	11.
					98		
NEWFOUNDLAND Argentia	15		X	23	10	37.3	
Battle Harbour	9		2	18 25	5 8	33.2	16.
Bonavista Burgeo	16		0	22	11	0.0	-31.
Cartwright	11		3	20 25	8	0.4	
Churchill Falls Comfort Cove	14	-	3	24	8	32.2	17.
Daniel's Harbour	14		2	19 24	7 5	25.8	- 0.
Deer Lake Gander	14	-	3	24	8	38.0	11.
Goose	16		0 2	26	6	1.0	-17.
Hopedale Port aux Basques	15		0	20	12	3.8	-16.
St Albans	17		0 X	26	9	28.2	- 6.
St Anthony St Jean's	15	-	1	25	7	25.6	- 3.
St Lawrence Stephenville	15		0	19	11	61.3	26.
labush Lake	M			25	11	23.3	1000