



ADIAN

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Summary

July 1997

Monthly review of Canadian climate and water

vol. 2

CLIMATIC HIGHLIGHTS

July 1997

July 26th - The temperature drops to -5.6° at Cape Dyer. Not only is this the country's lowest temperature this month, but it's also the coldest ever at Cape Dyer in July.

July 20th and 21st - Several heavy thunderstorms move through southern and central British Columbia dropping hail across the area. In the Prince George Area, more than 10 cm of hail is left on the ground. Farther south, considerable damage occurs when apple orchards in the Okanagan are hit by hail. Near Cranbrook, an 8-year old girl is killed when hit by a falling tree, and a man dies of a heart attack.

July 22nd - Salmon rivers in the Avalon Peninsula are closed when the number of returning salmon drops to critically low levels. This comes after hot, dry weather has raised water temperatures and drastically reduced water levels.

July 20th 35.8° at Lytton is the hottest temperature in Canada

July 12th - The frequent rains of the past several months take their toll. In the Okanagan valley more than \$1 million damage is caused by mud slides and overflowing creeks. Several roads are washed out and in Wells Gray Park, campers are stranded.

July 2nd - A cold front brings a welcome rainfall of more than 100 mm of rain to southern Manitoba and northern Ontario. In Manitoba the downpours bring an end to near-drought conditions, while farther east it diminishes considerably the forest fire hazard in Ontario. Thunderstorms along the front also bring heavy rain and high winds to southern Ontario, where one death results from a lightning strike. The next day Montreal is hit with heavy rains. A smaller amount falls (24 mm), but coming in the space of one hour, it manages to cause storm drains to back up, partially flooding several streets.

Dry conditions in Nova Scotia. Forest fires occur in parks around Halifax at mid-month. Before the end of the month, municipal parks are closed due to the fire hazard.

July 14th - In Southern Ontario, two days of poor quality air come to an end with a bang. Heavy thunderstorms ahead of a sharp cold front bring heavy rain and high winds. Two airplanes are heavily damaged at the Waterloo Airport as winds exceed 115 km/h. Even roads in Punkeydoodle's Corners are flooded. Downed trees are reported from Stratford to Ottawa.

July 5th - Unusually intense thunderstorms hit southwestern British Columbia. More than 7,000 lightning strikes are counted. In Victoria two 30-metre sequoia trees explode after a being hit by lightning. Debris is scattered more than a block away. Vancouver's 37 mm of rain is more than usually falls during the entire month. A bridge collapse in Surrey is blamed on the storm.



CANADIAN CLIMATE SUMMARY
VOLUME 2

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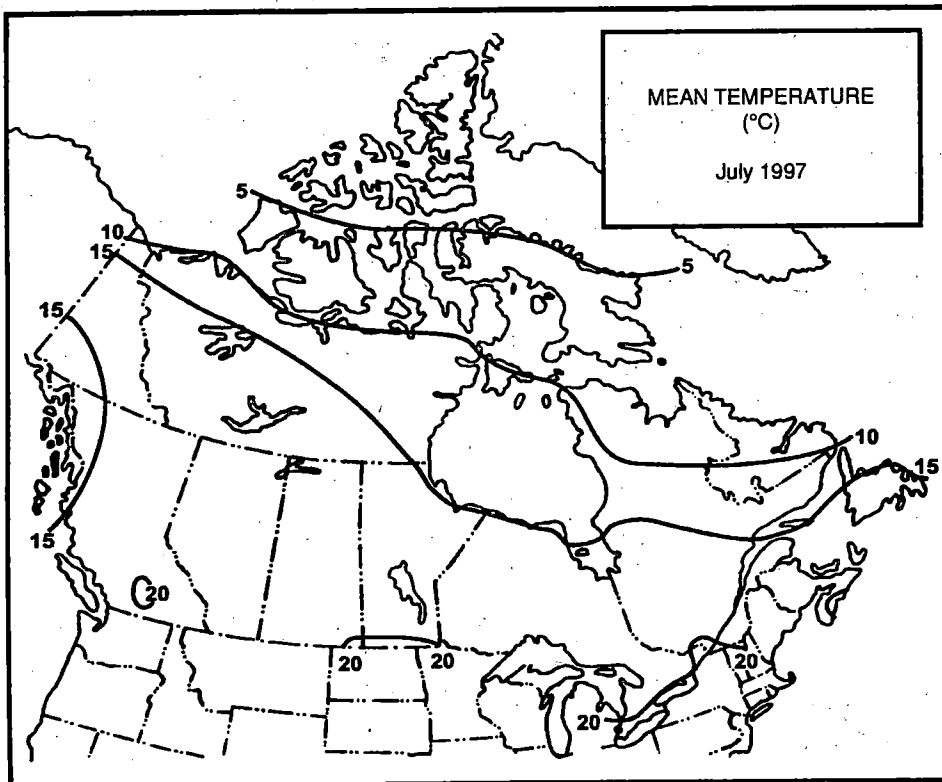
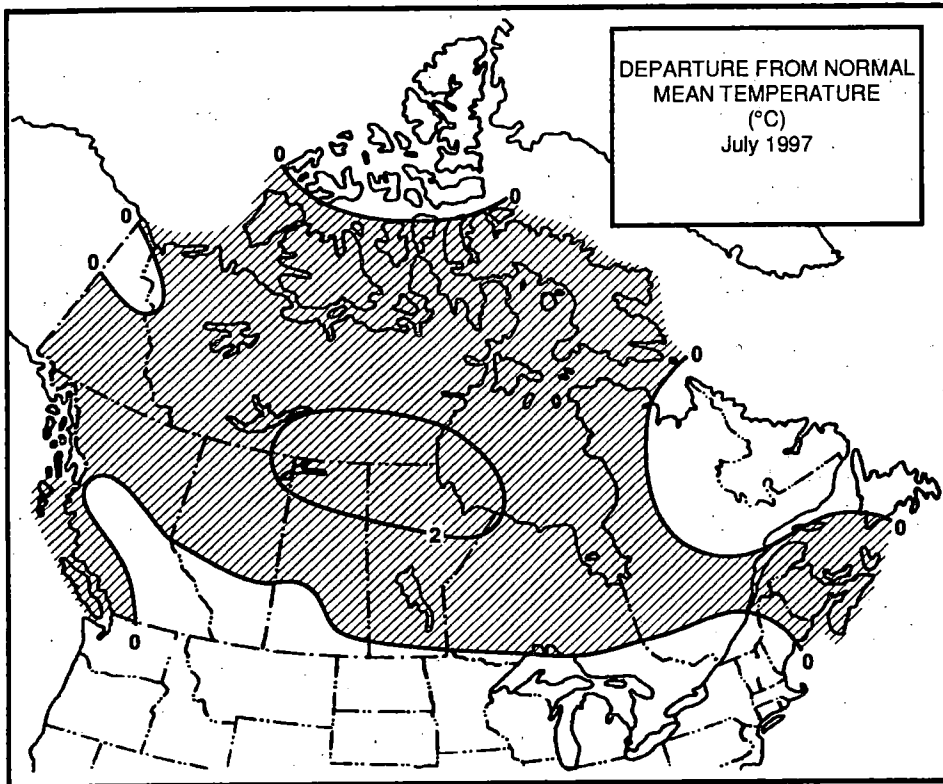
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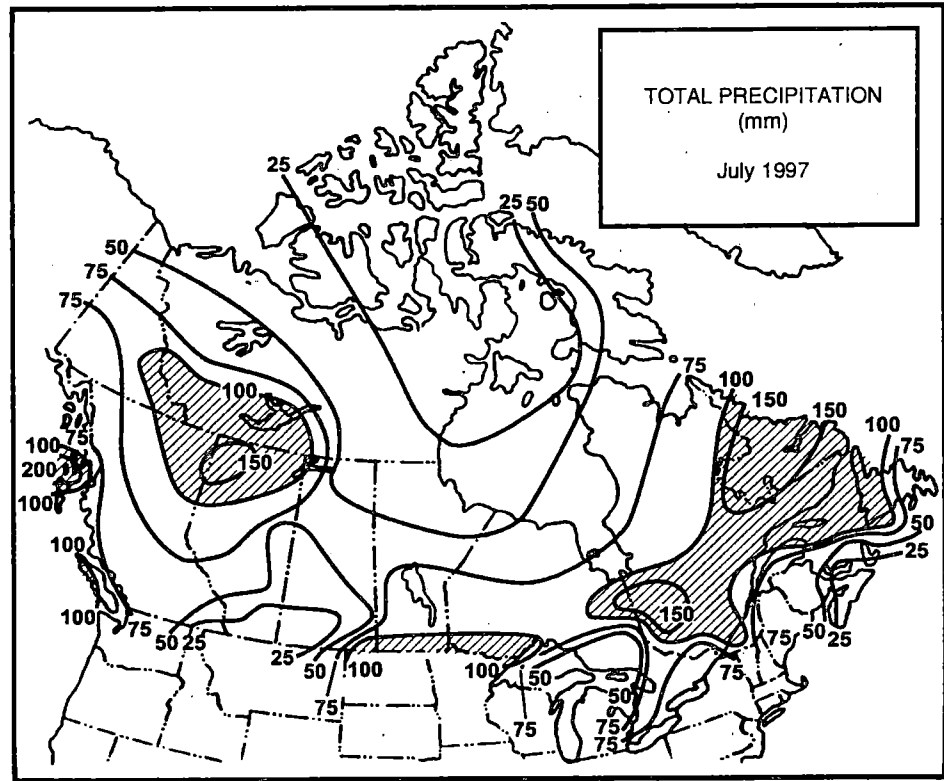
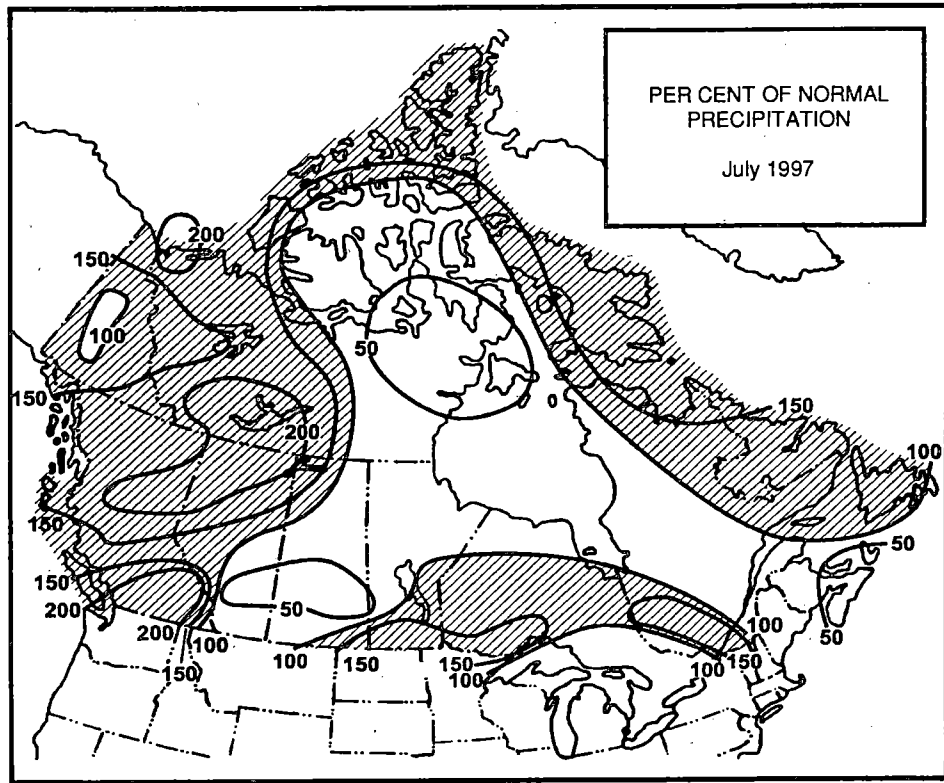


Weather Extremes, July 1997

		Maximum temperature (°C)		Minimum temperature (°C)		Greatest precipitation (mm)
British Columbia	LYTTON	35.8		BIG CREEK	-1.7	LANGARA ISLAND 218.2
Yukon Territory	DAWSON/CARMACKS	30.0		EAGLE PLAINS	0.5	BEAVER CREEK 166.9
Northwest Territories	VIRGINIA FALLS	34.0		CAPE DYER	-5.6	FORT SMITH A 117.6
Alberta	ONEFOUR, MANYBERRIES	34.0		MILK RIVER	0.9	HIGH LEVEL A 179.4
Saskatchewan	OXBOW, MAPLE CREEK	35.0		KEY LAKE A	-0.8	SOUTH END 138.6
Manitoba	REGENT	34.5		INDIAN BAY	-3.5	PLUM COULEE 213.7
Ontario	TORONTO PEARSON INT'L	34.1		PEAWANUCK	-0.1	DRYDEN 159.4
Quebec	CAP-TOURMENTE	32.3		KUUJUARAPIK A	-0.6	ST HUBERT A 175.5
New Brunswick	CHARLO A	31.7		ST LEONARD A	4.2	FREDERICTON A 75.2
Nova Scotia	GREENWOOD A	31.3		TRURO	4.7	SABLE ISLAND 56.5
Prince Edward Island	CHARLOTTETOWN A	28.8		CHARLOTTETOWN A	7.5	CHARLOTTETOWN A 17.0
Newfoundland	DEER LAKE	30.1		CAPE KIGLAPAIT	-3.4	NAIN A 184.4

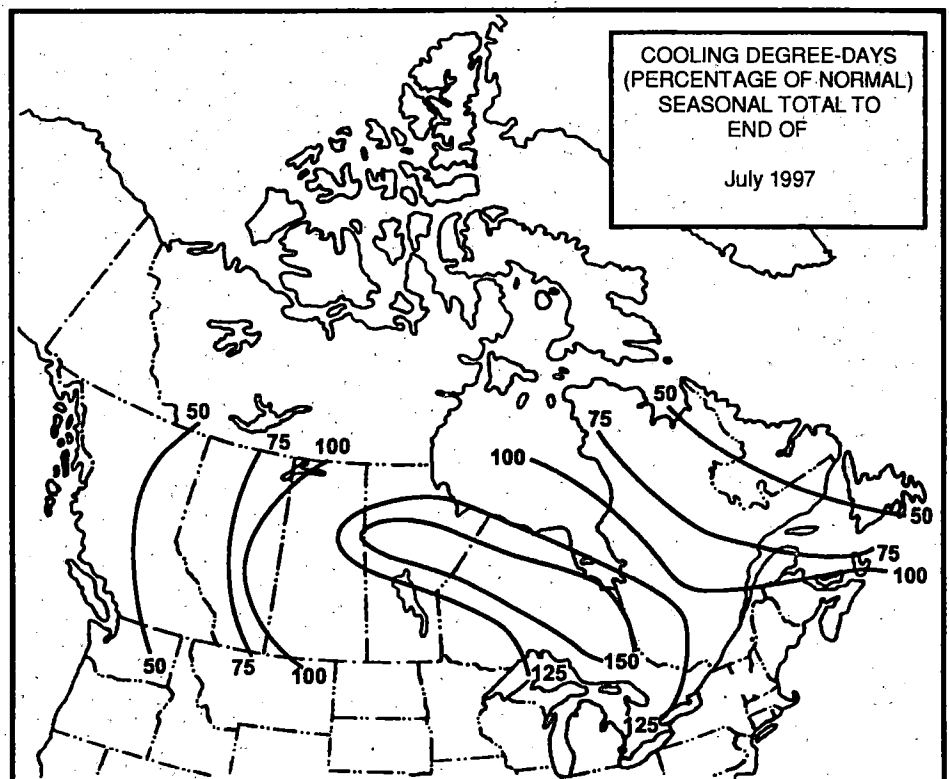
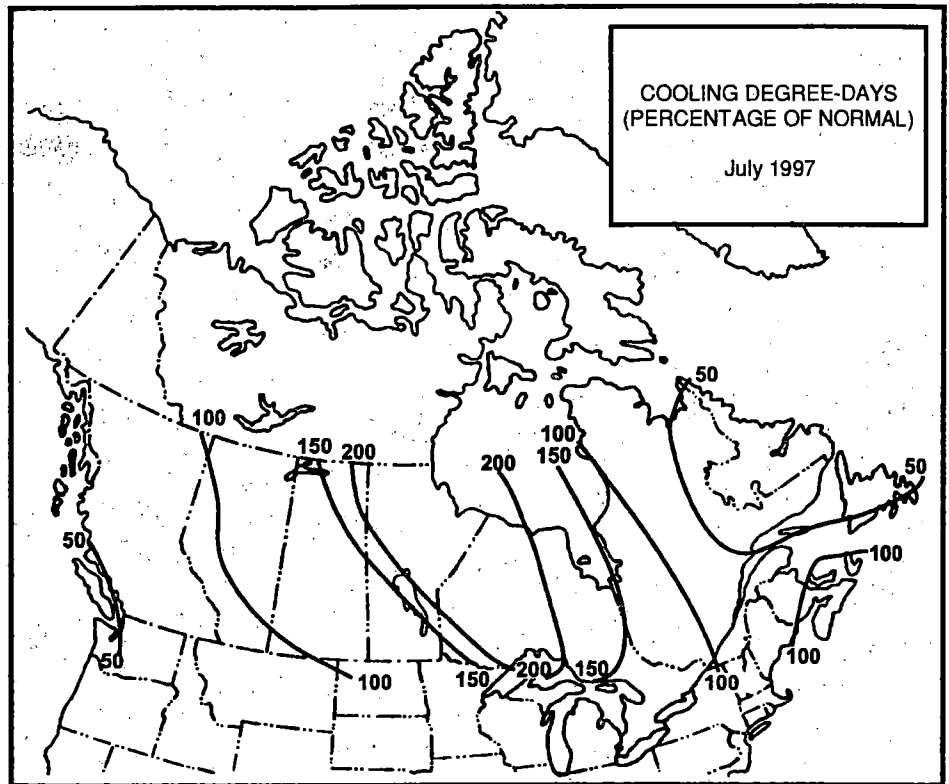
Across The Country...

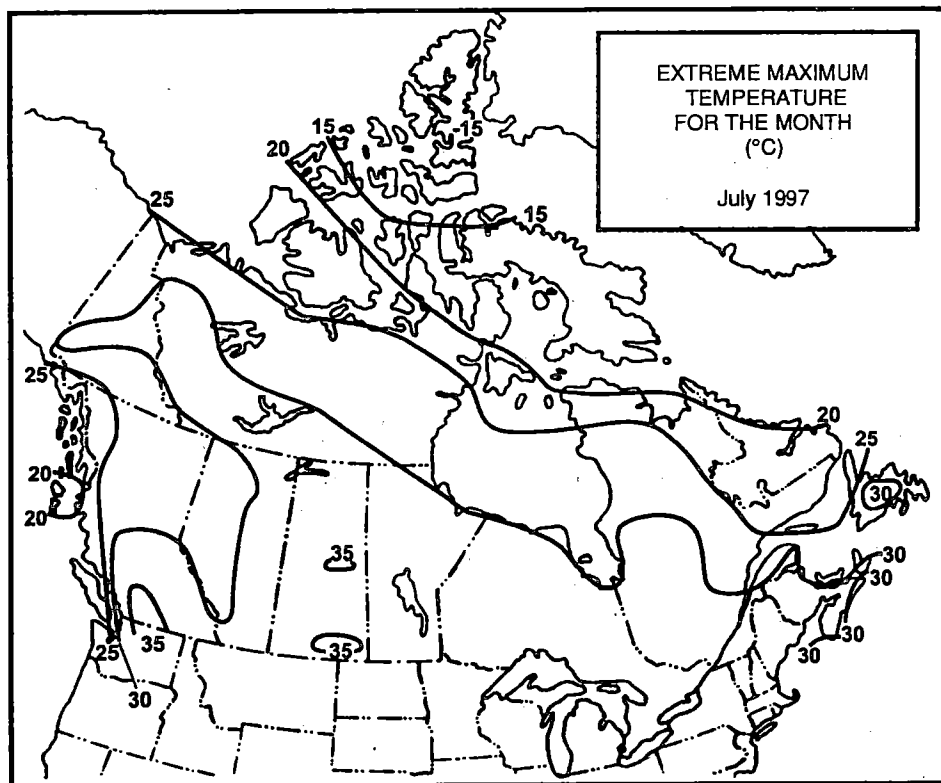
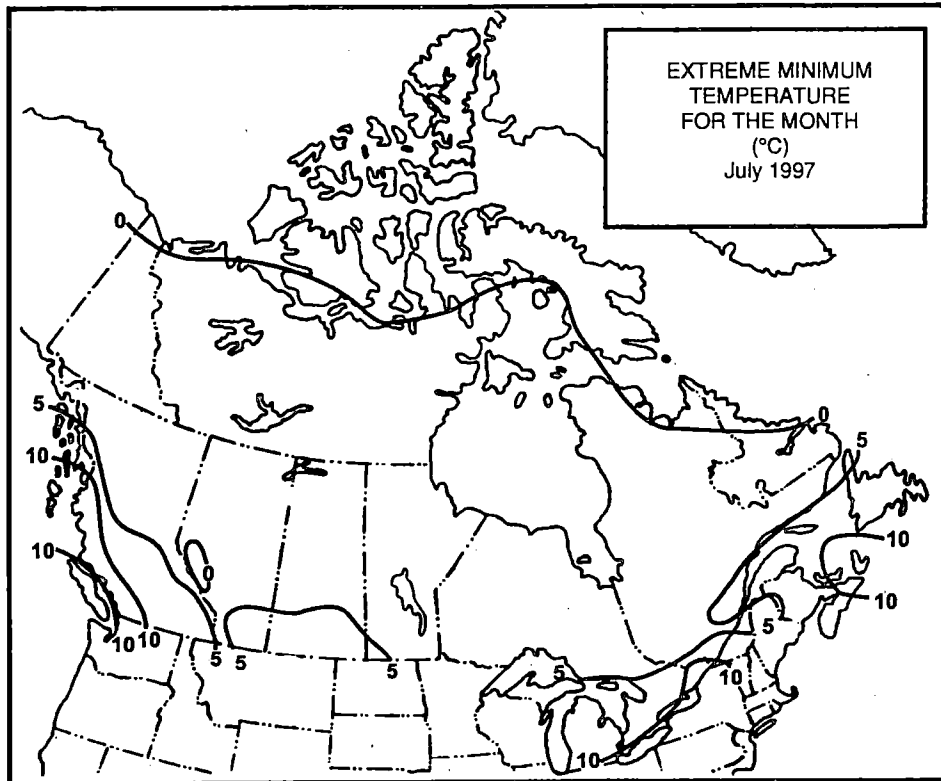
Highest Monthly Mean Temperature	BELLE RIVER	ONT	23.1	°C
Lowest Monthly Mean Temperature	ALERT	NWT	2.2	°C
Highest Temperature	LYTTON	BC	35.8	°C
Lowest Temperature	CAPE DYER	NWT	-5.6	°C
Heaviest Monthly Precipitation	LANGARA ISLAND CS	BC	218.2	mm
Greatest Number of Bright Sunshine Hours	MEADOW LAKE A	SASK	383.2	hrs



SEASONAL TOTAL OF COOLING
DEGREE-DAYS TO END OF JULY

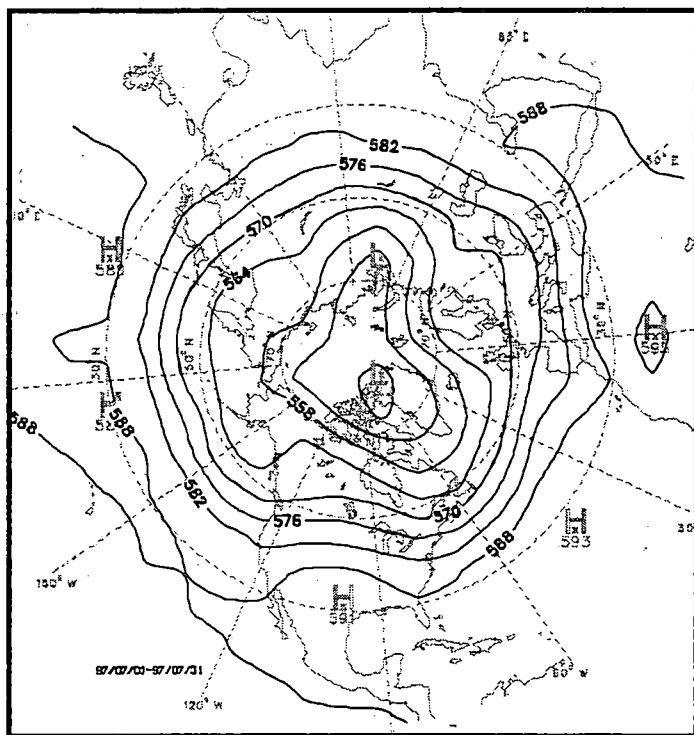
	1997	1996	Normal
British Columbia			
VICTORIA INT'L A	4	26	12
PRINCE GEORGE A	*	7	12
VANCOUVER INT'L A	*	33	20
PENTICTON A	74	120	124
KAMLOOPS A	100	145	153
Yukon Territory			
DAWSON	*	*	*
WATSON LAKE A	*	*	9
North West Territories			
INUVIK A	*	*	15
IQUALUIT A	0	0	0
RESOLUTE A	0	0	0
Alberta			
EDMONTON INT'L A	20	6	20
CALGARY INT'L A	13	14	26
MEDICINE HAT A	*	93	117
PEACE RIVER A	11	6	16
Saskatchewan			
MOOSE JAW A	122	86	114
REGINA A	98	*	95
PRINCE ALBERT A	55	42	49
SASKATOON A	59	57	80
Manitoba			
BRANDON A	*	74	83
WINNIPEG INT'L A	131	*	124
CHURCHILL A	*	19	10
LYNN LAKE A	46	30	26
THOMPSON A	42	27	26
Ontario			
KENORA A	119	99	110
THUNDER BAY A	*	25	43
SUDBURY A	*	48	88
KAPUSKASING A	89	48	56
NORTH BAY A	*	40	75
OTTAWA INT'L A	*	128	152
WINDSOR A	*	227	240
LONDON A	*	*	141
TORONTO INT'L A	176	106	140
Quebec			
MONTREAL INT'L A	158	116	152
SHERBROOKE A	47	*	64
SEPT-ILES A	1	3	7
MONT JOLI A	36	39	47
BAGOTVILLE A	73	60	64
VAL D'OR A	79	38	58
New Brunswick			
FREDERICTON A	*	44	86
MONCTON A	57	37	57
SAINT JOHN A	*	2	17
Nova Scotia			
GREENWOOD A	85	57	75
YARMOUTH A	10	0	7
Prince Edward Island			
CHARLOTTETOWN A	56	28	52
Newfoundland			
GANDER INT'L A	14	18	28
ST JOHN'S A	*	11	18
GOOSE A	10	6	29



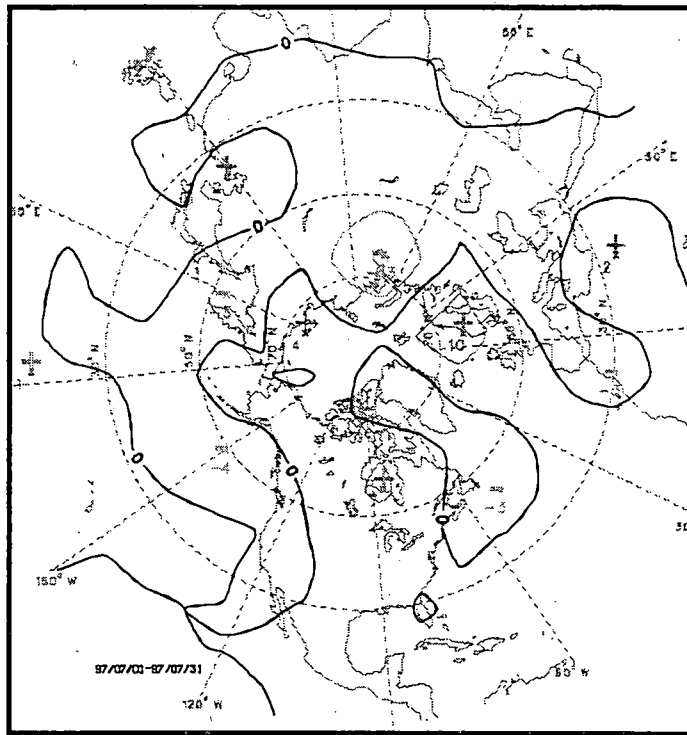


50-kPa ATMOSPHERIC CIRCULATION

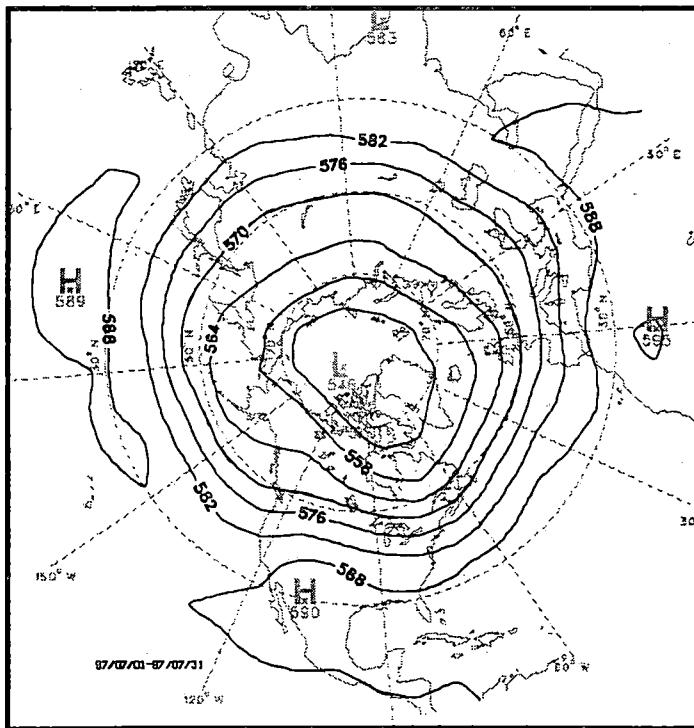
July 1997



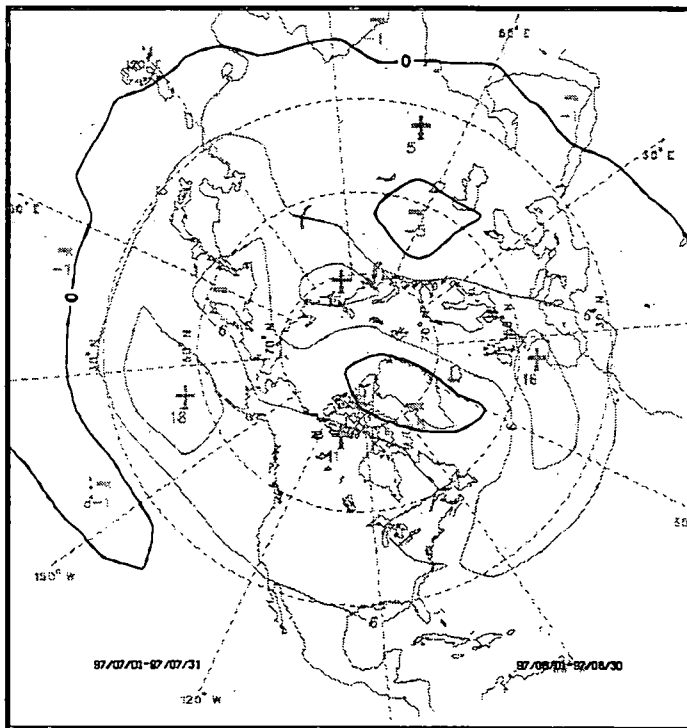
Mean geopotential heights
6-decemetre interval



Mean geopotential height anomaly
6-decemetre interval



Normal geopotential heights for the month
6-decemetre interval



Mean height difference w/r to previous month
6-decemetre interval

July 1997

STATION	Temperature C				Snowfall (cm)	% of Normal Snowfall	Total Precipitation (mm)	% of Normal Precipitation	Snow on ground at end of month (cm)	No. of days with Precip 1.0 mm or more	Bright Sunshine (hours)	% of Normal Bright Sunshine	Degree Days below 18 C
	Mean	Difference from Normal	Maximum	Minimum									
BRITISH COLUMBIA													
ABBOTSFORD A	18.0	0.9	31.7	9.2	0.0	114.6	226	7					23.1
AGASSIZ CS	18.2		32.3	9.8		127.4		9					
CLINTON	13.8		29.5	2.5									
COMOX A	17.6	0.2	27.7	9.6	0.0	26.4	86	6	285				24.0
CRANBROOK A	18.4	0.2	31.3	7.4	0.0	13.9	44	5					25.5
DEASE LAKE CAMPBEL	13.4		25.7	3.1									
ESTEVAN POINT CS	15.8		25.0	9.4		145.6		9					67.8
FORT NELSON A	17.0	0.3	28.2	6.7		138.1	165	16					47.2
FORT ST JOHN A	16.0	0.2	26.7	7.2		180.2	245	15					67.1
HOPE	17.9		30.5	9.5		71.2		6					26.3
KAMLOOPS A	19.9	-0.9	33.0	10.2	0.0	58.2	209	10	283	92			11.7
KELOWNA A	17.5	-1.3	31.8	5.6									34.2
LANGARA	14.0	1.7	19.5	9.6		201.7	242	25					124.0
LYTTON	20.8		35.8	9.3		3.2		1					8.7
MACKENZIE A	15.6	0.7	28.5	4.7		24.0	38	9					75.2
MALAHAT	17.7		27.3	10.0		104.6		5					
MCINNIS ISLAND	15.4	1.5	20.4	11.5		144.2	144	12					79.7
NELSON	18.2		31.7	9.1		41.0		9					
PENTICTON A	19.3	-1.0	34.2	6.4		69.0	296	8					10.4
PORT ALBERNI	17.6		30.8	8.8		57.0		4					27.3
PORT HARDY A	15.0	1.3	24.4	8.2	0.0	74.6	133	9					94.0
PRINCE RUPERT A	14.9	2.0	22.5	9.5									
PRINCETON	16.9		33.1	5.0									48.3
QUESNEL A	16.6	0.0	32.3	6.3		96.0	163	13					52.5
REVELSTOKE	16.9		29.5	8.2		125.0		11					49.7
SANDSPIT A	14.8	0.7	19.1	10.0		36.0	81	10					99.2
SHERINGHAM POINT	14.5		25.5	10.4		73.0		6					
SMITHERS A	14.2	-0.7	28.4	3.7	0.0	99.2	217	14					119.9
SPARWOOD	15.5		30.4	2.9		33.6		10					
SQUAMISH	17.4		31.4	8.5		108.0		9					35.0
SUMMERLAND CS	19.3		33.6	9.2		54.8		8					
TERRACE A	15.7	-0.5	28.4	8.8	0.0	58.8	112	18					75.9
VANCOUVER INT'L A	17.6	0.4	27.8	10.6	0.0	89.6	248	7	302	102			23.5
VICTORIA INT'L A	17.0	0.8	27.3	8.9	0.0	35.1	199	5					36.2
WILLIAMS LAKE A	15.2	-0.3	30.1	4.6	0.0	70.4	137	12					93.0
YUKON TERRITORY													
BURWASH	13.8		31.7	0.7									
DAWSON	16.4		29.4	4.2			92.4						
FARO	16.3		25.7	6.1									
KOMAKUK BEACH	7.9		22.0	-2.1									
TESLIN	14.1		25.3	2.8									
WATSON LAKE A	15.3	0.4	26.2	5.4									85.0
NORTHWEST TERRITORIES													
ALERT	2.2	3.0	14.4	14.0	-5.6	\$							\$
BAKER LAKE A	12.8	3.8	28.2	14.3	-0.7	\$							\$
BROUGHTON ISLAND	4.7	0.3	14.1	-5.2									
CAMBRIDGE BAY A	9.9	1.9	22.6	0.6									
CAPE DORSET A	9.0		17.4	1.5		23.0							
CAPE HOOPER	5.3	1.1	16.4	-3.1									
CAPE PARRY A	6.2	0.1	20.5	-1.8									
CLYDE A	4.5	0.3	15.8	-2.8		58.5	261						7
CORAL HARBOUR A	10.1	1.2	22.5	2.1		13.8	32						3
ENNADAI LAKE	15.3		28.5	3.5									
EUREKA	5.6	0.2	13.6	0.1		20.6	187						7
FORT RELIANCE	16.3		29.3	4.0									
FORT SIMPSON A	18.3	1.4	29.7	7.1	0.0	110.8	208						12
FORT SMITH A	18.4	2.1	32.3	3.4	0.0	117.6	207						13
HALL BEACH A	6.9	1.1	19.7	-0.1									
HAY RIVER A	17.0	-1.2	33.1	7.0	0.0	93.0	205						13
INUVIK A	14.5	0.7	28.7	-0.8									
IQALUIT A	8.3	0.6	17.4	0.2									
KUGLUKTUK A	12.3		32.5	2.0	0.0	35.7							9
LADY FRANKLIN POINT	8.2	1.4	18.3	-0.8									332
LONGSTAFF BLUFF	7.0	0.0	16.7	-0.4									
NORMAN WELLS A	18.2	1.5	32.6	6.2	0.0	62.1	123						9
PANGNIRTUNG	7.4		18.6	0.8									
RANKIN INLET A	12.3		26.2	5.3	0.0	17.8							5
RESOLUTE A	3.7	-0.3	13.2	-2.9	2.6	17.8	76						5
SHEPHERD BAY A	9.2	1.6	23.7	-0.5									
TUKTOYAKTUK	11.9		28.0	2.8									

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	Mean	Difference from Normal	Maximum	Minimum									
ALBERTA													
BROOKS	18.8		32.1	5.2									24.4
CALGARY INT'L A	16.0	-0.4	29.9	2.7	0.0	16.9	24		4				73.3
CARDSTON	16.5		29.6	5.4		4.6			1				58.4
CLARESHOLM	17.0		30.3	3.8		34.3			4				50.0
COLD LAKE A	18.2	1.2	31.2	5.9	0.0	17.6	21		6	375			27.0
CORONATION	16.5		29.9	3.8									40.4
EDMONTON CITY CENTR	17.5	0.0	31.7	8.3									50.0
EDMONTON INT'L A	16.8	0.8	30.3	7.3		74.8	74		9				62.0
EDMONTON STONY PLA	16.3	-0.1	29.6	6.5									108.2
EDSON A	14.6		28.1	3.5									28.6
FORT CHIPEWYAN A	18.4	2.0	32.9	5.1		107.5	170		18				
FORT MCMURRAY A	17.9	1.3	32.9	1.5									38.0
HIGH LEVEL A	17.2	1.0	27.8	7.5	0.0	180.4	296		15				41.3
LAC LA BICHE	17.5		30.4	6.7									34.5
LACOMBE CDA 2	15.8		29.7	3.4		29.8	75		4				46.2
LETHBRIDGE A	17.5	-0.9	31.0	3.4		22.6			7				62.3
LETHBRIDGE CDA	18.1	0.0	30.6	4.8		5.6	14		2				
LLOYDMINSTER A	17.2		31.0	6.3	0.0								78.5
MEDICINE HAT A	19.6	-0.2	33.4	7.0	0.0	102.5	166		10				66.0
PEACE RIVER A	16.3	0.4	28.3	5.8	0.0								77.1
PINCHER CREEK	16.1		29.4	3.7		63.6	72		9				
RED DEER A	15.8	0.0	29.1	4.8	0.0								55.2
ROCKY MTN HOUSE	14.6		27.5	3.6									66.0
SLAVE LAKE A	16.6		29.4	6.6									77.1
VEGREVILLE	16.3		30.5	5.0									27.4
WHITECOURT A	15.7		28.0	5.9		80.1			11				51.9
SASKATCHEWAN													37.8
BROADVIEW	19.2	1.2	30.3	7.4									24.9
COLLINS BAY	17.0		27.7	2.5		69.2			7				312
CORONACH SPC	18.4		33.2	3.9		93.6	153		7	312	89		
ESTEVAN A	19.6	-0.5	31.9	6.5	0.0								40.1
HUDSON BAY	17.9		30.2	2.7		54.4			10				35.9
INDIAN HEAD CDA	18.3	-0.6	32.8	5.0		59.8			7				29.3
KINDERSLEY A	18.5		31.6	4.8	0.0	82.4	98		8				27.6
LA RONGE A	18.6	1.7	30.0	4.4	0.0								42.0
MEADOW LAKE A	17.3		31.8	4.1		28.6			4	383			23.6
MOOSE JAW A	19.5	-0.2	34.9	6.5	0.0	37.4	69		5	342	100		31.3
NIPAWIN A	18.4		30.1	4.7		21.0			6	361			40.3
NORTH BATTLEFORD A	17.6	-0.4	32.0	3.4	0.0	73.8	108		6				

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	Mean	Difference from Normal	Maximum	Minimum									
ALBERTA													
PRINCE ALBERT A	18.4	0.8	30.5	3.2	0.0	24.1	33		5				28.0
REGINA A	18.8	-0.3	33.6	5.2	0.0	37.2	63		7				30.7
SASKATOON A	18.2	-0.4	33.6	3.2	0.0	24.6	42		7				33.2
STONY RAPIDS A	18.0		32.6	3.7	0.0	35.2			9				33.8
SWIFT CURRENT A	18.2	-0.1	32.5	5.8		24.0	49		8				35.8
SWIFT CURRENT CDA	18.1	-0.3	32.9	5.6		45.4	103		4				36.8
WYNYARD	17.4		27.9	4.9									
YORKTON A	18.7	0.5	31.0	4.8	0.0	19.2	30		6	313	96		30.8
MANITOBA													
BRANDON A	19.0	0.3	32.2	1.3	0.0	111.2	154		6				35.2
CHURCHILL A	14.6	2.8	29.3	4.3		33.3	66		7				129.2
DAUPHIN A	19.6	1.0	34.0	3.4		67.5	97		8				30.6
DAUPHIN CS	19.7		33.8	3.3		33.4			5				
GILLAM A	17.6	2.3	32.1	3.8	0.0	43.0	51		8				50.9
GIMLI INDUSTRIAL PA	18.8		29.4	3.8		91.0			8				38.4
ISLAND LAKE A	18.5	0.9	30.3	4.4	0.0	117.8	133		11				46.0
LYNN LAKE A	18.1	2.3	30.7	3.4	0.0	61.8	80		8				41.7
NORWAY HOUSE A	18.1		29.1	3.0	0.0	94.6			9				44.3
THE PAS A	19.0	1.3	31.4	4.5	0.0	38.8	56		7	330	110		29.0
THOMPSON A	17.4	1.7	32.0	-0.4	0.0	63.2	75		7				57.2
WINNIPEG INT'L A	19.6	-0.2	30.7	2.7									29.2
ONTARIO													
BIG TROUT LAKE READ	17.5		32.1	4.1									46.0
BRITT	17.7		28.8	4.8									22.6
COLLINGWOOD	19.8		32.4	9.5									
EARLTON A	19.4	1.5	32.7	4.7									
GERALDTON A	17.4		32.0	3.7	0.0	89.2			8				63.6
GORE BAY A	18.8	-0.3	29.6	8.5		32.5	62		7				29.9
HAMILTON A	19.9	-0.9	31.4	8.5									14.5
KAPUSKASING A	17.6	0.6	33.1	2.5	0.0	145.3	143		8				70.7
KENORA A	19.6	0.0	29.2	8.0		106.5	118		10				26.3
LONDON A	20.2	-0.1	31.0	8.7									
MOUNT FOREST	18.7		30.4	7.8		96.6			8				30.0
MUSKOKA A	18.1	-0.4	29.6	5.8		67.3	88		7				40.3
NORTH BAY A	18.5	0.0	28.2	6.8		93.2	96		10				35.9
OTTAWA MACDONALD	20.8	0.0	31.9	10.2	0.0	67.5	77		9				10.2
PETERBOROUGH A	18.4	-1.3	30.7	4.8		71.2							36.5
PICKLE LAKE A	18.7		33.7	4.1					11				49.8
RED LAKE A	18.7	0.4	30.2	3.7		95.1	109		9	251			42.2
SAULT STE MARIE A	16.8	-1.0	31.0	3.1		21.2	32		7				

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