



CANADIAN Climate Summary

January 1997

Monthly review of Canadian climate and water

vol. 1

CLIMATIC HIGHLIGHTS

January 1997

2nd & 3rd - Temperatures throughout the Yukon drop below -40°, breaking several temperature records. The coldest location is Mayo, which bottoms out at -53°.

As the New Year arrives, the worst blizzard conditions in several years hit southern Baffin Island. Only two cm of new snow falls, but winds of 80 km/h, gusting at times to 110 km/h, whip up previously fallen snow, reducing visibility to zero. When drifts of a metre or more block most roads in Iqaluit, the only method of travel is by snowmobile. With temperatures hovering around -26°, the high winds produce chill factors that make it feel well below -60°.

The month ends with some hope of warmer days ahead, as the temperatures in southwestern British Columbia reach the low teens.

Jan 5th - A warm front moving through southwestern Quebec produces a wide area of freezing rain. North of Montreal more than 200,000 households and businesses are left without power when hydro lines are snapped. It's not until five days later that power is restored to the entire area.

Jan 25th to 27th - Temperatures across the Prairies hit their lowest point this winter. Overnight lows from the Rockies to Hudson Bay drop well below -40°, rising through the day to only the mid minus twenties. A warming trend finally shows up during the last two days of the month. In Calgary, where chinook winds raise temperatures above the freezing mark, the city's heavy accumulation of snow begins to rapidly melt, turning streets into slush or small lakes.

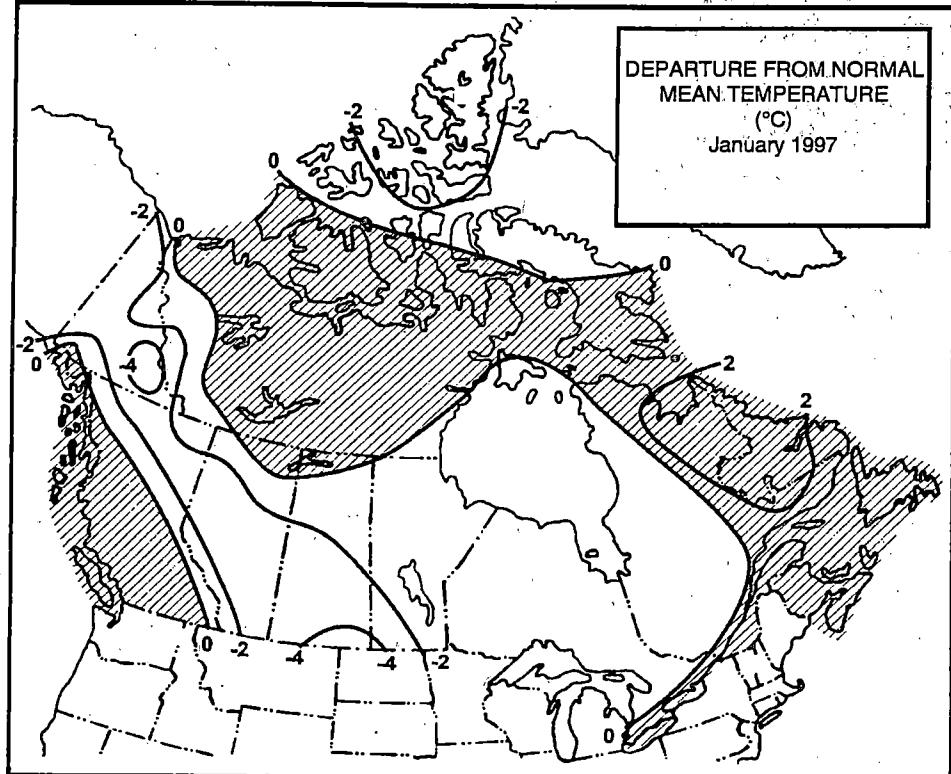
As January begins, problems arising from December's late snowfall continue in southwestern British Columbia. The Fraser Canyon, which had been closed to highway traffic after more than 150 avalanches had buried the roadway in snow as much as 20 metres deep, is finally re-opened on the 5th. At Boston Bar, helicopters had been needed to ferry in emergency supplies after the community ran low on food and fuel. On Vancouver Island a particularly fierce storm on New Year's Day produces winds in excess of 100 km/h and topples hundreds of trees near Port Alberni. Total costs from weather-related damages during the last week of December and the first week of January are expected to reach \$200 million. The Vancouver area is hit with another storm on January 29th, this time with heavy rain. More than 65 mm falls, most of it during the evening hours. Innumerable basements are flooded, and several roads are either flooded or washed out completely.

Freezing rain causes traffic mayhem in Halifax on the 5th. Passengers are trapped for half an hour when a bus slides into a hydro pole, and 30 cars are involved in a pileup on the west side of the city. Another storm hits all three Maritime provinces on the 28th. Although the storm is not particularly heavy, it does give many East Coast residents their first chance to use their snow shovels and snow blowers. Five to ten cm of snow fall in most areas before turning to rain. Three people die in storm-related traffic accidents in New Brunswick and Nova Scotia.

After temperatures rise to spring-like values of 10 or more the previous weekend, winter weather hits southern Ontario and southern Quebec on the 9th and 10th. The usual array of traffic accidents occurs when 10 to 15 cm of snow fall in the area bordering the lower Great Lakes on the 9th. The next day 20 to 25 cm falls along the upper St. Lawrence. A 20-car chain-reaction collision in the Eastern Townships is blamed on the weather. As cold air floods in behind this storm, strong southwesterly winds produce snow squalls over the Niagara Peninsula. The area between Fort Erie and Niagara Falls is virtually shut down as snowfall amounts reach 60 cm.

Jan 16th to 19th - Another blast of winter hits all of Ontario and most of Quebec. Temperatures drop below -40° in northern parts of both provinces, while values in the south approach -30°. With winds of km/h accompanying the arrival of the cold, chill factors make it feel more like -50° to -60°. To the lee of the Great Lakes heavy snow squalls develop. The heaviest occur north of Sault Ste. Marie, where a 40 cm snowfall results in the closing of the Trans-Canada Highway. Warm air moves back into southern Ontario on the 21st, but accompanying it is an area of freezing rain that contributes to several multi-car accidents. North of Toronto, Highway 400 is closed during the evening after 50 cars encounter each other a little too closely in an area of black ice.

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VOLUME 1



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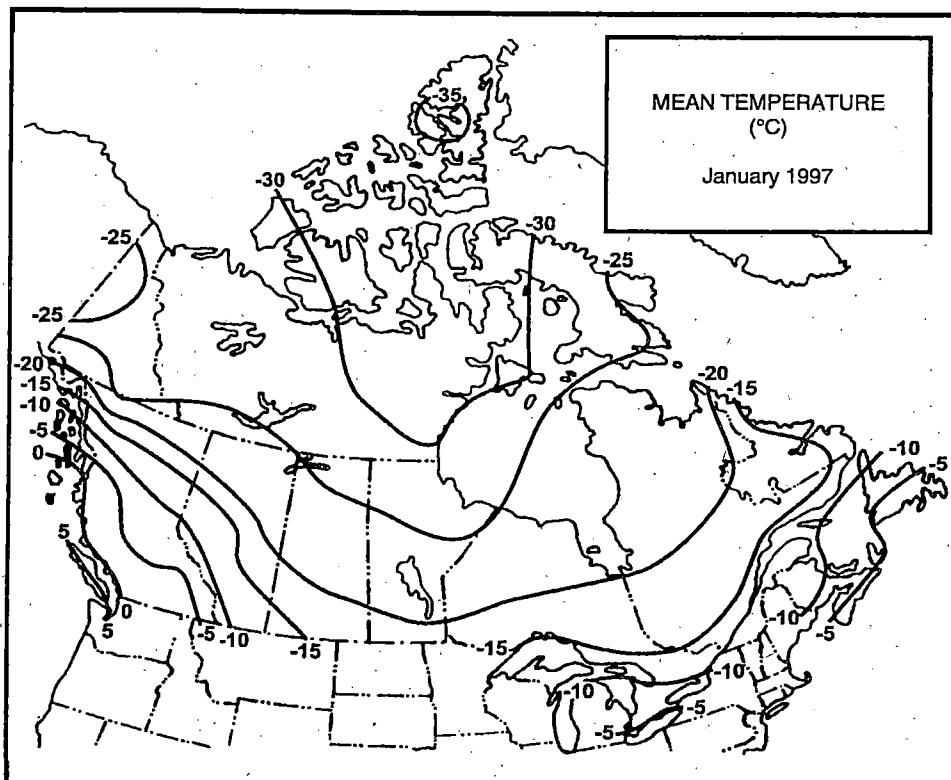
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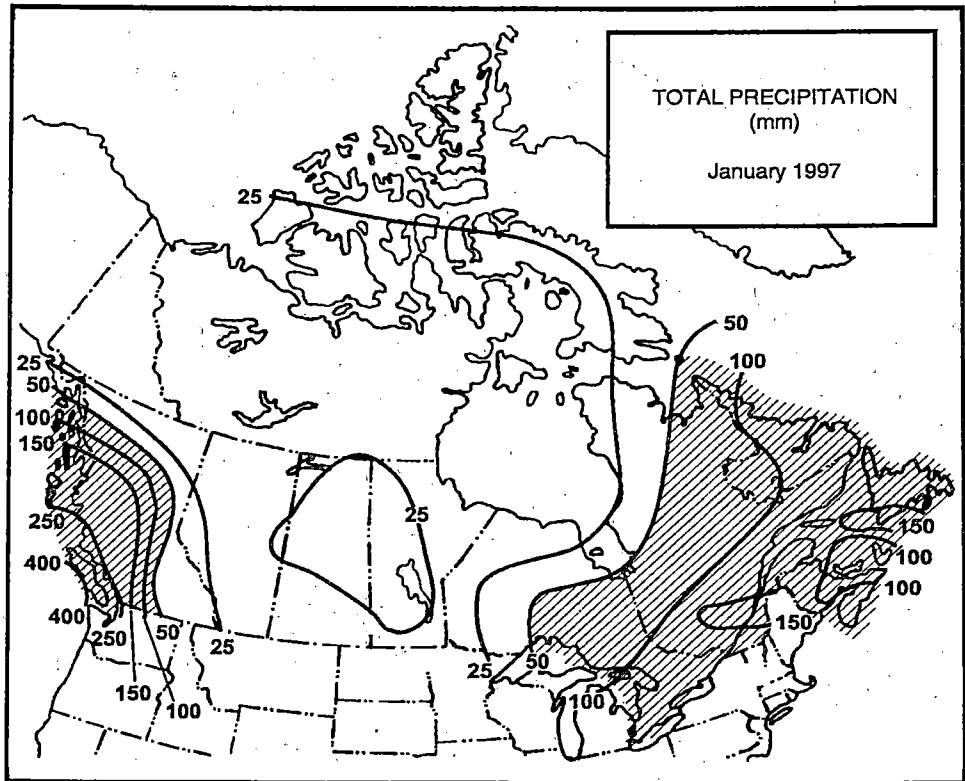
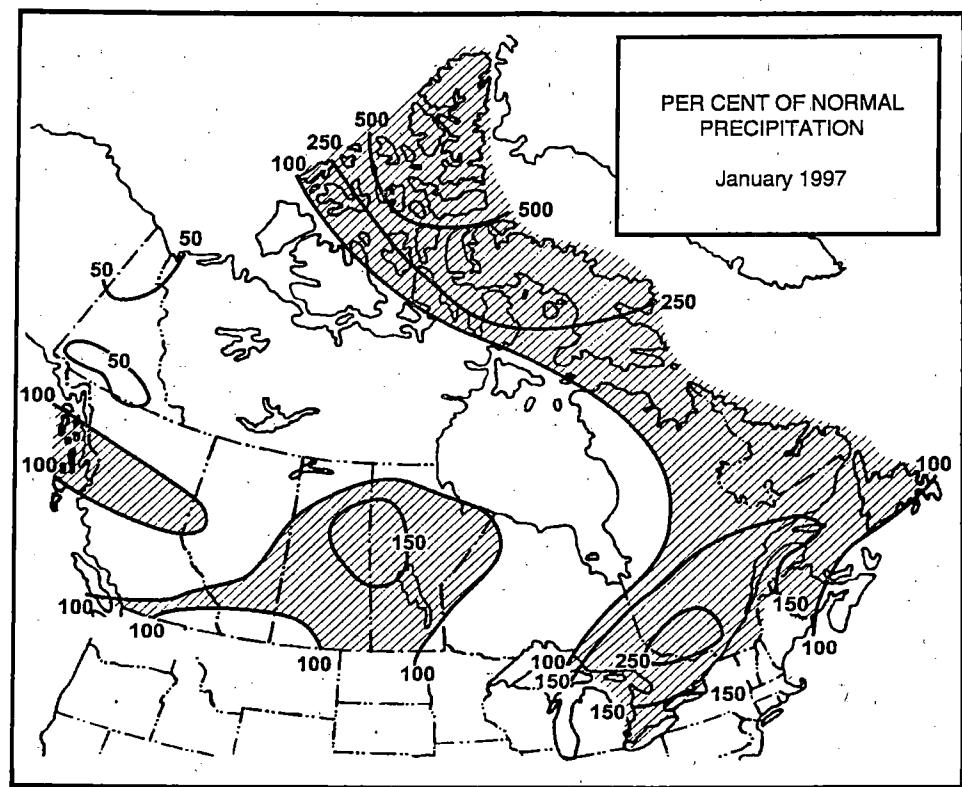


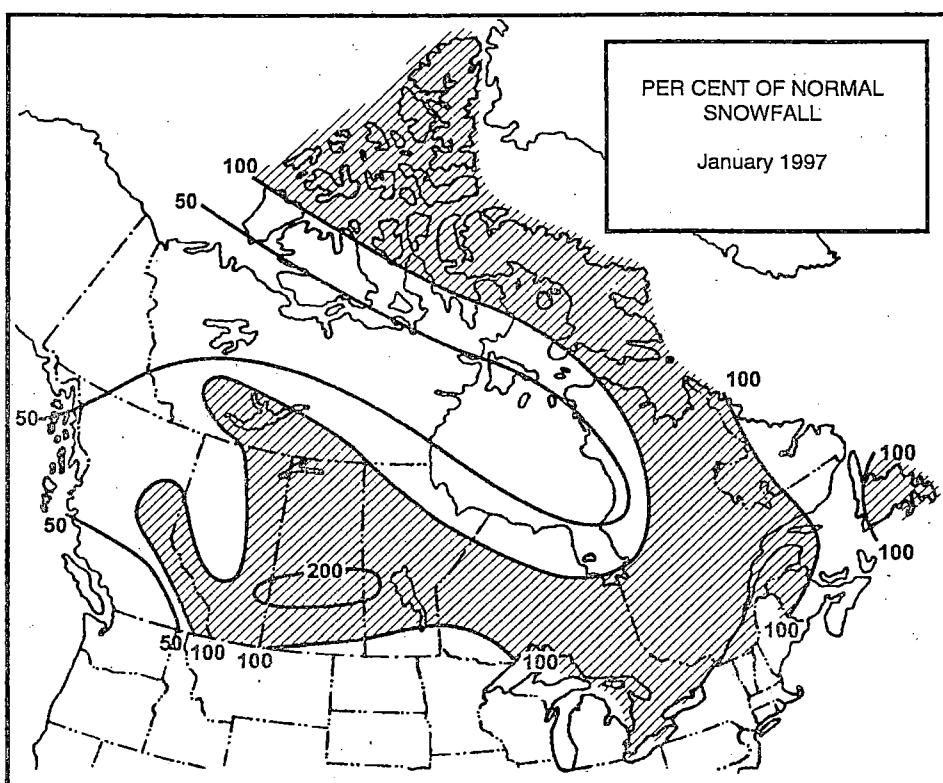
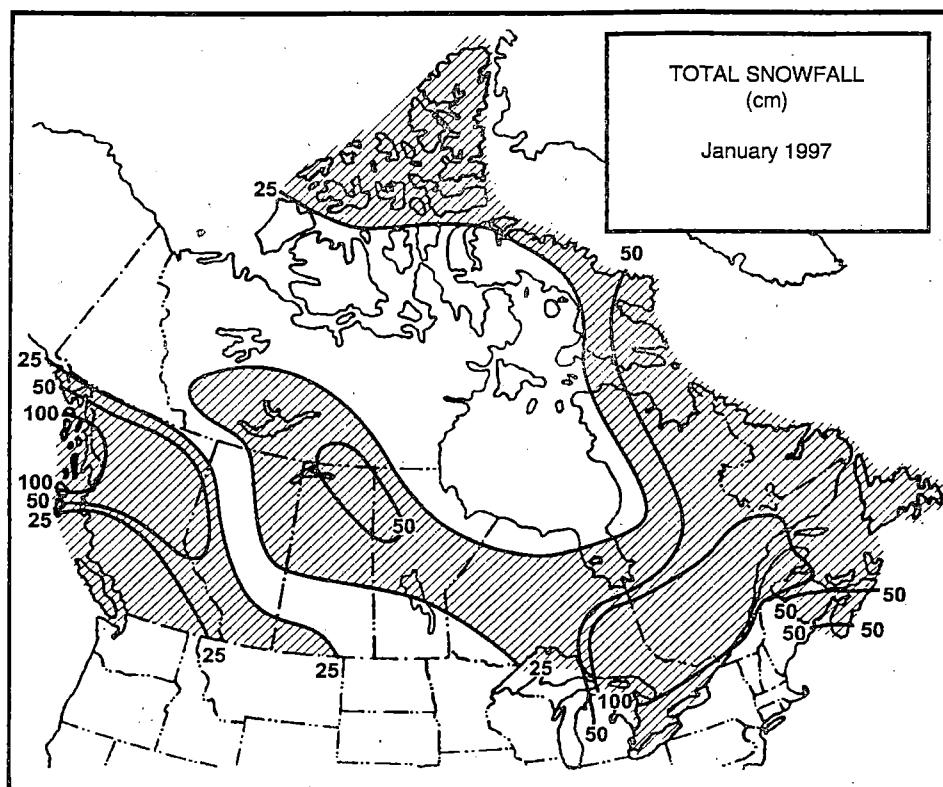
Weather Extremes, January 1997

		Maximum temperature (°C)	Minimum temperature (°C)	Greatest precipitation (mm)
British Columbia	PITT MEADOWS	13.7	PUNTZI MOUNTAIN	-45.7
Yukon Territory	HAINES JUNCTION	6.8	MAYO	-52.7
Northwest Territories	PANGNIRTUNG	0.5	INDIN RIVER	-49.5
Alberta	CARDSTON	11.7	GRANDE PRAIRIE	-46.7
Saskatchewan	CYPRESS HILLS PARK	8.4	MEADOW LAKE A	-47.0
Manitoba	MORDEN	4.5	WASAGAMING	-44.3
Ontario	BELLE RIVER	15.8	EARLTON	-40.9
Quebec	STE CLOTHILDE	9.0	LAC BENOIT	-45.2
New Brunswick	MONCTON A	9.5	ST LEONARD A	-36.8
Nova Scotia	GREENWOOD A	11.9	AMHERST	-22.6
Prince Edward Island	CHARLOTTETOWN A	8.2	CHARLOTTETOWN A	-21.8
Newfoundland	DANIEL'S HARBOUR	10.0	CHURCHILL FALLS	-38.9
				ESTEVAN POINT CS 415.0
				HAINES JUNCTION 21.0
				IQALUIT 33.2
				WATERTON PARK GATE 70.5
				ASSINIBOIA AIRPORT 42.3
				MELITA 34.7
				MUSKOKA 206.0
				VALCARTIER 188.0
				ST LEONARD A 145.6
				SYDNEY 174.4
				CHARLOTTETOWN A 72.5
				PORT AUX BASQUES 159.4

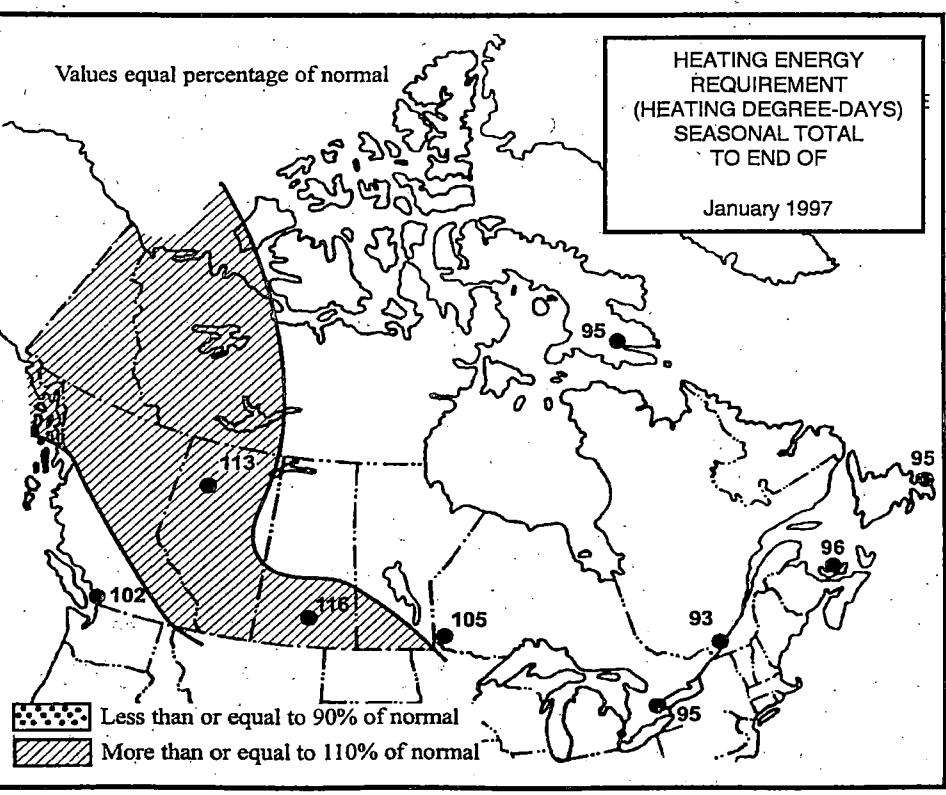
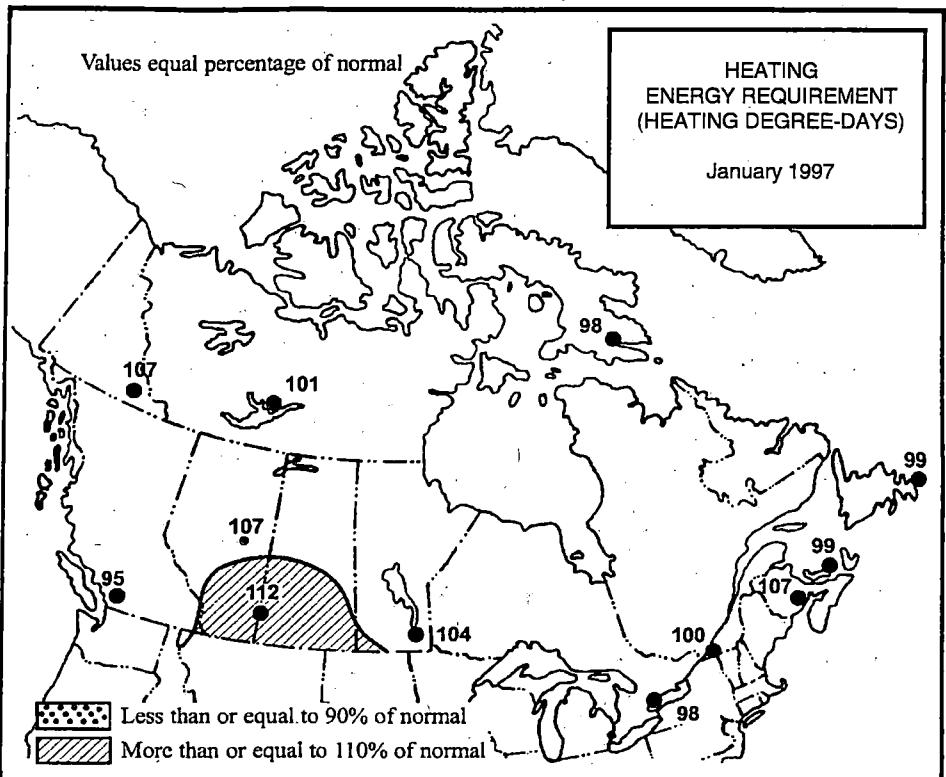
Across The Country...

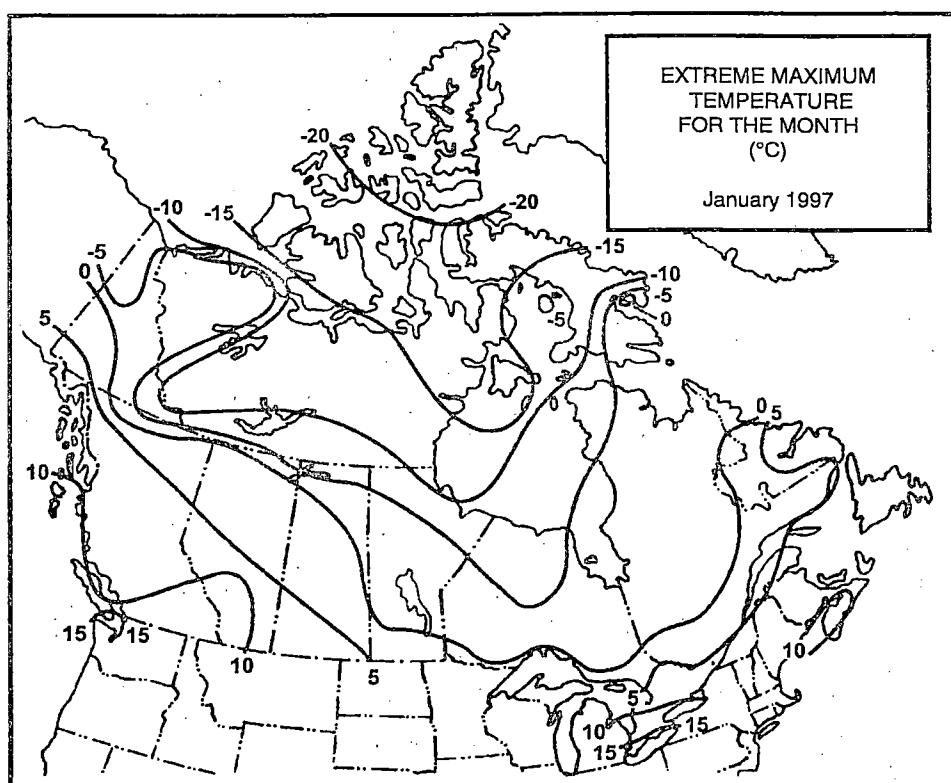
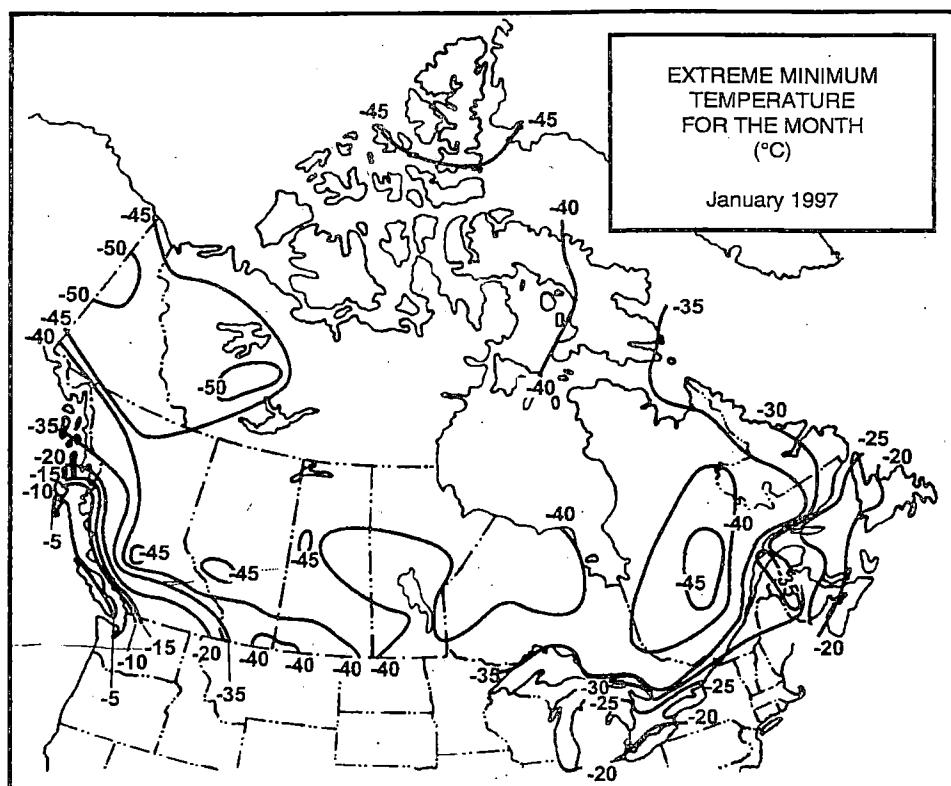
Highest Monthly Mean Temperature	VICTORIA UNIVERSITY	BC	5.8	°C
Lowest Monthly Mean Temperature	EUREKA	NWT	-37.7	°C
Highest Temperature	BELLE RIVER	ONT	15.8	°C
Lowest Temperature	MAYO	YT	-52.7	°C
Heaviest Monthly Precipitation	ESTEVAN POINT CS	BC	415.0	mm
Greatest Number of Bright Sunshine Hours	ESTEVAN	SASK	125.5	hrs





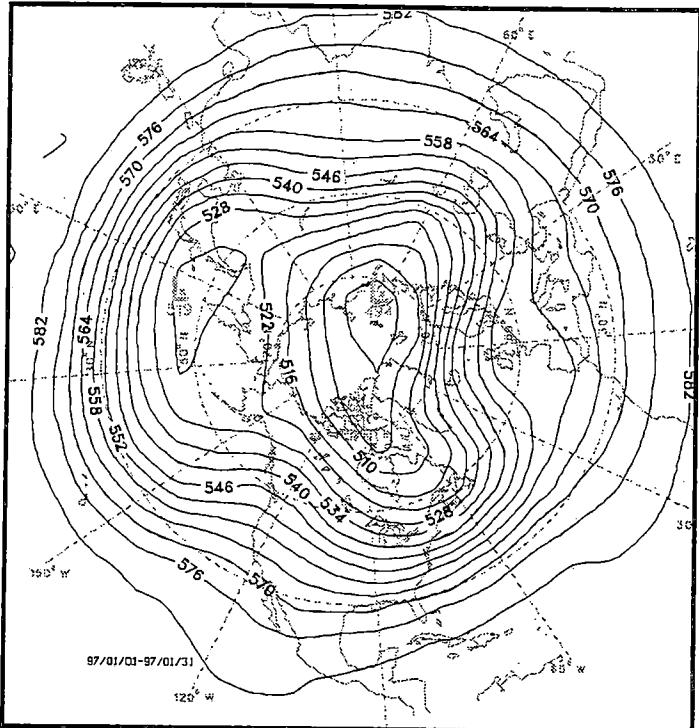
SEASONAL TOTAL OF HEATING DEGREE-DAYS TO END OF JANUARY			
	1997	1996	Normal
British Columbia			
VICTORIA INT'L A	1796	1577	1763
PRINCE GEORGE A	3542	3413	3183
VANCOUVER INT'L A	1776	1528	1715
PENTICTON A	*	2028	2085
KAMLOOPS A	*	2269	2284
Yukon Territory			
DAWSON	*	*	*
WATSON LAKE A	*	*	4742
North West Territories			
INUVIK A	*	*	5644
YELLOWKNIFE A	*	4932	3874
IQALUIT A	5096	5131	5382
RESOLUTE A	*	6999	6947
Alberta			
EDMONTON INT'L A	*	3897	3493
CALGARY INT'L A	3587	3454	3067
MEDICINE HAT A	3398	3264	2859
PEACE RIVER A	4332	4308	3843
Saskatchewan			
MOOSE JAW A	3686	3527	3177
REGINA A	*	3712	3427
PRINCE ALBERT A	4130	4051	3843
SASKATOON A	4089	3980	3554
Manitoba			
BRANDON A	3952	3926	3552
WINNIPEG INT'L A	*	*	3450
CHURCHILL A	*	5078	4966
LYNN LAKE A	4687	4798	4634
THOMPSON A	4649	4863	4595
Ontario			
KENORA A	3626	3737	3445
THUNDER BAY A	*	*	3272
SUDBURY A	*	*	3058
KAPUSKASING A	3555	3890	3680
NORTH BAY A	2967	3236	3044
OTTAWA INT'L A	*	2791	2683
WINDSOR A	2026	2102	2030
LONDON A	*	*	2296
TORONTO INT'L A	2199	2360	2305
Quebec			
MONTREAL INT'L A	2431	*	2601
SHERBROOKE A	*	*	2941
SEPT-ILES A	3245	3409	3468
MONT JOLI A	2875	2955	3040
BAGOTVILLE A	3073	3281	3328
VAL D'OR A	*	3736	3527
New Brunswick			
FREDERICTON A	*	2654	2684
MONCTON A	2477	2657	2622
SAINST JOHN A	*	2611	2599
Nova Scotia			
GREENWOOD A	2148	2272	2302
YARMOUTH A	2108	2097	2140
Prince Edward Island			
CHARLOTTETOWN A	2370	2459	2474
Newfoundland			
GANDER INT'L A	2574	2693	2706
ST JOHN'S A	*	2509	2482
GOOSE A	3441	3553	3717



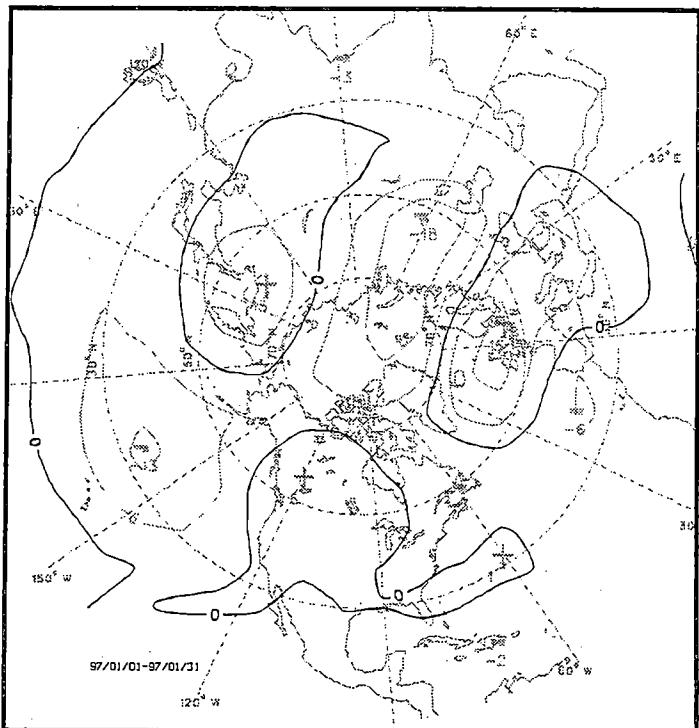


50-kPa ATMOSPHERIC CIRCULATION

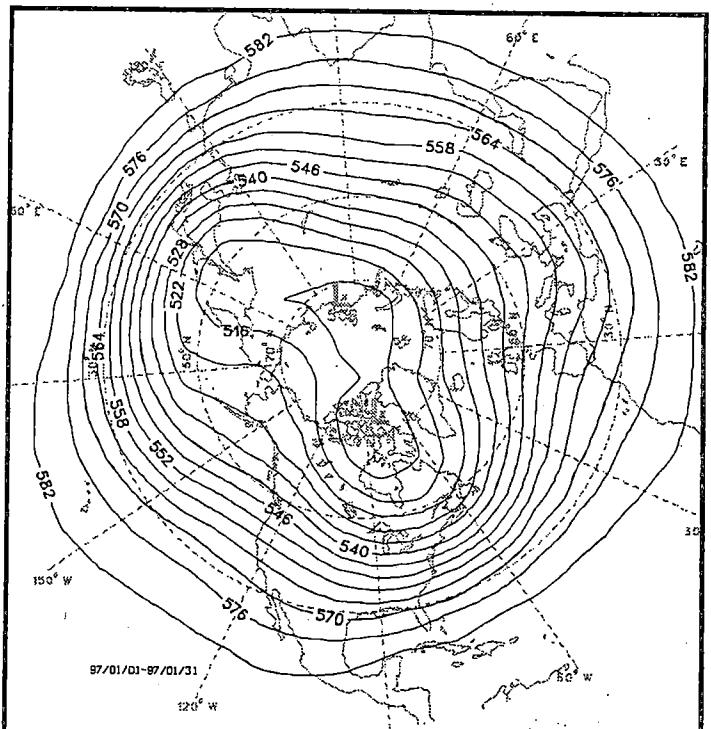
January 1997



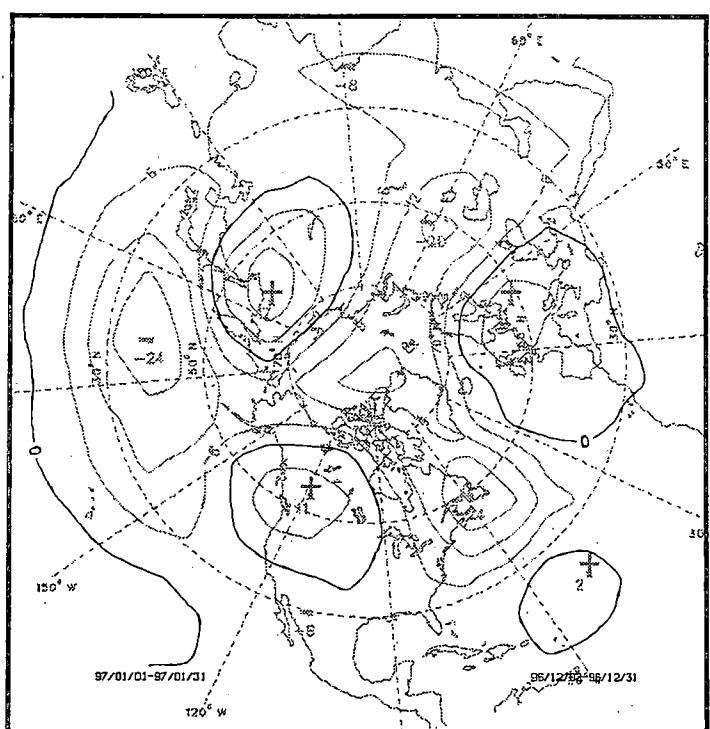
Mean geopotential heights
6-decametre interval



Mean geopotential height anomaly
6-decametre interval



Normal geopotential heights for the month
6-decametre interval



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

January 1997

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STATION	Temperature C				% 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								
ALBERTA												
BROOKS	-15.4	-2.9	16.5	-39.2								
CALGARY INT'L A	-12.5		10.2	-39.7	35.0	194	18.5	152	12	9	6	944.1
CARDSTON	-8.5		11.7	-32.1			13.0		1			820.5
CLARESHOLM	-11.6		11.1	-36.6								918.3
COLD LAKE A	-20.3	-3.1	2.8	-43.2	30.2	134	26.0	134	40	6	124	1186.5
CORONATION	-19.7		4.5	-40.4								
EDMONTON INT'L A	-16.6	-2.4	6.5	-42.2	14.7	57	13.8	60	38	3	112	1072.5
EDMONTON MUNICIPAL	-15.1	-2.6	6.5	-36.5			4.5	19	1			1027.1
EDMONTON STONY PLA	-14.8	-2.5	8.6	-37.9								1016.7
EDSON	-14.9		9.1	-44.2								1021.4
FORT CHIPEWYAN A	-23.9	0.3	-0.3	-44.2			18.0	88	6			1300.1
FORT McMURRAY A	-21.2	-1.4	4.4	-40.9			15.5	76	9			1215.0
HIGH LEVEL A	-23.8	-2.4	4.8	-44.3	23.8	86	19.7	86	34	5	81	1296.4
LAC LA BICHE	-19.3		4.5	-41.8								
LACOMBE CDA 2	-14.5		7.7	-42.2								
LETHBRIDGE A	-11.1	-2.7	8.6	-41.9			24.5	121	21	6		902.5
LETHBRIDGE CDA	-10.8	-2.2	10.5	-38.9								892.9
LLOYDMINSTER A	-19.5		5.3	-39.6								1163.2
MEDICINE HAT A	-14.3	-3.6	7.0	-36.8								1000.7
PEACE RIVER A	-20.1	-2.6	5.6	-43.5	19.8	75	22.7	100	45	9		1180.5
PINCHER CREEK	-9.4		7.3	-35.8			5.3		25	1		850.3
RED DEER A	-16.7	-3.2	8.7	-43.7								1075.8
ROCKY MTN HOUSE	-16.2		10.5	-45.3								
SLAVE LAKE	-18.4		7.5	-38.2								1129.8
VEGREVILLE AEC	-18.5		7.8	-43.2								
WHITECOURT A	-14.9		7.9	-40.6	21.7		19.9		42	7		1019.2
SASKATCHEWAN												
BROADVIEW	-19.6	-2.4	5.2	-42.2								1164.5
COLLINS BAY	-25.9		-4.1	-37.2			0.0		0			1360.8
CORONACH SPC	-17.8		5.5	-37.8								
ESTEVAN A	-19.7	-4.9	3.8	-38.4	13.6	63			27		125	108
HUDSON BAY	-22.3		0.9	-39.6			23.5		5			1249.8
INDIAN HEAD CDA	-20.2	-3.8	3.8	-42.8								1185.5
KINDERSLEY A	-19.3		4.7	-39.4	10.6	94			20	6		1157.7
LA RONGE A	-23.0	-2.1	1.5	-37.8	33.4	157	33.6	178	54	8		1271.8
MEADOW LAKE A	-21.9		3.0	-47.0								1236.0
MOOSE JAW A	-17.2	-3.0	5.5	-38.6	26.6	117	21.8	123	32	5	121	1091.1
NIPAWIN A	-22.9		2.2	-41.4								1268.8
NORTH BATTLEFORD A	-21.0	-3.6	4.8	-43.1			38.4	14.0	76	4		1207.5
PRINCE ALBERT A												
REGINA A	-22.6		-2.8				3.0	-43.9	36.0	208		36
SASKATOON A	-20.1		-3.6				3.5	-40.1				1257.6
STONY RAPIDS A	-26.9		-3.6				3.1	-43.3	52.8			1182.2
SWIFT CURRENT A												
SWIFT CURRENT CDA	-16.2		-3.2				6.2	-36.9				1210.7
WYNYYARD	-16.5		-3.7				5.7	-36.9				1392.8
YORKTON A	-20.4		-2.4				3.4	-40.0	23.7	102	17.6	1059.0
MANITOBA												
BRANDON A	-20.8		-2.4				1.2	-38.3				1203.6
CHURCHILL A	-27.7		-0.8				12.5	-39.9				1202.7
DAUPHIN A	-20.2		-2.2				4.1	-33.8				1183.9
GILLAM A	-26.3		-0.6				7.9	-41.1				1373.1
GRAND RAPIDS												
GIMLI INDUSTRIAL PA	-20.3		0.9				0.9	-37.3				1186.8
ISLAND LAKE A	-23.1		-0.4				0.4	-38.0				
LYNN LAKE A	-24.1		-1.3				3.1	-39.0	24.6	114	43	1306.0
NORWAY HOUSE A	-25.9		-0.7				2.1	-41.1	32.1	157	30	1361.2
THE PAS A	-23.4		-1.1				0.6	-37.0	21.1			1284.2
THOMPSON A	-25.3		-0.3				2.3	-40.7	31.0	187	38	1255.3
WASAGAMING	-20.8		-1.1				0.5	-44.3	19.8	98	41	1343.6
WINNIPEG INT'L A	-20.0		-1.7				1.7	-34.4	25.0	134		1202.5
ONTARIO												
BIG TROUT LAKE READ	-25.0						7.2	-43.0				
BRITT	-14.8						4.6	-42.7				759.4
COLLINGWOOD	-6.5						10.9	-24.9				1094.7
EARLTON A	-17.3		-1.0				1.8	-40.9	86.3	160	52	16
GERALDTON A	-19.7						4.3	-40.2				1169.8
GORE BAY A	-12.1		-2.1				4.7	-35.8	65.8		70	15
HAMILTON A	-5.6		0.6				14.4	-20.9				933.9
KAPUSKASING A	-19.1		-0.6				3.2	-37.1	119.5	206		1148.7
KENORA A	-18.3		-0.5				0.4	-33.8				1126.1
LONDON A	-6.4		0.3				13.6	-20.6				
MOOSONEE	-19.9		0.6				1.6	-38.0				1029.8
MOUNT FOREST	-9.2						7.3	-27.0				842.9
MUSKOCA A	-11.4		-0.9				7.1	-37.0				
NORTH BAY A	-15.2		-2.2				4.6	-35.0	151.4	250	54	1234.7
OTTAWA MACDONALD-PETERBOROUGH A	-10.8		0.0				5.4	-29.6	105.6	213	85	19
PICKLE LAKE A	-9.2		-0.1				9.1	-28.8				
POINT PETRE	-21.8		-5.8				4.6	-37.0				
							5.3	-25.2				

January 1997

STATION	Temperature C												Temperature C												
	Mean			Difference from Normal			Mean			Difference from Normal			Mean			Difference from Normal			Mean			Difference from Normal			
	Max	Min	Normal	Max	Min	Normal	Max	Min	Normal	Max	Min	Normal	Max	Min	Normal	Max	Min	Normal	Max	Min	Normal	Max	Min	Normal	
RED LAKE A	-20.1	-0.3	1.6	-40.7	-37.3	108.7	128	22.3	68	66	45	10	15	1141.6	942.6	109.1	129	58	12	9	5	12	9	5	939.3
SAULT STE MARIE A	-12.4	-2.0	3.8	-37.3																					
SIOUX LOOKOUT A	-18.8	0.1	-0.7	-36.9																					
SUDBURY A	-16.1	-2.6	2.7	-34.8																					
THUNDER BAY A	-15.1	-0.1	1.8	-33.7																					
TIMMINS A	-18.5	-1.3	-3.5	-36.9	97.4	150	95.1	174	94	18															
TORONTO ISLAND A	-4.7	-0.1	8.5	-21.9																					
TORONTO LESTER B. P.	-6.4	0.3	10.1	-24.6	48.8	151	64.6	142	9	14															
TRENTON A	-7.8	-0.1	9.4	-26.8																					
WATERLOO WELLINGTON	-7.1	0.2	10.4	-23.5	73.1	183	94.9	175	25	19															
WAWA A	-14.9																								
WIARTON A	-7.6	-0.5	10.4	-24.1	186.6	161	99.8		130	27	15														
WINDSOR A	-5.0	0.0	15.1	-19.7																					
QUEBEC																									
BAGOTVILLE A	-15.4	0.4	4.8	-34.6	146.8	220	104.4	177	93	19															
BAIE COMEAU A	-13.5	0.5	1.3	-33.3																					
BLANC SABLON A	-11.4		3.8	-27.9																					
CHIBOUGAMAU	-19.6		-3.5	-41.9																					
GASPE A	-11.1		6.5	-27.9	75.7		101.5		22	10															
ILES DE LA MADELEINE	-5.3		7.1	-16.3																					
JONQUIERE	-15.2		4.6	-35.2																					
KUUJUUAQ A	-20.7	2.8	-0.1	-37.1	50.0	131	50.0	134	15	15															
KUUJUUAQAPIK A	-22.9	-0.1	0.5	-37.9	10.8	36	10.8	38	38	5															
L'ASSOMPTION COA	-11.2	0.7	6.1	-34.7																					
LA GRANDE RIVIERE A	-22.7	-0.2	-0.2	-38.8	26.6																				
LAC FON	-18.1		0.0	-39.0																					
MANIWAKI	-13.5		4.1	-34.6																					
MATAGAMI	-19.7		-3.7	-42.7																					
MONT JOLI A	-11.8	0.1	4.0	-30.1	133.1	160	120.5	150	26	20	14														
MONTREAL/DORVAL INT	-10.4	-0.1	6.7	-28.8																					
NATASHQUAN A	-11.7	1.2	4.2	-28.0																					
NORMANDIN	-18.5		2.0	-44.3																					
QUEBEC CS	-12.4		5.1	-33.2																					
ROBERVAL A	-17.0	-1.1	1.8	-36.1	142.6	225	142.0	229	16	16	78														
SEPT-ILES A	-14.5	0.1	2.9	-32.7	113.0	125	135.8	156	70	12															
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