



# Climatic Perspectives

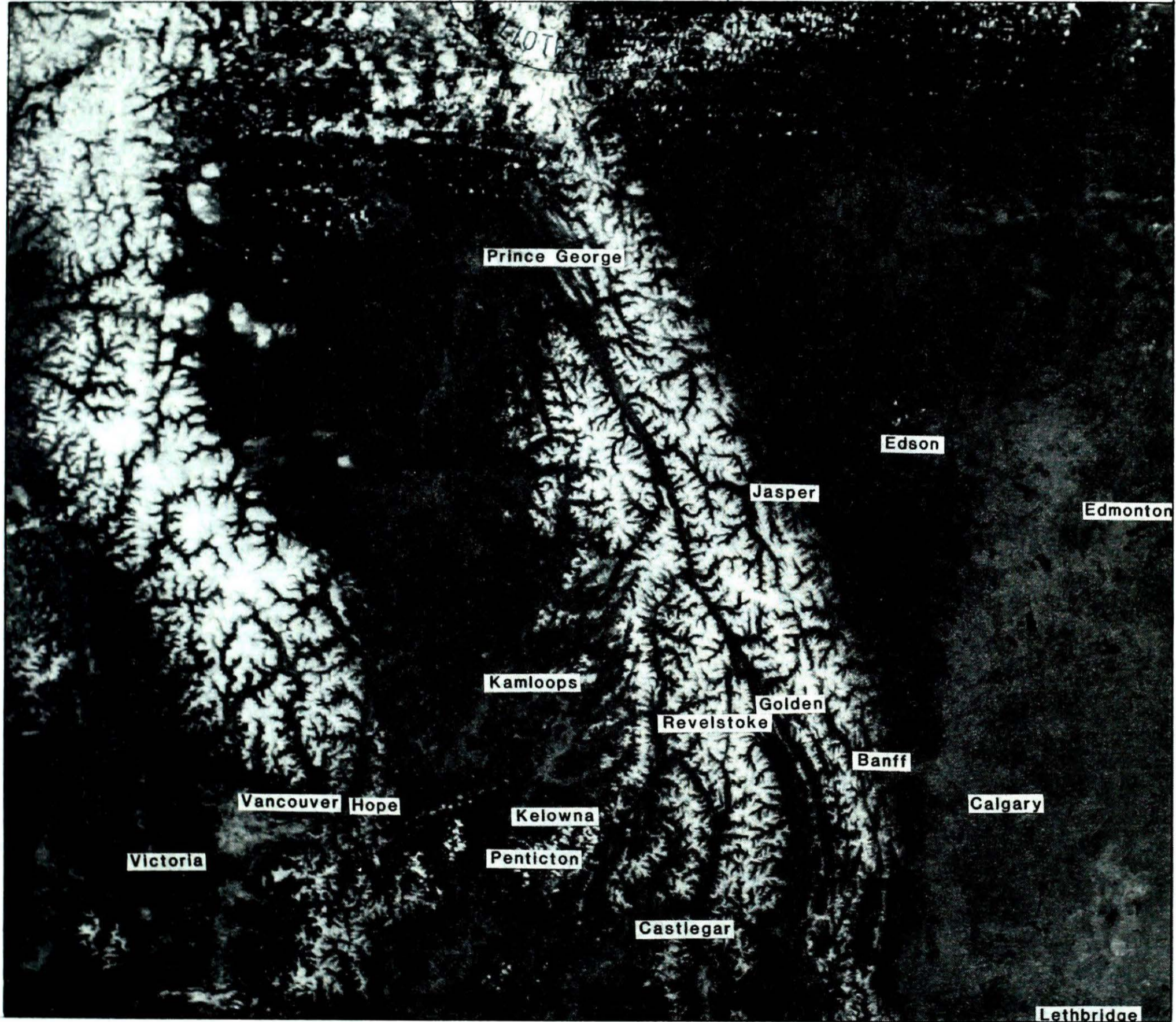
MONTHLY SUPPLEMENT INCLUDED

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A weekly review of Canadian climate

May 5 to 11, 1987

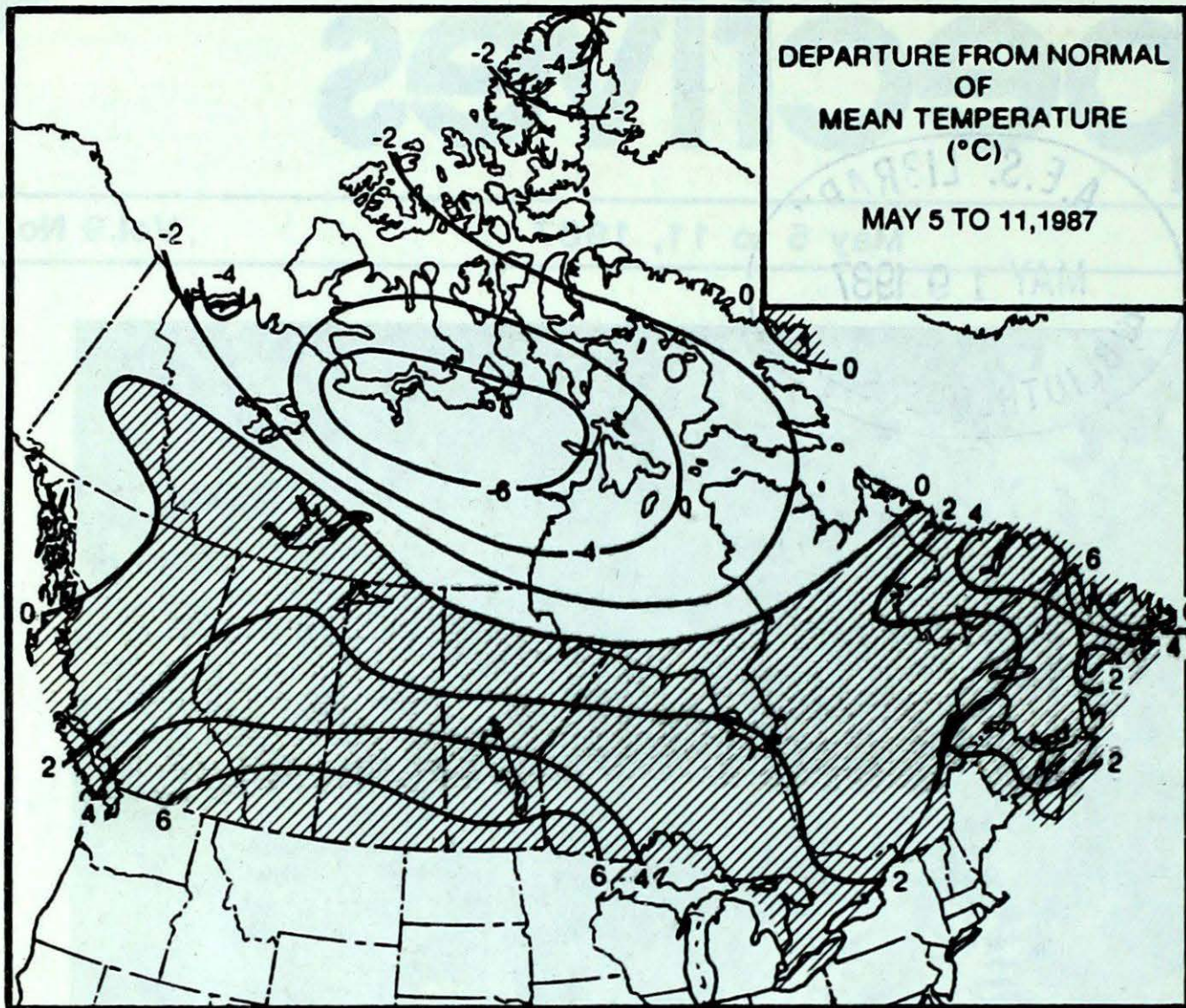
Vol.9 No.19



This NOAA 9 photograph of May 7, 1987, shows the snow pack covering the Coastal and Rocky mountain ranges. In general, amounts as of May 1, were 10 to 25 percent above normal in northern B.C., while the vast majority of areas in the southern half of the province had a snow pack water equivalent that was below normal. In the Kootenays and the Okanagan, the pack is only 60% of normal. This diminishes the chance of flooding in the lower valleys, when the mountain snowmelt begins later this month.

**Warm, dry weather worsens forest fire hazard  
across the country**  
**High temperature records set in most provinces**

# TEMPERATURE



## ACROSS THE COUNTRY...

### Yukon and Northwest Territories

In sharp contrast to the warmer than usual weather all across southern Canada, the temperatures in the Territories were generally colder than normal, particularly in the central Keewatin. However, a continuation of the mild weather in the Yukon resulted in the river ice breaking up on the 9th of May at Dawson which was close to the normal break-up date. A low pressure system moved north from Quebec over Baffin Island on the 8th, producing significant snowfalls and blizzard conditions. Some communities received up to 40 cm of snow.

### British Columbia

A well-established upper ridge brought warm, dry conditions to most of the province except the north coast which took the brunt of Pacific weather systems being diverted northward. Temperatures and sunshine amounts were well above normal, particularly in the southern interior and on the south coast where several daily maximum temperature records were set. Despite the heavy rain of the previous week, the hot, dry weather created a forest fire hazard in the southern interior as well as in the northeastern parts of the province.

### Prairies

It was sunny, warm and dry across all prairie provinces. Many daily maximum temperature records were set with the mercury climbing above 30°C in all three provinces. These conditions have aggravated the forest fire situation. A forest fire at Wallace Lake in eastern Manitoba was fanned by strong winds and high temperatures on the 8th, causing the destruction of approximately 70 cottages. One of the worst forest fires in Saskatchewan in 30 years is burning north of Prince Albert. The fine weather has benefited seeding operations in the agricultural sector.

## WEEKLY TEMPERATURE EXTREME (C)

	MAXIMUM	MINIMUM
BRITISH COLUMBIA	LYTTON 34	DEASE LAKE -4
YUKON TERRITORY	DAWSON 15	KOMAKUK BEACH A -19
NORTHWEST TERRITORIES	FORT SMITH 23	GLADMAN POINT A -28
ALBERTA	FORT MCMURRAY 31	EDSON -2
SASKATCHEWAN	BROADVIEW 32	COLLINS BAY -5
MANITOBA	DAUPHIN 34	CHURCHILL -12
ONTARIO	KENORA 31	NAGAGAMI -6
QUEBEC	MANIWAKI 25	INUKJUAK -11
NEW BRUNSWICK	FREDERICTON 26	ST STEPHEN -2
NOVA SCOTIA	GREENWOOD 26	SYDNEY -1
PRINCE EDWARD ISLAND	SUMMERSIDE 23	CHARLOTTETOWN -1
NEWFOUNDLAND	GOOSE 25	WABUSH LAKE -9

## ACROSS THE NATION

WARMEST MEAN TEMPERATURE	19	LYTTON	BC
COOLEST MEAN TEMPERATURE	-18	ALERT	NWT

# PRECIPITATION

## Ontario

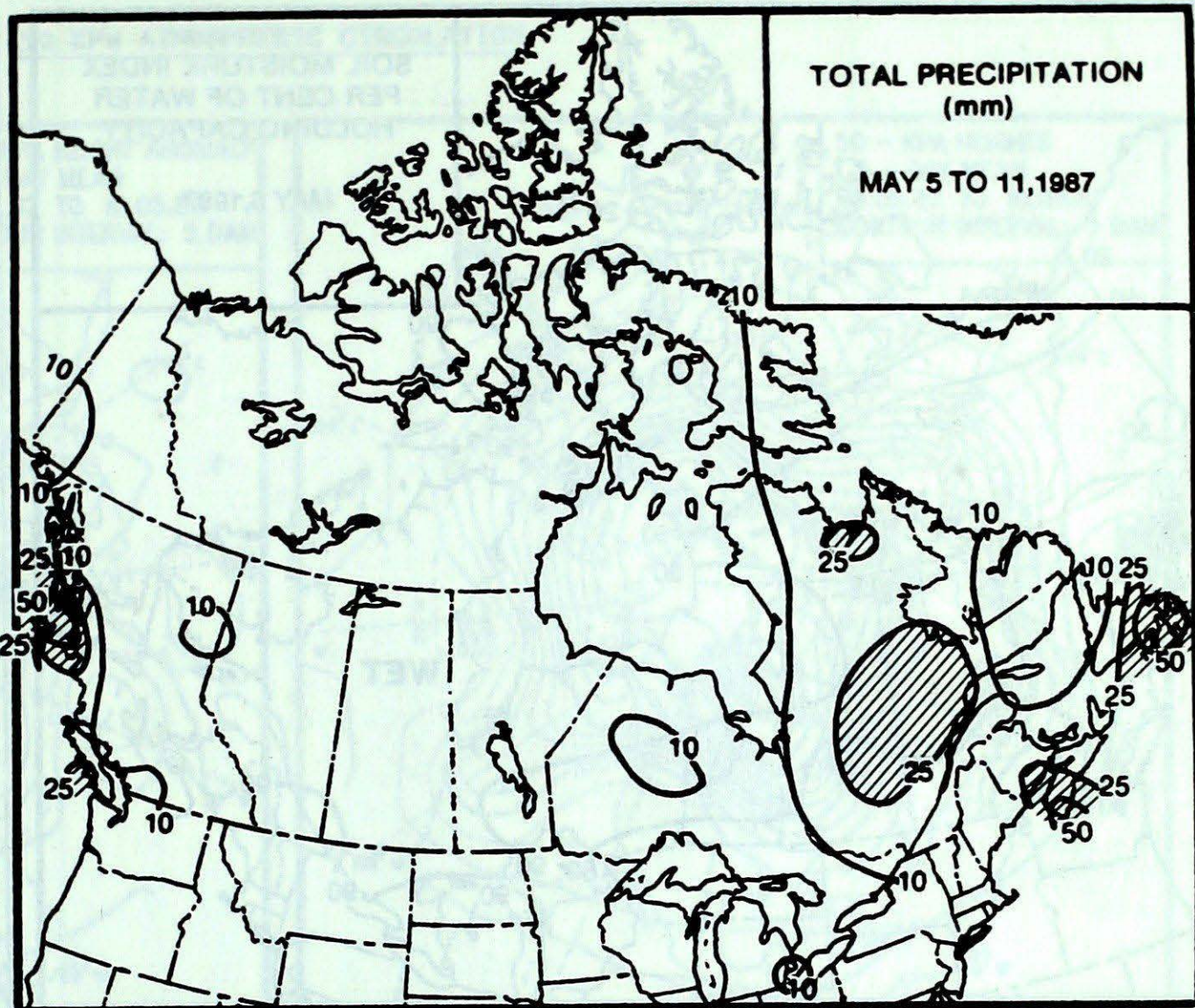
Very dry weather with above normal temperatures has worsened the forest fire situation in the province, particularly in the central and western regions. Lightning strikes and sparks from heavy machinery are a big concern. More than one thousand forestry workers have been laid off due to ministry orders restricting work only during the cooler morning hours. Agricultural regions in the south are badly in need of rain. Sarnia, for example, has only received 0.2 mm of rain so far this month. Great Lakes water levels have dropped significantly from the record levels of last October.

## Quebec

A typical mixture of spring weather occurred across the province. Daily high temperature records were set in the north early in the week which was followed by a cold outbreak resulting in some low temperatures records in the Saguenay-Lake St. John region. The generally warm, dry conditions increased the forest fire hazard in southern and central regions. The number of fires and area burned so far this year has been double the average over the past five years. Pea-sized hail, fell at both Mirabel and Ottawa airports during the morning of the 11th, but no major damage was reported.

## Atlantic

In the Maritimes, the week started out with rain, however a significant amount of sunshine and warm temperatures were recorded during the second half of the period. The ice conditions in the Northumberland Strait have improved and the seasonal ferry service between Caribou, N.S. and Wood Island, P.E.I. began on the 7th. There has been a delay in the commencement of lobster fishing along the north shore of P.E.I. because of ice conditions. In Newfoundland and Labrador, the week's weather was variable but warm, with many daily temperature records being set throughout the week.



## HEAVIEST WEEKLY PRECIPITATION (mm)

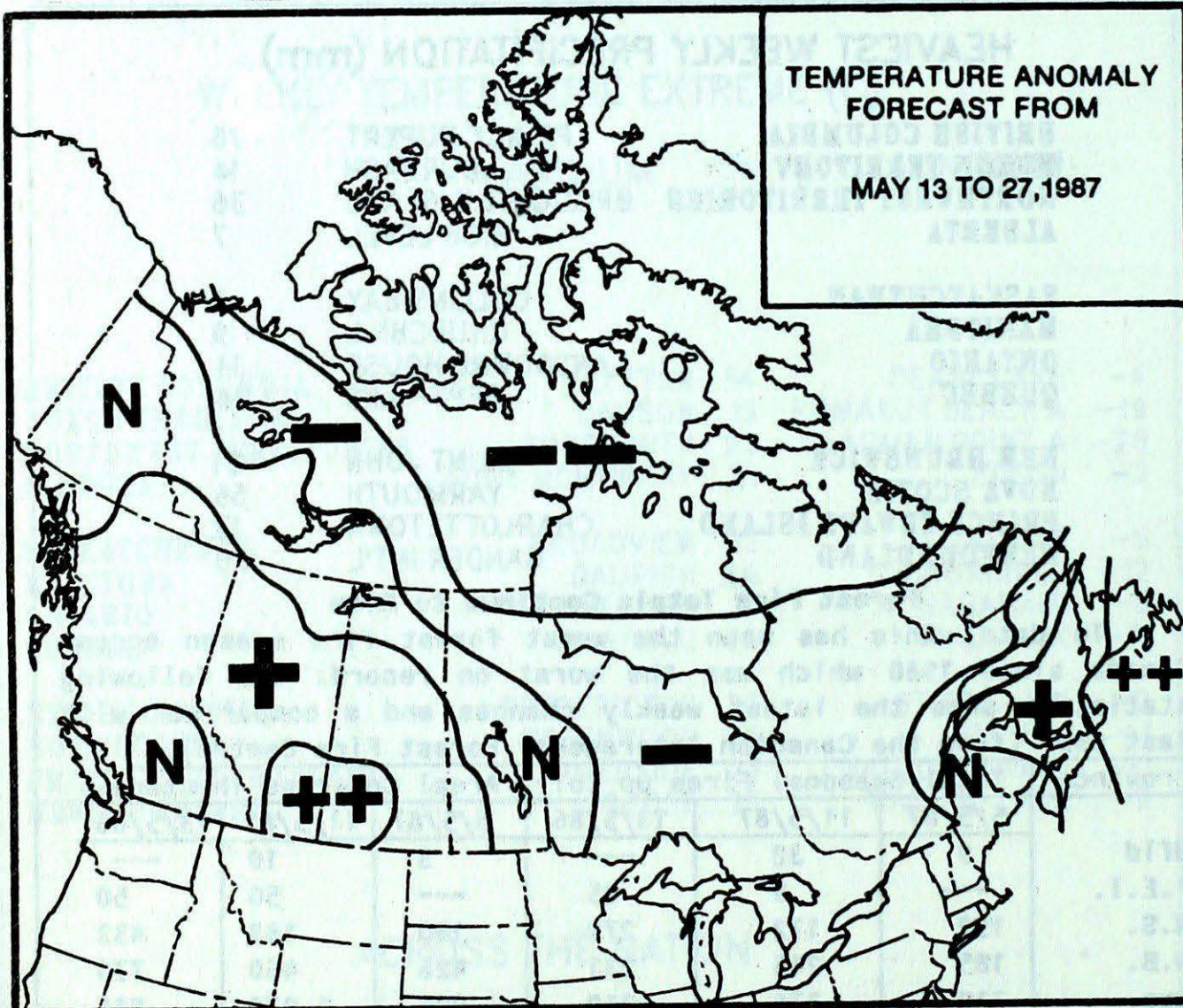
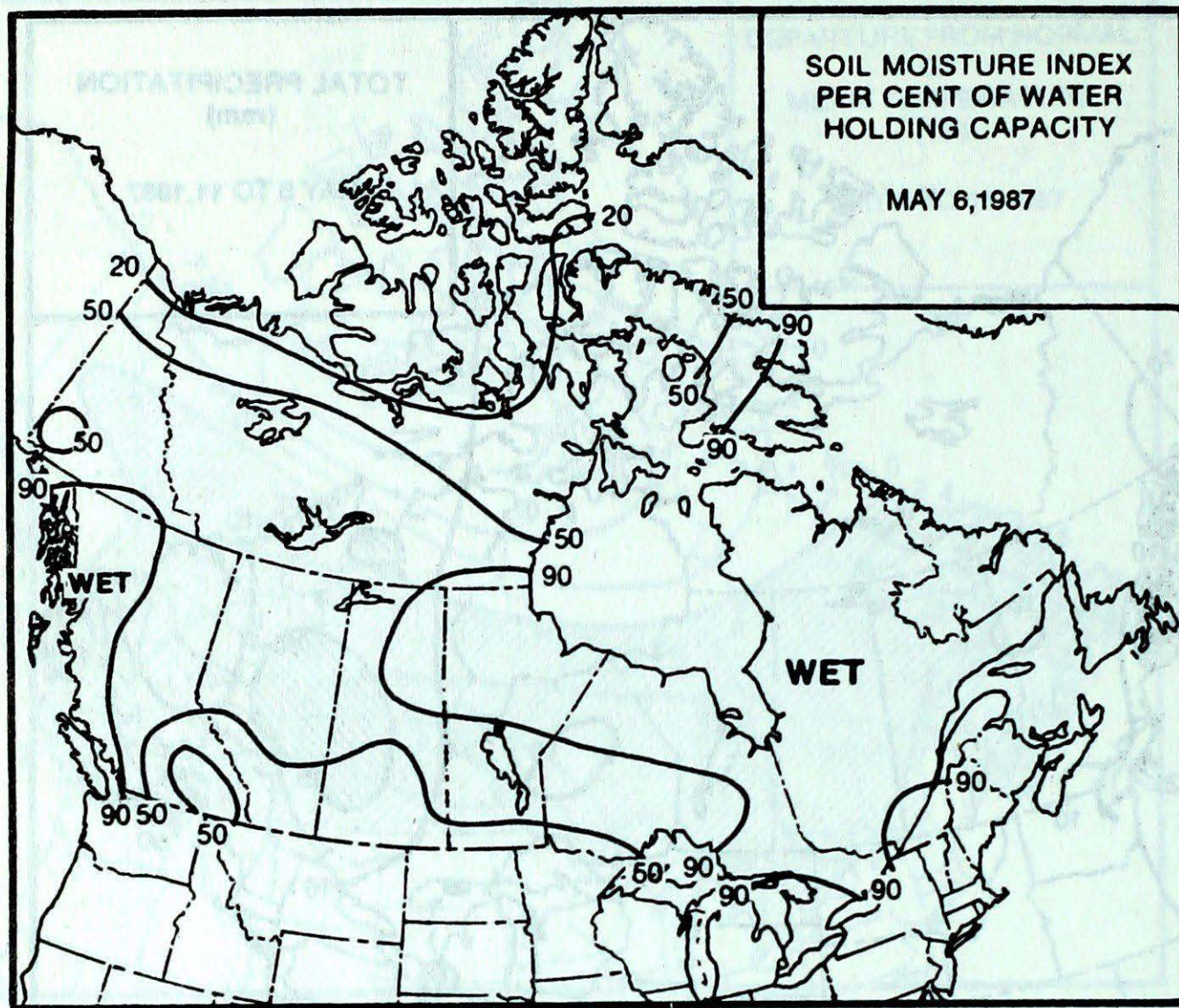
BRITISH COLUMBIA	PRINCE RUPERT	76
YUKON TERRITORY	BURWASH	14
NORTHWEST TERRITORIES	BROUGHTON ISLAND	36
ALBERTA	HIGH LEVEL	7
SASKATCHEWAN	COLLINS BAY	9
MANITOBA	CHURCHILL	9
ONTARIO	LANSDOWNE HOUSE	14
QUEBEC	SEPT-ILES	34
NEW BRUNSWICK	SAINT JOHN	31
NOVA SCOTIA	YARMOUTH	55
PRINCE EDWARD ISLAND	CHARLOTTETOWN	12
NEWFOUNDLAND	GANDER INT'L	50

### Forest Fire Totals Continue to Rise

To date, this has been the worst forest fire season across Canada since 1980 which was the worst on record. The following statistics show the latest weekly changes and a comparison with last year (from the Canadian Interagency Forest Fire Centre).

Province	Total Seasonal Fires up to:			Areal Coverage (hectares)		
	5/5/87	11/5/87	13/5/86	5/5/87	11/5/87	13/5/86
Nfld	9	32	---	3	10	---
P.E.I.	---	9	25	---	50	50
N.S.	159	172	272	180	183	433
N.B.	185	215	231	426	460	776
Que.	310	378	319	905	1,070	876
Ont.	430	615	314	3,710	12,013	722
Man.	88	161	3	3,487	34,475	25
Sask.	74	132	37	1,190	70,171	3,001
Alta.	178	256	61	4,920	23,798	204
B.C.	238	262	122	3,180	3,192	757
N.W.T.	3	8	---	1	12	---
Y.T.	4	5	0	3	4	0

# FORECAST



**Temperature Anomaly Forecast**

This forecast is prepared by searching historical weather maps to find cases similar to the present. The historical outcome during the 15 days subsequent to the chosen analogues is assumed to be a forecast for the next 15 days from now.

++ much above normal  
+ above normal  
N normal  
- below normal  
-- much below normal

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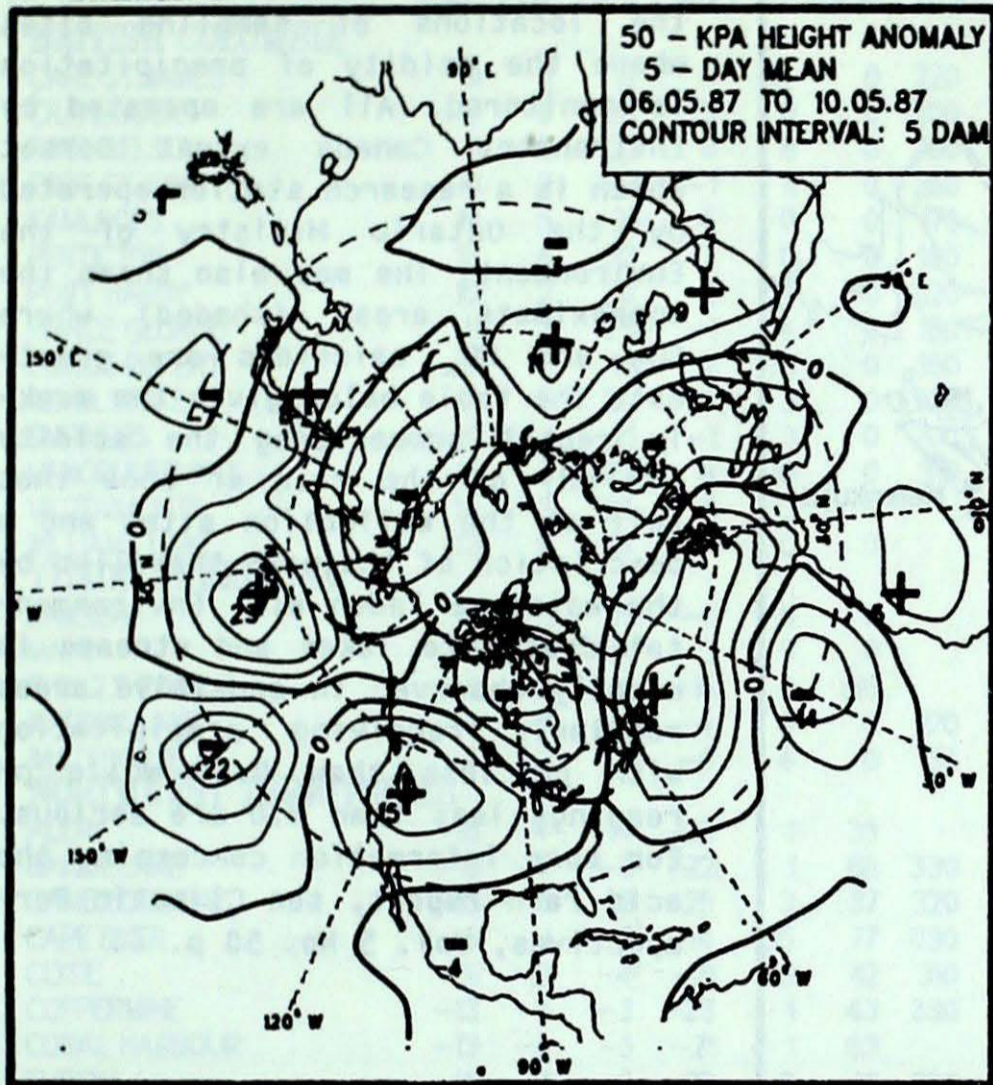
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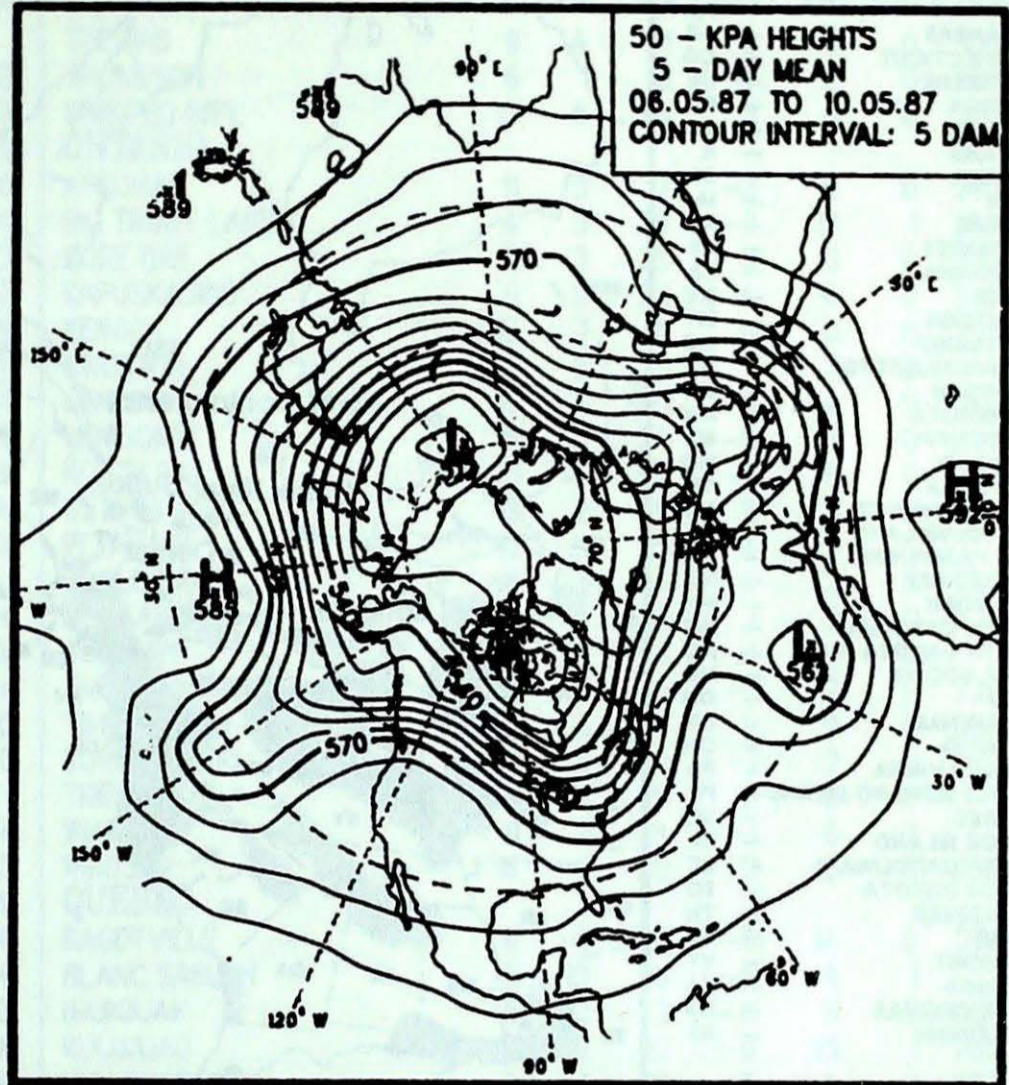
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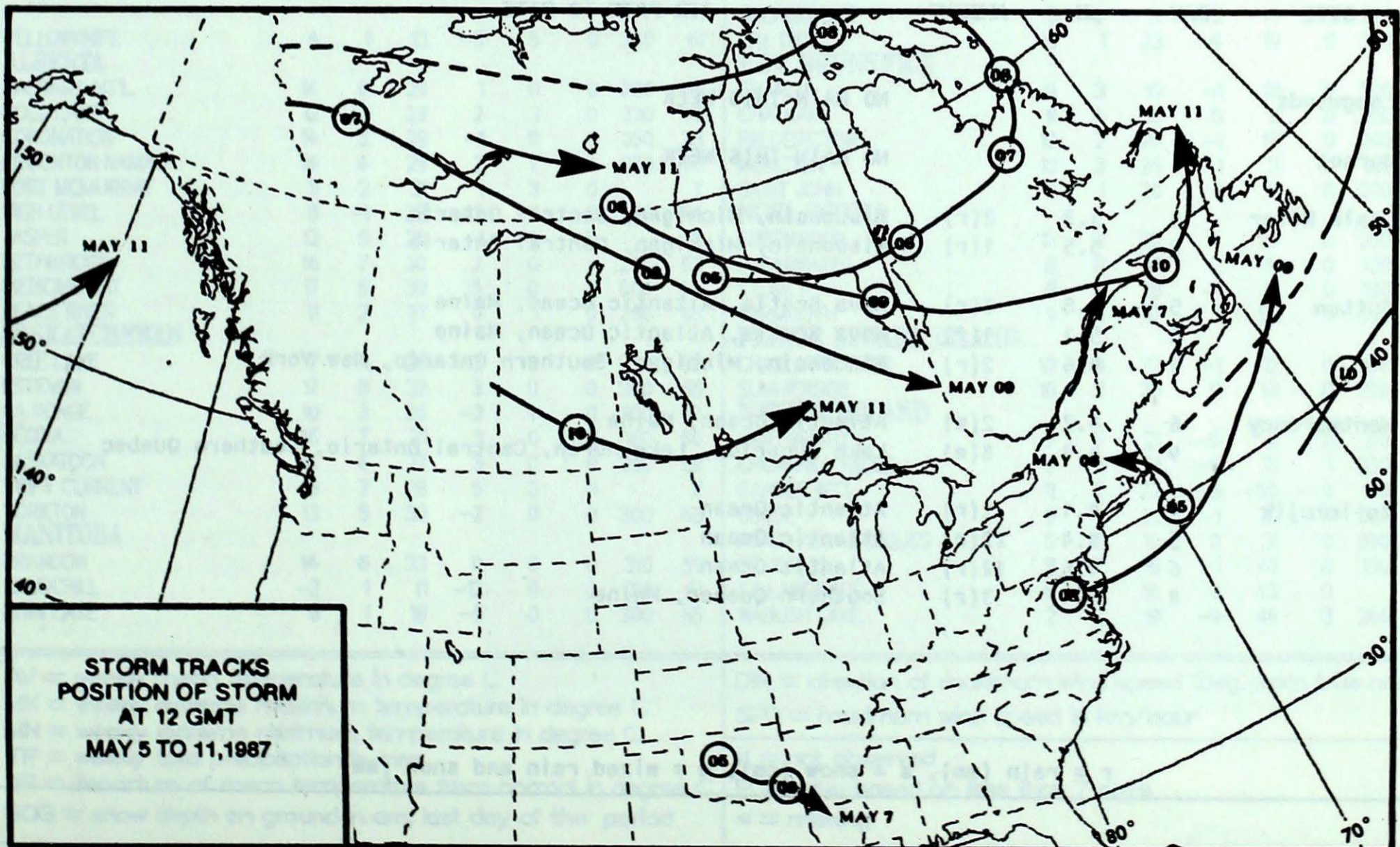
50 KPa ATMOSPHERIC CIRCULATION



MEAN 50 KPa HEIGHT ANOMALY (dam)  
May 6 to 10, 1987

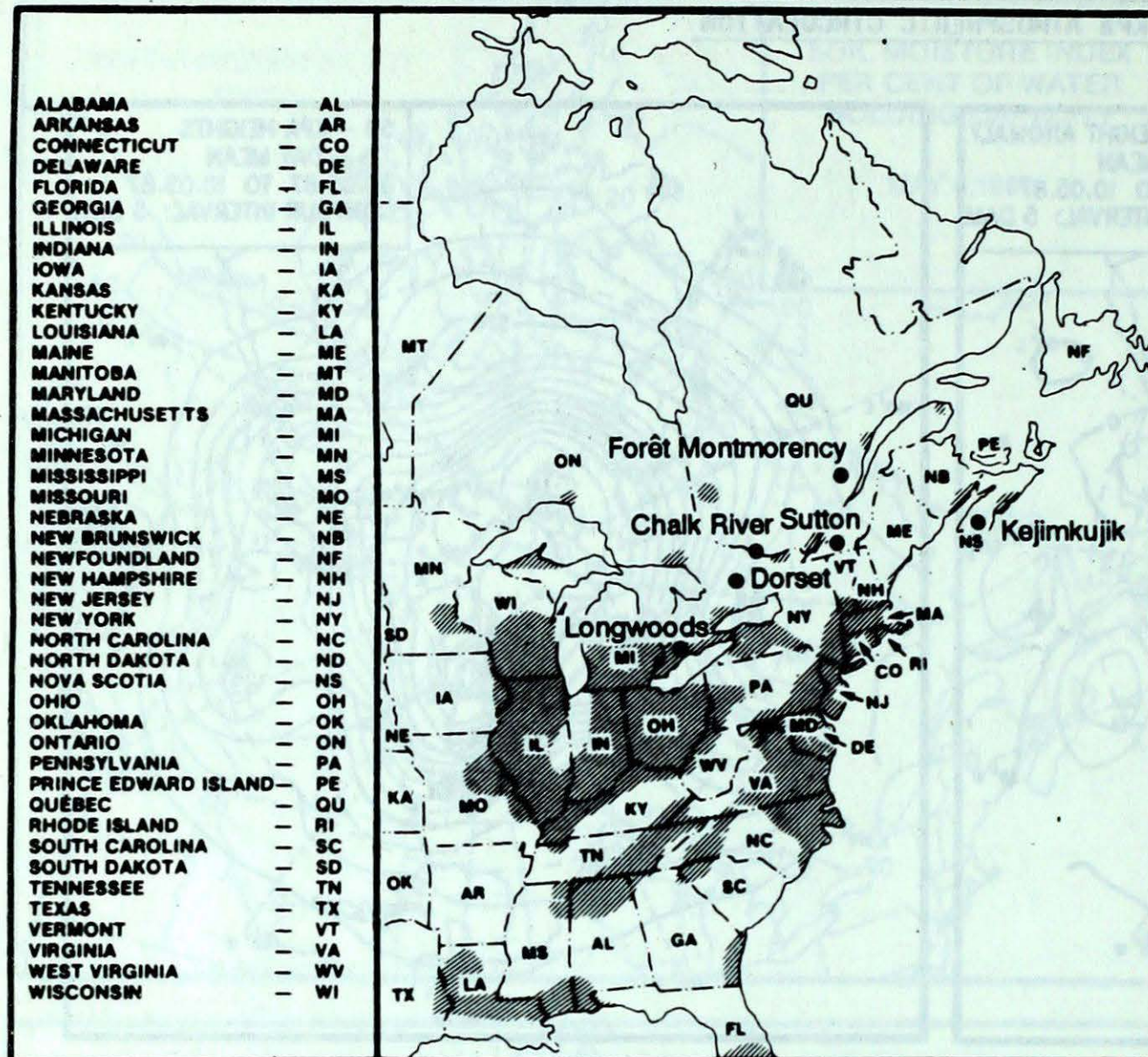


MEAN 50 KPa HEIGHTS (dam)  
May 6 to 10, 1987



## ACID RAIN

## ACID RAIN REPORT



The reference map (left) shows the locations of sampling sites where the acidity of precipitation is monitored. All are operated by Environment Canada except Dorset which is a research station operated by the Ontario Ministry of the Environment. The map also shows the approximate areas (shaded) where  $\text{SO}_2$  and  $\text{NO}_x$  emissions are greatest. The table below gives the weekly report summarizing the acidity (or pH) of the rain or snow that fell at the collection sites and a description of the path travelled by the moisture laden air. Environmental damage to lakes and streams is usually observed in sensitive areas regularly receiving precipitation with pH less than 4.7, while pH readings less than 4.0 are serious. For more information concerning the acid rain report, see Climatic Perspectives, Vol. 5 No. 50 p. 6.

May 3 To May 9, 1987

SITE	DAY	pH	AMOUNT	AIR PATH TO SITE
Longwoods				NO RAIN THIS WEEK
Dorset				NO RAIN THIS WEEK
Chalk River	8	5.3	2(r)	Wisconsin, Michigan, Central Ontario
	9	5.5	1(r)	Wisconsin, Michigan, Central Ontario
Sutton	5	4.8	3(r)	Nova Scotia, Atlantic Ocean, Maine
	6	5.1	1(r)	Nova Scotia, Atlantic Ocean, Maine
	9	4.6	2(r)	Wisconsin, Michigan, Southern Ontario, New York
Montmorency	6	4.7	2(m)	Atlantic Ocean, Maine
	9	4.4	8(m)	Lake Superior, Lake Huron, Central Ontario, Southern Quebec
Kejimikujik	4	4.1	2(r)	Atlantic Ocean
	5	4.4	22(r)	Atlantic Ocean
	6	4.5	12(r)	Atlantic Ocean
	8	3.4	3(r)	Southern Quebec, Maine

r = rain (mm), s = snow (cm), m = mixed rain and snow (mm)

## STATISTICS

TEMPERATURE, PRECIPITATION AND MAXIMUM WIND DATA FOR THE WEEK ENDING 0600 GMT MAY 12, 1987

STATION	TEMPERATURE				PRECIP.		WIND MX		STATION	TEMPERATURE				PRECIP.		WIND MX	
	AV	DP	MX	MN	TP	SOG	DIR	SPD		AV	DP	MX	MN	TP	SOG	DIR	SPD
<b>BRITISH COLUMBIA</b>																	
CAPE ST JAMES	9	1	13	6	14	0	220	72	THE PAS	9	4	21	0	3	0	300	72
CRANBROOK	17	6	29	3	0	0	200	41	THOMPSON	6	1	18	-4	2	0	280	74
FORT NELSON	9	0	20	0	8	0	250	59	WINNIPEG INT'L	15	6	33	3	0	0	320	61
FORT ST JOHN	10	2	22	-1	11	0	260	70	<b>ONTARIO</b>								
KAMLOOPS	19	5	31	4	0	0	170	44	ATIKOKAN	11	5	27	-3	0	0	240	48
PENTICTON	18	6	32	7	0	0	180	43	BIG TROUT LAKE	4	3	20	-3	13	1	280	80
PORT HARDY	10	2	20	2	14	0	320	37	GORE BAY	12	3	25	0	3	0	260	69
PRINCE GEORGE	11	3	25	-1	4	0	180	59	KAPUSKASING	8	2	23	-4	4	0	340	65
PRINCE RUPERT	9	1	16	2	76	0	160	44	KENORA	15	7	31	6	0	0	250	56
REVELSTOKE	17	5	30	4	3	0	300	41	KINGSTON	13	3	21	1	2	0	X	X
SMITHERS	9	1	21	-1	3	0	200	65	LONDON	15	4	28	1	4	0	240	63
VANCOUVER INT'L	15	3	23	8	16	0	310	39	MOOSONEE	6	2	24	-5	7	0	300	59
VICTORIA INT'L	14	3	26	6	10	0		*	NORTH BAY	10	2	22	-1	8	0	240	59
WILLIAMS LAKE	13	6	27	1	0	0		X	OTTAWA INT'L	12	2	25	2	11	0	X	X
<b>YUKON TERRITORY</b>									PETAWAWA	10	1	25	-4	13	0	X	X
DAWSON	6	1	15	-4	6	0		*	PICKLE LAKE	8	3	24	-4	2	0	250	85
MAYO	6	0	14	-3	5	0		X	RED LAKE	11	5	28	1	2	0	320	61
SHINGLE POINT A	-9	-2	0	-16	0	58		*	SUDBURY	11	3	26	-1	3P	0	X	X
WATSON LAKE	4	-1	13	-4	4	0	270	50	THUNDER BAY	11	4	25	-1	2	0	330	59
WHITEHORSE	4	-1	11	-4	4	0	150	50	TIMMINS	9	3	24	-3	9	0	360	65
<b>NORTHWEST TERRITORIES</b>									TORONTO INT'L	14	3	30	-1	2	0	260	76
ALERT	-18	-4	-14	-23	1	35		*	TRENTON	13	3	26	2	2	0	X	X
BAKER LAKE	-15	-6	-8	-22	1	68	330	63	WIARTON	11	2	24	-1	6	0	X	X
CAMBRIDGE BAY	-18	-6	-8	-25	3	37	320	59	WINDSOR	16	4	30	3	13	0	280	59
CAPE DYER	-6	1	-2	-14	35	77	030	74	<b>QUEBEC</b>								
CLYDE	-11	-2	-4	-21	8	42	310	44	BAGOTVILLE	6	-1	22	-6	14	0	270	56
COPPERMINE	-13	-5	-3	-23	1	43	330	33	BLANC SABLON	5	3	16	-5	9	1	X	X
CORAL HARBOUR	-13	-5	-5	-21	1	63		X	INUKJUAQ	-6	-2	3	-11	8	49	030	46
EUREKA	-16	-2	-9	-22	0	10	290	39	KUJUAQ	-1	0	12	-9	25	1	260	85
FORT SMITH	8	2	23	-3	1	0		X	KUJUAUAPIK	0	1	19	-9	4	1	300	52
IQALUIT	-6	-2	1	-19	10	41	130	65	MANIWAKI	10	1	25	-3	10	0	300	44
HALL BEACH	-13	-3	-8	-22	3	37	290	63	MONT JOLI	8	2	20	-1	14	0	250	67
INUVIK	-5	-1	7	-15	0	43		X	MONTREAL INT'L	12	1	22	3	15	0	230	44
MOULD BAY	-17	-4	-10	-23	2	39		X	NATASHQUAN	5	2	12	-1	6	0	150	61
NORMAN WELLS	2	0	12	-7	8	1		X	QUEBEC	9	0	20	-2	13	0	290	70
RESOLUTE	-13	-1	-2	-23	6	20	020	67	SCHIEFFERVILLE	2	2	17	-10	22	2	250	63
<b>YELLOWKNIFE</b>									SEPT-ILES	6	2	16	0	34	0	090	61
	4	1	13	-3	5	0	340	61	SHERBROOKE	8	0	19	-3	14	0	290	41
<b>ALBERTA</b>									VAL D'OR	8	1	23	-4	19	0	330	72
CALGARY INT'L	14	6	29	1	0	0	280	48	<b>NEW BRUNSWICK</b>								
COLD LAKE	12	3	29	2	1	0	220	46	CHARLO	9	3	19	-1	18	0	300	54
CORONATION	14	5	29	-1	0	0	050	33	CHATHAM	11	4	26	0	11	0	260	50
EDMONTON NAMAQ	14	4	29	2	7	0	360	46	FREDERICTON	10	2	26	-1	18	0	240	54
FORT MCMURRAY	11	2	31	1	3	0		X	MONCTON	10	3	26	-1	11	0	180	63
HIGH LEVEL	8	-1	23	-2	7	0	330	46	SAINT JOHN	9	1	20	1	31	0	200	48
JASPER	12	5	26	-1	0	0		X	<b>NOVA SCOTIA</b>								
LETHBRIDGE	16	7	30	2	0	*	280	63	GREENWOOD	12	3	26	4	20	0	260	50
MEDICINE HAT	17	6	30	5	0	0	060	44	SHEARWATER	8	0	17	2	19	0	130	63
PEACE RIVER	11	2	27	0	1	0	260	65	SYDNEY	8	3	18	-1	19	0	190	67
<b>SASKATCHEWAN</b>									YARMOUTH	9	1	17	3	55	0	090	48
CREE LAKE	7	1	26	-3	3	0	330	63	<b>PRINCE EDWARD ISLAND</b>								
ESTEVAN	17	8	32	3	0	0	300	65	CHARLOTTETOWN	10	3	22	-1	12	0	190	46
LA RONGE	10	3	26	-2	4	0	300	67	SUMMERSIDE	10	3	23	0	10	0	200	61
REGINA	16	7	31	3	0	0	160	56	<b>NEWFOUNDLAND</b>								
SASKATOON	15	6	27	3	0	0	290	59	CARTWRIGHT	7	5	21	-5	3	0	170	65
SWIFT CURRENT	16	7	28	5	0	0		X	CHURCHILL FALLS	4	3	21	-4	21	1	250	65
YORKTON	13	5	30	-2	0	0	300	63	GANDER INT'L	11	7	22	-3	50	0	170	59
<b>MANITOBA</b>									GOOSE	9	5	25	-1	2P	0	160	70
BRANDON	14	6	33	0	0	0	310	59	PORT-AUX-BASQUES	5	2	10	0	21	0	090	67
CHURCHILL	-2	1	11	-12	9	2	010	61	ST JOHN'S	11	7	19	-1	45	0	190	74
LYNN LAKE	6	1	18	-5	0	0	300	65	ST LAWRENCE	6	3	16	0	43	0	X	X
									WABUSH LAKE	2	2	19	-9	49	3	260	52

AV = weekly mean temperature in degree C  
 MX = weekly extreme maximum temperature in degree C  
 MN = weekly extreme minimum temperature in degree C  
 TP = weekly total precipitation in mm  
 DP = departure of mean temperature from normal in degree C  
 SOG = snow depth on ground in cm, last day of the period

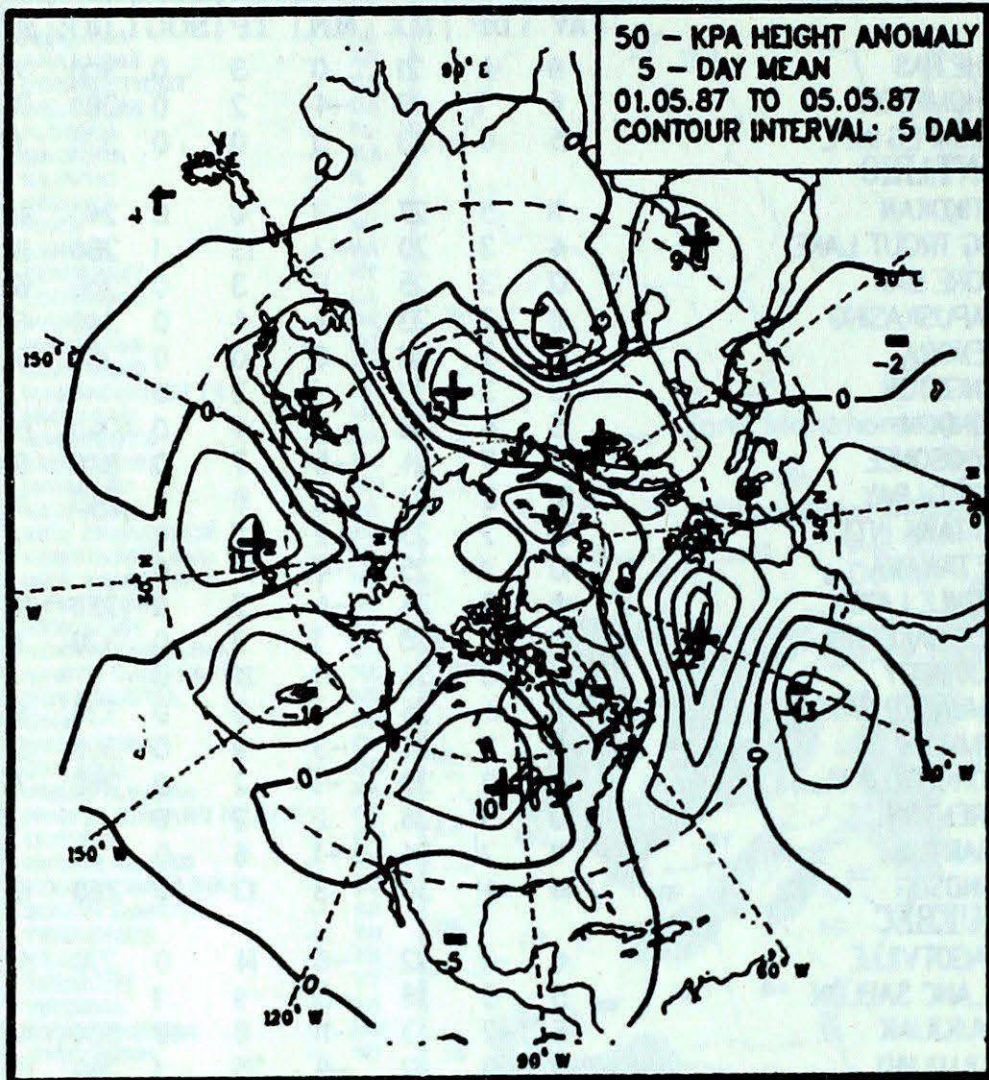
DIR = direction of maximum wind speed (deg. from true north)  
 SPD = maximum wind speed in km/hour

X = not observed  
 P = value based on less than 7 days  
 \* = missing

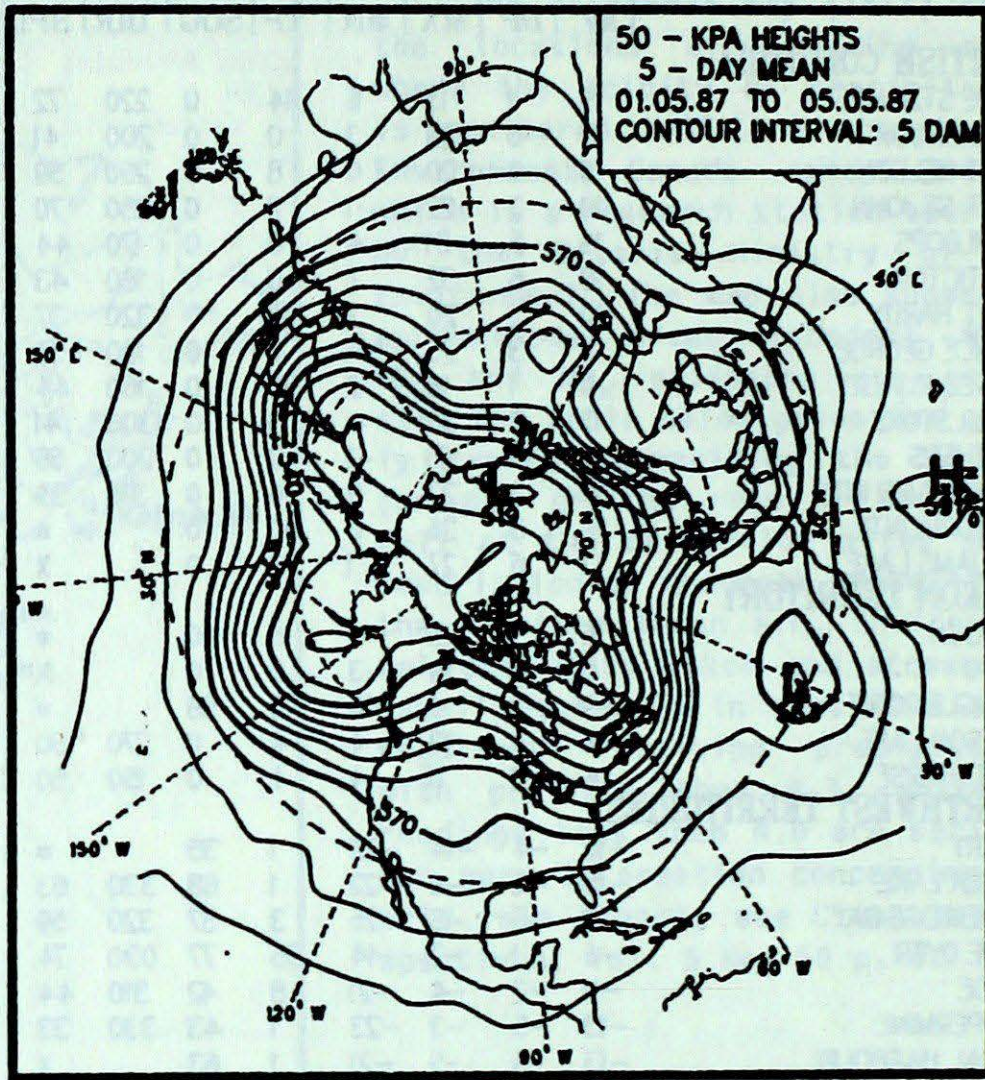
# CIRCULATION

STATISTICS

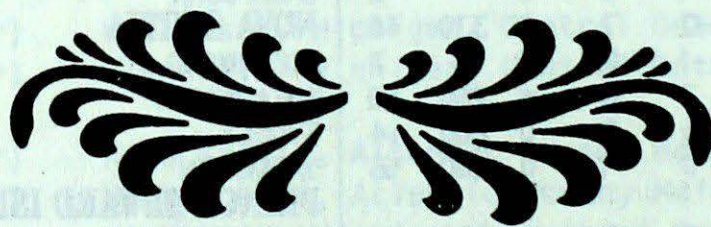
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