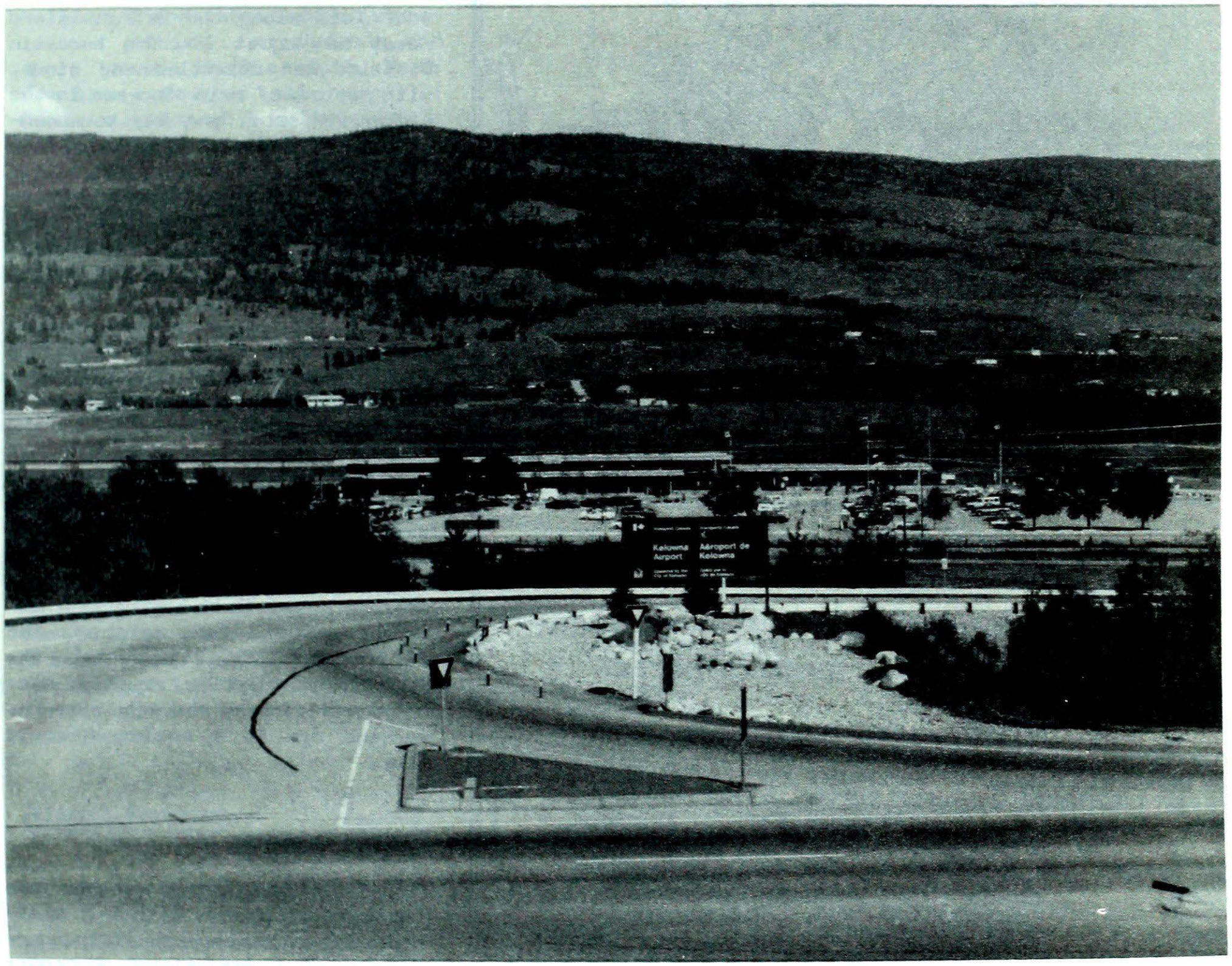
Environment Canada Environnement Canada

Climatic Perspectives

A weekly review of Canadian climate | August 5 to 11, 1986 | Vol.8 No.32

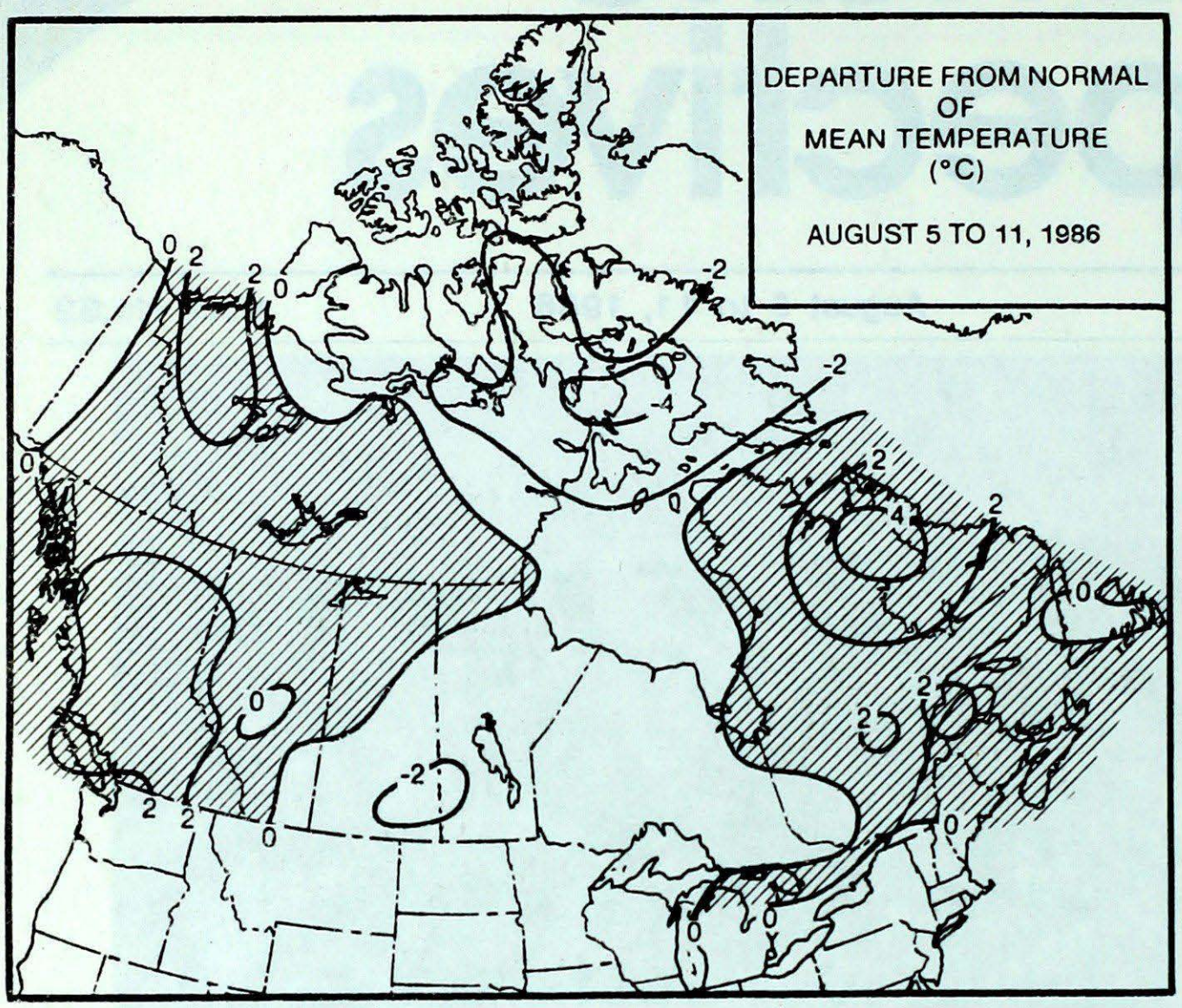


The Kelowna weather office is situated at the airport northeast of the city in the heart of the OKanagan Valley. For more information see page 3.

- ***Gale force winds and snow come early to the Eastern Arctic***
- ***Vacationers enjoy sunny, hot weather in British Columbia***
- ***Wet weather continues to plague Eastern Canada***

Canada

TEMPERATURE



WEEKLY TEMPERATURE EXTREME (C)

	MAXIMUM		MINIMUM	
BRITISH COLUMBIA	LYTTON	38	DEASE LAKE	0
YUKON TERRITORY	WATSON LAKE	27	SHELDON LAKE	-1
NORTHWEST TERRITORIES	FORT SIMPSON	31	BROUGHTON ISLAND	-6
ALBERTA	LETHBRIDGE	33	LETHBRIDGE	1
SASKATCHEWAN	ESTEVAN	30	COLLINS BAY	3
MANITOBA	GIMLI	28	THOMPSON	3
	PORTAGE LA PRAIRIE			
ONTARIO	THUNDER BAY	28	WINISK	1
QUEBEC	ROBERVAL	30	KUUJJUARAPIK	4
NEW BRUNSWICK	CHATHAM	30	ST STEPHEN	10
NOVA SCOTIA	GREENWOOD	28	SHELBURNE	9
PRINCE EDWARD ISLAND	CHARLOTTETOWN	27	CHARLOTTETOWN	13
NEWFOUNDLAND	WABUSH LAKE	26	BADGER	4

ACROSS THE NATION

WARMEST MEAN TEMPERATURE	25	LYTTON	BC
COOLEST MEAN TEMPERATURE	0	DEWAR LAKES	NWT

ACROSS THE COUNTRY...

Yukon and Northwest Territories

Brisk, unseasonably cold weather affected the eastern Arctic for most of the week. Gusts to near 100 km/h were reported at Coral Harbour and Cape Dorset. Up to 8 cm of fresh snow fell along the Baffin Island coast on August 11. The Keewatin District was unsettled and windy, with periods of rain. Showers in the Mackenzie region gave way to a sunny, hot weekend. In the Yukon, the weather was relatively pleasant; instability triggered some showers.

British Columbia

By and large it was a very pleasant week thanks to a strong atmospheric ridge of high pressure. Temperatures in some southern valleys climbed to upper 30s. In the northern portions of the province scattered afternoon showers or thundershowers developed due to daytime heating. Showers were only spotty in the south. Hours of sunshine this week were well above average - excellent haying weather. Because of the lack moisture, the fire hazard index climbed into the high range. Daytime readings near the coast dropped markedly over the weekend due to a cooler on-shore flow.

Prairie Provinces

In Alberta, the weather was predominantly sunny, with only scattered afternoon showers or thundershowers. The arrival of a cooler airmass before the weekend was heralded by increased thunderstorm activity everywhere. After the cold frontal passage over night temperature readings dropped to within a few degrees of freezing, but by the latter part of the weekend temperatures in Alberta recovered, and maximum readings reached the record thirties. Passing weather systems were more active in the eastern prairies, sometimes producing heavy thunderstorms with squalls to 96 km/h. A funnel cloud was sighted near Stoney Mountain, north of Winnipeg, on August 6.

Ontario

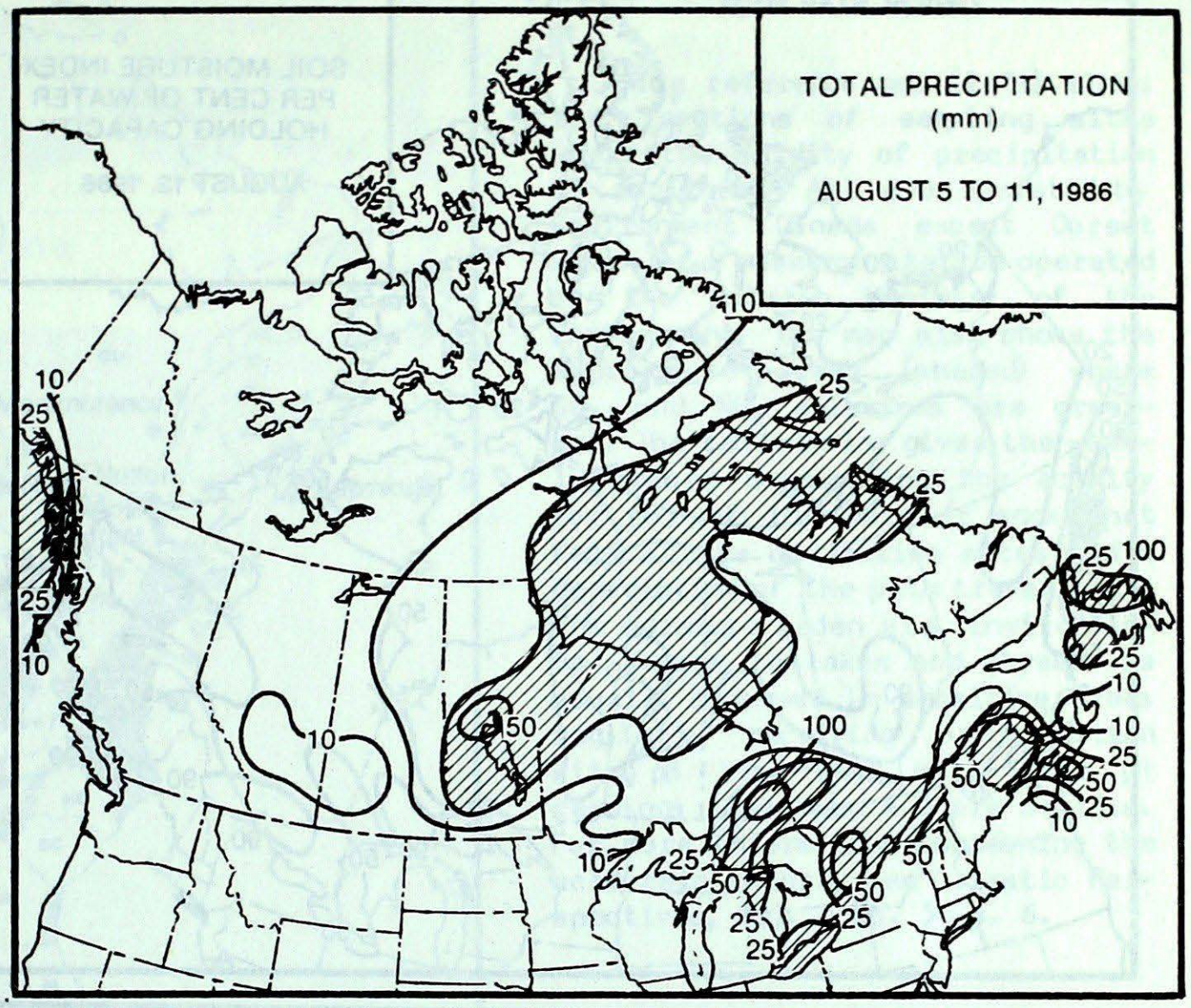
Rain dominated Ontario's weather picture, with precipitation falling on each of the seven days at many locations. Since the beginning of August, rain was recorded every day at Toronto. The unsettled conditions dampened vacation plans for holidayers and introduced moisture-related problems to vegetable and fruit growers in the south. Thunderstorms occurred all week. In Petawawa on August 6, a thunderstorm cell produced marble sized hail, with gusts to 115 km/h. On August 8 at Lucan, 25 Km north of London, multiple funnel clouds were sighted.

Quebec

It was a variable week, with rain falling almost every day in the south. There were many occurrences of thunderstorm activity; some were in the severe category, On August 5, 90 km/h winds broke branches, toppled trees and shattered windows at Val - St - Gilles, north of La Sarce. On August 8, marble sized hail was observed at Coaticook. Wind damage was also reported from Abitibi and Eastern Townships. Temperatures in the north were above normal, and new records were set at some locations.

Atlantic Provinces

In the Maritimes, sunshine gave way to cloudy skies by mid-week; scattered showers and thunderstorms developed thereafter. Temperatures dropped to more seasonal values during the latter part of the period. In Newfoundland, the week began on a pleasant note, but by the weekend showers and heavy thunderstorms affected much of the Island. The Springdale area received more than 100mm of rain during the weekend. In Labrador, cloud and occasional light showers prevailed early in the period. Fair weather with seasonal temperatures returned by mid-week. In Labrador, the forest fire potential was high because of the lack of moisture. Lightening started a blaze in eastern Labrador on Sunday.

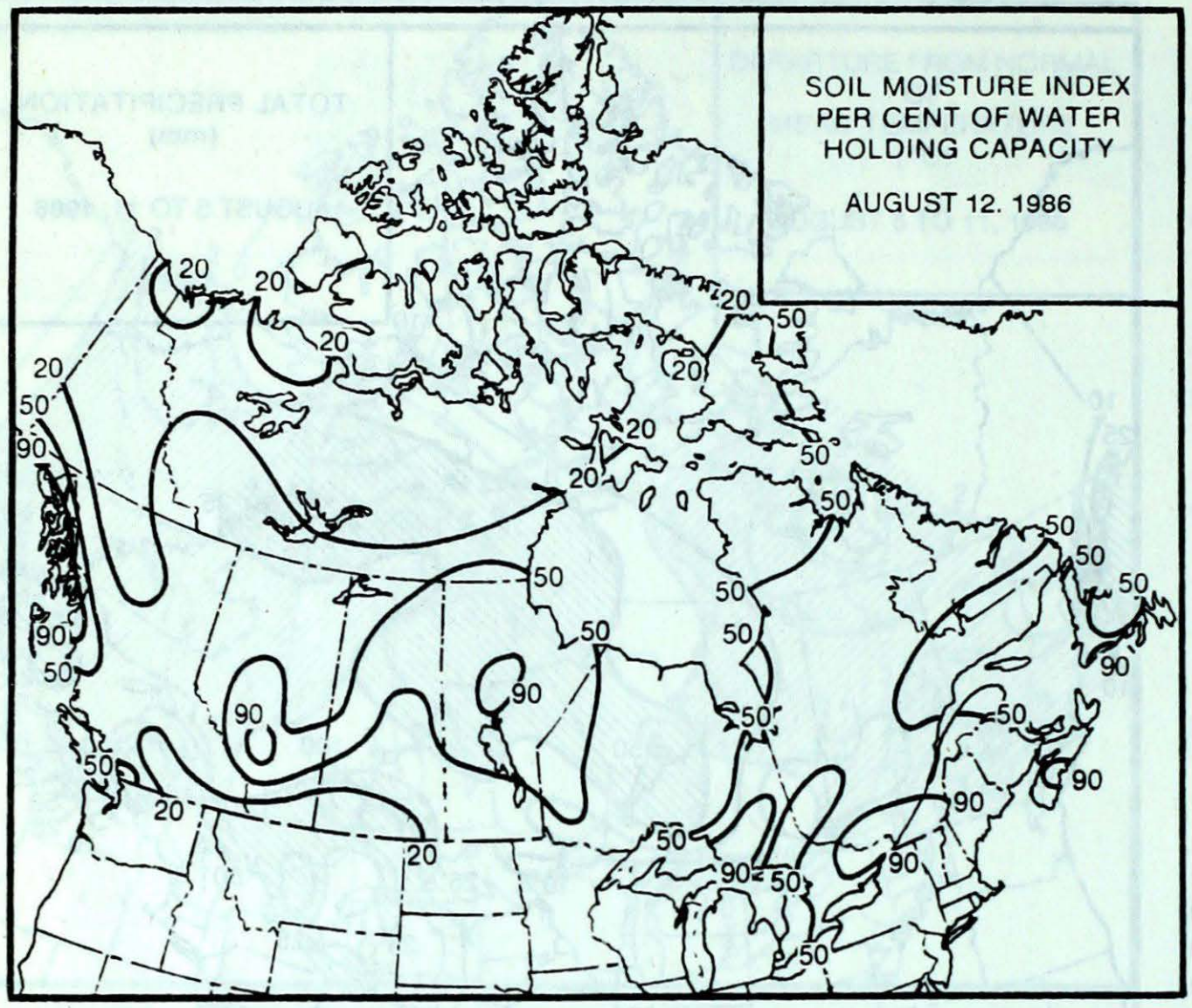


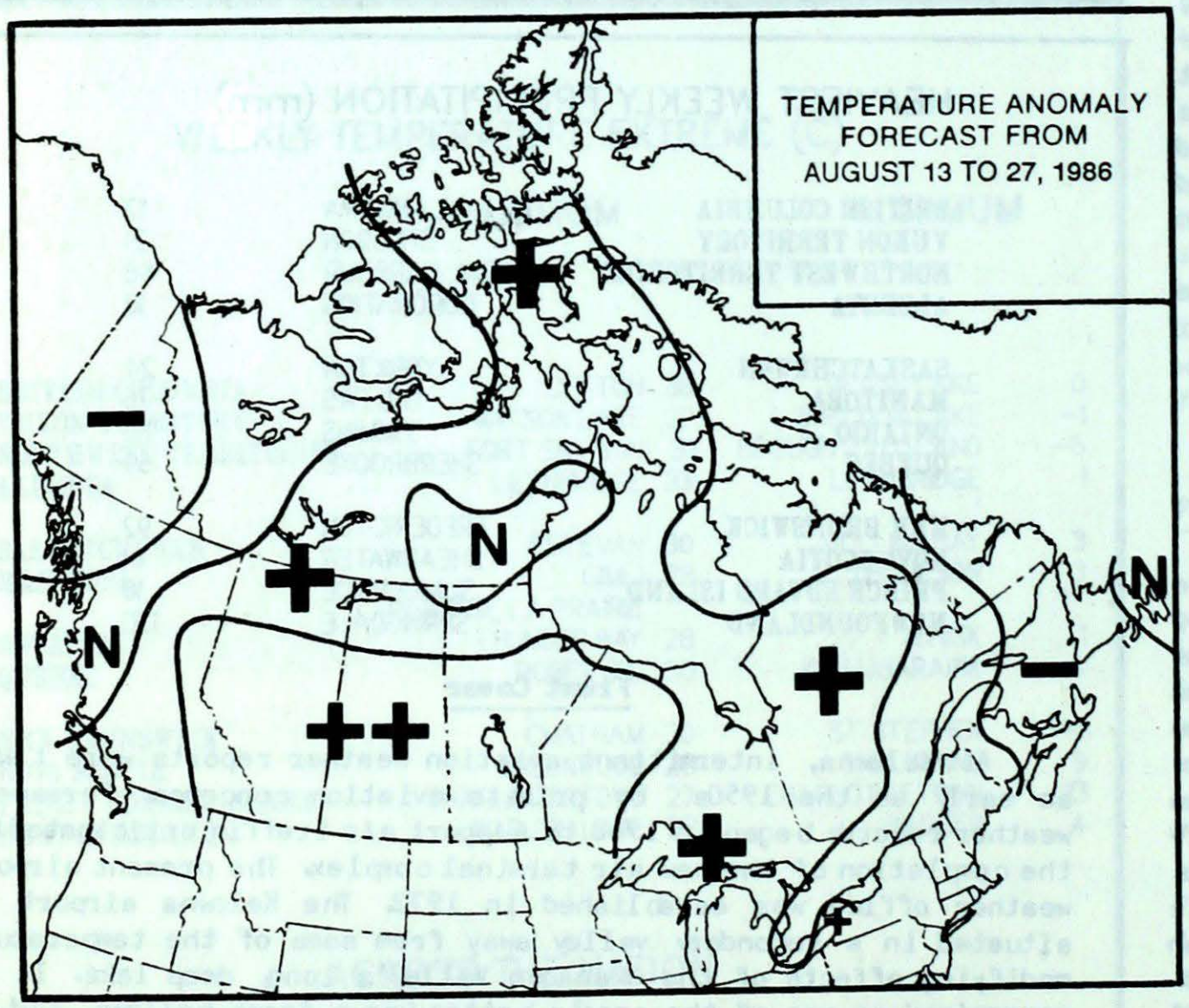
HEAVIEST WEEKLY PRECIPITATION (mm)

BRITISH COLUMBIA	LANGARA	12
YUKON TERRITORY	SHELDON	21
NORTHWEST TERRITORIES	CORAL HARBOUR	48
ALBERTA	CORONATION	18
SASKATCHEWAN	YORKTON	24
MANITOBA	THE PAS	76
ONTARIO	TIMMINS	110
QUEBEC	SHERBROOKE	59
NEW BRUNSWICK	FREDERICTON	92
NOVA SCOTIA	SHEARWATER	61
PRINCE EDWARD ISLAND	SUMMERSIDE	10
NEWFOUNDLAND	SPRINGDALE	120

Front Cover

At Kelowna, intermittent aviation weather reports were taken as early as the 1950s by private aviation concerns. Permanent weather records began in 1968 to support air traffic anticipated by the completion of the new air terminal complex. The present airport weather office was established in 1972. The Kelowna airport is situated in a secondary valley away from some of the temperature modifying effects of the Okanagan Valley's long, deep lake. It is recognized as one of the area's better-known frost hollows, and as a result, overnight readings are some 2.5°C colder than in the city beside Lake Okanagan. The weather office provides support to 26 commercial flights daily. In addition, specialized forecasts are provided to orchardists, grapes growers, vegetable growers and hayers for seven months of the year. The tourism and recreation industry is supported with detailed forecasts year-round.





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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The purpose of the publication is to make topical information available to the public concerning the Canadian Climate and its socio-economic impact.

Unsolicited articles are welcome but should be at maximum about 1500 words in length. They will be subject to editorial change without notice due to publishing time constraints. The contents may be reprinted freely with proper credit.

The data shown in this publication are based on unverified reports from approximately 225 Canadian synoptic weather stations. Information concerning climatic impacts is gathered from AES contacts with the public and from the media. Articles do not necessarily reflect the views of the Atmospheric Environment Service.

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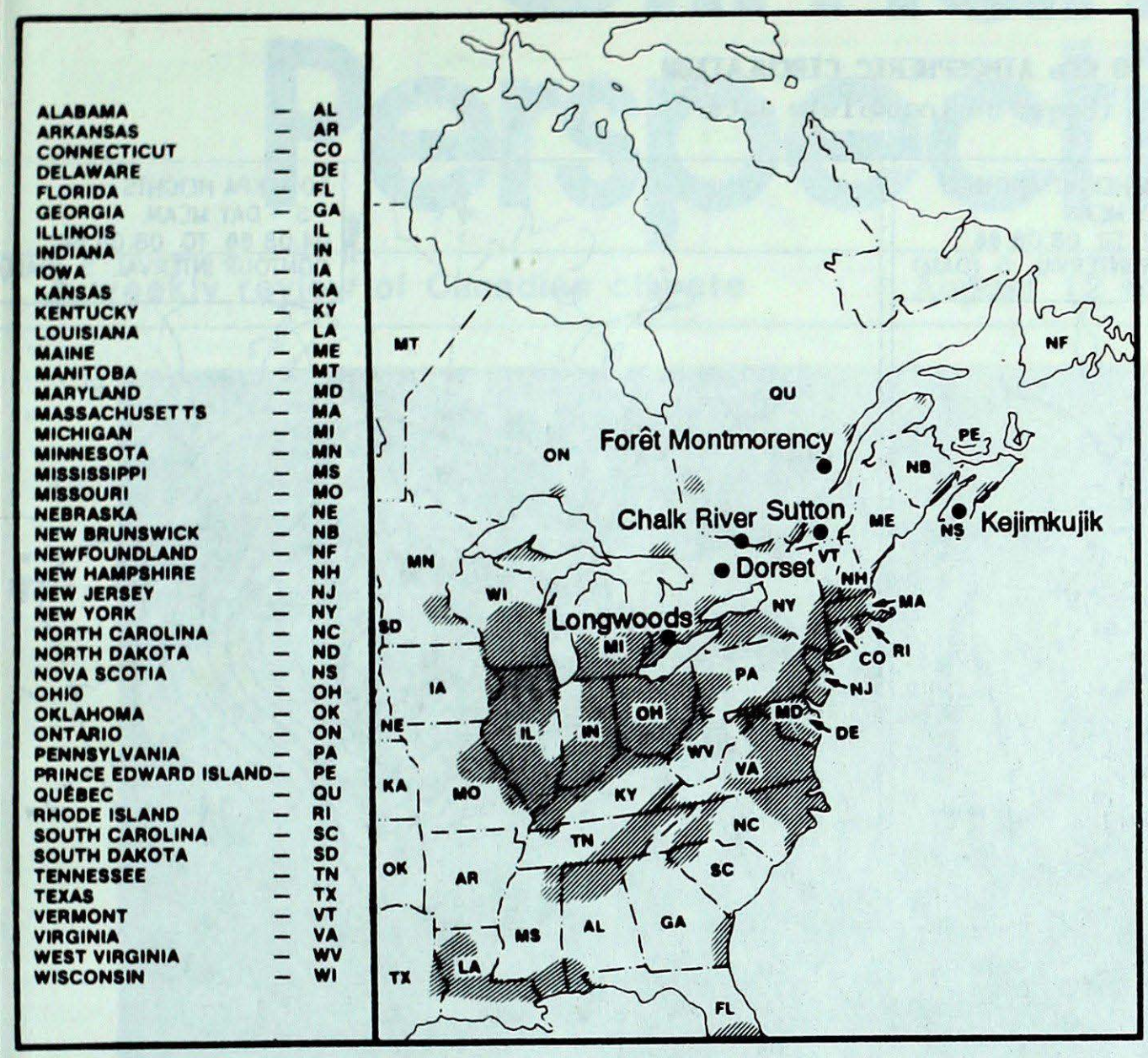


ACID RAIN REPORT

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 SO_2 and 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.

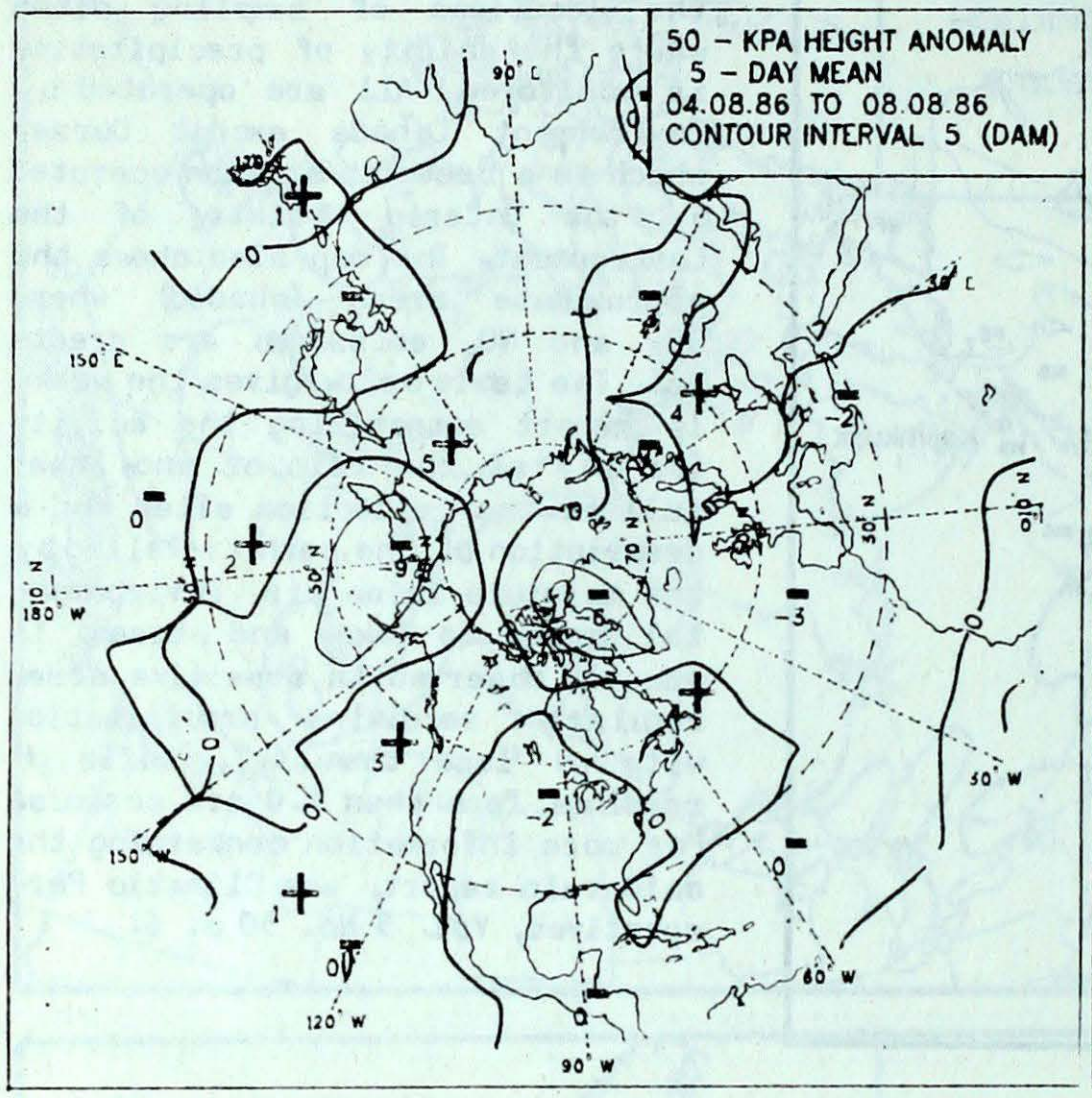
JULY 27 TO August 2, 1986

SITE	DAY	pH	AMOUNT	AIR PATH TO SITE
Longwoods	6	3.8	6(r)	Kentucky, Ohio, Southern Ontario
	8	4.2	5(r)	Michigan, Southern Ontario
Dorset	4	4.8	1(r)	Northern Ontario, Lake Superior, Lake Huron
	7	3.7	1(r)	Ohio, Southern Ontario
	8	4.5	45(r)	Michigan, Lake Huron
	9	4.1	1(r)	Central Ontario
Chalk River	6	4.5	4(r)	Wisconsin, Northern Michigan, Central Ontario
	8	4.7	12(r)	Southern Ontario, Central Ontario
Sutton	3	4.2	8(r)	Pennsylvania, New York
	7	3.6	8(r)	Virginia, Eastern Pennsylvania, Eastern New York
	8	3.7	3(r)	New Jersey, New York
	9	4.6	12(r)	New Jersey, Eastern Pennsylvania, New York
Montmorency	3	4.2	2(r)	Pennsylvania, New York, Southern Quebec
	6	4.2	4(r)	Mighigan, Central Ontario, Central Quebec
	9	5.1	20r)	New York, New York, Southern Quebec
Kejimkujik	3	4.2	2(r)	Atlantic Ocean
	7	3.4	1(r)	Pennsylvania, Southern States of New England, Atlantic Ocean
	8	4.3	29(r)	Atlantic Ocean

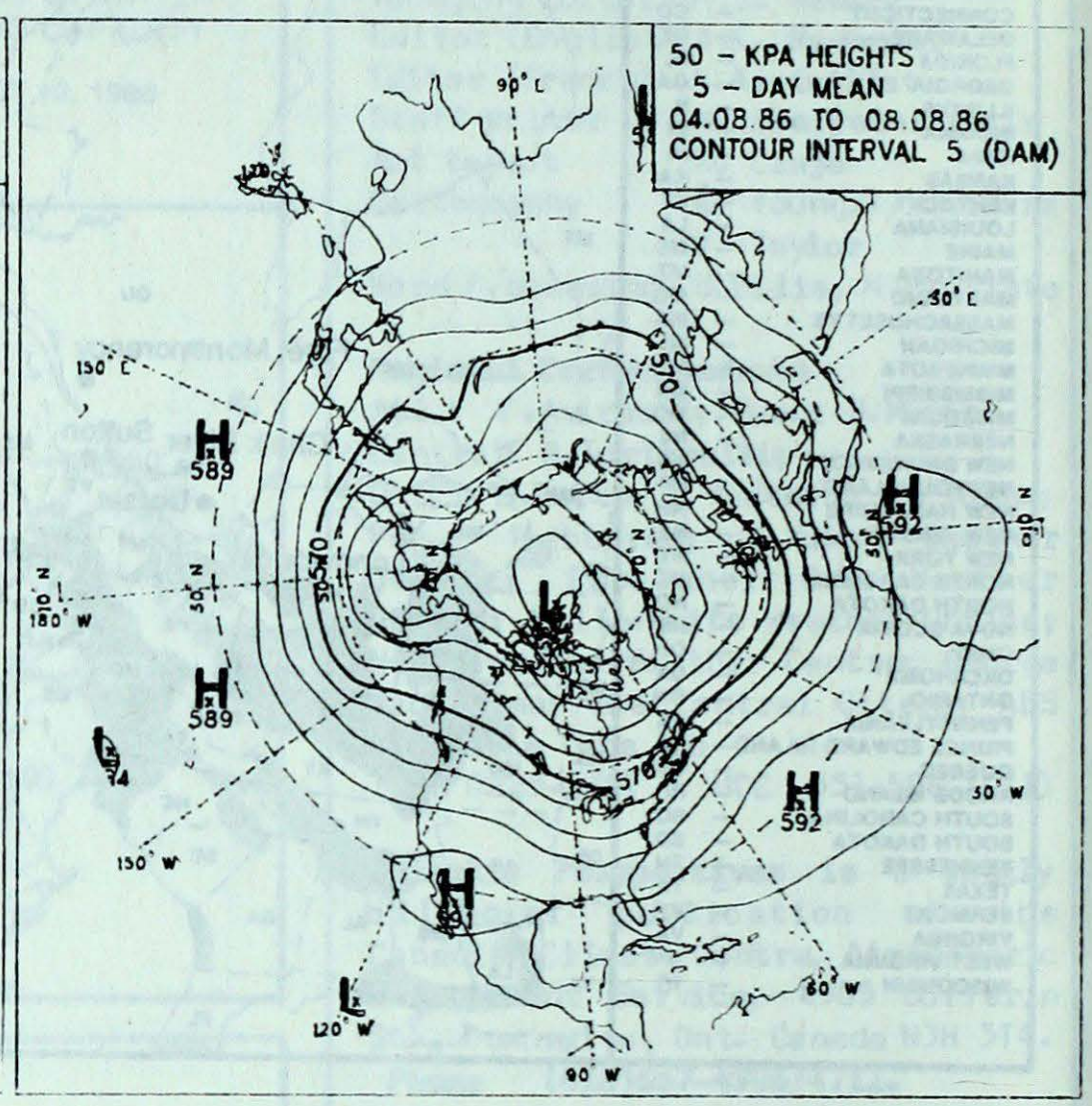
r = rain (mm), s = snow (cm), m = mixed rain and snow (mm).

50 KPa ATMOSPHERIC CIRCULATION

(Based on incomplete data)



MEAN 50 KPa HEIGHT ANOMALY (dam)
August 4 to August 8, 1986



MEAN 50 KPa HEIGHTS (dam)
August 4 to August 8, 1986