

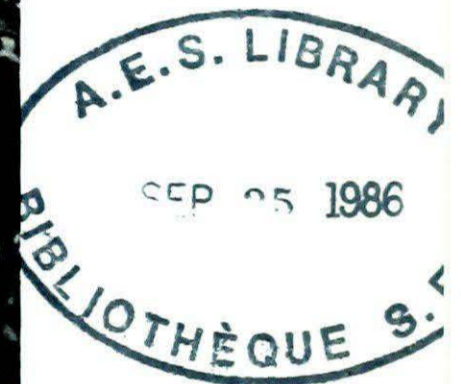
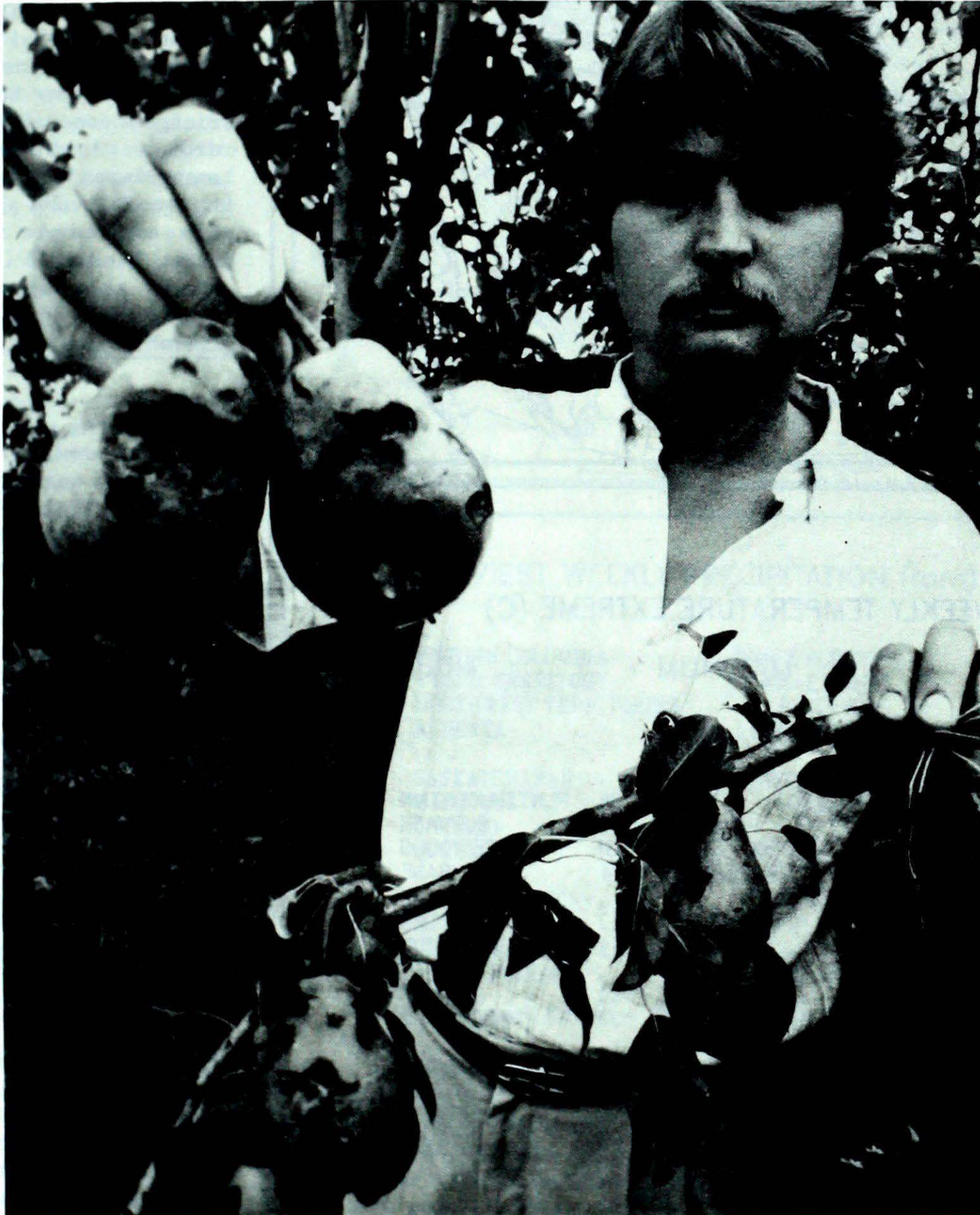
Climatic Perspectives

MONTHLY
SUPPLEMENT
INCLUDED

A weekly review of Canadian climate

July 29 to August 4, 1986

Vol.8 No.31



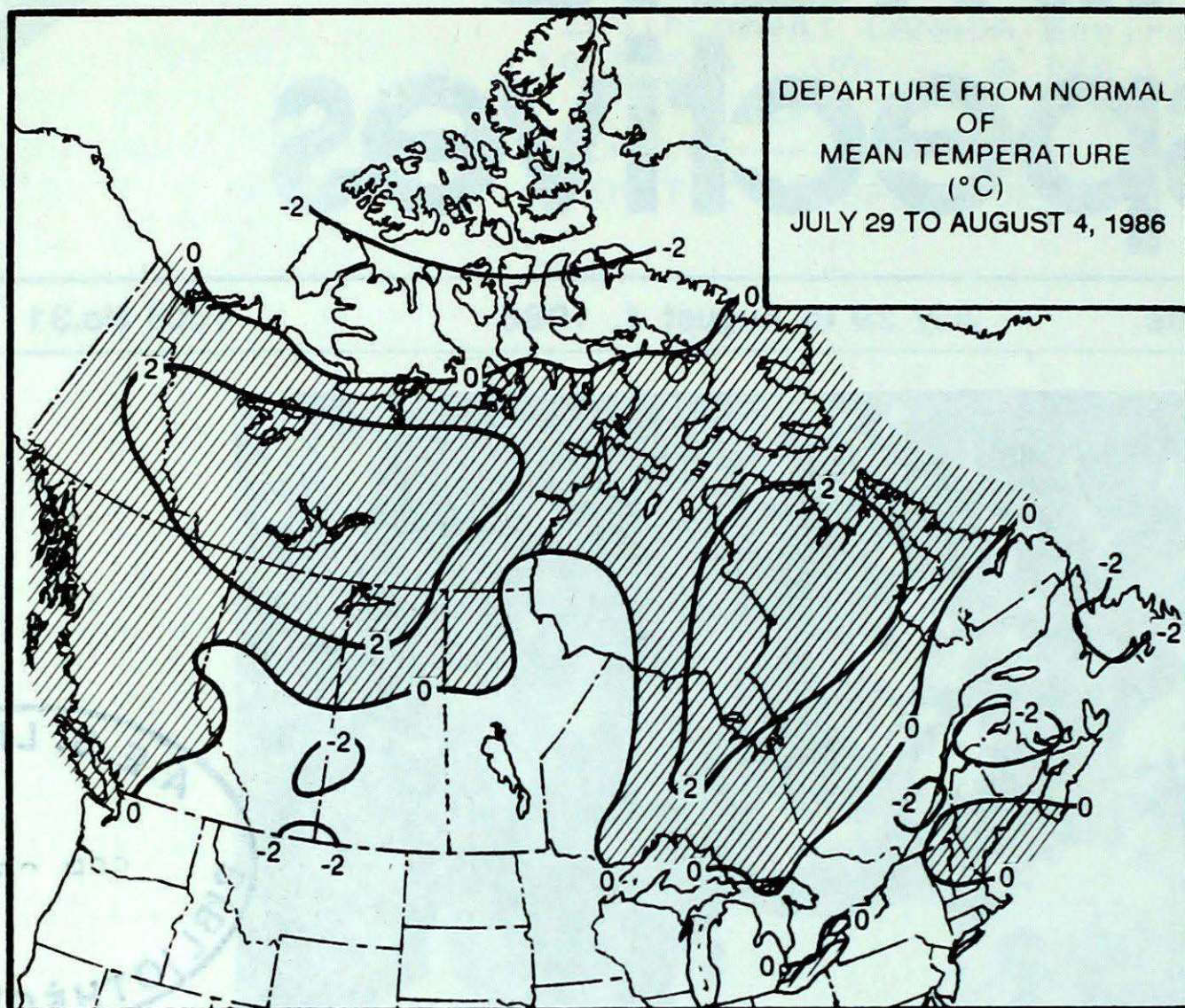
In just 20 minutes hail destroyed a bumper fruit crop on the trees, ready to be picked. For more details see page 3. Photo courtesy of the Toronto Star.

● ***Hailstorms devastate fruit trees and vegetable crops in Southern Ontario***

Niagara peaches hit hard

Vegetables in Holland Marsh flattened

Canada



ACROSS THE COUNTRY...

Yukon and Northwest Territories

Near freezing temperatures persisted over Baffin Island for most of the week, with snow still falling over the Arctic Archipelago. Fog was very persistent along the Arctic Coast. Relatively pleasant weather was evident across the Northwest Territories. It was especially warm in the Mackenzie District, where daily temperature records were broken. In the Yukon temperatures dropped to near freezing on July 28. The second supply ship arrived in Frobisher Bay on August 2.

British Columbia

With the exception of scattered afternoon showers and thunderstorms the weather was very pleasant. Sunshine was plentiful except along the north coast. Rainfall amounts were generally light and spotty, ranging to as high as 36 mm along the north coast. Isolated cases of hail occurred in the interior. Dry conditions in the Peace River district were beneficial for haying.

Prairie Provinces

In Alberta the period began cool and showery. Several daily low temperature records were tied or broken across central portions of the province, with minimum readings dropping to near freezing. Temperatures rebounded to the thirties over the weekend. Further to the east the disturbances triggered frequent showers and thunderstorm activity. Temperatures during the early part of the week climbed to the upper twenties in southern Saskatchewan. Severe weather including hail, tornadoes and funnel clouds hit southern agricultural districts between July 28 and August 1. At Estevan on July 31 wind gusts exceeded 100 km/h. Most damage was reported in southern Saskatchewan. The weekend saw a return to a sunny and warmer regime everywhere.

WEEKLY TEMPERATURE EXTREME (C)

		MAXIMUM		MINIMUM
BRITISH COLUMBIA	LYTTON	35	PUNTZI MOUNTAIN	0
	YUKON TERRITORY	DAWSON	BURWASH	1
NORTHWEST TERRITORIES	FORT SMITH	31	CAPE YOUNG	-3
	ALBERTA	MEDICINE HAT	BANF	1
SASKATCHEWAN	MOOSE JAW	32	NIPAWIN	1
	MANITOBA	GRETNA	CHURCHILL	4
ONTARIO	WINDSOR	30	WINISK	6
	QUEBEC	KUUJJUAQ	KUUJJUAQ	1
NEW BRUNSWICK	CHATHAM	28	MISCOU ISLAND	10
	NOVA SCOTIA	SYDNEY	SYDNEY	12
PRINCE EDWARD ISLAND	CHARLOTTETOWN	24	SUMMERSIDE	14
	NEWFOUNDLAND	DEER LAKE	GOOSE	3

ACROSS THE NATION

WARMEST MEAN TEMPERATURE	22	LYTTON	BC
COOLEST MEAN TEMPERATURE	0	MOULD BAY	NWT

Ontario

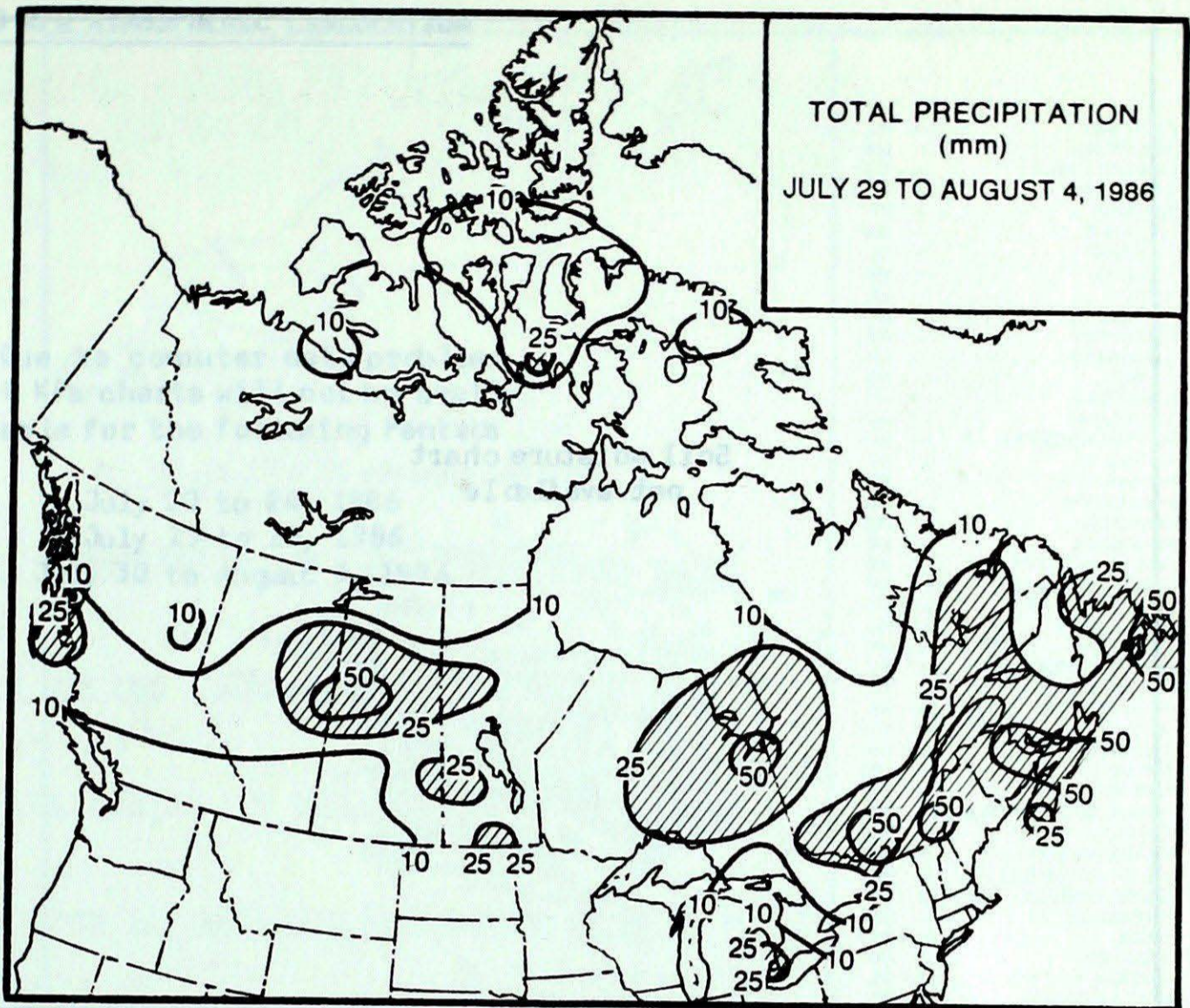
Severe hailstorms struck two of Ontario's main vegetable and fruit growing areas on Friday August 1. Each of the storms lasted less than 30 minutes, but caused an estimated \$20 million worth of damage. In the Holland Marsh south of Lake Simcoe, many of the flattened vegetables were almost ready to be cut, with farmers calling this summer harvest the most bountiful in recent years. A little later another hailstorm swept in from across Lake Ontario and hit the northeastern end of the Niagara Peninsula, causing heavy damage to this year's fruit crop. (See article on this page.) Elsewhere in the province vacationers were disappointed by predominantly unsettled, wet weather.

Quebec

Showers and thunderstorms produced locally heavy amounts of rain. On July 29, many southern farming communities received torrential downpours. Sherbrooke was deluged with 81 mm of rain. There were many reports of thunderstorms with hail between August 1 and 3. Luckily there was little damage, even though some of the hailstones were almost the size of golf balls. Frequently cloudy skies throughout the south resulted in many new daily low maximum temperature records being set.

Atlantic Provinces

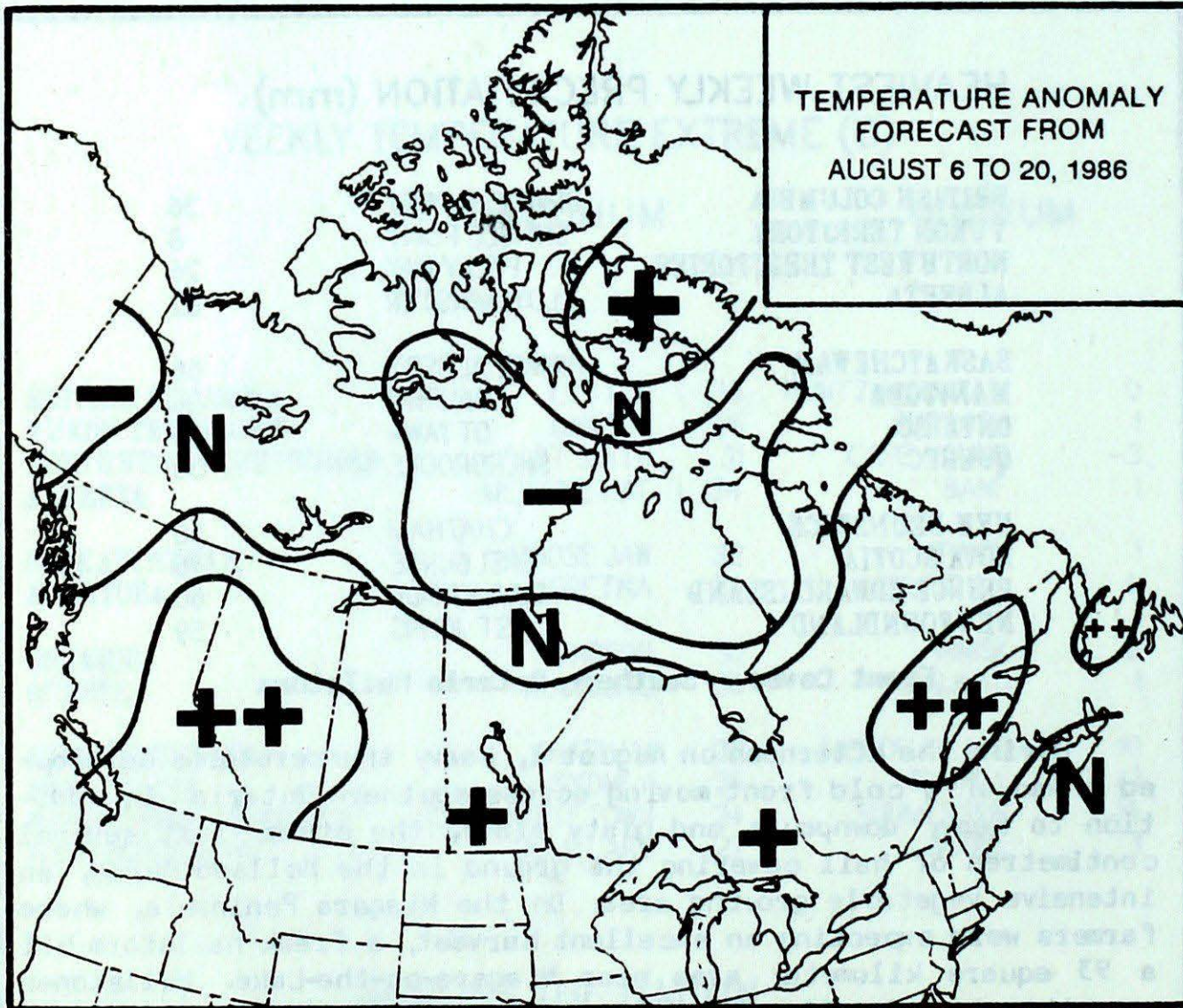
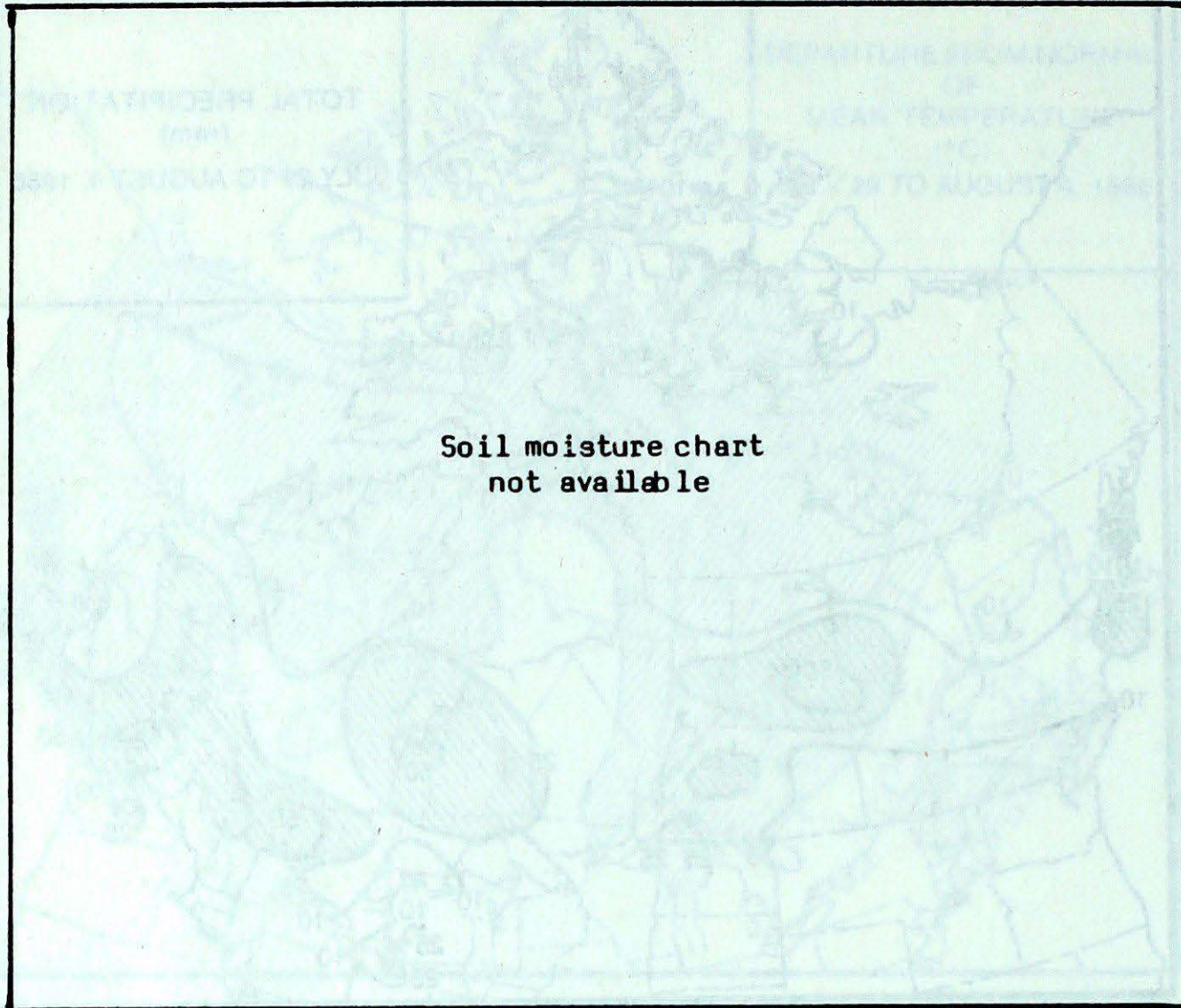
Troughs of low pressure kept the weather cloudy and unsettled in the Maritimes for most of the period. Fog and drizzle affected coastal areas during the night, showers and occasionally steady rain during the daylight hours. Total precipitation amounts ranged up to 76 mm at Shearwater. In Newfoundland, the period was unseasonably cool with showers and periods of rain. Much improved weather conditions returned for the weekend. In Labrador, the week was fair but cool. Under sunny skies readings climbed to seasonal values by the weekend. Cloud and scattered showers moved in the final day of the period.

**HEAVIEST WEEKLY PRECIPITATION (mm)**

BRITISH COLUMBIA	PRINCE RUPERT	36
YUKON TERRITORY	SHINGLE POINT	8
NORTHWEST TERRITORIES	PELLY BAY	26
ALBERTA	LLOYDMINSTER	82
SASKATCHEWAN	PRINCE ALBERT	66
MANITOBA	DAUPHIN	36
ONTARIO	OTTAWA	56
QUEBEC	SHERBROOKE	58
NEW BRUNSWICK	CHATHAM	58
NOVA SCOTIA	SHELBURNE	76
PRINCE EDWARD ISLAND	SUMMERSIDE	60
NEWFOUNDLAND	ST JOHNS	59

Front Cover - Southern Ontario Hailstorm

During the afternoon on August 1, heavy thunderstorms developed ahead of a cold front moving across southern Ontario. In addition to heavy downpours and gusty winds, the storms left several centimetres of hail covering the ground in the Holland Marsh, an intensive vegetable growing area. On the Niagara Peninsula, where farmers were expecting an excellent harvest, a freak hailstorm hit a 93 square kilometer area near Niagara-on-the-Lake. Hailstones some the size of golf balls damaged 20 percent of this year's bumper peach crop. Losses will be heavy for the 135 growers that were hit, since most did not have hail insurance. Growers may also find that the hail damage sustained by the fruit trees, especially peach, may prove more costly than actual fruit losses in future years due to canker disease. Hailstorms such as this are rare in this area; many long-time residence concede this was the worst in memory.



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

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.

CLIMATIC PERSPECTIVES VOLUME 8

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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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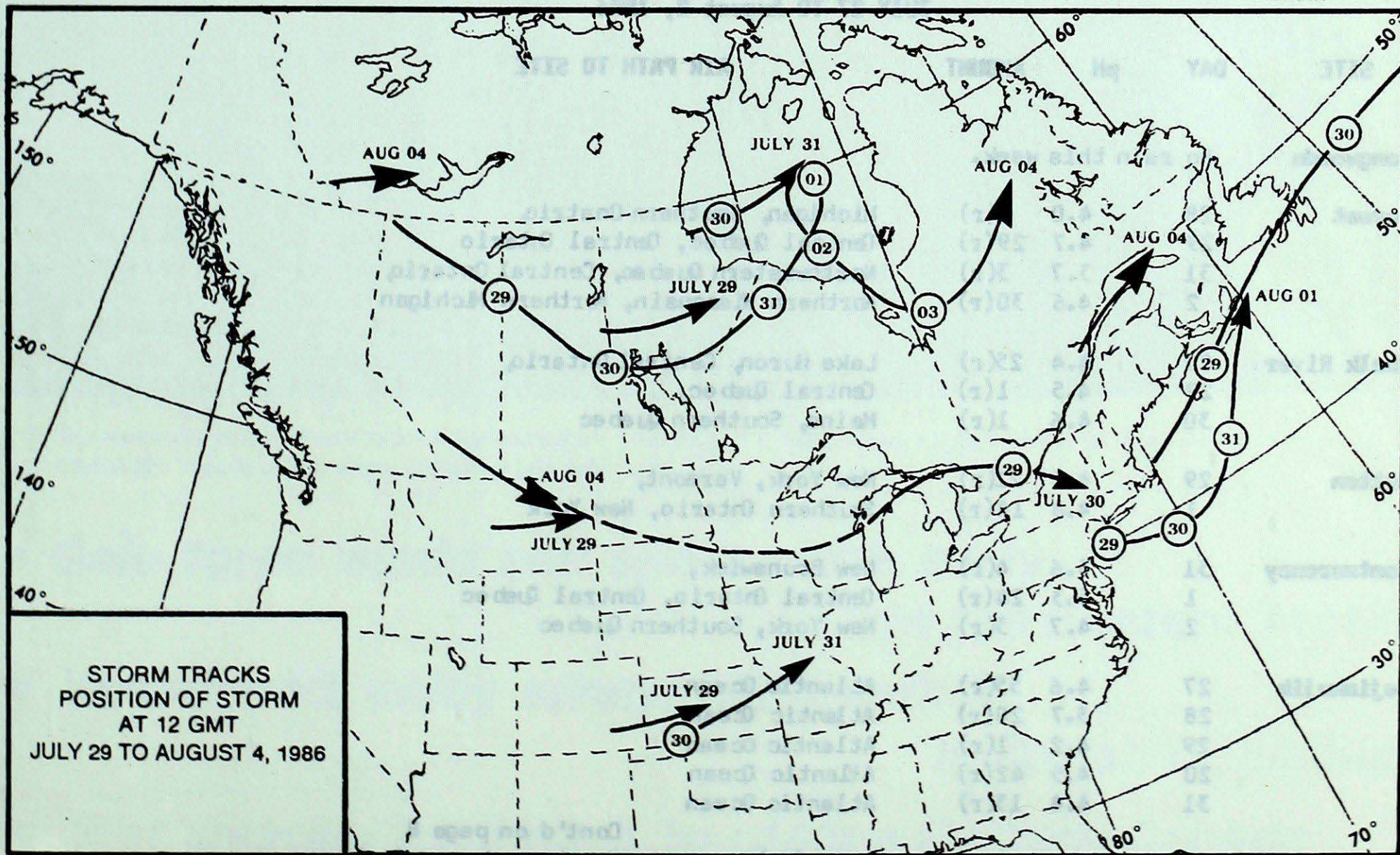
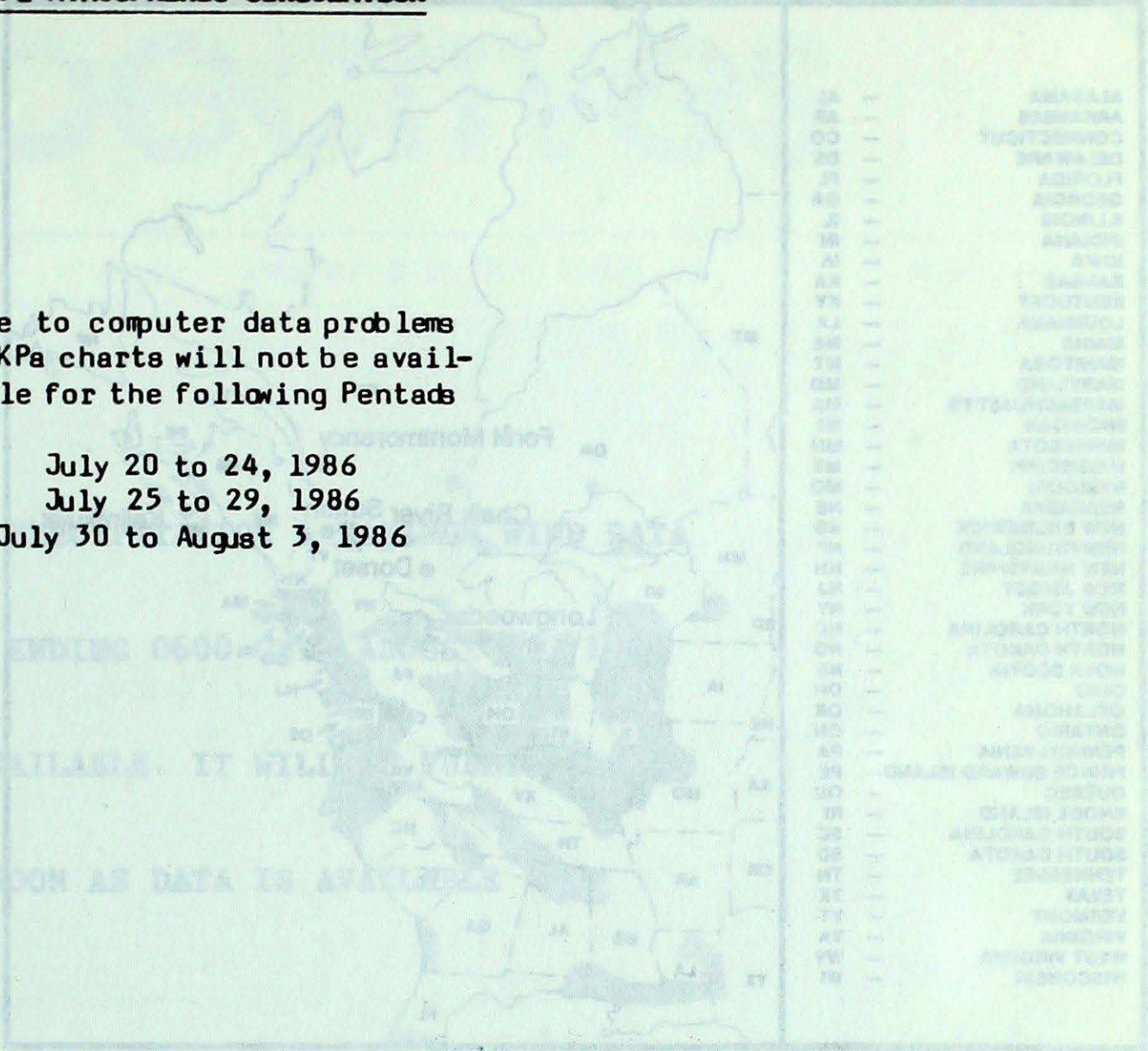
ACID RAIN REPORT

50 KPa ATMOSPHERIC CIRCULATION

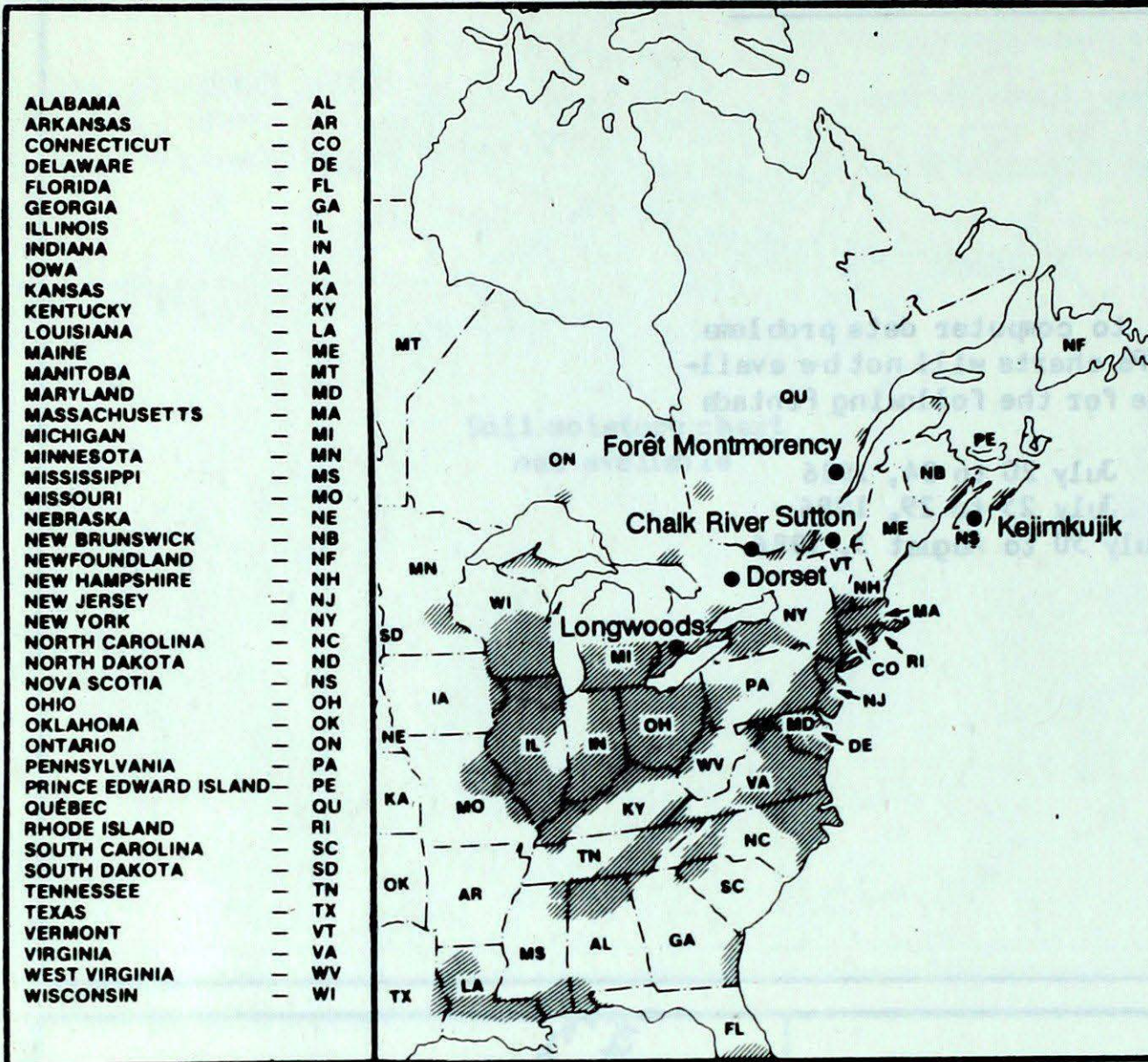
The reference map (left) shows the locations of sampling sites where the acidity of precipitation is monitored. All sites operated by Environment Canada except Dorset which is a research station operated by the Ontario Ministry of the Environment. The map also shows the approximate areas (shaded) where SO₂ and NO_x emissions are greatest. The table below gives the weekly report summarizing the acidity (or pH) of the rain or snow that has fallen. The collection sites and a description of the precipitation are given in the table. The acidity is usually observed in sensitive areas (regularly receiving precipitation) with pH less than 4.5, while pH readings less than 4.0 are serious. For more information concerning the acid rain report, see Climate Perspectives, Vol. 5, No. 59 p. 6.

Due to computer data problems 50 KPa charts will not be available for the following Pentads

- July 20 to 24, 1986
- July 25 to 29, 1986
- July 30 to August 3, 1986



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 SO₂ 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	No rain this week.			
Dorset	28	4.0	8(r)	Michigan, Southern Ontario,
	29	4.7	29(r)	Central Quebec, Central Ontario
	31	3.7	3(r)	Northwestern Quebec, Central Ontario,
	2	4.6	30(r)	Northern Wisconsin, Northern Michigan
Chalk River	28	4.4	25(r)	Lake Huron, Central Ontario,
	29	4.5	1(r)	Central Quebec,
	30	4.6	1(r)	Maine, Southern Quebec
Sutton	29	4.5	21(r)	New York, Vermont,
	1	4.8	14(r)	Southern Ontario, New York
Montmorency	31	5.6	4(r)	New Brunswick,
	1	5.3	24(r)	Central Ontario, Central Quebec
	2	4.7	3(r)	New York, Southern Quebec
Kejimikujik	27	4.6	55(r)	Atlantic Ocean
	28	3.7	20(r)	Atlantic Ocean
	29	4.2	1(r)	Atlantic Ocean
	20	4.5	42(r)	Atlantic Ocean
	31	4.4	13(r)	Atlantic Ocean

Cont'd on page 8

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

Climatic Perspectives

weekly review of Canadian climate

August 6 to 11, 1986

Vol. 5 No. 32

TEMPERATURE, PRECIPITATION & MAXIMUM WIND DATA

FOR THE WEEK ENDING 0600 GMT, AUGUST 12, 1986

IS NOT AVAILABLE. IT WILL BE PUBLISHED

AS SOON AS DATA IS AVAILABLE

The nearest weather office to situated at the airport northwest of the city is the base of the
through - follow - distance - information - see page 7

- 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