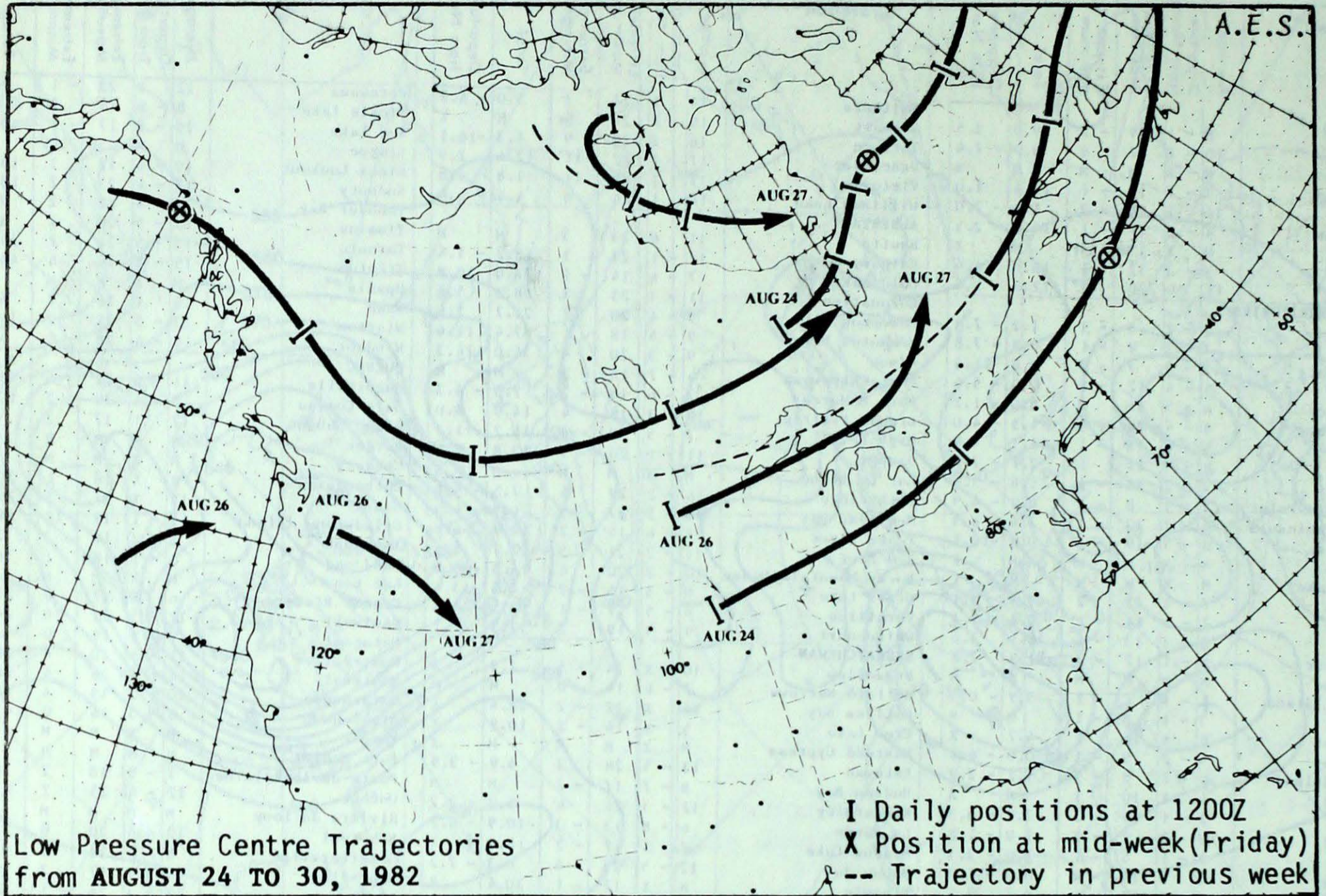


LOW PRESSURE CENTRE TRAJECTORIES



EXTREMES FOR THE WEEK

	MAXIMUM TEMPERATURE	LOCATION	MINIMUM TEMPERATURE	LOCATION	GREATEST PRECIPITATION	LOCATION
YUKON TERRITORY	21.9	DAWSON	-6.0	DAWSON	15.8	SHINGLE POINT
NORTHWEST TERRITORIES	20.5	HAY RIVER	-3.0	ALERT	46.1	KILLINEK
BRITISH COLUMBIA	34.1	LYTTON	-3.3	FORT NELSON	58.7	DEASE LAKE
ALBERTA	28.7	LETHBRIDGE	-4.4	HIGH LEVEL	39.5	WHITECOURT
SASKATCHEWAN	27.6	ESTEVAN	-4.8	BROADVIEW	34.2	PRINCE ALBERT
MANITOBA	21.6	BRANDON PILCOT MOUND	-3.3	THOMPSON	19.6	GILLAM
ONTARIO	28.1	WINDSOR	-2.0	ATIKOKAN	115.0	WOODSTOCK
QUEBEC	25.9	SHERBROOKE	-1.8	SHERBROOKE	74.7	MONTREAL/DORVAL
NEW BRUNSWICK	26.2	FREDERICTON	-4.0	NICTAU	73.7	SAINT JOHN
NOVA SCOTIA	27.4	GREENWOOD	1.8	TRURO	32.4	EDDY POINT
PRINCE EDWARD ISLAND	24.3	SUMMERSIDE	5.3	SUMMERSIDE	57.0	CHARLOTTETOWN
NEWFOUNDLAND	23.3	ST JOHN'S	.6	DEER LAKE	62.3	ST JOHN'S

CLIMATIC PERSPECTIVES

Staff

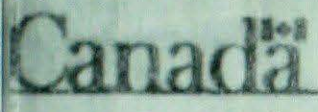
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CLIMATIC PERSPECTIVES

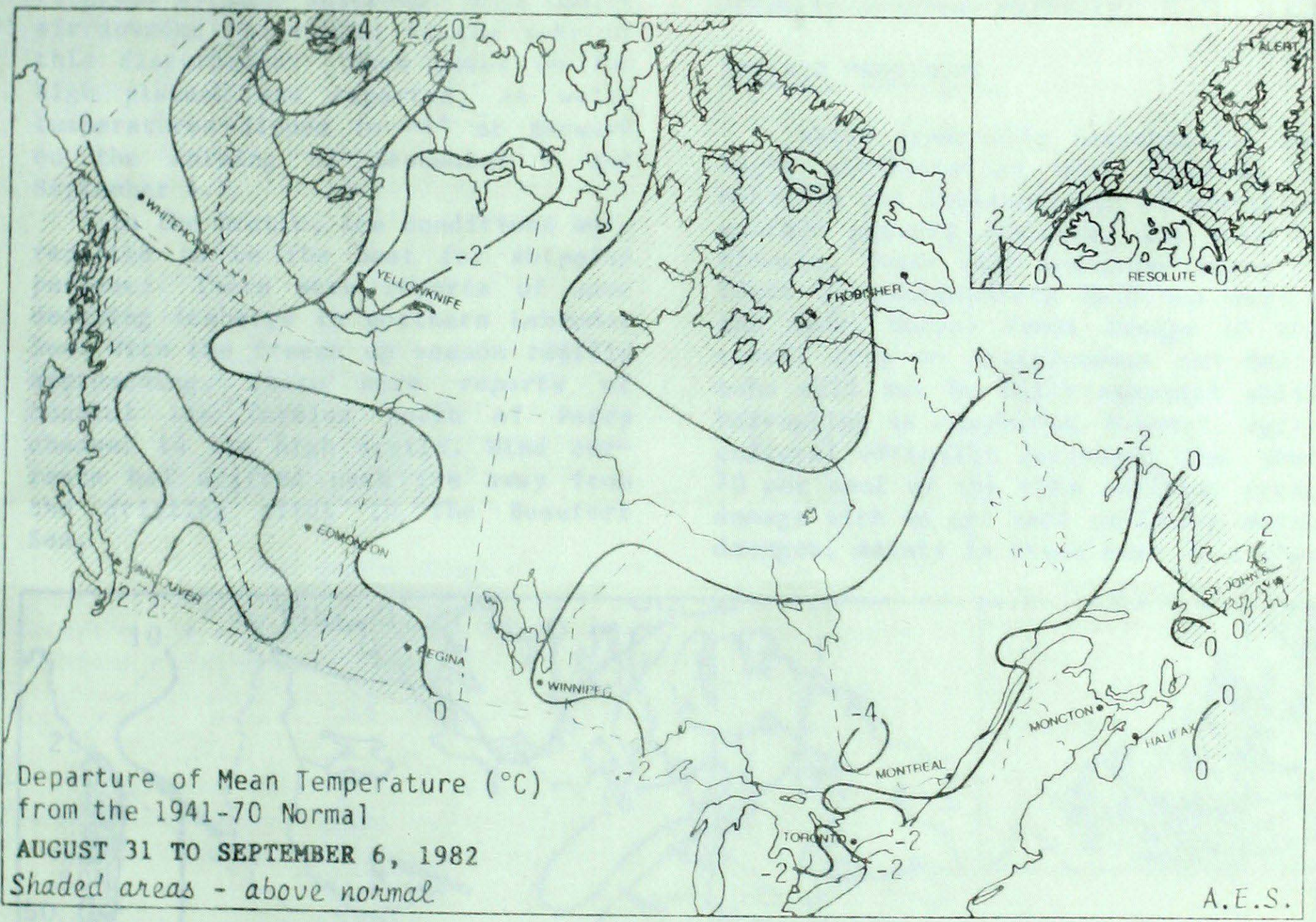


THE CANADIAN CLIMATE CENTRE,
ATMOSPHERIC ENVIRONMENT SERVICE,
4905 DUFFERIN ST., DOWNSVIEW, ONTARIO M3H 5T4

SEPTEMBER 10, 1982

(Aussi disponible en français)

VOL.4 NO.35



WEATHER HIGHLIGHTS FOR THE PERIOD - AUGUST 31 TO SEPTEMBER 6, 1982

Cool weather continued across the country

Unseasonably cool temperatures persisted over most of the regions, with several eastern localities reporting record low temperatures. Cool weather retarded the growth in the corn crop in Québec and the Atlantic Provinces. Latest figures from agricultural officials indicated that up to 70 per

cent of the cereal crop was affected by the late August frost on the prairies.

Extremes in temperatures ranged from a high of 34.1° at Lytton, British Columbia to a low of -10.1° at Alert, Northwest Territories. McInnes Island received 161.4 mm of rain during the week.

NOTE: The data shown in this publication are based on unverified reports from approximately 225 Canadian and 115 northern United States Synoptic stations.

YUKON AND NORTHWEST TERRITORIES

A change in the weather pattern was evident across the Yukon territories. Over most of the areas, moisture laden skies persisted during the week as an upper weather disturbance from the Gulf of Alaska slowly drifted eastward. With the passage of this weather system, up to 30 mm of rain was recorded by some stations. Much cooler air invaded the region in the wake of this disturbance. Snow cover on the high plateau was reported, as well, temperatures dipped to -4° at Burwash on the morning of September 2 and September 4.

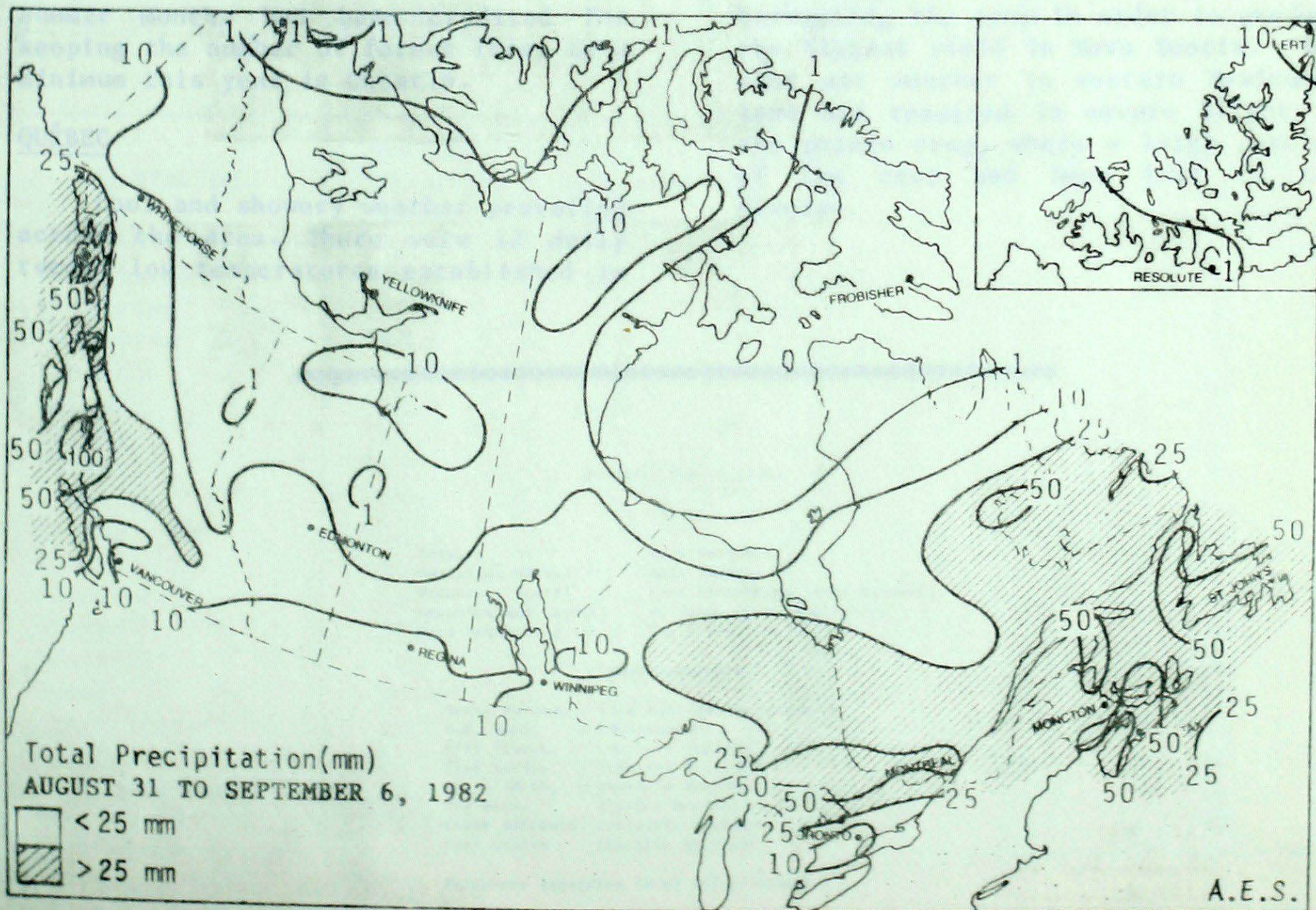
In the Arctic, ice conditions were reported to be the best for shipping purposes. There were reports of some decaying icebergs in northern Labrador Sea. With the freeze up season rapidly approaching, there were reports of coastal ice forming north of Perry channel in the high arctic. Wind currents had drifted pack ice away from the drilling sites in the Beaufort Sea.

BRITISH COLUMBIA

A rather unsettled weather pattern prevailed across British Columbia. While heavy rain fell along the coastal areas, the interior regions reported variable amounts of precipitation. After a persistent wet weather in the Okanagan recently, below normal precipitation during the week, allowed fruit crops to progress normally.

PRAIRIE PROVINCES

While seasonable temperatures and light precipitation were reported in Manitoba and Saskatchewan, an unsettled weather pattern dominated the week in Alberta. There were scattered areas of frost in southeastern Manitoba during the week. Recent frost damage to the cereal crop in Saskatchewan and Manitoba will not be fully assessed until harvesting is completed, however, agricultural officials estimated that some 70 per cent of the crop suffered frost damage with 46 per cent suffering worst damages, mainly in areas east of a line



North Battleford-Estevan. A rain storm passed through central Alberta during the weekend, giving over 20 mm of rain to some localities. The weekend rain had delayed harvesting of crops in central Alberta.

ONTARIO

Unseasonably cool temperatures continued to dominate the weather pattern in Ontario, although somewhat warmer temperatures returned for the Labour Day weekend especially in the south. Copious amounts of rain fell across most of the central and northern Ontario communities with Muskoka topping all stations at 86.1 mm. Only light precipitation was recorded in southwestern Ontario.

Several record low temperatures were again established across the region. On September 1, mercury climbed only to 13° at Windsor (previous record 16° set in 1958) while Sudbury reported a high of 11° (previous record 12° set in 1958).

The cool and wet weather over the summer months had been credited for keeping the number of forest fires to a minimum this year in Ontario.

QUÉBEC

Cool and showery weather prevailed across the area. There were 12 daily record low temperatures established in

the province during the week. Agricultural authorities for the province reported a slow crop growth in the farming areas near Québec City due to the recent inclement weather. As well, cool and wet weather had delayed the growth and favoured the spread of diseases in the corn crop near Nicolet.

ATLANTIC PROVINCES

Cool and showery weather prevailed across the region. Several stations recorded coldest mean temperature for the month of August. A mean temperature of 16.1° for the month of August was the coldest in Halifax since 1903. Shearwater set a record low maximum temperature for the month of August when mercury climbed only to 24.1° on August 16 (old record 24.4° set in 1962).

Due to persistent cool weather in the area, corn crops were reported to be behind in their maturation schedule. Tobacco crop remained relatively untouched from the recent frost in the Maritimes. With one-half of the tobacco crop harvested, growers were hastily harvesting the crop in order to produce the biggest yield in Nova Scotia. Recent wet weather in western Newfoundland had resulted in severe blight in the potato crop, where a large portion of the crop had been lost to the disease.

STATION	MONTHLY MEAN	MONTHLY RAIN
Pasadena	77.5	8.5
Vancouver	49.0	9.0
Edmonton	16.0	16.0
Calgary	16.0	16.0
Regina	16.0	16.0
Saskatoon	16.0	16.0
Winnipeg	16.0	16.0
Thunder Bay	16.0	16.0
Windsor	16.0	16.0
Toronto	16.0	16.0
Ottawa	16.0	16.0
Montreal	16.0	16.0
Québec	16.0	16.0
Fredericton	16.0	16.0
Halifax	16.0	16.0
Charlottetown	16.0	16.0
St. John's	16.0	16.0

CLIMATIC PERSPECTIVES

STAFF

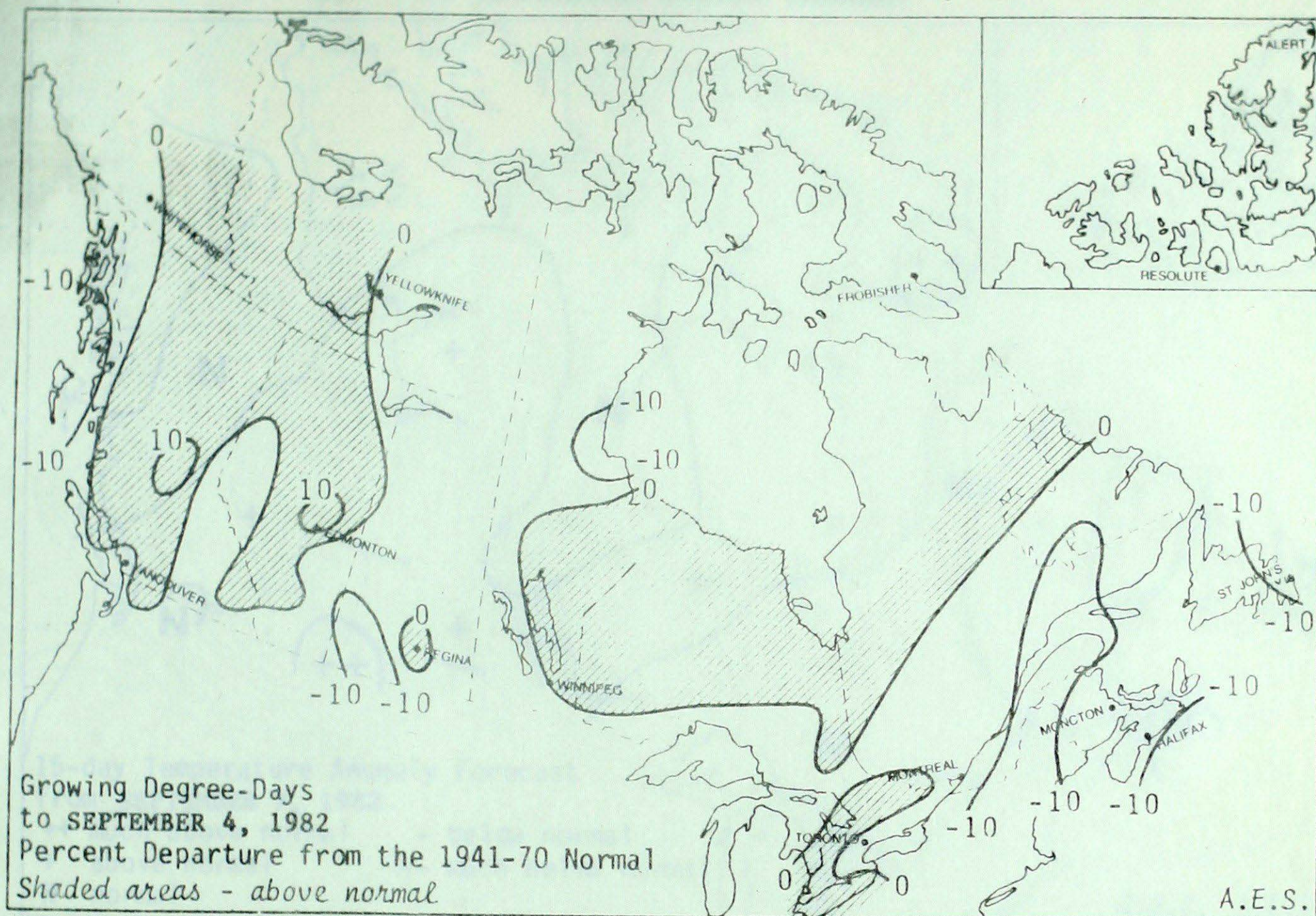
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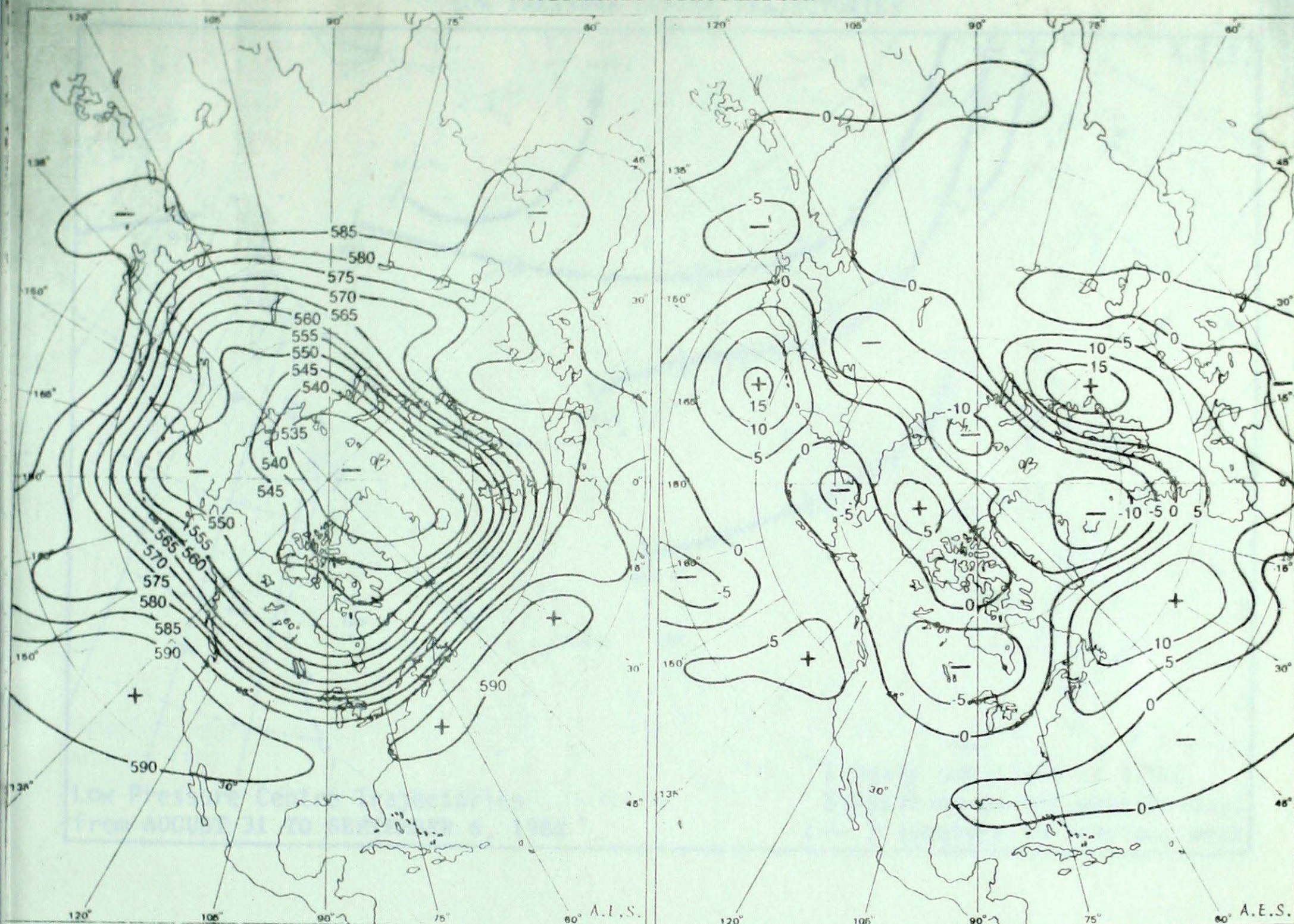
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GROWING DEGREE-DAY SUMMARY TO SEPTEMBER 4, 1982



STATION	MONTHLY CUMULATIVE TOTAL	MONTHLY DIFF. FROM 1941-70 NORMAL	SEASONAL TOTAL	SEASONAL DIFF. FROM 1941-70 NORMAL	SEASONAL PERCENT OF NORMAL
Whitehorse	11.5	-8.5	800.5	-13.5	98
Penticton	57.5	9.5	1673.5	-43.5	97
Vancouver	49.0	5.0	1456.0	-45.0	97
Edmonton	44.0	15.0	1283.5	131.5	111
Calgary	48.0	16.0	1125.0	19.0	102
Regina	44.0	3.0	1390.5	11.5	101
Saskatoon	43.5	1.5	1261.5	-101.5	93
Winnipeg	37.0	-8.0	1463.5	-5.5	100
Thunder Bay	36.5	-0.5	1117.5	-49.5	96
Windsor	56.0	-5.0	1960.5	11.5	101
Toronto	44.5	-8.5	1575.5	-118.5	93
Ottawa	39.0	-10.0	1641.5	-5.5	100
Montréal	41.5	-14.5	1638.5	-63.5	96
Québec	34.0	-11.0	1330.0	-78.0	94
Fredericton	38.0	-6.0	1358.0	-51.0	96
Halifax	42.5	-2.5	1132.5	-128.5	90
Charlottetown	41.0	-6.0	1158.5	-74.5	94
St. John's	40.5	4.5	787.5	-84.5	90

ATMOSPHERIC CIRCULATION



7-day Mean 50 kPa Height (dam)
AUGUST 30 TO SEPTEMBER 5, 1982

7-day Mean 50 kPa Height Anomaly
(5 dam intervals)

AUGUST 30 TO SEPTEMBER 5, 1982

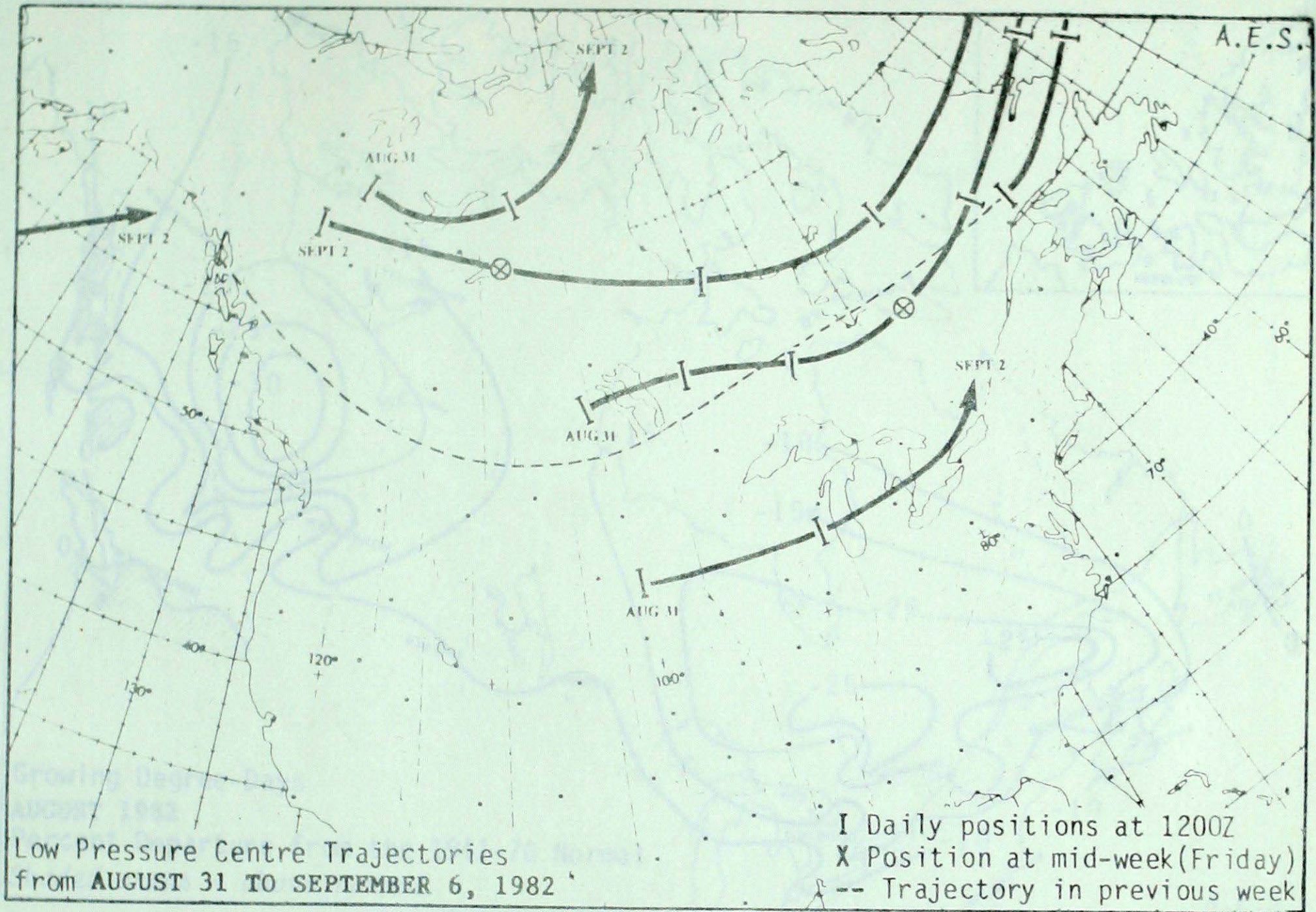
The atmospheric circulation continued to undergo its seasonal transition to a more winter-like pattern. The sun's solar energy is rapidly weakening in the northern hemisphere; as a result high Arctic areas are now losing heat at an increasing rate. The increased latitudinal temperature contrasts intensify both the circulation aloft and the development of cyclonic storms at the surface.

A relatively more west-east mean circulation was evident this week. On a daily basis atmospheric waves crossed the western cordillera and moved eastward across the continent triggering low pressure development at the surface. These weather systems crossed the

western provinces and converged over the east coast. Brief periods of warmer but damp weather were common in the southerly air flow ahead of and to the south of each weather system. In their wake cold Arctic air penetrated southward dropping temperatures once again to below normal values.

A strong onshore flow allowed Pacific cyclonic disturbances and frontal waves to move inland across British Columbia and the Yukon. Large amounts of precipitation fell along the Canadian west coast; in some communities in excess of 150 mm. A mild Pacific air-mass penetrated inland letting temperatures recover to above normal values.

LOW PRESSURE CENTRE TRAJECTORIES



MONTHLY EXTREMES FOR THE WEEK

CITY	MAXIMUM TEMPERATURE	LOCATION	MINIMUM TEMPERATURE	LOCATION	GREATEST PRECIPITATION	LOCATION
YUKON TERRITORY	17.7	CAWSON	-6.4	CAWSON	19.5	CAWSON
NORTHWEST TERRITORIES	22.7	HAY RIVER	-10.1	ALERT	28.5	BAKER LAKE
BRITISH COLUMBIA	34.1	LYTICK	-1.7	DEASE LAKE	161.4	MCINNIS ISLAND
ALBERTA	32.4	MEDICINE HAT	-2.0	HIGH LEVEL	30.2	EDSON
SASKATCHEWAN	32.1	WHITE JAW	-2.5	COLLINS BAY	75.5	COLLINS BAY
MANITOBA	29.9	DAUPHIN	-2.5	THORNHILL	23.7	THE PASS
ONTARIO	28.5	WINDSOR	-3.4	ARMSTRONG	36.1	MUSKOKA
QUEBEC	23.2	MANTOAKI	-1.4	KOARIK	68.1	STE ANATHE DES MONTS
NEW BRUNSWICK	25.3	FREDERICTON	4.9	FREDERICTON	61.4	SAINT JOHN
NOVA SCOTIA	23.2	FODY POINT	5.1	GREENHILL	71.2	SHELBOURNE
PRINCE EDWARD ISLAND	22.9	SUMMERSIDE	7.6	SUMMERSIDE	50.5	CHARLOTTETOWN
NEWFOUNDLAND	23.9	COMFORT COVE	-1.7	WARREN LAKE	76.6	ST LAWRENCE

Montreal	376.3	-81.5	81
Quebec	323.0	-73.0	82
Fredricton	146.0	-58.0	83
Halifax	152.0	-48.0	84
Charlottetown	135.0	-44.0	85
St. John's	127.5	33	86

GROWING DEGREE-DAY SUMMARY AUGUST 1982



CITY	MONTHLY CUMULATIVE TOTAL	MONTHLY DIFF. FROM 1941-70 NORMAL	MONTHLY PERCENT OF NORMAL
Whitehorse	201.0	-27.0	88
Penticton	433.0	-9.0	98
Vancouver	365.5	-8.5	98
Edmonton	301.0	-19.0	94
Calgary	307.0	-10.0	97
Regina	388.5	-12.5	97
Saskatoon	344.5	-41.5	89
Winnipeg	379.0	-44.0	90
Thunder Bay	292.0	-65.0	82
Windsor	469.0	-38.0	93
Toronto	383.0	-82.0	82
Ottawa	373.5	-70.5	84
Montreal	376.5	-85.5	81
Quebec	323.0	-73.0	82
Fredericton	346.0	-58.0	86
Halifax	352.0	-48.0	88
Charlottetown	355.0	-44.0	89
St John's	327.5	3.5	101

