



CLIMATIC PERSPECTIVES



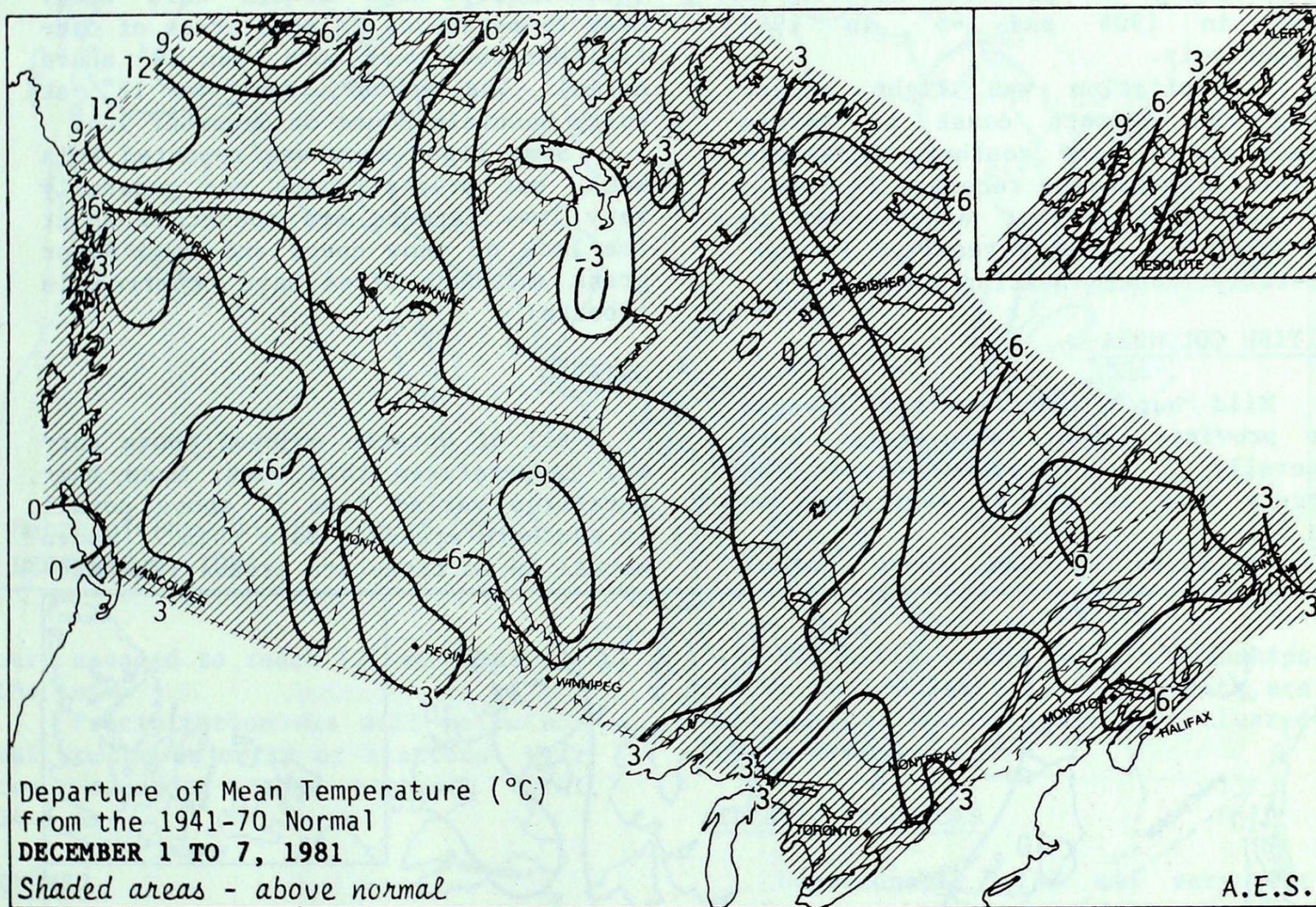
Canada

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

DECEMBER 11, 1981

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VOL.3 NO.49



WEATHER HIGHLIGHTS FOR THE PERIOD - DECEMBER 1 TO 7, 1981

Very wet weather strikes the East Coast

A series of storms tracked along the Atlantic Coast bringing more than 100 mm of precipitation to many communities. St. John, New Brunswick recorded a 24 hour rainfall of 100 mm on December 2nd. Cartwright, Newfoundland measured a weekly total of 160.7 mm.

Snow covers the ground in all areas of the country except the Maritimes and the island of Newfoundland.

Temperatures across the country varied from 16° at Greenwood, Nova Scotia to -39° at Eureka, Northwest Territories.

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

Except for the Keewatin district, mean temperatures were again above normal this week. Mean temperatures were more than 14° above normal in the central Yukon. Dawson set daily maximum temperature records. The mercury reached 1° on the 3rd and -1° on the 4th breaking the previous records of -5.6° in 1904 and -5° in 1963 respectively.

Precipitation was light except along the eastern coast of Baffin Island and in the southern Mackenzie Valley. Fort Simpson recorded 24.3 mm.

The mild weather experienced in the Yukon has already resulted in considerably reduced heating costs.

BRITISH COLUMBIA

Mild but cloudy weather covered the province. Mean temperatures were generally 2° to 5° above normal. The mercury rose to 14° at Abbotsford on the 5th.

Precipitation was above normal

along coastal areas. Comox recorded 88.5 mm. Castelgar has already set a record for precipitation this year with 865 mm as compared to the old record of 854 mm in 1968.

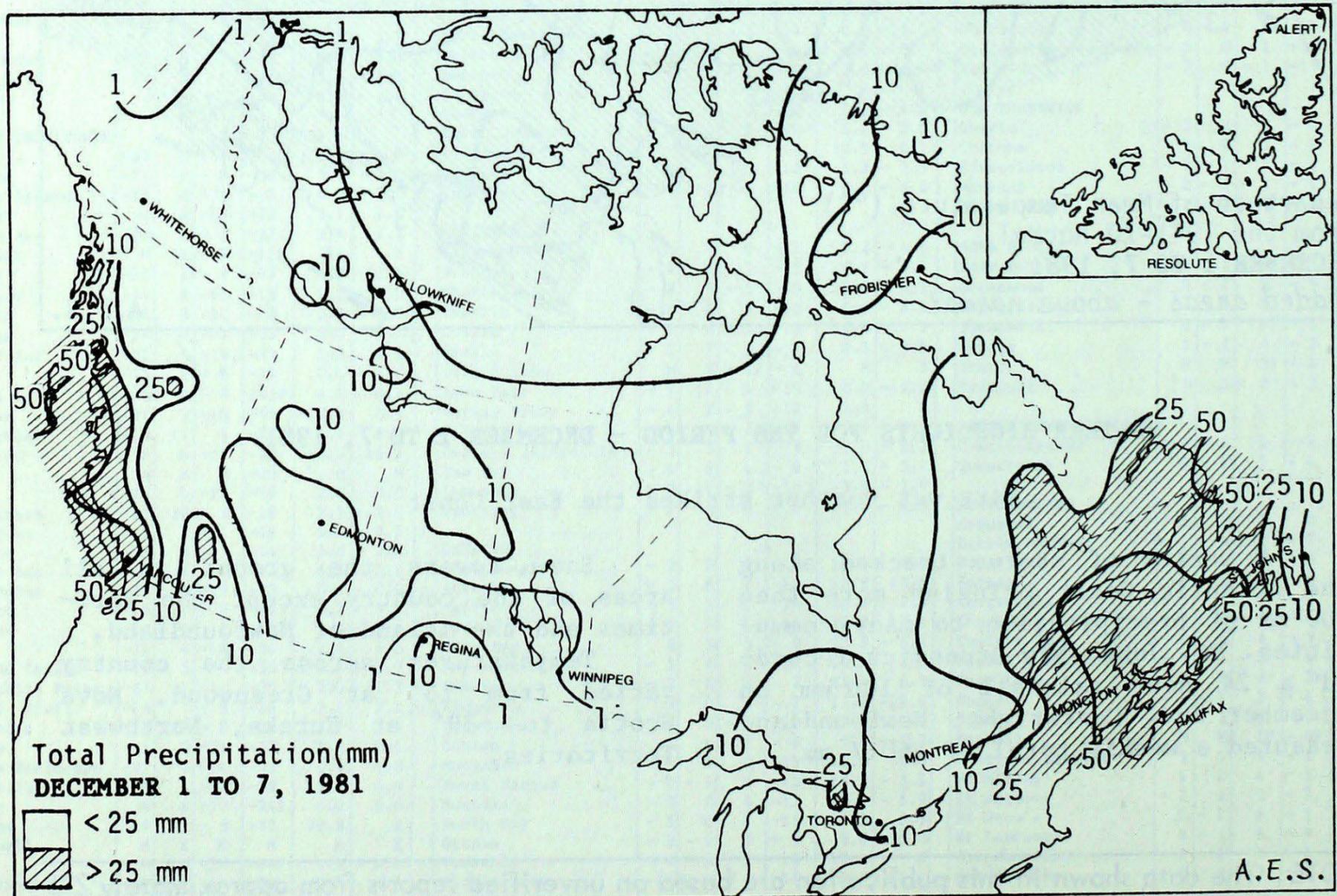
PRAIRIE PROVINCES

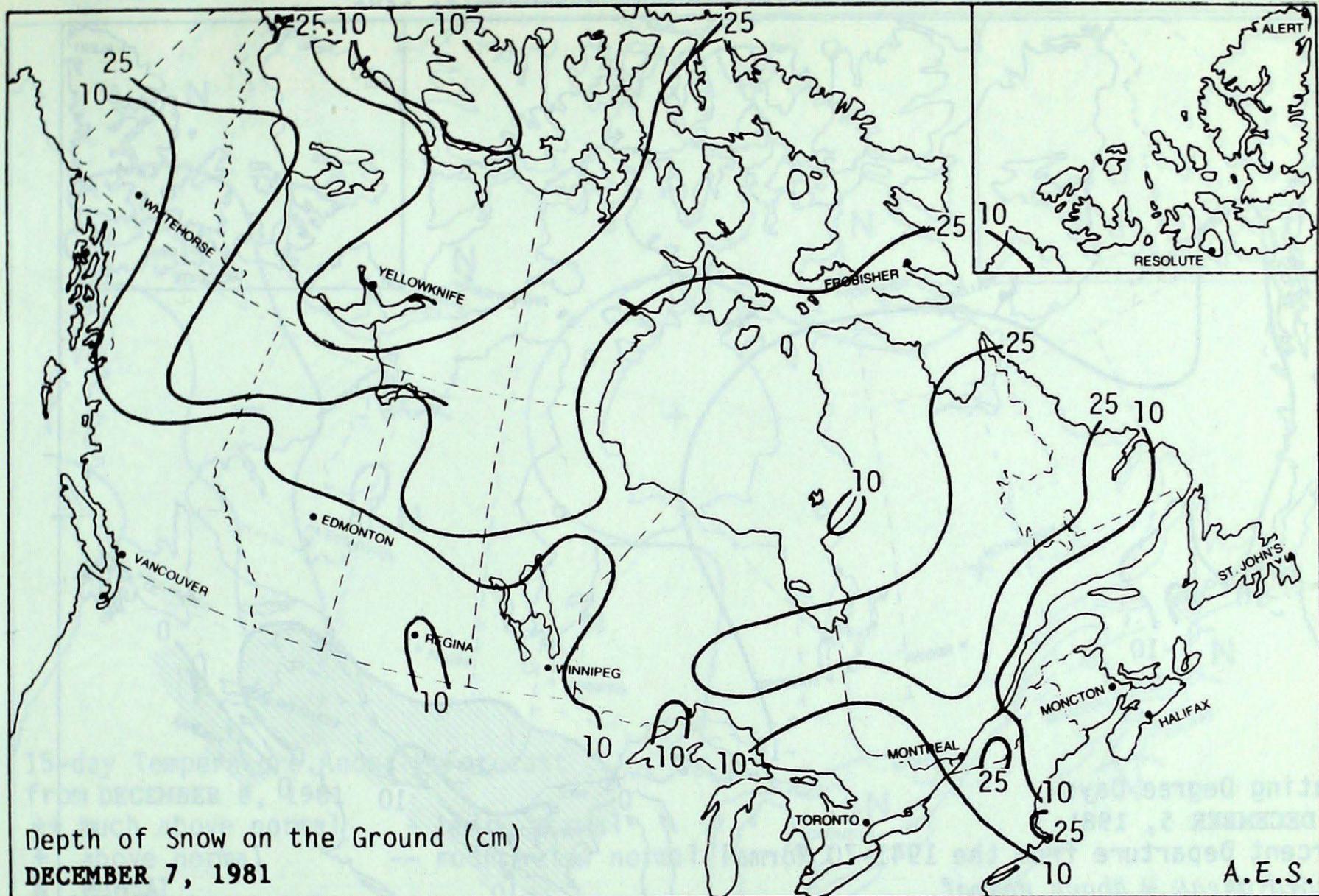
The mercury continued to reach unseasonably high levels this week. Mean temperatures in some areas of central Manitoba were more than 10° above normal. The mercury rose to 12° at Rocky Mountain House on December 5th.

Some light snow was reported this week, but precipitation was generally very low. Farmers are concerned about the lack of snow cover and some minor grass and bush fires have occurred in Alberta.

ONTARIO

All of Ontario enjoyed above normal temperatures this week. Mean temperatures varied from 1° above normal in southern areas to more than 7° above normal in northwestern areas. The mer-





cury managed to reach 12° at Windsor on the 1st.

Precipitation was well below normal at the majority of stations. Warton recorded the highest total, 34.4 mm.

QUÉBEC

A week of very mild weather was enjoyed throughout Québec. Mean temperatures were more than 8° above normal in eastern areas. Daily high temperature records were set at 28 stations, most of which were in the east.

Precipitation fell mainly as rain in eastern areas and as snow in the rest of the province. The Eastern Townships and Beauce Region had their first major snowstorm of the season on December 6th and 7th. Sherbrooke recorded 41.8 cm of snow on the 6th setting a new 24 hour snowfall record (previous record 40.3 cm on January 18th, 1978).

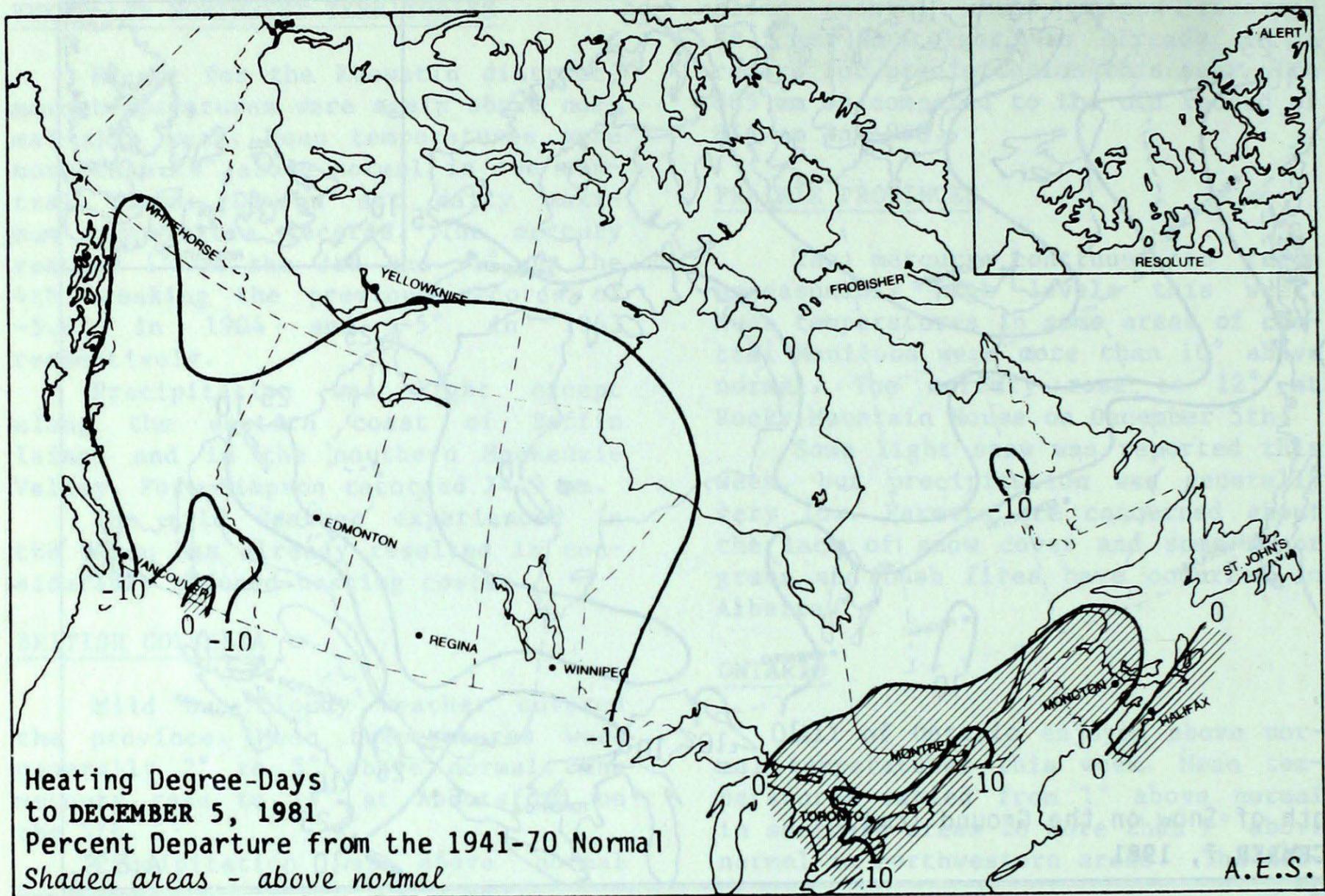
Ski hills in the Eastern Townships are in full operation, but streets are not expected to be completely cleared before December 11th.

ATLANTIC PROVINCES

Unseasonably mild and very wet weather moved into the Atlantic Provinces. Many high temperature records were set in the Maritimes on December 3rd and in the province of Newfoundland on the 4th and 5th. The mercury rose to 16° at Greenwood on the 3rd exceeding the old record of 12° set in 1974.

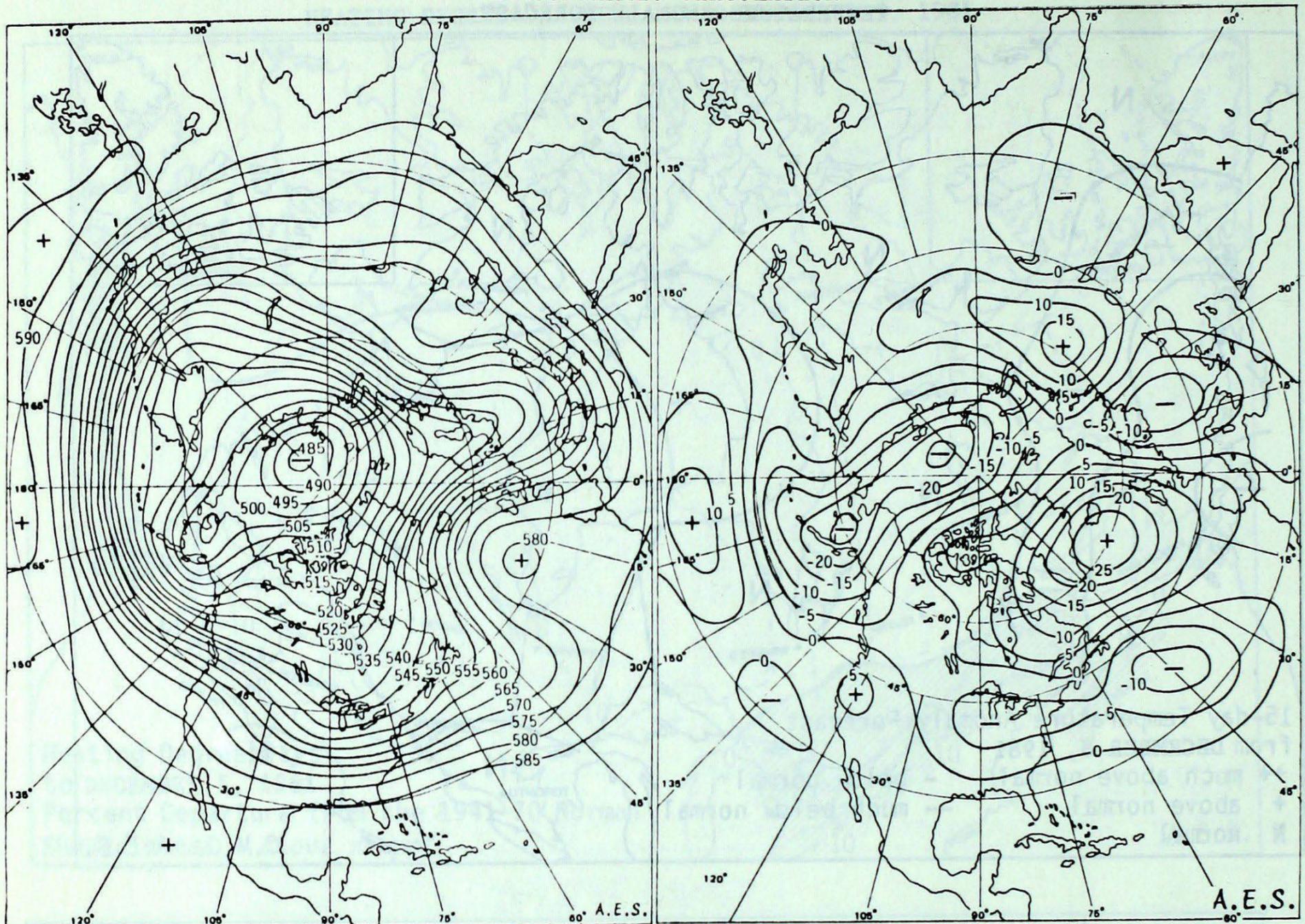
All areas measured very high rainfall totals. Six stations recorded rainfalls in excess of 100 mm. St. John measured 100.0 mm on the 2nd exceeding the old daily record of 85.1 mm set on December 9th, 1974 (records started in 1871). Goose Bay recorded 26.2 mm of rain on December 7th setting an all time daily record. The old record was 19.6 mm set in 1957.

HEATING DEGREE-DAY SUMMARY TO DECEMBER 5, 1981



STATION	MONTHLY CUMULATIVE TOTAL	MONTHLY DIFF. FROM 1941-70 NORMAL	SEASONAL TOTAL	SEASONAL DIFF. FROM 1941-70 NORMAL	SEASONAL PERCENT OF NORMAL
Resolute	224.5	-3.5	3965.0	-140.0	97
Inuvik	201.0	-14.0	2974.5	-66.5	98
Whitehorse	121.0	-39.0	1914.0	-203.0	90
Vancouver	60.0	-5.0	787.0	-70.0	92
Edmonton Mun	97.5	-32.5	1216.5	-311.5	80
Calgary	91.0	-29.0	1288.5	-216.5	86
Regina	143.5	0.5	1301.5	-205.5	86
Winnipeg	119.0	-20.0	1221.5	-181.5	87
Thunder Bay	107.0	-21.0	1361.0	-76.0	95
Windsor	74.0	-16.0	824.0	44.0	106
Toronto	82.5	-13.5	1028.0	113.0	112
Ottawa	90.0	-25.0	1138.5	73.5	107
Montreal	82.0	-26.0	1110.5	129.5	113
Quebec	96.5	-24.5	1284.5	76.5	106
Saint John, N.B.	79.5	-22.5	1146.5	-5.5	100
Halifax	68.5	-16.5	916.5	17.5	102
Charlottetown	73.0	-23.0	1010.0	-11.0	99
St. John's, Nfld.	80.0	-2.0	1202.5	-24.5	98

ATMOSPHERIC CIRCULATION



7-day Mean 50 kPa Height (dam)
NOVEMBER 30 TO DECEMBER 6, 1981

7-day Mean 50 kPa Height Anomaly
(5 dam intervals)
NOVEMBER 30 TO DECEMBER 6, 1981

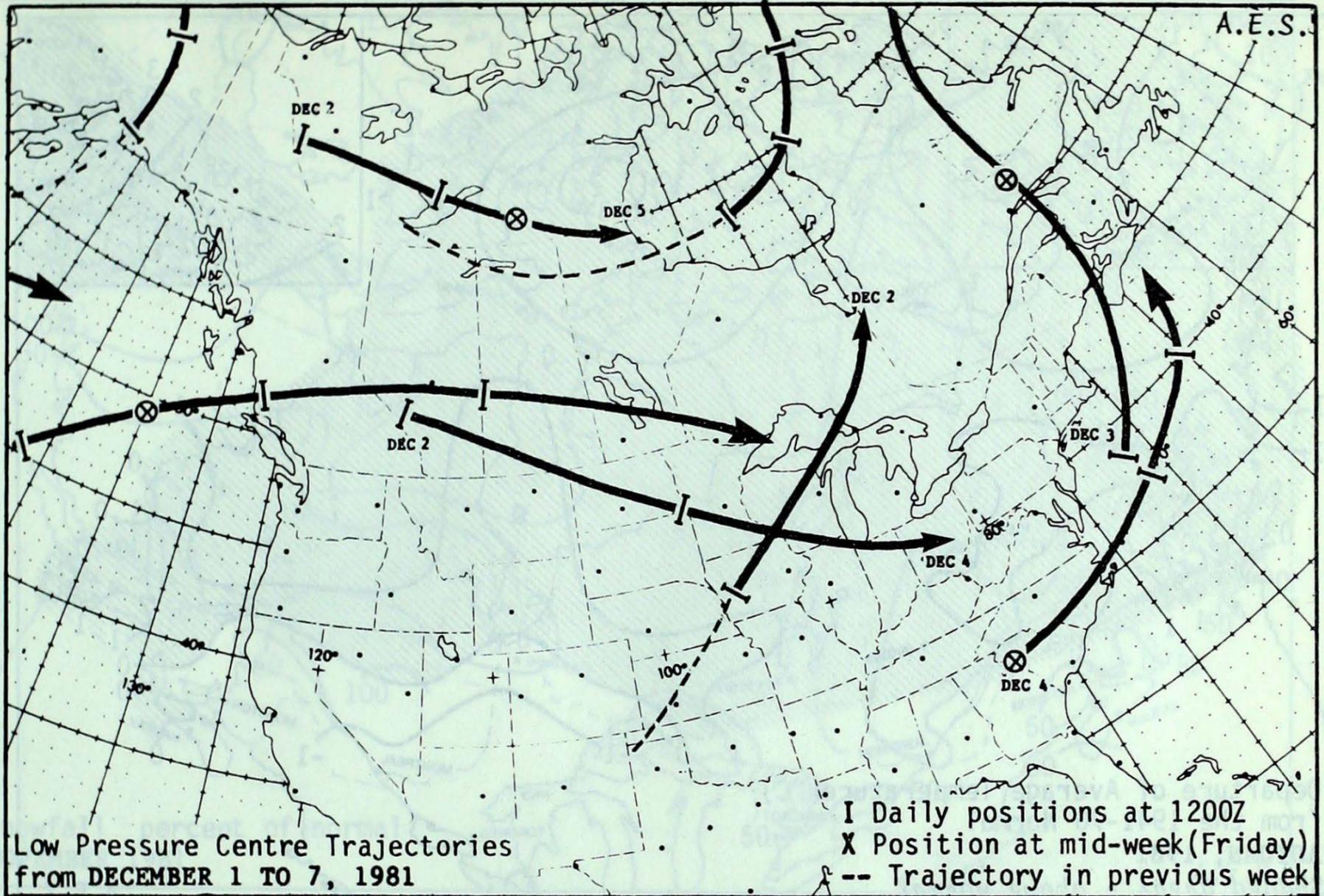
The circulation pattern across North America was much the same as the previous week. Slightly stronger ridging is now evident in the vicinity of the west coast but the mean flow is still westerly. Triggering pulses continued to approach the Pacific coastline spawning inland weather disturbances which in turn moved rapidly across the country.

Mild above normal mean temperatures encompassed the whole country due to the prevailing westerly circulation which allowed Pacific air to push eastward.

Three major storm tracks crossed the country; two had a west-east orientation and were associated with little precipitation. The third and most significant track began just off the east coast and crossed the Atlantic provinces and Labrador. Two major storms followed this storm track and as a result many communities in eastern Canada received well in excess of 100 mm of precipitation.

Andy Radomski

LOW PRESSURE CENTRE TRAJECTORIES



CLIMATIC PERSPECTIVES

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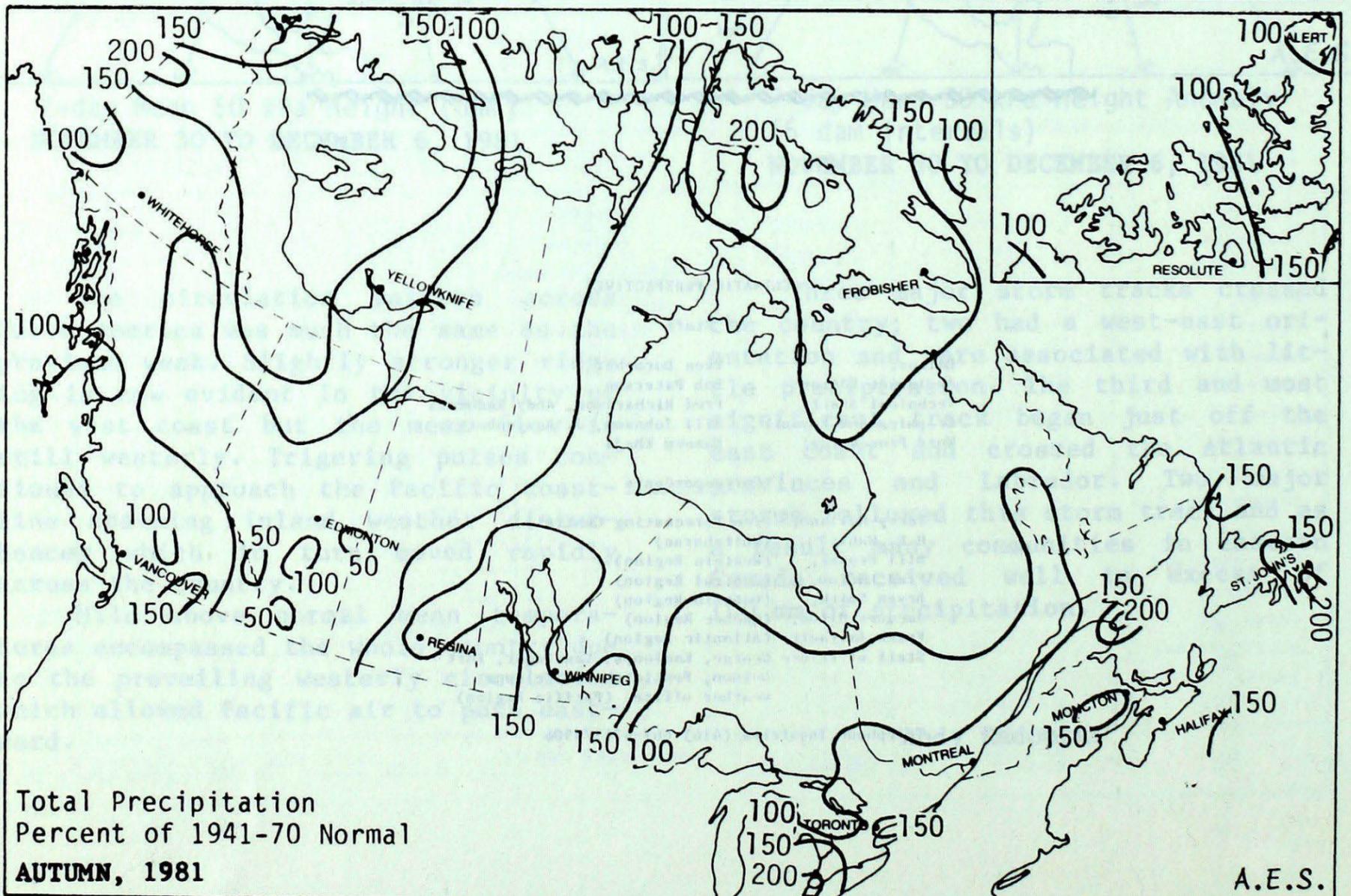
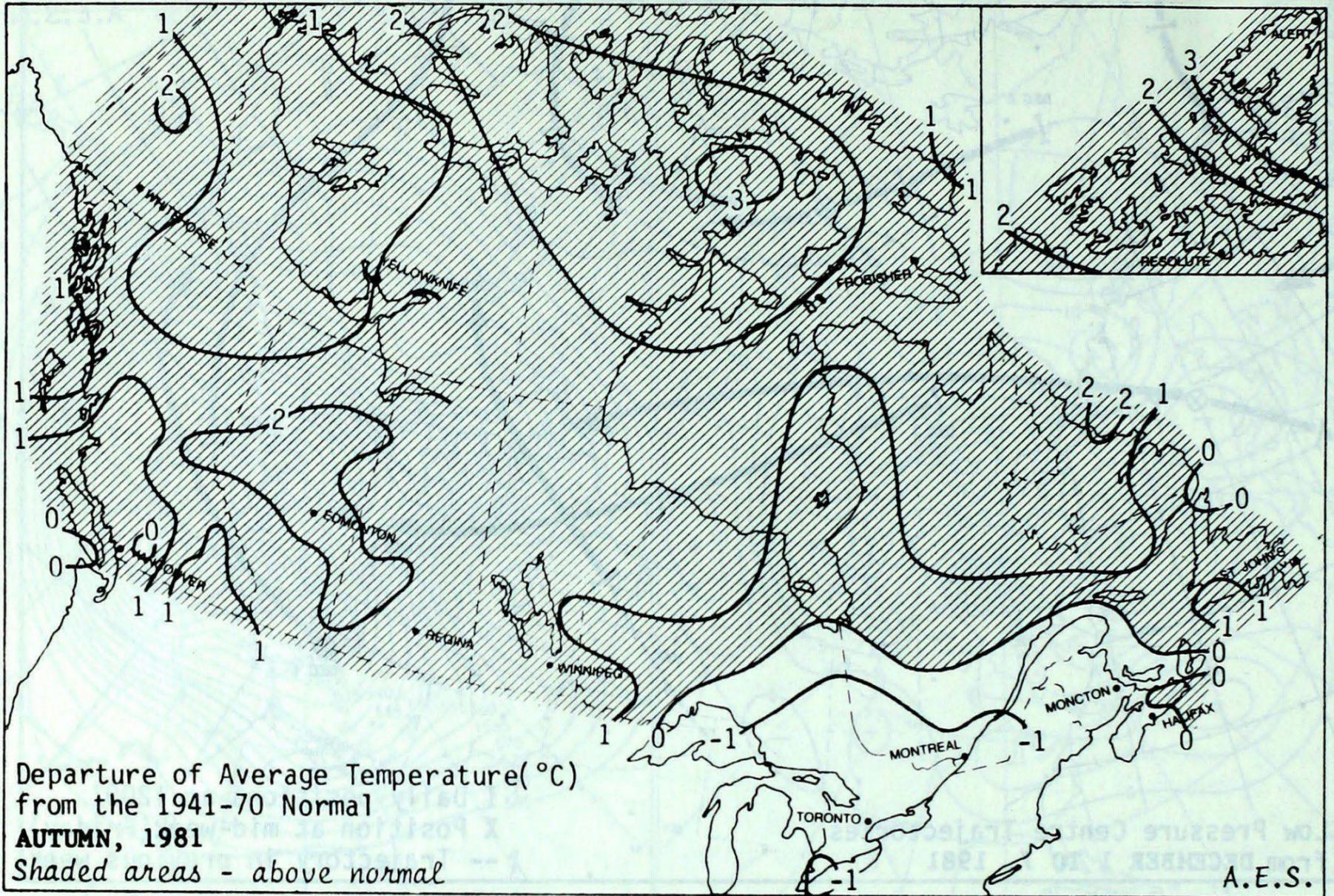
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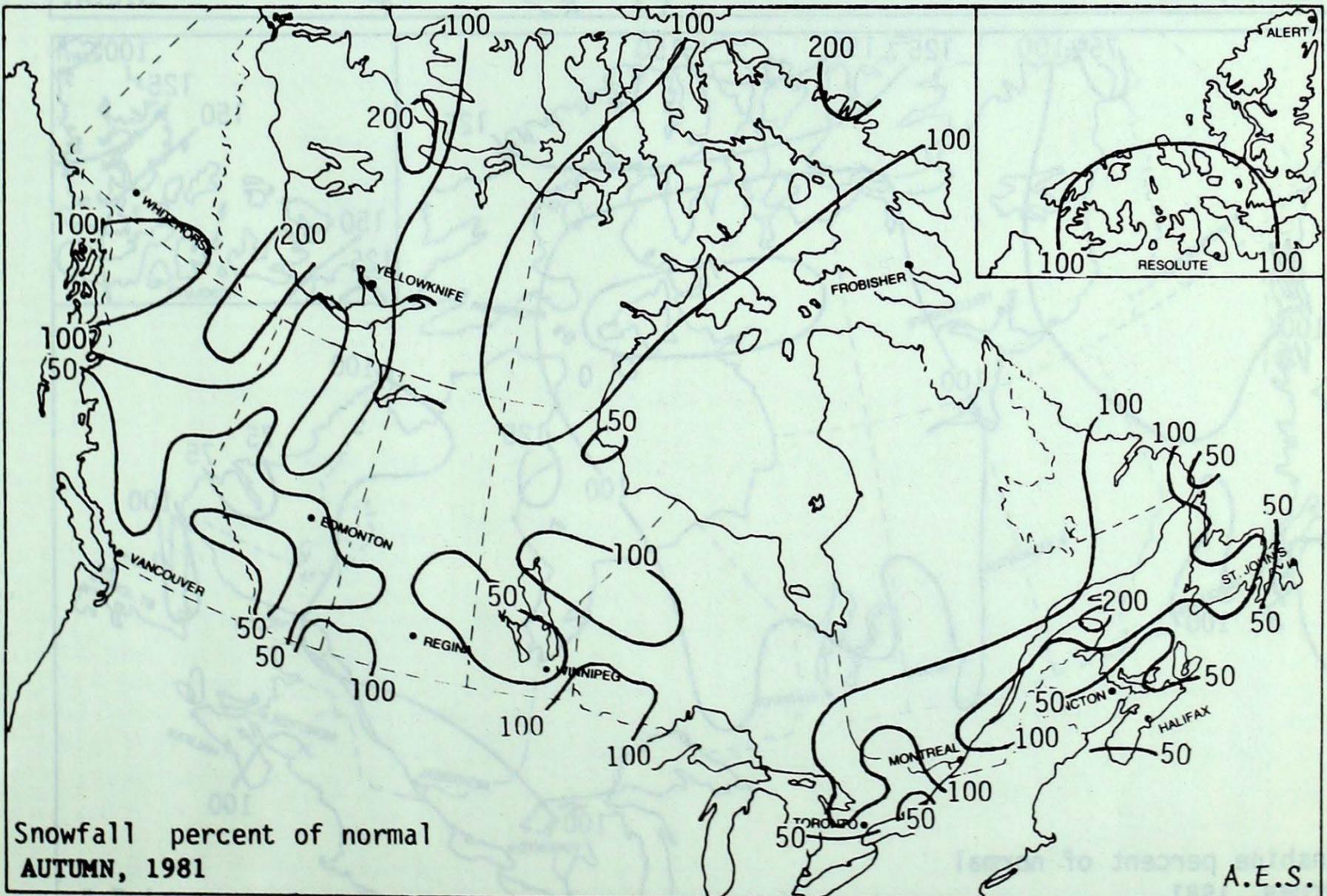
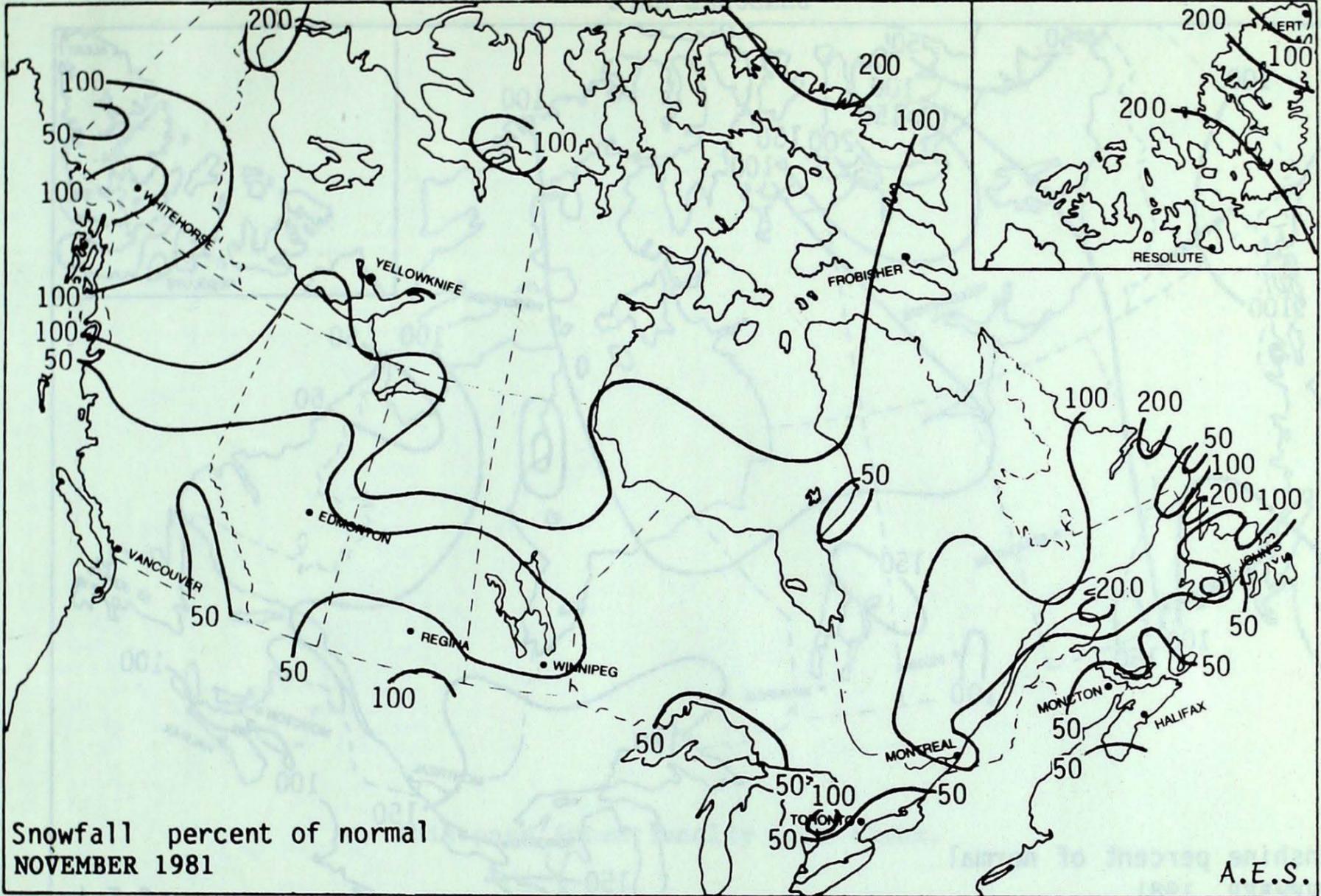
Total precipitation
Percent of 1941-70 Normal
Autumn, 1981

Snowfall percent of normal
Autumn, 1981
A.E.S.

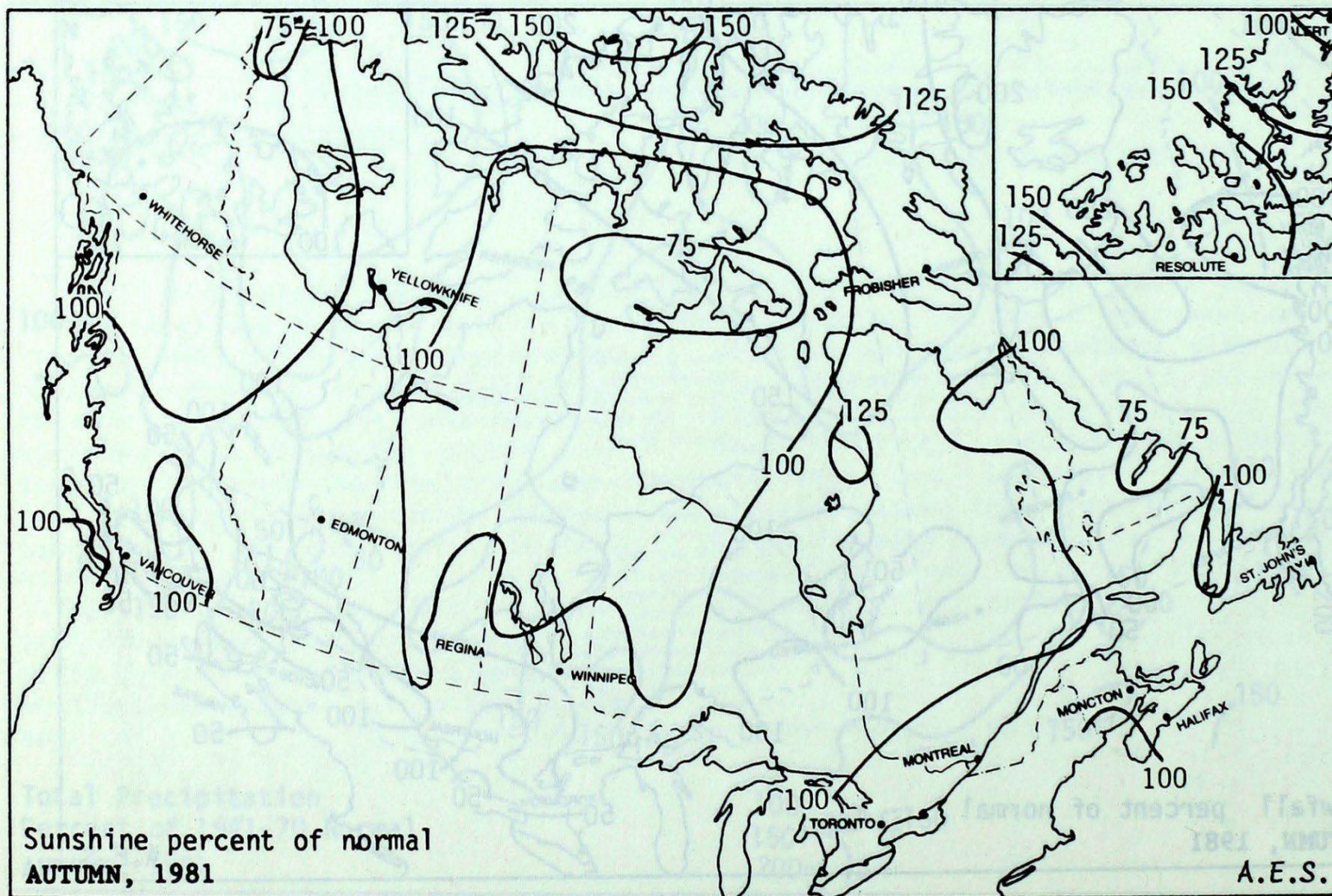
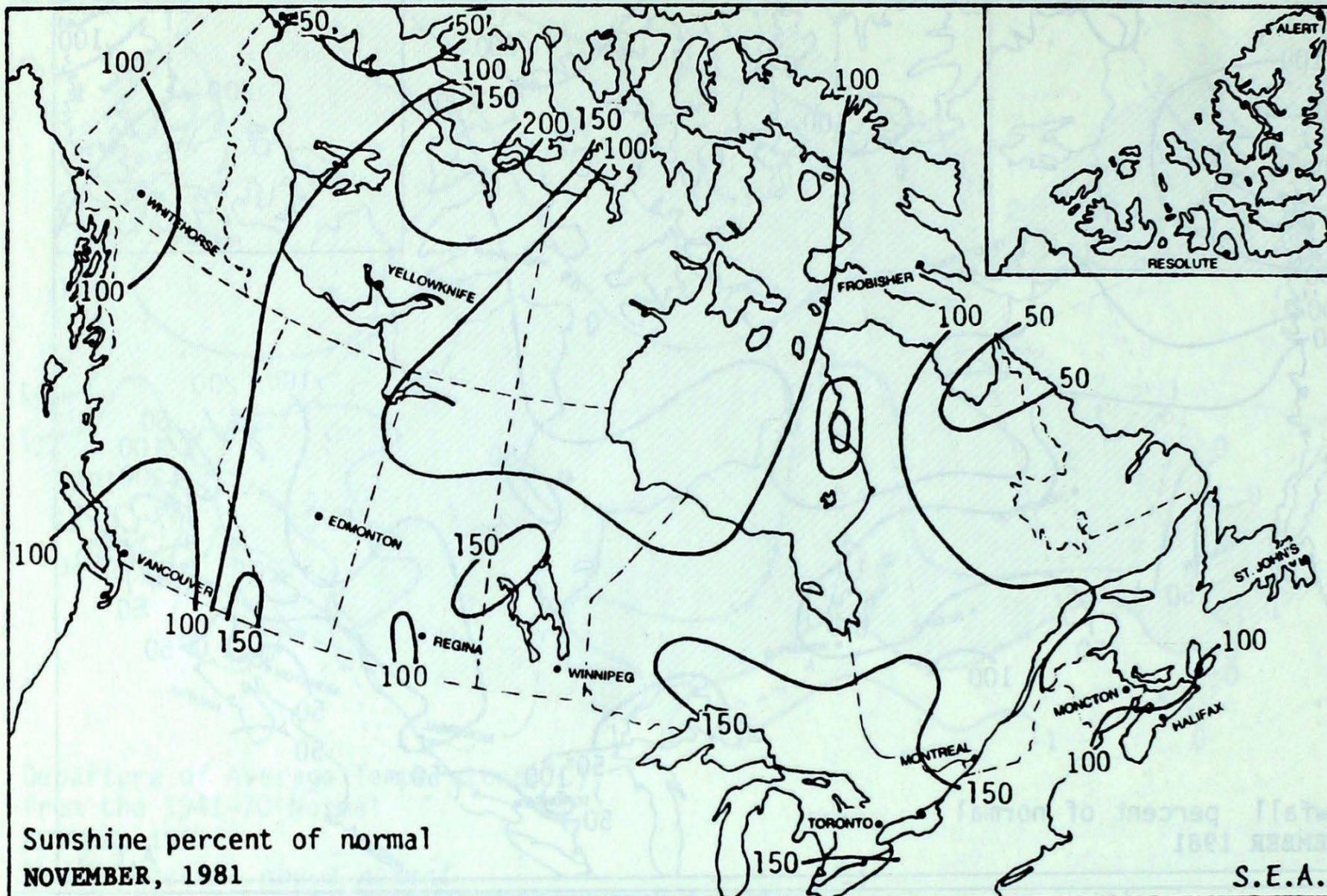
SEASONAL MAPS



SEASONAL MAPS



SEASONAL MAPS



TEMPERATURE AND PRECIPITATION DATA FOR THE WEEK ENDING 0600 G.M.T. DECEMBER 8, 1981

Station	Temperature (°C)				Precip. (mm)		Station	Temperature (°C)				Precip. (mm)		Station	Temperature (°C)				Precip. (mm)	
	Average	Departure from Normal	Extreme Maximum	Extreme Minimum	Total	Departure from Normal		Average	Departure from Normal	Extreme Maximum	Extreme Minimum	Total	Departure from Normal		Average	Departure from Normal	Extreme Maximum	Extreme Minimum	Total	Departure from Normal
BRITISH COLUMBIA							ALBERTA							QUÉBEC						
Abbotsford	4	0	10	-1	31.2	-16.1	Shepherd Bay	M	M	-22P	-38	0.0	-1.1	Red Lake	-6	-5	-1	-14	6.8	-2.5
Alert Bay	4	0	8	0	46.2	-13.2	Tuktoyaktuk	-19	6	-14	-24	3.0	1.5	Simcoe	1	3	7	-6	M	M
Blue River	M	X	2P	-5P	M	X	Yellowknife	-13	8	-8	-23	3.0	-2.8	Sioux Lookout	-5	5	0	-11	3.1	-7.4
Bull Harbour	5	0	9	-1	82.3	16.2	SASKATCHEWAN						Sudbury	-4	3	3	-11	15.3	2.2	
Burns Lake	M	X	2P	-10P	5.4	X	Broadview	-8	1	3	-19	4.7	2.6	Thunder Bay	-4	3	2	-12	5.8	-5.5
Cape Scott	7	1	10	4	84.5	9.4	Buffalo Narrows	-10	9	-1	-20	5.0	1.9	Timmins	-7	3	2	-20	13.2	-0.9
Cape St James	8	2	12	4	49.9	5.0	Buffalo Narrows	-10	9	-1	-20	5.0	1.9	Toronto	1	2	6	-5	4.9	-9.3
Castlegar	0	1	6	-6	5.3	-11.1	Cree Lake	-11	X	-4	-19	11.3	X	Trout Lake	-9	6	-2	-21	3.6	-5.8
Comox	4	0	9	-1	25.5	-32.4	Estevan	-6	2	4	-17	3.8	-0.3	Wawa	-4	X	1	-11	19.3	X
Cranbrook	-4	1	4	-14	0.0	-6.3	Hudson Bay	-7	5	0	-18	M	M	Warton	1	1	7	-4	34.4	6.8
Dease Lake	-6	6	0	-16	9.1	3.1	Kindersley	-5	5	5	-17	2.4	0.0	Windsor	3	2	12	-4	12.7	-2.0
Estevan Point	M	M	9P	2	M	M	La Ronge	-10	7	-1	-20	10.4	5.8	NOVA SCOTIA						
Fort Nelson	-16	2	-4	-28	1.2	-6.3	Meadow Lake	-10	X	0	-20	1.3	X	Eddy Point	6	X	12	-2	120.6	X
Fort St John	-5	6	3	-16	2.4	-5.8	Moose Jaw	-5	3	6	-19	2.4	-1.0	Greenwood	6	6	16	-5	61.3	34.0
Kamloops	0	1	6	-6	0.7	-5.2	Nipawin	-8	X	-2	-17	1.2	X	Sable Island	M	M	12P	-1P	66.3	35.9
Langara	M	M	9P	3P	M	M	North Battleford	-9	2	-1	-19	2.2	-0.9	Shearwater	5	4	13	-6	85.4	53.5
Lytton	1	1	7	-5	1.6	-14.7	Prince Albert	-9	4	-1	-18	0.8	-2.7	Sydney	6	5	12	-2	108.6	80.1
Mackenzie	M	X	1P	-12P	M	X	Regina	-9	0	3	-21	10.8	8.1	Truro	6	7	15	-8	M	M
McInnes Island	6	2	9	3	79.0	0.3	Rocky Mountain House	-3	5	12	-17	0.0	-3.7	Yarmouth	6	4	13	-4	86.3	53.8
Penticton	2	1	7	-4	0.2	-6.2	Slave Lake	-8	8	4	-22	14.0	4.1	PRINCE EDWARD ISLAND						
Port Hardy	4	0	8	-1	50.2	-14.0	Vermilion	-7	4	3	-18	2.8	-0.7	Charlottetown	5	6	13	-5	66.2	40.6
Prince George	-4	2	1	-11	8.9	-4.6	Whitecourt	-6	5	5	-17	0.9	-2.0	Summerside	4	5	14	-4	53.7	29.6
Prince Rupert	-4	2	8	-3	85.8	-3.1	MANITOBA						NEW BRUNSWICK							
Quesnel	-2	3	3	-6	6.4	-3.2	Bissett	-4	11	0	-10	1.9	-3.3	Charlo	1	7	6	-10	107.3	85.3
Revelstoke	2	4	7	-3	6.0	-17.8	Brandon	-6	5	6	-17	0.0	-4.4	Chatham	1	5	8	-10	79.4	57.5
Sandspit	6	2	11	1	24.3	-29.7	Churchill	-12	6	-4	-21	3.8	-3.3	Fredericton	2	6	11	-11	72.3	43.8
Smithers	-3	2	4	-6	5.2	-8.3	Dauphin	-5	5	3	-17	0.0	-5.1	Moncton	3	6	14	-11	57.2	29.7
Stewart	M	X	4	-3P	52.1	X	Gillam	-13	X	-5	-28	4.3	X	St. John	3	6	13	-7	141.8	98.3
Terrace	1	4	5	-3	36.4	-19.5	Gimli	-4	5	2	-14	0.8	-6.1	NOVA SCOTIA						
Vancouver	4	-1	9	-1	51.4	11.7	Inland Lake	-7	X	-2	-16	2.4	X	Eddy Point	6	X	12	-2	120.6	X
Victoria	4	-1	8	-2	20.9	-14.5	Lynn Lake	-13	9	-7	-20	6.7	-0.5	Greenwood	6	6	16	-5	61.3	34.0
Williams Lake	-5	2	0	-10	2.8	-4.6	Norway House	-8	X	-1	-15	4.6	X	Sable Island	M	M	12P	-1P	66.3	35.9
YUKON							ONTARIO							NEW BRUNSWICK						
Burwash	-10	7	2	-23	1.2	-4.2	Armstrong	-6	5	-2	-14	10.8	-1.6	Shearwater	5	4	13	-6	85.4	53.5
Dawson	-12	11	-5	-23	20.7	15.8	Atikokan	-5	7	1	-15	2.5	-5.1	Sydney	6	5	12	-2	108.6	80.1
Kamakuk Beach	-22	1	-15	-31	1.0	-0.2	Earlton	-6	2	3	-18	10.2	-1.3	Truro	6	7	15	-8	M	M
Mayo	-9	13	-1	-18	10.5	6.2	Geraldton	-6	7	0	-17	8.2	2.8	Yarmouth	6	4	13	-4	86.3	53.8
Shingle Point	-22	3	-11	-32	7.0	6.4	Gore Bay	0	2	7	-6	10.8	-7.4	PRINCE EDWARD ISLAND						
Watson Lake	-14	5	4	-24	2.5	-7.5	Kapuskasing	-6	3	-1	-14	21.9	7.1	Charlottetown	5	6	13	-5	66.2	40.6
Whitehorse	-4	9	6	-18	3.2	-2.8	Kenora	-4	5	0	-9	1.2	-9.2	Summerside	4	5	14	-4	53.7	29.6
NORTHWEST TERRITORIES							MANITOBA							NEW BRUNSWICK						
Alert	-23	4	-9	-33	0.6	-0.8	Kindersley	-5	5	3	-16	16.0	11.4	Eddy Point	6	X	12	-2	120.6	X
Baker Lake	-17	8	-8	-30	5.6	3.5	La Ronge	-10	7	-1	-20	10.4	5.8	Greenwood	6	6	16	-5	61.3	34.0
Broughton Island	-14	4	-10	-22	0.0	-3.1	Meadow Lake	-10	X	0	-20	1.3	X	Sable Island	M	M	12P	-1P	66.3	35.9
Byron Bay	M	M	-10P	-33	3.1	2.5	Moose Jaw	-5	3	6	-19	2.4	-1.0	Shearwater	5	4	13	-6	85.4	53.5
Cambridge Bay	-26	1	-8	-37	2.4	1.2	Nipawin	-8	X	-2	-17	1.2	X	Sydney	6	5	12	-2	108.6	80.1
Cape Dorset	M	X	-3P	-19P	3.4	X	North Battleford	-9	2	-1	-19	2.2	-0.9	Truro	6	7	15	-8	M	M
Cape Dyer	-20	-2	-8	-37	0.2	-17.5	Prince Albert	-9	4	-1	-18	0.8	-2.7	Yarmouth	6	4	13	-4	86.3	53.8
Cape Hooper	-14	5	-10	-18	1.2	-2.1	Regina	-9	0	3	-21	10.8	8.1	PRINCE EDWARD ISLAND						
Cape Parry	-21	3	-12	-27	0.2	-0.9	Rocky Mountain House	-3	5	12	-17	0.0	-3.7	Charlottetown	5	6	13	-5	66.2	40.6
Cape Young	-24	0	-15	-35	5.0	4.7	Slave Lake	-8	8	4	-22	14.0	4.1	Summerside	4	5	14	-4	53.7	29.6
Clinton Point	M	M	-7P	-31	1.3	0.3	Vermilion	-7	4	3	-18	2.8	-0.7	NOVA SCOTIA						
Clyde	-15	5	-8	-23	0.4	-4.1	Whitecourt	-6	5	5	-17	0.9	-2.0	Eddy Point	6	X	12	-2	120.6	X
Contwoyto Lake	M	M	-9	-33P	4.8	0.7	MANITOBA						Greenwood	6	6	16	-5	61.3	34.0	
Coppermine	-21	2	-10	-31	2.8	0.5	Bissett	-4	11	0	-10	1.9	-3.3	Sable Island	M	M	12P	-1P	66.3	35.9
Coral Harbour	-10	11	-4	-25	11.8	8.8	Brandon	-6	5	6	-17	0.0	-4.4	Shearwater	5	4	13	-6	85.4	53.5
Dewar Lakes	-16	6	-11	-23	16.6	16.2	Churchill	-12	6	-4	-21	3.8	-3.3	Sydney	6	5	12	-2	108.6	80.1
Ennadai	M	M	M	-20	M	M	Dauphin	-5	5	3	-17	0.0	-5.1	Truro	6	7	15	-8	M	M
Eureka	-28	4	-11	-39	2.4	2.0	Gillam	-13	X	-5	-28	4.3	X	Yarmouth	6	4	13	-4	86.3	53.8
Fort Reliance	-11	10	-6	-18	2.1	-2.0	Gimli	-4	5	2	-14	0.8	-6.1	PRINCE EDWARD ISLAND						
Fort Simpson	-18	5	-11	-28	0.4	-5.2	Inland Lake	-7	X	-2	-16	2.4	X	Charlottetown	5	6	13	-5	66.2	40.6
Fort Smith	-10	8	-2	-18	3.8	-2.0	Lynn Lake	-13	9	-7	-20	6.7	-0.5	Summerside	4	5	14	-4	53.7	29.6
Frøbisher Bay	-12	4	-4	-23	4.3	-3.6	Norway House	-8	X	-1	-15	4.6	X	NOVA SCOTIA						
Gladman Point	-23	6	-12	-32	0.4	-0.4	Pilot Mound	M	M	4P	-18	0.0	-4.4	Eddy Point	6	X	12	-2	120.6	X
Hall Beach	-15	11	-6	-29	6.7	4.2	Portage La Prairie	-5	4	1	-14	0.0	-4.5	Greenwood	6	6	16	-5	61.3	34.0
Hay River	-12	5	1	-22	1.6	-5.5	The Pas	-9	5	3	-16	16.0	11.4	Sable Island	M	M	12P	-1P	66.3	35.9
Inuvik	-24	4	-16	-34	7.4	3.5	Thompson	-10	11	-4	-16	3.9	-5.0	Shearwater	5	4	13	-6	85.4	53.5
Jenny Lind Island	-23	5	-9	-33	4.6	3.7	Winnipeg	-5	4	-1	-15	1.0	-4.4	Sydney	6	5	12	-2	108.6	80.1
Lady Franklin Point	-23	1	-11	-30	2.0	1.5	MANITOBA						Truro	6	7	15	-8	M	M	
Longstaff Bluff	-15	7	-8	-28	7.1	7.1	Bissett	-4	11	0	-10	1.9	-3.3	Yarmouth	6	4	13	-4	86.3	53.8
Mackar Inlet	-16	10	-8	-29	4.2	3.4	Brandon	-6	5	6	-17	0.0	-4.4	PRINCE EDWARD ISLAND						
Mould Bay	-29	0	-21	-37	1.2	0.1	Churchill	-12	6	-4	-21	3.8	-3.3	Charlottetown	5	6	13	-5	66.2	40.6
Nicholson Peninsula	-22	4	-14	-32	2.1	1.8	Dauphin	-5	5	3										