

In this November 17, satellite photo enlargement of southwestern Manitoba, several features can be readily observed. All the lakes, including Lake Winnipeg and Manitoba, are frozen. A substantial snowfall covers the agricultural districts of the Prairies; rivers are still discernible, meandering across the landscape (lower right). The snow cover is some what obscured in heavily treed, hilly terrain (darker areas), and the coniferous forested areas across to the north.

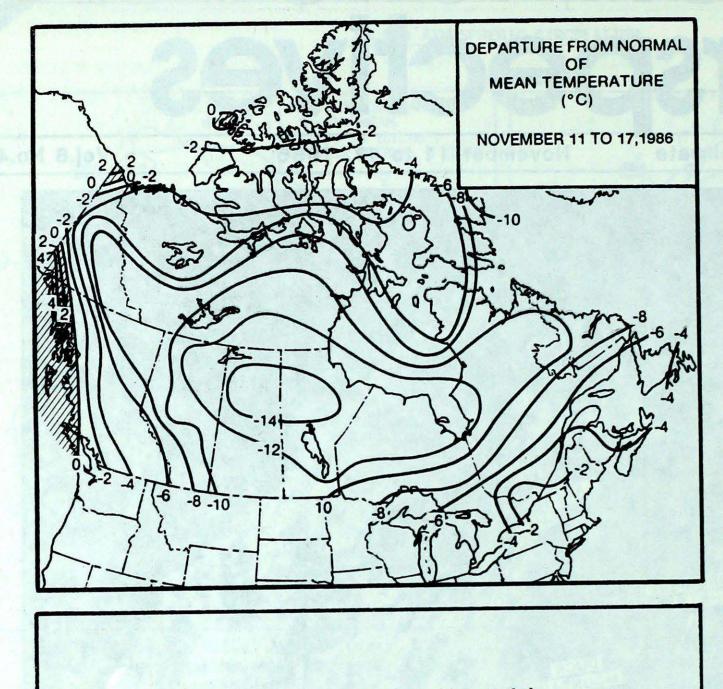
### Arctic air covers most of the country

## Hurricane-force winds batter coastal Newfoundland

- winds damage buildings and overturn trucks



### TEMPERATURE



2A

### WEEKLY TEMPERATURE EXTREME (C)

MAXIMUM

FORT NELSON -31 12 CAPE ST.JAMES BRITISH COLUMBIA DAWSON -40 0 BURWASH YUKON TERRITORY NORTHWEST TERRITORIESCAPE DORSET A SHEPHERD BAY A -38 HIGH LEVEL -34 5 RED DEER ALBERTA MEADOW LAKE -34 MOOSE JAW 0 SASKATCHEWAN THOMPSON -36 -3 GRETNA MANITOBA 13 LANSDOWNE HOUSE -32 WINDSOR ONTARIO KUUJJUAQ -27 MONTREAL INT'L 8 QUEBEC CHARLO -15 7 ST STEPHEN NEW BRUNSWICK AMHERST -12 SABLE ISLAND 11

#### ACROSS THE COUNTRY ...

#### Yukon and Northwest Territories

Most of Canada's northwest was in the grip of a large Arctic high pressure cell, which produced clear and frigid weather. Disturbances, approaching the Pacific coast, maintained cloudy skies and warmer temperatures in the southern Yukon, where there were periods of snow and freezing precipitation. A nearly stationary area of low pressure produced cloudy, blustery weather conditions in the eastern Arctic. In the last 18 days, Frobisher has had only 2 hours of sunshine. On November 12, the equivalent wind chill temperature at Frobisher registered -60°C. Blizzard warnings were posted for the northern Hudson Bay area.

#### British Columbia

The first real bite of winterlike weather persisted most of the week, with temperatures eventually rising to more normal values by the weekend. In northern B.C., it remained very cold. Maximum readin in the north remained in the double digits all week, and as a result the depth of snow on the ground has increased to between 20 and 5 centimetres. Fresh snowfalls ranging between 10 and 20 centimetres wer measured in the interior, even i the south, where driving condition were hazardous. Temperatures alon the lower mainland and even a Victoria dipped below freezing Sunshine was scarce; some coasta communities had none whatsoever.

#### Prairies

Numerous new daily low tempera ture records were established durin the first few days of the period with minimums frequently dropping t

NOVA SCOTIA PRINCE EDWARD ISLAND NEWFOUNDLAND

SUMMERSIDE ST LAWRENCE

ACROSS THE NATION

6

-31

CHARLOTTETOWN -12 WABUSH LAKE -30

MINIMUM

the minus thirties in the north an the minus twenties in the south Weak disturbances rippled eastward across the district, giving variabl cloudy skies and on a number o occasions light snowfalls. On Novem ber 13 and 14, southern Albert received a 5 to 15 centimetre snow fall. On the 15th, skies cleared a early morning temperatures soared to 20 degrees as a strong chinoo took effect.

WARMEST MEAN TEMPERATURE COOLEST MEAN TEMPERATURE

CAPE ST.JAMES BC 9 NWT EUREKA

### PRECIPITATION

#### Ontario

Record cold temperatures and plenty of snow dominated the weather, as an Arctic airmass settled over the province. Minimum temperatures in the north hovered in the minus twenties all week, while readings in the south dropped to the double digits. Snow cover was extensive everywhere other than southern Ontario. Sault Ste. Marie received a 20 to 25 centimetre snowfall November 12 and 13. A dusting of snow caused numerous traffic tie-ups in Toronto earlier in the week. Gale-force winds on the Great Lakes on November 11 added to the damage toll once again. Since frost has now firmed up the ground, farmers in southern Ontario were able to resume ploughing and harvesting some of the remaining crops. The annual Santa Claus Parade was held in Toronto on Sunday under typically cloudy November skies.

#### Quebec

An Arctic airmass produced record low temperatures throughout the province. On November 13 and 14, twenty eight minimum daily low temperature records were broken. Chibougamau, Sept-Iles and Gaspé tied their monthly low temperature records established back in 1978. At the end of the period, snow covered all sections of the province. The cold weather has allowed several ski resorts to open in southern Quebec. Further to the north, snow depths range between 10 and 20 centimetres. Overall, it was a typical winter-like week.

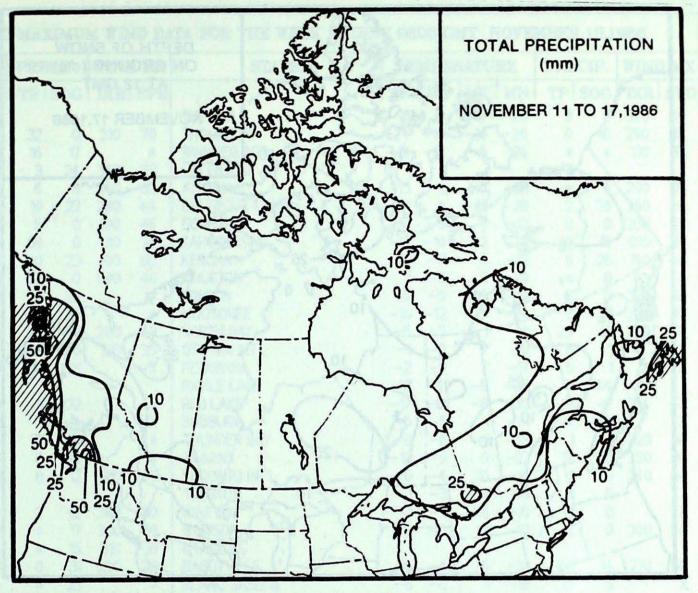
#### Maritimes

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Cloudy and cold weather prevailed, especially during the early part of the week. Strong northwesterly winds gusting over 100 km/h, caused extremely uncomfortable conditions on the 14th. A reading of -10°C at St. John, New Brunswick on November 14 was the coldest ever recorded this early in the season. Except for Sable Island, which received 70 mm of rain, precipitation in the Maritimes was light. Snow covered parts of New Brunswick, Cape Breton Island and Prince Edward Island.



### HEAVIEST WEEKLY PRECIPITATION (mm)

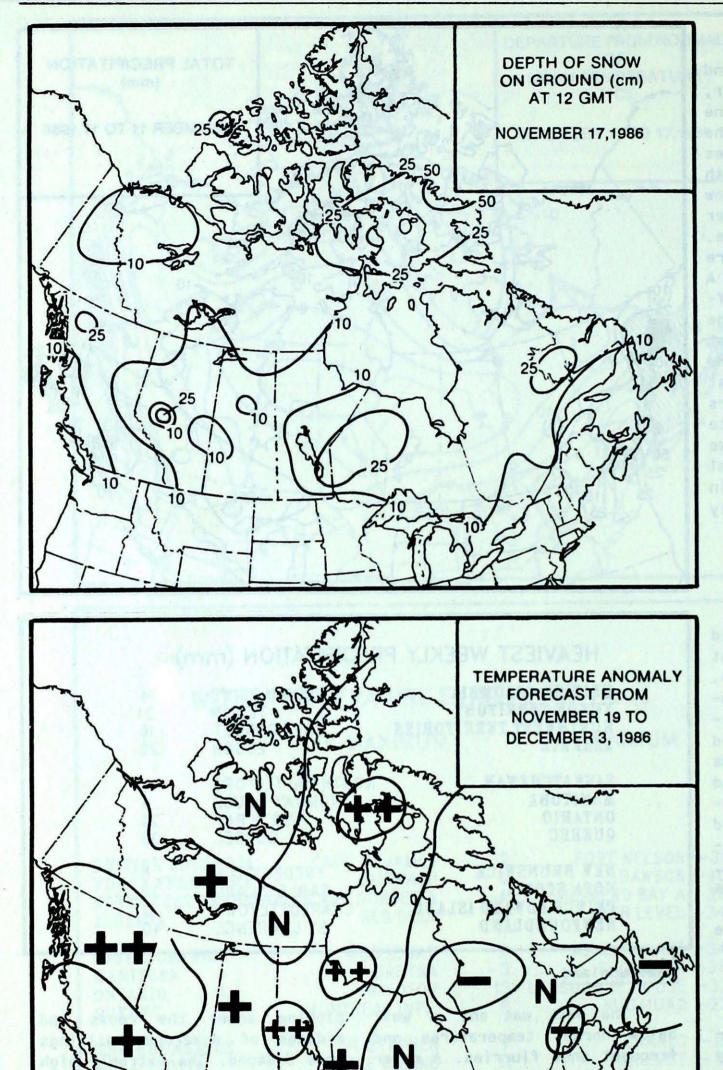
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SASKATCHEWAN MANITOBA ONTARIO QUEBEC	NORTH BATTLEFORD NORWAY HOUSE NORTH BAY QUEBEC	4 4 29 23	
NEW BRUNSWICK NOVA SCOTIA PRINCE EDWARD ISLAND NEWFOUNDLAND	FREDERICTON SABLE ISLAND CHARLOTTETOWN ST LAWRENCE	5 70 7 40	R

#### Newfound l and

The week was one of well below normal temperatures and frequent snow flurries. A major system approached the Island on November 13, giving a mixture of rain and snow to the south, and 15 cm of snow to the northern parts of the province. In the wake of this storm, very strong winds, gusting as high as 140 km/h near the coast, swept the Island on Friday. Near blizzard conditions were experienced along the west coast. There were numerous power outages and automobile accidents, because of the

blowing the roofs and snow; sidings of numerous buildings were damaged. The extremly high winds caused three tractor trailor units to overturn aboard the C.N. Marine ferry M.V. CARIBOU outside Port Aux Basques early Friday morning. The storm, which hit the Island, dumped 20 cm of snow on southeastern Labrador on Thursday. Strong winds gusting to 80 km/h buffetted the Labrador coast. Many new record low temperatures were were established this week.

### FORECAST



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CLIMATIC PERSPECTIVES VOLUME 8

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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.



#### Temperature Anomaly Forecast

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

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.

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# STATISTICS

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RANBROOK	-7	-6	. 5	-13	16	17		*	WINNIPEG INT'L	-16	-13	-5	-26	*	*	170	67
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DRT ST.JOHN	-14	-8	-2	-25	6	9	240	63	ATIKOKAN	-13	-9	-3	-25	*	6	290	35
MLOOPS	-3	-5	3	-9	19	22	280	44	BIG TROUT LAKE	-21	*	-12	-29	2	39	260	56
INTICTON	0	-3	7	-7	5	0	190	46	GORE BAY	-2	-5	4	-12	8	0	280	83
ORT HARDY	6	1	10	0	59	0	110	74	KAPUSKASING	-13	-10	-3	-23	10	15	010	37
RINCE GEORGE	-8	*	1	-21	20	23	190	48	KENORA	-14	-11	-4	-22	5	26	190	44
RINCE RUPERT	4	0	9	-1	57	0	090	46	KINGSTON	1	-2	9	-9	*	0		>
VELSTOKE	-2	-4	5	-12	*	20		*	LONDON	-2	-5	5	-13	4	0	320	5
AITHERS	-6	-4	1	-14	*	24		*	MOOSONEE	-16	-12	-5	-26	7	13	250	4
NCOUVER INT'L	5	0	10	0	28	0	280	43	NORTH BAY	-5	-5	1	-19	29	16	200	59
CTORIA INT'L	5	-1	11	-2	23	0	120	35	OTTAWA INT'L	-1	-3	7	-11	6	1		)
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AMBRIDGE BAY	-28	-5	-18	-35	*	15	310	59	QUEBEC	-			10	14	14	070	6
APE DYER	-23	-9	-13	-32	0	31	290	33	BAGOTVILLE	-5	-4	6	-18	14	14	270	6
YDE	-23	-6	-16	-34	*	33	200	*	BLANC SABLON	-8	-8		-18	15	5	240	-
OPPERMINE	-23	*	-13	-32	*		260	37		-13	-6	-6	-26	*	*	240	5
DRAL HARBOUR	-20	-4	-9	-32	4	6	220	X	KUUJUAQ	-18	-10	-10	-27	2	10	230	4
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ORKTON	-16	-11	-4	-24	-	2	310	57	GOOSE	-14	-10	-5	-25	*	20	300	8
ANITOBA	-10			24		4	510	51	PORT-AUX-BASQUES	-1	-4	-5	-25	21	4	300	8
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