

New Brunswick

November 2020 Review December 2020 and Winter Outlook

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Meteorological Service of Canada
Environment and Climate Change Canada
December 2, 2020



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Environnement et
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Canada

November 2020; Climate Summary

| Station Name | Prov | TC ID | Station Type | Mean Temperature (°C) | | | Total Precip (mm) | | |
|----------------------|------|-------|--------------|-----------------------|-------------|------------------|-------------------|--------------|-------------|
| | | | | Monthly Mean | Normal Mean | Diff from Normal | Monthly Total | Normal Total | % of Normal |
| BAS CARAQUET | NB | WXS | AU8 | 2.5 | 1.3 | 1.3 | 84.4 | 102.4 | 82 |
| BAS CARAQUET | NB | | DAILY | | | | 96.0 | 102.4 | 94 |
| BATHURST A | NB | ZBF | NCA | 1.6 | 0.8 | 0.8 | 68.6 | 103.8 | 66 |
| BOUCTOUCHE CDA CS | NB | ABT | AU8 | 3.9 | 1.7 | 2.2 | 68.3 | 102.9 | 66 |
| CHARLO AUTO | NB | ZCR | AU8 | 1.2 | -0.7 | 1.9 | 77.5 | 92.3 | 84 |
| MIRAMICHI RCS | NB | ACQ | AU8 | 2.8 | 0.7 | 2.1 | 71.1 | 100.6 | 71 |
| DOAKTOWN AUTO RCS | NB | ADN | AU8 | 2.8 | 0.7 | 2.1 | 90.5 | 112.1 | 81 |
| EDMUNDSTON | NB | ERM | AU8 | -0.4 | -0.6 | 0.2 | 109.0 | 91.2 | 120 |
| FREDERICTON INTL A | NB | YFC | NCA | 3.6 | 1.5 | 2.1 | 66.9 | 106.3 | 63 |
| FREDERICTON CDA CS | NB | AFC | AU8 | 3.7 | 1.8 | 1.9 | 79.2 | 109.9 | 72 |
| FUNDY PARK (ALMA) CS | NB | AFY | AU8 | 5.2 | 3.0 | 2.2 | 148.3 | 158.9 | 93 |
| GAGETOWN AWOS A | NB | YCX | AU5 | 4.0 | 2.5 | 1.5 | 53.5 | 101.8 | 53 |
| GRAND MANAN SAR CS | NB | XGM | AU8 | 5.7 | | | 86.6 | | |
| KOUCHIBOUGUAC | NB | AKC | AU8 | 3.4 | 1.2 | 2.3 | 79.3 | 120.6 | 66 |
| MECHANIC SETTLEMENT | NB | AMS | AU8 | 3.0 | | | 188.1 | | |
| MISCOU ISLAND (AUT) | NB | WMI | AU8 | 2.5 | | | 85.4 | | |
| MONCTON INTL A | NB | YQM | NCH | 4.1 | 1.9 | 2.2 | 70.8 | 107.2 | 66 |
| MONCTON A | NB | YQM | NCA | 4.3 | 1.9 | 2.5 | | | |
| OAK POINT | NB | | DAILY | 5.0 | 2.5 | 2.5 | 125.2 | 101.8 | 123 |
| POINT LEPREAU CS | NB | WPE | AU8 | 5.9 | 2.7 | 3.2 | 59.3 | 140.4 | 42 |
| RED PINES | NB | ARP | AU8 | 1.7 | -0.1 | 1.7 | 75.1 | 89.4 | 84 |
| SAINT JOHN A | NB | YSJ | NCH | 4.5 | 2.3 | 2.2 | 130.2 | 134.1 | 97 |
| ST. STEPHEN | NB | WSS | AU8 | 4.5 | | | 121.7 | | |
| SUSSEX FOUR CORNERS | NB | ASF | AU8 | 4.7 | 2.4 | 2.3 | 80.4 | 110.0 | 73 |
| WOODSTOCK | | | | | | | | | |
| NEWBRIDGE | NB | EWD | AU8 | 2.9 | 0.3 | 2.6 | 95.5 | 103.2 | 93 |
| Average | | | | 3.5 | 1.4 | 2.0 | 92.1 | 109.6 | 79 |
| Max | | | | 5.9 | 3.0 | 3.2 | 188.1 | 158.9 | 123 |
| Min | | | | -0.4 | -0.7 | 0.2 | 53.5 | 89.4 | 42 |

Highlights:

The average temperature anomaly was above normal (**+2.0C**). All sites reported positive anomalies likely due in part to the exceptional heat in the middle of the month. Point Lepreau recorded the largest anomaly at +3.2C.

Total precipitation amounts were below normal, with an average of **79%** of total precipitation. Below normal anomalies occurred in the south/southeast (42% in Point Lepreau) while the northwest saw above normal anomalies (120% in Edmundston).

November 2020; Climate Summary

Events:

November 1-2: “Mixed Weather Event”. A system brought rain to the south, some snow to the northwest and the strongest winds to the northeast. Mechanic Settlement saw the most rain at 68 mm while Bathurst recorded the strongest wind gust at 80 km/h.

November 9-12: “November Heat Wave”. 33 daily maximum temperature records were smashed across the province as an unseasonable warm air mass affected most of eastern Canada. Numerous sites also shattered monthly maximum temperature records on the 10th...see next slide for details.

November 23-24: “Mixed Weather Event II”. A system brought rain to the south, some snow to the northwest and the strongest winds to the northeast. Crowe Brook saw the most rain at 70 mm while Bathurst recorded the strongest wind gust at 85 km/h.

Days of month with lightning in New Brunswick; 23 (1 day)

Day of month with temperature record broken or tied in New Brunswick; 1 3 4 7 9 10* 11 12
(red=maximum, blue=minimum) ***Many monthly records were also broken**



Nov. 10; Record monthly max. temperatures

| New Record (°C) | ECCC Station | Old Record (°C) | Date |
|-----------------|---------------|-----------------|-----------------------------|
| 25.1 | Kouchibouguac | 22.2 | Nov. 1 1956 |
| 24.4 | Bathurst | 22.6 | Nov. 6 2008 |
| 24.3 | Miramichi | 21.1 | Nov. 1 1956 Nov. 24 1931 |
| 24.2 | Doaktown | 21.7 | Nov. 1 1956 |
| 23.9 | St. Stephen | 20.5 | Nov. 3 2017 |
| 23.7 | Bouctouche | 21.5 | Nov. 5 1982 |
| 23.7 | Moncton | 22.9 | Nov. 5 1982 |
| 23.4 | Fredericton | 21.1 | Nov. 1 1956 |
| 23.4 | Woodstock | 22.8 | Nov. 6 1938 |
| 23.3 | Edmundston | 20.8 | Nov. 6 2008 |
| 23.0 | Bas Caraquet | 20.5 | Nov. 5 1982 |
| 23.0 | Charlo | 21.0 | Nov. 6 2008 |
| 19.1 | Miscou Island | 17.4 | Nov. 3 1997 |
| 18.5 | Grand Manan | 18.0 | Nov. 5 1990 |



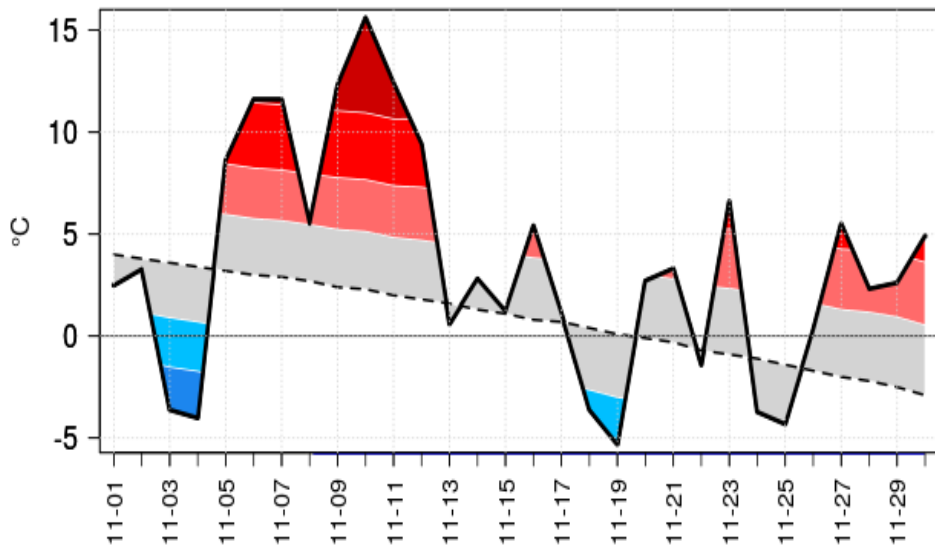
November 2020; Provincial Climate Extremes

| Parameter | Value | ECCC Station | Day of month |
|-----------------------------------|----------------|---------------------|--------------|
| Daily Maximum Temperature | 25.1°C | Kouchibouguac | 10 |
| Daily Minimum Temperature | -18.1°C | Edmundston | 24 |
| Maximum Daily Total Precipitation | 60.2 mm | Mechanic Settlement | 23 |
| Daily Maximum Wind Gust | 85 km/h | Bathurst | 24 |
| Daily Maximum Wind Chill | -20 | Edmundston | 25 |



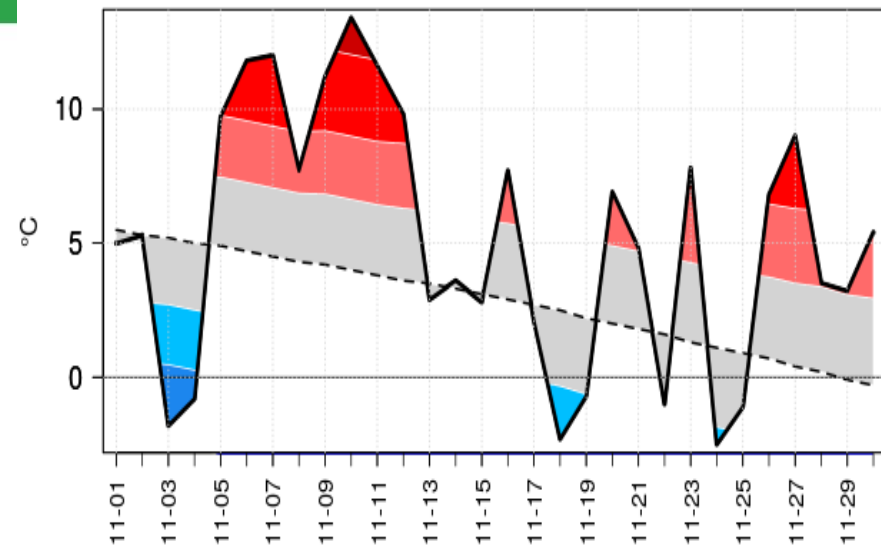
November 2020 - Temperature

Daily Mean Temperature (line), Long-Term Mean (dashed line) Based on gridded observations / Climatology 1981-2010 and Categories based on Standard Deviations (blue and red) Std. dev. thresholds +/- 0.7, 1.3, 2.1



Fredericton

■ <<< normal
 ■ << normal
 ■ < normal
 ■ normal

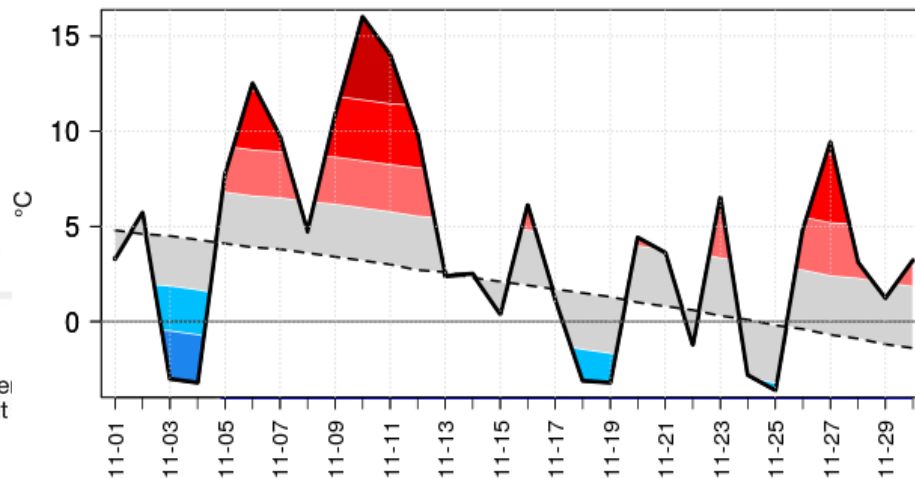


Saint John

■ > normal
 ■ >> normal
 ■ >>> normal
 ■ normal

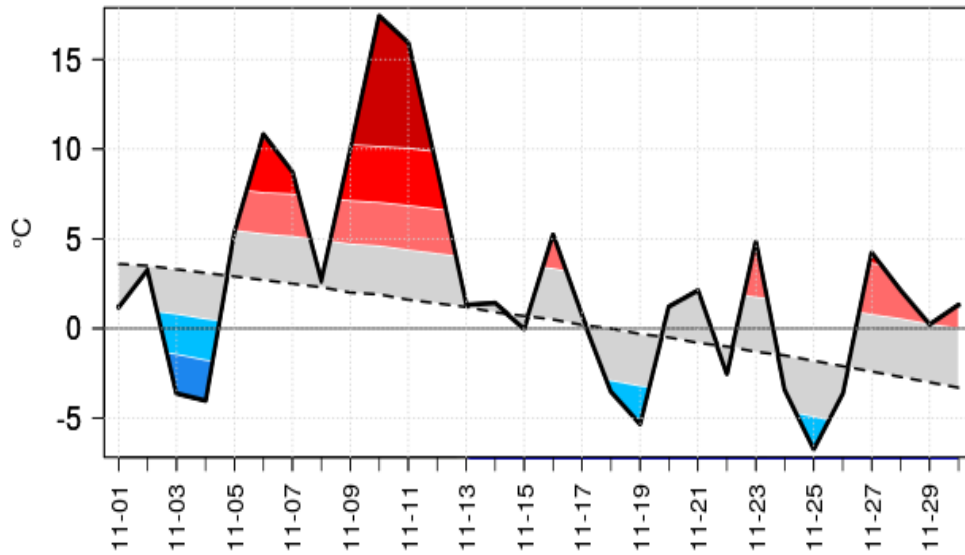
All sites were above normal

Moncton



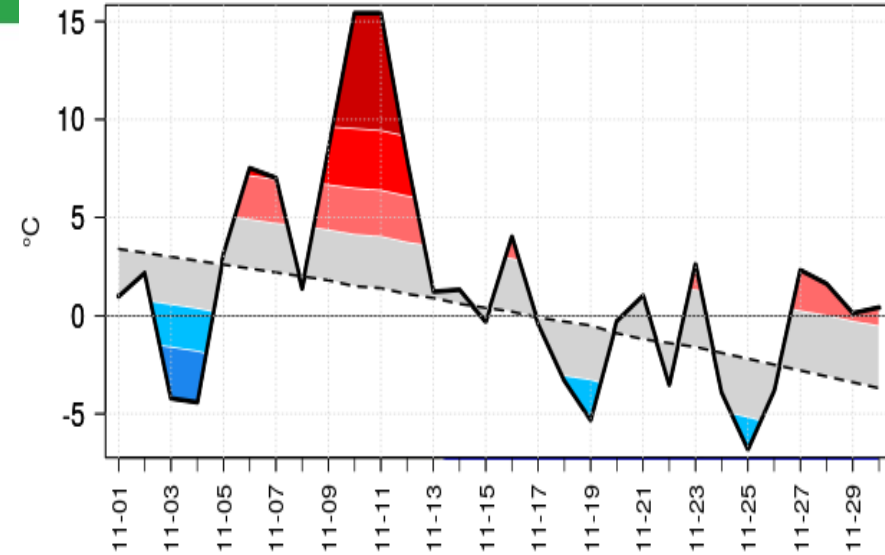
November 2020 - Temperature

Daily Mean Temperature (line), Long-Term Mean (dashed line) Based on gridded observations / Climatology 1981-2010 and Categories based on Standard Deviations (blue and red) Std. dev. thresholds +/- 0.7, 1.3, 2.1



Miramichi

■ <<< normal
 ■ << normal
 ■ < normal
 ■ normal

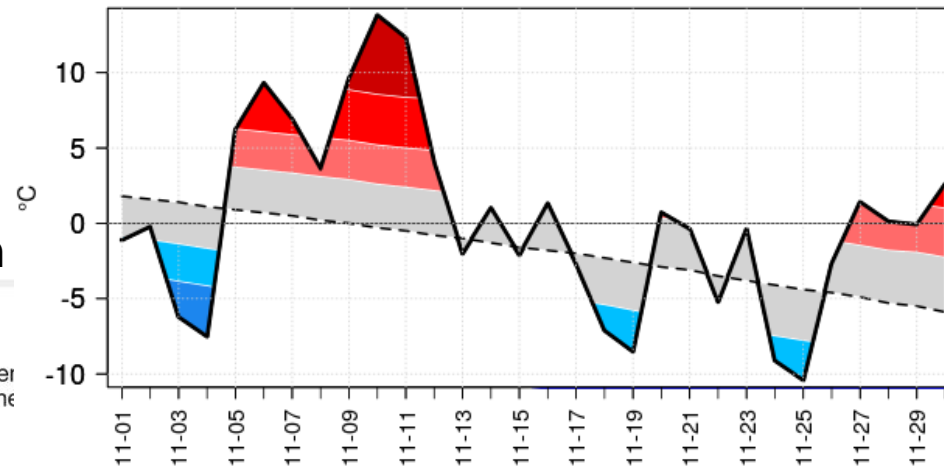


Bathurst

■ > normal
 ■ >> normal
 ■ >>> normal

Miramichi and Bathurst were above normal

Edmundston

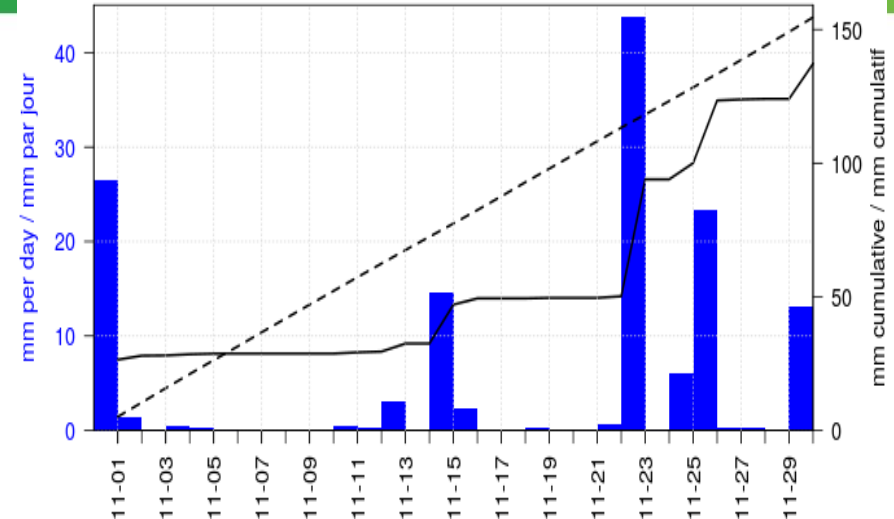
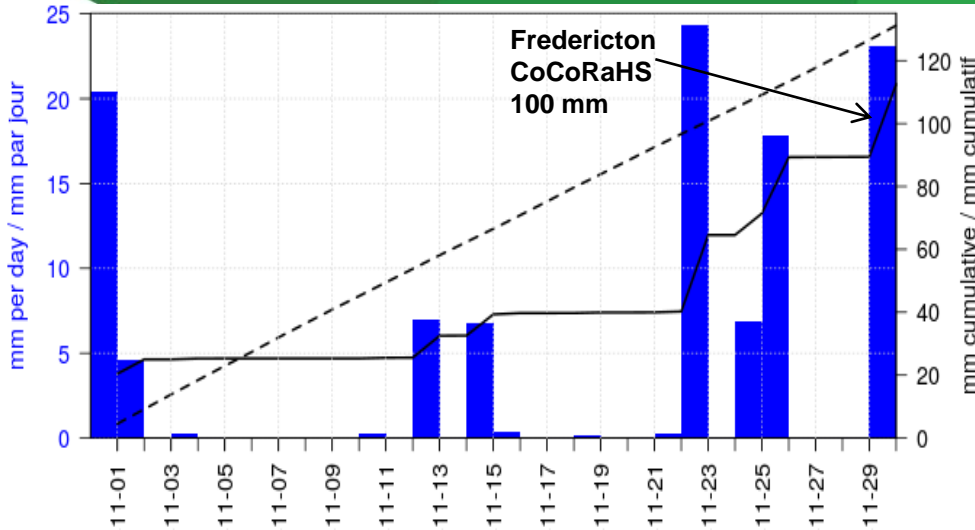


Edmundston was near normal



November 2020 - Precipitation

Daily Total Precipitation (bars), Cumulative (line) and Cumulative Long-Term Mean (dashed line) Based on ECCG gridded precipitation analysis
Climatology 2002-2019

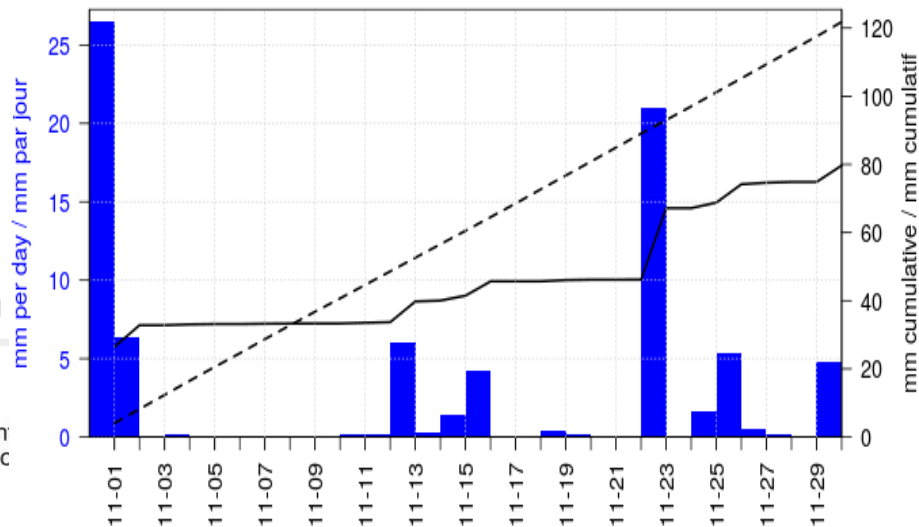


Fredericton (and area)

Saint John

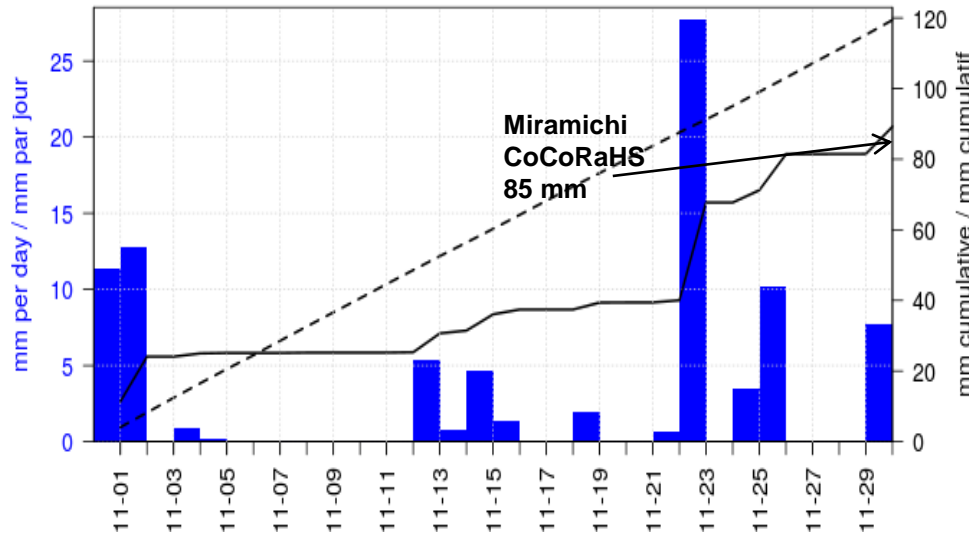
All sites were below normal

Moncton

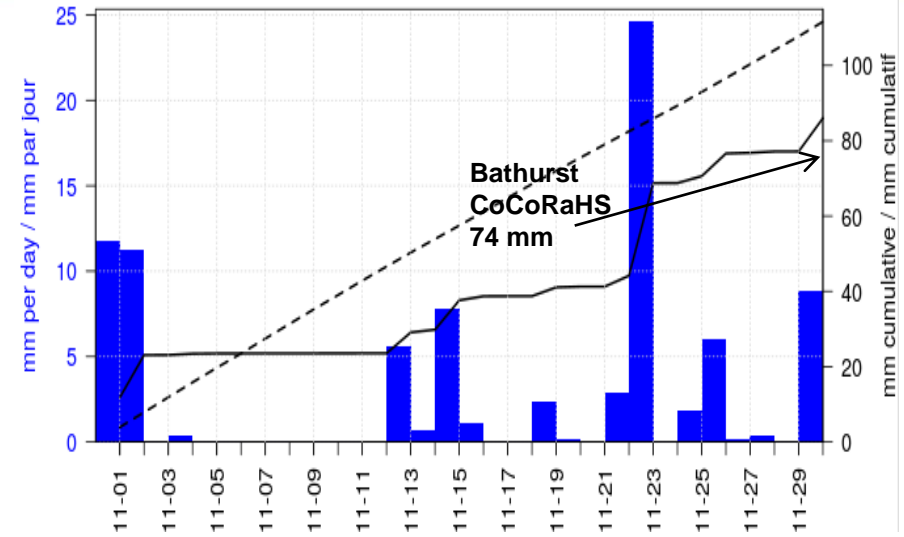


November 2020 - Precipitation

Daily Total Precipitation (bars), Cumulative (line) and Cumulative Long-Term Mean (dashed line) Based on ECCG gridded precipitation analysis
Climatology 2002-2019



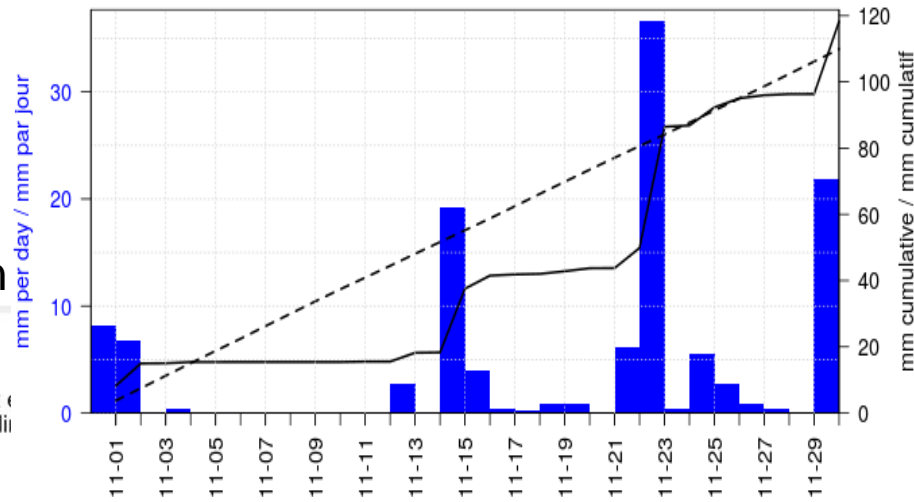
Miramichi



Bathurst

Miramichi and Bathurst were below normal

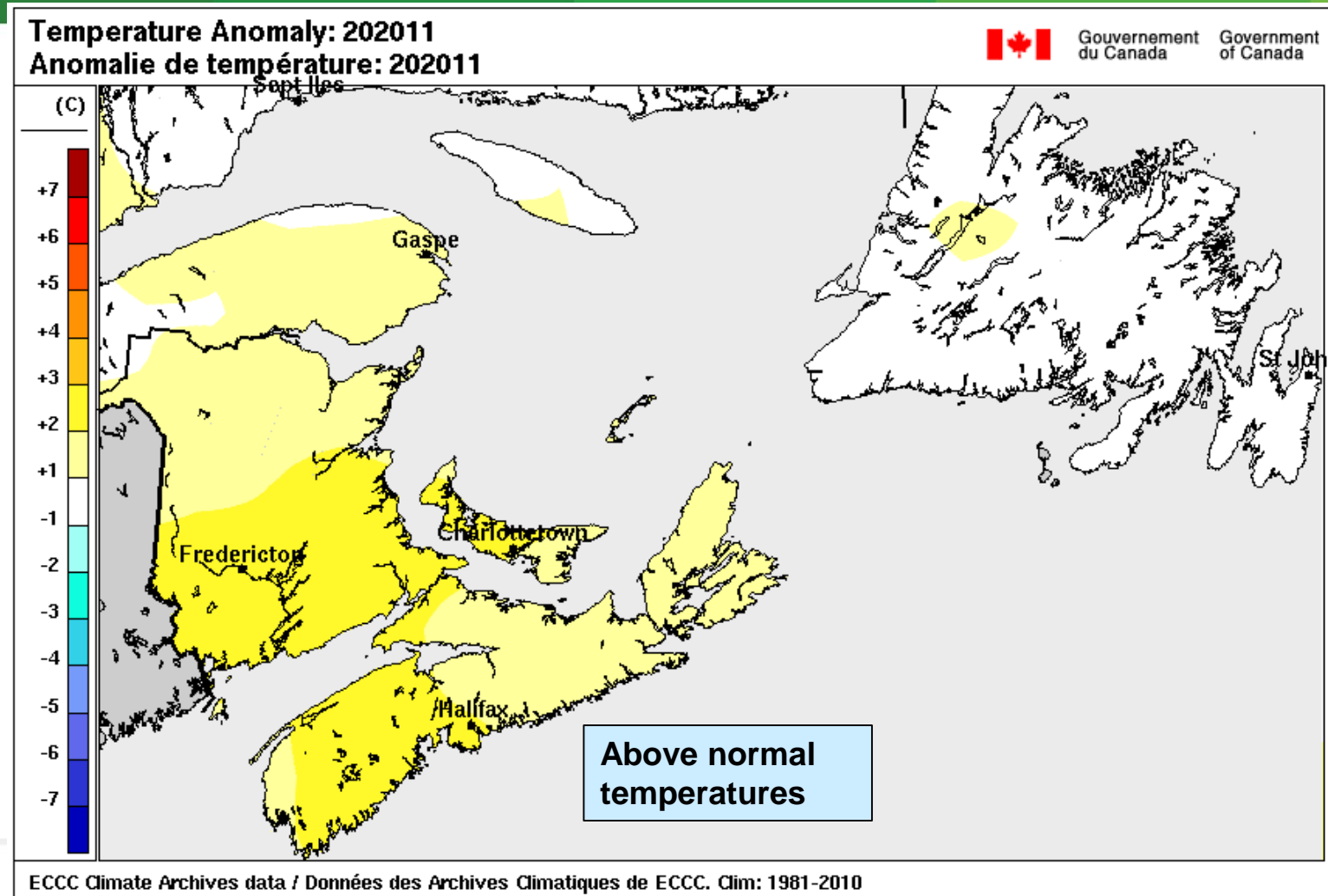
Edmundston



Edmundston was slightly above normal



November 2020 – Temperature departure from 1981-2010 mean



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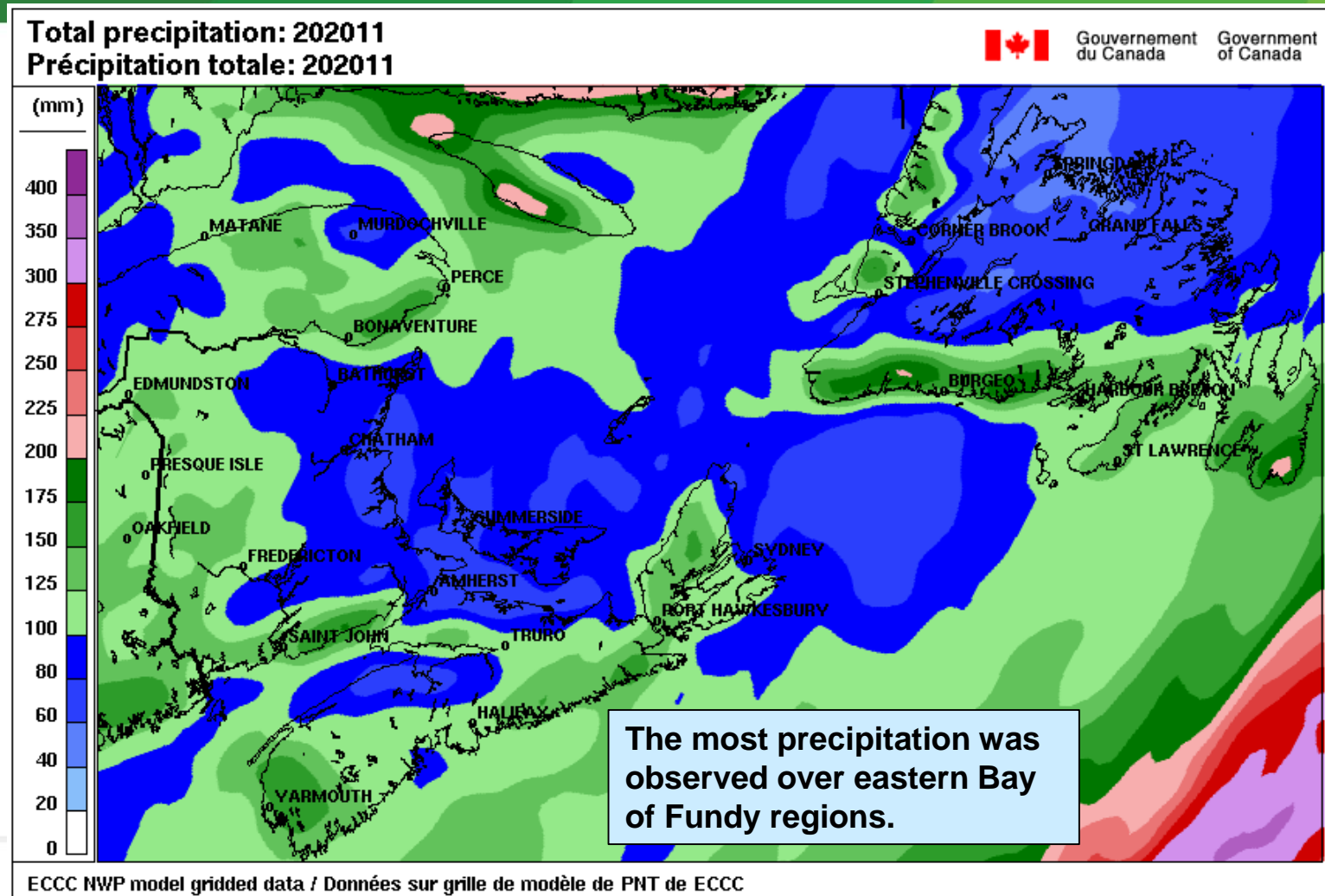


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November 2020 – Total precipitation



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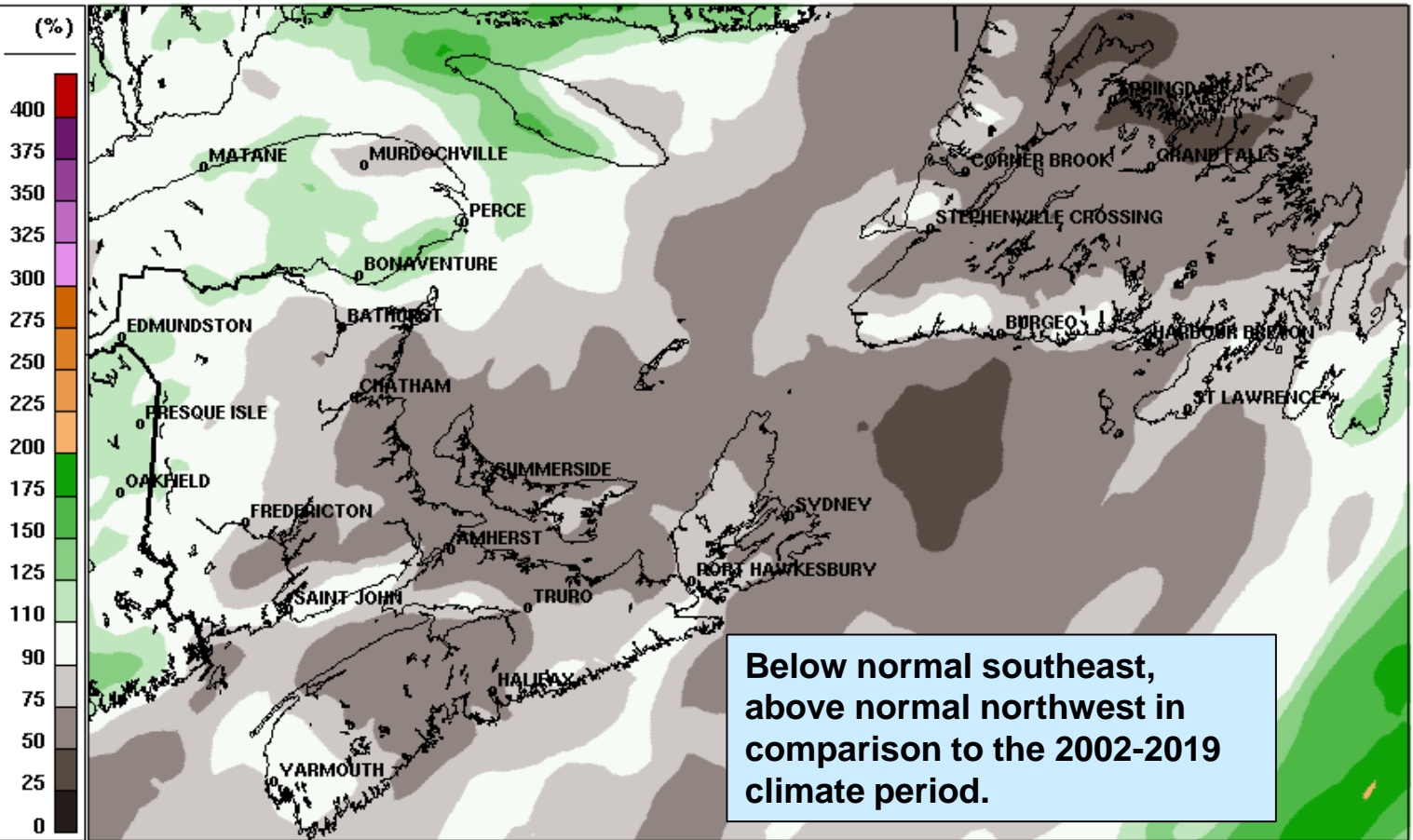
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November 2020 – Precipitation departure from 2002-2019 mean

Precipitation Relative Total: 202011
Total relatif de précipitation: 202011



Gouvernement du Canada / Government of Canada



ECCC NWP model gridded data / Données sur grille de modèle de PNT de ECCC. Clim: 2002-2019

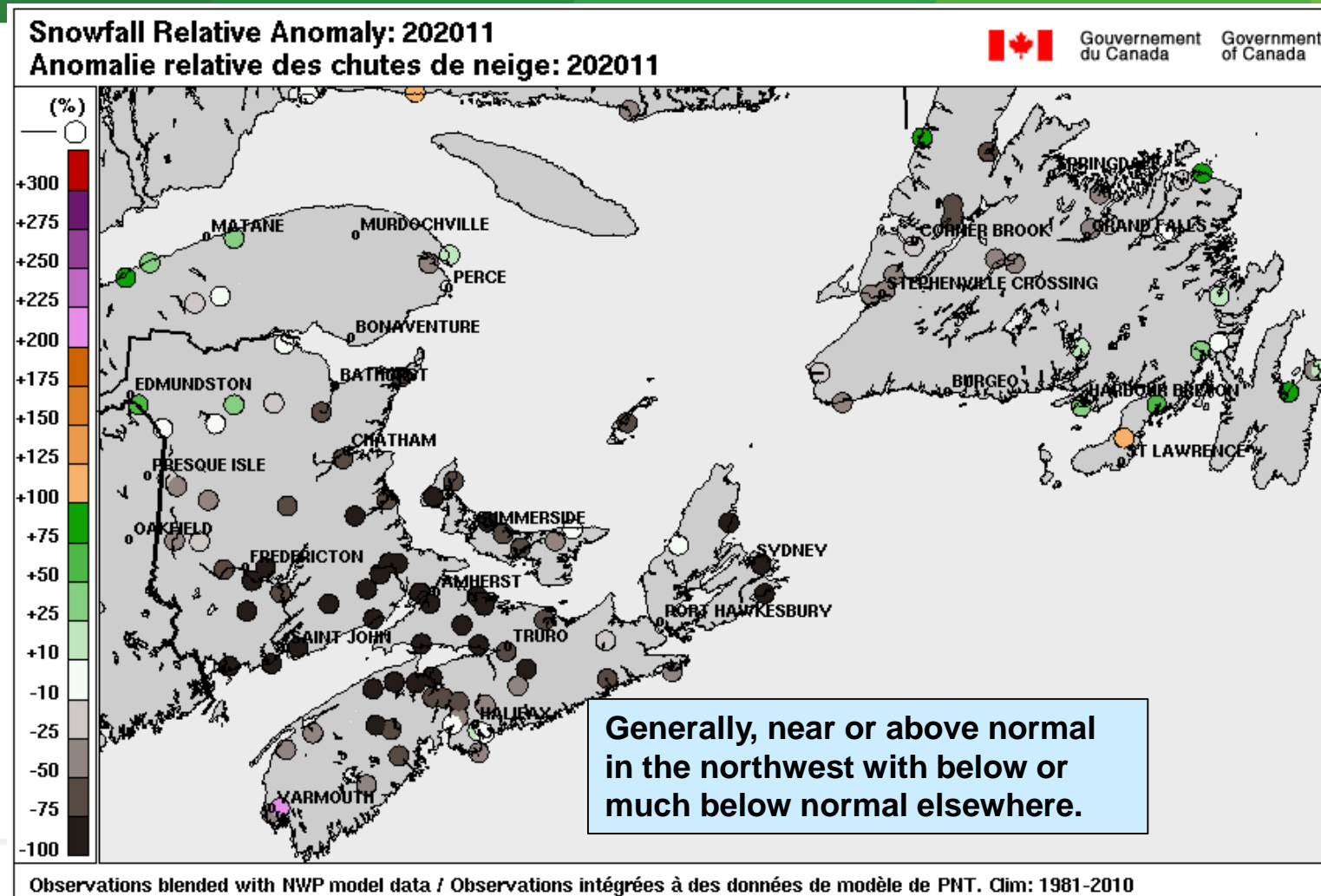


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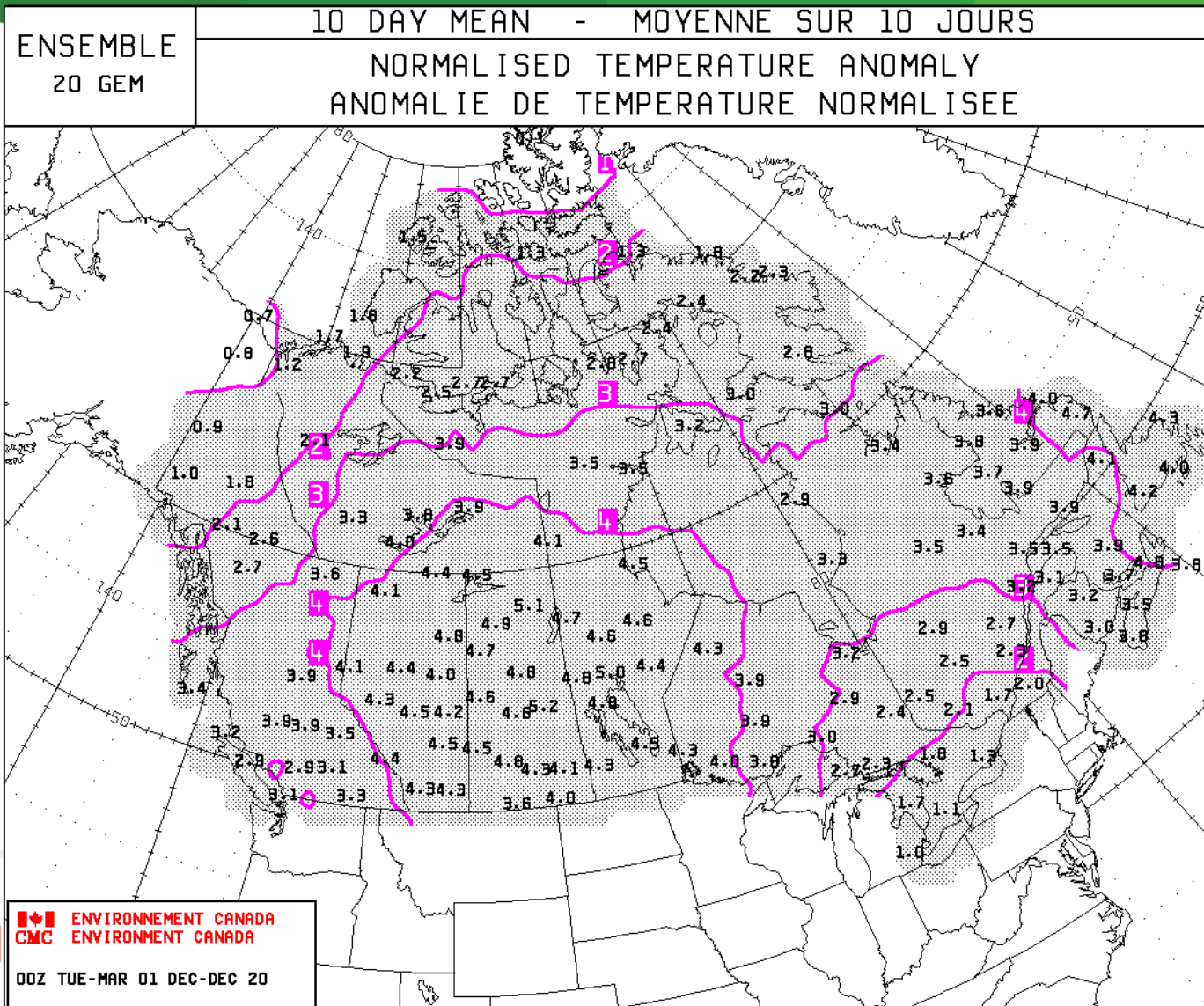
Canada

November 2020 – Snowfall departure from 1981-2010 mean



Outlook – 10 day mean temperature

(Suggesting above normal conditions (+3.0 to +3.7°C))



10 day
forecast
ending
December
10, 2020



ENVIRONNEMENT CANADA
CMC ENVIRONMENT CANADA

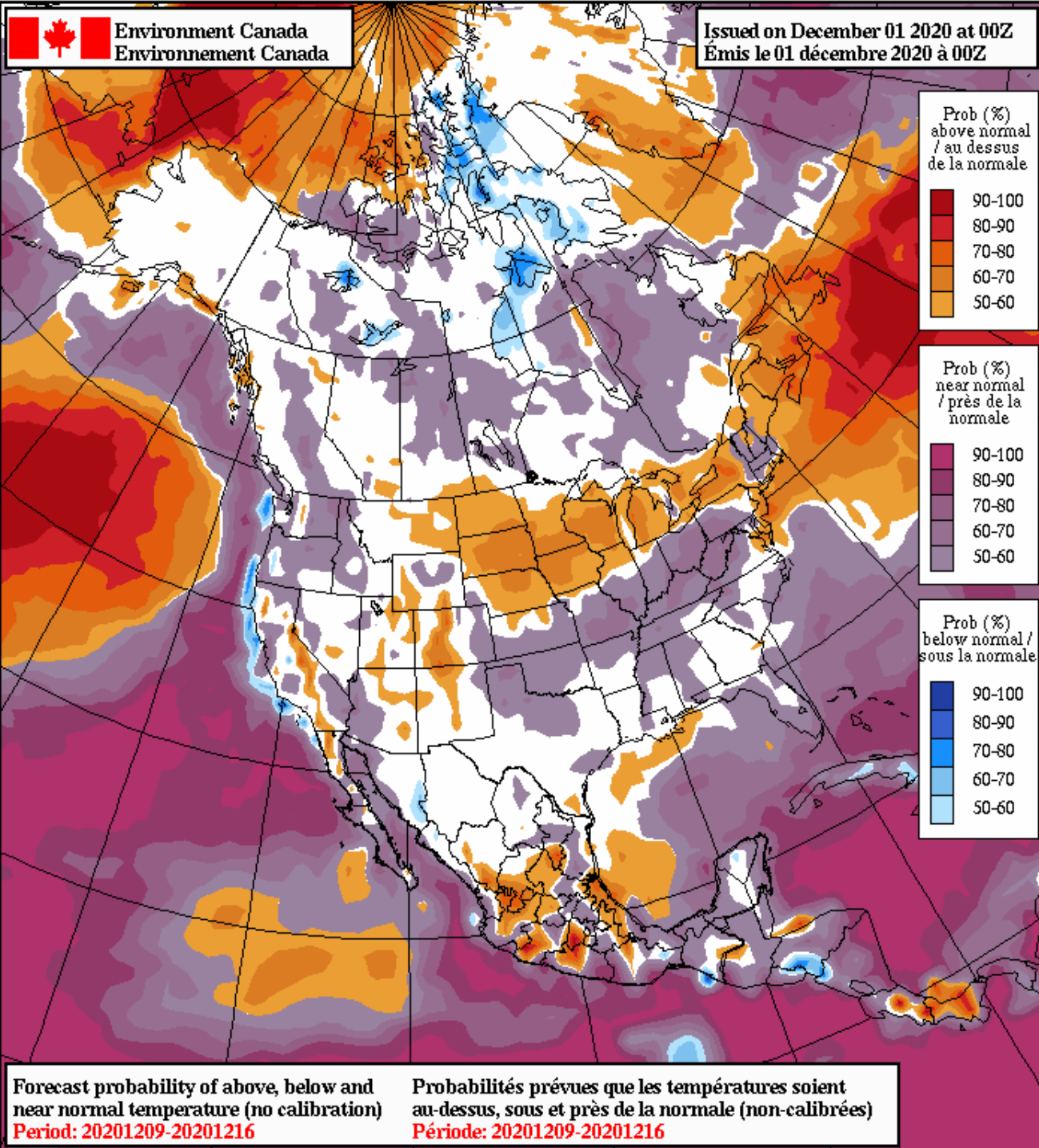
00Z TUE-MAR 01 DEC-DEC 20

Canada

Day 8 to 14 Forecast

Period ending
December 16,
2020

Suggesting a weak
chance of above normal.



Fredericton



Ensemble and Deterministic Forecasts issued 1 December 2020 00 UTC
Prévision d'ensemble et déterministe émises le 1 Décembre 2020 00 UTC

for/pour

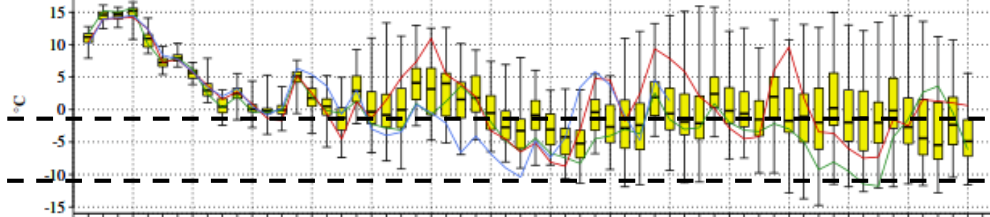
NAEFS / SPENA

FREDERICTON (YFC) 45.87 N 66.53 W/O

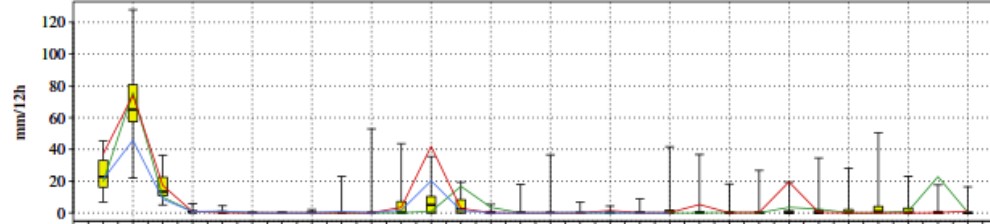
Surface air temperature/Température de l'air à la surface

December Normal high: -0.7C

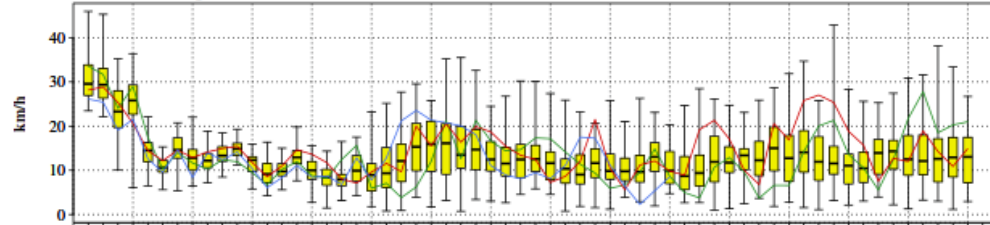
Normal low: -10.7C



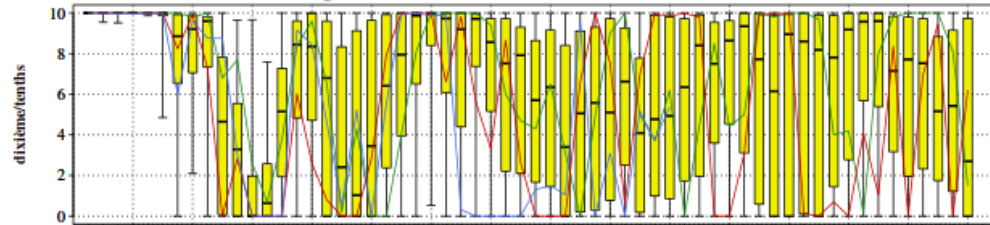
Précipitations/Precipitation



Surface wind speed/Vitesse du vent à la surface



Total cloud cover/Couvert nuageux



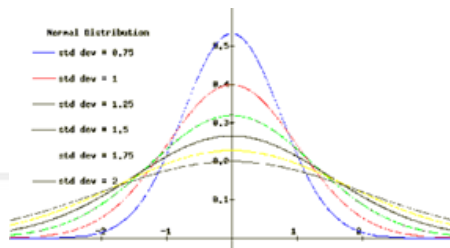
December/Décembre 2020

max
75%
median/médiane
25%
min

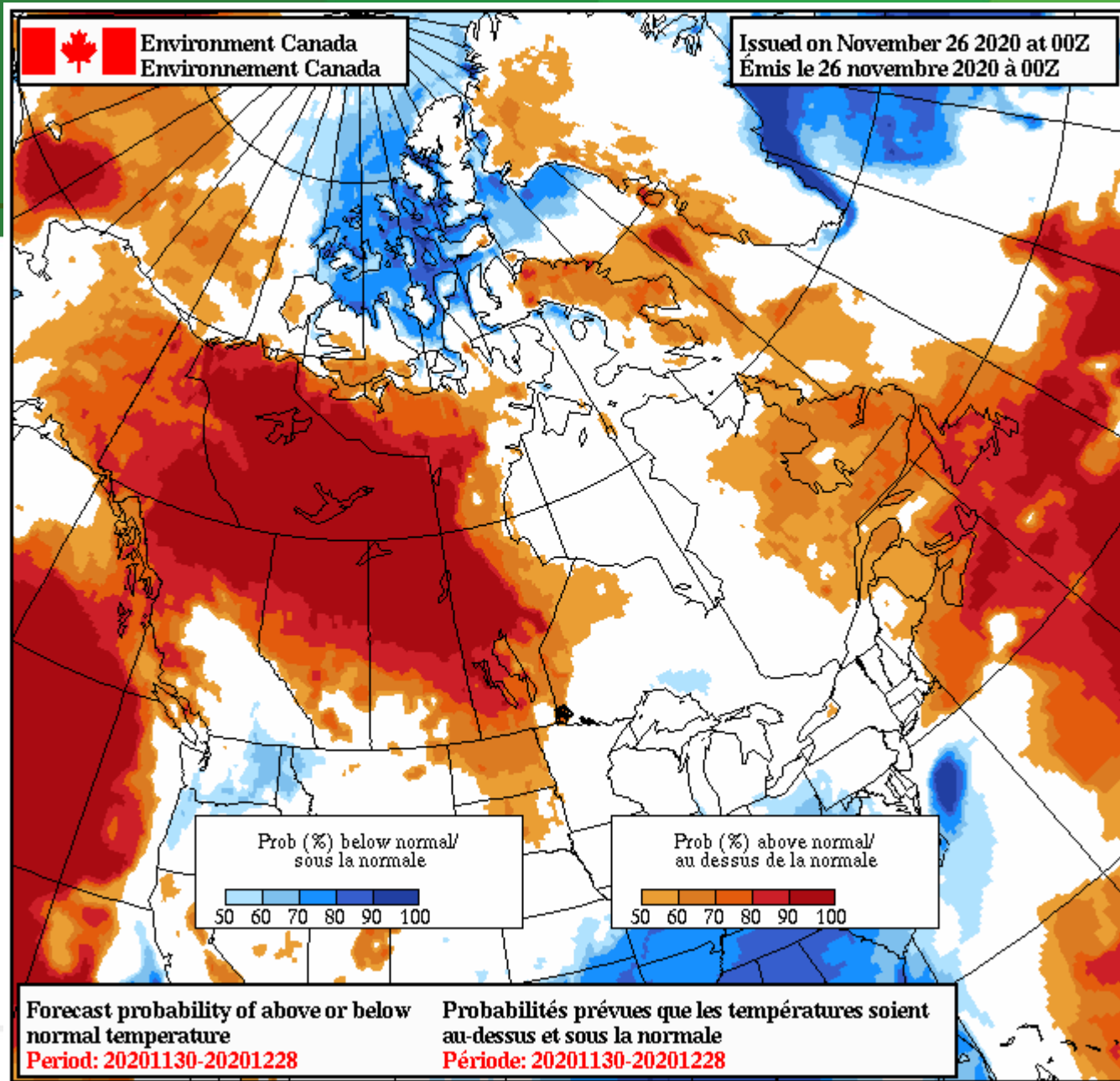
Global Model / Modèle global
Control Member / Membre contrôle CMC
Control Member / Membre contrôle NCEP

**Next 15 days; ending
December 16, 2020**

Generally suggesting much above normal until near December 7th then near or above normal for the remainder of the period.

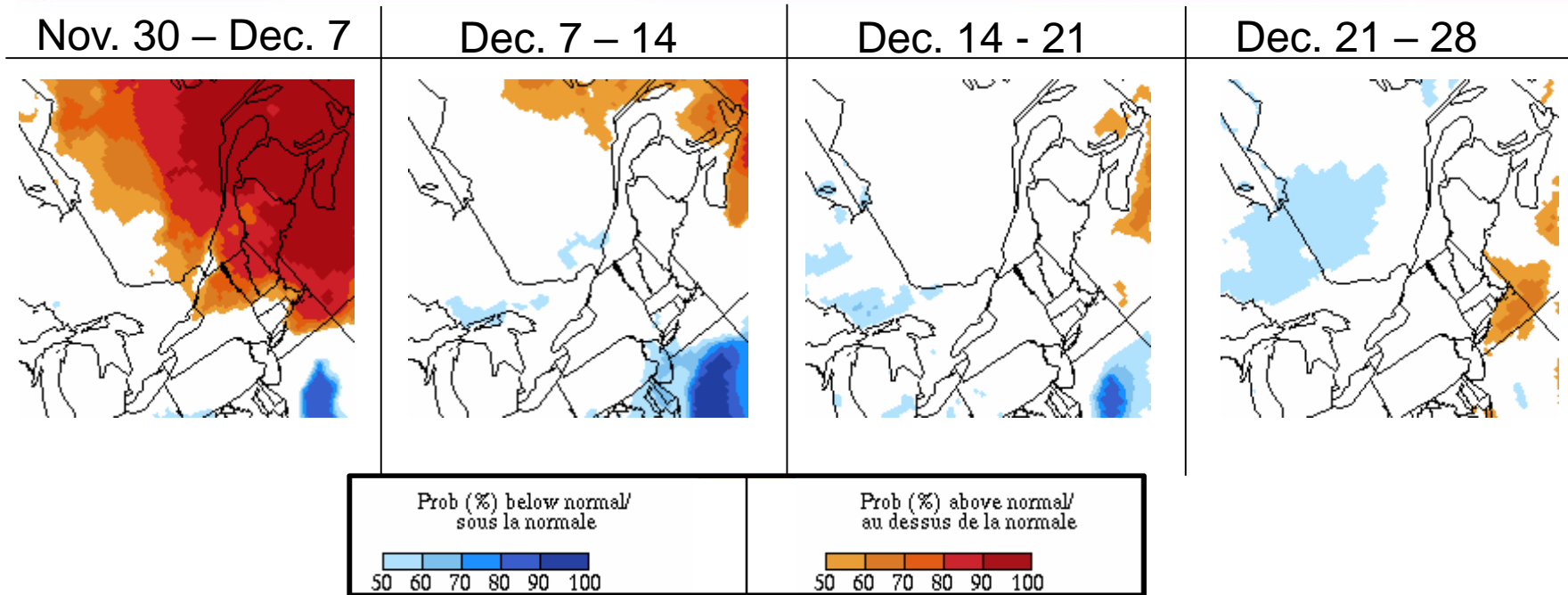


Temperature November 30 to December 28



CMC
Monthly
Forecast
Product
using GEPS
50km res.

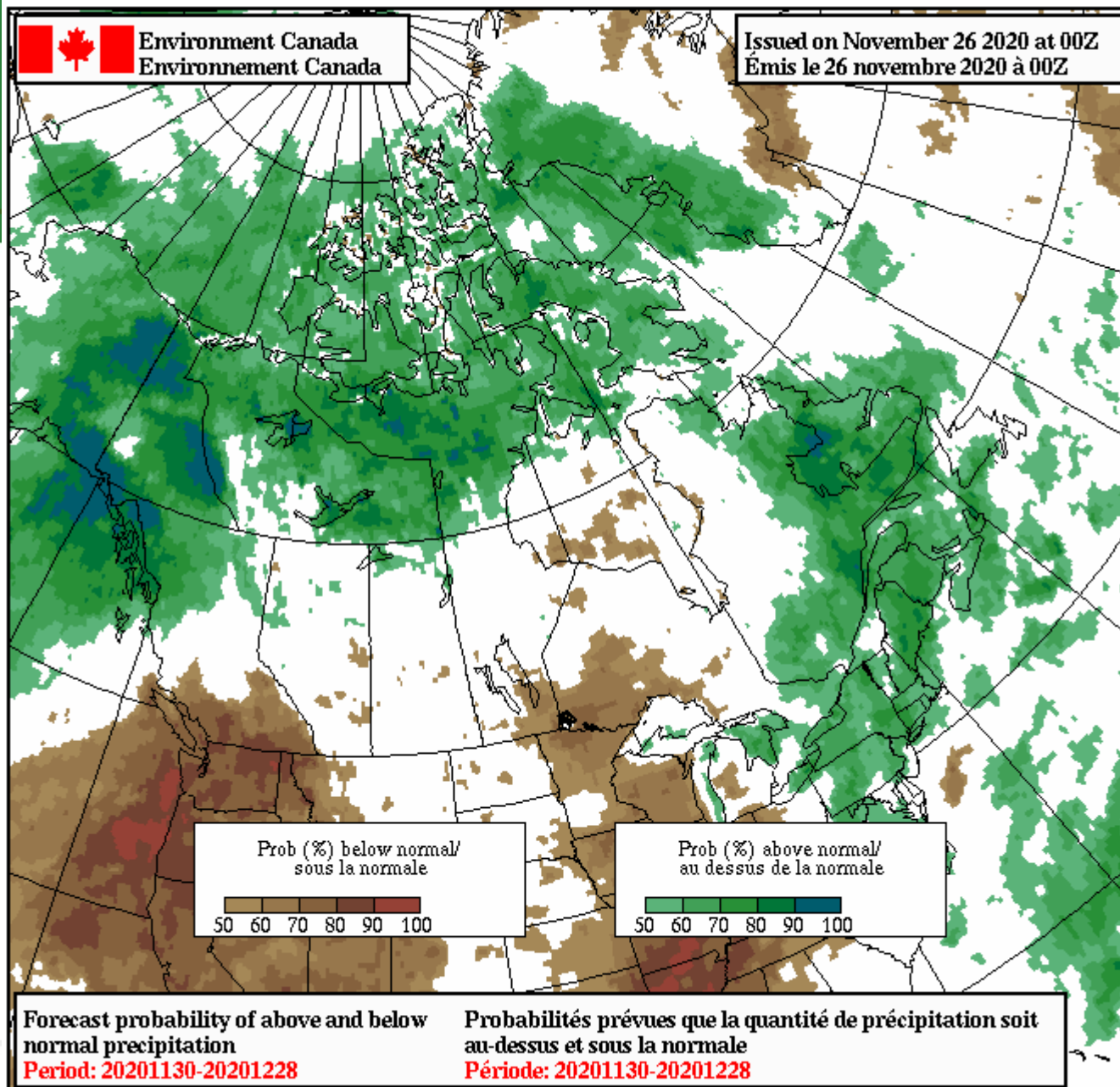
Weekly signature from GEPS 50km resolution



A strong signal of above normal then no signal (near normal) for the remainder of the period.

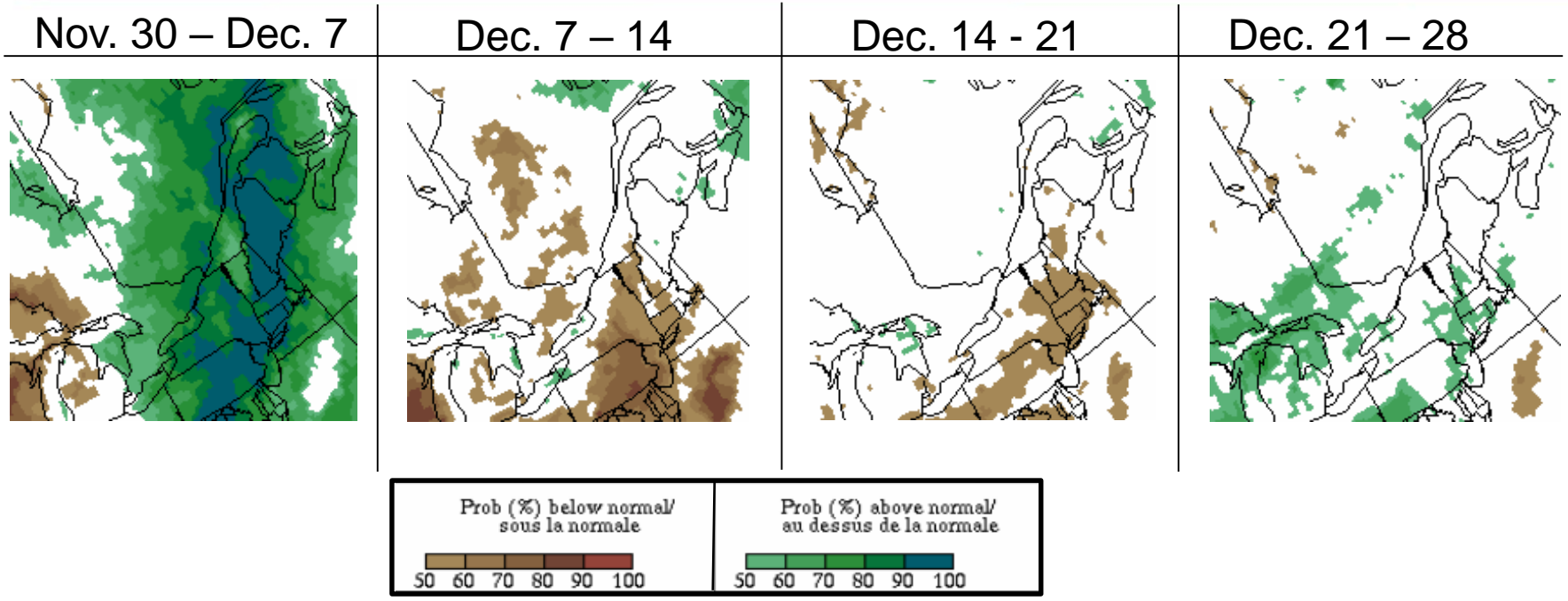


Precipitation November 30 to December 28



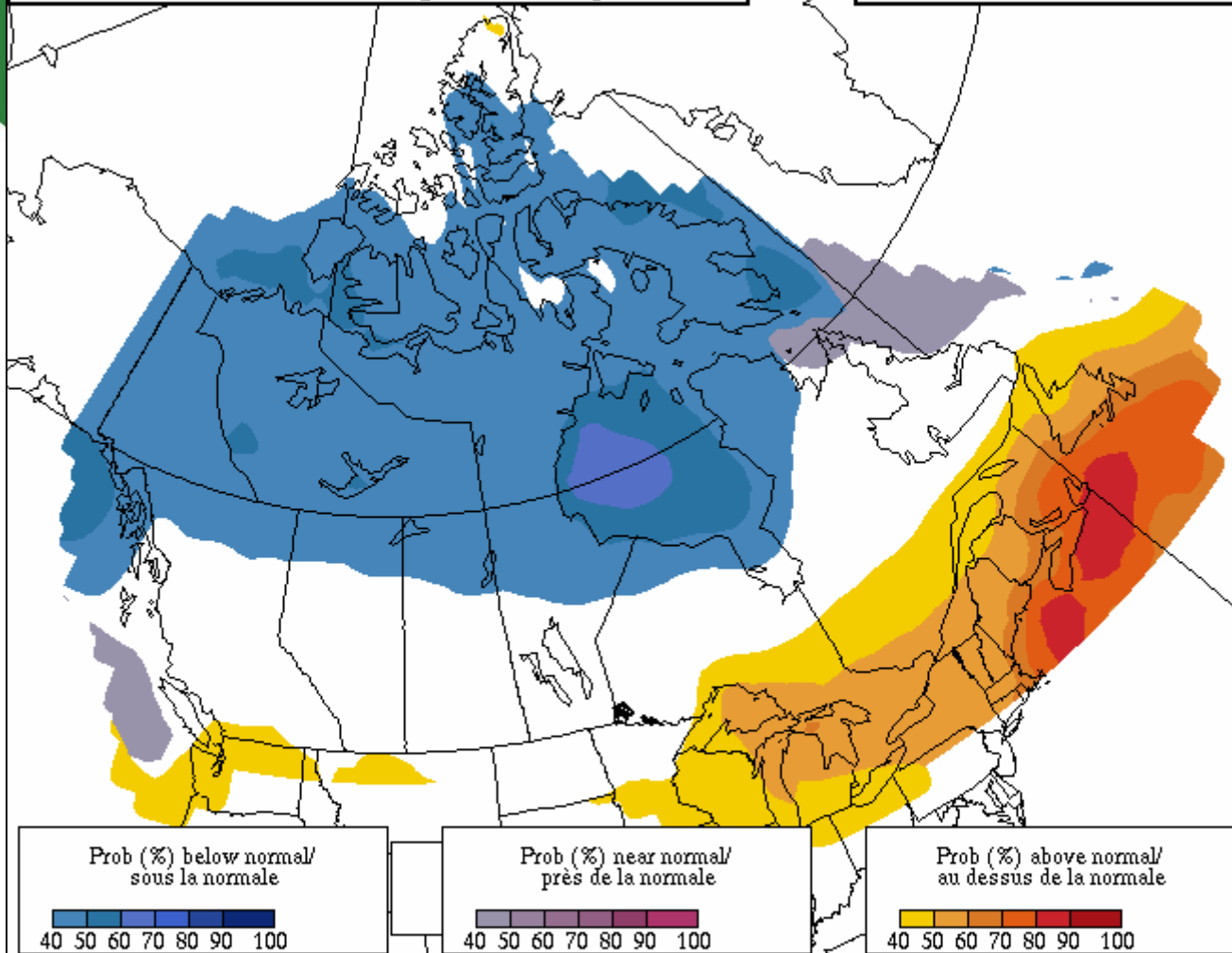
CMC
Monthly
Forecast
Product
using GEPS
50km res.

Weekly signature from GEPS 50km resolution



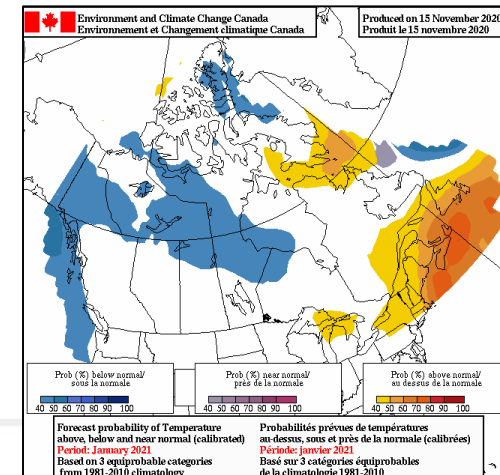
A strong signal of above normal then no signal (near normal) for the remainder of the period.

Temperature January 2021



CanSIPS
 (Canadian Seasonal and
 Interannual Prediction
 System)
 CanAM3
 CanAM4
 +
 CanOM4

Produced November 15



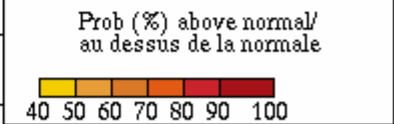
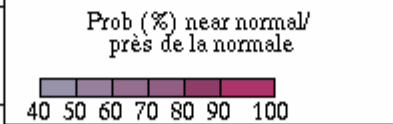
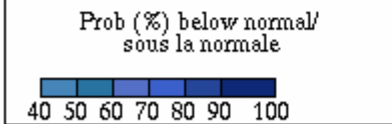
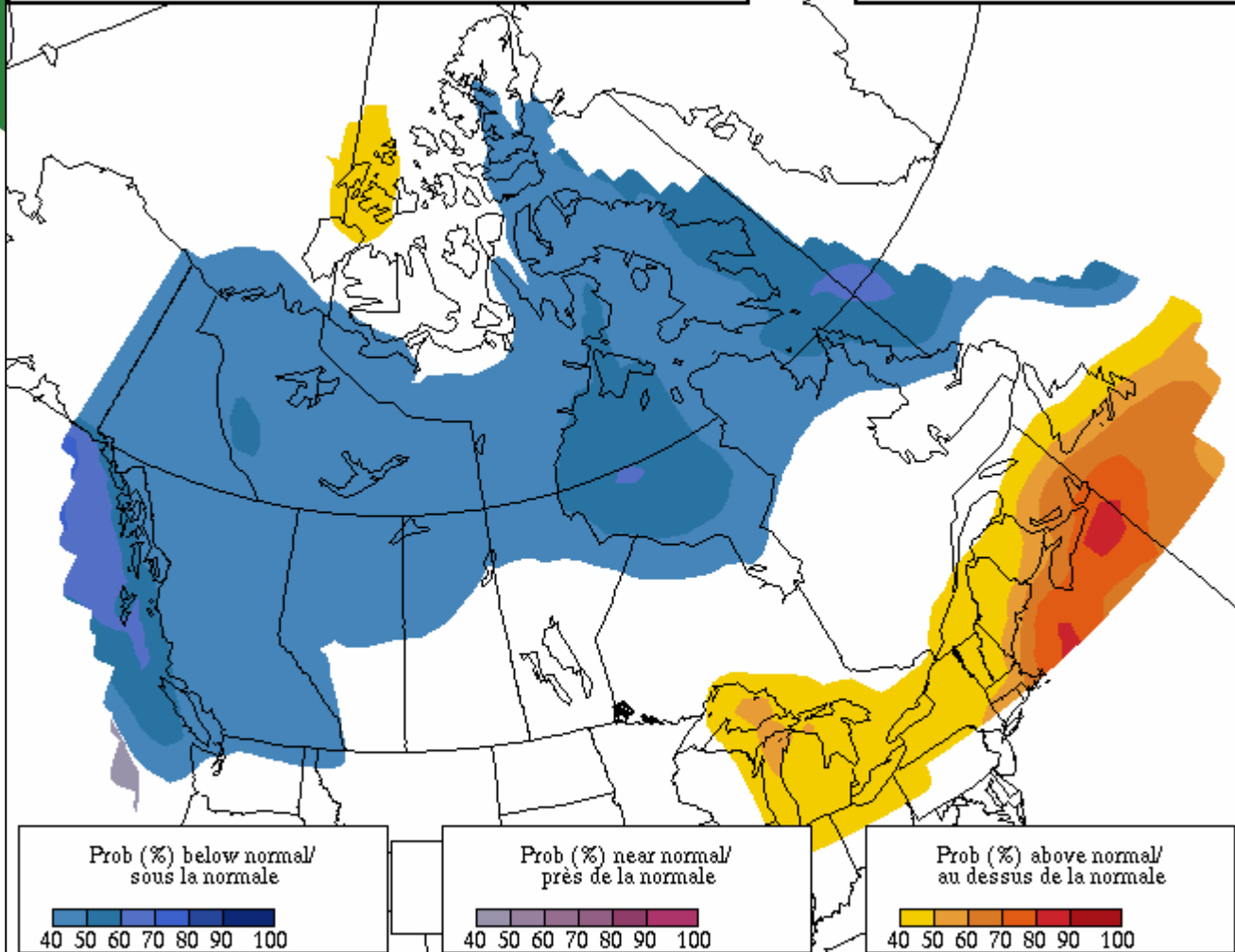
Forecast probability of Temperature
 above, below and near normal (calibrated)
Period: January 2021
 Based on 3 equiprobable categories
 from 1981-2010 climatology

Probabilités prévues de températures
 au-dessus, sous et près de la normale (calibrées)
Période: janvier 2021
 Basé sur 3 catégories équiprobables
 de la climatologie 1981-2010



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Produced on 30 November 2020
Produit le 30 novembre 2020



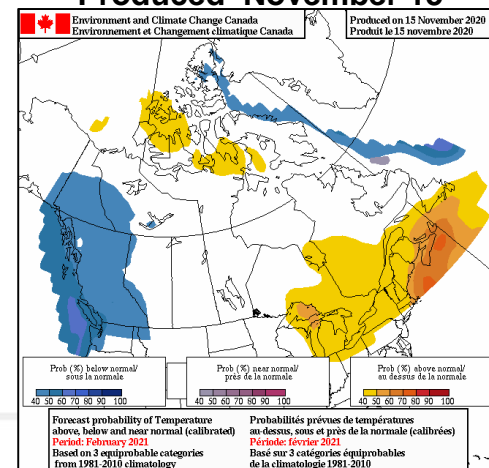
**Forecast probability of Temperature
above, below and near normal (calibrated)**
Period: February 2021
Based on 3 equiprobable categories
from 1981-2010 climatology

**Probabilités prévues de températures
au-dessus, sous et près de la normale (calibrées)**
Période: février 2021
Basé sur 3 catégories équiprobables
de la climatologie 1981-2010

Temperature February 2021

CanSIPS
(Canadian Seasonal and
Interannual Prediction
System)
CanAM3
CanAM4
+
CanOM4

Produced November 15



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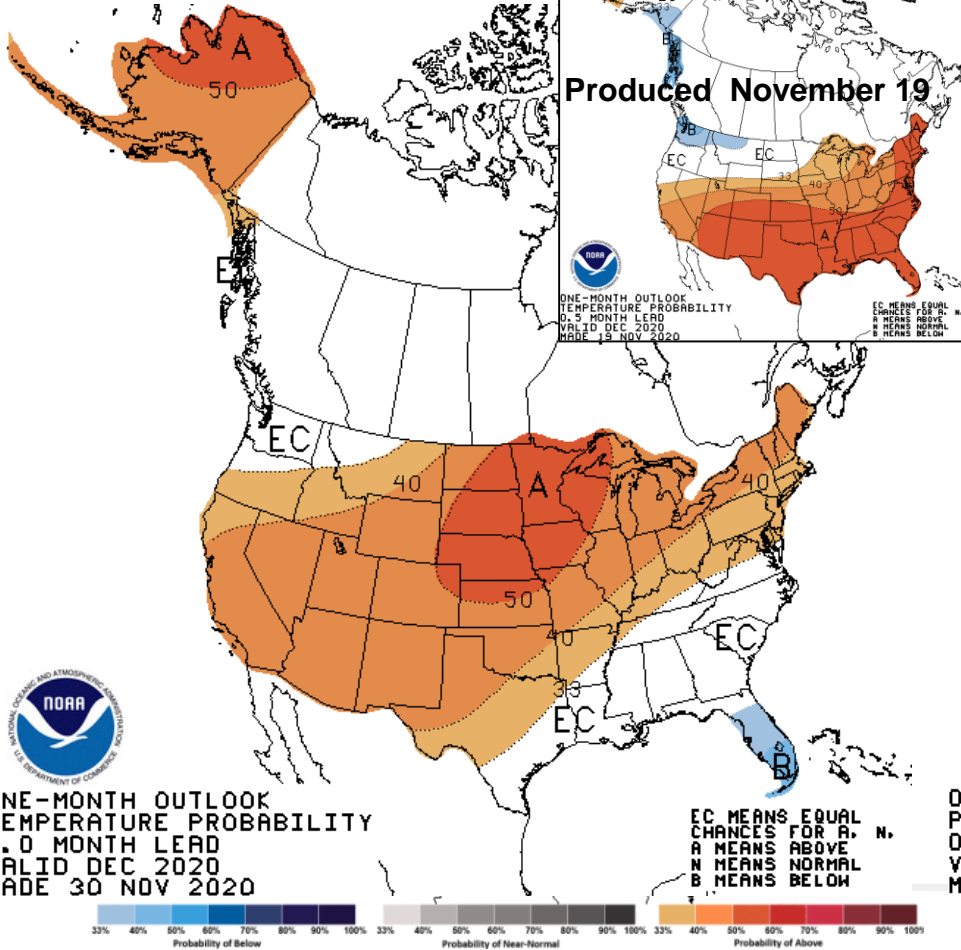
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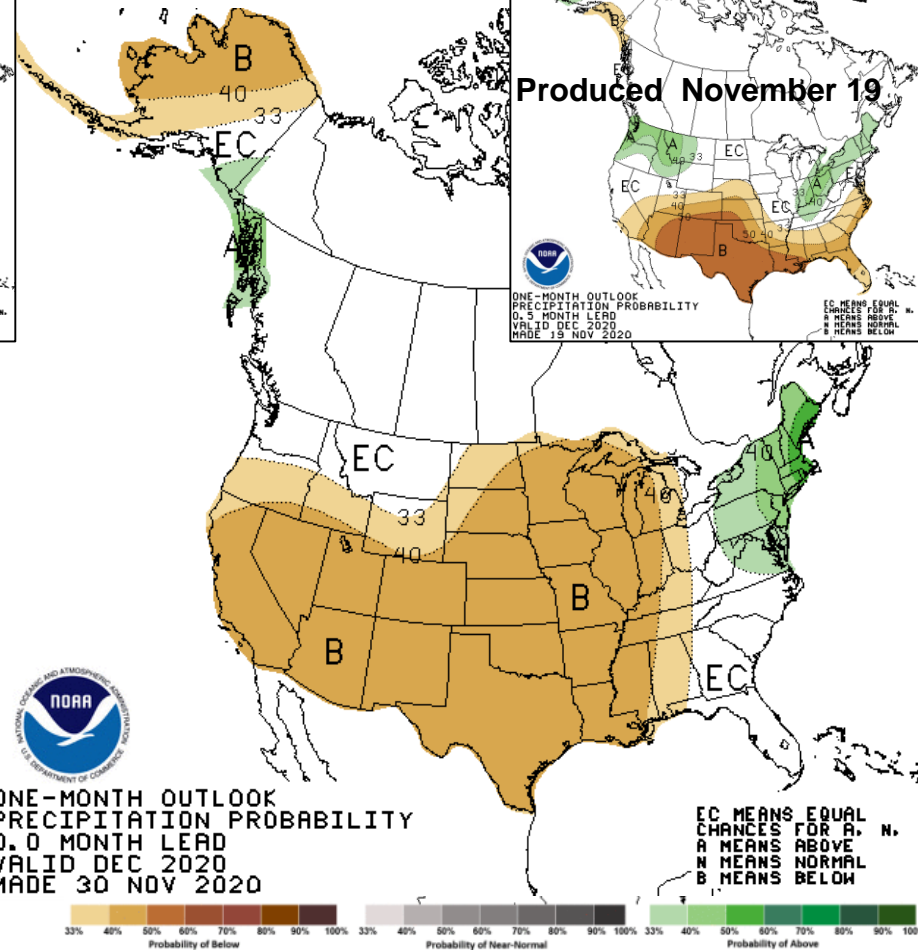


December 2020

Temperature



Precipitation



ONE-MONTH OUTLOOK
TEMPERATURE PROBABILITY
0.0 MONTH LEAD
VALID DEC 2020
MADE 30 NOV 2020

ONE-MONTH OUTLOOK
PRECIPITATION PROBABILITY
0.0 MONTH LEAD
VALID DEC 2020
MADE 30 NOV 2020



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Contact

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Canada Weather Pages

www.weather.gc.ca

