

New Brunswick

January 2020 Review February 2020 and Winter/Spring Outlook

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Meteorological Service of Canada
Environment and Climate Change Canada
February 3, 2020



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January 2020; Climate Summary

Station Name	TC ID	Station Type	Mean Temperature (°C)			Total Precip (mm)			
			Monthly Mean	Normal Mean	Diff from Normal	Monthly Total	Normal Total	Total as % of Normal	Diff from Normal as % of Normal
AROOSTOOK		DAILY	-9.1	-12.6	3.5	89.6	98.7	91	-9
BAS CARAQUET	WXS	AU8	-7.7	-9.8	2.1	66.0	97.3	68	-32
BAS CARAQUET		DAILY				74.6	97.3	77	-23
BATHURST A	ZBF	NCA	-9.2	-10.8	1.6				
BOUCTOUCHE CDA CS	ABT	AU8	-6.4	-9.0	2.6	81.7	104.2	78	-22
CHARLO AUTO	ZCR	AU8	-9.1	-12.6	3.5	48.7	84.5	58	-42
MIRAMICHI RCS	ACQ	AU8	-7.7	-10.8	3.1	67.1	87.0	77	-23
DOAKTOWN AUTO RCS	ADN	AU8	-8.3	-10.7	2.4	71.5	105.6	68	-32
EDMUNDSTON	ERM	AU8	-11.2	-12.9	1.7	78.7	79.4	99	-1
FREDERICTON INTL A	YFC	NCA	-6.9	-9.4	2.6				
FREDERICTON CDA CS	AFC	AU8	-6.8	-9.4	2.6	71.2	101.9	70	-30
GAGETOWN AWOS A	YCX	AU5	-6.3	-8.6	2.2	52.5	104.6	50	-50
GRAND MANAN SAR CS	XGM	AU8	-3.1						
KOUCHIBOUGUAC	AKC	AU8	-7.4	-10.1	2.7				
MISCOU ISLAND (AUT)	WMI	AU8	-6.9						
MONCTON INTL A	YQM	NCH	-6.1	-8.9	2.7	96.6	103.3	94	-6
OAK POINT		DAILY	-5.5	-8.6	3.0	62.5	104.6	60	-40
POINT LEPREAU CS	WPE	AU8	-3.0	-7.1	4.0	56.4	126.6	45	-55
RED PINES	ARP	AU8	-9.4	-12.0	2.6	73.1	86.6	84	-16
SAINT JOHN A	YSJ	NCH	-4.9	-7.9	3.0	79.3	123.5	64	-36
SUSSEX FOUR CORNERS	ASF	AU8	-5.7	-8.5	2.8	76.9	108.8	71	-29
WOODSTOCK		DAILY	-7.8	-11.5	3.7	78.0	104.0	75	-25
WOODSTOCK NEWBRIDGE	EWD	AU8	-8.0	-11.5	3.5	70.9	104.0	68	-32
Average			-7.1	-10.1	2.8	72.0	101.2	72	-28
Max			-3.0	-7.1	4.0	96.6	126.6	99	-1
Min			-11.2	-12.9	1.6	48.7	79.4	45	-55

Highlights:

The average temperature anomaly was above normal (+2.8C). All sites reported positive anomalies with Point Lepreau reporting the largest positive anomaly at +4.0C.

Total precipitation amounts were below normal, with an average of 72% of total precipitation. Point Lepreau saw less than half of their average monthly precipitation. This was partially due to the fact there were only three significant events for the month.

January 2020; Climate Summary

Events:

January 11-12; Winter storm event. Precipitation varied (10-25 mm/cm) throughout the province with the north and central regions receiving mostly snow while the south had mixed precipitation. The Miramichi and St-Quentin areas reported the most snow with 37 cm.

January 18-19; Snow event. Snowfall amounts were greatest in the south with very high snow-to-liquid ratios (up to 25:1, instead of 10:1) due to cold temperatures. The capital region saw the most snow with 33 cm.

January 26; Mixed precipitation event. Freezing rain blanketed central and northern portions of the province with rain in the south. Over 10 mm of freezing rain (ice accretion) was reported in the northeast and near 25 mm of rain was reported in the extreme southwest.

Days with thunderstorm activity (lightning) in New Brunswick; none

Day of month with temperature record broken or tied in New Brunswick; 11
(red=maximum, blue=minimum)



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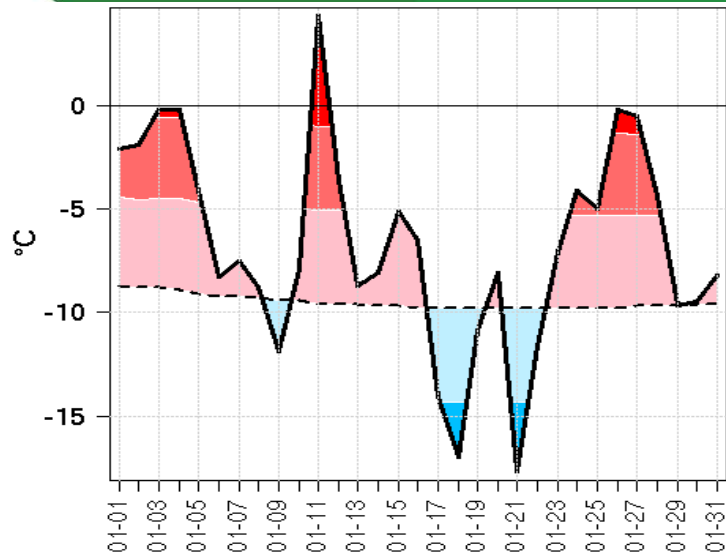
January 2020; Provincial Climate Extremes

Parameter	Value	ECCC Station	Day of month
Daily Maximum Temperature	+11.2 °C	Grand Manan	11
Daily Minimum Temperature	-29.5 °C	Edmundston	21
Maximum Daily Total Precipitation	36.3 mm	Sussex	12
Daily Maximum Wind Gust	82 km/h	Miscou Island	17
Daily Minimum Wind Chill	-35	Mechanic Settlement	18

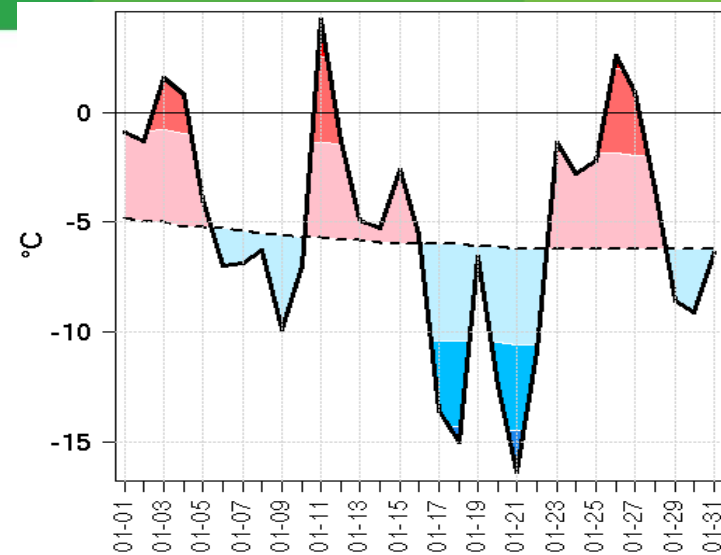


January 2020 - Temperature

Daily Mean Temperature (bold line) versus Normal (thin line) and $\pm 0.7, 1.3, 2.1$ SD (red/blue shades)



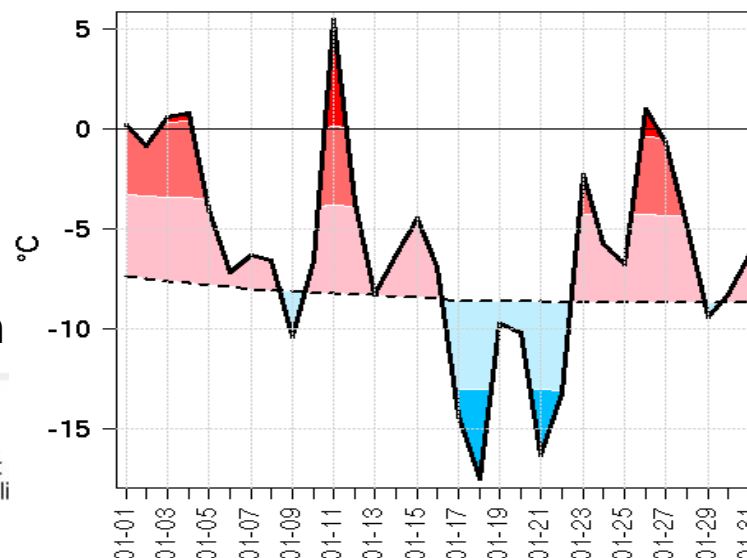
Fredericton



Saint John

All sites were
above normal

Moncton



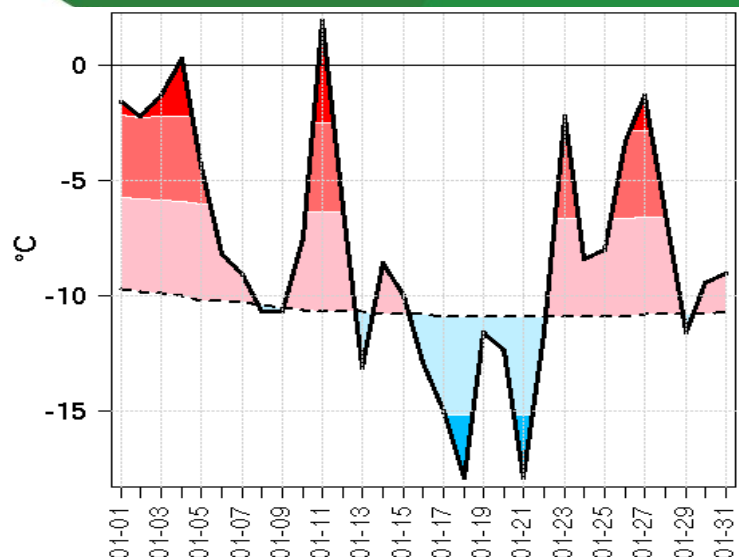
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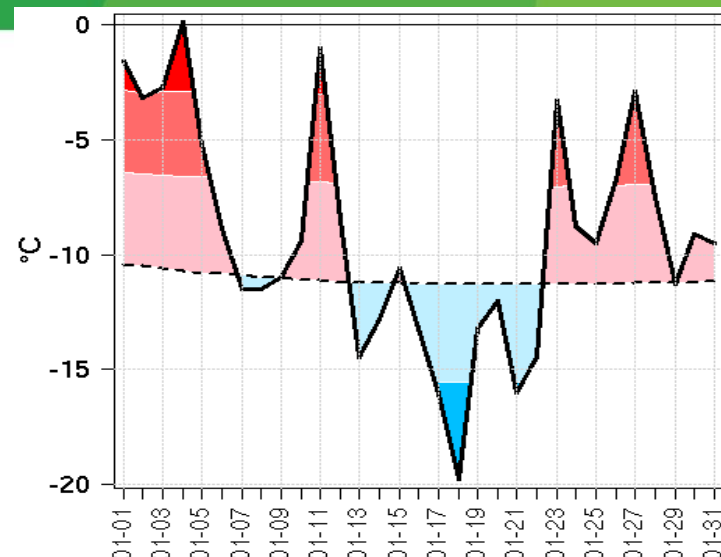
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January 2020 - Temperature

Daily Mean Temperature (bold line) versus Normal (thin line) and $\pm 0.7, 1.3, 2.1$ SD (red/blue shades)



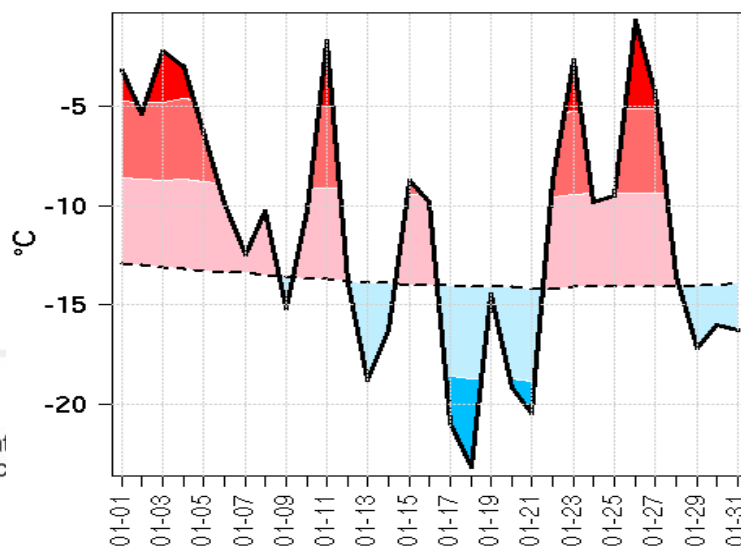
Miramichi



Bathurst

All sites were
above normal

Edmundston



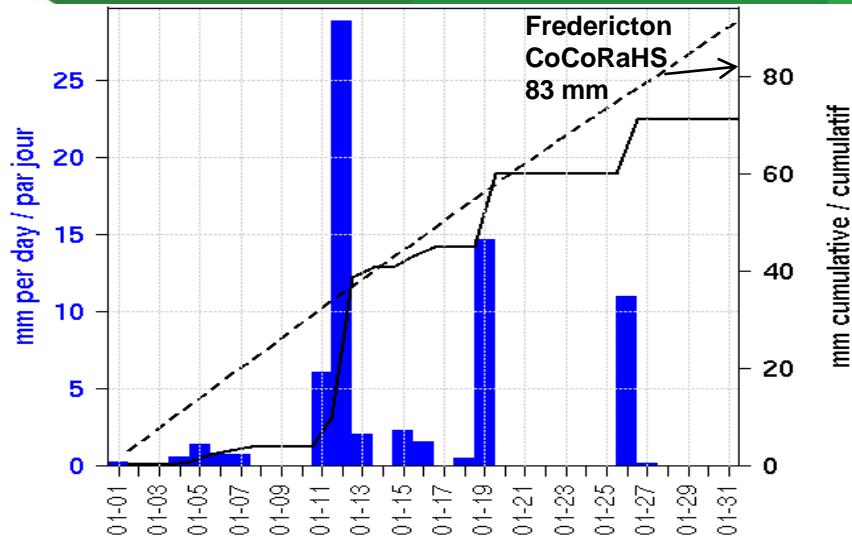
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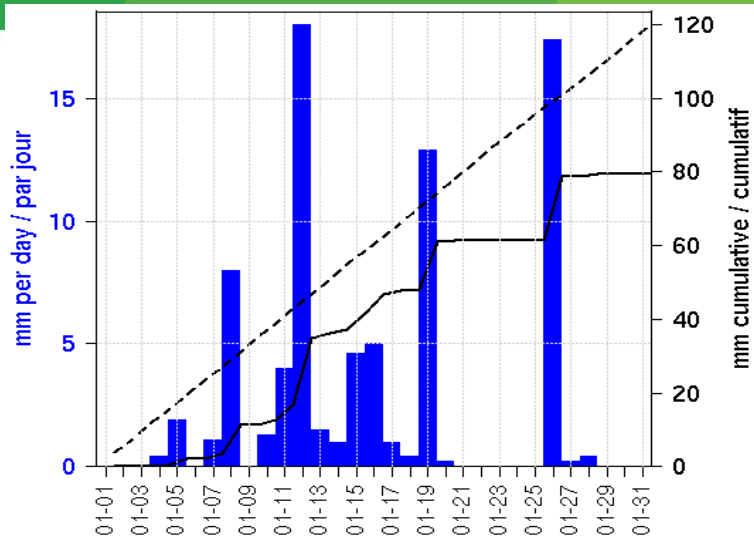
January 2020 - Precipitation

Observed Cumulative Precipitation (line) versus Normal (dashed line) and Daily Amounts (bars)



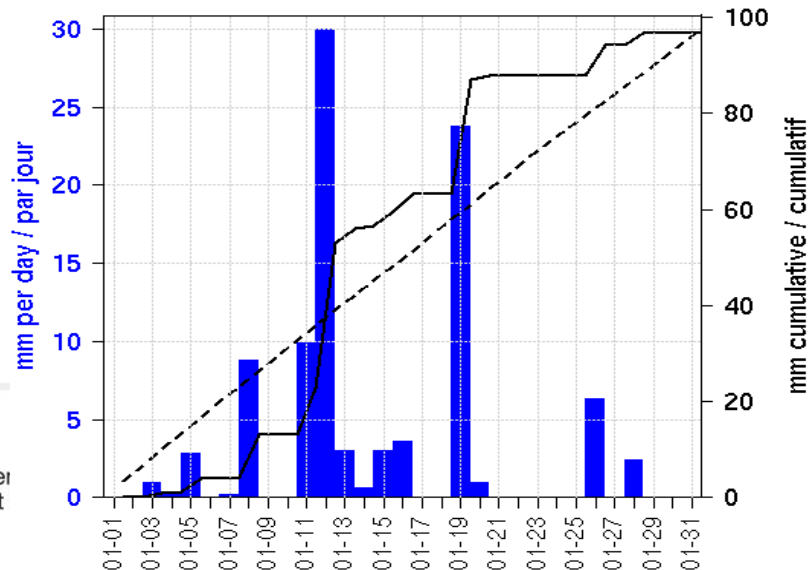
Fredericton (and area)

Fredericton
and Saint
John were
below normal



Saint John

Moncton



Moncton was
near normal



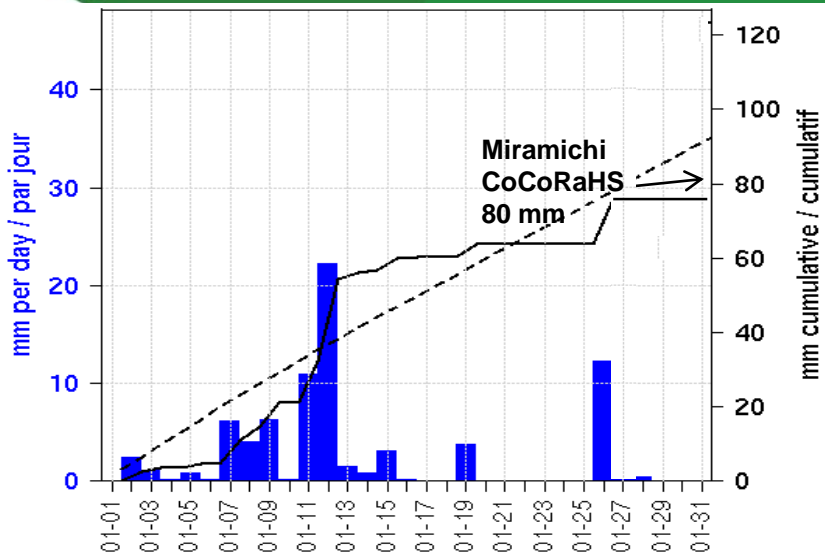
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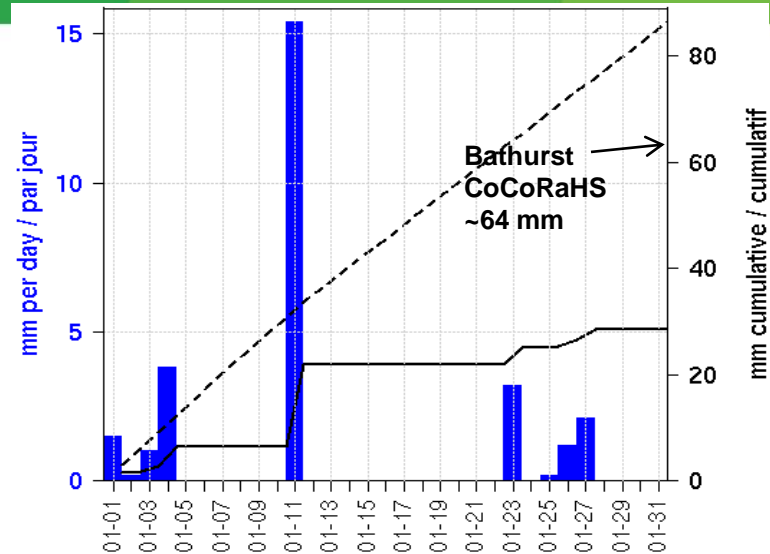
January 2020 - Precipitation

Observed Cumulative Precipitation (line) versus Normal (dashed line) and Daily Amounts (bars)



Miramichi

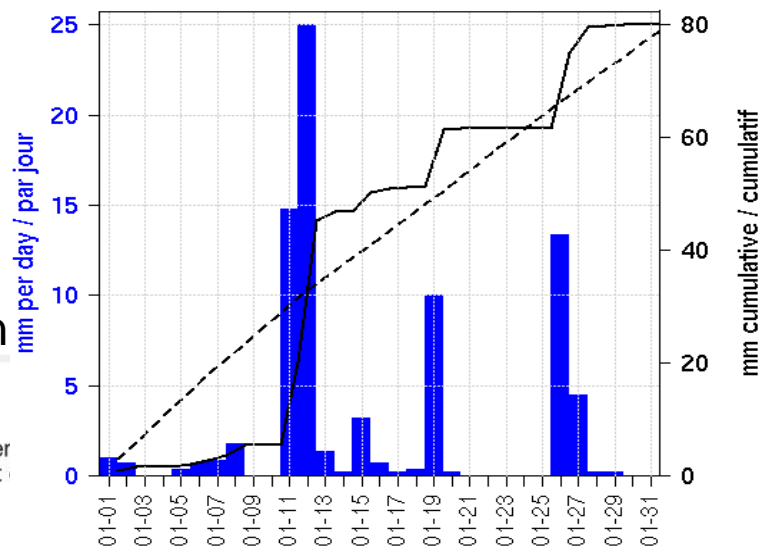
Miramichi and Bathurst were below normal



Bathurst*

*some daily data is missing

Edmundston



Edmundston was near normal

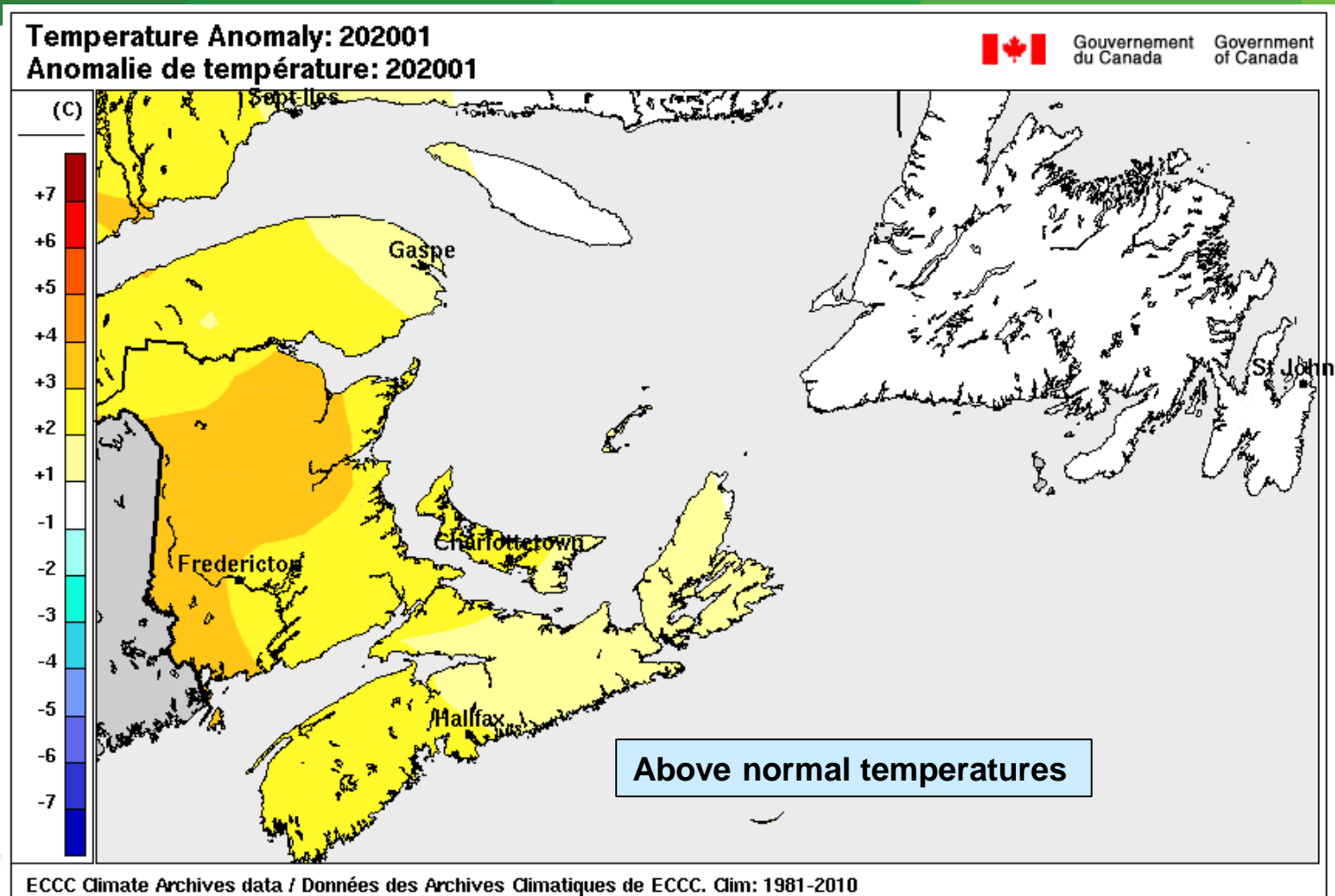


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January 2020 – Temperature departure from 1981-2010 mean



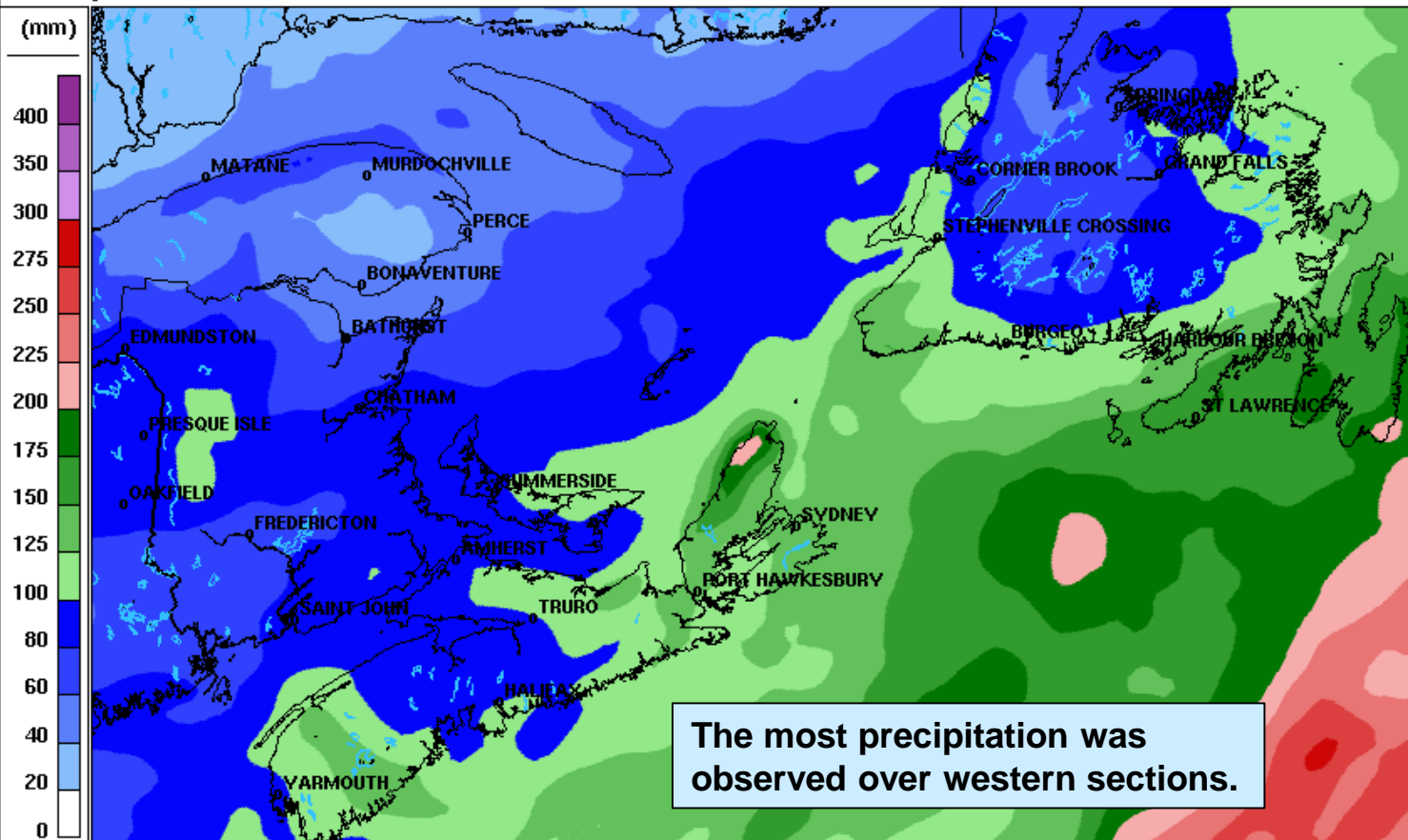
January 2020 – Total precipitation

Total precipitation: 202001
Précipitation totale: 202001



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ECCE NWP model gridded data / Données sur grille de modèle de PNT de ECCE

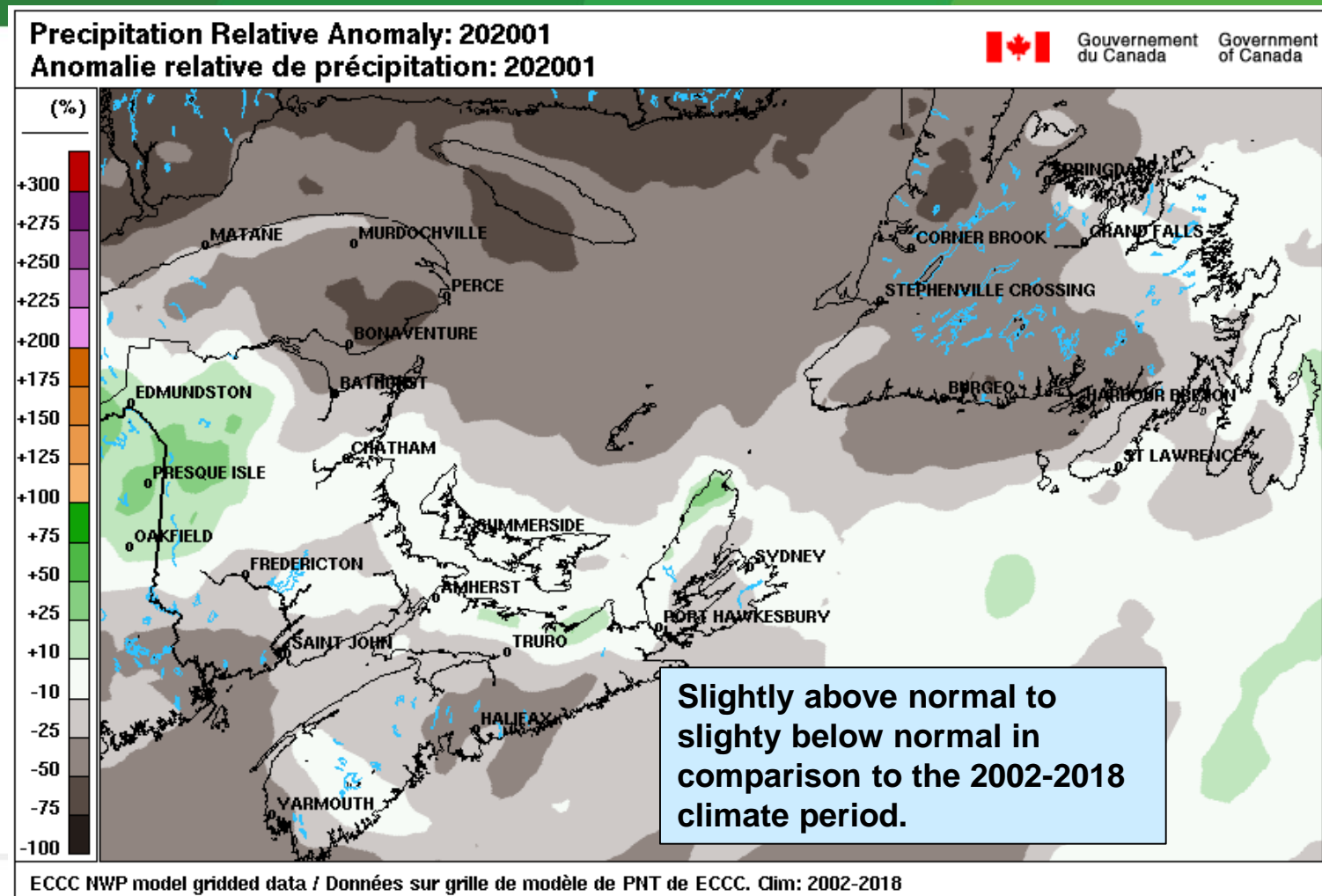


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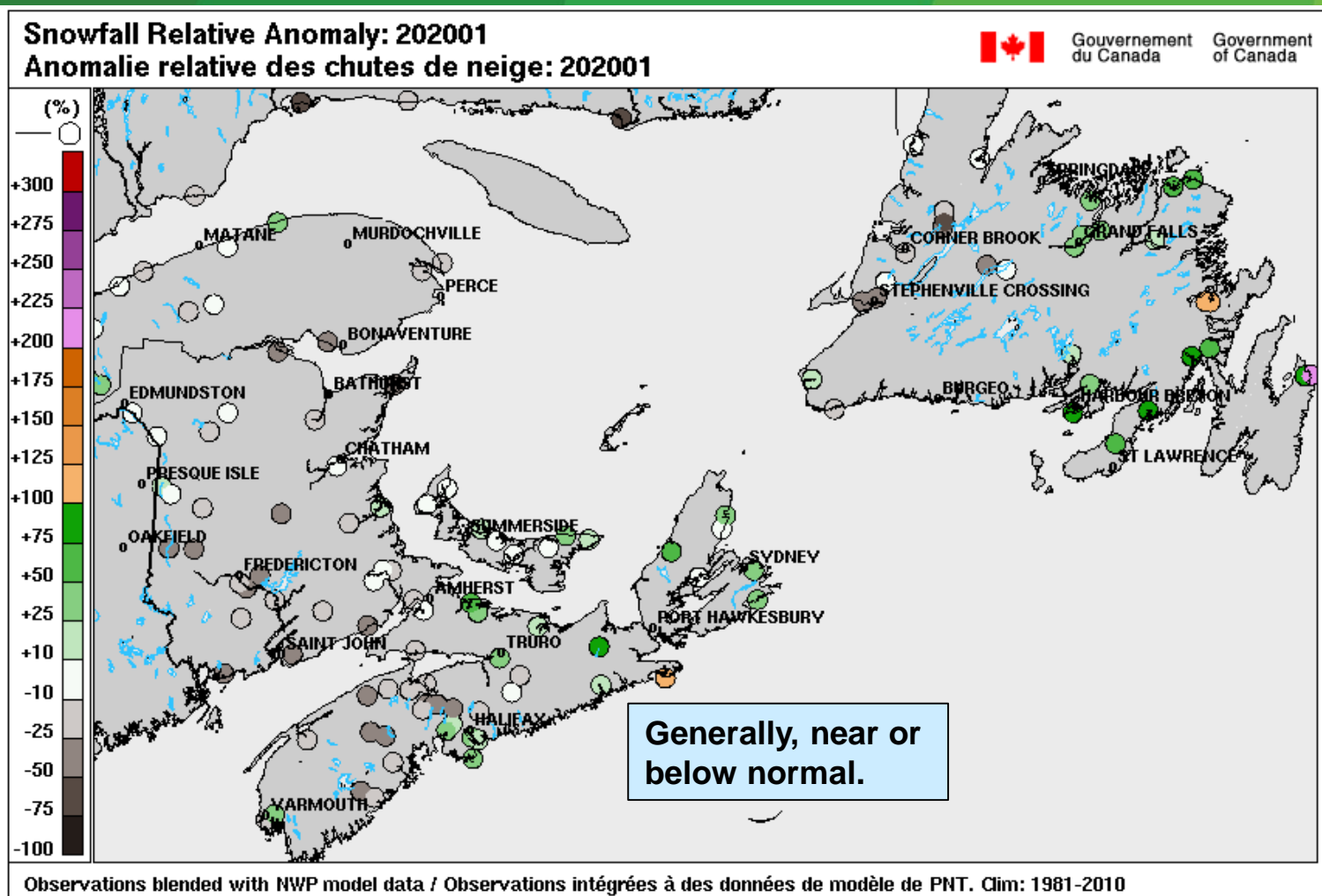
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January 2020 – Precipitation departure from 2002-2018 mean



January 2020 – Snowfall departure from 1981-2010 mean



January 2020 – Snow depth at month end

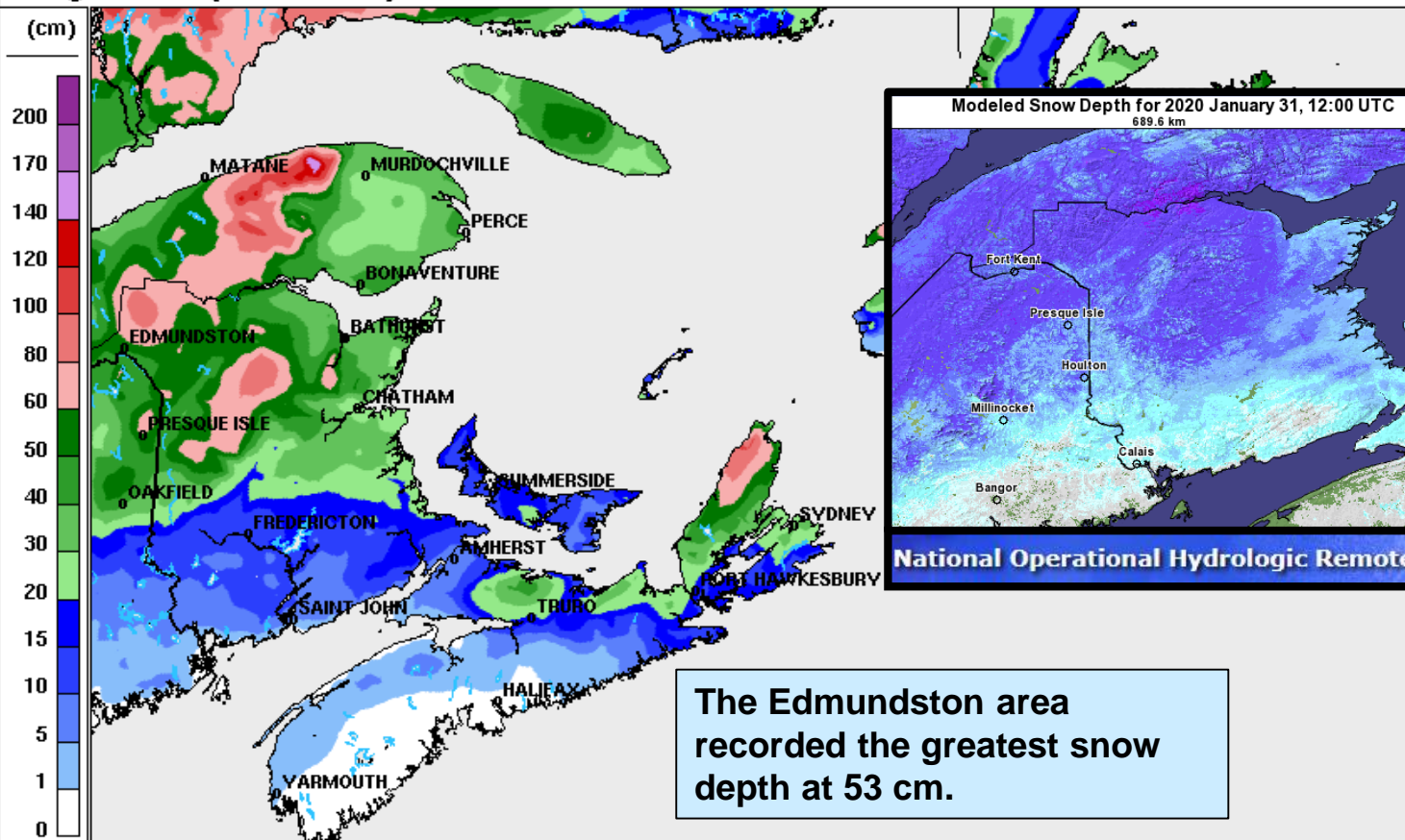
Extracted from Canadian computer model

Snow Depth (end of month): 202001
Neige au sol (fin de mois): 202001

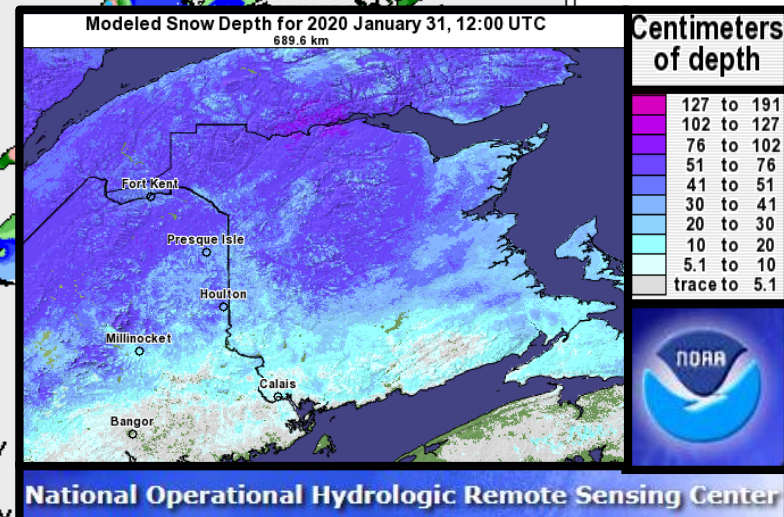


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ECCC NWP model data / Données de modèle de PNT d'ECCC.



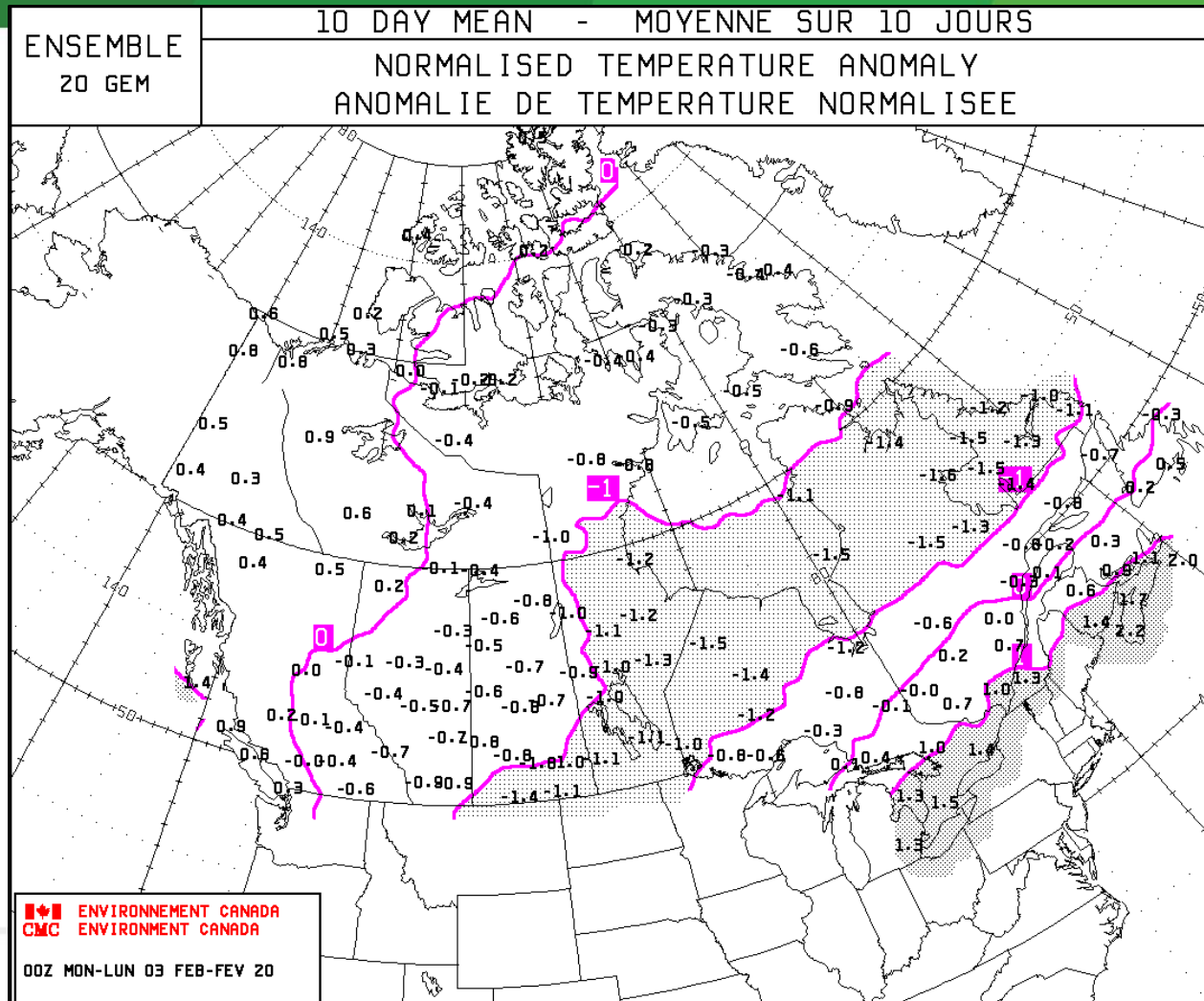
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Outlook – 10 day mean temperature

(Suggesting slightly above normal conditions (+0.2 to +1.5°C))



10 day
forecast
ending
February
13, 2020



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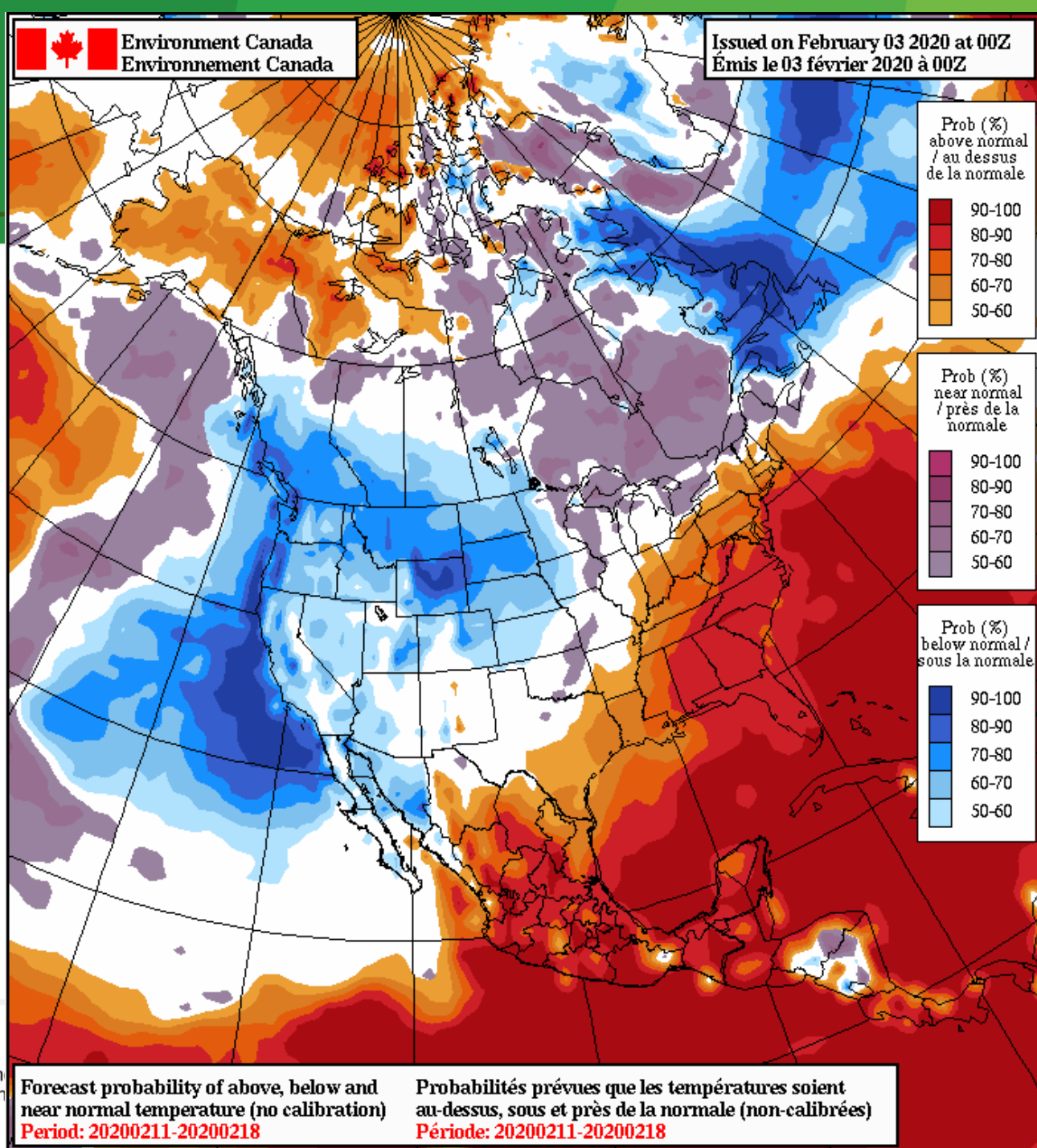
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Day 8 to 14 Forecast

**Period ending
February 18,
2020**

Ranging from a weak signal of below normal in the northeast of the province to a weak signal of near normal in the southwest.



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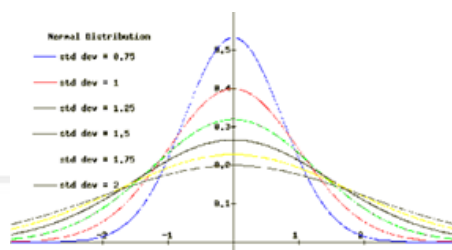


Fredericton

February
Normal high: -2.0C
Normal low: -13.7C

**Next 15 days; ending
February 18, 2020**

Slightly above normal for the first four days, then a lot of variability (no trend) for the rest of the period.

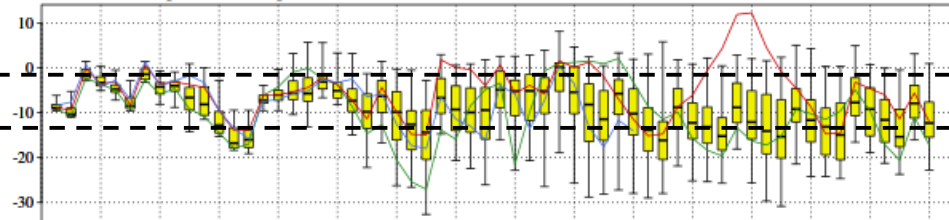


Ensemble and Deterministic Forecasts issued 3 February 2020 00 UTC
Prévision d'ensemble et déterministe émises le 3 Février 2020 00 UTC
for/pour

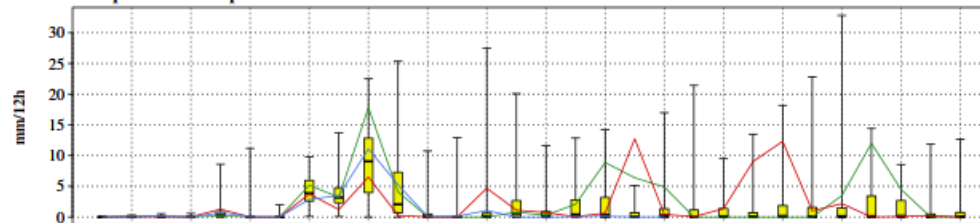
NAEFS / SPENA

FREDERICTON (YFC) 45.87 N 66.53 W/O

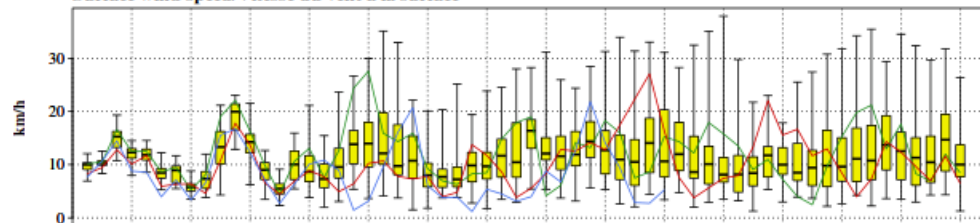
Surface air temperature/Température de l'air à la surface



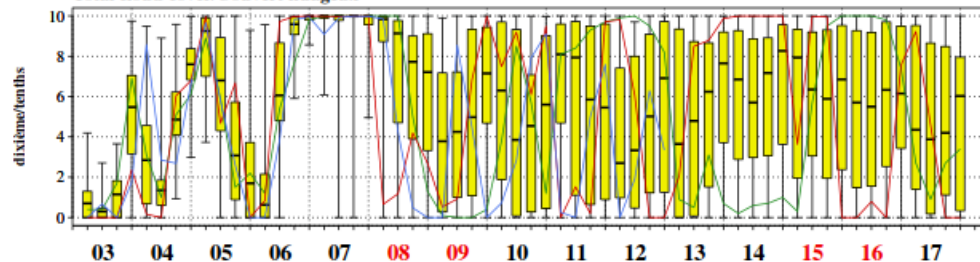
Précipitations/Precipitation



Surface wind speed/Vitesse du vent à la surface



Total cloud cover/Couvert nuageux

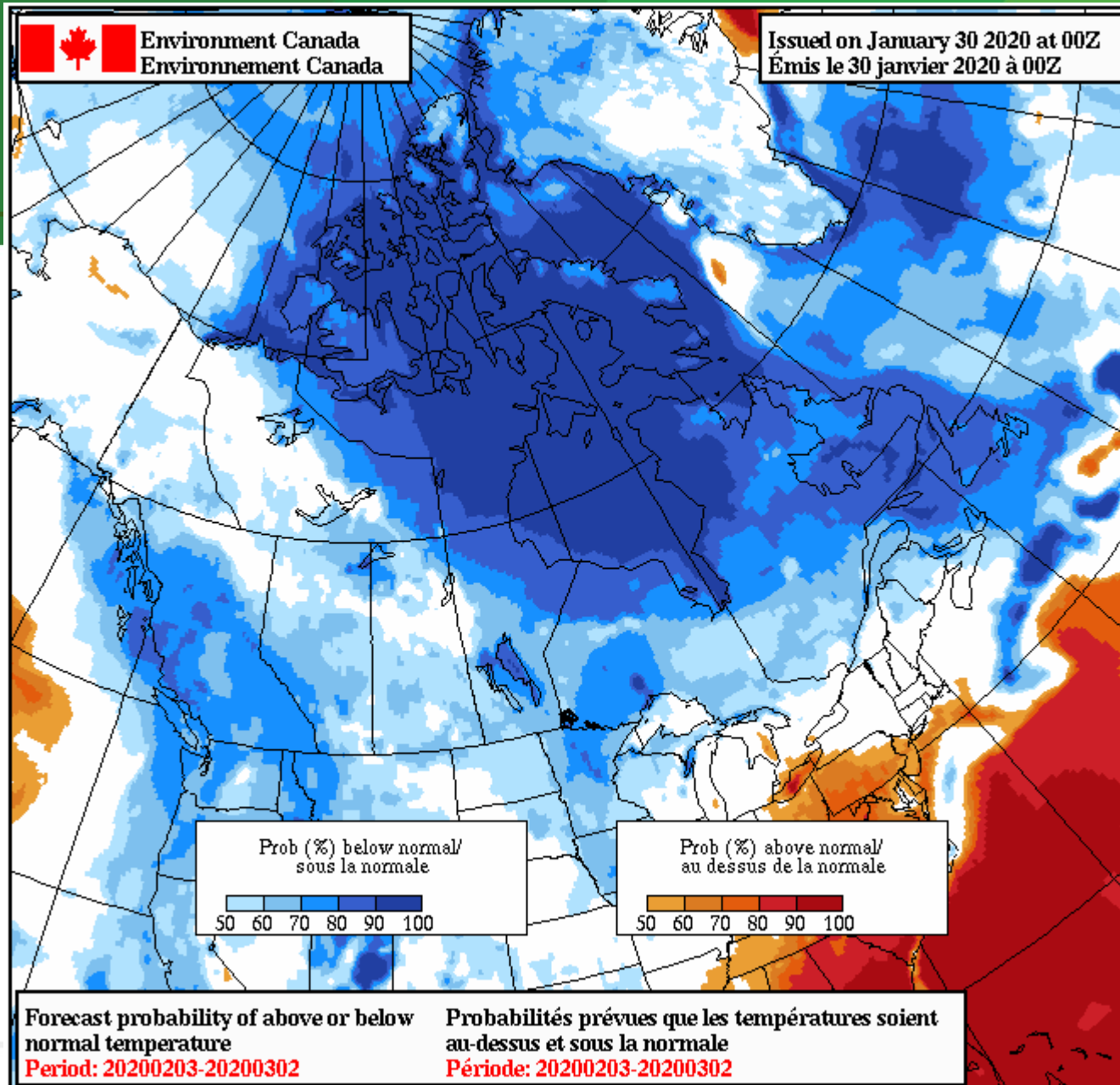


February/Février 2020

max
75%
median/médiane
25%
min

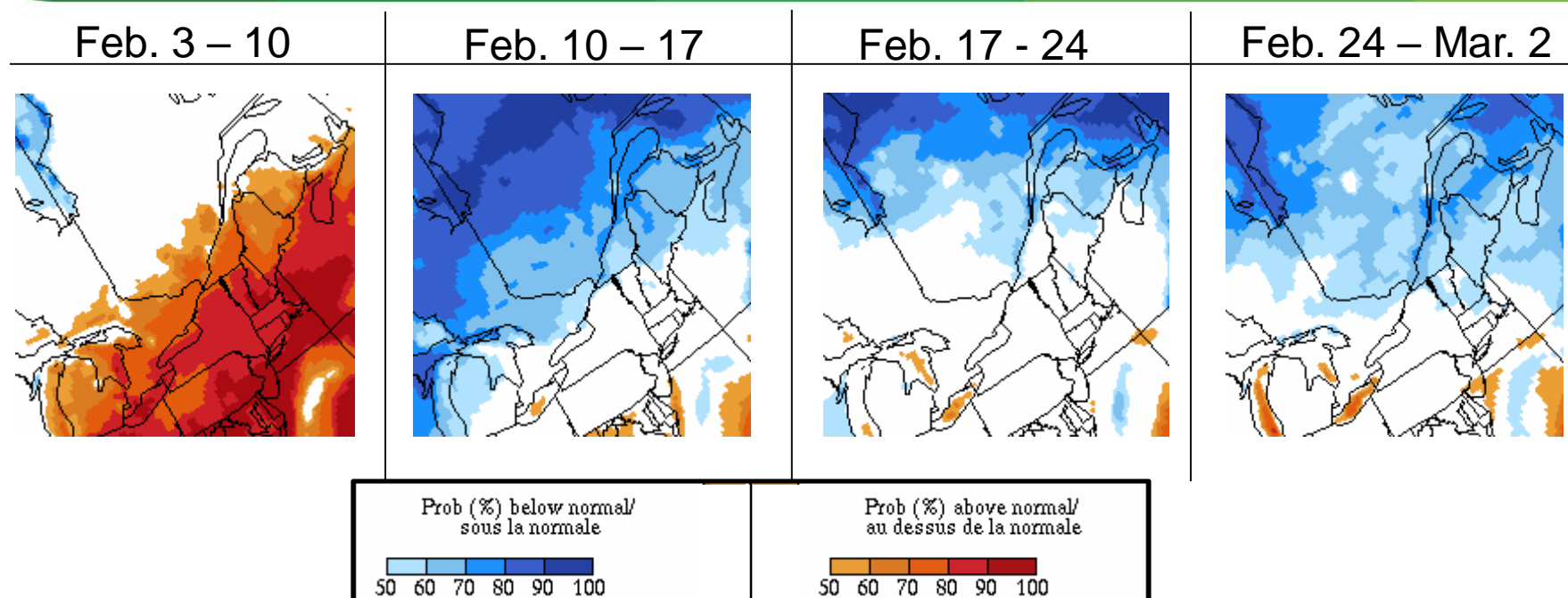
— Global Model / Modèle global
— Control Member / Membre contrôle CMC
— Control Member / Membre contrôle NCEP

Temperature February 3 to March 2



CMC
Monthly
Forecast
Product
using GEPS
50km res.

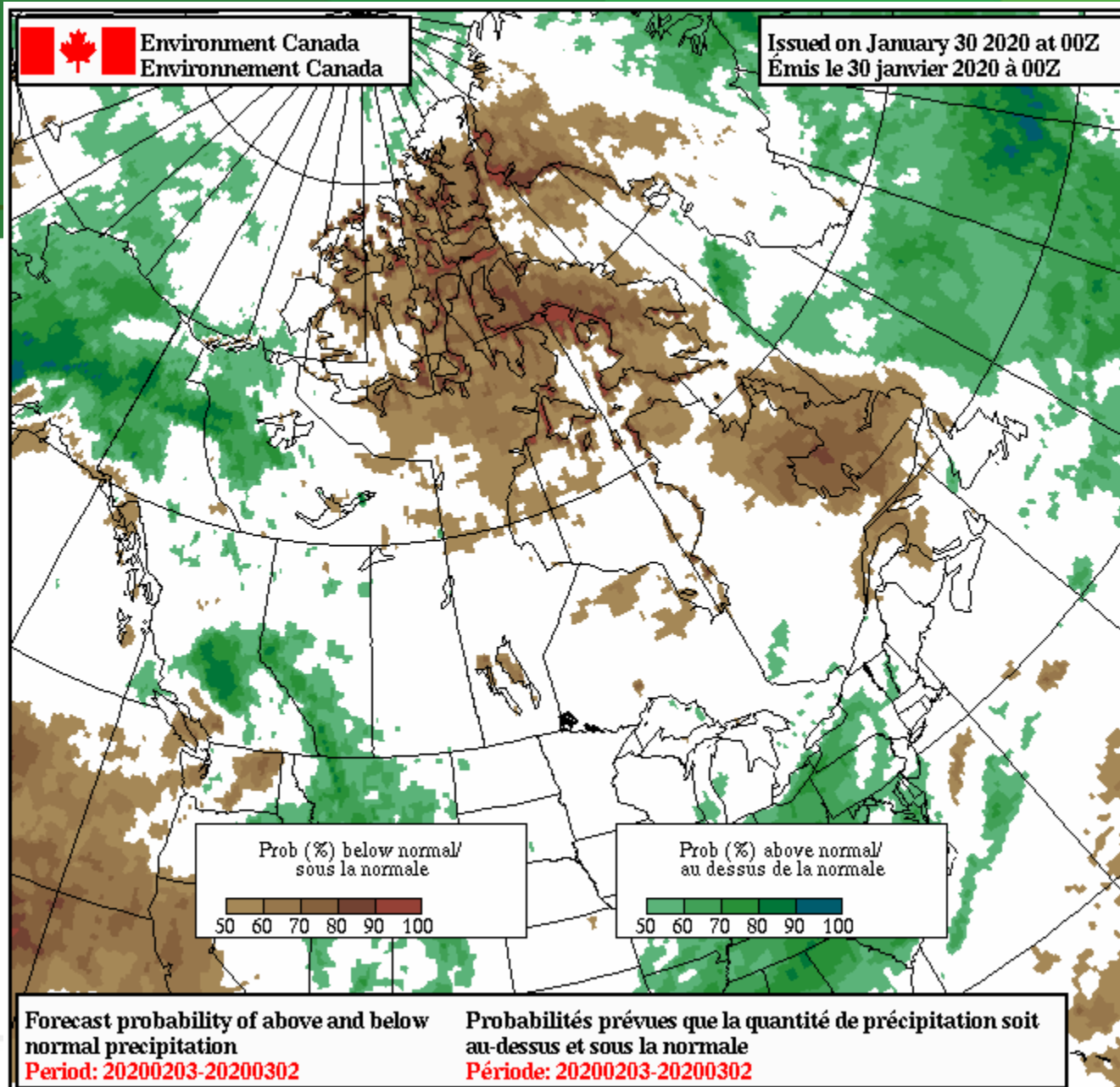
Weekly signature from GEPS 50km resolution



There is a signal of above normal for the first week then the rest of the period is indicating a signal of below normal.

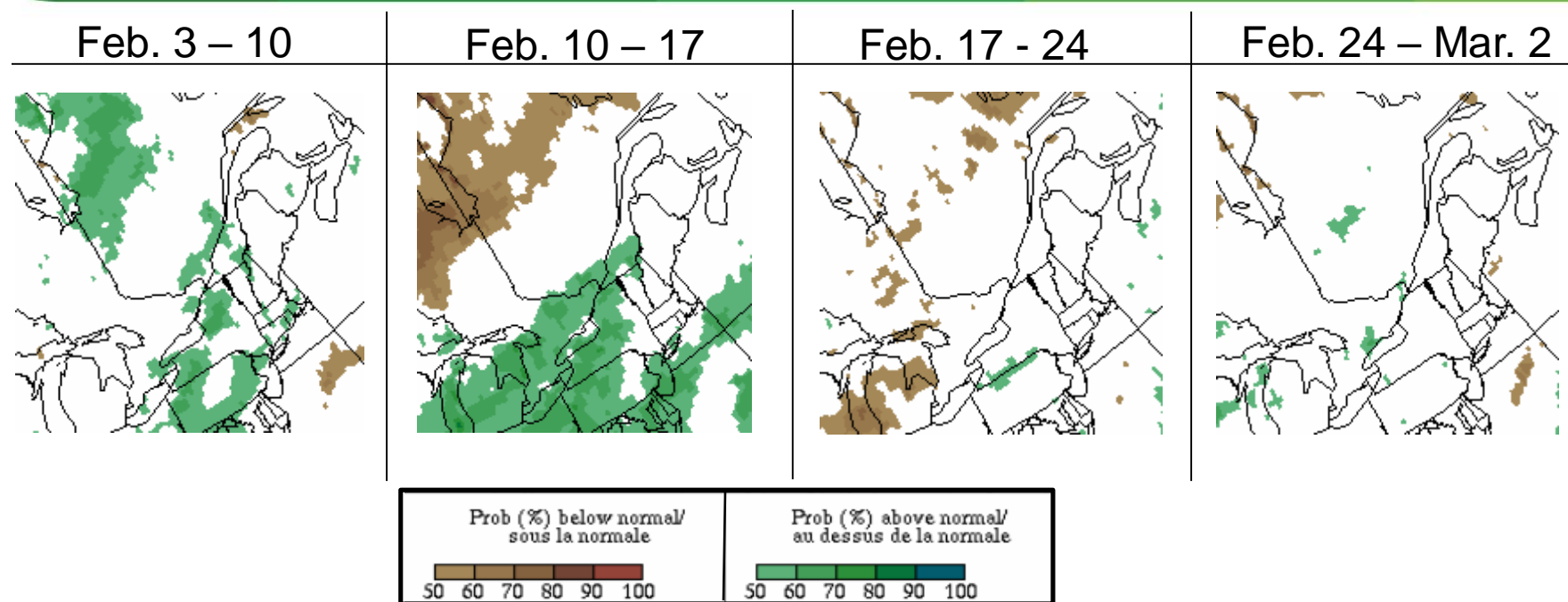


Precipitation February 3 to March 2



CMC
Monthly
Forecast
Product
using GEPS
50km res.

Weekly signature from GEPS 50km resolution



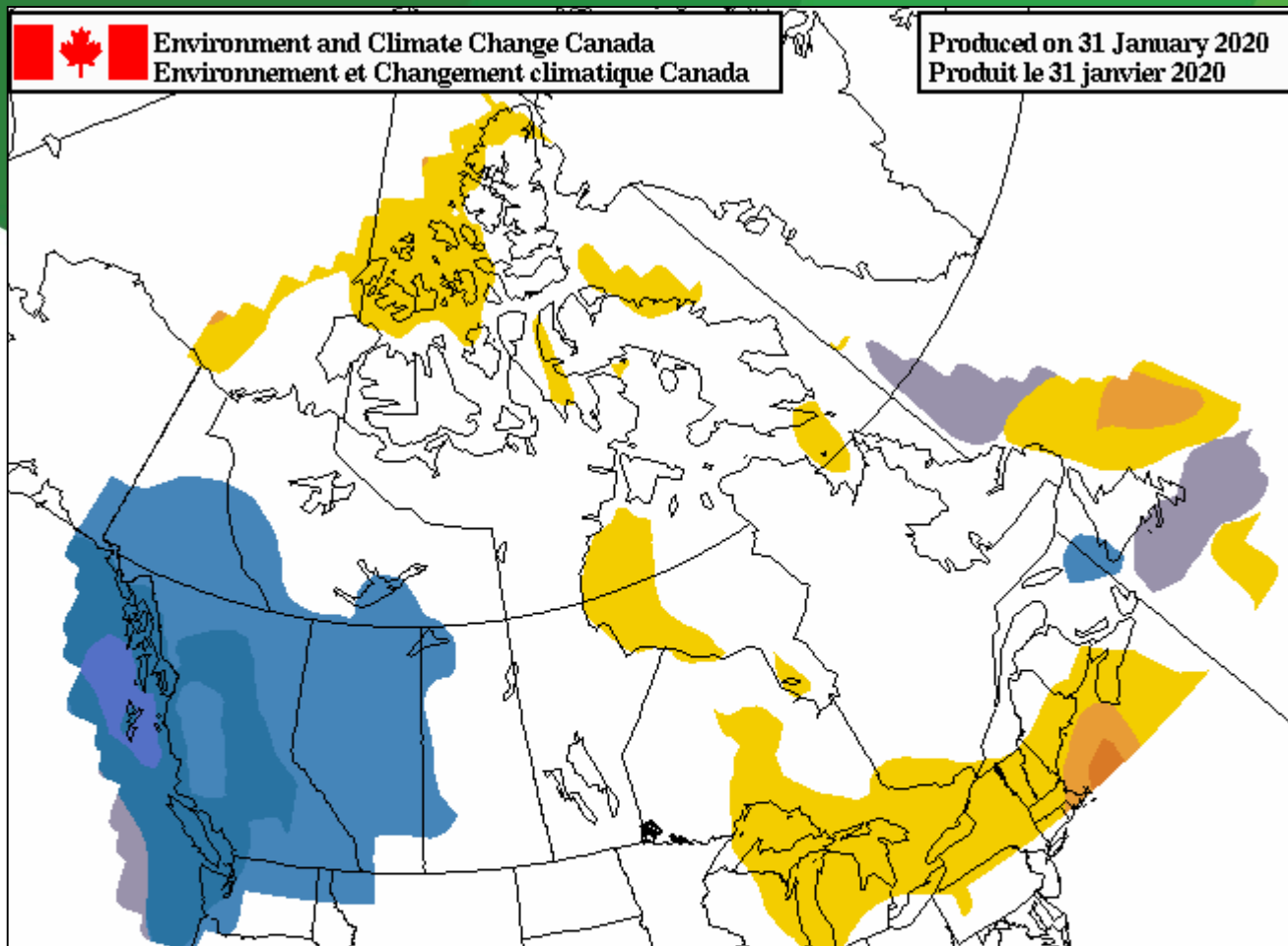
No real conclusive signal (near normal) for the period.



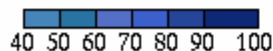


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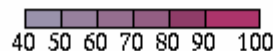
Produced on 31 January 2020
Produit le 31 janvier 2020



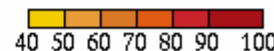
Prob (%) below normal/
sous la normale



Prob (%) near normal/
près de la normale



Prob (%) above normal/
au dessus de la normale



**Forecast probability of Temperature
above, below and near normal (calibrated)**

Period: March 2020

**Based on 3 equiprobable categories
from 1981-2010 climatology**

**Probabilités prévues de températures
au-dessus, sous et près de la normale (calibrées)**

Période: mars 2020

**Basé sur 3 catégories équiprobables
de la climatologie 1981-2010**



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Temperature March 2020

CanSIPS
(Canadian Seasonal and
Interannual Prediction
System)

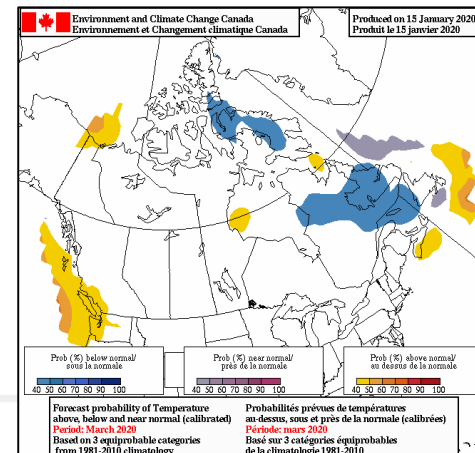
CanAM3

CanAM4

+

CanOM4

Produced January 15



Canada

Temperature April 2020

CanSIPS
(Canadian Seasonal and
Interannual Prediction
System)

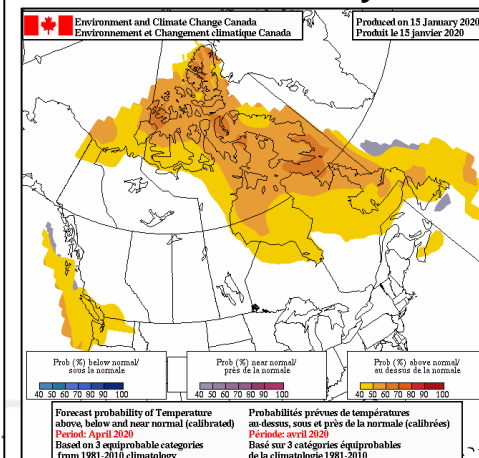
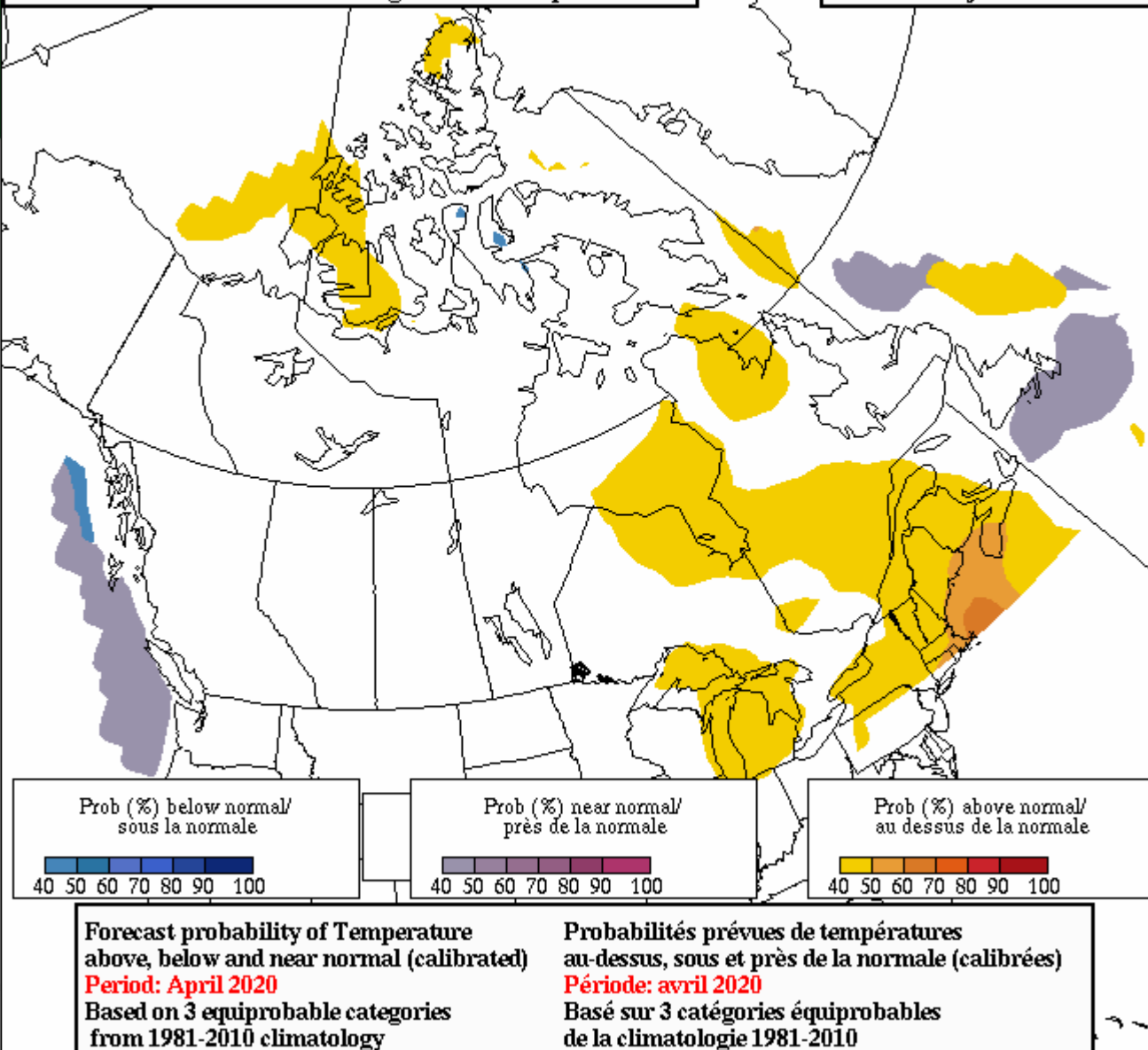
CanAM3

CanAM4

+

CanOM4

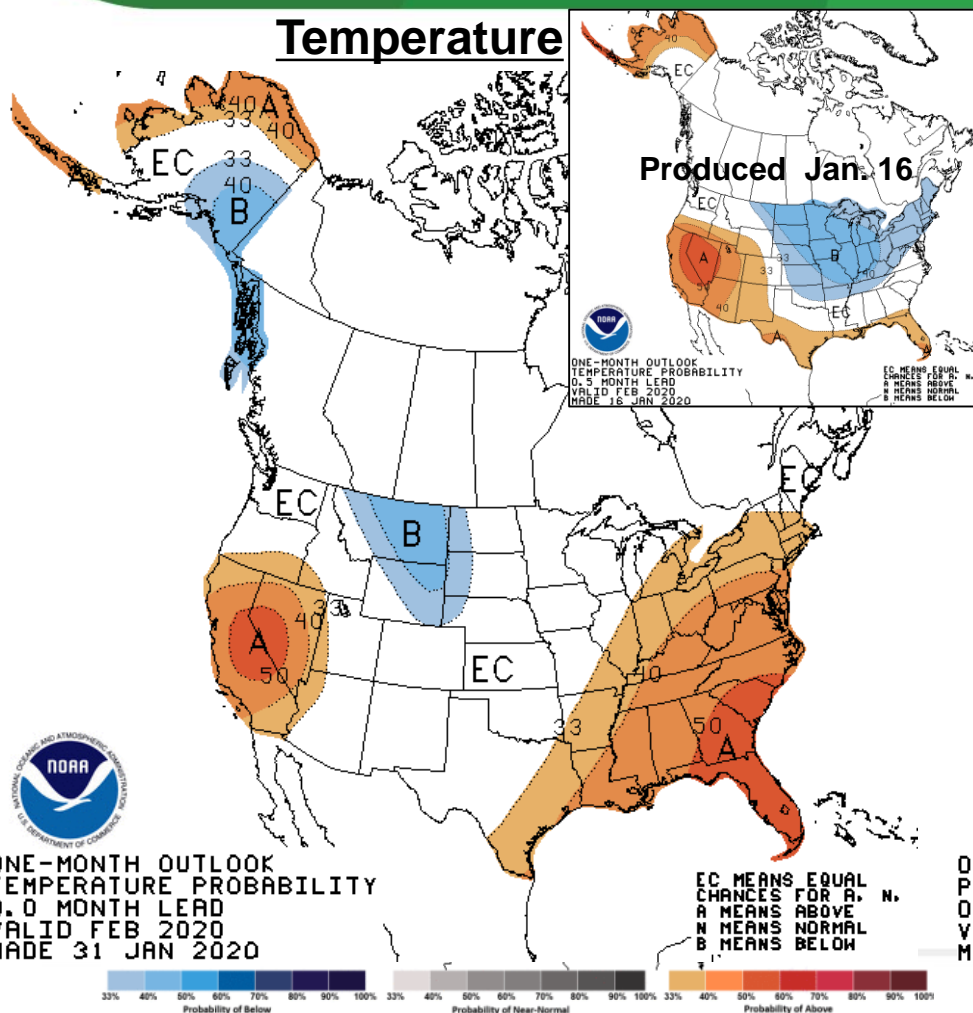
Produced January 15



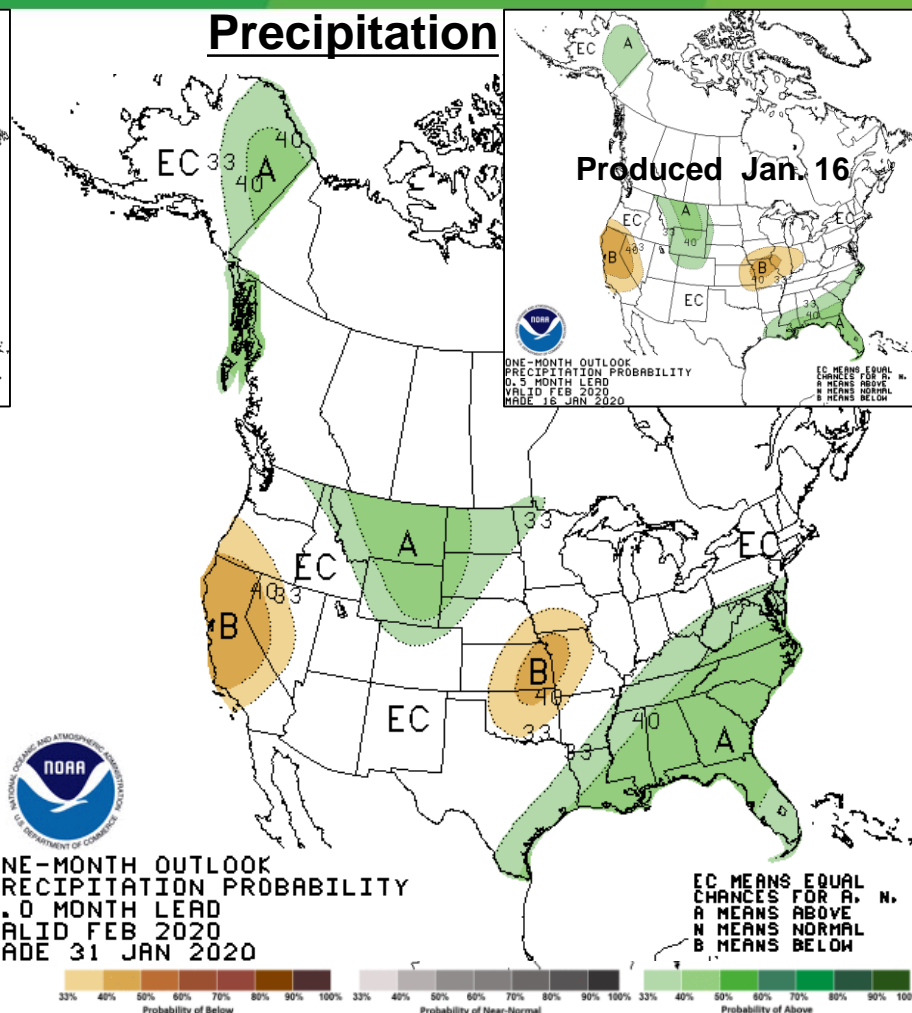


February 2020

Temperature



Precipitation



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Contact

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Canada Weather Pages

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