

# New Brunswick

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## January 2021 Review February and Winter/Spring Outlook

Jill Maepea

Meteorological Service of Canada

Environment and Climate Change Canada

February 1, 2021



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# January 2021; 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	Total as % of Normal
BAS CARAQUET	NB	WXS	AU8	-4.8	-9.8	5.0	45.9	97.3	47
BAS CARAQUET	NB		DAILY				53.2	97.3	55
BATHURST A	NB	ZBF	NCA	-6.3	-10.8	4.6			
BOUCTOUCHE CDA CS	NB	ABT	AU8	-5.0	-9.0	4.0	55.0	104.2	53
CHARLO AUTO	NB	ZCR	AU8	-6.4	-12.6	6.2	20.4	84.5	24
MIRAMICHI RCS	NB	ACQ	AU8	-5.7	-10.8	5.1	50.3	87.0	58
DOAKTOWN AUTO RCS	NB	ADN	AU8	-5.2	-10.7	5.5	39.5	105.6	37
EDMUNDSTON	NB	ERM	AU8	-8.8	-12.9	4.1	34.5	79.4	43
FREDERICTON INTL A	NB	YFC	NCA	-5.0	-9.4	4.5			
FREDERICTON CDA CS	NB	AFC	AU8	-4.7	-9.4	4.8	38.4	101.9	38
FUNDY PARK (ALMA) CS	NB	AFY	AU8	-3.0	-7.4	4.4	49.4	144.9	34
GAGETOWN AWOS A	NB	YCX	AU5	-4.9	-8.6	3.7			
KOUCHIBOUGUAC	NB	AKC	AU8	-5.2	-10.1	4.9	47.5	137.7	34
MISCOU ISLAND (AUT)	NB	WMI	AU8	-4.7					
MONCTON INTL A	NB	YQM	NCH	-4.9	-8.9	3.9	59.1	103.3	57
OAK POINT	NB		DAILY	-4.0	-8.6	4.6	49.1	104.6	47
POINT LEPREAU CS	NB	WPE	AU8	-2.5	-7.1	4.6			
RED PINES	NB	ARP	AU8	-6.6	-12.0	5.4	56.2	86.6	65
SAINT JOHN A	NB	YSJ	NCH	-4.2	-7.9	3.7	47.8	123.5	39
ST. STEPHEN	NB	WSS	AU8	-4.2					
SUSSEX FOUR CORNERS	NB	ASF	AU8	-4.4	-8.5	4.1	36.4	108.8	33
WOODSTOCK NEWBRIDGE	NB	EWD	AU8	-6.5	-11.5	5.0			
<b>Average</b>				<b>-5.1</b>	<b>-9.8</b>	<b>4.6</b>	<b>45.5</b>	<b>104.4</b>	<b>44</b>
<b>Max</b>				<b>-2.5</b>	<b>-7.1</b>	<b>6.2</b>	<b>59.1</b>	<b>144.9</b>	<b>65</b>
<b>Min</b>				<b>-8.8</b>	<b>-12.9</b>	<b>3.7</b>	<b>20.4</b>	<b>79.4</b>	<b>24</b>

## Highlights:

The average temperature anomaly was much above normal (**+4.6C**). All sites reported positive anomalies with Charlo recording the largest anomaly at +6.2C and their second warmest month on record. All sites recorded their top 8 warmest on record.

Total precipitation amounts were much below normal, with an average of **44%** of total precipitation. Charlo received less than a quarter of their normal precipitation with Red Pines having been the wettest at 65% of normal. Both rainfall and snowfall were much below normal.



# January 2021; Climate Summary

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## Events:

**January 2:** “Snow Event”. Snow blanketed central and southern portions of the province with 15-25 cm. The McLeod Hill area reported the most snow at 32 cm.

**January 16-17:** “Mixed Weather Event”. A system brought rain and wind to the south, snow to the north and freezing precipitation to central areas. The St. Stephen area saw the most rain at 32 mm, the St-Quentin area amassed 35 cm of snow, while Saint John recorded the strongest wind gust at 78 km/h.

**Days of month with lightning in New Brunswick; 2 (1 day)**

**Day of month with temperature record broken or tied in New Brunswick; none  
(red=maximum, blue=minimum)**

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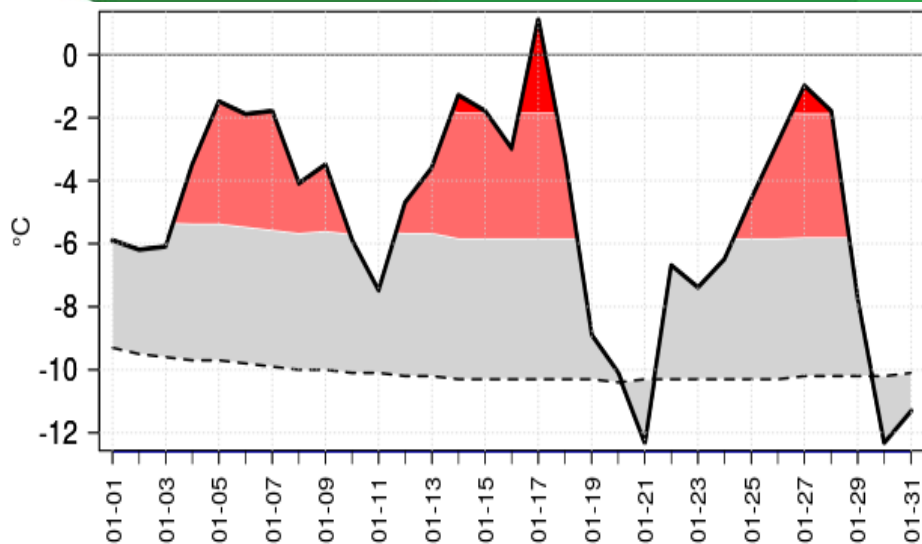
# January 2021; Provincial Climate Extremes

Parameter	Value	ECCC Station	Day of month
Daily Maximum Temperature	<b>7.1°C</b>	Point Lepreau	17
Daily Minimum Temperature	<b>-28.7°C</b>	Edmundston	21
Maximum Daily Total Precipitation	<b>28.0 mm</b>	Oak Point	2
Daily Maximum Wind Gust	<b>78 km/h</b>	Saint John	16
Daily Maximum Wind Chill	<b>-32</b>	Edmundston	21

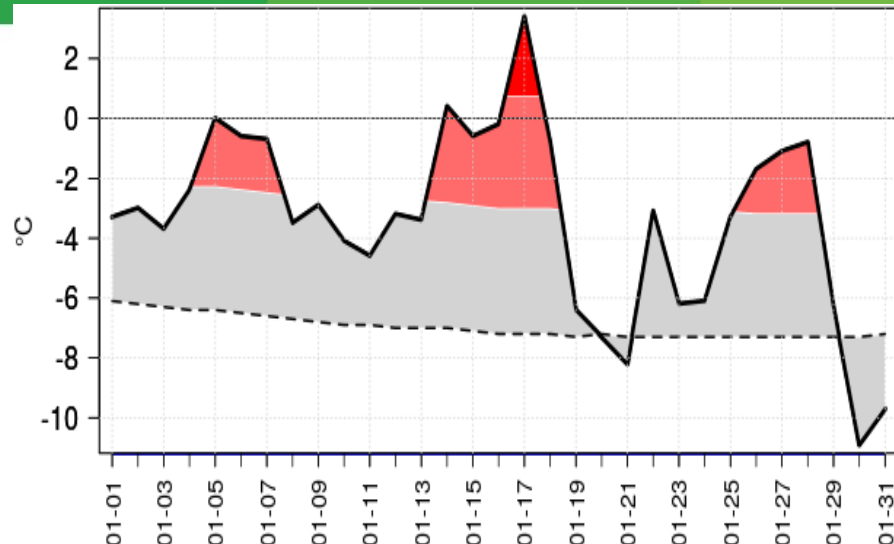


# January 2021 - Temperature

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

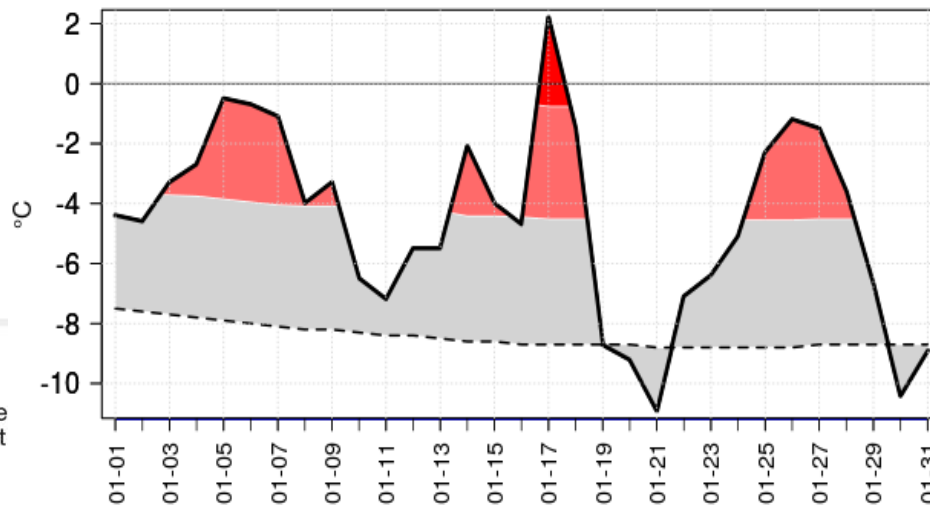


Saint John

■ <<< normal  
 ■ << normal  
 ■ < normal  
 ■ normal  
 ■ > normal  
 ■ >> normal  
 ■ >>> normal

All sites were above normal

Moncton



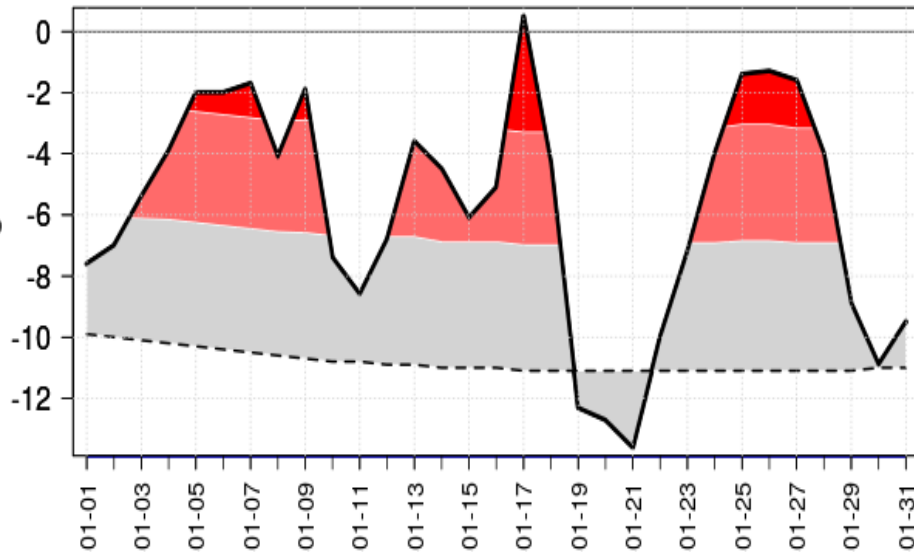
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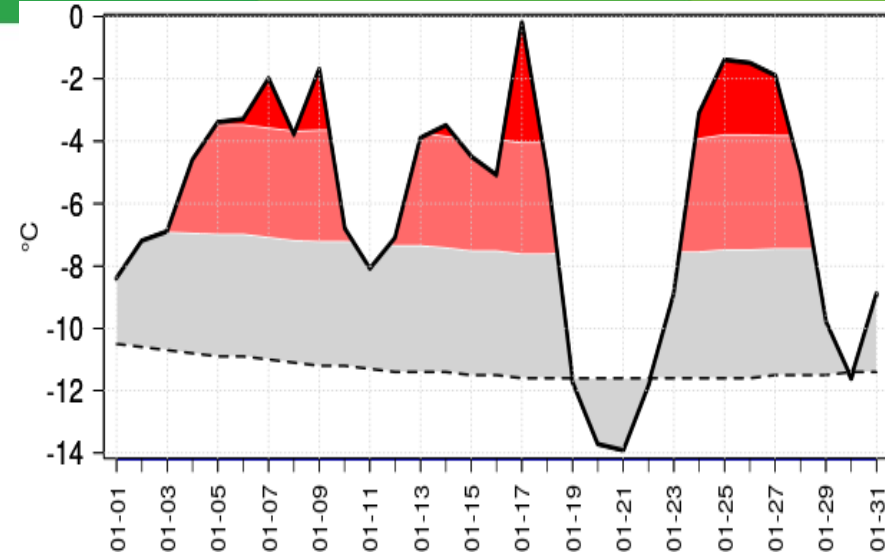


# January 2021 - Temperature

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

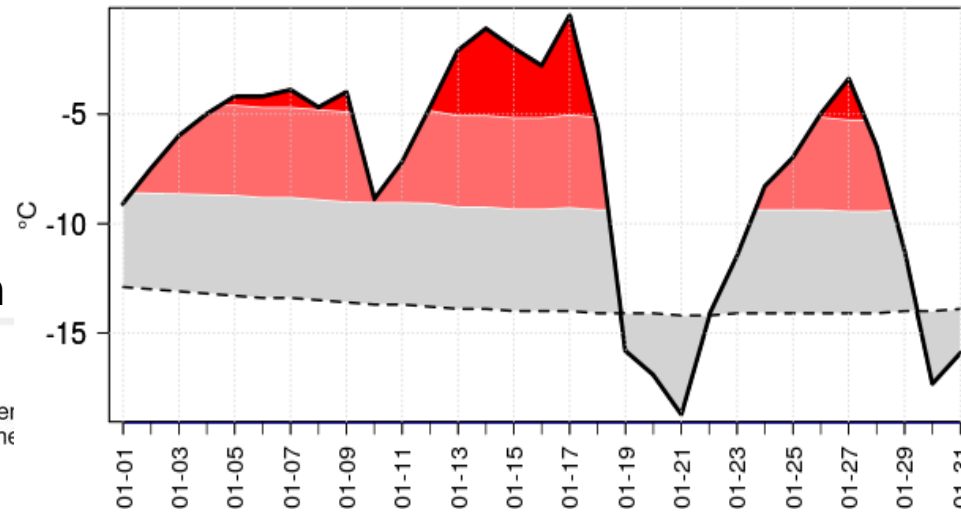


Bathurst

■ <<< normal  
 ■ << normal  
 ■ < normal  
 ■ normal  
 ■ > normal  
 ■ >> normal  
 ■ >>> normal

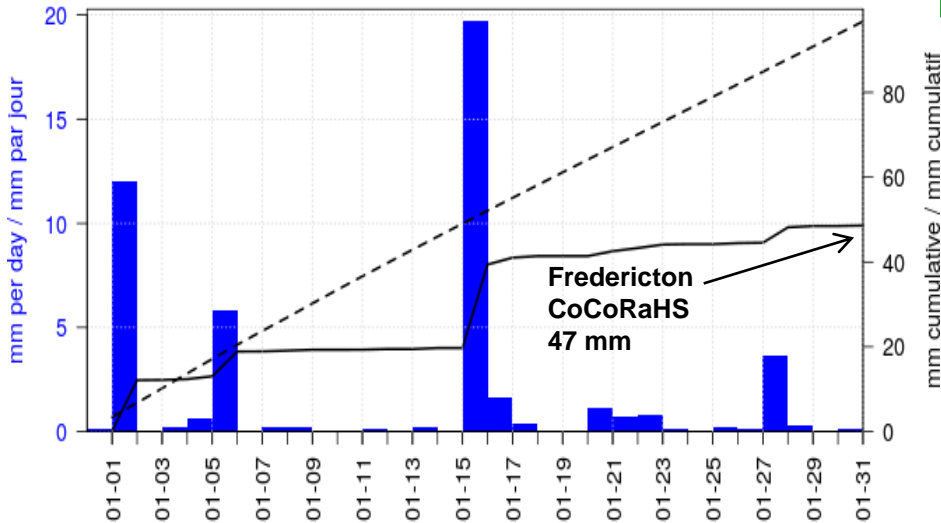
All site were above normal

Edmundston

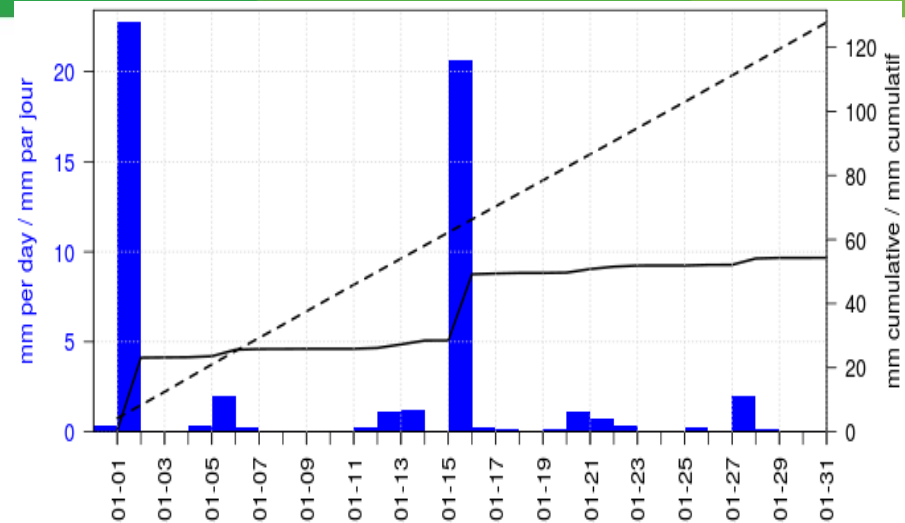


# January 2021 - Precipitation

Daily Total Precipitation (bars), Cumulative (line) and Cumulative Long-Term Mean (dashed line) Based on ECCC gridded precipitation analysis  
Climatology 2002-2020



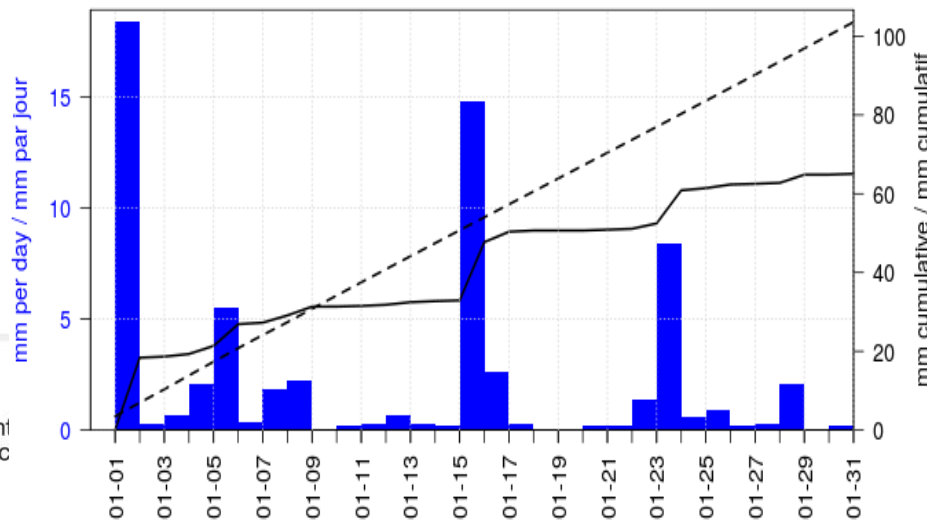
Fredericton (and area)



Saint John

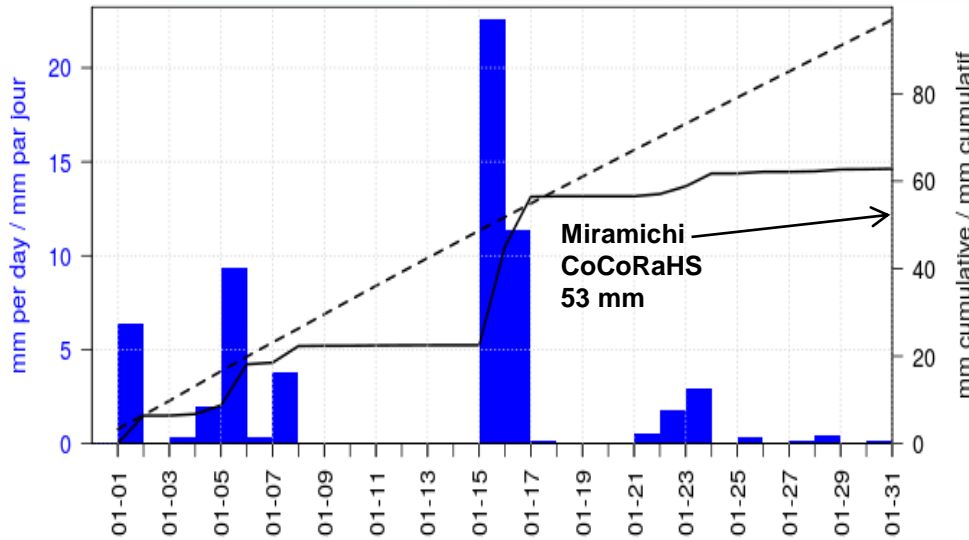
All sites were below normal

Moncton

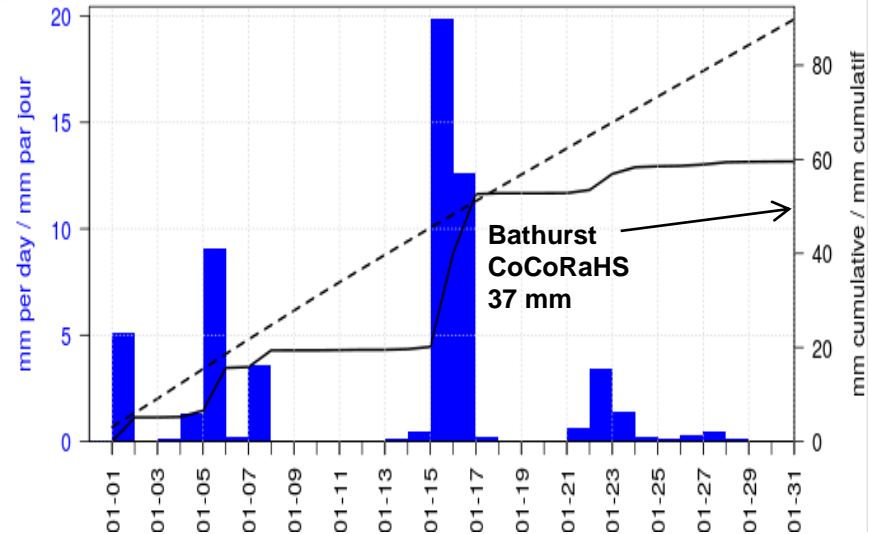


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Climatology 2002-2020



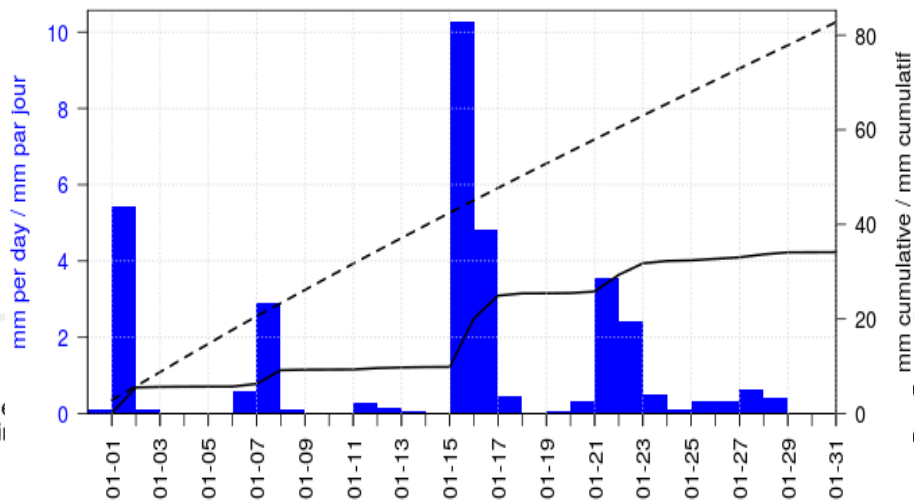
Miramichi



Bathurst

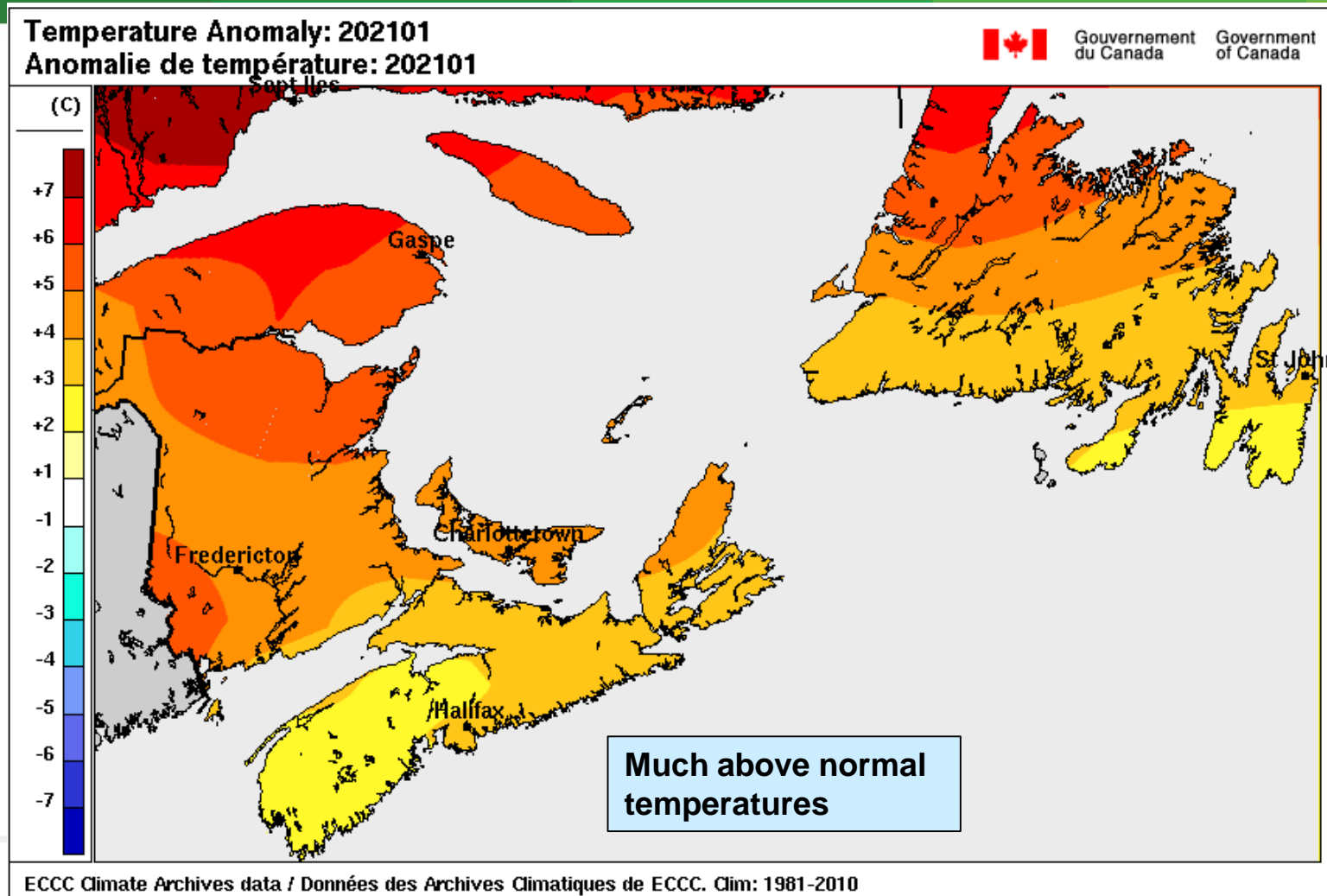
All sites were below normal

Edmundston





# January 2021 – Temperature departure from 1981-2010 mean



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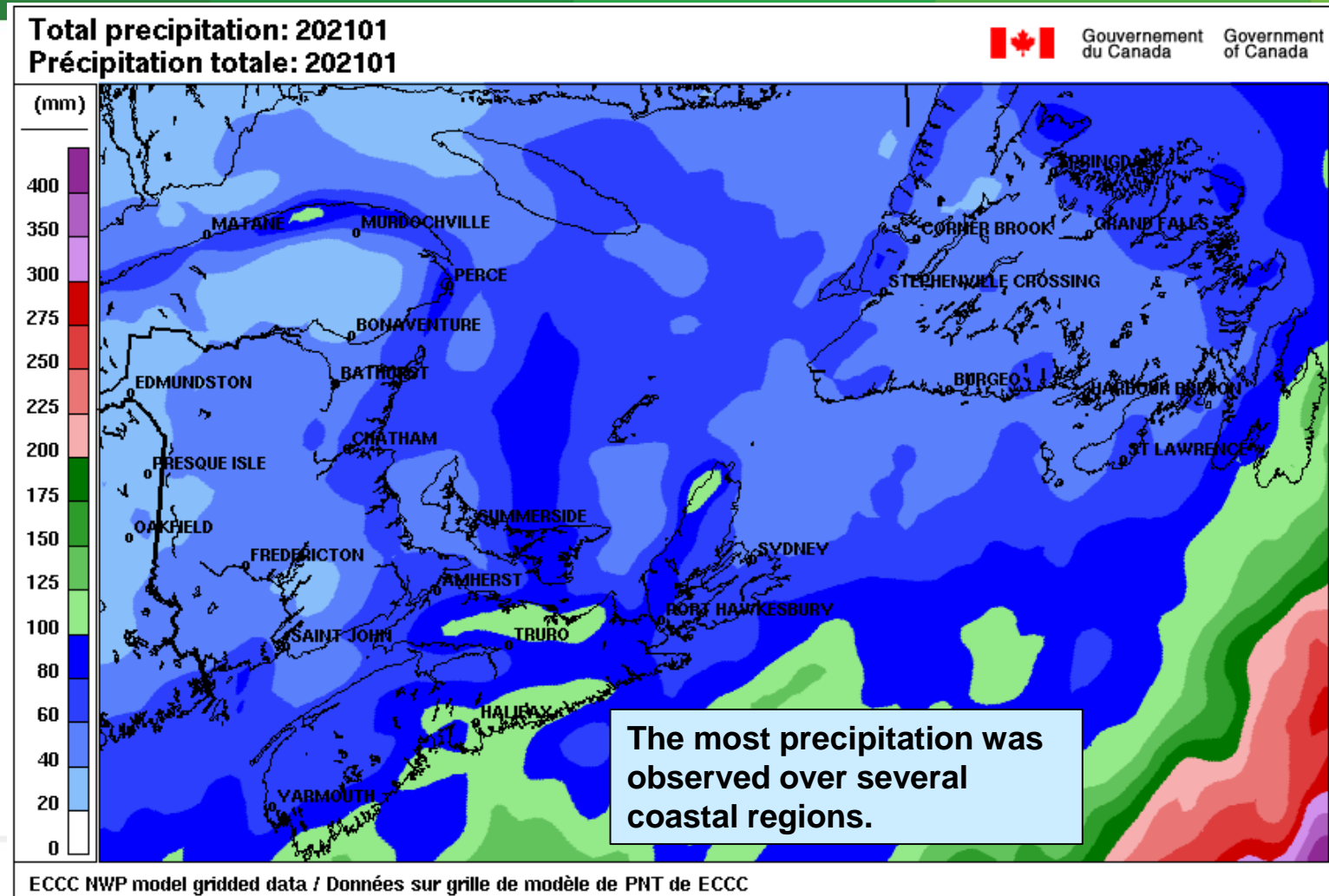


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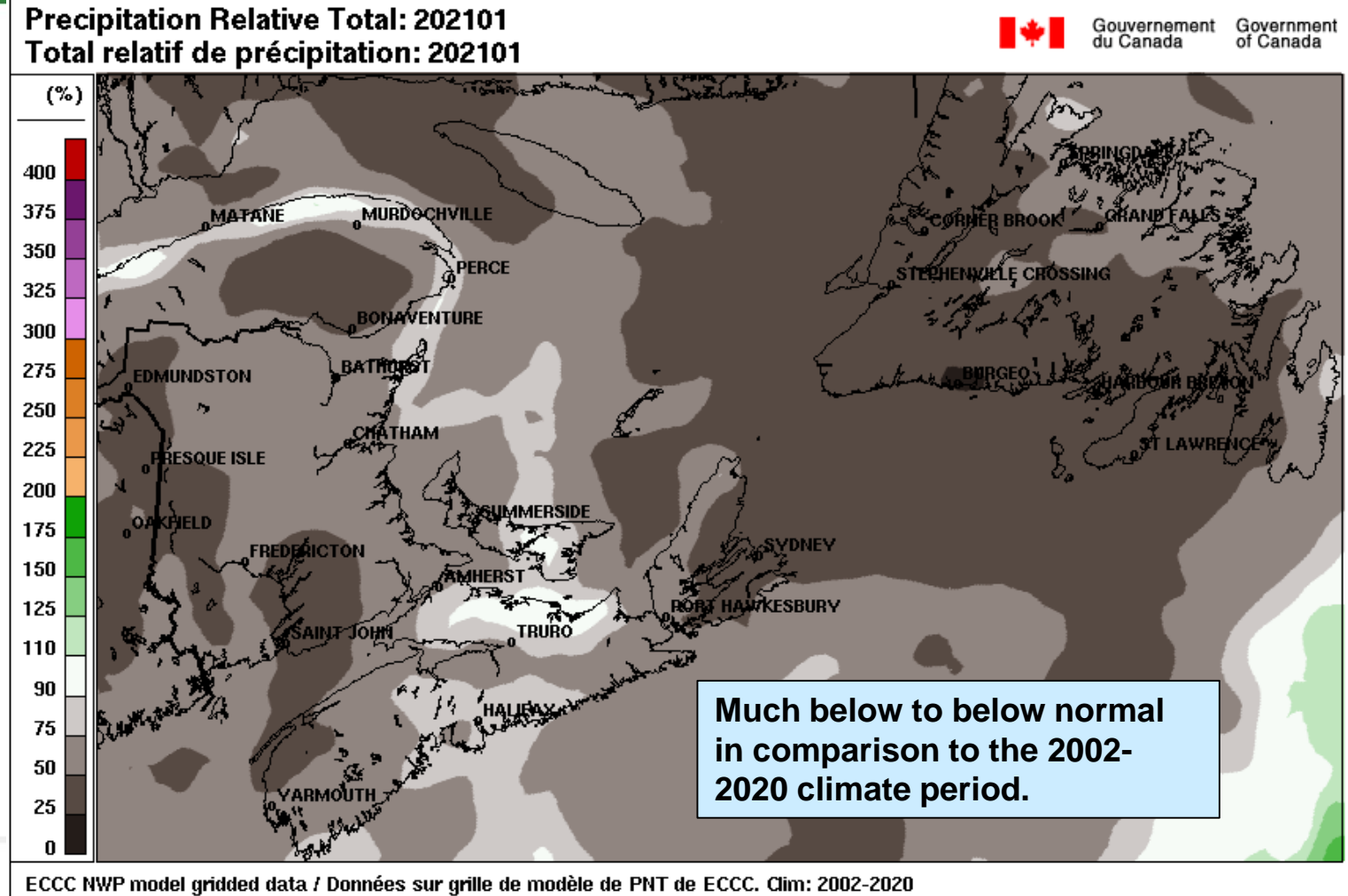
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# January 2021 – Total precipitation



# January 2021 – Precipitation departure from 2002-2020 mean



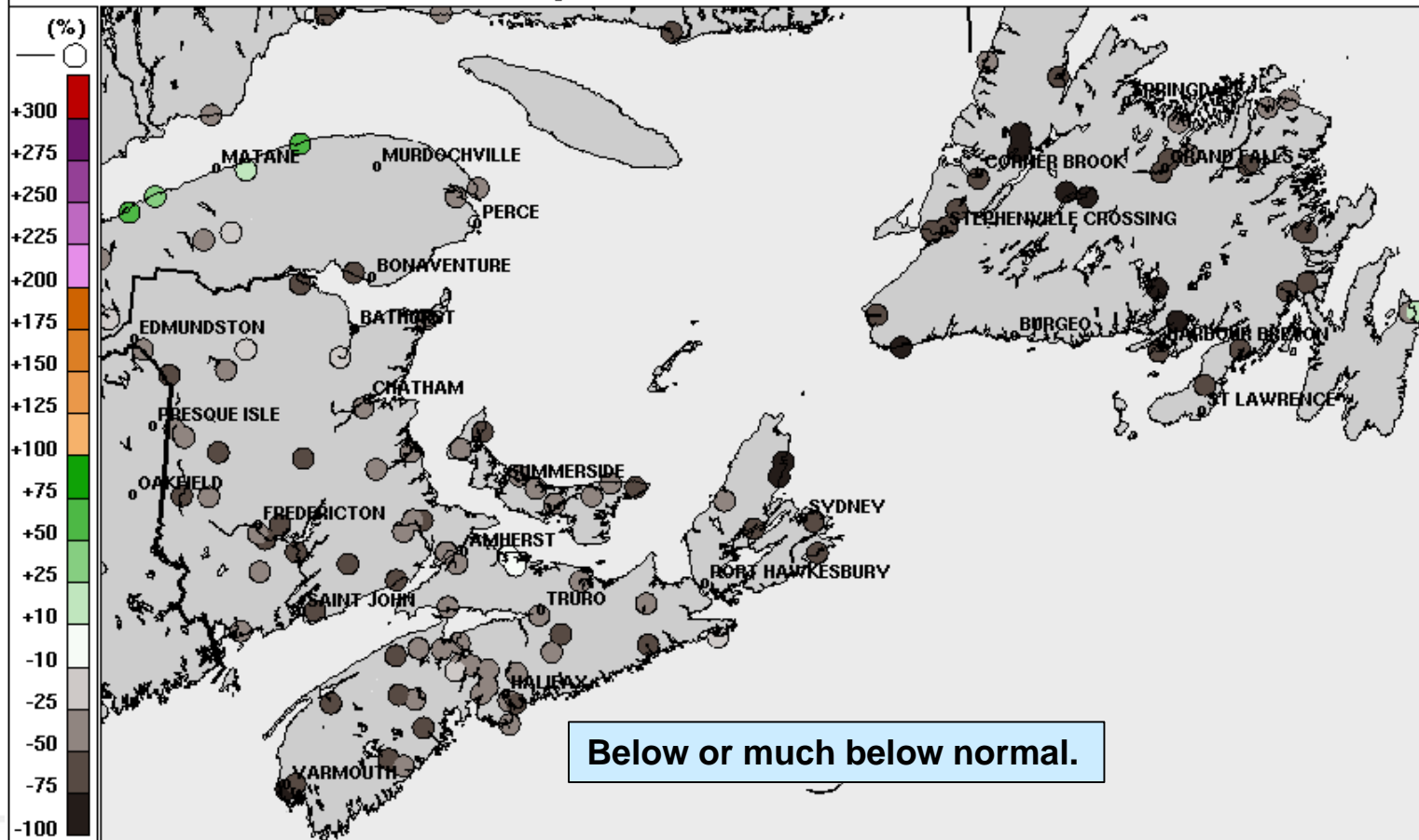
# January 2021 – Snowfall departure from 1981-2010 mean

Snowfall Relative Anomaly: 202101  
Anomalie relative des chutes de neige: 202101



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Observations blended with NWP model data / Observations intégrées à des données de modèle de PNT. Clim: 1981-2010



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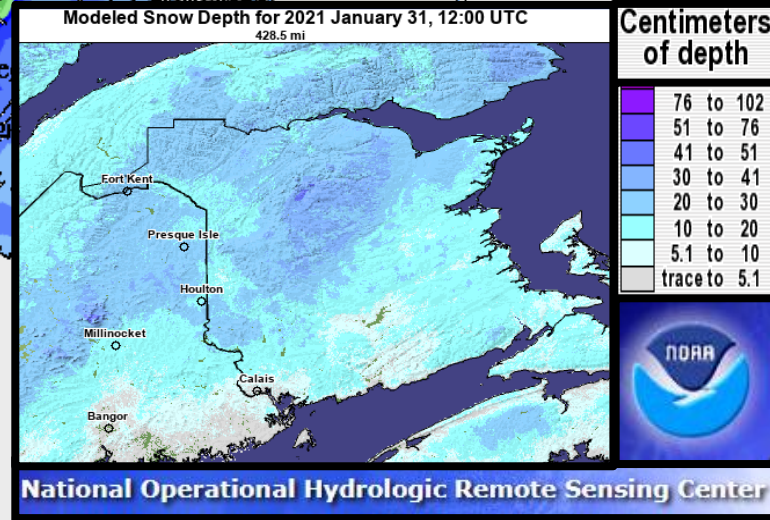
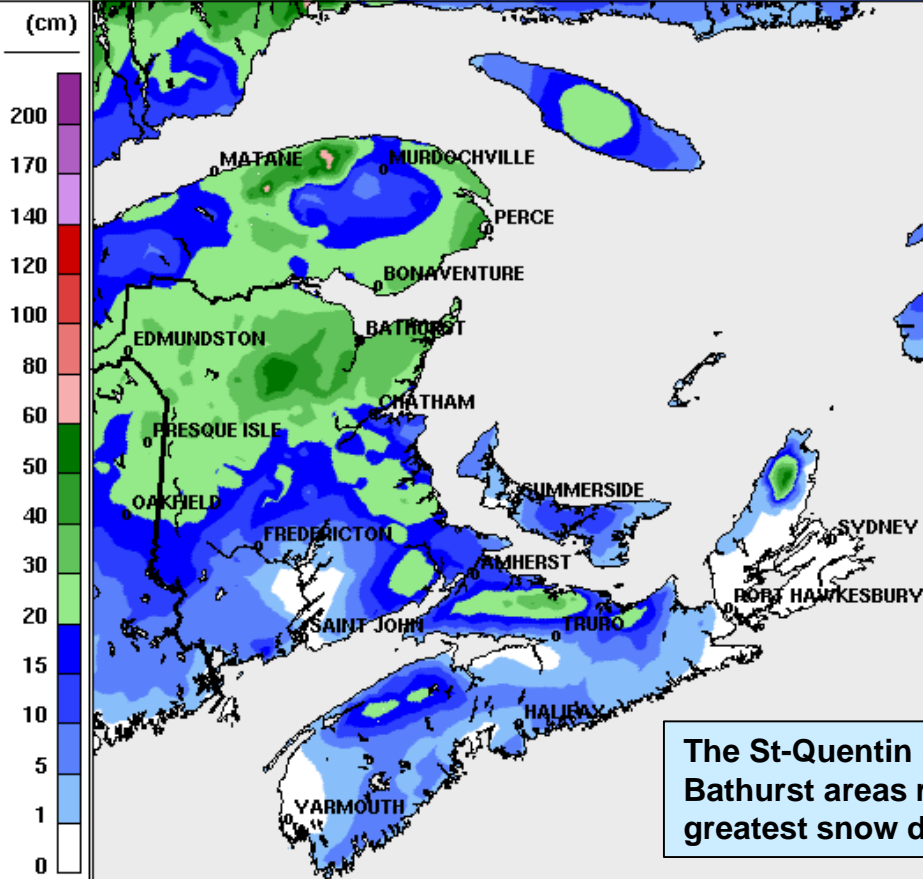
# January 2021 – Snow depth at month end

Extracted from Canadian computer model

Snow Depth: 20210131  
Neige au sol: 20210131



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The St-Quentin area and Bathurst areas reported the greatest snow depth at 32 cm.

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



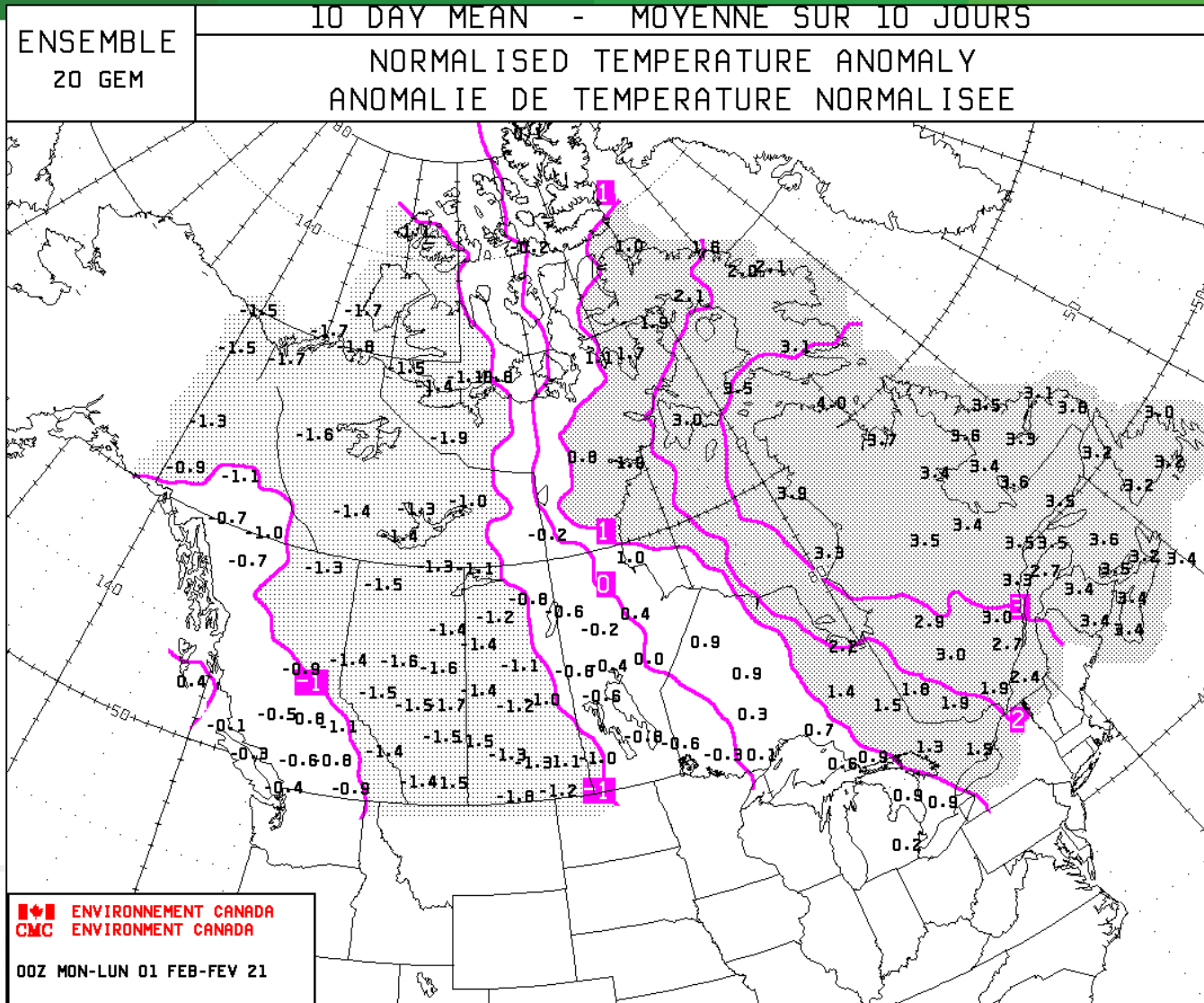
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# Outlook – 10 day mean temperature

(Suggesting above normal conditions (+3.0 to +3.5°C))



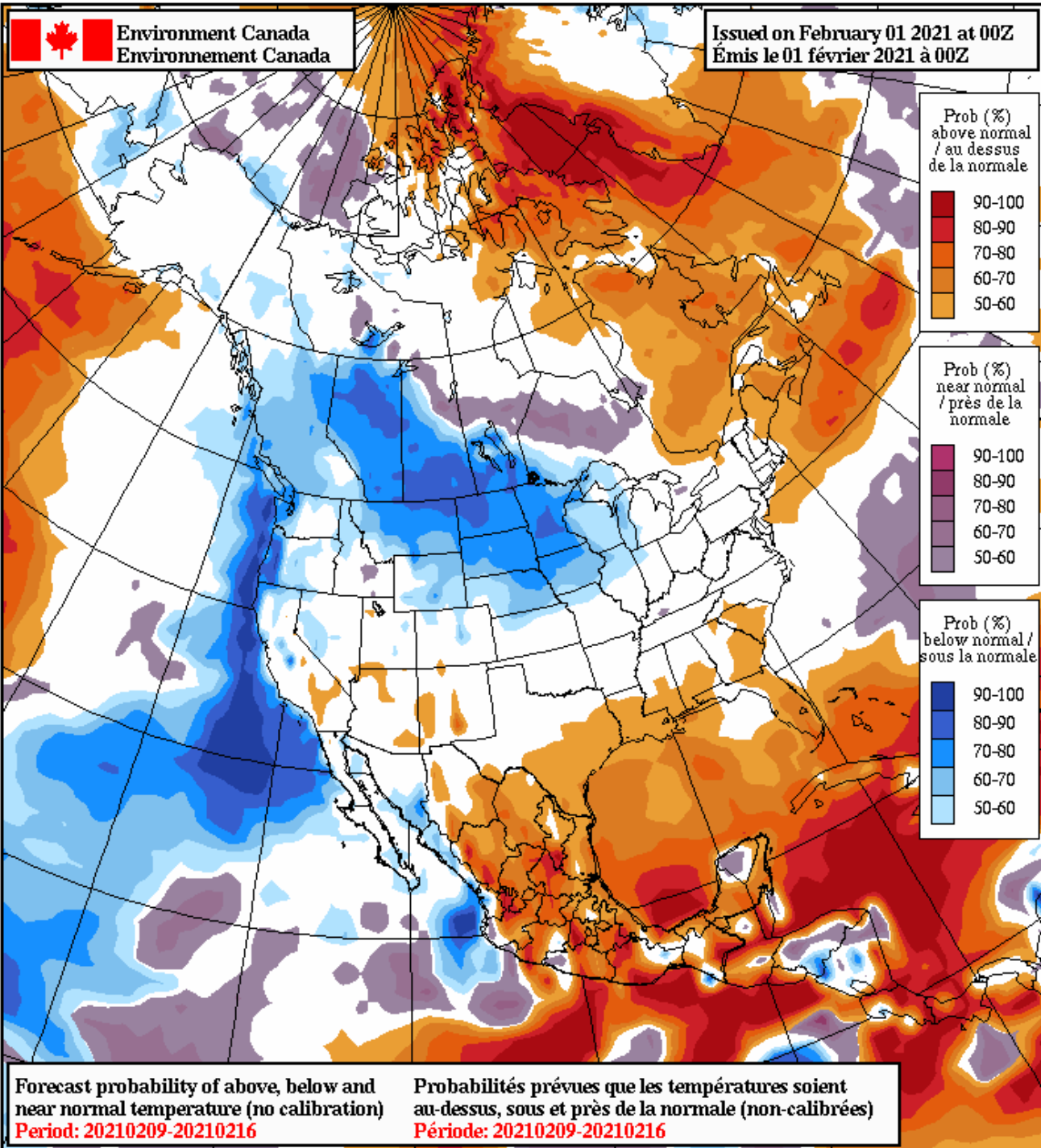
10 day  
forecast  
ending  
February  
11, 2021



# Day 8 to 14 Forecast

Period ending  
February 16,  
2021

Suggesting a weak to moderate signal of above normal.



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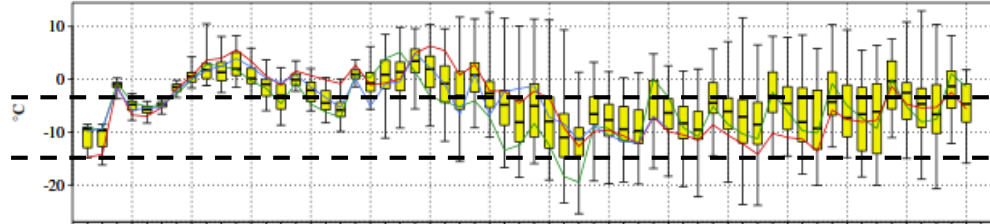
# Fredericton

Ensemble and Deterministic Forecasts issued 1 February 2021 00 UTC  
Prévision d'ensemble et déterministe émises le 1 Février 2021 00 UTC  
for/pour

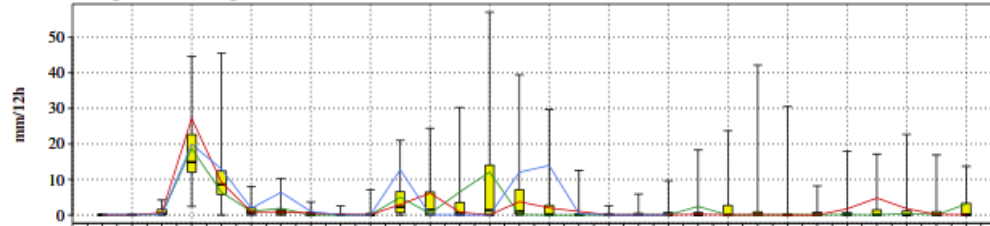
NAEFS / SPENA

**FREDERICTON (YFC) 45.87 N 66.53 W/O**  
Surface air temperature/Température de l'air à la surface

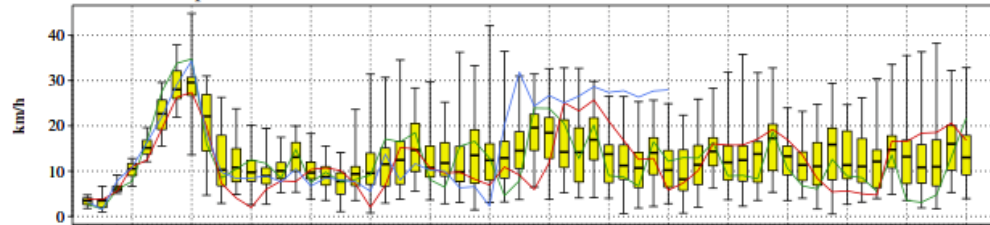
February  
Normal high: -2.0C  
Normal low: -13.7C



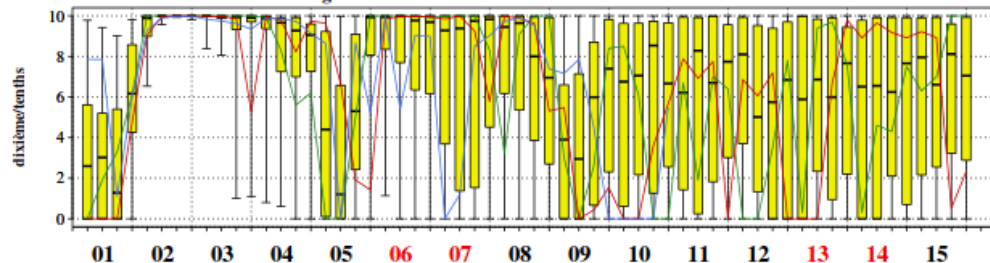
Précipitations/Precipitation



Surface wind speed/Vitesse du vent à la surface



Total cloud cover/Couvert nuageux



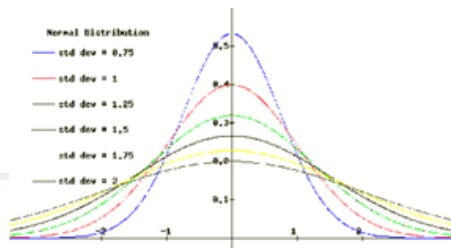
February/Février 2021

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

max  
75%  
median/médiane  
25%  
min

**Next 15 days; ending  
February 15, 2021**

Generally suggesting much above normal until near February 8<sup>th</sup> then a lot of variability for the remainder of the period.



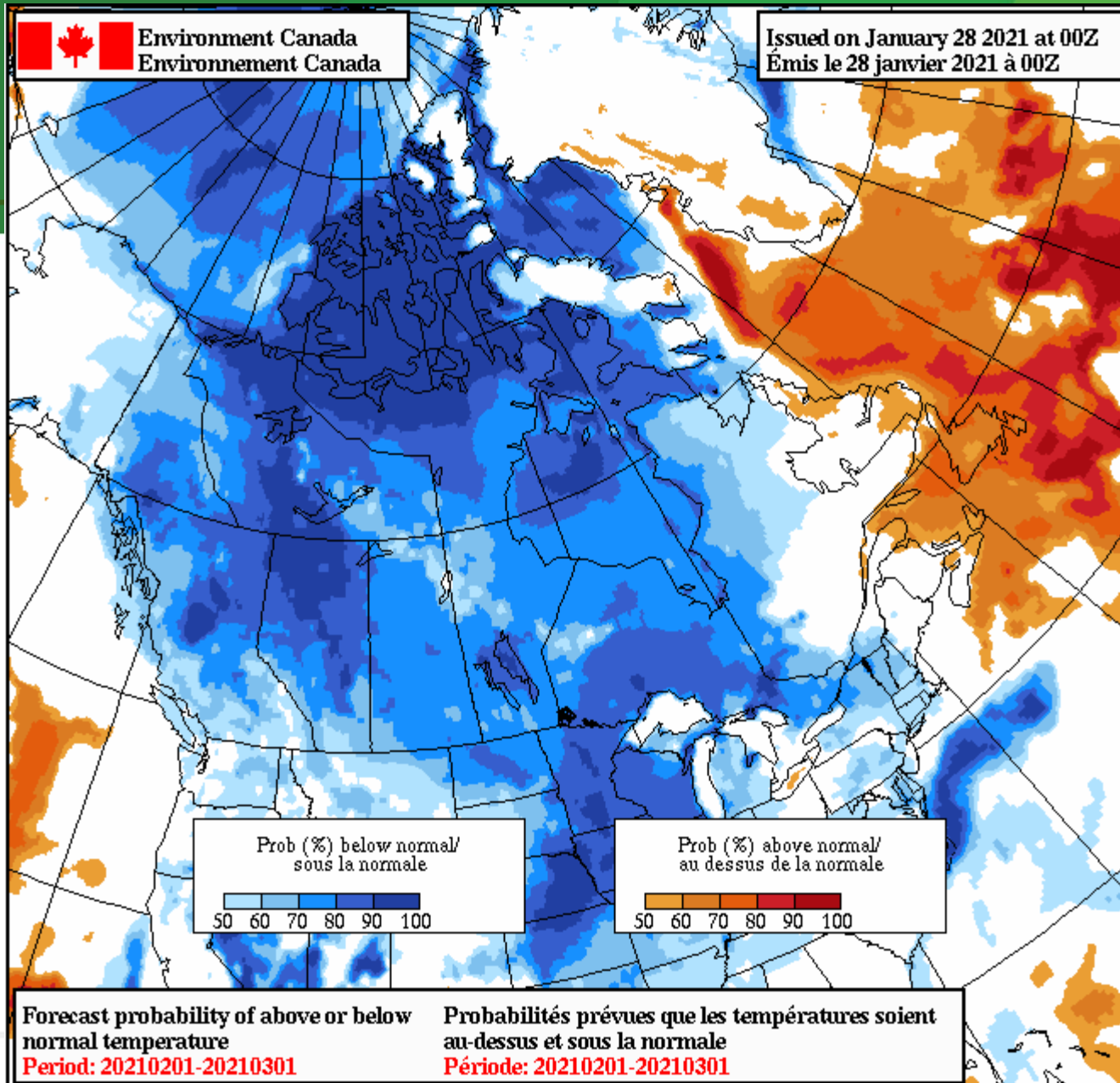




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Issued on January 28 2021 at 00Z  
Émis le 28 janvier 2021 à 00Z

# Temperature February 1 to March 1



CMC  
Monthly  
Forecast  
Product  
using GEPS  
50km res.

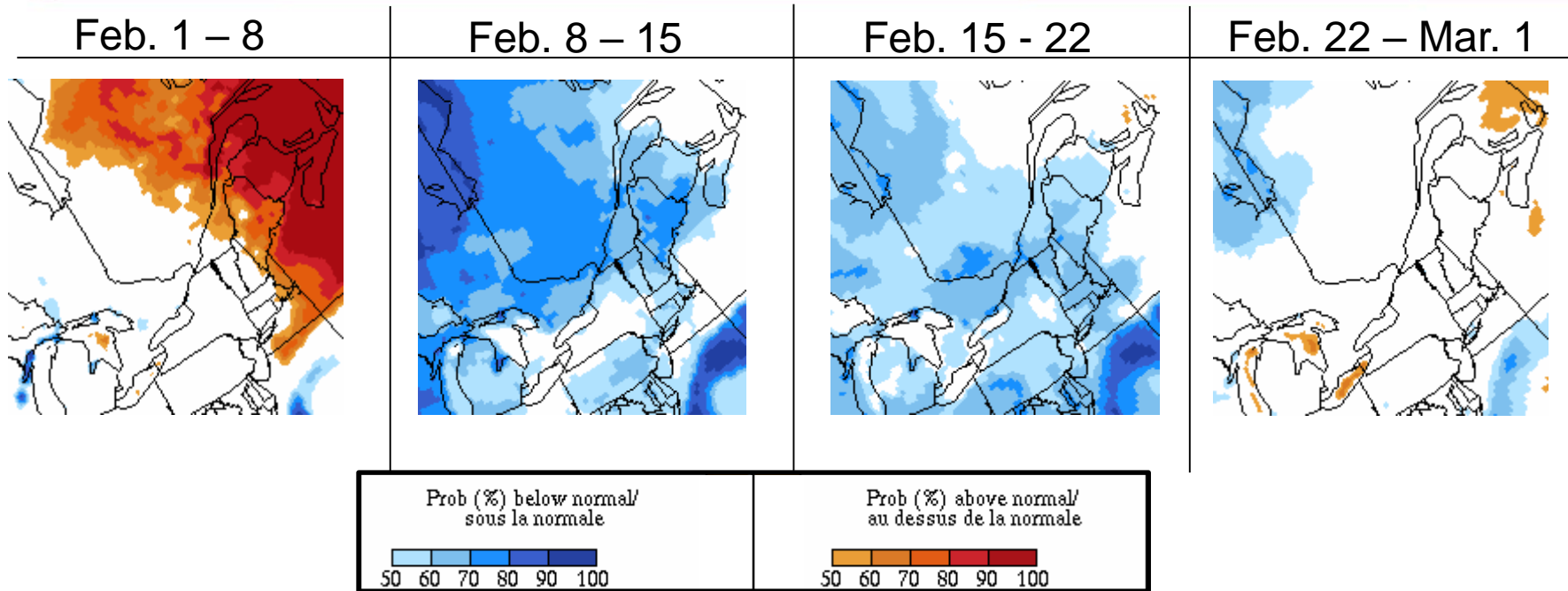


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# Weekly signature from GEPS 50km resolution



A moderate to strong signal of above normal for the first week then a weak to moderate signal of below normal for the second and third weeks before transitioning to no signal (near normal) for the remainder of the period.

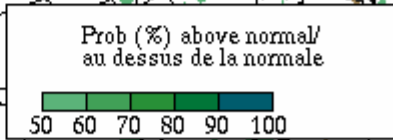
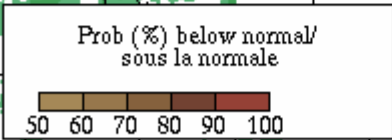
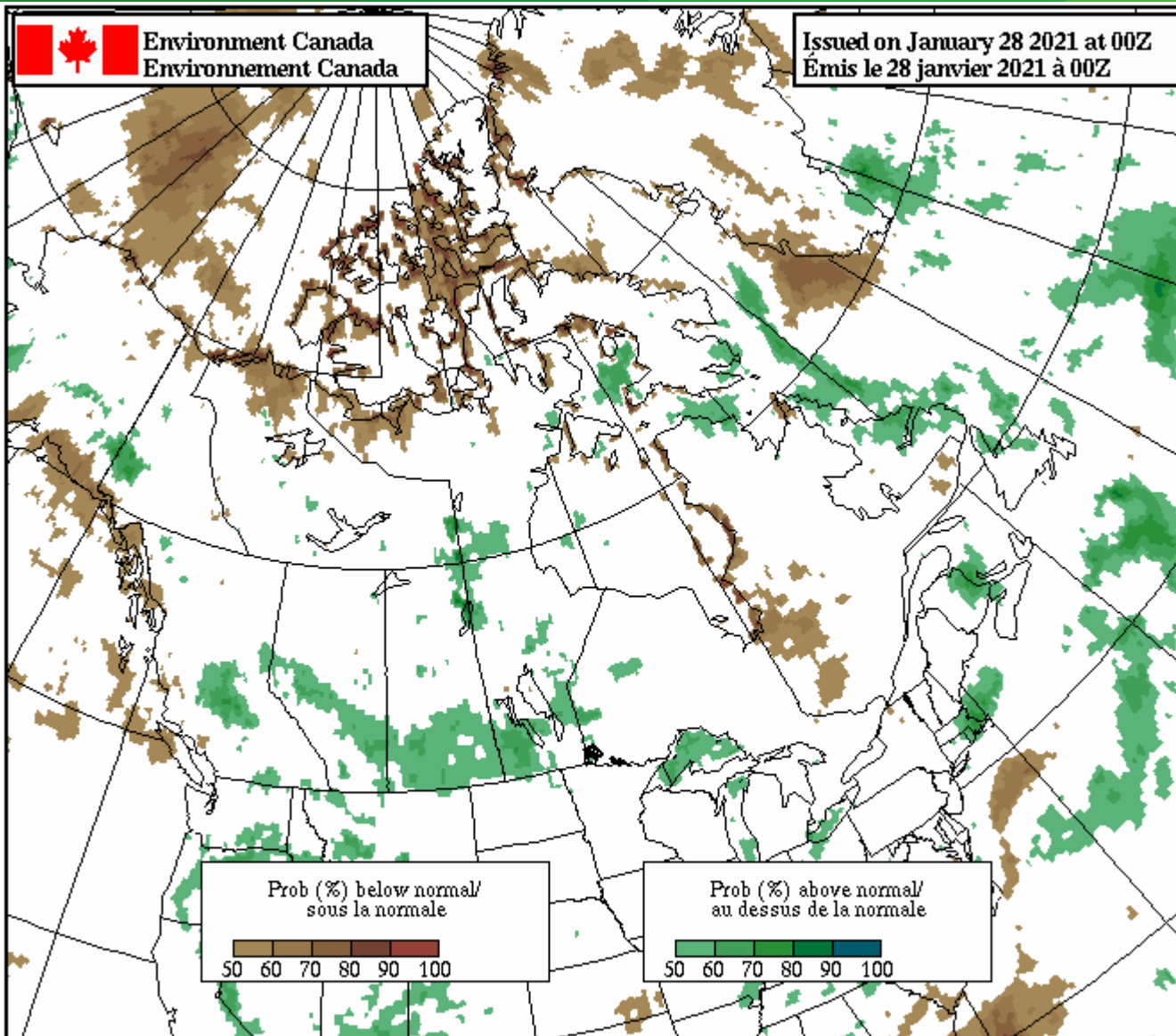




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Environnement Canada

Issued on January 28 2021 at 00Z  
Émis le 28 janvier 2021 à 00Z

# Precipitation February 1 to March 1



**Forecast probability of above and below  
normal precipitation**  
Period: 20210201-20210301

**Probabilités prévues que la quantité de précipitation soit  
au-dessus et sous la normale**  
Période: 20210201-20210301

CMC  
Monthly  
Forecast  
Product  
using GEPS  
50km res.

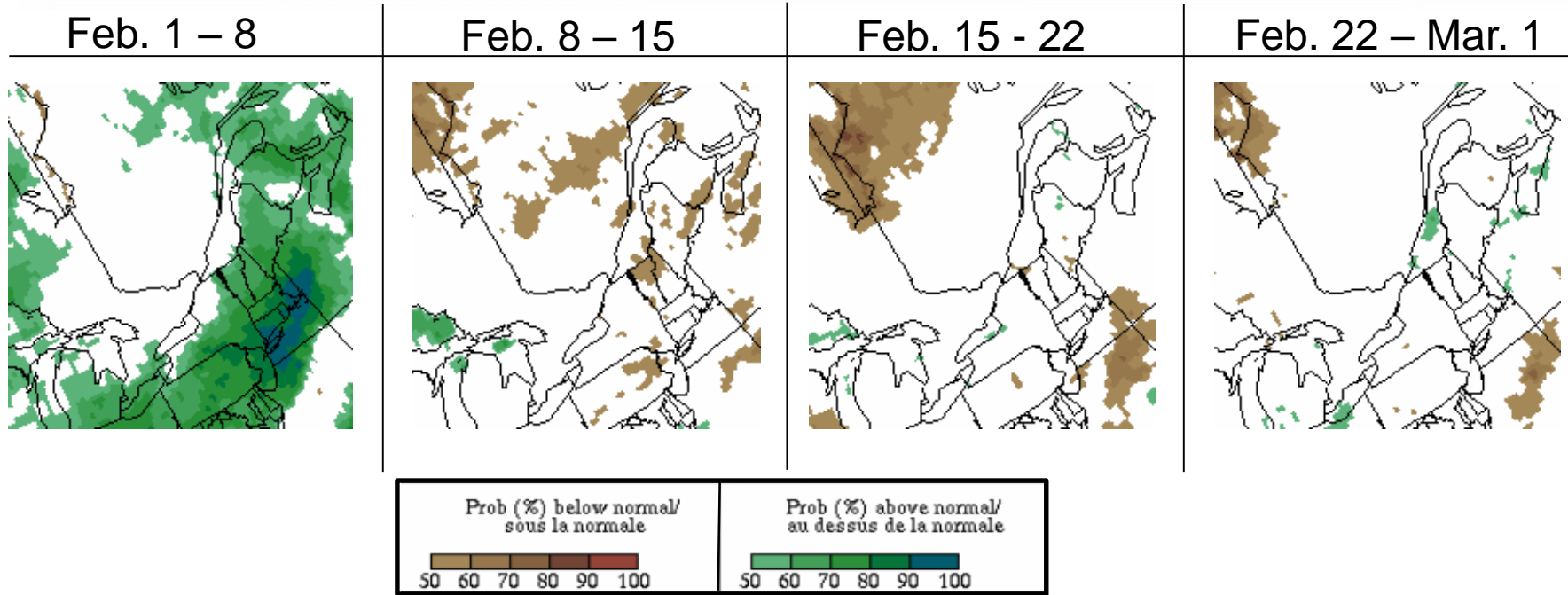


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# Weekly signature from GEPS 50km resolution



Possibly above normal for the first week then subtle indications of below normal for the second week then no conclusive signal (near normal) for the remainder of the period.

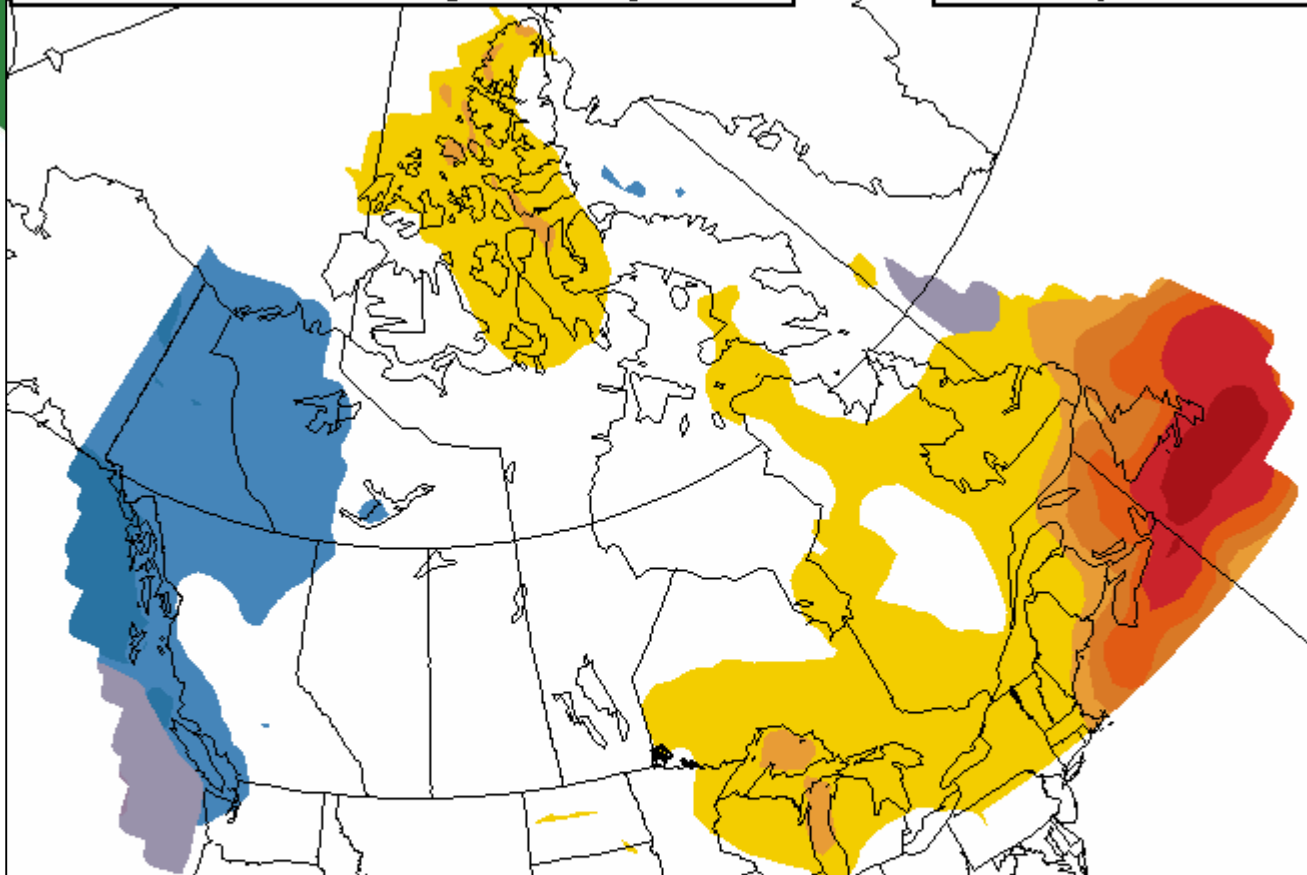




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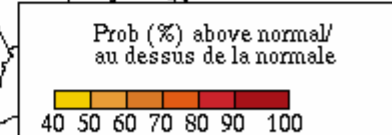
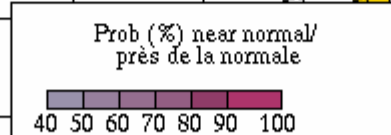
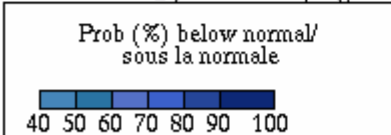
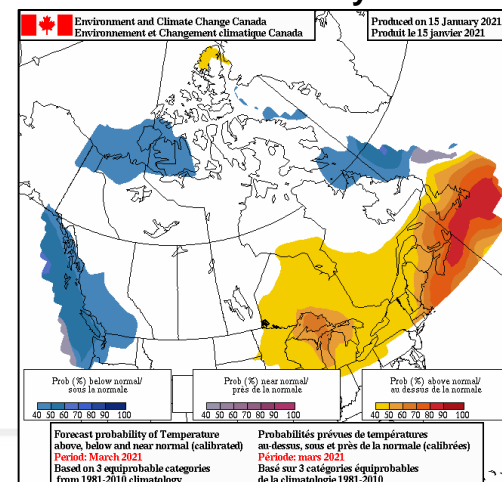
Produced on 31 January 2021  
Produit le 31 janvier 2021

# Temperature March 2021



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

Produced January 15



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

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



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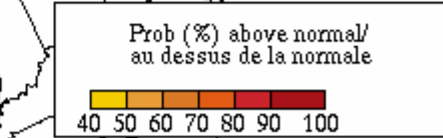
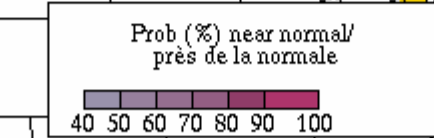
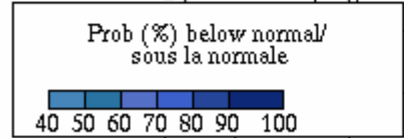
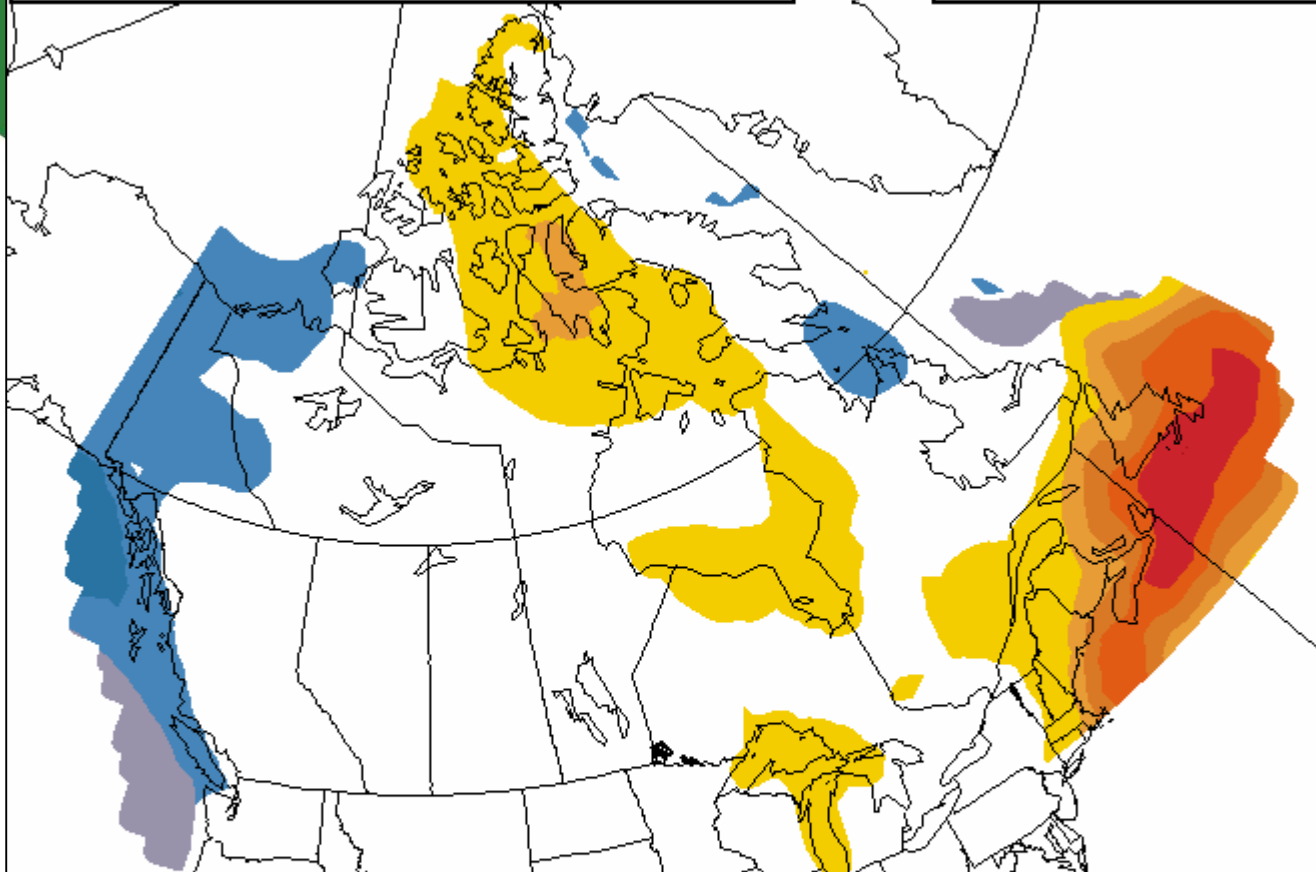
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Produced on 31 January 2021  
Produit le 31 janvier 2021



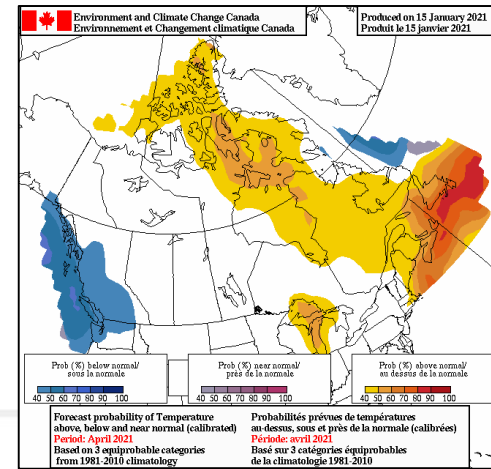
**Forecast probability of Temperature  
above, below and near normal (calibrated)**  
**Period: April 2021**  
Based on 3 equiprobable categories  
from 1981-2010 climatology

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

# Temperature April 2021

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

Produced January 15



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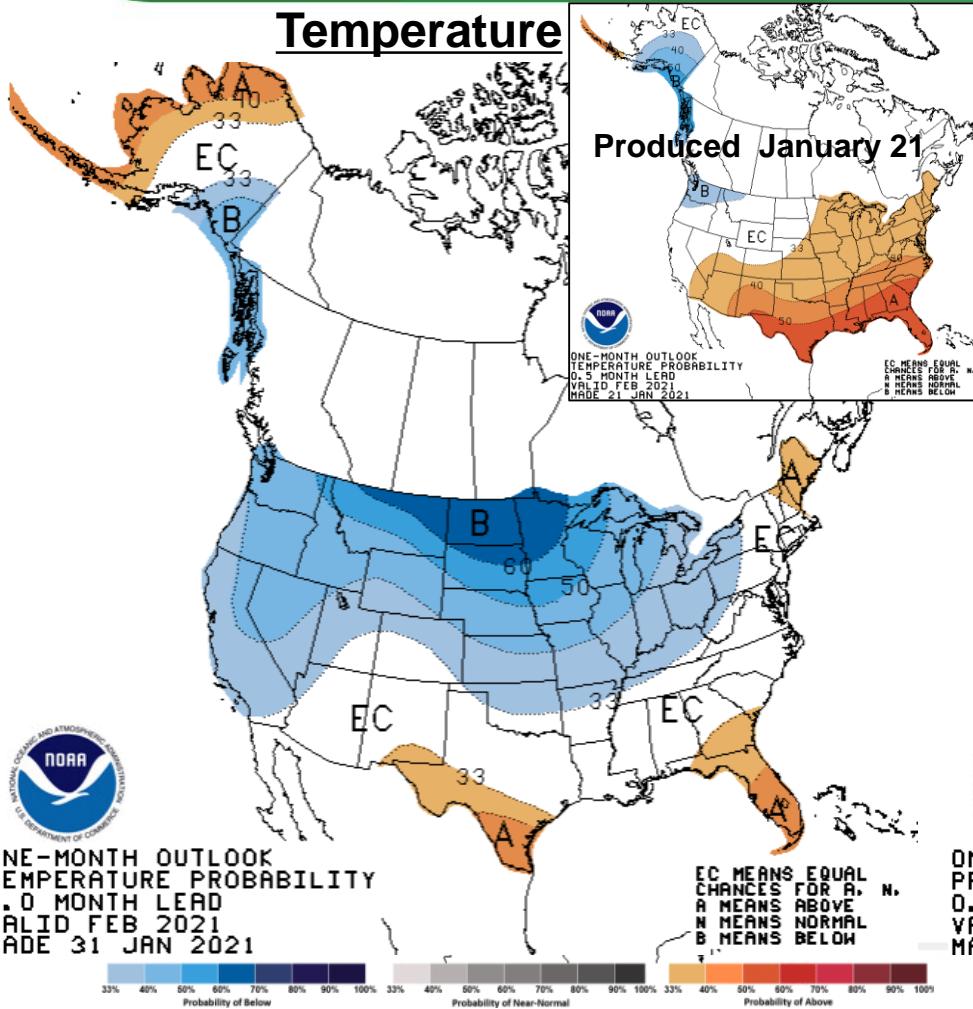
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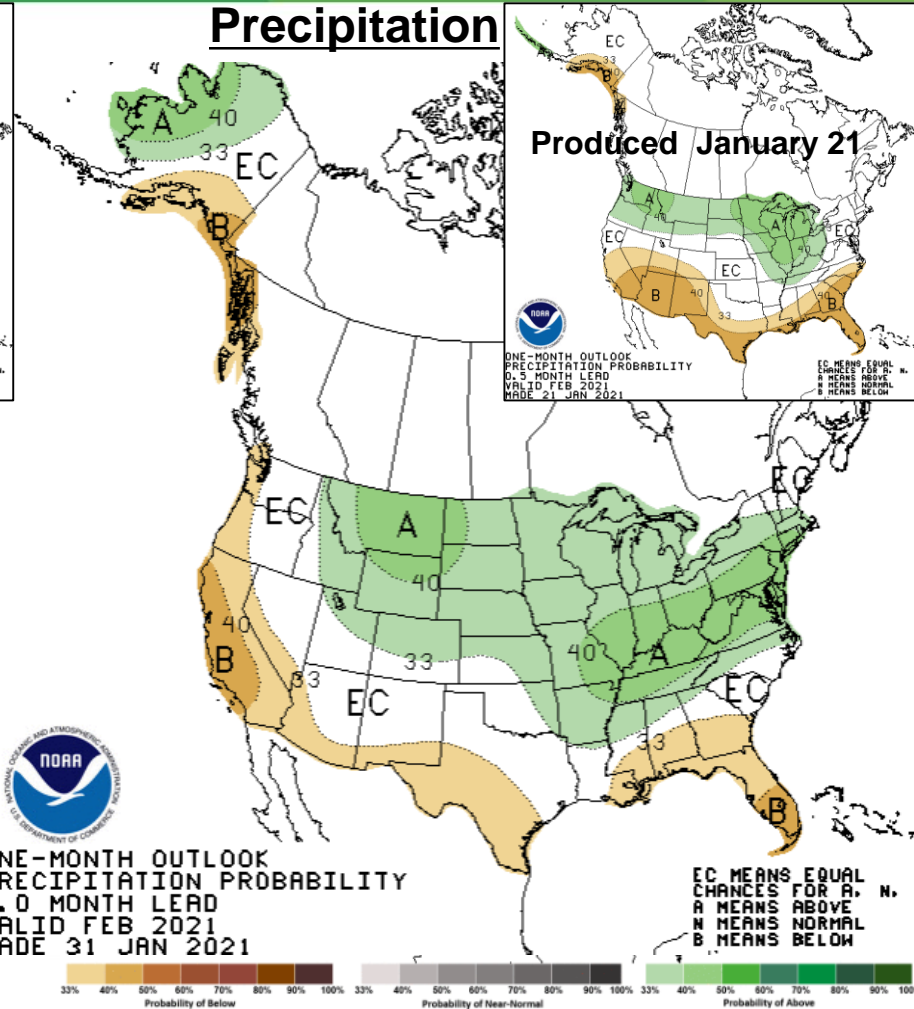


# February 2021

## Temperature



## Precipitation



# Contact

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**Jill Maepea**

Warning Preparedness Meteorologist

[jill.maepea@canada.ca](mailto:jill.maepea@canada.ca)

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Canada Weather Pages

[www.weather.gc.ca](http://www.weather.gc.ca)

