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Climate Change Canada

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Canada

**New Brunswick**

# **November 2018 Review December and Winter Outlook**

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Meteorological Service of Canada  
Environment and Climate Change Canada  
December 4, 2018**

# November 2018; Climate Summary

Station Name	Prov	TC ID	Station Type	Mean Temperature (°C)			Total Precip (mm)			Departure from Normal as % of Normal
				Monthly Mean	Normal Mean	Departure from Normal	Monthly Total	Normal Total	Total as % of Normal	
BAS CARAQUET	NB	WXS	AU8	-0.6	1.2	-1.8				
BAS CARAQUET	NB		DAILY				142.2	112.8	126	26
BATHURST A	NB	ZBF	NCA	-2.6	0.8	-3.4	119.5	103.8	115	15
BOUCTOUCHE CDA CS	NB	ABT	AU8	-0.4	1.7	-2.1				
CHARLO AUTO	NB	ZCR	AU8	-2.6	-0.7	-1.9	86.2	92.3	93	-7
MIRAMICHI RCS	NB	ACQ	AU8							
DOAKTOWN AUTO RCS	NB	ADN	AU8	-1.6	0.7	-2.3				
EDMUNDSTON	NB	ERM	AU8							
FREDERICTON INTL A	NB	YFC	NCA	-1.0	1.5	-2.5				
FREDERICTON CDA CS	NB	AFC	AU8	-0.7	1.8	-2.5	154.1	109.9	140	40
FUNDY PARK (ALMA) CS	NB	AFY	AU8	1.1	3.0	-2.0				
GAGETOWN AWOS A	NB	YCX	AU5	-1.1	2.5	-3.6				
GRAND MANAN SAR CS	NB	XGM	AU8	1.2						
KOUCHIBOUGUAC	NB	AKC	AU8	-0.8	1.2	-2.0				
MACTAQUAC PROV PARK	NB		DAILY							
MECHANIC SETTLEMENT	NB	AMS	AU8	-1.6						
MISCOU ISLAND (AUT)	NB	WMI	AU8	0.2						
MONCTON INTL A	NB	YQM	NCH	-0.4	1.9	-2.2	224.2	107.2	209	109
MONCTON A	NB	YQM	NCA	-0.4	1.9	-2.2				
OAK POINT	NB		DAILY	0.6	2.5	-1.9	221.3	101.8	217	117
POINT LEPREAU CS	NB	WPE	AU8	2.1	2.7	-0.6				
RED PINES	NB	ARP	AU8	-2.7	-0.1	-2.7	184.4	89.4	206	106
SAINT JOHN A	NB	YSJ	NCH	0.6	2.3	-1.7	237.8	134.1	177	77
ST. STEPHEN	NB	WSS	AU8	0.2			208.2			
SUSSEX FOUR CORNERS	NB	ASF	AU8	-0.2	2.4	-2.5				
WOODSTOCK	NB		DAILY	-2.1	0.3	-2.4	148.4	103.2	144	44
WOODSTOCK NEWBRIDGE	NB	EWD	AU8	-2.2	0.3	-2.4				
<b>Average</b>				<b>-0.7</b>	<b>1.5</b>	<b>-2.2</b>	<b>172.6</b>	<b>106.0</b>	<b>159</b>	<b>59</b>
<b>Max</b>				<b>2.1</b>	<b>3.0</b>	<b>-0.6</b>	<b>237.8</b>	<b>134.1</b>	<b>217</b>	<b>117</b>
<b>Min</b>				<b>-2.7</b>	<b>-0.7</b>	<b>-3.6</b>	<b>86.2</b>	<b>89.4</b>	<b>93</b>	<b>-7</b>

## Highlights:

The average temperature was well below normal (-2.2C below normal). All sites reported a negative anomaly with Gagetown having the largest negative anomaly at a temperature of -3.6C below their normal average.

Total precipitation amounts were above normal, with an average of 159% of total precipitation. Oak Point reported the highest anomaly at 217% of normal. However, northern parts of the province saw near normal precipitation which finally broke their 5 month dry spell. Charlo received 93% of their precipitation for the month which was the driest site in the province. Total snowfall was 2 to 3 times the normal.



# November 2018; Climate Summary

## Events:

**Nov. 2-3;** Two low pressure systems tracked across the Maritimes and brought heavy rain to southern parts of the province. Oak Point reported the most rain at 97mm. Violent winds also accompanied the second low (which was a rapidly intensifying weather bomb) with gusts reaching 119km/h in the Bouctouche area and causing numerous power outages across almost the entire province for multiple days.

**Nov. 5-6;** Rain event; A system brought moderate rainfall amounts (30-45mm) to southern portions of the province and amounts decreased to 5-10mm over northern sections. Grand Manan and Fundy Park both reported the most rain at 53mm.

**Nov. 9-10;** A winter-like storm gave maximum wind gusts of up to 104 km/h in the Bathurst area and caused scattered power outages across the province. The heaviest snow (8-13cm) was confined central areas of the province and the southeast saw the most rain (25-35mm). Storm surge also caused route 134 near Charlo to be closed as water crossed over the road.

**Nov. 13-14;** Another storm brought wind, rain and snow to the province. Wind gusted up to 98 km/h in the Bas Caraquet area and caused numerous power outages across the province. The heaviest snow (15-25cm) was confined northern areas of the province and the south saw the most rain (25-45mm).

**Nov. 16;** A system brought snow (10-25cm) to most areas of the province with central areas reporting the highest amounts.

**Nov. 20-21;** Snow event; (10-20cm) to southeastern half of the province with the Sussex area reporting the highest amount at 21 cm.

**Nov. 27-29;** Two low pressure systems tracked across the Maritimes and brought rain, snow and wind to province. The first system brought 20-25 mm of rain and easterly winds up to 70 km/h to the south and 5-10cm across central and northern areas. The second system brought 15-25cm and northerly winds up to 89km/h over the eastern areas.

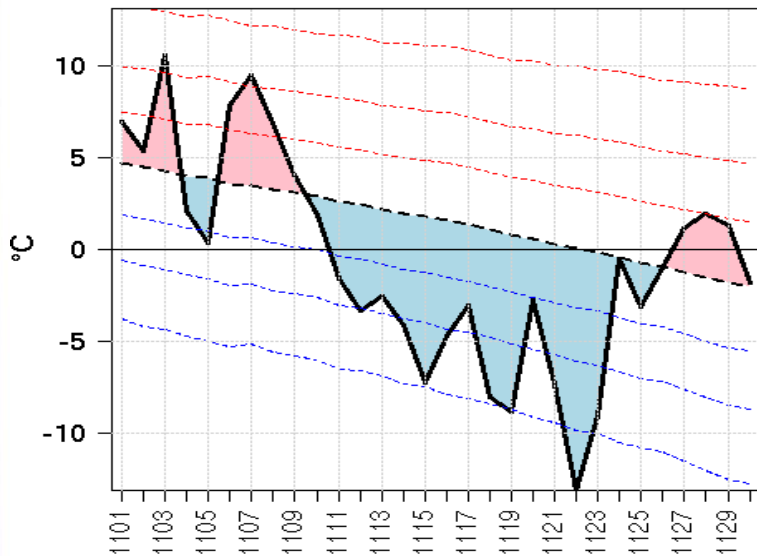
**Days with thunderstorm activity (lightning) in New Brunswick; 2, 3, 10, 13, 16**

**Days with temperature records broken or tied in New Brunswick; 7 14 15 16 18 19 22**  
(red=maximum, blue=minimum)

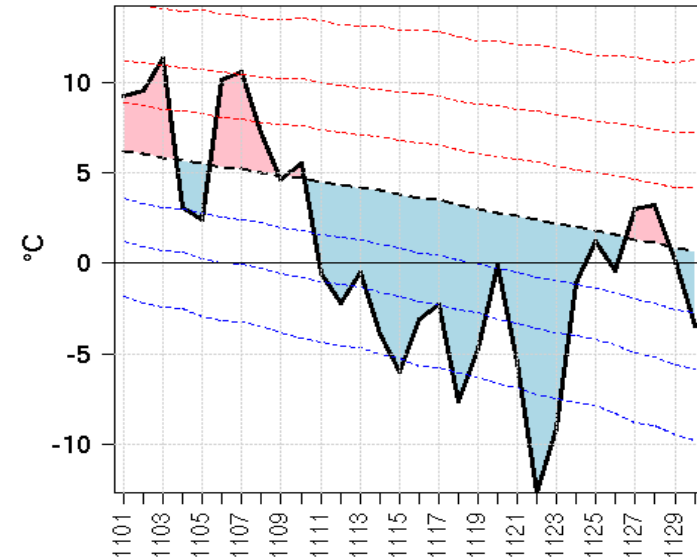


# November 2018 - Temperature

Daily Mean Temperature (bold line) versus Normal (thin line) and +/- 0.7, 1.3, 2.1 SD (red/blue dashes)



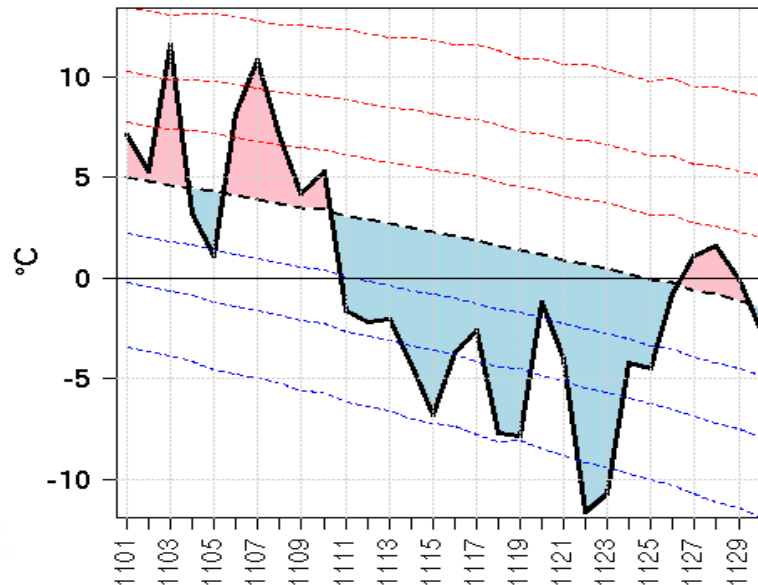
Fredericton (and area)



Saint John

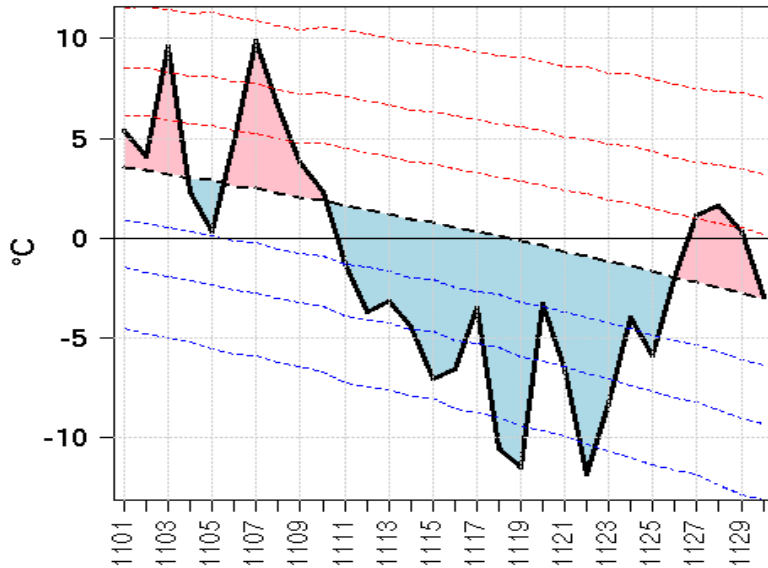
All sites were below normal

Moncton

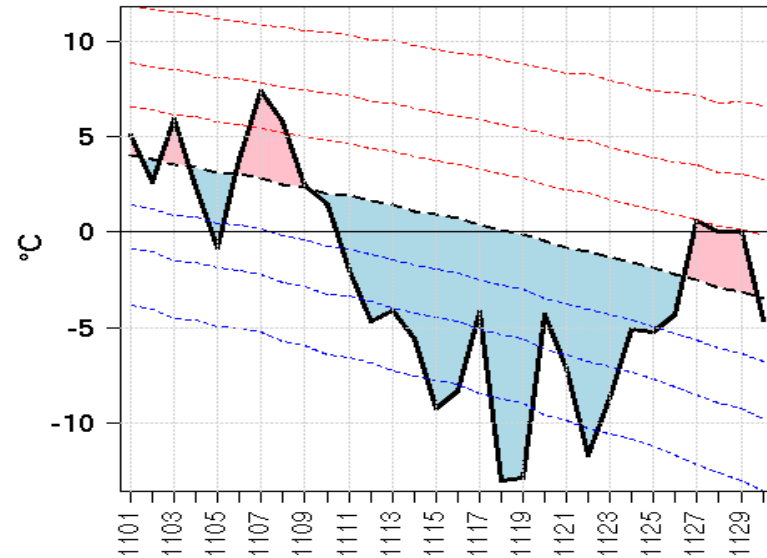


# November 2018 - Temperature

Daily Mean Temperature (bold line) versus Normal (thin line) and +/- 0.7, 1.3, 2.1 SD (red/blue dashes)



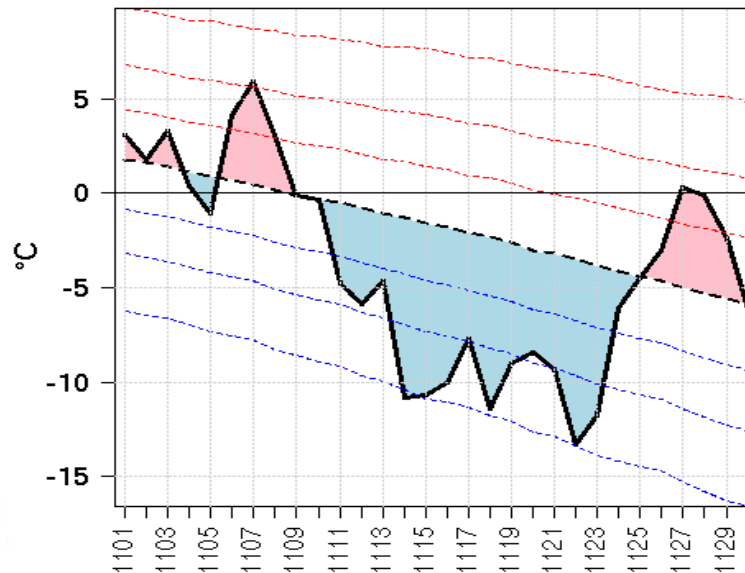
Miramichi



Bathurst

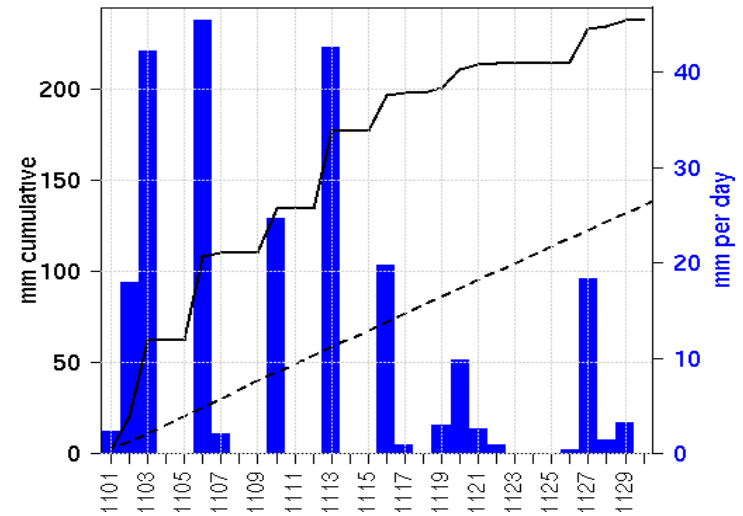
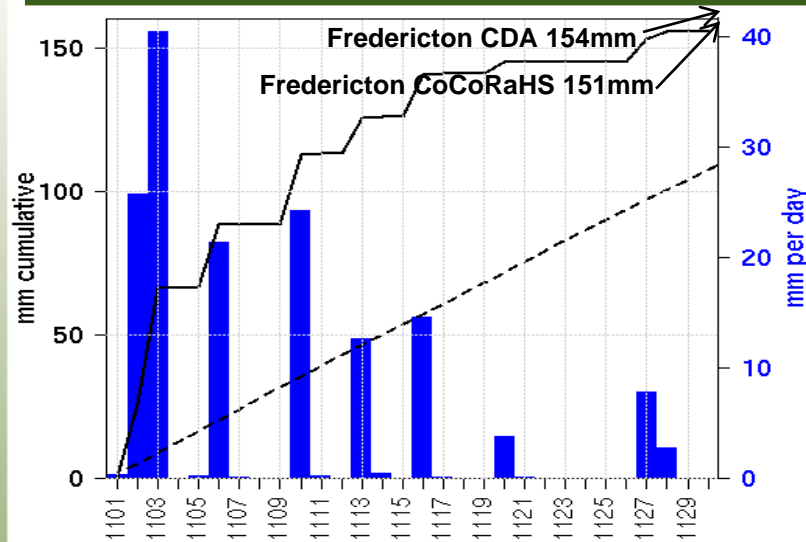
All sites were below normal

Edmundston



# November 2018 - Precipitation

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

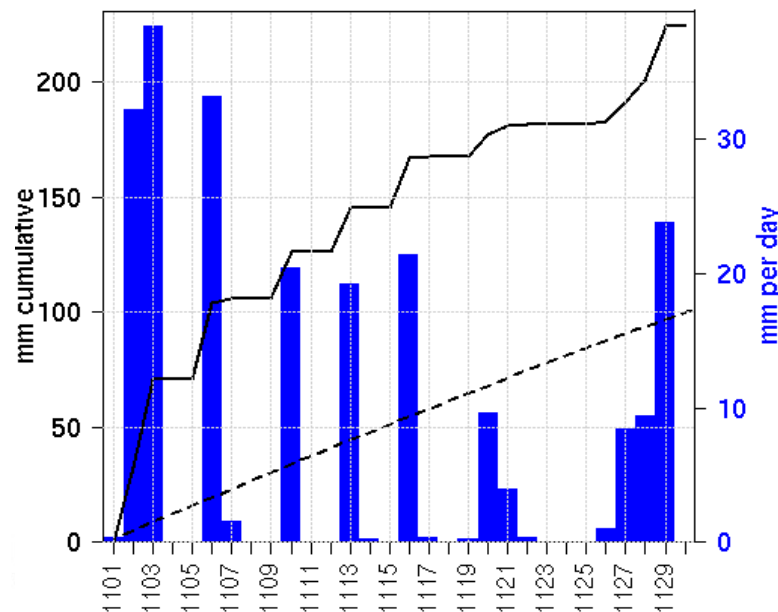


Fredericton (and area)

Saint John

All sites were above normal

Moncton

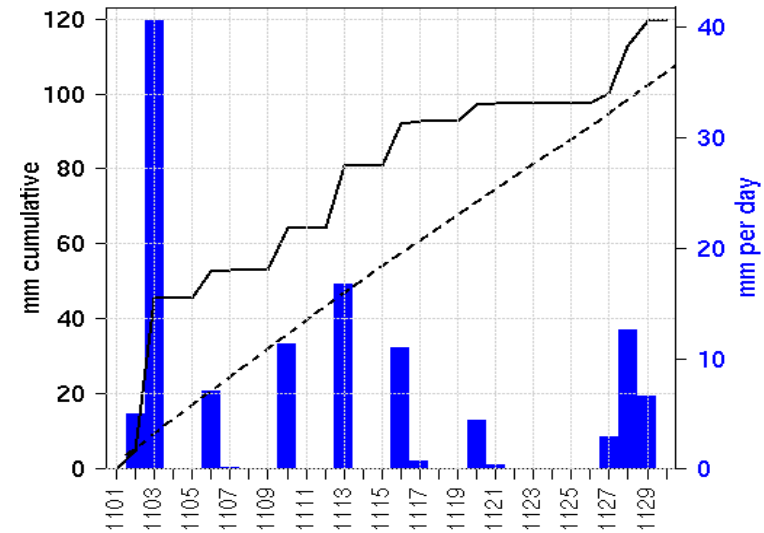
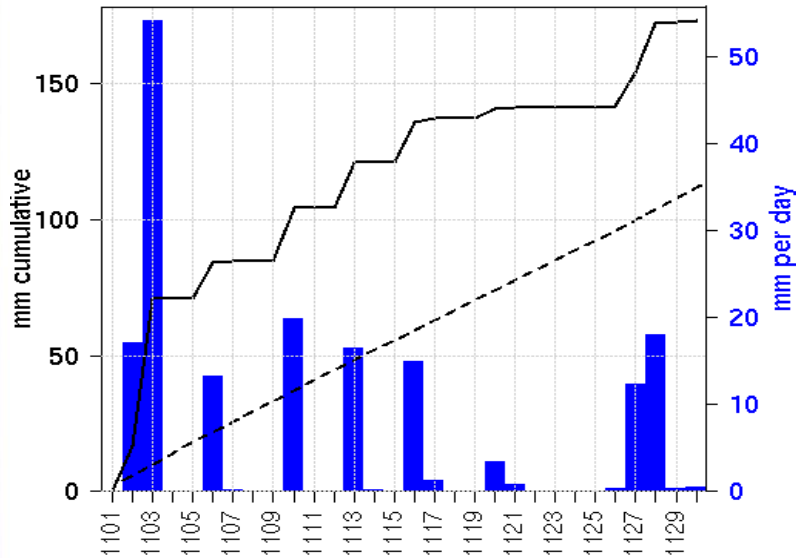


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# November 2018 - Precipitation

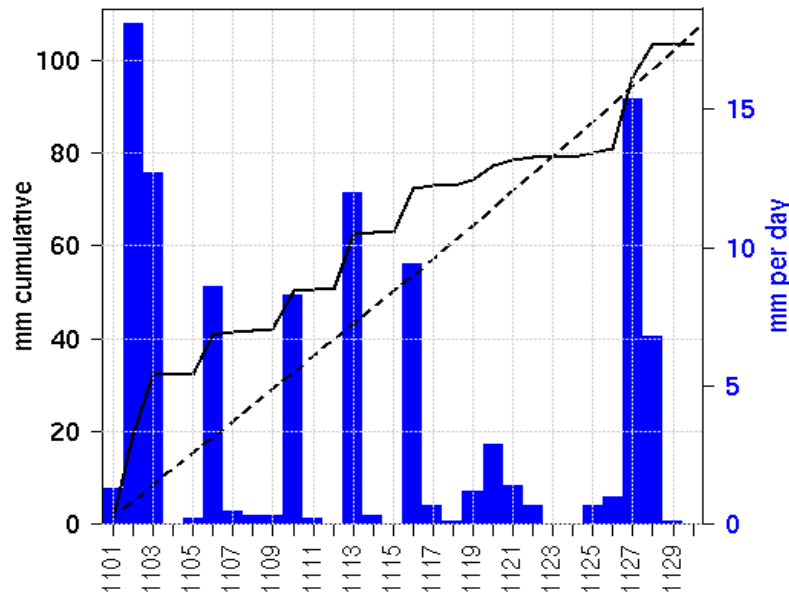
Observed Cumulative Precipitation (line) versus Normal (dashed line) and Daily Amounts (bars)



Miramichi

Bathurst

Miramichi and Bathurst were above normal



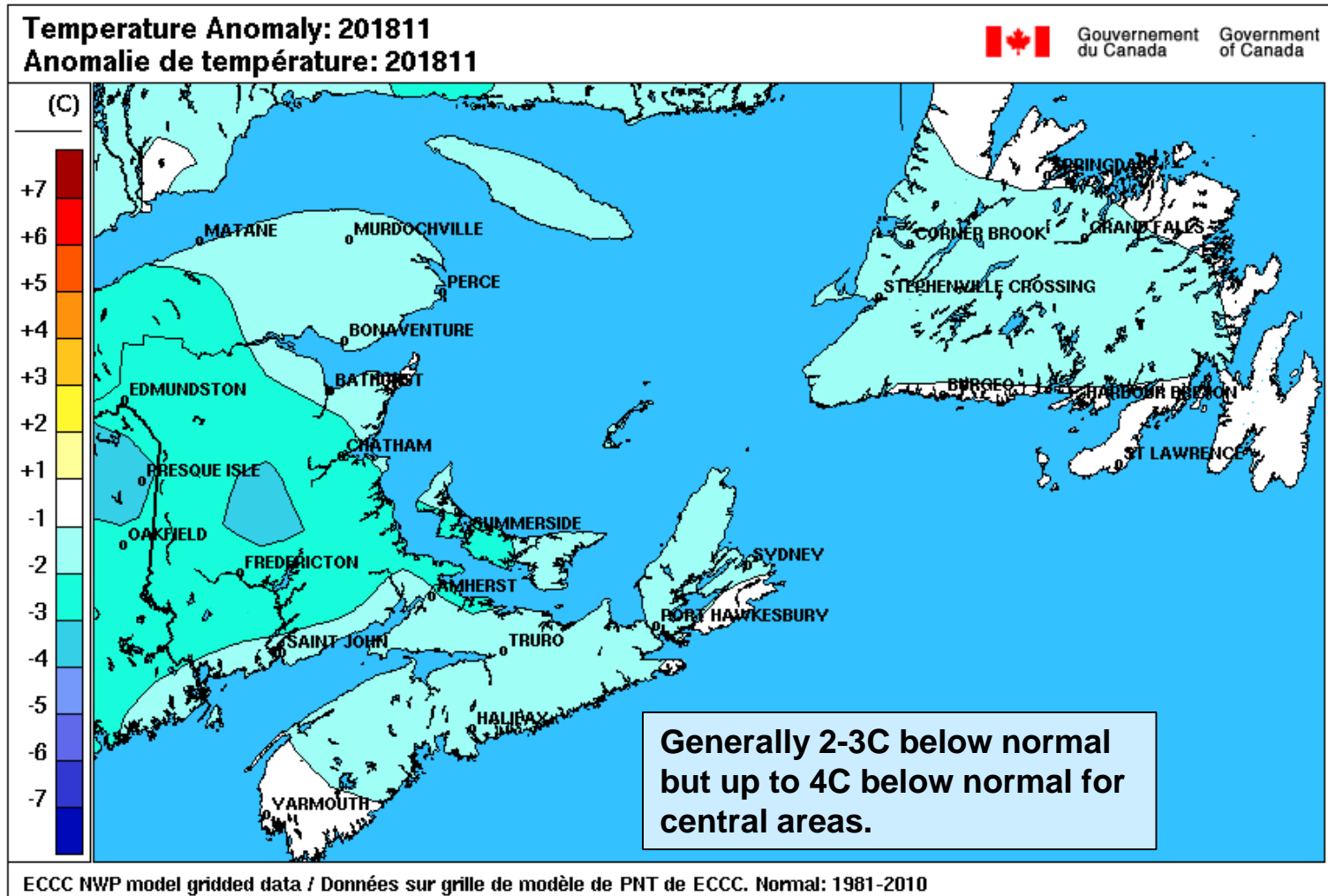
Edmundston

Edmundston was near normal



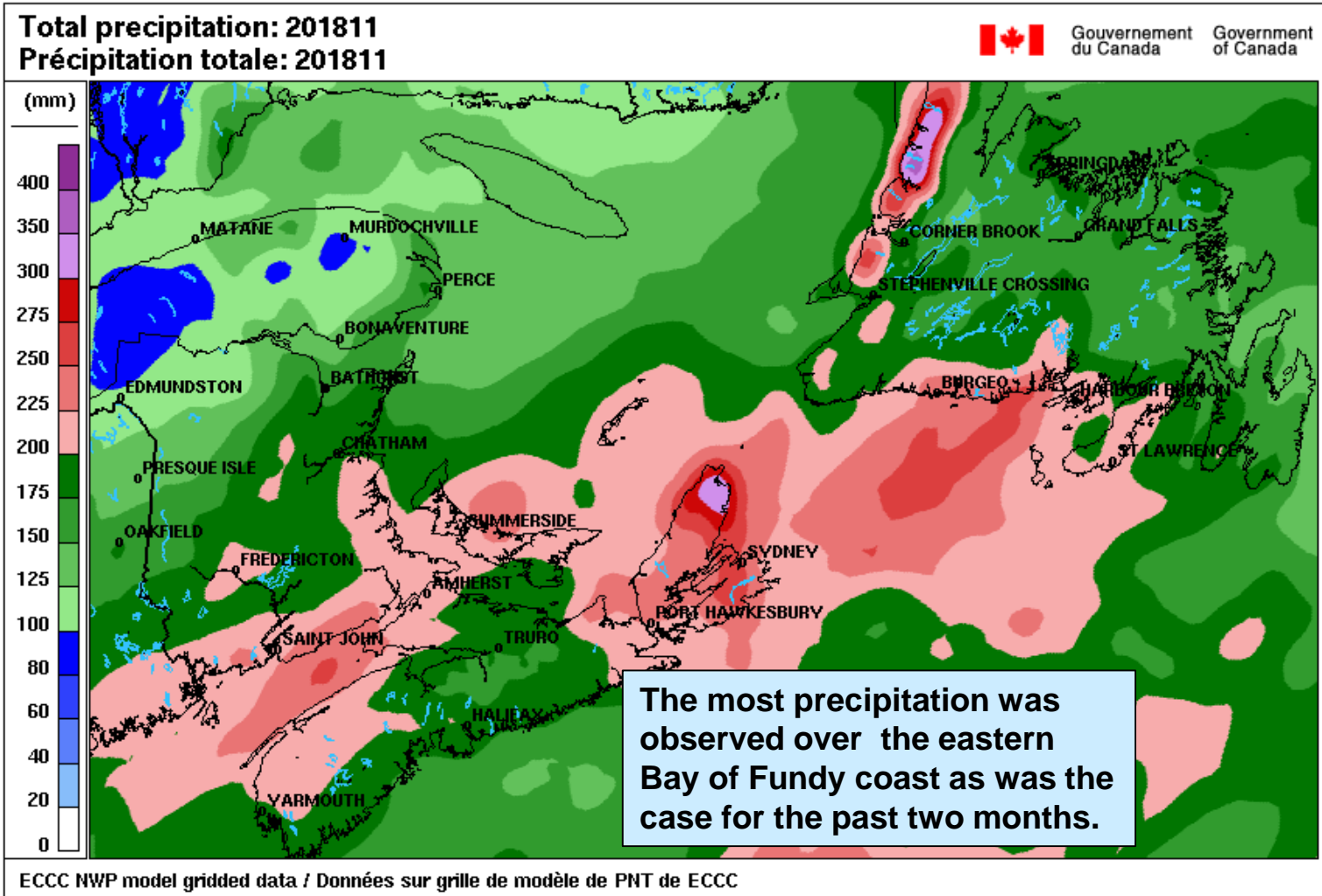


# November 2018 Temperature departure from 1981-2010 mean.

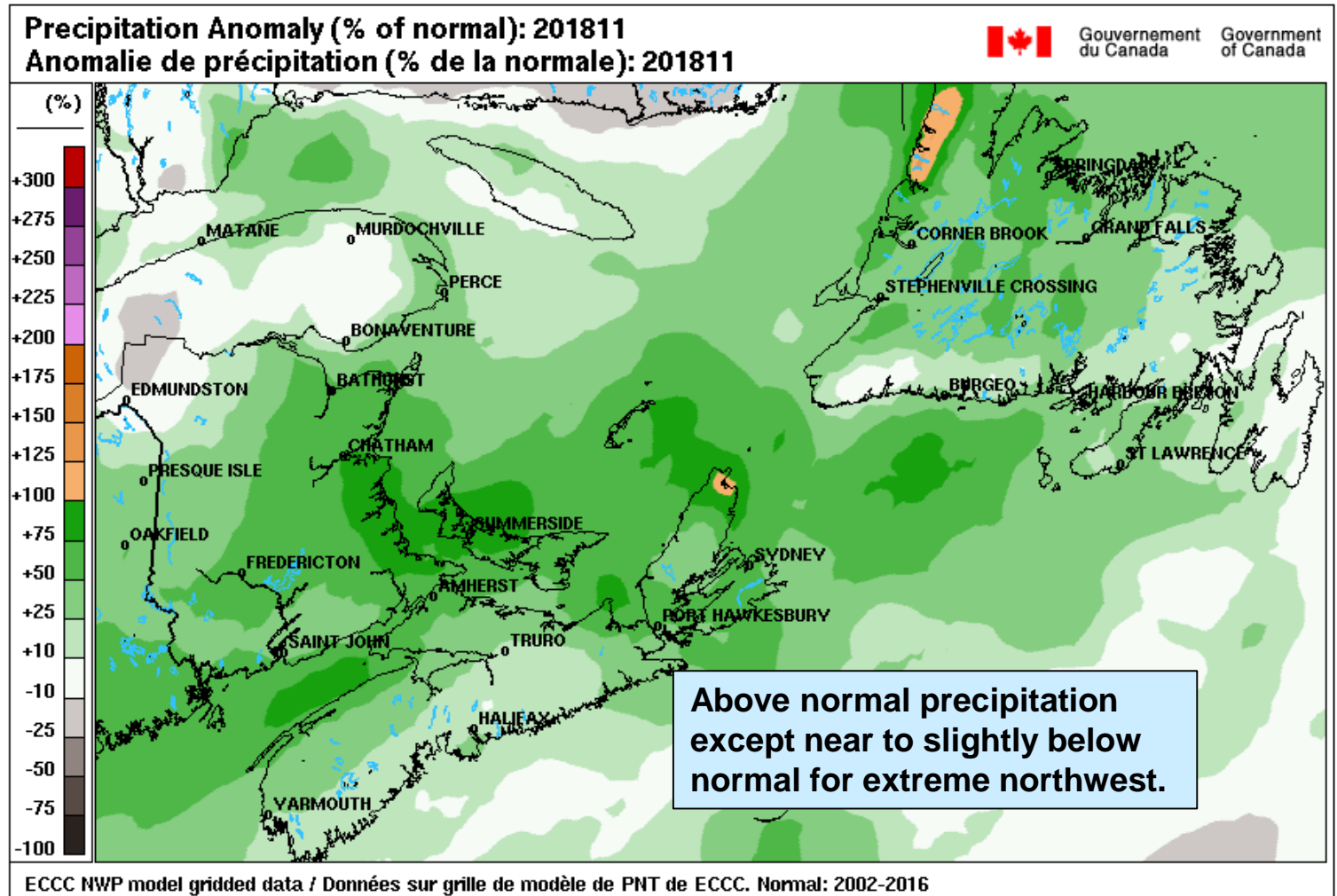




# November 2018 Total Precipitation

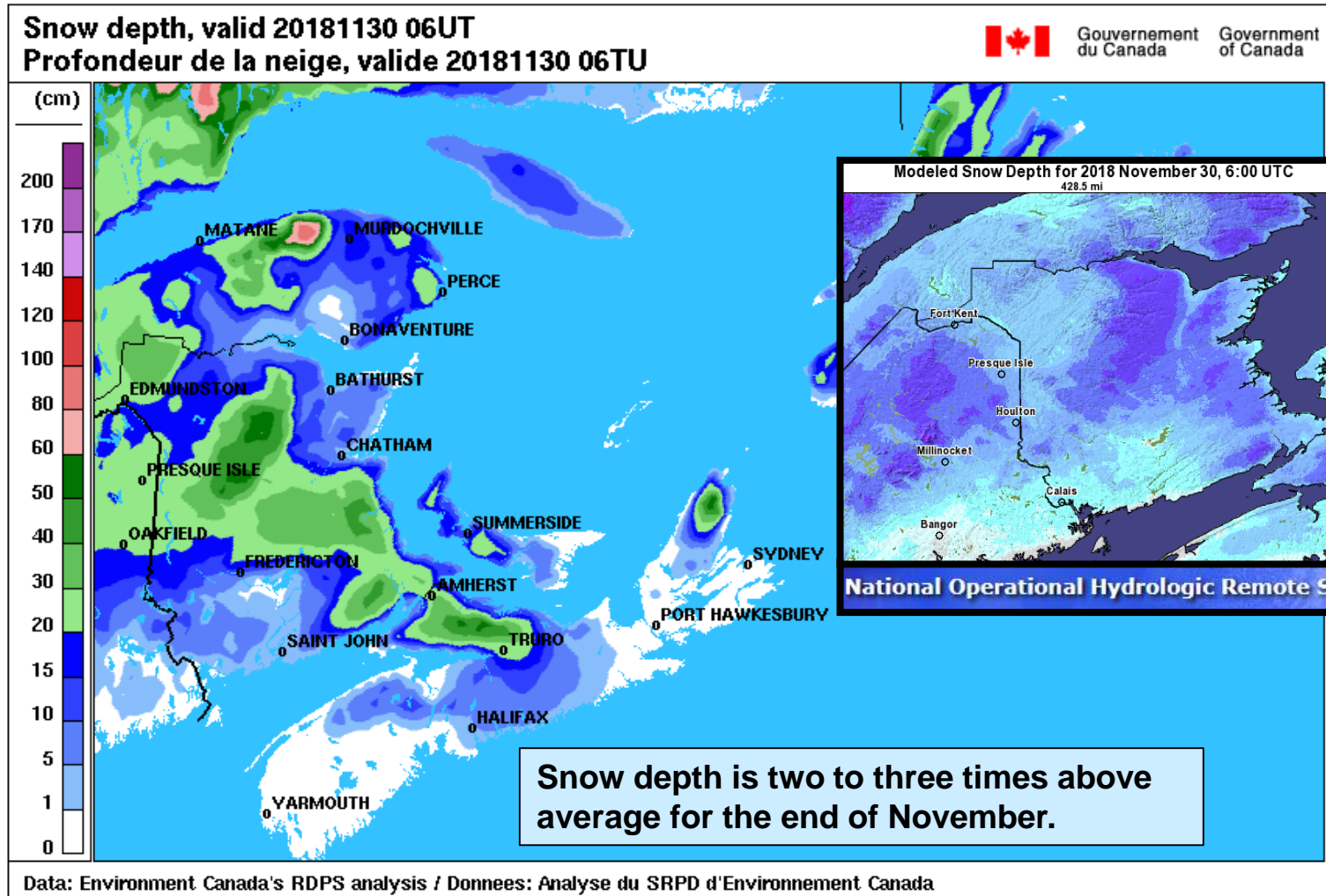


# November 2018 Precipitation departure from 1981-2010 mean.



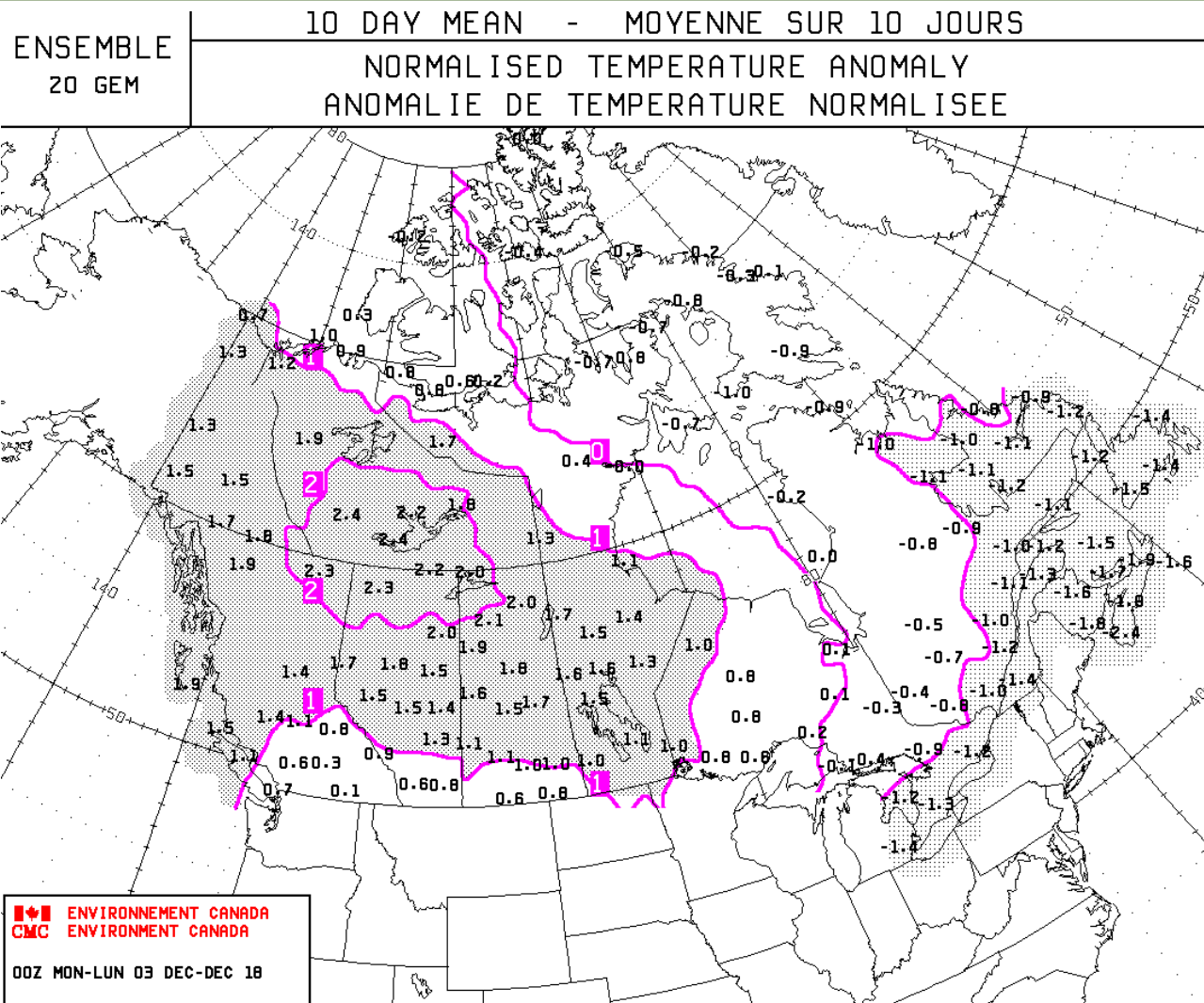
# November 2018 Snow depth at month end

Extracted from Canadian computer model



# Outlook - 10 day mean temperature

(Suggesting below normal conditions (-1 to -2C))



10 day  
forecast  
ending  
December  
13, 2018



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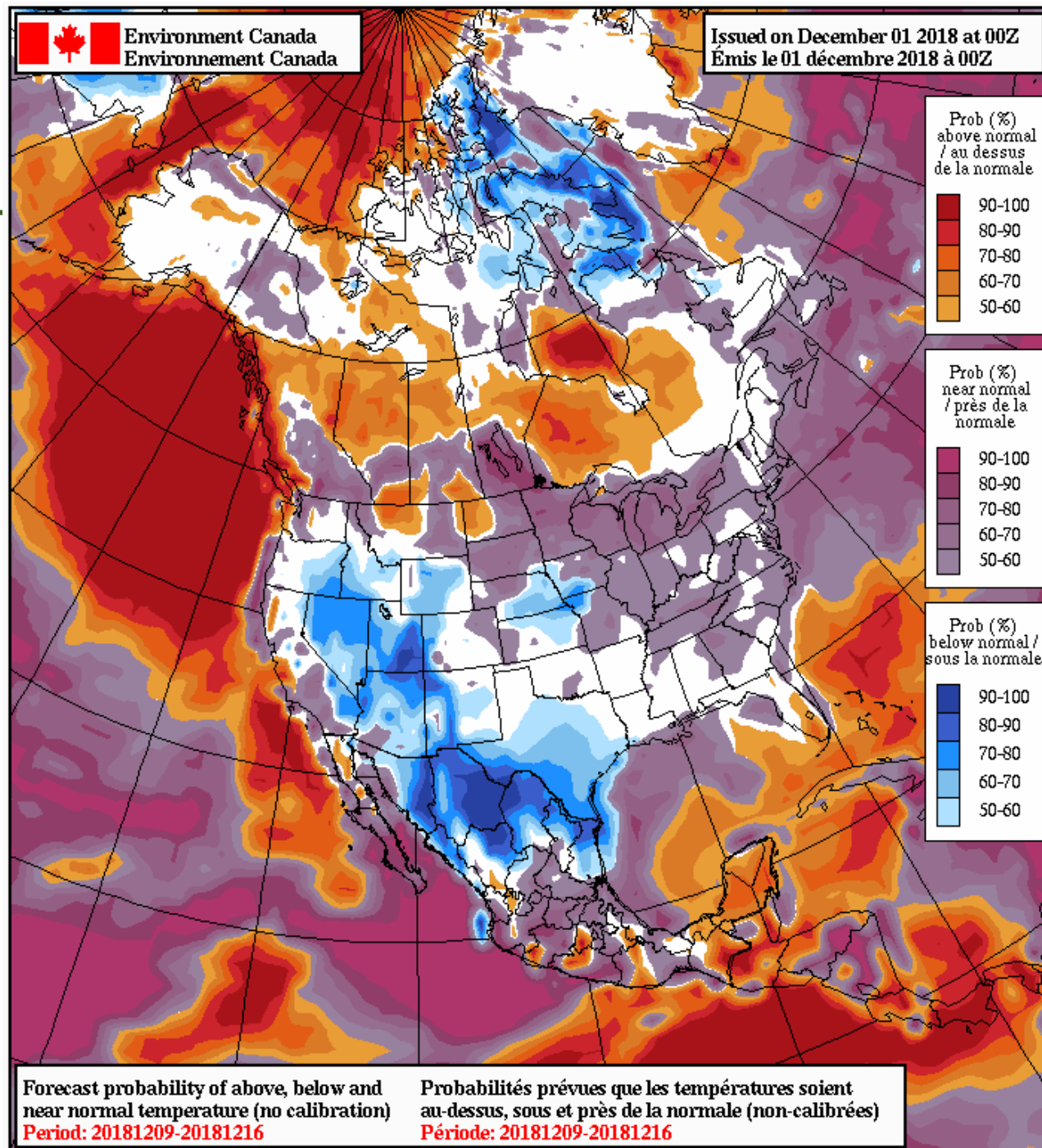




# Day 8 to 14 Forecast

Period ending  
December 16,  
2018

This is suggesting  
a weak signal of near  
normal conditions.





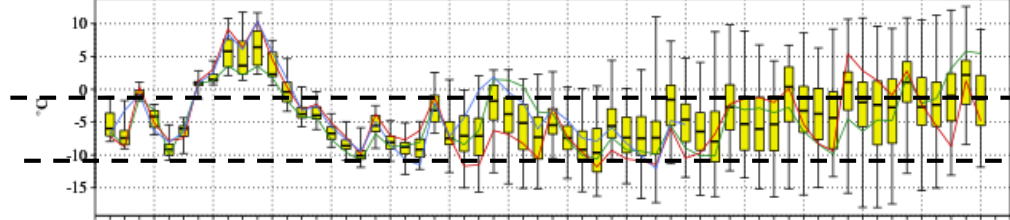
# Fredericton

Ensemble and Deterministic Forecasts issued 1 December 2018 00 UTC  
Prévision d'ensemble et déterministe émises le 1 Décembre 2018 00 UTC  
for/pour

NAEFS / SPENA

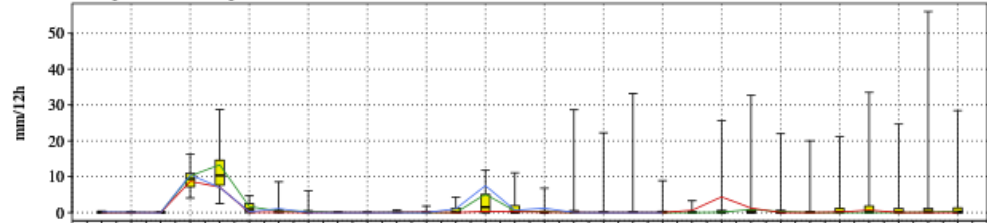
**FREDERICTON (YFC) 45.87 N 66.53 W/O**

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

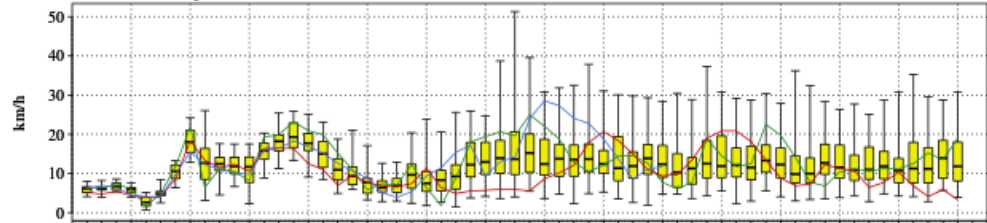


December Normal high: -0.7C  
Normal low: -10.7C

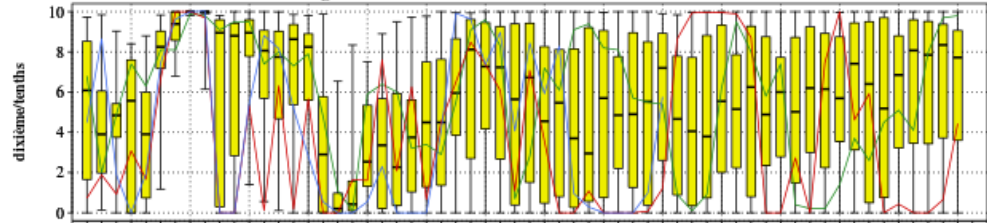
Précipitations/Precipitation



Surface wind speed/Vitesse du vent à la surface

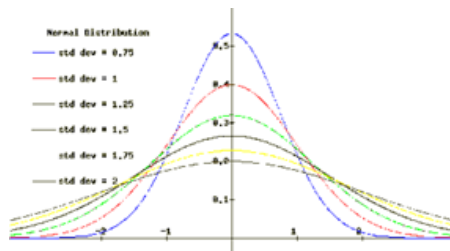


Total cloud cover/Couvert nuageux



**Next 15 days; ending  
December 16, 2018**

In general, remaining above normal for the first few days then near normal.



max  
75%  
median/médiane  
25%  
min

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



December/Décembre 2018

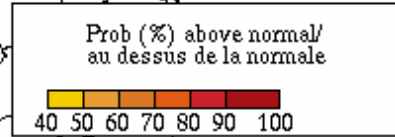
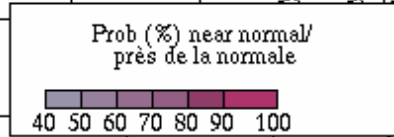
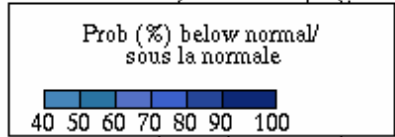
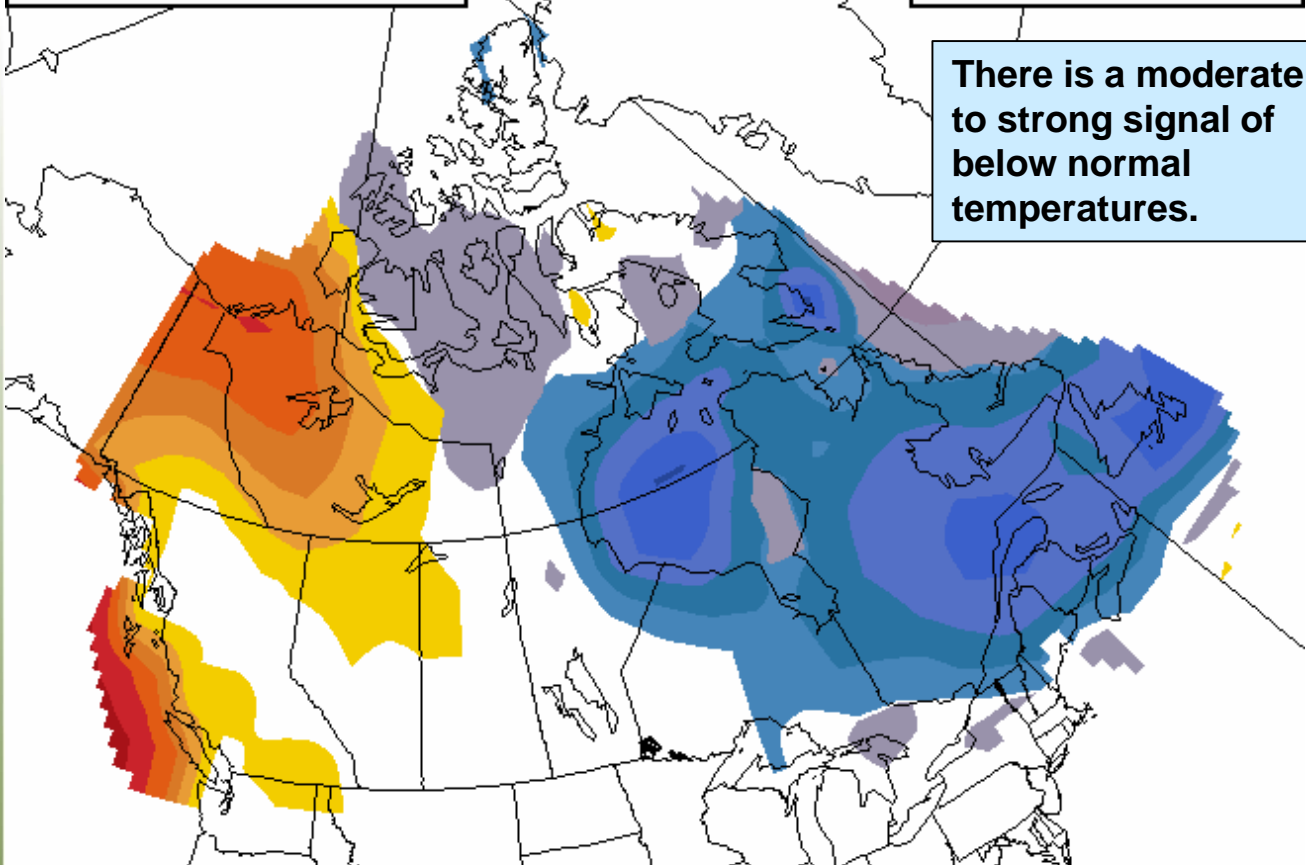
# Temperature December 2018

There is a moderate to strong signal of below normal temperatures.

CanSIPS  
(Canadian Seasonal and Interannual Prediction System)

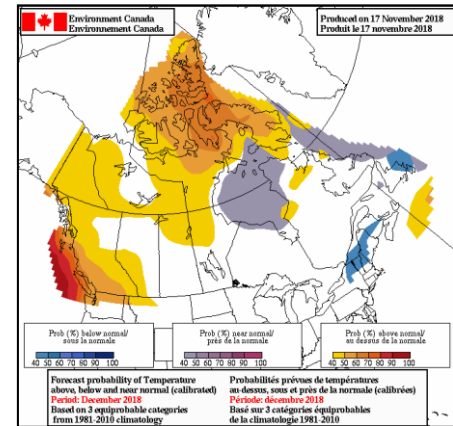
CanAM3  
CanAM4  
+  
CanOM4

Produced November 17



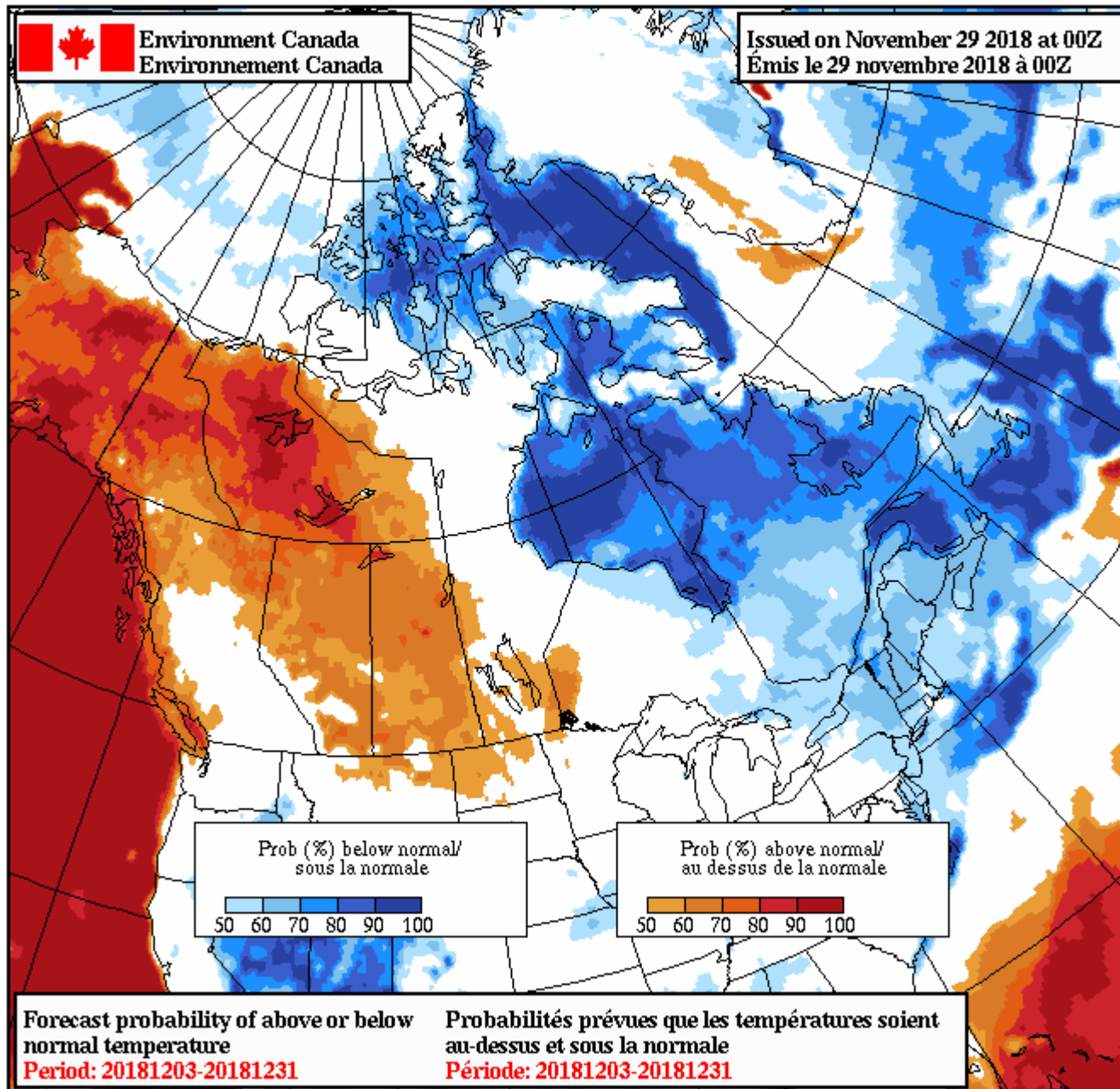
**Forecast probability of Temperature above, below and near normal (calibrated)**  
**Period: December 2018**  
Based on 3 equiprobable categories from 1981-2010 climatology

**Probabilités prévues de températures au-dessus, sous et près de la normale (calibrées)**  
**Période: décembre 2018**  
Basé sur 3 catégories équiprobables de la climatologie 1981-2010





# Temperature December 3 to December 31



CMC  
Monthly  
Forecast  
Product  
using GEPS  
50km res.

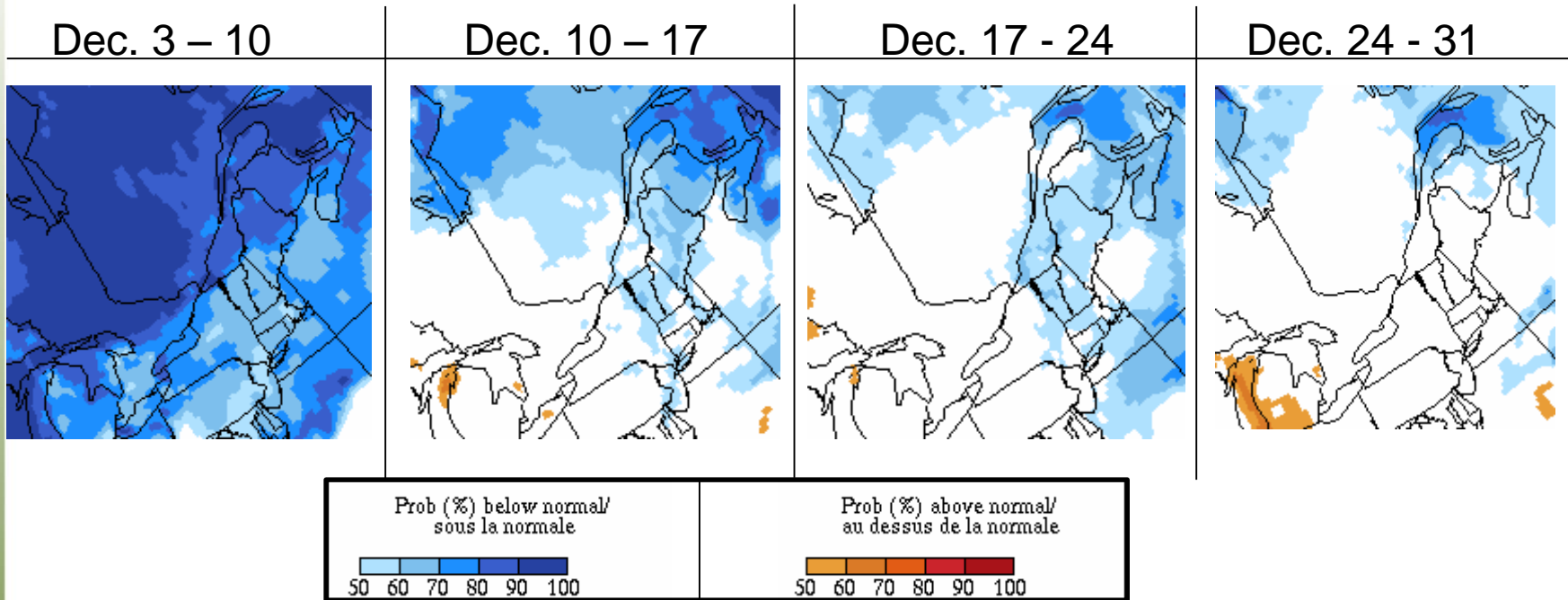


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# Weekly signature from GEPS 50km resolution



A strong signal of below normal for the first week and gradually transitioning to a weak signal of below for the last week.



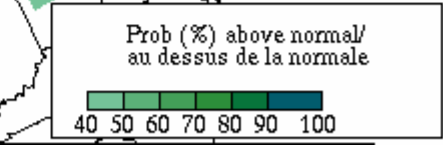
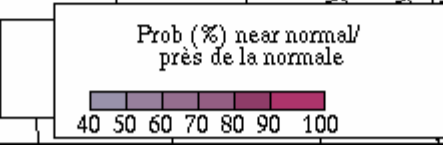
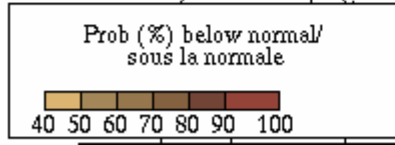
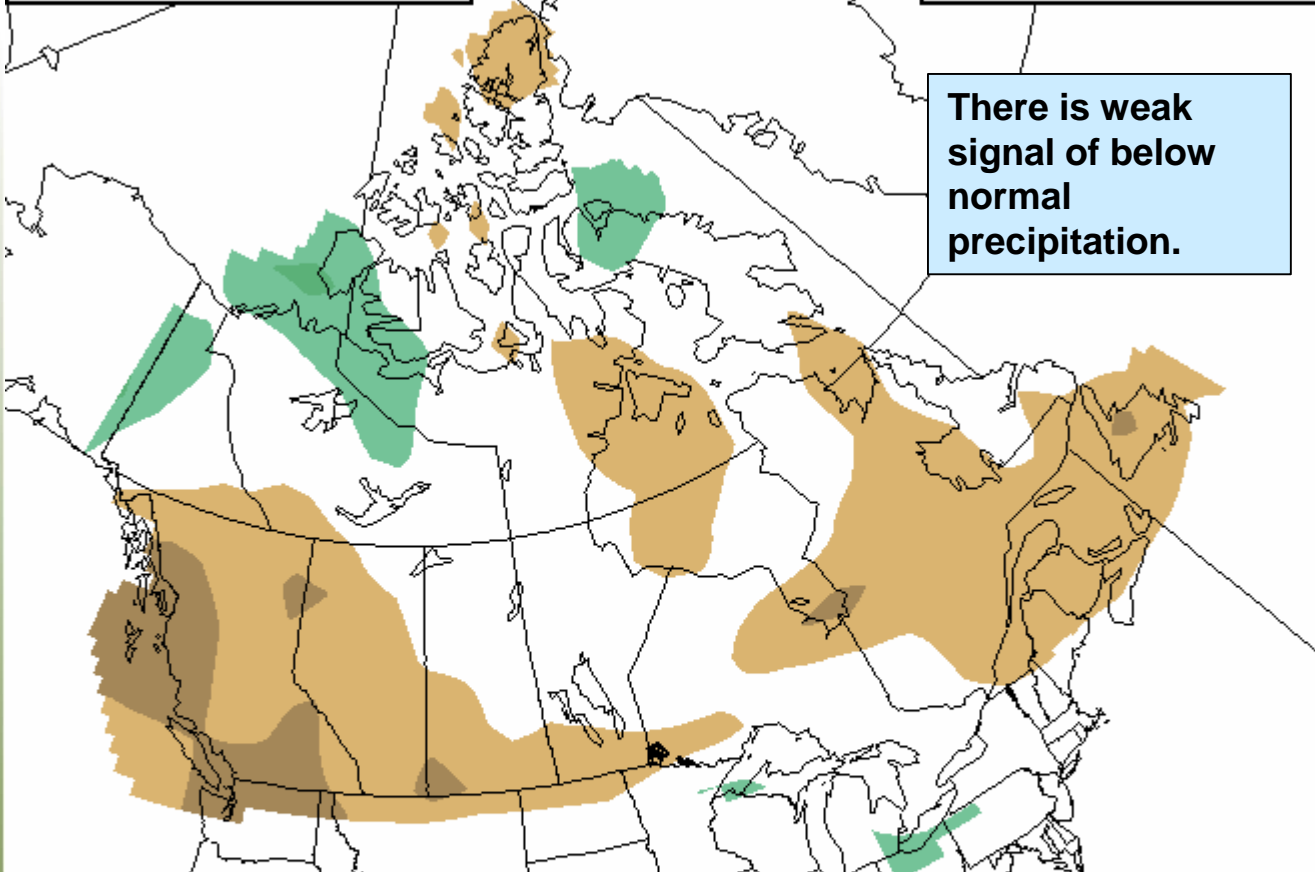
# Precipitation December 2018

There is weak  
signal of below  
normal  
precipitation.

CanSIPS  
(Canadian Seasonal and  
Interannual Prediction  
System)

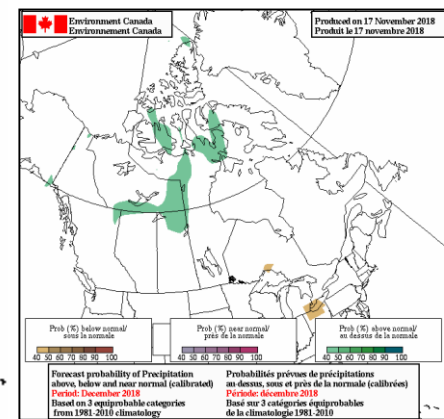
CanAM3  
CanAM4  
+  
CanOM4

Produced November 17

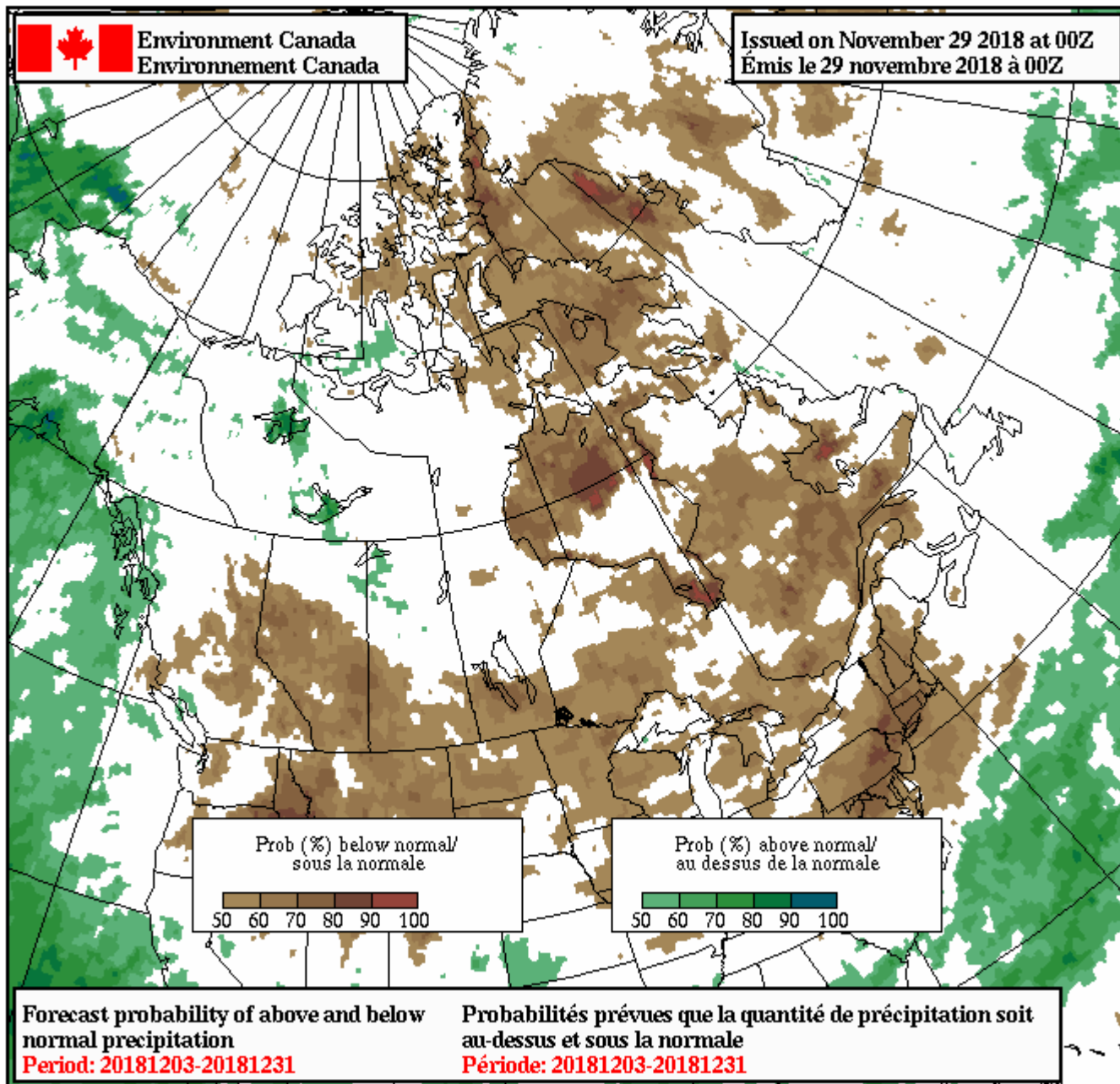


**Forecast probability of Precipitation  
above, below and near normal (calibrated)**  
**Period: December 2018**  
Based on 3 equiprobable categories  
from 1981-2010 climatology

**Probabilités prévues de précipitations  
au-dessus, sous et près de la normale (calibrées)**  
**Période: décembre 2018**  
Basé sur 3 catégories équiprobables  
de la climatologie 1981-2010

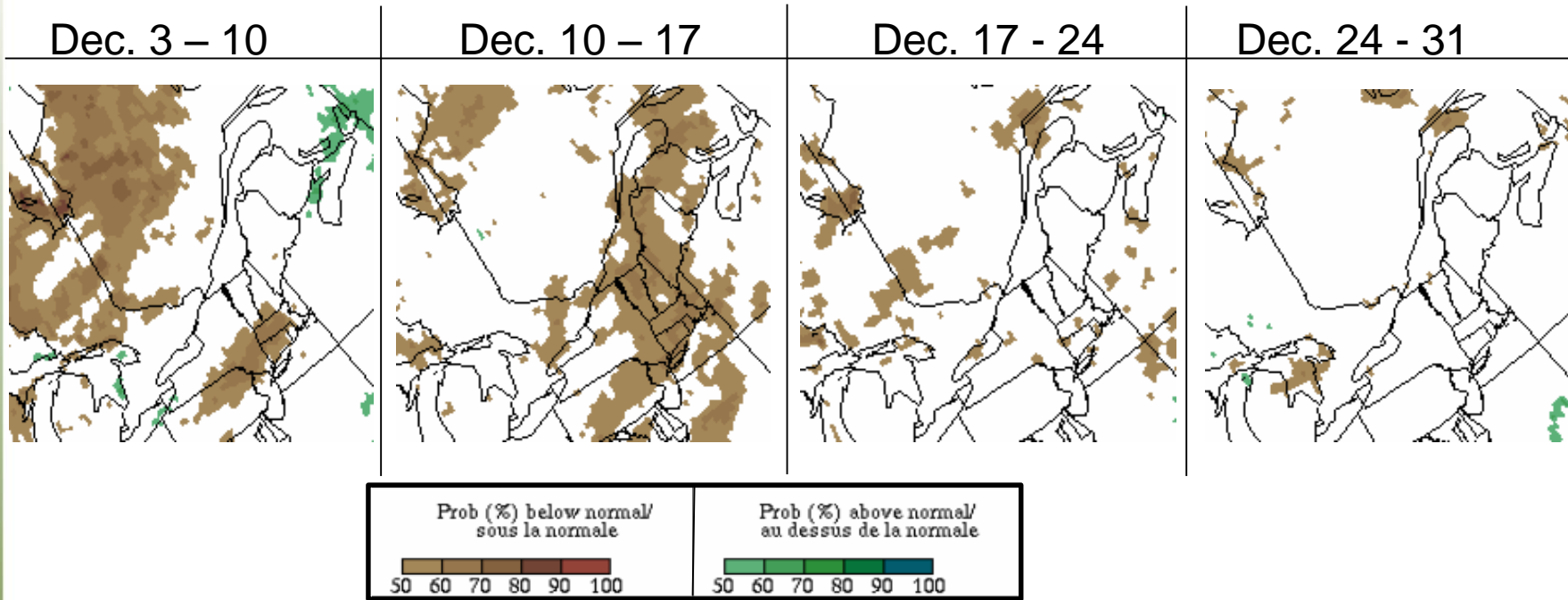


# Precipitation December 3 to December 31



CMC  
Monthly  
Forecast  
Product  
using GEPS  
50km res.

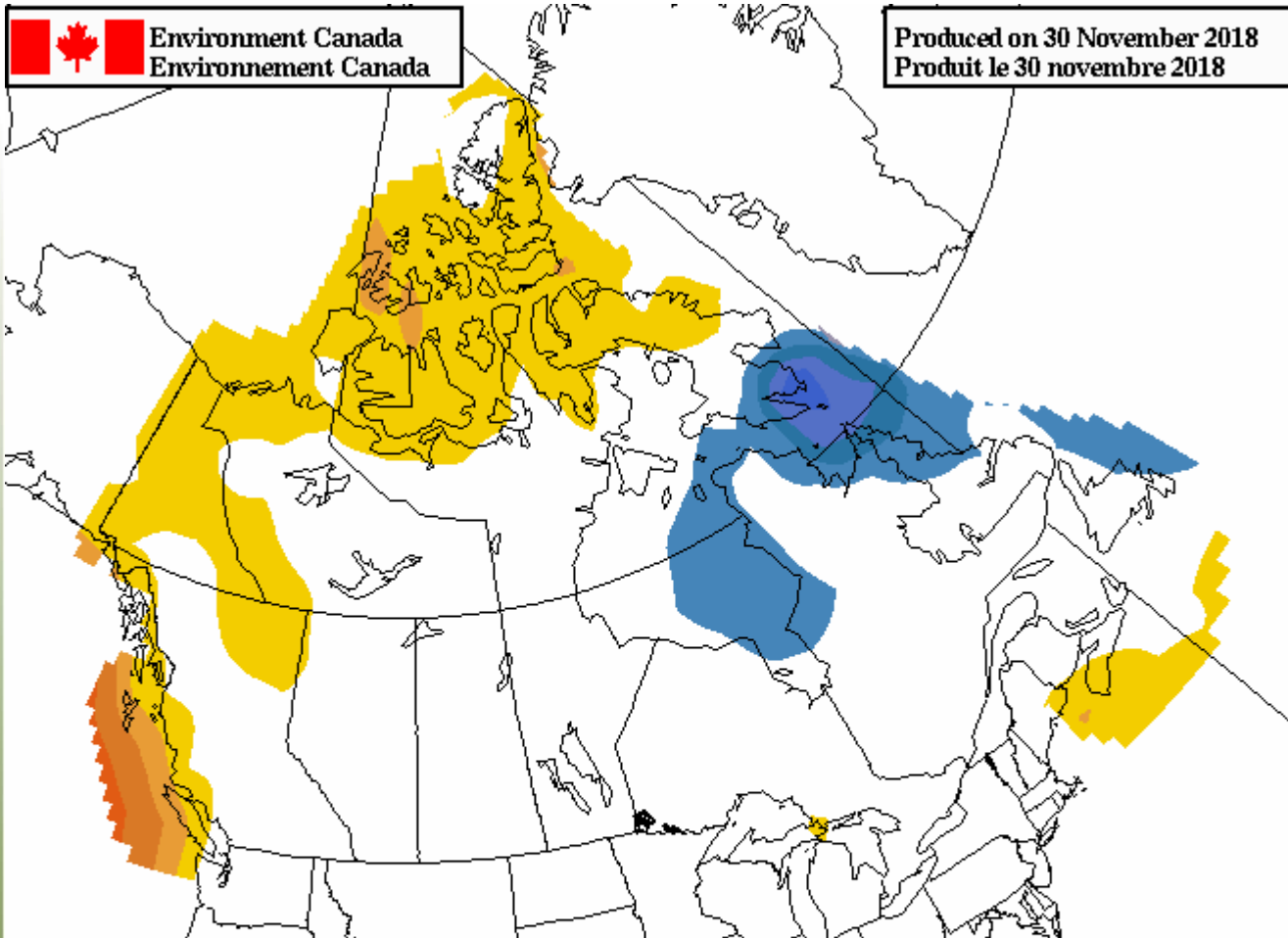
# Weekly signature from GEPS 50km resolution



Generally, indicating no conclusive signal for the period, with the exception of the second week where it is predicted to be slightly below normal.





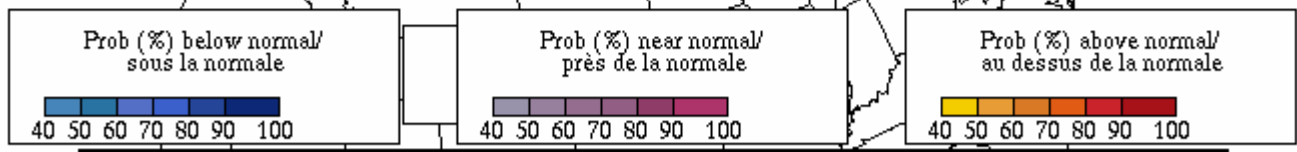


# Temperature January 2019

CanSIPS  
(Canadian Seasonal and  
Interannual Prediction  
System)

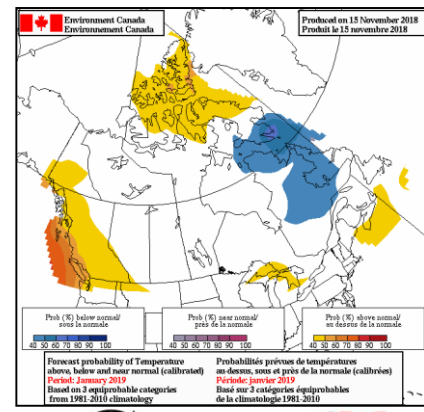
CanAM3  
CanAM4  
+  
CanOM4

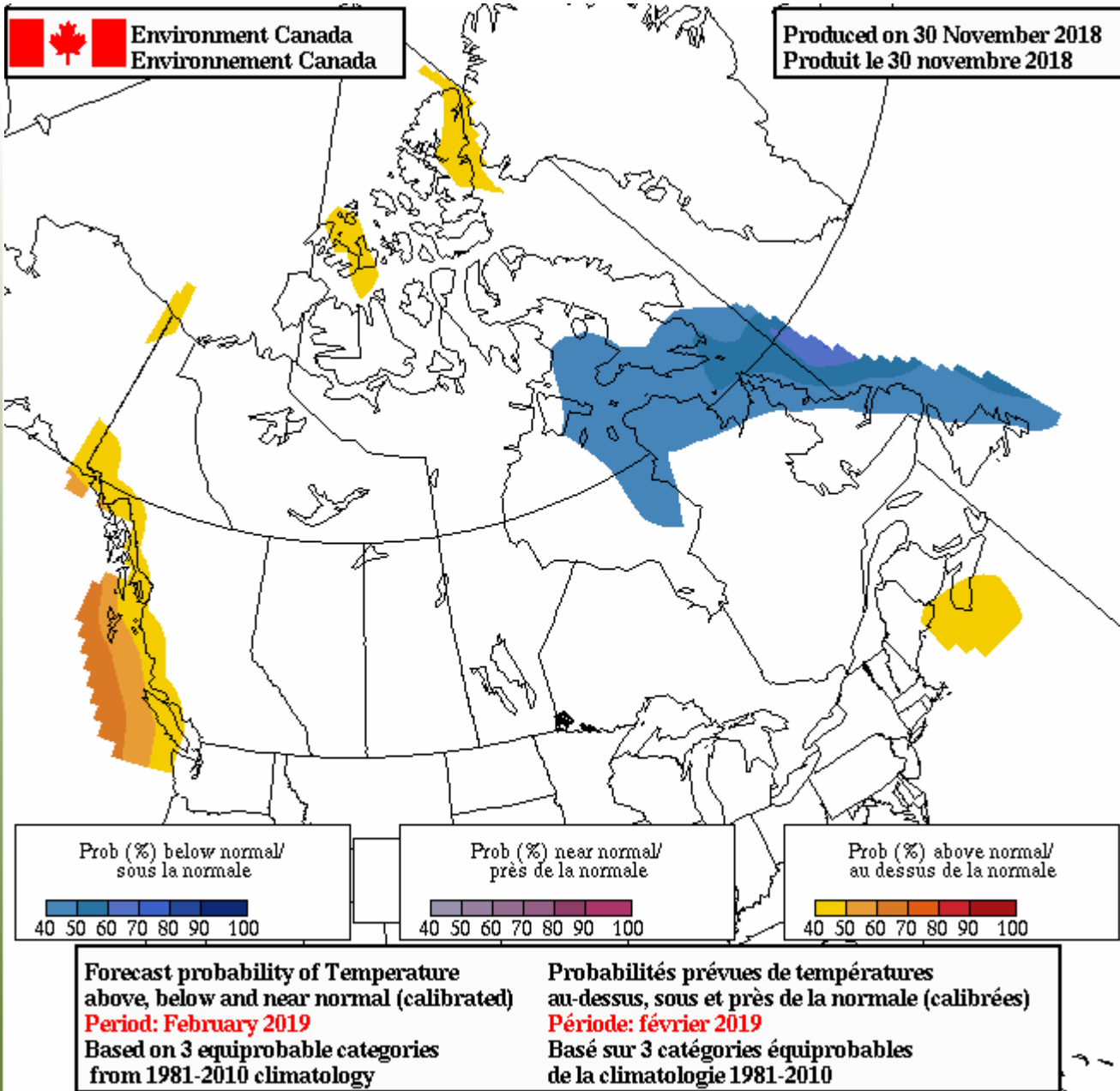
Produced November 15



**Forecast probability of Temperature above, below and near normal (calibrated)**  
**Period: January 2019**  
Based on 3 equiprobable categories from 1981-2010 climatology

**Probabilités prévues de températures au-dessus, sous et près de la normale (calibrées)**  
**Période: janvier 2019**  
Basé sur 3 catégories équiprobables de la climatologie 1981-2010



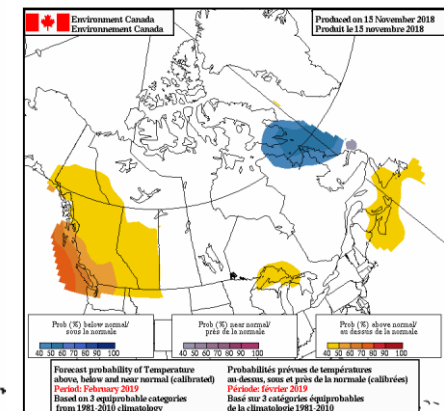


# Temperature February 2019

CanSIPS  
(Canadian Seasonal and  
Interannual Prediction  
System)

CanAM3  
CanAM4  
+  
CanOM4

Produced November 15



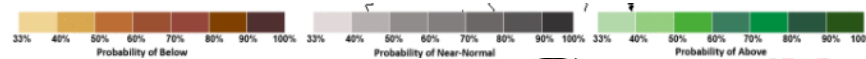
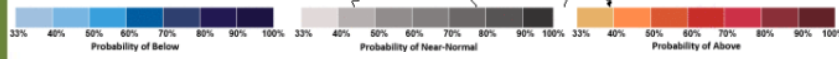
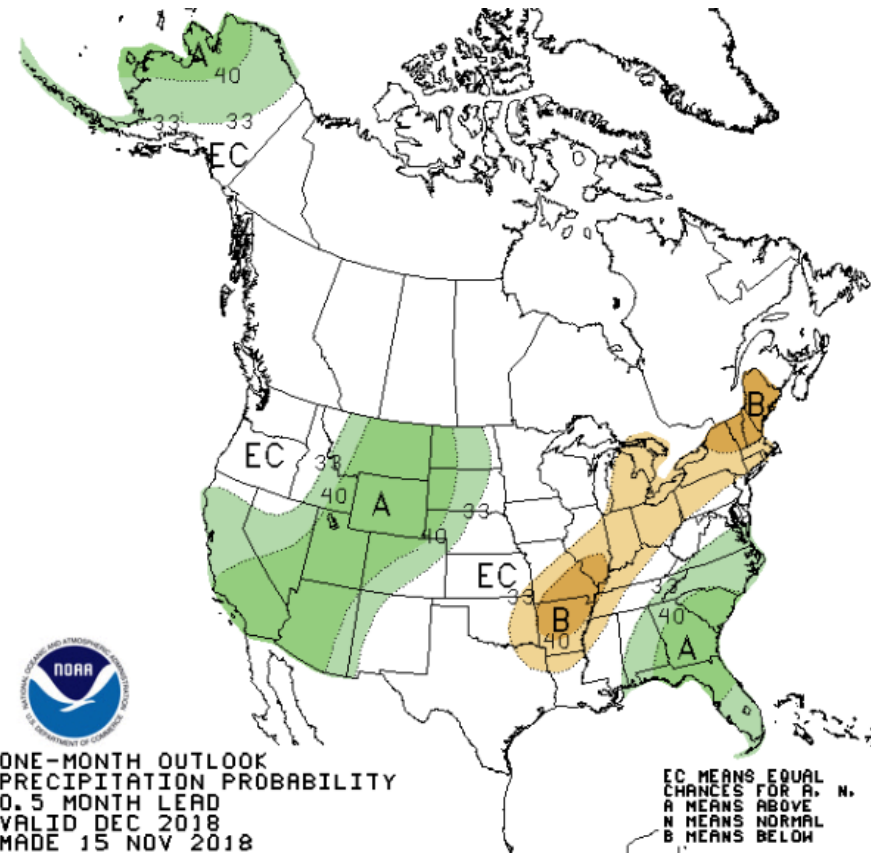
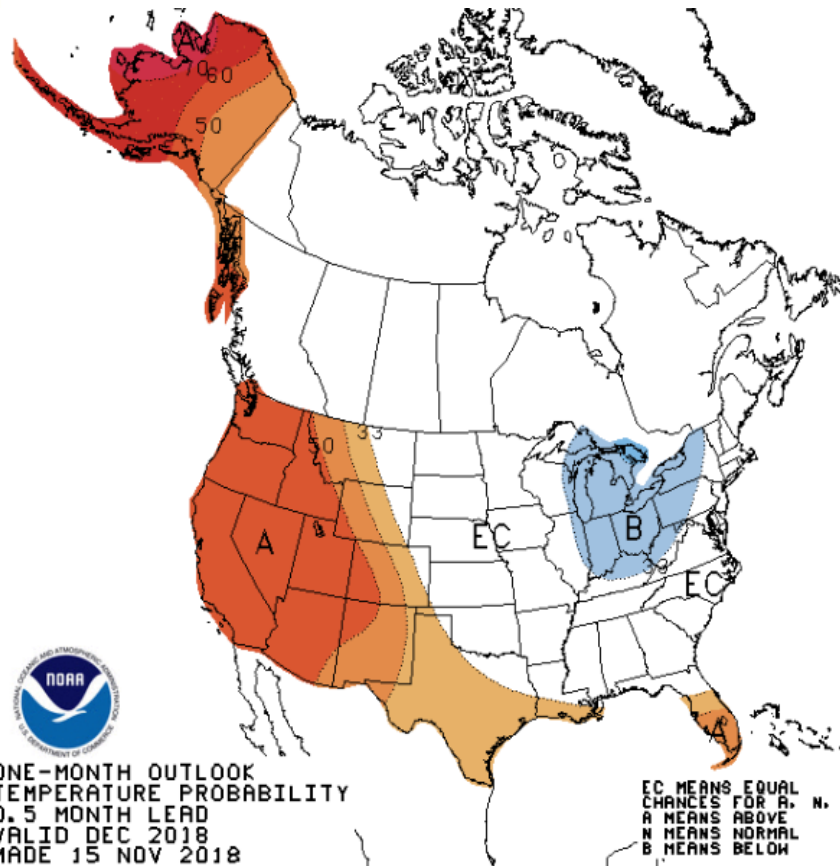




# December 2018

## Temperature

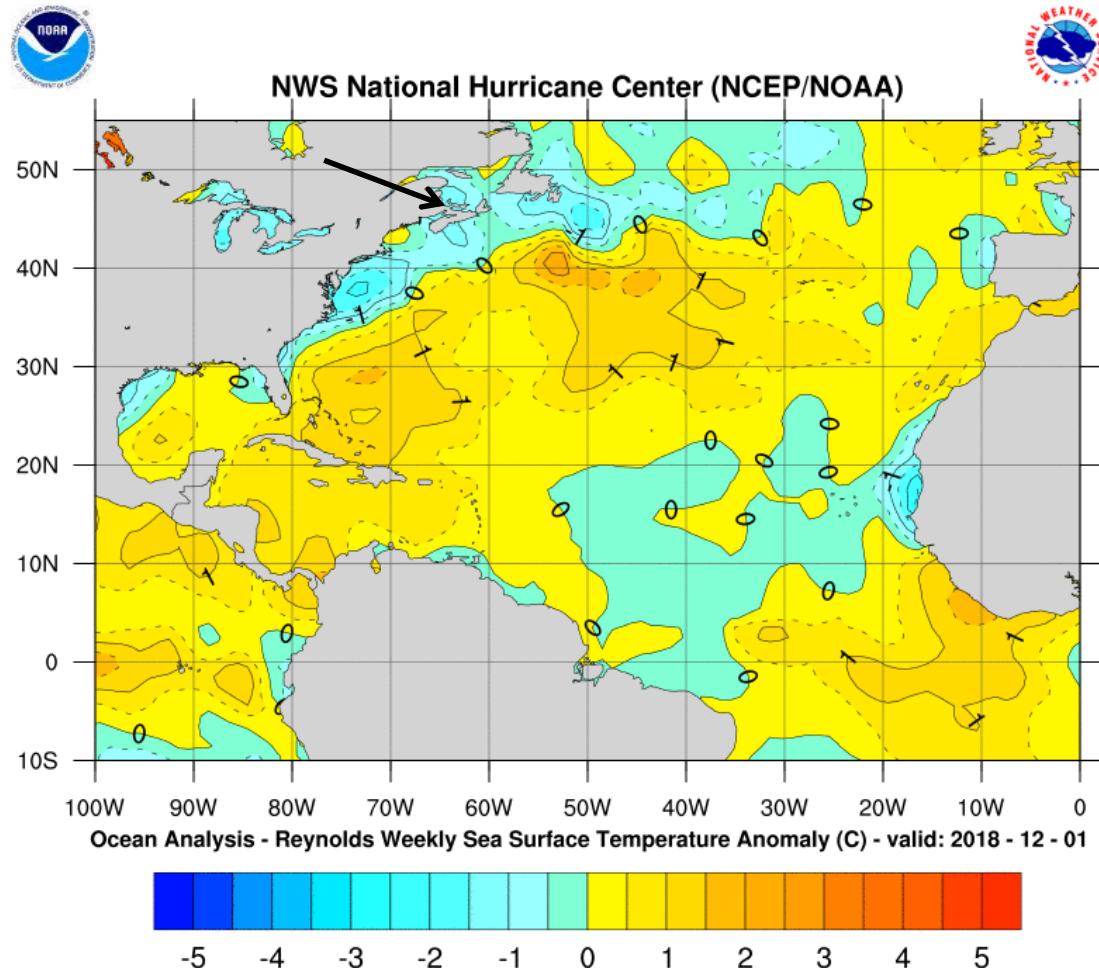
## Precipitation



# Sea Surface Temperatures – Dec. 1 2018

Around the Maritimes, the sea surface temperatures are 0.5 to 1C below normal values

This is one of the main contributing factors in our monthly and seasonal forecasts.



Data Source: Climate Prediction Center (NCEP/NOAA)



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# Contact

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Canada Weather Pages

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

