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Climate Change Canada

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Canada



New Brunswick

January 2019 Review February 2019 and Winter/Spring Outlook

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Meteorological Service of Canada
Environment and Climate Change Canada
February 5, 2019**

January 2019; Climate Summary

Highlights:

The average temperature was near normal. Northern sites were generally slightly below normal, while southern sites were slightly above normal.

Total precipitation amounts were above normal, with an average of 150% of total precipitation. Daily precipitation records were broken in Bas Caraquet on Jan. 20 and in Miramichi on Jan. 24. Snow depths were above normal with some sites reporting more than two times their normal.

Events:

Jan. 1; A winter storm ushered in the new year with snowfall amounts ranging from a few centimetres along the Fundy coast to 20-25cm across the north. Bas Caraquet reported the most snow at 27cm.

Jan. 8-10; Snow, wind and rain crossed the province over a prolonged period. Snowfall was highest over the northeast with Bas Caraquet reporting the most at 44cm. Winds reached 83km/h at Miscou Island and the most rain was recorded at Grand Manan with 32mm.

Jan. 20-21; Major winter storm brought a mixed bag of conditions with wind gusts of 80-100 km/h in the northeast, 30-48cm of snow for the northern half, and 75-98mm of total precipitation in southern areas which included up to 9 hours of freezing rain, localized flooding and power outages.

Jan. 23-24; Warm, wet and windy. Primarily rain (30-60mm) fell across the province with the exception of the southeast and extreme north which only saw 10-20mm. Freezing rain (up to 14 hours) fell across northern portions of the province. Winds gusted to 111km/h in Saint John and localized flooding was observed in several communities.

Jan. 29-30; A winter storm ended the month bringing the most snow to the northwest of the province (15-20cm). Snowfall amounts across the rest of the province ranged from 5-13cm with a few locations near eastern Bay of Fundy reporting near 20cm. St. Quentin saw the most snow with 23cm.

Days with thunderstorm activity (lightning) in New Brunswick; 9

Days with temperature records broken or tied in New Brunswick; 3 24 25

(red=maximum, blue=minimum)



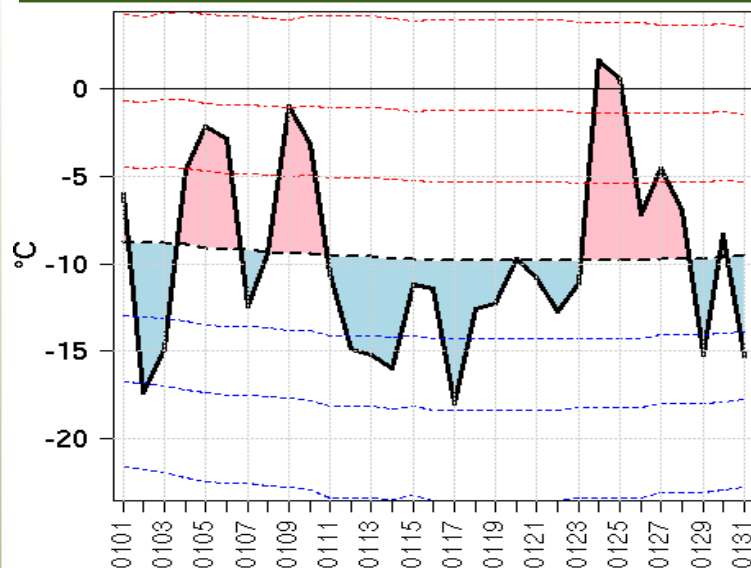
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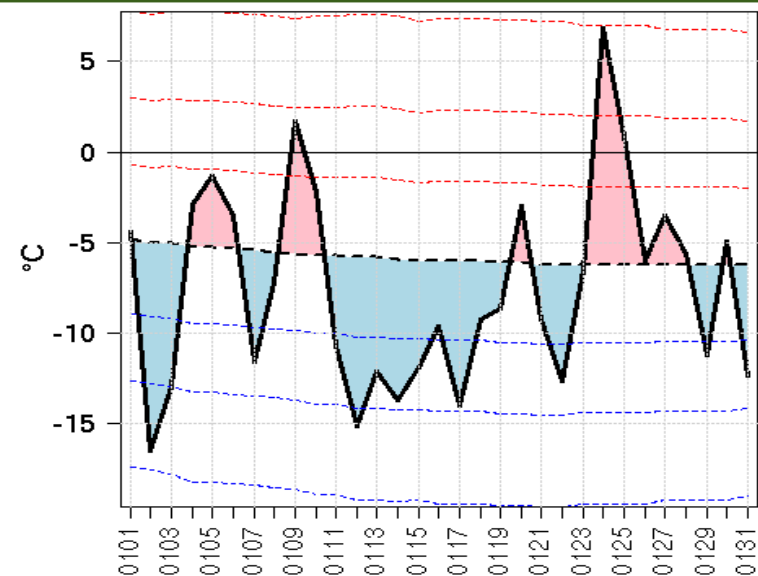
January 2019 - Temperature

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



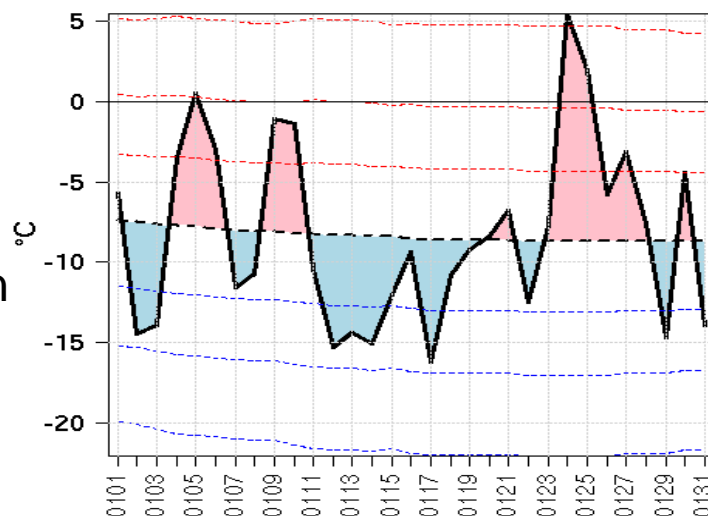
Fredericton (and area)

Fredericton was
near normal



Saint John

Moncton



Moncton and Saint
John were slightly
above normal

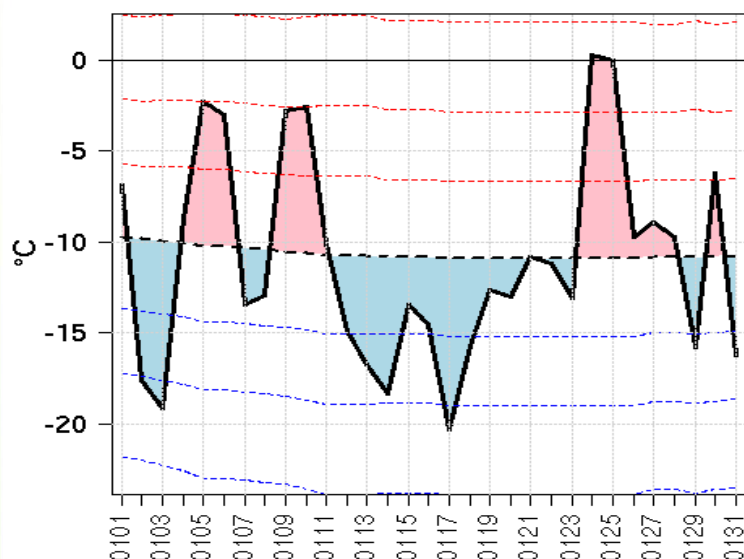


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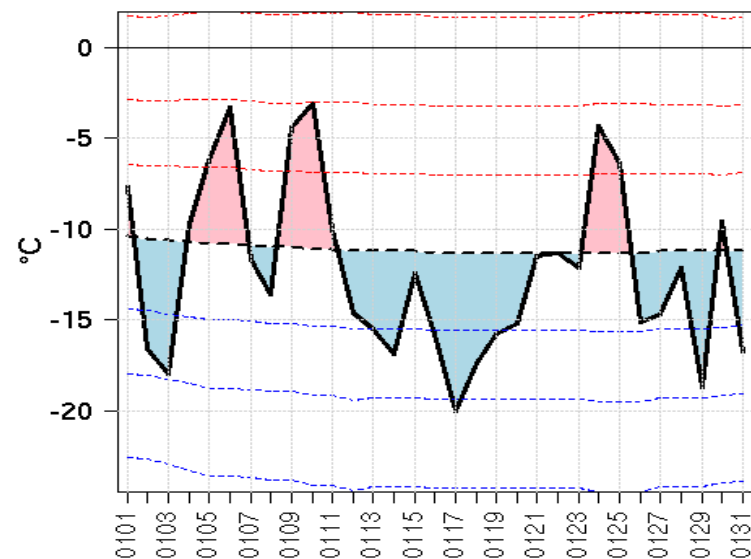
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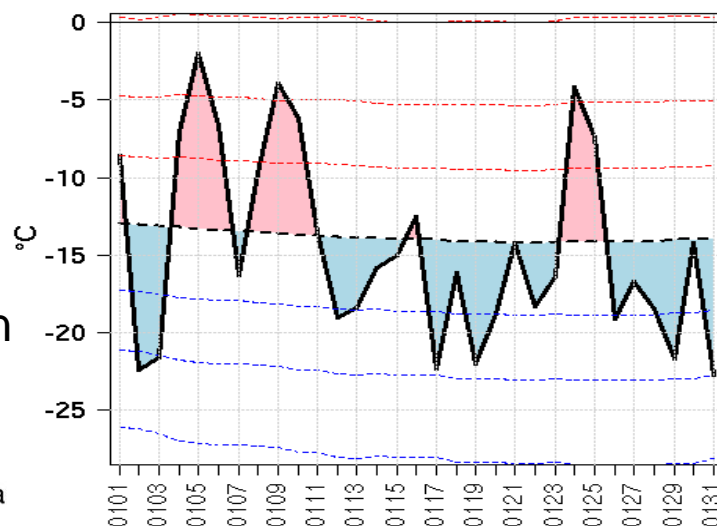


Miramichi

Miramichi was
near normal



Bathurst



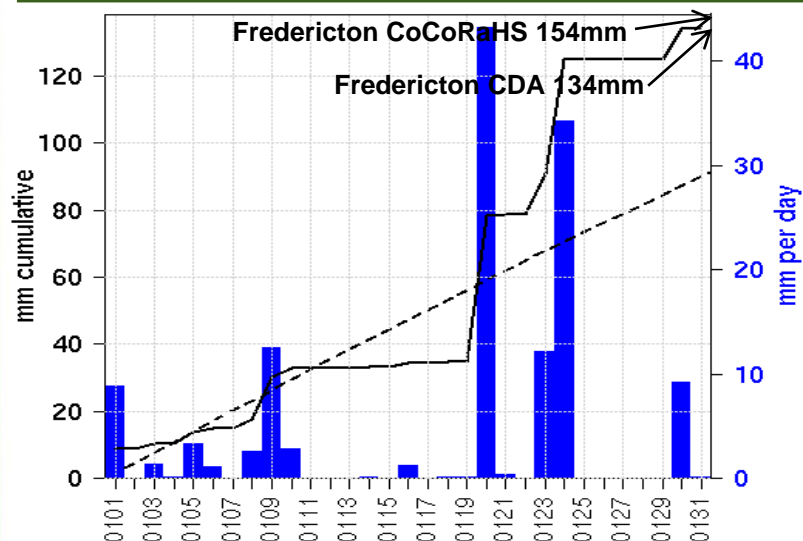
Edmundston

Edmundston and
Bathurst were
below normal

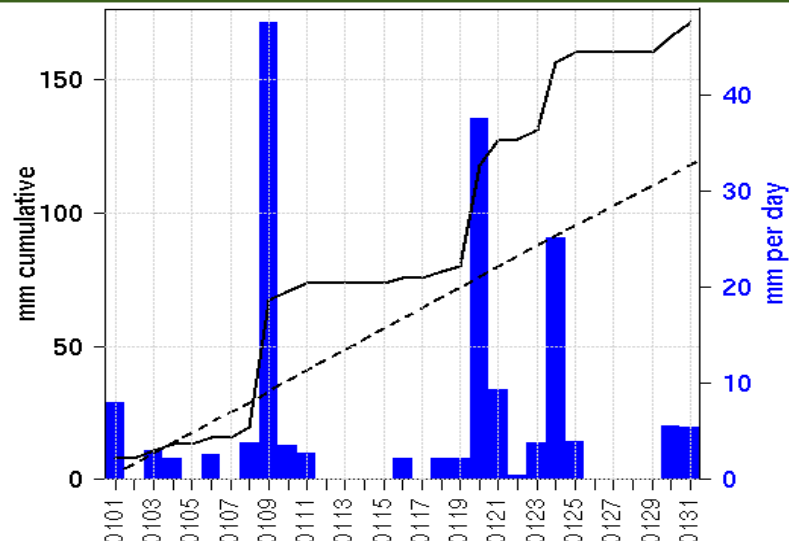


January 2019 - Precipitation

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



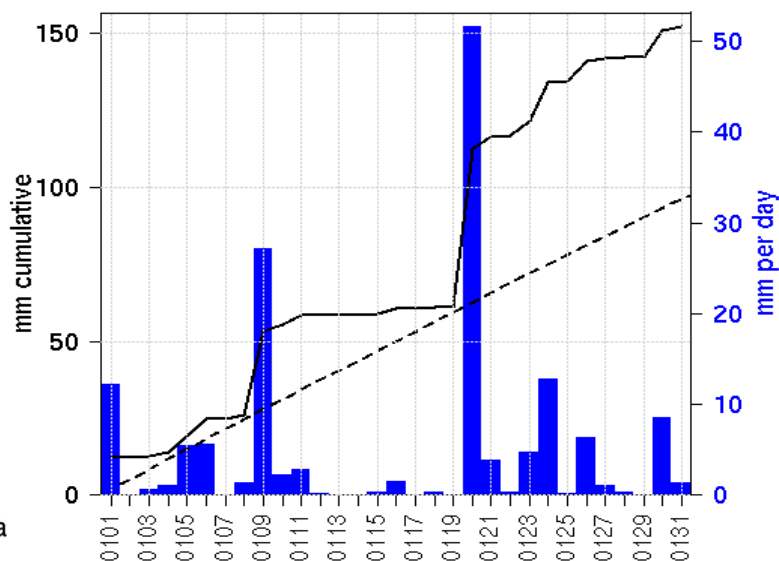
Fredericton (and area)



Saint John

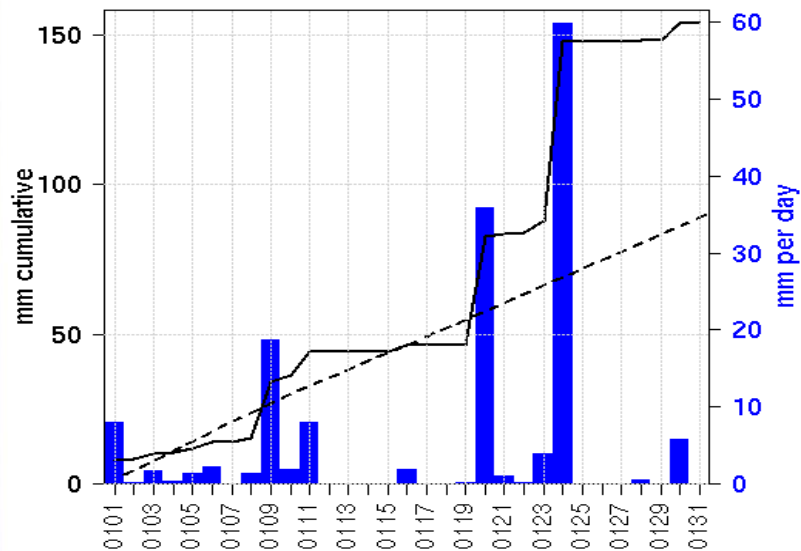
All sites were
above normal

Moncton

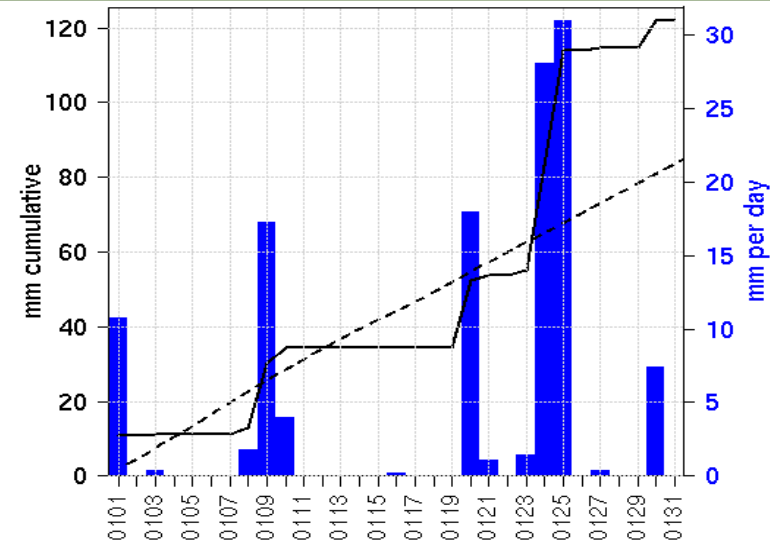


January 2019 - Precipitation

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



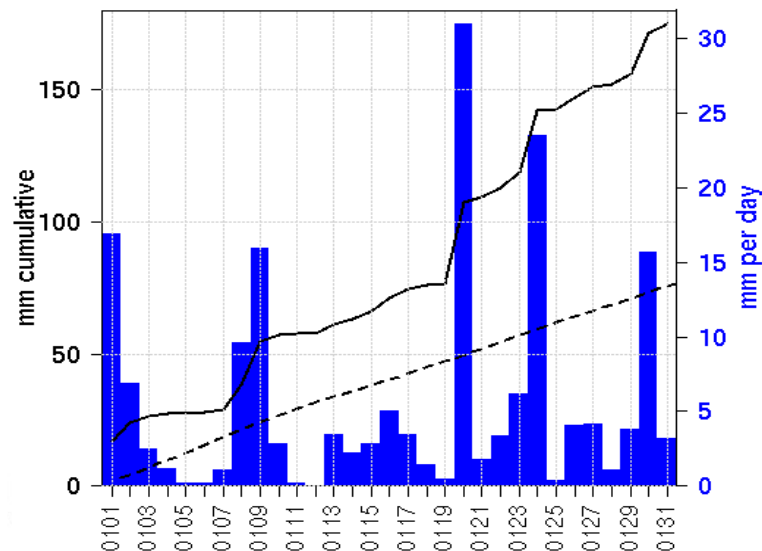
Miramichi



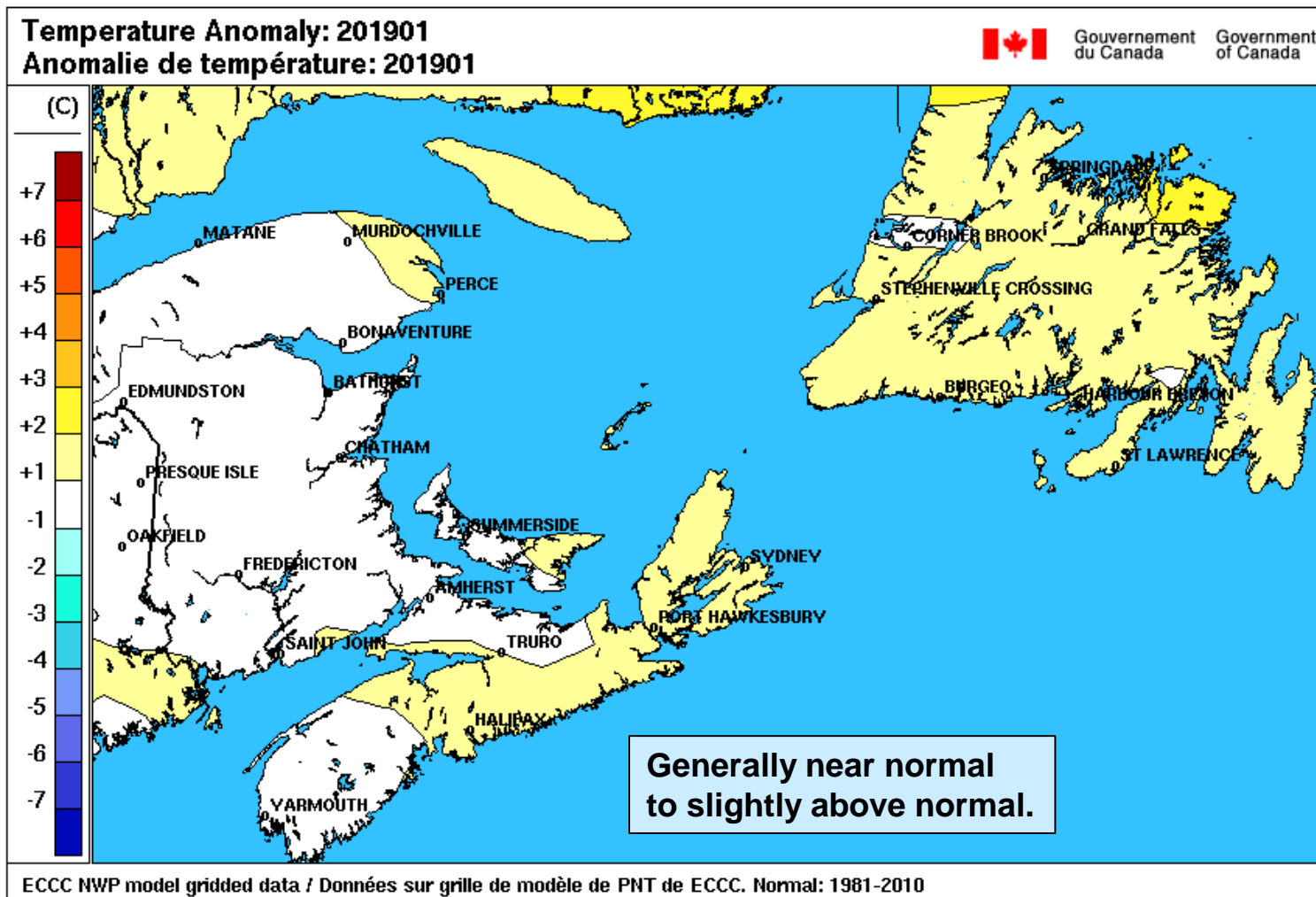
Bathurst

All sites were
above normal

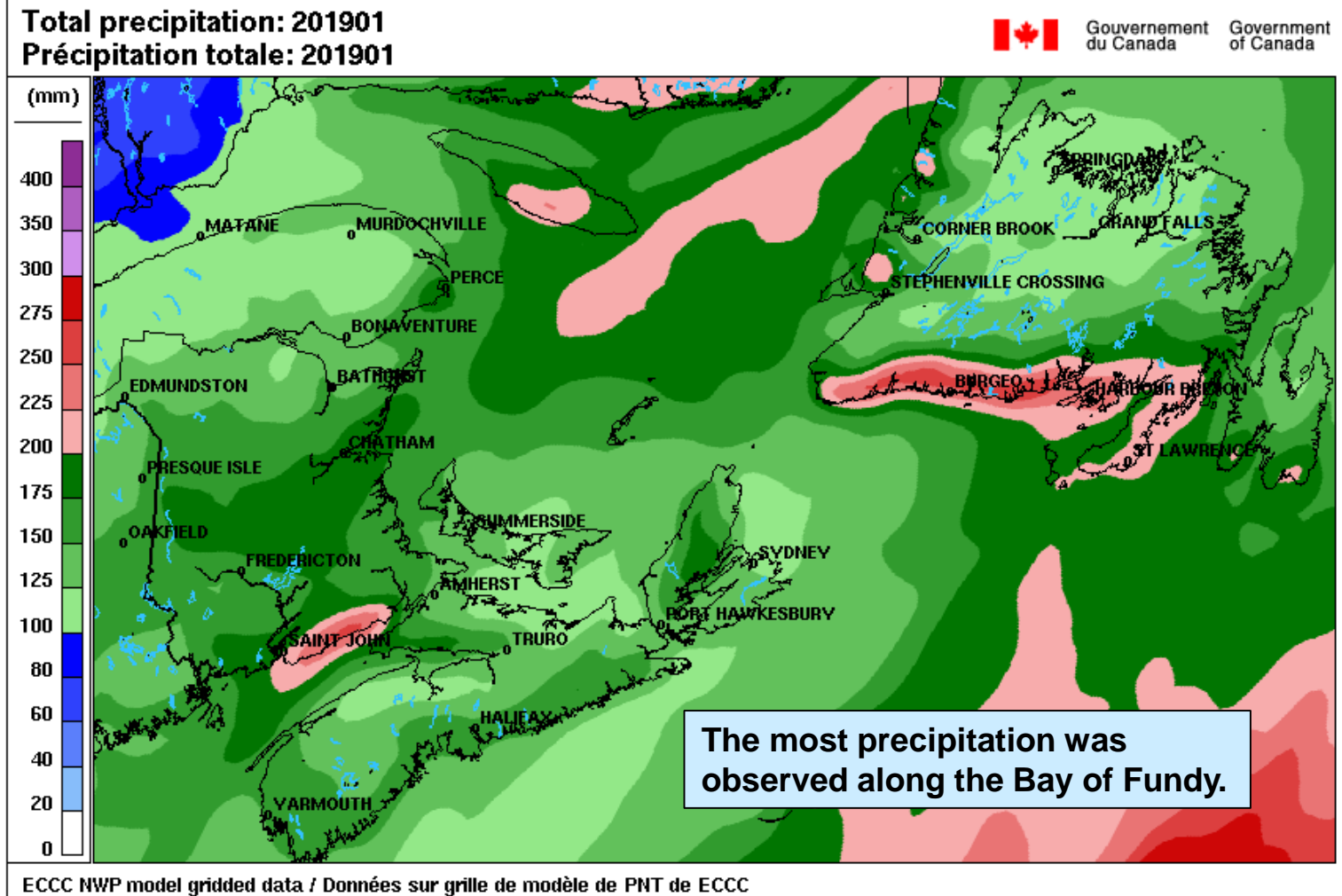
Edmundston



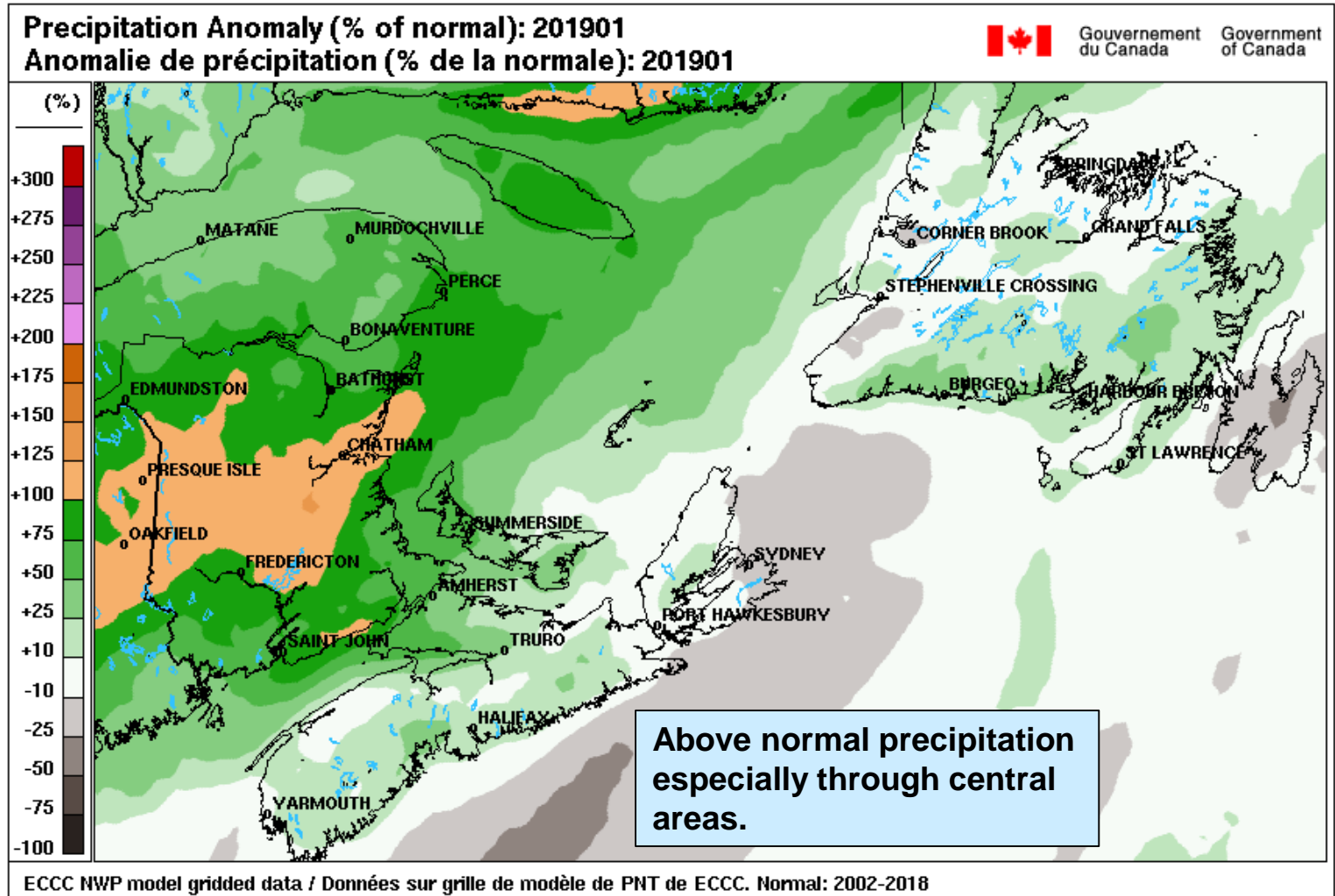
January 2019 Temperature departure from 1981-2010 mean.



January 2019 Total Precipitation



January 2019 Precipitation departure from 1981-2010 mean.



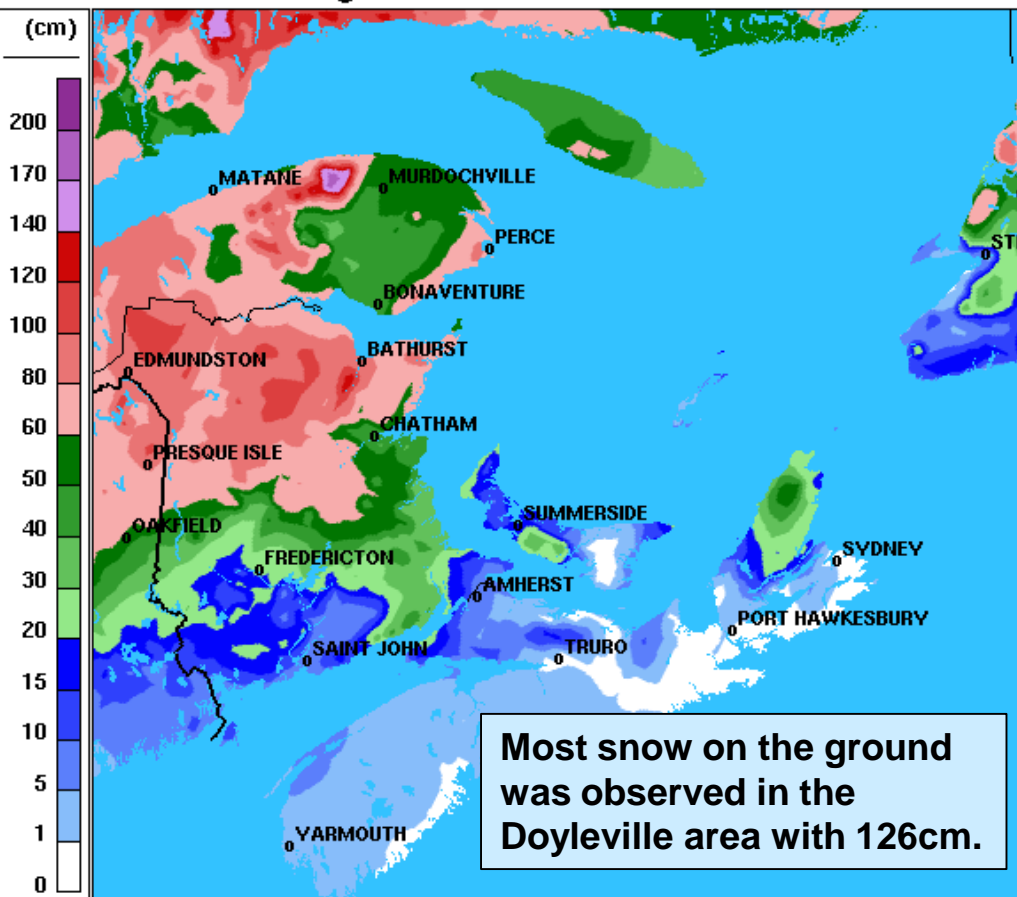
January 2019 Snow depth at month end

Extracted from Canadian computer model

Snow depth, valid 20190131 12UT
Profondeur de la neige, valide 20190131 12TU

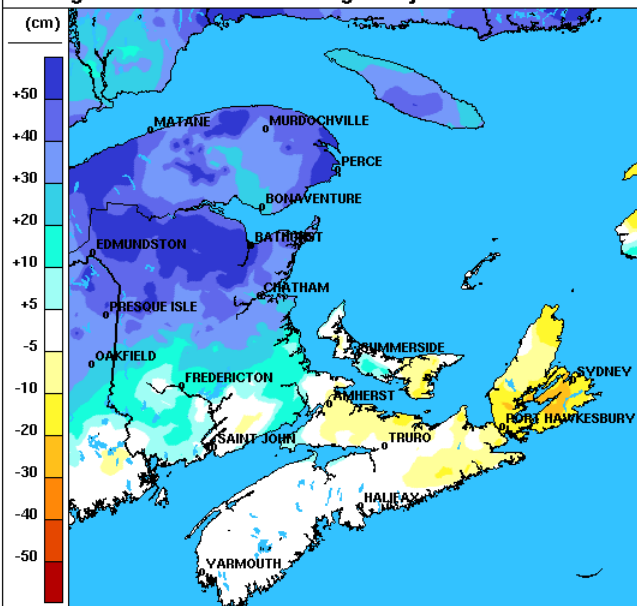


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Snow depth change past month (since Jan. 3)

Snow cover change: 30 dys vld 20190202 06UT
Changement du couvert de neige: 30 jrs vld 20190202 06TU



Data: Environment Canada's RDPS analysis / Données: Analyse du SRPD d'Environnement Canada

Proxy data (ECCC's RDPS analysis) / Données proxy (analyse du SRPD de ECCC)



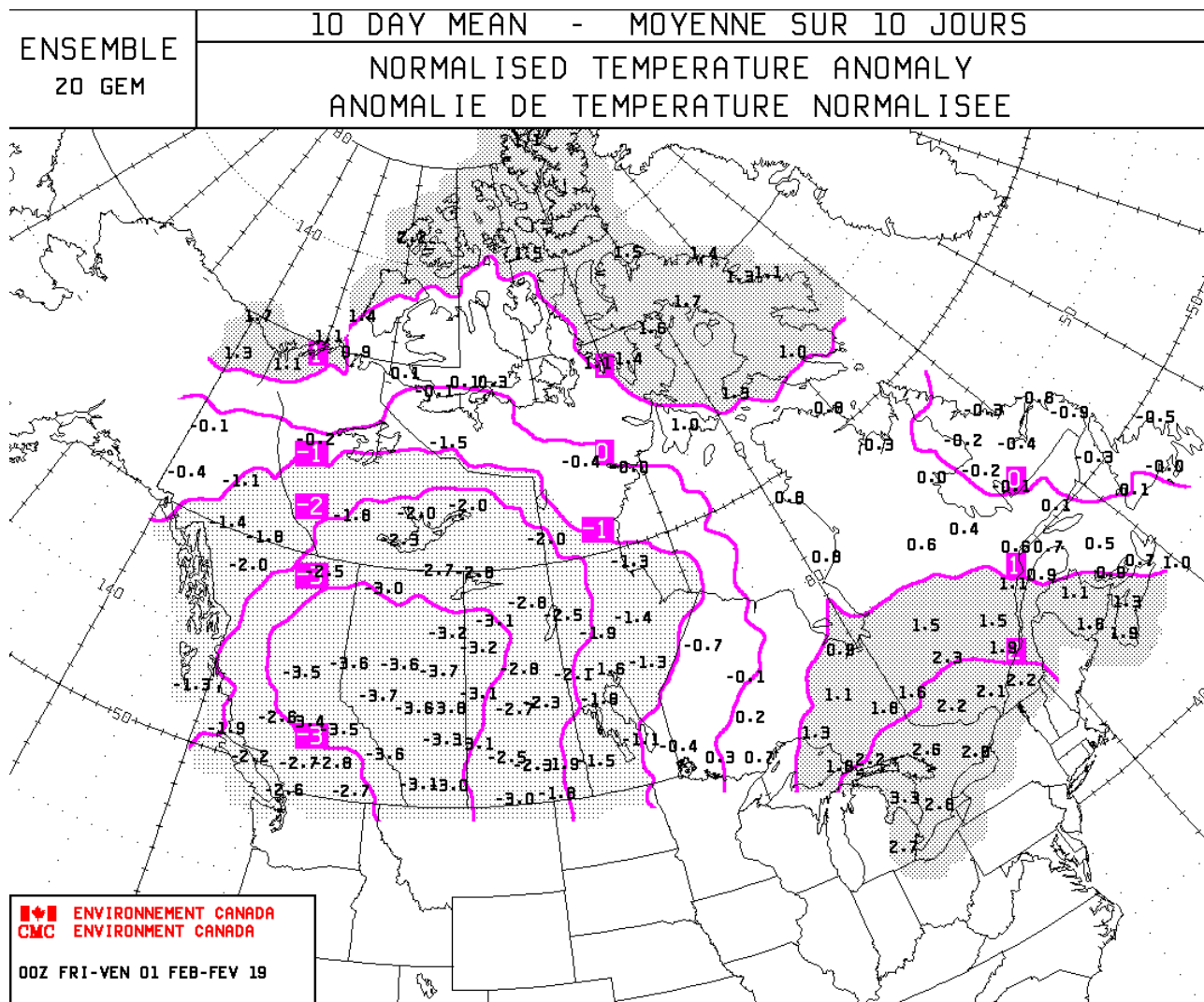
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Outlook - 10 day mean temperature

(Suggesting slightly above normal conditions (+1.0 to +1.8C))



10 day
forecast
ending
February
11, 2019



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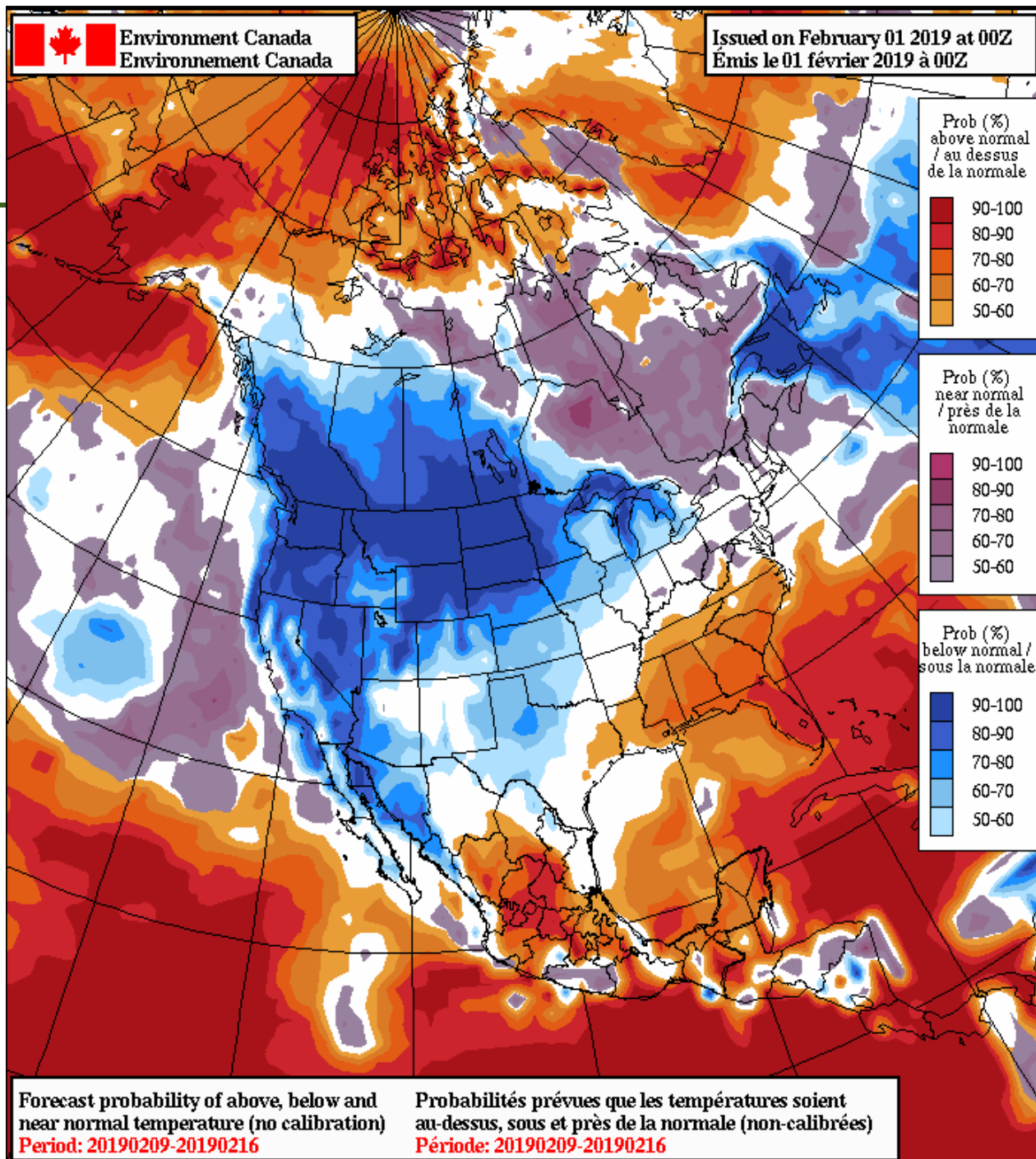
Day 8 to 14 Forecast

Period ending
February 16,
2019

A weak signal of near normal with the exception of a weak signal of below normal over extreme eastern NB.



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Fredericton

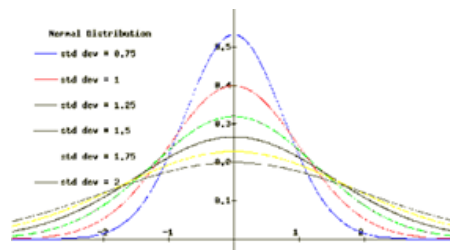
February

Normal high: -2.0C

Normal low: -13.7C

**Next 15 days; ending
February 16, 2019**

For the first few days below normal, then above normal until the 6th, then no real agreement amongst the members for the remainder of the period.



Ensemble and Deterministic Forecasts issued 1 February 2019 00 UTC

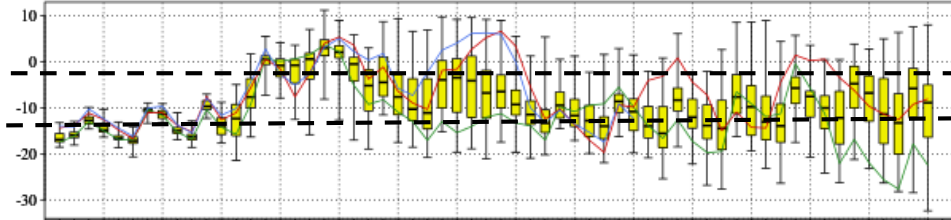
Prévision d'ensemble et déterministe émises le 1 Février 2019 00 UTC

for/pour

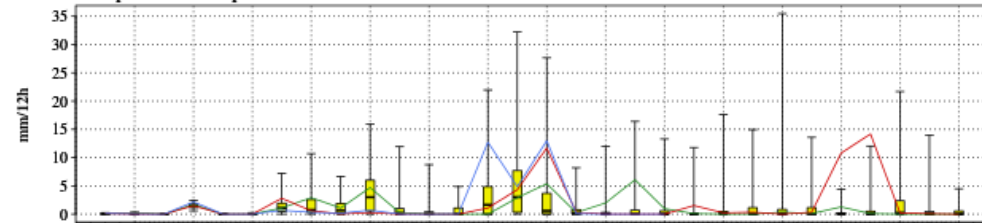
NAEFS / SPENA

FREDERICTON (YFC) 45.87 N 66.53 W/O

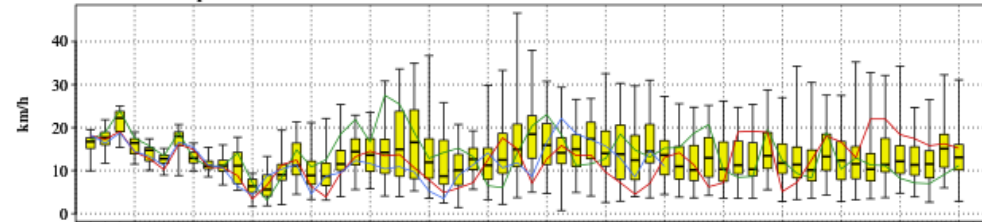
Surface air temperature/Température de l'air à la surface



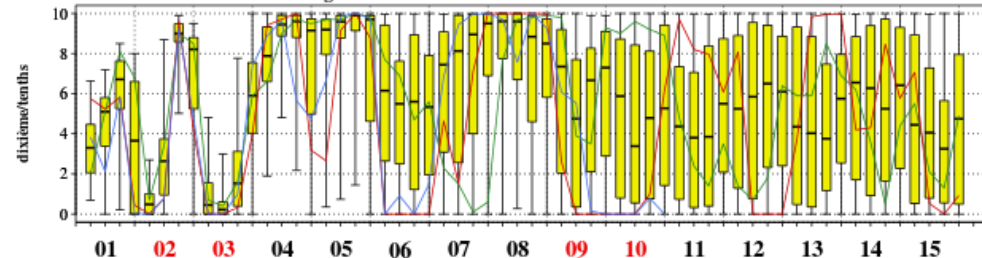
Précipitations/Precipitation



Surface wind speed/Vitesse du vent à la surface



Total cloud cover/Couvert nuageux



February/Février 2019

max
75%
median/médiane
25%
min

Global Model / Modèle global

Control Member / Membre contrôlé CMC

Control Member / Membre contrôlé NCEP

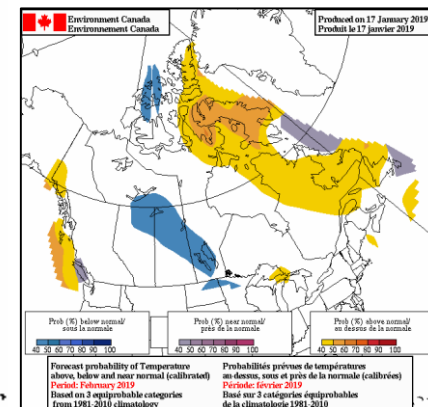


Temperature February 2019

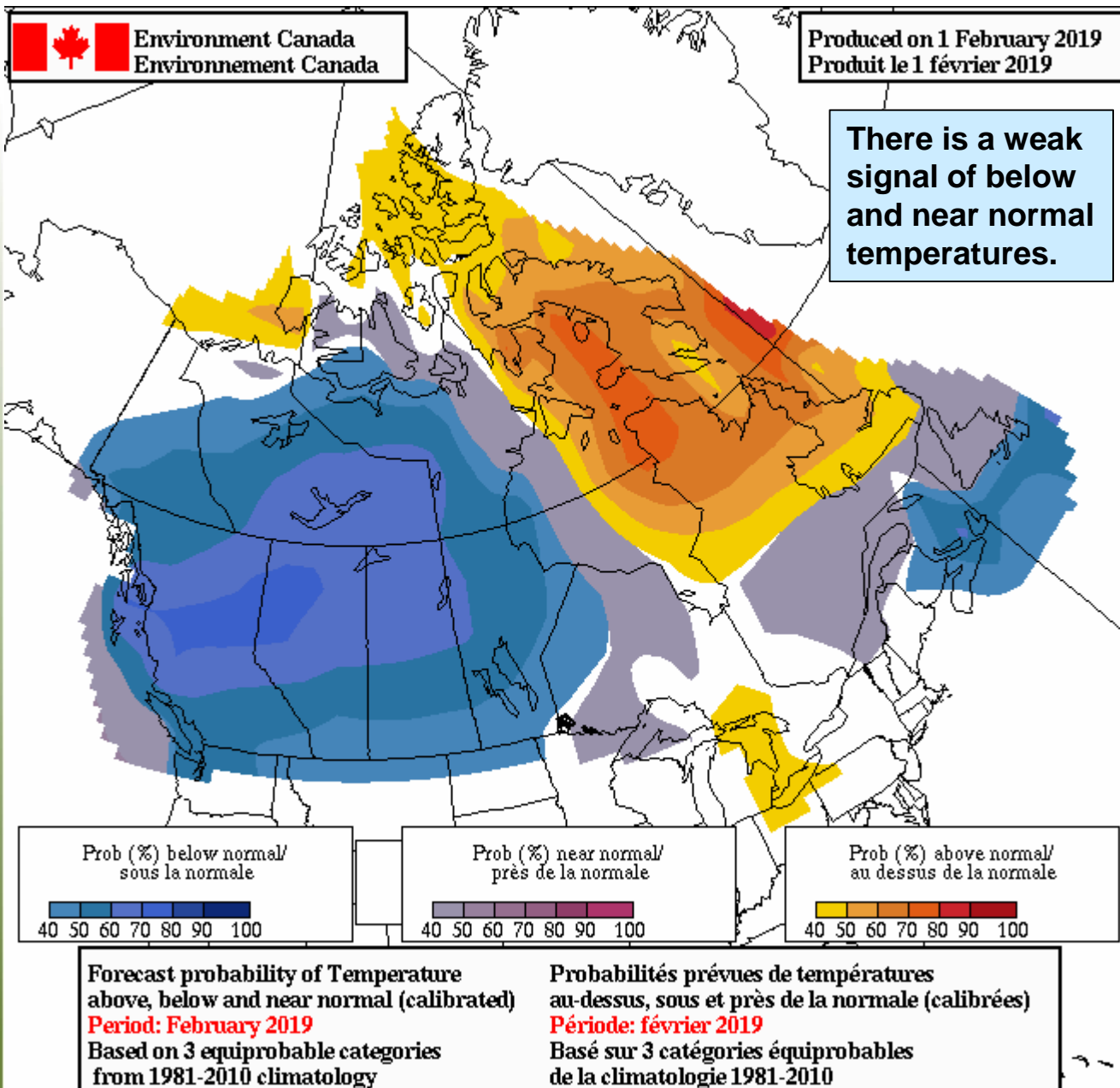
CanSIPS
(Canadian Seasonal and
Interannual Prediction
System)

CanAM3
CanAM4
+
CanOM4

Produced January 17

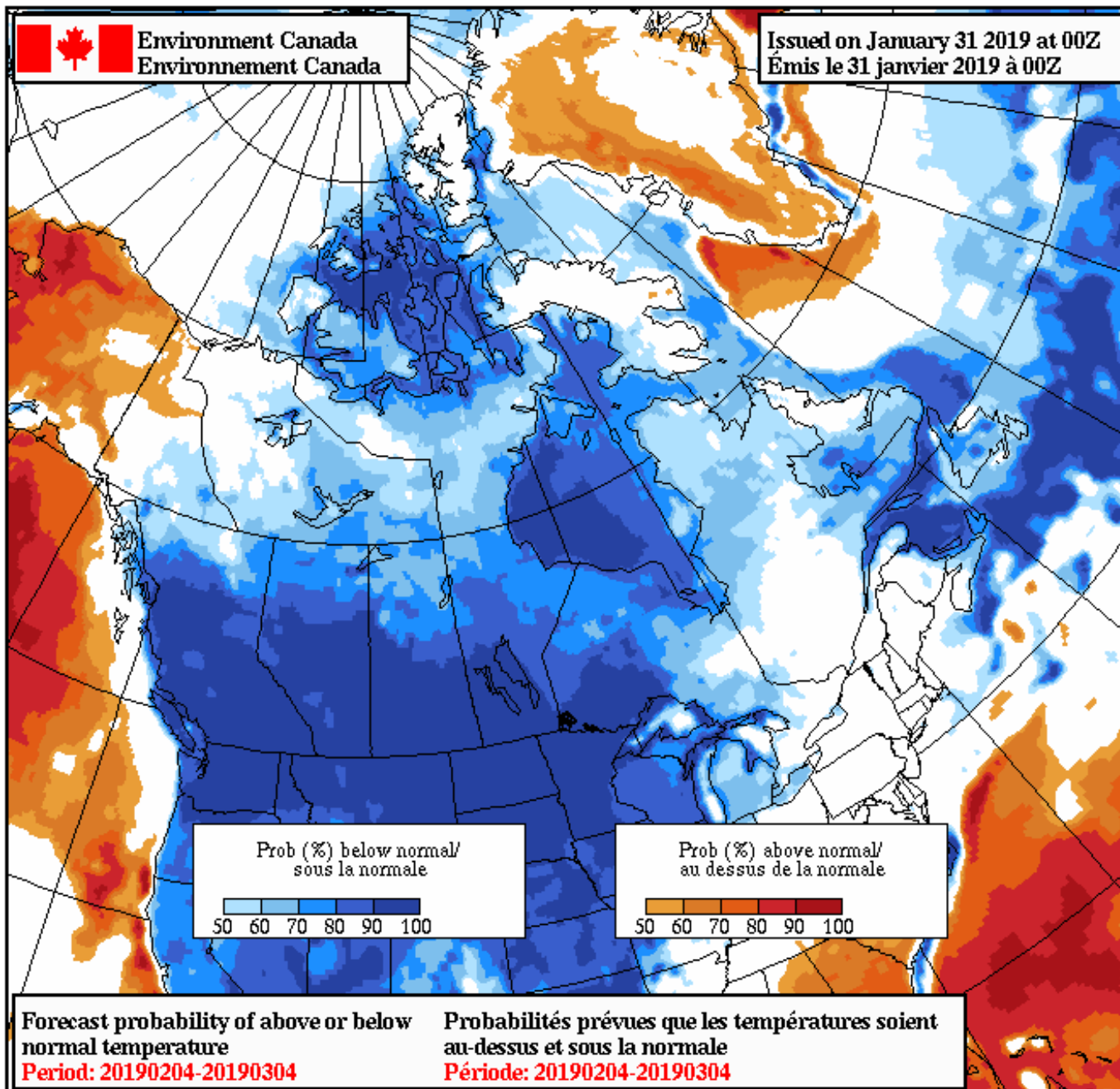


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Temperature February 4 to March 4

CMC
Monthly
Forecast
Product
using GEPS
50km res.

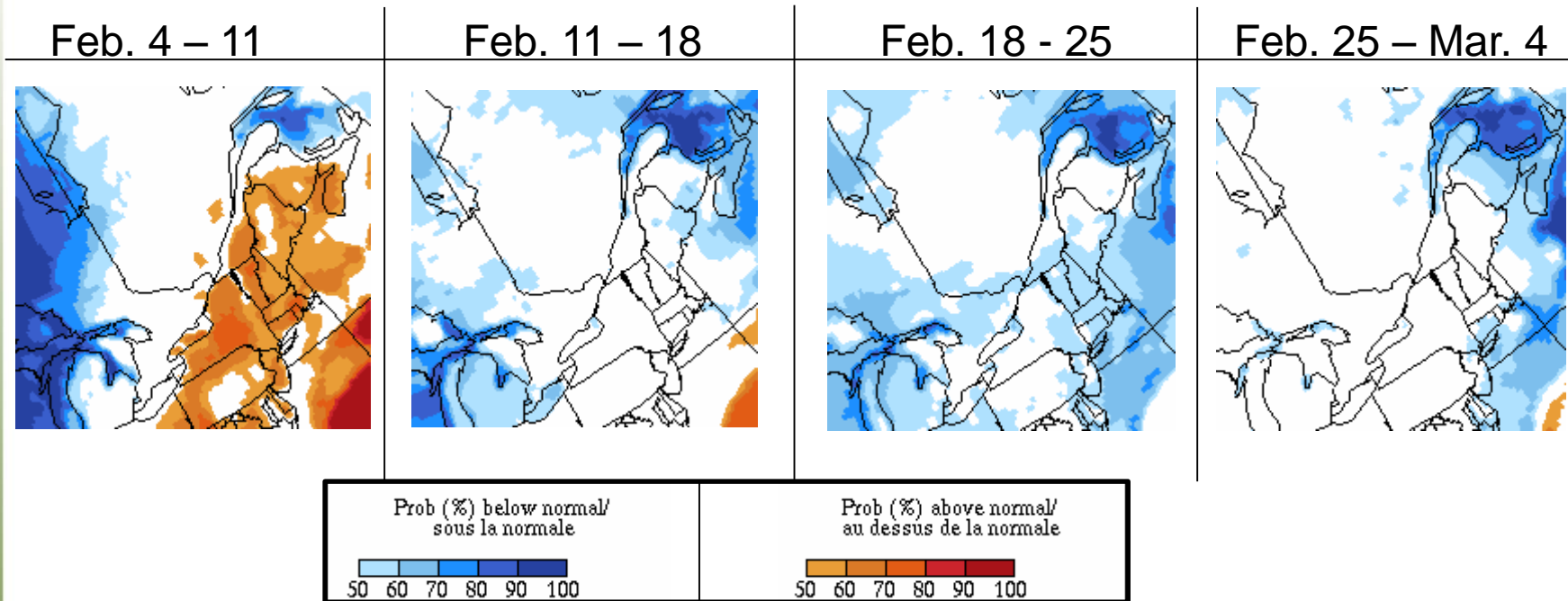


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Weekly signature from GEPS 50km resolution



A weak signal of above normal for the first week then a weak signal of below normal or near normal for the remainder of the period.

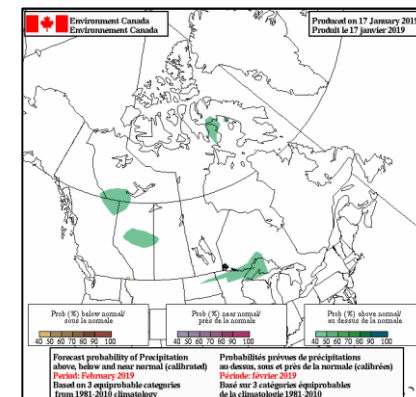


Precipitation February 2019

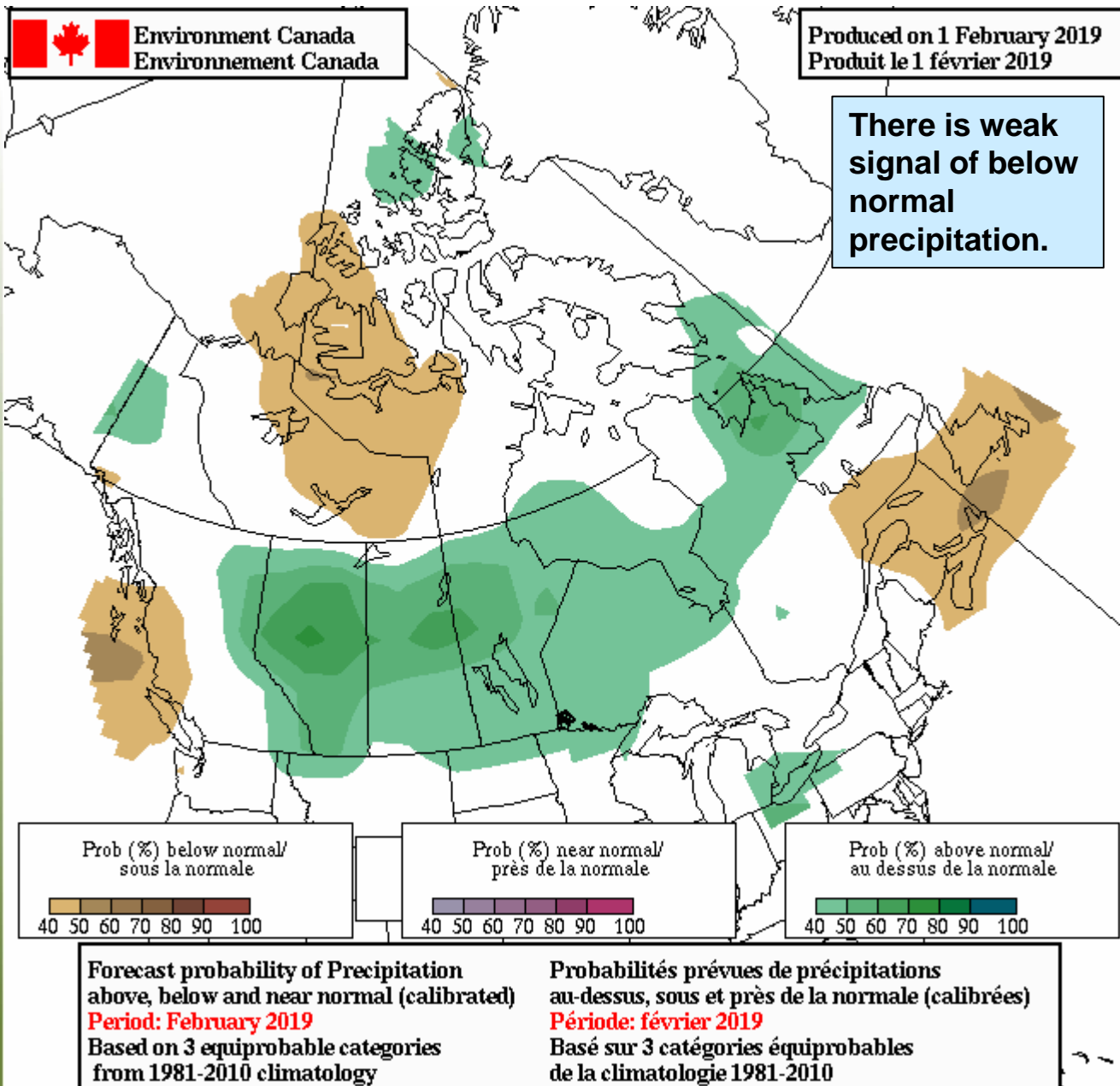
CanSIPS
(Canadian Seasonal and
Interannual Prediction
System)

CanAM3
CanAM4
+
CanOM4

Produced January 17



Canada

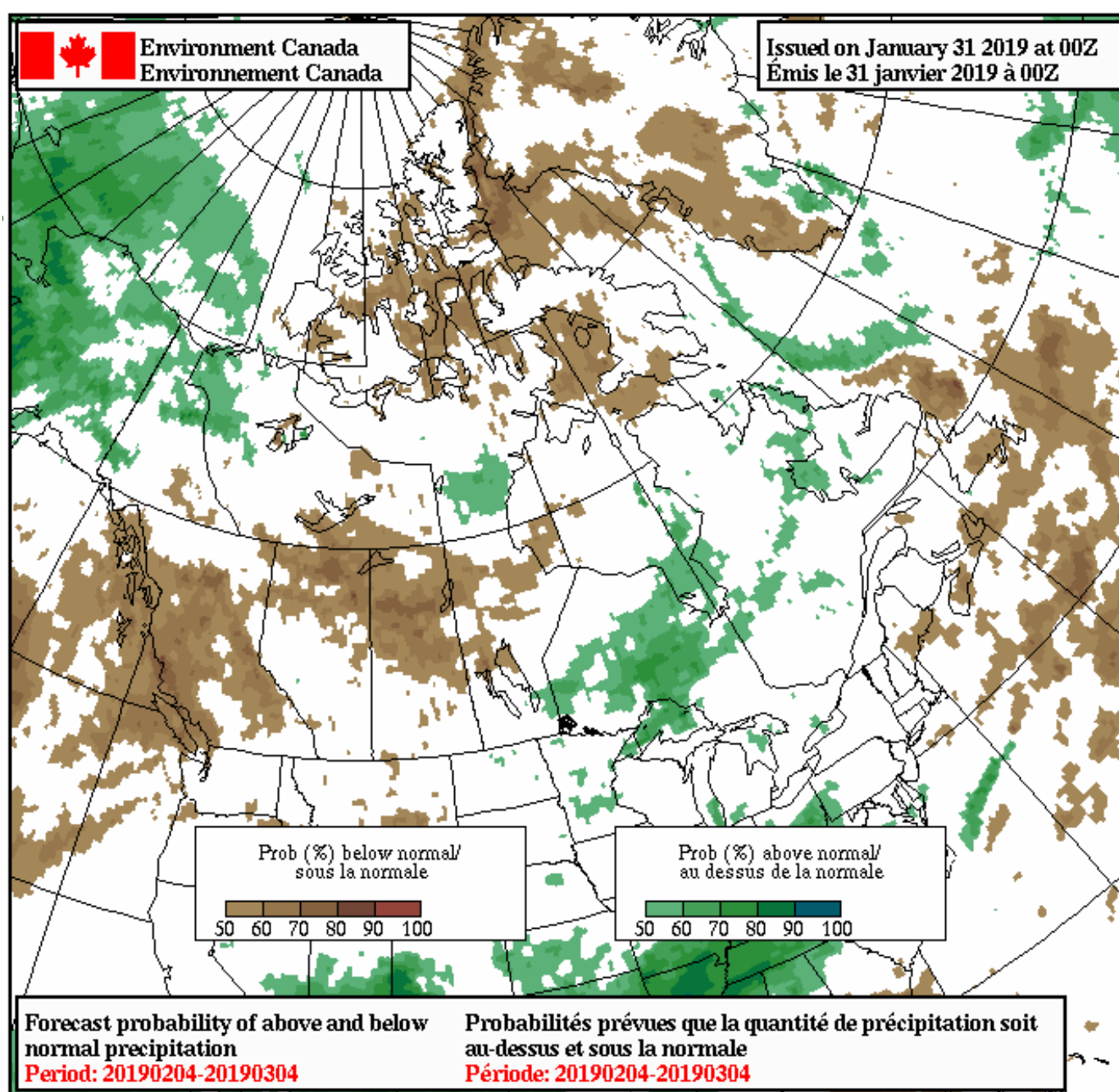


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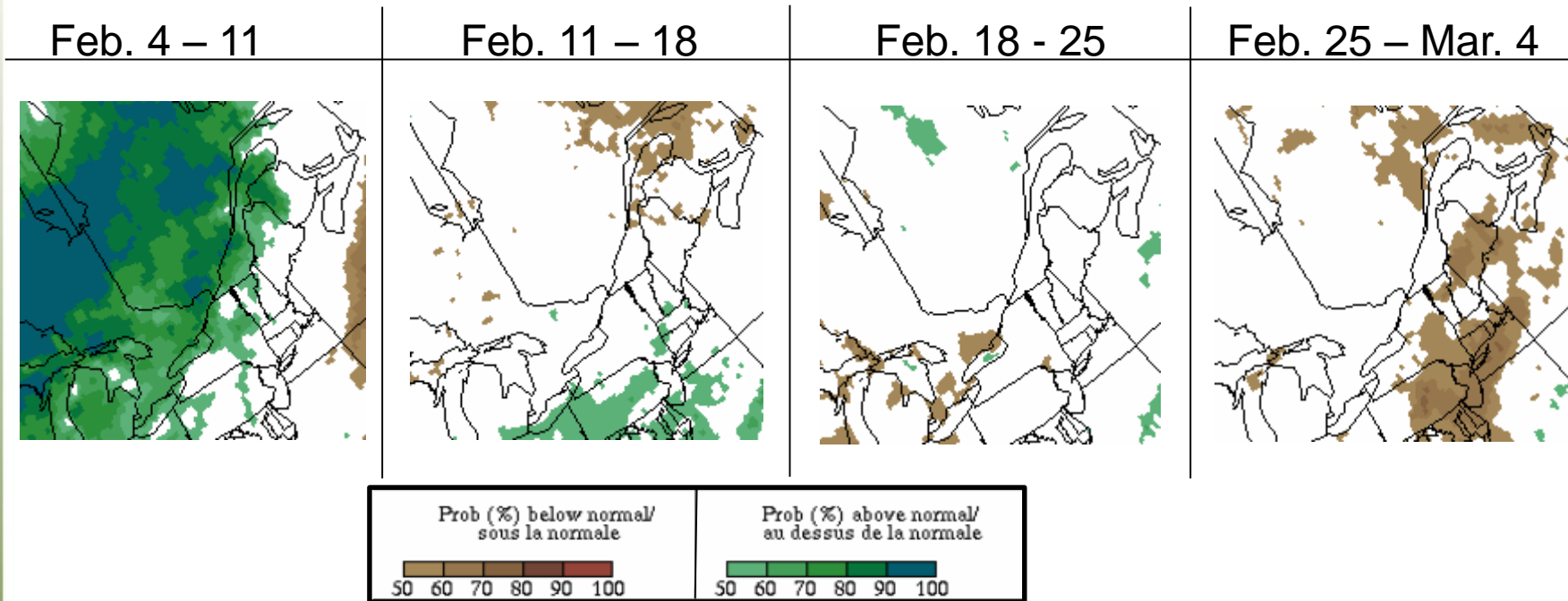
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Precipitation February 4 to March 4

CMC
Monthly
Forecast
Product
using GEPS
50km res.



Weekly signature from GEPS 50km resolution



Overall, there is no conclusive signal due the mixture of conflicting signals.

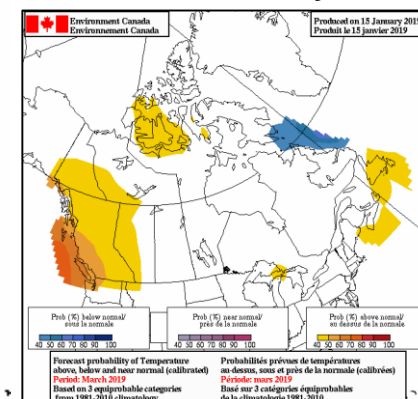


Temperature March 2019

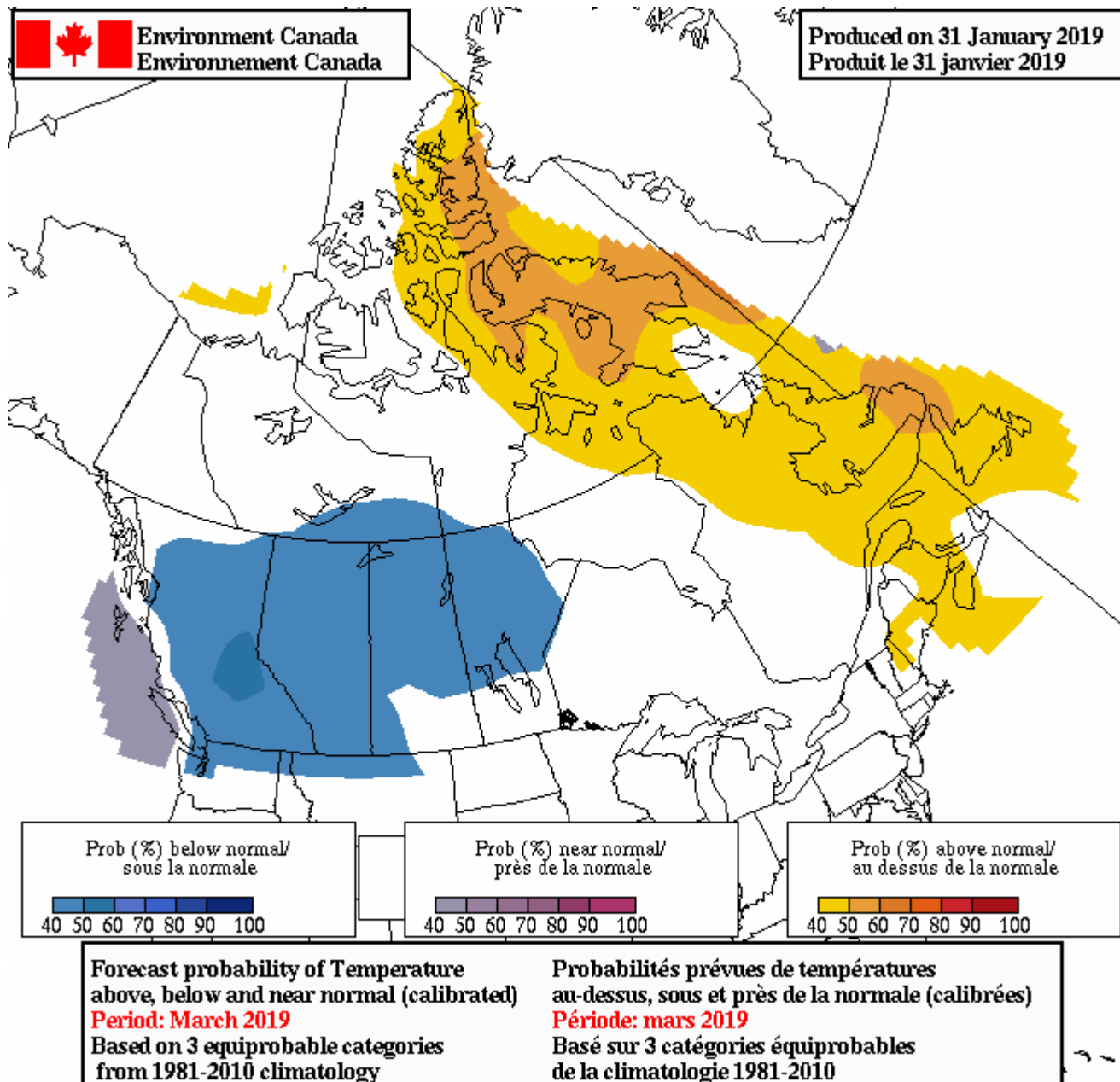
CanSIPS
(Canadian Seasonal and
Interannual Prediction
System)

CanAM3
CanAM4
+
CanOM4

Produced January 15



Canada

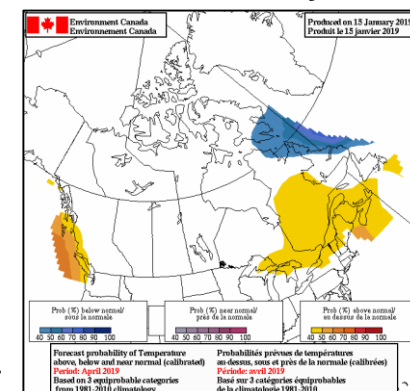


Temperature April 2019

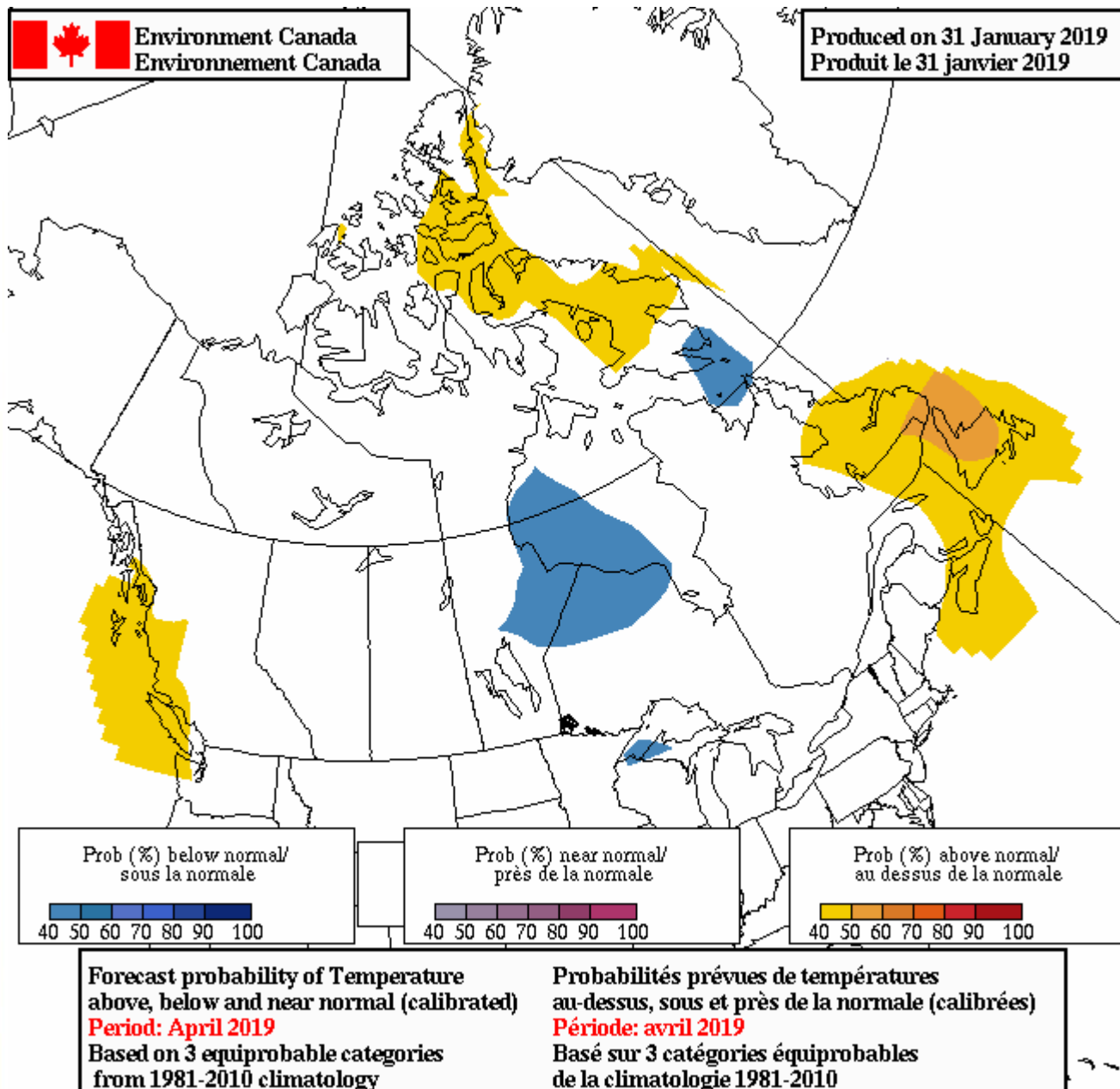
CanSIPS
(Canadian Seasonal and
Interannual Prediction
System)

CanAM3
CanAM4
+
CanOM4

Produced January 15



Canada

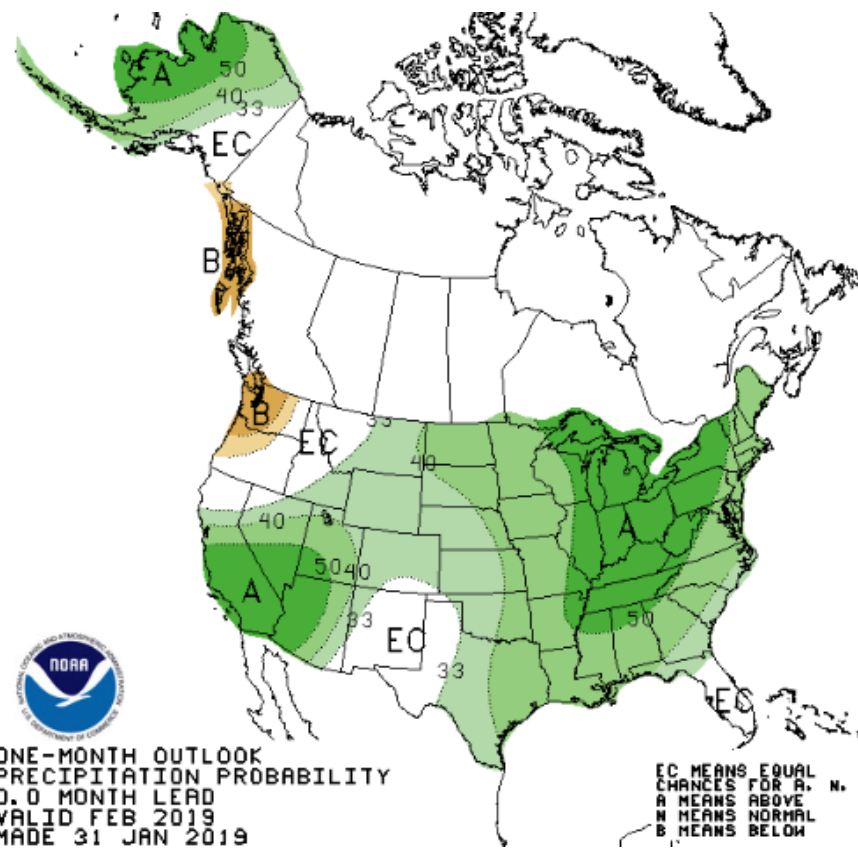
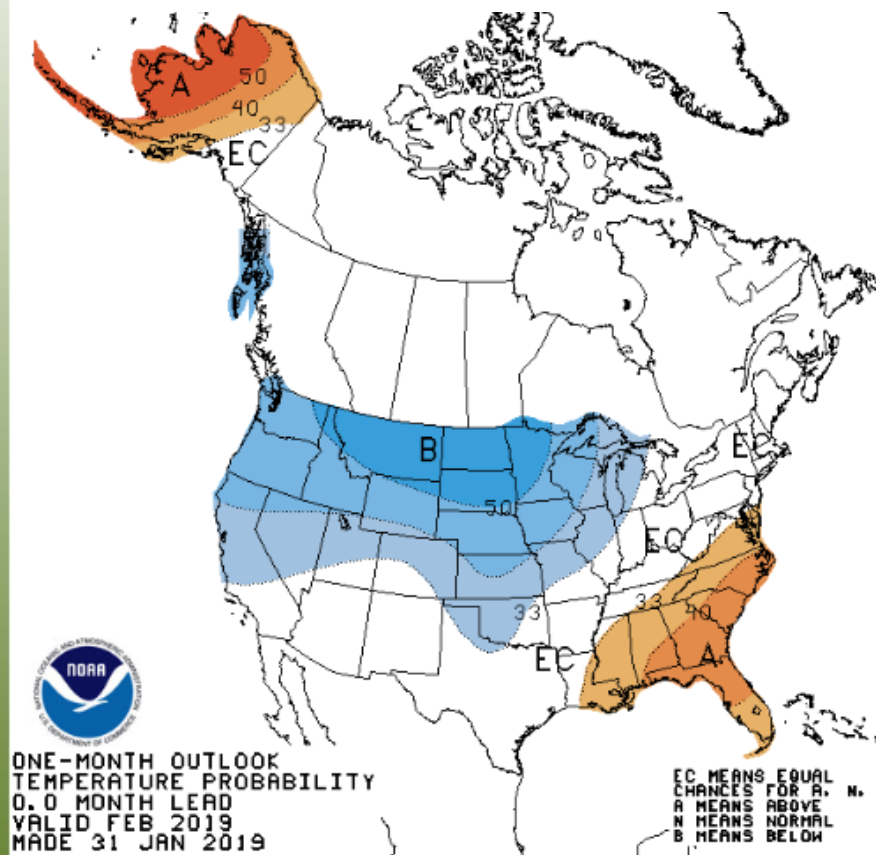




February 2019

Temperature

Precipitation



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Canada Weather Pages

www.weather.gc.ca



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