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Climate Change Canada

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Canada

New Brunswick

April 2019 Review May 2019 and Spring/Summer Outlook

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Environment and Climate Change Canada
May 2, 2019**

April 2019; Climate Summary

Station Name	TC ID	Station Type	Mean Temperature (°C)			Total Precip (mm)			
			Monthly Mean	Normal Mean	Departure from Normal	Monthly Total	Normal Total	Total as % of Normal	Departure from Normal as % of Normal
BAS CARAQUET	WXS	AU8	0.8	1.9	-1.1	132.6	82.6	161	61
BAS CARAQUET		DAILY				121.2	82.6	147	47
BATHURST A	ZBF	NCA	2.2	3.2	-1.0				
BOUCTOUCHE CDA CS	ABT	AU8	3.3	3.0	0.3	182.5	85.7	213	113
CHARLO AUTO	ZCR	AU8	1.3	1.9	-0.6	123.2	71.7	172	72
MIRAMICHI RCS	ACQ	AU8	2.9	3.2	-0.3	106.5	84.9	125	25
DOAKTOWN AUTO RCS	ADN	AU8	2.9	3.7	-0.8	153.4	83.4	184	84
EDMUNDSTON	ERM	AU8	1.9	3.0	-1.1	89.8	58.2	154	54
FREDERICTON INTL A	YFC	NCA	4.2	4.5	-0.4				
FREDERICTON CDA CS	AFC	AU8	4.1	4.8	-0.7	163.6	81.6	200	100
FUNDY PARK (ALMA) CS	AFY	AU8	3.8	4.1	-0.2				
GAGETOWN AWOS A	YCX	AU5	4.2	4.8	-0.6	118.0	89.4	132	32
GRAND MANAN SAR CS	XGM	AU8	4.2			163.0			
KOUCHIBOUGUAC	AKC	AU8	2.6	3.3	-0.6	160.5	106.9	150	50
MECHANIC SETTLEMENT	AMS	AU8	2.1			207.9			
MISCOU ISLAND (AUT)	WMI	AU8	0.6						
MONCTON INTL A	YQM	NCH	3.6	3.5	0.0	183.7	97.6	188	88
POINT LEPREAU CS	WPE	AU8	4.3	4.0	0.2	183.2	116.0	158	58
RED PINES	ARP	AU8	1.8	2.8	-0.9	125.8	75.6	166	66
SAINT JOHN A	YSJ	NCH	3.7	3.7	0.0	212.3	105.3	202	102
ST. STEPHEN	WSS	AU8	4.8			131.0			
SUSSEX FOUR CORNERS	ASF	AU8	4.2	4.8	-0.5	153.7	89.7	171	71
WOODSTOCK		DAILY	3.7	3.7	0.0	146.2	80.4	182	82
WOODSTOCK NEWBRIDGE	EWD	AU8	3.4	3.7	-0.4	131.2	80.4	163	63
Average			3.1	3.6	-0.5	149.5	86.6	169	69
Max			4.8	4.8	0.3	212.3	116.0	213	113
Min			0.6	1.9	-1.1	89.8	58.2	125	25

Highlights:

The average temperature was slightly below normal (-0.5C). Most sites reported a negative anomaly with Edmundston and Bas Caraquet reporting the largest negative anomaly at -1.1C below normal.

Total precipitation amounts were much above normal, with an average of 169% of total precipitation. Fredericton CDA and Bouctouche had their wettest April's on record. Several other southern sites were also in the top 4 wettest. In addition, snowfall was up to two times the normal over western sections.

April 2019; Climate Summary

Events:

Apr. 3; A spring storm brought significant precipitation amounts to most areas of the province. Precipitation amounts ranged from 20-30 mm with extreme amounts occurring at Bas Caraquet with 30 cm of snow and 43 mm of rain at Mechanic Settlement.

Apr. 4; Strong westerly winds behind the storm on the 3rd affected most of the province but were the strongest in the northeast. Miscou Island recorded a wind gust of 100 km/h.

Apr. 8-9; A weak system brought snow (5-12 cm) mainly to the southern half of the province. The most snow was reported at Grand Manan with 15 cm.

Apr. 15-16; Rain fell across the province but was heaviest along the Bay of Fundy. Saint John reported the most rain at 42 mm.

Apr. 18-21; A series of systems brought rain to the province over several days giving generally 30-50 mm with Little River Hill receiving the most rain at 64 mm.

Apr. 20; Flood Saint John River at Fredericton surpassed flood stage at 6.5 m along with several communities along the Saint John River basin through the end of the month.

Apr. 26-27; Rain event. Generally 15-25 mm fell across the province with the exception of the southwest which received 30-35 mm.

Days with thunderstorm activity (lightning) in New Brunswick; 15 26 27

Days with temperature records broken or tied in New Brunswick; 21
(red=maximum, blue=minimum)



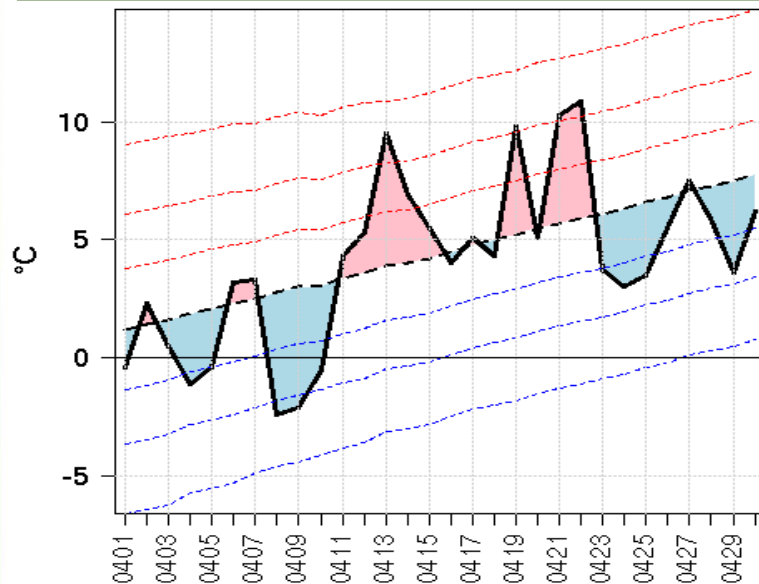
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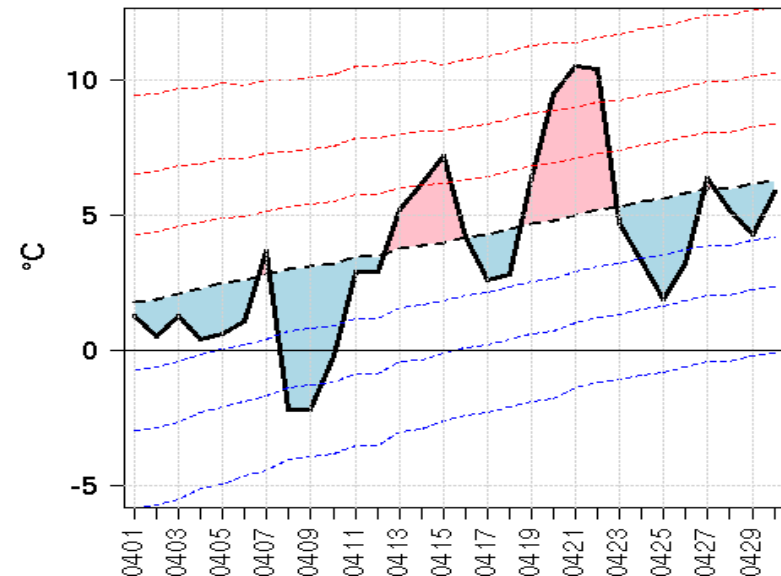
April 2019 - Temperature

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



Fredericton (and area)

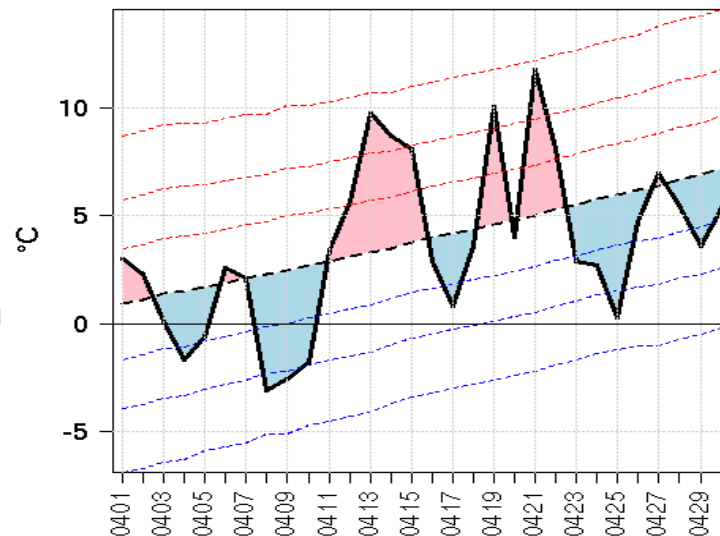
Fredericton was slightly below normal



Saint John

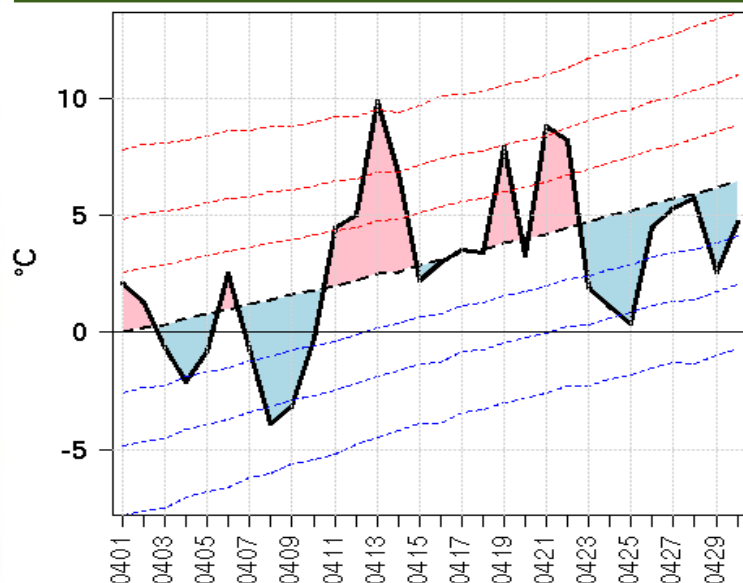
Moncton and Saint John were near normal

Moncton

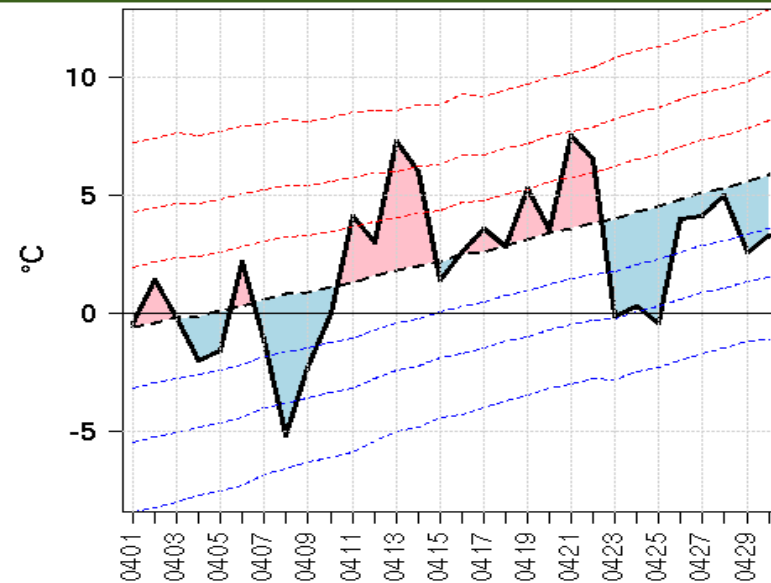


April 2019 - Temperature

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



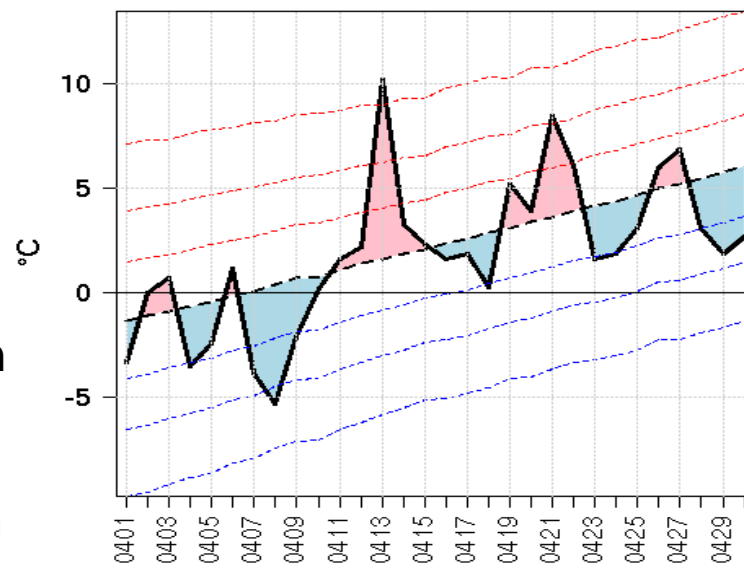
Miramichi



Bathurst

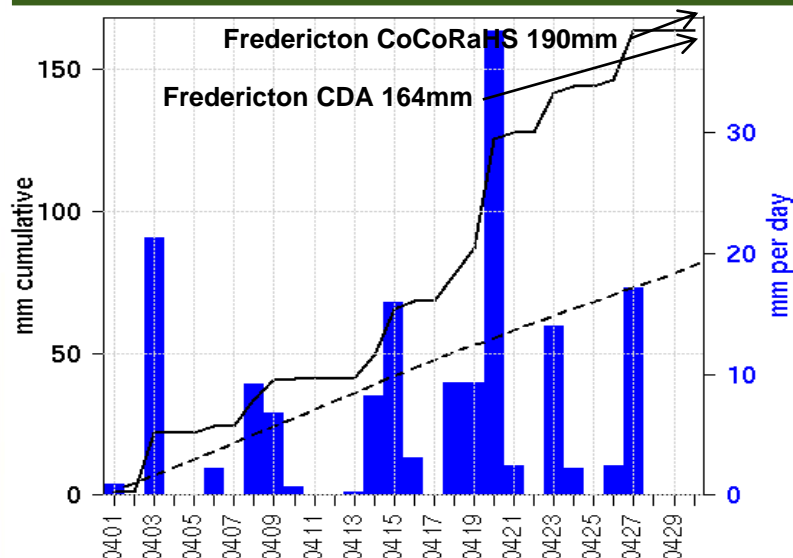
All sites were
below normal

Edmundston

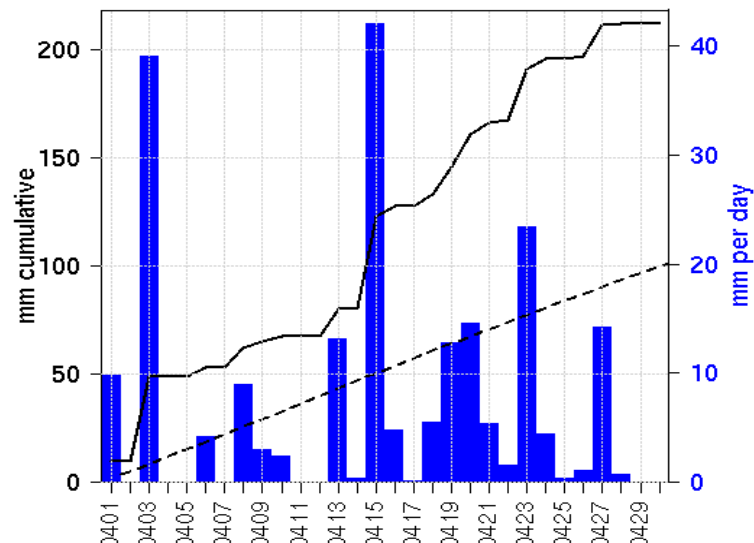


April 2019 - Precipitation

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



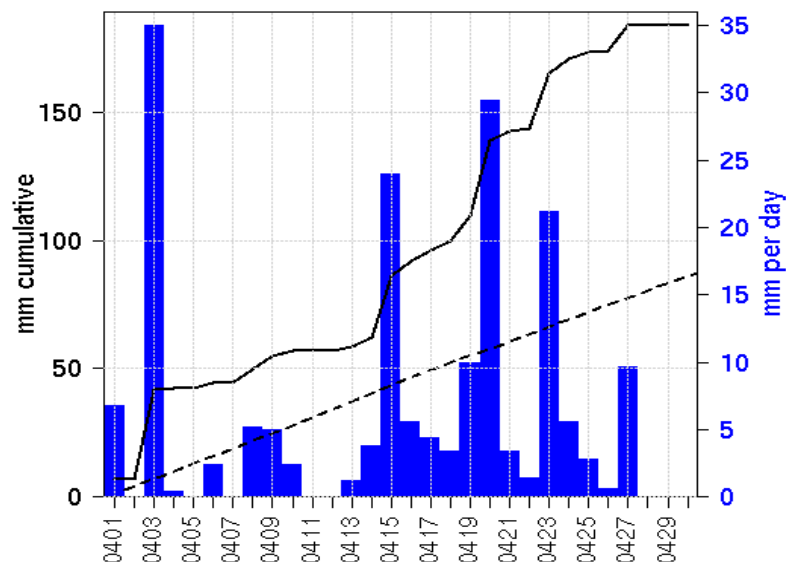
Fredericton (and area)



Saint John

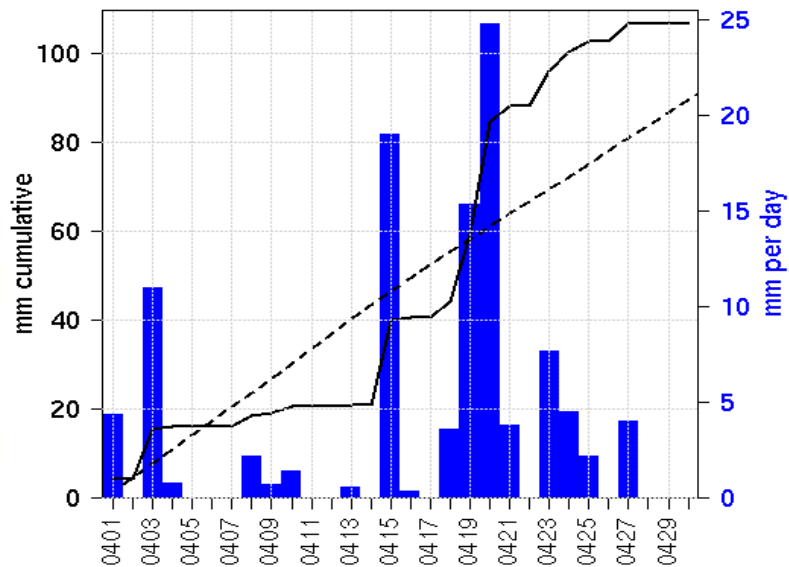
All sites were
above normal

Moncton



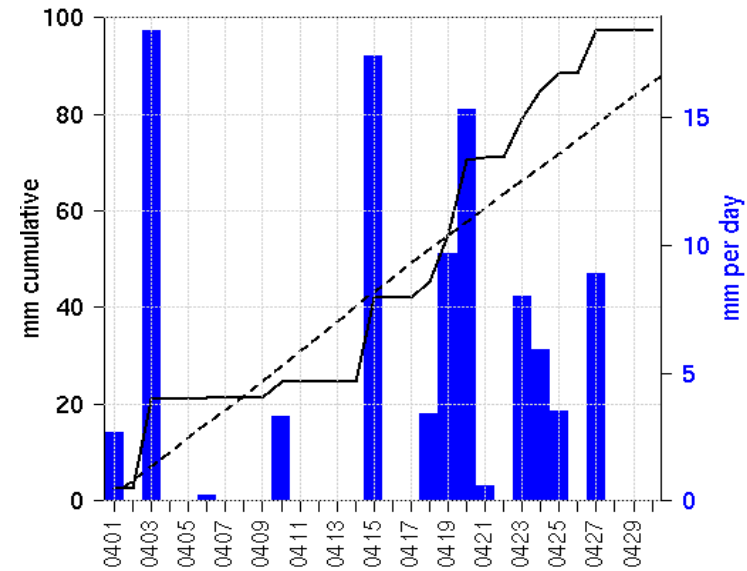
April 2019 - Precipitation

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



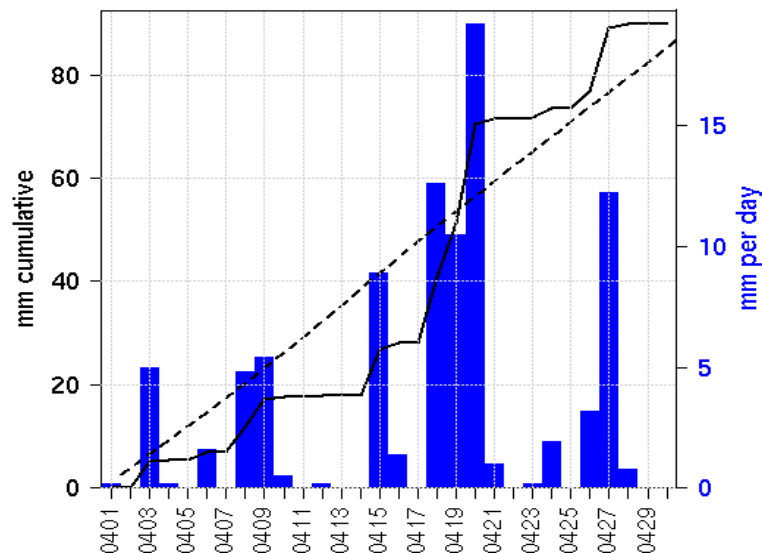
Miramichi

All sites were
above normal



Bathurst

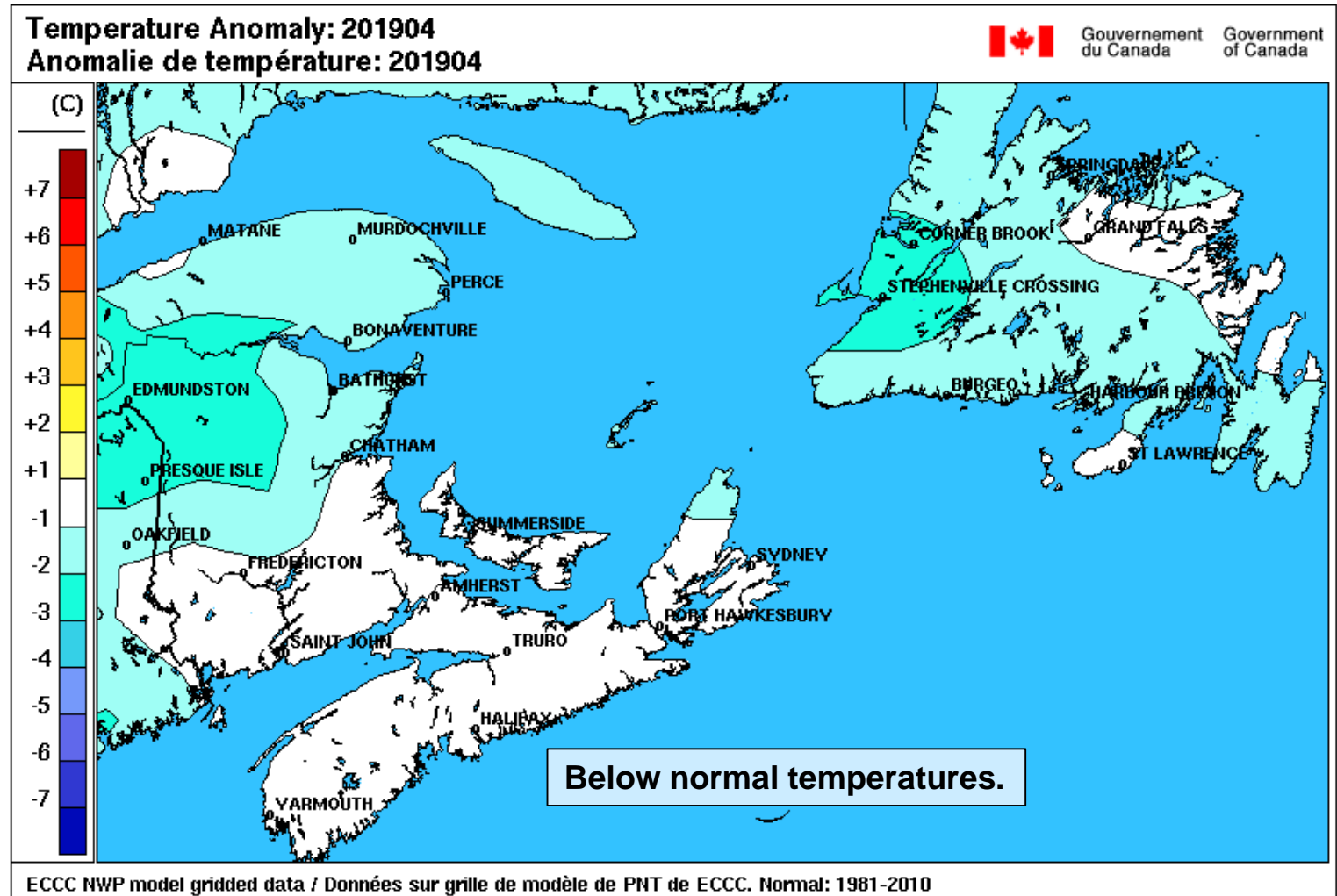
Edmundston



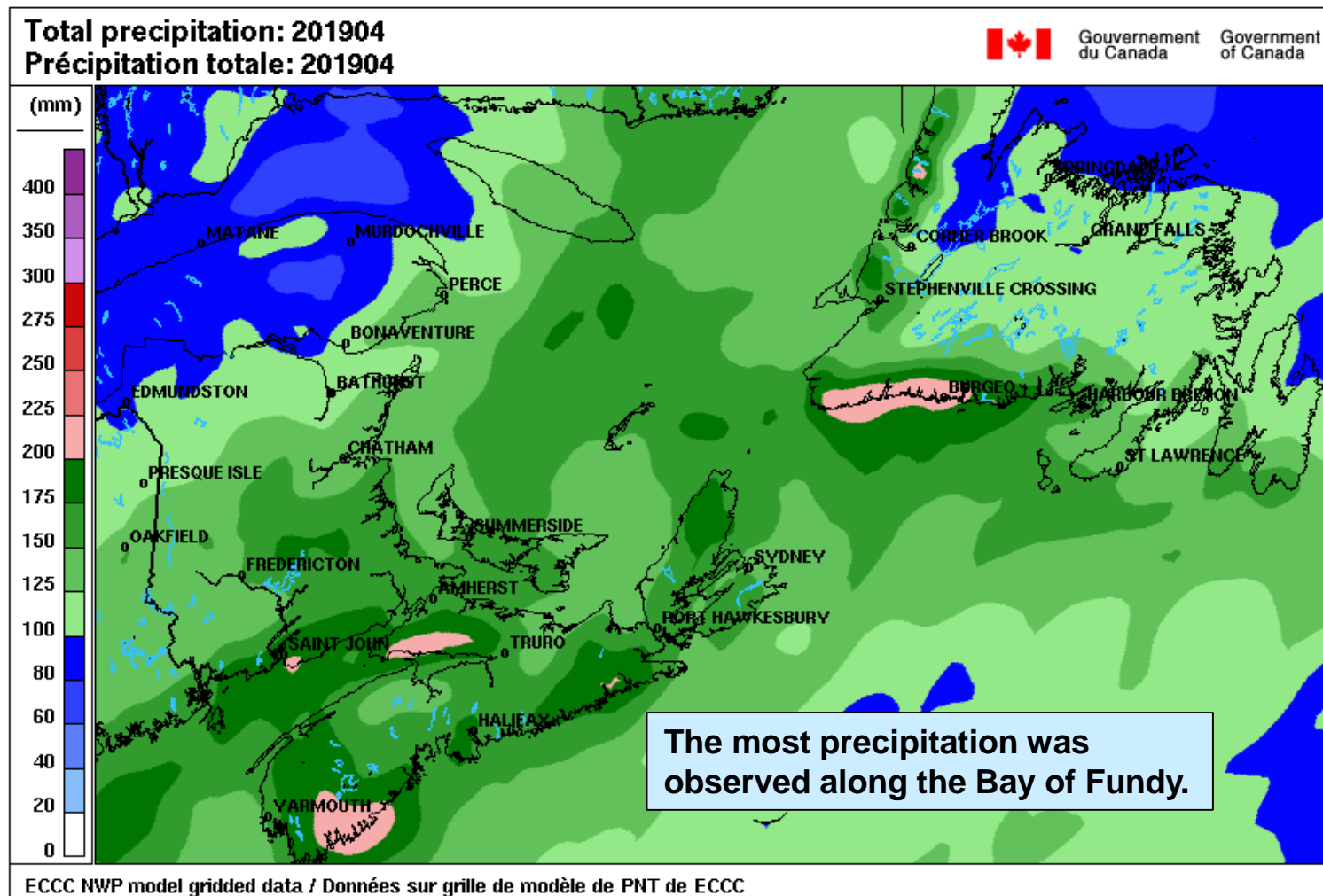
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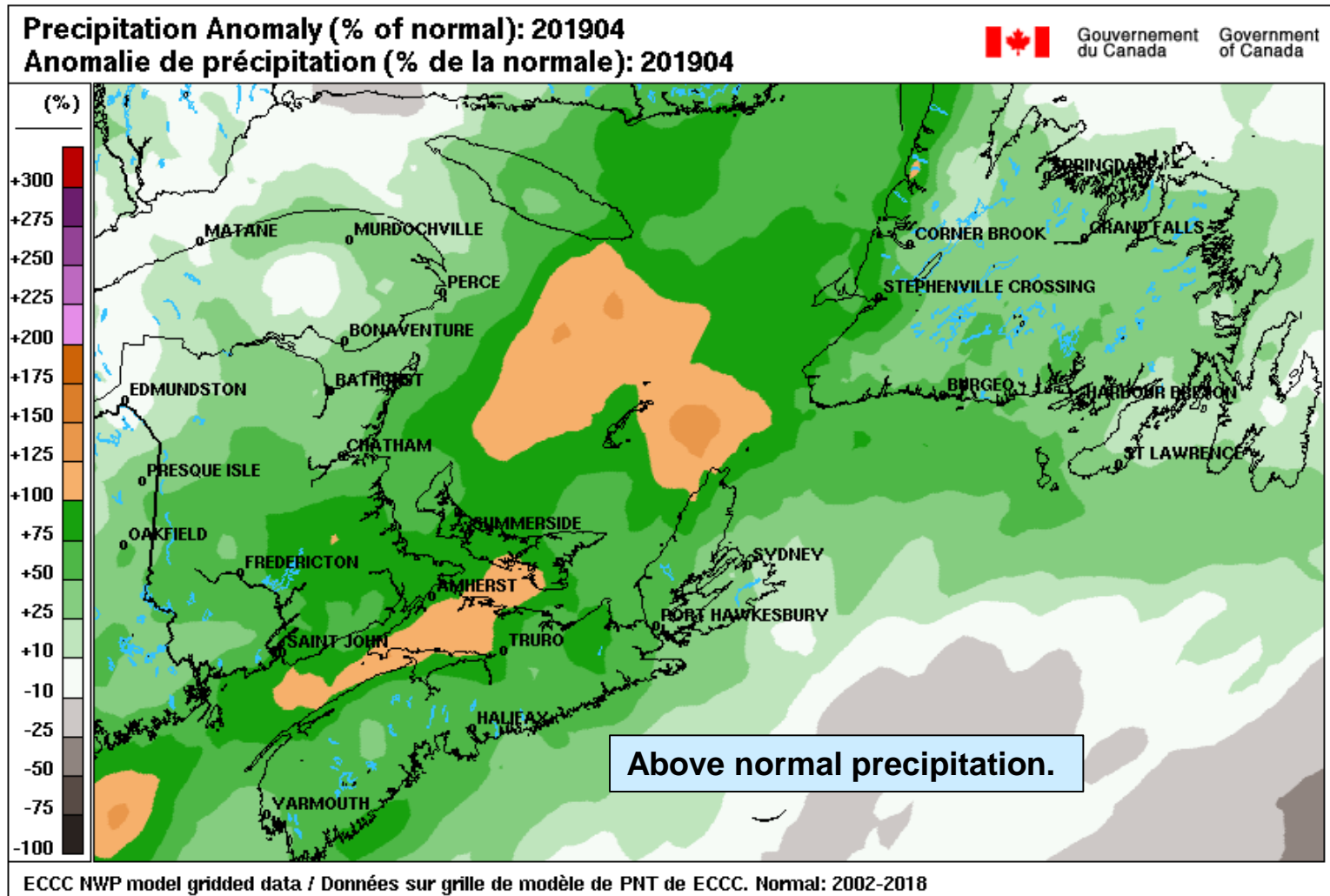
April 2019 Temperature departure from 1981-2010 mean.



April 2019 Total Precipitation

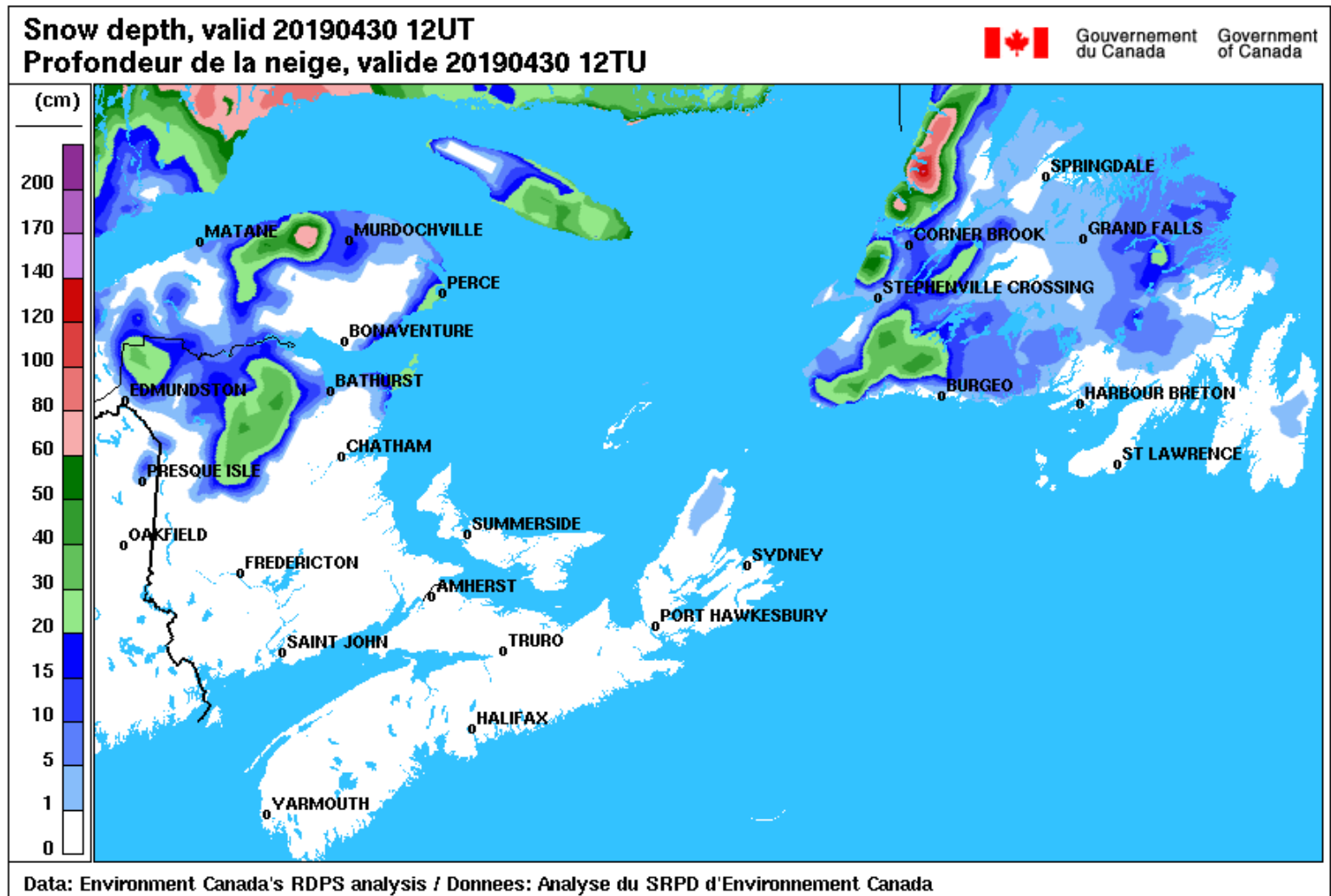


April 2019 Precipitation departure from 1981-2010 mean.



April 2019 Snow depth at month end

Extracted from Canadian computer model



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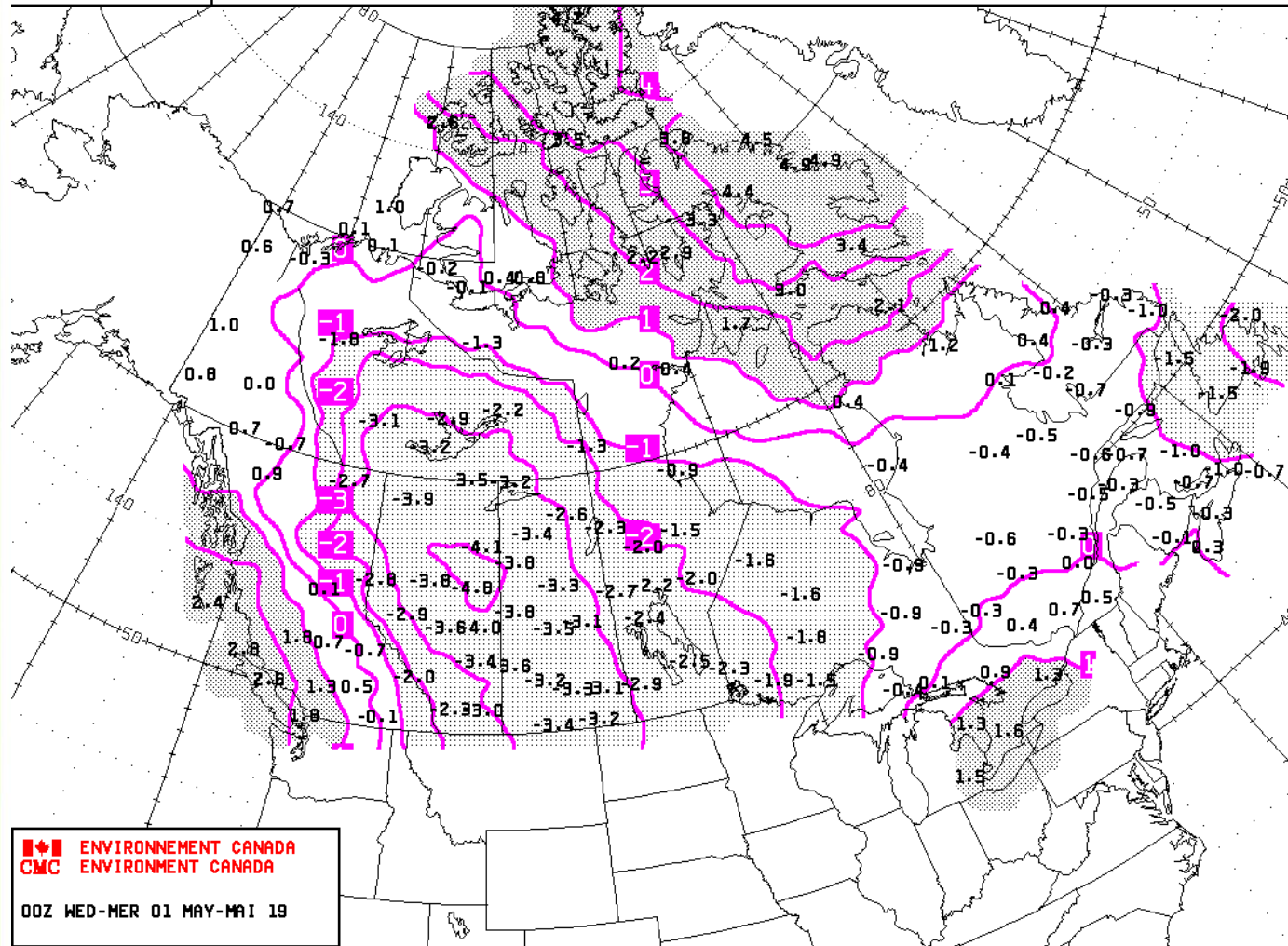
Outlook - 10 day mean temperature

(Suggesting slightly below normal conditions (-0.1 to -0.5C))

ENSEMBLE
20 GEM

10 DAY MEAN - MOYENNE SUR 10 JOURS

NORMALISED TEMPERATURE ANOMALY
ANOMALIE DE TEMPERATURE NORMALISEE



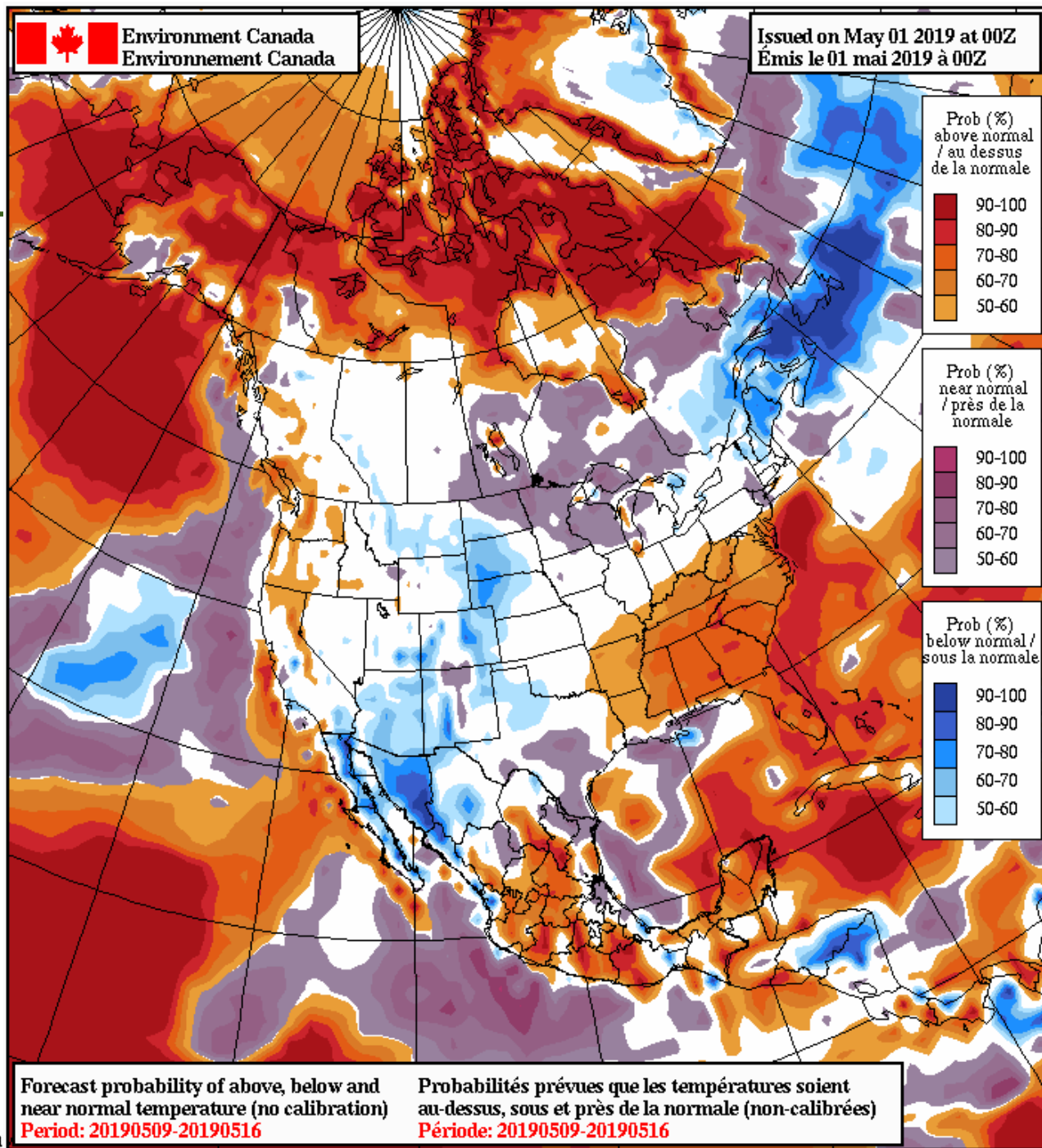
**10 day
forecast
ending
May 11,
2019**

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Day 8 to 14 Forecast

Period ending
May 16, 2019

A weak to moderate
signal of below normal
temperatures.





Fredericton

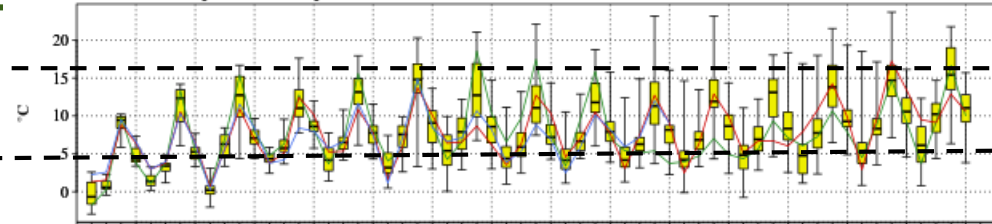
Ensemble and Deterministic Forecasts issued 1 May 2019 00 UTC
Prévision d'ensemble et déterministe émises le 1 Mai 2019 00 UTC
for/pour

NAEFS / SPENA

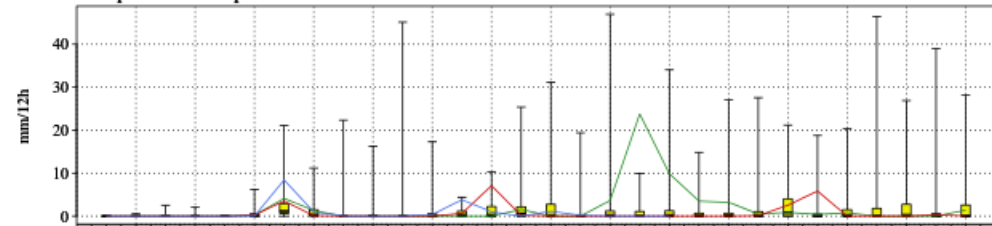
FREDERICTON (YFC) 45.87 N 66.53 W/O

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

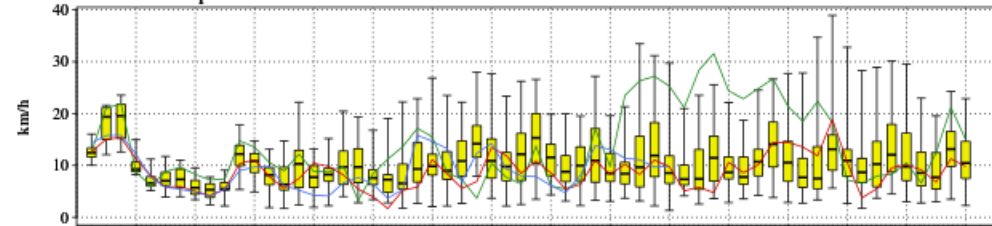
May
Normal high: 17.6C
Normal low: 4.6C



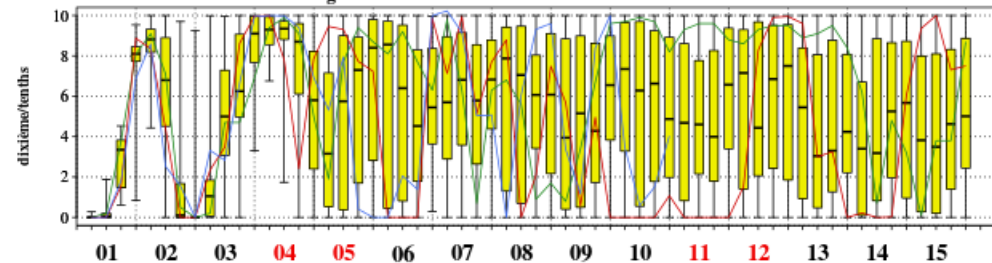
Précipitations/Precipitation



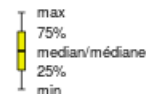
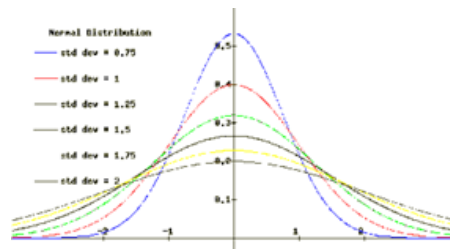
Surface wind speed/Vitesse du vent à la surface



Total cloud cover/Couvert nuageux



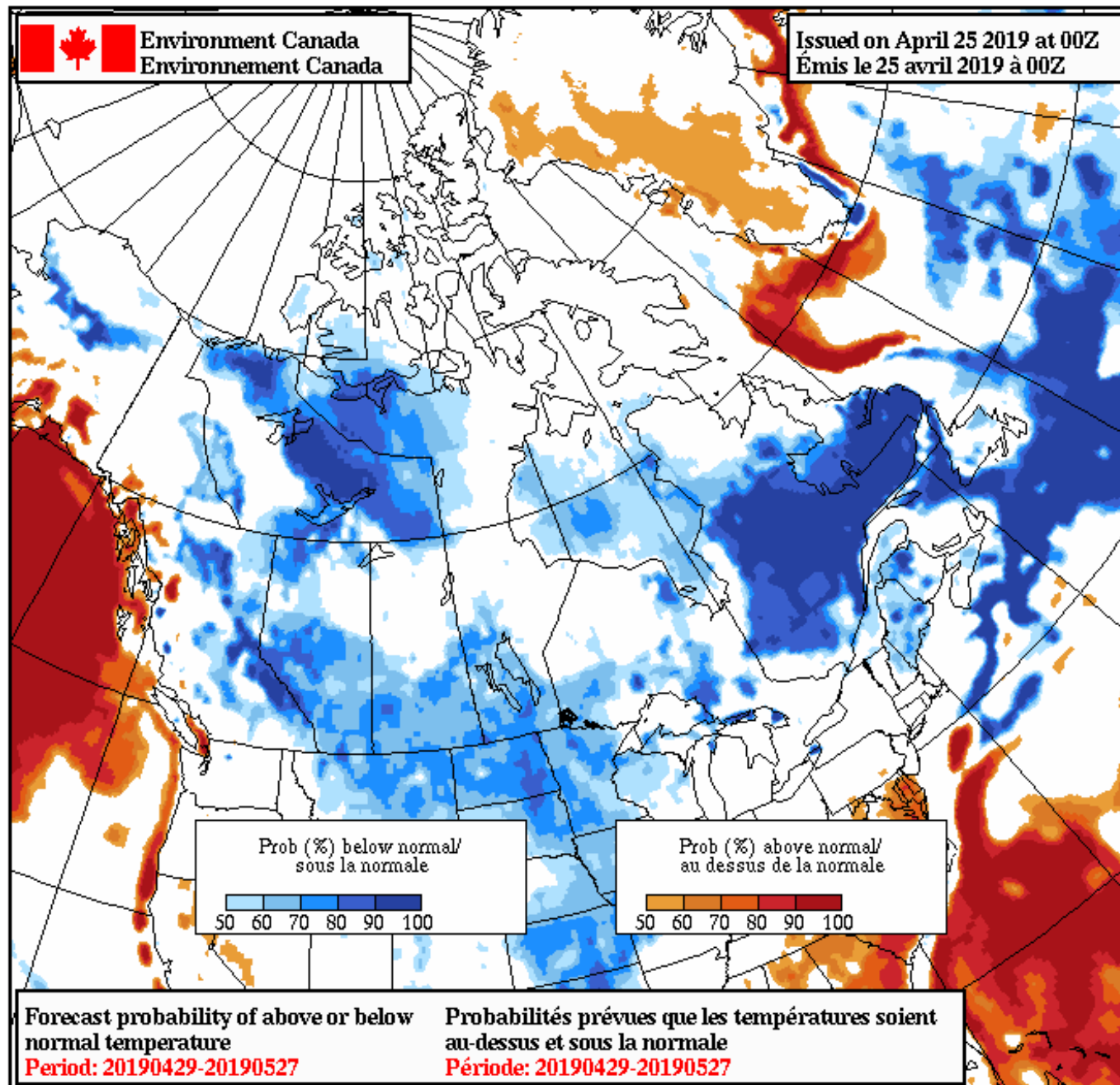
May/Mai 2019



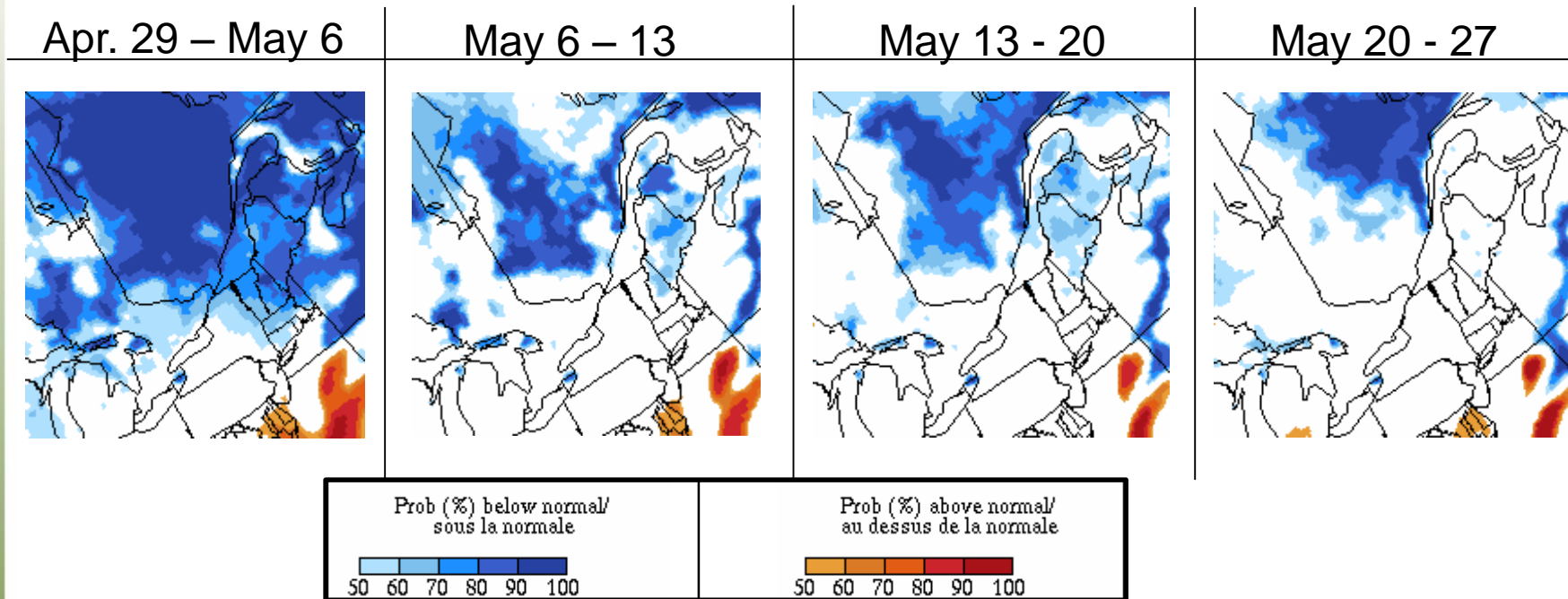
Global Model / Modèle global
Control Member / Membre contrôlé CMC
Control Member / Membre contrôlé NCEP

Temperature April 29 to May 27

CMC
Monthly
Forecast
Product
using GEPS
50km res.



Weekly signature from GEPS 50km resolution

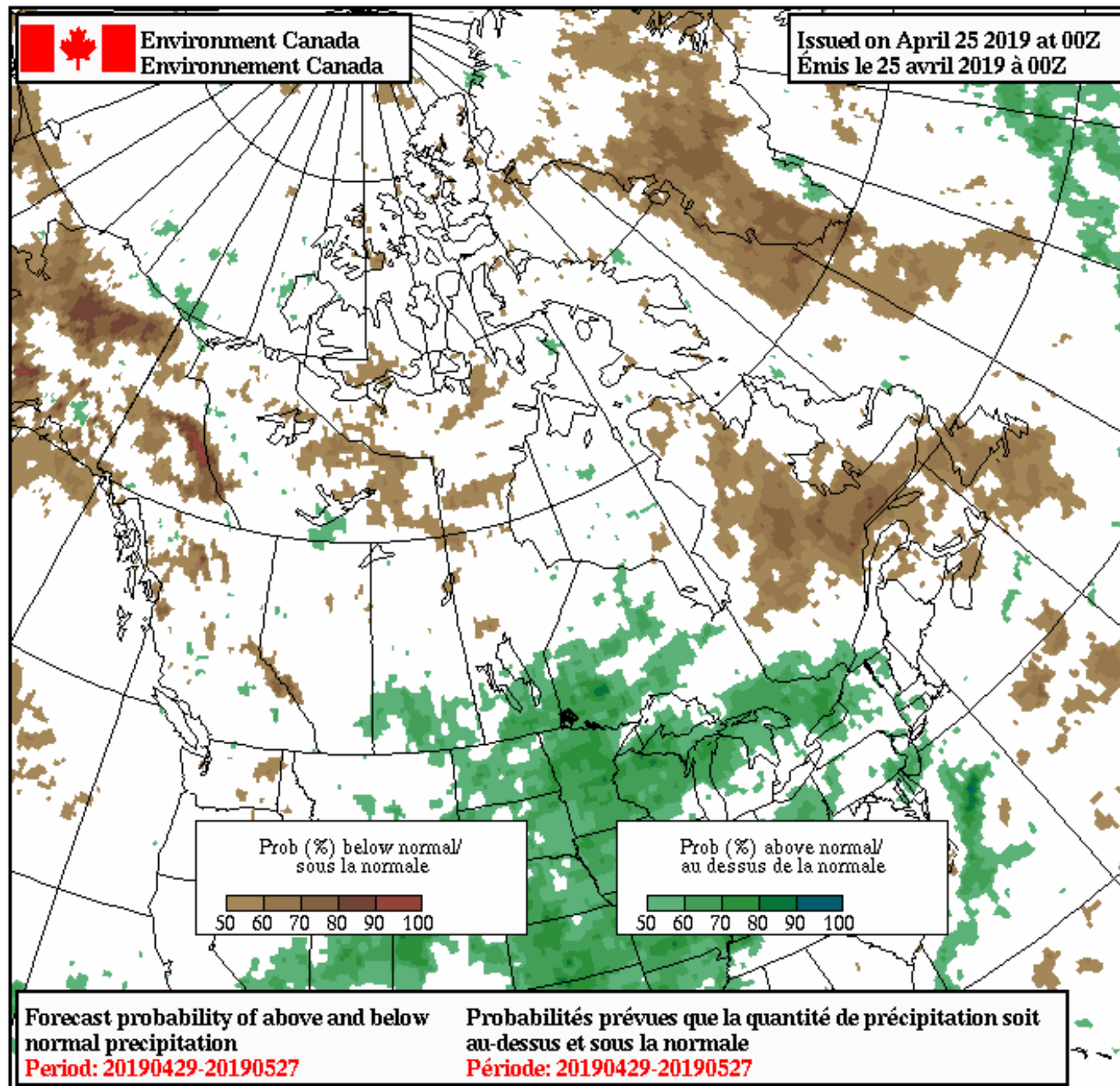


A strong signal of below normal for the first week, then a weak to moderate signal of below normal for weeks two and three and finally, no conclusive signal for the last week of May.

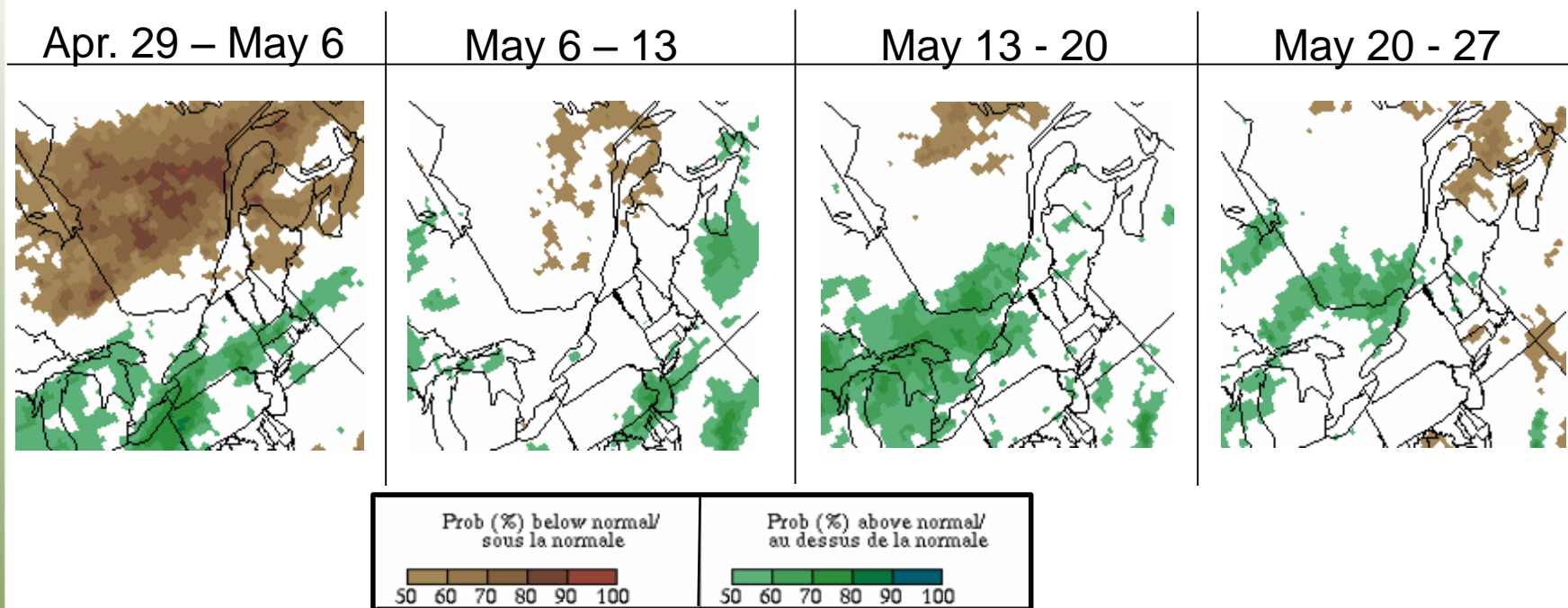


Precipitation April 29 to May 27

CMC
Monthly
Forecast
Product
using GEPS
50km res.



Weekly signature from GEPS 50km resolution



A weak signal for below normal for the first two weeks and the last week, while the third week shows no conclusive signal.

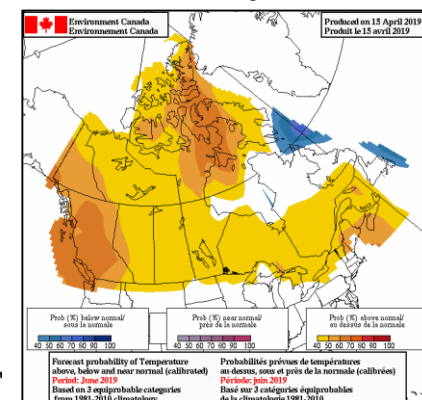


Temperature June 2019

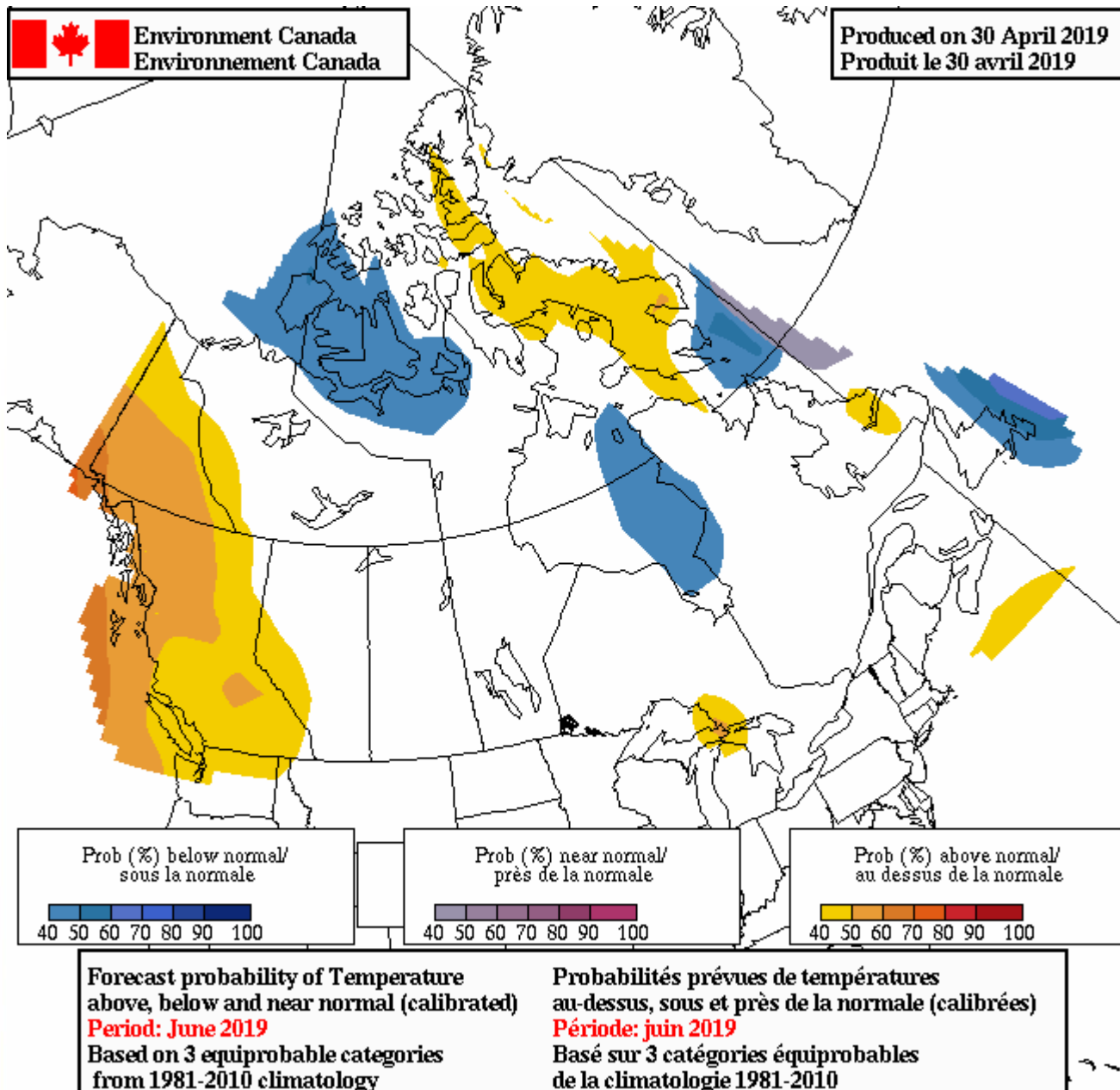
CanSIPS
(Canadian Seasonal and
Interannual Prediction
System)

CanAM3
CanAM4
+
CanOM4

Produced April 15



Canada

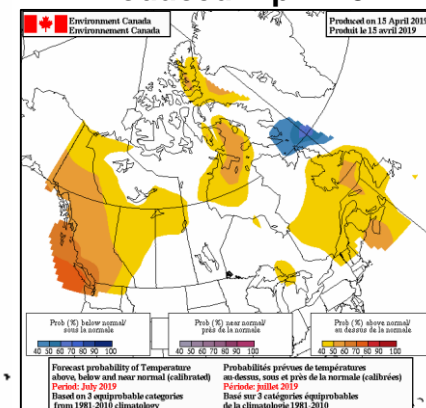


Temperature July 2019

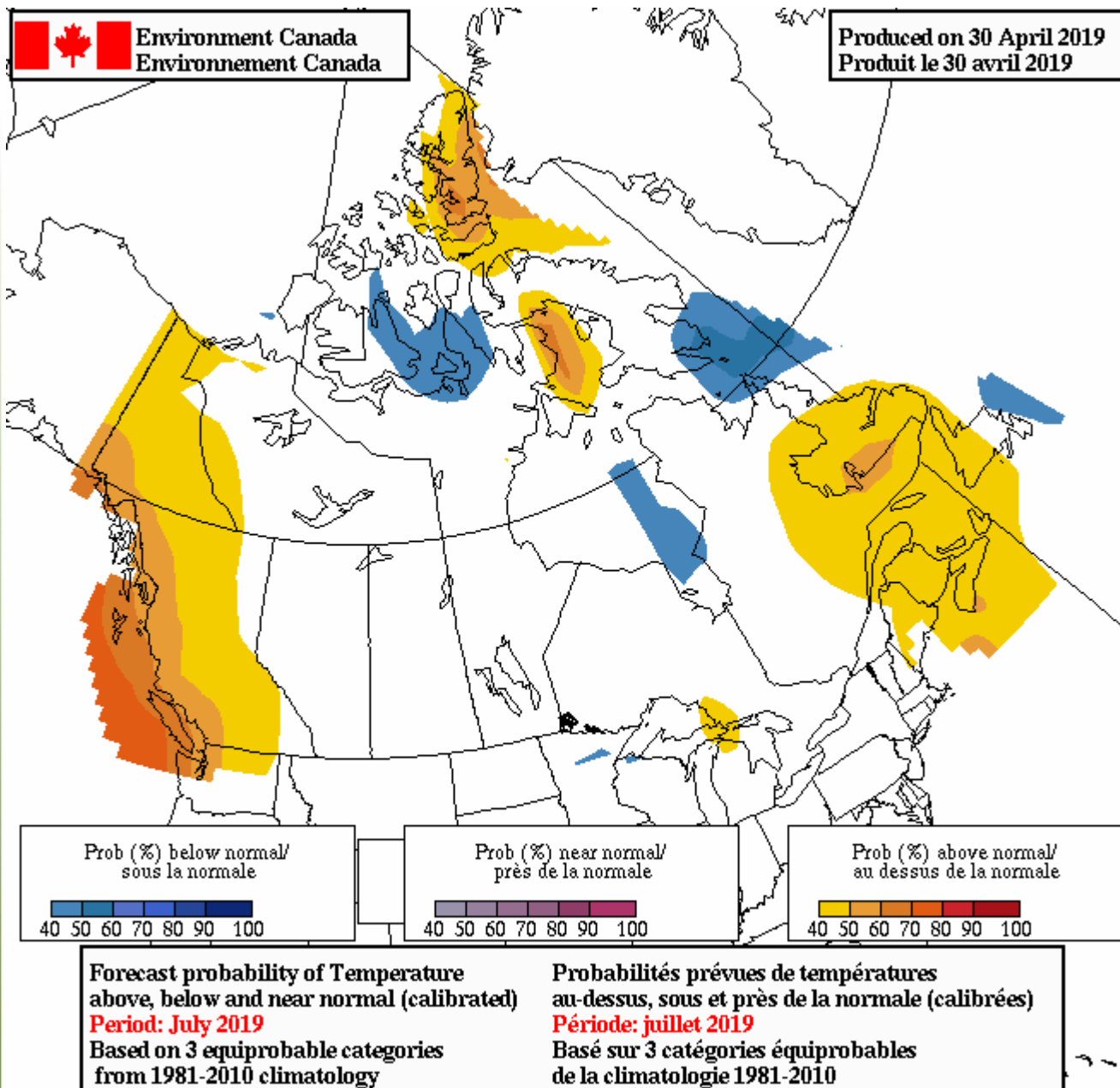
CanSIPS
(Canadian Seasonal and
Interannual Prediction
System)

CanAM3
CanAM4
+
CanOM4

Produced April 15



Canada



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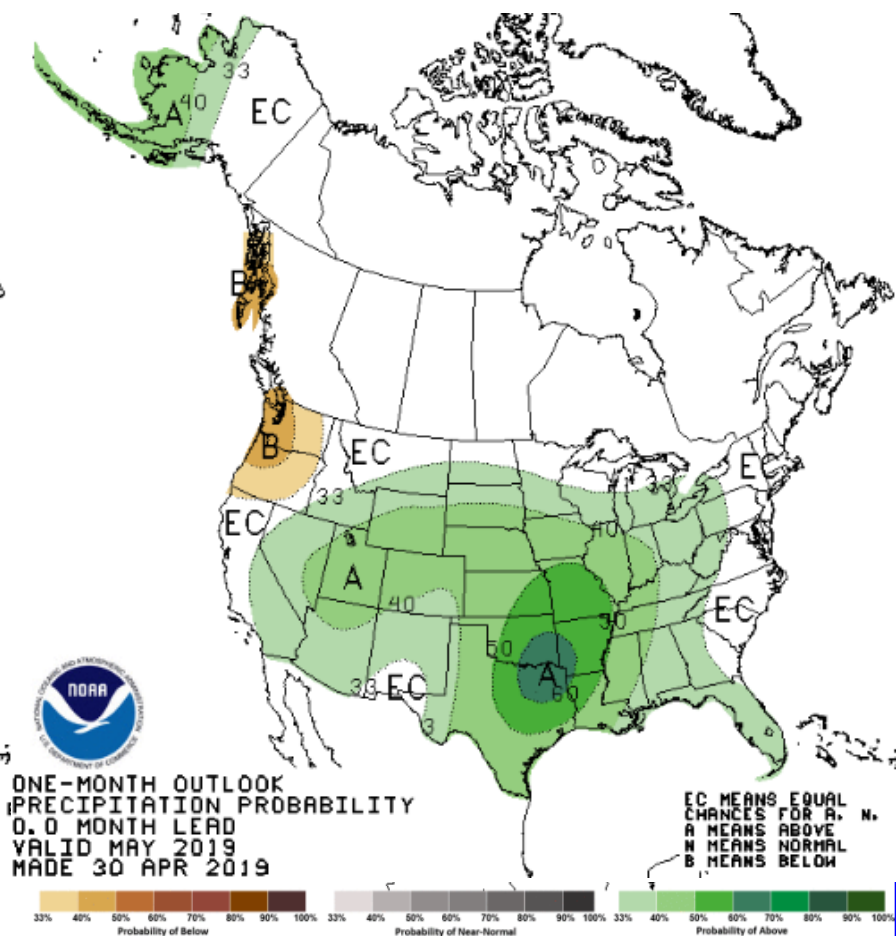
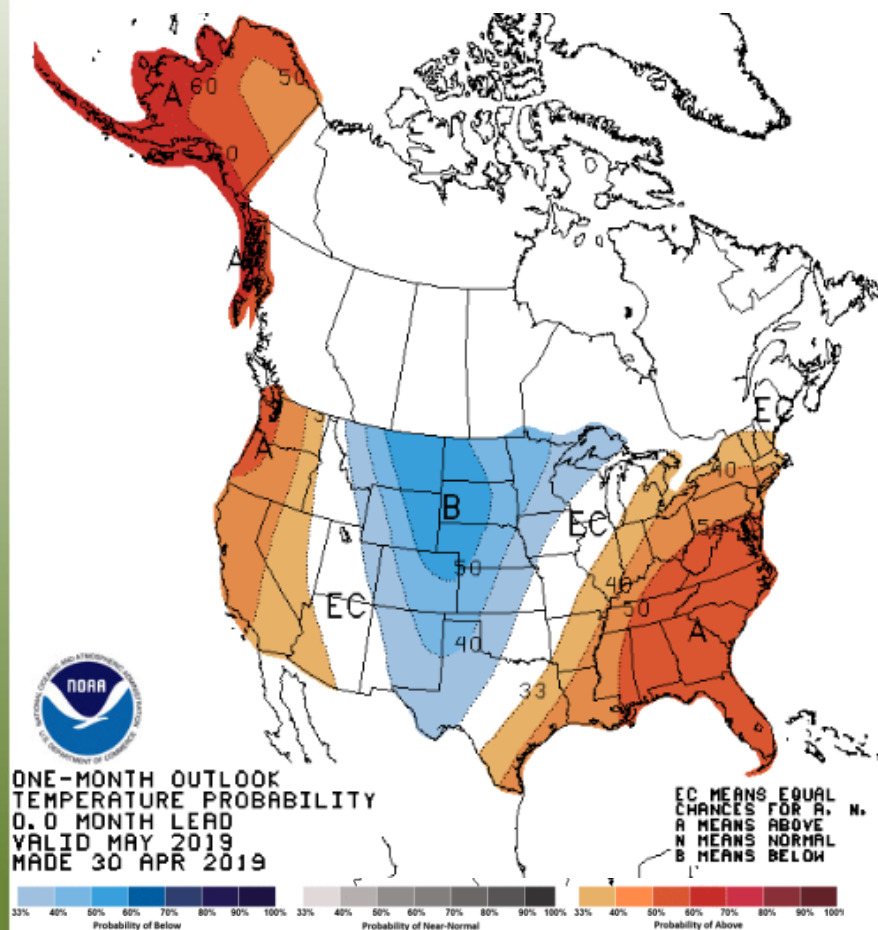
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May 2019

Temperature

Precipitation



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