

# New Brunswick

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## August 2019 Review September 2019 and Fall Outlook

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Environment and Climate Change Canada  
September 3, 2019



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# August 2019; Climate Summary

## Highlights:

The average temperature anomaly was normal (0.0C). Point Lepreau reported the largest positive anomaly at +1.1C above normal while Woodstock reported the largest negative anomaly at -1.3C.

Total precipitation amounts were slightly below normal, with an average of 89% of total precipitation. The north remained dry (since April) and the south was wetter mainly due to the 24 hour period of post-tropical cyclone Erin near the end of the month.

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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
BAS CARAQUET	WXS	AU8	18.8	18.6	0.2	59.2	95.0	62	-38
BAS CARAQUET		DAILY				61.8	95.0	65	-35
BATHURST A	ZBF	NCA	18.5	18.2	0.3	51.9	82.0	63	-37
BOUCTOUCHE CDA CS	ABT	AU8	18.5	18.5	0.1	94.0	85.2	110	10
CHARLO AUTO	ZCR	AU8	18.0	17.2	0.9				
MIRAMICHI RCS	ACQ	AU8	19.3	18.5	0.8	60.7	93.1	65	-35
DOAKTOWN AUTO RCS	ADN	AU8	18.0	18.4	-0.4	98.9	94.4	105	5
EDMUNDSTON	ERM	AU8	16.1	17.1	-1.0	62.4	93.4	67	-33
FREDERICTON INTL A	YFC	NCA	18.2	18.4	-0.3	79.9	85.6	93	-7
FREDERICTON CDA CS	AFC	AU8	18.5	18.6	-0.1	109.1	85.9	127	27
GAGETOWN AWOS A	YCX	AU5	18.4	19.2	-0.8				
GRAND MANAN SAR CS	XGM	AU8	17.4			78.2			
KOUCHIBOUGUAC	AKC	AU8	18.4	18.5	0.0	72.8	86.7	84	-16
MECHANIC SETTLEMENT	AMS	AU8	17.6			120.6			
MISCOU ISLAND (AUT)	WMI	AU8	18.3			67.8			
MONCTON INTL A	YQM	NCH	18.8	18.2	0.6	106.7	80.8	132	32
MONCTON A	YQM	NCA	18.8	18.2	0.7				
OAK POINT		DAILY	18.4	19.2	-0.8				
POINT LEPREAU CS	WPE	AU8	16.7	15.6	1.1				
RED PINES	ARP	AU8	18.0	17.9	0.1	67.7	93.6	72	-28
SAINT JOHN A	YSJ	NCH	16.9	16.8	0.1	107.0	81.7	131	31
ST. STEPHEN	WSS	AU8	18.1			109.0			
SUSSEX FOUR CORNERS	ASF	AU8	18.4	18.8	-0.4	60.6	74.3	82	-18
WOODSTOCK		DAILY	17.8	18.4	-0.6	85.6	100.6	85	-15
WOODSTOCK NEWBRIDGE	EWD	AU8	17.1	18.4	-1.3	75.6	100.6	75	-25
<b>Average</b>			<b>18.0</b>	<b>18.1</b>	<b>0.0</b>	<b>81.5</b>	<b>89.3</b>	<b>89</b>	<b>-11</b>
<b>Max</b>			<b>19.3</b>	<b>19.2</b>	<b>1.1</b>	<b>120.6</b>	<b>100.6</b>	<b>132</b>	<b>32</b>
<b>Min</b>			<b>16.1</b>	<b>15.6</b>	<b>-1.3</b>	<b>51.9</b>	<b>74.3</b>	<b>62</b>	<b>-38</b>

# August 2019; Climate Summary

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## Events:

**August 3;** A cold front brought a brief but violent thunderstorm to the Campbellton area. Power outages, intense winds and up to loonie-size hail were reported late in the afternoon.

**August 10;** Strong thunderstorms affected most of the province throughout the day but one cell was particularly severe over the Shediac area. Near loonie-sized hail pelted the area and up to 90 mm of rain fell in under 3 hours causing some flooding.

**August 29-30;** Rain event. Post-Tropical cyclone Erin tracked through Nova Scotia on the evening of the 29<sup>th</sup> bringing heavy rain to the province. Amounts varied across the province (15-80 mm) with the extreme southeast receiving the most rain of near 100 mm in the Sackville area.

**Days with thunderstorm activity (lightning) in New Brunswick; 1-3, 7-10, 12-13, 18-19, 21-22, 29 (14 days)**

**Days with temperature records broken or tied in New Brunswick; 25**  
(red=maximum, blue=minimum)



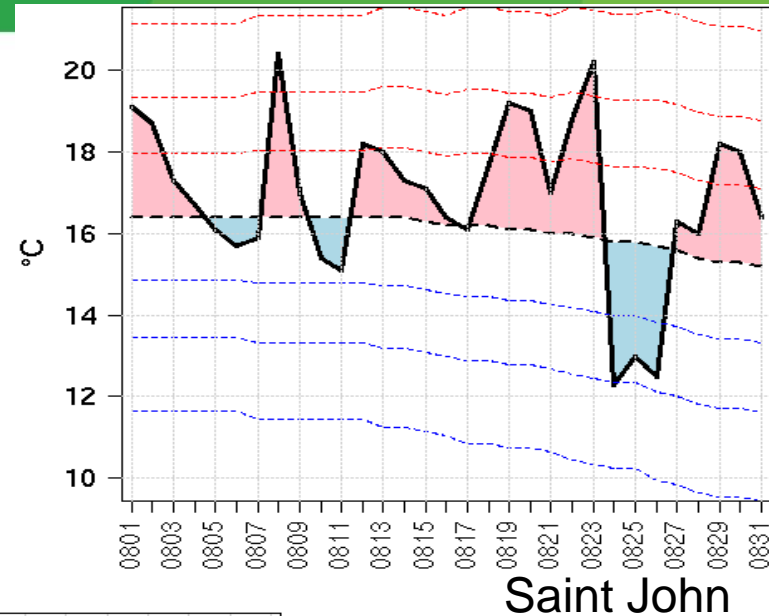
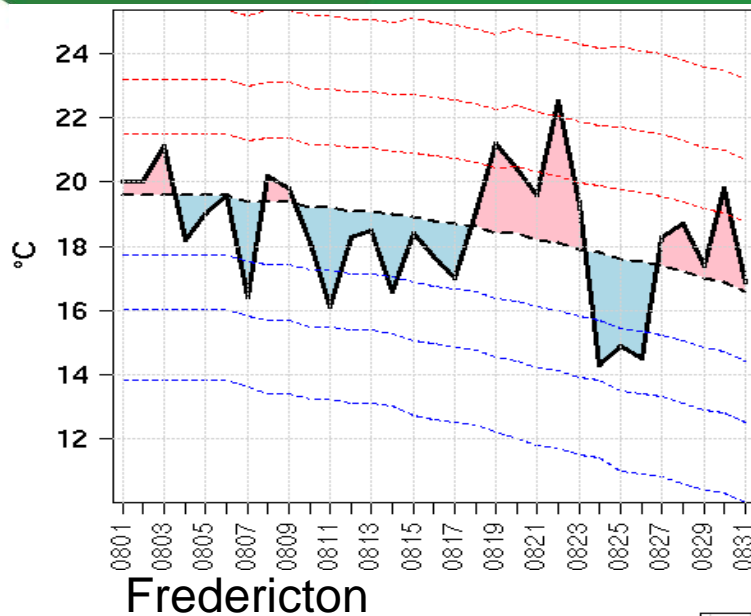
# August 2019; Provincial Climate Extremes

Parameter	Value	ECCC Station	Day of month
Daily Maximum Temperature	<b>+31.6 °C</b>	Bathurst	21
Daily Minimum Temperature	<b>+1.5 °C</b>	Edmundston	25
Maximum Daily Total Precipitation	<b>56.3 mm</b>	Fredericton	29
Daily Maximum Wind Gust	<b>94 km/h</b>	Moncton	23
Daily Maximum Humidex	<b>36</b>	Gagetown & Fredericton	22



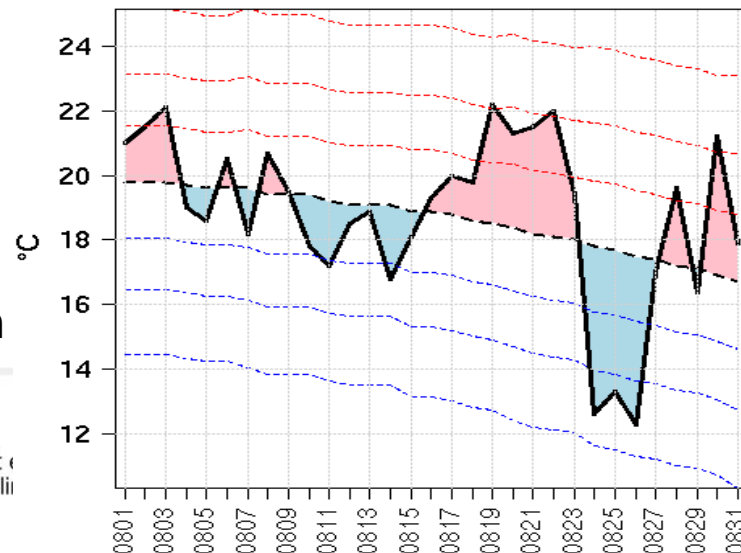
# August 2019 - Temperature

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



Fredericton and  
Saint John were  
near normal

Moncton



Moncton was  
slightly above  
normal



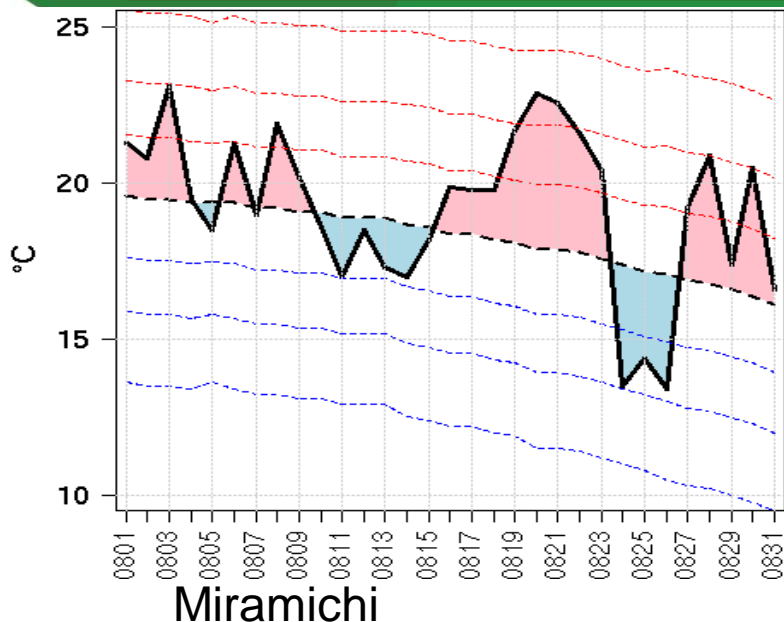
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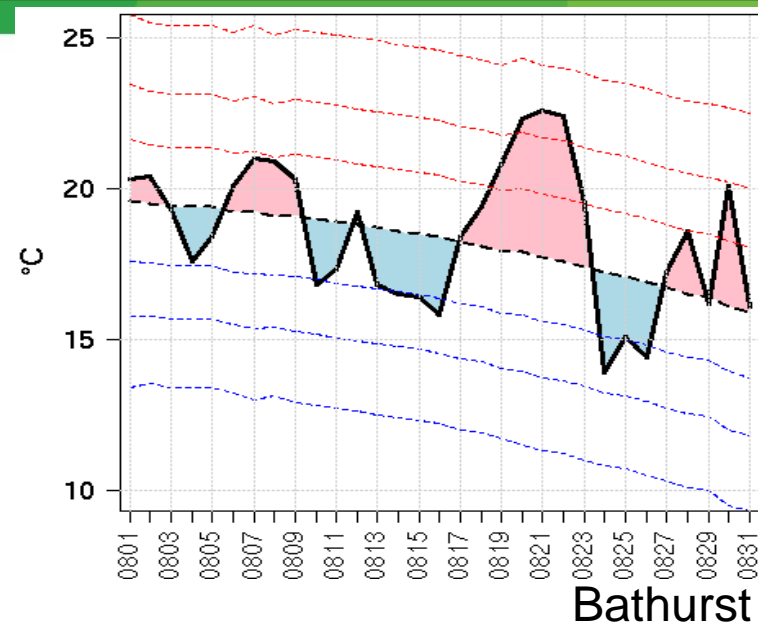
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# August 2019 - Temperature

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

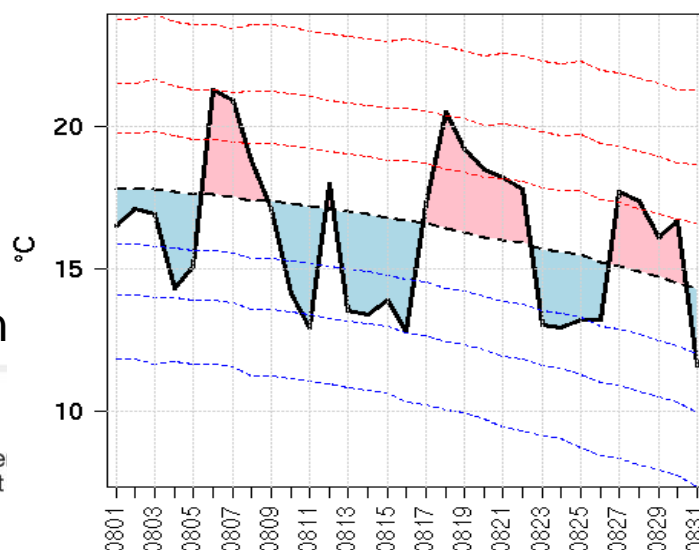


Miramichi was slightly above normal



Bathurst was near normal

Edmundston



Edmundston was below normal



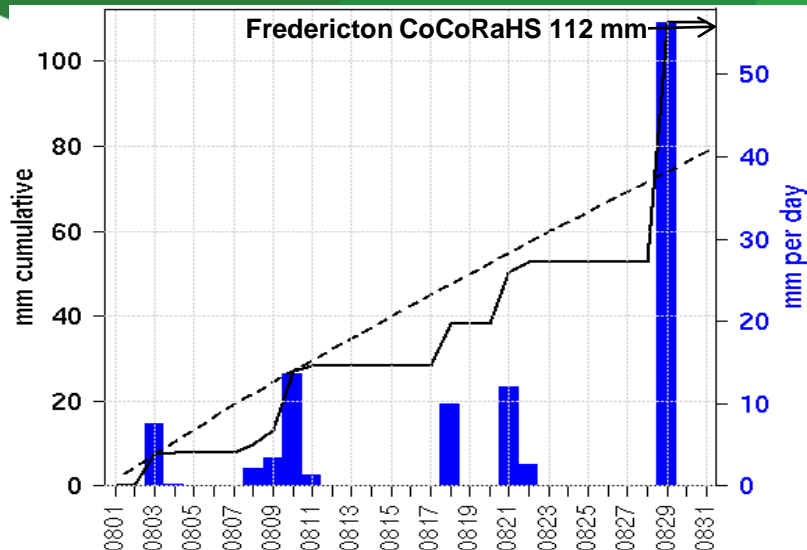
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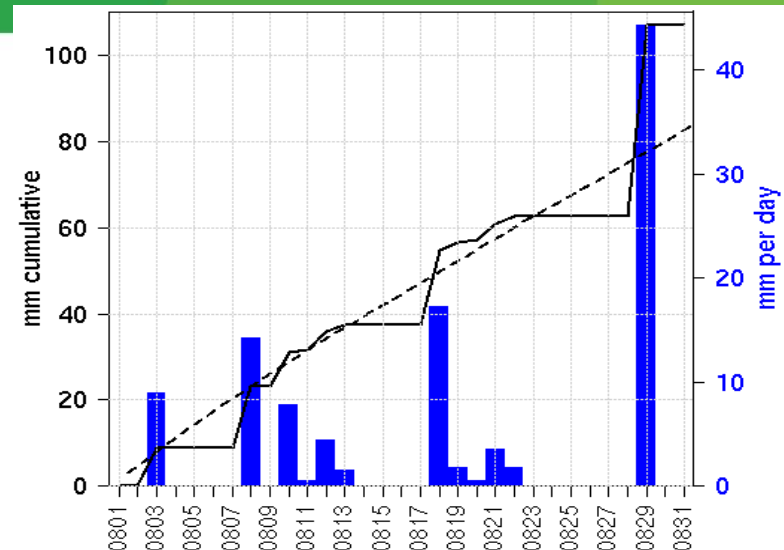
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# August 2019 - Precipitation

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



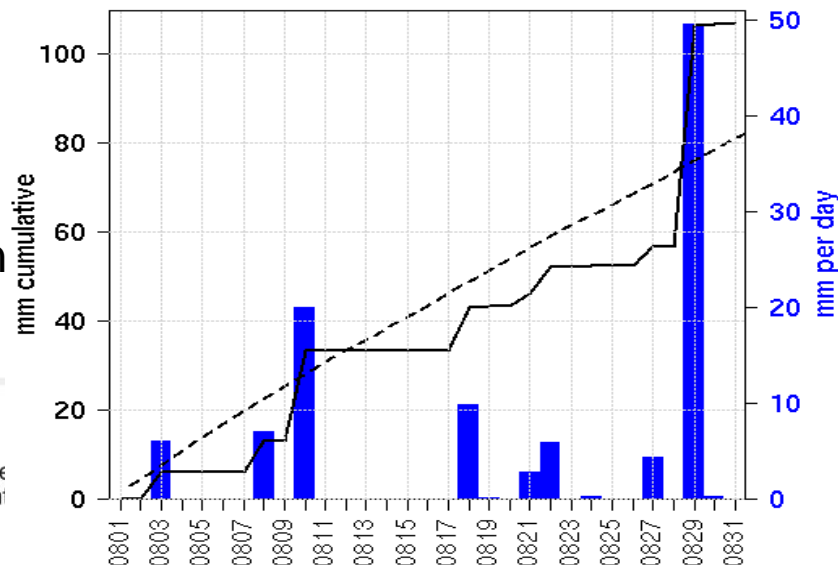
Fredericton (and area)



Saint John

All sites were  
above normal

Moncton



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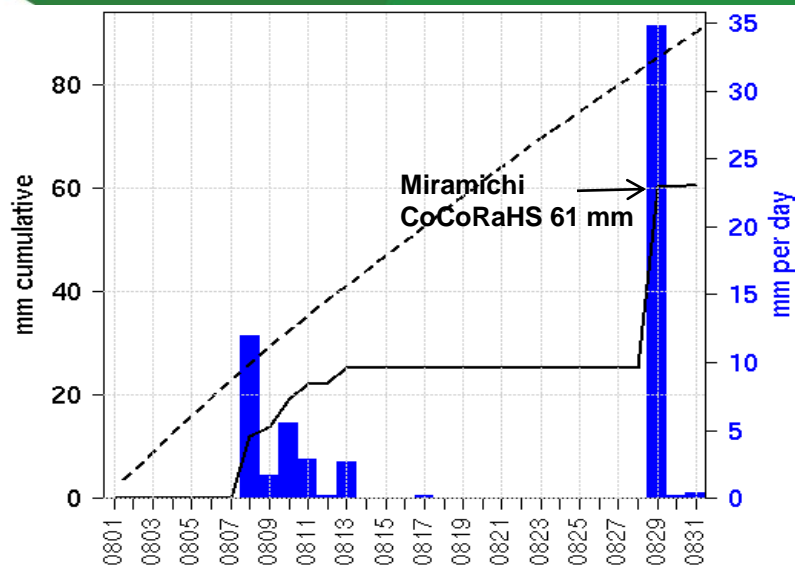
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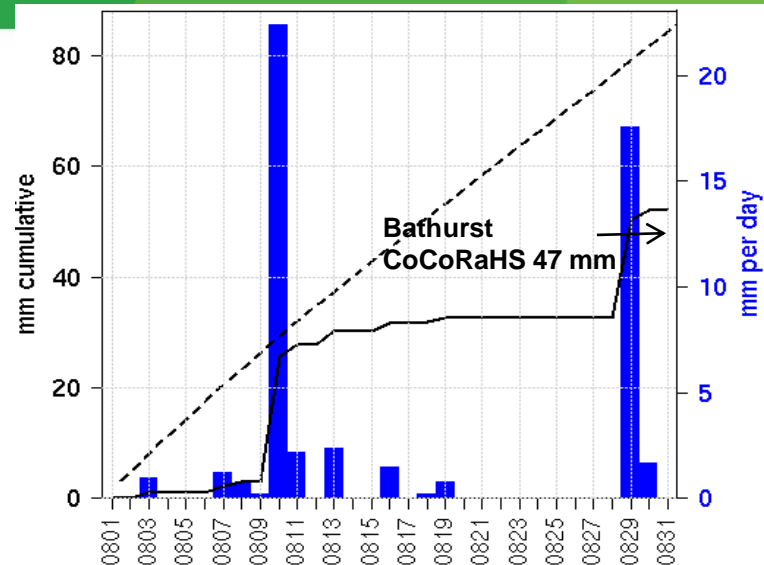


# August 2019 - Precipitation

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



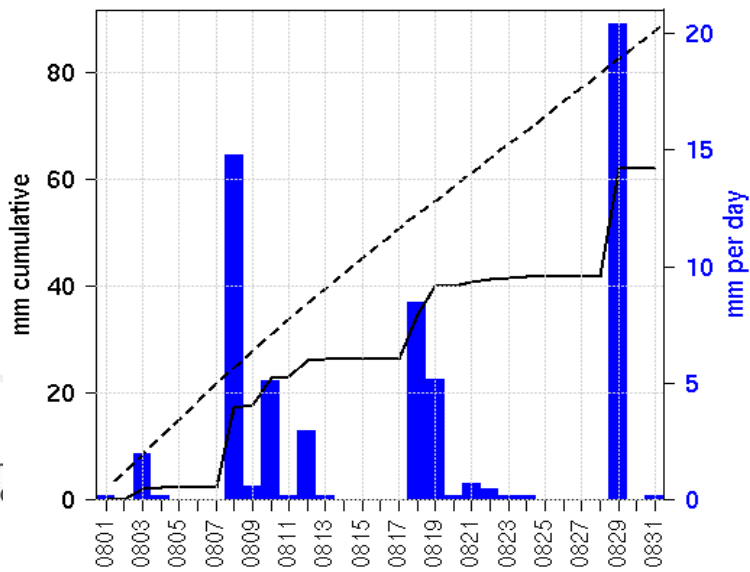
Miramichi



Bathurst

All sites were below normal

Edmundston





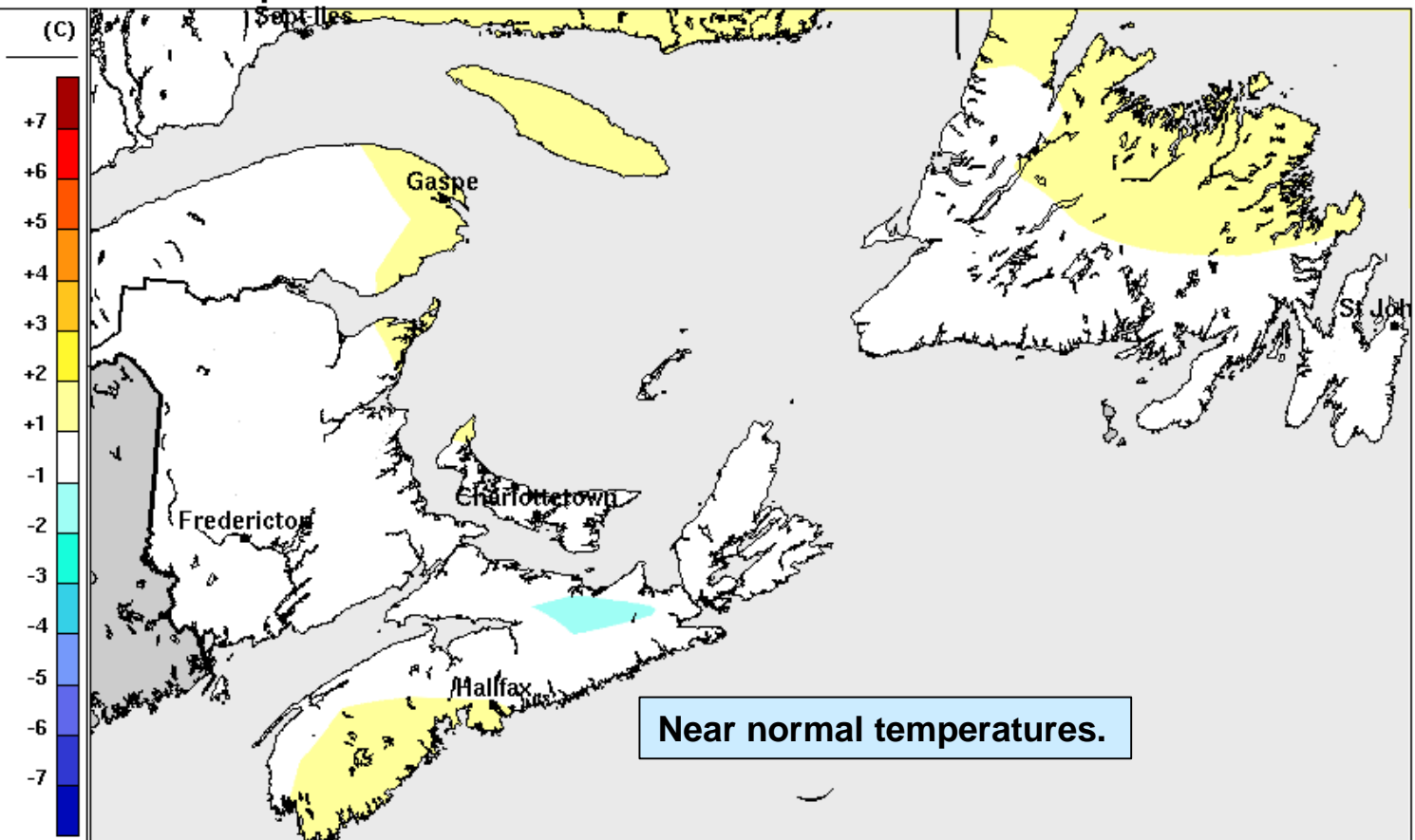
# August 2019 – Temperature departure from 1981-2010 mean

Temperature Anomaly: 201908  
Anomalie de température: 201908



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ECCC Climate Archives data / Données des Arc



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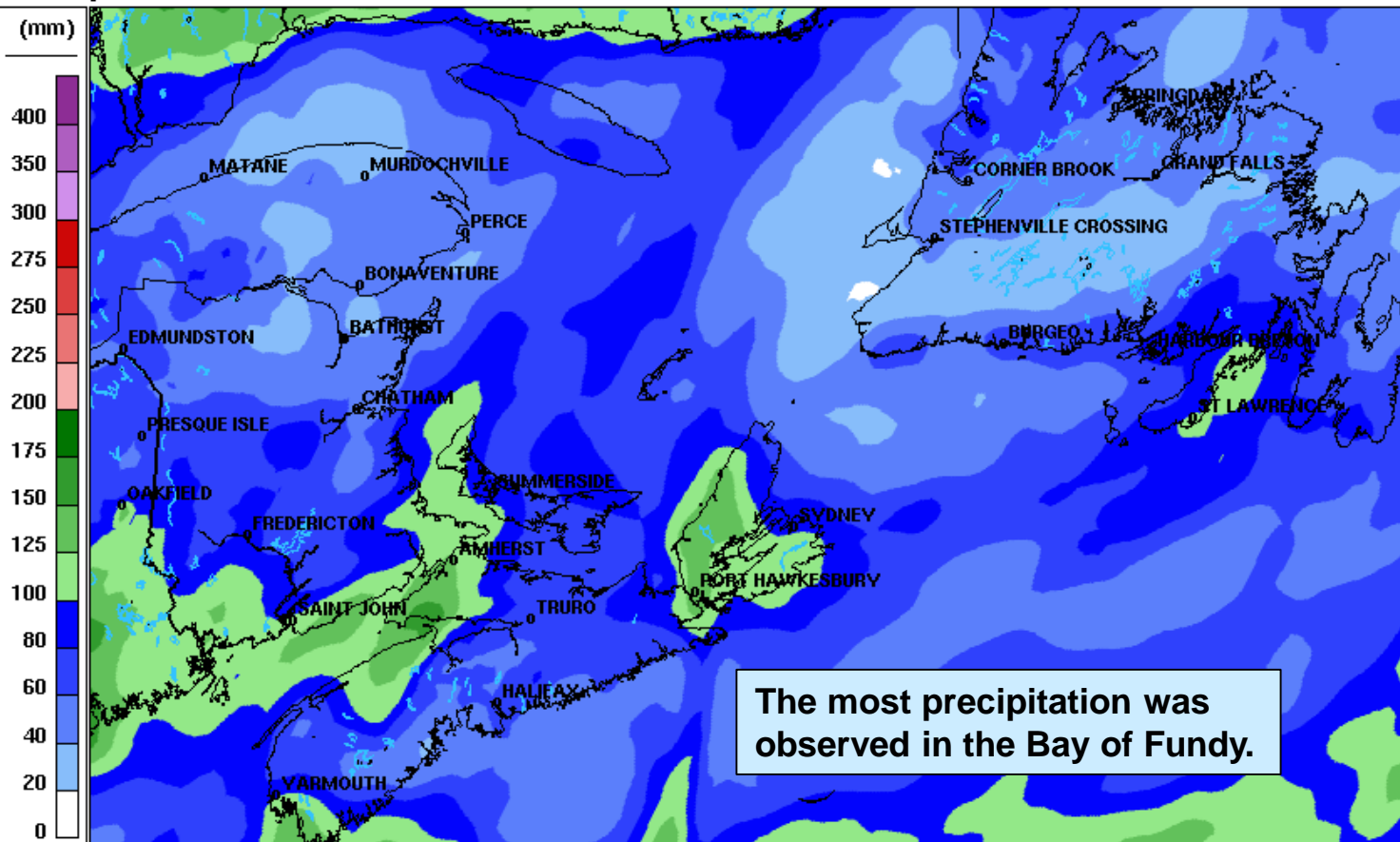
# August 2019 – Total precipitation

Total precipitation: 201908  
Précipitation totale: 201908



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ECCC NWP model gridded data / Données sur grille de



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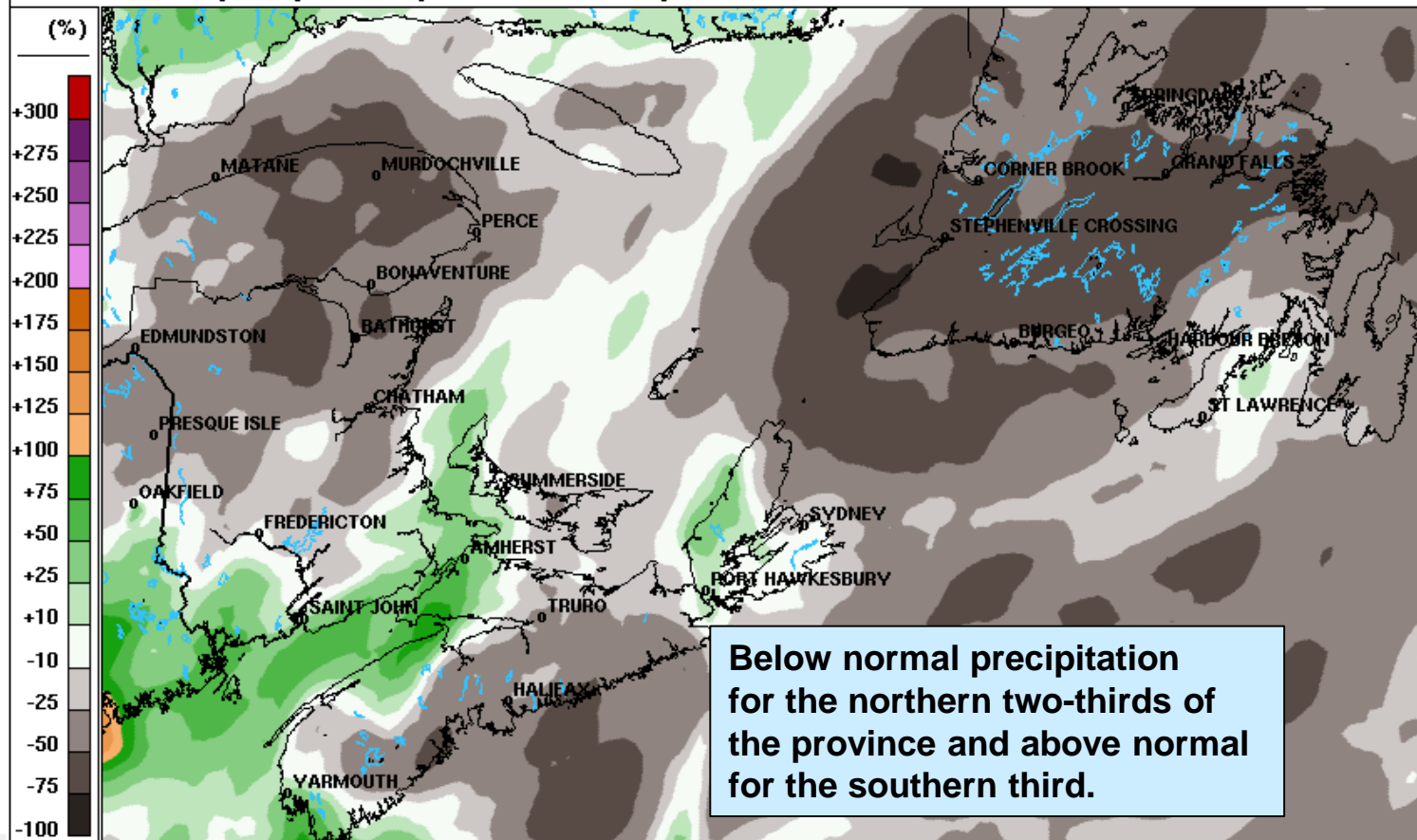
# August 2019 – Precipitation departure from 1981-2010 mean

Precipitation Anomaly (% of normal): 201908  
Anomalie de précipitation (% de la normale): 201908



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ECCC NWP model gridded data / Données sur grille d



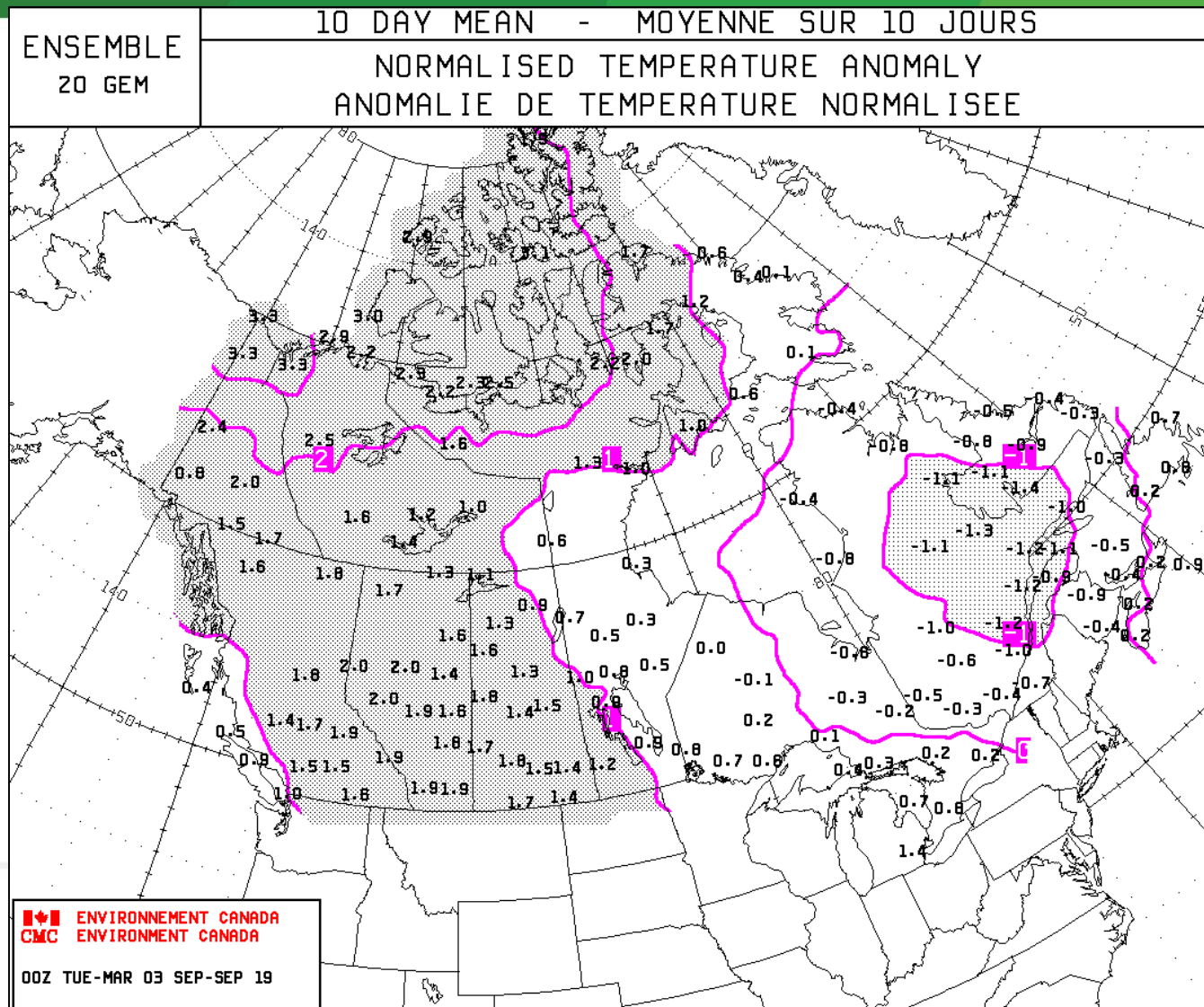
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# Outlook – 10 day mean temperature

(Suggesting slightly below normal conditions (-0.4 to -1.1°C))



10 day  
forecast  
ending  
September  
13, 2019



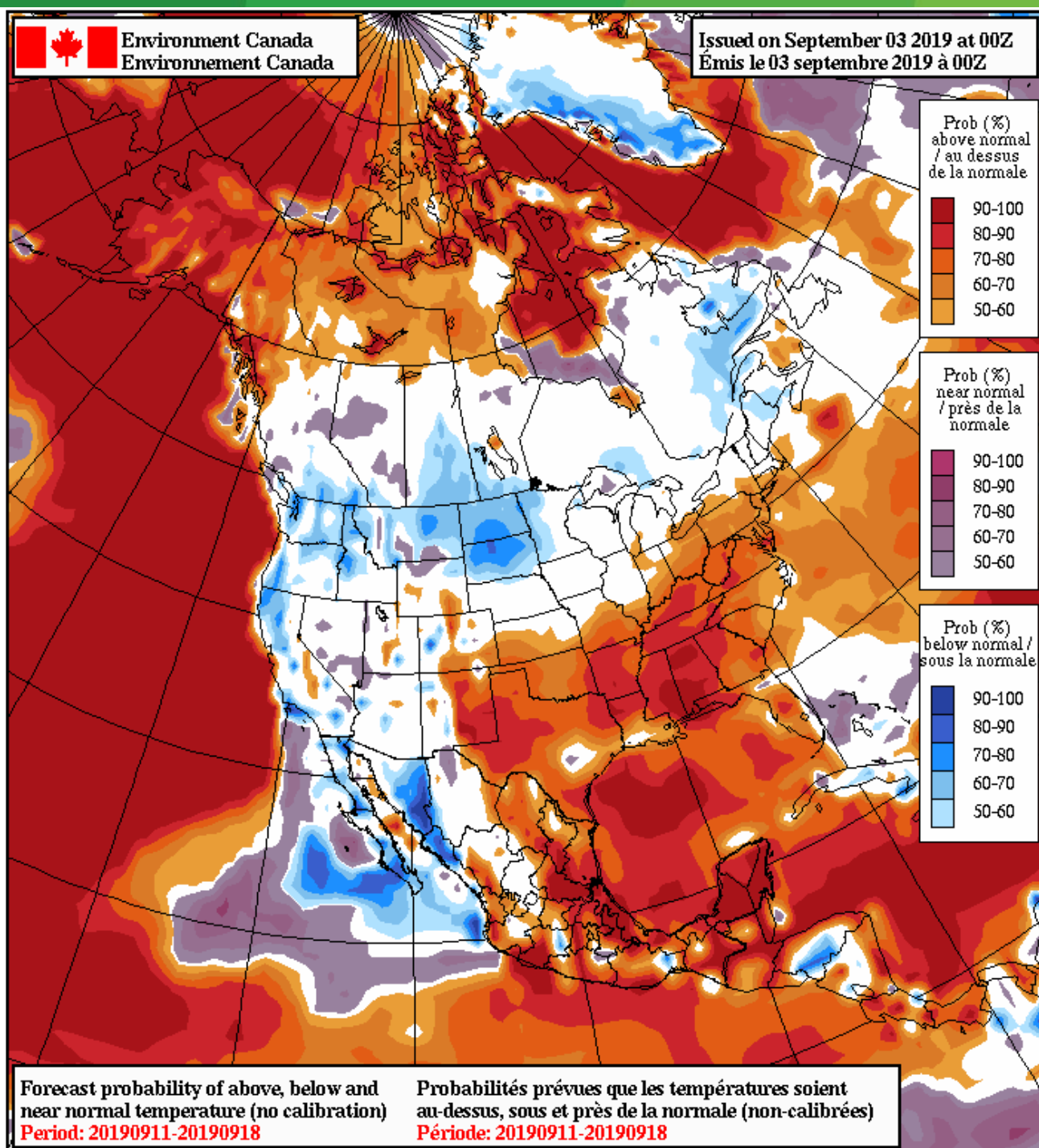
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# Day 8 to 14 Forecast

Period ending  
September 18,  
2019

A possible weak signal  
of below normal.



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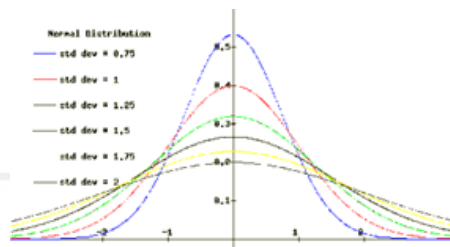


# Fredericton

Normal high: 20.0C  
September  
Normal low: 7.1C

**Next 15 days; ending  
September 18, 2019**

Below normal for the first half of the period, then a lot of variability and no real conclusive signal for the rest of the period.



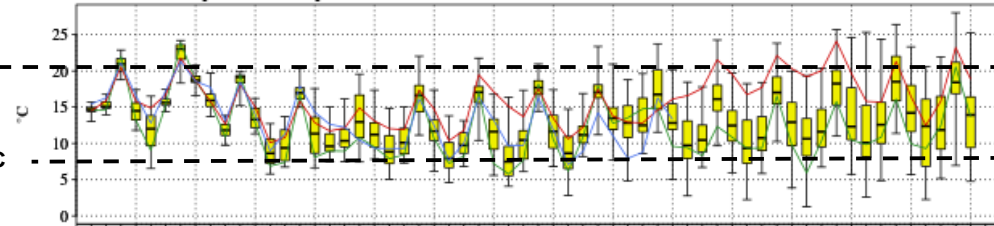
Ensemble and Deterministic Forecasts issued 3 September 2019 00 UTC  
Prévision d'ensemble et déterministe émises le 3 Septembre 2019 00 UTC

for/pour

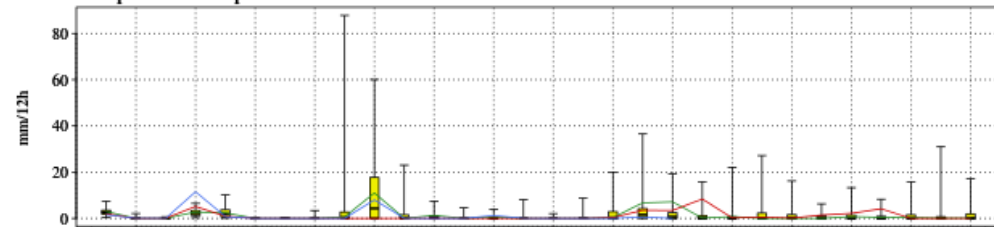
NAEFS / SPENA

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

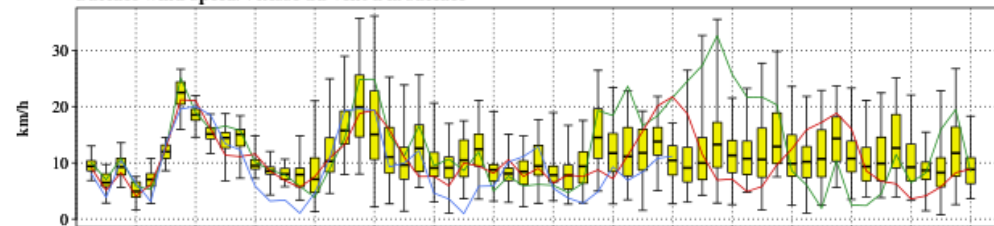
Surface air temperature/Température de l'air à la surface



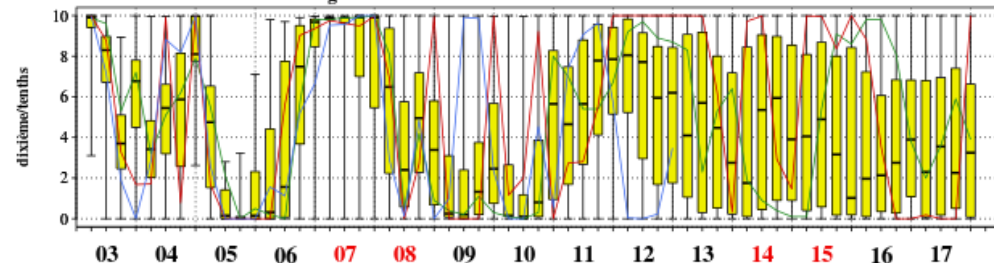
Précipitations/Precipitation



Surface wind speed/Vitesse du vent à la surface



Total cloud cover/Couvert nuageux



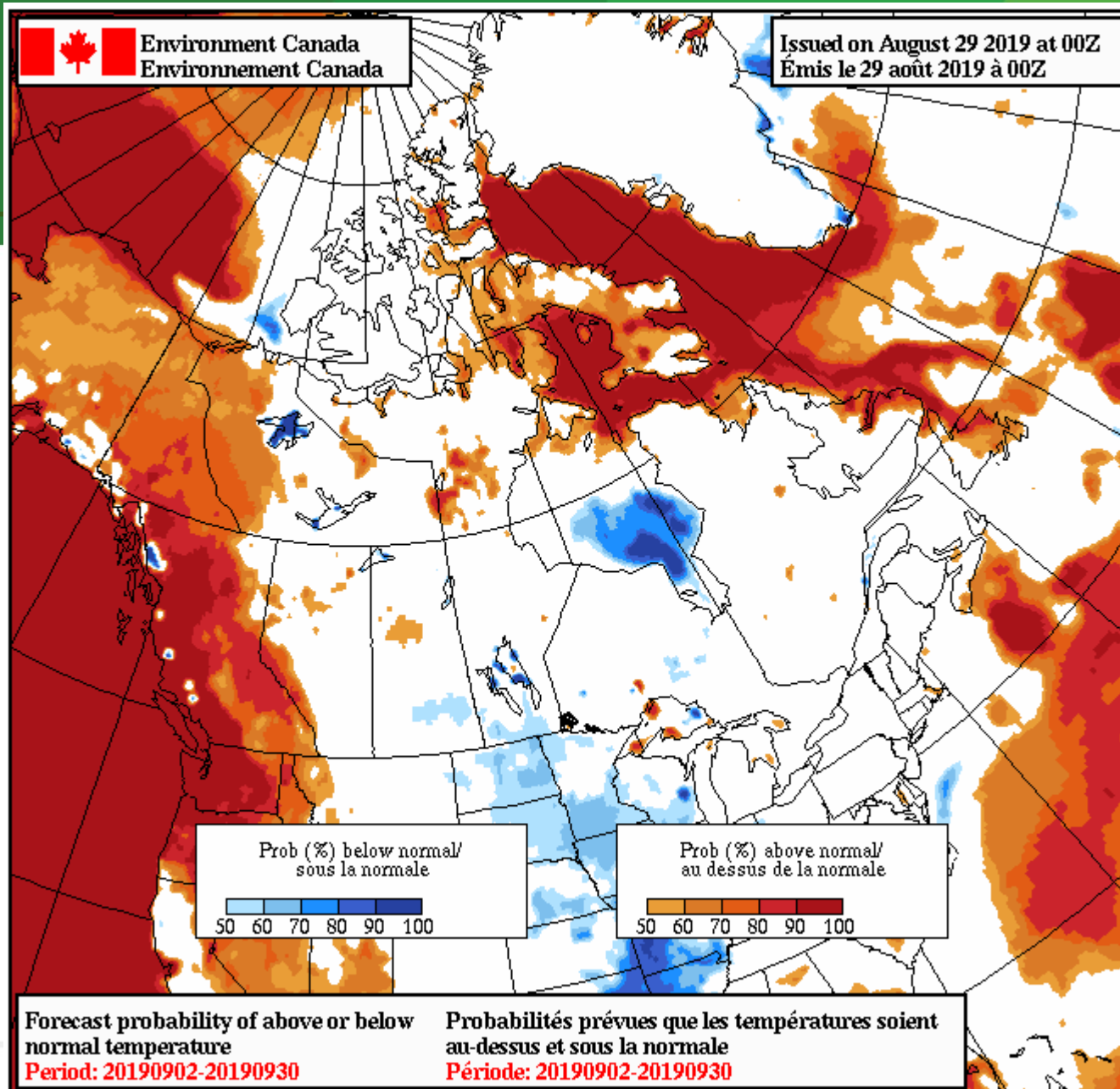
September/Septembre 2019

max  
75%  
median/médiane  
25%  
min

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



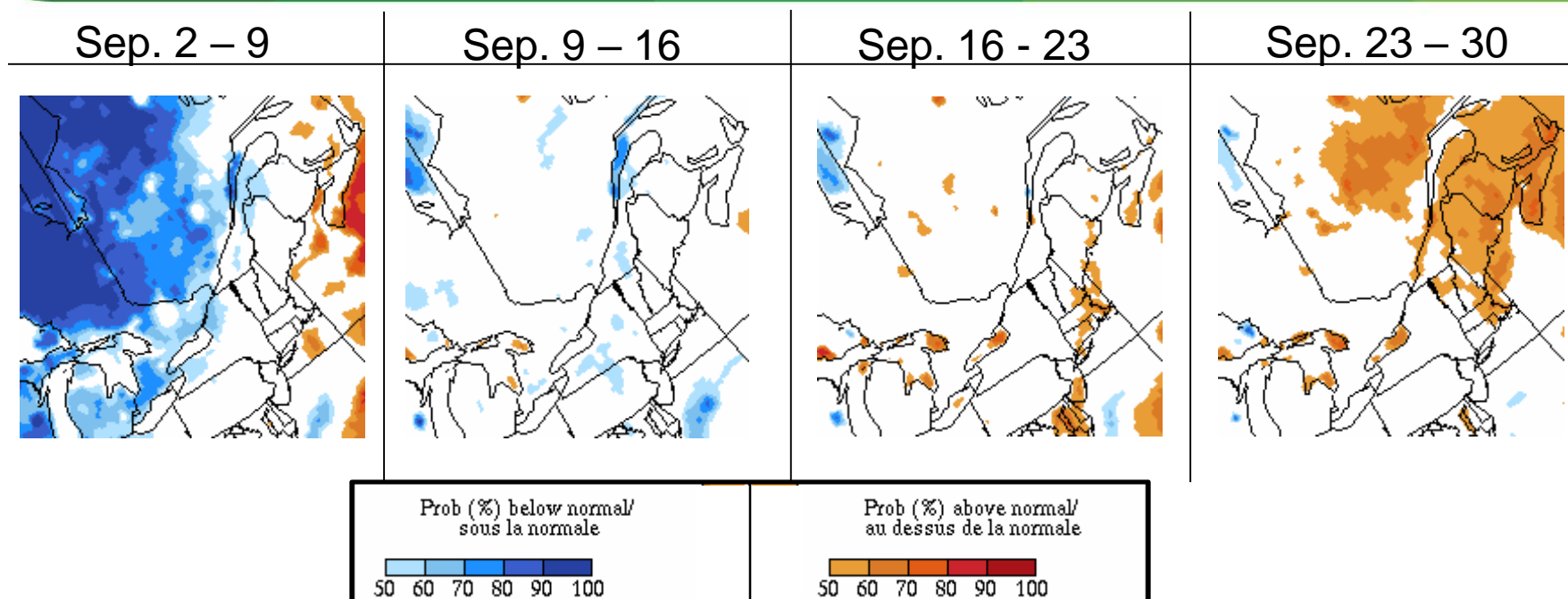
# Temperature September 2 to September 30



CMC  
Monthly  
Forecast  
Product  
using GEPS  
50km res.

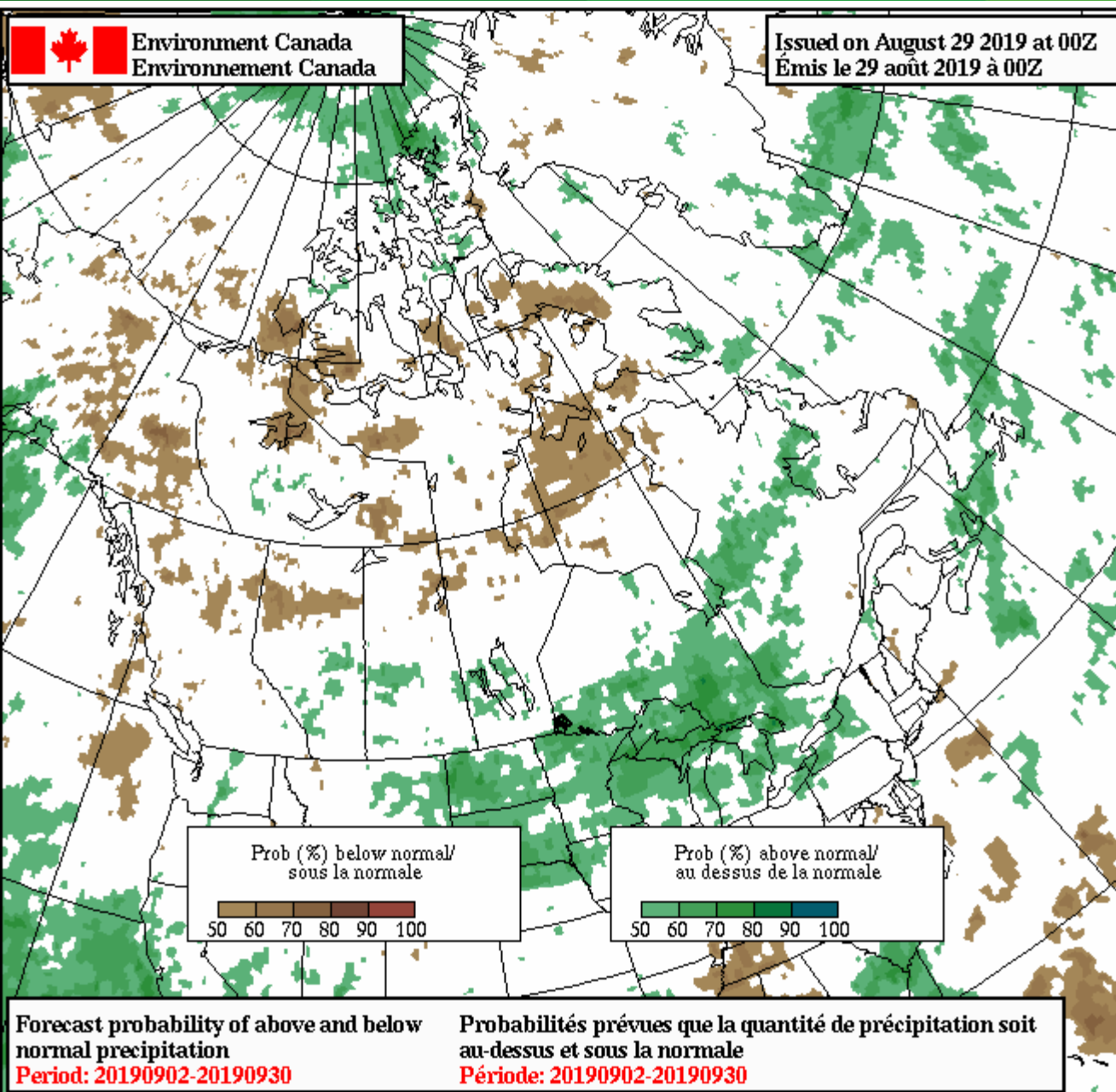


# Weekly signature from GEPS 50km resolution



Overall, no real conclusive signal for the first three weeks with the exception of a weak chance of below normal for the first week in the northwest. For the last week, a weak signal of above normal is indicated.





Precipitation  
September 2  
to  
September 30

CMC  
Monthly  
Forecast  
Product  
using GEPS  
50km res.

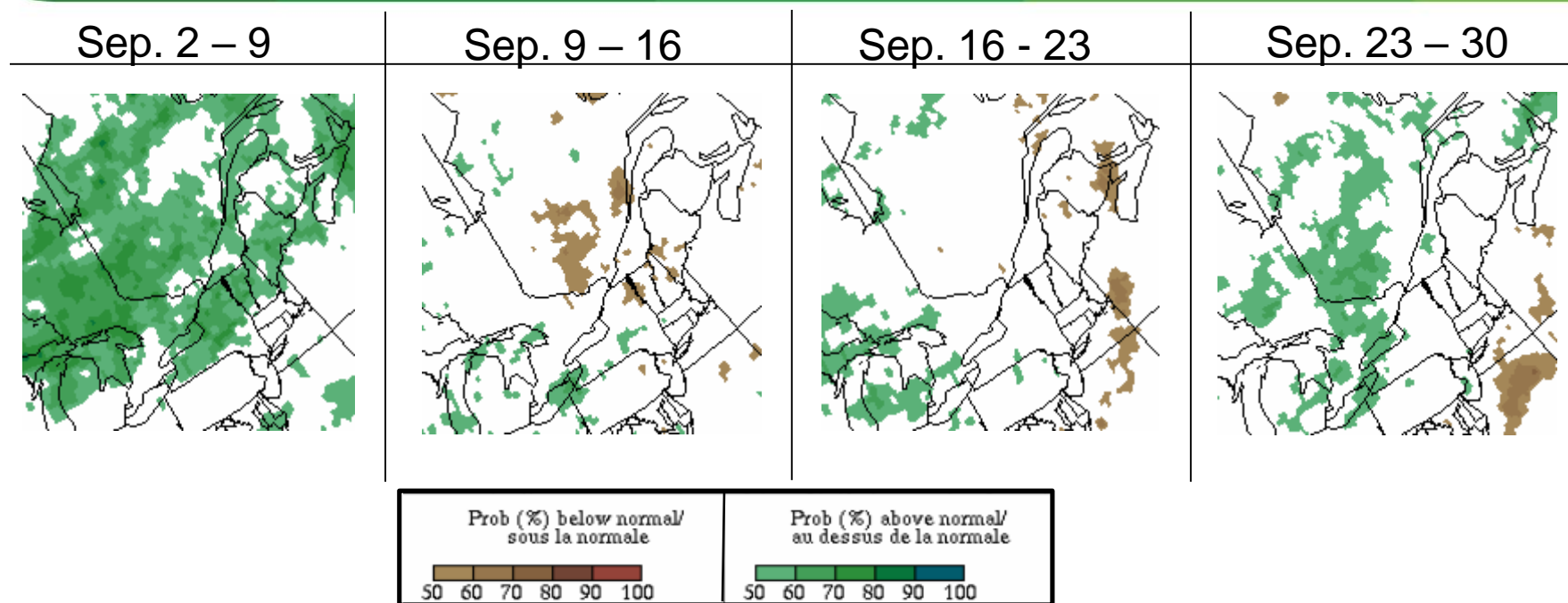


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# Weekly signature from GEPS 50km resolution



A mixed bag of weak signals from slightly above to no real signal to slightly below in the south to no real signal progressing through the four week period.





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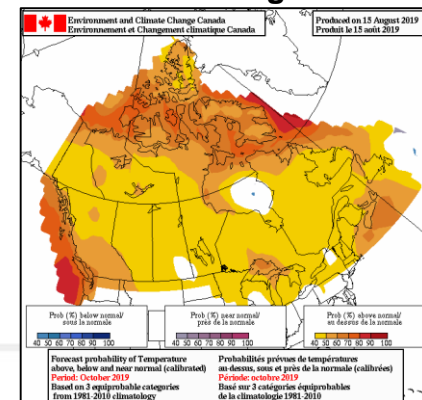
Produced on 27 August 2019  
Produit le 27 août 2019

# Temperature October 2019

CanSIPS  
(Canadian Seasonal and  
Interannual Prediction  
System)

CanAM3  
CanAM4  
+  
CanOM4

Produced August 15

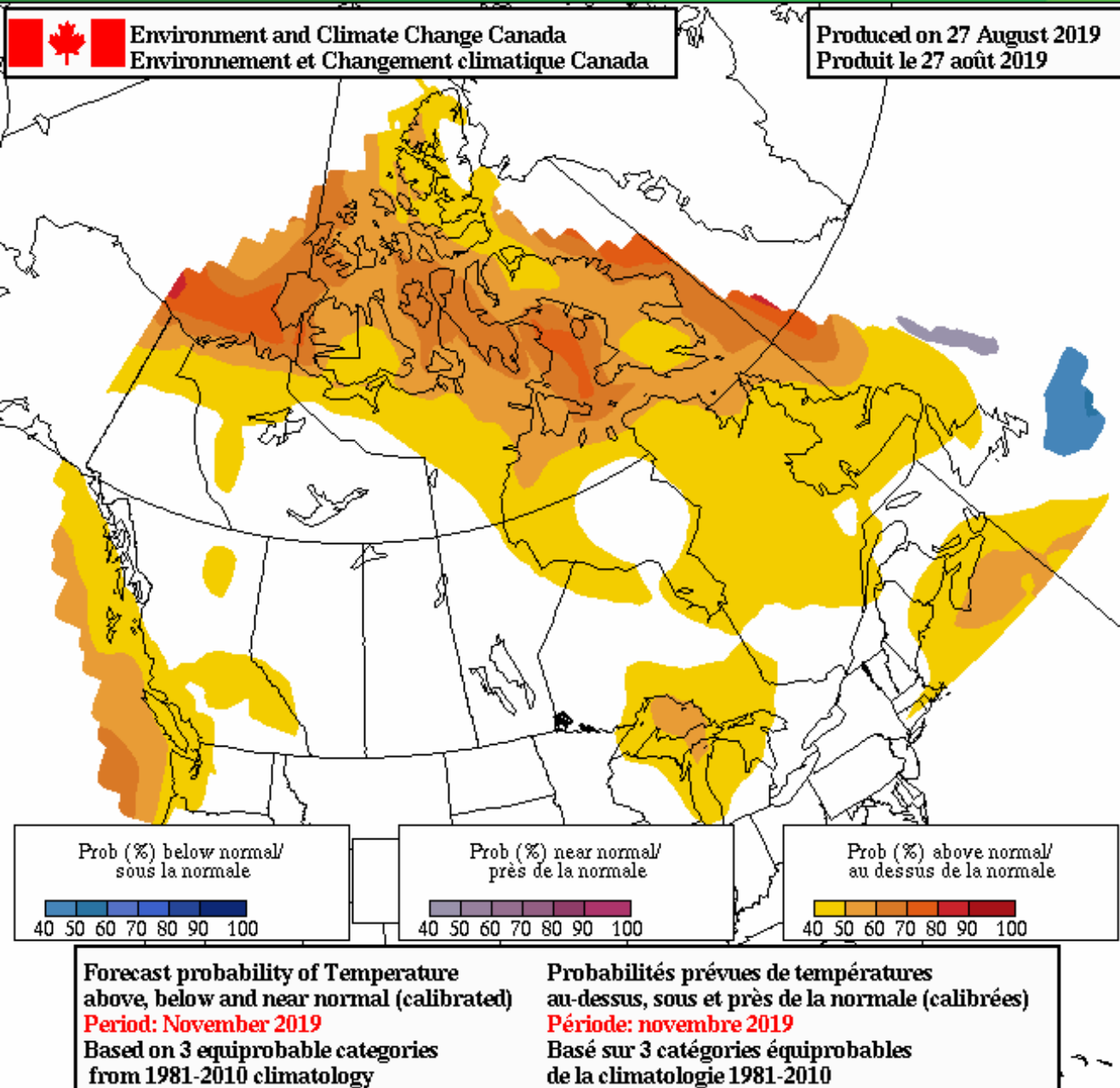


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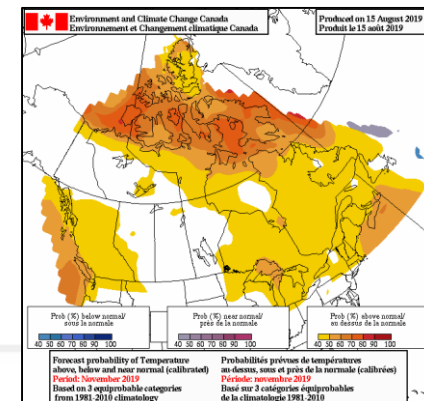


# Temperature November 2019

CanSIPS  
(Canadian Seasonal and  
Interannual Prediction  
System)

CanAM3  
CanAM4  
+  
CanOM4

Produced August 15



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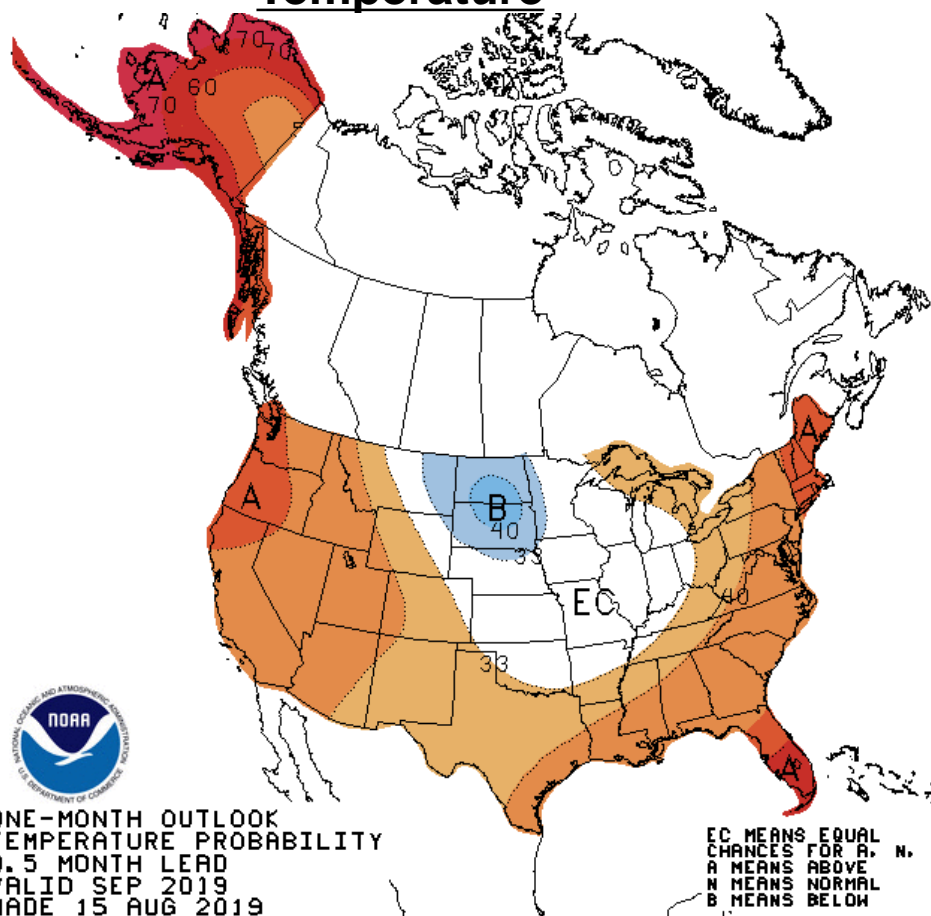
Canada



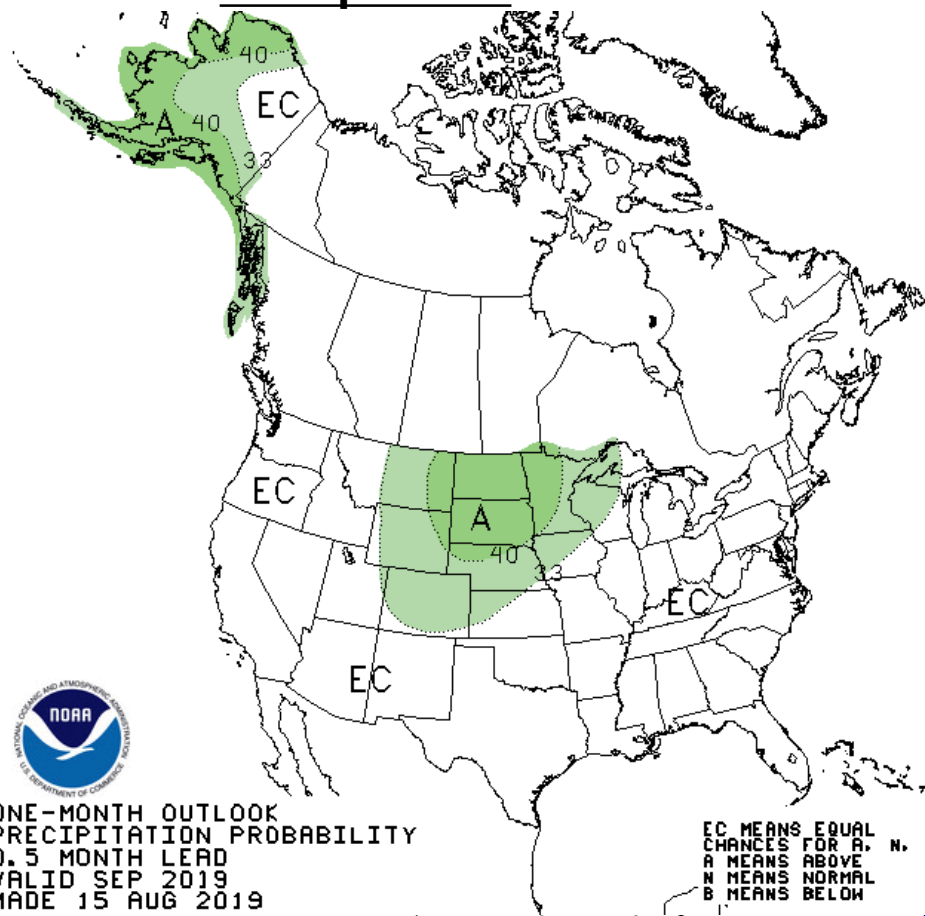


# September 2019

## Temperature



## Precipitation



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# Contact

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Warning Preparedness Meteorologist

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Canada Weather Pages

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



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