

New Brunswick

June 2021 Review July and Summer/Fall Outlook

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Meteorological Service of Canada
Environment and Climate Change Canada
July 2, 2021



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June 2021; Climate Summary

Station Name / Nom de la station	Prov	TC ID / ID de TC	Type / Type de station	Mean Temperature / Température moyenne (°C)			Total Precipitation / Précipitations totales (mm)		
				Monthly Mean / Moyenne mensuelle	Normal Mean / Moyenne Normale	Diff from Normal / Écart avec la normale	Monthly Total / Total mensuel	Normal Total / Total normal	Normal / Total en % de la normale
BAS CARAQUET*	NB	WXS	AU8	16.9	15.0	1.9	65.0	74.9	87
BAS CARAQUET	NB		DAILY				65.6	74.9	88
BATHURST A	NB	ZBF	NCA	17.1	15.9	1.3	76.9	96.9	79
BOUCTOUCHE CDA CS*	NB	ABT	AU8	18.0	15.2	2.7	49.2	95.3	52
CHARLO AUTO*	NB	ZCR	AU8	16.7	14.6	2.2	70.8	85.1	83
MIRAMICHI RCS*	NB	ACQ	AU8	18.0	15.7	2.3	88.8	86.3	103
DOAKTOWN AUTO RCS*	NB	ADN	AU8	17.6	16.0	1.6	116.8	95.4	122
EDMUNDSTON*	NB	ERM	AU8	15.8			95.8	97.4	98
FREDERICTON INTL A	NB	YFC	NCA	18.6	16.2	2.3	72.6	82.4	88
FREDERICTON CDA CS*	NB	AFC	AU8	18.5	16.4	2.1	56.6	86.3	66
FUNDY PARK (ALMA) CS	NB	AFY	AU8	15.5	13.8	1.7			
GAGETOWN AWOS A	NB	YCX	AU5	18.7	16.4	2.3			
KOUCHIBOUGUAC	NB	AKC	AU8	17.8	15.5	2.3	100.2	90.5	111
MISCOU ISLAND (AUT)*	NB	WMI	AU8	15.8			65.4		
MONCTON INTL A	NB	YQM	NCH	18.2	15.2	3.0	30.2	94.6	32
OAK POINT	NB		DAILY	17.5	16.4	1.1			
POINT LEPREAU CS	NB	WPE	AU8	14.2	12.8	1.4			
RED PINES*	NB	ARP	AU8	17.0	15.4	1.6	65.2	83.6	78
SAINT JOHN A	NB	YSJ	NCH	16.1	14.0	2.1	66.4	101.0	66
ST. STEPHEN*	NB	WSS	AU8	18.5			50.8		
SUSSEX FOUR CORNERS*	NB	ASF	AU8	18.0	16.0	2.0	36.2	88.4	41
WOODSTOCK NEWBRIDGE*	NB	EWD	AU8	17.9	16.3	1.6	55.0	91.0	60
Average				17.3	15.4	2.0	68.2	89.0	78
Max				18.7	16.4	3.0	116.8	101.0	122
Min				14.2	12.8	1.1	30.2	74.9	32

* total precip. estimated from tipping bucket rain gauge /précip. Tot. estimées à partir du pluviomètre à augets basculeurs

Highlights:

The average temperature anomaly was above normal (**+2.0°C**). All sites reported positive anomalies with Moncton reporting the largest anomaly at +3.0°C and it's second warmest June on record. The temperature was warmest at the beginning and again at the end of the month corresponding with heat events.

Total precipitation amounts were below normal, with an average of **78%** of total precipitation. Moncton also reported the driest conditions with an anomaly of 32% of normal and its third driest June on record. The first half of the month was much drier than the second half.

June 2021; Climate Summary

Events:

June 7-8: “Heat Event”. The first heat event of the season brought record-setting maximum temperatures to 23 sites and humidity. The most extreme heat was recorded at both Bathurst and Kouchibouguac with 35.2°C while St. Stephen reported a maximum humidex value of 42.

June 19: “Severe Thunderstorms”. Areas in the northwest were battered by heavy rain and large hail. Rainfall reached as high as 30 mm in nearly 15 minutes in the Edmundston area causing some local flash flooding and hail stones reached up to 25 mm in diameter.

June 27-30: “Heat Event”. A tropical-like air mass brought stifling humidity to southern areas of the province with humidex values as high as 41 along with a few daily maximum temperature records. On June 30, severe thunderstorms brought damaging winds to the Fredericton Junction area as well as the Florenceville-Bristol areas.

Days of month with lightning in New Brunswick; 1 4 5 8 9 11 14-16 19 21-23 28-30 (16 days)

Day of month with temperature record broken or tied in New Brunswick; 7 8 11 21 24 28 29

(red=maximum, blue=minimum)



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June 2021; Provincial Climate Extremes

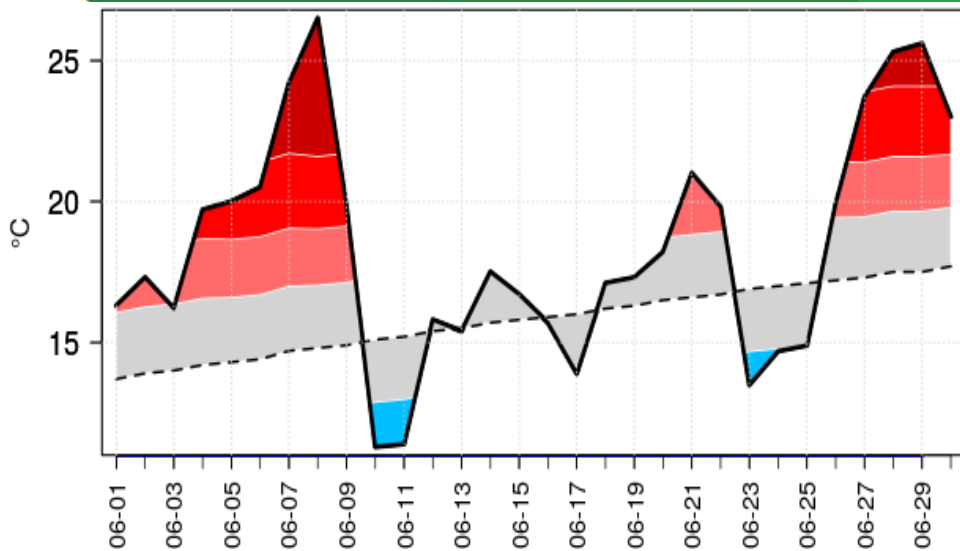
Parameter	Value	ECCE Station	Day of month
Daily Maximum Temperature	+35.2°C	Bathurst Kouchibouguac	7
Daily Minimum Temperature	-1.2°C	Edmundston	11
Maximum Daily Total Precipitation*	28.8 mm	Kouchibouguac	30
Daily Maximum Wind Gust	76 km/h	Miscou Island	10
Daily Maximum Humidex	42	St. Stephen	8

*this precipitation value is likely higher, but due to ongoing network issues with precipitation data, this is the largest value amongst the few reporting stations

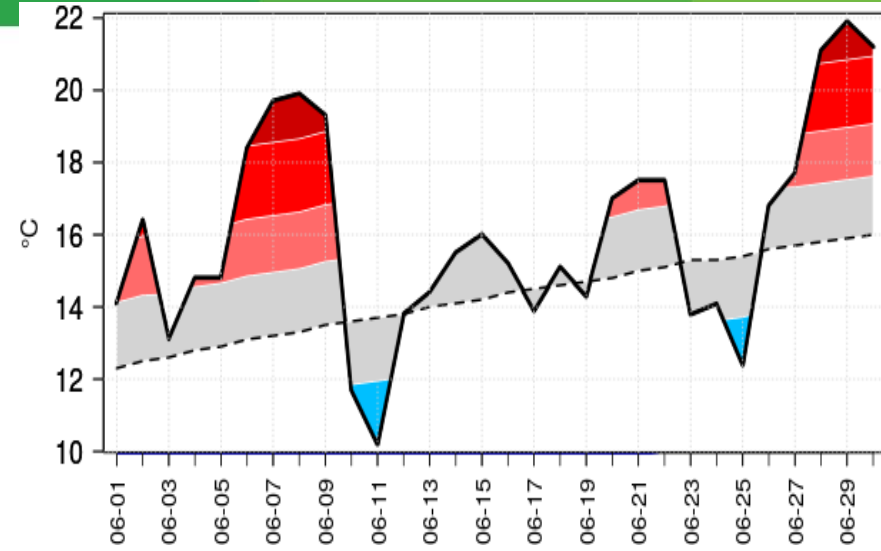


June 2021 - Temperature

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

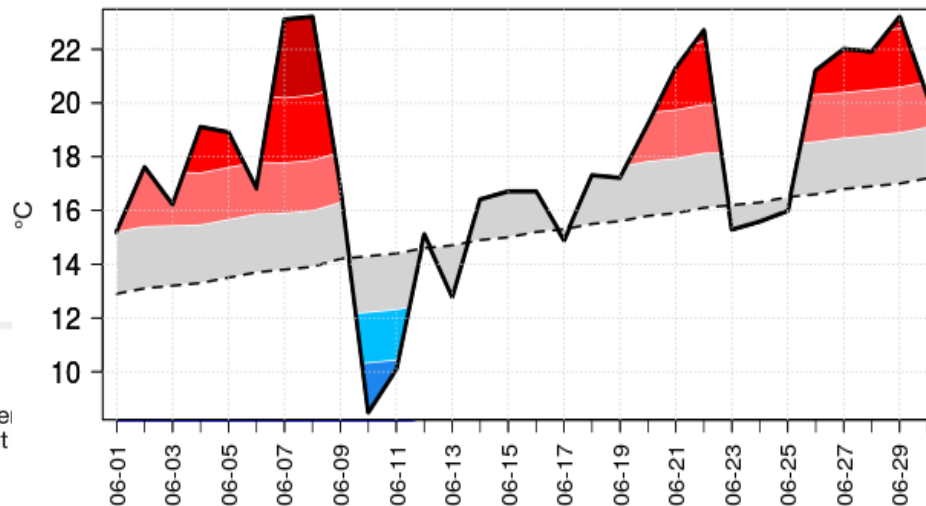


Saint John

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

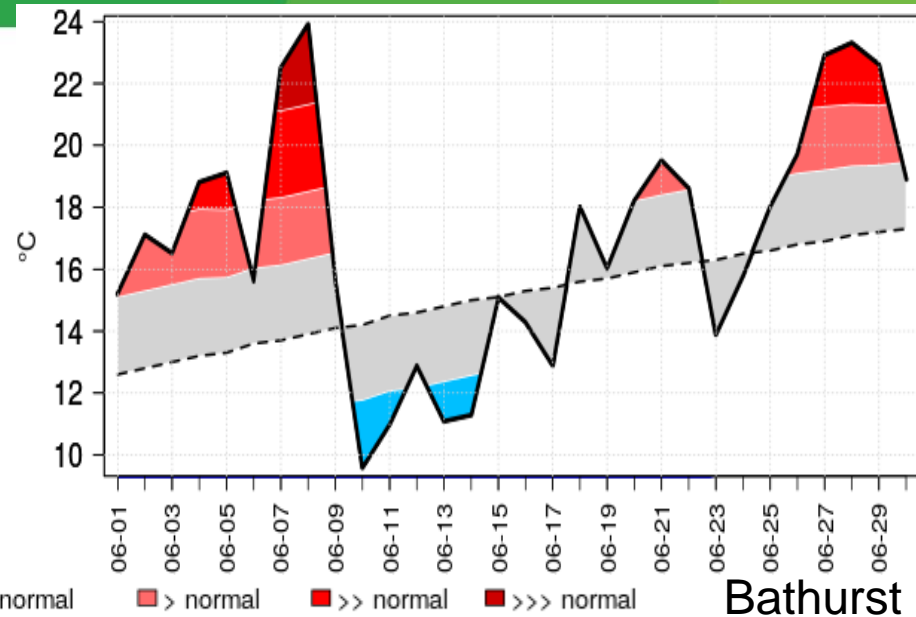
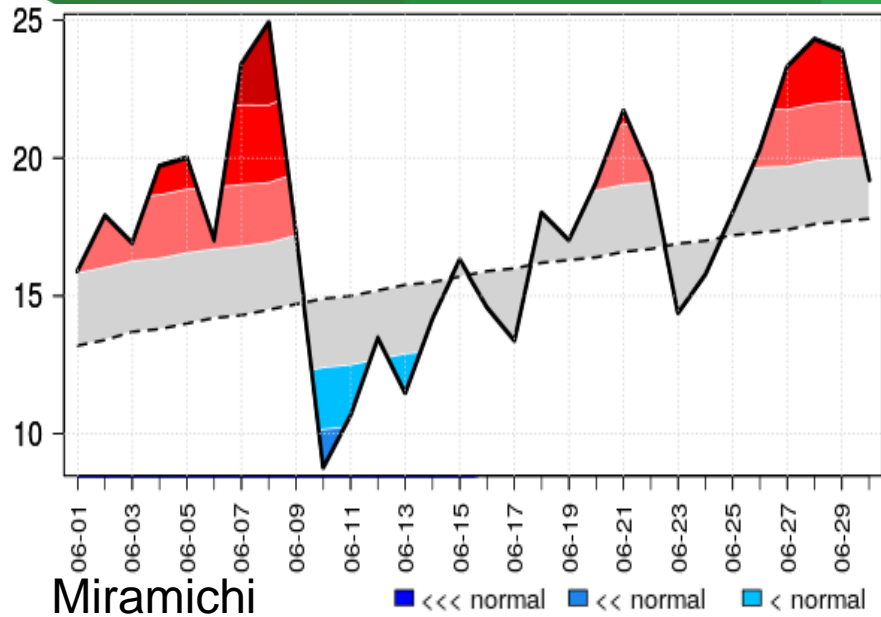
All sites were above normal

Moncton



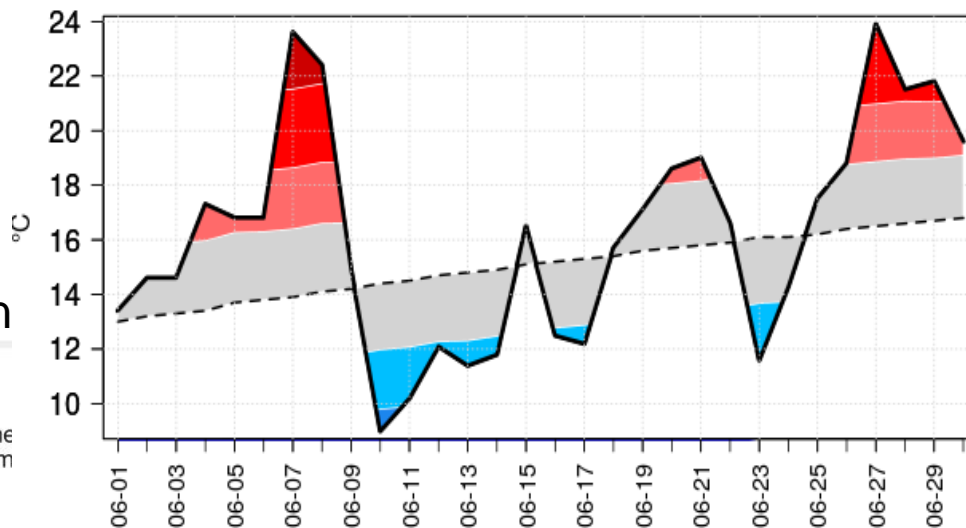
June 2021 - Temperature

Daily Mean Temperature (line), Long-Term Mean (dashed line) and Categories based on Standard Deviations (blue and red) Based on gridded observations / Climatology 1981-2010 Std. dev. thresholds +/- 0.7, 1.3, 2.1



All sites were above normal

Edmundston



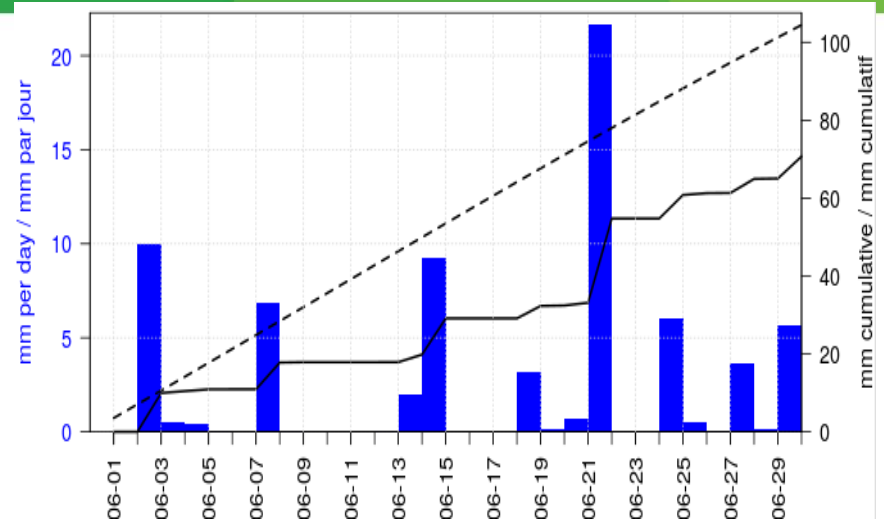
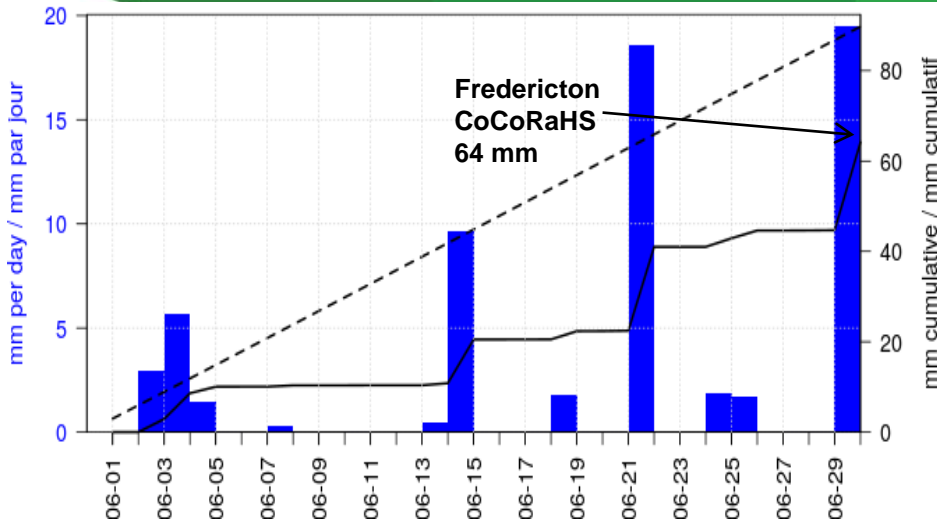
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June 2021 - Precipitation

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

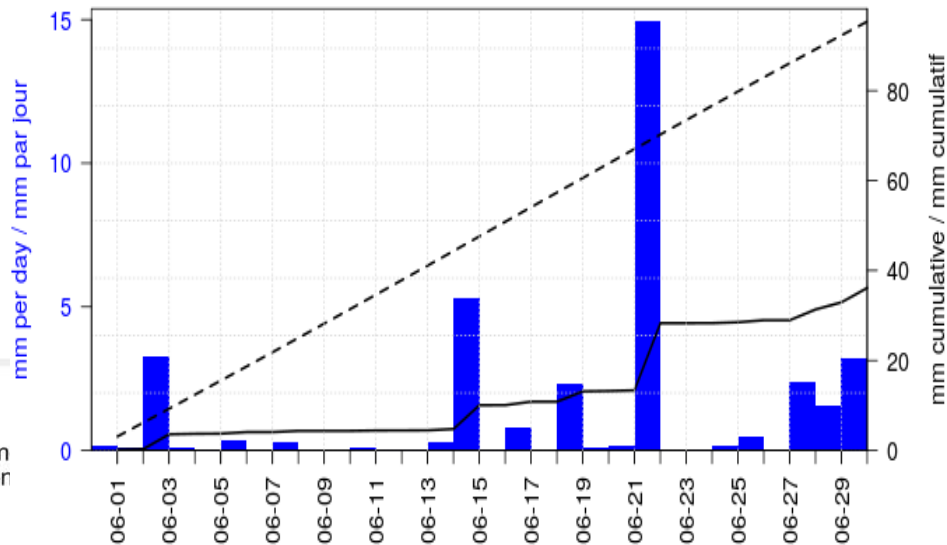


Fredericton (and area)

Saint John

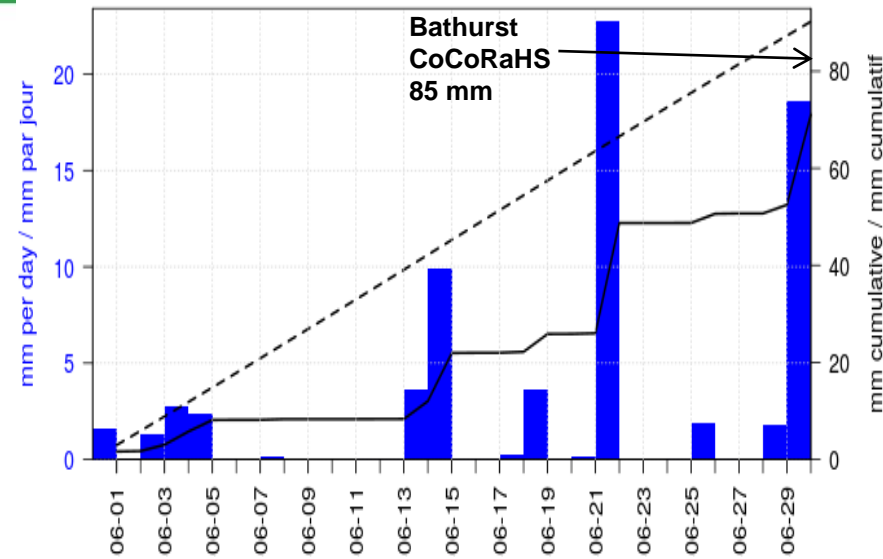
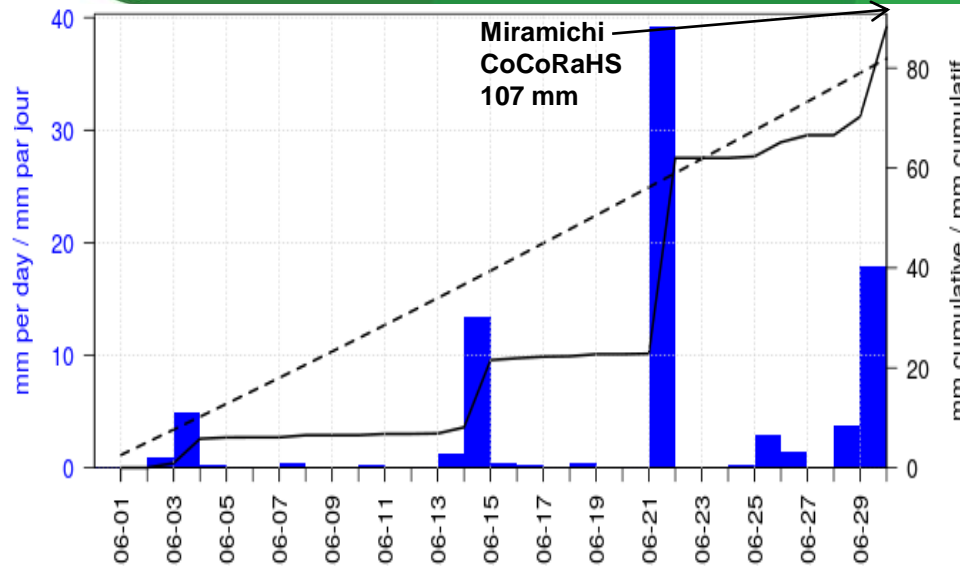
All sites were below normal

Moncton



June 2021 - Precipitation

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



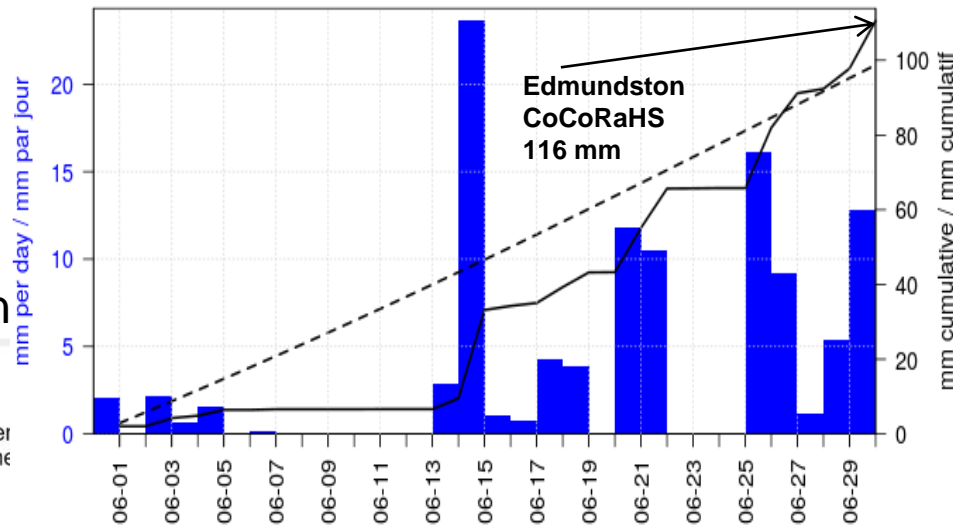
Miramichi

Bathurst

Edmundston and Miramichi were near normal

Bathurst was below normal

Edmundston

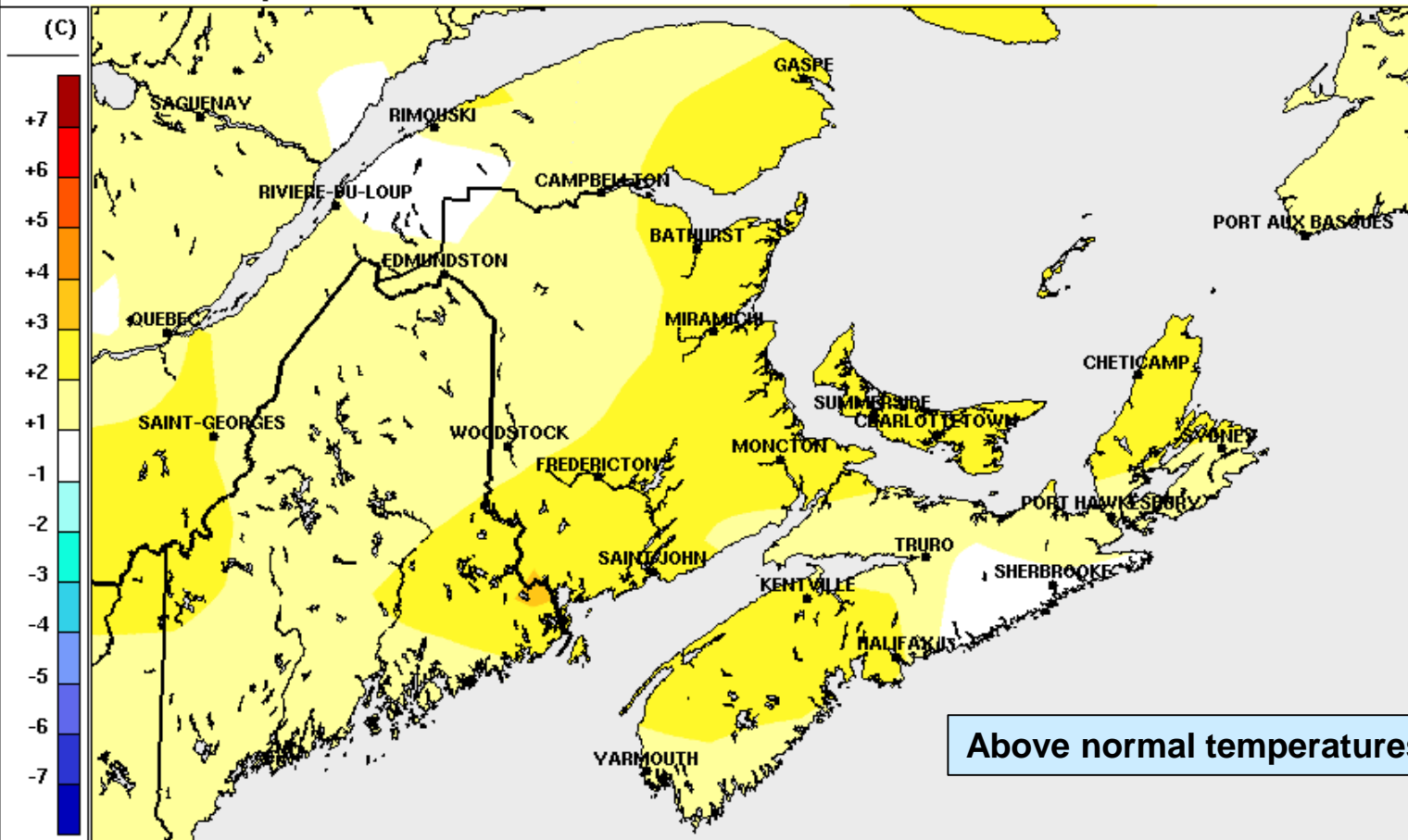


June 2021 – Temperature departure from 1981-2010 mean

Temperature Anomaly: 2021-06
Anomalie de température: 2021-06



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ECCC Climate Archives data / Données des Archives Climatiques de ECCC. Clim: 1981-2010

2021-07-01 13:55UTC



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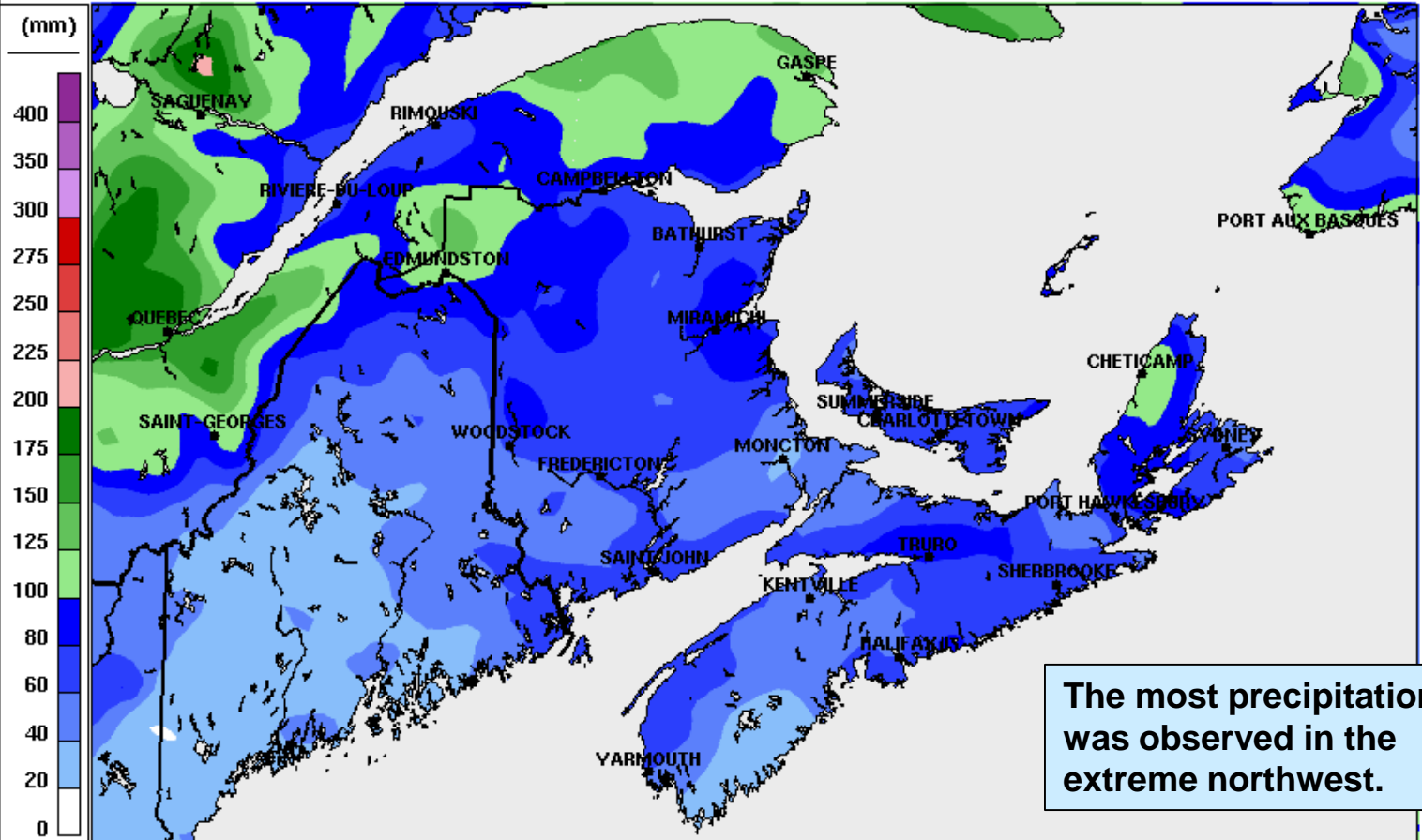
June 2021 – Total precipitation

Total precipitation: 2021-06
Précipitation totale: 2021-06



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The most precipitation was observed in the extreme northwest.

ECCC 10-km CaPA / ACaP 10-km d'ECCC

2021-07-01 13:28UTC



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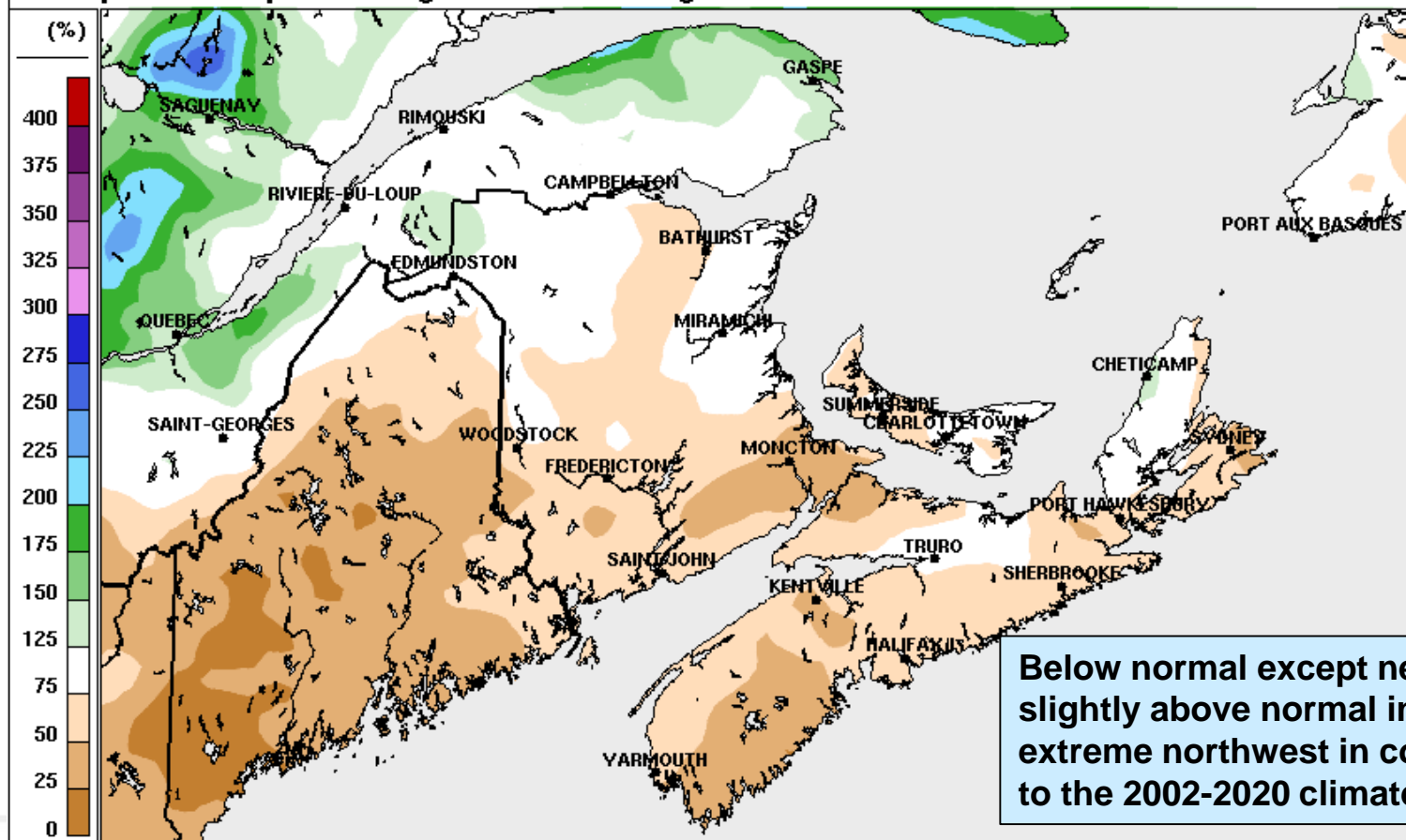
June 2021 – Precipitation departure from 2002-2020 mean

Precipitation as a Percentage of Climatology: 2021-06
Précipitation en pourcentage de la climatologie: 2021-06



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Below normal except near to slightly above normal in the extreme northwest in comparison to the 2002-2020 climate period.

ECCC 10-km CaPA / ACaP 10-km d'ECCC. Clim: 2002-2020

2021-07-01 13:29UTC



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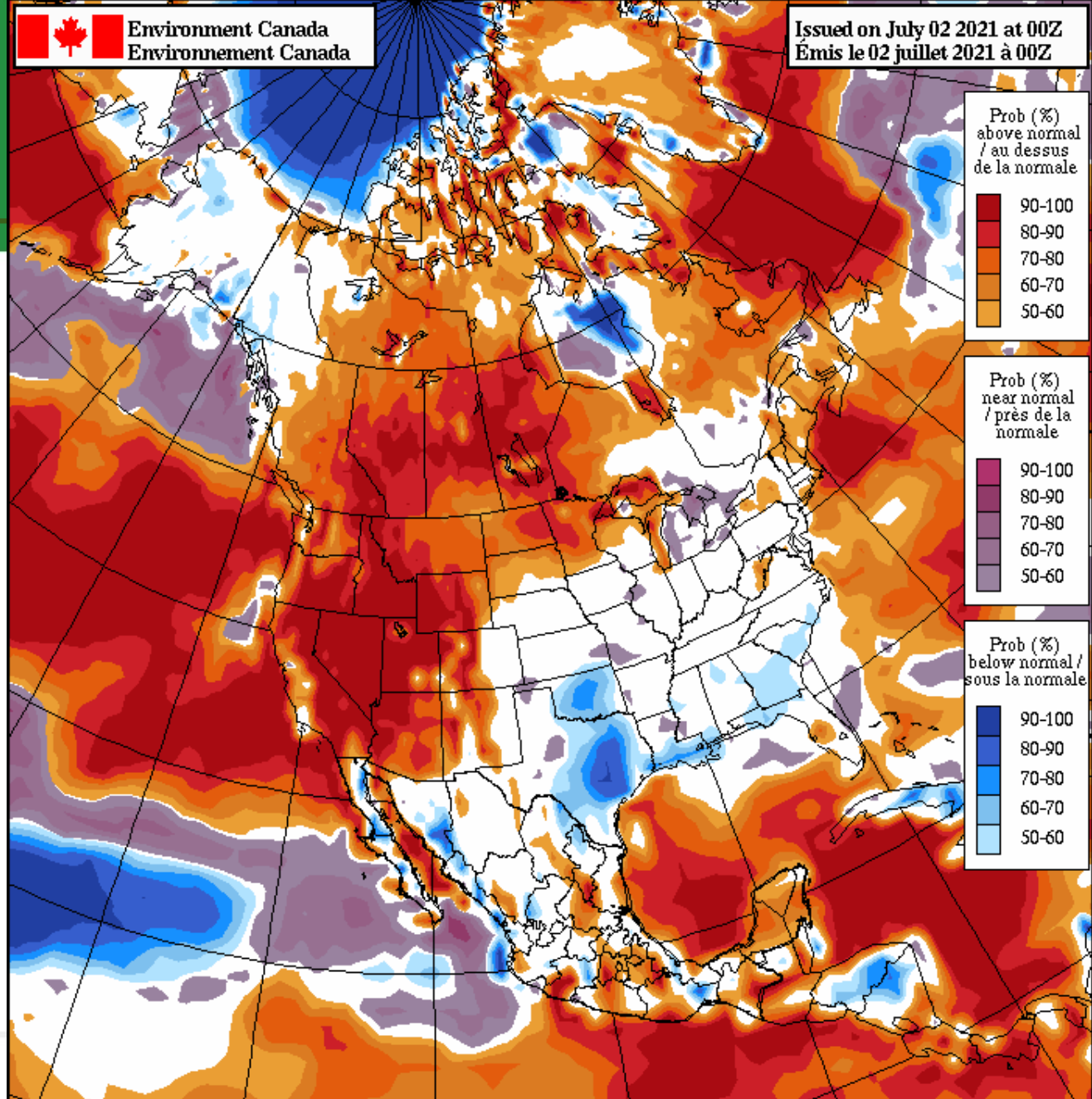
Outlook Day 8 to 14 Forecast

Issued on July 02 2021 at 00Z
Émis le 02 juillet 2021 à 00Z

 Environment Canada
Environnement Canada

Period ending
July 17, 2021

Suggesting a
weak signal of
above normal
conditions.





Fredericton

Ensemble and Deterministic Forecasts issued 2 July 2021 00 UTC
Prévision d'ensemble et déterministe émises le 2 Juillet 2021 00 UTC
for/pour

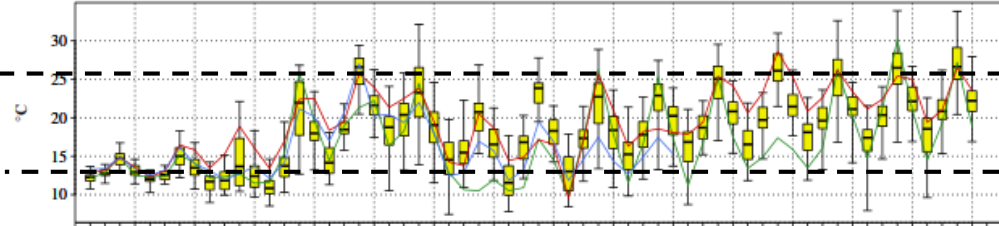
NAEFS / SPENA

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

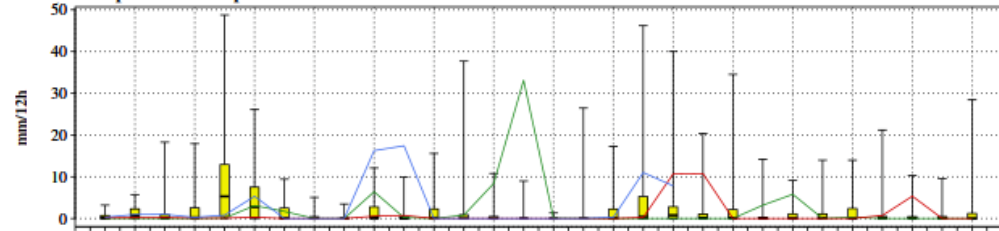
July

Normal high: 25.5C

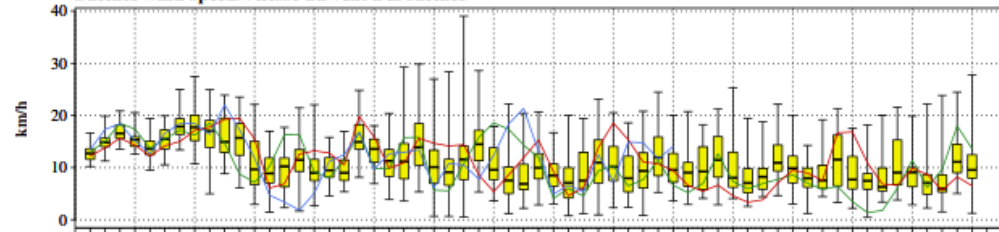
Normal low: 13.0C



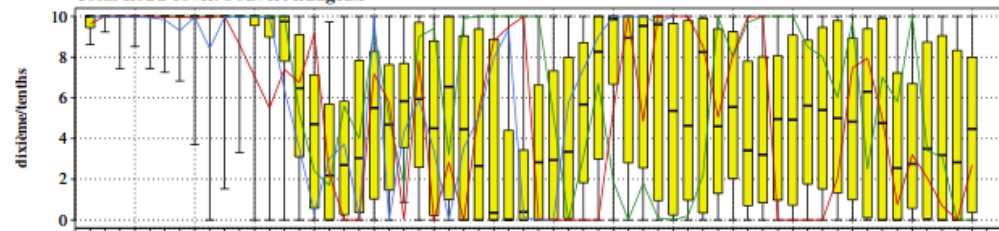
Précipitations/Precipitation



Surface wind speed/Vitesse du vent à la surface



Total cloud cover/Couvert nuageux



02 03 04 05 06 07 08 09 10 11 12 13 14 15 16

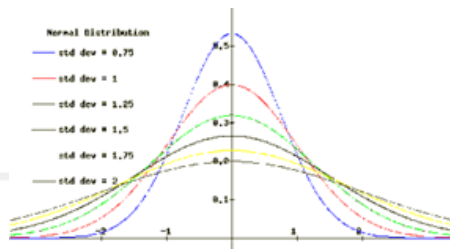
July/Juillet 2021

max
75%
median/médiane
25%
min

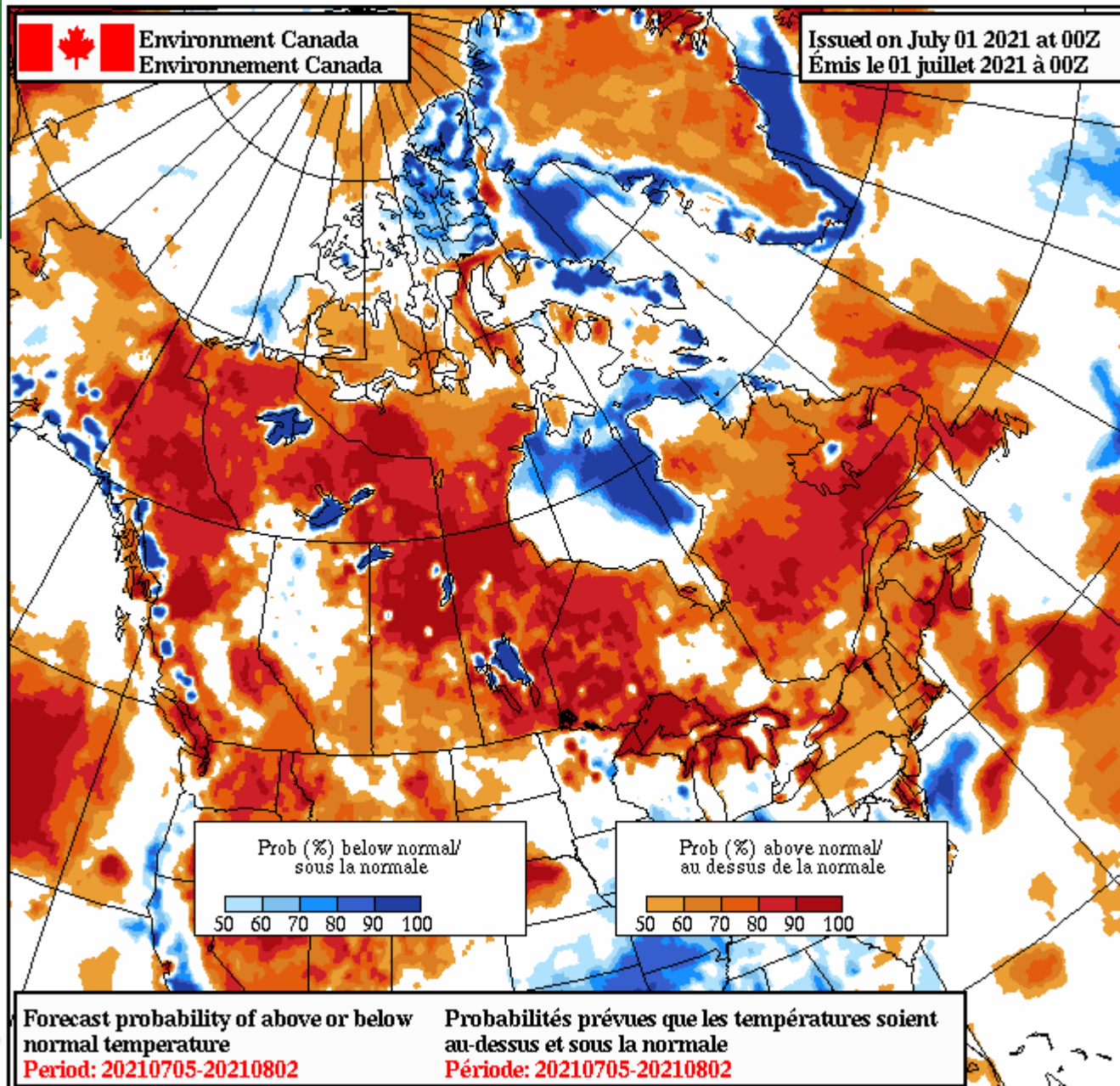
Global Model / Modèle global
Control Member / Membre contrôlé CMC
Control Member / Membre contrôlé NCEP

**Next 15 days; ending
July 16, 2021**

Generally suggesting below to near normal until near mid-period then lots of variability for the remainder of the period.

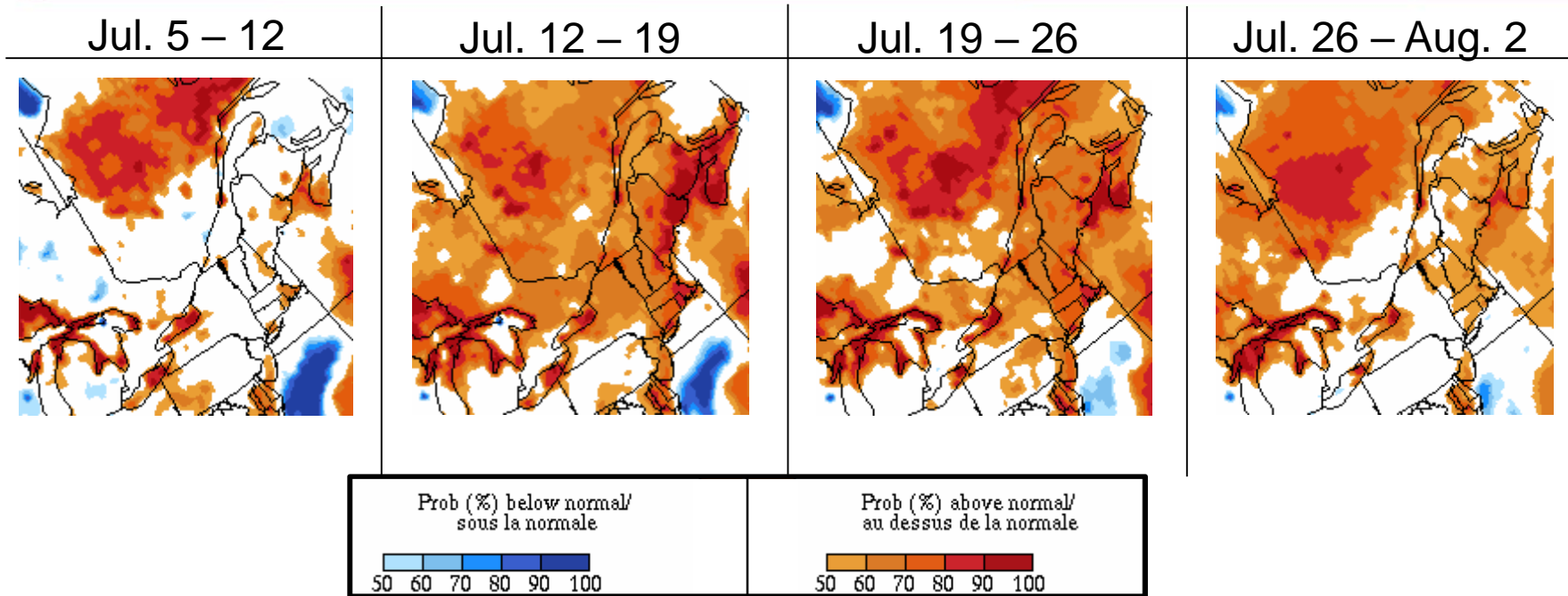


Temperature July 5 to August 2



CMC
Monthly
Forecast
Product
using GEPS
50km res.

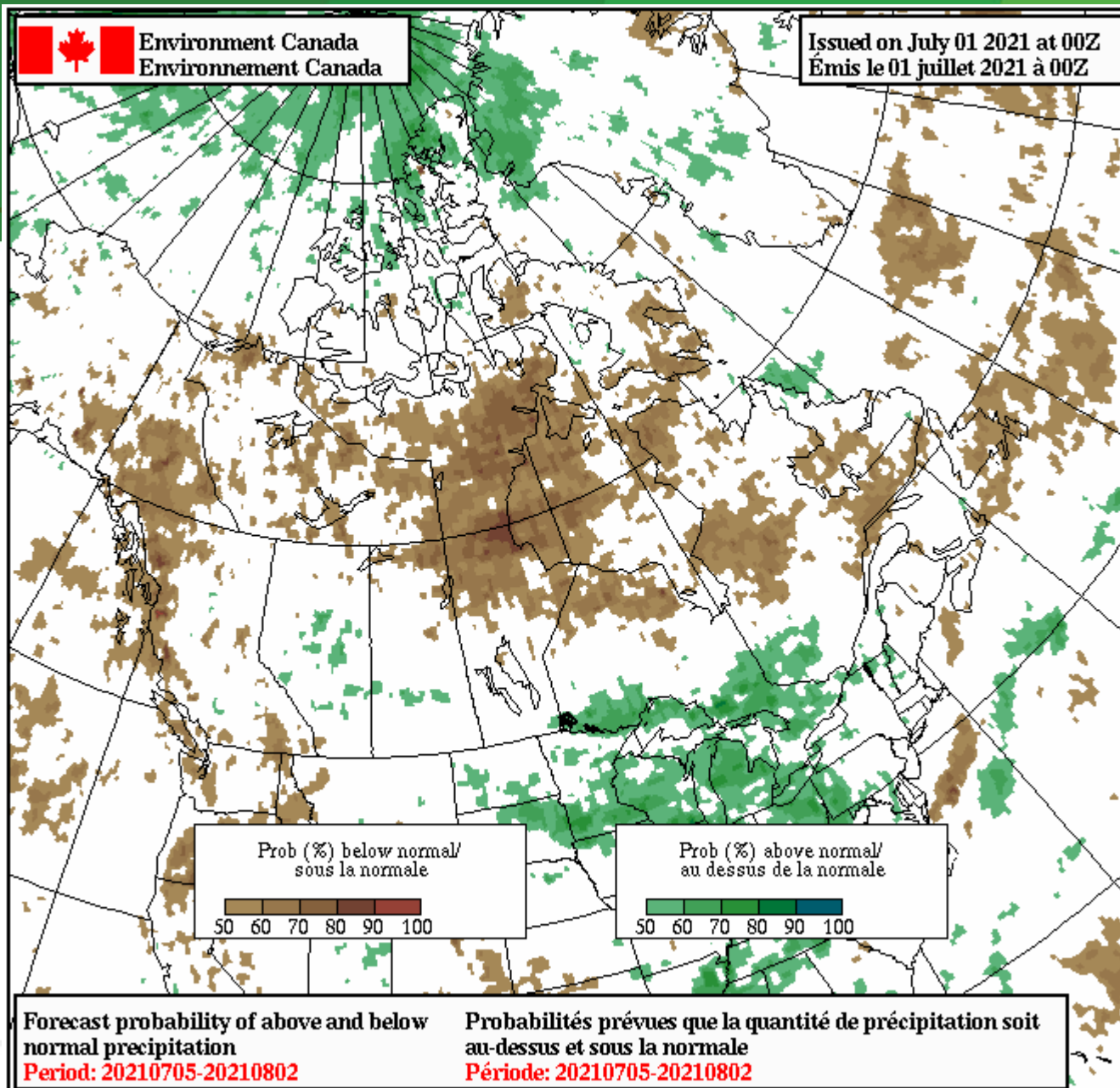
Weekly signature from GEPS 50km resolution



Initially no signal (near normal) for the first week then a weak to moderate signal for above normal for remainder of the period.

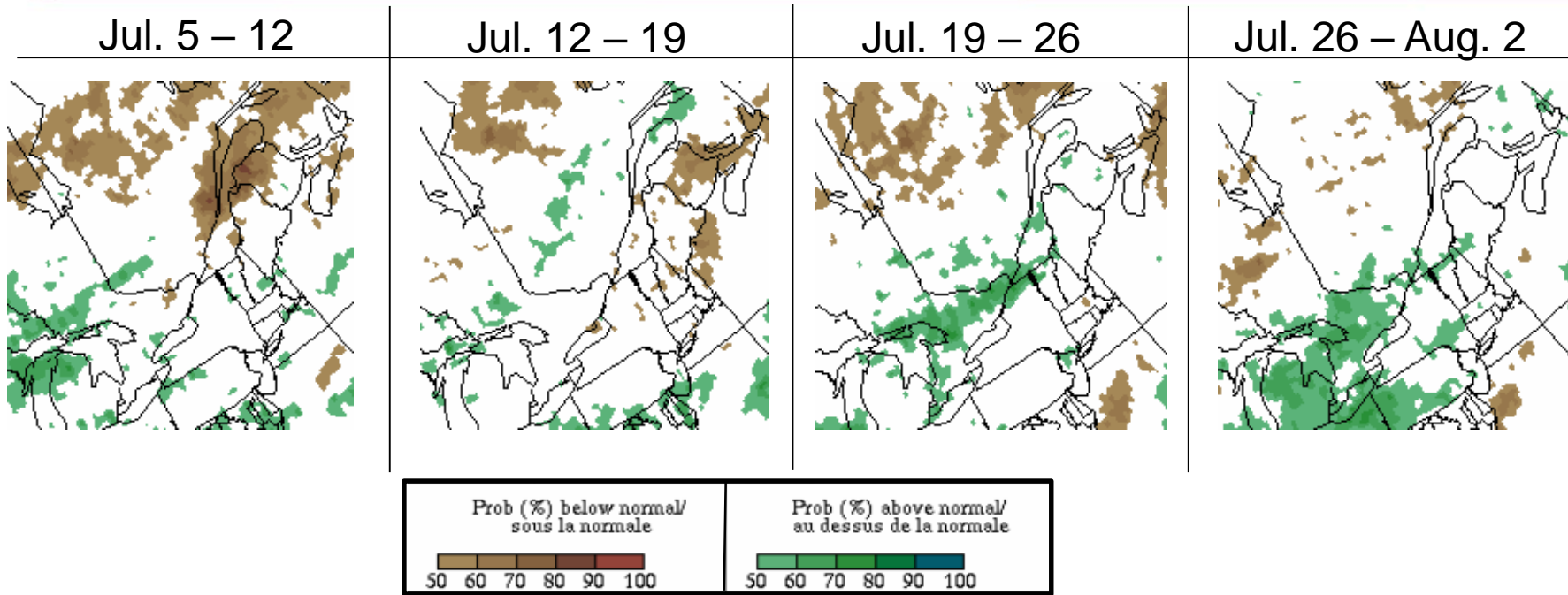


Precipitation July 5 to August 2



CMC
Monthly
Forecast
Product
using GEPS
50km res.

Weekly signature from GEPS 50km resolution



Indications of below to near normal (no signal) for the half of the period then near normal for the remainder of the period.

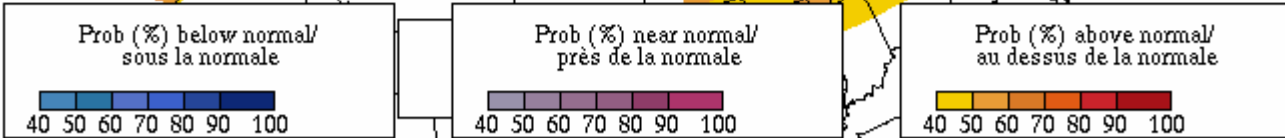
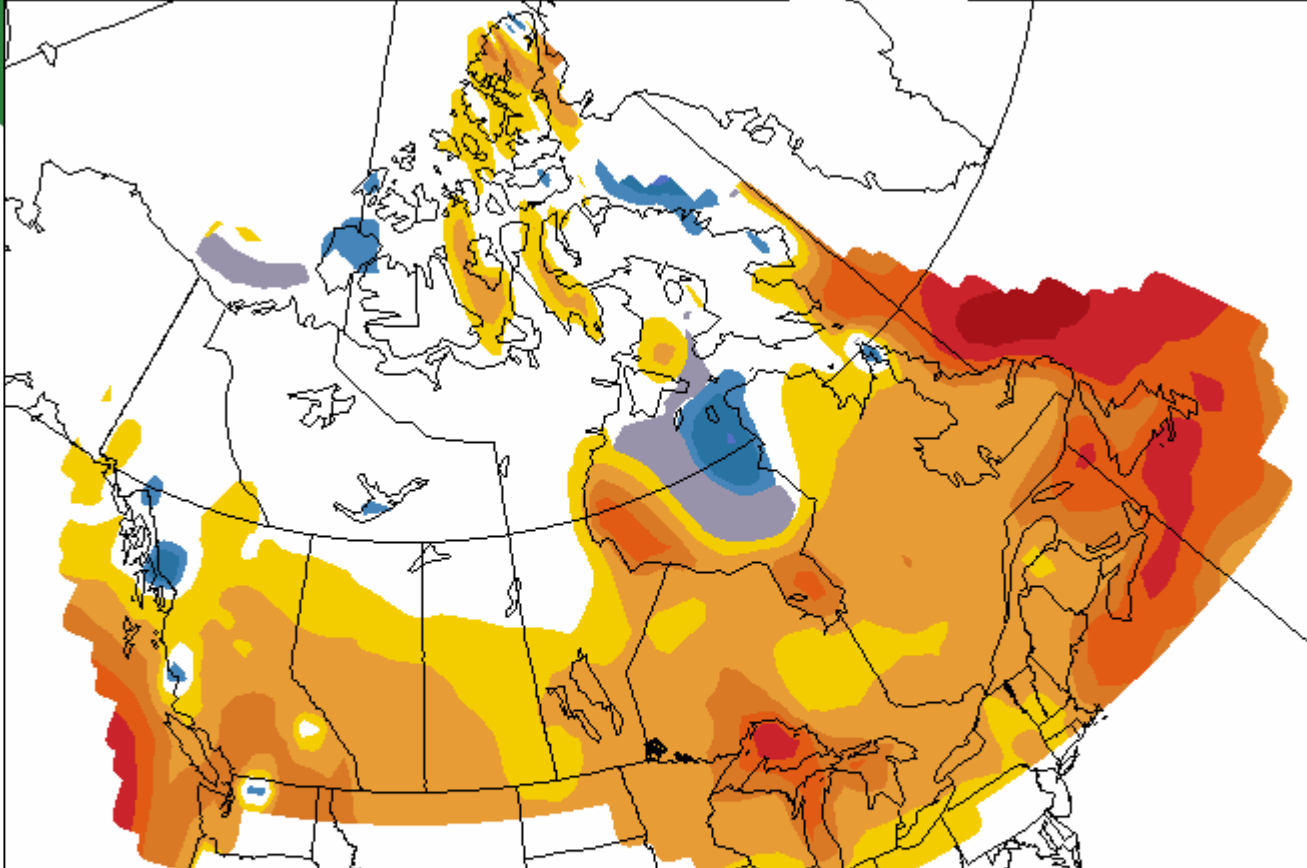




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Produced on 30 June 2021
Produit le 30 juin 2021

Temperature August 2021

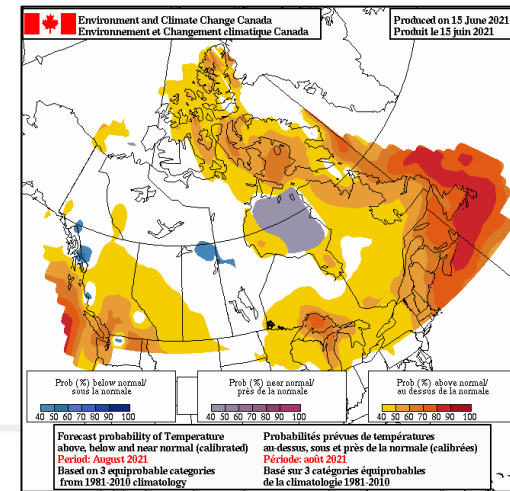


**Forecast probability of Temperature
above, below and near normal (calibrated)**
Period: August 2021
Based on 3 equiprobable categories
from 1981-2010 climatology

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

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

Produced June 15



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

**Probabilités prévues de températures
au-dessus, sous et près de la normale (calibrées)**
Période: août 2021
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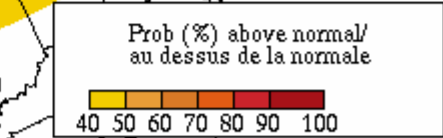
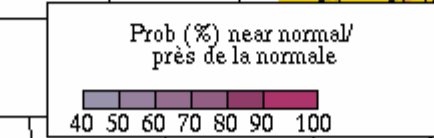
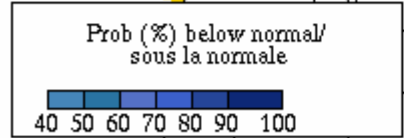
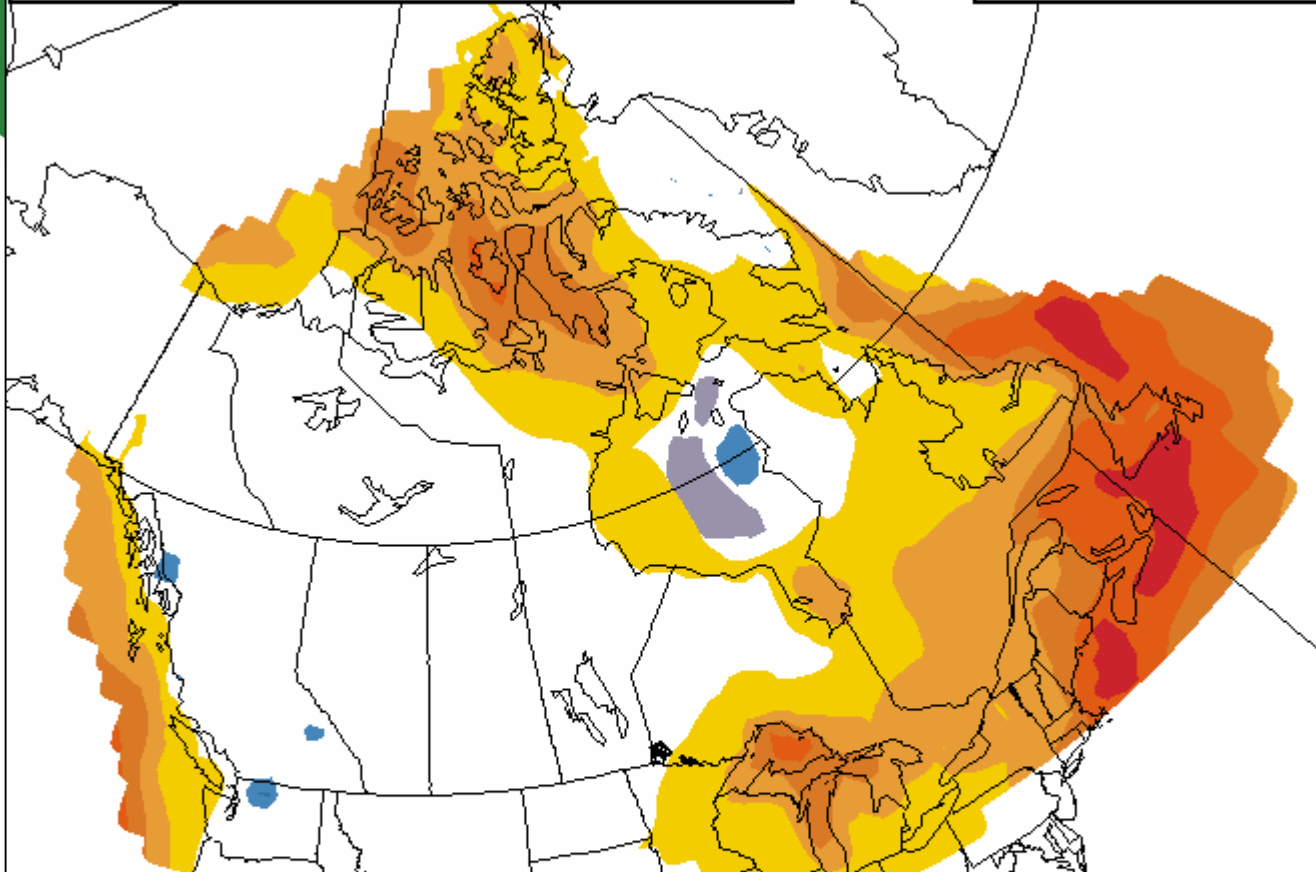
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Produced on 30 June 2021
 Produit le 30 juin 2021



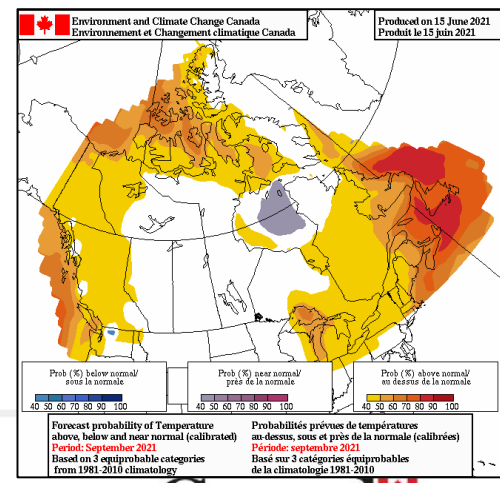
**Forecast probability of Temperature
 above, below and near normal (calibrated)**
Period: September 2021
 Based on 3 equiprobable categories
 from 1981-2010 climatology

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

Temperature September 2021

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

Produced June 15



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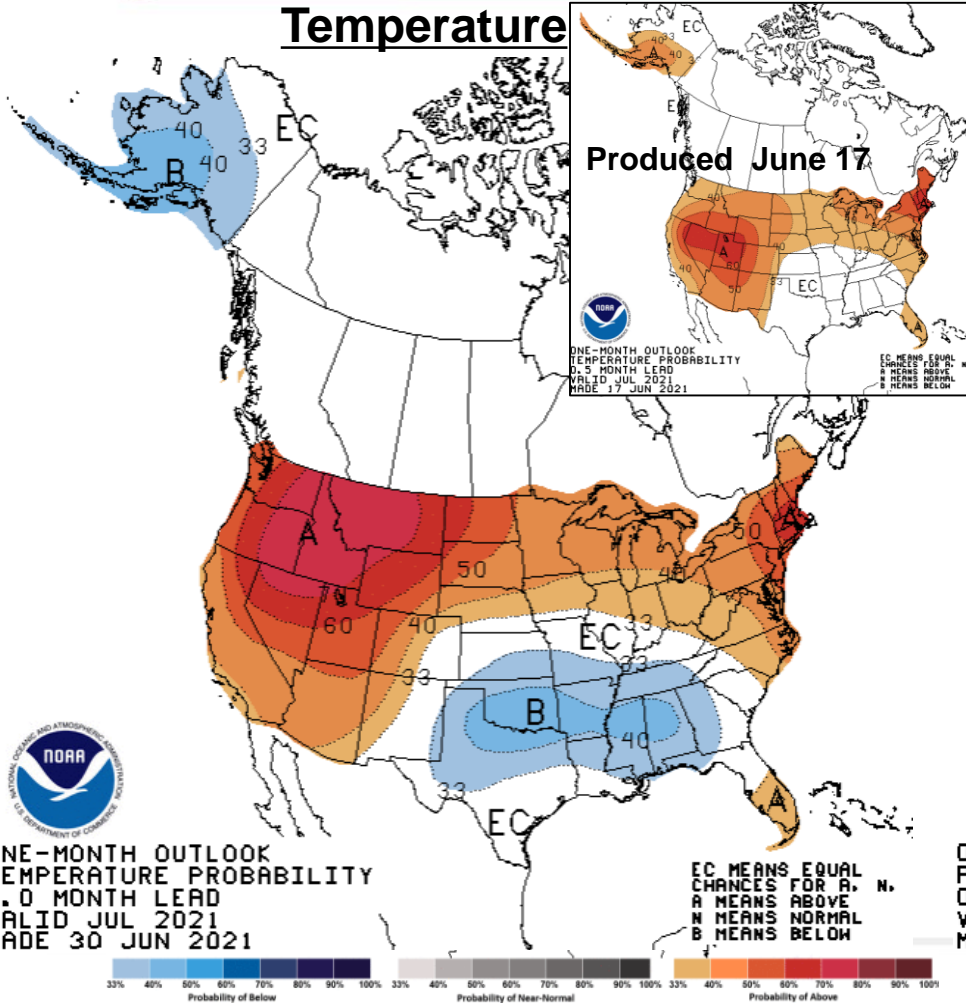
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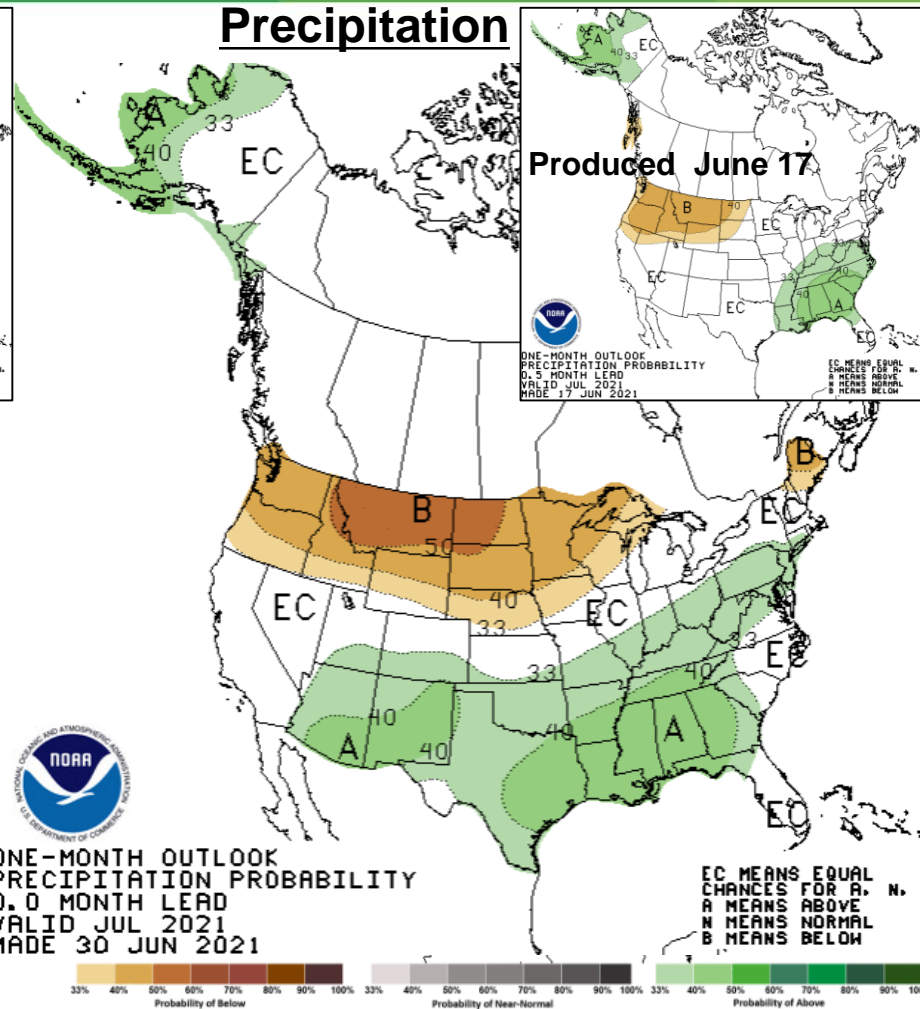


July 2021

Temperature



Precipitation



ONE-MONTH OUTLOOK
TEMPERATURE PROBABILITY
0.0 MONTH LEAD
VALID JUL 2021
MADE 30 JUN 2021

ONE-MONTH OUTLOOK
PRECIPITATION PROBABILITY
0.0 MONTH LEAD
VALID JUL 2021
MADE 30 JUN 2021



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Contact

Jill Maepea

Warning Preparedness Meteorologist

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Canada Weather Pages

www.weather.gc.ca

