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Canada



New Brunswick

July 2018 Review August and Summer/Fall Outlook

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Meteorological Service of Canada
Environment and Climate Change Canada
August 1, 2018**

July 2018; Climate Summary

						Mean Temperature (°C)			Total Precip (mm)			
				Monthly Avg of Daily Max Temp	Monthly Avg of Daily Min Temp							Departure from Normal as % of
Station Name	Prov	TC ID	Station Type			Monthly Mean	Normal Mean	Departure from Normal	Monthly Total	Normal Total	Total as % of Normal	Normal as % of Normal
BAS CARAQUET	NB	WXS	AU8	26.2	15.2	20.7	18.3	2.4	69.6	92.3	75	-25
BAS CARAQUET	NB		DAILY						62.4	92.3	68	-32
BATHURST A	NB	ZBF	NCH	28.0	14.4	21.2	19.1	2.1	83.6	100.8	83	-17
BUCTOUCHE CDA CS	NB	ABT	AU8	27.3	15.2	21.2	19.2	2.1	87.5	99.1	88	-12
CHARLO AUTO	NB	ZCR	AU8	26.7	14.3	20.5	17.9	2.6	62.9	102.1	62	-38
MIRAMICHI RCS	NB	ACQ	AU8	28.8	15.5	22.1	19.1	3.0	41.3	99.9	41	-59
DOAKTOWN AUTO RCS	NB	ADN	AU8	28.5	13.8	21.1	19.1	2.0	28.7	105.8	27	-73
EDMUNDSTON	NB	ERM	AU8	27.6	11.5	19.5	18.2	1.4	94.2	113.8	83	-17
FREDERICTON	NB	YFC	NCA	28.2	14.4	21.4	19.3	2.1	68.4	88.3	77	-23
FREDERICTON CDA CS	NB	AFC	AU8	27.9	14.8	21.3	19.4	2.0	94.8	89.0	107	7
FUNDY PARK (ALMA) CS	NB	AFY	AU8	24.6	13.3	18.9	17.1	1.9	76.7	99.4	77	-23
GAGETOWN AWOS A	NB	YCX	AU5	28.0	14.5	21.3	19.5	1.8	75.5	96.9	78	-22
GRAND MANAN SAR CS	NB	XGM	AU8	23.5	12.5	18.0			15.9			
KOUCHIBOUGUAC	NB	AKC	AU8	28.2	14.3	21.3	19.2	2.1	54.4	110.4	49	-51
MACTAQUAC PROV PARK	NB		DAILY	27.8	14.7	21.3	18.8	2.5	76.9	98.2	78	-22
MECHANIC SETTLEMENT	NB	AMS	AU8	24.5	14.7	19.6			68.2			
MISCOU ISLAND (AUT)	NB	WMI	AU8	24.9	15.0	20.0			26.9			
MONCTON INTL A	NB	YQM	NCH	27.8	14.8	21.4	18.8	2.6	63.0	92.1	68	-32
OAK POINT	NB		DAILY	25.9	14.2	20.1	19.5	0.5	23.5	96.9	24	-76
RED PINES	NB	ARP	AU8	27.9	13.4	20.7	18.6	2.1	75.0	105.8	71	-29
SAINT JOHN A	NB	YSJ	NCH	24.8	11.5	18.3	17.1	1.2	19.6	88.4	22	-78
ST. STEPHEN	NB	WSS	AU8	27.7	13.3	20.5			36.5			
SUSSEX FOUR CORNERS	NB	ASF	AU8	27.0	14.1	20.5	19.2	1.3	50.5	84.0	60	-40
WOODSTOCK	NB		DAILY	27.2	14.9	21.1	19.0	2.1	97.2	100.2	97	-3
WOODSTOCK NEWBRIDGE	NB	EWD	AU8	27.5	13.5	20.5	19.0	1.5	38.7	100.2	39	-61
Average				26.9	14.1	20.5	18.8	2.0	59.7	97.9	65	-35
Max				28.8	15.5	22.1	19.5	3.0	97.2	113.8	107	7
Min				23.5	11.5	18.0	17.1	0.5	15.9	84.0	22	-78

record

record



July 2018; Climate Summary

Highlights:

In July, the average temperature was well above normal (+2.0C above normal). All sites reported a positive anomaly. Miramichi had the highest positive anomaly with an average temperature of +3.0C above normal. At several stations throughout the province, this July was among the top 3 or 4 warmest July's on record, or even top 3 or 4 warmest of any months on record. Bathurst had the warmest monthly maximum temperature at 28.0C out of 122 years of data, while Moncton had the warmest monthly mean temperature at 21.4C out of 119 years of data.

Total precipitation amounts were well below normal, on average 35% below normal. Saint John was the driest with only 22% of their normal precipitation while in contrast, Fredericton was the only site to report a slightly above normal total precipitation for the month. This was the second consecutive month of below normal precipitation for northern sections of the province.

Events:

July 1-5; Heat event; A very warm and humid air mass persisted across the province for several days prompted our first heat warnings of the season. Air temperatures reached as high as 36.0C in the Miramichi area on the 5th with humidex values as high as 43 in the Cumberland Bay area.

July 10; Thunderstorms; A cold front brought thunderstorms to most of the province with embedded intense thunderstorms that caused nickel-sized to toonie-sized hail and up to 100 mm in rain. Some damage to vehicles, crops and buildings was reported in the Acadian peninsula from the large hail.

July 22-25; Heat event; High levels of humidity and heat provided humidex values in the 36 to 39 range as a tropical air mass crossed over the Maritimes. Temperatures reached the low thirties in several communities, but it was the elevated humidity that was particularly oppressive during this period.

Days with thunderstorm activity (lightning) in New Brunswick; 2, 3, 4, 5, 6, 9, 10, 15, 17, 18, 23, 26, 27, 28, 29, 31

Days with temperature records broken or tied in New Brunswick; 3 4 5 13 19 22 23 24 25 31
(red=maximum, blue=minimum)



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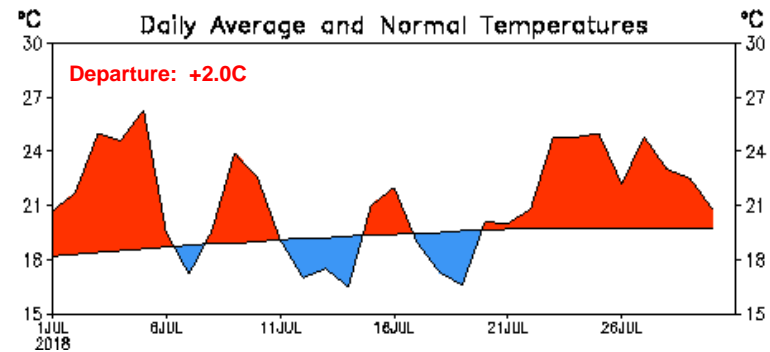
Canada

July 2018

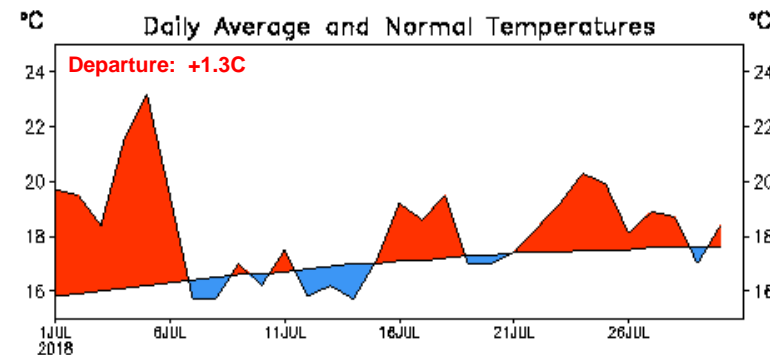
Temperature

All three sites
were well above normal.
This was also
representative of
the province.

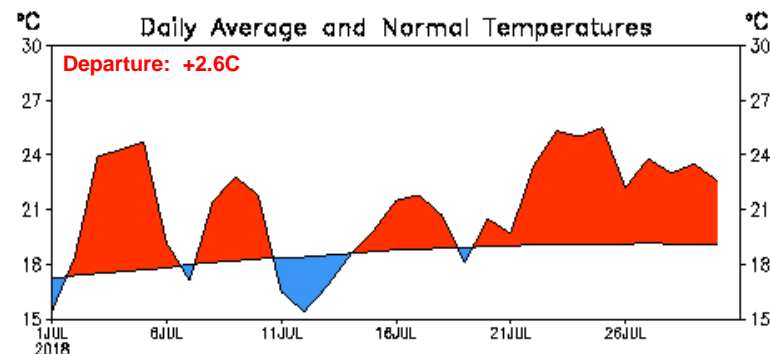
Fredericton



Saint John



Moncton



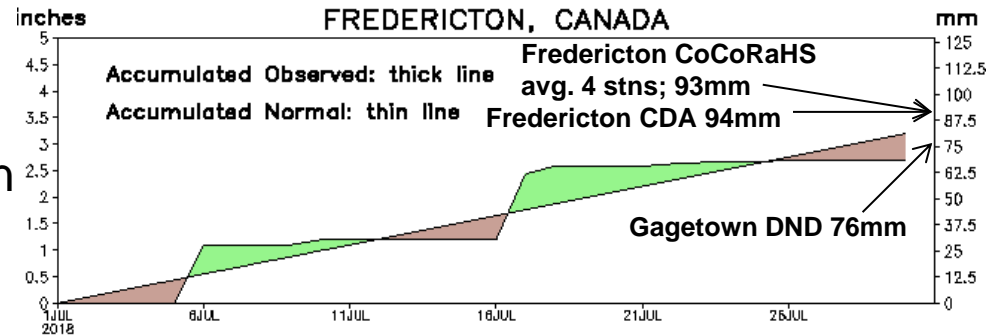
July 2018

Precipitation

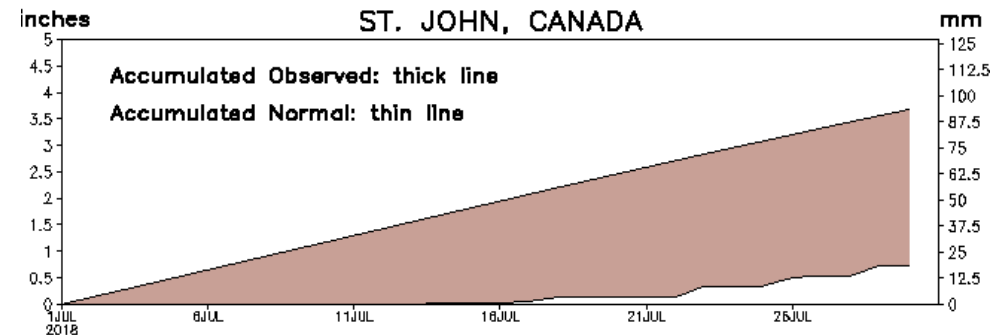
Precipitation amounts were well below normal.



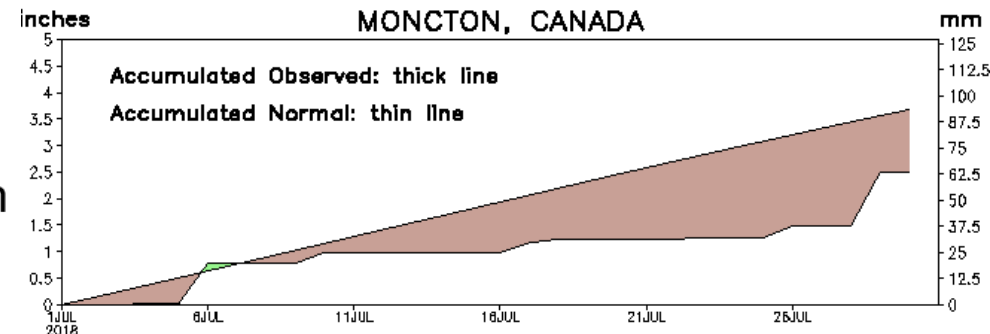
Fredericton



Saint John



Moncton



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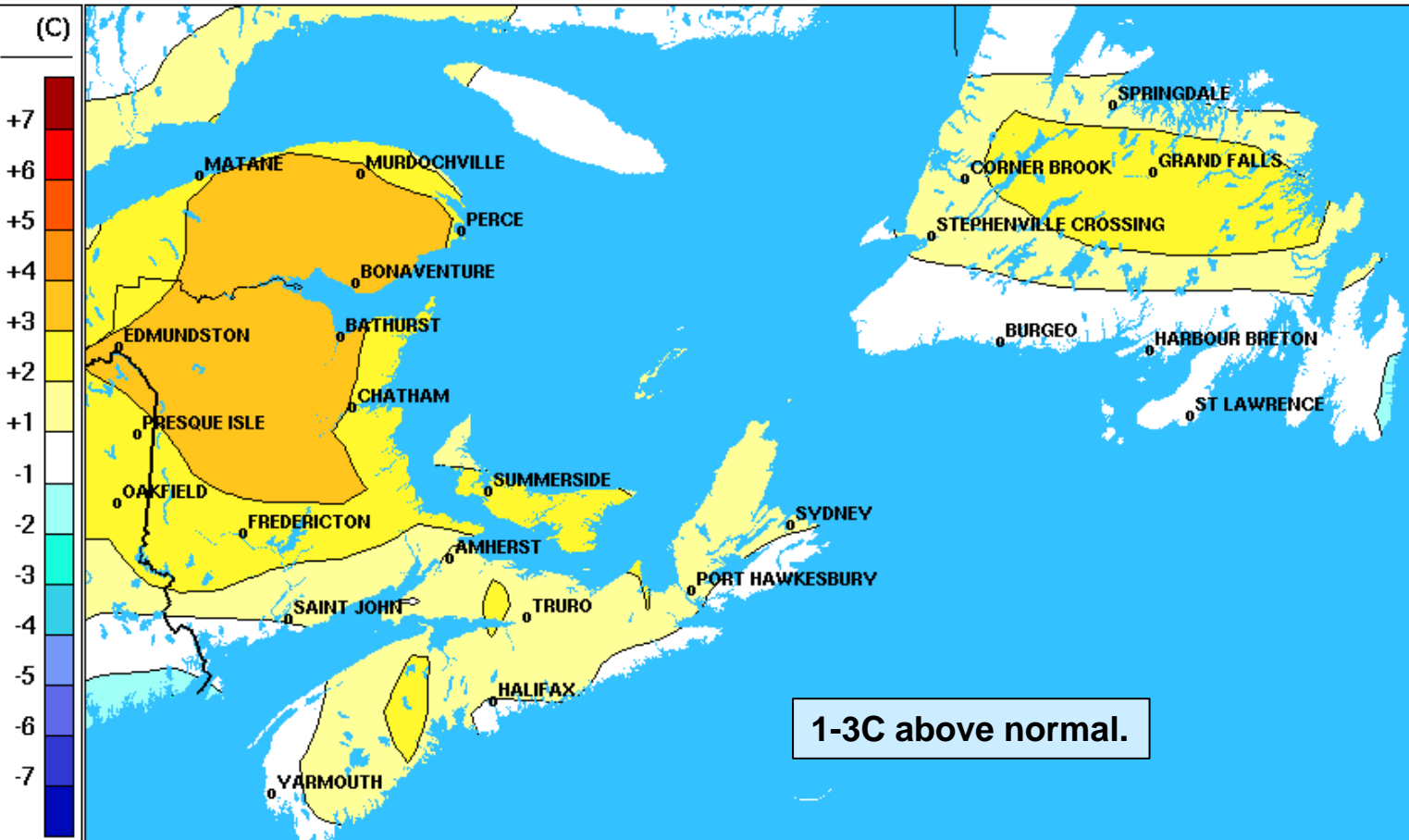
July 2018 Temperature departure from 1981-2010 mean.

Monthly Temperature Anomaly: 2018/07
Anomalie de la température mensuelle: 2018/07



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ECCC model data projected onto 1981-2010 station means / Données de modèle d'ECCC projetées sur des moyennes 1981-2010 de stations



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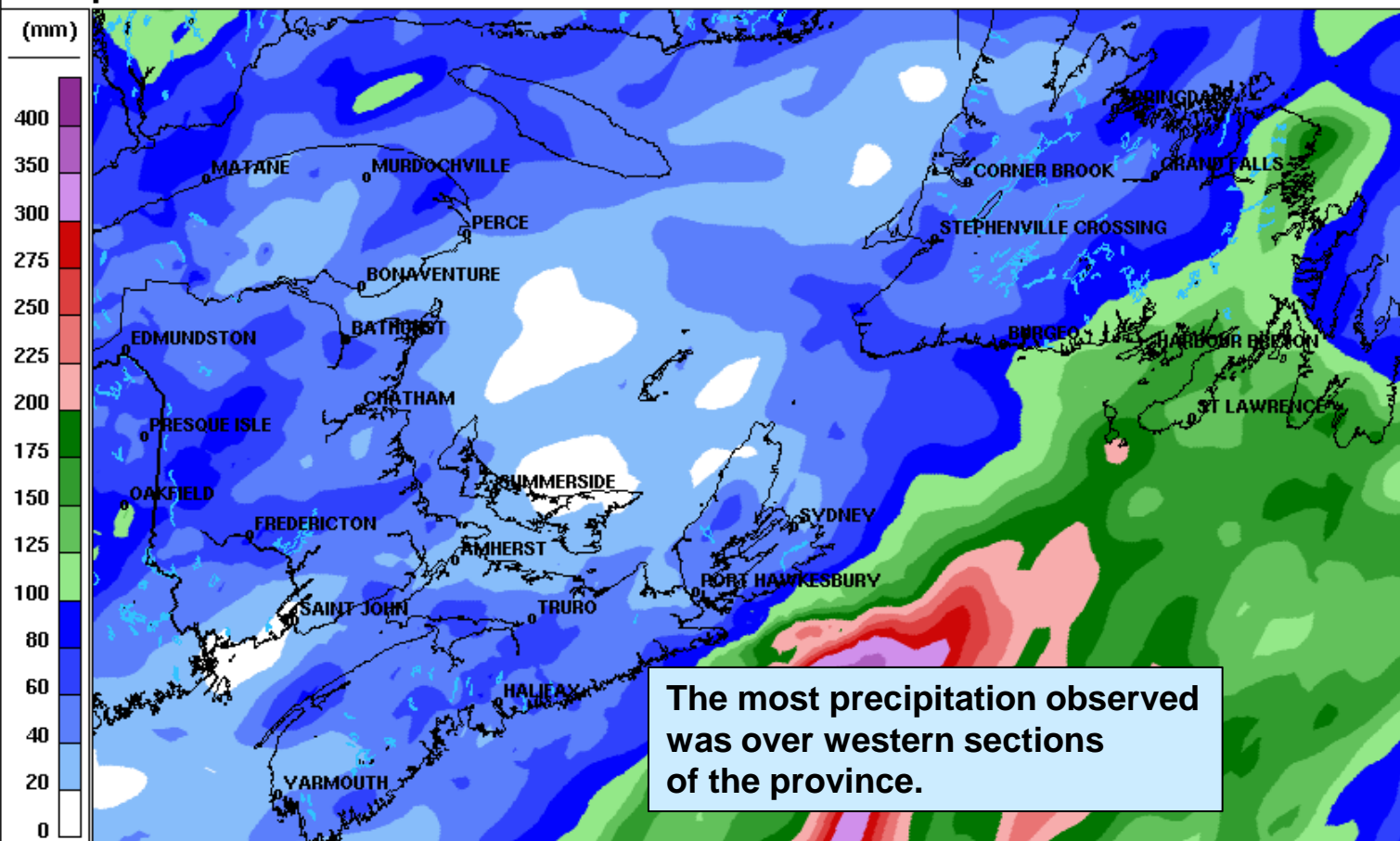
July 2018 Total Precipitation

Total precipitation: 201807
Précipitation totale: 201807



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ECCC NWP model gridded data / Données sur grille de modèle de PNT de ECCC



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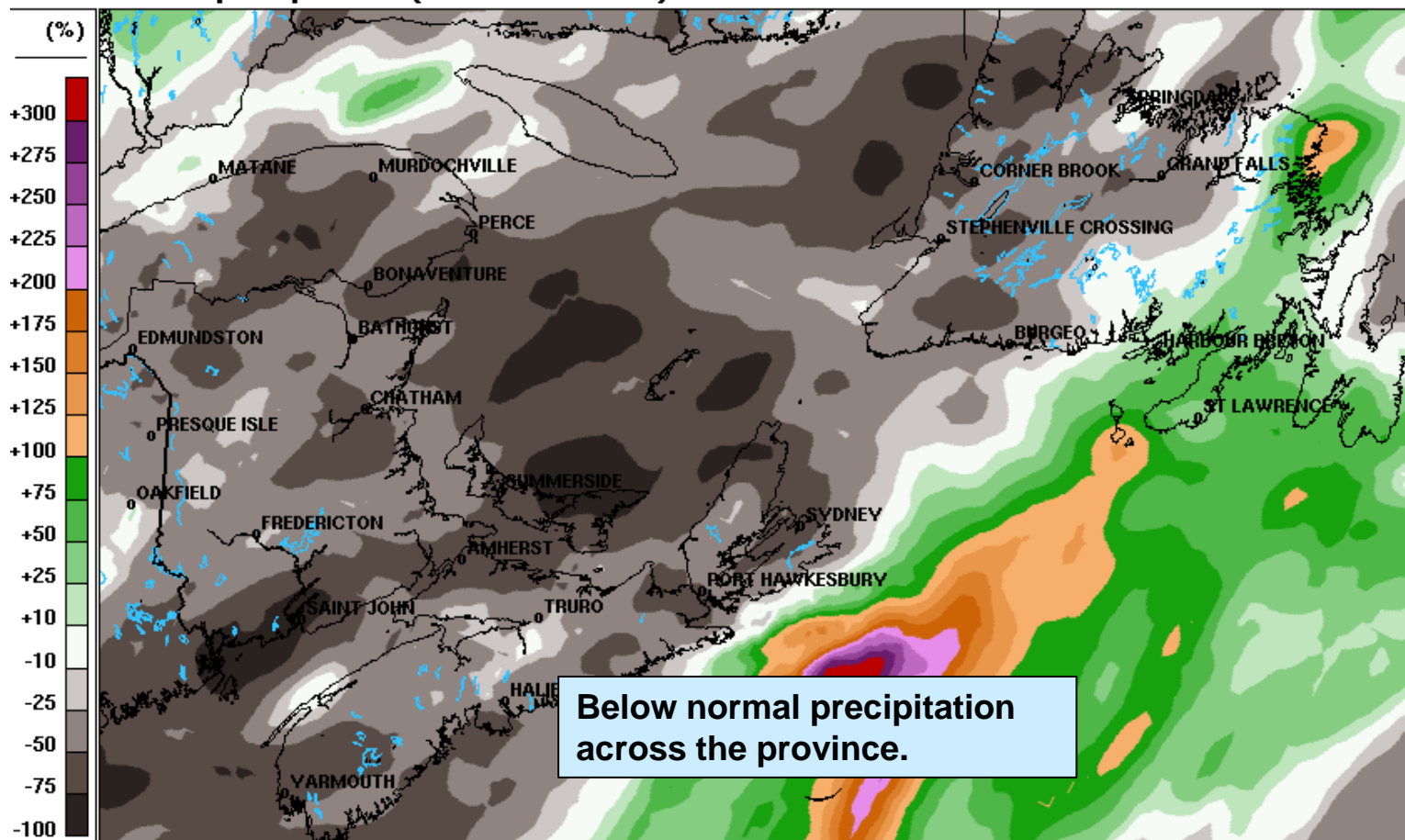
July 2018 Precipitation departure from 1981-2010 mean.

Precipitation Anomaly (% of normal): 201807
Anomalie de précipitation (% de la normale): 201807



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ECCC NWP model gridded data / Données sur grille de modèle de PNT de ECCC. Normal: 2002-2016



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(Suggesting above normal conditions)

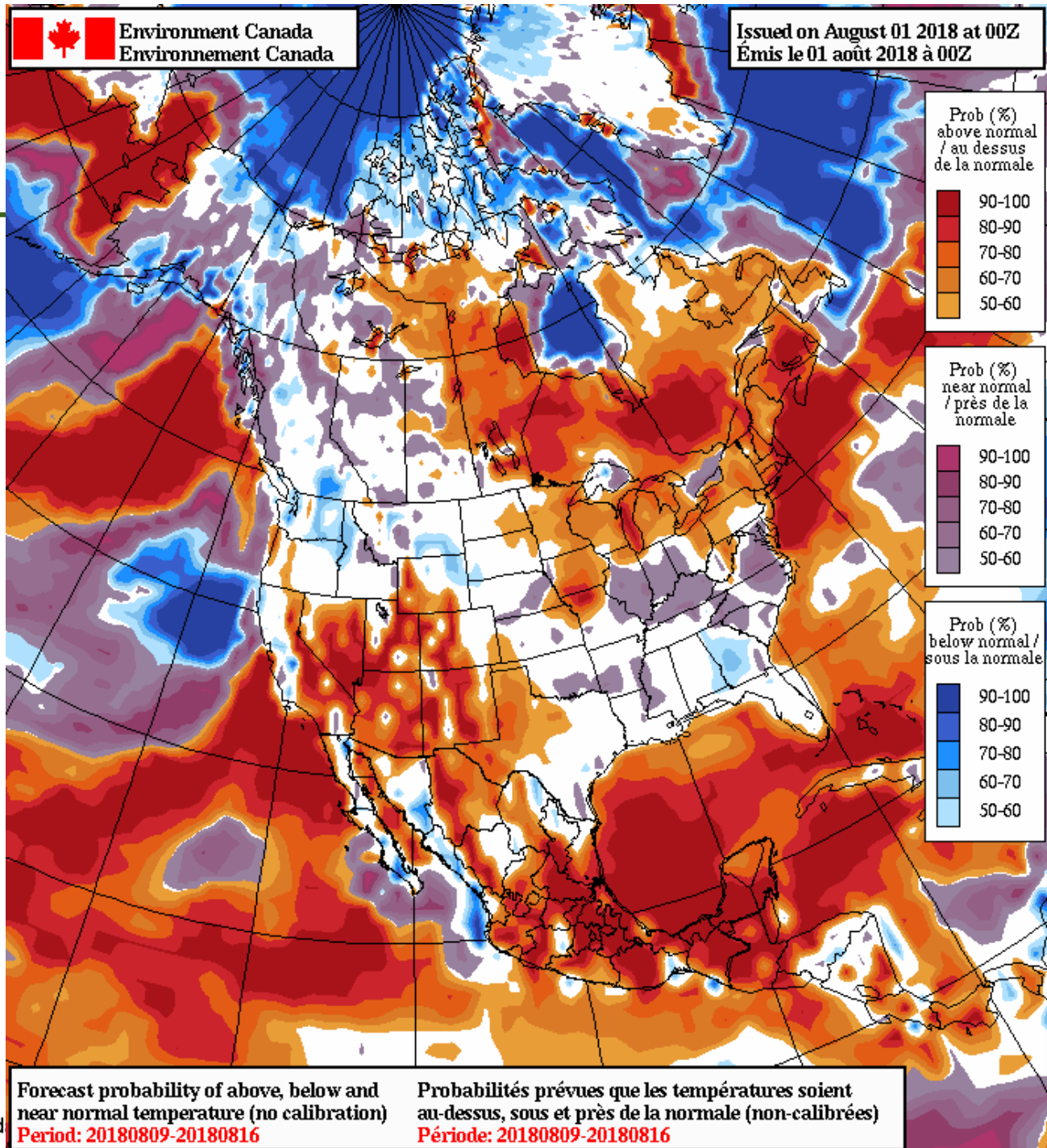
NORMALISED TEMPERATURE ANOMALY
ANOMALIE DE TEMPERATURE NORMALISEE



Day 8 to 14 Forecast

Period ending
August 16, 2018

This is suggesting
a strong probability
of above normal
conditions.



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Fredericton

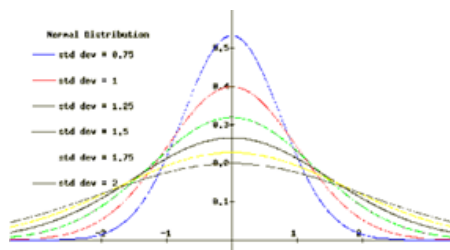
August

Normal high: 24.8C

Normal low: 12.1C

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

In general, remaining above normal,
especially the minimum temperatures.

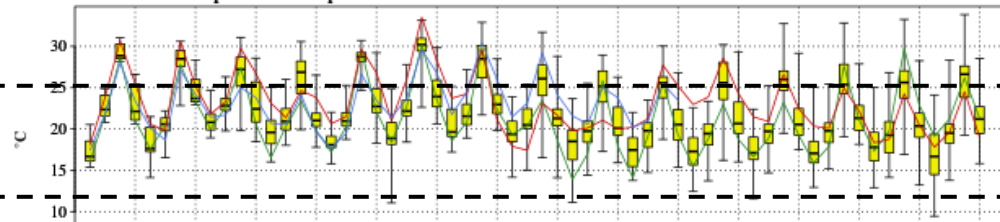


Ensemble and Deterministic Forecasts issued 1 August 2018 00 UTC
Prévision d'ensemble et déterministe émises le 1 Août 2018 00 UTC
for/pour

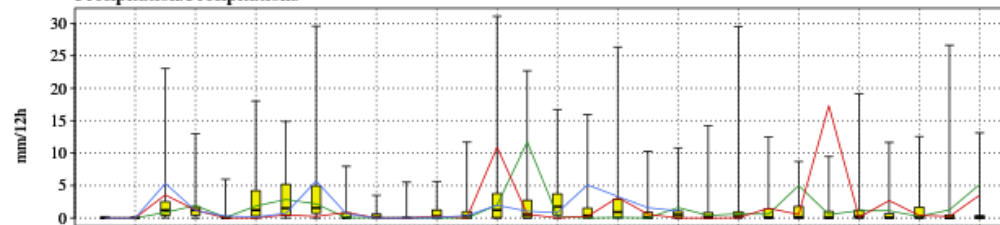
NAEFS / SPENA

FREDERICTON (YFC) 45.87 N 66.53 W/O

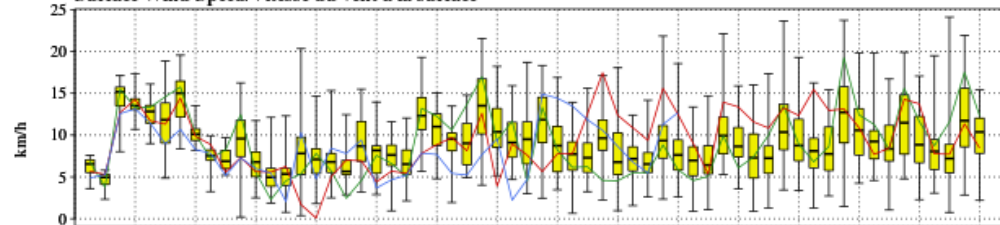
Surface Air Temperature/Température de l'air à la surface



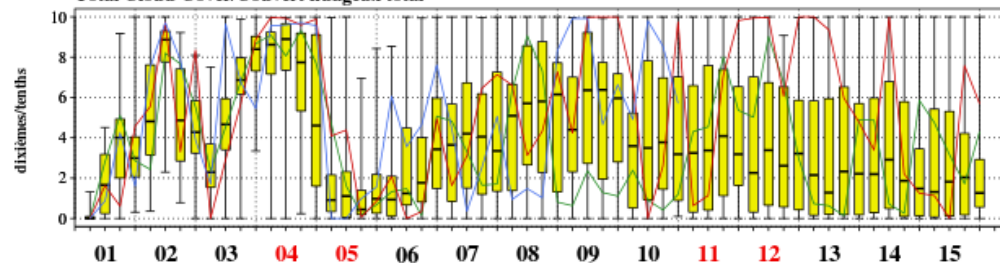
Precipitation/Précipitations



Surface Wind Speed/Vitesse du vent à la surface



Total Cloud Cover/Couvert nuageux total



August/Août 2018

max
75%
median/médiane
25%
min

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

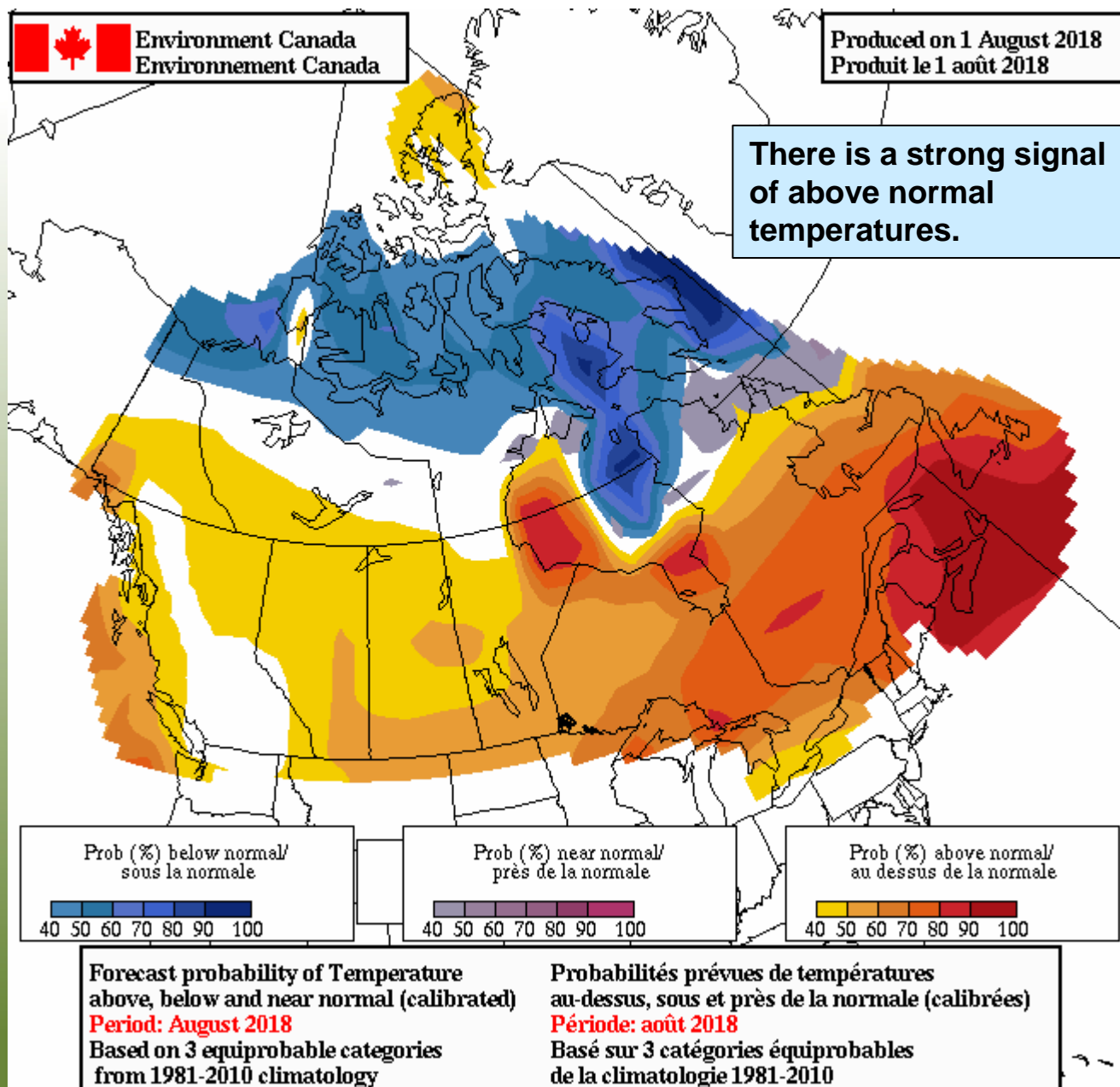
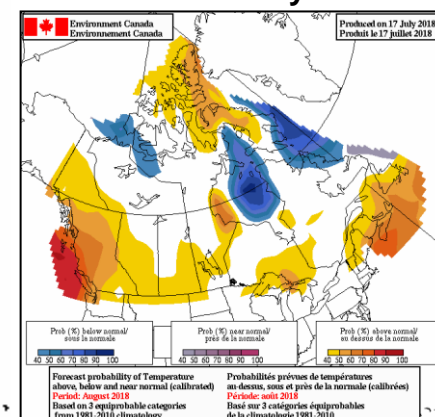


Temperature August 2018

CanSIPS
(Canadian Seasonal and
Interannual Prediction
System)

CanAM3
CanAM4
+
CanOM4

Produced July 17



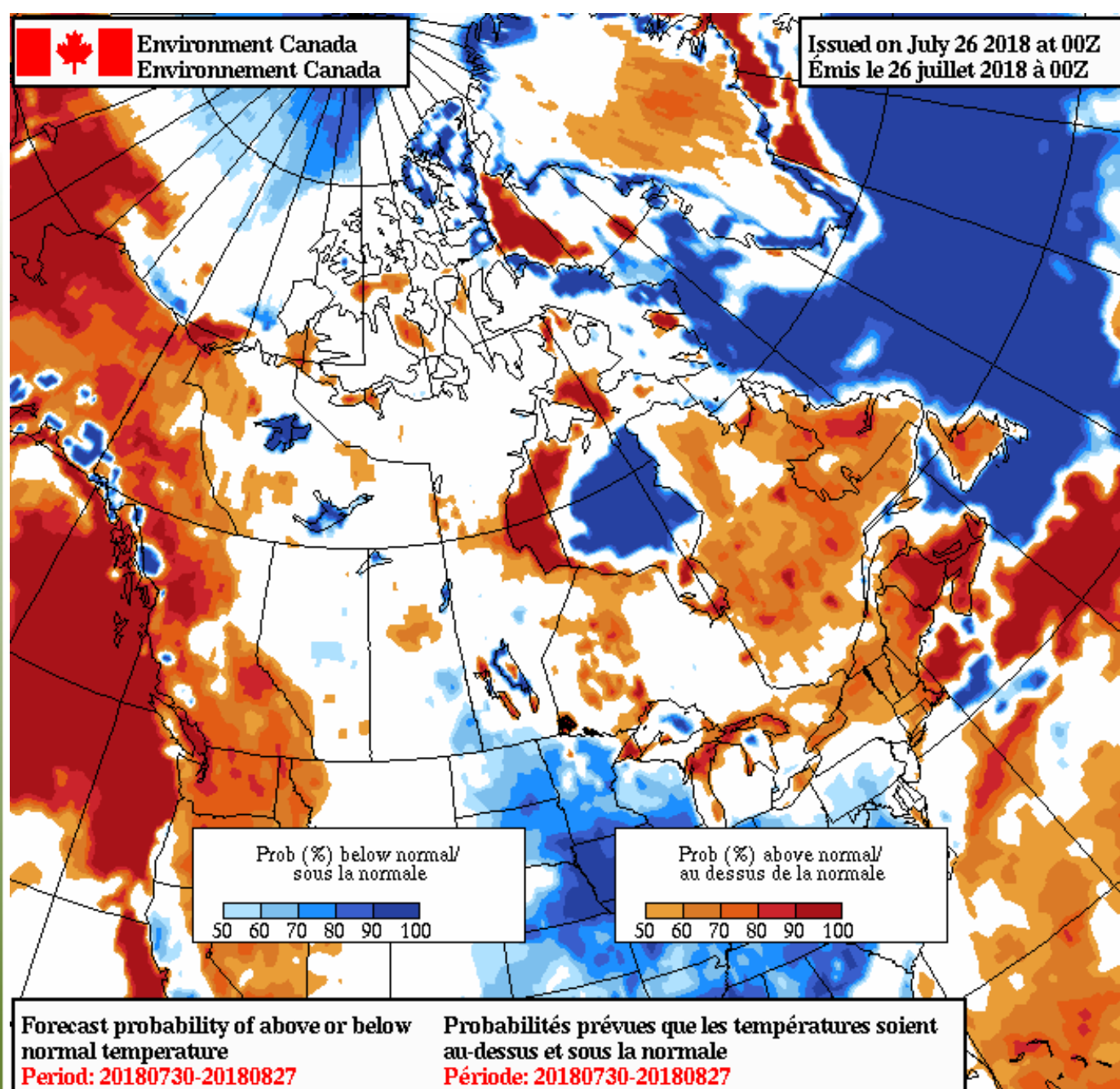
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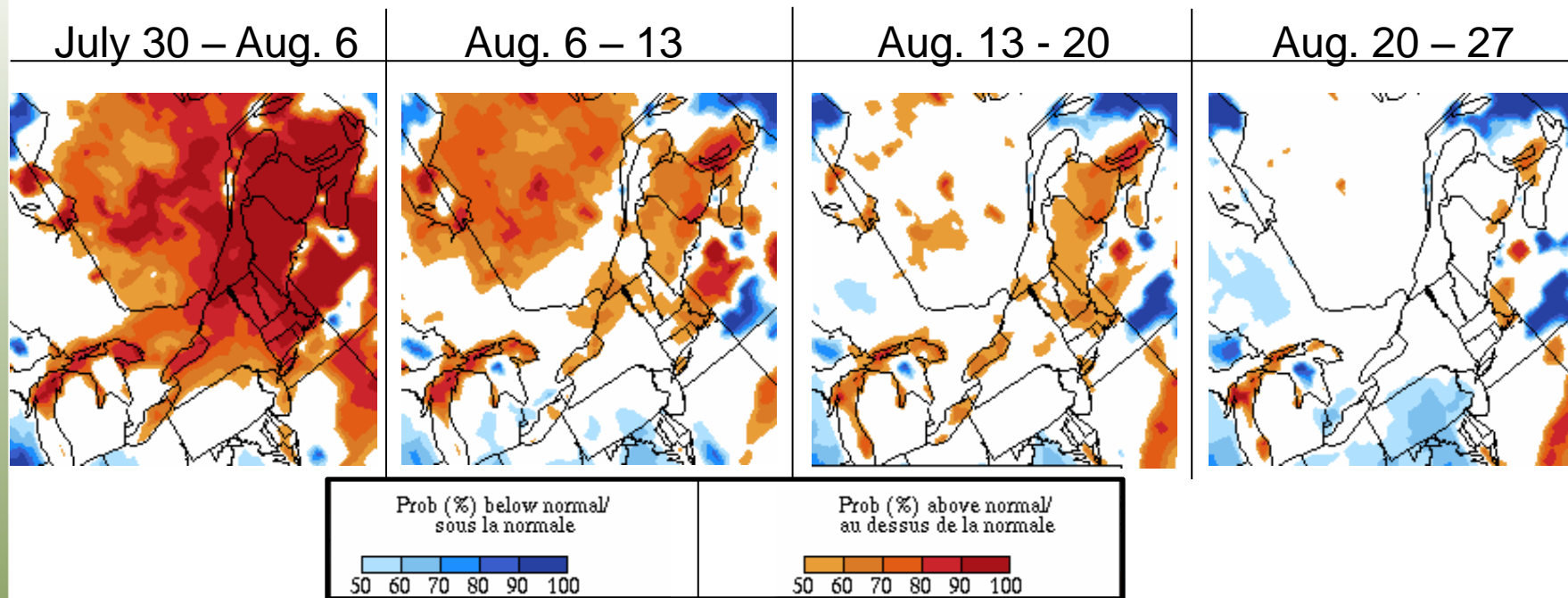
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Temperature July 30 to August 27

CMC
Monthly
Forecast
Product
using GEPS
50km res.



Weekly signature from GEPS 50km resolution



A strong signal of above normal conditions for the first week and gradually becoming weaker throughout the month to near normal for the last week.

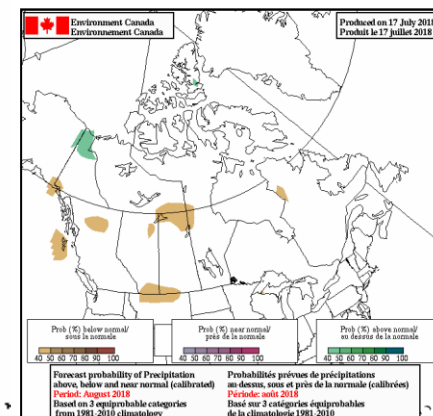


Precipitation August 2018

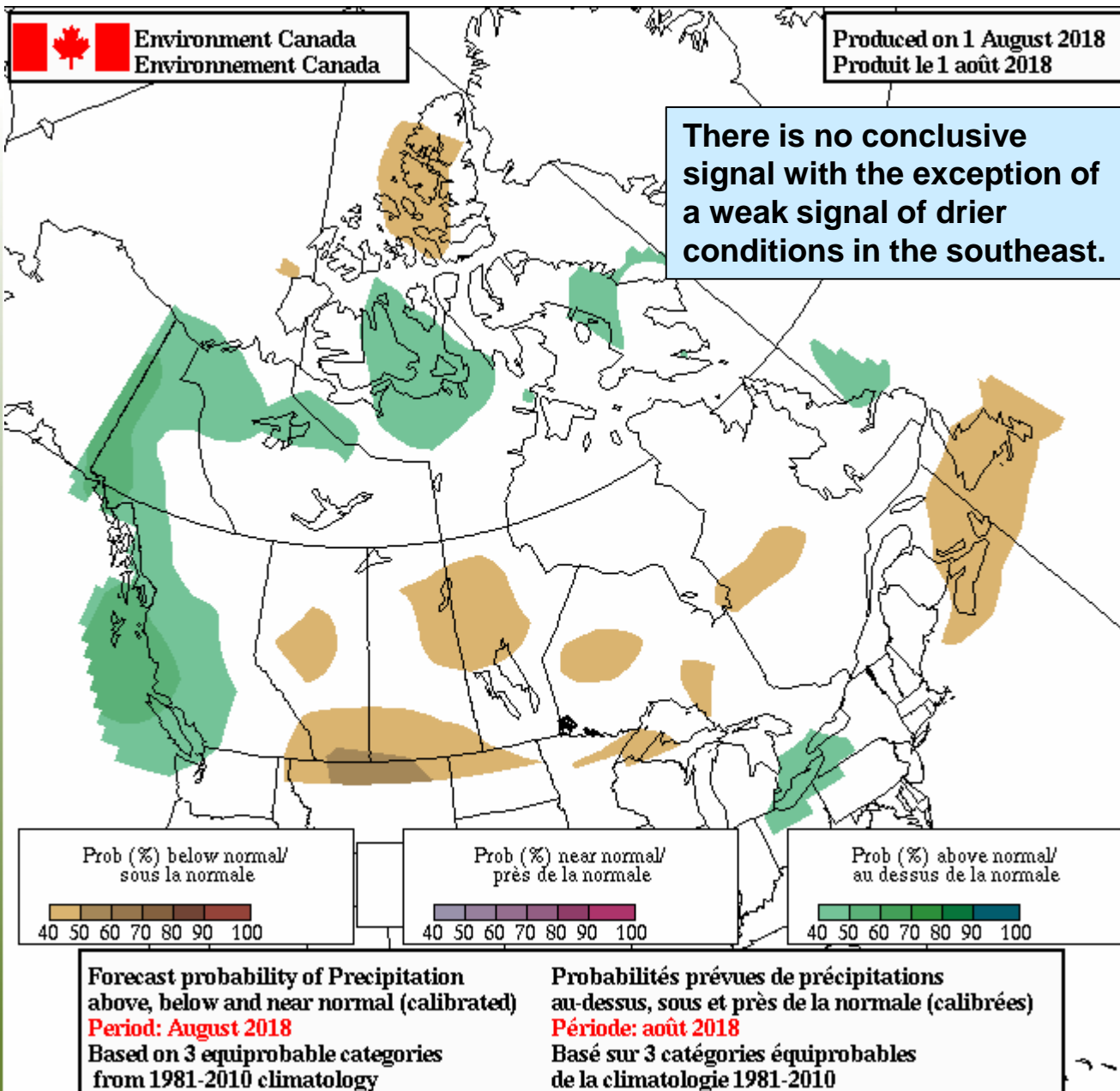
CanSIPS
(Canadian Seasonal and
Interannual Prediction
System)

CanAM3
CanAM4
+
CanOM4

Produced July 17



Canada

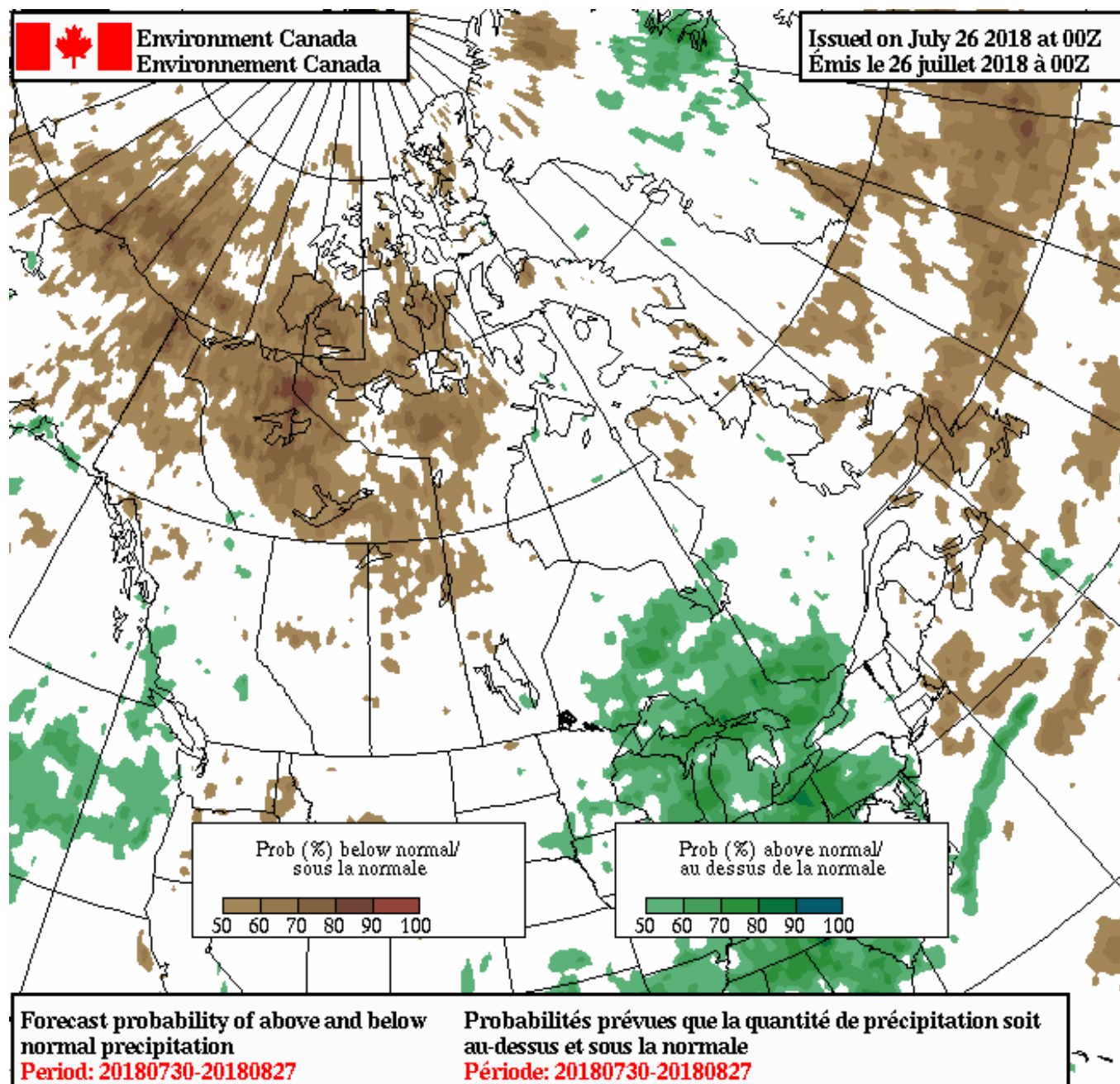


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Precipitation July 30 To August 27

CMC
Monthly
Forecast
Product
using GEPS
50km res.

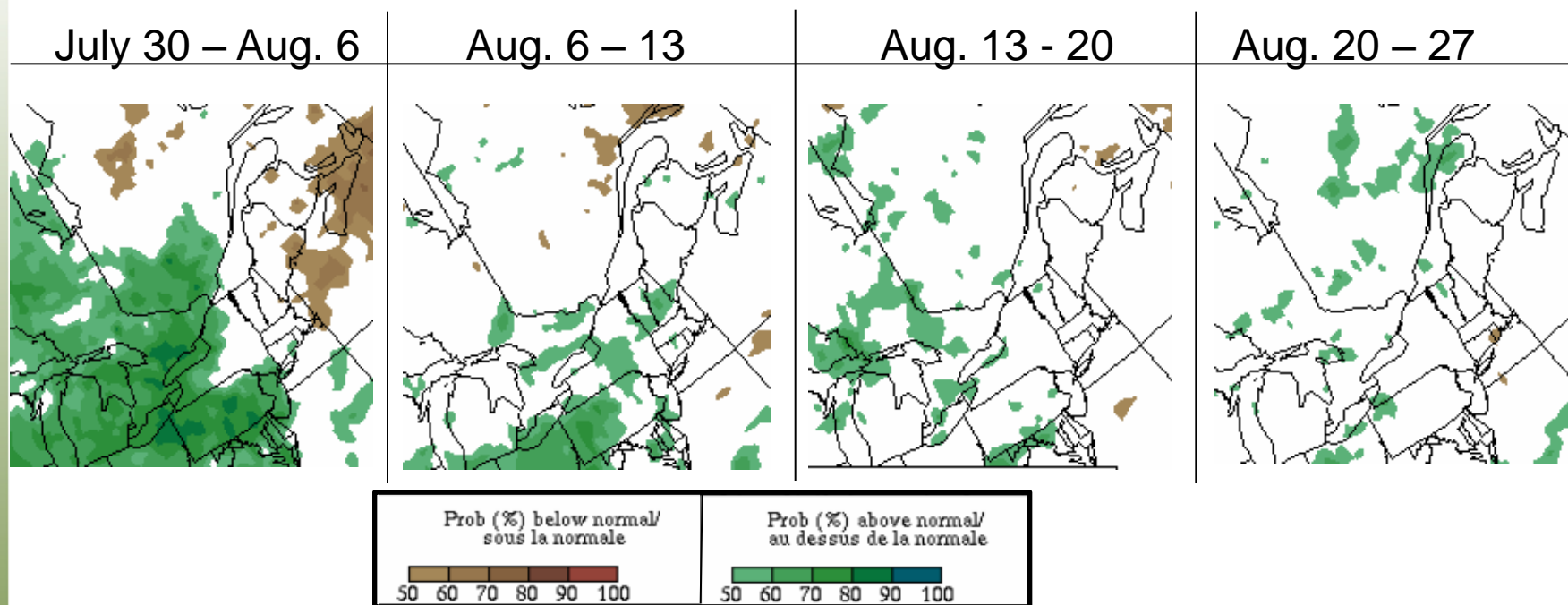


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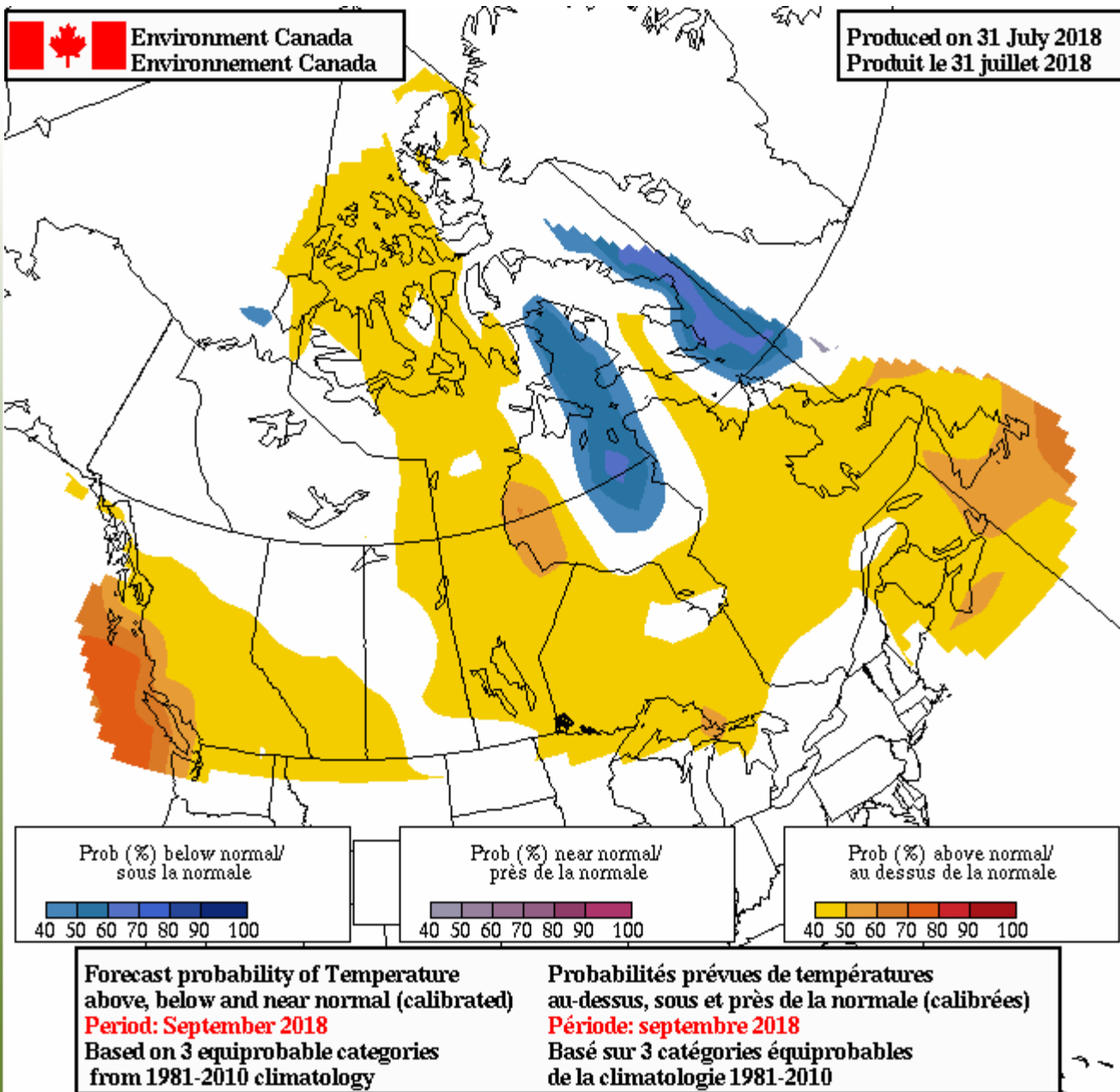
Canada

Weekly signature from GEPS 50km resolution



There is a weak signal of below normal for the first week then generally inconclusive.



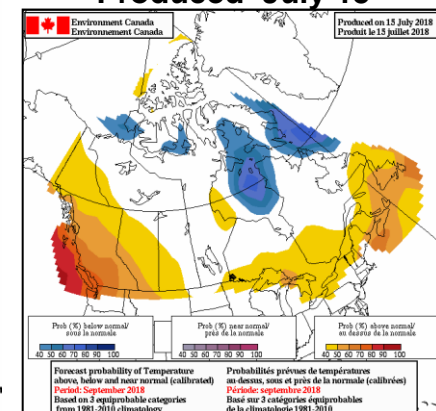


Temperature September 2018

CanSIPS
(Canadian Seasonal and
Interannual Prediction
System)

CanAM3
CanAM4
+
CanOM4

Produced July 15



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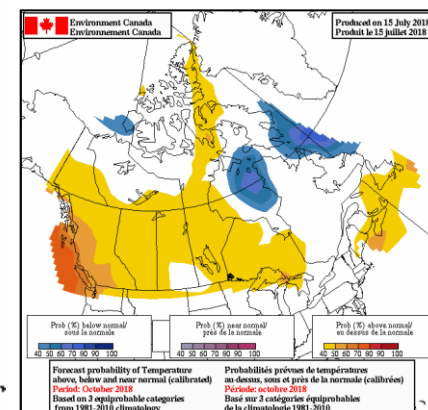
Canada

Temperature October 2018

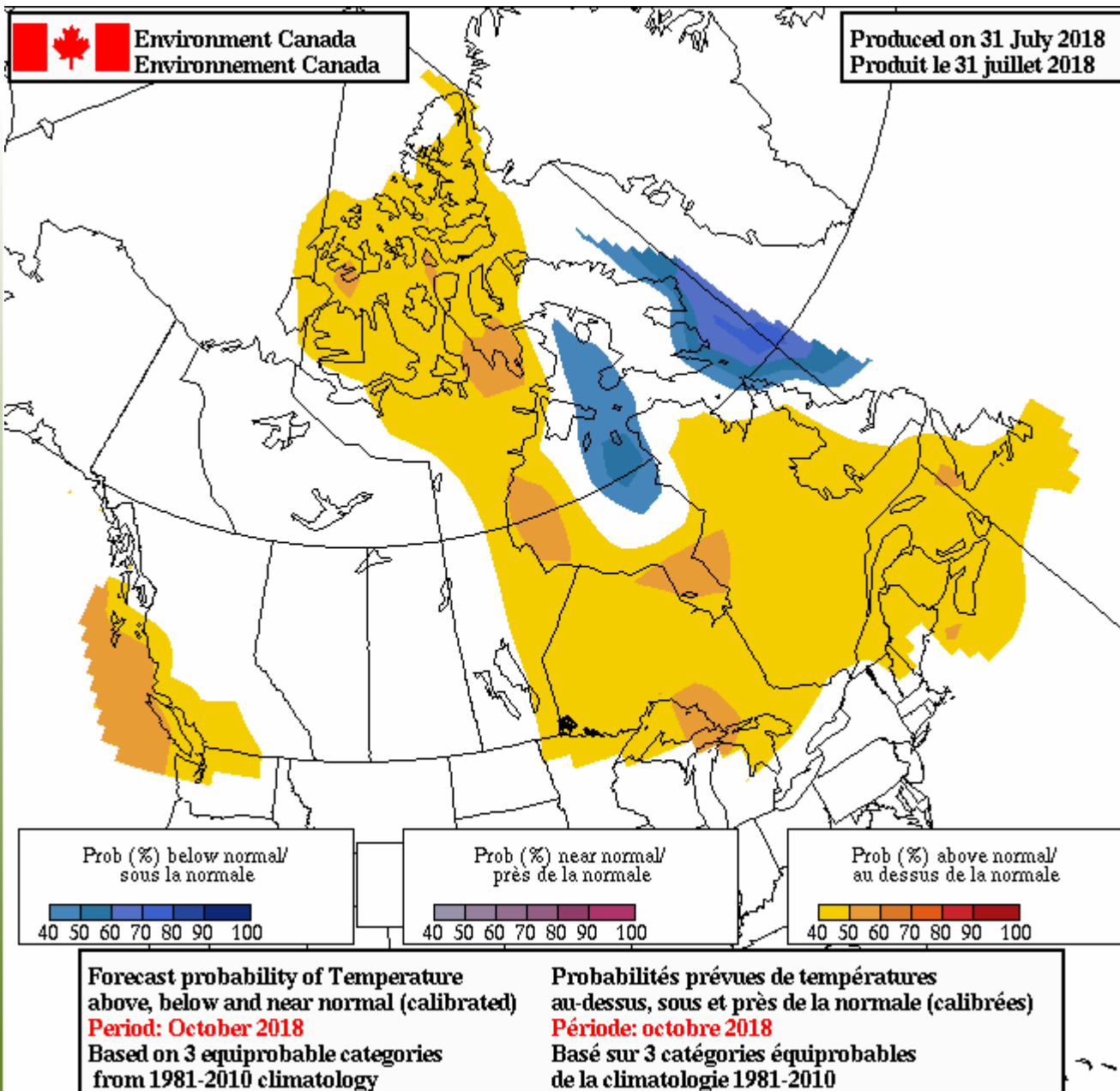
CanSIPS
(Canadian Seasonal and
Interannual Prediction
System)

CanAM3
CanAM4
+
CanOM4

Produced July 15



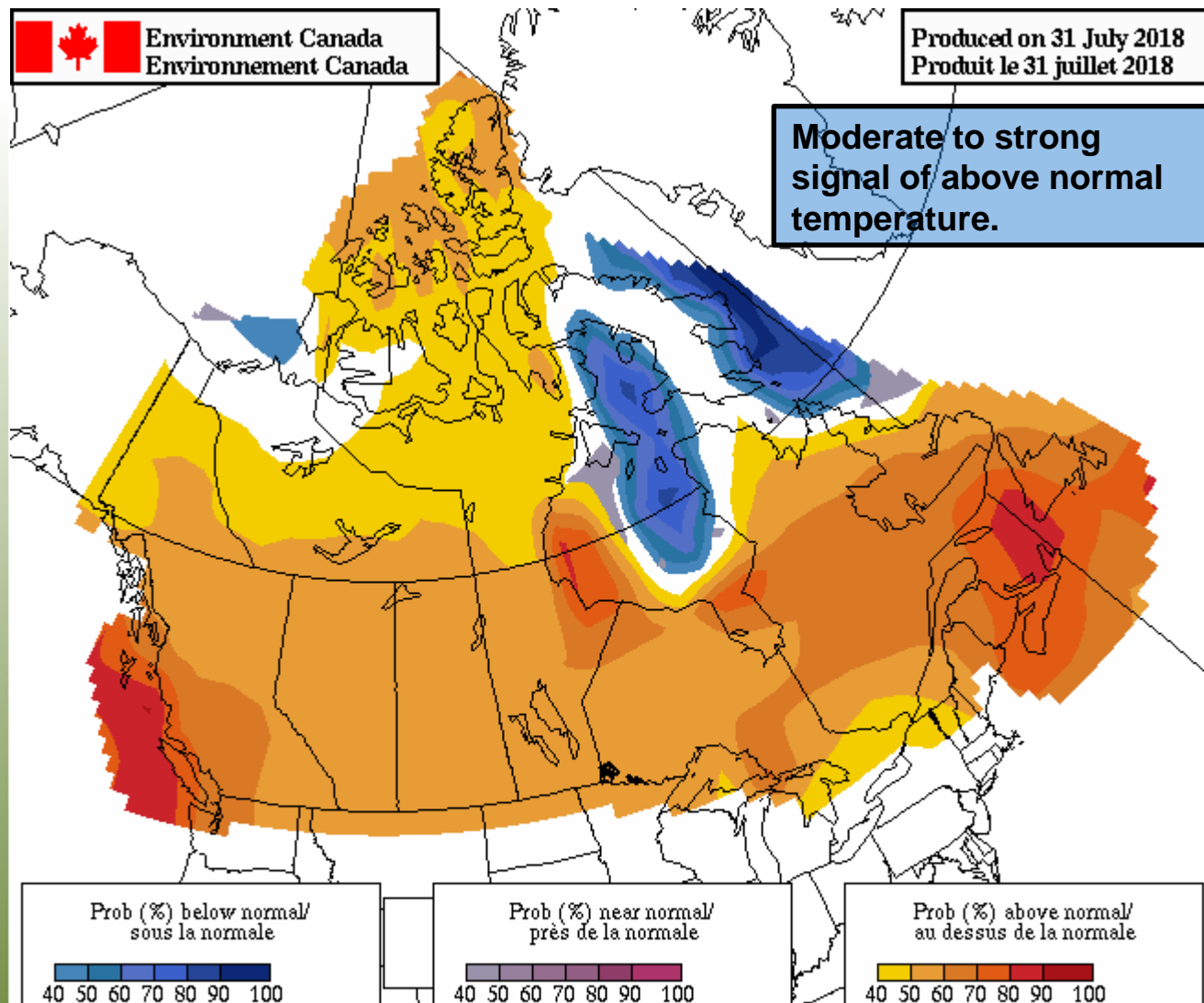
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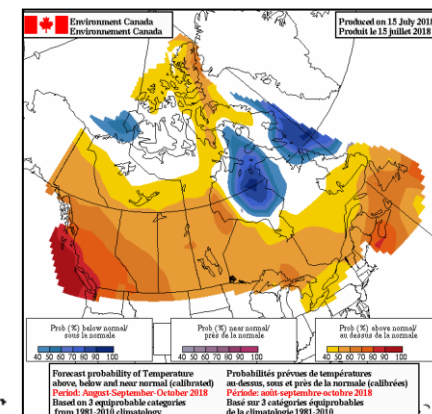
Temperature



August
September
October
2018

NB (A., S., O.)
Normal; 18/7

Produced July 15



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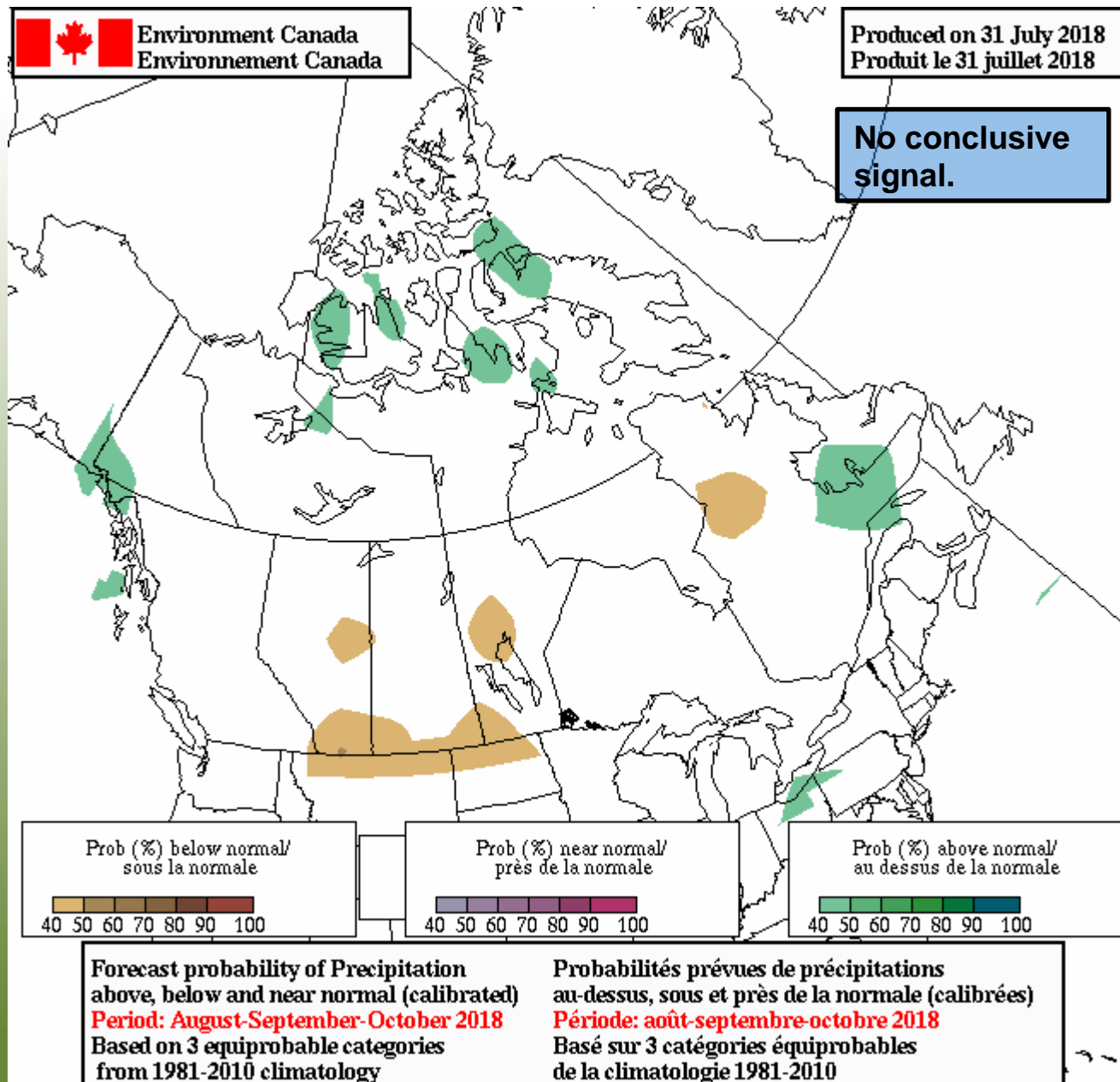
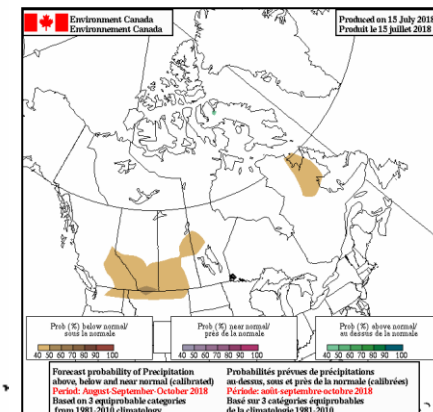
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Precipitation

August
September
October
2018

NB (A., S., O.)
Normal; ~276 mm

Produced July 15



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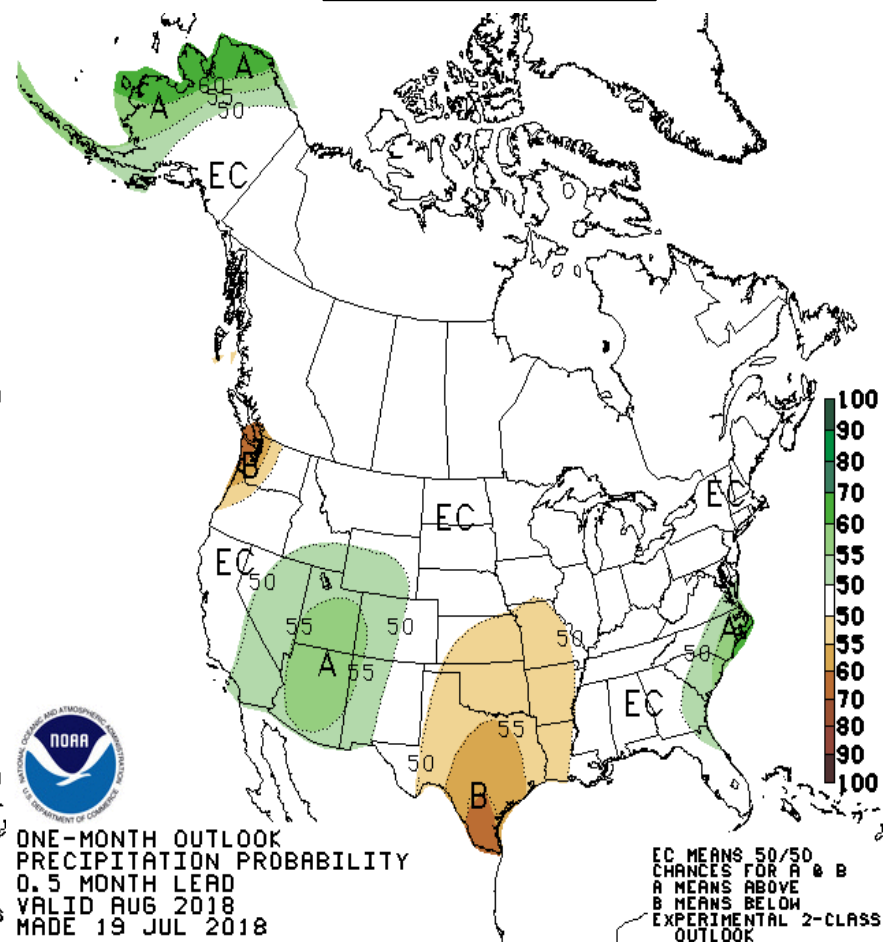
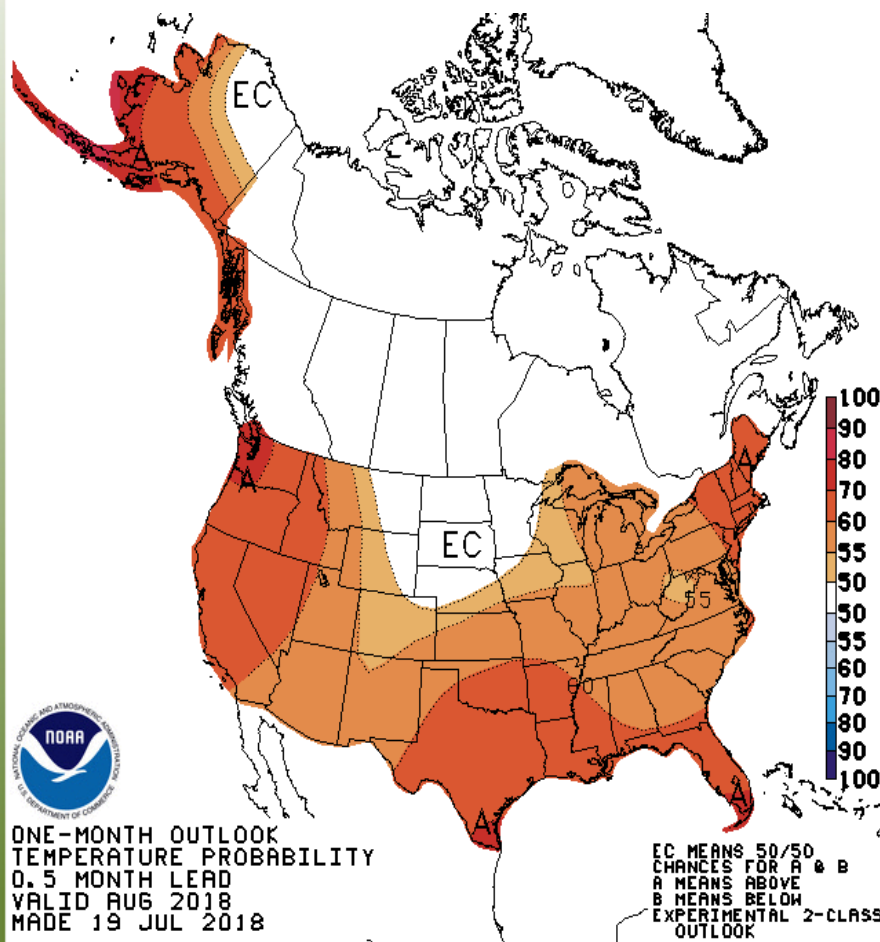
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August 2018

Temperature

Precipitation



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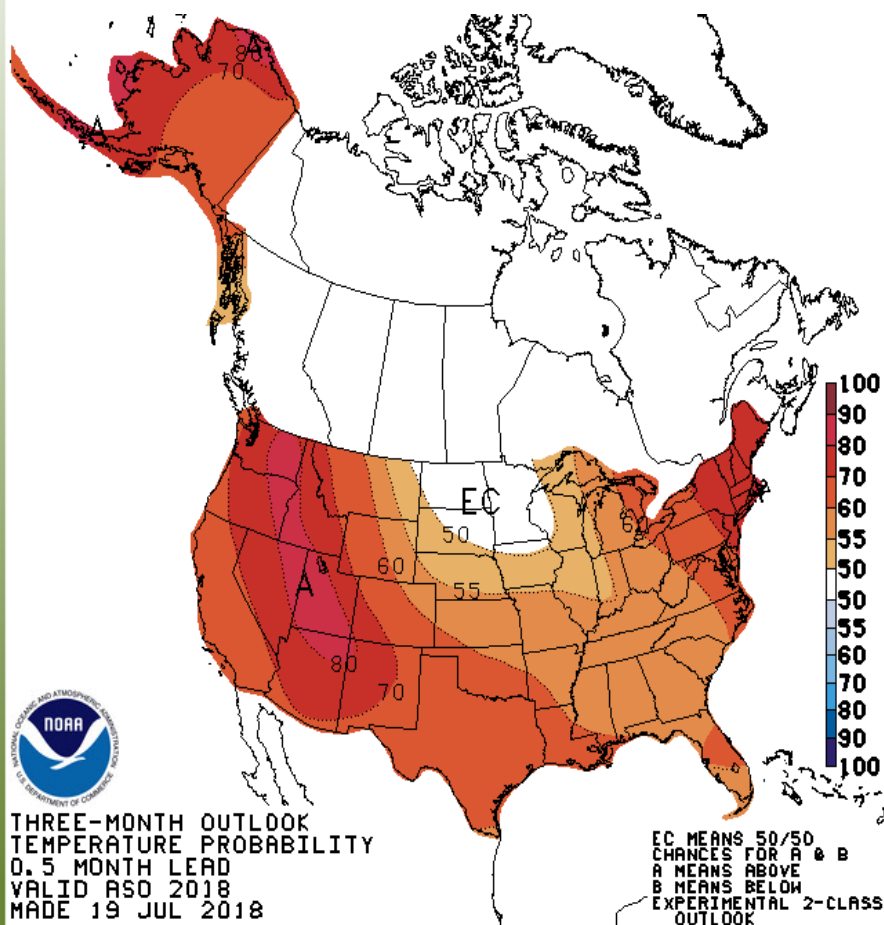
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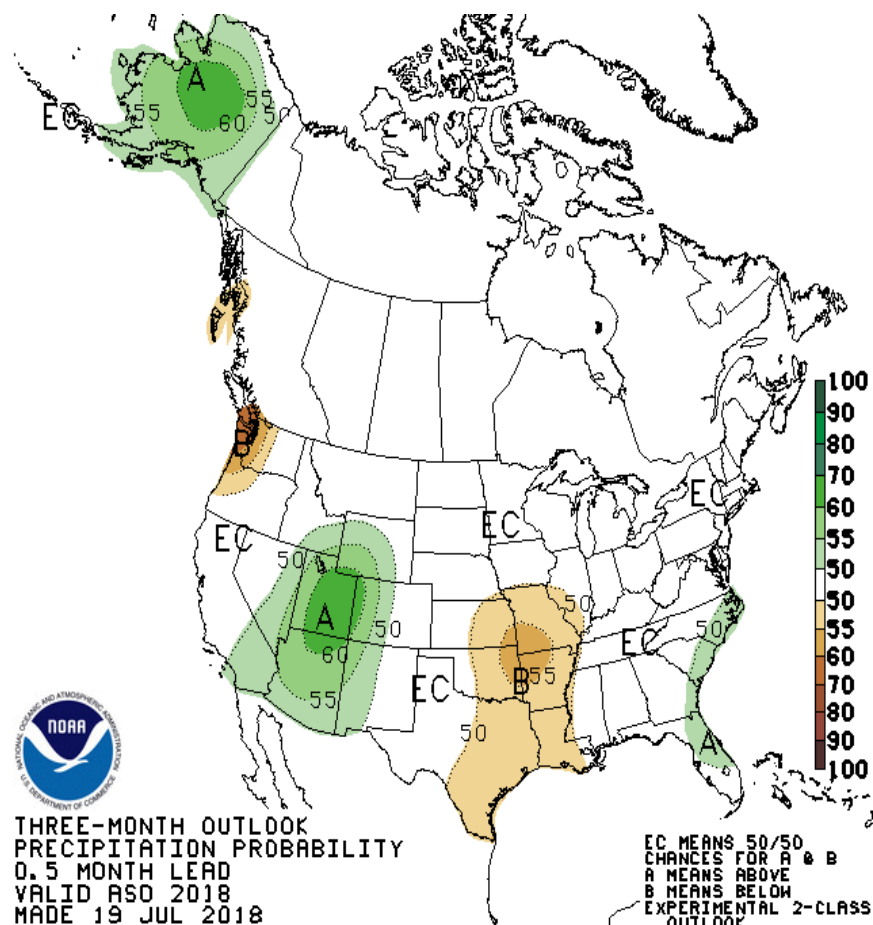


August – September - October 2018

Temperature



Precipitation



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