

New Brunswick

**Integrated Climate Bulletin
Summer 2021 Review
& Fall Outlook**

Jill Maepea

**Meteorological Service of Canada
Environment and Climate Change Canada
September 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



July 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	Mean / Moyenne	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	17.7	18.7	-1.0			
BAS CARAQUET	NB		DAILY				90.6	80.9	112
BATHURST A	NB	ZBF	NCA	17.7	19.1	-1.3	77.8		
BOUCTOUCHE CDA CS	NB	ABT	AU8	17.7	19.2	-1.5	143.2	99.1	144
CHARLO AUTO	NB	ZCR	AU8	17.3	17.9	-0.6	92.6	102.1	91
MIRAMICHI RCS	NB	ACQ	AU8	18.2	19.1	-0.9	171.8	99.9	172
DOAKTOWN AUTO RCS	NB	ADN	AU8	17.5	19.1	-1.6	149.4	105.8	141
EDMUNDSTON	NB	ERM	AU8	15.8			45.5	113.8	40
FREDERICTON INTL A	NB	YFC	NCA	17.8	19.3	-1.5			
FREDERICTON CDA CS	NB	AFC	AU8	18.1	19.4	-1.3	146.3	89.0	164
FUNDY PARK (ALMA) CS	NB	AFY	AU8	17.3	17.1	0.2			
GAGETOWN AWOS A	NB	YCX	AU5	17.6	19.5	-1.9			
KOUCHIBOUGUAC	NB	AKC	AU8	17.5	19.2	-1.7	116.1	110.4	105
MISCOU ISLAND (AUT)	NB	WMI	AU8	17.0			101.2		
MONCTON INTL A	NB	YQM	NCH	18.0	18.8	-0.8	159.6	92.1	173
OAK POINT	NB		DAILY	18.0	19.5	-1.5	108.5	96.9	112
POINT LEPREAU CS	NB	WPE	AU8	16.0	15.6	0.4			
RED PINES	NB	ARP	AU8	17.0	18.6	-1.6	83.3	105.8	79
SAINT JOHN A	NB	YSJ	NCH	16.7	17.1	-0.4	233.4	88.4	264
ST. STEPHEN	NB	WSS	AU8	17.5			156.8		
SUSSEX FOUR CORNERS	NB	ASF	AU8	17.8	19.2	-1.5	108.7	84.0	129
WOODSTOCK NEWBRIDGE	NB	EWD	AU8	16.9	19.0	-2.1	122.6	100.2	122
Average				17.4	18.6	-1.1	124.0	97.7	132
Max				18.2	19.5	0.4	233.4	113.8	264
Min				15.8	15.6	-2.1	45.5	80.9	40



August 2021; Climate Summary

Station Name / Nom de la station	Prov	TC ID / ID de TC	Station 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	Total as % of Normal / Total en % de la normale
BAS CARAQUET	NB	WXS	AU8	20.4	18.6	1.8	69.7	95.0	73
BAS CARAQUET	NB		DAILY				76.8	95.0	81
BATHURST A	NB	ZBF	NCA	20.7	18.2	2.5	70.7	82.0	86
BOUCTOUCHE CDA CS	NB	ABT	AU8	20.4	18.5	2.0	41.8	85.2	49
CHARLO AUTO	NB	ZCR	AU8	19.8	17.2	2.6	82.9	90.1	92
MIRAMICHI RCS	NB	ACQ	AU8	21.0	18.5	2.5	60.1	93.1	65
DOAKTOWN AUTO RCS	NB	ADN	AU8	20.0	18.4	1.6	53.0	94.4	56
EDMUNDSTON	NB	ERM	AU8	18.6			39.7	93.4	43
FREDERICTON INTLA	NB	YFC	NCA	20.6	18.4	2.1	72.9	85.6	85
FREDERICTON CDA CS	NB	AFC	AU8	20.7	18.6	2.2	94.8	85.9	110
FUNDY PARK (ALMA) CS	NB	AFY	AU8	18.8	17.2	1.6	158.2	93.9	168
GAGETOWN AWOS A	NB	YCX	AU5	20.5	19.2	1.3			
GRAND MANAN SAR CS	NB	XGM	AU8	18.8			97.4		
KOUCHIBOUGUAC	NB	AKC	AU8	20.3	18.5	1.8	66.2	86.7	76
MECHANIC SETTLEMENT	NB	AMS	AU8	18.8			120.5		
MISCOU ISLAND (AUT)	NB	WMI	AU8	20.1			65.4		
MONCTON INTLA	NB	YQM	NCH						
OAK POINT	NB		DAILY	19.8			73.8	86.5	85
POINT LEPREAU CS	NB	WPE	AU8	17.5	15.6	1.9	79.1	98.0	81
RED PINES	NB	ARP	AU8	19.8	17.9	1.9	80.4	93.6	86
SAINT JOHN A	NB	YSJ	NCH	18.7	16.8	1.8	136.6	81.7	167
ST. STEPHEN	NB	WSS	AU8	20.2			72.4		
SUSSEX FOUR CORNERS	NB	ASF	AU8	20.0	18.8	1.2	98.4	74.3	132
WOODSTOCK NEWBRIDGE	NB	EWD	AU8	20.0	18.4	1.6	79.1	100.6	79
Average				19.8	18.0	1.9	81.4	89.7	90
Max				21.0	19.2	2.6	158.2	100.6	168
Min				17.5	15.6	1.2	39.7	74.3	43



Jun.-Jul.-Aug. 2021; Temperature departure from 1981-2010 mean

above normal (+1.1 to +3.0C)

below normal (+0.4 to -2.1C)

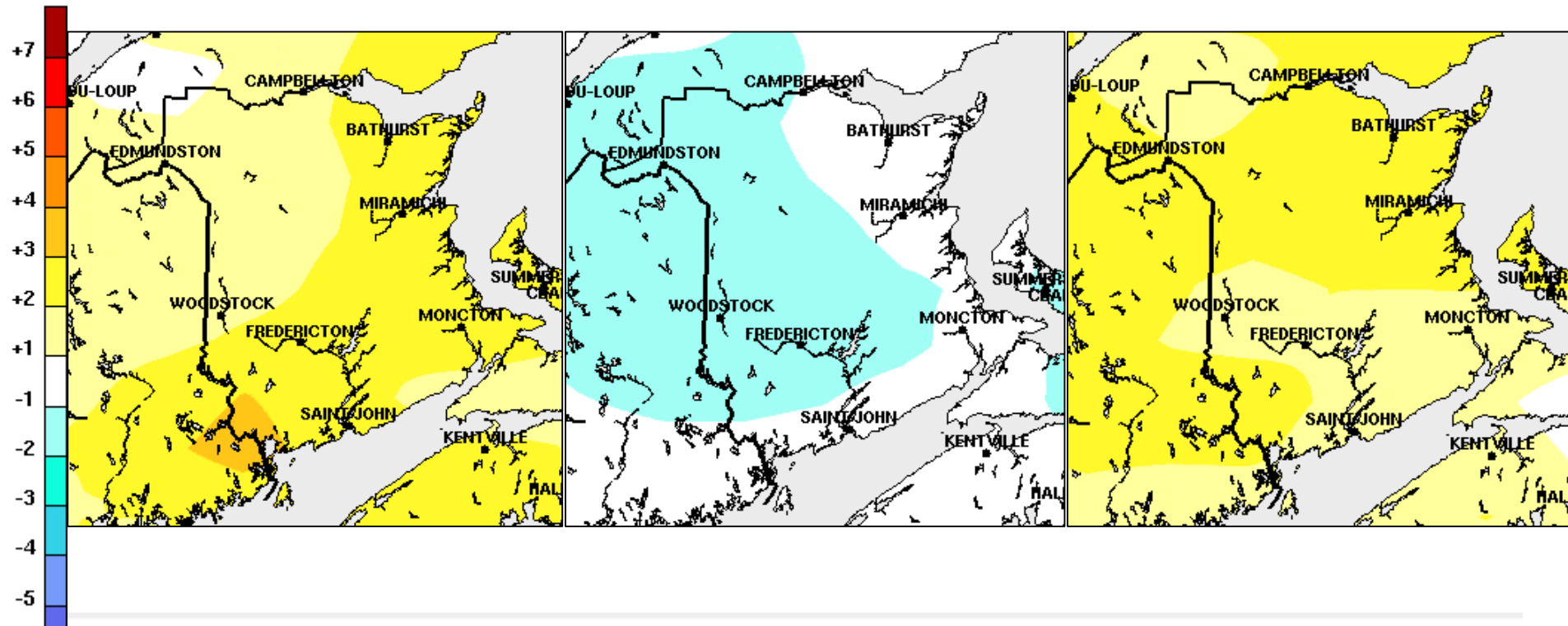
above normal (+1.2 to +2.6C)

(C)

June

July

August



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Jun.-Jul.-Aug. 2021; Precipitation departure from 2002-2020 mean

Below normal south,
above normal extreme northwest

Above normal south,
below normal north

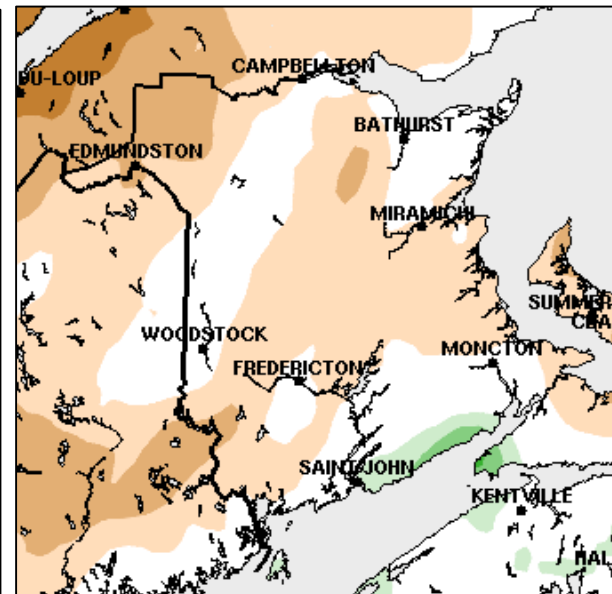
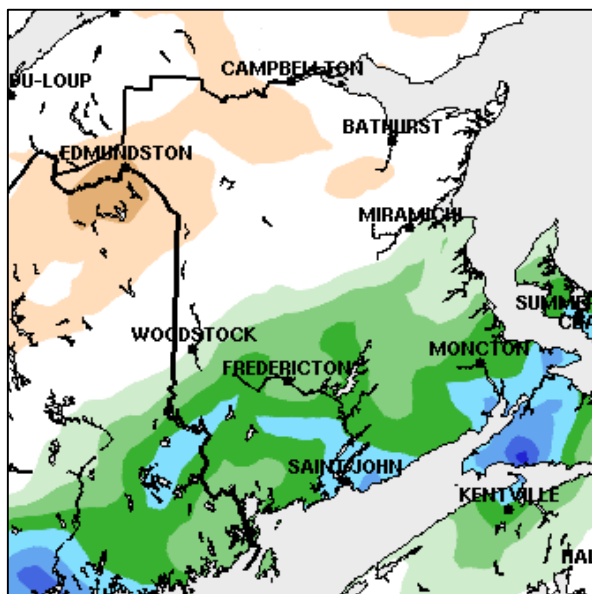
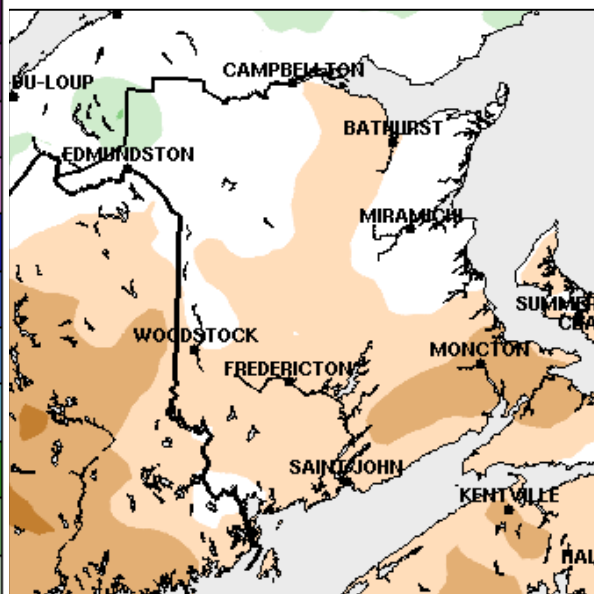
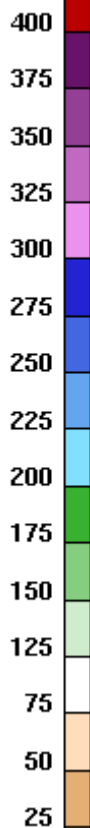
Below normal,
above normal extreme south

June

July

August

(%)



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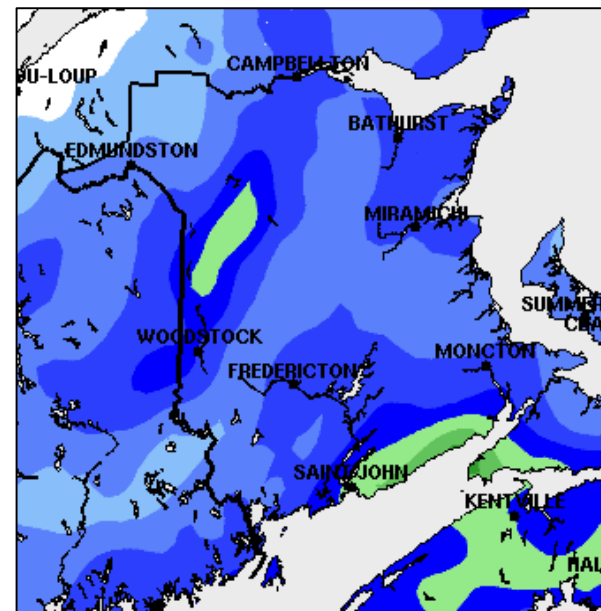
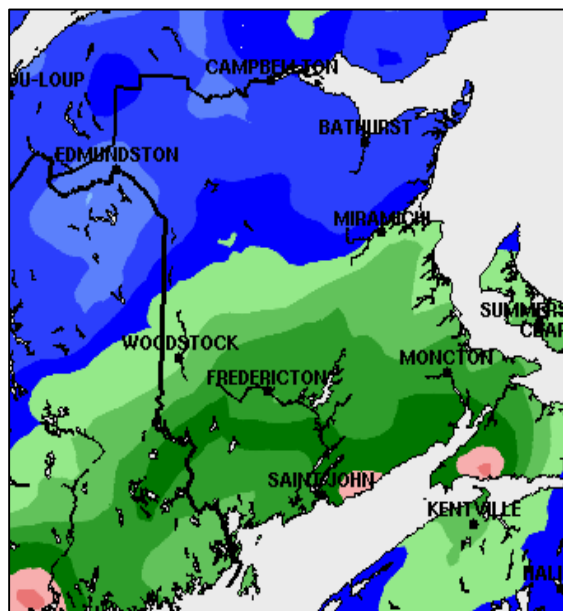
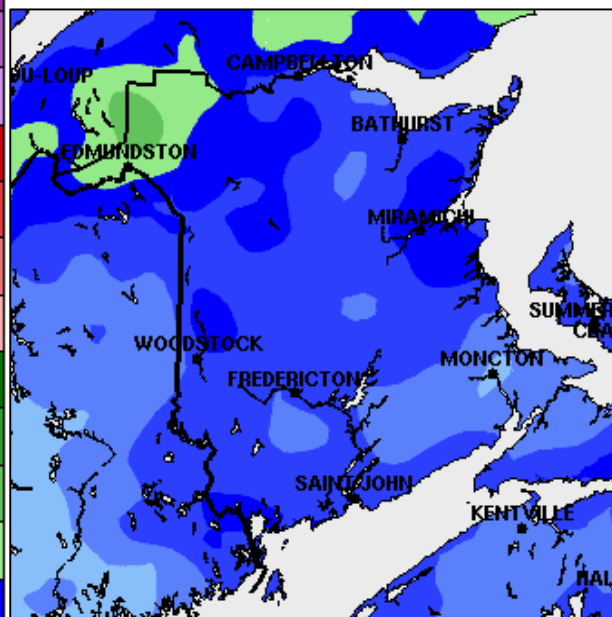
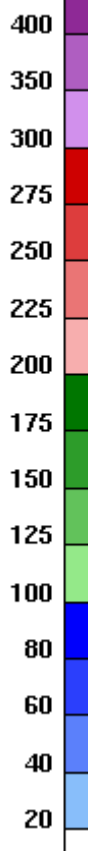
Jun.-Jul.-Aug. 2021; Total precipitation

(mm)

June

July

August



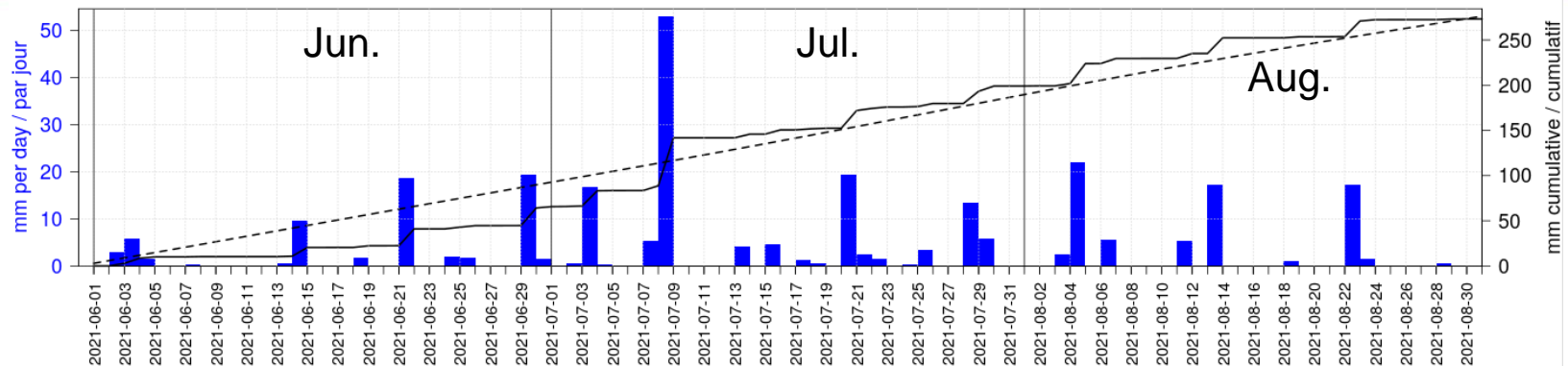
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2021 Temperature and precipitation – (J,J,A) for Fredericton

Daily Total Precipitation (bars), Cumulative (line) and Cumulative Long-Term Mean (dashed line)
Précipitation totale quotidienne (barres), Cumulative (trait) et Cumulative moyenne à long terme (tirré)é
Fredericton, NB (45.94N 66.63W)

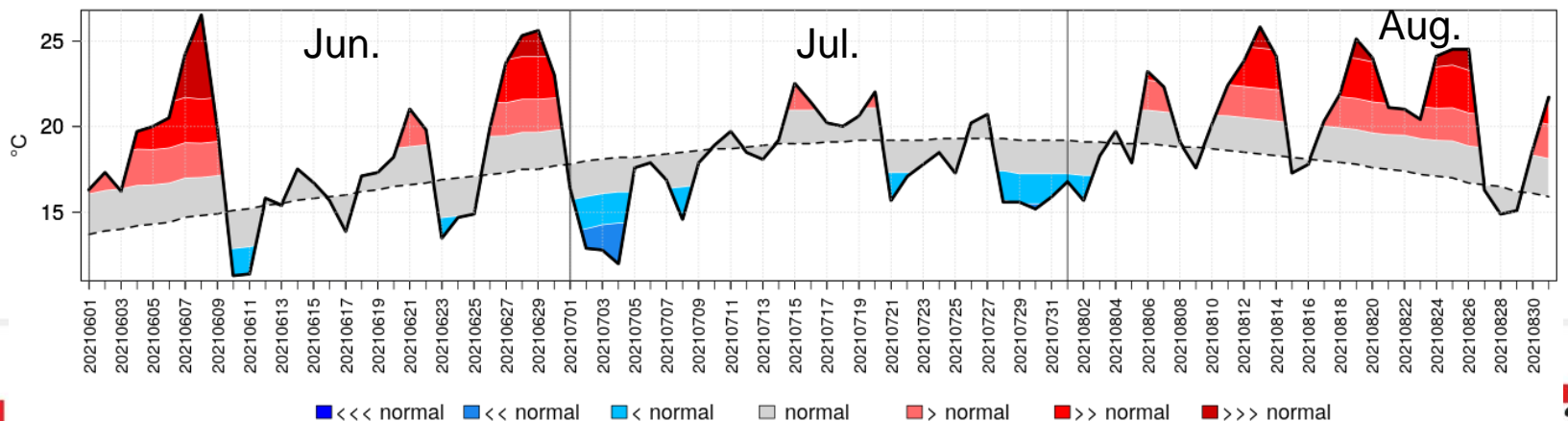


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ECCC Gridded Precipitation Analysis / Analyse de précipitation sur grille de ECCC
Climatology / Climatologie: 2002-2020

Daily Mean Temperature (line), Long-Term Mean (dashed line) and Categories based on Standard Deviations (blue and red)
Température quotidienne moyenne (trait), Moyenne à long terme (tirré)é et Catégories basées sur des écart-types (bleu et rouge)
Fredericton, NB (45.94N 66.63W)



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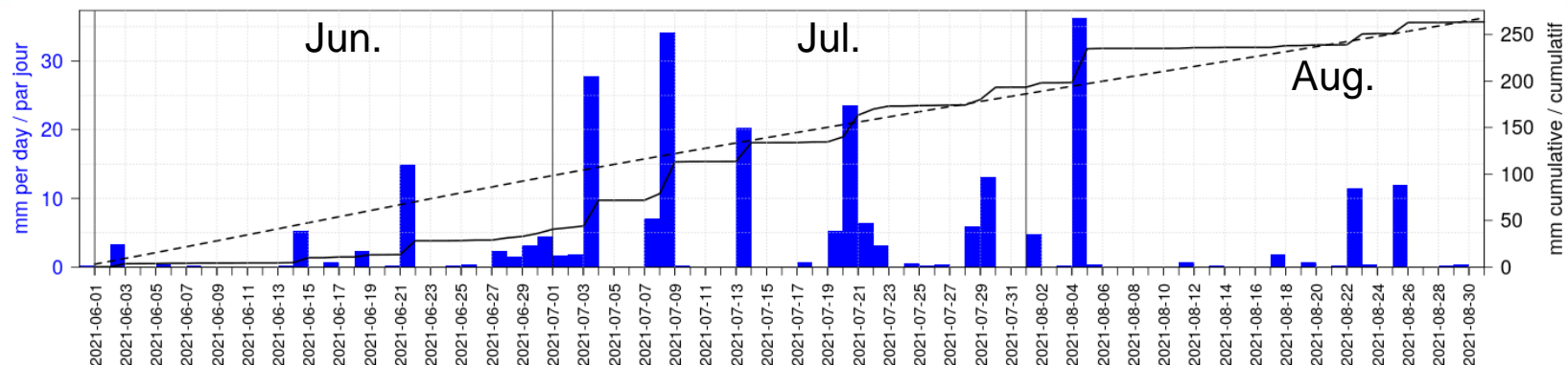
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Gridded weather station data / Données de stations météo sur grille
Climatology / Climatologie: 1981-2010
Stand. dev. thresholds / Seuils d'écart-types: +/- 0.7, 1.3, 2.1



2021 Temperature and precipitation – (J,J,A) for Moncton

Daily Total Precipitation (bars), Cumulative (line) and Cumulative Long-Term Mean (dashed line)
Précipitation totale quotidienne (barres), Cumulative (trait) et Cumulative moyenne à long terme (tirreté)
Moncton, NB (46.08N 64.76W)

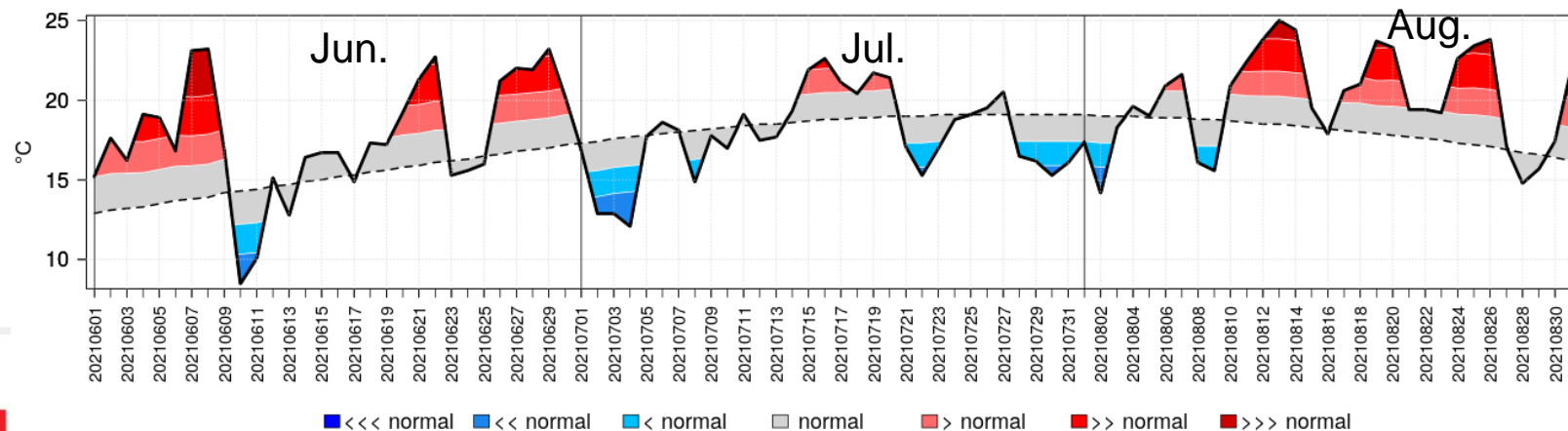


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Climatology / Climatologie: 2002-2020

Daily Mean Temperature (line), Long-Term Mean (dashed line) and Categories based on Standard Deviations (blue and red)
Température quotidienne moyenne (trait), Moyenne à long terme (tirreté) et Catégories basées sur des écart-types (bleu et rouge)
Moncton, NB (46.08N 64.76W)



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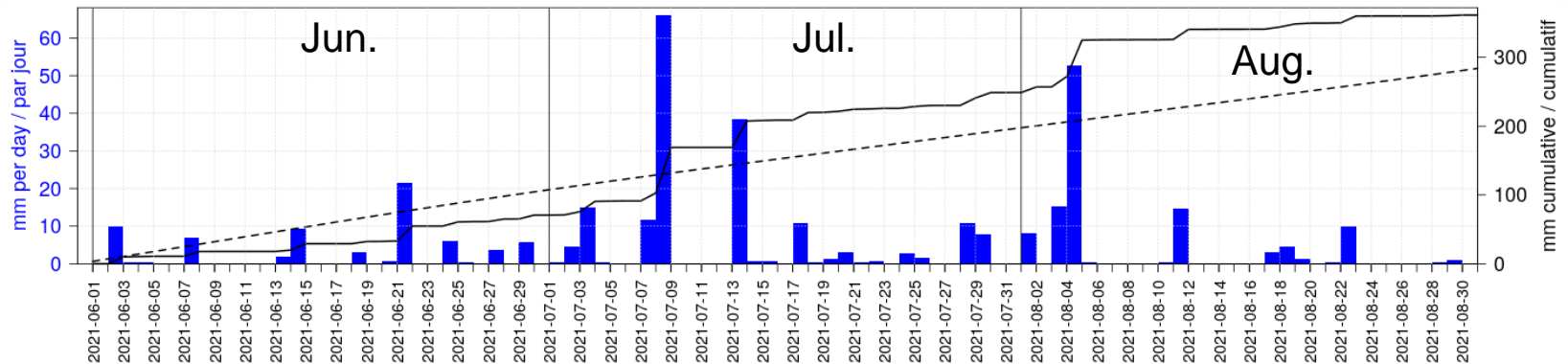
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Gridded weather station data / Données de stations météo sur grille
Climatology / Climatologie: 1981-2010
Stand. dev. thresholds / Seuils d'écart-types: +/- 0.7, 1.3, 2.1



2021 Temperature and precipitation – (J,J,A) for Saint John

Daily Total Precipitation (bars), Cumulative (line) and Cumulative Long-Term Mean (dashed line)
Précipitation totale quotidienne (barres), Cumulative (trait) et Cumulative moyenne à long terme (tirreté)
Saint John, NB (45.26N 66.07W)

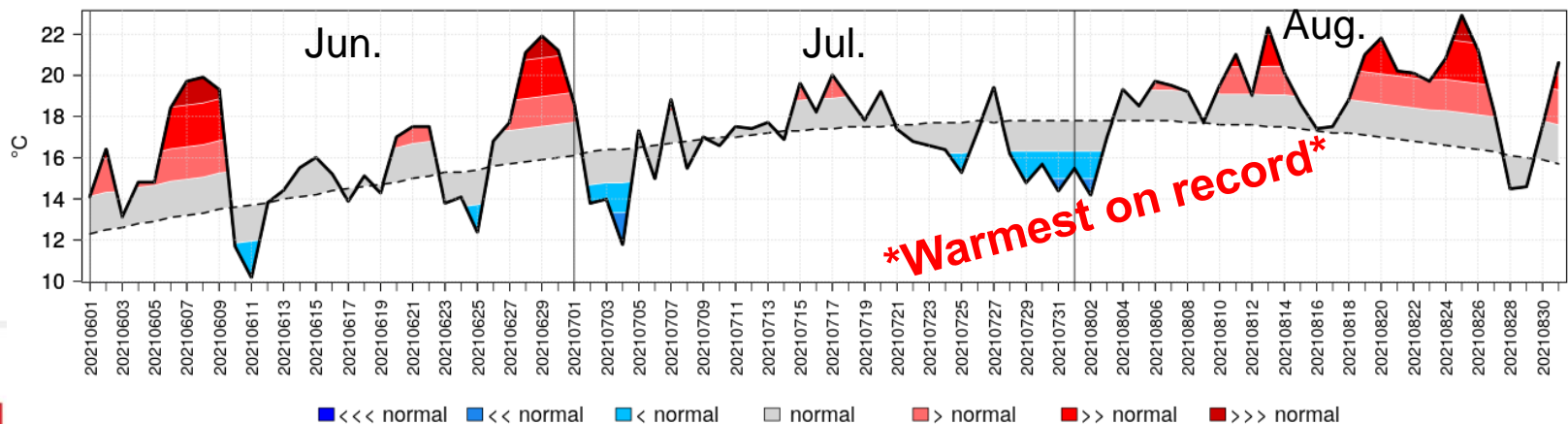


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ECCC Gridded Precipitation Analysis / Analyse de précipitation sur grille de ECCC
Climatology / Climatologie: 2002-2020

Daily Mean Temperature (line), Long-Term Mean (dashed line) and Categories based on Standard Deviations (blue and red)
Température quotidienne moyenne (trait), Moyenne à long terme (tirreté) et Catégories basées sur des écart-types (bleu et rouge)
Saint John, NB (45.26N 66.07W)



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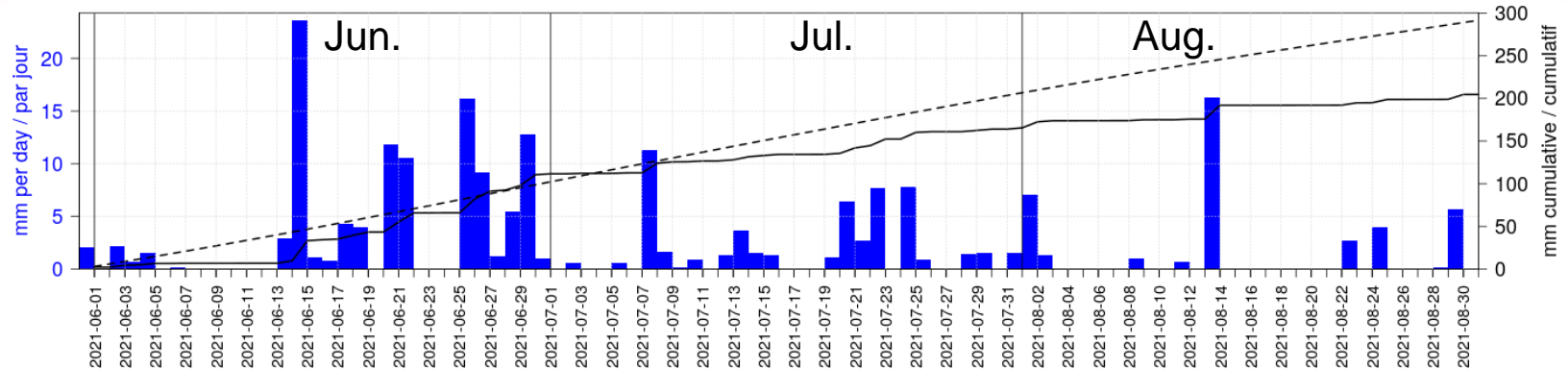
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Gridded weather station data / Données de stations météo sur grille
Climatology / Climatologie: 1981-2010
Stand. dev. thresholds / Seuils d'écart-types: +/- 0.7, 1.3, 2.1



2021 Temperature and precipitation – (J,J,A) for Edmundston

Daily Total Precipitation (bars), Cumulative (line) and Cumulative Long-Term Mean (dashed line)
Précipitation totale quotidienne (barres), Cumulative (trait) et Cumulative moyenne à long terme (tirreté)
Edmundston, NB (47.37N 68.33W)

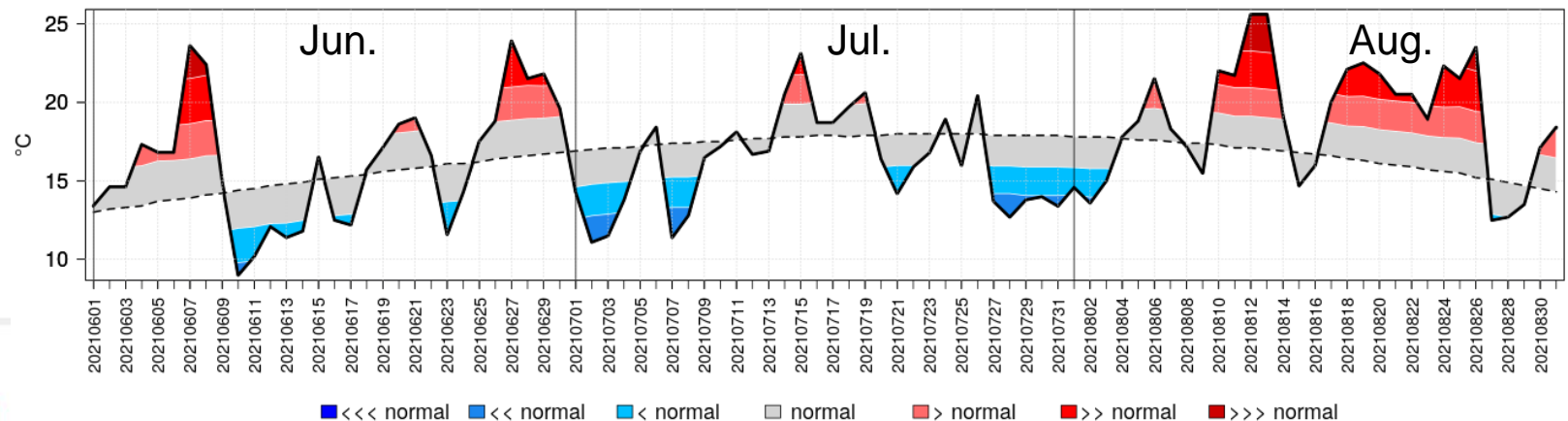


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ECCC Gridded Precipitation Analysis / Analyse de précipitation sur grille de ECCC
Climatology / Climatologie: 2002-2020

Daily Mean Temperature (line), Long-Term Mean (dashed line) and Categories based on Standard Deviations (blue and red)
Température quotidienne moyenne (trait), Moyenne à long terme (tirreté) et Catégories basées sur des écart-types (bleu et rouge)
Edmundston, NB (47.37N 68.33W)



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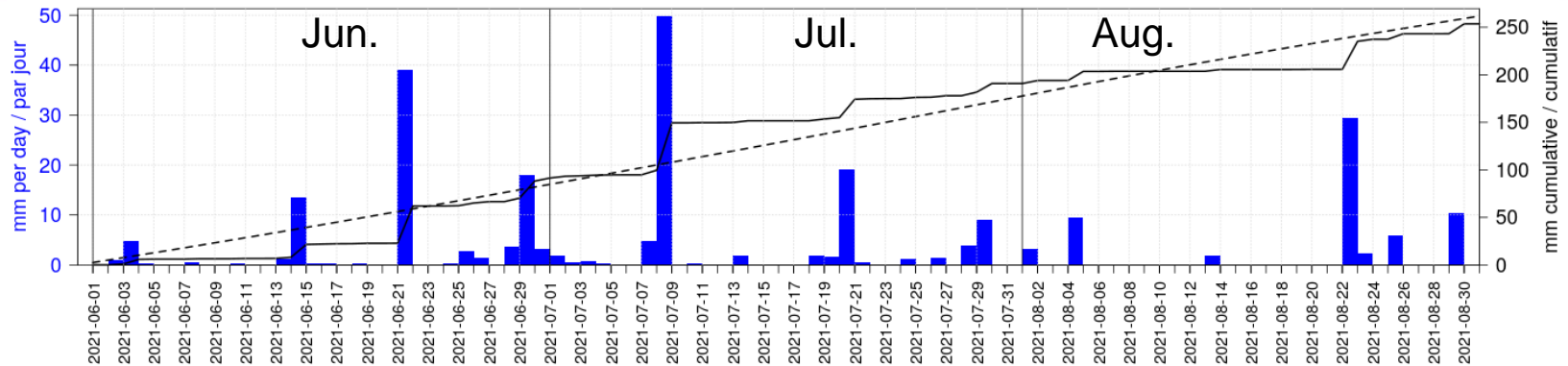
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Gridded weather station data / Données de stations météo sur grille
Climatology / Climatologie: 1981-2010
Stand. dev. thresholds / Seuils d'écart-types: +/- 0.7, 1.3, 2.1



2021 Temperature and precipitation – (J,J,A) for Miramichi

Daily Total Precipitation (bars), Cumulative (line) and Cumulative Long-Term Mean (dashed line)
Précipitation totale quotidienne (barres), Cumulative (trait) et Cumulative moyenne à long terme (tirreté)
Miramichi, NB (47.02N 65.50W)

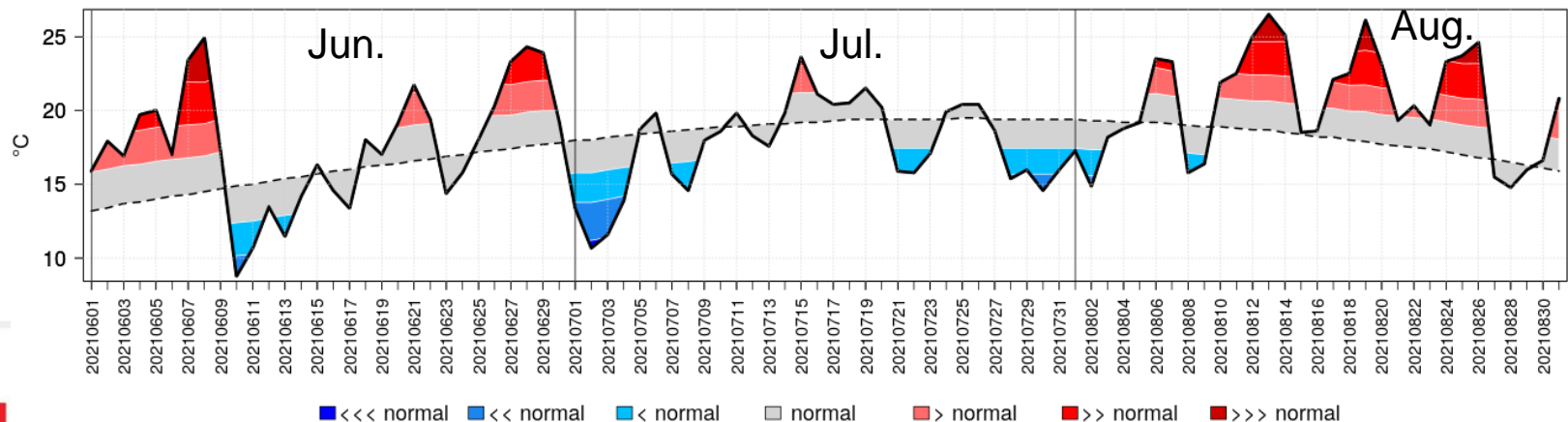


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ECCC Gridded Precipitation Analysis / Analyse de précipitation sur grille de ECCC
Climatology / Climatologie: 2002-2020

Daily Mean Temperature (line), Long-Term Mean (dashed line) and Categories based on Standard Deviations (blue and red)
Température quotidienne moyenne (trait), Moyenne à long terme (tirreté) et Catégories basées sur des écart-types (bleu et rouge)
Miramichi, NB (47.02N 65.50W)



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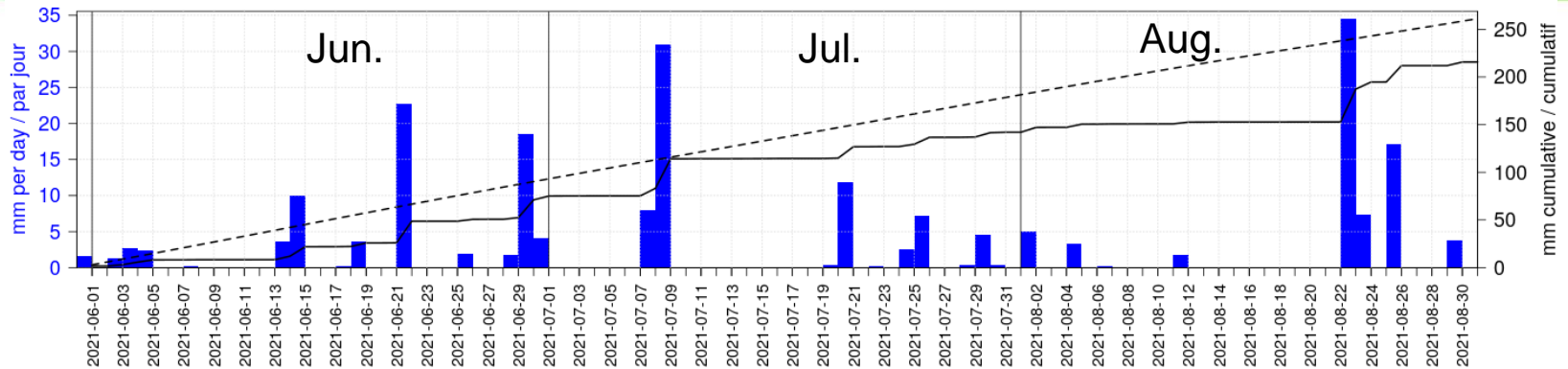
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Gridded weather station data / Données de stations météo sur grille
Climatology / Climatologie: 1981-2010
Stand. dev. thresholds / Seuils d'écart-types: +/- 0.7, 1.3, 2.1



2021 Temperature and precipitation – (J,J,A) for Bathurst

Daily Total Precipitation (bars), Cumulative (line) and Cumulative Long-Term Mean (dashed line)
Précipitation totale quotidienne (barres), Cumulative (trait) et Cumulative moyenne à long terme (tirré)é)
Bathurst, NB (47.59N 65.64W)

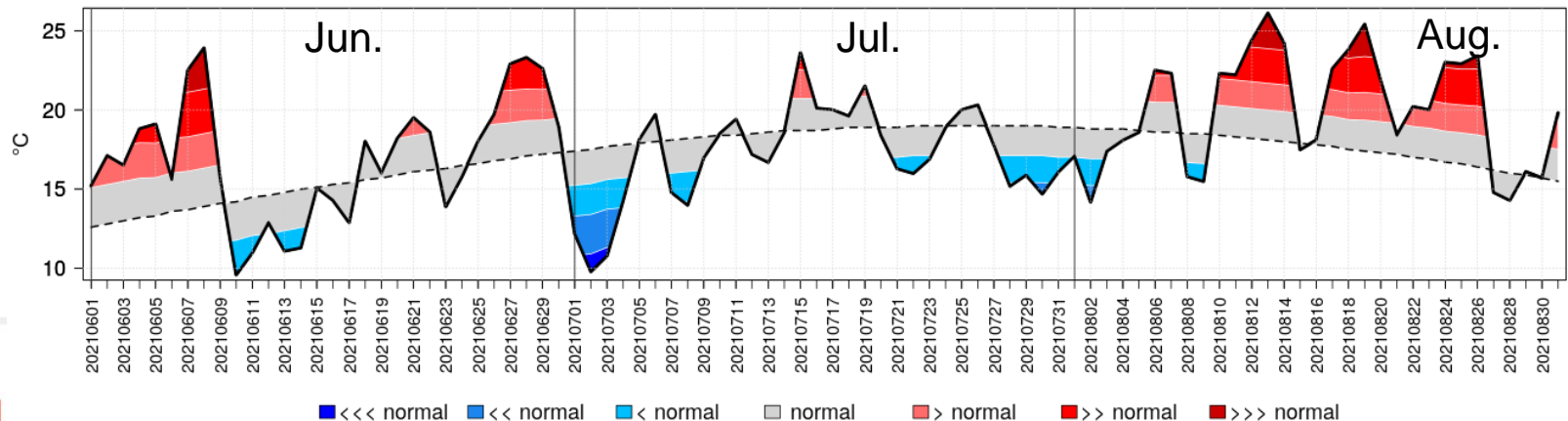


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ECCC Gridded Precipitation Analysis / Analyse de précipitation sur grille de ECCC
Climatology / Climatologie: 2002-2020

Daily Mean Temperature (line), Long-Term Mean (dashed line) and Categories based on Standard Deviations (blue and red)
Température quotidienne moyenne (trait), Moyenne à long terme (tirré)é) et Catégories basées sur des écart-types (bleu et rouge)
Bathurst, NB (47.59N 65.64W)



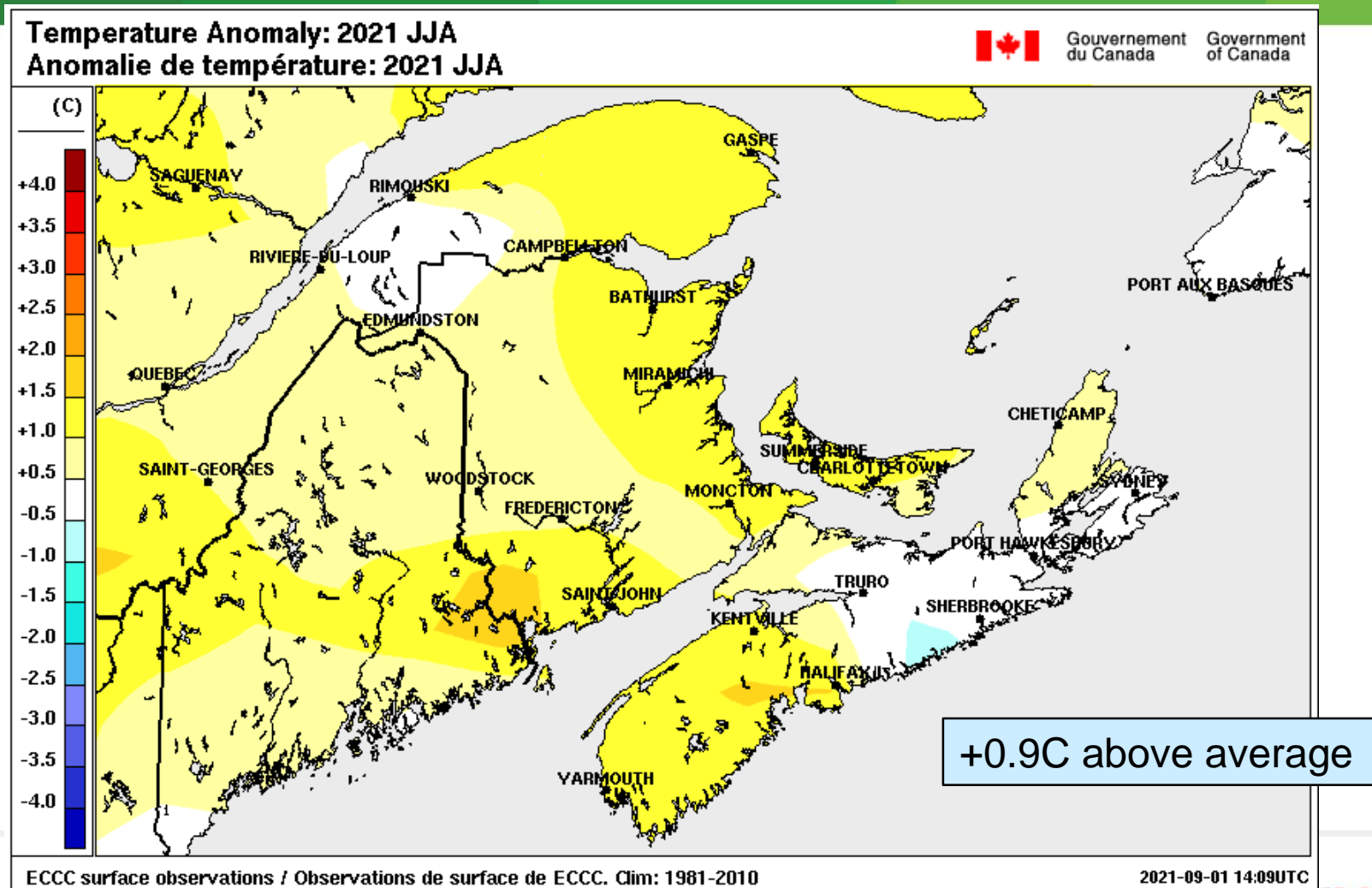
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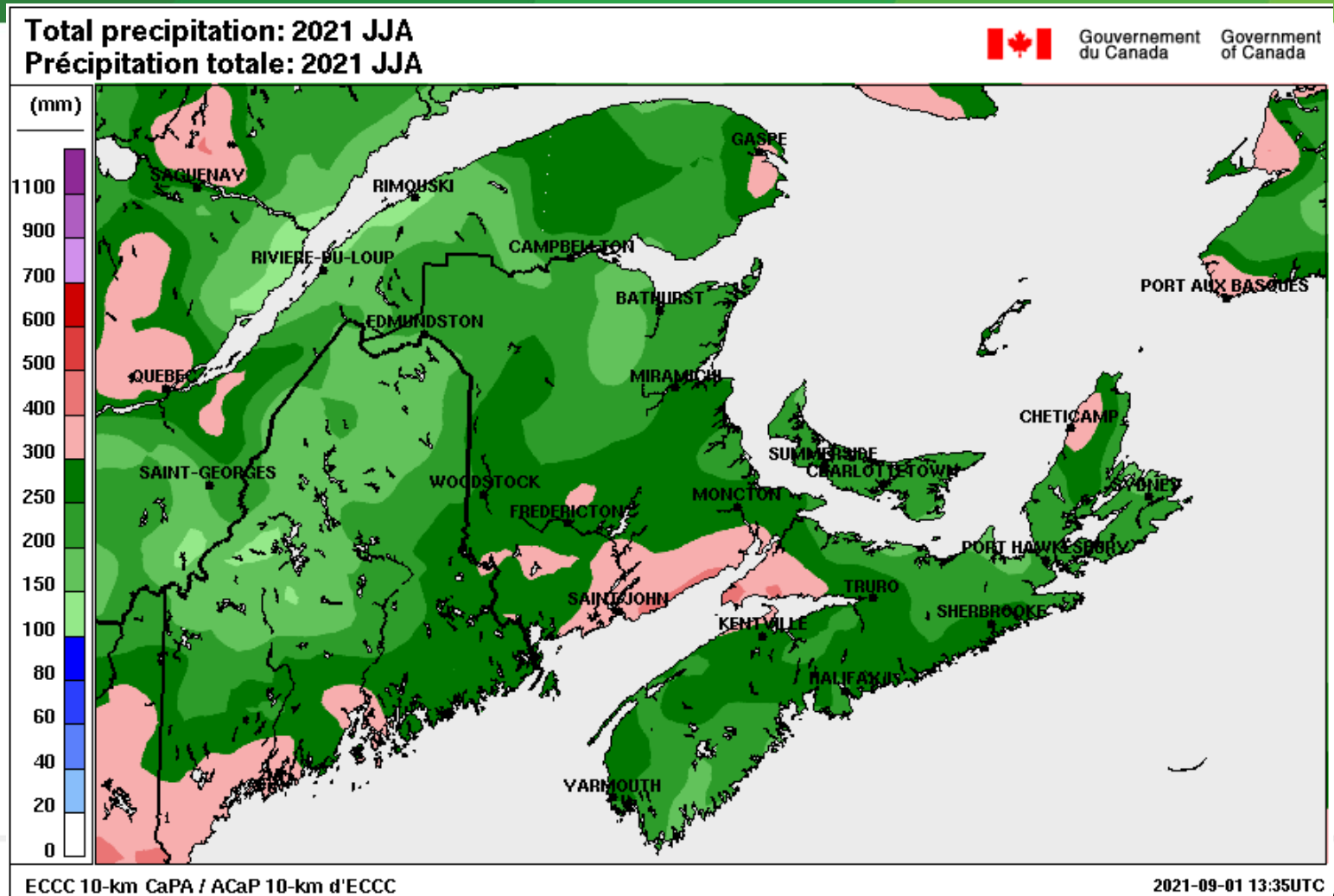
Gridded weather station data / Données de stations météo sur grille
Climatology / Climatologie: 1981-2010
Stand. dev. thresholds / Seuils d'écart-types: +/- 0.7, 1.3, 2.1



Summer 2021 (J,J,A) Temperature Departure from 1981-2010 mean



Summer 2021 (J,J,A) Total precipitation



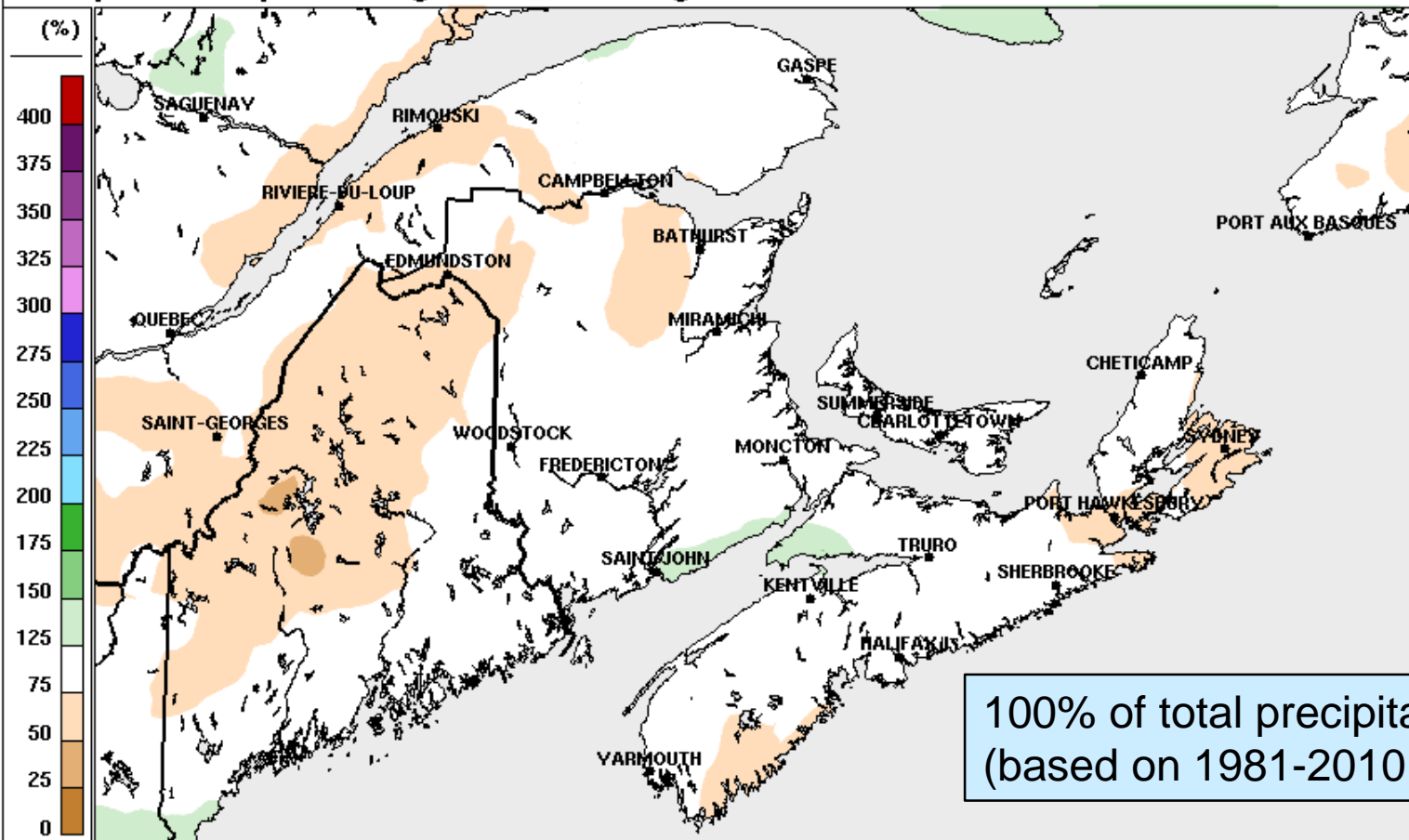
Summer 2021 (J,J,A) Precipitation departure from 2002-2020 mean

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



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100% of total precipitation
(based on 1981-2010 data)

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

2021-09-01 13:37UTC

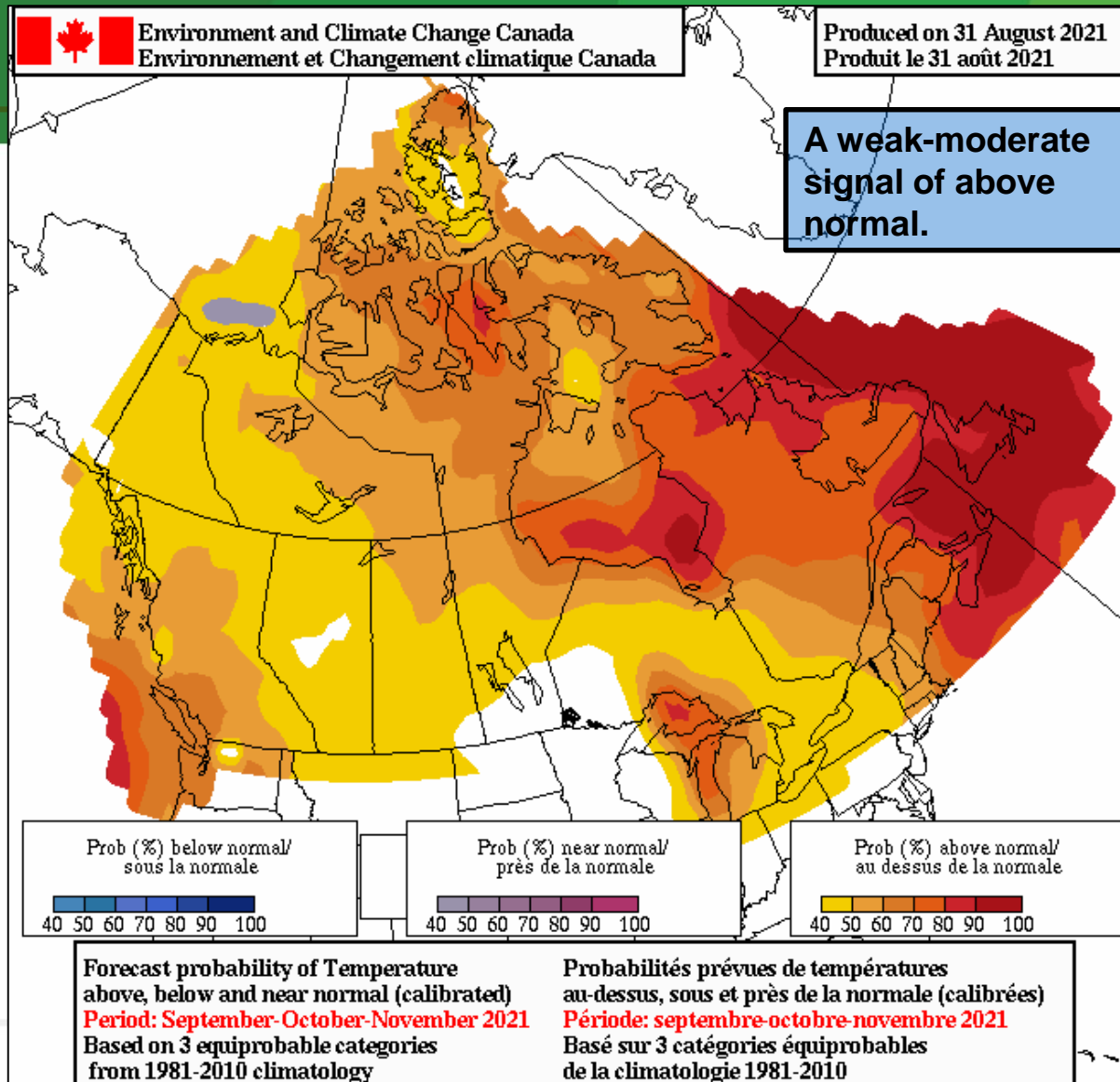


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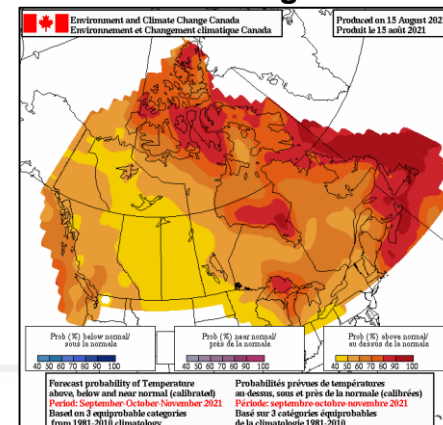


Temperature

September
October
November

NB (S,O,N)
Normal; 11.9/1.8°C

Produced August 15

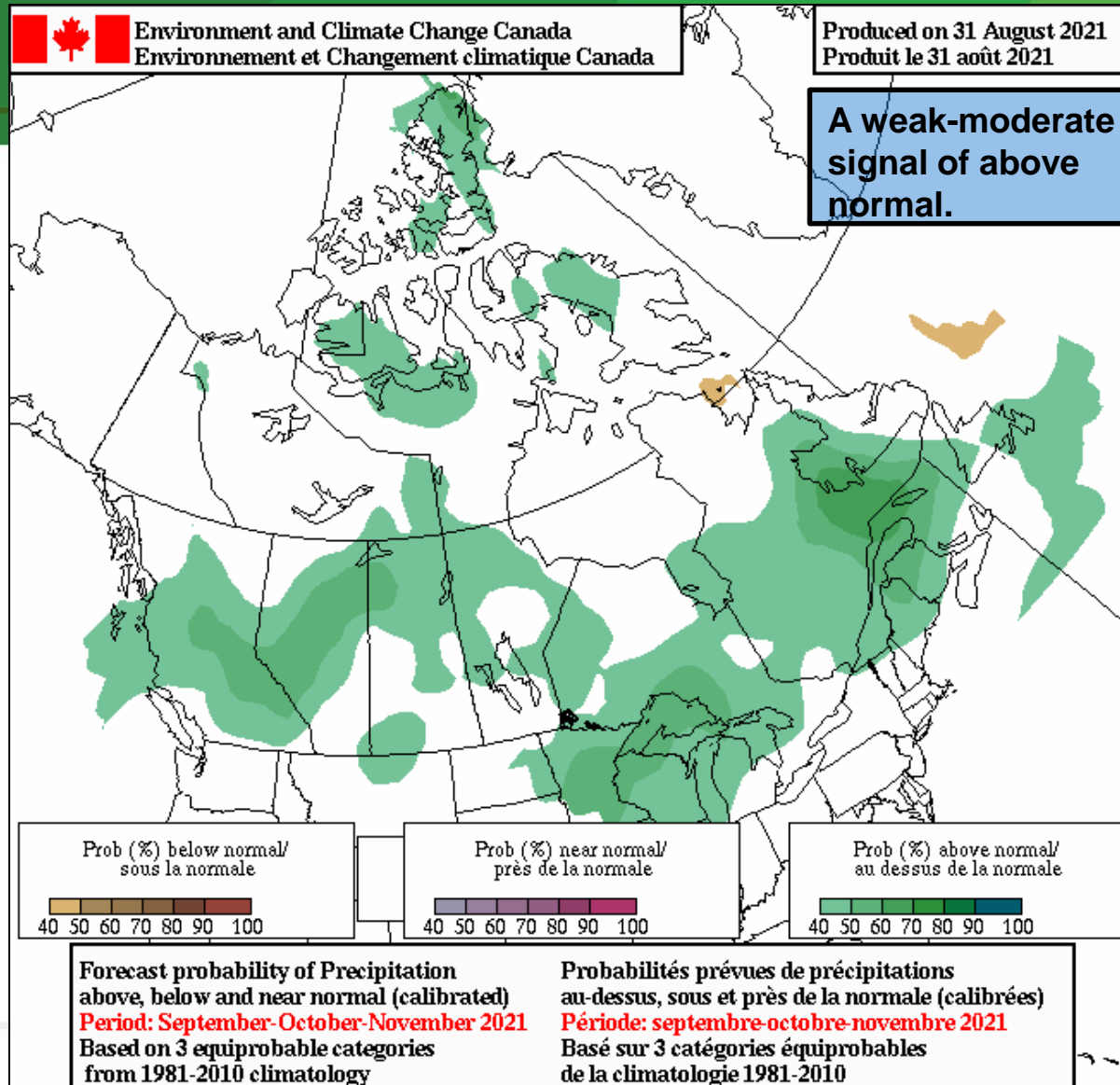


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Outlook – Fall 2021 (S,O,N)

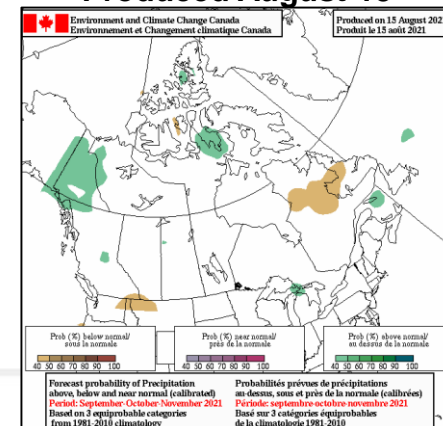


Precipitation

September
October
November

NB (S,O,N)
Normal; ~298 mm

Produced August 15



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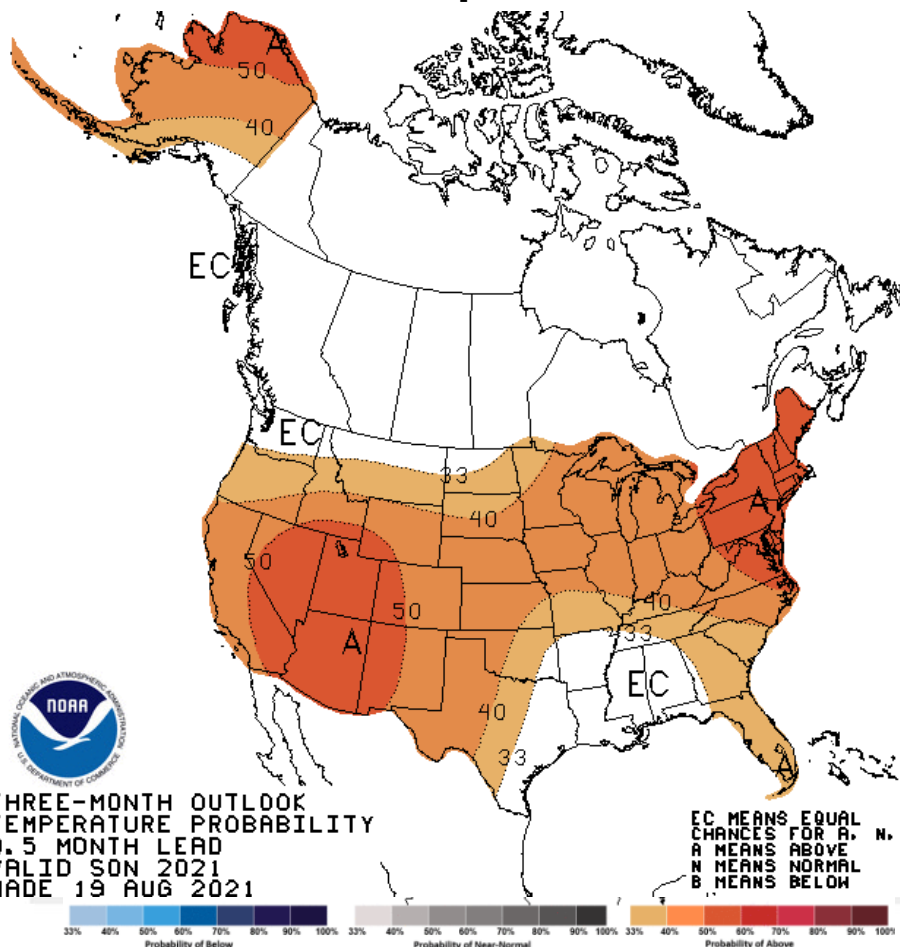
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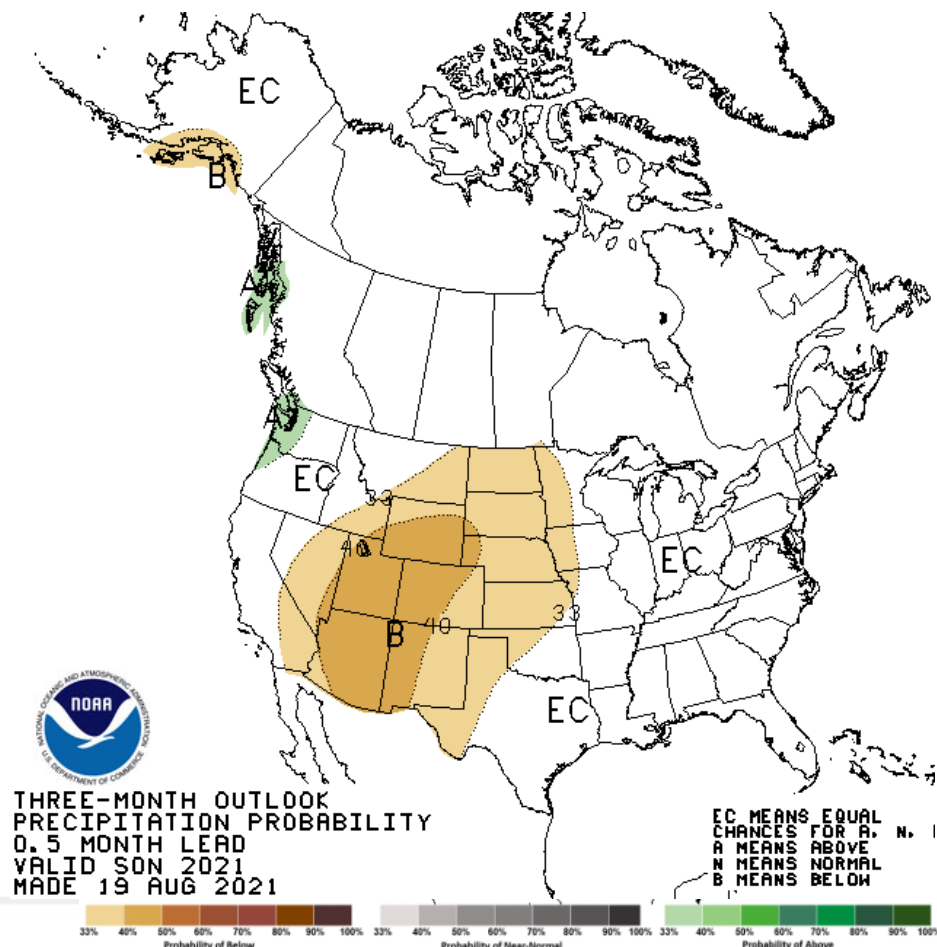


September - October - November

Temperature



Precipitation



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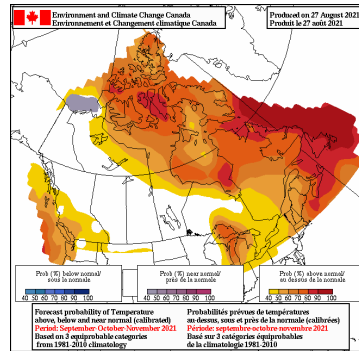
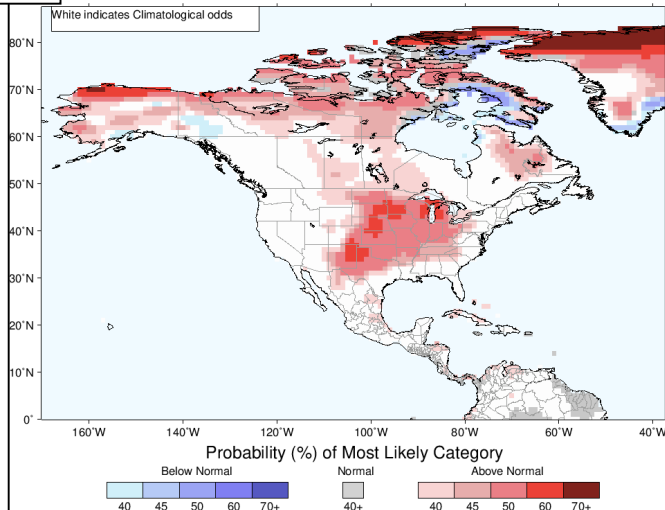
Canada

Fall 2021 Probabilistic Forecast from foreign models (temperature)

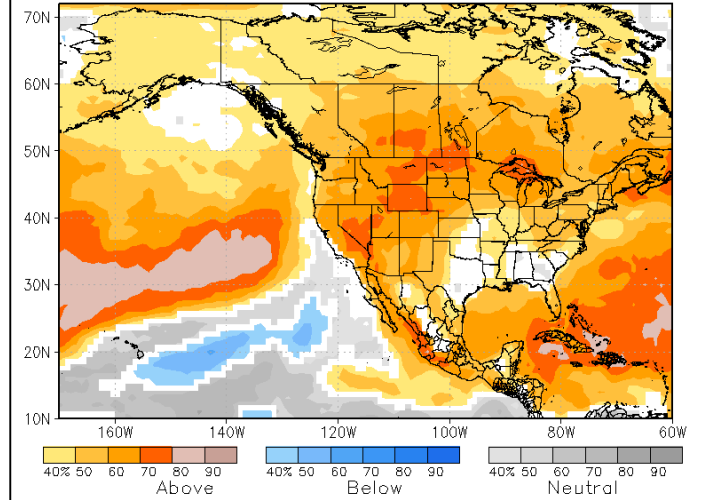
NMME

IRI

IRI Multi-Model Probability Forecast for Temperature for September–October–November 2021, Issued August 2021



NMME prob fcst TMP2m IC=202108 for lead 1 2021 SON

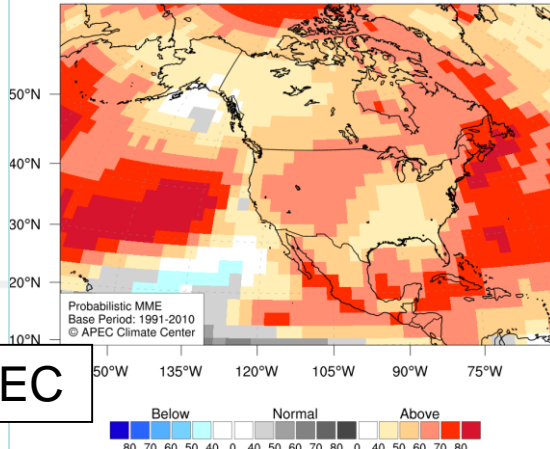


The most recent

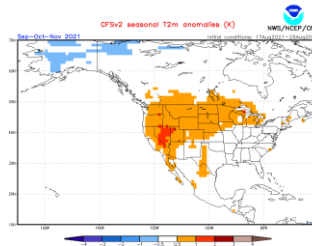
Temperature at 2m for September–November 2021

Issued: 20 Aug 2021

Unit: % (Probability)



APEC

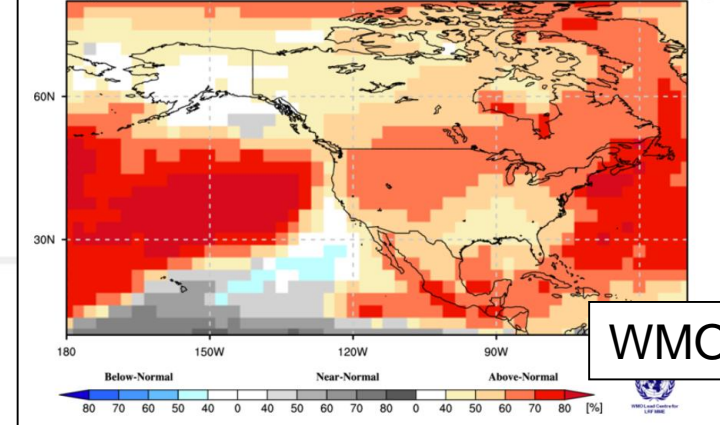


Probabilistic Multi-Model Ensemble Forecast

Beijing, CPTEC, ECMWF, Exeter, Melbourne, Montreal, Moscow, Offenbach, Seoul, Tokyo, Toulouse, Washington

2m Temperature : SON2021

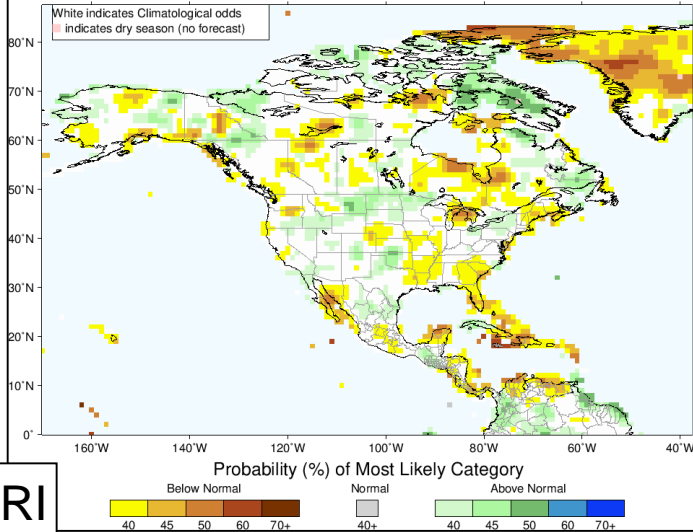
(issued on Aug 2021)



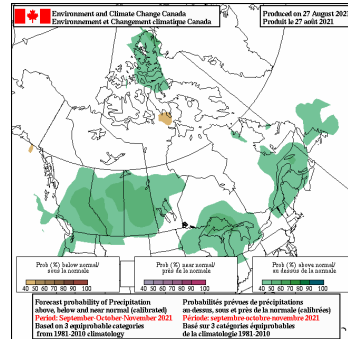
WMO

Fall 2021 Probabilistic Forecast from foreign models (precipitation)

IRI Multi-Model Probability Forecast for Precipitation for September–October–November 2021, Issued August 2021

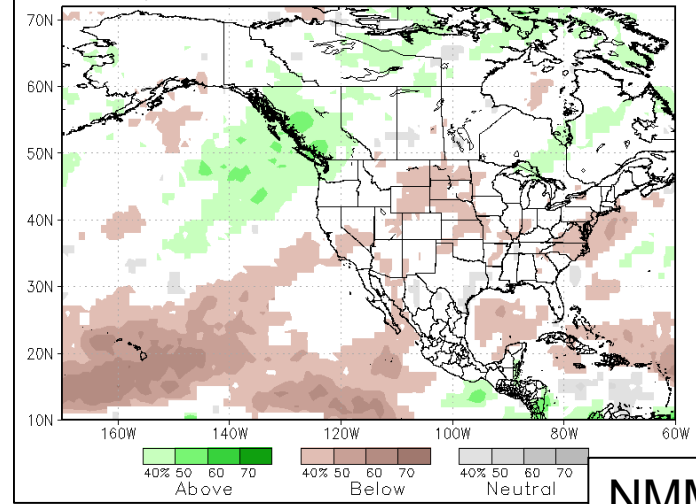


IRI



The most recent

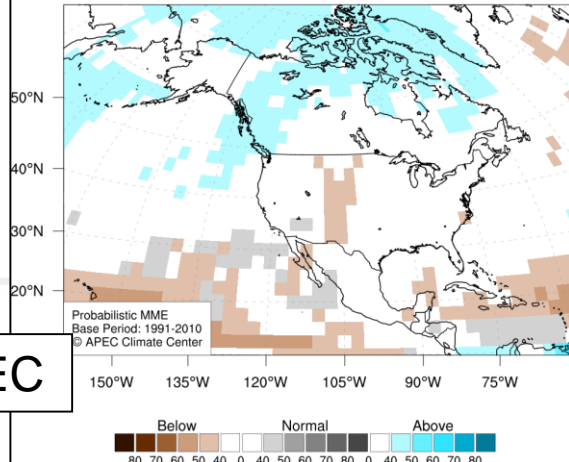
NMME prob fcst Prate IC=202108 for lead 1 2021 SON



NMME

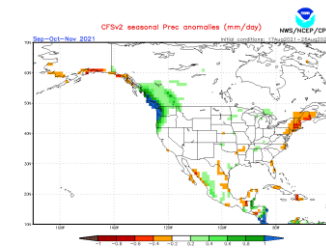
Precipitation for September–November 2021

Issued: 20 Aug 2021 Unit: % (Probability)



APEC

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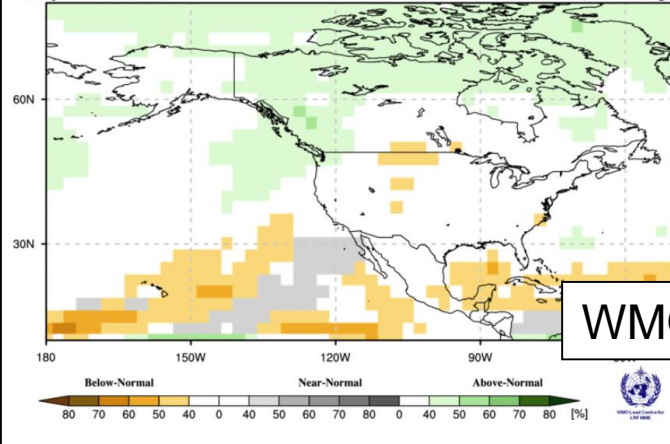


Probabilistic Multi-Model Ensemble Forecast

Beijing, CPTEC, ECMWF, Exeter, Melbourne, Montreal, Moscow, Offenbach, Seoul, Tokyo, Toulouse, Washington

Precipitation : SON2021

(issued on Aug 2021)



WMO

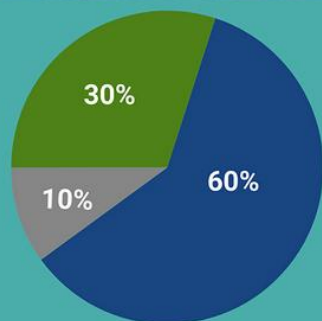
2021 Atlantic Tropical Season Forecast

Forecast issued May 20th



NATIONAL HURRICANE CENTER
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION

2021 Atlantic Hurricane Season Outlook



Named storms
13-20

Hurricanes
6-10

Major hurricanes
3-5

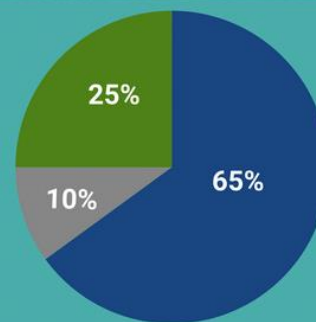
■ Above-normal ■ Near-normal ■ Below-normal season

Season probability



Updated August 4th

2021 Atlantic Hurricane Season Outlook AUGUST 4 UPDATE



Named storms
15-21

Hurricanes
7-10

Major hurricanes
3-5

■ Above-normal ■ Near-normal ■ Below-normal season

Season probability



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Preliminary Summary 2021 Season

(as of September 1 2021)



NATIONAL HURRICANE CENTER

NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION

Tropical cyclone activity in the Atlantic basin during August was above normal in terms of the numbers of named storms, hurricanes, and major hurricanes. Six named storms formed in the Atlantic basin in August, with three of them becoming hurricanes, and two of those becoming major hurricanes. Grace was a category 3 hurricane when it made landfall just south of Tuxpan, Mexico, on 22 August, and Ida was a category 4 hurricane when it made landfall near Port Fourchon, Louisiana, on 29 August. One tropical depression formed on the last day of the month. Based on a 30-year climatology (1991-2020), 3 or 4 named storms typically develop in August, with one or two of them becoming hurricanes. A major hurricane forms in August every 1 to 2 years.

Summary Table

Name	Dates	Max Wind (mph)
TS Ana	22-23 May	45*
TS Bill	14-16 Jun	60
TS Claudette	19-22 Jun	45
TS Danny	28-29 Jun	45
H Elsa	1-9 Jul	85
TS Fred	11-18 Aug	65
MH Grace	13-21 Aug	125
H Henri	16-23 Aug	75
MH Ida	26 Aug-	150
TS Kate	28 Aug-	45
TS Julian	29-30 Aug	60
TD Twelve	31 Aug-	35



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Canada Weather Pages

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