#### **New Brunswick**

### Integrated Climate Bulletin Fall 2020 Review & Winter Outlook

**Jill Maepea Meteorological Service of Canada Environment and Climate Change Canada December 3, 2020** 



Environment and

Environnement et Climate Change Canada Changement climatique Canada



#### September 2020; Climate Summary

				Mean 1	[emperat	ure (°C)	Total Precip (mm)		
			Station	Monthly	Normal	Diff from	Monthly	Normal	Total as % of
Station Name	Prov	TCID	Type	Mean	Mean	Normal	Total	Total	Normal
BAS CARAQUET	NB	WXS	AU8	13.8	14.2	-0.4			
BAS CARAQUET	NB		DAILY				60.6	73.8	82
BATHURST A	NB	ZBF	NCA	12.9	13.5	<u>-0.6</u>	42.7	84.2	51
BOUCTOUCHE CDA CS	NB	ABT	AU8	14.4	13.8	0.6	68.7	86.3	80
CHARLO AUTO	NB	ZCR	AU8	12.6	12.1	0.6	46.9	79.3	59
DOAKTOWN AUTO RCS	NB	ADN	AU8	13.6	13.5	0.1	41.3	100.2	41
EDMUNDSTON	NB	ERM	AU8	11.4			56.6	94.6	60
FREDERICTON INTL A	NB	YFC	NCA	13.9	13.6	0.3	86.5	87.5	99
FREDERICTON CDA CS	NB	AFC	AU8	14.4	14.0	0.4			
FUNDY PARK (ALMA) CS	NB	AFY	AU8	14.4	13.7	0.7	94.1	122.7	77
GAGETOWN AWOS A	NB	YCX	AU5	14.2	14.7	-0.5			
GRAND MANAN SAR CS	NB	XGM	AU8	12.9			55.0		
KOUCHIBOUGUAC	NB	AKC	AU8	13.6	13.3	0.3	72.9	83.7	87
MECHANIC SETTLEMENT	NB	AMS	AU8	13.1			141.2		
MIRAMICHI RCS	NB	ACQ	AU8	14.1	13.5	0.5	33.2	84.5	39
MISCOU ISLAND (AUT)	NB	WMI	AU8	13.5		~			
MONCTON INTL A	NB	YQM	NCH	14.6	13.6	1.0	67.1	93.5	72
OAK POINT	NB		DAILY	14.1			96.6	86.1	112
POINT LEPREAU CS	NB	WPE	AU8	13.2	12.4	0.8	71.8	120.9	59
RED PINES	NB	ARP	AU8	12.5	13.1	<u>-0.6</u>	36.9	76.5	48
SAINT JOHN A	NB	YSJ	NCH	13.0	13.0	0.0	94.6	105.6	90
ST. STEPHEN	NB	WSS	AU8	14.5			50.3		
SUSSEX FOUR CORNERS	NB	ASF	AU8	14.1	14.3	-0.2	89.5	99.9	
WOODSTOCK NEWBRIDGE	NB	EWD	AU8	13.5	13.2	0.3	22.2	95.7	23
Average				13.6	13.5	0.2	66.4	92.6	69
Max				14.6	14.7	1.0	141.2	122.7	112
Min				11.4	12.1	-0.6	22.2	73.8	23

\*

Canada

#### **October 2020; Climate Summary**

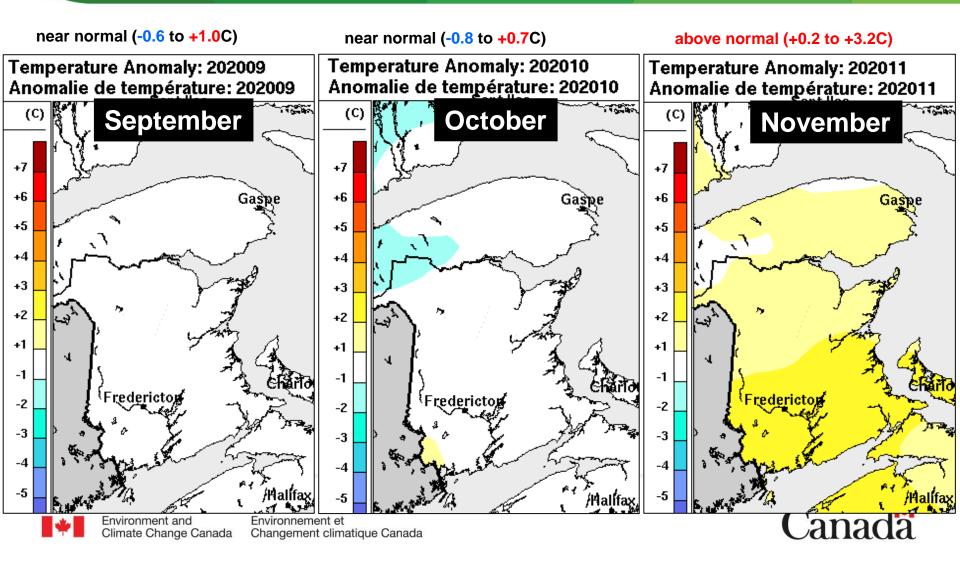
				Mean Temperature (°C)			Total Precip (mm)			
					-				-	
									Total as	
			Station	Monthly	Normal	Diff from	Monthly	Normal	% of	
Station Name	Prov	TC ID	Туре	Mean	Mean	Normal	Total	Total	Normal	
BAS CARAQUET	NB	WXS	AU8	7.0	7.6	-0.6	154.2	108.0	143	
BAS CARAQUET	NB		DAILY				166.6	108.0	154	
BATHURST A	NB	ZBF	NCA	6.0	6.8	-0.8	137.1	122.9	112	
BOUCTOUCHE CDA CS	NB	ABT	AU8	7.9	7.9	0.0	58.6	95.4	61	
CHARLO AUTO	NB	ZCR	AU8	5.2	5.7	-0.5	157.4	84.0	187	
DOAKTOWN AUTO RCS	NB	ADN	AU8	6.7	7.0	-0.3	75.5	100.8	75	
EDMUNDSTON	NB	ERM	AU8		5.8		191.1	93.6	204	
FREDERICTON INTL A	NB	YFC	NCA	7.5	7.5	0.0	60.5	89.1	68	
FREDERICTON CDA CS	NB	AFC	AU8	7.8	7.8	0.0	62.2	89.7	69	
FUNDY PARK (ALMA) CS	NB	AFY	AU8	8.7	8.2	0.4	108.6	132.9	82	
GAGETOWN AWOS A	NB	YCX	AU5	7.8	8.6	-0.8		105.7		
GRAND MANAN SAR CS	NB	XGM	AU8	8.0			67.5			
KOUCHIBOUGUAC	NB	AKC	AU8	7.3	7.6	-0.3	96.0	99.6	96	
MECHANIC SETTLEMENT	NB	AMS	AU8	6.8			141.5			
MIRAMICHI RCS	NB	ACQ	AU8	6.9	6.9	0.0	84.7	89.7	94	
MISCOU ISLAND (AUT)	NB	WMI	AU8	7.5		~	150.4			
MONCTON INTL A	NB	YQM	NCH	8.3	7.6	0.7	58.9	113.4	52	
OAK POINT	NB		DAILY	8.3	8.6	-0.3	75.1	105.7	71	
POINT LEPREAU CS	NB	WPE	AU8		7.6		52.7	115.8	46	
RED PINES	NB	ARP	AU8	5.7	6.5	-0.8	120.9	90.2	134	
SAINT JOHN A	NB	YSJ	NCH	7.6	7.6	0.0	78.2	116.4	67	
ST. STEPHEN	NB	WSS	AU8	7.8			90.8			
SUSSEX FOUR CORNERS	NB	ASF	AU8	8.1	8.1	0.1	75.2	106.5	71	
WOODSTOCK NEWBRIDGE	NB	EWD	AU8	6.4	6.6	-0.2	143.6	95.3	151	
Average				7.3	7.4	-0.2	104.7	103.1	102	
Max				8.7	8.6	0.7	191.1	132.9	204	
Min				5.2	5.7	-0.8	52.7	84.0	46	

\*

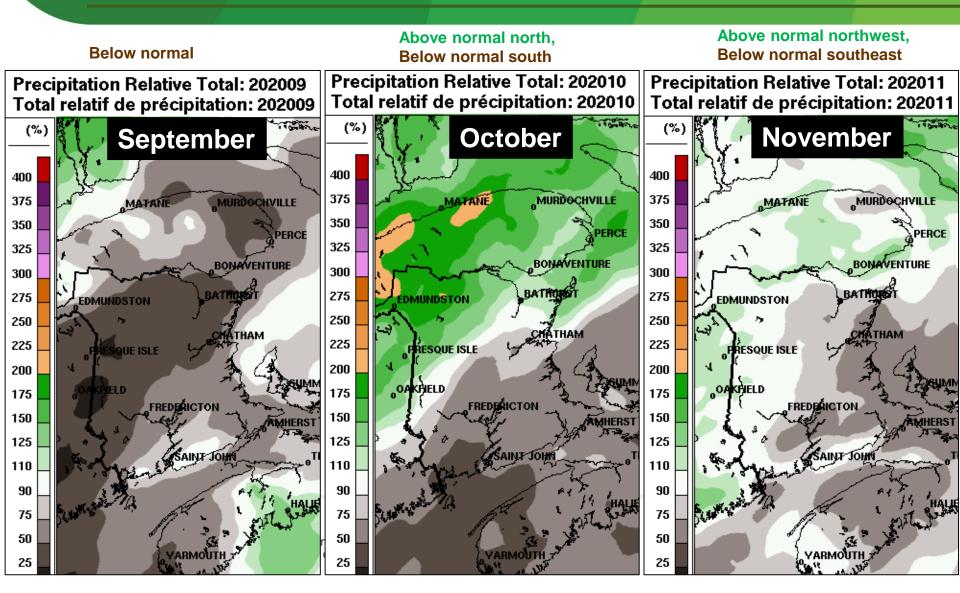
#### **November 2020; Climate Summary**

					Mean Temperature (°C)		Total Precip (mm)			
				Station	Monthly	Normal	Diff from	Monthly	Normal	% of
	Station Name	Prov	TC ID	Туре	Mean	Mean	Normal	Total	Total	Normal
	BAS CARAQUET	NB	WXS	AU8	2.5	1.3	1.3	84.4	102.4	82
	BAS CARAQUET	NB		DAILY				96.0	102.4	94
	BATHURST A	NB	ZBF	NCA	1.6	0.8	0.8	68.6	103.8	66
	BOUCTOUCHE CDA CS	NB	ABT	AU8	3.9	1.7	2.2	68.3	102.9	66
	CHARLO AUTO	NB	ZCR	AU8	1.2	-0.7	1.9	77.5	92.3	84
	MIRAMICHI RCS	NB	ACQ	AU8	2.8	0.7	2.1	71.1	100.6	71
	DOAKTOWN AUTO RCS	NB	ADN	AU8	2.8	0.7	2.1	90.5	112.1	81
	EDMUNDSTON	NB	ERM	AU8	-0.4	-0.6	0.2	109.0	91.2	120
	FREDERICTON INTL A	NB	YFC	NCA	3.6	1.5	2.1	66.9	106.3	63
	FREDERICTON CDA CS	NB	AFC	AU8	3.7	1.8	1.9	79.2	109.9	72
	FUNDY PARK (ALMA) CS	NB	AFY	AU8	5.2	3.0	2.2	148.3	158.9	93
	GAGETOWN AWOS A	NB	YCX	AU5	4.0	2.5	1.5	53.5	101.8	53
	GRAND MANAN SAR CS	NB	XGM	AU8	5.7			86.6		
	KOUCHIBOUGUAC	NB	AKC	AU8	3.4	1.2	2.3	79.3	120.6	66
	MECHANIC SETTLEMENT	NB	AMS	AU8	3.0			188.1		
	MISCOU ISLAND (AUT)	NB	WMI	AU8	2.5			85.4		
	MONCTON INTL A	NB	YQM	NCH	4.1	1.9	2.2	70.8	107.2	66
	MONCTON A	NB	YQM	NCA	4.3	1.9	2.5			/
	OAK POINT	NB		DAILY	5.0	2.5	2.5	125.2	101.8	123
	POINT LEPREAU CS	NB	WPE	AU8	5.9	2.7	3.2	59.3	140.4	42
	RED PINES	NB	ARP	AU8	1.7	-0.1	1.7	75.1	89.4	84
	SAINT JOHN A	NB	YSJ	NCH	4.5	2.3	2.2	130.2	134.1	97
	ST. STEPHEN	NB	WSS	AU8	4.5			121.7		
	SUSSEX FOUR CORNERS	NB	ASF	AU8	4.7	2.4	2.3	80.4	110.0	73
	WOODSTOCK	NB	EWD	AU8	2.9					
	NEWBRIDGE	IND	EVVD	AUS	2.5	0.3	2.6	95.5	103.2	93
Environm	Average				3.5	1.4	2.0	92.1	109.6	79
Climate C	Max				5.9	3.0		188.1	158.9	
	Min				-0.4	-0.7	0.2	53.5	89.4	42

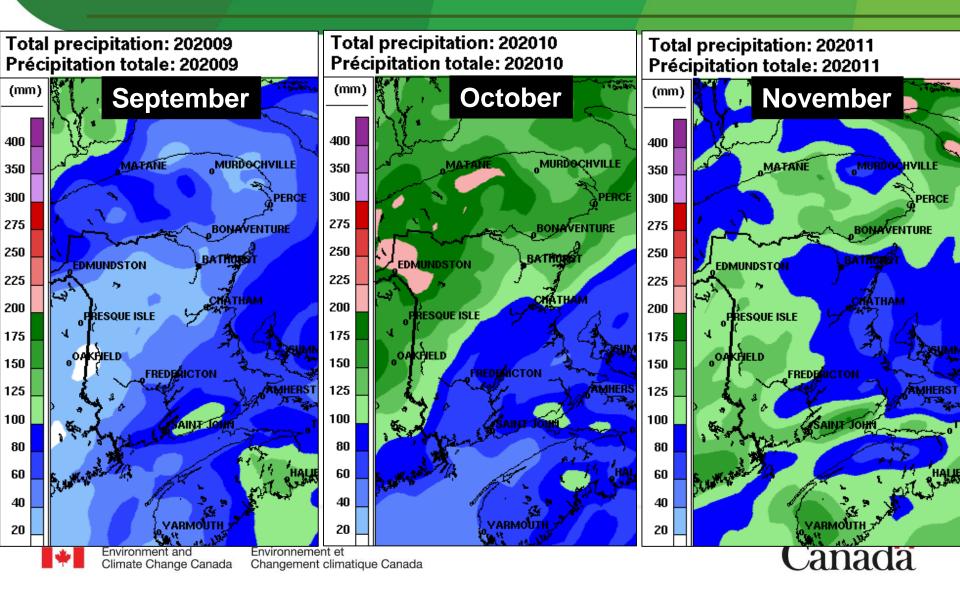
### Sep.-Oct.-Nov. 2020; Temperature departure from 1981-2010 mean



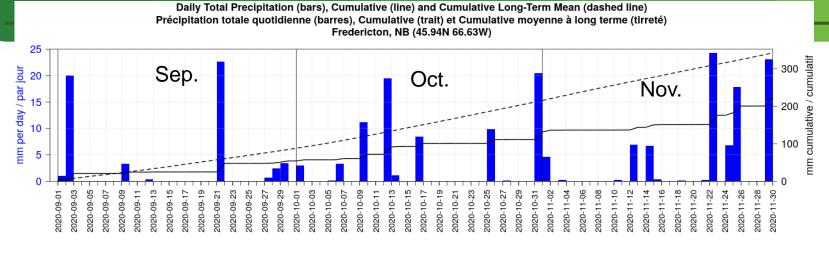
### Sep.-Oct.-Nov. 2020; Precipitation departure from 2002-2019 mean



#### Sep.-Oct.-Nov. 2020; Total precipitation



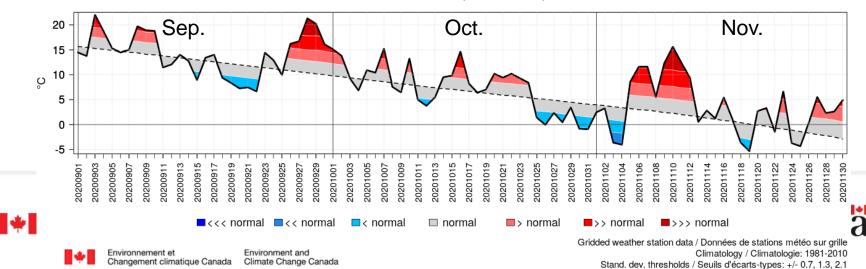
# 2020 Temperature and precipitation – (S,O,N) for Fredericton



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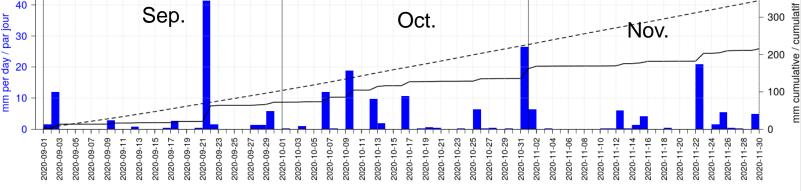
ECCC Gridded Precipitation Analysis / Analyse de précipitation sur grille de ECCC Climatology / Climatologie: 2002-2019

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) Fredericton, NB (45.94N 66.63W)



# 2020 Temperature and precipitation – (S,O,N) for Moncton

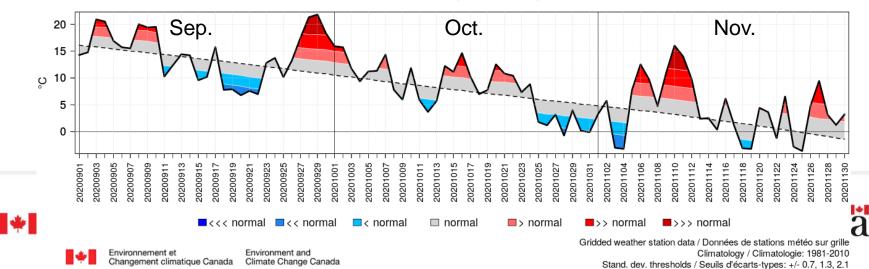
Daily Total Precipitation (bars), Cumulative (line) and Cumulative Long-Term Mean (dashed line) Précipitation totale quotidienne (barres), Cumulative (trait) et Cumulative moyenne à long terme (tirreté) Moncton, NB (46.08N 64.76W)



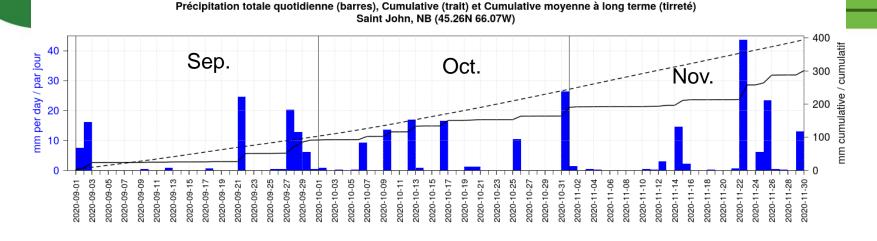
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Environment and Climate Change Canada ECCC Gridded Precipitation Analysis / Analyse de précipitation sur grille de ECCC Climatology / Climatologie: 2002-2019

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)



# 2020 Temperature and precipitation – (S,O,N) for Saint John

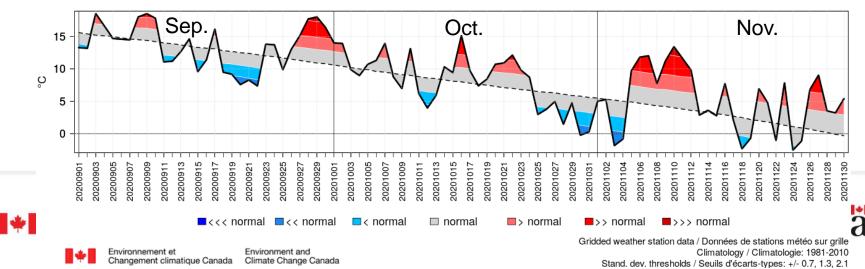


Daily Total Precipitation (bars), Cumulative (line) and Cumulative Long-Term Mean (dashed line)

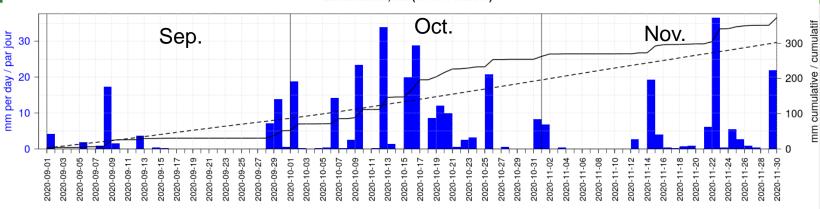
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ECCC Gridded Precipitation Analysis / Analyse de précipitation sur grille de ECCC Climatology / Climatologie: 2002-2019

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)



# 2020 Temperature and precipitation – (S,O,N) for Edmundston



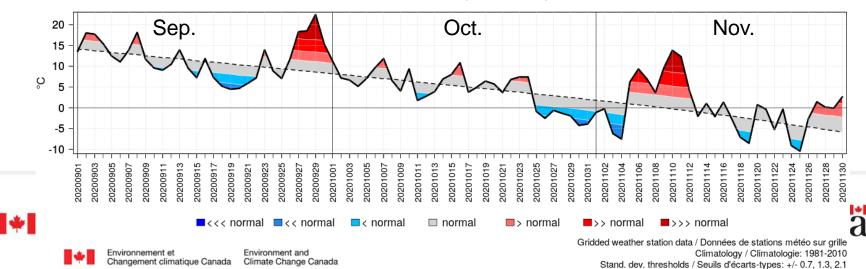
Daily Total Precipitation (bars), Cumulative (line) and Cumulative Long-Term Mean (dashed line) Précipitation totale quotidienne (barres), Cumulative (trait) et Cumulative moyenne à long terme (tirreté) Edmundston, NB (47.37N 68.33W)

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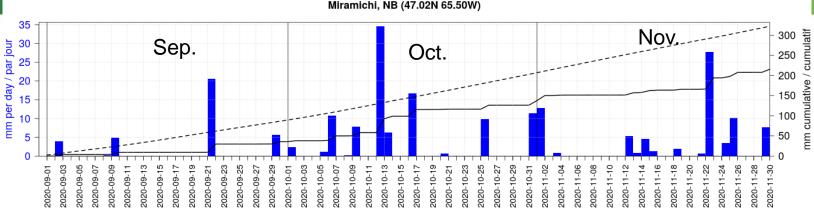
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ECCC Gridded Precipitation Analysis / Analyse de précipitation sur grille de ECCC Climatology / Climatologie: 2002-2019

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)



# 2020 Temperature and precipitation – (S,O,N) for Miramichi

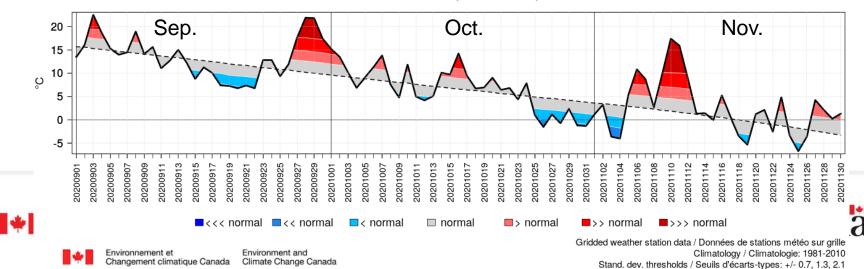


Daily Total Precipitation (bars), Cumulative (line) and Cumulative Long-Term Mean (dashed line) Précipitation totale quotidienne (barres), Cumulative (trait) et Cumulative moyenne à long terme (tirreté) Miramichi, NB (47.02N 65.50W)

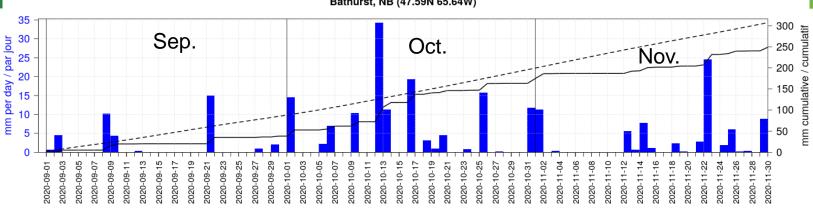
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ECCC Gridded Precipitation Analysis / Analyse de précipitation sur grille de ECCC Climatology / Climatologie: 2002-2019

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)



# 2020 Temperature and precipitation – (S,O,N) for Bathurst

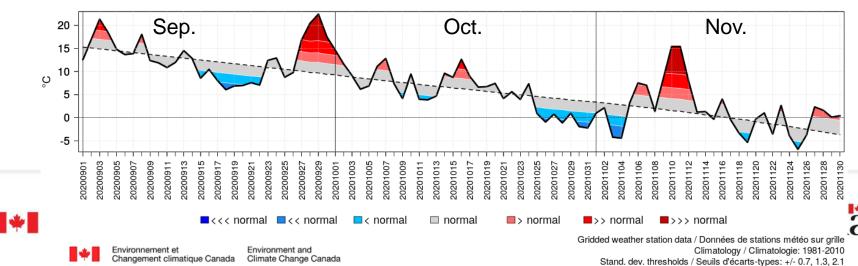


Daily Total Precipitation (bars), Cumulative (line) and Cumulative Long-Term Mean (dashed line) Précipitation totale quotidienne (barres), Cumulative (trait) et Cumulative moyenne à long terme (tirreté) Bathurst, NB (47.59N 65.64W)

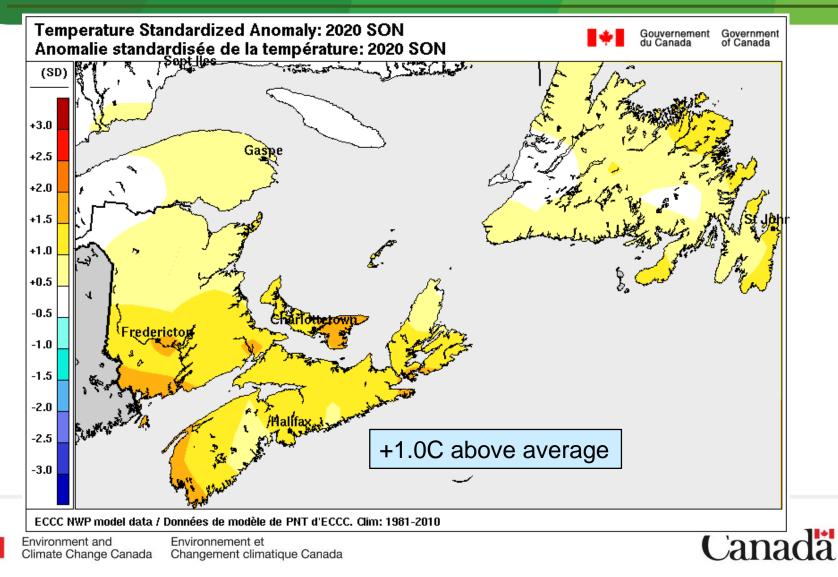
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ECCC Gridded Precipitation Analysis / Analyse de précipitation sur grille de ECCC Climatology / Climatologie: 2002-2019

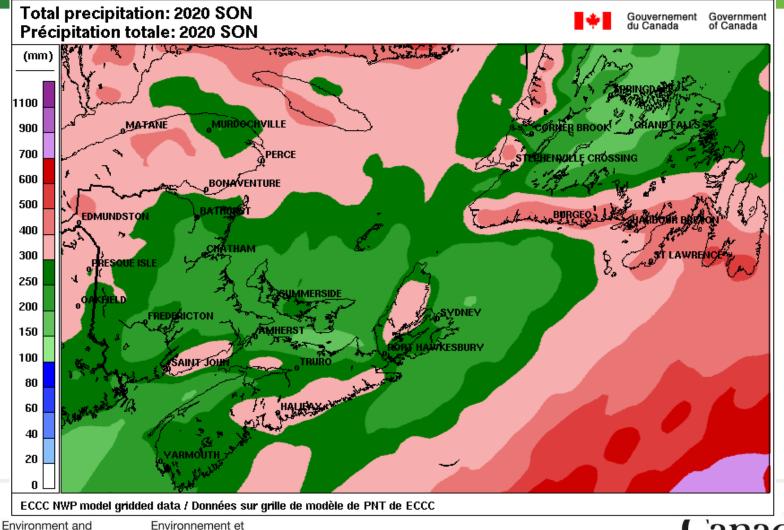
Daily Mean Temperature (line), Long-Term Mean (dashed line) and Categories based on Standard Deviations (blue and red) Température quotidienne moyenne (trait), Moyenne à long terme (tirreté) et Catégories basées sur des écart-types (bleu et rouge) Bathurst, NB (47.59N 65.64W)



#### Fall 2020 (S,O,N) Temperature Departure from 1981-2010 mean



#### Fall 2020 (S,O,N) Total precipitation

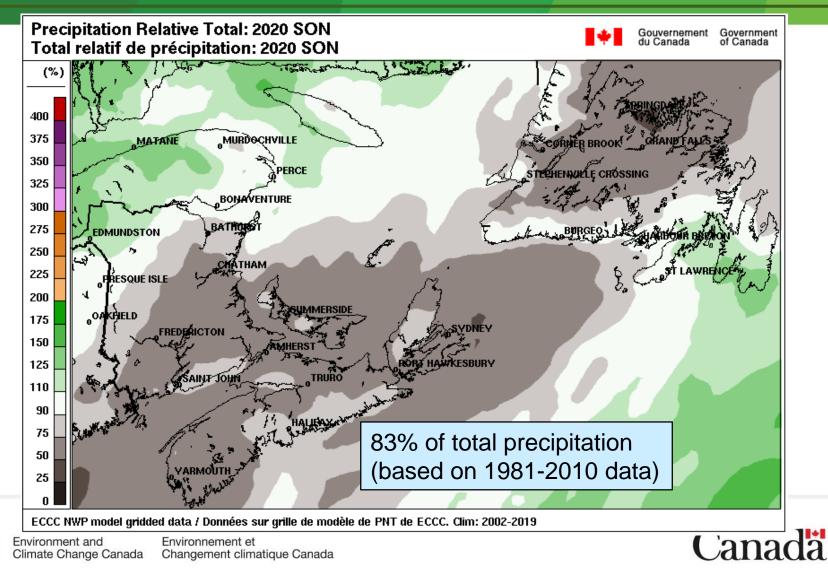


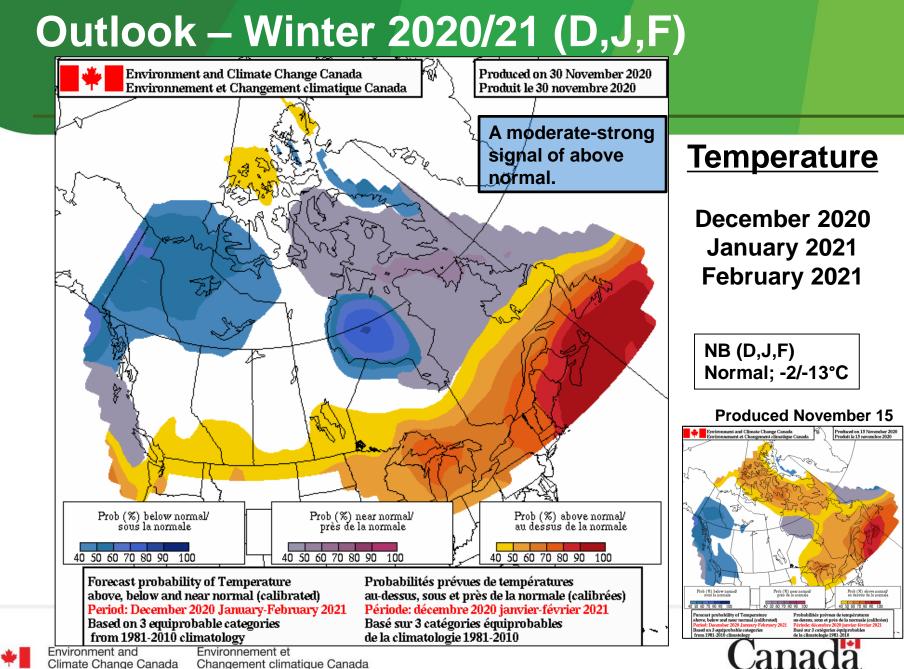


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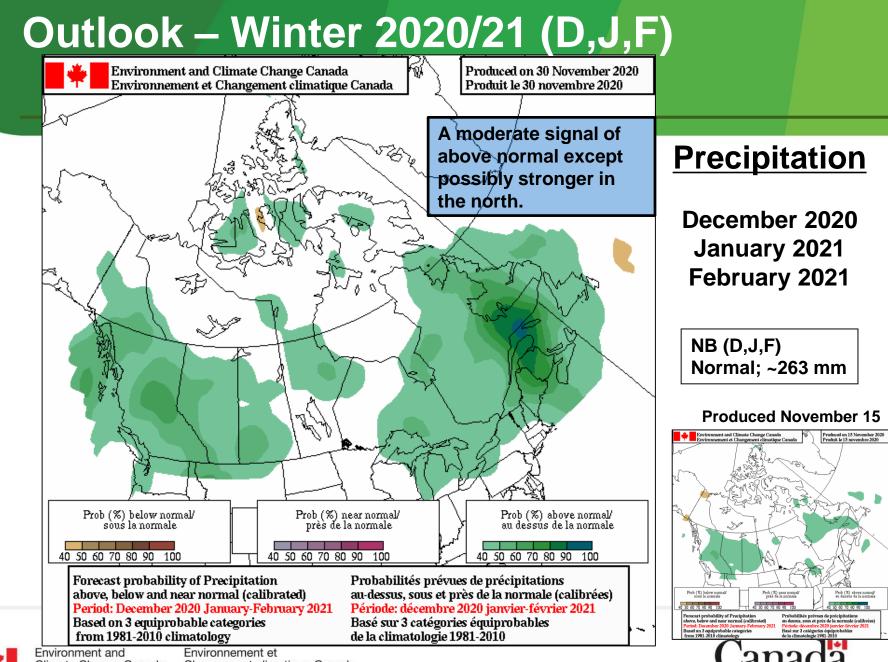


# Fall 2020 (S,O,N) Precipitation departure from 2002-2019 mean





Changement climatique Canada



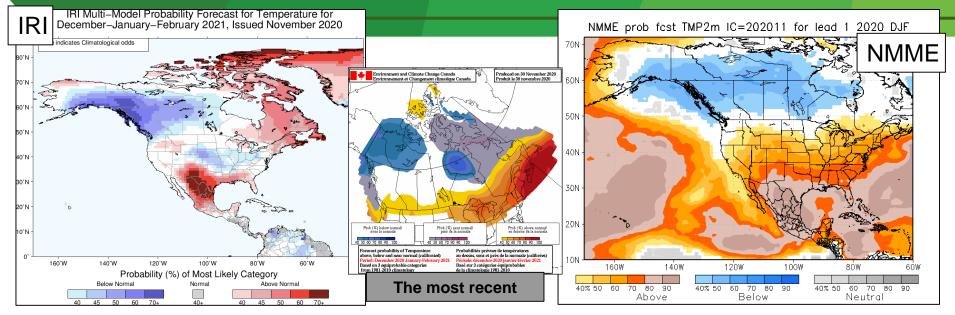
#### **December - January - February**

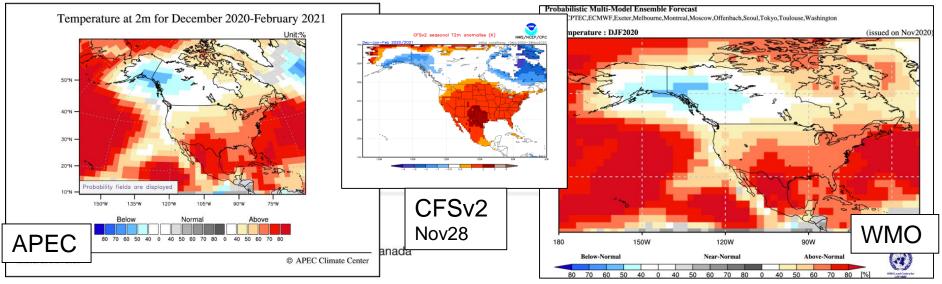
**Precipitation Temperature** Contraction of the second and the В Å FƘ FG 33. 40 RíC FĆ 33 40 60 THREE-MONTH OUTLOOK PRECIPITATION PROBABILITY 0.5 MONTH LEAD VALID DJF 2020 MADE 19 NOV 2020 THREE-MONTH OUTLOOK TEMPERATURE\_PROBABILITY EC MEANS EQUAL Chances for A. N. A Means Above N Means Normal B Means Beloh EC MEANS EQUAL CHANCES FOR A, A MEANS ABOVE N MEANS NORMAL B MEANS BELOW 0.5 MONTH LEAD VALID DJF 2020 MADE 19 NOV 2020 50% 60% 70% 80% 50% 60% 70% 80% 50% 60% 70% Probability of Above 50% 60% 70% Probability of Abo 70% 40% 60% 70% 33% 40% 70% robability of Below Probability of Near-Normal Probability of Below Probability of Near-Normal Canada Environment and

NDAA

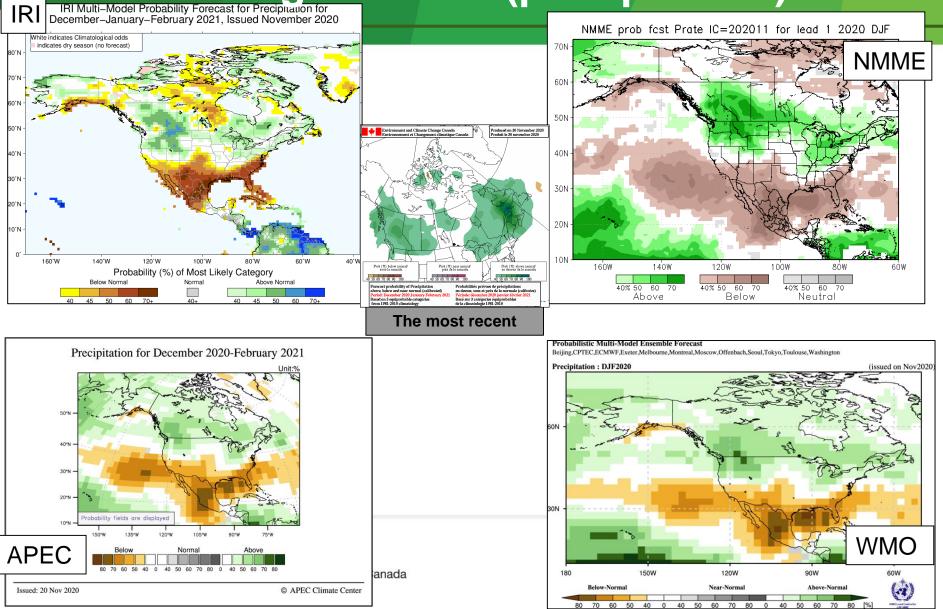
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# Winter 2020 Probabilistic Forecast from foreign models (temperature)





# Winter 2020 Probabilistic Forecast from foreign models (precipitation)



### **2020 Atlantic Tropical Season Summary**



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### **2020** Atlantic Tropical Cyclone Names



The 2020 Atlantic hurricane season set a new record with 30\* named storms. The previous record was in 2005 with 28.

\*it is still possible to have a named storm in Dec.

8 named storms entered the Canadian Hurricane Centre Response Zone

	<u>Average</u>	<u>Actual</u>
Named Storms:	12	30
Hurricanes:	6	13
Major Hurricanes:	3	6



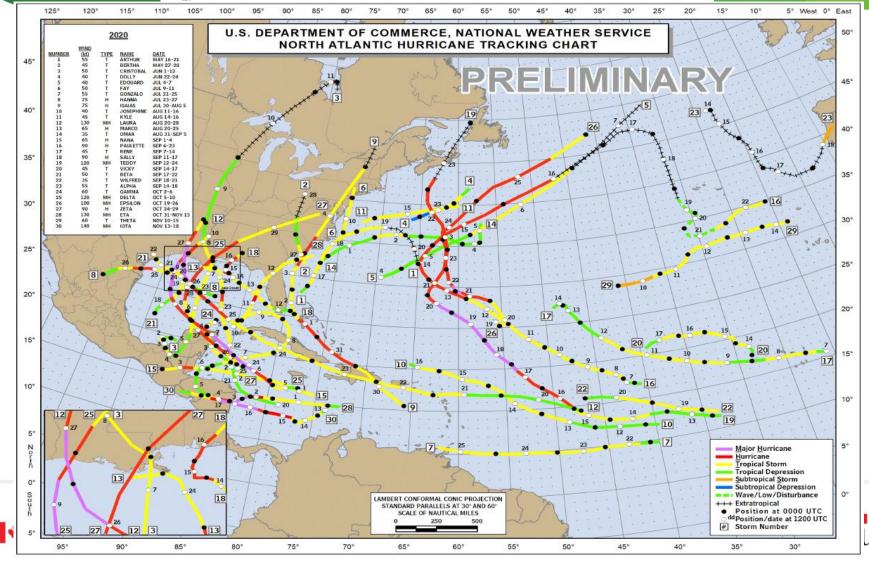


#### Tropical Season Summary 2020 (preliminary as of December 1 2020)



#### NATIONAL HURRICANE CENTER

NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION





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Environment and Climate Change Canada Weather Pages www.weather.gc.ca



