New Brunswick

Integrated Climate Bulletin Winter 2020-21 Review & Spring Outlook

Jill Maepea **Meteorological Service of Canada Environment and Climate Change Canada** March 2, 2021



Environment and

Environnement et Climate Change Canada Changement climatique Canada



December 2020; Climate Summary

				Mean Temperature (°C)			Total Precip (mm)			
			Station	Monthly	Normal	Diff from	Monthly	Normal	Total as %	
Station Name	Prov	TC ID	Туре	Mean	Mean	Normal	Total	Total	of Normal	
AROOSTOOK	NB		DAILY	-3.0	-7.6	4.6	114.0	89.7	127	
BAS CARAQUET	NB	WXS	AU8	-1.4	-5.1	3.8	141.7	106.6	133	
BAS CARAQUET	NB		DAILY			\ .	172.0	106.6	161	
BATHURST A	NB	ZBF	NCA	-3.4	-6.0	2.6				
BOUCTOUCHE CDA CS	NB	ABT	AU8	-0.9	-5.1		168.8	101.1	167	
CHARLO AUTO	NB	ZCR	AU8	-3.7	-7.9	4.2	108.1	79.6	136	
MIRAMICHI RCS	NB	ACQ	AU8	-2.0	-6.2	4.3	160.5	85.3	188	
DOAKTOWN AUTO RCS	NB	ADN	AU8	-1.9	-6.4	4.5	172.8	96.7	179	
FREDERICTON CDA CS	NB	AFC	AU8	-1.0	-5.3	4.3	167.5	91.8	183	
FUNDY PARK (ALMA) CS	NB	AFY	AU8	0.9	-3.3	4.2	229.1	146.6	156	
GAGETOWN AWOS A	NB	YCX	AU5	-0.8	-4.4	3.5				
KOUCHIBOUGUAC	NB	AKC	AU8	-1.5	-6.2	4.7	190.0	125.4	152	
MISCOU ISLAND (AUT)	NB	WMI	AU8	-1.7						
MONCTON INTL A	NB	YQM	NCH			~	164.5	114.4	144	
MONCTON A	NB	YQM	NCA	0.2	-4.8	<u>→</u> 5.0			\ .	
OAK POINT	NB		DAILY	-0.4	-4.4	4.0	280.4	98.4	285	
POINT LEPREAU CS	NB	WPE	AU8	1.1	-3.4	4.5				
RED PINES	NB	ARP	AU8	-3.4	-7.2	3.8	179.7	87.4	206	
SAINT JOHN A	NB	YSJ	NCH	0.2	-4.4	4.6	300.5	130.4	230	
ST. STEPHEN	NB	WSS	AU8	-0.7			157.7			
SUSSEX FOUR CORNERS	NB	ASF	AU8	-0.2	-4.5	4.2	207.9	105.6	197	
WOODSTOCK NEWBRIDGE	NB	EWD	AU8	-2.8	-7.0	4.1	133.4	103.2	129	
Average				-1.3	-5.5	4.2	179.3	104.3	173	
Max				1.1	-3.3	5.0	300.5	146.6		
Min Invironment and Environne				-3.7	-7.9	2.6	108.1	79.6	127	



January 2021; Climate Summary

				Mean T	emperat	ure (°C)	Total Precip (mm)			
			Station	Monthly	Normal	Diff from	Monthly	Normal	Total as %	
Station Name	Prov	TC ID	Туре	Mean	Mean	Normal	Total	Total	of Normal	
BAS CARAQUET	NB	WXS	AU8	-4.8	-9.8	5.0	45.9	97.3	47	
BAS CARAQUET	NB		DAILY				53.2	97.3	55	
BATHURST A	NB	ZBF	NCA	-6.3	-10.8	4.6				
BOUCTOUCHE CDA CS	NB	ABT	AU8	-5.0	-9.0	4.0	55.0	104.2	53	
CHARLO AUTO	NB	ZCR	AU8	-6.4	-12.6	6 .2 ک	20.4	84.5	24	
MIRAMICHI RCS	NB	ACQ	AU8	-5.7	-10.8	5.1	50.3	87.0	58	
DOAKTOWN AUTO RCS	NB	ADN	AU8	-5.2	-10.7	5.5	39.5	105.6	37	
EDMUNDSTON	NB	ERM	AU8	-8.8	-12.9	4.1	34.5	79.4	43	
FREDERICTON INTL A	NB	YFC	NCA	-5.0	-9.4	4.5				
FREDERICTON CDA CS	NB	AFC	AU8	-4.7	-9.4	4.8	38.4	101.9	38	
FUNDY PARK (ALMA) CS	NB	AFY	AU8	-3.0	-7.4	4.4	49.4	144.9	34	
GAGETOWN AWOS A	NB	YCX	AU5	-4.9	-8.6	3.7				
KOUCHIBOUGUAC	NB	AKC	AU8	-5.2	-10.1	4.9	47.5	137.7	34	
MISCOU ISLAND (AUT)	NB	WMI	AU8	-4.7						
MONCTON INTL A	NB	YQM	NCH	-4.9	-8.9	3.9	59.1	103.3	57	
OAK POINT	NB		DAILY	-4.0	-8.6	4.6	49.1	104.6	47	
POINT LEPREAU CS	NB	WPE	AU8	-2.5	-7.1	4.6			~	
RED PINES	NB	ARP	AU8	-6.6	-12.0	5.4	56.2	86.6	→ 65	
SAINT JOHN A	NB	YSJ	NCH	-4.2	-7.9	3.7	47.8	123.5	39	
ST. STEPHEN	NB	WSS	AU8	-4.2						
SUSSEX FOUR CORNERS	NB	ASF	AU8	-4.4	-8.5	4.1	36.4	108.8	33	
WOODSTOCK NEWBRIDGE	NB	EWD	AU8	-6.5	-11.5	5.0				
Average				-5.1	-9.8	4.6	45.5	104.4	44	
Max				-2.5	-7.1	6.2	59.1	144.9	65	
Min				-8.8	-12.9	3.7	20.4	79.4	24	

Canada



Climate Change Canada Changement climatique Canada

February 2021; Climate Summary

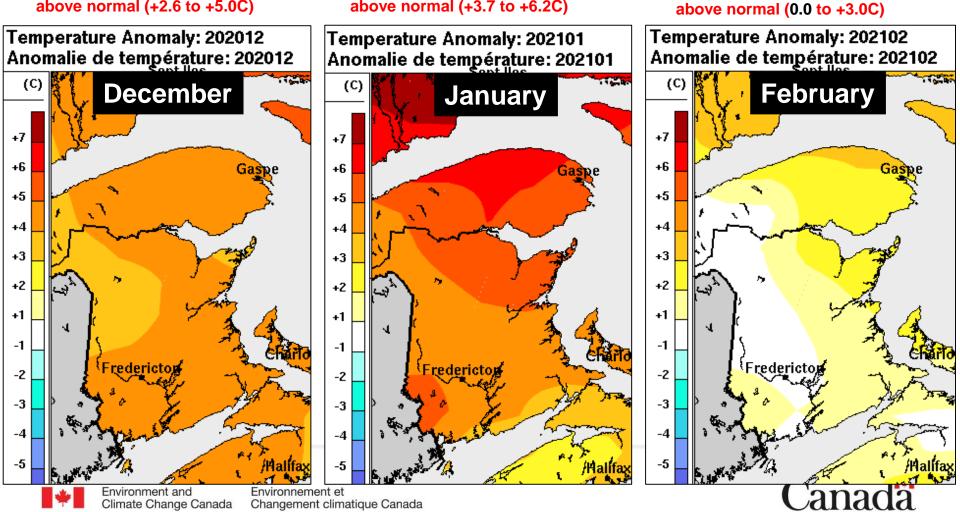
				Mean Temperature (°C)			Total Precip (mm)		
				Monthly					Total as %
Station Name	Prov		Туре	Mean	Mean	Normal	Total	Total	of Normal
BAS CARAQUET	NB	WXS	AU8	-6.7	-9.7	2.9	95.2	79.0	
BAS CARAQUET	NB		DAILY				124.4	79.0	157
BATHURST A	NB	ZBF	NCA	-8.0	-9.4	1.4			
BOUCTOUCHE CDA CS	NB	ABT	AU8	-6.1	-7.7				
CHARLO AUTO	NB	ZCR	AU8	-7.9	-10.9	3.0	54.9	66.9	× 82
MIRAMICHI RCS	NB	ACQ	AU8	-7.1	-8.9	1.7			
DOAKTOWN AUTO RCS	NB	ADN	AU8	-7.7	-8.9	1.3			
EDMUNDSTON	NB	ERM	AU8	-12.0			62.8	62.3	101
FREDERICTON INTL A	NB	YFC	NCA	-6.9	-7.9	1.0			
FREDERICTON CDA CS	NB	AFC	AU8	-6.9	-7.5	0.6			
FUNDY PARK (ALMA) CS	NB	AFY	AU8	-4.2	-6.1	1.9			
GAGETOWN AWOS A	NB	YCX	AU5	-6.7	-6.6	0.0			
KOUCHIBOUGUAC	NB	AKC	AU8	-6.2	-8.6	2.4	152.4	98.8	154
MISCOU ISLAND (AUT)	NB	WMI	AU8	-5.5			103.3		
MONCTON INTL A	NB	YQM	NCH	-5.8	-7.6	1.8	146.8	90.9	162
OAK POINT	NB		DAILY	-5.3	-6.6	1.4	105.9	77.3	137
POINT LEPREAU CS	NB	WPE	AU8	-3.6	-5.5	1.9			
RED PINES	NB	ARP	AU8	-8.1	-9.9	1.8			
SAINT JOHN A	NB	YSJ	NCH	-5.7	-7.1	1.3	105.6	91.0	116
ST. STEPHEN	NB	WSS	AU8	-5.7					
SUSSEX FOUR CORNERS	NB	ASF	AU8	-5.8	-6.8	1.0	110.3	85.0	130
WOODSTOCK NEWBRIDGE	NB	EWD	AU8	-8.3	-9.5	1.2			
Average				-6.7	-8.1	1.6	106.2	81.1	129
Max				-3.6	-5.5	3.0	152.4	98.8	162
Min				-12.0	-10.9	0.0	54.9	62.3	82



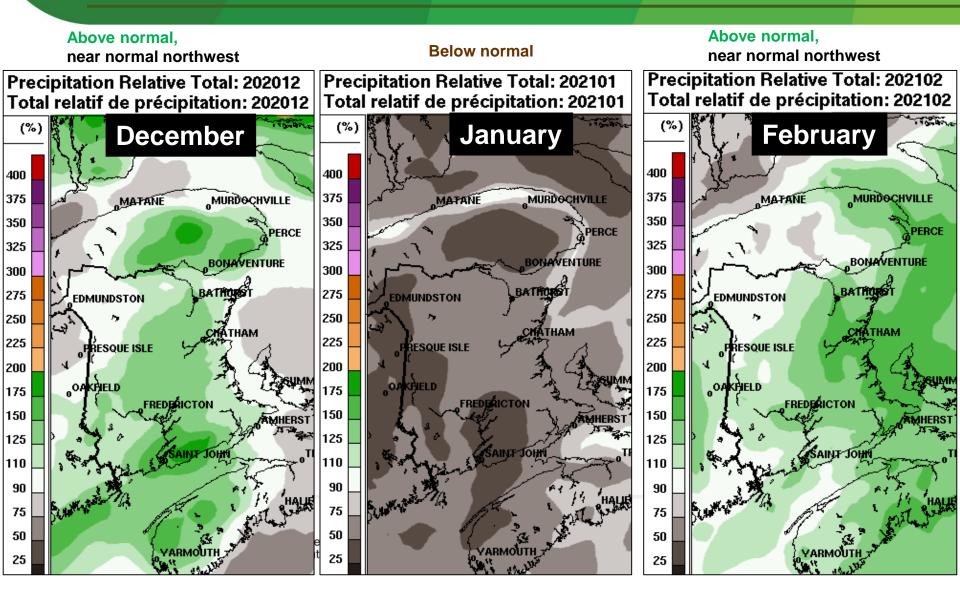
Dec.-Jan.-Feb. 2020-21; Temperature departure from 1981-2010 mean

above normal (+2.6 to +5.0C)

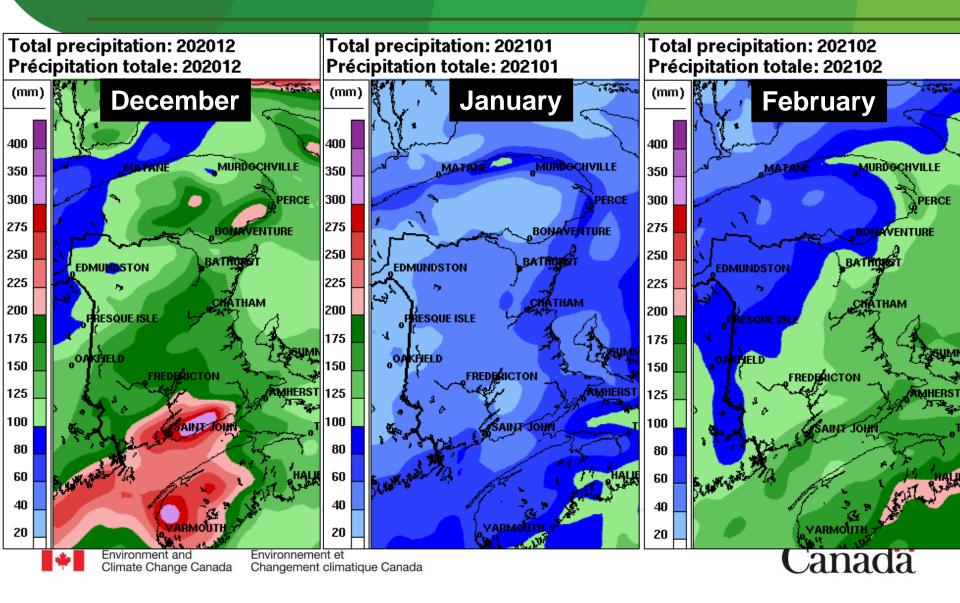
above normal (+3.7 to +6.2C)



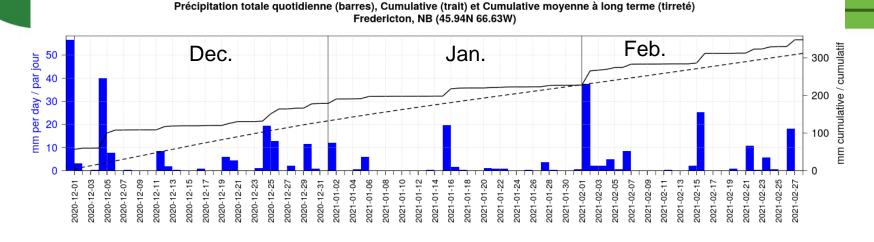
Dec.-Jan.-Feb. 2020-21; Precipitation departure from 2002-2020 mean



Dec.-Jan.-Feb. 2020-21; Total precipitation



2020-21 Temperature and precipitation – (D,J,F) for Fredericton Daily Total Precipitation (bars), Cumulative (line) and Cumulative Long-Term Mean (dashed line)

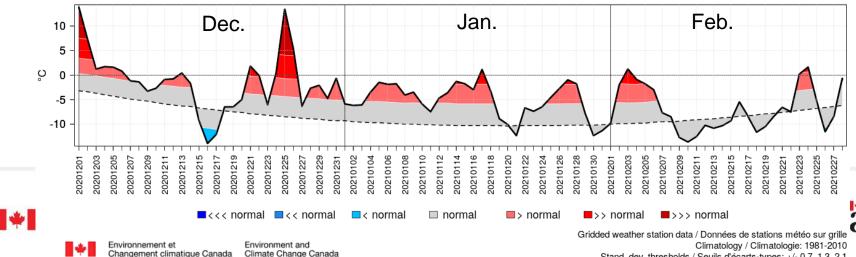


Environment and Changement climatique Canada Climate Change Canada

Environnement et

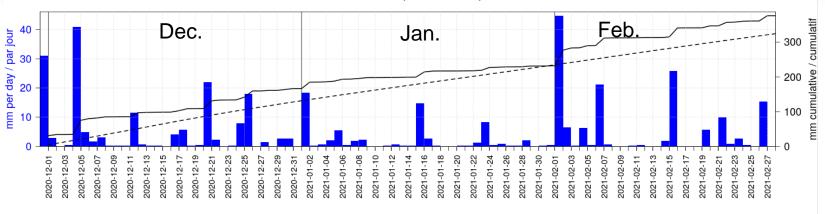
ECCC Gridded Precipitation Analysis / Analyse de précipitation sur grille de ECCC Climatology / Climatologie: 2002-2020

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) Fredericton, NB (45.94N 66.63W)



Stand, dev. thresholds / Seuils d'écarts-types: +/- 0.7, 1.3, 2.1

2020-21 Temperature and precipitation – (D,J,F) for Moncton

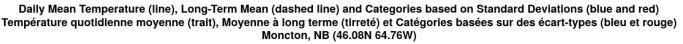


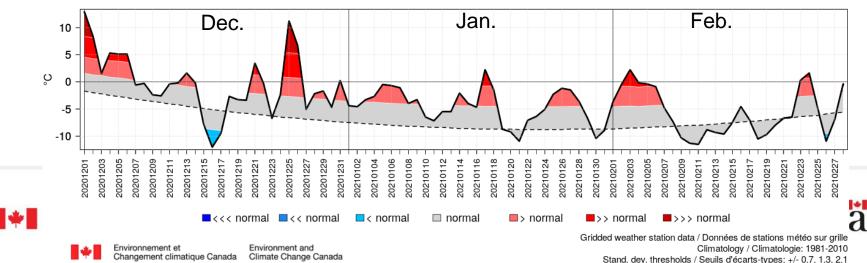
Daily Total Precipitation (bars), Cumulative (line) and Cumulative Long-Term Mean (dashed line) Précipitation totale quotidienne (barres), Cumulative (trait) et Cumulative moyenne à long terme (tirreté) Moncton, NB (46.08N 64.76W)

*

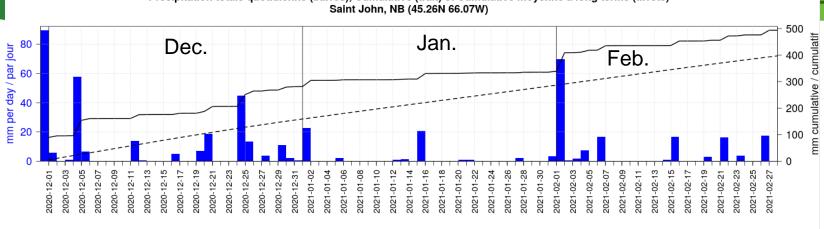
Environnement et Environment and Changement climatique Canada Climate Change Canada

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





2020-21 Temperature and precipitation – (D,J,F) 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)

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

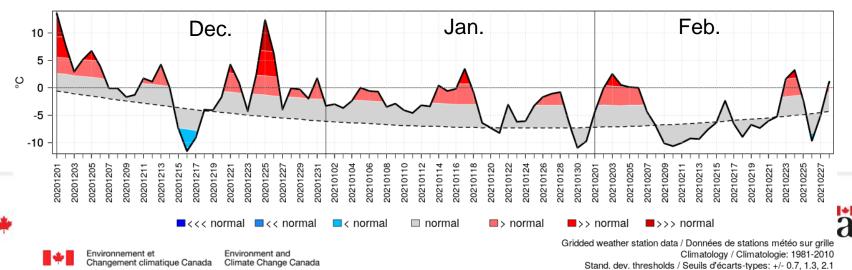
Daily Mean Temperature (line), Long-Term Mean (dashed line) and Categories based on Standard Deviations (blue and red) Température quotidienne moyenne (trait), Moyenne à long terme (tirreté) et Catégories basées sur des écart-types (bleu et rouge) Saint John, NB (45.26N 66.07W)

Environment and

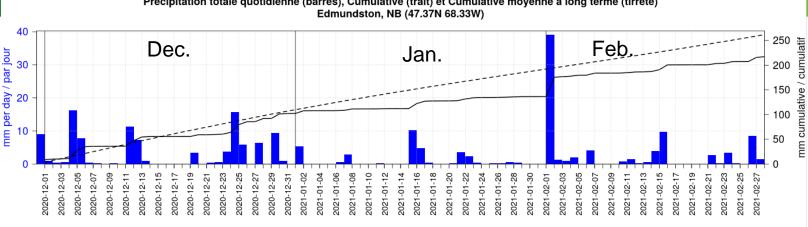
Climate Change Canada

Environnement et

Changement climatique Canada



2020-21 Temperature and precipitation – (D,J,F) for Edmundston

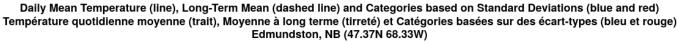


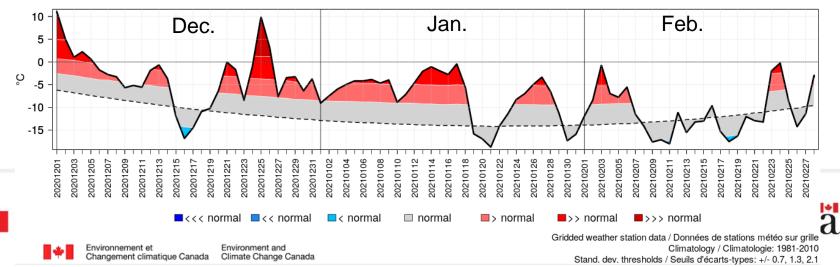
Daily Total Precipitation (bars), Cumulative (line) and Cumulative Long-Term Mean (dashed line) Précipitation totale quotidienne (barres), Cumulative (trait) et Cumulative moyenne à long terme (tirreté)

Environnement et

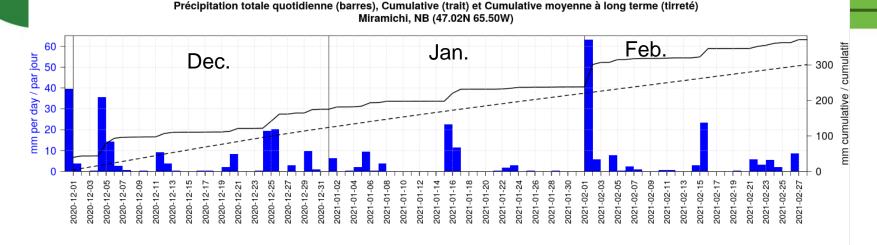
*

Environment and Changement climatique Canada Climate Change Canada ECCC Gridded Precipitation Analysis / Analyse de précipitation sur grille de ECCC Climatology / Climatologie: 2002-2020





2020-21 Temperature and precipitation – (D,J,F) for Miramichi



Environnement et

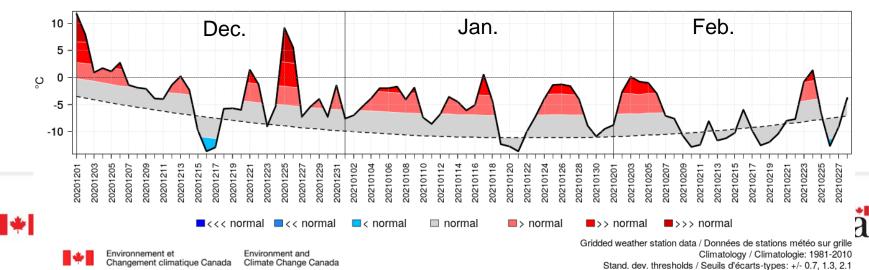
Changement climatique Canada

Environment and

Climate Change Canada

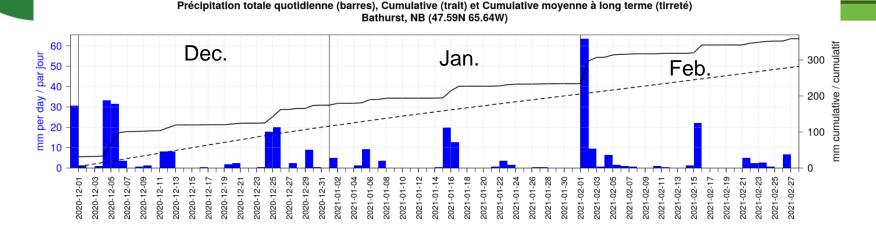
ECCC Gridded Precipitation Analysis / Analyse de précipitation sur grille de ECCC Climatology / Climatologie: 2002-2020

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)



2020-21 Temperature and precipitation – (D,J,F) for Bathurst

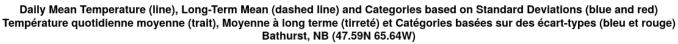
Daily Total Precipitation (bars), Cumulative (line) and Cumulative Long-Term Mean (dashed line)

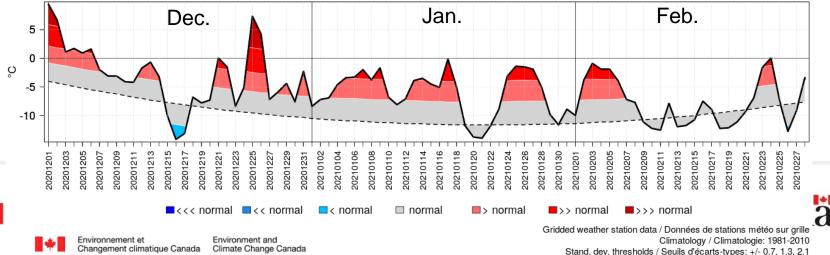


Environnement et Changement climatique Canada

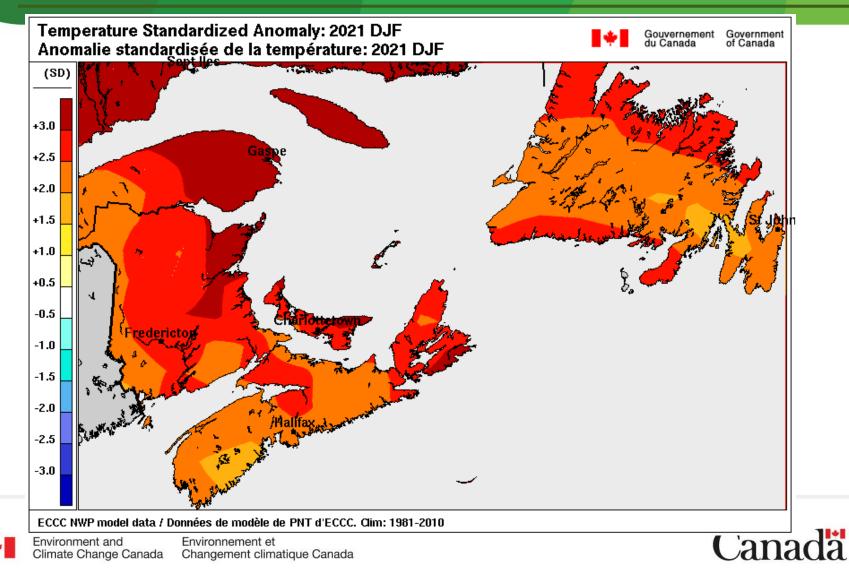
*

Environment and Climate Change Canada ECCC Gridded Precipitation Analysis / Analyse de précipitation sur grille de ECCC Climatology / Climatologie: 2002-2020

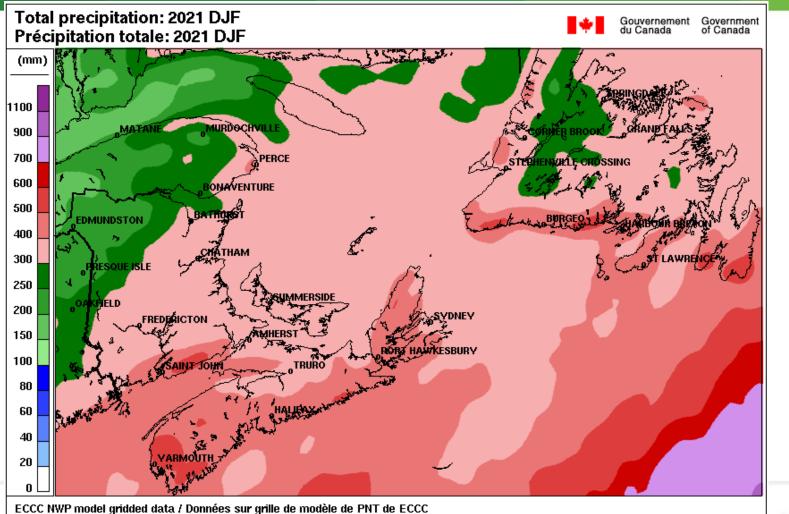




Winter 2020-21 (D,J,F) Temperature Departure from 1981-2010 mean



Winter 2020-21 (D,J,F) Total precipitation



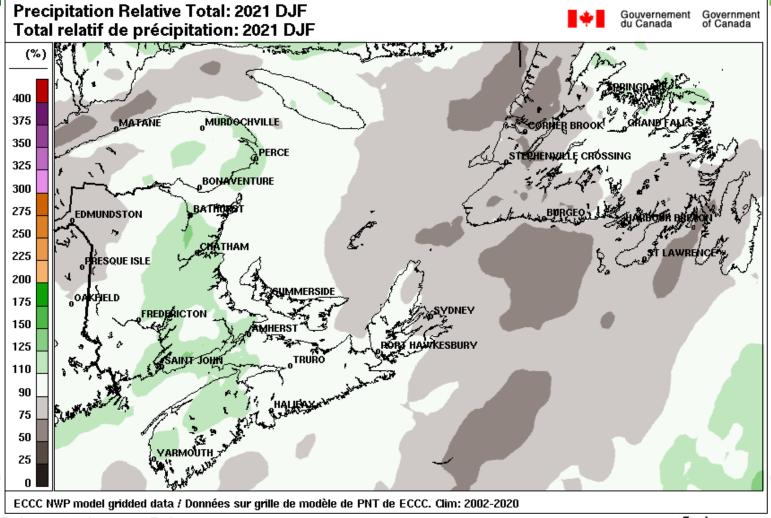


Environment and

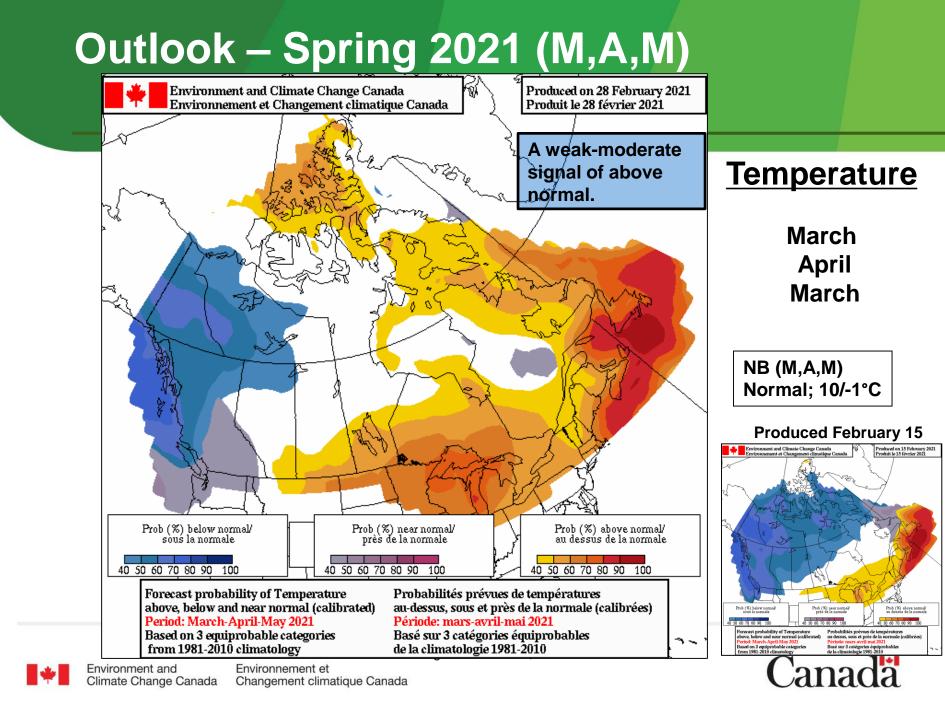
Environnement et Climate Change Canada Changement climatique Canada

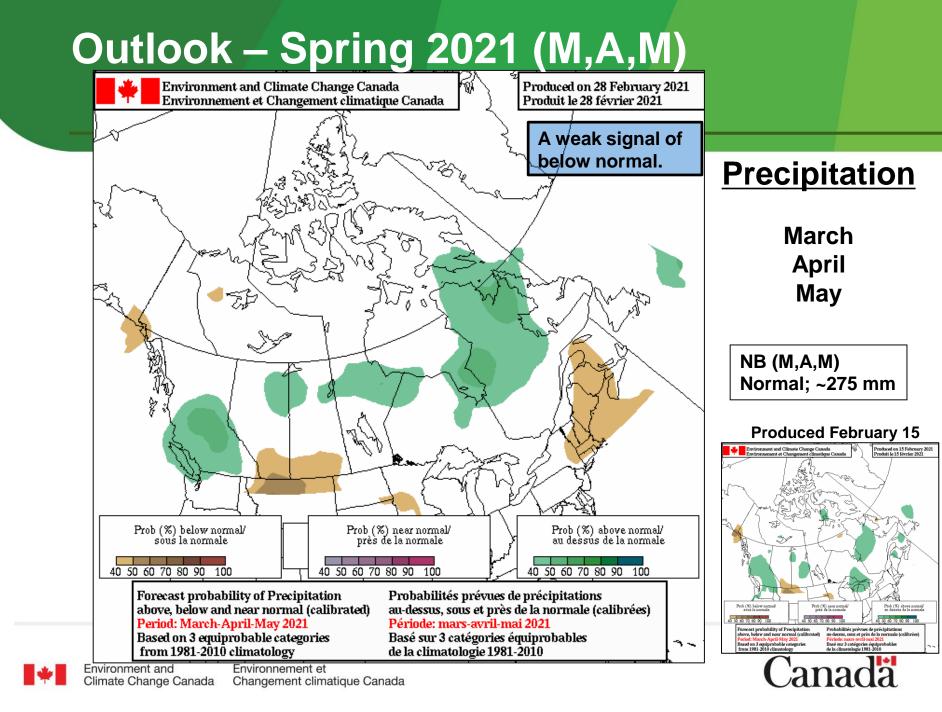


Winter 2020-21 (D,J,F) Precipitation departure from 2002-2020 mean



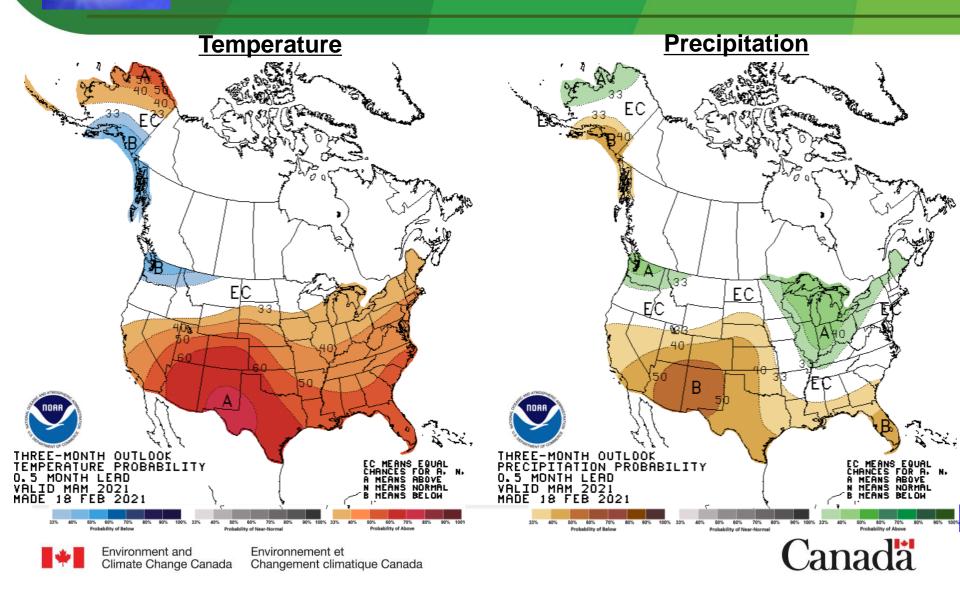




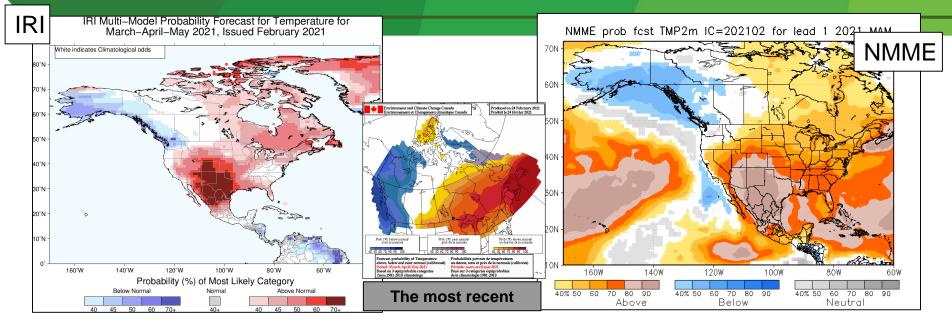


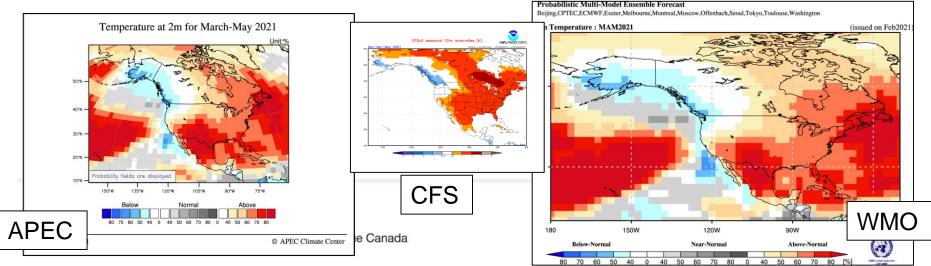
March – April - May

DAR

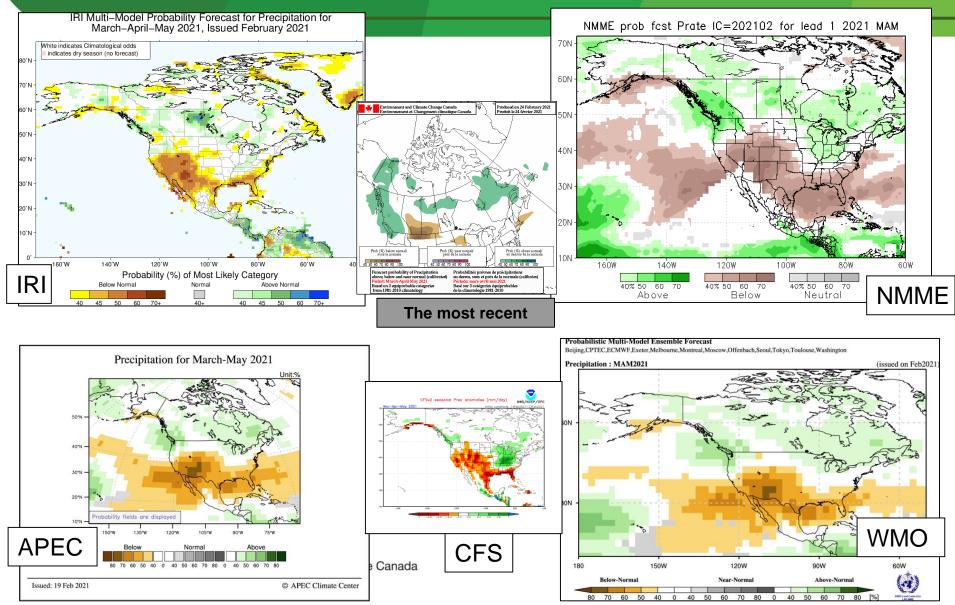


Spring 2021 Probabilistic Forecast from foreign models (temperature)



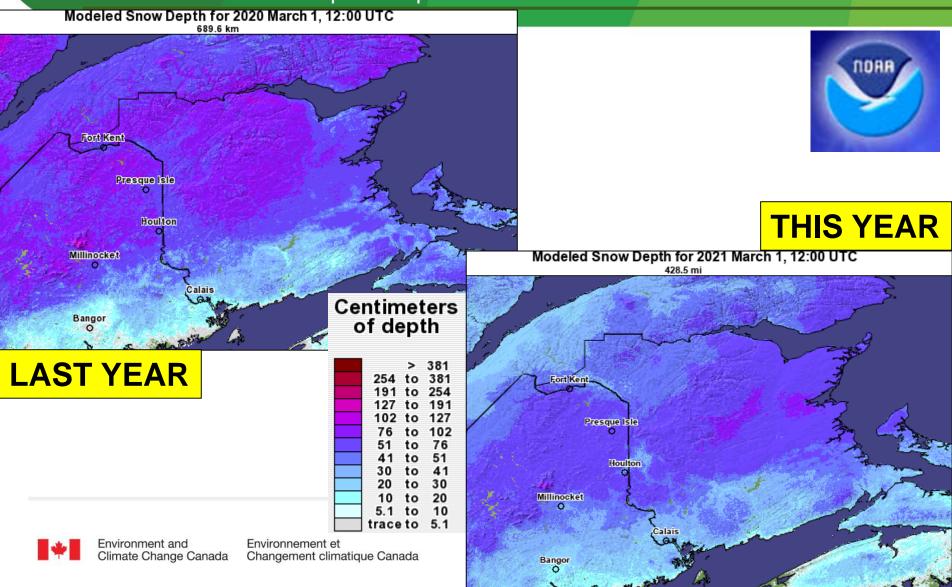


Spring 2021 Probabilistic Forecast from foreign models (precipitation)



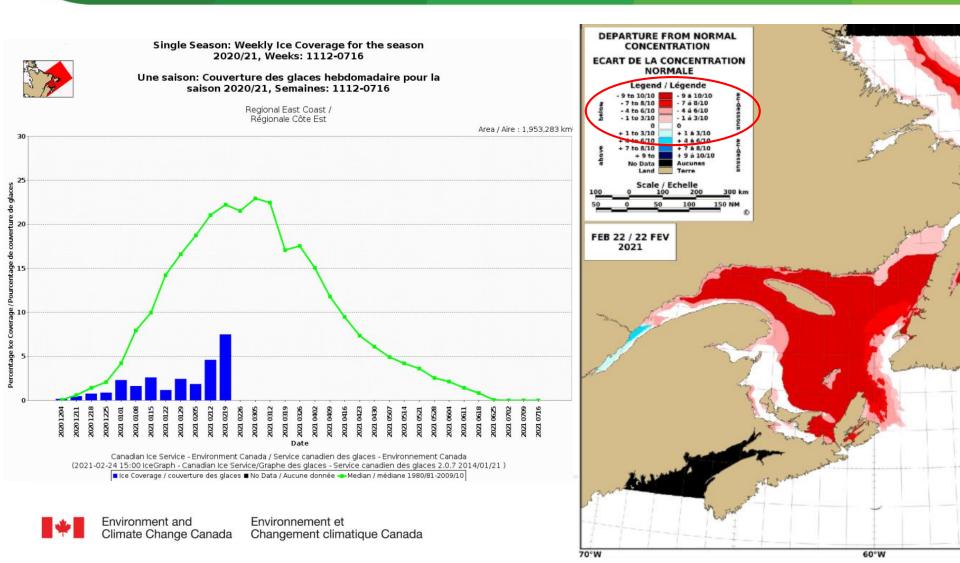
Additional Information

NOAA Model Snow Depth comparison from March 1st 2020 & March 1st 2021



Additional Information

The Gulf of St Lawrence sea ice has a significant impact on albedo.





Jill Maepea

Warning Preparedness Meteorologist jill.maepea@canada.ca

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



