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# Maritimes Monthly Weather & Climate Summary May 2022

## Overview

### A DRY MAY

After 4 months of near to above normal precipitation, May had little precipitation in most of the region. Precipitation was less than half the normal amount for many locations in PEI, NS, and southern NB as ridges of high pressure dominated the area. Temperatures, although cold and record setting in the first week of the month, warmed rapidly mid-month and remained near to above normal for the last portion of the month.

### Temperature – Anomaly

Overall, temperatures ended the month near to above normal (up to 1 degree) with the highest anomalies in the western half of the Maritimes. May started out with a continuation of the below normal temperatures at the end of April. Some record May minimum temperature records were set on the 7-8 of May with temperatures as low as minus 7 in New Brunswick. Following the cold temperatures, a well above normal period of temperatures lasted through mid month. Many daily high temperature records were broken with temperatures in the high 20's to low 30's. The last few weeks of the month remained generally above normal with another well above normal period at the end of the month.

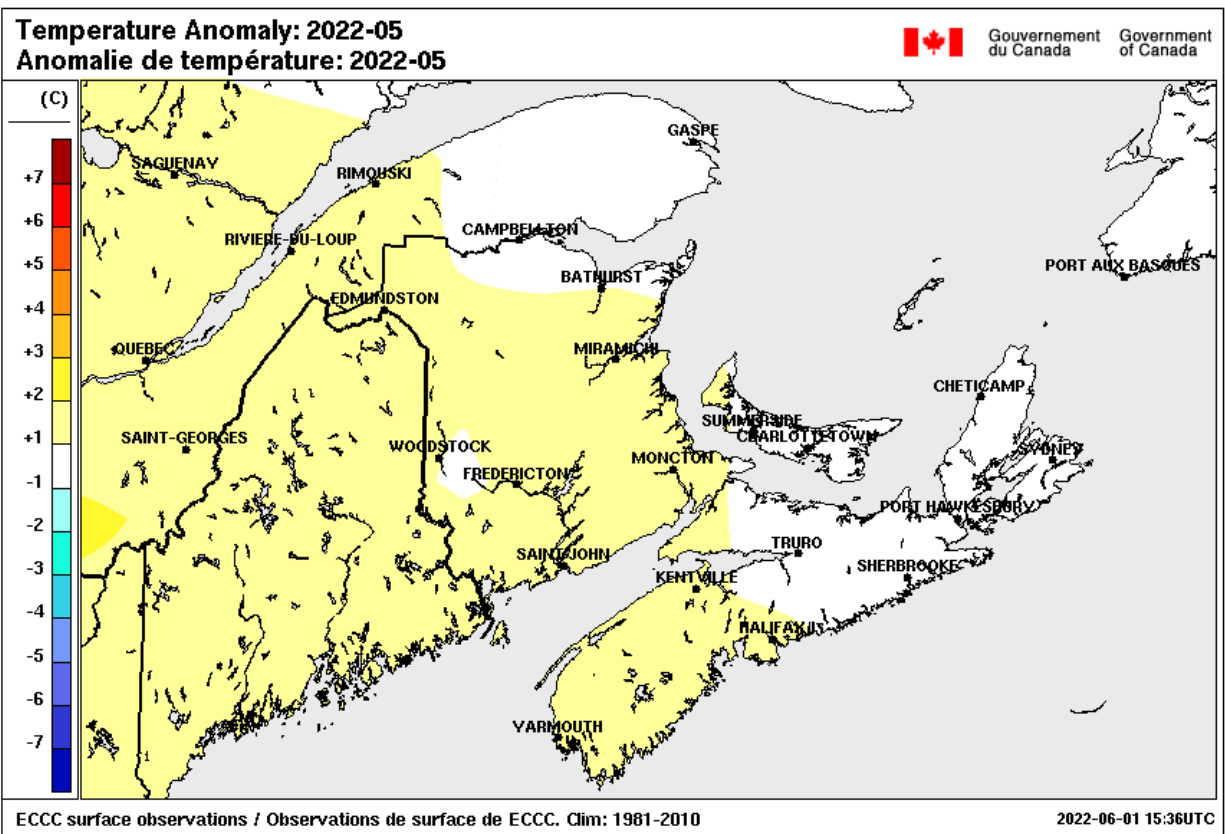


Figure 1: Monthly temperature anomaly map for May 2022 based on archived station data compared to 1981-2010 normals for the Maritimes.

**Precipitation – Anomaly**

Little precipitation fell across the region for the month as NS, PEI, and southern NB saw precipitation amounts of less than 50% of normal with many stations as low as ¼ of normal. The exception for precipitation was in the north of New Brunswick where a significant rainfall in the last week bumped amounts from below normal to above normal as almost a month of rain fell in Edmundston in one day.

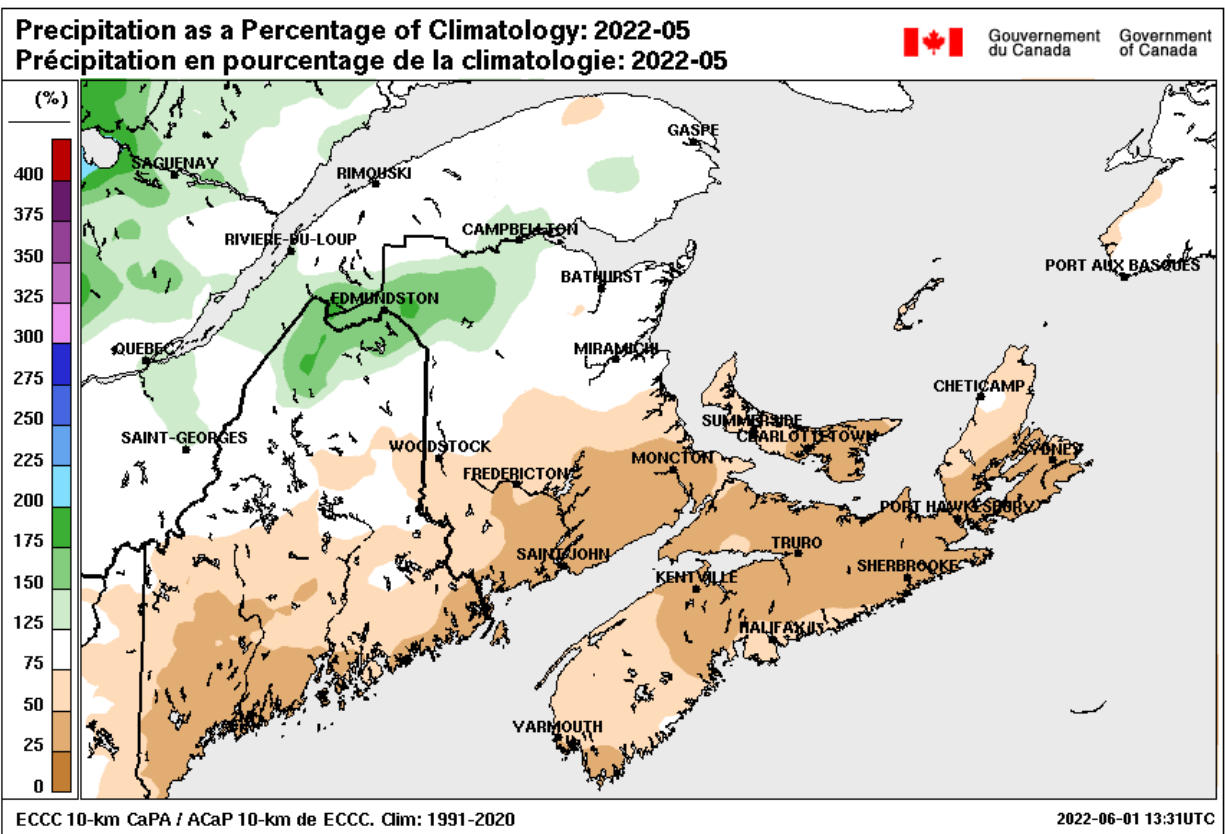


Figure 2: Monthly precipitation anomaly for May 2022 based on ECCC Canadian Precipitation Analysis (CaPA) a gridded blend of model, radar, and station data, compared to 1991-2020 normals for the Maritimes. (Anomaly: Precipitation as a percentage of the average).

**Table 1: Monthly average temperature and total precipitation for May 2022 for selected locations in the Maritimes compared to 1981-2010 Canadian Climate Normals (for the same or a nearby station). Temperature difference from normal: cells shaded pink if  $\geq 1$  °C, blue if  $\leq -1$  °C. Precipitation as a percent of normal: cells shaded green if  $\geq 125\%$  of normal, yellow if  $\leq 75\%$  of normal. Rank (if included) provides a ranking of mean temperature (eg. 1 warmest, 2 second warmest etc.) for the month against long term data for the month).**

Location	Mean Temperature (°C)				Total Precipitation (mm)		
	Monthly Mean	Normal Mean	Diff. from Normal	Rank (Warmest May)	Monthly Total	Normal Total	Total as % of Normal
Bas Caraquet	9.7	8.8	0.8	>10	94.7	85.6	111
Charlo	9.6	9.0	0.7	>10	112.4	84.8	133
Fredericton	12.3	11.3	1.0	>10	47.9	103.8	46
Moncton	11.1	10.0	1.1	>10	46.5	96.9	48
Saint John	10.4	9.5	0.9	>10	48.9	109.8	45
Woodstock	11.8	10.9	0.9	>10	57.1	94.2	61
Amherst (Nappan)	10.5	10.2	0.4	>10	42.8	100.7	43
Greenwood	12.3	11.2	1.1	>10	47.0	84.8	55
Halifax Stanfield Intl A	10.9	10.0	0.9	>10	50.7	111.9	45
Halifax (Shearwater)	10.4	9.2	1.2	>10	61.8	120.6	51
Sydney	8.0	7.9	0.0	>10	60.0	103.2	58
Truro (Debert)	10.1	10.2	-0.1	>10	40.2	106.8	38
Yarmouth	10.9	9.7	1.2	10	53.5	100.9	53
Charlottetown	9.5	9.2	0.3	>10	33.9	91.0	37
Summerside	10.5	9.5	0.9	>10	54.0	97.7	55

## Significant Weather Events & Impacts

**May 5-8:** Calm and clear conditions under a very broad ridge of high pressure provided sunny skies to the Maritimes but kept cool temperatures around. Nighttime lows reached record daily lows for many stations across the region. Morning low temperatures on May 7 and 8 broke many daily, and some all time May weather station records with temperatures as low as -7.7 C. Average daily temperatures were up to 8 degrees colder than normal.

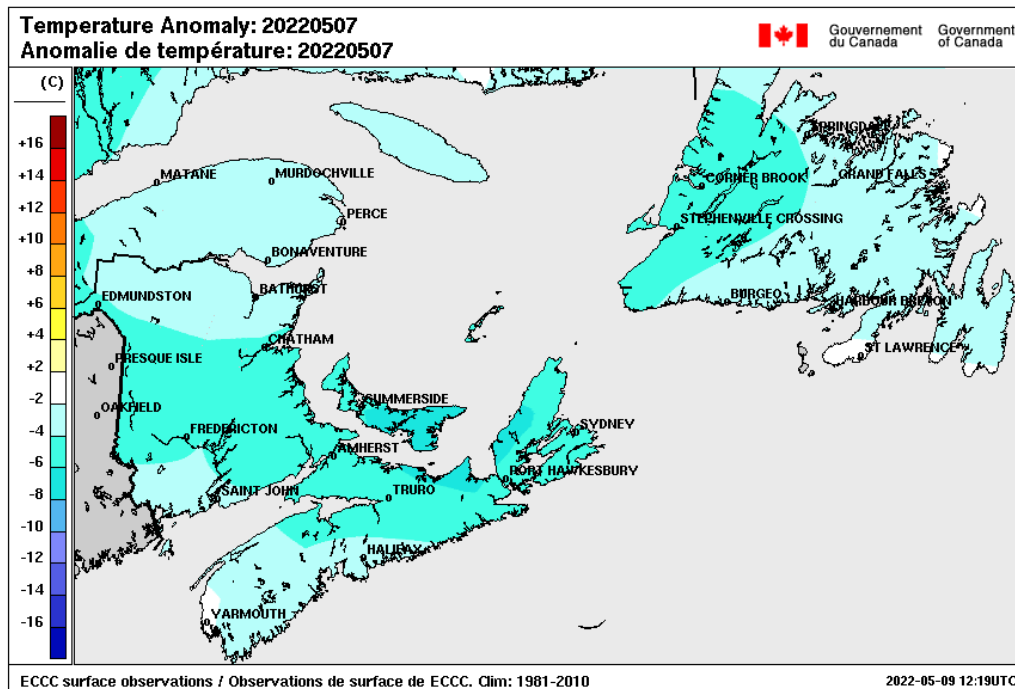


Figure 3: Daily mean temperature anomaly map for May 7, 2022.

### May 11-14

A ridge of high pressure set up north of the region and remained fairly stationary for a 4 day period which provided a dome of warm weather for the provinces. Sunny skies and record setting daily maximum temperatures were observed across the Maritimes, peaking on the 14<sup>th</sup> of May. The three previous days had high in the high 20's to low 30's C. High temperatures in NB hit 31.7 C, in NS hit 30.1 C, and in PEI hit 26.6 C on May 14th. On that last day many nighttime temperature lows stayed above 10C, setting records for some of the warmest low temperatures on record for that date. The warm temperatures and dry conditions helped spur on [the second largest forest fire in Nova Scotia](#) in the last 50 years in Yarmouth, covering up to 3100 hectares.

**May 22** – A cold front moved across New Brunswick in the afternoon and evening. Significant thunderstorms developed across northern New Brunswick late in the afternoon and in the evening producing downpours alongside thunder and lightning. Rain fell rapidly with amounts near 15mm at observed sites; however one unofficial observation in western NB recorded 33mm of precipitation.

[Radar loop of thunderstorms](#)

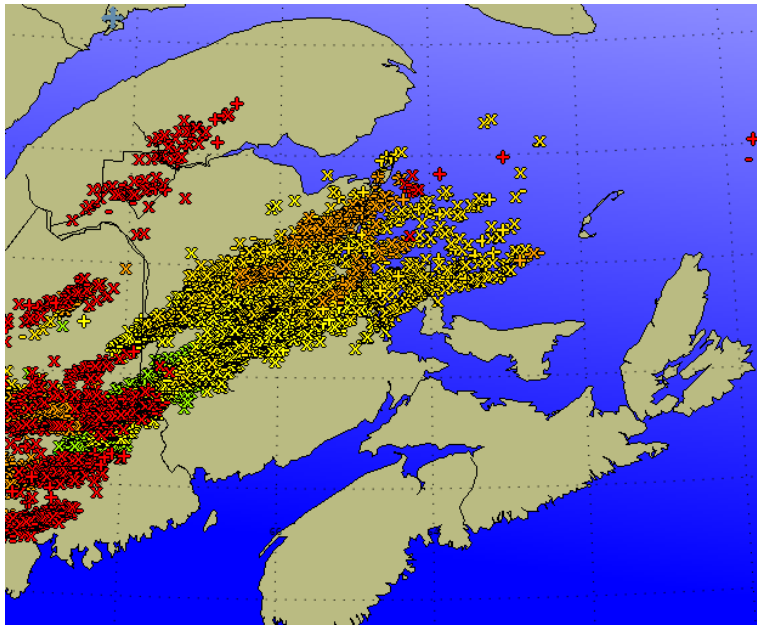


Figure 4: Lightning strikes May 22 2022

**May 26-28** – A warm front slowly moved across northern New Brunswick providing consistent rain to northern New Brunswick for a 3-day period and setting multiple daily precipitation records for May 27<sup>th</sup> and 28<sup>th</sup>. As the associated low passed, rain spread to the rest of the Maritimes on the 28<sup>th</sup>. Rainfall amounts in NB totaled 60-90 mm in the north with lower amounts in the south. One volunteer observation near Edmundston reported 102 mm. Precipitation amounts in PEI totaled 30-40mm with volunteer observations up to 50 mm. Nova Scotia totaled 20-40mm.

**Lightning** – Lightning strokes in New Brunswick were above average and record breaking for the month. For May, NB had its highest amount of observed strokes (records began in 2002) eclipsing the 2016 May record of 6189. This was partly aided by the significant lightning event on May 22. NS was at the other end of the spectrum with its 2<sup>nd</sup> lowest observed amount of lightning strokes for May.

	May 2022 Observed	May 2022 Average	May 2022 Rank
NB	6,223	1,946	Highest
NS	98	620	2 <sup>nd</sup> Lowest

## Daily Temperature and Precipitation Time Series

The time series below for the three provincial capitals indicate below normal precipitation with little precipitation in the first two weeks of the month. For temperatures, the first week of the month had multiple below normal periods. By the 10<sup>th</sup> of the month temperatures warmed to well above normal, staying generally above normal for the rest of the month.

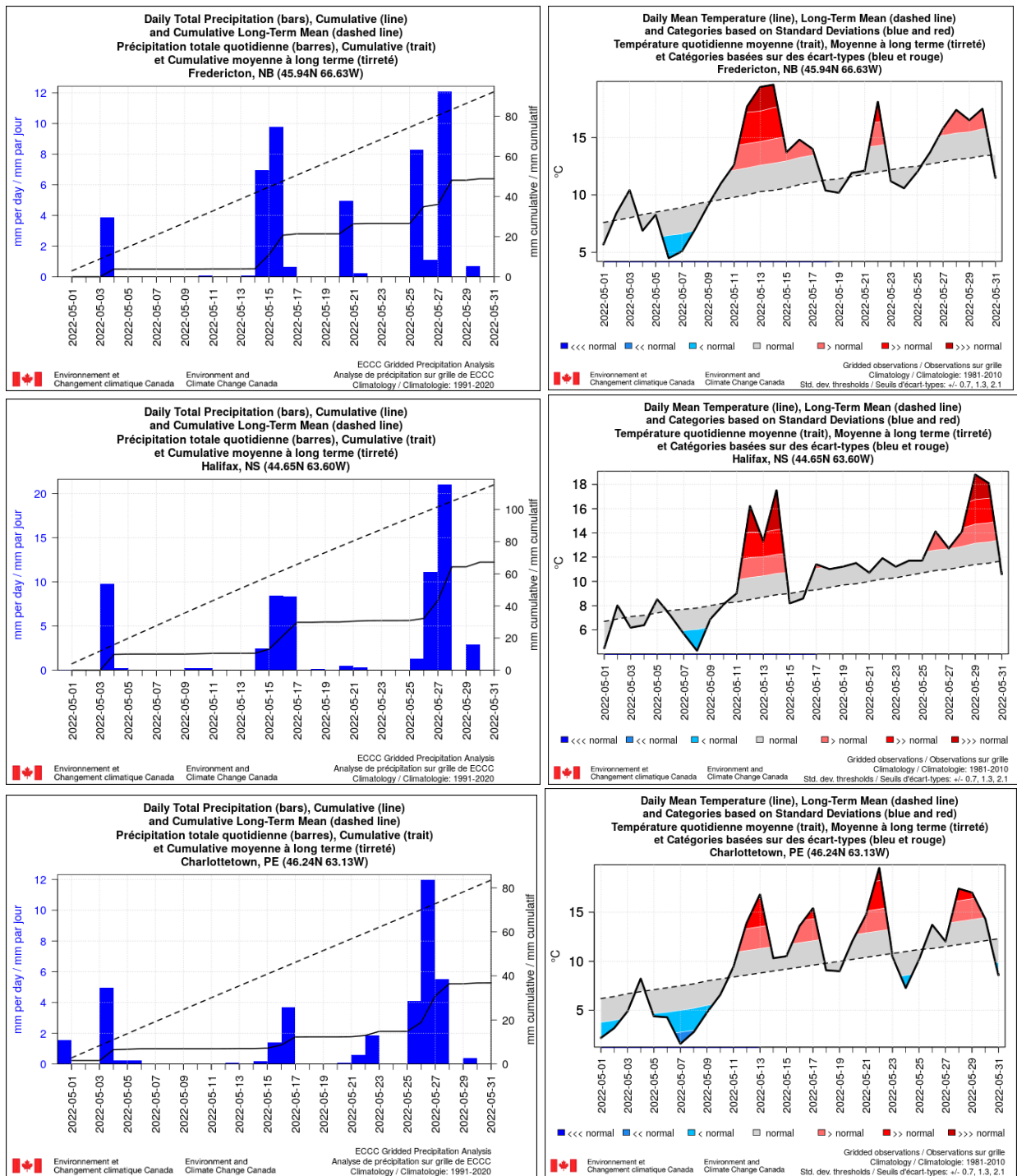


Figure 5: Daily total precipitation (Canadian Precipitation Analysis (CaPA) data) and mean temperature for Fredericton, NB (top), Halifax, NS (middle), and Charlottetown, PEI (bottom), for May 2022 based on gridded data, compared to long-term means (Canadian Precipitation Analysis (CaPA) data, 1991-2020, and temperature data, 1981 to 2010).

## Sea Surface Temperature - Departure from Normal

The sea surface temperature (SST) departure from normal map for the week of May 23-29, 2022 indicates some colder than normal SST around and west of Anticosti Island. Otherwise, SST are mainly near or above normal. Temperatures near normal are present in the centre of the Gulf while coastal areas, now free of ice, are more than 5 degrees above normal. SST have warmed in the southern portion of the Gulf from the end of April.

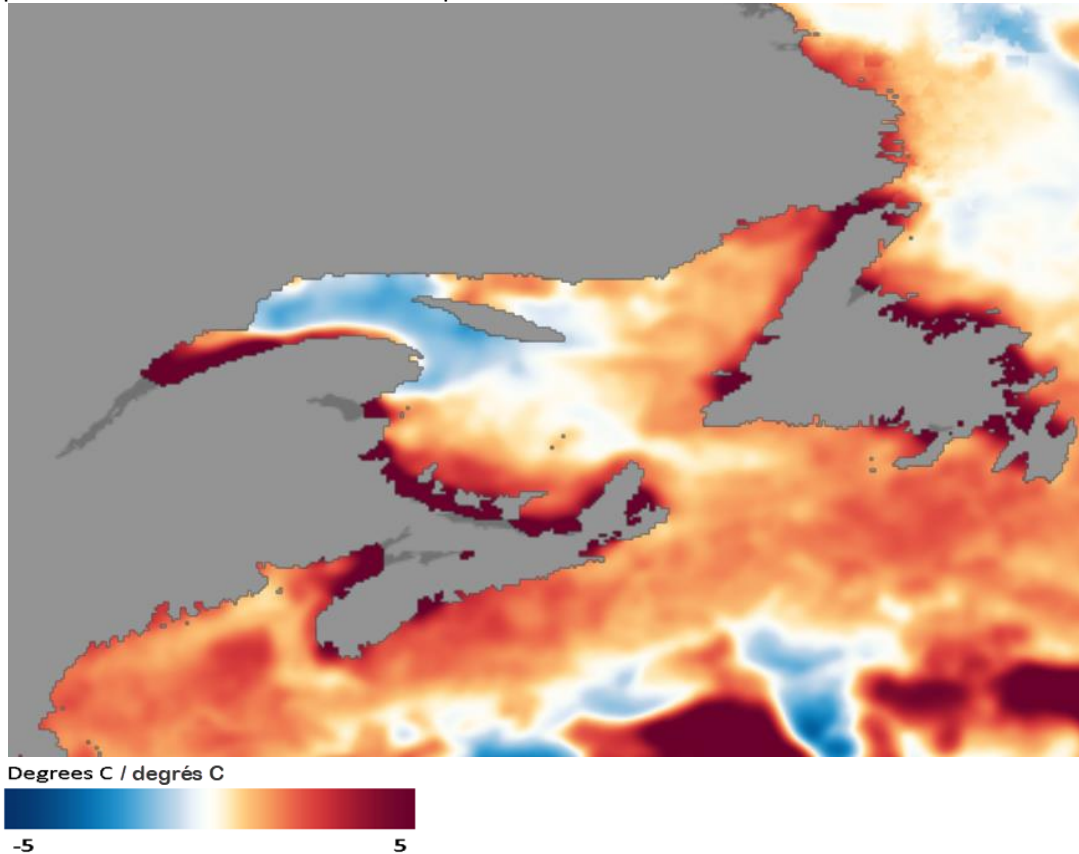


Figure 6: Sea surface temperature (SST) anomaly map for May 23-29, 2022. Data based on 1981-present.

Source: <https://www.nnvl.noaa.gov/view/#SSTA>.



## Other Climate Related Information

[Fire restrictions in place across the Maritimes | CTV News](#)

[2 forest fires in N.S. now contained and being monitored, officials say - Halifax | Globalnews.ca](#)

[Yarmouth County Forest Fire Update - Government of Nova Scotia, Canada](#)

[Lobsters, seaweed and the effects of a warming ocean in Atlantic Canada | CBC News](#)

## Temperature & Precipitation Outlook

The four-week outlook for temperature and precipitation from the Canadian Global Ensemble Prediction System (GEPS) for May 30 to June 27, 2022 indicates above normal temperatures are probable and especially for areas in the vicinity of the Bay of Fundy but, with the exception of near normal temperatures for northeastern NB. There is a subtle indication of below normal precipitation for parts of NS and PEI with near normal conditions forecast elsewhere.

The four-week outlook from May performed well for temperature with most areas being above normal. The precipitation outlook did not perform as well since below or much below normal precipitation occurred over the southern Maritimes and was not forecast however, there were indications just offshore of below normal conditions. There was also a small area of above normal precipitation in northwest NB but this could likely be considered localized.

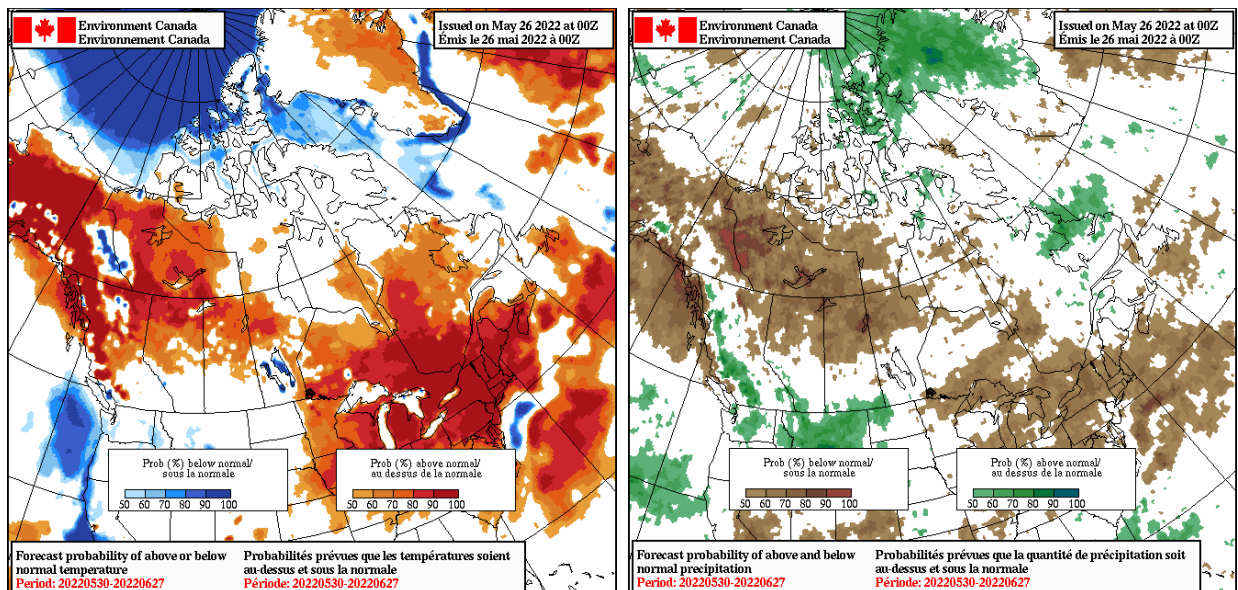


Figure 7: Temperature and Precipitation Anomaly Forecasts from the MSC Global Ensemble Prediction System issued May 26, 2022 for May 30 – June 27, 2022.

Source: [http://collaboration.cmc.ec.gc.ca/cmc/ensemble/monthly/prev\\_mens\\_geps.html](http://collaboration.cmc.ec.gc.ca/cmc/ensemble/monthly/prev_mens_geps.html)

## Contact

Environment and Climate Change Canada, Meteorological Service of Canada,  
 Prediction Services Operations – Atlantic and Ice, Applied Climatology Services  
 Email address: [climatatlantique-climateatlantic@ec.gc.ca](mailto:climatatlantique-climateatlantic@ec.gc.ca)

## Appendix

**Table A1: Station metadata for the selected locations in Table 1.**

Location/ Emplacement	Station Name/ Nom de la station	Climate ID/ ID climat	Station Operator/ Opérateur de station <sup>1</sup>	Type <sup>2</sup>
Bas Caraquet	BAS CARAQUET	8100467	ECCC-MSC	A
Charlo	CHARLO AUTO	8100885	ECCC-MSC	A
Fredericton	FREDERICTON CDA CS	8101605	ECCC-MSC	A
Moncton	MONCTON/GREATER MONCTON ROMEO LEBLANC INTL A	8103201	NavCan	H
Saint John	SAINT JOHN A	8104901	NavCan	H
Woodstock	WOODSTOCK NEWBRIDGE	8105603	ECCC-MSC	A
Amherst (Nappan)	NAPPAN AUTO	8203702	ECCC-MSC	A
Greenwood	GREENWOOD A	8202000	DND	H
Halifax (Shearwater)	SHEARWATER RCS	8205092	ECCC-MSC	A
Halifax Stanfield Intl A	HALIFAX STANFIELD INT'L A	8202251	NavCan	H
Sydney	SYDNEY A	8205701	NavCan	H
Truro (Debert)	DEBERT	8201390	ECCC-MSC	A
Yarmouth	YARMOUTH A	8206495	NavCan	H
Charlottetown	CHARLOTTETOWN A	8300301	NavCan	H
Summerside	SUMMERSIDE	8300596	ECCC-MSC	A

<sup>1</sup> Station Operator: CCN = Cooperative Climate Network, ECCC-MSC= Environment and Climate Change Canada, Meteorological Service of Canada, DND = Department of National Defence, NavCan = Nav Canada

<sup>2</sup> Type: A = Automatic observation, H = Human observation

**Table A2: Monthly totals for May 2022 for New Brunswick stations, compared to 1981-2010 Canadian Climate Normals (if available for same or nearby station). Temperature difference from normal: cells shaded pink if  $\geq 1$  °C, blue if  $\leq -1$  °C. Precipitation as a percent of normal: cells shaded green if  $\geq 125\%$  of normal, yellow if  $\leq 75\%$  of normal.**

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	9.7	8.8	0.8	94.7	85.6	111
BAS CARAQUET	NB		DAILY				90.0	85.6	105
BATHURST A	NB	ZBF	NCA	10.5	9.7	0.8			
CHARLO AUTO	NB	ZCR	AU8	9.6	9.0	0.7	112.4	84.8	133
DOAKTOWN AUTO RCS	NB	ADN	AU8	11.4	10.6	0.8	65.6	113.2	58
EDMUNDSTON	NB	ERM	AU8	10.5	10.3	0.2	122.7	90.4	136
FREDERICTON CDA CS	NB	AFC	AU8	12.3	11.3	1.0	47.9	103.8	46
FREDERICTON INTL A	NB	YFC	NCA	12.3	11.1	1.2			
FUNDY PARK (ALMA) CS	NB	AFY	AU8	10.6	9.5	1.1			
GRAND MANAN SAR CS	NB	XGM	AU8	10.2			37.6		
KOUCHIBOUGUAC	NB	AKC	AU8	10.5	9.8	0.7	77.3	112.2	69
MECHANIC SETTLEMENT	NB	AMS	AU8	10.5			31.1		
MIRAMICHI RCS	NB	ACQ	AU8	11.6	10.0	1.5	83.6	99.5	84
MISCOU ISLAND (AUT)	NB	WMI	AU8	8.6			94.8		
MONCTON/GREATER MONCTON ROMEO LEBLANC INTL A	NB	YQM	NCH	11.1	10.0	1.1	46.5	96.9	48
OAK POINT	NB		DAILY	11.4	11.3	0.2	42.6	105.8	40
POINT LEPREAU CS	NB	WPE	AU8	9.7	8.7	1.1	46.8	130.2	36
RED PINES	NB	ARP	AU8	10.1	9.8	0.2	75.1	96.0	78
SAINT JOHN A	NB	YSJ	NCH	10.4	9.5	0.9	48.9	109.8	45
ST. STEPHEN	NB	WSS	AU8	12.2			54.9		
SUSSEX FOUR CORNERS	NB	ASF	AU8	12.0	11.1	1.0	31.4	103.0	30
WOODSTOCK NEWBRIDGE	NB	EWD	AU8	11.8	10.9	0.9	57.1	94.2	61
<b>Average</b>				<b>10.8</b>	<b>10.1</b>	<b>0.8</b>	<b>66.4</b>	<b>100.7</b>	<b>72</b>
<b>Max</b>				<b>12.3</b>	<b>11.3</b>	<b>1.5</b>	<b>122.7</b>	<b>130.2</b>	<b>136</b>
<b>Min</b>				<b>8.6</b>	<b>8.7</b>	<b>0.2</b>	<b>31.1</b>	<b>84.8</b>	<b>30</b>

**Table A3: Same as Table A2, for Nova Scotia.**

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
ALDERSVILLE	NS	ANR	AU8	11.4	10.8	0.5	34.8	108.4	32
BACCARO PT	NS	ACP	AU8	9.2	8.9	0.2	31.8	107.3	30
BEAVER ISLAND (AUT)	NS	WBV	AU8	7.5					
BEDFORD RANGE	NS	ABR	AU7	10.6	9.9	0.7			
BRIER ISLAND	NS	WVU	AU8	10.0			53.2		
CARIBOU POINT (AUT)	NS	WBK	AU8	10.2	10.2	0.0			
CHETICAMP HIGHLANDS	NS	AHT	AU8	8.8	9.4	-0.6	75.2	85.3	88
COLLEGEVILLE AUTO	NS	AGL	AU8	8.4	9.3	-0.8	44.1	103.5	43
DEBERT	NS	ZDB	AU8	10.1	10.2	-0.1	40.2	106.8	38
EMERGENCY WEATHER STATION #2 (NEW ROSS)	NS	ERU	AU8	11.5	10.8	0.7	40.5	108.4	37
ESKASONI FIRST NATION	NS	AEI	AU8	9.1	9.0	0.1	50.3	104.0	48
GRAND ETANG	NS	WZQ	AU8	8.9	9.4	-0.5			
GREENWOOD A	NS	YZX	WOD	12.3	11.2	1.1	47.0	84.8	55
HALIFAX DOCKYARD	NS	AHD	AU7	10.7	10.1	0.6			
HALIFAX KOOTENAY	NS	AHK	AU7	10.3	9.2	1.0			
HALIFAX STANFIELD INT'L A	NS	YHZ	NCH	10.9	10.0	0.9	50.7	111.9	45
HALIFAX WINDSOR PARK	NS	AHW	AU7	11.1	10.1	1.0			
HART ISLAND (AUT)	NS	WRN	AU8	8.1					
INGONISH BEACH RCS	NS	XIB	AU7	8.0	8.1	-0.2	62.5	108.9	57
KEJIMKUJIK 1	NS	WKG	AU8	12.2	10.7	1.5	49.5	99.3	50
KENTVILLE CDA CS	NS	XKT	AU7	11.9	11.0	0.9	38.2	102.1	37
LOUISBOURG	NS	AUU	AU8	7.6	6.9	0.7	47.3	127.6	37
LUNENBURG	NS	XLB	AU8	10.6	10.5	0.1			
MALAY FALLS	NS	XMY	AU8	9.1	8.4	0.7	65.4	134.8	49
MCNABS ISLAND (AUT)	NS	XMI	AU8	10.2	9.2	1.0			
NAPPAN AUTO	NS	XNP	AU8	10.5	10.2	0.4	42.8	100.7	43
NORTH MOUNTAIN CS	NS	XNM	AU7	7.0	8.6	-1.6	52.5		
NORTHEAST MARGAREE (AUT)	NS	WNS	AU7	8.4	9.2	-0.8	50.6	76.6	66
OSBORNE HEAD DND	NS	AOS	AU7	8.9	9.2	-0.3			
PARRSBORO	NS	APR	AU8	9.8	9.7	0.1	43.5	105.2	41
PORT HAWKESBURY	NS	YPD	NCA	8.2	8.3	-0.1			
SABLE ISLAND	NS	ASB	AU8	7.9	7.5	0.4	37.6	101.3	37
SHEARWATER JETTY	NS	WZU	AU7	10.3	9.2	1.0			
SHEARWATER RCS	NS	AAW	AU8	10.4	9.2	1.2	61.8	120.6	51
SHELBURNE SANDY POINT	NS	ESB	AU8	10.8			77.7		
SYDNEY A	NS	YQY	NCH	8.0	7.9	0.0	60.0	103.2	58
SYDNEY CS	NS	AQY	AU8	8.0	7.9	0.0			
TRACADIE	NS	XTD	AU8	8.9	9.3	-0.4	25.4	103.5	25
UPPER STEWIACKE RCS	NS	AOH	AU8	9.5	9.9	-0.4	33.1	98.9	33
WESTERN HEAD	NS	WWE	AU8	10.1			100.4		
YARMOUTH A	NS	YQI	NCH	10.9	9.7	1.2	53.5	100.9	53
YARMOUTH RCS	NS	EQI	AU8	11.0	9.7	1.3	46.5	100.9	46
<b>Average</b>				<b>9.7</b>	<b>9.4</b>	<b>0.3</b>	<b>50.6</b>	<b>104.4</b>	<b>46</b>
<b>Max</b>				<b>12.3</b>	<b>11.2</b>	<b>1.5</b>	<b>100.4</b>	<b>134.8</b>	<b>88</b>
<b>Min</b>				<b>7.0</b>	<b>6.9</b>	<b>-1.6</b>	<b>25.4</b>	<b>76.6</b>	<b>25</b>

**Table A4: Same as Table A2, for Prince Edward Island.**

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
CHARLOTTETOWN A	PEI	YYG	NCH	9.5	9.2	0.3	33.9	91.0	37
EAST POINT (AUT)	PEI	WEP	AU8	8.2	8.3	-0.1	38.3	93.1	41
HARRINGTON CDA CS	PEI	AHR	AU8	9.9	9.2	0.7	45.5	91.0	50
MAPLE PLAINS	PEI	XMP	AU8	9.8	9.2	0.6			
NORTH CAPE	PEI	WNE	AU8	9.6			52.2		
ST. PETERS	PEI	ZSP	AU8	9.5	8.6	1.0	38.7	90.1	43
STANHOPE	PEI	ANH	AU8	9.9			46.3		
SUMMERSIDE	PEI	WSD	AU8	10.5	9.5	0.9	54.0	97.7	55
<b>Average</b>				<b>9.6</b>	<b>9.0</b>	<b>0.6</b>	<b>44.1</b>	<b>92.6</b>	<b>45</b>
<b>Max</b>				<b>10.5</b>	<b>9.5</b>	<b>1.0</b>	<b>54.0</b>	<b>97.7</b>	<b>55</b>
<b>Min</b>				<b>8.2</b>	<b>8.3</b>	<b>-0.1</b>	<b>33.9</b>	<b>90.1</b>	<b>37</b>

## Glossary

*CaPA*: The Canadian Precipitation Analysis. Full details available [here](#)

*Standard Deviation*: A statistical measure of how data compares to the mean (average) value. The standard deviation referenced in these monthly summaries is relative to the Canadian Climate Normals data set. The higher the standard deviation value, the further the data is from the normal value.

*Temperature Anomaly*: The deviation of temperature in a given region over a specified period from the long-term average value for the same region.

A more extensive glossary for weather and climate related terminology can be found [here](#).

### Disclaimer:

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