



MARITIME CANADA CLIMATE SUMMARY

February 2024

Stalled Off-Shore Low Brings 3 Day Snowstorm to Nova Scotia and Eastern PEI

In terms of snowfall, it was a month of contrast across the region. Thanks mainly to the 3-day event, which brought up to 150 cm to parts of Cape Breton, Sydney recorded its 3rd snowiest February on record, while Bas Caraquet and St John NB recorded their 2nd and 3rd least snowy February on record. Another vigorous system at the end of the month brought heavy rain to southern NB and western NS which, together with rapid snowmelt, brought extensive flooding to Sussex NB. Temperatures were, once again, well-above normal with positive anomalies of 3-4.5 C across most of NB. In NS and PEI, the onshore flow kept anomalies nearer to 1.5-3 C. The rain-bearing system at the end of the month helped set new daily record highs above 10 C across the region. Carrying on the January trend, sea-ice coverage in the Gulf remained well-below normal and at the end of the month coverage was the 3rd lowest on record for February. Coastal sea-surface temperatures remained close to normal.

The Warmest (°C)

New Brunswick	
Sussex	12.8
Nova Scotia	
Cheticamp	14.8
Prince Edward Island	
St Peters	11.7

The Coldest (°C)

New Brunswick	
Mactaquac Prov. Park	-30.5
Nova Scotia	
Collegeville	-28.0
Prince Edward Island	
Maple Plains	-23.4

The Wettest (Total mm)

New Brunswick	
Mechanic Settlement	197.3
Nova Scotia	
North Mountain	238.1
Prince Edward Island	
Stanhope	131.5

The Capital Stats

Station Name	Mean Temperature (°C)			Extremes	
	Monthly Mean	Normal Mean	Diff from Normal	Max (Date)	Min (Date)
Charlottetown	-4.8	-7.7	+2.9	9.7 (29)	-14.7 (21)
Halifax	-4.0	-5.9	+1.9	11.1 (28)	-15.9 (21)
Fredericton	-6.5	-9.4	+2.9	10.8 (27)	-20.8 (21)

Station Name	Total Precipitation			Snowfall	
	Monthly Total (mm)	Normal Total (mm)	Percent Normal	Total (cm)	SOG End of Month
Charlottetown	109.3	83.2	131	85.3	10
Halifax	210.5	105.8	199	133.6	3
Fredericton	33.7	70.1	131	15.5	3

Daily Temperature Records

Given the high +ve mean monthly temperature anomalies in NB, not surprisingly, NB led the way in new daily records with 32 new maximums and 36 new high overnight minimums. In NS there were 9 new maximums and 22 new high minimums while in PEI the new records were 4 and 6, respectively. The 28/29th were exceptionally warm with all 3 provinces recording temperatures above 10 C. Most of the new high minimum records set were above 0 C. There was just one new record low minimum in the region, -19.5 at Shelburne, NS on 21st.

Significant Weather Events (information provided by Climate Services, ECCC)

Feb 2-5 – A low that brought snow to northern NB on the 1st-2nd, transformed into stalled system that provided an historic, multi-day snowfall and persistent north to northeast winds to eastern PEI, central and eastern NS and Cape Breton. Snowfall measurements were extremely difficult to obtain as winds caused heavy drifting of the snow. Estimates indicate that the snow was most plentiful in Cape Breton where up to 150 cm fell in the Sydney area, while eastern PEI and central NS generally saw 40-65 cm. A local state of emergency was declared in Cape Breton due to the abundance of snow. Northerly winds gusted to 70-80 km/h across mostly coastal areas and caused whiteout conditions as well as roughly 9000 customers (the majority in NS) to lose power.

[N.S. digging out after historic snowfall drops 150 cm in some areas | CBC News 3-day blast of heavy snow and wind shuts down most of P.E.I. | CBC News](#)

Feb 13-14 – A vigorous system passed south of NS resulting in heavy snow along the Atlantic Coast of NS and Cape Breton. The system passed by quickly, but with high snowfall rates of up to 6 cm/h combined with dry and fluffy snow, 20-35 cm of snow accumulated over a short period of time. Strong northeasterly winds of up to 80 km/h combined with the heavy falling snow that provided whiteout conditions and large snow drifts.

[Winter walloped: snow-weary Nova Scotia digs out from latest blast | CBC News](#)

Feb 23-24 – Rain, wind, and mild temperatures affected eastern areas of the Maritimes as a system moved northward over the ocean. Rainfall across eastern PEI, central, northern, and eastern NS and Cape Breton amounted to 30-60 mm. Localized amounts of 70-80 mm were recorded in parts of Cape Breton and eastern NS. Southerly wind gusts of 70-80 km/h ushered in mild temperatures that climbed to double-digits and caused rapid snowmelt that resulted in localized flooded basements and road shoulder erosion. An extreme wind gust to 127 km/h was recorded in Eskasoni, NS that was locally enhanced. As the system pulled away and drew down colder air, temperatures dropped quickly, and rain changed to snow and blanketed northern NS and western PEI with 7-15 cm.

Feb 28-29 – A second, more intense system, followed the first from a few days before and brought similar weather conditions across most of the Maritimes. Several daily maximum temperature records were set as temperatures climbed into double-digits in all three provinces before dropping rapidly to well below zero on the 29th with the passage of a cold front. Southerly winds were strongest along exposed areas of the coasts and gusted to 80-90 km/h which resulted in tens of thousands to lose power. A peak wind gust of 119 km/h was recorded in East Noel, NS just ahead of the approaching cold front. Rainfall was most abundant across southern NB and western NS, where 40-80 mm was reported and caused snow to melt rapidly. Norton, NB recorded the highest amount at 164 mm. Flooding was extensive in Sussex, NB with many roads closed or impassable and several homes were evacuated.

Compiled by Peter J. Lewis with data and information provided by Client Service Operations Atlantic, Meteorological Service of Canada Environment and Climate Change Canada / Government of Canada

Other CMOS News

CMOS-Halifax Monthly Social and Networking Evening: The next CMOS social will be **Friday April 12th** at the [Oxford Taproom](#). We encourage you to join the afterwork crowd, around **5PM**, for an opportunity to connect with Dalhousie Oceanography's *Friday Beer* cohort.

Solar Eclipse: This spectacular and rare celestial event will unfold in the afternoon on Monday April 8th. You can read more about the eclipse, and how to view it safely, [here](#).

Canadian Meteorological and Oceanographic Society (CMOS) | Halifax Chapter

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