MARITIME CANADA CLIMATE SUMMARY October 2021

Significantly Warmer Trend Continues Across Most of the Maritimes

With just two months remaining 2021 is gearing up to be one of the warmest years on record for the Maritimes. Positive temperature anomalies between 2 and 4C ranked this October in the top 5 on record at locations in all 3 Provinces. For Charlo NB it was the warmest on record. It was also a significantly dry month across the region with only extreme Northern NB and the South Shore of NS recording rainfall close to normal. By the end of the month the Canadian Drought Index indicated areas of abnormal dryness in NW NB and the NW Cape Breton. Despite the lack of rainfall, the Fire Weather Index at the end of the month remained at low risk across the Maritimes apart from small areas of moderate risk in eastern PEI and Cape Breton. Not surprisingly, Sea Surface Temperatures around the coastlines remained well-above normal at the end of the month with anomalies greater than 5C in the Bay of Fundy and Gulf of St Lawrence.

The Warmest (°C)

New Brunswick	
St Stephen	26.4
Nova Scotia	
Western Head	25.1
Prince Edward Island	
Stanhope	21.8

The Coldest (°C)

New Brunswick	
Edmundston	-6.4
Nova Scotia	
Upper Stewiacke	-4.5
Prince Edward Island	
Charlottetown A	- 0.7

The Wettest (Total mm)

108.4
146.2
94.9

The Capital Stats

	Mean Temperature (°C)			Extremes	
Station Name	Monthly Mean	Normal Mean	Diff from Normal	Max (Date)	Min (Date)
Charlottetown, Airport	10.4	8.3	2.1	20.7 (22)	-0.7 (30)
Halifax Stanfield, Airport	11.1	8.7	2.4	21.6 (7)	-1.1 (30)
Fredericton, Airport	10.8	7.8	3.0	26.1 (13)	-2.8 (10)

	Total Precipitation			Snowfall	
Station Name	Monthly Total (mm)	Normal Total (mm)	Percent Normal	Total (cm)	Max SOG (Date)
Charlottetown Airport	73.7	112.2	66	NA	NA
Halifax Stanfield Airport	77.1	124.91	62	NA	NA
Fredericton	61.1	89.7	68	NA	NA

Daily Temperature Records

Not surprisingly, given the large positive mean temperature anomaly, several new daily maximum records were set: 22 in NS, 13 in NB, and 3 in PEI. The period of Oct. 11^{th} - 14^{th} saw 12 of the NB records with the 26.4C on 13^{th} being more than 3C warmer than the previous record. In NS and PEI, the 22^{nd} - 23^{rd} set 11 new records the highest being 24.3 in Shelburne on the 22^{nd} . Only one new daily minimum was set - -2.8 at Grand Manan on Oct. 9^{th} .

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

October 1-12: A series of high-pressure areas remained over the region for almost the first 2 weeks of the month maintaining relatively mild and dry conditions. Weather stations across the Maritimes generallyreported less than 20 mm of rainfall for the period with most locations reporting less than 5 mm and many reporting no precipitation at all. Several locations set high minimum and maximum temperaturerecords with maximum temperatures reaching the 20-25 C range between the 5th and 13th.

October 13-18: A series of disturbances brought some heavy rain to parts of the Maritimes. The hardest hit areas were in NS and NB where rainfall totals reached the 40 to 130 mm range. A volunteer station in Doyleville, NB reported 80 mm in just one day (Oct 14), with thunderstorms and localized flooding.

October 22-24: Following a spell of very mild temperatures, a complex low and frontal system brought heavy rain, strong winds, and rapidly falling temperatures to parts of the Maritimes. The rainfall washeaviest in PEI and NS with total amounts reaching the 25 to 70 mm range.

October 26-28: A large, intense and slow-moving nor'easter tracked by to the south of Nova Scotia givingheavy rain and strong winds especially to southwestern NS. Rainfall totals reached the 40 to 95 mm range and several coastal locations in NS reported peaks gusts in the 90 to 102 km/h range.

October 30-31: A vigorous low-pressure system tracked eastward across the region bringing significant rainfall to the Maritimes. The heaviest rainfall affected NS where totals at several locations reached the 40 to 60 mm range. Winds were quite strong as well with a few NS locations reporting maximum gusts in the 80 to 95 km/h range.

Overall, it was an exceptional growing season across the Maritimes as mentioned in the following media reports:

Annapolis Valley farmer thrilled with this year's harvest | CBC.ca

N.B. mushroom lovers create official group amid 'sensational' foraging year | CBC News

P.E.I.'s potato bumper crop one of the best in 'many generations,' now needs markets | CBC News

Soybean prices high amid harvest following great growing season on P.E.I. | CBC News

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

Canadian Meteorological and Oceanographic Society (CMOS) | Halifax Chapter

cmos@cmos.ca | www.cmos.ca | Follow us on Facebook and Twitter