Winter 2020-2021 Review

General Summary

Winter 2020-2021 (Dec-Feb), featured temperatures that were very close to the long term means and a continuation of the very wet conditions that have generally been in place since the late summer of 2020. Even with La Nina in control, a pattern that loosely correlated with drier than average winter precipitation over the local area, this winter ranked among the top 10 wettest on record at all our main long term climate sites. At the Wakefield office it was the wettest winter on record although the period of record is short, only dating back to the 1980s. In terms of La Nina Winters, this winter ranks as the wettest La Nina on record at our 4 main climate sites with a period of record dating back to at least the 1949-1950 season. There have now been 24 "La Nina winters" since 1949-1950 (when data for the current calculation used by the Climate Prediction Center first became available). Snowfall was generally below average for most of the region but there were several light snowfall events, as well as a significant ice storm that impacted much of the interior of Virginia in the middle of February.

Temperatures averaged out close to normal for the winter of 2020-2021 and were remarkably consistent for much of the winter season, a rather unusual occurrence in what is typically a highly variable time of year. Both warm and cold spells were virtually nonexistent. Based on the 1981-2010 normals, Richmond averages 4 days with a high temperature of 70F or warmer in a winter season; this winter managed just one day. Conversely, a high temperature at or below 32F at Richmond is recorded on 6 days on average, with only 2 being recorded this winter. Many locations across the eastern portion of the Wakefield County Warning Area (CWA) did not record a single date with a low temperature below 20F; the absolute min for the season of 26F at Norfolk being the 2nd "warmest daily low" for a winter season on record (only 30F in the 1931-1932 was higher). Salisbury, MD had an absolute low of 20F, making this the 1st time a winter season did not get below 20 degrees. Salisbury's warmest reading for the season was 67F, the coolest high temperature for a winter season since 2009-2010.

The table on the next page show various statistics for Winter 2020-2021.

Note that data is for the 3-month meteorological winter period (Dec-Feb), except for snowfall totals which encompass the entire water year period that runs from August 1st through July 31st (therefore, any additional snowfall through this spring would be added to the totals listed).

Tabular Summary of Data for Main Climate Sites

(Winter 2020-2021):

Winter (Dec/Jan/Feb) 2020-21 Temperature Summary Data

*also on other dates

Site	Avg Max (°F)		Avg Min (°F)		Avg Temp (°F)		Warmest (°F)		Coldest (°F)		Significance / Remarks (if Top Ten List, etc.)
	Actual	Dep	Actual	Dep	Actual	Dep		Date		Date	
Richmond	48.5	-1.3	30.8	0.8	39.6	-0.3	71	12/13	17	1/30	
Norfolk	51.4	1.0	36.4	2.0	43.9	1.5	71	12/24	26	12/26	
Salisbury	47.2	0.7	30.6	2.3	38.9	1.5	67	12/13	20	1/21	
Wallops Island	47.6	0.7	32.2	2.0	39.9	1.3	65	12/13	21	1/30	
Elizabeth City	51.9	-1.1	34.4	0.8	43.2	-0.2	72	2/28	21	1/30	
Wakefield	49.8	-1.3	30.0	1.0	39.9	-0.1	71	2/24	15	1/30	

Winter (Dec/Jan/Feb) 2020-21 Precipitation & Snowfall Summary Data

Site	Total Pre (in.)		# Pre Days (≥0.01")		Greatest (in.)		Total Snow (in.)		# Snow Days (≥0.1")		Significance / Remarks (if Top Ten List, etc.)
	Actual	Dep	Actual	Dep	Actual	Date	Act	Dep	Act	Dep	
Richmond	15.40	6.34	37	9	2.02	12/5	7.0	-3.3	7	1	4th Wettest winter on record
Norfolk	14.64	4.86	37	7	0.97	12/16	3.4	-2.4	3	-1	8th Wettest winter on record
Salisbury	16.21	5.54	35	5	3.04	12/5	5.7	-4.3	5	0	6th Wettest winter on record
Wallops Island	15.42	6.19	41	11	1.80	12/16	8.1	0.2	6	1	4th Wettest winter on record
Elizabeth City	17.42	8.42	37	6	1.48	12/16	3.1	0.3	1	-1	3rd Wettest winter on record
Wakefield	17.51	7.43	39	10	2.17	12/24	2.6	-5.1	2	-3	***Wettest winter on record

* ***"Dep"= Departure*** from the 30-year normals (1981-2010). Temperature departures are shaded orange for 1 F or more warmer than average (dark red for 4 F or greater anomalies) and blue for 1 F or more cooler than average (dark blue for 4 F or more below normal). Similarly, precipitation departures are shaded green for 1.00" or more wetter than average (dark green for 4.00" or more) and tan for 1.00" or more drier than average (brown for 4.00" or more drier). Snowfall departures are shaded purple for 0.5" or more above average and tan for 0.5" or more below average.