



# January 2022 Review

January 2022 featured *below normal temperatures* and *above normal precipitation* across the local area. Snowfall was above average, the result of three significant winter storms that occurred during the month.

The series of pages that follow discuss temperature and precipitation/snowfall amounts in more detail and show statistics for January 2022 in comparison to the 1991-2020 normals.



# Temperature



January 2022 averaged from about **2 to 4 degrees below normal** across most of the region, making this the coldest January since 2018 at all our long-term climate sites (the coldest since 2014 at Salisbury). This was quite a change after December 2021 which was one of the warmest Decembers on record. January did begin very warm with high temperatures in the 70s on New Years Day, good enough to lead to numerous record highs and record high minimums across the local area. The warmth continued into the 2<sup>nd</sup> but after that temperatures really plummeted and remained mostly below normal for the remainder of the month. The cold was more prolonged and consistent rather than extreme; the table below shows that the coldest values recorded generally had minimal departures from what occurs during an average January. While no daily record lows or record low maximum temperatures were recorded at our 4 long-term climate sites, all experienced cold temperatures that have not been observed over the past 3 winter seasons. This was especially true on the eastern shore where both Salisbury and Wallops Island had 5 days with a high at or below freezing, more than what occurred in 2018-19, 2019-20, and 2020-21 combined (4 such days at Salisbury and just 2 at Wallops). As for low temperatures, most sites across central Virginia and the Maryland eastern shore saw readings drop into the single digits above zero, something that had not occurred even at Louisa over the entire winter season in 2019-20 and 2020-21.

The table below depicts the observed values compared to the 1991-2020 normals.

January 2022 Temperature Summary Data <small>* also on other dates All Normals are 1991-2020</small>																			
Site	Avg Max		Avg Min		Avg Temp		Daily Highs						Daily Mins						Remarks
	(°F)		(°F)		(°F)		Warmest (°F)			Coldest (°F)			Warmest (°F)			Coldest (°F)			
	Actual	Dep	Actual	Dep	Actual	Dep	Actual	Date	Dep	Actual	Date	Dep	Actual	Date	Dep	Actual	Date	Dep	
Richmond	46.6	-1.2	26.5	-2.3	36.5	-1.8	73	1st	3	29	21st	1	57	1st	7	12	30th	1	
Norfolk	47.1	-3.6	29.5	-4.1	38.3	-3.9	76	1st	4	32	*29th	2	58	1st	5	18	*30th	-1	
Salisbury	43.8	-1.7	23.5	-4.5	33.6	-3.2	70	*2nd	2	27	21st	1	54	1st	5	5	30th	-3	
Wallops Island	44.3	-1.9	25.9	-3.6	35.1	-2.8	71	*2nd	5	29	*30th	2	54	2nd	7	13	30th	1	
Elizabeth City	49.7	-2.6	29.9	-3.2	39.8	-2.9	77	1st	5	34	*29th	1	61	*2nd	7	15	23rd	-1	
Ashland, VA	45.6	-1.2	23.7	-3.5	34.7	-2.3	68	*2nd	-1	28	*21st	1	52	*2nd	3	9	30th	1	
Corbin, VA	M	####	M	####	M	####	M	#####		M	#####		M	#####		M	#####		
Louisa, VA	42.2	-3.0	20.6	-4.8	31.4	-3.9	67	*2nd	-1	27	16th	0	55	2nd	7	6	*30th	2	
Painter, VA	48.0	-0.2	27.2	-3.2	37.6	-1.7	72	2nd	5	32	22nd	2	59	2nd	7	10	23rd	-4	
Wakefield, VA	48.7	-1.1	25.1	-3.1	36.9	-2.1	76	1st	5	30	21st	0	59	2nd	8	9	30th	0	
Williamsburg, VA	47.1	-2.0	27.6	-3.0	37.3	-2.5	73	1st	2	32	*29th	2	57	1st	6	12	30th	-1	
Edenton, NC	49.8	-2.6	31.1	-3.3	40.5	-2.9	71	1st	1	33	22nd	-2	62	2nd	9	17	23rd	1	

\* "Dep" = Departure from the 30-year normals (1991-2020). 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).



# Precipitation & Snowfall



January 2022 was wetter than normal, the result of an active upper-level pattern responsible for bringing multiple high precipitation events to the region. This was a big change after a dry start to the winter season with well below normal precipitation amounts in December 2021. In general, monthly departures ranged from 2 to 3 inches above normal across south central Virginia, southeast Virginia, and northeast North Carolina, and 1 to 2 inches above normal elsewhere. The first big event occurred from the 2<sup>nd</sup> through the 3<sup>rd</sup> as strong low pressure tracked along a frontal boundary over the Carolinas, with the system rapidly intensifying as it moved off the coast. This brought mainly rain to SE VA and NE NC, but rain that transitioned to heavy wet snow on the 3<sup>rd</sup> over areas farther inland and especially across NW sections of the CWA where local snow amounts were in excess of one foot. Widespread long duration power outages developed over these locations to the NW of metro Richmond due to the extensive downed trees and power lines. A more extensive summary of this event can be found at: [Summary of January 3, 2022 Heavy Snow, Wind, and Coastal Flooding \(weather.gov\)](#)

The next event came on the 16<sup>th</sup> as a strong area of low pressure tracked northeast from the Gulf coast region and passed through the local area. This system took an inland track and was primarily a moderate to heavy rain event for areas east of I-95, though some snow accumulation did occur along and west of I-95, with locally up to 3 to 4" in Louisa and Fluvanna counties. Conditions remained unsettled as a cold front was slow to move across the region on the 20<sup>th</sup> and 21<sup>st</sup> with weak low pressure moving along the front into the 22<sup>nd</sup>, resulting in more rain and snow for the local area. This storm brought locally heavy snow to areas near the coast in SE VA and NE NC; Norfolk received 6.7" of snow and 6.0" was recorded at Elizabeth City, NC. Daily snowfall records were set at both Norfolk and Elizabeth City on the 21<sup>st</sup> and 22<sup>nd</sup> and the storm total values of 6.7" and 6.0" are greater than the average amount accumulated in an entire winter season for these sites respectively.

The final storm to affect the area was initially a clipper-type of system that brought light rain changing to snow across the CWA on the 28<sup>th</sup> with low pressure then rapidly intensifying off the coast of Virginia early on the morning of the 29<sup>th</sup>. This second phase of the storm was all snow and primarily affected eastern sections of the forecast area from the northern Neck south to Hampton Roads and NE NC, with the eastern shore receiving the highest snowfall totals that were 8 to 12" from Accomack County VA to Salisbury and Ocean City, MD. A more extensive summary of this event can be found at: [Summary of Jan 28-29, 2022 Winter Storm \(weather.gov\)](#)



# Precipitation & Snowfall (Continued)



At the conclusion of the month, most areas received snowfall amounts that were well above normal, the eastern sections of the Richmond metro generally being the exception where despite 7 days of measurable snowfall, the monthly total was just slightly above the average. Norfolk's total of 11.2" ranks this as the 8<sup>th</sup> snowiest January on record (period of record dating back to 1874), and Salisbury's 13.9" ranks as the 7<sup>th</sup> snowiest January (records date back to 1907). At Wallops Island, VA, the period of record is significantly shorter only dating back to Nov 1966, but it is still noteworthy that the 15.5" of snowfall for the month makes 2022 the snowiest January on record and the 2<sup>nd</sup> snowiest month ever recorded at Wallops, trailing only Feb 1989 (17.4").

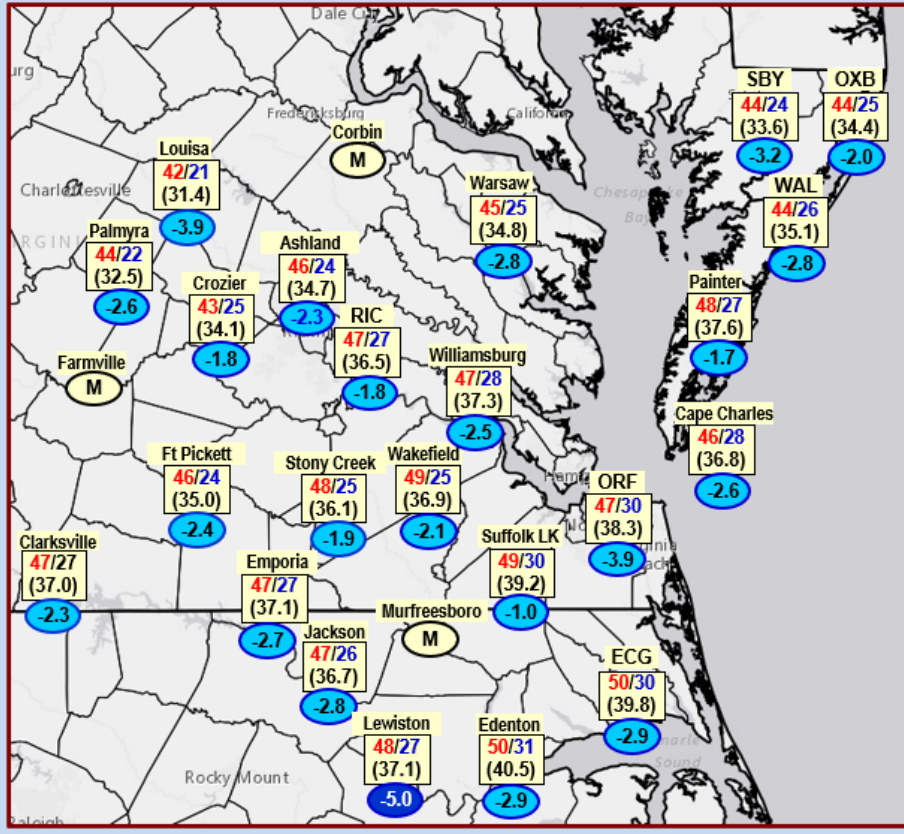
Total precipitation amounts were above normal everywhere, but not excessive and did not rank into the top 10 wettest at any of our long-term climate sites of Richmond, Norfolk, Salisbury, or Elizabeth City, NC.

The table below depicts the observed values compared to the 1991-2020 normals.

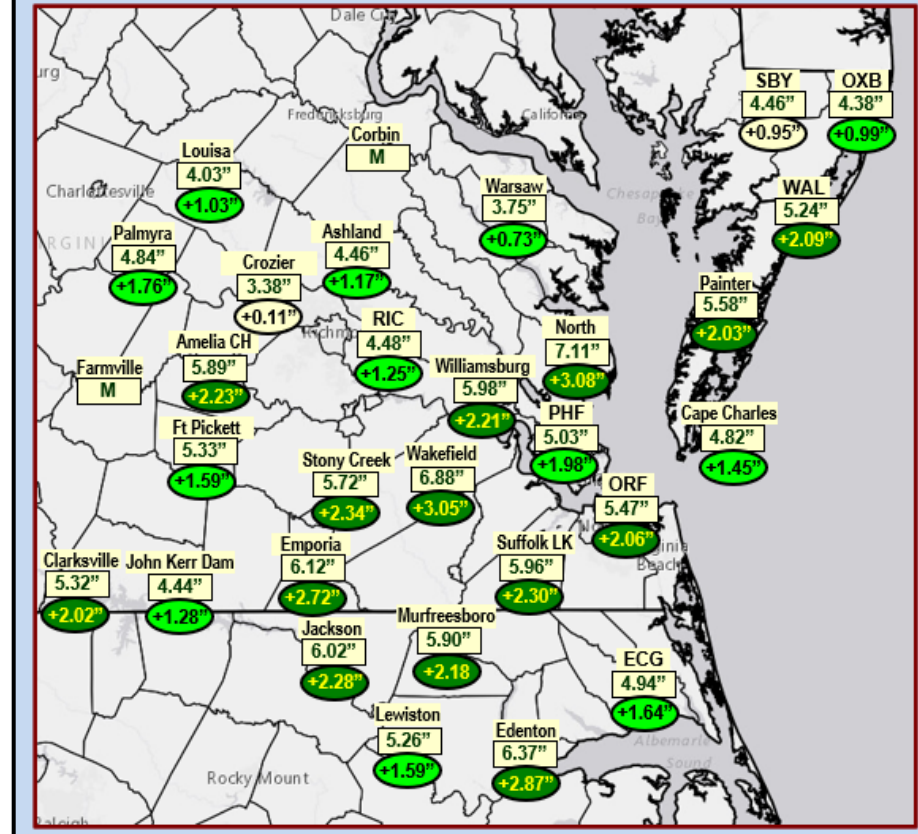
January 2022 Precipitation & Snowfall Summary Data											* also on other dates				All Normals are 1991-2020				
Site	Total Pre		# Pre Days		# Pre Days		Greatest		Total Snow		# Snow Days		# Snow Days		Greatest				Remarks
	(in.)		(≥0.01")		(≥0.10")		(in.)		(in.)		(≥0.1")		(≥1.0")		(in.)		(in.)		
	Actual	Dep	Actual	Dep	Actual	Dep	Act	Date	Act	Dep	Act	Dep	Act	Dep	Daily	Date	Storm	Date	
Richmond	4.48	1.25	10	0	6	0	1.64	3rd	4.3	0.6	7	5	2	1	2.0	3rd	2.0	3rd	
Norfolk	5.47	2.06	11	0	10	4	1.97	16th	11.2	8.0	6	4	4	3	3.5	22nd	6.7	21-22	8th Snowiest Jan
Salisbury	4.46	0.95	17	6	9	2	1.46	11th	13.9	11.4	7	6	4	3	4.4	29th	7.9	28-29	7th Snowiest Jan
Wallops Island	5.24	2.09	14	3	8	2	1.57	3rd	15.5	12.0	6	4	5	4	6.5	29th	9.5	28-29	#1 Snowiest Jan
Elizabeth City	4.94	1.64	11	2	8	2	2.05	3rd	7.0	6.2		-1		-1	3.0	*22nd	6.0	21-22	5th Snowiest Jan
Ashland, VA	4.46	1.17	10	0	8	1	1.65	3rd	10.7	4.8	4	1	3	1	5.5	3rd	5.5	3rd	
Corbin, VA	M	####	M	####	M	####	M		M	####	M	####	M	####	M		M		
Louisa, VA	4.03	1.03	8	-1	6	1	1.30	2nd	21.0	16.5	5	3	4	3	14.1	3rd	14.1	3rd	
Painter, VA	5.58	2.03	13	2	11	4	1.81	3rd	14.5	13.3	5	3	3	2	7.0	29th	7.0	29th	
Wakefield, VA	6.88	3.05	12	2	7	0	2.39	3rd	5.8	2.3	7	5	4	3	1.5	22nd	2.5	21-22	
Williamsburg, VA	5.98	2.21	14	3	7	0	1.86	*16th	5.1	3.4	2	1	2	1	4.0	3rd	4.0	3rd	
Edenton, NC	6.37	2.87	6	-3	5	-2	2.54	3rd	5.2	4.3	2	1	1	0	4.8	22nd	4.8	22nd	

\* "Dep" = Departure from the 30-year normals (1991-2020). Precipitation departures are shaded green for 0.50" or more wetter than average (dark green for 2.00" or more) and tan for 0.50" or more drier than average (dark brown for 2.00" or more drier). Snowfall departures are shaded purple for 1" or more above average (dark purple for 4" or more above avg.). Snowfall departures of 1" or more below average are shaded tan.

## January 2022 Temperature Data



## January 2022 Precipitation Data



**Departures** from the 30-year normals (1991-2020) are shown for both **average temperature** and **total precipitation**. For temperature, the departures are shaded orange for 1 F or more warmer than average (red for 4 F or more warm) and blue for 1 F or more cooler than average (dark blue for 4 F or more cold). Values within one degree of normal are shaded the same color as the temperature box. Similarly, precipitation departures are shaded green for 0.50" or more wetter than average (dark green for 2.00" or more) and tan for 0.50" or more drier than average (dark brown for 2.00" or more drier). Near normal values (within 0.50" of normal) are shaded the same color as the precipitation amount box.



# Daily Records for Long Term Climate Sites (January):



## Norfolk, VA Records (Period of Record 148 yrs./1874-2021)

*\*tie*

**Record Highs:** 76 (1<sup>st</sup>).

**Record Low Maximums:** none set.

**Record Lows:** none set.

**Record High Minimums:** 58 (1<sup>st</sup>).

**Daily Precipitation:** 1.97" (16<sup>th</sup>)

**Daily Snowfall:** 3.2" (21<sup>st</sup>), 3.5" (22<sup>nd</sup>)

## Richmond, VA Daily Records (Period of Record 125 yrs./1897-2021)

*\*tie*

**Record Highs:** 72 (2<sup>nd</sup>).

**Record Low Maximums:** none set.

**Record Lows:** none set.

**Record High Minimums:** 57 (1<sup>st</sup>).

**Daily Precipitation:** none set.

**Daily Snowfall:** none set.

## Salisbury, MD Daily Records (Period of Record 115 yrs./1907-2021)

*\*tie*

**Record Highs:** 70 (1<sup>st</sup>), 70 (2<sup>nd</sup>)

**Record Low Maximums:** none set.

**Record Lows:** none set.

**Record High Minimums:** 51 (2<sup>nd</sup>).

**Daily Precipitation:** none set.

**Daily Snowfall:** none set.

## Elizabeth City, NC Daily Records (Period of Record 88 yrs./1934-2021)

*\*tie*

**Record Highs:** 77 (1<sup>st</sup>).

**Record Low Maximums:** none set.

**Record Lows:** none set.

**Record High Minimums:** 61 (2<sup>nd</sup>).

**Daily Precipitation:** 1.87" (16<sup>th</sup>).

**Daily Snowfall:** 3.0" (21<sup>st</sup>), 3.0" (22<sup>nd</sup>).