



# January 2025 Monthly Weather Review

## Temperature Overview

January 2025 featured colder than normal temperatures across the local area, with a prolonged period with well below normal temperatures for most of the month, followed by a warmup during the last week. Across the continental US, the pattern featured an active southern jet stream, and an anomalous upper-level ridge from the Pacific northwest to southeast Alaska much of the time, a pattern that allowed frequent Arctic air intrusions into much of the United States to the east of the Rockies (see Figure 1 for national temperature departures). Regionally, temperatures in Virginia, North Carolina, and Maryland were all classified as being “below average” with 2025 ranking as the 20<sup>th</sup> coldest January on record for Virginia, the 17<sup>th</sup> coldest for North Carolina, and the 28<sup>th</sup> coldest for Maryland (period of record is 131 years 1895-2025). Locally, monthly average temperatures were mainly between 4 and 6 degrees colder than the long-term (see table on page 3 ).

Looking at daily average temperature departures at Richmond and Norfolk (Figure 3), the month quickly turned cold starting on the 4<sup>th</sup> and generally remained much colder than average for the next 3 weeks, something not seen during winter in nearly a decade (the last time being in February 2015). Multiple winter storms affected the local area during this timeframe, something absent over the past 3 winter seasons. While daily temperatures were not extreme, the duration of the cold was impressive, especially in light of the recent decade of warm Januarys: Richmond had 26 consecutive dates with a daily minimum temperature below freezing (the longest stretch since 2004), Edenton had its coldest January since 1981, while Richmond and Salisbury were the coldest since 2004. The cold stretch finally broke during the final week of January when readings went above average into the 50s and 60s, with even a few 70s recorded in southeast Virginia and northeast North Carolina; the high of 73° tied a daily record high at Norfolk on the 31<sup>st</sup> . The tally for number of days with an average temperature 5 or more degrees above normal and below normal was **5 warm** vs. **16 cold** at Richmond and **4 warm** vs. **17 cold** at Norfolk.

The brief warm-up to end the month precluded a top 10 cold ranking for all of our long-term weather stations, but most places were the coldest in over a decade.



# January 2025 Monthly Weather Review

## Precipitation & Snow/Ice Overview

January 2025 precipitation was below normal across the region, minus some localized areas in central Virginia that saw near normal amounts. Regionally, Virginia recorded its 29<sup>th</sup> driest January, with Maryland and North Carolina even drier, ranking as the 6<sup>th</sup> and 7<sup>th</sup> driest respectively since 1895. However, in spite the relatively dry conditions, the cold temperatures resulted in above normal snowfall area-wide as multiple winter storms affected the mid-Atlantic and southeast states throughout the month. The first of these occurred on the 5<sup>th</sup> and 6<sup>th</sup> as low pressure lifted east from the Tennessee Valley with secondary cyclogenesis off the NC coast, bringing widespread snowfall to most of the local area outside of Hampton Roads and northeast North Carolina where mostly rain fell. The highest snowfall totals, up to around 10", were recorded over interior sections of the lower Maryland eastern shore; Salisbury's 8.5" on the 6<sup>th</sup> set a new daily record. In addition, one tenth of an inch (or more) of ice was recorded over central and south central Virginia. A detailed summary of this event can be found at the following link: [https://www.weather.gov/akq/jan5\\_6\\_2025\\_winterstorm](https://www.weather.gov/akq/jan5_6_2025_winterstorm). Less than one week later, the next storm brought mainly snow to the local area, with the highest amounts of 4" to 5" across the interstate 85 corridor. A mix to sleet led to lower snow totals over southeast Virginia and northeast North Carolina. A detailed summary of this event can be found at the following link: [https://www.weather.gov/akq/jan10\\_11\\_2025\\_winterstorm](https://www.weather.gov/akq/jan10_11_2025_winterstorm). The final storm of the month occurred from 1/21 to 1/22 as strong low pressure tracked northeast from the Gulf coast to offshore of the Carolina coast as Arctic high pressure slowly built from the southern Plains to the Lower Mississippi/Tennessee Valleys. This focused the heaviest snowfall over southeast Virginia and northeast NC, with a light snowfall (less than 1") across areas to the north and west. A detailed summary of this event can be found at the following link: [https://www.weather.gov/akq/jan21\\_22\\_2025\\_winterstorm](https://www.weather.gov/akq/jan21_22_2025_winterstorm).

Outside of the winter weather, rainfall amounts were generally light across the region, with the exception of the 31<sup>st</sup> when local amounts in excess of 1.00" were recorded over portions of central and interior southeast Virginia. Sites in far southeast Virginia largely missed out on the higher totals on the 31<sup>st</sup>, leading to monthly amounts that were only about 50% of normal for January.

**The following table on page 3 shows detailed temperature and precipitation statistics for January 2025 at many locations within the Wakefield CWA. Page 4 shows national temperature departures and rankings. On page 5, daily high temperature departures are shown at Richmond and Norfolk, followed by monthly precipitation maps (page 6), with daily records set during the month at our 4 main long-term sites on the last page.**



# Tabular Summary of Data for Selected Climate Sites (January):



| January 2025 Temperature Summary Data <small>* also on other dates</small> <small>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  | 43.6    | -4.2 | 23.4    | -5.4 | 33.5     | -4.8 | 67           | 29th | -3  | 23           | 21st | -5           | 43     | 31st  | -7           | 9      | 23rd    | -2   | Coldest since 2004 |
| Norfolk   | 45.6    | -5.1 | 29.2    | -4.4 | 37.4     | -4.8 | 73           | 31st | 1   | 25           | 22nd | -5           | 47     | 31st  | -6           | 17     | 23rd    | -2   | Coldest since 2018 |
| Salisbury   | 39.3    | -6.2 | 21.5    | -6.5 | 30.4     | -6.4 | 61           | 29th | -7  | 20           | 21st | -6           | 43     | 31st  | -6           | 4      | 23rd    | -4   | Coldest since 2004 |
| Wallops Island  | 41.1    | -5.1 | 25.6    | -3.9 | 33.4     | -4.5 | 63           | 29th | -3  | 23           | 21st | -4           | 44     | 31st  | -3           | 11     | *23rd   | -1   | Coldest since 2011 |
| Elizabeth City  | 47.4    | -4.9 | 27.8    | -5.3 | 37.6     | -5.1 | 73           | 31st | 1   | 26           | 22nd | -7           | 47     | 31st  | -7           | 18     | 16th    | 2    | Coldest since 2018 |
| Ashland, VA   | 43.9    | -2.9 | 21.0    | -6.2 | 32.5     | -4.5 | 66           | 29th | -3  | 23           | 22nd | -4           | 44     | *31st | -5           | 5      | 23rd    | -3   | Coldest since 2014 |
| Corbin, VA  | 41.0    | -4.0 | 19.5    | -6.8 | 30.3     | -5.4 | 65           | 30th | -2  | 19           | 22nd | -7           | 34     | 29th  | -12          | 4      | 24th    | -3   | Coldest since 2004 |
| Louisa, VA  | 43.6    | -1.6 | 21.7    | -3.7 | 32.7     | -2.6 | 65           | 29th | -3  | 23           | 21st | -4           | 42     | 31st  | -6           | 4      | 23rd    | 0    | Coldest since 2022 |
| Painter, VA   | 42.7    | -5.5 | 26.2    | -4.2 | 34.4     | -4.9 | 61           | 1st  | -6  | 21           | 22nd | -9           | 46     | 1st   | -6           | 6      | 23rd    | -8   | Coldest since 2011 |
| Wakefield, VA   | 45.7    | -4.1 | 22.7    | -5.5 | 34.2     | -4.8 | 70           | 31st | -1  | 26           | 21st | -4           | 44     | 31st  | -7           | 3      | 23rd    | -6   | Coldest since 2014 |
| Williamsburg, VA  | 44.1    | -5.0 | 25.1    | -5.5 | 34.6     | -5.2 | 68           | 31st | -3  | 24           | 21st | -6           | 43     | 31st  | -8           | 10     | 23rd    | -3   | Coldest since 2014 |
| Edenton, NC   | 45.8    | -6.6 | 29.1    | -5.3 | 37.5     | -5.9 | 67           | 31st | -3  | 26           | 22nd | -9           | 48     | 1st   | -5           | 14     | 23rd    | -2   | Coldest since 1981 |

| January 2025 Precipitation & Snowfall Summary Data <small>* also on other dates</small> <small>All Normals are 1991-2020</small> |           |       |            |     |            |     |          |      |            |     |             |     |             |     |          |      |         |       |
|--|-----------|-------|------------|-----|------------|-----|----------|------|------------|-----|-------------|-----|-------------|-----|----------|------|---------|-------|
| 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.)    |      |         |       |
|  | Actual    | Dep   | Actual     | Dep | Actual     | Dep | Act      | Date | Act        | Dep | Act         | Dep | Act         | Dep | Daily    | Date |         | Storm |
| Richmond   | 2.82      | -0.41 | 7          | -3  | 4          | -2  | 1.27     | 31st | 6.7        | 3.0 | 5           | 3   | 3           | 2   | 3.0      | 5th  | 3.5     | 5-6th |
| Norfolk  | 1.64      | -1.77 | 8          | -3  | 5          | -1  | 0.63     | 6th  | 5.7        | 2.5 | 6           | 4   | 3           | 2   | 2.3      | 21st | 3.8     | 21-22 |
| Salisbury  | 2.21      | -1.30 | 6          | -5  | 4          | -3  | 1.04     | 6th  | 11.3       | 8.8 | 3           | 2   | 2           | 1   | 8.5      | 6th  | 8.5     | 6th   |
| Wallops Island   | 2.65      | -0.50 | 7          | -4  | 5          | -1  | 1.23     | 6th  | 8.4        | 4.9 | 4           | 2   | 3           | 2   | 4.5      | 6th  | 4.5     | 6th   |
| Elizabeth City   | 2.13      | -1.17 | 8          | -1  | 5          | -1  | 0.96     | 6th  | 4.9        | N/A | 2           | 1   | 2           | 2   | 2.5      | 21st | 4.9     | 21-22 |
| Ashland, VA  | 2.29      | -1.00 | 5          | -5  | 3          | -4  | 1.27     | 6th  | 6.3        | 0.4 | 3           | 0   | 3           | 1   | 3.0      | 6th  | 4.3     | 6-7   |
| Corbin, VA   | 1.52      | -1.76 | M          |     | M          |     | M        |      | 8.0        | 4.4 | 3           | 1   | 2           | 1   | 5.0      | 6th  | 7.5     | 6-7   |
| Louisa, VA   | 1.69      | -1.31 | 5          | -4  | 3          | -2  | 0.81     | 6th  | 5.7        | 1.2 | 3           | 1   | 2           | 1   | 2.8      | 6th  | 4.9     | 6-7   |
| Painter, VA  | 2.35      | -1.20 | 6          | -5  | 4          | -3  | 1.17     | 6th  | 6.6        | 5.4 | 3           | 1   | 3           | 2   | 3.6      | 11th | 3.6     | 11th  |
| Wakefield, VA  | 2.34      | -1.49 | 8          | -2  | 5          | -2  | 1.05     | 31st | 4.6        | 1.1 | 5           | 3   | 2           | 1   | 1.5      | 11th | 2.6     | 10-11 |
| Williamsburg, VA   | 3.03      | -0.74 | 9          | -2  | 6          | -1  | 1.20     | 31st | 7.0        | 5.3 | 5           | 4   | 5           | 4   | 2.1      | 11th | 3.1     | 10-11 |
| Edenton, NC  | 2.22      | -1.28 | 7          | -2  | 4          | -3  | 0.80     | 11th | 4.5        | 3.6 | 1           | 0   | 1           | 0   | 4.5      | 22nd | 4.5     | 22nd  |

\* **"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). 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). Snowfall departures are shaded purple for 1" or more above average and tan for 1" or more below average.





# National Temperature & Precipitation Departure: January 2025

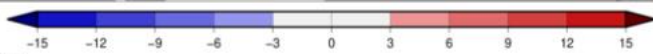
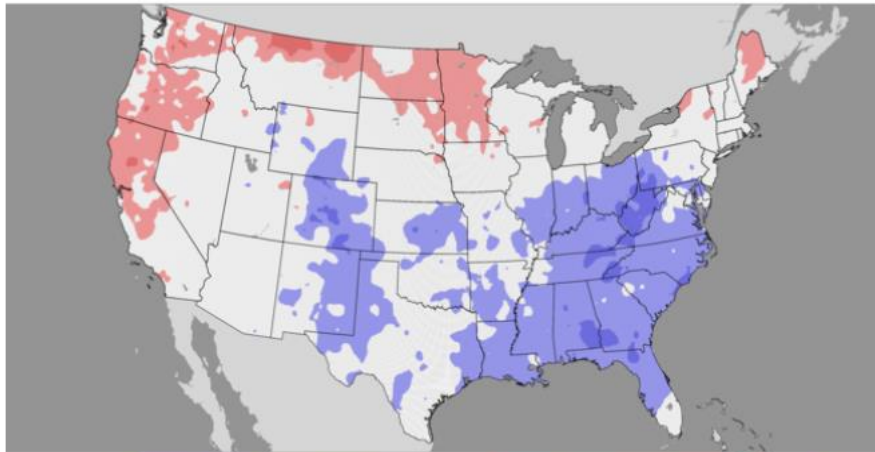


## Mean Temperature Departures from Average

January 2025

Average Period: 1901-2000

NOAA's National Centers for Environmental Information



Created: Thu Feb 06 2025

Source: nClimGrid-Monthly

Degrees Fahrenheit

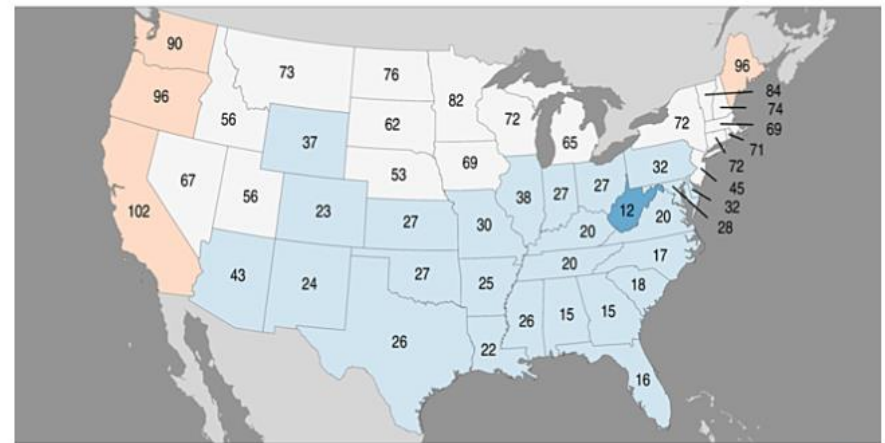


## Statewide Average Temperature Ranks

January 2025

Ranking Period: 1895-2025

NOAA's National Centers for Environmental Information



Created: Thu Feb 06 2025

Source: nClimGrid - Monthly

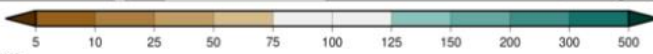
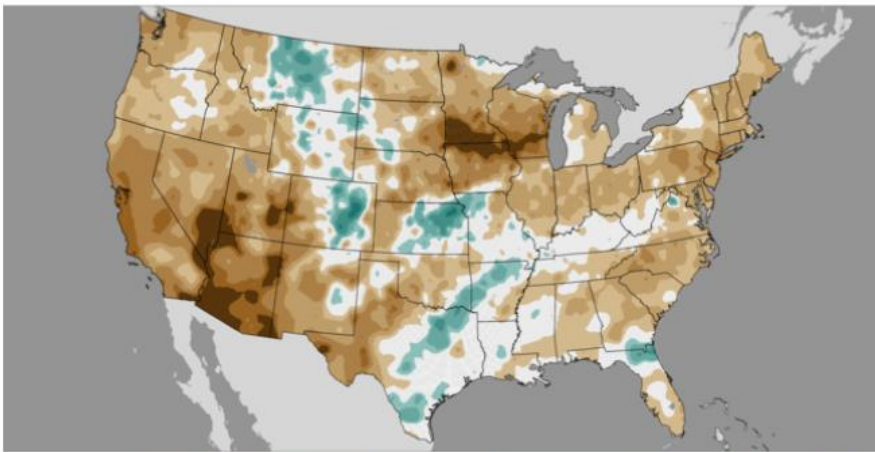


## Precipitation Percent of Average

January 2025

Average Period: 1901-2000

NOAA's National Centers for Environmental Information



Created: Thu Feb 06 2025

Source: nClimGrid-Monthly

Percent

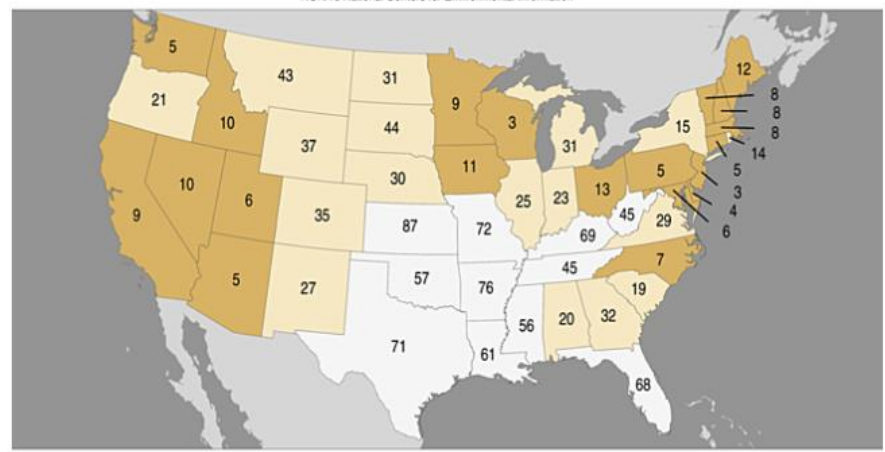


## Statewide Precipitation Ranks

January 2025

Ranking Period: 1895-2025

NOAA's National Centers for Environmental Information



Created: Thu Feb 06 2025

Source: nClimGrid - Monthly



**Figure 1: Avg. Temperature & Precipitation Departure and Statewide Ranks** Source: NCEI & CPC

# Daily Average Temperature Departures at Richmond & Norfolk, VA

## January 2025: Richmond, VA

Observed Average Temperature Departure from Normal (°F)

| Sun                           | Mon                           | Tue                           | Wed                            | Thu                            | Fri                            | Sat                           |
|-------------------------------|-------------------------------|-------------------------------|--------------------------------|--------------------------------|--------------------------------|-------------------------------|
|                               |                               |                               | 46.5°<br><b>+7.4°</b><br>39.1° | 38.0°<br>-0.9°<br>38.9°        | 37.0°<br>-1.8°<br>38.8°        | 29.0°<br>-9.7°<br>38.7°       |
| 5<br>28.5°<br>-10.1°<br>38.6° | 6<br>30.0°<br>-8.5°<br>38.5°  | 7<br>28.0°<br>-10.4°<br>38.4° | 8<br>25.0°<br>-13.4°<br>38.4°  | 9<br>28.5°<br>-9.8°<br>38.3°   | 10<br>27.0°<br>-11.2°<br>38.2° | 11<br>32.0°<br>-6.2°<br>38.2° |
| 12<br>30.5°<br>-7.6°<br>38.1° | 13<br>37.5°<br>-0.6°<br>38.1° | 14<br>33.5°<br>-4.5°<br>38°   | 15<br>27.5°<br>-10.5°<br>38°   | 16<br>28.5°<br>-9.5°<br>38°    | 17<br>34.5°<br>-3.5°<br>38°    | 18<br>40.0°<br>+2.0°<br>38°   |
| 19<br>34.5°<br>-3.5°<br>38°   | 20<br>26.5°<br>-11.5°<br>38°  | 21<br>17.5°<br>-20.5°<br>38°  | 22<br>19.5°<br>-18.5°<br>38°   | 23<br>21.5°<br>-16.6°<br>38.1° | 24<br>27.5°<br>-10.6°<br>38.1° | 25<br>31.0°<br>-7.2°<br>38.2° |
| 26<br>40.0°<br>+1.8°<br>38.2° | 27<br>43.5°<br>+5.2°<br>38.3° | 28<br>47.0°<br>+8.6°<br>38.4° | 29<br>52.0°<br>+13.5°<br>38.5° | 30<br>43.0°<br>+4.5°<br>38.5°  | 31<br>53.5°<br>+14.9°<br>38.6° |                               |

NWS Wakefield - Richmond

## January 2025: Norfolk, VA

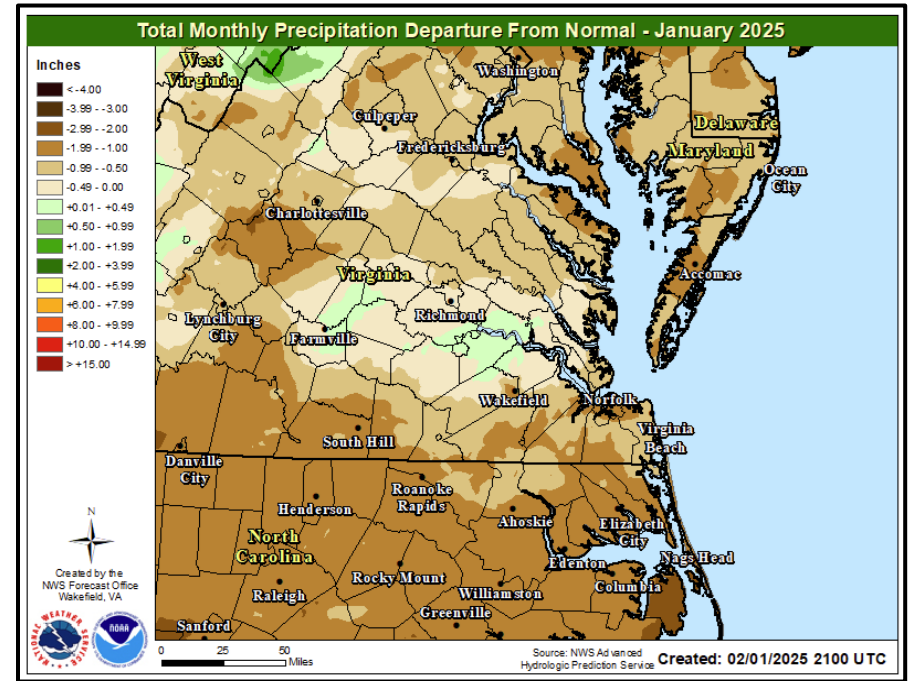
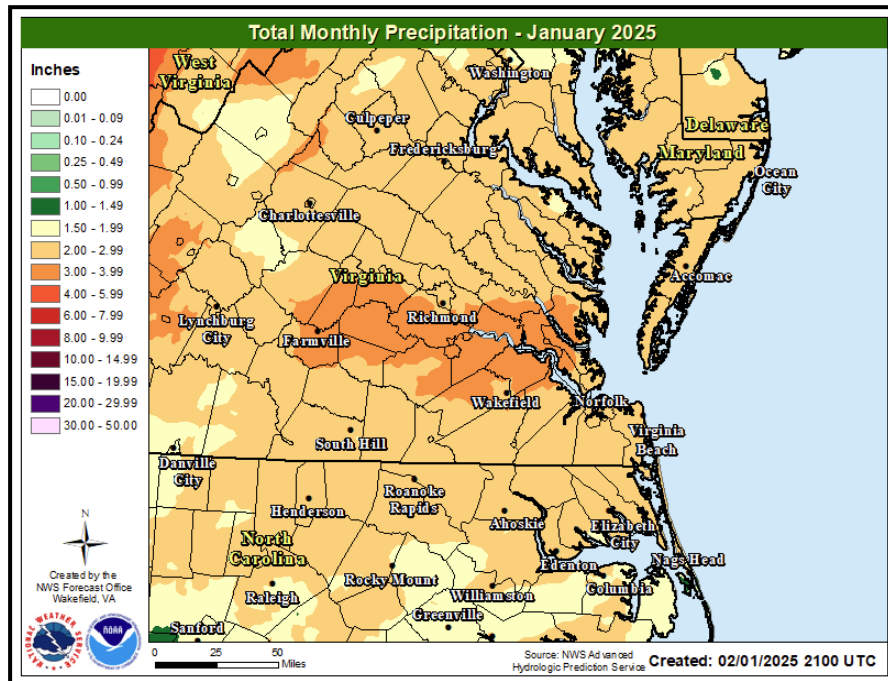
Observed Average Temperature Departure from Normal (°F)

| Sun                           | Mon                            | Tue                            | Wed                            | Thu                            | Fri                            | Sat                            |
|-------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|
|                               |                                |                                | 51.0°<br><b>+7.7°</b><br>43.3° | 40.5°<br>-2.7°<br>43.2°        | 40.5°<br>-2.5°<br>43°          | 34.5°<br>-8.4°<br>42.9°        |
| 5<br>33.5°<br>-9.3°<br>42.8°  | 6<br>40.0°<br>-2.7°<br>42.7°   | 7<br>33.5°<br>-9.0°<br>42.5°   | 8<br>33.0°<br>-9.4°<br>42.4°   | 9<br>32.0°<br>-10.3°<br>42.3°  | 10<br>33.5°<br>-8.7°<br>42.2°  | 11<br>36.0°<br>-6.1°<br>42.1°  |
| 12<br>35.5°<br>-6.6°<br>42.1° | 13<br>38.0°<br>-4.0°<br>42°    | 14<br>35.0°<br>-6.9°<br>41.9°  | 15<br>32.0°<br>-9.9°<br>41.9°  | 16<br>32.5°<br>-9.3°<br>41.8°  | 17<br>37.5°<br>-4.3°<br>41.8°  | 18<br>45.0°<br>+3.3°<br>41.7°  |
| 19<br>40.0°<br>-1.7°<br>41.7° | 20<br>31.0°<br>-10.7°<br>41.7° | 21<br>24.5°<br>-17.2°<br>41.7° | 22<br>23.0°<br>-18.7°<br>41.7° | 23<br>25.0°<br>-16.7°<br>41.7° | 24<br>30.0°<br>-11.8°<br>41.8° | 25<br>31.5°<br>-10.3°<br>41.8° |
| 26<br>43.5°<br>+1.7°<br>41.8° | 27<br>43.5°<br>+1.6°<br>41.9°  | 28<br>49.5°<br>+7.6°<br>41.9°  | 29<br>52.5°<br>+10.5°<br>42°   | 30<br>41.5°<br>-0.6°<br>42.1°  | 31<br>60.0°<br>+17.8°<br>42.2° |                                |

NWS Wakefield - Norfolk

Figure 2: Daily Average Temperature Departures at RIC and ORF

# Regional Precipitation Maps: January 2025



**Figure 3: Total Precipitation** for the month is shown in the map on the left. **Departures** from the 30-year normals (1991-2020) are shown on the map on the right.





# Daily Records for Long Term Sites (January):



## Norfolk, VA Records (Period of Record 152 yrs./1874-2025)

*\*tie*

**Record Highs:** \*73 (31<sup>st</sup>).

**Record Low Maximums:** none set.

**Record Lows:** none set.

**Record High Minimums:** none set.

**Daily Precipitation:** none set.

## Richmond, VA Daily Records (Period of Record 129 yrs./1897-2025)

*\*tie*

**Record Highs:** none set.

**Record Low Maximums:** none set.

**Record Lows:** none set.

**Record High Minimums:** none set.

**Daily Precipitation:** 1.27" (31<sup>st</sup>).

## Salisbury, MD Daily Records (Period of Record 119 yrs./1907-2025)

*\*tie*

**Record Highs:** none set.

**Record Low Maximums:** none set.

**Record Lows:** none set.

**Record High Minimums:** none set.

**Daily Precipitation:** 0.78" (31<sup>st</sup>).

**Daily Snowfall:** 8.5" (6<sup>th</sup>).

## Elizabeth City, NC Daily Records (Period of Record 92 yrs./1934-2025)

*\*tie*

**Record Highs:** none set.

**Record Low Maximums:** \*26 (22<sup>nd</sup>).

**Record Lows:** none set.

**Record High Minimums:** none set.

**Daily Precipitation:** none set.