# May (and Spring) 2020 Review

### **General Summary**

May 2020 continued the mostly cooler than normal weather that started developing around the middle of April: monthly average temperatures ranged from 2 to 4 degrees below normal across most sites in the region.

While there were a few warm days here and there, the cold days were much more prevalent: Richmond recorded only 5 days with a daily high that was 5F or more warmer than normal while 16 days had a daily high that was 5F or more cooler than normal. At Norfolk, these values were 8 warm vs. 16 cool). The most impressive cool spell followed a strong cold front that crossed the area early on the morning of the 9th; highs were only in the 50s to low 60s o the 9th followed by a widespread freeze over the interior of Virginia and the Maryland eastern shore on the morning of the 10th. It was particularly noteworthy at Richmond where the low of 32F ranks as the 2nd latest freeze on record (May 11th,1966 being the latest). Several Co-op sites across the Piedmont dipped into the upper 20s. Temperatures warmed back into the 80s on the 15th and 16th, but this was followed by a 4 day stretch of cool and cloudy conditions with highs in the 50s and 60s from the 18th through the 21st (daily high temperature departures were 10 to 20 below normal). The nights were not that cool as a result of the extensive cloud cover. The final week of the month was near normal temperature-wise, though there were some cool days as low clouds and fog lingered along the coast on the 25th and 26th. The cool conditions generally kept any thunderstorms and severe weather rather limited compared to what a typical May would bring.

Monthly precipitation totals in May were generally below average across most of Virginia and Maryland (in some cases only about 50% of normal), while total rainfall amounts were mostly above normal across northeast North Carolina and in south central VA near the NC border. In fact, Elizabeth City, NC had its 6<sup>th</sup> wettest May on record (dating back to 1934). While it was dry over most of Virginia and Maryland in terms of accumulated rainfall, the number of days with measureable rain was a little higher than the long term means. Some river flooding was observed across the James River basin from the 22nd into the 24th following the cool wet spell a few days earlier (this was mostly a result of heavy rain in the upper James basin rather than over the local area proper).

The series of pages that follow show various statistics for May 2020 with the final page showing a summary table for meteorological spring (Mar/Apr/May).

## Tabular Summary of Data for Main Climate Sites (May):

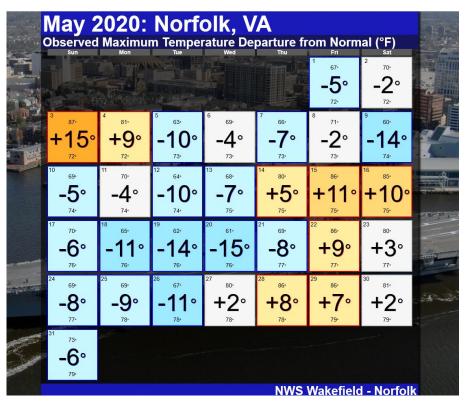
| May 2020 Temperature Summary Data *also on other dates |         |      |         |      |          |      |                    |                   |                             |  |  |
|--|---------|------|---------|------|----------|------|--------------------|-------------------|-----------------------------|--|--|
|  | Avg Max |      | Avg Min |      | Avg Temp |      | Warmest            | Coldest           | Significance / Remarks      |  |  |
| Site   | (°F)    |      | (°F)    |      | (°F)     |      | (°F)               | (°F)              | (if Top Ten List, etc.)     |  |  |
|  | Actual  | Dep  | Actual  | Dep  | Actual   | Dep  | Date               | Date              |                             |  |  |
| Richmond   | 73.8    | -4.1 | 53.8    | -1.2 | 63.8     | -2.6 | <b>87</b> on *16th | 32 on 10th        | 2nd latest freeze on record |  |  |
| Norfolk  | 72.9    | -2.5 | 57.6    | -0.2 | 65.3     | -1.3 | <b>87</b> on 3rd   | <b>40</b> on 10th |                             |  |  |
| Salisbury  | 70.9    | -2.6 | 52.2    | 0.6  | 61.6     | -1.0 | 87 on 29th         | 31 on 10th        |                             |  |  |
| Elizabeth City   | 74.9    | -1.9 | 57.7    | 1.0  | 66.3     | -0.5 | 88 on 16th         | 40 on 12th        |                             |  |  |
| Wakefield  | 73.9    | -4.5 | 53.0    | -0.2 | 63.5     | -2.3 | 89 on 3rd          | 31 on 10th        |                             |  |  |

| May 2020 Precipitation Summary Data |           |       |            |     |          |      |                   |     |             |     |                         |
|-------------------------------------|-----------|-------|------------|-----|----------|------|-------------------|-----|-------------|-----|-------------------------|
|                                     | Total Pre |       | # Pre Days |     | Greatest |      | <b>Total Snow</b> |     | # Snow Days |     | Significance / Remarks  |
| Site                                | (in.)     |       | (≥0.01")   |     | (in.)    |      | (in.)             |     | (≥0.1")     |     | (if Top Ten List, etc.) |
|                                     | Actual    | Dep   | Actual     | Dep | Actual   | Date | Act               | Dep | Act         | Dep |                         |
| Richmond                            | 1.90      | -1.88 | 12         | 1   | 0.92     | 28th | 0.0               | 0.0 | 0           | 0   |                         |
| Norfolk                             | 2.56      | -0.85 | 14         | 3   | 0.84     | 18th | 0.0               | 0.0 | 0           | 0   |                         |
| Salisbury                           | 1.86      | -1.76 | 14         | 3   | 0.37     | 4th  | 0.0               | 0.0 | 0           | 0   |                         |
| Elizabeth City                      | 7.59      | 3.98  | 14         | 3   | 1.73     | 21st | 0.0               | 0.0 | 0           | 0   | 6th Wettest on record   |
| Wakefield                           | 2.76      | -1.35 | 13         | 2   | 0.50     | 30th | 0.0               | 0.0 | 0           | 0   |                         |

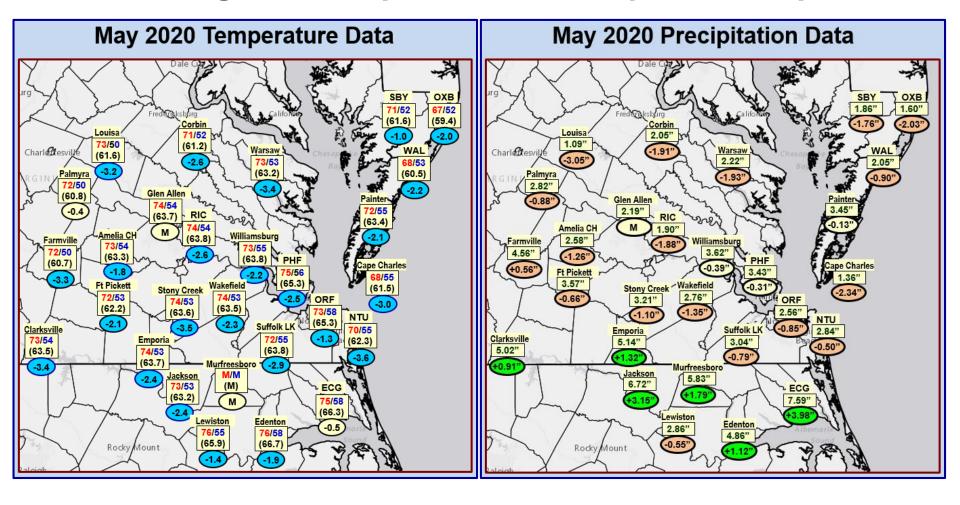
<sup>\* &</sup>quot;Dep"= Departure from the 30-year normals (1981-2010). Temperature departures are shaded orange for 1 F or more warmer than average (dark red for 4 F or greater anomalies) and blue for 1 F or more cooler than average (dark blue for 4 F or more below normal). Similarly, precipitation departures are shaded green for 0.50" or more wetter than average (dark green for 2.00" or more) and tan for 0.50" or more drier than average (brown for 2.00" or more drier). Snowfall departures are shaded purple for 0.5" or more above average and tan for 0.5" or more below average.

# Daily High Temperature Departures at Richmond & Norfolk

| d | May 2 Observed | 2020:<br>Maximur                       | Rich<br>n Temper  | mono<br>rature De | d, VA<br>parture fr      | Fri<br>1                | Sat 2         |  |
|---|----------------|--|-------------------|-------------------|--------------------------|-------------------------|---------------|--|
|   |                |  |                   | - <b>8</b> °      | -2°                      |                         |               |  |
|   | +12°           | ************************************** | 5<br>-16°         | -6°               | 7<br>- <b>8</b> °<br>76· | <sup>8</sup> 71.<br>-5° | -16°          |  |
|   | -8°            | -10°                                   | -12°              | 13 71°<br>-6°     | +2°                      | 15<br>+8°<br>78°        | 16<br>+9°     |  |
|   | 17<br>+1°      | -15°                                   | -14°              | -20°              | 21<br>-9°                | 22<br>+4°               | 23<br>+6°     |  |
|   | 24<br>-11°     | 25<br>-4°                              | <sup>76</sup> -4° | 27 80° 80° 80°    | 28<br>80,<br>-1 °        | 29 85°<br>+ <b>4</b> °  | 30 84.<br>+3° |  |
|   | 31 76·<br>-6°  | 009                                    | 800               | 00°               | 011                      | 010                     | 011           |  |
|   | 82°            |  |                   |                   | NWS Wa                   | kefield - l             | Richmond      |  |



### **Regional Temperature & Precipitation Maps**



**Departures** from the 30-year normals (1981-2010) are shown for both **average temperature** and **total precipitation**. For temperature, the departures are shaded orange for 1 F or more warmer than average and blue for 1 F or more cooler than average (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 and tan for 0.50" or more drier than normal (near normal values are shaded the same color as the precipitation amount box).

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

#### Norfolk, VA Records (Period of Record 147 yrs./1874-2020)

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**Record Highs:** none set.

**Record Low Maximums: none set.** 

**Record Lows: \*40 (10th).** 

**Record High Minimums: none set.** 

Daily Precipitation: none set.

#### Richmond, VA Daily Records (Period of Record 124 yrs./1897-2020)

**Record Highs:** none set.

Record Low Maximums: none set. Record Lows: 32 (10<sup>th</sup>), 38 (12<sup>th</sup>). Record High Minimums: 73 (29<sup>th</sup>).

Daily Precipitation: none set.

#### Salisbury, MD Daily Records (Period of Record 114 yrs./1907-2020)

Record Highs: none set.

**Record Low Maximums:** none set.

**Record Lows: 31 (10<sup>th</sup>).** 

**Record High Minimums: none set.** 

Daily Precipitation: none set.

# Tabular Summary of Data for Main Climate Sites (Spring):

Meteorological Spring (Mar/Apr/May averaged together) ended up near to slightly warmer than normal inland and trended a bit more above normal across far southeast VA and northeast NC (blending a very warm March with a fairly cool May). Total precipitation was variable, generally wetter than normal in the southeast and drier than normal across the northern half of the local area. However, none of the anomalies were that significant and this resulted in no top 10 rankings for either temperature or precipitation for Spring 2020 at our long term climate stations.

| Spring (M      | Spring (Mar/Apr/May) 2020 Temperature Summary Data *also on other dates |      |         |     |          |     |         |       |      |      |                         |  |
|----------------|---|------|---------|-----|----------|-----|---------|-------|------|------|-------------------------|--|
|                | Avg Max   |      | Avg Min |     | Avg Temp |     | Warmest |       | Col  | dest | Significance / Remarks  |  |
| Site           | (°F)  |      | (°F)    |     | (°F)     |     | (°F)    |       | (°F) |      | (if Top Ten List, etc.) |  |
|                | Actual  | Dep  | Actual  | Dep | Actual   | Dep |         | Date  |      | Date |                         |  |
| Richmond       | 69.1  | -0.3 | 47.9    | 1.8 | 58.5     | 0.7 | 88      | *3/29 | 21   | 3/1  |                         |  |
| Norfolk        | 69.0  | 2.0  | 51.8    | 2.7 | 60.4     | 2.3 | 88      | 3/20  | 31   | 3/8  |                         |  |
| Salisbury      | 65.5  | 1.0  | 45.1    | 2.0 | 55.3     | 1.5 | 87      | 5/29  | 24   | 3/1  |                         |  |
| Elizabeth City | 70.7  | 1.7  | 51.6    | 3.6 | 61.2     | 2.7 | 88      | *5/16 | 25   | 3/1  |                         |  |
| Wakefield      | 69.9  | 0.1  | 47.0    | 2.8 | 58.5     | 1.4 | 89      | 5/3   | 19   | 3/1  |                         |  |

| Spring (Mar/Apr/May) 2020 Precipitation & Snowfall Summary Data |           |       |            |     |          |      |                   |      |             |     |                         |
|---|-----------|-------|------------|-----|----------|------|-------------------|------|-------------|-----|-------------------------|
|   | Total Pre |       | # Pre Days |     | Greatest |      | <b>Total Snow</b> |      | # Snow Days |     | Significance / Remarks  |
| Site  | (in.)     |       | (≥0.01")   |     | (in.)    |      | (in.)             |      | (≥0.1")     |     | (if Top Ten List, etc.) |
|   | Actual    | Dep   | Actual     | Dep | Actual   | Date | Act               | Dep  | Act         | Dep |                         |
| Richmond  | 9.27      | -1.82 | 41         | 10  | 1.70     | 4/30 | 0.0               | -0.7 | 0           | -1  |                         |
| Norfolk   | 12.34     | 1.84  | 38         | 7   | 1.63     | 4/30 | 0.0               | -0.3 | 0           | -1  |                         |
| Salisbury   | 8.11      | -3.48 | 44         | 11  | 0.66     | 4/13 | 0.0               | -1.0 | 0           | -1  |                         |
| Elizabeth City  | 15.76     | 5.03  | 36         | 6   | 1.73     | 5/21 | 0.0               | -0.1 | 0           | 0   |                         |
| Wakefield   | 11.52     | -0.48 | 45         | 14  | 2.35     | 4/30 | 0.0               | -0.5 | 0           | -1  |                         |

<sup>\* &</sup>quot;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.