## PAGE \#1

July 2018 West Henrico Co. - Glen Allen Weather Center 37.65537 N. $77.56929^{\circ}$ W. - Koontz


| PAGE \＃2 <br> 20 | July <br> 21 | $2018$ | West Henrico Co．－Glen Allen Weather Center 37．65537${ }^{\circ}$ N． $77.56929^{\circ}$ W．－Koontz |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 | 33 | 34 | 35 | 36 | 37 | 38 |
|  | 2nd PERIOD |  | WIND |  |  | REL．HUMIDITY |  | BAROMETRIC PRESSURE |  |  |  | GLAZE | SLEET | SNOW | FOG | $1<$ | DEW | FROST |
| 2018 | START | END | RUN | MAX． | TIME | MAX． | MIN． | MAX． | MIN． | AVE． | CHANGE |  |  |  |  |  |  |  |
| $\begin{aligned} & \text { Jul-01 } \\ & \text { Jul-02 } \\ & \text { Jul-03 } \\ & \text { Jul-04 } \\ & \text { Jul-05 } \end{aligned}$ |  |  | 27.4 | 10 | 15：56 | 97 | 42 | 30.10 | 30.01 | 30.06 | －0．02 |  |  |  |  |  | 4 |  |
|  |  |  | 41.6 | 12 | 14：12 | 94 | 51 | 30.09 | 30.02 | 30.06 | 0.00 |  |  |  |  |  | 3 |  |
|  |  |  | 43.3 | 11 | 14：14 | 95 | 54 | 30.20 | 30.08 | 30.14 | 0.09 |  |  |  |  |  | 3 |  |
|  |  |  | 46.9 | 12 | 14：27 | 95 | 58 | 30.27 | 30.19 | 30.23 | 0.09 |  |  |  |  |  | 3 |  |
|  |  |  | 34.4 | 12 | 20：47 | 96 | 54 | 30.31 | 30.17 | 30.24 | 0.01 |  |  |  |  |  | 4 |  |
| $\begin{aligned} & \text { Jul-06 } \\ & \text { Jul-07 } \\ & \text { Jul-08 } \\ & \text { Jul-09 } \\ & \text { Jul-10 } \\ & \hline \end{aligned}$ | 1610 | 1650 | 77.8 | 17 | 15：52 | 96 | 66 | 30.19 | 30.04 | 30.12 | －0．13 |  |  |  |  | 2 | 1 |  |
|  |  |  | 103.2 | 18 | 5：56 | 97 | 58 | 30.31 | 30.11 | 30.21 | 0.09 |  |  |  |  |  | P |  |
|  |  |  | 85.4 | 17 | 10：46 | 92 | 46 | 30.35 | 30.26 | 30.31 | 0.09 |  |  |  |  |  | 4 |  |
|  |  |  | 32.6 | 11 | 10：05 | 99 | 39 | 30.30 | 30.10 | 30.20 | －0．10 |  |  |  |  |  | 5 |  |
|  |  |  | 28.4 | 13 | 14：58 | 96 | 43 | 30.11 | 29.90 | 30.01 | －0．20 |  |  |  |  |  | 4 |  |
| $\begin{aligned} & \text { Jul-11 } \\ & \text { Jul-12 } \\ & \text { Jul-13 } \\ & \text { Jul-14 } \\ & \text { Jul-15 } \\ & \hline \end{aligned}$ | 1918 | 1923 | 31.9 | 13 | 14：01 | 95 | 59 | 30.03 | 29.90 | 29.97 | －0．04 |  |  |  |  | 1 | 3 |  |
|  |  |  | 73.8 | 15 | 14：33 | 96 | 54 | 30.18 | 30.02 | 30.10 | 0.14 |  |  |  |  |  | P |  |
|  |  |  | 57.5 | 14 | 15：20 | 98 | 49 | 30.23 | 30.15 | 30.19 | 0.09 |  |  |  |  |  | 5 |  |
|  |  |  | 40.4 | 14 | 15：30 | 97 | 35 | 30.22 | 30.07 | 30.15 | －0．04 |  |  |  |  |  | 4 |  |
|  |  |  | 67.4 | 14 | 13：42 | 92 | 51 | 30.11 | 29.96 | 30.04 | －0．11 |  |  |  |  |  | 2 |  |
| $\begin{aligned} & \text { Jul-16 } \\ & \text { Jul-17 } \\ & \text { Jul-18 } \\ & \text { Jul-19 } \\ & \hline \end{aligned}$ |  |  | 84.0 | 17 | 17：00 | 82 | 55 | 30.02 | 29.92 | 29.97 | －0．07 |  |  |  |  |  | N |  |
|  | 1510 | 2135 | 100.6 | 24 | 17：06 | 97 | 63 | 29.95 | 29.78 | 29.87 | －0．10 |  |  |  |  | 3 | N |  |
|  |  |  | 57.6 | 15 | 17：35 | 97 | 46 | 30.00 | 29.88 | 29.94 | 0.07 |  |  |  |  |  | P |  |
|  |  |  | 47.3 | 12 | 13：38 | 93 | 41 | 30.10 | 30.00 | 30.05 | 0.11 |  |  |  |  |  | 3 |  |
|  |  |  | 55.0 | 13 | 17：31 | 97 | 46 | 30.12 | 30.00 | 30.06 | 0.01 |  |  |  |  |  | 4 |  |
| $\begin{aligned} & \text { Jul-21 } \\ & \text { Jul-22 } \\ & \text { Jul-23 } \\ & \text { Jul-24 } \\ & \text { Jul-25 } \end{aligned}$ | 2110 | 2315 | 82.9 | 17 | 16：54 | 97 | 79 | 30.01 | 29.70 | 29.86 | －0．21 |  |  |  |  |  | N |  |
|  | 1730 | 1735 | 42.3 | 32 | 17：08 | 99 | 69 | 29.86 | 29.73 | 29.80 | －0．06 |  |  |  |  | 1 | P |  |
|  | 0725 | 0820 | 79.1 | 18 | 12：26 | 97 | 76 | 30.02 | 29.83 | 29.93 | 0.13 |  |  |  |  | 2 | P |  |
|  | 1405 | 1645 | 78.5 | 20 | 13：01 | 97 | 86 | 30.03 | 29.95 | 29.99 | 0.07 |  |  |  |  |  | P |  |
|  | 1500 | 1730 | 66.0 | 24 | 15：29 | 96 | 74 | 29.99 | 29.84 | 29.92 | －0．08 |  |  |  |  | 1 | 3 |  |
| Jul－26 <br> Jul－27 <br> Jul－28 <br> Jul－29 <br> Jul－30 <br> Jul－31 |  |  | 29.7 | 10 | 15：51 | 100 | 59 | 29.98 | 29.88 | 29.93 | 0.02 |  |  |  | 5 |  | 4 |  |
|  | 1745 | 1815 | 30.9 | 24 | 13：20 | 97 | 58 | 30.01 | 29.95 | 29.98 | 0.05 |  |  |  |  | 3 | 4 |  |
|  |  |  | 27.8 | 11 | 18：42 | 98 | 60 | 30.07 | 29.96 | 30.02 | 0.04 |  |  |  | 1 | 1 | P |  |
|  |  |  | 50.0 | 11 | 7：56 | 97 | 62 | 30.13 | 30.05 | 30.09 | 0.07 |  |  |  |  |  | 5 |  |
|  | 0810 | 1015 | 38.1 | 13 | 17：25 | 97 | 85 | 30.11 | 30.04 | 30.08 | －0．02 |  |  |  |  |  | P |  |
|  | 1840 | 2020 | 26.5 | 12 | 16：55 | 98 | 71 | 30.10 | 30.01 | 30.06 | －0．02 |  |  |  |  |  | P |  |
| TOTAL <br> NUMBER <br> AVE． | Column 23 |  | 1688.3 <br> 31 | 476 |  | 2974 | 1789 | 933.50 | 929.50 | 931.50 | TOTAL | 0 | 0 | 0 | 2 | 8 | 19 | 0 |
|  | Mar．Wind Run |  |  | 31 | 31 | 31 | 31 | 31 | 31 | 31 | Normal | 0.0 | 0.0 | 0.0 | 1.7 | 6.8 | 17.7 | 0.0 |
|  | Total | 1688.3 | 54.5 | 15.4 | 14：46 | 95.94 | 57.71 | 30.11 | 29.98 | 30.05 | Depart． | 0.0 | 0.0 | 0.0 | 0.3 | 1.2 | 1.3 | 0.0 |
| NORMALS | Miles | 1244.7 | 57.7 | 18.9 |  | 92.3 | 46.7 | 30.03 | 29.91 | 29.97 | Rating | 0 | 0 | 0 | 6 | 14 | 68 | 0 |
| Departures | Miles | 443.6 | －3．2 | －3．6 |  | 3.7 | 11.0 | 0.09 | 0.07 | 0.07 | Intensity | $\stackrel{\amalg}{N}$ | $\begin{aligned} & \text { 岀 } \\ & \text { 山 } \end{aligned}$ | 3 | サ্ర |  | 3 | 莿 |
|  | $\begin{array}{r\|} \hline \text { MAXIMUM } \\ \text { DATES } \end{array}$ | $\begin{array}{\|c\|} \hline \text { Dates } \\ 1 \\ 2 \\ 3 \\ 4 \\ \hline \end{array}$ | $\begin{aligned} & \hline 103.2 \\ & \text { Jul-07 } \end{aligned}$ | $\begin{gathered} 32 \\ \text { Jul-22 } \end{gathered}$ | SE <br> 17：08 <br> Ave．Max． | $\begin{gathered} 100 \\ \text { Jul-26 } \end{gathered}$ | $\begin{gathered} \hline 86 \\ \text { Jul-24 } \end{gathered}$ | $\begin{aligned} & 30.35 \\ & \text { Jul-08 } \end{aligned}$ | $\begin{aligned} & 30.26 \\ & \text { Jul-08 } \end{aligned}$ | 30.31 <br> Jul－08 | 0.14 <br> Jul－12 |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  | 5．Very Heavy to Extreme <br> 4．Heavy－Unusual <br> 3．Moderate－Ave． <br> 2．Light－＜Ave． <br> 1．Very Light－Slight－Trace <br> M－Event with intensity missing <br> N－None No Dew Obs． <br> P－Precap．prevent obs． |  |  |  |  |  |  |
|  | MINIMUM DATES | $\begin{array}{\|c\|} \hline \text { Dates } \\ 1 \\ 2 \\ \hline \end{array}$ | $\begin{gathered} 26.5 \\ \text { Jul-31 } \end{gathered}$ | $\begin{gathered} \hline 10 \\ \text { Jul-01 } \\ \text { Jul-26 } \\ \hline \end{gathered}$ | $\begin{gathered} 28.0 \\ \text { Dep. } \\ 4.0 \\ \hline \end{gathered}$ | $\begin{gathered} \hline 82 \\ \text { Jul-16 } \end{gathered}$ | $\begin{gathered} 35 \\ \text { Jul-14 } \end{gathered}$ | $\begin{aligned} & 29.86 \\ & \text { Jul-22 } \end{aligned}$ | $\begin{aligned} & \hline 29.70 \\ & \text { Jul-21 } \end{aligned}$ | $\begin{aligned} & 29.80 \\ & \text { Jul-22 } \end{aligned}$ | $\begin{gathered} \hline-0.21 \\ \text { Jul-21 } \end{gathered}$ |  |  |  |  |  |  |  |
| Days Min．$<=32{ }^{\circ} \mathrm{F}$ <br> Days Min $>=70^{\circ} \mathrm{F}$ |  | $\begin{gathered} \hline 0 \\ 17 \\ \hline \end{gathered}$ | $\begin{gathered} \leq 75 \\ 28 \end{gathered}$ | $\begin{gathered} \leq 70 \\ 15 \end{gathered}$ | $\begin{gathered} \leq 65 \\ 7 \\ \hline \end{gathered}$ | $\begin{gathered} \leq 60 \\ 2 \\ \hline \end{gathered}$ | $\begin{gathered} \leq 55 \\ 0 \end{gathered}$ | $\begin{gathered} \leq 50 \\ 0 \end{gathered}$ | $\begin{gathered} \leq 45 \\ 0 \end{gathered}$ | $\begin{gathered} \leq 40 \\ 0 \end{gathered}$ | $\begin{gathered} \leq 35 \\ 0 \end{gathered}$ |  |  |  |  |  |  |  |

## REMARKS FOR THE MONTH

July - 2018
VERY CLEAR AM THEN CUMULUS CAME IN AROUND NOON THEN A MIXTURE OF CUMULUS AND CIRRUS
VERY HOT DAY AND MOSTLY CLEAR EXCEPT A FEW FAIR WEATHER CUMULUS FROM NOON TO 1500
AM CLEAR UNTIL 0920 AND MOSTLY CLOUDY 0930 TO 1030 WITH ALTOCUMULUS \& MOSTLY CLOUDY THEN PARTLY CLOUDY TO 1630 THEN CLEAR TO DARK
PARTLY CLOUDY WITH CIRRUS TO 0850 THEN PARTLY CLOUDY WITH CUMULUS FROM 0850 TO 1900 THEN CLOUDY WITH CIRRUS UNTIL 2030 FOLLOWED BY CLEAR UNTIL DARK
CUMULUS ALL DAY WITH A HIGH DEW POINT OF $76.6^{\circ} \mathrm{F}$ AT 1424 AND NO RAIN FOR THE PAST 11 DAYS
3RD PD. OF RAIN 1840-1930, 4TH PD 2030-2210-TS RATING 2-2-2
STATIONARY FRONT NOW TO SOUTH IN NC ORIGINATING FROM COLD FRONT THAT PASSED GLEN ALLEN
COOL AM - COOLEST SINCE MAY 9,2018 WHEN IT WAS $48.8^{\circ} \mathrm{F}$-VERY CLEAR \& A VERY HEAVY DEW
VERY COOL FOR JULY-ONLY JULY 5, 2014 WAS COOLER BY $1.6^{\circ} \mathrm{F}$ \& A VERY CLEAR DAY
BACK TO JULY HIGH TEMPS. BUT REL. HUMIDITY IS STILL LOWER THAN AVERAGE FOR JULY
3RD PD. OF RAIN WITH THUNDER 2110-2200-AM WAS ABOUT 50-60\% CLOUDY \& PM WAS 75-80\% CLOUDY- TS RATING 1-2-2
MOSTLY SUNNY EXCEPT CUMULUS FROM 1015-1500-AM EST. 15-25\% AND PM EST. 25-35\% CLOUDY
CLOUDY TO 1000 THEN PC TO MOSTLY TO 1200-PM MOSTLY CLOUDY TO 1400 \& PC WITH CUMULUS TO 1650 THEN CIRRUS
VERY CLEAR DAY - NO CLOUDS SEEN-AM COOL WITH A LOW DEW POINT OF $57^{\circ} \mathrm{F}$ AT 1152 \& TODAY HAD A LARGE TEMP. RANGE
MUCH WARMER TODAY WITH A MAX. DEW POINT OF $76.6^{\circ} \mathrm{F}$ WITH CIRRUS IN AM \& ALMOSTLY COMPLETE SKY COVERAGE BUT SOME SOLAR ENERGY PASSING THROUGH
HOT WITH A $78^{\circ} \mathrm{F}$ DEW POINT AT 1413-CLOUDY AM WITH CLOUDS STARTING TO CLEAR AT 1120
THUNDER TO NORTH AT ABOUT 1400 \& THEN TO WEST 1500-1600- TS RATING 3-3-3
COLD FRONT PASSAGE AT 0330-EARLY FIBROUS THIN CIRRUS CLOUDS THAT CLEARED AT 0915 \& A PLEASANT JULY DAY FOR GLEN ALLEN
DEW WAS RATED AS A STRONG 3-10 YEAR REC. LOW MIN.-AM PARTLY CLOUDY WITH MOSTLY CIRRUS AND PM WAS CLOUDY WITH CUMULUS, CIRROSTRATUS AND ALTOSTRATUS
CLOUDY WITH COOLER THAN AVERAGE TEMP.
AN ALL DAY RAIN WITH COOL PLEASANT TEMPS. \& A BREEZYY PM FROM A COASTAL LOW
3RD PD. OF PRECIP. 2005-2025-CLOUDY MOST OF DAY-ONE THUNDER HEARD - TS RATING 1-4-2
LIGHTNING 0456-0530, TS RATED 2-2-2 - 3RD PD. OF SPRINKLES 1320-1540- CLOUDY MOST OF DAY AND VERY HUMID MAX. DEW POINT $74.7^{\circ} \mathrm{F}$
3RD PD. OF DRIZZLE 0905-1910 AND 1955-2000 BUT VERY LITTLE RAIN TODAY
3RD RAIN PD. 2000-2020 BUT HEAVY RAIN BET. 1530-1600 - TS rating 1-3-3
VERY HEAVY FOG - MOST SUN SINCE JULY 19TH AND WARMEST SINCE 17TH
TS RATING 3-3-1 PASSED TO NW AND NORTH- AVE. AMOUNT OF THUNDER BUT AT A DISTANCE WITH LITTLE RAIN-VERY HUMID MAX. DEW POINT $78.9^{\circ}$ F AT 1215
NOT AS WARM BUT STILL HUMID AND CLOUDY PM WITH TS RATING 1-2-2
AFTER A CLOUDY AM THE SKY BECAME PC FROM 1430-1615 THEN CLOUDY BETWEEN 1800-1900-PM EST. 60-70\% CLOUDY
3RD PD. OF PRECIP. 1220-1310, 4TH PD. 1430-1605-A RAINY DAY WITH HIGH DEW POINT OF $73.5^{\circ} \mathrm{F}$ - LOW TEMP. BUT NOT COMFORTABLE BECAUSE OF DEW POINT

EXTENSION OF LENGTHY DAILY REMARKS
The maximum temperature on the 10 th was $93.1^{\circ} \mathrm{F}$, a new 10 -year daily HIGH maximum temperature record for the date - the old record was $91.4^{\circ} \mathrm{F}$ in 2017. The daily temperature range on the 10 th was $30.5^{\circ} \mathrm{F}$, a new 10 -year HIGH daily temperature range record for the date - the old record was $24^{\circ} \mathrm{F}$ in 2011 .

The minimum temperature on the 14 th was $60.2^{\circ} \mathrm{F}$, a new 10 -year LOW daily minimum temperature record for the date - the old record was $64{ }^{\circ} \mathrm{F}$ in 2009 . The daily temperature range on the 14 th was $29.6^{\circ} \mathrm{F}$, a new 10 -year HIGH daily temperature range record for the date - the old record was $24.7^{\circ} \mathrm{F}$ in 2016 .

West Henrico Co. - Glen Allen Weather Center $37.65537^{\circ}$ N. $77.56929^{\circ}$ W. - Koontz DAILY RECORDS FOR THE MONTH

## The Glen Allen Station had 29 Records or Record Ties in July 2018

The minimum temperature on the 3rd was $76.9^{\circ} \mathrm{F}$, a new 10 -year warm daily minimum temperature record for the date - the old record was $73^{\circ} \mathrm{F}$ in 2014.
The minimum temperature on the 4th was $73.3^{\circ} \mathrm{F}$, a new 10 -year warm daily minimum temperature record for the date - the old record was $73^{\circ} \mathrm{F}$ in 2013.

The maximum temperature on the 7th was $79.4^{\circ} \mathrm{F}$, a new 10 -year cool daily maximum temperature record for the date - the old record was $86^{\circ}$ F in 2008 . The minimum temperature on the 8th was $56.1^{\circ} \mathrm{F}$, a new 10 -year LOW daily minimum temperature record for the date - the old record was $66^{\circ} \mathrm{F}$ in 2009 . The maximum temperature on the 8th was $82.2^{\circ} \mathrm{F}$, a new 10 -year cold daily maximum temperature record for the date - the old record was $84^{\circ} \mathrm{F}$ in 2009 . The minimum temperature on the 9th was $55.8^{\circ} \mathrm{F}$, a new 10 -year LOW daily minimum temperature record for the date - the old record was $63^{\circ} \mathrm{F}$ in 2009 . The daily temperature range on the 9th was $31.4^{\circ} \mathrm{F}$, a new 10 -year HIGH daily temperature range record for the date - the old record was $23.3^{\circ} \mathrm{F}$ in 2017 . The minimum temperature on the 10 th was $62.6^{\circ} \mathrm{F}$, a new 10 -year LOW daily minimum temperature record for the date - the old record was $65^{\circ} \mathrm{F}$ in 2009.

The maximum temperature on the 18 th was $86^{\circ} \mathrm{F}$, a new 10 -year cool daily maximum temperature record for the date - the old record was $87^{\circ} \mathrm{F}$ in 2014 .
The minimum temperature on the 19th was $62.8^{\circ} \mathrm{F}$, a new 10 -year LOW daily minimum temperature record for the date - the old record was $64^{\circ} \mathrm{F}$ in 2009 .

The daily precipitation on the 21st was 1.15 inches, a new 10 -year HIGH daily precipitation record for the date - the old record was 0.52 inches in 2013. The maximum temperature on the 21 st was $74.4^{\circ} \mathrm{F}$, a new 10 -year cool daily maximum temperature record for the date - the old record was $78^{\circ} \mathrm{F}$ in 2012. The minimum temperature on the 22nd was $64.2^{\circ} \mathrm{F}$, a new 10 -year LOW daily minimum temperature record for the date - the old record was $68.9^{\circ} \mathrm{F}$ in 2015. The daily precipitation on the 22nd was 0.11 inches, a new 10-year HIGH daily precipitation record for the date - the old record was 0.02 inches in 2012. The maximum temperature on the 22nd was $84.5^{\circ} \mathrm{F}$, a new 10 -year cool daily maximum temperature record for the date - the old record was $85^{\circ} \mathrm{F}$ in 2012 . The maximum temperature on the 23 rd was $83^{\circ} \mathrm{F}$, a new 10 -year cool daily maximum temperature record for the date - the old record was $86.4^{\circ} \mathrm{F}$ in 2015 . The daily temperature range on the 23 rd was $11.7^{\circ} \mathrm{F}$, a new 10 -year LOW daily temperature range record for the date - the old record was $16^{\circ} \mathrm{F}$ in 2013 and 2009.
The maximum temperature on the 24th was $79.8^{\circ} \mathrm{F}$, a new 10 -year cool daily maximum temperature record for the date - the old record was $84^{\circ} \mathrm{F}$ in 2014 . The daily temperature range on the 24th was $6.3^{\circ} \mathrm{F}$, a new 10 -year LOW daily temperature range record for the date - the old record was $16^{\circ} \mathrm{F}$ in 2013 .
The daily precipitation on the 25 th was 0.87 inches, a new 10 -year HIGH daily precipitation record for the date - the old record was 0.10 inches in 2011. The daily temperature range on the 25 th was $14.0^{\circ} \mathrm{F}$, a new 10 -year LOW daily temperature range record for the date - the old record was $15^{\circ} \mathrm{F}$ in 2013 .

The maximum temperature on the 30th was $78.2^{\circ} \mathrm{F}$, a new 10 -year cool daily maximum temperature record for the date - the old record was $81.7^{\circ} \mathrm{F}$ in 2017 . The daily temperature range on the 30 th was $5^{\circ} \mathrm{F}$, a new 10 -year LOW daily temperature range record for the date - the old record was $11.2^{\circ} \mathrm{F}$ in 2016 .

## JULY TEMPERATURE GRAPH



