

PAGE \#
Nov 2020 ${ }^{5}{ }^{\circ} \mathrm{F}$ $4-5$ Co. - Glen Allen Weather Center $37.65537^{\circ}$ N. $77.56929^{\circ}$ W. - Koontz


Nov 2020 West Henrico Co. - Glen Allen Weather Center $37.65537^{\circ}$ N. $77.56929^{\circ}$ W. - Koontz

RAIN MOST OF AM WITH A QUICK CLEARING AT 1300 FOR 15 MINS. THEN CLOUDS AGAIN FOR 30 MINS. THEN CLEARING AGAIN FOR REST OF PM
NO DEW BECAUSE OF NIGHT WIND-A VERY CLEAR DAY WITH A 29\% MIN. REL. HUMIDITY
NO DEW BECAUSE OF NIGHT WIND-AM MAX. RH 74\% THE 90\% CAME AT MIDNIGHT
TRACE OF FROST ON ROOFS-NO CLOUDS SEEN TODAY BUT WARMER WITH A LOW RH-GREAT FALL AFTERNOON
CIRRUS CLOUDS CAME IN AT 0800 AND VERY THIN UNTIL 1535 THEN CLOUDY TO SUNSET
THIN CIRRUS FROM SUNRISE TO 1045 THEN VERY CLEAR AFTER 1145 TO SUNSET
WARM FOR NOV. WITH A VERY CLEAR SKY AND A LARGE TEMP. RANGE OF $32.6^{\circ} \mathrm{F}$
FOG LEVEL WAS ABOUT 30 FEET ABOVE GROUND LEVEL AND WAS THE HEAVIEST AT 0645-0650-FOG CLEARED BY 0710 AND SKY WAS VERY CLEAR TO 1345 THEN A FEW FAIR WEATHER
REC. HIGH MAX. AND MIN TEMPERATURES FOR 3RD DAY CONSECUTIVELY THE 7-9TH-CUMULUS FROM 1215-1415 OTHERWISE VERY CLEAR WITH DEEP BLUE SKY
ONLY A FEW CLOUDS TO 1100 THEN PC REST OF DAY-ANOTHER REC. MAX. AND MIN. TODAY THE HOTTEST ON REC. FOR THE DATE.
DEW ON GRASS ONLY MADE BE EXPLAINED BY GUTTATION THEN RAIN CAME IN FOR MOST OF REST OF DAY
3RD PD. OF PRECIP. 0955-1415, 4TH PD. 1510-1535
DRIZZLE OVERNIGHT GIVING 0.03 INCHES-CLEARING STARTED AT 1045 BUT AM WAS EST. AT 70\% CLOUDY-PM HAD VARIABLE CLOUDINESS AND EST. 45-50\% CLOUDY
CLEAR TO 1230 THEN INCREASING CLOUDS AND MOSTLY CLOUDY BY 1415
WINDY DAY WITH A 33 MPH GUST AT 1338 BUT ONLY A TRACE OF RAIN FROM A COLD FRONT THAT PASSED AT 2040
NO CLOUDS ALL DAY AND LOW RH OF 29\% AT 1304 AND BREEZY-NO OVERNIGHT DEW
CLEAR AM - CLOUDS CAME IN AT 1115 \& PM WAS MOSTLY CLOUDY WITH STRATOCUMULUS-ANOTHER DRY COLD FRONT PASSED GIVING WINDS TO 23 MPH AT 1705 \& CLEARING AT SUNSET
FIRST KILLING FROST-COLDEST SINCE MARCH 8, 2020 WHEN IT WAS $25.4^{\circ} \mathrm{F}$-COLD FOR NOV. BUT SUNNY NO CLOUDS AND LOW RH OF $38 \%$ AT 1233
COLDEST SINCE MARCH 8, 2020 WHEN IT WAS $25.4^{\circ} \mathrm{F}$ - HEAVY KILLING FROST ON BOTH 18TH AND 19TH-THIN CIRRUS FROM 0915-1400
AM REL. HUMIDITY 70\% AND NO DEW-A WINDY DAY BUT MUCH WARMER AND VERY SUNNY-NO CLOUDS SEEN
SOME THIN AM CIRRUS BECAME THICKER IN PM AND CLOUDY AFTER 1540
THIN AM CIRRUS OVERCAST THAT INCREASED IN PM TO ALTOSTRATUS OVERCAST
QUICK AM CLEARING AFTER COLD FRONT PASSAGE AT 0910-AM 55\% CLOUDY AND PM TOTALLY CLEAR
CLOUDS CAME IN AT 1230 AND LEFT AT 1430 AND RETURNED AT 1530
CLOUDY BREEZY DAY-NO DEW BECAUSE OF NIGHT WIND
CLEARING STARTED AT 1145 AND CLEAR BY NOON AND A VERY WARM THANKSGIVING
DEW ONLY ON GRASS - GUTTATION EXPECTED CAUSE-AM EST. 40\% CLEAR AND PM EST. 5-10\% CLOUDY
SCATTERED CUMULUS BUT NOT ENOUGH TO CALL THE DAY PC-STILL WARM
CIRRUS CAME IN AT 1115 BUT NOT MUCH COVERAGE UNTIL 1300 AND TOTALLY CLOUDY BY 1445 AS A LOW PRESSURE APPROACHING WILL PASS TO OUR WEST
OVERNIGHT RAIN FROM LOW PRESSURE PASSING TO OUR WEST WITH WINDS GUST TO 30 MPH AND THE TOTAL RAINFALL WAS 1.04 INCHES.
DATE
CUMULUS TO 1530 THEN SOME THIN CIRRUS AGAIN UNTIL DARK

Nov-11-12

The daily records for the month are listed on page \# 4 and not found in the remarks.
The link below explains how observations are taken at the Glen Allen Weather Station - Note the Numbers match the column numbers on the Observation Sheet Rules for making Observations in 2020

| Page 4 | West Henrico Co. - Glen Allen Weather Center $37.65537^{\circ}$ N. $77.56929^{\circ}$ W. - Koontz DAILY RECORDS FOR THE MONTH |
| :---: | :---: |
| Nov |  |
| 2020 | The Springfield Park Station had 20 Records or Record Ties in November 2020 |
| 1 |  |
| 2 |  |
| 3 |  |
| 4 | The daily temperature range on the 4th was 32.3\°F, a new 12-year HIGH daily temperature range record for the date - the old record was 31.7\°F in 2019. |
| 5 | The daily temperature range on the 5th was 32.7\°F, a new 12-year HIGH daily temperature range record for the date - the old record was 30\°F in 2019. |
| 6 |  |
| 7 | The maximum temperature on the 7th was 77.7\°F, a new 12-year daily HIGH maximum temperature record for the date - the old record was 75\°F in 2008. |
|  | The daily temperature range on the 7th was 32.6\°F, a new 12-year HIGH daily temperature range record for the date - the old record was 32\°F in 2011. |
| 8 | The minimum temperature on the 8th was 49.7\°F, a new 12-year warm daily minimum temperature record for the date - the old record was 49\°F in 2018. |
|  | The maximum temperature on the 8th was 77\°F, a new 12 -year daily HIGH maximum temperature record for the date - the old record was 76\°F in 2009. |
| 9 | The minimum temperature on the 9th was 48.3\°F, a new 12 -year warm daily minimum temperature record for the date - the old record was 47.6\°F in 2018. |
|  | The maximum temperature on the 9th was 77.6\°F, a new 12-year daily HIGH maximum temperature record for the date - the old record was 74\°F in 2009. |
| 10 | The minimum temperature on the 10th was 57.5\°F, a new 12 -year warm daily minimum temperature record for the date - the old record was 52\°F in 2009. |
|  | The maximum temperature on the 10th was 78.9\°F, a new 12-year daily HIGH maximum temperature record for the date - the old record was 71\°F in 2012. |
| 11 | The minimum temperature on the 11th was 67.6\°F, a new 12 -year warm daily minimum temperature record for the date - the old record was 47\°F in 2009. |
|  | The daily temperature range on the 11th was 5.5\°F, a new 12 -year LOW daily temperature range record for the date - the old record was 98deg;F in 2009. |
| 12 | The minimum temperature on the 12th was 50.8\°F, a new 12 -year warm daily minimum temperature record for the date - the old record was 50\°F in 2012. |
| 13 | The minimum temperature on the 13th was 49\°F, a new 12-year warm daily minimum temperature record for the date - the old record was 47\°F in 2011. |
|  | The maximum temperature on the 13th was 67.3\°F, a new 12-year daily HIGH maximum temperature record for the date - the old record was 67\°F in 2010. |
| 14 |  |
| 15 |  |
| 16 |  |
| 17 |  |
| 18 |  |
| 19 |  |
| 20 |  |
| 21 | The maximum temperature on the 21st was 72.5\°F, a new 12-year daily HIGH maximum temperature record for the date - the old record was 68\°F in 2011. |
|  | The daily temperature range on the 21st was 30.6\°F, a new 12-year HIGH daily temperature range record for the date - the old record was 28\°F in 2019 and 2015. |
| 22 |  |
| 23 |  |
| 25 |  |
| 26 | The maximum temperature on the 26th was 74.7\°F, a new 12-year daily HIGH maximum temperature record for the date - the old record was 70\°F in 2011. |
|  | The minimum temperature on the 26 th was $53.5 \& \mathrm{deg}$; F , a new 12 -year warm daily minimum temperature record for the date - the old record was 43\°F in 2010. |
| 27 |  |
| 28 |  |
| 29 |  |
| 30 | The daily precipitation on the 30th was 1.00 inches, a new 12 year HIGH daily precipitation record for the date - the old record was 0.57 inches in 2016. |
|  |  |
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## Springfield Park, Glen Allen November 2020

This November's mean of $54.7^{\circ} \mathrm{F}$, a departure of $6.1^{\circ} \mathrm{F}$ from the 12 -year ave., was the warmest on record. The highest daily mean temp. was $70.4^{\circ} \mathrm{F}$ on the $11^{\text {th }}$ which was the $3^{\text {rd }}$ highest on record and had the highest dew point on record for November.

November was the $5^{\text {th }}$ wettest on record (records since 2008) as the monthly precipitation was 4.35 inches, a 0.79 inches departure when compared with Springfield Park's 12-year average. Precipitation occurred on 9 days in November and the $2^{\text {nd }}$ clearest on record; the previous record was 2010.

The highest maximum temperature for November was $78.9^{\circ} \mathrm{F}$ on the $10^{\text {th }}$ which was the $4^{\text {th }}$ warmest on record for November. This month also had 6 days equal to or warmer than $75^{\circ} \mathrm{F}$ which was a record for November. The average maximum temperature was $66.8^{\circ} \mathrm{F}$ with a departure of $7.0^{\circ} \mathrm{F}$ which was a new record maximum average for November. The ave. min. temp. was $42.5^{\circ} \mathrm{F}$ which was the $2^{\text {nd }}$ highest on record for November. The lowest minimum was $26.3^{\circ} \mathrm{F}$ recorded on the $19^{\text {th }}$ which was the $3^{\text {rd }}$ highest for November. The highest minimum was $67.6^{\circ} \mathrm{F}$ which was a $9.7^{\circ} \mathrm{F}$ departure, a new record for November. There were only 3 days that the minimum temperature was less than or equal to $32^{\circ} \mathrm{F}$ which was -5.9 days less than average. The average ground temp. at 1 foot was $56.9^{\circ} \mathrm{F}$ a $3.0^{\circ} \mathrm{F}$ departure and the highest on record for November. There was no snow recorded in November at Springfield Park. The maximum wind gust was only 33 mph from the SSW on the $15^{\text {th }}$. The lowest barometer was 29.36 inches on the $30^{\text {th }}$ and was the $2^{\text {nd }}$ lowest on record for November.

| 2020 |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |

This autumn was $1.4^{\circ} \mathrm{F}$ warmer than ave. based on a 12 -year ave. as both Oct \& Nov were above ave. Glen Allen's 2020 average autumn temp. was $61.9^{\circ} \mathrm{F}$ the $2^{\text {nd }}$ warmest autumn on record.
Glen Allen had the $3^{\text {rd }}$ wettest autumn with 16.61 inches of precipitation and a departure of 4.88 inches.

## Richmond International Airport

The November mean temperature was $54.6^{\circ} \mathrm{F}$ which was the $4^{\text {th }}$ warmest since 1880 with a departure from normal of $4.2^{\circ} \mathrm{F}$. The years that were warmer were $1985,1902,1896$.

The 4.43 inches of precipitation was a departure of 1.19 inches making this month the $25^{\text {st }}$ wettest November of the past 133 years. November had only 7 days with measurable precipitation. The Airport's greatest daily precipitation was 1.48 inches on the $30^{\text {th }}$. There was no snow in November at the Airport.

The warmest day was November $10^{\text {th }}$ with $78^{\circ} \mathrm{F}$ and the lowest temperature was $27^{\circ} \mathrm{F}$ on the $19^{\text {th }}$. The average maximum was $66.3^{\circ} \mathrm{F}$ which was a departure of $4.9^{\circ} \mathrm{F}$ and the $4^{\text {th }}$ highest on record since 1897. The average min. was $42.9^{\circ} \mathrm{F}$ which was a departure of $3.5^{\circ} \mathrm{F}$ and the $7^{\text {th }}$ highest on record since 1897. The warmest daily minimum was $62^{\circ} \mathrm{F}$ on the $11^{\text {th }}$ and only 20 Novembers have been higher. The Airport had 12 days the maximum temp was $70^{\circ} \mathrm{F}$ or higher and only 3 days the minimum temp. was $32^{\circ} \mathrm{F}$ or less.

The Airport had 2 daily records for the month.
The minimum of $62^{\circ} \mathrm{F}$ on the $11^{\text {th }}$ was the highest minimum on record for the date; the previous record was $59^{\circ} \mathrm{F}$ set in 1935.
The mean temperature for the same day was $68.5^{\circ} \mathrm{F}$ which was a new record for the date; the previous record was 68.0 also in 1935.

| 2020 AUTUMN |  |  |  | SEASON SEP, OCT, NOV |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Winter Season Months | Mean <br> Temp. ${ }^{\circ} \mathrm{F}$ | $30-Y R$ <br> Ave. ${ }^{\circ} \mathrm{F}$ | Temp Dep. ${ }^{\circ} \mathrm{F}$ | Total Prec. Inches | $30-Y R$ <br> Ave. Inches | Prec. <br> Dep. <br> Inches | Total <br> Snow <br> Inches | $30-Y R$ <br> Ave. Inches | Snow <br> Dep. <br> Inches |
| SEP. | 69.7 | 70.6 | -0.9 | 6.92 | 4.13 | 2.79 | 0.0 | 0.0 | 0.0 |
| OCT. | 62.3 | 59.7 | 2.6 | 5.63 | 2.98 | 2.65 | 0.0 | 0.0 | 0.0 |
| NOV. | 54.6 | 50.4 | 4.2 | 4.43 | 3.24 | 1.19 | 0.0 | 0.2 | -0.2 |
| SUM | 186.6 | 180.7 | 5.9 | 16.98 | 10.35 | 6.63 | 0.0 | 0.2 | -0.2 |
| AVE. | 62.2 | 60.2 | 2.0 | 5.66 | 3.45 | 2.21 | 0.0 | 0.1 | -0.1 |

Richmond's fall season was $2.0^{\circ} \mathrm{F}$ warmer than normal based on a 30 -yr. average.
The fall season ave. of $62.2^{\circ} \mathrm{F}$ was the 12 warmest autumn since 1880.
The warmest autumn average was $65.8^{\circ} \mathrm{F}$ in 1881.
The fall precipitation was 10.35 inches, a departure of 6.63 inches, based on a 30 -year average.
This was the wettest autumn since 2006 when 22.31 inches was recorded.
The year 2006 holds the record for the wettest autumn since precipitation records started in 1872.

## ACON - VA/NC/SC

The Atlantic Coast Observer Network: Virginia, North Carolina, South Carolina
November 2020

## Station summary of Climatological Data

Observer: Lowell L. Koontz West Henrico - Glen Allen, VA

Observation Times: Temps Recorded 2400 Precipitation Recorded 2400

TEMPERATURE ${ }^{\circ} \mathrm{F}$

| A | MEAN MAXIMUM | 66.79 |
| :---: | :--- | :---: |
| B | MEAN MINIMUM | 42.53 |
| c | MEAN MONTHLY | 54.66 |
| C1 | MEAN TEMP DEP. | 6.1 |
| D | MAXIMUM | 78.9 |
| E | DATE(s) OF MAX. | Nov-10 |
| F | MINIMUM | 26.3 |
| G | DATE(s) OF MIN. | Nov-19 |
| H | \# DAYS MAX. > = 90 | 0 |
| I | \# MAX. < = 32 |  |
| J | MIN. < = 32 | 0 |
| K | MIN. < = 0 |  |
| K1 | AVE RELATIVE HUMIDITY | 3 |
|  | WIND MPH | 0 |
|  | LAX. GUST | 71.9 |
| M | DIRECT. OF GUST |  |
| N | DATE | 33 |
| TIME | SSW |  |

NUMBER DAYS WITH -

|  | THUNDER | 0 |
| :--- | :--- | :--- |
| P | SNOW | 0 |
| Q | GLAZE | 0 |
| R | ICE PELLETS (SLEET) | 0 |
| R1 | DENSE FOG $<=1 / 4$ MILE | 0 |
|  |  |  |

PRECIPITATION INCHES


SPRINGFIELD PARK'S NOVEMBER TEMPERATURE \& WIND GRAPH



