2022 WEATHER SUMMARY

West Henrico Co. Springfield Park, Glen Allen, VA

Major Weather Event Strong Electrical Thunderstorm on June 12, 2022

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Severe storms cause flooding, knock out power to thousands in Central Virginia

RICHMOND, Va. -- A batch of severe storms brought rainfall totals of 1-5 inches across Central Virginia Saturday into Sunday morning prompting flood advisories for parts of the Commonwealth.

HENRICO COUNTY, Va. – Lightning from severe storms caused at least three house fires Sunday morning, according to Henrico Fire officials.

Firefighters were called to a home along Vienna Woods Place around 8:30 a.m.

Neighbors reported seeing lightning hit the home shortly before the fire broke out.

"It was pretty shocking because we didn't hear anything," neighbor Gregg Henson said. "The dogs were freaking out, but we didn't hear anything until we heard the trucks. Then we noticed that a crowd had gathered and the flames were coming out of the attic. I thought for sure that the house was going to be a major hit, but they did a really good job minimizing it."

No one was injured and the homeowners were not home when the fire started.

In addition to the fires the storms also knocked out power to more than 15,000 homes in Central Virginia as of 1 p.m. Most of those outages were in Henrico (11,443), Richmond (2,111), New Kent (1,461) and Hopewell (183), according to Dominion Energy.(-End)

I was able to talk to the homeowner and found out the following information. The home on Vienna Woods Place was within 0.6 miles of the Springfield Park weather station and was within 0.4 miles of Springfield Park Elementary School. The lightning made a large hole in the roof of the house over a bedroom. All of the contents of the home were destroyed and all that was usable in the repair was the outer framework. Lightning from this storm caused a 12-hour outage to the neighborhood.

Major Weather Event Strong Arctic Front December 23-24, 2022

The extreme cold of Christmas Eve set a new low temp. record for December of 5.8 F which was 7.2 degrees colder than the previous 14-year record minimum. The Christmas Eve daily mean was 14.6 F which was 5.8 F lower than the previous record set in 2017. The high max. temp. on the 24th was 23.4 F which is the lowest max. temp. ever recorded in December. The strong winds also caused power outages form many.

Tropical Storms

The only two hurricanes that effected the local area in 2022 were Ian and Nicole. The remnants of the storms gave beneficial rainfall. Ian gave 1.16 inches rain and Nicole provided 0.68 inches.

2022 Little Snow

Springfield Park had its largest snow of 5.1 inches on January 3, 2022 and Jan. was the snowiest month with 8.2 inches. February had only a trace of snow occurring on the 13th and 14th. December didn't even give a trace. March had 1.9 inches of snow giving a 10.1-inch total for the year.

Thunderstorms

Only one thunderstorm was rated as a 5. The strongest thunderstorm for the year on June 12, 2022 was rated a 5 because of its intense lightning.

Thunder was heard on 29 days in 2022 at Springfield Park. The average is 35 days per year. Both June and July had 7 thunder days which was the greatest in any one month in 2022. Most were weak as 22 of the 29 were rated as category one the weakest. Cat. 1 may have had only one thunder heard.

22 (Cat. 1) 3 (Cat. 2) 3 (Cat. 3) 0 (Cat. 4) 1 (Cat. 5)

Temperature

<u>YEAR-</u> The mean temperature for 2022 at Springfield Park was 59.1 degrees which was near the average of 59.3 degrees. The warmest year at the Springfield Park station was 2012 with a mean average of 60.52 degrees.

Springfield Park had 56 days that the maximum temperature was 90 degrees or more. The average is 47.9 days, (2010 / 72) and (2019 /70) which are the top two. Springfield Park had 41 night-time minimums which stayed 70 degrees or above; the average is 50.2 days. The maximum temperature at Springfield Park had 2 days (Jan 21, Dec 24) with less than or equal to 32 degrees for the high temperature. Springfield Park had 89 days when the minimum temperature was less than or equal to 32 degrees; the average is 78.2 days. The lowest minimum temperature of 2022 was 5.8 degrees on December 24th. The warmest minimum temperature for the year was 75.7 degrees on July 18th and 21st.

SEASONS-

Spring was wet with 11.78 inches of precipitation and the 8th wettest on record and 6th warmest on record with a temp. departure of 0.4 degrees F.

Summer was the 5th driest on record with 11.84 inches and the 6th coolest on record with a temp. departure of -0.4 degrees F.

Autumn was the 6th driest on record with 8.80 inches and 5th coolest on record with a temp. departure of -0.8 degrees. October was the coldest on record.

Winter of **2021-2022** was the 3rd driest on record with 8.11 inches precip. and the 5th warmest on record with a temperature departure of 3.8 degrees.

MONTH--

Positive departures- Warmest Month Mar had the greatest positive departure from normal mean temp. of +2.8 degrees F.

Negative departures- Coldest Month

Oct had the greatest negative departure from normal mean temp. of -4.3 degrees F.

Monthly Record Temperatures- (14 Years of Records)

Maximum temperature Average--

Oct. set a new low record of 67.6 degrees F.

Minimum Temperature Average –

Oct. set a new low record of 45.8 degrees F

Mean Temperature Average -

Oct. set a new low record of 56.7 degrees F

<u>DAY-</u>

The hottest temperature of 2022 at Springfield Park was 98.4 degrees that occurred July 23rd. The average highest annual maximum temperature for this station is 99.3 degrees. The lowest minimum temperature for 2022 at Springfield Park was 5.8 degrees recorded on December 24, 2022. The hottest day was July 21st with a daily mean of 85.4 degrees and the coldest day of the year occurred on December 24, the daily mean temperature of 14.6 degrees.

RANGE-

The **greatest** temperature range for the year at Springfield Park was 38.9 degrees, that occurred on February 11th with a high of 69.9 degrees & a low of 31.0 degrees. The **smallest** temperature range for the year at Springfield Park was 3.4 degrees, which occurred on Sep. 30, 2022 with a high temperature of 58.2 degrees and a low temperature of 54.8 degrees F. The **maximum monthly range** was 65.5 degrees for March 2022. The highest monthly average temperature range of 24.9 degrees occurred in February and the lowest temperature range of 19.9 degrees in December.

PRECIPITATION

YEAR-

The total number of days this year with measurable precipitation at Springfield Park was 114 days and the average is 128.1 days. Springfield Park's total precipitation was 44.32 inches. 14-year average annual precipitation for Springfield Park is 48.51 inches or a negative departure of -4.19 inches. The total precipitation for 2022 at the Airport was 39.53 inches. The average annual precipitation for Richmond is 45.50 inches or a negative departure of -5.97 inches.

Season-

The Spring season was the 8th wettest on record with 11.78 inches; the average is 11.76 inches.

The Summer season was the 5th driest on record with 11.84 inches; the ave. is 14.42 inches. **The Autumn** season was the 6th driest on record with 8.80 inches; the average is 11.75 inches. **The Winter** season of <u>2021-22</u> was the 3rd driest on record with 8.11 inches; the ave. is 10.11 inches.

MONTH-

Max. Precipitation Days

May had 14 days with measurable precipitation, the most of any of the months of 2022. July & Aug. with 11 days with measurable precip. tied for 2nd most of any of the 12 months. Here were the days with a measurable precipitation amount

There were 75 days with a daily precipitation amounts greater than or equal to 0.10 inches. There were 12 days with daily precipitation amounts greater than or equal to 1.00 inch. There was 1 day with more than 2.00 inches; the record was 5 days in 2018.

2022 set 1 new precipitation record for the month.

October with 2.06 inches was the 2nd driest October on record in the past 14 years; only 2008 was drier with 1.13 inches.

CALENDAR-

The most precipitation recorded in a calendar day in 2022 was 2.31 inches on Dec. 15, 2022. The record for all months is 5.09 inches which was on record for May 2018.

24-HOUR PERIOD-

The maximum precipitation in a 24-hour period for 2022 was also 2.37 inches on Dec. 14th and 15th. The 24-hour period record for Springfield Park for all the months is 6.10 inches in 2018 on May 17th and 18th.

HOUR-

The greatest one-hour rainfall intensity during 2022 was 1.25 inches on Sep. 11th. The 2.66 inches in July 2020 for a one-hour is the record for all of the months. The second greatest one-hour rainfall intensity was on June 2, 2018 with 2.63 inches.

Five-Minutes-

The greatest five- minute rain in 2022 was 0.40 inches on July 13th. The 5-minute record for Springfield Park is 0.67 inches set on August 10, 2013.

DROUGHT-

The longest dry period of 2022 without measurable rain was 10 days from Sep. 12th to Sep. 21st.

WIND

<u>YEAR-</u>

The highest wind gust for the year was only 50 mph from the SSW that occurred on March 7, 2022 at 1934hours. The total wind run for the year was 24,981 miles. This was the 3rd highest on record and the average is 22,679 miles.

MONTH-

The windiest month in 2022 was March with a wind run of 3068.0 miles. Aug. was the month with the least wind of 1395.3 miles.

DAY-

The windiest day for 2022 was on March 31st with a wind run of 209.8 miles. December had the 2nd highest of 194.2 miles. The record wind run for Springfield Park during a calendar day was 284.1 miles set during Hurricane Irene on August 27, 2011. March had the highest average maximum wind gust of 21.9 mph.

SNOW

YEAR-

The 2022 Springfield Park total snowfall was 10.1 inches and the total for the winter (**2021-2022**) was 8.2 inches with T inches occurring in December 2021. During 2022 the Springfield Park station had 5 measurable snowfalls. The largest snowfall to occur in one calendar day at the Springfield Park Station was 5.1 inches on January 3, 2022. The maximum snow on the ground at sunset during 2022 was 5 inches on January 3, 2022.

MONTH-

The greatest monthly snowfall total for Springfield Park in 2022 was 8.2 inches in the month of January that occurred on 4 days.

STORM-

The most snow to fall in any one storm was 5.1 inches that occurred on January 3rd. The greatest snow in a calendar day in 2022 was also 5.1 inches during the same snow.

BAROMETRIC PRESSURE YEAR-

The highest barometric pressure recorded for the year was 30.72 inches of mercury on January 8th and February 15, 2022. The lowest barometric pressure for the year was 29.21 inches of mercury which was recorded on January 17, 2022.

MONTH- February had the highest monthly mean barometric pressure of any month in 2022 which was 30.22 inches. July had the lowest monthly mean barometer reading of any month at 29.986 inches.

RELATIVE HUMIDITY YEAR-

The highest average relative humidity was recorded in October with a monthly average relative humidity of 76.4%. April had the lowest average relative humidity with an average monthly humidity of 64.7%. The lowest daily relative humidity for the year was 18% recorded on March 28, 2022. The average for 2022 was 71.3%. The annual average is 70.3% giving a departure of 1.0%. The record high average was 75.5% in 2018 our wettest year.

SKY COVER

The cloudiness average value is based on (0 as clear), (1 as partly cloudy), and (2 as cloudy).

MONTH-

In 2022 the average sky cover was 1.05 units. July had 1.29 units and was the cloudiest month of 2022. April was the clearest month with 0.87 units.

Annual Records

2022 was the 6th driest year on record at Springfield Park with a total of 44.32 inches, a **-4.19** inch departure based on the 14-year average of 48.51 inches.

Springfield Park's 2022 annual temperature average was **59.09** degrees F which was a **0.5** degree F departure from the 14-year average and the 6th coolest since 2009.

In 2022 Springfield Park had the 5th least snowfall on record with **10.1** inches. The 14--year average is 14.4 inches or a departure of **-4.3** inches. **The largest yearly total was 36.7 inches in 2010.**

Springfield Park in 2022 had a wind run of **24,981.1** miles, the 3rd windiest year. The average annual wind run at Springfield Park is **22,679.0** miles.

During the Year 2022 at Springfield Park there was a total of:

- 1 Days with Glaze
- 0 Days with Hail
- 4 Days with Sleet
- **5 Days with Measurable Snow**
- 12 Days with Trace or more of frozen precip.
- **10 Days with Fog**
- 29 Days with Thunder
- 56 Days with Frost
- 164 Days with Dew
- 114 Days with Measurable Precip.