

PAGE #1		Nov	2019	West Henrico Co. - Glen Allen Weather Center 37.65537° N. 77.56929° W. - Koontz														
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Nov 2019	Week Day	TEMPERATURE °F				TEMPERATURE °F				SKY		PRECIPITATION			FROZ. PRECIP.		1st PERIOD	
		MAX.	Time	MIN.	Time	RANGE	MEAN	CHANGE	SOIL	AM	PM	Liquid	1 Hr.	5 Min.	NEW	GROUND	START	END
Nov-01	Fri	58.5	14:37	38.3	23:57	20.2	48.4	-20.3	64	0	0	T	T	T			0001	0035
Nov-02	Sat	58.2	15:05	33.2	6:56	25.0	45.7	-2.7	61	0	2							
Nov-03	Sun	59.1	13:13	31.6	6:34	27.5	45.4	-0.4	59	0	0							
Nov-04	Mon	62.5	13:11	30.8	6:47	31.7	46.7	1.3	58	0	2							
Nov-05	Tue	71.2	12:50	41.2	4:49	30.0	56.2	9.6	57	1	1							
Nov-06	Wed	62.2	13:21	40.0	6:52	22.2	51.1	-5.1	57	0	0							
Nov-07	Thu	65.5	13:02	40.4	4:37	25.1	53.0	1.9	56	2	2	0.02	0.02	T			0511	2400
Nov-08	Fri	51.6	0:01	29.3	21:02	22.3	40.5	-12.5	57	0	0							
Nov-09	Sat	48.5	14:32	23.9	6:39	24.6	36.2	-4.3	55	0	1							
Nov-10	Sun	65.3	13:54	29.8	0:01	35.5	47.6	11.4	53	0	1							
Nov-11	Mon	70.7	14:02	40.6	6:42	30.1	55.7	8.1	53	1	2							
Nov-12	Tue	57.9	1:38	26.4	22:44	31.5	42.2	-13.5	54	2	2	0.68	0.20	0.02	0.3	T	0352	1410
Nov-13	Wed	38.3	13:41	21.6	6:16	16.7	30.0	-12.2	52	0	0							
Nov-14	Thu	44.9	14:02	20.5	6:08	24.4	32.7	2.8	50	1	2	0.05	0.05	T			2149	2400
Nov-15	Fri	48.6	14:59	37.0	7:03	11.6	42.8	10.1	50	2	2	0.01	0.01	T			0001	0010
Nov-16	Sat	45.3	12:32	36.9	7:16	8.4	41.1	-1.7	51	1	1							
Nov-17	Sun	46.5	14:44	37.1	7:03	9.4	41.8	0.7	50	2	2							
Nov-18	Mon	53.4	13:16	39.7	6:45	13.7	46.6	4.8	50	2	1	0.10	0.08	0.01			1609	2210
Nov-19	Tue	50.9	14:02	42.6	6:18	8.3	46.8	0.2	51	2	2							
Nov-20	Wed	58.2	12:16	35.3	7:04	22.9	46.8	0.0	51	1	1							
Nov-21	Thu	57.5	13:32	29.5	7:12	28.0	43.5	-3.3	51	0	2							
Nov-22	Fri	59.8	15:06	40.9	23:58	18.9	50.4	6.8	51	2	2	0.03	0.02	0.01			0835	1315
Nov-23	Sat	45.9	14:46	30.0	6:31	15.9	38.0	-12.4	51	2	2	0.60	0.25	0.04			1450	1920
Nov-24	Sun	57.6	12:56	36.1	23:46	21.5	46.9	8.9	50	1	0	0.12	0.09	0.01			0001	0235
Nov-25	Mon	58.5	13:28	30.4	7:05	28.1	44.5	-2.4	50	0	0							
Nov-26	Tue	66.5	14:01	34.5	6:07	32.0	50.5	6.1	49	0	0							
Nov-27	Wed	59.4	16:32	49.4	2:17	10.0	54.4	3.9	50	2	2	0.02	0.02	0.01			0430	1040
Nov-28	Thu	56.7	1:19	39.1	21:46	17.6	47.9	-6.5	51	0	0							
Nov-29	Fri	54.4	14:24	32.4	3:52	22.0	43.4	-4.5	50	0	0							
Nov-30	Sat	49.5	13:23	39.3	22:37	10.2	44.4	1.0	50	2	2	0.02	0.01	T			0005	0100
TOTAL NUMBER		1683		1038		645.3	1360.5	-24.3	1592	26	34	1.65	0.75	0.10	0.3	T	Col.26-27	
AVERAGE		30	30	30	30	30	30	30	30	30	30	10	10	6	1	0.0	DAILY AVE RH	
NORMALS		56.10	12:36	34.59	9:53	21.51	45.35		53.07	0.87	1.13	Ave. Tot.	Ave. Max	Ave. Max	Ave. Tot.	Ave. Days	73.4	Percent
DEPARTURES		60.20		37.95		21.98	48.88		54.05	0.93	1.05	3.75	0.47	0.12	0.0	0.0	70.3	Percent
Max. Temps. >= 70°F		71.2	Ave.HighMax	49.4	Ave.HighMin	35.5	56.2	11.4	64.0	Whole Day		0.68	0.25	0.04	0.3	T	Precip	24 Hr.
2019 2		Nov-05	76.6	Nov-27	58.6	Nov-10	Nov-05	Nov-10	Nov-01	AVERAGE 1.00		Nov-12	Nov-23	Nov-23	T	T	Amount	0.72
Ave. 5.1			Dep.		Dep.					Normal 0.99					1.0	0.0	Date	Nov 23
Departure -3.1			-5.4		-9.2					Depart. 0.01					1.0	T	Date	Nov 24
Min. Temps. <= 32°F		38.3	Ave.LowMax	20.5	Ave.LowMin	8.3	30.0	-20.3	49.0	SKY	AM	PM	≥ 0.10	Precip.	≥ 1.00	Precip.	≥ 2.00	Precip.
2019 12		Nov-13	44.0	Nov-14	23.6	Nov-19	Nov-13	Nov-01	Nov-26	CLEAR	14	10	4	DAYS	0	DAYS	0	DAYS
Ave. 8.6			Dep.		Dep.					PT. CLO.	6	6	HOTTEST	56.2	Highest	Lowest	COOLEST	30.0
Departure 3.4			-5.7		-3.1					CLOUDY	10	14	DAY	11-05	Mean	Mean	DAY	11-13
Days Max. <=32 °F		0		MAX.	≥ 80	≥ 75	≥ 70	≥ 65	≥ 60	≥ 55	≥ 50	≥ 45	≥ 40	≥ 35	≥ 30	≥ 25	≥ 20	
Days Max. >=90°F		0		DAYS	0	0	2	5	8	18	23	29	29	29	30	30	30	

20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38		
Nov 2019	2nd PERIOD		WIND			REL. HUMIDITY		BAROMETRIC PRESSURE				R								
	START	END	RUN	MAX.	TIME	MAX.	MIN.	MAX.	MIN.	AVE.	CHANGE	GLAZE	SLEET	SNOW	FOG		DEW	FROST		
Nov-01			46.7	20	1:01	93	45	30.29	29.80	30.05	0.21						P			
Nov-02			34.2	12	13:49	96	57	30.28	30.07	30.18	0.13						4	2		
Nov-03			19.6	13	12:23	98	41	30.29	30.14	30.22	0.04							4		
Nov-04			44.0	17	10:58	98	42	30.39	30.25	30.32	0.11							5		
Nov-05			24.8	11	10:54	97	43	30.26	30.16	30.21	-0.11						4			
Nov-06			45.8	14	9:41	95	43	30.48	30.25	30.37	0.16						3			
Nov-07			72.8	20	13:14	94	62	30.37	30.01	30.19	-0.18						3			
Nov-08			129.2	24	1:56	92	41	30.38	30.07	30.23	0.04						P			
Nov-09			36.4	15	14:07	91	50	30.37	30.19	30.28	0.05							4		
Nov-10			81.1	17	13:56	92	43	30.19	30.04	30.12	-0.16							2		
Nov-11			102.0	20	14:50	92	43	30.12	29.86	29.99	-0.13						3			
Nov-12			87.4	22	6:39	96	58	30.29	29.81	30.05	0.06			1			P			
Nov-13			59.9	15	9:55	88	39	30.49	30.29	30.39	0.34							2		
Nov-14			40.5	12	12:03	93	50	30.45	30.31	30.38	-0.01							5		
Nov-15			32.7	11	12:09	96	62	30.31	30.17	30.24	-0.14						P			
Nov-16			182.8	25	8:41	81	58	30.32	30.18	30.25	0.01						N			
Nov-17			157.0	22	9:37	87	64	30.27	29.96	30.12	-0.13						N			
Nov-18			52.3	12	1:34	96	69	29.96	29.74	29.85	-0.27						N			
Nov-19			28.3	11	2:12	97	81	29.89	29.78	29.84	-0.02						P			
Nov-20			52.3	17	10:37	98	48	30.26	29.89	30.08	0.24						4			
Nov-21			54.9	16	22:59	96	50	30.32	30.04	30.18	0.10							4		
Nov-22			91.6	19	11:43	96	70	30.09	29.86	29.98	-0.20						N			
Nov-23	2030	2400	30.6	12	18:16	97	63	30.10	29.55	29.83	-0.15						2	2		
Nov-24			62.5	18	9:59	98	48	29.80	29.48	29.64	-0.19						P			
Nov-25			39.0	14	12:21	96	48	29.98	29.78	29.88	0.24						2	3		
Nov-26			52.4	14	12:31	97	49	30.07	29.95	30.01	0.13						3	1		
Nov-27			120.5	28	15:36	91	78	30.04	29.75	29.90	-0.11						P			
Nov-28			79.9	25	14:53	84	45	30.28	29.86	30.07	0.18						1			
Nov-29			36.9	15	9:37	91	43	30.30	30.13	30.22	0.15						2	1		
Nov-30	0340	0410	31.9	10	23:04	95	61	30.14	29.92	30.03	-0.18						N			
TOTAL NUMBER			1930.0	501		2811	1594	906.78	899.29	903.04	TOTAL	0	0	1	0	0	11	12		
			30	30	30	30	30	30	30	30	NORMAL	0.0	0.3	0.6	3.0	0.6	10.9	9.2		
AVERAGE			Total 1930.0	64.3	16.7	11:22	93.70	53.13	30.23	29.98	30.10	DEPART.	0.0	-0.3	0.4	-3.0	-0.6	0.1	2.8	
NORMALS			Miles 1498.7	50.0	17.05		92.2	48.6	30.24	30.02	30.13	Rating ► Intensity	0	0	1	0	0	31	35	
Departures			Miles 431.3	14.4	-0.35		1.5	4.6	-0.02	-0.04	-0.03		GLAZE	SLEET	SNOW	FOG	R	Dew	Frost	
MAXIMUM DATES			Dates	182.8	28	South	98	81	30.49	30.31	30.39	0.34	5. Very Heavy 4. Heavy-Unusual 3. Moderate - Ave. 2. Light - >= Ave. 1. Very Light - Slight - Trace M - Event with intensity missing						N- None No Dew Obs. P- Precip. prevent obs.	
			1	Nov-16	Nov-27	15:36	Nov-03	Nov-19	Nov-13	Nov-14	Nov-13	Nov-13								
			2				Nov-04													
			3				Nov-20													
Min. Temps. >= 70°F			4			Ave. Max.	Nov-24													
			Dates	19.6	10	31.2	81	39	29.80	29.48	29.64									-0.27
2019 0			1	Nov-03	Nov-30	Dep.	Nov-16	Nov-13	Nov-24	Nov-24	Nov-24	Nov-18								
Ave. 0.0			2			-3.2														
Departure 0.0																				
Days Min. <=32 °F			12	MIN.	≤ 75	≤ 70	≤ 65	≤ 60	≤ 55	≤ 50	≤ 45	≤ 40	≤ 35	≤ 30	≤ 25	≤ 20	≤ 15			
Days Min >=70°F			0	DAYS	30	30	30	30	30	30	29	25	15	9	3	0	0			

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West Henrico Co. - Glen Allen Weather Center 37.65537° N. 77.56929° W. - Koontz

39

40

Nov 2019	REMARKS FOR THE MONTH November - 2019
Nov-01	COLD FRONT PASSED AROUND 1250-TODAY WAS MUCH COOLER BUT NO CLOUDS AND LOW RH
Nov-02	HEAVY FROST ON ROOFS, LIGHT FROST ON GRASS BUT NOT A KILLING FROST-CUMULUS CLOUDS CAME IN AT 1215
Nov-03	FROST ON FROZEN DEW-SOME DEW ON HOUSE VINYL WAS FROZEN-COLDEST SINCE APR. 3, 2019 WHEN IT WAS 30°F
Nov-04	FROST ON FROZEN DEW-COLDEST SINCE APR. 3, 2019 - CIRRUS CAME IN AT 1100--PM SKY MAINLY FIBROUSCIRRUS AND CIRROSTRATUS LATER IN PM
Nov-05	SUN THROUGH CIRRUS MOST OF DAY AND AT TIMES SOME ALTOCUMULUS
Nov-06	NO CLOUDS SEEN TODAY-A COOL FALL DAY AND A BEAUTIFUL PM FOR NOV.
Nov-07	CLOUDY COOL AM-PM CLOUDY AND PLEASANT-STRONG COLD FRONT PASSED AROUND 2230
Nov-08	A VERY CLEAR BUT COLD DAY-LOWEST DEWPOINT WAS 21.5°F AT 1611
Nov-09	FIRST KILLING FROST-HARD FREEZE-5 MPH WIND KEPT A CLASS 5 FROST FROM FORMING-COLDEST SINCE MARCH 7, 2019 WHEN TEMP. WAS 21.4°F -CLOUDS CAME IN AT 1100-PM EST. 50-60% CLO.
Nov-10	COOL AM BUT A WARM AND PLEASANT PM-PM SUN THROUGH CIRRUS, CUMULUS AND ALTOCUMULUS
Nov-11	AM SCATTERED FIBROUSCIRRUS-PM AFTER 1340 HAD ALMOST A COMPLETE THIN CIRROSTRATUS OVERCAST
Nov-12	STRONG COLD FRONT PASSED AROUND 0930-THIS WAS THE FIRST MEASURABLE SNOW IN NOV. AT THIS STATION-SNOW STARTED AROUND 1210 & ENDED AROUND 1410-MAX. SNOW ON GROUND
Nov-13	VERY DRY AIR LITTLE FROST-EXTREMELY COLD DAY FOR MID-NOV. AND COLDEST SINCE FEB. 10, 2019
Nov-14	COLDEST SINCE FEB. 10, 2019 WHEN IT WAS 18.1°F-CIRRUS CLOUDS AM - PM CIRROSTRATUS, ALTOCUMULUS AND ALTOSTRATUS
Nov-15	A LITTLE WARMER BUT CLOUDY AND STILL COLD FOR NOV.
Nov-16	WINDY NIGHT WITH NO DEW-COASTAL LOW GAVE CLOUDINESS TODAY AND WINDS TO 25 MPH
Nov-17	ANOTHER CLOUDY, COLD DAY FOR NOV. WITH A LOW OFF COAST-WIND CHILL AROUND 0937 WAS 27.6°F
Nov-18	CLOUDY AM EST. 85-90% CLOUDY-PM EST. 55-60% CLOUDY
Nov-19	COLD CLOUDY AM AND DAMP-A LITTLE PM SUN AROUND 1400 BUT PM EST. 80-85% CLOUDY
Nov-20	AM STRATUS AND CUMULUS TO 845 THEN CLEAR TO 1145-PM STRATOCUMULUS AND CUMULUS FROM 1200-1445 THEN CLEAR AGAIN TO SUNSET-AM EST. 40-45% CLO. PM EST. 45-50% CLO.
Nov-21	CIRRUS CLOUDS CAME IN AT 1115 AND INCREASED TO TOTAL OVERCAST BY 1345 BUT A PLEASANT PM
Nov-22	MAINLY A MORNING OF SPRINKLES AND CLOUDY BUT A WARM PM WITH ALTOSTRATUS CLOUDS
Nov-23	FROZEN DEW AND RAIN ON DECK AND FROST ON ROOFS-RAIN HEAVIER TO SOUTH
Nov-24	VARIABLE AM SKY BUT CLEAR PM-WINDS CAUSED A COOL AM BUT PM WAS PLEASANT
Nov-25	TODAY WAS A BEAUTIFUL FALL DAY AND TREES IN OUR NEIGHBORHOOD ARE NEAR THEIR PEAK
Nov-26	CLOUDS CAME IN AT 1530 BUT AM WAS VERY CLEAR AND A WARM AFTERNOON
Nov-27	AM HAD AN OCCASIONAL SPRINKLE WITH HEAVIER RAIN PASSING TO NORTH AND PM WAS CLOUDY AND WINDY
Nov-28	SUNNY WINDY BUT WARM FOR END OF NOV.-MANY LEAVES FELL YESTERDAY AND TODAY-MOST SPECIES OF TREES HAVE BECOME BARE EXCEPT OAKS WHICH HAVE ABOUT 25% OF THEIR
Nov-29	CLOUDS DIDN'T COME IN UNTIL 1600 AS ALTOCUMULUS OTHERWISE IT WAS A SUNNY BRIGHT DAY
Nov-30	3RD PD SPRINKLES 1125-1145 - CLOUDY ALL DAY WITH AN APPROACHING STORM THAT WILL PASS TO NORTH GIVING US RAIN AND SNOW PREDICTED FOR NE
DATE	EXTENSION OF LENGTHY DAILY REMARKS
Nov-12 Nov-18	AT 1345 WAS 0.3 INCHES-MANY DID NOT REPORT SNOW IF THEY DID NOT HAVE A SNOW BOARD AS THE GROUND WAS SO WARM IT MELTED MOST OF THE SNOW LEAVES. NORTHERN RED OAKS WERE AT THEIR PEAK ABOUT THE 24TH AND STILL HAVE MORE THAN 50% OF THEIR LEAVES.
<div>The daily records for the month are listed on page # 4 and not found in the remarks.</div> <div>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</div> <div>Rules for making Observations in 2019</div>	

## The Springfield Park Station had 17 Records or Record Ties in November 2019

1

2

3

4

The minimum temperature on the 4th was 30.8°F, a new 11-year LOW daily minimum temperature record for the date - the old record was 34°F in 2013.

The daily temperature range on the 4th was 31.7°F, a new 11-year HIGH daily temperature range record for the date - the old record was 29°F in 2014.

5

The daily temperature range on the 5th was 30°F, a new 11-year HIGH daily temperature range record for the date - the old record was 27.3°F in 2016.

6

7

Remarks- The minimum temperature this morning was 23.9°F the lowest since March 7, 2019 when it was 21.4 degrees F.

8

9

The maximum temperature on the 9th was 48.5°F, a new 11-year cold daily maximum temperature record for the date - the old record was 50.9°F in 2018.

The minimum temperature on the 9th was 23.9°F, a new 11-year LOW daily minimum temperature record for the date - the old record was 28°F in 2013 and 2012.

10

The minimum temperature on the 10th was 29.8°F, and EQUALED the, 11-year HIGH daily minimum temperature record for the date - the old record was set in 2017.

11

12

The daily greatest snow on the 12th was 0.3 inches, and is a new 8-year daily greatest snow record for the date - the old record was T inches, in 2013.

13

The minimum temperature on the 13th was 21.6°F, a new 11-year LOW daily minimum temperature record for the date - the old record was 23°F in 2013.

The maximum temperature on the 13th was 38.3°F, a new 11-year cold daily maximum temperature record for the date - the old record was 47°F in 2013.

14

The minimum temperature on the 14th was 20.5°F, a new 11-year LOW daily minimum temperature record for the date - the old record was 25°F in 2014.

15

16

The maximum temperature on the 16th was 45.3°F, a new 11-year cold daily maximum temperature record for the date - the old record was 50°F in 2014.

17

The maximum temperature on the 17th was 46.5°F, a new 11-year cold daily maximum temperature record for the date - the old record was 49°F in 2008.

The daily temperature range on the 17th was 9.4°F, a new 11-year LOW daily temperature range record for the date - the old record was 13°F in 2014.

18

19

The daily temperature range on the 19th was 8.3°F, a new 11-year LOW daily temperature range record for the date - the old record was 9.6°F in 2015.

20

21

The daily temperature range on the 21st was 28°F, and EQUALED the, 11-year HIGH daily maximum temperature range record for the date - the old record was set in 2015.

22

23

24

25

26

The daily temperature range on the 26th was 32°F, a new 11-year HIGH daily temperature range record for the date - the old record was 31.9°F in 2015.

27

The daily temperature range on the 27th was 10°F, a new 11-year LOW daily temperature range record for the date - the old record was 13°F in 2013 and 2012.

28

29

30

The daily temperature range on the 30th was 3.9°F, a new 11-year LOW daily temperature range record for the date - the old record was 4.5°F in 2015.

# NOVEMBER TEMPERATURE GRAPH

