

PAGE #1		Dec 2020		West Henrico Co. - Glen Allen Weather Center 37.6537° N. 77.56929° W. - Koontz															
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	
Dec 2020	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	
Dec-01	Tue	49.5	12:31	32.1	23:36	17.4	40.8	-15.6	55	2	1								
Dec-02	Wed	52.6	14:28	29.7	23:57	22.9	41.2	0.4	53	0	0								
Dec-03	Thu	59.2	14:38	26.1	5:10	33.1	42.7	1.5	51	0	0								
Dec-04	Fri	59.4	14:11	47.1	2:17	12.3	53.3	10.6	50	2	2	0.44	0.17	0.05			1800	1820	
Dec-05	Sat	53.5	0:01	39.9	23:33	13.6	46.7	-6.6	51	2	2	1.21	0.64	0.06			0001	0635	
Dec-06	Sun	51.0	13:48	28.2	7:05	22.8	39.6	-7.1	51	0	0								
Dec-07	Mon	36.8	14:58	25.9	23:58	10.9	31.4	-8.3	50	2	2	0.02	0.01	T	0.2	None	0600	1200	
Dec-08	Tue	49.1	14:40	22.7	7:13	26.4	35.9	4.6	48	0	0								
Dec-09	Wed	48.8	13:12	24.3	3:42	24.5	36.6	0.6	47	2	1								
Dec-10	Thu	57.2	14:31	27.4	6:35	29.8	42.3	5.8	47	0	0								
Dec-11	Fri	64.8	14:29	36.1	6:36	28.7	50.5	8.2	46	0	0								
Dec-12	Sat	63.7	15:01	46.1	5:31	17.6	54.9	4.5	47	2	2								
Dec-13	Sun	72.4	13:48	47.8	23:36	24.6	60.1	5.2	49	0	0	T	T	T			0130	0135	
Dec-14	Mon	47.8	0:01	30.5	23:53	17.3	39.2	-21.0	50	2	2	1.49	0.54	0.04			0448	1400	
Dec-15	Tue	43.3	13:12	27.9	23:04	15.4	35.6	-3.6	48	0	0								
Dec-16	Wed	35.2	19:54	26.8	2:37	8.4	31.0	-4.6	47	2	2	1.09	0.32	0.04	T		0623	0628	
Dec-17	Thu	45.4	14:35	26.7	7:34	18.7	36.1	5.1	45	0	1								
Dec-18	Fri	44.0	14:42	29.0	23:57	15.0	36.5	0.5	45	2	2	0.01	0.01	T	T		0215	0550	
Dec-19	Sat	42.5	14:30	23.9	6:49	18.6	33.2	-3.3	45	2	2								
Dec-20	Sun	42.0	16:08	33.3	0:01	8.7	37.7	4.5	44	2	2	0.11	0.08	0.01			0650	1145	
Dec-21	Mon	51.2	14:18	38.5	2:51	12.7	44.9	7.2	45	2	0	T	T	T			1940	1945	
Dec-22	Tue	54.9	11:59	31.2	23:52	23.7	43.1	-1.8	45	0	0								
Dec-23	Wed	51.9	13:21	25.3	6:46	26.6	38.6	-4.5	45	1	2								
Dec-24	Thu	62.9	11:56	44.4	1:37	18.5	53.7	15.1	45	2	2	1.58	0.77	0.21			0610	0620	
Dec-25	Fri	57.5	1:38	22.2	23:44	35.3	39.9	-13.8	48	1	1	0.03	0.01	T	T		0010	0245	
Dec-26	Sat	39.5	14:45	19.9	6:39	19.6	29.7	-10.2	46	0	0								
Dec-27	Sun	45.2	14:32	20.7	6:34	24.5	33.0	3.3	44	0	1								
Dec-28	Mon	56.4	14:48	32.1	3:26	24.3	44.3	11.3	43	2	2								
Dec-29	Tue	47.2	12:41	27.6	22:14	19.6	37.4	-6.8	43	0	0								
Dec-30	Wed	50.0	15:00	22.6	7:01	27.4	36.3	-1.1	43	1	1	T	T	T			1925	1955	
Dec-31	Thu	57.9	15:15	42.6	0:01	15.3	50.3	14.0	42	2	2	0.01	0.01	T			1200	1310	
TOTAL NUMBER		1593		959		634.2	1275.7	-6.2	1458	33	32	5.99	2.56	0.41	0.2	0	Col.26-27		
AVERAGE		31	31	31	31	31	31	31	31	31	31	10	10	6	1	0	DAILY AVE RH		
Normals		52.04	13:01	30.92	11:28	20.46	41.15		47.03	1.06	1.03	Ave. Tot.	Ave. Max.	Ave. Max.	Ave. Tot.	Ave. Days	73.1	Percent	
DEPARTURES		-0.65		-1.76		19.44	42.43		46.7	1.14	1.19	4.11	0.47	0.10	3.5	2.5	71.8	Percent	
Max. Temps. >= 70°F		72.4	Ave. High-Max	47.8	Ave. High-Min	35.3	60.1	15.1	55	Whole Day		1.58	0.77	0.21	0.2	0.0	Precip	24 Hr.	
2020 1		Dec-13	70.8	Dec-13	52.0	Dec-25	Dec-13	Dec-24	Dec-01	AVERAGE	1.05	Dec-24	Dec-24	Dec-24	Dec-07		Amount	1.65	
Ave. 1.4			Dep.		Dep.					NORMAL	1.15						Date	Dec 04	
Departure -0.4			1.6		-4.2					DEPART.	-0.10						Date	Dec 05	
Min. Temps. <= 32°F		35.2	Ave. Low-Max	19.9	Ave. Low-Min	8.4	29.7	-21.0	42	SKY		PM		≥ 0.10 INCHES		≥ 1.00 INCHES		≥ 2.00 INCHES	
2020 22		Dec-16	35.1	Dec-26	18.9	Dec-16	Dec-26	Dec-14	Dec-31	CLEAR	13	12	6 DAYS		4 DAYS		0 DAYS		
Ave. 17.4			Dep.		Dep.					PT. CLO.	3	6	HOTTEST DAY		60.1	Highest Mean	Lowest Mean	COOLEST DAY	29.7
Departure 4.6			0.1		1.0					CLOUDY	15	13	DAY		12-13			DAY	12-26
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	1	2	4	11	18	24	29	31	31	31	31	



## REMARKS FOR THE MONTH

December - 2020

<b>Dec-01</b>	WIND AT NIGHT PREVENTED DEW-TODAY WAS A COLD WINDY DAY
<b>Dec-02</b>	NO CLOUDS TODAY BUT BREEZY AND CHILLY COMPARED TO RECENT TEMPS.-AM REL. HUMIDITY ONLY 78%
<b>Dec-03</b>	COLDEST SINCE MARCH 8, 2020 WHEN IT WAS 25.4 °F BUT A GOOD PM WARMUP OF 33.1 °F
<b>Dec-04</b>	NO DEW BECAUSE OF NIGHT TIME WIND AND CLOUDS-AM REL. HUMIDITY ONLY 56%-CLOUDS ALL DAY
<b>Dec-05</b>	A CHILLY AND BREEZY DAY WITH VERY LITTLE SUN-ONLY SUN AROUND 0900
<b>Dec-06</b>	VERY CLEAR DAY AND BREEZY 0900-1600
<b>Dec-07</b>	SNOW STARTED AT 0600 AND IT WAS THE COLDEST DAY SINCE JAN. 20, 2020 WHEN HIGH TEMP. REACHED ONLY 36.4 °F - ALL DAY CLOUDS CLEARED AT 1615 TO GIVE A CLEAR COLD NIGHT
<b>Dec-08</b>	A VERY CLEAR DAY WITH A GOOD WARMUP-COLDEST AM SINCE MARCH 1, 2020 WHEN IT WAS 20.8 °F
<b>Dec-09</b>	A CLOUDY BREEZY AM AND A PC BREEZY PM WITH BELOW AVERAGE TEMPS.
<b>Dec-10</b>	A VERY CLEAR DAY WITH A COLD START BUT A GOOD WARMUP OF 30 DEGREES F
<b>Dec-11</b>	VERY CLEAR AND WARM DAY FOR DEC.
<b>Dec-12</b>	A MOSTLY CLOUDY BUT WARM DAY FOR DEC.-ONLY SUN WAS FROM 0940-1030
<b>Dec-13</b>	VERY WARM CLEAR BLUE SKY AND PLEASANT DEC. DAY
<b>Dec-14</b>	VERY RAINY DAY AND MUCH COLDER-TOTAL PRECIP. FOR YEAR IS NOW 57.64 INCHES-A WET YEAR
<b>Dec-15</b>	CLEAR COLD DAY WITH LOW RH AND A BREEZY AM WITH LESS WIND IN PM
<b>Dec-16</b>	VERY LIGHT FOG OR MIST - SOME SLEET IN RAIN BUT NO SNOW-PAPER THIN GLAZE ON METAL OBJECTS AROUND 1000
<b>Dec-17</b>	A VERY CLEAR DAY UNTIL 1400 WHEN CLOUDS CAME IN AND WAS CLOUDY BY 1645
<b>Dec-18</b>	MOST SNOW MELTED AS IT FELL-A CLOUDY COLD DAY
<b>Dec-19</b>	SUN THROUGH A THIN BUT COMPLETE OVERCAST ALL DAY AND PM WAS BREEZY
<b>Dec-20</b>	A CLOUDY DARK AND GLOOMY DAY
<b>Dec-21</b>	CLOUDY CHILLY AM AND CLEAR BY NOON FOR A SUNNY PM AND A VERY CLEAR SKY
<b>Dec-22</b>	SPRINKLE LAST NIGHT DID NOT EVAPORATE-FROST ONLY ON ROOFS-TODAY WAS MOSTLY CLEAR WITH A FEW PM CUMULUS & A WINDY DAY WITH MAX. GUST OF 26 MPH AT 0952
<b>Dec-23</b>	HIGH THIN FIBROUS CIRRUS IN AM AND ALTOCUMULUS IN LATER PM AND BREEZY
<b>Dec-24</b>	3RD PD. OF PRECIP. 1100-1640-SQUALL LINE AHEAD OF COLD FRONT PASSED AT 1515-1615, 4TH PD. OF PRECIP. 1730-1945, 5TH PD. 2100-2335-COLD FRONT PASSED AT 2225
<b>Dec-25</b>	SNOW FLURRIES SO LIGHT THE PRECIP. SENSOR DID NOT DETECT THEM-BOTH AM AND PM WERE AROUND 65% CLOUDY, BARELY PC
<b>Dec-26</b>	NO FROST BECAUSE OF NIGHT WIND AND VERY DRY AIR-MIN. DEW POINT 9 °F AT 0521-COLDEST SINCE FEB. 22, 2020 WHEN IT WAS 19.6 °F
<b>Dec-27</b>	AVERAGE TO MODERATE FROST GOOD WARMUP OF 24.5 °F -VERY CLEAR AM-VERY THIN CIRRUS AFTER 1345 THAT INCREASED IN PM AND PM EST. TO BE 35% CLOUDY
<b>Dec-28</b>	CLOUDY BUT MILD DAY FOR DEC.
<b>Dec-29</b>	SOME FROZEN DEW WITH FROST-CLEAR ALL DAY BLUE SKY WITH GOOD VISIBILITY
<b>Dec-30</b>	FIBROUS CIRRUS CLOUDS ALL DAY TO 1645 THEN ALTOCUMULUS THAT BECAME ALTOSTRATUS BY DARK
<b>Dec-31</b>	MILD CLOUDY DEC. DAY WITH COLD FRONT EXPECTED WITH PASSAGE TOMORROW

DATE

EXTENSION OF LENGTHY DAILY REMARKS

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](#)

## DAILY RECORDS FOR THE MONTH

41

Dec

2020

## The Glen Allen Station had 14 Records or Record Ties in December 2020

1

2

3

The daily temperature range on the 3rd was 33.1&amp;deg;F, a new 12-year HIGH daily temperature range record for the date - the old record was 27&amp;deg;F in 2008.

4

The daily precipitation on the 4th was 0.44 inches, a new 12-year HIGH daily precipitation record for the date - the old record was 0.11 inches in 2016.

5

The daily precipitation on the 5th was 1.21 inches, a new 12-year HIGH daily precipitation record for the date - the old record was 0.7 inches in 2009.

6

7

The maximum temperature on the 7th was 36.8&amp;deg;F, a new 12-year cold daily maximum temperature record for the date - the old record was 38&amp;deg;F in 2010.

The daily temperature range on the 7th was 11.8&amp;deg;F, a new 12-year LOW daily temperature range record for the date - the old record was 12&amp;deg;F in 2013.

The daily greatest snow on the 7th was 0.2 inches, a new 9 year daily greatest snow record for the date - the old record was 0 inches.

8

9

10

The daily temperature range on the 10th was 29.8&amp;deg;F, a new 12-year HIGH daily temperature range record for the date - the old record was 25&amp;deg;F in 2009.

11

The daily temperature range on the 11th was 28.7&amp;deg;F, a new 12-year HIGH daily temperature range record for the date - the old record was 25.6&amp;deg;F in 2017.

12

13

14

The daily precipitation on the 14th was 1.49 inches, a new 12-year HIGH daily precipitation record for the date - the old record was 0.8 inches in 2013.

15

16

The daily precipitation on the 16th was 1.09 inches, a new 12-year HIGH daily precipitation record for the date - the old record was 0.75 inches in 2008.

17

18

19

20

The daily temperature range on the 20th was 8.7&amp;deg;F, a new 12-year LOW daily temperature range record for the date - the old record was 10&amp;deg;F in 2011.

21

The daily temperature range on the 21st was 12.7&amp;deg;F, a new 12-year LOW daily temperature range record for the date - the old record was 13&amp;deg;F in 2014.

22

23

24

The daily precipitation on the 24th was 1.58 inches, a new 12-year HIGH daily precipitation record for the date - the old record was 1.13 inches in 2015.

25

The daily temperature range on the 25th was 34.5&amp;deg;F, a new 12-year HIGH daily temperature range record for the date - the old record was 30.3&amp;deg;F in 2014.

26

27

28

29

30

31

# December 2020

## Springfield Park, Glen Allen, Virginia

December was the third wettest December and the 6<sup>th</sup> coolest December in the past 12 years of records. The monthly mean temperature was 41.2°F, a -1.3°F departure from the 12-year average. December had its highest maximum of 72.4°F on December 13<sup>th</sup> but had only 2 days of equal to or greater than 65°F for the month. On 22 days, the min. reached freezing or below which was 3<sup>rd</sup> greatest in December in the past 12-years. The lowest temperature was only 19.9°F occurring on the 26<sup>th</sup> with also the lowest wind chill of 9°F.

On December 7<sup>th</sup> Springfield Park had a little snowfall of only 0.2 inches but 7 Decembers have had less. What is surprising is this is the only measurable snow for 2020 and the lowest annual total. The precipitation total for the month was 5.99 inches which was a 1.88-inch departure based on a 12-year average. There were 10 days with measurable precipitation. The total precipitation for the year was 60.47 inches which was a 12.63-inch surplus and our second wettest year. The cloud cover for the month was the 3<sup>rd</sup> lowest for December as many of the rains came at night. The highest barometric pressure for December was 30.58 inches recorded on the 29<sup>th</sup> and 30<sup>th</sup> and the lowest was 29.42 inches on the 25<sup>th</sup> which is average for the month. It is interesting that the highest wind was only 27 mph on the 5<sup>th</sup> but the wind run for the month was 2215 miles a new record for December because most days were breezy as well as several nights.

## Richmond International Airport

The total precipitation for 2020 was 63.52 inches which was a 19.92-inch surplus for the year making this the third wettest year on record for Richmond in 148-years. The 30-year average for Richmond is 43.60 inches. The wettest year was 1889 with 72.02 inches and 2018 was the second wettest with 63.73 inches. The 6.70 inches of precipitation for December made it the 5<sup>th</sup> wettest December since 1872. Richmond had 2.02 inches of rain on the 5<sup>th</sup> which was the 7<sup>th</sup> largest daily rainfall for Richmond in December since 1887 and also set a new daily record for December 5<sup>th</sup>. The previous record for the 5<sup>th</sup> was 1.30 inches in 2005. The 14<sup>th</sup> had 1.58 inches of rain which also set a new daily record for that date; the previous record was 1.38 inches in 1907. These were the only 2 daily records for the month. The Richmond International Airport had 1.0 inches of snow on December 7<sup>th</sup>. The total snowfall for 2020 was 1.5 inches the least since 0.8 inches occurred in 2008.

The mean temperature for the Richmond International Airport was 41.3°F which was a departure of only 0.3°F. December was the 51<sup>st</sup> warmest in the past 123 years. The average max. temp was 51.1°F a departure of only 0.4°F. The average min. temp was 31.5°F a departure of only 0.1°F. The lowest maximum temperature of 36°F for December occurred on the 7<sup>th</sup>. The highest temp. in Dec. was 71°F on the 13<sup>th</sup> and was the only 70°F temp. for December. The Airport had 22 days the min. temp. was 32°F or lower. The lowest minimum temp. was 22°F on the 26<sup>th</sup> and 27<sup>th</sup>. The lowest temperature range was 5°F on the 7<sup>th</sup> with a high of 36°F and a low of 31°F. The highest temp. range was 33°F on Christmas Day.

# ACON - VA/NC/SC

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

## December 2020

### Station summary of Climatological Data

Observer: Lowell L. Koontz

West Henrico - Glen Allen, VA

Observation Times: Temps Recorded 2400 Precipitation Recorded 2400

#### TEMPERATURE °F

A	AVERAGE MAXIMUM	51.38
B	AVERAGE MINIMUM	30.92
C	MONTHLY AVERAGE	41.15
C1	AVERAGE TEMP DEP.	-1.3
D	MAXIMUM	72
E	DATE(s) OF MAX.	Dec-13
F	MINIMUM	19.9
G	DATE(s) OF MIN.	Dec-26
H	# DAYS MAX. > = 90°	0
I	# MAX. < = 32°	0
J	MIN. < = 32°	22
K	MIN. < = 0°	0
K1	AVE RELATIVE HUMIDITY	73.1

#### WIND MPH

L	MAX. GUST	27
M	DIRECT. OF GUST	NNE
N	DATE	Dec-05
	TIME	3:04

#### NUMBER DAYS WITH -

O	THUNDER	0
P	HAIL	0
Q	GLAZE	1
R	ICE PELLETS (SLEET)	1
R1	DENSE FOG < = 1/4 MILE	0

#### S 2400 HOUR - PRECIPITATION INCHES

T	MONTH TOTAL	5.99
T1	PRECIP. Dep. From Ave.	1.88
U	CALENDAR DAY MAX.	1.58
U1	DATE OF MAX.	Dec-24
V	24-HR. PERIOD MAX.	1.65
V1	DATE(s) OF MAX. PD.	Dec4 <sup>th</sup> & Dec5 <sup>th</sup>
W	# DAYS > = 0.01"	10
X	# DAYS > = 1.00"	4
Y	YR. TO DATE TOT.	60.47
	MAX. 1 HR. PRECIP.	0.77

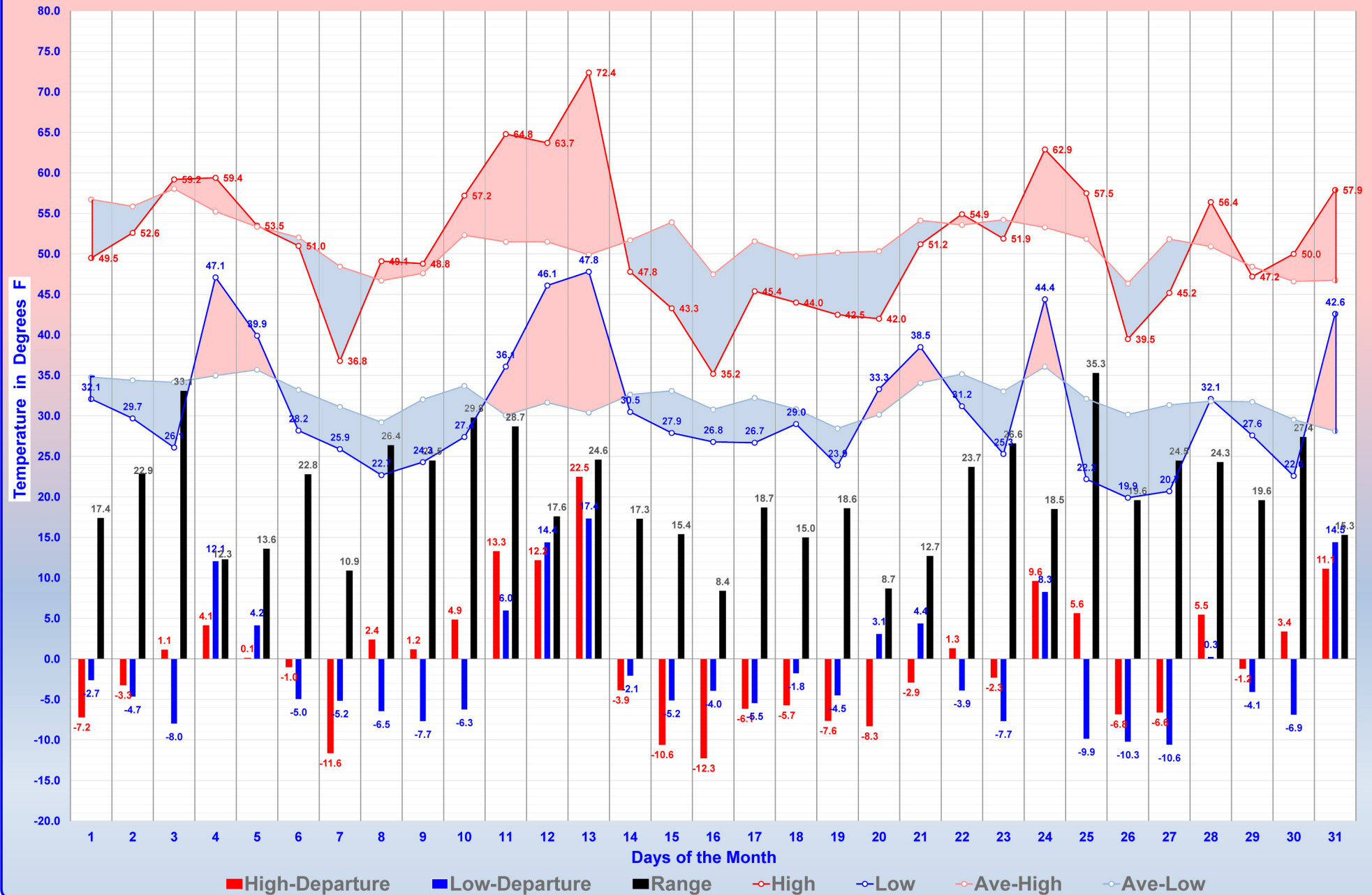
#### SNOWFALL INCHES

Z	DAILY MAXIMUM	0.2
01	DATE OF MAX.	Dec-07
02	DAYS= > TRACE	3
03	DAYS > = 1.0"	0
04	MONTHLY TOTAL	0.2
05	2020 - 2021 SEASON'S TOT.	0.2

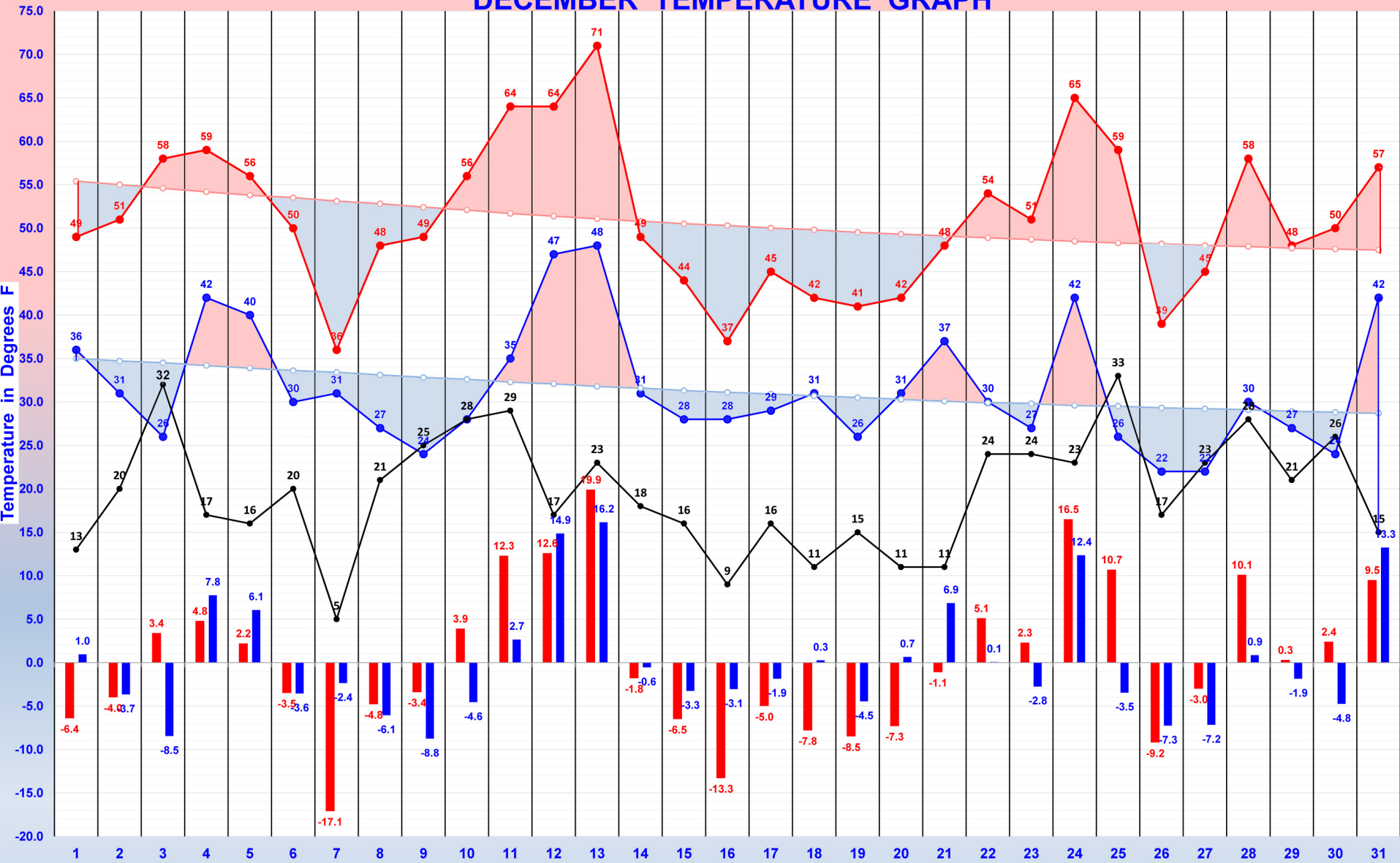
#### BAROMETER

6	MAXIMUM	30.58
6A	DATE	Dec-29
7	MINIMUM	29.42
7A	DATE	Dec-25
8	AVE. MONTHLY PRESSURE	30.08
CWA	NWS WARNING AREA	HENRICO

# DECEMBER TEMPERATURE GRAPH



# The Richmond International Airport DECEMBER TEMPERATURE GRAPH



■ High-Departure    
 ■ Low-Departure    
 ● High    
 ● Low    
 ○ Ave-High    
 ○ Ave-Low    
 — Range