



JULY 2017 LOCAL CLIMATOLOGICAL DATA

NOAA, National Centers for Environmental Information

RICHMOND, VA
RICHMOND INTERNATIONAL AIRPORT (KRIC)
 Lat:37° 30'N Long: 77° 19'W Elev (Ground) 164 Feet
 Time Zone : EASTERN WBAN: 13740 ISSN#: 0198-537X



Date 1	Temperature °F						Deg Days BASE 65°		WEATHER 10	SNOW/ICE ON GND(IN)		PRECIPITATION ON GND(IN)		PRESSURE (INCHES OF HG)		WIND SPEED = MPH DIR = TENS OF DEGREES								Date 24
	MAXIMUM 2	MINIMUM 3	AVERAGE 4	DEP FROM NORMAL 5	AVERAGE DEW PT 6	AVERAGE WET BULB 7	HEATING 8	COOLING 9		0700 LST 11	1300 LST 12	2400 LST 13	2400 LST 14	AVERAGE STATION 15	AVERAGE SEA LEVEL 16	RESULTANT SPEED 17	RES DIR 18	AVERAGE SPEED 19	MAXIMUM					
																			3-SEC		2-MIN			
01	92	75	84	7	72	75	0	19	RA	0		0.0	T	29.79	29.97	10.9	21	11.1	23	20	17	23	01	
02	89	72	81	4	72	75	0	16	RA	0		0.0	0.15	29.84	30.03	0.5	12	4.9	22	32	18	33	02	
03	93	71	82	5	68	73	0	17	BR	0		0.0	0.00	29.84	30.03	2.2	03	4.2	17	01	13	01	03	
04	91	71	81	4	72	74	0	16	RA	0		0.0	0.01	29.85	30.03	2.2	14	3.5	25	13	20	12	04	
05	90	72	81	4	73	74	0	16	TS TSRA RA BR	0		0.0	0.49	29.90	30.09	3.7	09	5.0	27	09	22	07	05	
06	89	73	81	4	72	74	0	16	TS RA BR	0		0.0	0.03	29.83	30.00	5.3	24	7.1	18	22	15	21	06	
07	90	72	81	4	70	73	0	16		0		0.0	0.00	29.68	29.86	6.8	25	9.7	24	28	20	28	07	
08	92	71	82	5	67	72	0	17		0		0.0	0.00	29.68	29.87	8.1	26	9.9	28	26	21	25	08	
09	87	67	77	0	63	68	0	12		0		0.0	0.00	29.85	30.05	2.3	05	5.7	18	02	14	02	09	
10	92	67	80	2	68	72	0	15		0		0.0	0.00	29.85	30.04	7.1	19	7.4	21	17	17	19	10	
11	96	71	84	6	70	74	0	19		0		0.0	0.00	29.83	30.02	7.4	22	8.4	24	24	18	28	11	
12	98	76	87	9	73	77	0	22		0		0.0	0.00	29.88	30.07	7.8	22	8.5	22	17	15	24	12	
13	99	77	88	10	74	78	0	23		0		0.0	0.00	29.88	30.07	9.8	22	10.1	23	22	17	22	13	
14	98	74	86	8	71	76	0	21	TS	0		0.0	0.00	29.83	30.01	8.9	24	9.7	31	21	23	26	14	
15	94	73	84	6	68	73	0	19		0		0.0	0.00	29.78	29.96	2.3	35	6.4	18	33	15	33	15	
16	91	72	82	4	67	71	0	17		0		0.0	0.00	29.78	29.98	4.1	06	7.1	17	14	15	14	16	
17	90	69	80	2	71	73	0	15	BR	0		0.0	0.00	29.83	30.02	5.5	15	6.1	19	19	14	15	17	
18	91	72	82	3	72	75	0	17		0		0.0	0.00	29.89	30.08	4.3	16	5.3	21	13	16	14	18	
19	95	68	82	3	67	72	0	17		0		0.0	0.00	29.88	30.06	3.9	19	4.6	17	14	13	18	19	
20	98	73	86	7	70	75	0	21		0		0.0	0.00	29.82	30.00	6.1	21	6.7	19	19	15	22	20	
21	99	75	87	8	70	76	0	22		0		0.0	0.00	29.75	29.94	1.9	22	5.3	19	33	15	22	21	
22	101*	74	88*	9	71	76	0	23	RA	0		0.0	T	29.70	29.86	6.7	24	7.8	26	26	18	25	22	
23	97	74	86	7	71	75	0	21	TS TSRA RA BR	0		0.0	0.82	29.61	29.80	5.0	24	8.4	56*	23	37*	24	23	
24	94	72	83	5	70	74	0	18	RA	0		0.0	0.01	29.65	29.84	6.5	23	7.8	19	24	15	25	24	
25	87	70	79	1	63	69	0	14		0		0.0	0.00	29.86	30.08	7.9	01	8.9	24	02	16	01	25	
26	89	68	79	1	64	69	0	14		0		0.0	0.00	29.97	30.15	2.7	09	5.2	17	13	13	10	26	
27	90	69	80	2	69	72	0	15	RA	0		0.0	T	29.81	29.97	8.6	22	10.0	21	22	17	25	27	
28	88	73	81	3	72	74	0	16	TS RA BR	0		0.0	0.22	29.61	29.78	5.5	20	6.4	28	18	23	18	28	
29	73	66	70*	-8	67	68	0	5	TS TSRA RA DZ BR	0		0.0	0.52	29.54	29.75	11.8	36	12.2	32	01	25	01	29	
30	83	60	72	-6	56	63	0	7		0		0.0	0.00	29.82	30.03	7.9	01	8.6	24	01	20	01	30	
31	87	59*	73	-5	59	65	0	8		0		0.0	0.00	29.91	30.10	2.4	04	3.5	17	03	13	04	31	

91.7	70.8	81.3	☼	68.8	72.7	0.0	16.6	< MONTHLY AVERAGES TOTALS >				0.0	2.25	29.80	29.99	2.4	23	7.3	< MONTHLY AVERAGES			
2.0	1.9	2.0		<----- DEPARTURE FROM NORMAL ----->								-2.26	SUNSHINE, CLOUD, & VISIBILITY TABLES ON PAGE 3									

DEGREE DAYS				GREATEST 24-HR PRECIPITATION : 0.82 DATE : 23				SEA LEVEL PRESSURE			
MONTHLY				GREATEST 24-HR SNOWFALL : 0.0 DATE :				MAXIMUM : 30.22 DATE 26 TIME 0946			
TOTAL DEPARTURE				GREATEST SNOW DEPTH : 0 DATE :				MINIMUM : 29.60 DATE 29 TIME 0428			
SEASON TO DATE				NUMBER OF DAYS WITH ->				MAXIMUM TEMP >= 90 : 22			
HEATING : 0 0 0 0				MAXIMUM TEMP <= 32 : 0				MINIMUM TEMP <= 0 : 0			
COOLING : 514 71 1052 133				THUNDERSTORMS : 6				HEAVY FOG : 0			
								PRECIPITATION >= 0.01 INCH: 8			
								PRECIPITATION >= 0.10 INCH: 5			
								SNOWFALL >= 1.0 INCH : 0			

**JULY 2017
RICHMOND, VA**

HOURLY PRECIPITATION

(WATER EQUIVALENT IN INCHES)

RICHMOND, VA (KRIC)
JULY 2017

WBAN # 13740

Date	FOR HOUR (LST) ENDING AT												Date	FOR HOUR (LST) ENDING AT												Date	Sum of Hourly Data	2400 LST Water Equiv.
	1	2	3	4	5	6	7	8	9	10	11	12		13	14	15	16	17	18	19	20	21	22	23	24			
01		T	T										01												01	T	T	
02													02				0.04	0.11							02	0.15	0.15	
03													03												03	0.00	0.00	
04													04	T	0.01					T					04	0.01	0.01	
05													05			T	0.17	0.16	T	0.03	0.01	0.12	T	T	05	0.49	0.49	
06	T	T	0.03	T									06												06	0.03	0.03	
07													07												07	0.00	0.00	
08													08												08	0.00	0.00	
09													09												09	0.00	0.00	
10													10												10	0.00	0.00	
11													11												11	0.00	0.00	
12													12												12	0.00	0.00	
13													13												13	0.00	0.00	
14													14												14	0.00	0.00	
15													15												15	0.00	0.00	
16													16												16	0.00	0.00	
17													17												17	0.00	0.00	
18													18												18	0.00	0.00	
19													19												19	0.00	0.00	
20													20												20	0.00	0.00	
21													21												21	0.00	0.00	
22													22											T	22	T	T	
23	0.10	0.03	T	T									23								T	0.69	T	23	0.82	0.82		
24	T	0.01						T					24											24	0.01	0.01		
25													25												25	0.00	0.00	
26													26												26	0.00	0.00	
27													27						T	T	T	T			27	T	T	
28													28			0.01	0.16	0.01	0.01	T	0.01	0.01	T	28	0.22	0.22		
29	0.05	0.08	0.04	0.14	0.05	T	T	0.01	T	0.01	0.06	T	29	T	0.07	T	0.01	T	T					29	0.52	0.52		
30													30												30	0.00	0.00	
31													31												31	0.00	0.00	

* Indicates sum of Hourly and Daily disagree.

MAXIMUM SHORT DURATION PRECIPITATION (See Note)

Time Period (Minutes)	5	10	15	20	30	45	60	80	100	120	150	180
Precipitation (Inches)	0.20	0.31	0.40	0.46	0.56	0.68	0.69	0.69	0.69	0.69	0.69	0.70
Ending Date	23	23	23	23	23	23	23	23	23	23	23	24
Ending Time (Hr/Min)	2232	2233	2233	2237	2253	2258	2258	2258	2258	2258	2258	0103

Note : The hourly and daily precipitation totals are printed in the last 2 columns and hi-lighted in red when they disagree. NWS does not edit ASOS hourly values but may edit daily and monthly totals. Hourly, daily, and monthly totals are printed as reported by the ASOS site.

Date and time are not entered for TRACE amounts.

REFERENCE NOTES & SUPPLEMENTAL SUMMARIES

* = Extreme for the month (last occurrence if more than one).

T = Trace precipitation amount.

+ = also occurs on earlier date.

FG+ = Heavy fog, visibility .25 miles or less.

BLANK entries denote missing or unreported data.

Resultant wind is the vector sum of the wind speeds and directions divided by the number of observations.

Wind direction is recorded in tens of degrees (2 digits) clockwise from true north. '00' = calm, 'VR' = variable.

Precipitation is for the 24-hour period ending at the time indicated in the column heading.

Ceilometer (30-second) data are used to derive cloudiness at or below 12,000 feet. This cloudiness is the mean cloud cover detected during sunrise to sunset (SR-SS), or midnight to midnight (MN-MN).

WEATHER NOTATIONS

QUALIFIER	WEATHER PHENOMENA		
DESCRIPTOR	PRECIPITATION	OBSCURATION	OTHER
BC Patches	DZ Drizzle	BR Mist	DS Duststorm
BL Blowing	GR Hail	DU Widespread Dust	FC Funnel Cloud
DR Low Drifting	GS Small Hail and/or Snow Pellets	FG Fog	+FC Tornado Waterspout
FZ Freezing	IC Ice Crystals	FU Smoke	PO Well-Developed Dust/Sand Whirls
MI Shallow	PL Ice Pellets	HZ Haze	
PR Partial	RA Rain	PY Spray	SQ Squalls
SH Shower(s)	SG Snow Grains	SA Sand	SS Sandstorm
TS Thunderstorm	SN Snow	VA Volcanic Ash	GL Glaze
VC In the Vicinity	UP Unkown Precipitation		

Intensity (as indicated on pages 4 to 6):
'+' = Heavy '' = Moderate '-' = Light

RICHMOND, VA JULY 2017

Sky Condition is based on the sum (not to exceed 8) of the sunrise to sunset cloud cover below and above 12,000 feet.

Clear = 0-2 oktas, Partly Cloudy = 3-6 oktas, Cloudy = 7-8 oktas.

A Heating (Cooling) Degree Day is the difference between the average daily temperature and 65 degrees F. The HDD season begins July 1, the CDD season begins January 1.

Snow Depth, Snowfall, and Sunshine data may come from nearby sites that the National Weather Service deems Climatologically representative of this site.

NORMALS ARE FOR THE YEARS 1981-2010

ADDITIONAL NOTES & ERRATA:

Date	VISIBILITY (MILES)	
	MINIMUM	MAXIMUM
01	9.00	10.00
02	6.00	10.00
03	3.00	10.00
04	8.00	10.00
05	1.75	10.00
06	3.00	10.00
07	10.00	10.00
08	10.00	10.00
09	10.00	10.00
10	7.00	10.00
11	8.00	10.00
12	10.00	10.00
13	10.00	10.00
14	10.00	10.00
15	10.00	10.00
16	10.00	10.00
17	6.00	10.00
18	9.00	10.00
19	10.00	10.00
20	10.00	10.00
21	8.00	10.00
22	10.00	10.00
23	2.00	10.00
24	9.00	10.00
25	10.00	10.00
26	10.00	10.00
27	10.00	10.00
28	6.00	10.00
29	2.00	10.00
30	10.00	10.00
31	10.00	10.00
AVGS	7.99	10.00
MINIMUM VISIBILITY (MILES)		
<= .25	<= 3.0	>= 7.0
0	5	23

OBSERVATIONS AT 3-HOURLY INTERVALS

RICHMOND, VA
JULY 2017 **KRIC**

WBAN # 13740

HOUR (LST)	SKY COVER	CEILING 100's of FT.	VISIBILITY (MILES)	WEATHER	TEMPERATURE °F			RELATIVE HUMIDITY (PCT)	WIND		PRESSURE (INCHES, HG)		HOUR (LST)	SKY COVER	CEILING 100's of FT.	VISIBILITY (MILES)	WEATHER	TEMPERATURE °F			RELATIVE HUMIDITY (PCT)	WIND		PRESSURE (INCHES, HG)	
					DRY BULB	DEW POINT	WET BULB		SPEED (MPH)	DIRECTION Tens of Deg	STATION	SEA LEVEL						DRY BULB	DEW POINT	WET BULB		SPEED (MPH)	DIRECTION Tens of Deg	STATION	SEA LEVEL
SUNRISE: 0452 JUL 01					SUNSET: 1934					SUNRISE: 0455 JUL 07					SUNSET: 1933										
01	OVC	080	10.00		75	71	72	88	9	19	29.83	30.01	01	BKN	300	10.00		74	72	73	94	3	19	29.70	29.89
04	OVC	020	10.00		75	72	73	90	10	19	29.79	29.98	04	SCT	300	10.00		75	72	73	90	9	23	29.67	29.86
07	BKN	150	10.00		76	72	73	88	9	20	29.82	30.01	07	SCT	300	10.00		79	70	73	74	16	25	29.67	29.85
10	BKN	250	10.00		82	72	75	72	15	22	29.80	29.98	10	SCT	200	10.00		86	70	75	59	13	26	29.70	29.89
13	BKN	250	10.00		86	73	77	65	16	21	29.77	29.96	13	BKN	045	10.00		83	70	74	65	16	36	29.69	29.88
16	SCT	042	10.00		89	72	77	57	13	21	29.73	29.91	16	SCT	300	10.00		87	69	75	55	7	19	29.66	29.84
19	SCT	250	10.00		86	75	78	70	9	21	29.74	29.93	19	FEW	300	10.00		86	69	74	57	10	22	29.66	29.84
22	SCT	300	10.00		78	72	74	82	8	20	29.81	29.99	22	CLR	NC	10.00		75	70	72	84	8	20	29.67	29.86
SUNRISE: 0452 JUL 02					SUNSET: 1934					SUNRISE: 0455 JUL 08					SUNSET: 1933										
01	SCT	300	10.00		78	74	75	87	8	25	29.79	29.98	01	CLR	NC	10.00		78	71	73	79	7	25	29.67	29.85
04	SCT	300	10.00		74	72	73	94	3	20	29.80	29.98	04	SCT	300	10.00		73	70	71	90	7	23	29.63	29.82
07	BKN	300	10.00		77	74	75	90	0	00	29.86	30.04	07	SCT	300	10.00		78	70	73	76	8	25	29.68	29.86
10	BKN	300	10.00		85	71	75	63	7	04	29.88	30.07	10	FEW	300	10.00		87	67	74	51	13	26	29.69	29.88
13	BKN	300	10.00		86	72	76	63	10	14	29.88	30.06	13	FEW	250	10.00		90	66	74	45	15	25	29.68	29.87
16	OVC	300	10.00		88	70	76	55	3	VR	29.83	30.01	16	SCT	200	10.00		90	66	74	45	15	25	29.66	29.85
19	OVC	300	10.00		76	73	74	91	0	00	29.84	30.03	19	BKN	300	10.00		86	63	71	46	10	29	29.69	29.88
22	OVC	300	10.00		76	72	73	88	3	17	29.85	30.03	22	BKN	250	10.00		80	63	69	56	5	32	29.74	29.93
SUNRISE: 0453 JUL 03					SUNSET: 1934					SUNRISE: 0456 JUL 09					SUNSET: 1933										
01	SCT	300	9.00		74	72	73	94	0	00	29.83	30.01	01	SCT	300	10.00		73	62	66	69	0	00	29.78	29.97
04	BKN	300	8.00		74	73	73	97	0	00	29.84	30.02	04	FEW	250	10.00		68	62	64	81	9	34	29.82	30.00
07	FEW	300	10.00		78	72	74	82	6	01	29.85	30.04	07	CLR	NC	10.00		73	61	66	66	11	36	29.88	30.06
10	BKN	300	10.00		86	69	74	57	9	36	29.87	30.06	10	CLR	NC	10.00		81	62	69	53	6	VR	29.91	30.09
13	BKN	300	10.00		91	65	74	42	8	05	29.85	30.04	13	FEW	050	10.00		85	60	69	43	3	VR	29.89	30.07
16	BKN	300	10.00		92	61	72	36	7	36	29.83	30.01	16	SCT	080	10.00		84	62	70	48	7	06	29.86	30.05
19	BKN	300	10.00		85	69	74	59	3	17	29.84	30.03	19	SCT	300	10.00		81	65	71	58	3	09	29.86	30.05
22	OVC	300	10.00		77	70	72	79	5	13	29.87	30.06	22	SCT	300	10.00		73	66	69	79	7	13	29.88	30.07
SUNRISE: 0453 JUL 04					SUNSET: 1934					SUNRISE: 0457 JUL 10					SUNSET: 1933										
01	SCT	250	10.00		74	71	72	91	3	16	29.83	30.01	01	CLR	NC	10.00		71	66	68	84	5	14	29.88	30.07
04	BKN	250	10.00		73	71	72	94	0	00	29.83	30.01	04	CLR	NC	10.00		69	65	66	87	0	00	29.88	30.06
07	OVC	300	8.00		75	73	74	94	3	19	29.87	30.05	07	FEW	300	9.00		74	71	72	91	6	18	29.87	30.06
10	OVC	300	10.00		85	73	77	68	0	00	29.87	30.06	10	SCT	250	10.00		86	70	75	59	6	15	29.90	30.09
13	BKN	080	10.00		85	68	74	57	10	02	29.84	30.03	13	SCT	250	10.00		90	66	74	45	16	17	29.86	30.05
16	BKN	300	10.00		87	71	76	59	9	15	29.83	30.01	16	SCT	250	10.00		89	64	72	43	8	19	29.82	30.00
19	BKN	300	10.00		78	71	73	79	9	14	29.85	30.04	19	BKN	250	10.00		85	66	72	53	11	19	29.81	29.99
22	OVC	150	10.00		76	71	73	85	5	19	29.87	30.05	22	SCT	250	10.00		76	70	72	82	8	19	29.85	30.03
SUNRISE: 0454 JUL 05					SUNSET: 1934					SUNRISE: 0457 JUL 11					SUNSET: 1932										
01	OVC	130	10.00		74	72	73	94	3	12	29.88	30.06	01	BKN	300	10.00		74	72	73	94	6	20	29.83	30.01
04	OVC	200	10.00		73	72	72	96	0	00	29.87	30.06	04	SCT	300	10.00		72	71	71	97	5	18	29.81	30.00
07	BKN	250	10.00		76	72	73	88	0	00	29.92	30.11	07	BKN	300	10.00		75	72	73	90	7	21	29.85	30.03
10	BKN	250	10.00		81	73	75	77	8	11	29.93	30.11	10	BKN	300	10.00		87	73	77	63	11	20	29.85	30.04
13	BKN	250	10.00		88	72	77	59	7	11	29.89	30.08	13	BKN	300	10.00		93	71	78	49	10	19	29.83	30.01
16	FEW	035	10.00		74	72	73	94	8	07	29.90	30.09	16	OVC	300	10.00		95	63	74	35	15	28	29.82	30.01
19	BKN	028	5.00	-RA BR	76	75	75	97	7	06	29.91	30.10	19	OVC	300	10.00		85	71	75	63	6	19	29.81	30.00
22	OVC	060	9.00	-RA	73	73	73	100	0	00	29.93	30.12	22	BKN	300	10.00		78	70	73	76	8	20	29.84	30.03
SUNRISE: 0454 JUL 06					SUNSET: 1934					SUNRISE: 0458 JUL 12					SUNSET: 1932										
01	OVC	030	6.00	BR	74	74	74	100	5	07	29.88	30.07	01	OVC	300	10.00		82	72	75	72	8	23	29.87	30.06
04	OVC	032	6.00	BR	74	73	73	97	5	30	29.86	30.05	04	BKN	200	10.00		79	73	75	82	10	20	29.88	30.06
07	BKN	300	10.00		76	73	74	91	6	31	29.87	30.06	07	SCT	300	10.00		79	73	75	82	6	22	29.90	30.09
10	OVC	017	10.00		77	71	73	82	7	26	29.87	30.06	10	OVC	300	10.00		88	74	78	63	6	20	29.92	30.11
13	BKN	250	10.00		86	72	76	63	8	24	29.83	30.01	13	BKN	300	10.00		95	70	77	44	7	25	29.90	30.09
16	BKN	300	10.00		88	71	76	57	10	25	29.77	29.95	16	BKN	300	10.00		96	66	75	37	9	26	29.87	30.05
19	BKN	200	10.00		84	74	77	72	8	20	29.74	29.93	19	BKN	300	10.00		89	75	79	63	7	19	29.86	30.04
22	BKN	230	10.00		77	73	74	88	8	21	29.75	29.94	22	SCT	300	10.00		83	76	78	79	9	20	29.89	30.08

OBSERVATIONS AT 3-HOURLY INTERVALS

RICHMOND, VA
JULY 2017

KRIC

WBAN # 13740

HOUR (LST)	SKY COVER	CEILING 100's of FT.	VISIBILITY (MILES)	WEATHER	TEMPERATURE °F			RELATIVE HUMIDITY (PCT)	WIND		PRESSURE (INCHES, HG)		HOUR (LST)	SKY COVER	CEILING 100's of FT.	VISIBILITY (MILES)	WEATHER	TEMPERATURE °F			RELATIVE HUMIDITY (PCT)	WIND		PRESSURE (INCHES, HG)					
					DRY BULB	DEW POINT	WET BULB		SPEED (MPH)	DIRECTION Tens of Deg	STATION	SEA LEVEL						DRY BULB	DEW POINT	WET BULB		SPEED (MPH)	DIRECTION Tens of Deg	STATION	SEA LEVEL				
SUNRISE: 0459					JUL 13					SUNSET: 1931					SUNRISE: 0503					JUL 19					SUNSET: 1928				
01	FEW	220	10.00		82	74	76	77	9	21	29.90	30.08	01	FEW	300	10.00		73	71	72	94	3	18	29.91	30.09				
04	CLR	NC	10.00		77	74	75	90	6	20	29.90	30.09	04	CLR	NC	10.00		69	69	69	100	7	20	29.90	30.08				
07	BKN	300	10.00		82	75	77	79	10	22	29.91	30.10	07	FEW	150	10.00		75	67	70	76	3	VR	29.91	30.10				
10	BKN	300	10.00		90	74	79	59	11	23	29.92	30.10	10	CLR	NC	10.00		87	66	73	50	0	00	29.92	30.10				
13	BKN	300	10.00		96	71	78	44	11	22	29.89	30.07	13	FEW	060	10.00		91	66	74	44	0	00	29.87	30.06				
16	BKN	300	10.00		97	73	80	46	16	22	29.84	30.03	16	SCT	250	10.00		93	65	74	40	7	20	29.83	30.01				
19	BKN	300	10.00		91	74	79	57	11	21	29.83	30.02	19	FEW	250	10.00		89	66	74	47	6	16	29.84	30.02				
22	SCT	300	10.00		86	74	78	67	8	25	29.86	30.05	22	CLR	NC	10.00		80	69	73	69	5	17	29.87	30.06				
SUNRISE: 0459					JUL 14					SUNRISE: 1931					SUNRISE: 0504					JUL 20					SUNSET: 1928				
01	SCT	300	10.00		81	71	74	72	10	23	29.87	30.06	01	CLR	NC	10.00		76	69	71	79	5	19	29.86	30.05				
04	FEW	300	10.00		75	70	72	84	6	20	29.86	30.05	04	CLR	NC	10.00		74	70	71	88	3	18	29.85	30.04				
07	OVC	300	10.00		79	71	74	77	9	21	29.88	30.07	07	BKN	300	10.00		77	72	74	85	6	18	29.86	30.05				
10	BKN	300	10.00		91	73	78	56	9	25	29.87	30.06	10	OVC	300	10.00		91	71	77	52	7	26	29.86	30.05				
13	BKN	300	10.00		95	73	79	49	11	25	29.83	30.01	13	OVC	300	10.00		96	67	76	39	14	20	29.82	30.01				
16	BKN	300	10.00		96	71	78	44	17	21	29.76	29.95	16	BKN	300	10.00		97	68	77	39	13	21	29.77	29.96				
19	BKN	300	10.00		88	72	77	59	13	25	29.77	29.96	19	BKN	300	10.00		90	71	77	54	7	18	29.75	29.93				
22	BKN	300	10.00		84	70	74	63	6	27	29.79	29.98	22	BKN	300	10.00		81	72	75	74	6	19	29.78	29.96				
SUNRISE: 0460					JUL 15					SUNRISE: 1931					SUNRISE: 0504					JUL 21					SUNSET: 1927				
01	SCT	160	10.00		79	69	72	72	5	33	29.76	29.95	01	SCT	300	10.00		79	72	74	79	7	19	29.78	29.96				
04	SCT	300	10.00		76	71	73	85	7	24	29.78	29.97	04	OVC	300	10.00		77	71	73	82	0	00	29.75	29.94				
07	BKN	240	10.00		77	71	73	82	7	26	29.81	30.00	07	OVC	300	9.00		79	73	75	82	5	19	29.79	29.98				
10	BKN	250	10.00		87	71	76	59	10	32	29.82	30.00	10	BKN	300	10.00		92	70	77	49	8	03	29.80	29.98				
13	BKN	250	10.00		90	65	73	44	10	35	29.78	29.97	13	OVC	300	10.00		93	70	77	47	3	VR	29.77	29.95				
16	BKN	300	10.00		92	64	73	40	8	03	29.73	29.92	16	BKN	300	8.00		96	68	77	40	6	30	29.73	29.91				
19	BKN	095	10.00		86	64	72	48	6	05	29.74	29.93	19	BKN	300	8.00		91	73	78	56	6	17	29.70	29.88				
22	BKN	100	10.00		78	68	71	71	5	05	29.79	29.97	22	BKN	300	10.00		86	68	74	55	6	27	29.74	29.92				
SUNRISE: 0501					JUL 16					SUNRISE: 1930					SUNRISE: 0505					JUL 22					SUNSET: 1927				
01	BKN	100	10.00		76	68	71	77	6	03	29.78	29.97	01	SCT	300	10.00		79	71	74	77	7	24	29.74	29.92				
04	BKN	060	10.00		74	65	68	74	9	02	29.80	29.98	04	FEW	300	10.00		75	71	72	88	5	18	29.71	29.90				
07	SCT	250	10.00		77	65	69	66	9	04	29.82	30.00	07	BKN	300	10.00		81	72	75	74	0	00	29.75	29.93				
10	SCT	250	10.00		87	63	71	45	9	04	29.82	30.01	10	BKN	300	10.00		92	71	77	51	6	VR	29.75	29.93				
13	BKN	250	10.00		87	65	72	48	5	VR	29.78	29.97	13	SCT	300	10.00		96	68	77	40	8	24	29.69	29.88				
16	BKN	300	10.00		89	66	74	47	5	VR	29.76	29.94	16	SCT	120	10.00		100	69	78	37	15	24	29.61	29.80				
19	BKN	300	10.00		84	71	75	65	8	14	29.77	29.96	19	BKN	300	10.00		95	68	76	41	11	25	29.60	29.79				
22	BKN	300	10.00		77	70	72	79	3	08	29.82	30.00	22	BKN	300	10.00		84	76	78	77	3	17	29.62	29.81				
SUNRISE: 0501					JUL 17					SUNRISE: 1930					SUNRISE: 0506					JUL 23					SUNSET: 1926				
01	SCT	300	10.00		72	70	71	94	5	18	29.81	29.99	01	SCT	090	2.00		78	69	72	74	22	22	29.61	29.79				
04	SCT	300	10.00		70	69	69	97	6	13	29.80	29.98	04	OVC	160	10.00		77	74	75	90	8	24	29.60	29.79				
07	OVC	300	7.00		72	71	71	97	6	13	29.84	30.03	07	BKN	300	10.00		79	74	76	85	5	24	29.63	29.81				
10	BKN	300	10.00		81	71	74	72	7	16	29.85	30.03	10	BKN	300	10.00		89	74	78	61	7	27	29.65	29.83				
13	BKN	300	10.00		86	70	75	59	5	VR	29.84	30.02	13	BKN	250	10.00		94	69	77	44	5	27	29.62	29.81				
16	BKN	300	10.00		89	69	75	52	11	15	29.79	29.98	16	BKN	300	10.00		96	62	73	32	14	23	29.60	29.78				
19	BKN	300	10.00		82	72	75	72	7	16	29.84	30.03	19	SCT	300	10.00		87	70	75	57	8	10	29.58	29.77				
22	BKN	300	10.00		77	72	74	85	7	14	29.87	30.06	22	OVC	190	10.00		82	72	75	72	15	19	29.64	29.83				
SUNRISE: 0502					JUL 18					SUNRISE: 1929					SUNRISE: 0507					JUL 24					SUNSET: 1925				
01	BKN	300	10.00		75	72	73	90	5	20	29.87	30.06	01	OVC	200	9.00		76	75	75	97	3	17	29.62	29.81				
04	BKN	300	10.00		73	72	72	96	0	00	29.87	30.06	04	SCT	200	10.00		72	71	71	97	7	19	29.60	29.78				
07	BKN	300	10.00		75	73	74	94	6	19	29.91	30.10	07	OVC	300	10.00		74	71	72	91	7	21	29.64	29.83				
10	BKN	300	10.00		86	74	78	67	7	12	29.92	30.11	10	BKN	300	10.00		83	71	75	67	10	26	29.68	29.86				
13	OVC	300	10.00		88	72	77	59	8	15	29.89	30.07	13	BKN	300	10.00		91	69	76	49	8	24	29.66	29.85				
16	BKN	300	10.00		91	71	77	52	8	16	29.86	30.05	16	BKN	300	10.00		94	65	74	38	7	VR	29.65	29.84				
19	SCT	300	10.00		83	73	76	72	9	15	29.89	30.08	19	BKN	300	10.00		87	71	76	59	7	20	29.66	29.85				
22	SCT	300	10.00		76	72	73	88	5	17	29.92	30.10	22	SCT	300	10.00		81	71	74	72	6	24	29.70	29.89				

OBSERVATIONS AT 3-HOURLY INTERVALS

RICHMOND, VA
JULY 2017

KRIC

WBAN # 13740

HOUR (LST)	SKY COVER	CEILING 100's of FT.	VISIBILITY (MILES)	WEATHER	TEMPERATURE °F			RELATIVE HUMIDITY (PCT)	WIND		PRESSURE (INCHES, HG)						
					DRY BULB	DEW POINT	WET BULB		SPEED (MPH)	DIRECTION Tens of Deg	STATION	SEA LEVEL					
SUNRISE: 0507 JUL 25 SUNSET: 1924					01	FEW	300	10.00		80	71	74	74	7	28	29.75	29.93
04	CLR	NC	10.00			75	68	70	79	8	02	29.81	29.99				
07	BKN	300	10.00			76	64	68	67	14	01	29.87	30.06				
10	BKN	300	10.00			78	60	67	54	9	35	29.90	30.09				
13	BKN	300	10.00			85	62	70	46	7	VR	29.91	30.09				
16	SCT	300	10.00			87	60	70	40	10	33	29.91	30.09				
19	FEW	300	10.00			78	62	68	58	11	05	29.94	30.13				
22	FEW	200	10.00			71	63	66	76	6	01	29.99	30.18				
SUNRISE: 0508 JUL 26 SUNSET: 1924					01	BKN	060	10.00		69	63	65	81	7	36	29.99	30.18
04	BKN	060	10.00			68	64	66	87	6	01	29.99	30.18				
07	SCT	250	10.00			71	65	67	81	5	36	30.02	30.21				
10	SCT	065	10.00			79	66	71	65	3	22	30.02	30.21				
13	SCT	045	10.00			85	63	71	48	0	00	29.97	30.16				
16	SCT	060	10.00			85	62	70	46	0	00	29.92	30.11				
19	SCT	075	10.00			80	67	71	64	8	10	29.90	30.09				
22	BKN	060	10.00			73	65	68	76	9	13	29.92	30.11				
SUNRISE: 0509 JUL 27 SUNSET: 1923					01	BKN	055	10.00		71	67	68	87	7	16	29.92	30.11
04	FEW	050	10.00			70	67	68	90	8	18	29.86	30.05				
07	BKN	300	10.00			73	68	70	84	7	19	29.88	30.06				
10	OVC	300	10.00			81	68	72	65	14	21	29.84	30.03				
13	OVC	300	10.00			87	70	75	57	16	20	29.76	29.95				
16	BKN	250	10.00			88	70	76	55	14	25	29.71	29.90				
19	OVC	250	10.00	-RA		84	73	76	70	9	24	29.70	29.88				
22	OVC	100	10.00			79	68	72	69	9	22	29.70	29.88				
SUNRISE: 0510 JUL 28 SUNSET: 1922					01	OVC	130	10.00		74	69	71	85	3	21	29.68	29.86
04	OVC	090	10.00			74	70	71	88	7	21	29.66	29.85				
07	SCT	150	10.00			77	71	73	82	6	28	29.66	29.84				
10	BKN	100	10.00			81	71	74	72	0	00	29.64	29.83				
13	BKN	150	10.00			86	72	76	63	8	17	29.59	29.78				
16	SCT	065	10.00			86	71	76	61	7	22	29.52	29.71				
19	BKN	060	9.00			76	74	75	94	9	18	29.53	29.72				
22	OVC	095	9.00	-RA		73	72	72	96	6	21	29.52	29.70				
SUNRISE: 0511 JUL 29 SUNSET: 1921					01	OVC	080	10.00	-RA	72	71	71	97	6	24	29.48	29.66
04	OVC	016	3.00	-RA BR		72	72	72	100	7	34	29.42	29.60				
07	OVC	006	3.00	-DZ BR		70	69	69	97	13	36	29.47	29.65				
10	OVC	013	2.00	-RA BR		70	69	69	97	21	35	29.50	29.69				
13	OVC	027	4.00	-RA BR		69	68	68	96	13	36	29.55	29.74				
16	OVC	060	6.00	-RA BR		68	66	67	93	24	36	29.61	29.80				
19	BKN	080	10.00			70	64	66	82	15	36	29.64	29.83				
22	OVC	095	10.00			70	59	63	68	11	35	29.72	29.91				
SUNRISE: 0511 JUL 30 SUNSET: 1920					01	CLR	NC	10.00		65	58	61	78	9	34	29.73	29.92
04	CLR	NC	10.00			61	55	58	81	9	34	29.76	29.95				
07	FEW	300	10.00			65	56	60	73	13	36	29.81	30.00				
10	FEW	300	10.00			76	55	63	48	15	03	29.85	30.03				
13	FEW	065	10.00			80	54	64	41	11	01	29.86	30.05				
16	FEW	065	10.00			81	56	66	42	8	34	29.85	30.04				
19	FEW	300	10.00			76	57	65	52	6	36	29.87	30.06				
22	CLR	NC	10.00			69	59	63	70	0	00	29.90	30.09				

HOUR (LST)	SKY COVER	CEILING 100's of FT.	VISIBILITY (MILES)	WEATHER	TEMPERATURE °F			RELATIVE HUMIDITY (PCT)	WIND		PRESSURE (INCHES, HG)						
					DRY BULB	DEW POINT	WET BULB		SPEED (MPH)	DIRECTION Tens of Deg	STATION	SEA LEVEL					
SUNRISE: 0512 JUL 31 SUNSET: 1919					01	CLR	NC	10.00		62	60	61	93	0	00	29.91	30.10
04	CLR	NC	10.00			60	58	59	93	0	00	29.90	30.09				
07	FEW	300	10.00			66	60	62	81	7	36	29.93	30.12				
10	FEW	300	10.00			80	59	67	49	7	01	29.95	30.14				
13	SCT	060	10.00			84	58	68	41	7	07	29.92	30.11				
16	SCT	060	10.00			85	58	68	40	7	04	29.88	30.07				
19	CLR	NC	10.00			80	59	67	49	5	09	29.88	30.07				
22	CLR	NC	10.00			71	61	65	71	3	16	29.91	30.10				

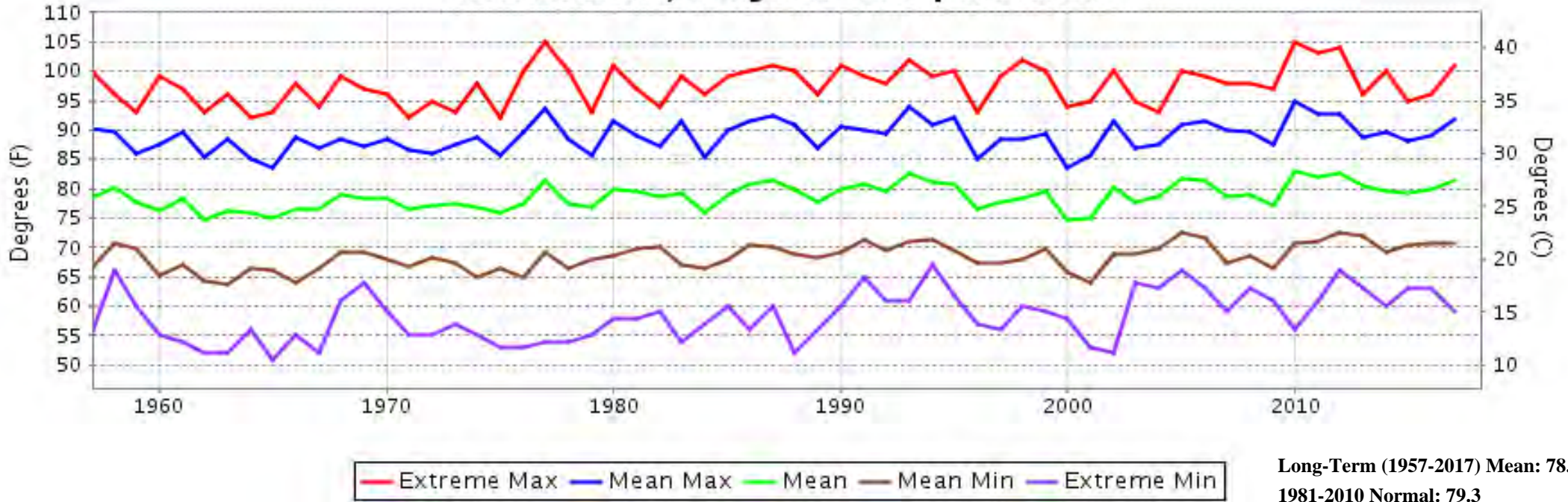
3-HOURLY OBSERVATION NOTES

Sky Cover is the amount of the sky obscured. CLR or SKC = 0, FEW = 1/8-2/8, SCT = 3/8-4/8, BKN = 5/8-7/8, OVC = 8/8, W = Vertical Visibility = 8/8
Ceiling is reported in hundreds of feet above ground level for clouds at or below 12,000 feet.
NC = No Ceiling detected.
& = Original observation contained additional weather elements.
See page 3 for additional notes.

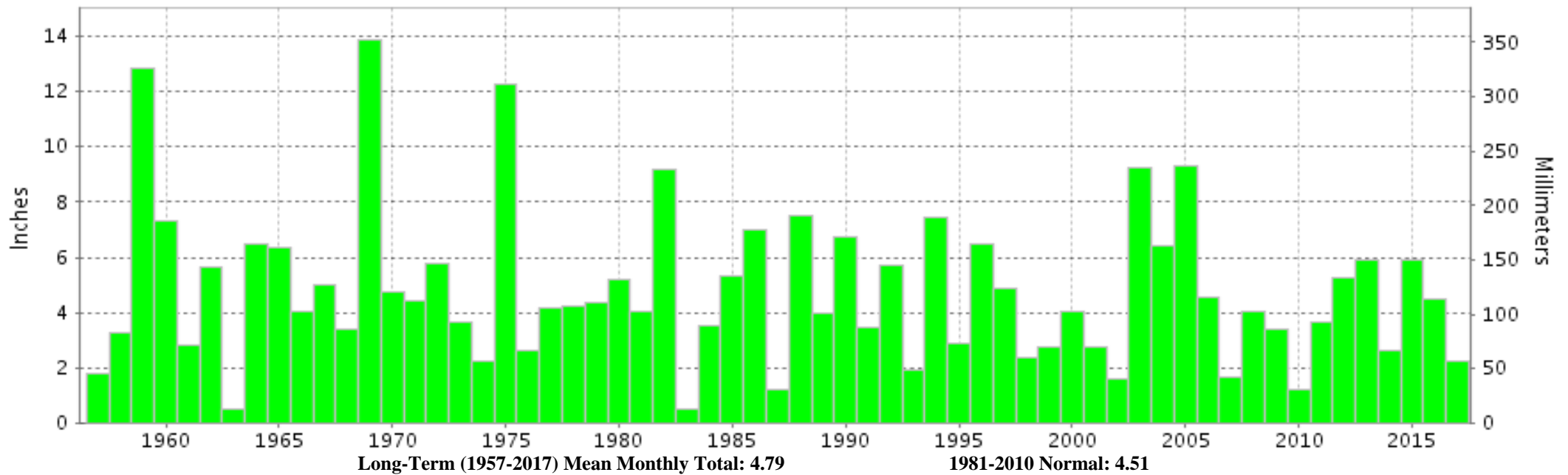
SUMMARY BY HOUR

HOUR (LST)	AVERAGES								RESULTANT WIND (MPH)	
	DRY BULB	DEW POINT	WET BULB	RELATIVE HUMIDITY	PRESSURE (Inches, HG)		VISIBILITY (Miles)	WIND SPEED (MPH)	SPEED	DIRECTION
					STATION	SEA LEVEL				
01	75	70	71	85	29.80	29.98	9.55	6	4	22
02	74	70	71	86	29.79	29.98	9.55	5	4	21
03	73	69	71	88	29.79	29.97	9.68	5	4	21
04	73	69	70	90	29.79	29.98	9.58	5	4	21
05	72	69	70	91	29.80	29.98	9.45	4	4	21
06	73	69	71	90	29.81	29.99	9.42	5	4	21
07	76	70	72	83	29.82	30.01	9.55	7	4	22
08	79	70	73	74	29.83	30.01	9.61	7	4	22
09	82	69	73	67	29.83	30.02	9.87	8	4	22
10	84	69	74	61	29.83	30.02	9.74	8	4	22
11	86	69	74	57	29.83	30.01	9.61	8	4	22
12	88	68	74	54	29.82	30.00	9.87	8	3	20
13	88	68	74	52	29.80	29.99	9.81	9	4	21
14	90	67	75	49	29.79	29.98	9.76	9	4	23
15	90	67	74	48	29.78	29.97	10.00	9	4	22
16	89	66	74	49	29.77	29.96	9.81	10	5	23
17	88	67	74	52	29.76	29.95	9.44	10	4	23
18	86	68	74	56	29.77	29.95	9.68	10	3	20
19	84	69	74	63	29.78	29.96	9.74	8	3	18
20	80	70	73	71	29.79	29.97	9.84	7	3	18
21	79	70	73	75	29.80	29.99	9.77	7	3	18
22	77	69	72	77	29.81	29.99	9.94	6	3	20
23	77	70	72	79	29.81	30.00	9.76	6	3	21
24	76	69	71	81	29.80	29.99	10.00	5	4	21

RICHMOND, VA JULY Temperatures



RICHMOND, VA JULY Precipitation





JULY 2017
RICHMOND, VA

LOCAL CLIMATOLOGICAL DATA

NOAA, National Centers for Environmental Information

I certify that this is an official publication of the National Oceanic and Atmospheric Administration (NOAA). It is compiled using information from weather observing sites operated by NOAA-National Weather Service / Department Of Transportation-Federal Aviation Administration and received at the National Centers for Environmental Information (NCEI), Asheville, North Carolina 28801.

A handwritten signature in black ink that reads "Mary A. Wohlgemuth".

DIRECTOR

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