



DECEMBER 2012 LOCAL CLIMATOLOGICAL DATA

NOAA, National Climatic Data Center

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	1300 LST	2400 LST	2400 LST	AVERAGE STATION 15	AVERAGE SEA LEVEL 16	RESULTANT SPEED 17	RES DIR 18	AVERAGE SPEED 19	MAXIMUM						
																			3-SEC		2-MIN				
									DEPTH 11	WATER- EQUIV 12	SNOW- FALL 13	WATER EQUIV 14			SPEED 20	DIR 21	SPEED 22	DIR 23							
01	60	31	46	1	36	41	19	0	BR HZ	0		0.0	0.00	30.17	30.38	1.4	36	1.6	9	02	7	03	01		
02	66	34	50	6	43	47	15	0	RA BR HZ	0		0.0	T	30.13	30.30	6.5	19	6.8	23	21	17	20	02		
03	72	50	61	17	51	55	4	0		0		0.0	0.00	30.04	30.24	2.6	17	3.3	10	18	9	17	03		
04	75*	48	62	19	51	55	3	0	BR	0		0.0	0.00	30.02	30.21	7.0	20	7.4	28	20	23	20	04		
05	62	42	52	9	43	49	13	0	RA	0		0.0	0.02	29.94	30.16	2.2	35	6.2	30	06	13	01	05		
06	48	31	40	-3	27	34	25	0		0		0.0	0.00	30.12	30.32	3.1	03	4.7	23	02	16	02	06		
07	54	35	45	2	41	43	20	0	RA DZ BR	0		0.0	0.13	29.96	30.14	0.7	22	1.6	9	30	7	30	07		
08	64	49	57	15	51	52	8	0	FG+ MIFG BR	0		0.0	0.00	29.78	29.98	4.8	21	5.2	21	21	12	21	08		
09	55	44	50	8	50	50	15	0	RA FG+ FG MIFG BR	0		0.0	0.07	29.89	30.08	1.3	04	2.0	9	01	7	03	09		
10	72	51	62*	20	58	60	3	0	RA FG+ FG BR	0		0.0	T	29.61	29.76	9.5	20	9.7	28	22	21	22	10		
11	65	44	55	14	39	46	10	0		0		0.0	0.00	29.73	29.99	6.4	02	10.1	25	21	18	01	11		
12	47	40	44	3	28	37	21	0		0		0.0	0.00	30.14	30.35	8.7	03	8.9	22	02	16	02	12		
13	52	32	42	1	29	36	23	0		0		0.0	0.00	30.19	30.39	7.0	01	7.2	22	36	15	02	13		
14	55	26	41	0	27	34	24	0		0		0.0	0.00	30.12	30.32	1.0	22	1.1	12	21	9	22	14		
15	54	31	43	3	31	37	22	0		0		0.0	0.00	30.04	30.23	1.9	15	2.1	13	14	10	15	15		
16	55	45	50	10	47	49	15	0	RA BR	0		0.0	0.25	29.83	29.99	3.3	19	4.2	16	19	12	18	16		
17	60	51	56	16	54	55	9	0	RA BR	0		0.0	0.01	29.59	29.76	4.5	18	5.6	23	14	18	14	17		
18	64	45	55	15	42	49	10	0		0		0.0	0.00	29.47	29.69	9.8	27	11.2	26	28	21	29	18		
19	62	37	50	10	33	42	15	0		0		0.0	0.00	29.77	29.99	4.9	27	7.0	20	27	15	27	19		
20	61	33	47	8	38	43	18	0	RA BR	0		0.0	0.40	29.88	30.00	8.7	13	9.0	36	16	29	14	20		
21	62	36	49	10	29	39	16	0	RA BR	0		0.0	0.32	29.28	29.51	17.1	25	18.4	40*	24	29	26	21		
22	50	30	40	1	20	33	25	0		0		0.0	0.00	29.65	29.90	10.0	28	11.0	38	29	29*	29	22		
23	54	23	39	0	21	33	26	0		0		0.0	0.00	29.85	30.04	4.5	22	5.2	18	21	15	23	23		
24	45	31	38	0	34	37	27	0	RA	0		0.0	0.13	29.80	29.99	0.4	11	2.5	17	06	13	05	24		
25	51	41	46	8	39	42	19	0	BR	0		0.0	0.00	29.87	30.10	2.2	02	4.4	18	25	15	26	25		
26	48	37	43	5	38	40	22	0	RA BR	0		0.0	1.32	29.66	29.77	6.1	03	11.4	26	06	20	05	26		
27	50	35	43	5	29	37	22	0	RA	0		0.0	T	29.54	29.81	11.2	28	11.8	30	31	23	30	27		
28	45	29	37	-1	27	33	28	0		0		0.0	0.00	29.90	30.11	0.6	24	2.9	13	26	10	26	28		
29	46	35	41	3	34	38	24	0	RA BR	0		0.0	0.18	29.60	29.78	4.4	29	5.9	30	24	16	26	29		
30	47	27	37	0	20	32	28	0		0		0.0	0.00	29.93	30.18	8.6	30	9.1	30	33	24	33	30		
31	47	22*	35*	-2	22	32	30	0		0		0.0	0.00	30.05	30.23	5.5	22	6.0	20	23	15	22	31		
										< MONTHLY AVERAGES TOTALS >				0.0	2.83	29.85	30.05	2.0	26	6.6	< MONTHLY AVERAGES				
										<-----DEPARTURE FROM NORMAL ----->				-0.43	SUNSHINE, CLOUD, & VISIBILITY TABLES ON PAGE 3										
DEGREE DAYS										GREATEST 24-HR PRECIPITATION : 1.32 DATE : 26				SEA LEVEL PRESSURE				DATE TIME							
MONTHLY										GREATEST 24-HR SNOWFALL : 0.0 DATE :				MAXIMUM : 30.43				13 1054							
TOTAL DEPARTURE										GREATEST SNOW DEPTH : 0 DATE :				MINIMUM : 29.35				21 0154							
SEASON TO DATE										NUMBER OF ->				MAXIMUM TEMP >= 90 : 0				MINIMUM TEMP <= 32 : 11				PRECIPITATION >= 0.01 INCH : 10			
HEATING : 559 -184 1314 -105										MAXIMUM TEMP <= 32 : 0				MINIMUM TEMP <= 0 : 0				PRECIPITATION >= 0.10 INCH : 7							
COOLING : 0 -1 1744 195										THUNDERSTORMS : 0				HEAVY FOG : 3				SNOWFALL >= 1.0 INCH : 0							

**DECEMBER 2012
RICHMOND, VA**

HOURLY PRECIPITATION

(WATER EQUIVALENT IN INCHES)

RICHMOND, VA (KRIC)
DECEMBER 2012

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													01												01	0.00	0.00	
02													02								T	T			02	T	T	
03													03												03	0.00	0.00	
04													04												04	0.00	0.00	
05												T	05								T	0.01	0.01	T	05	0.02	0.02	
06													06												06	0.00	0.00	
07				T									07												07	0.13	0.13	
08													08												08	0.00	0.00	
09													09												09	0.07	0.07	
10												T	10												10	T	T	
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	0.25	0.25	
17													17												17	0.01	0.01	
18													18												18	0.00	0.00	
19													19												19	0.00	0.00	
20													20												20	0.40	0.40	
21													21												21	0.32	0.32	
22													22												22	0.00	0.00	
23													23												23	0.00	0.00	
24													24												24	0.13	0.13	
25													25												25	0.00	0.00	
26													26												26	1.32	1.32	
27													27												27	T	T	
28													28												28	0.00	0.00	
29													29												29	0.18	0.18	
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)	0.07	0.11	0.12	0.15	0.20	0.26	0.33	0.42	0.53	0.61	0.71	0.78
Ending Date	21	21	21	21	26	26	26	26	26	26	26	26
Ending Time (Hr/Min)	0134	0137	0137	0137	1238	1247	1308	1305	1238	1302	1308	1308

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.

Water Equivalent of snow on the ground is reported only when the depth is 2 or more inches.

NORMALS ARE FOR THE YEARS 1981-2010

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 DECEMBER 2012

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).

Satellite data are used to derive cloudiness above 12,000 feet. Effective Cloud Amount is based on the cloud cover and the transparency of the clouds within the satellite field of view (approx. 31x31 miles).

Sky Condition is based on the sum (not to exceed 8) of the sunrise to sunset cloud cover below and above 12,000 feet. Both ceilometer and satellite data must be present to compute Sky Condition. 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.

Dew Point is the temperature to which the air must be cooled to achieve 100% relative humidity. Wet Bulb is the temperature the air would have if cooled to saturation at constant pressure by evaporation of water into it.

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

ADDITIONAL NOTES:

Station Augmentation-SANDSTON COOP
Lat/Lon:37.54417/-77.27583 Elevation:165
Distance:4 MI Dir:E
Augmented Elements:Temp, Precip, Snow
Equipment:MMTS, SRG, Snowboard

Date	SUNSHINE		CLOUDINESS (OKTAS)				VISIBILITY (MILES)		RESERVED
	TOTAL MINUTES	PERCENT POSSIBLE	SR-SS		MN-MN		MINIMUM	MAXIMUM	
			Sky Cover	Satellite	Sky Cover	Satellite			
01							4.00	10.00	
02							3.00	10.00	
03							7.00	10.00	
04							2.00	10.00	
05							10.00	10.00	
06							10.00	10.00	
07							4.00	10.00	
08							0.25	10.00	
09							0.25	8.00	
10							0.25	10.00	
11							10.00	10.00	
12							10.00	10.00	
13							10.00	10.00	
14							7.00	10.00	
15							8.00	10.00	
16							1.75	10.00	
17							1.00	10.00	
18							9.00	10.00	
19							10.00	10.00	
20							2.50	10.00	
21							5.00	10.00	
22							10.00	10.00	
23							10.00	10.00	
24							7.00	10.00	
25							1.00	10.00	
26							1.50	10.00	
27							10.00	10.00	
28							10.00	10.00	
29							1.25	10.00	
30							10.00	10.00	
31							10.00	10.00	
MONTHLY AVGS							5.99	9.94	
SUNSHINE (Minutes)									
Total : 0					Possible : 17909				
Percent Possible : 0									
NUMBER OF DAYS WITH : SKY CONDITION									
Clear		Partly CLDY			Cloudy			Missing	
MINIMUM VISIBILITY (MILES)									
<= .25			<= 3.0				>= 7.0		
3			11				17		

OBSERVATIONS AT 3-HOURLY INTERVALS

RICHMOND, VA

DECEMBER 2012

KRIC

WBAN # 13740

HOUR (LST)	SKY COVER	CEILING 100's of FT.	SATELLITE		WEATHER	TEMPERATURE °F			WIND		PRESSURE (INCHES, HG)		HOUR (LST)	SKY COVER	CEILING 100's of FT.	SATELLITE		WEATHER	TEMPERATURE °F			WIND		PRESSURE (INCHES, HG)														
			Observation Time (LST)	Eff Cld Amt Oktas		VISIBILITY (MILES)	DRY BULB	DEW POINT	WET BULB	RELATIVE HUMIDITY (PCT)	SPEED (MPH)	DIRECTION Tens of Deg				STATION	SEA LEVEL		Observation Time (LST)	Eff Cld Amt Oktas	VISIBILITY (MILES)	DRY BULB	DEW POINT	WET BULB	RELATIVE HUMIDITY (PCT)	SPEED (MPH)	DIRECTION Tens of Deg	STATION	SEA LEVEL									
																														WEATHER	WEATHER							
SUNRISE: 0705						DEC 01						SUNSET: 1652						SUNRISE: 0710						DEC 07						SUNSET: 1651								
01	FEW	300			7.00							35	33	34	92	0	00	30.15	30.34	01	OVC	100			10.00						36	32	34	85	0	00	30.06	30.26
04	SCT	140			7.00							34	30	32	85	0	00	30.15	30.35																			
07	SCT	110			5.00							32	30	31	92	0	00	30.19	30.39																			
10	SCT	250			6.00							47	38	43	71	0	00	30.23	30.43																			
13	FEW	250			9.00							58	39	49	49	3	36	30.19	30.38																			
16	FEW	250			10.00							59	41	50	51	3	35	30.16	30.35																			
19	SCT	250			8.00							47	40	44	77	3	06	30.19	30.39																			
22	SCT	250			5.00							41	38	40	89	0	00	30.21	30.41																			
SUNRISE: 0706						DEC 02						SUNRISE: 0711						DEC 08						SUNSET: 1651														
01	SCT	250			7.00							37	35	36	93	0	00	30.21	30.40																			
04	FEW	250			5.00							37	34	36	89	0	00	30.18	30.38																			
07	SCT	250			7.00							36	33	35	89	0	00	30.19	30.39																			
10	OVC	250			4.00							46	43	45	89	6	19	30.18	30.38																			
13	BKN	250			10.00							60	48	54	65	11	20	30.09	30.29																			
16	BKN	250			10.00							65	49	56	56	14	20	30.02	30.22																			
19	OVC	300			10.00							58	49	53	72	13	19	30.03	30.23																			
22	OVC	095			10.00							59	49	54	70	11	20	30.02	30.22																			
SUNRISE: 0707						DEC 03						SUNRISE: 0712						DEC 09						SUNSET: 1651														
01	OVC	120			10.00							56	49	52	78	6	20	30.02	30.21																			
04	SCT	090			10.00							56	50	53	80	5	19	30.02	30.21																			
07	BKN	250			10.00							52	49	50	90	0	00	30.04	30.24																			
10	OVC	110			10.00							62	52	56	70	0	00	30.09	30.28																			
13	OVC	120			10.00							72	52	61	50	0	00	30.04	30.24																			
16	SCT	250			10.00							69	52	59	55	5	16	30.03	30.22																			
19	SCT	250			10.00							57	52	54	83	5	14	30.07	30.26																			
22	CLR	NC			10.00							56	53	54	90	0	00	30.07	30.27																			
SUNRISE: 0708						DEC 04						SUNRISE: 0713						DEC 10						SUNSET: 1651														
01	BKN	110			6.00							54	51	52	90	0	00	30.06	30.26																			
04	SCT	250			3.00							51	50	50	96	0	00	30.06	30.25																			
07	SCT	250			4.00							49	47	48	93	0	00	30.07	30.26																			
10	BKN	250			10.00							62	53	57	73	6	21	30.10	30.29																			
13	BKN	250			10.00							74	52	61	46	17	21	30.00	30.19																			
16	BKN	250			10.00							72	49	59	44	11	22	29.96	30.16																			
19	SCT	250			10.00							61	50	55	67	10	19	29.96	30.15																			
22	SCT	250			10.00							60	52	56	75	9	20	29.95	30.14																			
SUNRISE: 0709						DEC 05						SUNRISE: 0714						DEC 11						SUNSET: 1651														
01	BKN	110			10.00							58	52	55	81	8	19	29.90	30.09																			
04	FEW	110			10.00							56	51	53	83	6	20	29.87	30.06																			
07	BKN	250			10.00							58	53	55	84	5	24	29.89	30.09																			
10	OVC	085			10.00							56	46	51	69	5	01	29.99	30.19																			
13	BKN	110			10.00							57	45	51	64	3	31	29.97	30.16																			
16	SCT	160			10.00							60	37	49	43	7	34	29.96	30.15																			
19	SCT	250			10.00							45	38	42	77	0	00	30.01	30.20																			
22	FEW	200			10.00							47	31	40	54	13	01	30.06	30.25																			
SUNRISE: 0709						DEC 06						SUNRISE: 0714						DEC 12						SUNSET: 1652														
01	FEW	200			10.00							41	29	36	62	9	03	30.08	30.28																			
04	CLR	NC			10.00							35	25	31	67	8	02	30.13	30.32																			
07	FEW	250			10.00							31	23	28	72	5	36	30.17	30.37																			
10	SCT	250			10.00							41	25	35	53	8	02	30.20	30.40																			
13	SCT	250			10.00							45	26	37	47	0	00	30.14	30.33																			
16	BKN	250			10.00							46	27	38	48	0	00	30.10	30.30																			
19	BKN	300			10.00							37	29	34	73	6	13	30.10	30.29																			
22	BKN	270			10.00							36	29	33	76	3	13	30.10	30.29																			
01	OVC	070			10.00							44	31	39	60	9	01	30.03	30.23																			
04	OVC	050			10.00							43	29	37	58	9	02	30.08	30.28																			
07	OVC	200			10.00							41	28	36	60	9	02	30.14	30.33																			
10	OVC	150			10.00							43	29	37	58	8	03	30.20	30.40																			
13	OVC	220			10.00							45	28	38	51	11	04	30.18	30.37																			
16	OVC	170			10.00							45	27	38	49	13	03	30.16	30.36																			
19	OVC	170			10.00							42	27	36	55	5	05	30.21	30.40																			
22	OVC	140			10.00							42	29	37	60	6	01	30.21	30.41																			

OBSERVATIONS AT 3-HOURLY INTERVALS

RICHMOND, VA DECEMBER 2012 KRIC

WBAN # 13740

HOUR (LST)	SKY COVER	CEILING 100's of FT.	SATELLITE		VISIBILITY (MILES)	WEATHER	TEMPERATURE °F			WIND		PRESSURE (INCHES, HG)		HOUR (LST)	SKY COVER	CEILING 100's of FT.	SATELLITE		VISIBILITY (MILES)	WEATHER	TEMPERATURE °F			WIND		PRESSURE (INCHES, HG)			
			Observation Time (LST)	Eff Cld Amt Oktas			DRY BULB	DEW POINT	WET BULB	RELATIVE HUMIDITY (PCT)	SPEED (MPH)	DIRECTION Tens of Deg	STATION				SEA LEVEL	Observation Time (LST)			Eff Cld Amt Oktas	DRY BULB	DEW POINT	WET BULB	RELATIVE HUMIDITY (PCT)	SPEED (MPH)	DIRECTION Tens of Deg	STATION	SEA LEVEL
SUNRISE: 0715 DEC 13 SUNSET: 1652							SUNRISE: 0719 DEC 19 SUNSET: 1654																						
01	OVC	200			10.00		40	31	36	70	8	36	30.18	30.38	01	CLR	NC			10.00		44	31	39	60	9	24	29.66	29.86
04	OVC	200			10.00		39	30	35	70	13	36	30.19	30.38	04	CLR	NC			10.00		41	32	37	70	8	23	29.69	29.88
07	BKN	250			10.00		36	28	33	73	8	35	30.20	30.40	07	CLR	NC			10.00		42	30	37	63	10	25	29.71	29.91
10	FEW	250			10.00		43	29	37	58	11	02	30.23	30.43	10	FEW	250			10.00		54	33	45	45	9	25	29.78	29.97
13	FEW	050			10.00		51	32	43	48	8	05	30.20	30.40	13	FEW	060			10.00		60	33	47	36	9	24	29.77	29.97
16	CLR	NC			10.00		49	29	41	46	6	04	30.18	30.38	16	FEW	250			10.00		61	33	48	35	10	28	29.80	29.99
19	CLR	NC			10.00		41	28	36	60	5	04	30.20	30.40	19	SCT	300			10.00		50	36	44	59	8	04	29.91	30.10
22	CLR	NC			10.00		35	27	32	73	0	00	30.19	30.39	22	BKN	250			10.00		46	34	41	63	3	01	29.98	30.17
SUNRISE: 0716 DEC 14 SUNSET: 1652							SUNRISE: 0719 DEC 20 SUNSET: 1654																						
01	CLR	NC			10.00		30	25	28	82	0	00	30.17	30.36	01	FEW	250			10.00		40	34	37	79	0	00	29.99	30.19
04	CLR	NC			10.00		29	24	27	82	0	00	30.16	30.35	04	CLR	NC			10.00		36	33	35	89	0	00	30.01	30.20
07	CLR	NC			10.00		27	23	26	85	0	00	30.17	30.37	07	BKN	250			10.00		33	31	32	92	0	00	30.02	30.22
10	CLR	NC			10.00		42	34	39	73	3	22	30.16	30.36	10	BKN	250			10.00		46	36	42	68	13	12	29.97	30.16
13	CLR	NC			10.00		52	26	41	37	6	25	30.11	30.30	13	OVC	220			10.00		49	33	42	54	8	16	29.90	30.09
16	FEW	250			10.00		54	26	42	34	3	20	30.06	30.26	16	OVC	220			10.00		51	37	45	59	8	12	29.77	29.96
19	FEW	300			10.00		41	29	36	62	0	00	30.07	30.27	19	OVC	100			10.00		48	43	46	83	15	12	29.63	29.83
22	FEW	300			10.00		36	28	33	73	0	00	30.08	30.28	22	BKN	050			5.00		54	52	53	93	25	14	29.39	29.58
SUNRISE: 0716 DEC 15 SUNSET: 1652							SUNRISE: 0720 DEC 21 SUNSET: 1655																						
01	SCT	300			10.00		33	28	31	82	0	00	30.07	30.26	01	OVC	020			5.00		61	59	60	93	26	17	29.17	29.35
04	SCT	300			10.00		33	28	31	82	0	00	30.07	30.26	04	SCT	023			10.00		51	44	48	77	20	25	29.20	29.38
07	BKN	180			8.00		33	30	32	89	0	00	30.08	30.28	07	BKN	048			10.00		45	32	39	60	22	25	29.25	29.44
10	BKN	250			10.00		40	35	38	82	0	00	30.12	30.32	10	OVC	060			10.00		44	27	37	51	20	26	29.31	29.50
13	BKN	250			10.00		52	32	43	47	7	19	30.04	30.24	13	OVC	100			10.00		45	23	36	42	22	27	29.31	29.49
16	SCT	350			10.00		52	29	42	41	7	14	30.01	30.20	16	OVC	250			10.00		43	21	35	42	24	28	29.36	29.54
19	BKN	170			10.00		46	31	40	56	3	11	29.99	30.19	19	OVC	300			10.00		40	21	33	47	21	27	29.42	29.61
22	OVC	110			10.00		44	35	40	71	0	00	29.96	30.16	22	SCT	220			10.00		37	20	31	50	13	25	29.47	29.65
SUNRISE: 0717 DEC 16 SUNSET: 1653							SUNRISE: 0721 DEC 22 SUNSET: 1655																						
01	OVC	065			10.00		46	39	43	77	0	00	29.93	30.12	01	FEW	230			10.00		35	20	30	54	13	24	29.49	29.68
04	OVC	100			6.00		45	43	44	93	3	12	29.89	30.09	04	FEW	250			10.00		34	20	29	57	11	24	29.54	29.74
07	OVC	095			2.00		45	44	45	96	0	00	29.89	30.09	07	SCT	065			10.00		37	21	31	52	14	27	29.62	29.82
10	OVC	040			2.50		48	46	47	93	7	18	29.85	30.05	10	SCT	250			10.00		44	22	36	42	21	30	29.72	29.91
13	OVC	250			10.00		54	47	50	77	8	20	29.78	29.97	13	FEW	050			10.00		49	18	37	29	16	31	29.70	29.90
16	OVC	250			10.00		54	49	51	83	5	18	29.76	29.95	16	FEW	250			10.00		49	17	37	28	9	30	29.73	29.93
19	OVC	090			6.00		53	52	52	96	3	19	29.72	29.91	19	FEW	240			10.00		42	19	34	40	6	25	29.82	30.01
22	OVC	011			5.00		53	52	52	96	5	17	29.70	29.89	22	CLR	NC			10.00		39	18	32	43	0	00	29.85	30.04
SUNRISE: 0718 DEC 17 SUNSET: 1653							SUNRISE: 0721 DEC 23 SUNSET: 1656																						
01	OVC	012			3.00		55	54	54	96	7	19	29.67	29.86	01	SCT	300			10.00		30	21	27	69	0	00	29.88	30.07
04	OVC	080			3.00		55	54	54	96	10	18	29.60	29.79	04	SCT	300			10.00		28	22	26	78	0	00	29.89	30.09
07	OVC	090			2.00		54	53	53	96	0	00	29.61	29.80	07	FEW	300			10.00		25	20	23	81	0	00	29.91	30.11
10	OVC	100			7.00		58	54	56	87	3	27	29.66	29.85	10	SCT	300			10.00		38	21	32	50	6	19	29.91	30.11
13	OVC	200			10.00		60	53	56	78	3	VR	29.58	29.78	13	BKN	300			10.00		50	18	38	28	9	22	29.81	30.01
16	OVC	170			7.00		58	53	55	84	6	16	29.56	29.75	16	BKN	300			10.00		52	22	40	31	8	21	29.77	29.96
19	OVC	024			10.00		58	54	56	87	3	20	29.49	29.68	19	OVC	250			10.00		48	23	38	37	9	22	29.78	29.98
22	OVC	032			10.00		58	55	56	90	8	19	29.44	29.63	22	SCT	250			10.00		46	21	37	37	7	23	29.81	30.01
SUNRISE: 0718 DEC 18 SUNSET: 1653							SUNRISE: 0721 DEC 24 SUNSET: 1656																						
01	OVC	070			10.00		57	56	56	96	9	21	29.41	29.60	01	OVC	240			10.00		41	22	34	47	0	00	29.80	30.00
04	FEW	025			10.00		55	53	54	93	9	22	29.41	29.60	04	OVC	230			10.00		34	26	31	73	3	02	29.83	30.02
07	BKN	200			9.00		54	52	53	93	10	23	29.44	29.62	07	BKN	250			10.00		33	26	30	75	0	00	29.86	30.05
10	BKN	100			10.00		56	48	52	75	8	26	29.47	29.66	10	OVC	065			7.00		38	33	36	82	0	00	29.90	30.09
13	BKN	100			10.00		62	40	51	45	17	28	29.44	29.63	13	OVC	055			10.00		40	36	38	86	9	05	29.79	29.98
16	SCT	100			10.00		60	32	47	35	18	28	29.49	29.68	16	OVC	080			10.00		42	39	41	89	5	19	29.76	29.96
19	FEW	065			10.00		54	32	44	43	13	31	29.57	29.77	19	OVC	035			10.00		43	40	42	89	3	13	29.74	29.93
22	FEW	250			10.00		48	31	41	52	8	27	29.66	29.85	22	OVC	022			10.00		45	40	43	83	5	22	29.71	29.91

OBSERVATIONS AT 3-HOURLY INTERVALS

RICHMOND, VA

DECEMBER 2012

KRIC

WBAN # 13740

HOUR (LST)	SKY COVER	CEILING 100's of FT.	SATELLITE		WEATHER	TEMPERATURE °F			WIND		PRESSURE (INCHES, HG)						
			Observation Time (LST)	Eff Cld Amt Oktas		VISIBILITY (MILES)	DRY BULB	DEW POINT	WET BULB	RELATIVE HUMIDITY (PCT)	SPEED (MPH)	DIRECTION Tens of Deg	STATION	SEA LEVEL			
SUNRISE: 0722						DEC 25						SUNSET: 1657					
01	OVC	010				45	41	43	86	5	24	29.72	29.92				
04	OVC	006				44	42	43	93	7	27	29.77	29.97				
07	OVC	004			BR	42	41	42	96	0	00	29.87	30.07				
10	OVC	003			BR	42	40	41	93	0	00	29.94	30.14				
13	SCT	250				50	39	45	66	6	01	29.93	30.12				
16	OVC	220				49	37	44	63	7	04	29.94	30.13				
19	OVC	220				43	36	40	76	5	05	29.97	30.16				
22	OVC	150				43	37	40	79	7	08	30.00	30.20				
SUNRISE: 0722						DEC 26						SUNSET: 1657					
01	OVC	050				42	35	39	76	8	05	30.01	30.21				
04	OVC	120			-RA	40	34	37	79	11	06	29.95	30.15				
07	OVC	080			-RA BR	37	35	36	93	10	06	29.88	30.07				
10	OVC	005			RA BR	39	37	38	93	15	07	29.73	29.93				
13	OVC	030			+RA BR	42	41	42	96	13	06	29.50	29.70				
16	OVC	007				47	45	46	93	14	02	29.26	29.45				
19	OVC	005			BR	43	42	43	96	11	30	29.26	29.45				
22	OVC	004			BR	38	37	38	96	10	28	29.29	29.48				
SUNRISE: 0723						DEC 27						SUNSET: 1658					
01	OVC	075			-RA	40	37	39	89	14	25	29.31	29.49				
04	SCT	085				40	36	38	86	10	25	29.37	29.57				
07	FEW	070				39	34	37	82	10	26	29.48	29.67				
10	FEW	050				44	29	38	56	22	29	29.60	29.80				
13	SCT	049				49	27	40	43	17	31	29.63	29.82				
16	SCT	250				49	26	40	41	13	29	29.69	29.89				
19	FEW	250				42	25	35	51	5	29	29.78	29.97				
22	CLR	NC				38	23	32	55	10	29	29.84	30.04				
SUNRISE: 0723						DEC 28						SUNSET: 1659					
01	CLR	NC				34	23	30	64	6	30	29.87	30.06				
04	BKN	250				32	24	29	72	5	32	29.89	30.09				
07	OVC	250				32	24	29	72	0	00	29.93	30.12				
10	OVC	250				38	26	33	62	0	00	29.98	30.17				
13	OVC	250				43	27	37	53	0	00	29.92	30.12				
16	OVC	250				45	27	38	49	3	24	29.91	30.10				
19	OVC	230				40	28	35	62	0	00	29.89	30.09				
22	OVC	180				36	31	34	82	5	12	29.89	30.09				
SUNRISE: 0723						DEC 29						SUNSET: 1659					
01	OVC	150				37	31	35	79	0	00	29.83	30.02				
04	OVC	090				37	31	35	79	5	13	29.78	29.97				
07	OVC	090				37	35	36	93	0	00	29.63	29.83				
10	OVC	005			-RA BR	38	37	38	96	8	32	29.58	29.78				
13	OVC	006				41	38	40	89	5	32	29.44	29.64				
16	FEW	015				46	38	42	74	11	28	29.42	29.62				
19	FEW	060				43	35	40	73	9	27	29.49	29.68				
22	SCT	060				42	28	36	58	7	28	29.60	29.80				
SUNRISE: 0723						DEC 30						SUNSET: 1700					
01	FEW	055				39	25	34	57	6	30	29.68	29.88				
04	CLR	NC				37	24	32	59	7	28	29.77	29.97				
07	SCT	120				37	20	31	50	11	30	29.89	30.09				
10	SCT	060				41	20	33	43	16	29	30.01	30.21				
13	BKN	065				45	19	35	35	18	31	30.03	30.22				
16	CLR	NC				45	17	35	32	11	28	30.06	30.26				
19	CLR	NC				36	18	30	48	3	15	30.12	30.31				
22	CLR	NC				30	20	27	66	0	00	30.17	30.37				

HOUR (LST)	SKY COVER	CEILING 100's of FT.	SATELLITE		WEATHER	TEMPERATURE °F			WIND		PRESSURE (INCHES, HG)								
			Observation Time (LST)	Eff Cld Amt Oktas		VISIBILITY (MILES)	DRY BULB	DEW POINT	WET BULB	RELATIVE HUMIDITY (PCT)	SPEED (MPH)	DIRECTION Tens of Deg	STATION	SEA LEVEL					
SUNRISE: 0724						DEC 31						SUNSET: 1701							
01	CLR	NC				10.00						26	19	24	75	0	00	30.15	30.35
04	CLR	NC				10.00						24	19	22	81	0	00	30.15	30.35
07	BKN	250				10.00						25	21	24	85	3	16	30.12	30.32
10	OVC	250				10.00						34	24	30	67	7	20	30.12	30.32
13	OVC	220				10.00						45	21	36	39	10	22	30.00	30.20
16	OVC	150				10.00						46	23	37	40	11	21	29.96	30.16
19	OVC	100				10.00						44	26	37	49	7	21	29.95	30.15
22	OVC	160				10.00						46	25	38	44	8	23	29.90	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.

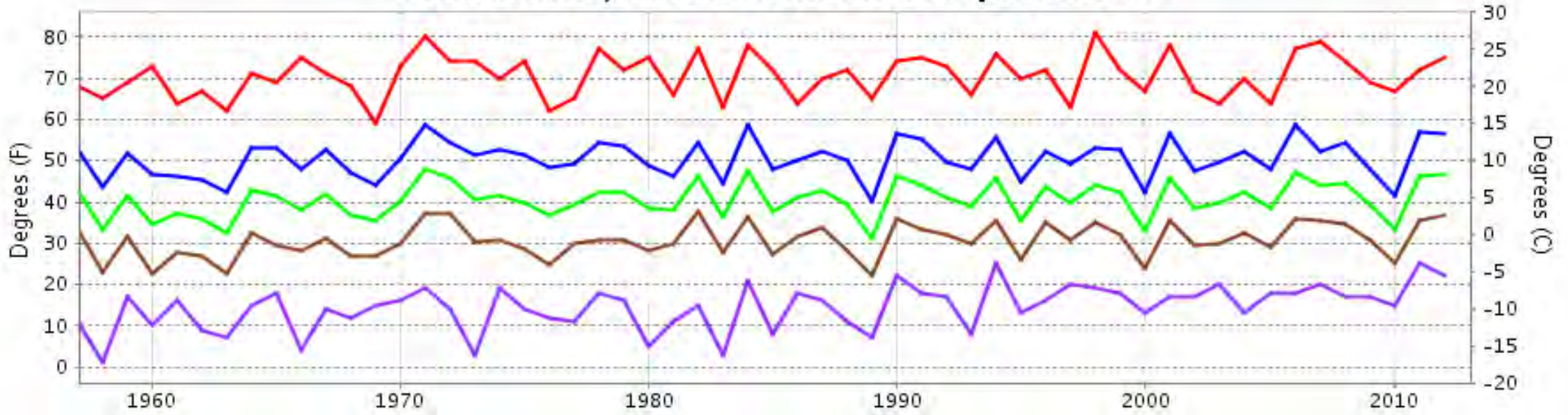
& = Original observation contained additional weather elements.

See page 3 for additional notes.

SUMMARY BY HOUR

HOUR (LST)	AVERAGES										RESULTANT WIND (MPH)	
	CEILOMETER	EFF CLD AMT	DRY BULB	DEW POINT	WET BULB	RELATIVE HUMIDITY	PRESSURE (Inches, HG)		VISIBILITY (Miles)	WIND SPEED (MPH)	SPEED	DIRECTION
							STATION	SEA LEVEL				
01			44	37	41	79	29.85	30.05	8.73	5	4	23
02			43	37	41	80	29.86	30.05	8.60	5	4	23
03			43	37	40	80	29.86	30.06	8.77	4	4	23
04			42	36	39	82	29.86	30.05	8.40	5	3	23
05			41	36	39	82	29.86	30.05	8.24	5	4	23
06			41	35	39	82	29.87	30.06	7.94	5	3	23
07			41	35	38	83	29.88	30.08	7.76	5	5	24
08			41	36	39	82	29.89	30.09	7.35	5	3	23
09			44	37	41	78	29.90	30.10	7.27	7	3	23
10			47	37	43	72	29.91	30.11	7.72	8	3	24
11			49	37	44	66	29.90	30.10	8.58	8	4	24
12			51	37	45	61	29.88	30.07	9.03	9	3	24
13			53	37	46	57	29.85	30.05	9.37	9	4	25
14			54	37	46	55	29.83	30.03	9.58	8	3	24
15			54	36	46	53	29.83	30.02	9.68	9	4	25
16			53	36	46	55	29.83	30.03	9.51	9	3	24
17			51	36	44	60	29.83	30.03	9.24	7	3	23
18			49	37	44	66	29.84	30.03	9.36	6	2	22
19			47	37	43	69	29.85	30.04	9.21	7	2	21
20			47	36	42	69	29.85	30.05	9.16	7	3	23
21			46	36	42	71	29.86	30.05	8.91	7	2	23
22			46	37	42	72	29.86	30.05	8.90	6	3	22
23			45	37	41	74	29.86	30.05	8.50	6	2	21
24			45	37	41	76	29.85	30.05	8.98	6	3	23

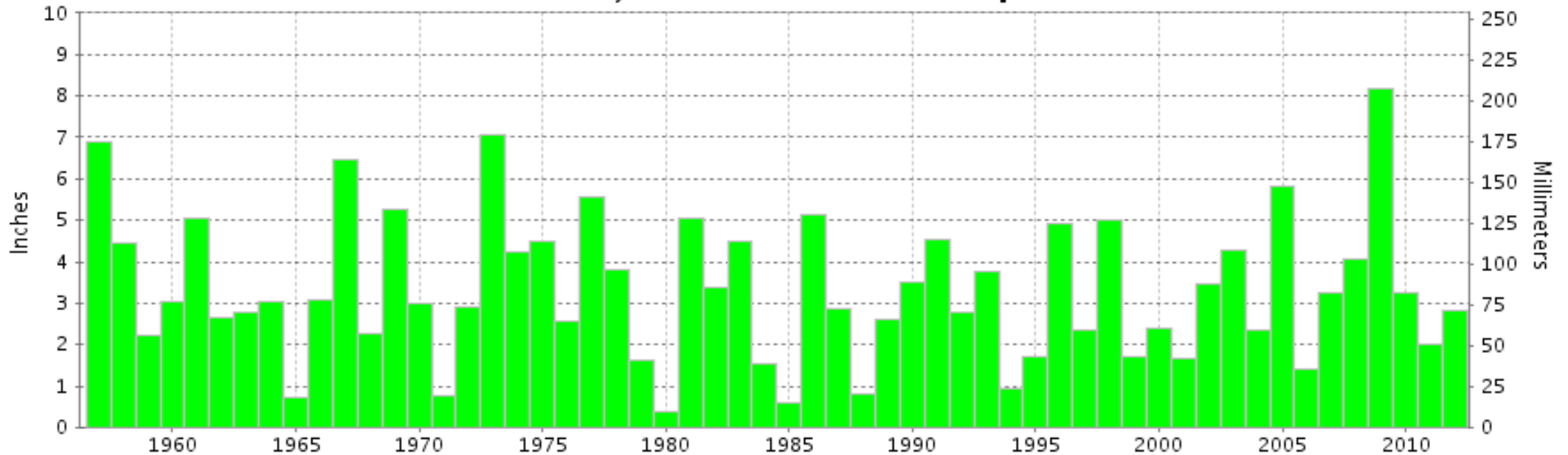
RICHMOND, VA DECEMBER Temperatures



— Extreme Max
 — Mean Max
 — Mean
 — Mean Min
 — Extreme Min

Long-Term (1957-2012) Mean: 40.6
1971-2000 Normal: 41.0

RICHMOND, VA DECEMBER Precipitation



Long-Term (1957-2012) Mean Monthly Total: 3.34
 1971-2000 Normal: 3.26



**DECEMBER 2012
RICHMOND, VA**

LOCAL CLIMATOLOGICAL DATA

NOAA, National Climatic Data Center

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 Climatic Data Center (NCDC), Asheville, North Carolina 28801.

A handwritten signature in black ink, appearing to read "Thomas R. Karl".

DIRECTOR

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We welcome your questions or comments, please contact us at:
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