



DECEMBER 2009 LOCAL CLIMATOLOGICAL DATA

NOAA, National Climatic Data Center

RICHMOND, VA
RICHMOND INTERNATIONAL AIRPORT (KRIC)
 Lat:37° 30'N Long: 77° 19'W Elev (Ground) 163 Feet
 Time Zone : EASTERN WBAN: 13740 ISSN#: 0198-537X



Date	Temperature °F						Deg Days BASE 65°		WEATHER	SNOW/ICE ON GND(IN)		PRECIPITATION ON GND(IN)		PRESSURE (INCHES OF HG)		WIND SPEED = MPH DIR = TENS OF DEGREES								Date
	MAXIMUM	MINIMUM	AVERAGE	DEP FROM NORMAL	AVERAGE DEW PT	AVERAGE WET BULB	HEATING	COOLING		0700 LST	1300 LST	2400 LST	2400 LST	AVERAGE STATION	AVERAGE SEA LEVEL	RESULTANT SPEED	RES DIR	AVERAGE SPEED	MAXIMUM					
																			3-SEC		2-MIN			
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	55	30	43	-2	31	38	22	0		0		0.0	0.00	29.88	30.11	3.9	23	4.6	16	23	14	24	01	
02	68	38	53	9	46	48	12	0	RA DZ BR	0		0.0	1.64	29.82	29.94	6.9	15	7.2	32	20	21	17	02	
03	69*	45	57*	13	46	53	8	0	RA FG+ BR	0		0.0	0.71	29.48	29.73	9.2	28	12.5	38*	26	29*	26	03	
04	57	38	48	5	36	42	17	0		0		0.0	0.00	29.94	30.14	2.4	09	2.7	14	12	10	10	04	
05	48	34	41	-2	37	39	24	0	RA SN BR	0		T	0.43	29.78	29.99	9.9	02	10.8	26	01	21	36	05	
06	43	29	36	-7	25	32	29	0		0		0.0	0.00	30.11	30.34	3.2	02	3.8	15	05	10	02	06	
07	48	29	39	-4	29	35	26	0		0		0.0	0.00	30.11	30.30	3.5	23	4.6	17	25	14	25	07	
08	47	34	41	-1	32	37	24	0	RA BR	0		0.0	0.44	30.10	30.27	6.0	07	6.5	22	05	16	06	08	
09	66	40	53	11	43	47	12	0	RA BR	0		0.0	1.17	29.40	29.52	6.7	26	9.9	25	24	20	23	09	
10	56	34	45	3	19	35	20	0		0		0.0	0.00	29.57	29.83	11.5	29	11.9	30	28	23	29	10	
11	37	27	32	-9	6	25	33	0		0		0.0	0.00	30.11	30.35	8.5	28	9.3	23	28	20	28	11	
12	44	23	34	-7	13	28	31	0		0		0.0	0.00	30.37	30.58	1.4	16	3.3	13	21	9	13	12	
13	44	35	40	-1	35	38	25	0	RA DZ FG+ FG BR	0		0.0	1.54	29.99	30.15	2.3	31	4.8	21	31	16	31	13	
14	52	34	43	2	40	42	22	0	DZ FG+ BR HZ	0		0.0	T	29.91	30.10	4.9	20	5.2	17	19	14	20	14	
15	60	45	53	13	45	49	12	0	BR	0		0.0	0.00	29.80	30.02	2.6	30	6.4	23	03	18	02	15	
16	45	28	37	-3	20	32	28	0		0		0.0	0.00	30.12	30.34	5.5	36	6.1	25	01	20	03	16	
17	43	25	34	-6	15	27	31	0		0		0.0	0.00	30.18	30.38	3.4	01	4.3	18	01	14	02	17	
18	37	26	32	-8	23	28	33	0	SN FG+ FZFG BR	0		6.0	0.50	29.93	30.16	5.2	06	5.7	23	04	17	03	18	
19	34	27	31	-9	28	30	34	0	RA FZRA SN PL FG BR	5		1.4	0.47	29.44	29.63	13.5	02	15.9	37	06	25	01	19	
20	38	27	33	-6	22	28	32	0	SN	5		T	T	29.77	29.97	8.7	33	9.0	25	33	21	33	20	
21	42	17*	30	-9	21	28	35	0		4		0.0	0.00	29.93	30.14	3.7	30	4.3	16	31	14	31	21	
22	44	23	34	-5	25	30	31	0	BCFG	4		0.0	0.00	30.05	30.24	0.7	35	1.4	10	30	8	31	22	
23	44	25	35	-4	25	31	30	0	BCFG BR	3		0.0	0.00	30.11	30.31	0.8	04	0.9	21	32	12	06	23	
24	39	25	32	-6	20	27	33	0	BR HZ	3		0.0	0.00	30.18	30.38	4.3	04	4.6	16	05	13	05	24	
25	56	29	43	5	39	41	22	0	RA BR	2		0.0	0.76	29.93	30.13	7.1	10	9.5	32	13	24	13	25	
26	57	45	51	13	49	50	14	0	RA DZ FG+ FG BR	0		0.0	0.26	29.70	29.91	2.0	28	5.1	21	14	15	15	26	
27	53	31	42	4	29	36	23	0		0		0.0	0.00	29.79	29.98	2.7	25	4.1	22	12	13	21	27	
28	44	32	38	0	21	32	27	0		0		0.0	0.00	29.65	29.86	9.6	29	11.0	35	31	26	32	28	
29	40	24	32	-6	13	26	33	0		0		0.0	0.00	29.98	30.24	7.9	34	10.3	28	31	22	32	29	
30	35	23	29*	-8	14	24	36	0		0		0.0	0.00	30.27	30.47	1.6	17	4.5	18	31	10	22	30	
31	41	32	37	0	34	35	28	0	RA FZRA FG+ BR	0		0.0	0.24	29.97	30.14	2.2	20	2.8	13	15	12	15	31	

47.9	30.8	39.4	☼	28.4	35.3	25.4	0.0	< MONTHLY AVERAGES TOTALS >				7.4	8.16	29.92	30.12	1.9	33	6.5	< MONTHLY AVERAGES			
-1.8	-0.3	-1.0		-----DEPARTURE FROM NORMAL -----								5.04	SUNSHINE, CLOUD, & VISIBILITY TABLES ON PAGE 3									

DEGREE DAYS				GREATEST 24-HR PRECIPITATION : 2.35 DATE : 02-03				SEA LEVEL PRESSURE											
MONTHLY				GREATEST 24-HR SNOWFALL : 6.0 DATE : 18				MAXIMUM : 30.66 DATE 12 TIME 1046											
TOTAL DEPARTURE				GREATEST SNOW DEPTH : 5 DATE : 20+				MINIMUM : 29.33 DATE 09 TIME 1454											
SEASON TO DATE				NUMBER OF -> DAYS WITH				MAXIMUM TEMP >= 90 : 0				MINIMUM TEMP <= 32 : 20				PRECIPITATION >= 0.01 INCH: 11			
HEATING : 787 39 1347 -124				MAXIMUM TEMP <= 32 : 0				MINIMUM TEMP <= 0 : 0				PRECIPITATION >= 0.10 INCH: 11							
COOLING : 0 -1 1569 134				THUNDERSTORMS : 0				HEAVY FOG : 6				SNOWFALL >= 1.0 INCH : 2							

**DECEMBER 2009
RICHMOND, VA**

HOURLY PRECIPITATION

(WATER EQUIVALENT IN INCHES)

RICHMOND, VA (KRIC)
DECEMBER 2009

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			0.01	0.01	0.09	0.10	0.03	0.07	0.32	0.67	0.06	0.19	02	1.64	1.64
03	0.70	0.01											03												03	0.71	0.71	
04													04												04	0.00	0.00	
05		T	T	T	0.01	T	0.03	0.01	0.03	0.04	0.08	0.08	05	0.04	0.03	T	0.06	0.01	0.01	T	T			05	0.43	0.43		
06													06												06	0.00	0.00	
07													07												07	0.00	0.00	
08													08			T	0.02	0.02	0.01	0.03	0.07	0.10	0.19	08	0.44	0.44		
09	0.27	0.20	0.22	0.17	0.11	T	0.05	0.14	0.01				09											09	1.17	1.17		
10													10											10	0.00	0.00		
11													11											11	0.00	0.00		
12													12											12	0.00	0.00		
13		T	0.01	0.01	T	T	T	0.02	0.04	0.09	0.20	0.36	13	0.33	0.29	0.07	0.10	0.02						13	1.54	1.54		
14													14									T	T	14	T	T		
15													15											15	0.00	0.00		
16													16											16	0.00	0.00		
17													17											17	0.00	0.00		
18													18				T	0.03	0.07	0.07	0.10	0.05	0.08	0.10	18	0.50	0.50	
19	0.08	0.02	0.09	0.06	0.04	0.02	T	0.01	0.06	0.08	T	0.01	19	T	T	T	T	T	T	T	T	T	T	19	0.47	0.47		
20	T												20											20	T	T		
21													21											21	0.00	0.00		
22													22											22	0.00	0.00		
23													23											23	0.00	0.00		
24													24											24	0.00	0.00		
25												T	25	0.01	0.02	0.05	0.14	0.26	0.07	0.12	0.05	0.02	0.01	0.01	T	25	0.76	0.76
26	0.05	0.13	0.01	0.01	0.03	0.01	0.02	T	T				26											26	0.26	0.26		
27													27											27	0.00	0.00		
28													28											28	0.00	0.00		
29													29											29	0.00	0.00		
30													30											30	0.00	0.00		
31		T	0.03	0.05	0.05	0.08	0.02	0.01					31						T	T				31	0.24	0.24		

* 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)	0.32	0.48	0.56	0.65	0.70	0.80	0.82	0.92	0.97	1.02	1.05	1.23
Ending Date	03	03	03	03	03	03	03	02	02	02	02	03
Ending Time (Hr/Min)	0014	0018	0024	0025	0026	0026	0031	2141	2206	2213	2220	0017

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 1971-2000

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 2009

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							10.00	10.00	
02							2.00	10.00	
03							10.00	10.00	
04							10.00	10.00	
05							1.50	10.00	
06							10.00	10.00	
07							9.00	10.00	
08							2.00	10.00	
09							2.00	10.00	
10							10.00	10.00	
11							10.00	10.00	
12							10.00	10.00	
13							0.00	10.00	
14							0.00	10.00	
15							2.00	10.00	
16							9.00	10.00	
17							10.00	10.00	
18							0.50	10.00	
19							0.50	10.00	
20							10.00	10.00	
21							9.00	10.00	
22							9.00	10.00	
23							5.00	10.00	
24							5.00	10.00	
25							2.00	10.00	
26							0.50	7.00	
27							10.00	10.00	
28							10.00	10.00	
29							10.00	10.00	
30							10.00	10.00	
31							0.25	10.00	
MONTHLY AVGS							6.10	9.90	
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		12				17			

OBSERVATIONS AT 3-HOURLY INTERVALS

RICHMOND, VA

DECEMBER 2009 KRIC

WBAN # 13740

Table with columns for Hour (LST), Sky Cover, Ceiling, Satellite, Visibility, Weather, Temperature (Dry Bulb, Dew Point, Wet Bulb), Wind (Speed, Direction), Pressure (Station, Sea Level), and their respective units. Data is organized by date (DEC 01-06) and time intervals (SUNRISE and SUNSET).

OBSERVATIONS AT 3-HOURLY INTERVALS

RICHMOND, VA
DECEMBER 2009

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
<p>SUNRISE: 0715 DEC 13 SUNSET: 1652</p>																													
01	OVC	090			10.00		37	24	32	59	0	00	30.29	30.48	01	OVC	015		0.50	SN FZFG	30	28	29	92	17	05	29.55	29.75	
04	OVC	032			10.00		36	31	34	82	5	04	30.22	30.42	04	OVC	011		1.50	-FZRA PLSN BR	34	31	33	89	20	05	29.41	29.60	
07	OVC	042			3.00	-DZ BR	35	32	34	89	3	08	30.10	30.29	07	OVC	009		4.00	-RAPL BR	34	32	33	92	20	06	29.31	29.51	
10	OVC	015			2.00	RA BR	39	36	38	89	6	33	30.00	30.20	10	OVC	011		0.50	SN FG	32	31	32	96	15	01	29.39	29.58	
13	OVC	020			0.75	+RA BR	41	39	40	93	3	36	29.81	30.01	13	OVC	016		1.00	-SN BR	30	29	30	96	15	01	29.37	29.57	
16	OVC	022			1.00	RA BR	42	40	41	93	6	24	29.78	29.97	16	OVC	019		1.50	-SN BR	28	25	27	89	17	36	29.42	29.62	
19	CLR	NC			10.00		43	40	42	89	8	26	29.77	29.96	19	OVC	019		1.50	-SN BR	28	26	27	92	11	35	29.50	29.70	
22	CLR	NC			10.00		40	37	39	89	5	27	29.82	30.01	22	OVC	030		5.00	-SN BR	28	26	27	92	11	33	29.52	29.72	
<p>SUNRISE: 0716 DEC 14 SUNSET: 1652</p>																													
01	VV	001			0.00	FG	40	39	40	96	0	00	29.87	30.06	01	OVC	034		10.00		30	25	28	82	8	33	29.56	29.76	
04	VV	001			0.00	FG	38	37	38	96	0	00	29.92	30.12	04	OVC	049		10.00		30	24	28	78	10	34	29.63	29.82	
07	VV	001			0.00	FG	35	34	35	96	0	00	29.97	30.17	07	FEW	050		10.00		28	22	26	78	7	32	29.69	29.89	
10	VV	001			0.12	FG	37	36	37	96	0	00	30.00	30.20	10	FEW	250		10.00		31	24	29	75	8	34	29.78	29.97	
13	BKN	006			2.50	BR	44	42	43	93	9	21	29.96	30.16	13	BKN	038		10.00		36	26	32	67	17	34	29.77	29.97	
16	SCT	250			10.00		51	43	47	74	10	18	29.89	30.08	16	CLR	NC		10.00		37	19	31	48	13	33	29.82	30.02	
19	OVC	007			10.00		47	43	45	86	8	21	29.87	30.06	19	CLR	NC		10.00		33	19	28	56	6	29	29.88	30.08	
22	OVC	004			2.00	BR	48	45	47	89	9	21	29.82	30.02	22	CLR	NC		10.00		31	18	27	59	9	32	29.91	30.11	
<p>SUNRISE: 0716 DEC 15 SUNSET: 1652</p>																													
01	OVC	006			2.00	BR	48	45	47	89	8	23	29.78	29.98	01	CLR	NC		10.00		28	17	25	63	8	32	29.93	30.13	
04	OVC	005			2.00	BR	49	46	48	89	7	26	29.78	29.97	04	CLR	NC		10.00		26	17	23	69	0	00	29.93	30.13	
07	OVC	007			2.00	BR	49	46	48	89	5	25	29.78	29.97	07	FEW	150		10.00		18	14	17	84	0	00	29.95	30.15	
10	BKN	007			5.00	BR	52	48	50	86	7	25	29.80	29.99	10	SCT	150		9.00		28	20	25	72	0	00	29.97	30.17	
13	OVC	200			10.00		58	49	53	72	6	29	29.77	29.96	13	FEW	110		10.00		40	21	33	47	9	30	29.91	30.11	
16	OVC	200			10.00		58	50	54	75	7	05	29.80	30.00	16	SCT	120		10.00		41	22	34	47	7	28	29.90	30.10	
19	OVC	048			10.00		54	47	50	77	6	04	29.88	30.07	19	CLR	NC		10.00		36	24	32	62	6	27	29.93	30.13	
22	OVC	060			10.00		48	36	43	63	6	02	29.97	30.16	22	SCT	055		10.00		36	26	32	67	5	29	29.97	30.17	
<p>SUNRISE: 0717 DEC 16 SUNSET: 1653</p>																													
01	FEW	250			10.00		44	31	39	60	10	01	30.03	30.23	01	CLR	NC		10.00		28	24	27	85	0	00	29.98	30.18	
04	CLR	NC			10.00		37	25	33	62	6	36	30.07	30.27	04	CLR	NC		9.00		29	25	28	85	0	00	30.00	30.20	
07	FEW	150			10.00		33	22	29	64	7	02	30.15	30.35	07	CLR	NC		10.00	BCFG	25	22	24	88	0	00	30.04	30.24	
10	FEW	200			10.00		39	20	32	46	11	02	30.20	30.40	10	FEW	150		10.00		35	28	32	76	0	00	30.10	30.30	
13	FEW	200			10.00		44	18	35	35	7	35	30.14	30.34	13	FEW	150		10.00		40	25	34	55	0	00	30.04	30.24	
16	CLR	NC			10.00		44	17	34	34	3	29	30.14	30.33	16	FEW	150		10.00		43	25	36	49	5	28	30.02	30.22	
19	CLR	NC			10.00		37	18	30	46	0	00	30.16	30.36	19	CLR	NC		10.00		33	26	30	75	0	00	30.06	30.26	
22	CLR	NC			9.00		30	20	27	66	3	03	30.17	30.37	22	BKN	120		10.00		32	25	29	75	0	00	30.08	30.28	
<p>SUNRISE: 0718 DEC 17 SUNSET: 1653</p>																													
01	CLR	NC			10.00		29	16	25	58	0	00	30.17	30.36	01	BKN	110		10.00		34	25	31	70	0	00	30.09	30.29	
04	CLR	NC			10.00		26	15	23	63	7	02	30.20	30.40	04	CLR	NC		10.00		30	24	28	78	0	00	30.10	30.30	
07	SCT	250			10.00		29	14	24	53	5	01	30.22	30.42	07	BKN	250		10.00		27	23	26	85	0	00	30.12	30.32	
10	SCT	250			10.00		35	13	28	40	10	02	30.26	30.46	10	CLR	NC		10.00		37	23	32	57	5	05	30.16	30.36	
13	SCT	250			10.00		40	12	31	32	10	35	30.18	30.37	13	FEW	150		10.00		42	24	35	49	0	00	30.11	30.30	
16	SCT	250			10.00		41	12	31	30	5	01	30.15	30.35	16	FEW	200		10.00		42	26	36	53	0	00	30.09	30.29	
19	SCT	250			10.00		31	18	27	59	0	00	30.16	30.36	19	FEW	250		10.00		33	26	30	75	0	00	30.10	30.30	
22	BKN	250			10.00		30	18	26	61	0	00	30.14	30.34	22	FEW	250		5.00	BR	28	24	27	85	3	06	30.11	30.31	
<p>SUNRISE: 0718 DEC 18 SUNSET: 1653</p>																													
01	FEW	250			10.00		29	16	25	58	0	00	30.12	30.32	01	CLR	NC		5.00	BR	28	25	27	89	0	00	30.11	30.31	
04	FEW	250			10.00		26	19	24	75	3	02	30.09	30.29	04	CLR	NC		10.00		28	15	24	58	6	04	30.14	30.34	
07	BKN	200			10.00		28	20	25	72	5	05	30.08	30.28	07	FEW	250		10.00		25	14	22	63	6	03	30.19	30.39	
10	OVC	180			10.00		33	22	29	64	6	09	30.07	30.27	10	CLR	NC		10.00		31	18	27	59	6	06	30.24	30.43	
13	OVC	150			10.00		37	23	32	57	6	07	29.97	30.17	13	CLR	NC		10.00		37	22	32	55	5	02	30.20	30.40	
16	OVC	050			10.00		36	23	31	59	5	06	29.90	30.10	16	FEW	250		10.00		38	22	32	53	6	04	30.15	30.35	
19	OVC	010			0.50	SN FZFG	31	28	30	89	9	07	29.85	30.05	19	FEW	200		10.00		33	21	29	61	5	05	30.20	30.40	
22	OVC	004			0.75	-SN BR	30	27	29	89	14	04	29.71	29.91	22	OVC	250		10.00		31	23	28	72	0	00	30.20	30.40	

OBSERVATIONS AT 3-HOURLY INTERVALS

RICHMOND, VA

DECEMBER 2009

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	017				30	24	28	78	5	03	30.18	30.38	
04	BKN	021				32	26	30	79	8	04	30.10	30.30	
07	OVC	150				33	29	31	85	7	05	30.09	30.29	
10	OVC	006				39	35	37	86	5	08	30.06	30.26	
13	OVC	110			-RA	43	39	41	86	11	09	29.88	30.08	
16	OVC	012			RA BR	47	45	46	93	9	10	29.79	29.99	
19	OVC	013			RA BR	51	49	50	93	11	15	29.77	29.97	
22	OVC	020			-RA	54	52	53	93	10	14	29.72	29.92	
SUNRISE: 0722 DEC 26						SUNSET: 1657								
01	OVC	014			RA BR	56	54	55	93	10	14	29.68	29.87	
04	OVC	003			-DZ BR	55	53	54	93	5	12	29.66	29.85	
07	OVC	002			-DZ FG	53	52	52	96	3	32	29.67	29.87	
10	OVC	001			FG	52	50	51	93	7	30	29.72	29.91	
13	OVC	003			BR	52	49	50	90	7	30	29.70	29.89	
16	OVC	005			BR	50	47	48	90	6	29	29.74	29.93	
19	OVC	010			BR	50	47	48	90	3	29	29.77	29.96	
22	OVC	200			BR	46	44	45	93	3	24	29.78	29.97	
SUNRISE: 0723 DEC 27						SUNSET: 1658								
01	OVC	150				44	37	41	77	7	28	29.78	29.98	
04	CLR	NC				39	32	36	76	5	28	29.79	29.98	
07	FEW	150				33	28	31	82	0	00	29.83	30.02	
10	FEW	150				43	30	38	60	3	28	29.89	30.08	
13	SCT	250				51	25	40	36	6	24	29.80	30.00	
16	SCT	200				51	27	41	39	10	22	29.76	29.96	
19	FEW	200				38	28	34	67	0	00	29.75	29.95	
22	CLR	NC				36	28	33	73	3	16	29.71	29.91	
SUNRISE: 0723 DEC 28						SUNSET: 1659								
01	CLR	NC				35	28	32	76	7	20	29.64	29.83	
04	FEW	100				36	29	33	76	9	24	29.59	29.79	
07	BKN	070				37	29	34	73	3	27	29.62	29.82	
10	FEW	070				42	24	35	49	13	31	29.67	29.86	
13	FEW	050				43	15	33	32	24	32	29.65	29.85	
16	CLR	NC				41	14	32	33	14	31	29.67	29.86	
19	CLR	NC				37	15	30	41	10	28	29.70	29.89	
22	CLR	NC				34	16	28	48	11	28	29.74	29.94	
SUNRISE: 0723 DEC 29						SUNSET: 1659								
01	FEW	060				33	18	28	54	8	28	29.78	29.98	
04	CLR	NC				32	17	27	54	10	29	29.82	30.01	
07	FEW	055				31	17	26	56	10	30	29.91	30.11	
10	CLR	NC				35	13	28	40	14	03	30.05	30.24	
13	FEW	050				39	12	30	33	14	36	30.07	30.27	
16	CLR	NC				38	10	29	31	11	35	30.11	30.31	
19	CLR	NC				29	11	24	47	6	02	30.19	30.38	
22	CLR	NC				28	11	23	49	10	04	30.25	30.45	
SUNRISE: 0723 DEC 30						SUNSET: 1700								
01	CLR	NC				24	11	20	58	6	04	30.31	30.50	
04	CLR	NC				23	11	20	60	5	04	30.31	30.51	
07	BKN	200				24	11	20	58	6	05	30.32	30.52	
10	BKN	250				27	12	23	53	3	12	30.36	30.56	
13	OVC	180				32	14	26	47	6	21	30.30	30.50	
16	BKN	250				35	14	28	42	7	21	30.21	30.41	
19	OVC	110				30	17	26	58	6	16	30.19	30.38	
22	OVC	045				32	18	27	56	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	OVC	025				10.00						34	20	29	57	6	20	30.10	30.29
04	OVC	040			-RA	7.00						32	28	31	85	3	17	30.04	30.24
07	OVC	060			-RA BR	2.50						33	31	32	92	7	15	30.00	30.20
10	OVC	003			BR	2.50						34	32	33	92	5	21	30.03	30.22
13	OVC	001			BR	1.00						38	36	37	93	0	00	29.92	30.12
16	OVC	003			BR	0.75						40	38	39	93	3	16	29.87	30.07
19	OVC	005			-RA BR	4.00						40	38	39	93	0	00	29.86	30.06
22	VV	001			FG	0.25						40	38	39	93	0	00	29.83	30.03

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

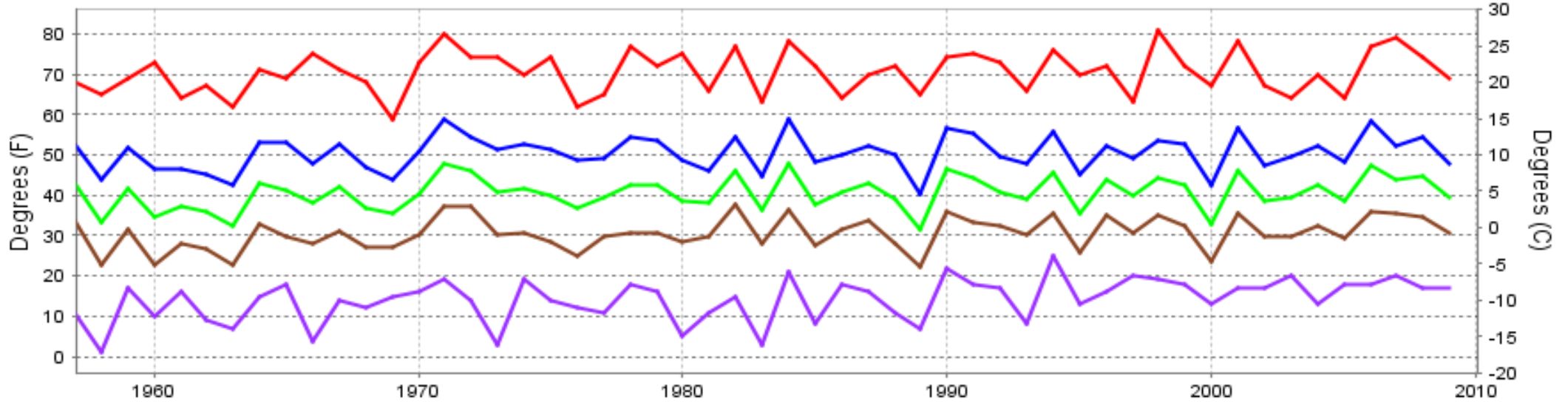
Ceiling is reported in hundreds of feet above ground level for clouds at or below 12,000 feet. NC = No Ceiling detected.

& = 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			37	28	34	72	29.91	30.11	8.48	6	2	32
02			37	29	34	74	29.91	30.11	8.55	6	2	31
03			37	28	33	73	29.92	30.11	8.42	6	2	31
04			36	28	33	74	29.91	30.11	8.60	6	1	32
05			35	27	32	75	29.91	30.11	8.48	6	2	31
06			35	27	32	76	29.92	30.12	8.66	5	1	34
07			34	27	32	77	29.93	30.13	8.03	5	1	35
08			34	28	32	78	29.94	30.14	8.07	4	1	35
09			37	28	34	72	29.96	30.16	8.23	5	2	32
10			40	28	35	65	29.97	30.17	8.12	8	1	32
11			41	28	36	62	29.96	30.16	8.15	8	2	29
12			43	28	38	60	29.93	30.13	8.31	8	3	29
13			44	29	38	58	29.91	30.10	8.35	9	3	29
14			45	28	39	56	29.90	30.09	8.70	9	4	28
15			45	28	39	55	29.89	30.09	8.77	9	3	29
16			45	29	39	57	29.90	30.09	8.36	8	2	29
17			43	29	38	60	29.90	30.10	8.51	7	2	30
18			41	29	37	65	29.91	30.10	8.20	7	1	32
19			40	30	36	67	29.92	30.12	8.58	6	1	32
20			39	30	36	70	29.93	30.12	8.55	6	1	36
21			39	29	35	71	29.92	30.11	8.25	6	1	32
22			38	29	35	71	29.92	30.12	8.06	6	2	31
23			38	29	35	72	29.93	30.12	8.03	6	1	33
24			38	29	35	71	29.92	30.11	7.90	6	1	32

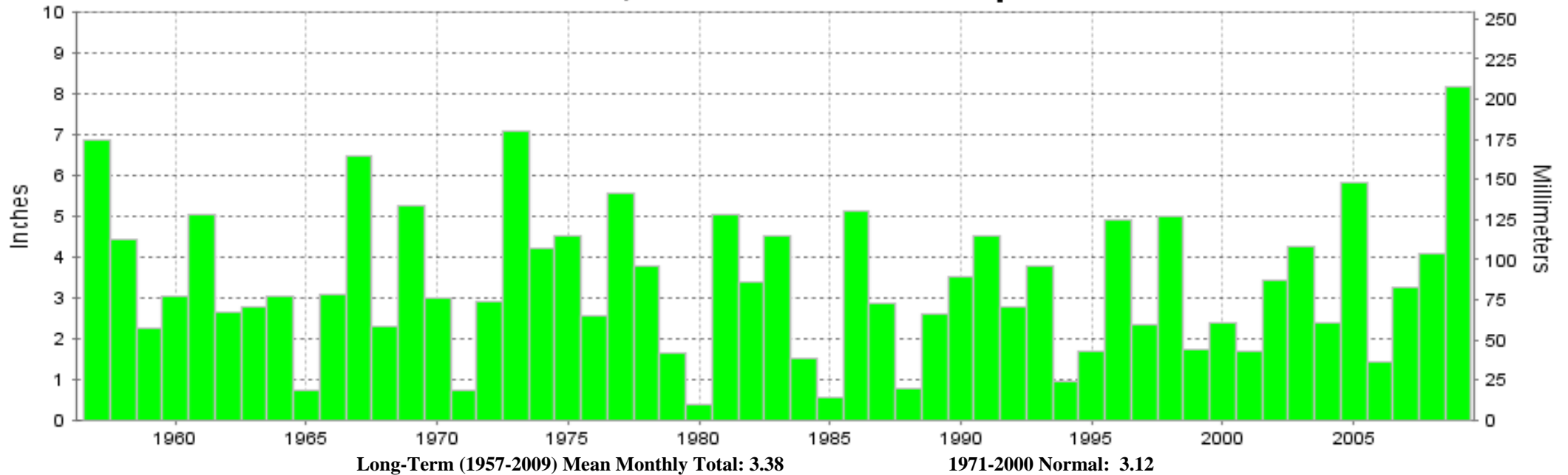
RICHMOND, VA DECEMBER Temperatures



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

Long-Term (1957-2009) Mean: 40.5
1971-2000 Normal: 40.4

RICHMOND, VA DECEMBER Precipitation



Long-Term (1957-2009) Mean Monthly Total: 3.38

1971-2000 Normal: 3.12



DECEMBER 2009
RICHMOND, VA

LOCAL CLIMATOLOGICAL DATA NOAA, National Climatic Data Center

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