



# MARCH 2008

## 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 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					
																			5-SEC		2-MIN			
01	58	36	47	4	22	39	18	0			0.0	0.00	29.91	30.09	7.9	29	13.0	40	31	31	31	01		
02	57	25*	41	-2	22	34	24	0			0.0	0.00	30.12	30.32	0.7	10	2.6	14	29	10	06	02		
03	72	34	53	10	41	48	12	0			0.0	0.00	30.02	30.21	12.2	21	12.6	31	22	25	21	03		
04	76	55	66*	22	55	59	0	1	RA FG BR SQ		0.0	0.63	29.64	29.86	14.4	20	15.2	59	27	43	27	04		
05	64	41	53	9	39	47	12	0	TSRA RA BR		0.0	0.23	29.57	29.79	6.9	28	10.8	36	24	26	26	05		
06	61	34	48	4	34	41	17	0			0.0	0.00	29.97	30.16	3.0	09	4.6	15	12	12	12	06		
07	54	41	48	3	47	47	17	0	RA BR		0.0	1.22	29.69	29.94	3.4	05	5.0	26	21	12	07	07		
08	68	35	52	7	43	49	13	0	RA DZ FG+ FG BR		0.0	0.48	29.38	29.62	12.7	24	16.1	59*	23	48*	24	08		
09	49	29	39*	-6	16	31	26	0			0.0	0.00	30.05	30.29	6.7	30	8.3	23	29	18	28	09		
10	58	27	43	-2	27	37	22	0			0.0	0.00	30.19	30.37	2.8	16	4.6	17	15	15	14	10		
11	60	35	48	2	35	42	17	0			0.0	0.00	29.93	30.07	1.6	13	4.5	16	24	12	17	11		
12	65	39	52	6	28	42	13	0			0.0	0.00	29.64	29.85	6.5	31	9.2	35	33	29	34	12		
13	72	34	53	6	34	44	12	0			0.0	0.00	29.77	29.94	6.3	20	7.7	26	20	20	21	13		
14	74	49	62	15	39	51	3	0	RA		0.0	T	29.54	29.70	8.5	21	8.9	33	20	24	22	14		
15	66	48	57	9	40	49	8	0	RA BR		0.0	0.11	29.52	29.71	4.1	01	8.7	24	32	20	35	15		
16	60	40	50	2	35	43	15	0	RA BR		0.0	0.31	29.78	30.05	13.1	01	13.6	37	34	24	02	16		
17	54	34	44	-4	20	35	21	0			0.0	0.00	30.31	30.52	5.0	02	7.1	26	03	21	02	17		
18	55	35	45	-3	30	40	20	0			0.0	0.00	30.18	30.33	6.3	18	6.5	20	18	17	19	18		
19	75	54	65	16	54	59	0	0	RA		0.0	0.02	29.65	29.76	18.9	22	19.5	43	23	32	22	19		
20	69	46	58	9	29	44	7	0	RA		0.0	0.17	29.60	29.87	17.0	32	18.2	40	31	30	33	20		
21	62	30	46	-3	20	38	19	0			0.0	0.00	29.99	30.17	4.3	29	6.2	23	33	16	32	21		
22	70	39	55	5	33	43	10	0	RA		0.0	0.04	29.71	29.91	3.1	03	9.5	29	04	24	05	22		
23	54	34	44	-6	20	35	21	0			0.0	0.00	29.96	30.16	4.9	03	6.9	22	03	16	03	23		
24	51	36	44	-6	23	36	21	0			0.0	0.00	30.01	30.21	7.0	01	7.7	23	36	18	36	24		
25	56	32	44	-7	19	35	21	0			0.0	0.00	30.11	30.29	4.1	25	10.5	26	22	21	22	25		
26	73	48	61	10	29	46	4	0			0.0	0.00	29.94	30.12	14.6	24	14.8	31	25	25	25	26		
27	77	47	62	10	39	51	3	0			0.0	0.00	29.82	29.98	9.3	22	9.8	30	24	21	24	27		
28	81*	48	65	13	45	55	0	0	RA		0.0	T	29.72	29.90	7.1	27	15.0	33	04	24	03	28		
29	53	39	46	-6	27	38	19	0	RA BR		0.0	0.11	30.20	30.40	7.2	05	8.1	26	01	22	02	29		
30	46	37	42	-11	34	39	23	0	RA PL BR		T	0.04	30.40	30.59	6.0	07	6.5	17	11	13	09	30		
31	63	42	53	0	50	52	12	0	RA DZ BR		0.0	0.14	30.22	30.39	2.9	16	7.2	22	19	14	19	31		

63.0	38.8	50.9	☼	33.2	43.5	13.9	0.0	< MONTHLY AVERAGES   TOTALS >				T	3.50	29.89	30.09	2.6	26	9.6	< MONTHLY AVERAGES			
4.6	1.8	3.2		<-----DEPARTURE FROM NORMAL ----->										-0.59	SUNSHINE, CLOUD, & VISIBILITY TABLES ON PAGE 3							
<b>DEGREE DAYS</b>								GREATEST 24-HR PRECIPITATION : 1.63 DATE : 07-08				SEA LEVEL PRESSURE				DATE TIME						
MONTHLY				SEASON TO DATE				GREATEST 24-HR SNOWFALL : T DATE : 30				MAXIMUM : 30.63 30 1254										
TOTAL DEPARTURE				TOTAL DEPARTURE				GREATEST SNOW DEPTH : DATE :				MINIMUM : 29.34 08 1254										
HEATING :		430 -98		3010 -567				NUMBER OF -> DAYS WITH		MAXIMUM TEMP >= 90 : 0		MINIMUM TEMP <= 32 : 5		PRECIPITATION >= 0.01 INCH : 12								
COOLING :		1 -7		7 -2						MAXIMUM TEMP <= 32 : 0		MINIMUM TEMP <= 0 : 0		PRECIPITATION >= 0.10 INCH : 9								
										THUNDERSTORMS : 1		HEAVY FOG : 1		SNOWFALL >= 1.0 INCH : 0								

**MARCH 2008**  
**RICHMOND, VA**

# HOURLY PRECIPITATION

(WATER EQUIVALENT IN INCHES)

RICHMOND, VA (KRIC)  
MARCH 2008

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												02	0.00	0.00	
03													03												03	0.00	0.00	
04													04				T	0.04				0.05	0.14	0.03	0.37	04	0.63	0.63
05	0.11	0.12											05												05	0.23	0.23	
06													06												06	0.00	0.00	
07												0.04	07	0.03	0.11	0.18	0.05	0.02	0.05	0.33	0.34	0.03	0.02		0.02	07	1.22	1.22
08	0.02	T	T	T	T	0.01	T	T	0.05	0.03	T		08	0.37	T			T	T						08	0.48	0.48	
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							T	T	T	T		14	T	T	
15													15				T	T	0.01	0.04	0.03	0.02	T	0.01	15	0.11	0.11	
16	0.10	0.08	0.02	0.07	0.02	T	0.01	0.01	T				16												16	0.31	0.31	
17													17												17	0.00	0.00	
18													18												18	0.00	0.00	
19													19					T	0.01	0.01	T				19	0.02	0.02	
20	0.12	0.03	0.02	T									20												20	0.17	0.17	
21													21												21	0.00	0.00	
22													22			T	0.01	0.03							22	0.04	0.04	
23													23												23	0.00	0.00	
24													24												24	0.00	0.00	
25													25												25	0.00	0.00	
26													26												26	0.00	0.00	
27													27												27	0.00	0.00	
28													28											T	28	T	T	
29	0.07	0.03	T	0.01									29												29	0.11	0.11	
30								T	T	T	0.02	0.01	30	T	T	T	T	T	T	0.01	T	T	T	T	30	0.04	0.04	
31					0.01								31			T	T	0.04	0.07	0.03	T	T	T	T	31	0.15*	0.14	

\* 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)												
Ending Date												
Ending Time (Hr/Min)												

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 MARCH 2008

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							7.00	10.00	
02							10.00	10.00	
03							7.00	10.00	
04							1.00	10.00	
05							5.00	10.00	
06							10.00	10.00	
07							1.25	10.00	
08							2.00	10.00	
09							10.00	10.00	
10							10.00	10.00	
11							9.00	10.00	
12							7.00	10.00	
13							10.00	10.00	
14							10.00	10.00	
15							6.00	10.00	
16							3.00	10.00	
17							10.00	10.00	
18							10.00	10.00	
19							10.00	10.00	
20							2.00	10.00	
21							10.00	10.00	
22							10.00	10.00	
23							10.00	10.00	
24							10.00	10.00	
25							10.00	10.00	
26							10.00	10.00	
27							10.00	10.00	
28							10.00	10.00	
29							4.00	10.00	
30							5.00	10.00	
31							3.00	10.00	
MONTHLY AVGS							7.49	10.00	
<b>SUNSHINE (Minutes)</b>									
Total : 0					Possible : 22283				
Percent Possible : 0									
<b>NUMBER OF DAYS WITH : SKY CONDITION</b>									
Clear		Partly CLDY			Cloudy			Missing	
<b>MINIMUM VISIBILITY (MILES)</b>									
<= .25			<= 3.0				>= 7.0		
0			6				21		

# OBSERVATIONS AT 3-HOURLY INTERVALS

**RICHMOND, VA**

**MARCH 2008**

**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					
																														Observation Time (LST)	Eff Cld Amt Oktas	VISIBILITY (MILES)	DRY BULB	DEW POINT
		<b>SUNRISE: 0641</b>			<b>MAR 01</b>		<b>SUNSET: 1803</b>									<b>SUNRISE: 0632</b>			<b>MAR 07</b>		<b>SUNSET: 1809</b>													
01	OVC	250					49	28	40	44	15	21	29.94	30.13	01	BKN	040									42	40	41	93	0	00	30.00	30.19	
04	SCT	250					44	29	38	56	13	22	29.87	30.07	04	BKN	050										41	40	41	96	5	08	29.95	30.14
07	SCT	250					45	30	39	56	11	24	29.86	30.05	07	BKN	200										43	41	42	93	5	07	29.92	30.12
10	SCT	120					55	26	43	33	22	30	29.89	30.08	10	OVC	009										48	44	46	86	6	07	29.86	30.05
13	CLR	NC					56	18	41	23	20	33	29.86	30.06	13	OVC	005										51	50	50	96	7	06	29.73	29.93
16	SCT	250					56	16	41	21	14	33	29.86	30.05	16	OVC	012										52	52	52	100	6	08	29.59	29.79
19	BKN	250					48	18	37	30	10	35	29.92	30.11	19	OVC	009										53	53	53	100	0	00	29.52	29.71
22	FEW	200					43	18	34	37	3	05	29.99	30.18	22	OVC	011										50	49	49	96	7	34	29.54	29.73
		<b>SUNRISE: 0640</b>			<b>MAR 02</b>		<b>SUNSET: 1804</b>									<b>SUNRISE: 0631</b>			<b>MAR 08</b>		<b>SUNSET: 1810</b>													
01	FEW	200					36	20	30	52	0	00	30.04	30.24	01	OVC	018										49	49	49	100	3	33	29.54	29.73
04	FEW	250					30	20	27	66	0	00	30.07	30.27	04	OVC	004										49	49	49	100	0	00	29.48	29.67
07	FEW	250					28	19	25	69	0	00	30.14	30.34	07	OVC	021										58	58	58	100	8	17	29.37	29.56
10	FEW	250					43	21	35	42	6	03	30.19	30.39	10	OVC	015										65	63	64	93	13	20	29.26	29.44
13	SCT	250					50	22	39	33	0	00	30.13	30.33	13	BKN	090										65	62	63	90	17	23	29.15	29.34
16	FEW	250					55	19	41	24	0	00	30.09	30.28	16	BKN	090										59	32	47	36	34	25	29.28	29.46
19	BKN	250					48	23	38	37	0	00	30.11	30.31	19	BKN	065										47	32	41	56	36	28	29.52	29.70
22	CLR	NC					39	29	35	67	6	13	30.14	30.34	22	CLR	NC										37	18	30	46	14	29	29.75	29.94
		<b>SUNRISE: 0638</b>			<b>MAR 03</b>		<b>SUNSET: 1805</b>									<b>SUNRISE: 0630</b>			<b>MAR 09</b>		<b>SUNSET: 1811</b>													
01	CLR	NC					38	30	35	73	3	17	30.14	30.33	01	CLR	NC										34	18	29	52	15	28	29.86	30.06
04	CLR	NC					38	34	36	86	5	18	30.12	30.32	04	CLR	NC										32	16	27	52	10	29	29.95	30.14
07	SCT	250					35	33	34	92	5	21	30.12	30.32	07	CLR	NC										30	14	25	51	8	29	30.07	30.26
10	SCT	250					53	37	46	55	11	21	30.12	30.32	10	CLR	NC										37	13	29	37	9	30	30.13	30.33
13	SCT	250					67	42	54	40	17	23	30.03	30.23	13	CLR	NC										44	15	34	31	13	29	30.14	30.33
16	SCT	250					71	46	57	41	21	20	29.94	30.13	16	CLR	NC										49	14	37	25	8	34	30.10	30.29
19	SCT	250					64	48	55	56	11	20	29.90	30.10	19	CLR	NC										42	19	34	40	3	22	30.14	30.34
22	FEW	250					62	50	55	65	21	21	29.87	30.06	22	CLR	NC										37	22	32	55	0	00	30.20	30.40
		<b>SUNRISE: 0637</b>			<b>MAR 04</b>		<b>SUNSET: 1806</b>									<b>SUNRISE: 0628</b>			<b>MAR 10</b>		<b>SUNSET: 1811</b>													
01	CLR	NC					60	52	56	75	17	21	29.85	30.04	01	CLR	NC										34	20	29	57	5	05	30.24	30.44
04	BKN	200					58	51	54	78	13	20	29.82	30.01	04	CLR	NC										30	22	27	72	0	00	30.26	30.45
07	OVC	200					58	51	54	78	10	20	29.83	30.03	07	BKN	250										30	21	27	69	0	00	30.29	30.49
10	OVC	095					64	54	58	70	10	19	29.79	29.98	10	SCT	250										45	24	37	44	8	16	30.27	30.47
13	OVC	046					71	57	63	61	18	22	29.71	29.90	13	FEW	250										52	25	41	35	6	22	30.19	30.39
16	OVC	200					75	54	63	48	20	19	29.59	29.78	16	FEW	250										58	25	44	28	8	23	30.07	30.27
19	OVC	070					68	59	63	73	16	18	29.53	29.72	19	OVC	250										50	34	43	54	11	14	30.05	30.25
22	OVC	085					65	62	63	90	15	18	29.44	29.62	22	OVC	090										44	36	41	74	3	06	30.06	30.25
		<b>SUNRISE: 0635</b>			<b>MAR 05</b>		<b>SUNSET: 1807</b>									<b>SUNRISE: 0627</b>			<b>MAR 11</b>		<b>SUNSET: 1812</b>													
01	OVC	090					55	54	54	96	13	22	29.41	29.59	01	BKN	200										43	37	40	79	3	02	30.03	30.23
04	CLR	NC					55	49	52	80	14	22	29.34	29.52	04	OVC	200										39	36	38	89	0	00	29.98	30.17
07	FEW	035					51	37	45	59	11	26	29.45	29.65	07	SCT	250										37	34	36	89	0	00	30.00	30.20
10	CLR	NC					55	35	46	47	14	28	29.55	29.74	10	SCT	250										53	36	45	53	8	03	29.99	30.18
13	FEW	050					60	35	48	39	7	28	29.62	29.81	13	BKN	250										56	31	45	39	3	VR	29.91	30.10
16	CLR	NC					64	36	50	36	11	28	29.66	29.85	16	OVC	250										58	31	46	36	6	16	29.80	29.99
19	FEW	250					55	34	45	45	3	01	29.77	29.96	19	BKN	250										51	36	44	57	8	16	29.75	29.95
22	CLR	NC					47	33	41	58	13	03	29.86	30.05	22	SCT	250										45	37	41	74	6	16	29.71	29.91
		<b>SUNRISE: 0634</b>			<b>MAR 06</b>		<b>SUNSET: 1808</b>									<b>SUNRISE: 0625</b>			<b>MAR 12</b>		<b>SUNSET: 1813</b>													
01	CLR	NC					40	30	36	68	7	04	29.92	30.11	01	SCT	250										43	39	41	86	3	17	29.62	29.82
04	FEW	250					37	29	34	73	0	00	29.92	30.11	04	FEW	250										42	35	39	76	8	25	29.57	29.76
07	FEW	200					34	29	32	82	5	03	29.98	30.17	07	SCT	250										42	28	36	58	7	29	29.62	29.81
10	FEW	250					46	31	40	56	3	12	30.02	30.22	10	FEW	250										54	27	43	35	13	32	29.65	29.84
13	SCT	250					57	34	46	42	5	04	29.98	30.17	13	SCT	250										61	26	46	26	24	30	29.64	29.83
16	SCT	250					60	37	49	43	6	14	29.94	30.13	16	FEW	070																	

# OBSERVATIONS AT 3-HOURLY INTERVALS

# RICHMOND, VA

## MARCH 2008

## KRIC

## WBAN # 13740

HOUR (LST)	SKY COVER	CEILING 100's of FT.	SATELLITE		VISIBILITY (MILES)	WEATHER	TEMPERATURE °F			RELATIVE HUMIDITY (PCT)	WIND		PRESSURE (INCHES, HG)		HOUR (LST)	SKY COVER	CEILING 100's of FT.	SATELLITE		VISIBILITY (MILES)	WEATHER	TEMPERATURE °F			RELATIVE HUMIDITY (PCT)	WIND		PRESSURE (INCHES, HG)		
			Observation Time (LST)	Eff Cld Amt Oktas			DRY BULB	DEW POINT	WET BULB		SPEED (MPH)	DIRECTION Tens of Deg	STATION	SEA LEVEL				Observation Time (LST)	Eff Cld Amt Oktas			DRY BULB	DEW POINT	WET BULB		SPEED (MPH)	DIRECTION Tens of Deg	STATION	SEA LEVEL	
																														Observation Time (LST)
<p><b>SUNRISE: 0624</b>      <b>MAR 13</b>      <b>SUNSET: 1814</b></p>																														
01	CLR	NC			10.00		39	27	34	62	3	13	29.83	30.02	01	OVC	040			10.00			56	47	51	72	13	20	29.87	30.06
04	FEW	250			10.00		35	29	33	79	0	00	29.81	30.01	04	OVC	130			10.00			56	49	52	78	14	21	29.78	29.98
07	BKN	250			10.00		36	30	34	79	0	00	29.86	30.05	07	OVC	020			10.00			59	52	55	78	15	21	29.74	29.93
10	BKN	250			10.00		51	32	43	48	9	15	29.85	30.04	10	OVC	250			10.00			67	56	61	68	29	24	29.68	29.87
13	BKN	250			10.00		61	38	50	43	11	20	29.75	29.94	13	OVC	250			10.00			73	55	62	53	25	22	29.56	29.75
16	BKN	250			10.00		71	37	54	29	11	23	29.63	29.83	16	OVC	200			10.00			75	53	62	46	21	24	29.48	29.67
19	BKN	250			10.00		63	38	51	40	7	21	29.65	29.84	19	BKN	065			10.00	-RA		67	59	62	76	10	21	29.42	29.61
22	BKN	250			10.00		61	39	50	44	11	21	29.66	29.85	22	BKN	090			10.00			69	59	63	71	28	21	29.31	29.49
<p><b>SUNRISE: 0622</b>      <b>MAR 14</b>      <b>SUNSET: 1815</b></p>																														
01	BKN	250			10.00		57	38	48	49	10	21	29.65	29.85	01	OVC	040			2.00	RA BR		68	60	63	76	22	28	29.31	29.49
04	SCT	250			10.00		53	38	46	57	7	21	29.61	29.80	04	OVC	120			10.00			57	46	51	67	20	32	29.39	29.58
07	OVC	250			10.00		50	39	45	66	0	00	29.64	29.83	07	BKN	150			10.00			50	33	42	52	17	33	29.56	29.75
10	OVC	250			10.00		61	41	51	48	7	22	29.61	29.80	10	FEW	050			10.00			51	26	41	38	24	32	29.70	29.89
13	SCT	250			10.00		70	42	55	36	11	19	29.52	29.70	13	CLR	NC			10.00			58	21	43	24	24	32	29.72	29.92
16	BKN	250			10.00		73	35	54	25	21	21	29.39	29.58	16	CLR	NC			10.00			58	16	42	19	23	34	29.75	29.94
19	OVC	085			10.00		68	38	53	33	11	21	29.39	29.57	19	CLR	NC			10.00			53	18	40	25	16	32	29.84	30.03
22	OVC	110			10.00		61	41	51	48	7	22	29.39	29.58	22	CLR	NC			10.00			50	19	38	29	14	32	29.93	30.12
<p><b>SUNRISE: 0621</b>      <b>MAR 15</b>      <b>SUNSET: 1816</b></p>																														
01	BKN	080			10.00		62	44	53	52	15	26	29.39	29.57	01	CLR	NC			10.00			44	21	35	40	6	28	30.00	30.19
04	BKN	250			10.00		56	47	51	72	13	35	29.45	29.64	04	FEW	250			10.00			36	23	31	59	3	22	30.02	30.21
07	BKN	250			10.00		52	45	49	77	6	35	29.57	29.76	07	CLR	NC			10.00			35	24	31	64	3	24	30.06	30.26
10	BKN	250			10.00		58	35	47	42	18	03	29.63	29.82	10	FEW	250			10.00			54	16	40	22	11	31	30.07	30.26
13	BKN	250			10.00		62	29	47	29	0	00	29.61	29.80	13	BKN	250			10.00			59	14	42	17	10	30	30.02	30.21
16	OVC	250			10.00		63	29	48	28	8	14	29.52	29.70	16	FEW	250			10.00			61	12	42	14	7	26	29.94	30.13
19	OVC	050			10.00	-RA	54	46	50	75	3	VR	29.54	29.73	19	BKN	250			10.00			54	20	41	26	0	00	29.90	30.10
22	OVC	029			6.00	-RA BR	49	47	48	93	10	10	29.48	29.67	22	BKN	250			10.00			46	25	38	44	3	14	29.87	30.06
<p><b>SUNRISE: 0619</b>      <b>MAR 16</b>      <b>SUNSET: 1817</b></p>																														
01	OVC	012			3.00	RA BR	48	47	48	96	6	06	29.48	29.67	01	BKN	250			10.00			46	30	39	54	8	19	29.79	29.98
04	OVC	036			3.00	RA BR	47	46	47	96	11	02	29.57	29.77	04	BKN	250			10.00			49	31	41	50	6	24	29.72	29.92
07	OVC	032			6.00	-RA BR	47	45	46	93	9	36	29.70	29.90	07	OVC	250			10.00			47	35	42	63	8	22	29.68	29.88
10	BKN	044			10.00		48	41	45	77	13	01	29.83	30.03	10	CLR	NC			10.00			60	35	48	39	7	31	29.68	29.87
13	SCT	055			10.00		56	33	46	42	15	34	29.88	30.07	13	SCT	110			10.00			68	34	51	29	11	03	29.62	29.81
16	SCT	075			10.00		58	27	45	31	13	34	29.92	30.11	16	BKN	080			10.00	-RA		58	38	48	48	21	05	29.61	29.80
19	CLR	NC			10.00		49	26	40	41	17	01	30.04	30.24	19	SCT	110			10.00			48	32	41	54	13	05	29.76	29.95
22	CLR	NC			10.00		41	23	34	49	15	01	30.17	30.37	22	FEW	120			10.00			41	32	37	70	6	02	29.87	30.06
<p><b>SUNRISE: 0618</b>      <b>MAR 17</b>      <b>SUNSET: 1818</b></p>																														
01	CLR	NC			10.00		40	22	33	49	11	35	30.22	30.41	01	CLR	NC			10.00			38	28	34	67	7	03	29.90	30.09
04	CLR	NC			10.00		37	21	31	52	11	36	30.28	30.47	04	CLR	NC			10.00			36	24	32	62	10	01	29.94	30.13
07	CLR	NC			10.00		35	18	29	50	10	01	30.37	30.56	07	FEW	250			10.00			35	24	31	64	9	02	29.99	30.18
10	FEW	250			10.00		43	18	34	37	11	03	30.41	30.60	10	CLR	NC			10.00			46	18	36	33	10	02	30.02	30.22
13	SCT	250			10.00		51	17	38	26	11	02	30.35	30.54	13	SCT	250			10.00			51	14	38	23	5	11	29.98	30.18
16	BKN	250			10.00		53	13	39	20	5	VR	30.30	30.50	16	SCT	250			10.00			53	14	39	21	6	31	29.94	30.14
19	OVC	250			10.00		48	20	37	33	3	10	30.31	30.51	19	BKN	250			10.00			45	23	37	42	11	13	29.96	30.16
22	OVC	250			10.00		45	27	38	49	3	17	30.34	30.54	22	SCT	150			10.00			40	20	33	45	0	00	29.99	30.19
<p><b>SUNRISE: 0616</b>      <b>MAR 18</b>      <b>SUNSET: 1819</b></p>																														
01	OVC	150			10.00		42	31	38	65	0	00	30.31	30.51	01	OVC	250			10.00			38	26	33	62	5	01	30.01	30.20
04	OVC	150			10.00		40	31	36	70	0	00	30.27	30.46	04	OVC	080			10.00			38	27	34	65	3	35	30.00	30.19
07	BKN	250			10.00		35	30	33	82	0	00	30.27	30.46	07	OVC	090			10.00			40	24	34	53	10	36	30.03	30.22
10	OVC	250			10.00		47	25	38	42	8	22	30.26	30.46	10	OVC	070			10.00			48	24	39	39	9	02	30.05	30.25
13	OVC	250			10.00		54	23	41	30	11	18	30.15	30.35	13	OVC	200			10.00			50	22	39	33	6	VR	30.02	30.21
16	OVC	055			10.00		54	24	42	31	10	18	30.06	30.25	16	BKN	200			10.00			48	23	38	37	8	02	29.98	30.17
19	OVC	070			10.00		53	32	44	45	5	18	30.01	30.20	19	OVC	200			10.00			45	23	37	42	7	05	30.01	30.20
22	OVC	044			10.00		52	35	44	53	6	18	29.94	30.13	22	CLR	NC			10.00			39	22	33	51	8	36	30.05	30.24

# OBSERVATIONS AT 3-HOURLY INTERVALS

**RICHMOND, VA**

**MARCH 2008**

**KRIC**

**WBAN # 13740**

HOUR (LST)	SKY COVER	CEILING 100's of FT.	SATELLITE		WEATHER	TEMPERATURE °F			WIND		PRESSURE (INCHES, HG)																																																																																																							
			Observation Time (LST)	Eff Clد Amt Oktas		VISIBILITY (MILES)	DRY BULB	DEW POINT	WET BULB	RELATIVE HUMIDITY (PCT)	SPEED (MPH)	DIRECTION Tens of Deg	STATION	SEA LEVEL																																																																																																				
<b>SUNRISE: 0606</b>						<b>MAR 25</b>						<b>SUNSET: 1825</b>																																																																																																						
01	CLR	NC				37	21	31	52	10	36	30.08	30.27	01	CLR	NC				35	21	30	57	9	36	30.11	30.30	07	CLR	NC				35	21	30	57	8	01	30.17	30.37	10	FEW	050				47	21	37	36	5	05	30.22	30.42	13	FEW	050				51	16	38	25	7	25	30.16	30.36	16	SCT	250				55	15	40	20	13	23	30.06	30.25	19	SCT	250				49	18	37	29	11	22	30.02	30.22	22	BKN	250				49	22	38	35	15	21	30.01	30.21			
<b>SUNRISE: 0604</b>						<b>MAR 26</b>						<b>SUNSET: 1826</b>																																																																																																						
01	OVC	250				49	24	39	38	16	22	30.00	30.19	04	OVC	085				49	24	39	38	14	24	29.97	30.16	07	OVC	150				49	25	39	39	17	24	29.99	30.19	10	SCT	250				60	27	46	28	14	24	29.98	30.17	13	FEW	250				68	30	50	24	11	24	29.91	30.11	16	FEW	200				73	32	53	22	20	24	29.84	30.03	19	FEW	150				66	34	51	31	10	22	29.86	30.05	22	SCT	200				64	36	50	36	13	24	29.89	30.08			
<b>SUNRISE: 0603</b>						<b>MAR 27</b>						<b>SUNSET: 1827</b>																																																																																																						
01	SCT	250				59	36	48	42	10	24	29.88	30.07	04	FEW	250				50	37	44	61	6	23	29.87	30.06	07	SCT	200				51	39	45	64	5	19	29.87	30.06	10	OVC	200				63	40	51	43	6	23	29.87	30.06	13	SCT	250				75	41	57	30	18	22	29.79	29.98	16	BKN	250				77	38	57	25	15	24	29.71	29.90	19	SCT	200				64	40	52	42	8	21	29.71	29.91	22	FEW	250				63	40	51	43	13	21	29.71	29.90			
<b>SUNRISE: 0601</b>						<b>MAR 28</b>						<b>SUNSET: 1828</b>																																																																																																						
01	FEW	150				59	44	51	58	9	21	29.68	29.87	04	SCT	120				59	45	52	60	13	22	29.67	29.86	07	OVC	250				61	46	53	58	17	23	29.67	29.86	10	BKN	250				73	47	59	40	20	24	29.68	29.86	13	BKN	250				80	49	62	34	14	27	29.65	29.84	16	OVC	200				78	49	61	36	14	30	29.64	29.83	19	BKN	250				74	45	58	36	7	31	29.73	29.91	22	BKN	090				56	39	48	53	15	03	29.89	30.08			
<b>SUNRISE: 0560</b>						<b>MAR 29</b>						<b>SUNSET: 1829</b>																																																																																																						
01	OVC	044			4.00	RA BR	44	41	43	89	11	04	30.02	30.21	04	BKN	120				44	37	41	77	8	02	30.08	30.28	07	OVC	250				41	26	35	55	14	03	30.19	30.38	10	BKN	250				45	25	37	46	13	03	30.24	30.43	13	OVC	180				47	21	37	36	8	06	30.23	30.43	16	BKN	250				51	21	39	31	3	VR	30.21	30.40	19	BKN	200				47	25	38	42	3	13	30.25	30.44	22	BKN	250				41	28	36	60	3	10	30.31	30.50		
<b>SUNRISE: 0558</b>						<b>MAR 30</b>						<b>SUNSET: 1830</b>																																																																																																						
01	BKN	250					39	27	34	62	6	06	30.33	30.53	04	BKN	250				39	29	35	67	5	02	30.34	30.53	07	OVC	120				41	27	36	58	7	06	30.41	30.60	10	OVC	130				41	33	38	73	6	06	30.42	30.62	13	OVC	044				44	37	41	77	10	08	30.43	30.63	16	OVC	060				45	34	40	65	8	09	30.41	30.60	19	OVC	024			5.00	-RA BR	42	39	41	89	5	08	30.41	30.60	22	OVC	035			5.00	-RA BR	42	40	41	93	5	05	30.41	30.61

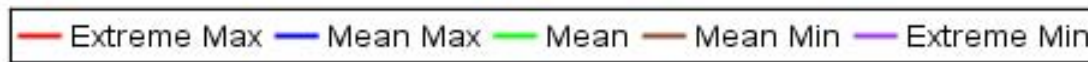
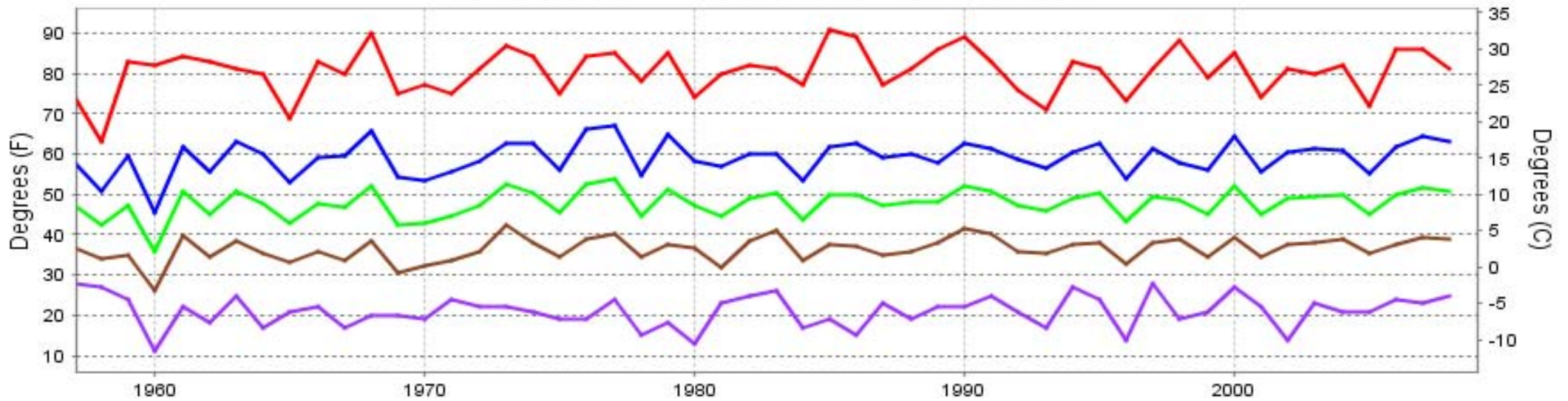
HOUR (LST)	SKY COVER	CEILING 100's of FT.	SATELLITE		WEATHER	TEMPERATURE °F			WIND		PRESSURE (INCHES, HG)																																																																																																												
			Observation Time (LST)	Eff Clد Amt Oktas		VISIBILITY (MILES)	DRY BULB	DEW POINT	WET BULB	RELATIVE HUMIDITY (PCT)	SPEED (MPH)	DIRECTION Tens of Deg	STATION	SEA LEVEL																																																																																																									
<b>SUNRISE: 0557</b>						<b>MAR 31</b>						<b>SUNSET: 1831</b>																																																																																																											
01	OVC	034			4.00	-RA BR	43	40	42	89	7	05	30.37	30.57	04	OVC	014			5.00	BR	43	41	42	93	6	02	30.31	30.50	07	OVC	033			5.00	BR	45	43	44	93	5	05	30.27	30.47	10	OVC	023			4.00	-RA BR	48	47	48	96	3	05	30.26	30.45	13	OVC	019			10.00		58	52	55	81	5	22	30.19	30.39	16	OVC	021			10.00	-RA	62	57	59	84	13	18	30.12	30.31	19	OVC	070			8.00	-RA	60	58	59	93	7	16	30.08	30.28	22	BKN	110			10.00		60	56	58	87	11	19	30.06	30.25

**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

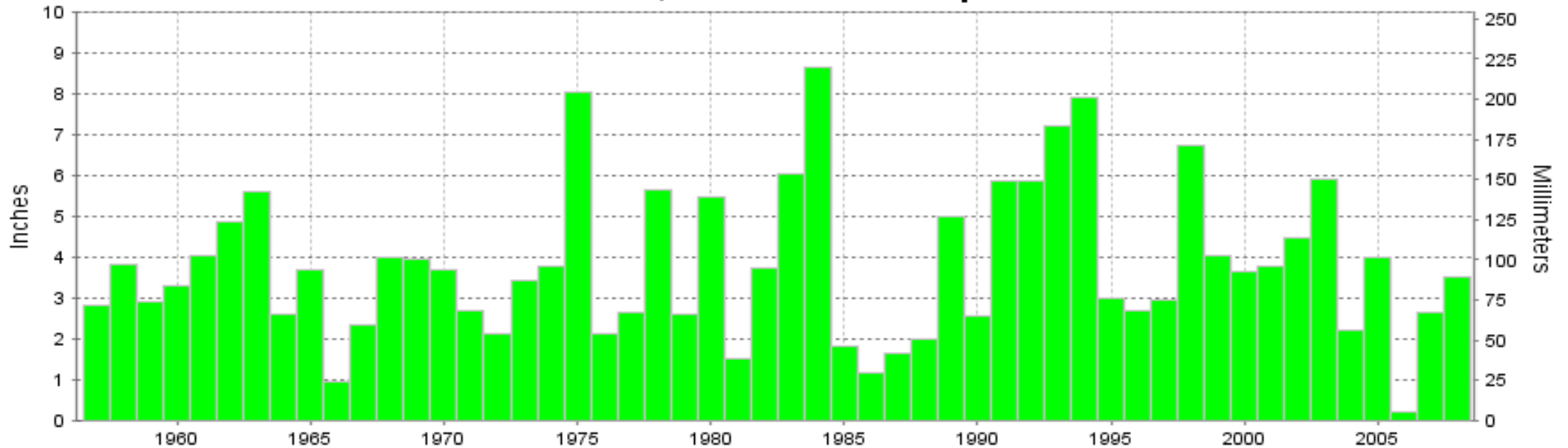
HOUR (LST)	AVERAGES										RESULTANT WIND (MPH)	
	CEILOMETER	EFF CLD AMT	DRY BULB	DEW POINT	WET BULB	RELATIVE HUMIDITY	PRESSURE (Inches, HG)		VISIBILITY (Miles)	WIND SPEED (MPH)	SPEED	DIRECTION
							STATION	SEA LEVEL				
01			46	35	41	66	29.89	30.09	8.77	8	3	26
02			45	35	41	68	29.89	30.08	9.03	8	3	26
03			45	34	40	69	29.88	30.07	9.05	8	4	26
04			44	34	40	70	29.89	30.08	9.26	7	3	26
05			43	33	39	70	29.90	30.09	9.31	7	2	25
06			43	33	39	70	29.91	30.11	9.37	8	2	25
07			43	33	39	69	29.93	30.12	9.24	7	2	25
08			47	34	41	63	29.94	30.13	9.16	10	3	26
09			50	34	43	56	29.94	30.14	9.48	11	2	26
10			53	33	44	50	29.94	30.13	9.58	11	3	26
11			55	32	45	45	29.93	30.13	9.74	11	4	26
12			57	33	47	42	29.92	30.11	9.77	12	4	26
13			59	32	47	40	29.89	30.09	9.71	11	5	26
14			60	31	47	36	29.87	30.06	9.76	12	6	26
15			61	31	48	35	29.85	30.04	9.77	12	5	26
16			61	31	48	35	29.84	30.03	9.77	13	5	26
17			60	31	47	38	29.84	30.03	9.68	11	5	26
18			57	32	46	43	29.85	30.04	9.65	9	2	25
19			54	34	45	49	29.86	30.06	9.49	9	1	24
20			52	34	44	53	29.87	30.07	9.52	9	1	18
21			50	34	43	57	29.88	30.08	9.35	9	1	22
22			49	34	43	59	29.89	30.08	9.55	9	1	24
23			48	35	43	62	29.89	30.08	9.58	9	1	23
24			47	35	42	65	29.90	30.09	9.23	9	2	25

## RICHMOND, VA MARCH Temperatures



**Long-Term (1957-2008) Mean: 47.8**  
**1971-2000 Normal: 47.7**

## RICHMOND, VA MARCH Precipitation



**Long-Term (1957-2008) Mean Monthly Total: 3.81**

**1971-2000 Normal: 4.09**



**MARCH 2008  
RICHMOND, VA**

# **LOCAL CLIMATOLOGICAL DATA NOAA, National Climatic Data Center**

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