



MARCH 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 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			
																		SPEED 20	DIR 21	SPEED 22	DIR 23			
01	35	32	34	-9	32	33	31	0	RA DZ SN PL FG+ FG BR			4.3	0.93	29.75	29.96	13.3	03	13.5	46*	03	38*	04	01	
02	33	17	25	-18	18	23	40	0	SN GS FG+ FG FZFG BR BLSN			2.0	0.17	29.82	30.03	11.8	35	13.1	39	36	29	01	02	
03	30	11	21*	-22	6	16	44	0				0.0	0.00	30.19	30.39	7.2	34	7.7	23	35	18	36	03	
04	37	10*	24	-20	13	22	41	0				0.0	0.00	30.27	30.48	1.1	21	2.2	13	25	12	24	04	
05	53	22	38	-6	24	33	27	0				0.0	0.00	30.22	30.41	5.2	19	5.4	18	20	15	20	05	
06	70	38	54	10	38	46	11	0				0.0	0.00	30.01	30.19	11.2	22	11.7	26	24	22	24	06	
07	77	50	64	19	50	56	1	0				0.0	0.00	29.93	30.11	6.6	22	7.6	22	24	17	21	07	
08	82	61	72*	27	48	58	0	7				0.0	0.00	29.76	29.93	11.0	24	11.6	24	21	20	21	08	
09	82*	49	66	21	38	53	0	1				0.0	0.00	29.73	29.97	7.1	30	13.4	31	31	24	31	09	
10	53	40	47	2	37	42	18	0				0.0	0.00	30.10		4.9	13	6.5	16	16	13	13	10	
11	80	46	63	17	45	54	2	0				0.0	0.00	29.90	30.10	6.6	26	12.0	28	32	21	26	11	
12	56	42	49	3	19	37	16	0	RA			0.0	T	30.21	30.43	7.9	03	9.8	28	01	22	02	12	
13	42	34	38	-9	34	35	27	0	RA DZ SN PL BR				0.14	30.26	30.44	5.9	06	6.4	20	05	12	07	13	
14	41	37	39	-8	37	38	26	0	RA BR			0.0	0.37	30.11	30.30	2.6	08	3.3	20	03	8	09	14	
15	46	39	43	-5	41	42	22	0	RA DZ BR			0.0	0.38	30.00	30.20	2.3	05	2.5	12	10	8	02	15	
16	49	43	46	-2	44	45	19	0	RA BR			0.0	0.39	30.04	30.25	3.6	06	4.4	12	11	9	10	16	
17	51	37	44	-4	42	44	21	0	RA DZ BR			0.0	0.19	30.06	30.27	5.3	04	5.5	25	21	14	03	17	
18	64	35	50	2	42	45	15	0	FG+ FG BR			0.0	0.00	30.06	30.24	7.4	20	7.8	21	19	17	19	18	
19	69	43	56	7	44	47	9	0	RA BR			0.0	0.06	29.89	30.09	1.8	33	8.1	29	03	23	02	19	
20	54	35	45	-4	28	38	20	0	BR			0.0	0.00	30.08	30.30	8.6	02	9.3	25	02	20	01	20	
21	54	30	42	-7	21	34	23	0				0.0	0.00	30.29	30.50	1.5	07	4.9	15	13	13	14	21	
22	63	28	46	-4	29	39	19	0				0.0	0.00	30.20	30.38	2.5	28	2.9	16	27	12	35	22	
23	57	33	45	-5	22	37	20	0				0.0	0.00	30.14	30.34	6.4	04	7.5	24	36	16	02	23	
24	52	29	41	-9	13	31	24	0				0.0	0.00	30.25	30.46	4.5	07	5.8	17	05	14	03	24	
25	48	28	38	-13	23	35	27	0	RA			0.0	T	30.19	30.36	4.2	17	4.5	15	21	13	16	25	
26	61	43	52	1	48	50	13	0	RA BR			0.0	0.34	29.88	30.03	4.2	21	5.2	22	21	16	22	26	
27	60	44	52	0	48	49	13	0	RA FG+ FG BR			0.0	1.09	29.79	29.98	4.9	10	5.9	17	04	14	04	27	
28	58	49	54	2	51	52	11	0	RA DZ BR			0.0	0.20	29.67	29.84	3.2	06	6.7	26	14	20	14	28	
29	79	51	65	13	49	56	0	0	RA FG BR			0.0	T	29.31	29.49	13.1	24	16.2	43	22	35	23	29	
30	63	41	52	-1	29	42	13	0				0.0	0.00	29.67	29.90	8.9	28	9.2	26	29	22	29	30	
31	64	38	51	-2	34	43	14	0				0.0	0.00	29.95	30.15	4.4	14	5.8	18	15	16	15	31	
56.9		36.6	46.8	Σ	33.8	41.1	18.3	0.3	< MONTHLY AVERAGES TOTALS >		6.3	4.26	29.99	30.18	0.7	32	7.6	< MONTHLY AVERAGES						
-1.5		-0.4	-0.9		<----- DEPARTURE FROM NORMAL ----->						0.17		SUNSHINE, CLOUD, & VISIBILITY TABLES ON PAGE 3											
DEGREE DAYS									GREATEST 24-HR PRECIPITATION : 1.26 DATE : 27-28				SEA LEVEL PRESSURE				DATE TIME							
MONTHLY									GREATEST 24-HR SNOWFALL : 4.3 DATE : 01				MAXIMUM : 30.56				21 1105							
SEASON TO DATE									GREATEST SNOW DEPTH :				MINIMUM : 29.32				29 1658							
TOTAL DEPARTURE			TOTAL DEPARTURE			NUMBER OF -> DAYS WITH				MAXIMUM TEMP >= 90 : 0		MINIMUM TEMP <= 32 : 9		PRECIPITATION >= 0.01 INCH: 11										
HEATING : 567			39			3447 -130				MAXIMUM TEMP <= 32 : 1		MINIMUM TEMP <= 0 : 0		PRECIPITATION >= 0.10 INCH: 10										
COOLING : 8			0			8 -1				THUNDERSTORMS : 0		HEAVY FOG : 4		SNOWFALL >= 1.0 INCH : 2										

**MARCH 2009
RICHMOND, VA**

HOURLY PRECIPITATION

(WATER EQUIVALENT IN INCHES)

RICHMOND, VA (KRIC)
MARCH 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	0.01	T	T	T	T	T	T	T	T	T	T	T	01	T	0.04	0.04	0.11	0.15	0.10	0.09	0.12	0.17	0.09	0.01	T	01	0.93	0.93
02	T	T	0.06	0.04	0.02	0.01	0.02	0.01	0.01		T	T	02	T	T											02	0.17	0.17
03													03													03	0.00	0.00
04													04													04	0.00	0.00
05													05													05	0.00	0.00
06													06													06	0.00	0.00
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												T	12	T	T
13	T	T	T	T	T	0.02	T	T	T	T	T	0.02	13	0.03	0.02	0.02	0.01	T	0.02	T	T	T	T		13	0.14	0.14	
14	T			T		T	T	T	T	T	0.01	0.03	14	0.04	0.06	0.04	0.03	0.04	0.03	0.03	0.01	T	T	0.02	0.03	14	0.37	0.37
15	0.04	0.03	0.01	T	T	0.01	0.02	0.03	0.02	0.02	0.01	0.04	15	0.02	0.01	0.02	0.06	0.04	T						15	0.38	0.38	
16													16			T	0.01	0.03	0.03	0.05	0.04	0.03	0.08	0.06	0.06	16	0.39	0.39
17	0.09	0.08	0.02	T	T				T	T			17												17	0.19	0.19	
18													18												18	0.00	0.00	
19													19			T	0.02	0.02	0.01	0.01		T			19	0.06	0.06	
20													20												20	0.00	0.00	
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													25			T	T	T							25	T	T	
26		T	T			T	0.01	0.01	T		T	T	26	0.01	0.02	T	0.01	0.01	0.03	0.24				26	0.34	0.34		
27													27			T	0.11	0.09	0.26	0.22	0.05	0.03	0.09	0.24	27	1.09	1.09	
28	0.06	0.03	0.08		T	T	T						28												28	0.20	0.20	
29	T	T					T						29					T	T	T	0.01	T	0.02		29	T	T	
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)	0.13	0.18	0.20	0.22	0.23	0.25	0.29	0.38	0.46	0.49	0.51	0.58
Ending Date	26	26	26	26	26	27	27	27	27	27	27	27
Ending Time (Hr/Min)	1834	1836	1836	1838	1838	1901	1913	1939	1955	2014	2044	1955

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 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							0.25	6.00	
02							0.12	10.00	
03							10.00	10.00	
04							7.00	10.00	
05							10.00	10.00	
06							10.00	10.00	
07							10.00	10.00	
08							10.00	10.00	
09							10.00	10.00	
10							10.00	10.00	
11							10.00	10.00	
12							10.00	10.00	
13							1.50	10.00	
14							1.50	10.00	
15							1.50	10.00	
16							3.00	10.00	
17							2.00	10.00	
18							0.12	10.00	
19							6.00	10.00	
20							5.00	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							1.00	10.00	
27							0.12	10.00	
28							2.00	10.00	
29							0.75	10.00	
30							10.00	10.00	
31							10.00	10.00	
MONTHLY AVGS							6.19	9.87	
SUNSHINE (Minutes)									
Total : 0					Possible : 22283				
Percent Possible : 0									
NUMBER OF DAYS WITH : SKY CONDITION									
Clear		Partly CLDY			Cloudy			Missing	
MINIMUM VISIBILITY (MILES)									
<= .25			<= 3.0				>= 7.0		
4			12				17		

OBSERVATIONS AT 3-HOURLY INTERVALS

RICHMOND, VA

MARCH 2009

KRIC

WBAN # 13740

HOUR (LST)	SKY COVER	CEILING 100's of FT.	SATELLITE			WEATHER	TEMPERATURE °F			WIND SPEED (MPH) DIRECTION Tens of Deg	PRESSURE (INCHES, HG)		HOUR (LST)	SKY COVER	CEILING 100's of FT.	SATELLITE			WEATHER	TEMPERATURE °F			WIND SPEED (MPH) DIRECTION Tens of Deg	PRESSURE (INCHES, HG)						
			Observation Time (LST)	Eff Cld Amt Oktas	VISIBILITY (MILES)		DRY BULB	DEW POINT	WET BULB		RELATIVE HUMIDITY (PCT)	STATION				SEA LEVEL	Observation Time (LST)	Eff Cld Amt Oktas		VISIBILITY (MILES)	DRY BULB	DEW POINT		WET BULB	RELATIVE HUMIDITY (PCT)	STATION	SEA LEVEL			
SUNRISE: 0641 MAR 01						SUNSET: 1803						SUNRISE: 0632 MAR 07						SUNSET: 1809												
01	OVC	033			6.00	-RA BR	33	31	32	92	15	03	29.83	30.03	01	CLR	NC			10.00			58	47	52	67	8	23	29.94	30.13
04	OVC	006			3.00	-DZ BR	33	31	32	92	15	02	29.80	30.00	04	CLR	NC			10.00			56	48	52	75	6	26	29.94	30.13
07	OVC	006			2.00	-DZ BR	33	32	33	96	13	02	29.82	30.02	07	SCT	250			10.00			52	47	49	83	3	29	29.98	30.18
10	OVC	006			2.00	-DZ BR	34	33	34	96	11	04	29.82	30.02	10	OVC	250			10.00			66	50	57	57	3	29	30.02	30.21
13	OVC	006			5.00	BR	34	32	33	92	10	05	29.80	30.00	13	OVC	150			10.00			75	48	60	39	9	17	29.96	30.15
16	OVC	012			3.00	RA BR	33	32	33	96	14	04	29.72	29.92	16	SCT	250			10.00			77	51	62	40	13	21	29.89	30.08
19	OVC	020			1.00	-SN BR	33	31	32	92	21	03	29.69	29.89	19	BKN	250			10.00			65	50	57	59	8	20	29.87	30.06
22	OVC	002			0.25	+SN FG	32	32	32	100	22	03	29.59	29.79	22	SCT	250			10.00			64	52	57	65	13	22	29.83	30.02
SUNRISE: 0640 MAR 02						SUNSET: 1804						SUNRISE: 0631 MAR 08						SUNSET: 1810												
01	OVC	003			5.00	-SN BR	33	31	32	92	13	01	29.57	29.77	01	BKN	200			10.00			64	51	57	63	13	23	29.80	29.98
04	OVC	003			0.12	+SN FG	26	26	26	100	14	34	29.67	29.86	04	BKN	160			10.00			65	47	55	52	14	26	29.77	29.96
07	OVC	002			0.12	+SN FG	23	21	22	92	15	33	29.78	29.98	07	BKN	250			10.00			62	48	55	60	9	25	29.81	30.01
10	OVC	026			2.00	BLSN BR	23	18	21	81	20	02	29.80	30.00	10	OVC	250			10.00			72	50	60	46	11	27	29.82	30.01
13	OVC	016			1.00	-SN BLSN BR	24	20	23	85	13	34	29.87	30.07	13	BKN	250			10.00			78	50	62	38	7	24	29.76	29.95
16	BKN	250			10.00		28	15	24	58	15	34	29.86	30.06	16	OVC	250			10.00			80	50	63	35	16	21	29.68	29.87
19	FEW	048			10.00		21	12	19	68	8	35	29.94	30.14	19	OVC	250			10.00			70	48	58	46	7	20	29.68	29.87
22	CLR	NC			10.00		19	9	16	65	7	34	30.03	30.23	22	OVC	200			10.00			71	41	55	34	16	24	29.68	29.87
SUNRISE: 0638 MAR 03						SUNSET: 1805						SUNRISE: 0630 MAR 09						SUNSET: 1811												
01	CLR	NC			10.00		16	6	14	64	11	35	30.08	30.28	01	BKN	150			10.00			69	45	56	42	11	24	29.65	29.84
04	CLR	NC			10.00		14	2	11	59	11	01	30.11	30.32	04	FEW	100			10.00			66	48	56	52	9	25	29.63	29.82
07	CLR	NC			10.00		12	2	10	64	5	36	30.19	30.39	07	SCT	250			10.00			64	48	55	56	13	26	29.66	29.85
10	FEW	050			10.00		19	3	15	49	11	34	30.21	30.42	10	FEW	250			10.00			74	36	55	25	18	27	29.71	29.90
13	FEW	050			10.00		24	5	19	44	13	32	30.20	30.40	13	BKN	250			10.00			80	33	56	18	15	30	29.72	29.91
16	CLR	NC			10.00		29	5	23	36	9	33	30.18	30.38	16	BKN	250			10.00			81	27	55	14	15	31	29.75	29.94
19	CLR	NC			10.00		27	8	22	44	0	00	30.20	30.41	19	SCT	250			10.00			63	33	49	33	15	04	29.89	30.08
22	CLR	NC			10.00		18	12	16	77	0	00	30.26	30.46	22	SCT	250			10.00			54	33	45	45	10	03	30.02	30.22
SUNRISE: 0637 MAR 04						SUNSET: 1806						SUNRISE: 0628 MAR 10						SUNSET: 1811												
01	SCT	250			10.00		16	12	15	84	0	00	30.26	30.46	01	OVC	250			10.00			49	32	42	52	6	04	30.08	30.27
04	CLR	NC			7.00		14	12	13	92	0	00	30.27	30.47	04	OVC	150			10.00			44	34	40	68	6	09	30.08	30.27
07	CLR	NC			8.00		13	10	12	88	0	00	30.32	30.52	07	BKN	250			10.00			40	33	37	76	3	06	30.13	30.33
10	CLR	NC			10.00		29	9	23	43	5	04	30.35	30.55	10	OVC	150			10.00			47	37	43	68	0	00	30.19	30.39
13	CLR	NC			10.00		33	7	26	33	0	00	30.30	30.50	13	OVC	023			10.00			49	39	44	69	8	14	30.15	30.34
16	FEW	250			10.00		37	13	29	37	8	23	30.22	30.42	16	BKN	250			10.00			50	39	45	66	9	16	30.08	30.27
19	CLR	NC			10.00		32	17	27	54	0	00	30.23	30.43	19	BKN	250			10.00			48	40	44	74	8	14	30.06	30.25
22	CLR	NC			10.00		27	19	24	72	0	00	30.25	30.45	22	OVC	250			10.00			44	39	42	83	9	14	30.05	30.24
SUNRISE: 0635 MAR 05						SUNSET: 1807						SUNRISE: 0627 MAR 11						SUNSET: 1812												
01	CLR	NC			10.00		27	18	24	69	5	15	30.25	30.45	01	OVC	025			10.00			47	41	44	80	9	17	29.99	30.19
04	CLR	NC			10.00		27	17	24	66	3	17	30.24	30.44	04	OVC	022			10.00			48	44	46	86	7	18	29.94	30.13
07	CLR	NC			10.00		23	18	21	81	3	16	30.27	30.47	07	OVC	250			10.00			51	47	49	86	8	20	29.92	30.11
10	CLR	NC			10.00		36	23	31	59	0	00	30.29	30.49	10	OVC	250			10.00			64	55	59	73	14	21	29.88	30.07
13	FEW	250			10.00		47	26	39	44	3	18	30.24	30.44	13	BKN	250			10.00			78	56	65	47	16	25	29.81	30.00
16	FEW	250			10.00		52	28	42	40	7	20	30.17	30.36	16	BKN	250			10.00			79	54	64	42	8	28	29.81	30.00
19	SCT	250			10.00		49	27	40	43	8	18	30.15	30.35	19	BKN	250			10.00			72	42	56	34	10	29	29.89	30.08
22	SCT	250			10.00		44	28	38	53	11	20	30.15	30.35	22	OVC	250			10.00			63	33	49	33	17	34	29.99	30.19
SUNRISE: 0634 MAR 06						SUNSET: 1808						SUNRISE: 0625 MAR 12						SUNSET: 1813												
01	OVC	250			10.00		43	28	37	56	13	21	30.13	30.32	01	OVC	250			10.00			52	16	39	24	15	02	30.08	30.27
04	OVC	250			10.00		41	28	36	60	10	21	30.11	30.31	04	OVC	100			10.00			48	16	36	28	15	03	30.13	30.33
07	BKN	250			10.00		40	30	36	68	13	21	30.09	30.28	07	OVC	150			10.00			45	16	35	31	10	04	30.23	30.43
10	BKN	250			10.00		53	39	46	59	13	24	30.05	30.24	10	OVC	250			10.00			46	17	36	31	16	04	30.29	30.49
13	BKN	090			10.00		65	42	53	43	14	24	29.96	30.16	13	OVC	250			10.00			51	18	39	27	9	01	30.27	30.47
16	FEW	250			10.00		70	45	57	41	14	24	29.89	30.08	16	OVC	150			10.00			48	16	36	28	7	03	30.26	30.45
19	FEW	250			10.00		58	46	52	65	8	21	29.89	30.09	19	OVC	150			10.00			46	18	36	33	0	00	30.27	30.46
22	CLR	NC			10.00		56	44	50	64	9	21	29.92	30.11	22	OVC	060			10.00			43	25	36	49	7	22	30.30	30.49

OBSERVATIONS AT 3-HOURLY INTERVALS

RICHMOND, VA

MARCH 2009

KRIC

WBAN # 13740

HOUR (LST)	SKY COVER	CEILING 100's of FT.	SATELLITE		WEATHER	TEMPERATURE °F			WIND SPEED (MPH) DIRECTION Tens of Deg	PRESSURE (INCHES, HG)				
			Observation Time (LST)	Eff Cld Amt Oktas		VISIBILITY (MILES)	DRY BULB	DEW POINT		WET BULB	RELATIVE HUMIDITY (PCT)	STATION	SEA LEVEL	
SUNRISE: 0624 MAR 13 SUNSET: 1814														
01	OVC	075			10.00	-PLRA	38	31	35	76	6	05	30.28	30.48
04	OVC	007			8.00	-RASN	35	33	34	92	8	05	30.27	30.47
07	OVC	041			4.00	-PLSN BR	34	32	33	92	9	07	30.30	30.50
10	OVC	015			7.00	-RAPL	36	33	35	89	8	07	30.31	30.51
13	OVC	015			3.00	-PLRA BR	36	34	35	92	6	05	30.28	30.47
16	OVC	015			5.00	-RA BR	37	35	36	93	3	05	30.20	30.40
19	OVC	010			1.50	-RA BR	37	35	36	93	6	04	30.19	30.39
22	OVC	005			6.00	BR	37	35	36	93	6	02	30.18	30.37
SUNRISE: 0622 MAR 14 SUNSET: 1815														
01	OVC	004			4.00	-RA BR	37	35	36	93	6	02	30.15	30.35
04	OVC	025			5.00	BR	37	35	36	93	3	07	30.11	30.30
07	OVC	005			4.00	BR	37	35	36	93	6	04	30.13	30.33
10	OVC	034			10.00		39	35	37	86	3	08	30.16	30.35
13	OVC	019			6.00	-RA BR	40	37	39	89	3	13	30.14	30.33
16	OVC	030			6.00	-RA BR	40	37	39	89	0	00	30.09	30.29
19	OVC	030			4.00	-RA BR	40	38	39	93	5	10	30.06	30.25
22	OVC	003			4.00	-RA BR	39	38	39	96	0	00	30.06	30.25
SUNRISE: 0621 MAR 15 SUNSET: 1816														
01	OVC	006			1.50	-RA BR	39	38	39	96	0	00	30.02	30.22
04	OVC	004			3.00	-DZ BR	39	38	39	96	0	00	29.98	30.18
07	OVC	004			3.00	-RA BR	40	39	40	96	0	00	30.00	30.19
10	OVC	006			9.00	-RA	43	41	42	93	3	03	30.03	30.22
13	OVC	008			10.00	-RA	45	43	44	93	0	00	30.00	30.19
16	OVC	010			2.50	RA BR	46	44	45	93	3	07	29.96	30.16
19	OVC	020			10.00		46	44	45	93	3	06	30.00	30.19
22	OVC	003			10.00		45	43	44	93	3	05	30.03	30.22
SUNRISE: 0619 MAR 16 SUNSET: 1817														
01	OVC	015			3.00	BR	44	43	44	96	5	06	30.02	30.22
04	OVC	003			4.00	BR	43	42	43	96	5	03	30.04	30.24
07	OVC	080			5.00	BR	43	42	43	96	5	02	30.09	30.29
10	OVC	007			8.00		46	43	45	89	5	02	30.11	30.30
13	OVC	009			10.00		48	44	46	86	6	15	30.06	30.26
16	OVC	007			5.00	-RA BR	48	46	47	93	5	09	30.03	30.22
19	OVC	032			3.00	-RA BR	47	46	47	96	5	06	30.02	30.22
22	OVC	007			3.00	RA BR	46	45	46	96	5	09	30.01	30.21
SUNRISE: 0618 MAR 17 SUNSET: 1818														
01	OVC	010			4.00	-RA BR	45	44	45	96	6	03	30.00	30.20
04	OVC	005			7.00	-RA	43	42	43	96	9	04	29.99	30.19
07	OVC	005			4.00	BR	43	41	42	93	8	01	30.06	30.26
10	OVC	007			2.50	-DZ BR	44	42	43	93	9	04	30.09	30.29
13	OVC	011			10.00		48	43	46	83	8	03	30.10	30.30
16	OVC	031			10.00		50	42	46	74	3	05	30.09	30.29
19	FEW	046			10.00		47	42	45	83	3	11	30.11	30.30
22	CLR	NC			4.00	BR	41	40	41	96	0	00	30.13	30.33
SUNRISE: 0616 MAR 18 SUNSET: 1819														
01	BKN	005			0.50	FG	36	35	36	96	0	00	30.13	30.32
04	VV	001			0.12	FG	36	36	36	100	0	00	30.10	30.30
07	VV	001			0.12	FG	39	39	39	100	3	19	30.11	30.31
10	OVC	003			2.00	BR	45	44	45	96	7	19	30.13	30.33
13	CLR	NC			10.00		60	45	52	58	15	22	30.05	30.25
16	FEW	250			10.00		64	45	54	50	11	20	29.97	30.16
19	FEW	250			10.00		56	44	50	64	9	21	29.96	30.15
22	FEW	250			10.00		51	43	47	74	8	21	29.95	30.14
SUNRISE: 0615 MAR 19 SUNSET: 1820														
01	CLR	NC			10.00		49	42	46	77	9	21	29.91	30.10
04	CLR	NC			10.00		45	41	43	86	9	21	29.86	30.06
07	BKN	250			10.00		46	43	45	89	7	21	29.86	30.05
10	SCT	250			10.00		63	46	54	54	8	25	29.84	30.03
13	OVC	150			10.00		65	47	55	52	11	02	29.84	30.03
16	OVC	060			10.00	-RA	51	43	47	74	16	03	29.90	30.09
19	OVC	060			7.00	-RA	46	42	44	86	5	05	29.96	30.16
22	OVC	150			7.00		45	43	44	93	0	00	29.96	30.15
SUNRISE: 0613 MAR 20 SUNSET: 1821														
01	OVC	150			7.00		44	42	43	93	6	33	29.98	30.17
04	SCT	090			5.00	BR	41	39	40	93	6	34	29.98	30.18
07	SCT	090			10.00		39	31	36	73	8	01	30.05	30.24
10	FEW	090			10.00		49	29	41	46	13	06	30.10	30.29
13	SCT	060			10.00		51	25	40	36	13	06	30.10	30.29
16	FEW	070			10.00		52	22	40	31	8	02	30.10	30.29
19	FEW	070			10.00		44	23	36	44	9	05	30.18	30.37
22	CLR	NC			10.00		37	22	32	55	6	03	30.25	30.44
SUNRISE: 0612 MAR 21 SUNSET: 1822														
01	CLR	NC			10.00		32	23	29	69	7	02	30.25	30.45
04	CLR	NC			10.00		30	21	27	69	5	01	30.26	30.46
07	FEW	250			10.00		31	22	28	69	5	01	30.33	30.52
10	FEW	250			10.00		46	20	36	36	6	02	30.36	30.55
13	SCT	250			10.00		51	15	38	24	9	01	30.33	30.52
16	BKN	250			10.00		52	13	38	21	3	27	30.26	30.46
19	SCT	250			10.00		45	23	37	42	9	14	30.28	30.48
22	FEW	250			10.00		38	28	34	67	6	15	30.31	30.51
SUNRISE: 0610 MAR 22 SUNSET: 1823														
01	FEW	250			10.00		34	27	31	76	0	00	30.29	30.49
04	CLR	NC			10.00		31	27	30	85	0	00	30.27	30.47
07	CLR	NC			10.00		30	27	29	89	0	00	30.28	30.47
10	FEW	250			10.00		47	29	40	50	6	24	30.26	30.46
13	FEW	250			10.00		60	27	46	28	6	33	30.16	30.36
16	SCT	250			10.00		63	29	48	28	5	28	30.08	30.28
19	SCT	250			10.00		55	31	44	40	0	00	30.08	30.27
22	FEW	250			10.00		46	34	41	63	0	00	30.10	30.30
SUNRISE: 0609 MAR 23 SUNSET: 1824														
01	FEW	250			10.00		41	33	38	73	0	00	30.09	30.28
04	FEW	250			10.00		41	33	38	73	14	06	30.10	30.29
07	CLR	NC			10.00		40	29	36	65	11	05	30.19	30.39
10	FEW	250			10.00		47	25	38	42	16	02	30.23	30.42
13	SCT	250			10.00		53	11	38	18	6	36	30.16	30.36
16	FEW	250			10.00		56	11	40	17	9	36	30.11	30.30
19	FEW	250			10.00		50	14	37	24	3	06	30.11	30.31
22	CLR	NC			10.00		40	19	33	43	5	08	30.17	30.37
SUNRISE: 0607 MAR 24 SUNSET: 1824														
01	CLR	NC			10.00		35	23	31	62	6	07	30.22	30.41
04	CLR	NC			10.00		32	16	27	52	7	05	30.24	30.44
07	FEW	250			10.00		31	12	25	45	8	04	30.30	30.50
10	SCT	250			10.00		41	12	32	30	5	07	30.33	30.53
13	BKN	250			10.00		46	7	33	20	0	00	30.27	30.47
16	BKN	250			10.00		52	9	37	18	9	04	30.22	30.42
19	BKN	250			10.00		43	12	33	28	6	10	30.23	30.43
22	BKN	250			10.00		36	15	29	42	5	14	30.26	30.45

OBSERVATIONS AT 3-HOURLY INTERVALS

RICHMOND, VA

MARCH 2009

KRIC

WBAN # 13740

HOUR (LST)	SKY COVER	CEILING 100's of FT.	SATELLITE		WEATHER	TEMPERATURE °F			WIND SPEED (MPH) DIRECTION Tens of Deg	PRESSURE (INCHES, HG)			
			Observation Time (LST)	Eff Clد Amt Oktas		VISIBILITY (MILES)	DRY BULB	DEW POINT		WET BULB	RELATIVE HUMIDITY (PCT)	STATION	SEA LEVEL
SUNRISE: 0606 MAR 25 SUNSET: 1825													
01	BKN	250				32	22	29	67	0	00	30.27	30.46
04	CLR	NC				31	21	28	66	0	00	30.23	30.43
07	OVC	250				35	26	32	70	0	00	30.21	30.41
10	OVC	050				44	16	34	32	5	17	30.23	30.42
13	OVC	048				47	17	36	30	9	18	30.18	30.37
16	OVC	042			-RA	47	24	38	41	6	17	30.12	30.31
19	OVC	035				46	25	38	44	5	19	30.10	30.30
22	OVC	031				45	31	39	58	3	20	30.08	30.27
SUNRISE: 0604 MAR 26 SUNSET: 1826													
01	OVC	025				45	34	40	65	3	18	30.02	30.22
04	OVC	015				44	36	41	74	5	16	29.94	30.13
07	OVC	013			-RA BR	43	40	42	89	0	00	29.94	30.14
10	OVC	004			BR	46	44	45	93	6	18	29.90	30.10
13	OVC	002			-RA BR	53	51	52	93	5	19	29.82	30.01
16	OVC	150			-RA BR	61	58	59	90	10	19	29.72	29.91
19	BKN	030			BR	61	59	60	93	5	27	29.72	29.91
22	SCT	110				57	54	55	90	9	26	29.74	29.93
SUNRISE: 0603 MAR 27 SUNSET: 1827													
01	SCT	009			FG	49	49	49	100	0	00	29.74	29.94
04	OVC	003			FG	45	45	45	100	3	18	29.76	29.95
07	VV	001			FG	47	47	47	100	3	03	29.82	30.01
10	OVC	250				53	48	50	83	8	09	29.84	30.03
13	OVC	036				59	48	53	67	5	VR	29.82	30.02
16	OVC	030				57	49	53	75	11	14	29.78	29.97
19	OVC	016			-RA BR	50	49	49	96	5	09	29.78	29.97
22	OVC	005			-RA BR	49	47	48	93	6	10	29.74	29.93
SUNRISE: 0601 MAR 28 SUNSET: 1828													
01	OVC	015			-RA BR	50	48	49	93	8	13	29.68	29.87
04	OVC	003			BR	50	49	49	96	6	03	29.64	29.83
07	OVC	003			BR	50	48	49	93	7	01	29.67	29.87
10	OVC	005				53	50	51	90	5	32	29.71	29.91
13	OVC	009				55	51	53	86	5	36	29.72	29.91
16	OVC	033				58	51	54	78	6	04	29.67	29.86
19	OVC	120				55	51	53	86	6	07	29.62	29.81
22	OVC	027			-RA	54	53	53	96	9	15	29.55	29.74
SUNRISE: 0560 MAR 29 SUNSET: 1829													
01	OVC	002			BR	56	56	56	100	5	11	29.44	29.63
04	VV	001			BR	58	57	57	97	13	22	29.36	29.55
07	OVC	030			BR	63	61	62	93	14	21	29.36	29.54
10	BKN	033				69	59	63	71	21	21	29.31	29.50
13	SCT	060				75	52	62	45	22	23	29.21	29.39
16	BKN	080				78	45	60	31	26	24	29.15	29.32
19	FEW	085				65	36	51	34	22	29	29.25	29.43
22	FEW	075				55	34	45	45	21	29	29.39	29.59
SUNRISE: 0558 MAR 30 SUNSET: 1830													
01	CLR	NC				50	31	42	48	16	29	29.49	29.69
04	CLR	NC				47	32	41	56	14	28	29.57	29.76
07	FEW	070				46	32	40	58	10	26	29.66	29.85
10	SCT	200				54	28	43	37	16	28	29.71	29.90
13	BKN	200				60	27	46	28	8	31	29.73	29.92
16	BKN	250				62	26	46	25	8	25	29.73	29.92
19	FEW	250				57	26	44	30	7	29	29.80	29.99
22	SCT	250				48	31	41	52	0	00	29.86	30.06

HOUR (LST)	SKY COVER	CEILING 100's of FT.	SATELLITE		WEATHER	TEMPERATURE °F			WIND SPEED (MPH) DIRECTION Tens of Deg	PRESSURE (INCHES, HG)			
			Observation Time (LST)	Eff Clد Amt Oktas		VISIBILITY (MILES)	DRY BULB	DEW POINT		WET BULB	RELATIVE HUMIDITY (PCT)	STATION	SEA LEVEL
SUNRISE: 0557 MAR 31 SUNSET: 1831													
01	FEW	250				42	31	37	65	3	09	29.91	30.10
04	FEW	250				39	32	36	76	0	00	29.94	30.14
07	FEW	250				42	34	39	73	0	00	30.01	30.20
10	SCT	250				51	32	43	48	3	VR	30.02	30.22
13	BKN	250				61	32	48	34	0	00	29.98	30.18
16	OVC	250				64	34	50	33	8	18	29.92	30.11
19	BKN	250				54	38	46	55	11	15	29.90	30.09
22	OVC	140				47	37	43	68	10	13	29.92	30.12

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.

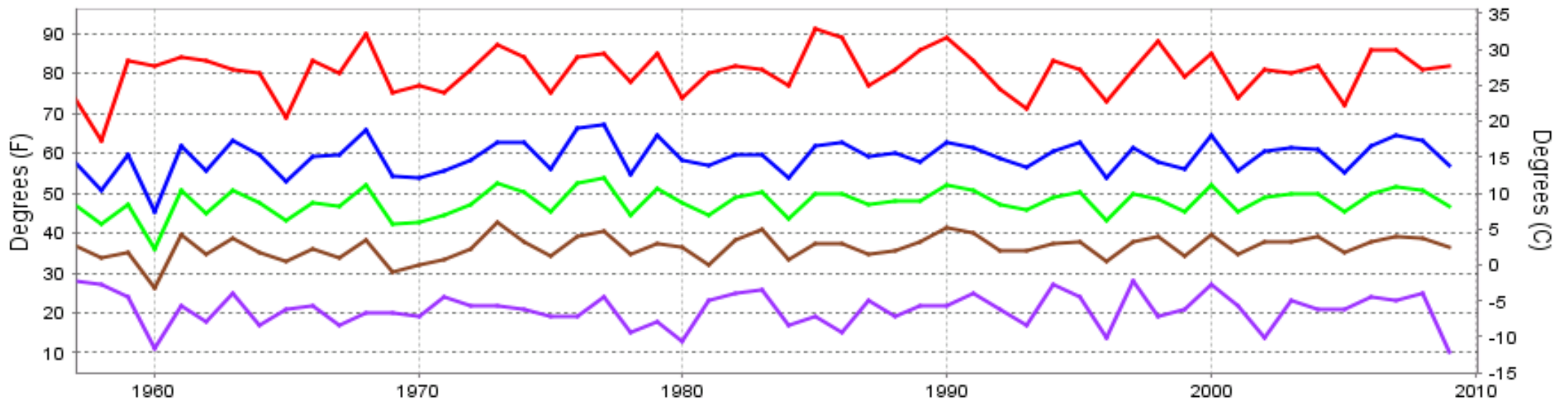
& = Original observation contained additional weather elements.

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)		WIND SPEED (MPH)	DIRECTION		
							STATION	SEA LEVEL				
01			42	34	39	75	29.99	30.18	7.73	7	1	18
02			41	34	38	77	29.98	30.18	7.83	6	1	19
03			41	33	38	77	29.97	30.17	7.69	6	1	17
04			40	33	37	78	29.98	30.17	7.36	7	1	19
05			40	33	37	79	29.99	30.19	8.00	7	1	20
06			40	33	37	79	30.01	30.20	7.96	6	1	21
07			40	33	37	79	30.02	30.21	7.08	6	1	21
08			42	34	39	74	30.03	30.23	7.64	8	1	18
09			45	34	41	68	30.04	30.23	8.47	9	1	19
10			48	34	42	63	30.04	30.23	8.52	9	1	21
11			50	33	43	58	30.03	30.22	8.87	9	1	22
12			52	33	44	54	30.02	30.21	8.80	9	2	23
13			53	33	45	53	30.00	30.19	8.93	8	2	24
14			54	33	45	51	29.98	30.17	9.12	9	2	24
15			55	33	45	51	29.96	30.16	9.09	10	3	25
16			55	33	45	51	29.96	30.15	8.84	9	2	24
17			54	34	45	53	29.96	30.15	8.34	10	1	23
18			52	34	44	57	29.96	30.15	8.34	8	1	15
19			49	34	43	60	29.97	30.17	8.42	7	1	13
20			47	34	42	65	29.98	30.18	8.35	7	1	14
21			46	34	41	68	29.99	30.19	8.63	7	1	15
22			45	34	40	69	29.99	30.19	8.65	7	1	21
23			44	34	40	71	29.99	30.19	8.47	6	1	15
24			43	34	39	73	29.99	30.18	8.50	6	1	18

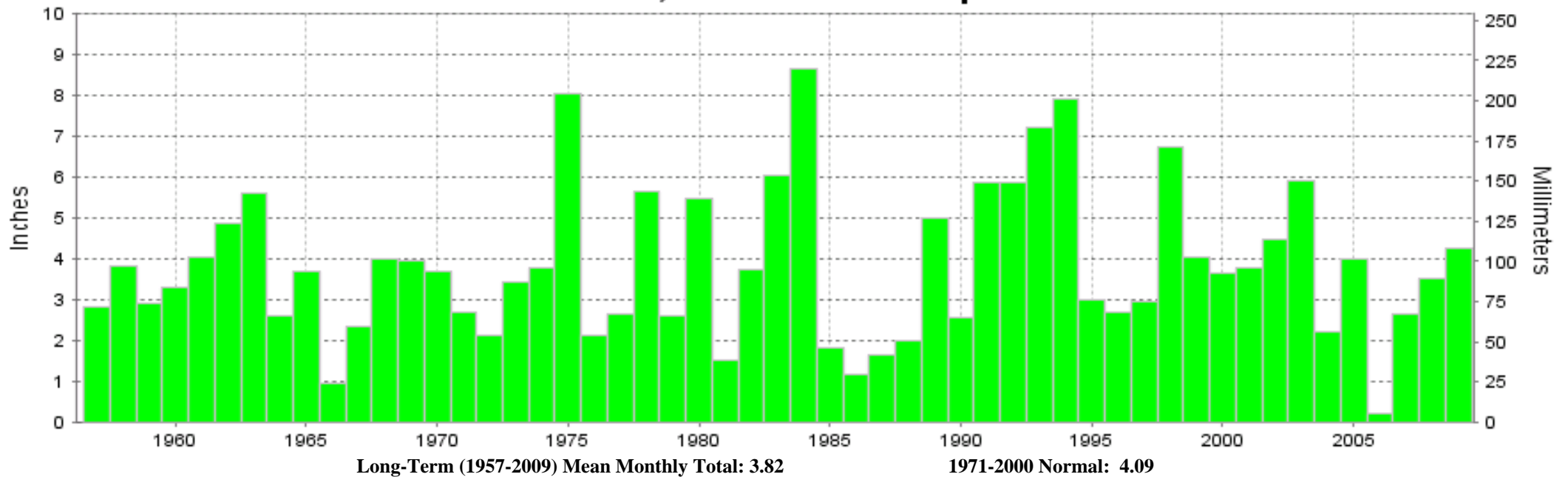
RICHMOND, VA MARCH Temperatures



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

Long-Term (1957-2009) Mean: 47.8
1971-2000 Normal: 47.7

RICHMOND, VA MARCH Precipitation



Long-Term (1957-2009) Mean Monthly Total: 3.82

1971-2000 Normal: 4.09



MARCH 2009
RICHMOND, VA

LOCAL CLIMATOLOGICAL DATA NOAA, National Climatic Data Center

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