



FEBRUARY 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



FEBRUARY 2008
RICHMOND, VA

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						
																			SPEED 20	DIR 21	SPEED 22	DIR 23					
01	54	37	46	9	38	40	19	0	RA FG+ FG BR			0.0	2.56	29.89	30.04	5.1	28	8.5	33	26	26	28	01				
02	54	32	43	6	32	38	22	0				0.0	0.00	30.01	30.22	2.7	22	4.2	18	12	10	26	02				
03	61	35	48	11	34	41	17	0				0.0	0.00	30.03	30.23	2.3	16	3.8	13	16	10	16	03				
04	69	40	55	18	39	47	10	0	RA			0.0	T	30.01	30.20	4.9	20	5.5	23	15	18	16	04				
05	76	50	63	26	52	57	2	0				0.0	0.00	29.85	30.01	10.6	23	10.9	33	24	24	25	05				
06	79*	63	71*	34	55	61	0	6	RA			0.0	T	29.55	29.70	19.8	23	20.3	51	22	37	23	06				
07	70	40	55	18	31	44	10	0				0.0	0.00	29.57	29.81	6.8	31	10.6	41	24	32	24	07				
08	55	34	45	7	29	37	20	0				0.0	0.00	29.78	29.98	3.3	05	4.3	16	03	13	03	08				
09	64	34	49	11	34	43	16	0				0.0	0.00	29.75	29.93	4.9	23	9.6	31	31	24	31	09				
10	60	29	45	6	13	36	20	0				0.0	0.00	29.70	29.92	15.2	29	18.2	63*	29	44*	28	10				
11	38	17*	28	-11	-2	21	37	0				0.0	0.00	30.14	30.37	1.9	01	4.6	18	30	14	35	11				
12	38	23	31	-8	25	30	34	0	RA DZ BR			0.0	0.06	30.09	30.25	4.7	05	5.6	14	04	12	36	12				
13	43	32	38	-1	35	36	27	0	RA SN PL FG+ FG BR			T	0.50	29.51	29.68	9.6	01	10.0	31	01	24	36	13				
14	47	27	37	-2	21	31	28	0	RA SN GS BR			T	T	29.90	30.15	5.1	35	8.6	32	35	23	35	14				
15	64	30	47	7	29	40	18	0				0.0	0.00	29.98	30.17	6.3	24	9.3	22	05	16	05	15				
16	50	31	41	1	27	36	24	0				0.0	0.00	30.09	30.30	4.9	07	7.3	18	05	15	05	16				
17	62	31	47	7	42	45	18	0	RA BR			0.0	0.02	29.95	30.09	6.3	17	6.8	26	19	20	19	17				
18	75	46	61	21	48	55	4	0	RA BR			0.0	0.01	29.46	29.66	11.1	24	15.6	39	25	29	24	18				
19	53	30	42	2	18	35	23	0				0.0	0.00	29.77	29.97	11.5	27	12.0	46	27	31	29	19				
20	52	23	38	-3	22	30	27	0	RA SN BR			T	0.02	29.89	30.11	4.2	03	7.2	29	02	22	02	20				
21	35	21	28*	-13	12	24	37	0	RA SN PL			T	T	30.21	30.41	4.6	06	7.6	24	02	18	02	21				
22	37	30	34	-7	32	33	31	0	RA DZ FZRA FZDZ PL FG BR			T	0.24	29.85	30.01	2.6	36	5.2	15	03	13	03	22				
23	43	36	40	-2	36	38	25	0	RA DZ FG BR			0.0	T	29.75	29.97	4.2	03	4.8	15	04	12	02	23				
24	46	28	37	-5	23	33	28	0	RA			0.0	T	29.99	30.18	1.7	06	4.8	17	20	14	06	24				
25	50	35	43	1	33	38	22	0	RA HZ			0.0	T	29.82	30.00	1.9	20	3.5	14	03	9	02	25				
26	60	37	49	7	45	48	16	0	RA BR HZ			0.0	T	29.42	29.59	8.9	21	11.7	39	17	30	18	26				
27	52	29	41	-2	20	33	24	0	SN			T	T	29.51	29.70	13.7	32	14.1	30	32	23	32	27				
28	40	21	31	-12	6	23	34	0				0.0	0.00	29.98	30.23	7.2	31	8.8	25	31	20	28	28				
29	52	24	38	-5	17	32	27	0				0.0	0.00	30.20	30.39	7.9	19	9.7	31	21	23	21	29				
										< MONTHLY AVERAGES TOTALS >						T	3.41	29.85	30.04	2.7	27	8.7	< MONTHLY AVERAGES				
										<-----DEPARTURE FROM NORMAL ----->							0.43	SUNSHINE, CLOUD, & VISIBILITY TABLES ON PAGE 3									
DEGREE DAYS										GREATEST 24-HR PRECIPITATION : 2.56 DATE : 01				SEA LEVEL PRESSURE				DATE TIME									
MONTHLY										GREATEST 24-HR SNOWFALL : T DATE : 27+				MAXIMUM : 30.56				29 0934									
SEASON TO DATE										GREATEST SNOW DEPTH :				MINIMUM : 29.38				26 1754									
TOTAL DEPARTURE										NUMBER OF -> DAYS WITH				MAXIMUM TEMP >= 90 : 0				MINIMUM TEMP <= 32 : 17				PRECIPITATION >= 0.01 INCH: 7					
HEATING : 620 COOLING : 6														MAXIMUM TEMP <= 32 : 0				MINIMUM TEMP <= 0 : 0				PRECIPITATION >= 0.10 INCH: 3					
-85														THUNDERSTORMS : 0				HEAVY FOG : 2				SNOWFALL >= 1.0 INCH : 0					
2580																											
-469																											
6																											
5																											
6																											
5																											

HOURLY PRECIPITATION

(WATER EQUIVALENT IN INCHES)

RICHMOND, VA (KRIC)
FEBRUARY 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		T	T	T	0.06	0.45	0.22	0.21	0.04			T	0.01	01	0.58	0.63	0.29	0.07							01	2.56	2.56	
02														02											02	0.00	0.00	
03														03											03	0.00	0.00	
04		T												04									T		04	T	T	
05														05										T	05	0.00	0.00	
06														06				T	T						06	T	T	
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	0.02		0.01	0.03	T	T	T				12	0.06	0.06	
13	T	T	0.06	0.11	0.03	0.08	T	0.01	0.01	T	T	0.01	13	0.02	0.02	0.04	0.03	0.03	0.04	0.01				13	0.50	0.50		
14	T	T	T	T									14											14	T	T		
15													15											15	0.00	0.00		
16													16											16	0.00	0.00		
17													17		T	0.02	T							17	0.02	0.02		
18		T	0.01	T				T	T				18											18	0.01	0.01		
19													19											19	0.00	0.00		
20													20				T	T	0.01	T	0.01	T	T	20	0.02	0.02		
21													21											21	T	T		
22	T	0.07	0.03	0.05	0.01	0.04	0.01	T	T	T	0.02	T	22	T	T	0.01							T	22	0.24	0.24		
23						T	T	T					23											23	T	T		
24													24											24	T	T		
25	T	T	T										25											25	T	T		
26													26				T	T						26	T	T		
27													27				T	T						27	T	T		
28													28											28	0.00	0.00		
29													29											29	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)	0.12	0.21	0.26	0.32	0.41	0.55	0.70	0.95	1.13	1.26	1.43	1.53
Ending Date	01	01	01	01	01	01	01	01	01	01	01	01
Ending Time (Hr/Min)	1324	1328	1328	1328	1241	1348	1332	1331	1350	1411	1436	1508

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 FEBRUARY 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:MMS, 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	10.00	
02							10.00	10.00	
03							9.00	10.00	
04							10.00	10.00	
05							7.00	10.00	
06							10.00	10.00	
07							10.00	10.00	
08							10.00	10.00	
09							7.00	10.00	
10							10.00	10.00	
11							10.00	10.00	
12							2.00	10.00	
13							0.25	10.00	
14							2.00	10.00	
15							10.00	10.00	
16							10.00	10.00	
17							2.00	10.00	
18							6.00	10.00	
19							10.00	10.00	
20							4.00	10.00	
21							10.00	10.00	
22							1.00	10.00	
23							0.12	10.00	
24							8.00	10.00	
25							6.00	10.00	
26							4.00	10.00	
27							10.00	10.00	
28							10.00	10.00	
29							10.00	10.00	
MONTHLY AVGS							6.85	10.00	
SUNSHINE (Minutes)									
Total : 0					Possible : 18192				
Percent Possible : 0									
NUMBER OF DAYS WITH : SKY CONDITION									
Clear		Partly CLDY		Cloudy		Missing			
MINIMUM VISIBILITY (MILES)									
<= .25			<= 3.0			>= 7.0			
3			7			18			

OBSERVATIONS AT 3-HOURLY INTERVALS

RICHMOND, VA

FEBRUARY 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 Cl'd Amt Oktas		VISIBILITY (MILES)	DRY BULB	DEW POINT	WET BULB	RELATIVE HUMIDITY (PCT)	SPEED (MPH)	DIRECTION Tens of Deg	STATION	SEA LEVEL	
SUNRISE: 0646 FEB 25 SUNSET: 1759															
01	OVC	080			-RA	37	32	35	82	6	19	29.86	30.06		
04	OVC	025				37	33	35	86	3	20	29.82	30.01		
07	OVC	019				37	33	35	86	3	23	29.84	30.03		
10	BKN	085				42	35	39	76	3	31	29.85	30.05		
13	OVC	036				48	33	41	56	0	00	29.80	29.99		
16	BKN	042				50	33	43	52	5	30	29.77	29.96		
19	FEW	250				43	33	39	68	5	14	29.77	29.97		
22	FEW	250				38	33	36	82	5	15	29.75	29.94		
SUNRISE: 0645 FEB 26 SUNSET: 1760															
01	OVC	150				40	36	38	86	8	18	29.70	29.89		
04	OVC	120			BR	41	38	40	89	5	17	29.66	29.85		
07	OVC	110			BR	43	41	42	93	9	17	29.56	29.75		
10	OVC	200			HZ	50	45	48	83	11	17	29.49	29.69		
13	OVC	200				58	48	53	70	24	18	29.26	29.44		
16	OVC	046			-RA	60	53	56	78	22	23	29.20	29.39		
19	BKN	250				56	49	52	78	9	28	29.21	29.39		
22	BKN	070				54	48	51	80	13	27	29.23	29.41		
SUNRISE: 0644 FEB 27 SUNSET: 1801															
01	BKN	075				50	33	42	52	16	29	29.31	29.49		
04	FEW	090				42	26	36	53	14	32	29.36	29.54		
07	FEW	050				37	22	32	55	7	32	29.41	29.61		
10	BKN	050				44	21	35	40	16	32	29.45	29.64		
13	OVC	200				44	22	36	42	18	30	29.48	29.68		
16	OVC	060				42	20	34	41	13	31	29.53	29.72		
19	OVC	085				39	12	30	33	11	32	29.63	29.83		
22	OVC	060				35	13	28	40	18	33	29.74	29.93		
SUNRISE: 0642 FEB 28 SUNSET: 1802															
01	FEW	060				28	6	22	39	10	31	29.81	30.01		
04	CLR	NC				24	4	19	42	11	33	29.87	30.07		
07	CLR	NC				22	5	18	48	0	00	29.97	30.16		
10	CLR	NC				31	4	24	32	9	29	30.04	30.24		
13	SCT	065				37	6	28	27	17	29	30.03	30.23		
16	FEW	070				38	4	28	24	10	28	30.06	30.26		
19	CLR	NC				36	7	27	30	0	00	30.13	30.33		
22	CLR	NC				25	13	22	60	10	03	30.21	30.41		
SUNRISE: 0639 FEB 29 SUNSET: 1802															
01	CLR	NC				27	11	22	51	3	08	30.28	30.47		
04	SCT	250				25	12	21	58	3	06	30.30	30.50		
07	BKN	200				26	14	22	60	0	00	30.33	30.53		
10	FEW	250				38	20	32	48	10	16	30.34	30.54		
13	BKN	250				48	15	36	27	11	20	30.24	30.44		
16	BKN	250				51	17	38	26	17	20	30.12	30.31		
19	OVC	130				49	20	38	32	11	20	30.07	30.26		
22	OVC	100				49	24	39	38	11	21	30.03	30.22		

HOUR (LST)	SKY COVER	CEILING 100's of FT.	SATELLITE		WEATHER	TEMPERATURE °F			WIND		PRESSURE (INCHES, HG)				
			Observation Time (LST)	Eff Cl'd Amt Oktas		VISIBILITY (MILES)	DRY BULB	DEW POINT	WET BULB	RELATIVE HUMIDITY (PCT)	SPEED (MPH)	DIRECTION Tens of Deg	STATION	SEA LEVEL	

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.

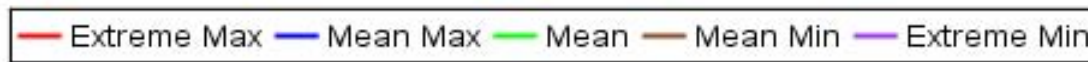
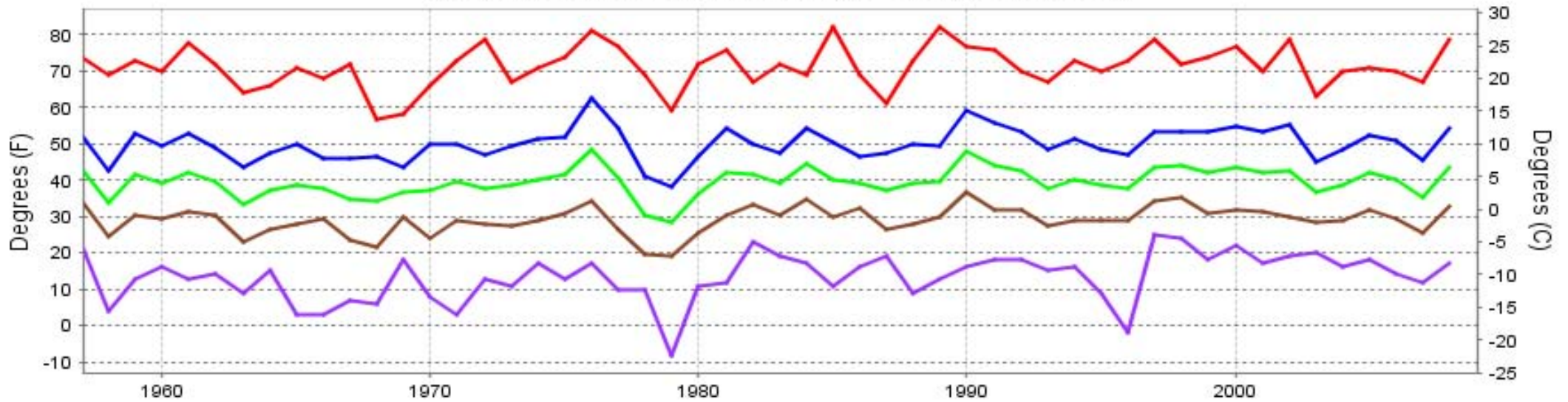
& = Original observation contained additional weather elements.

See page 3 for additional notes.

SUMMARY BY HOUR

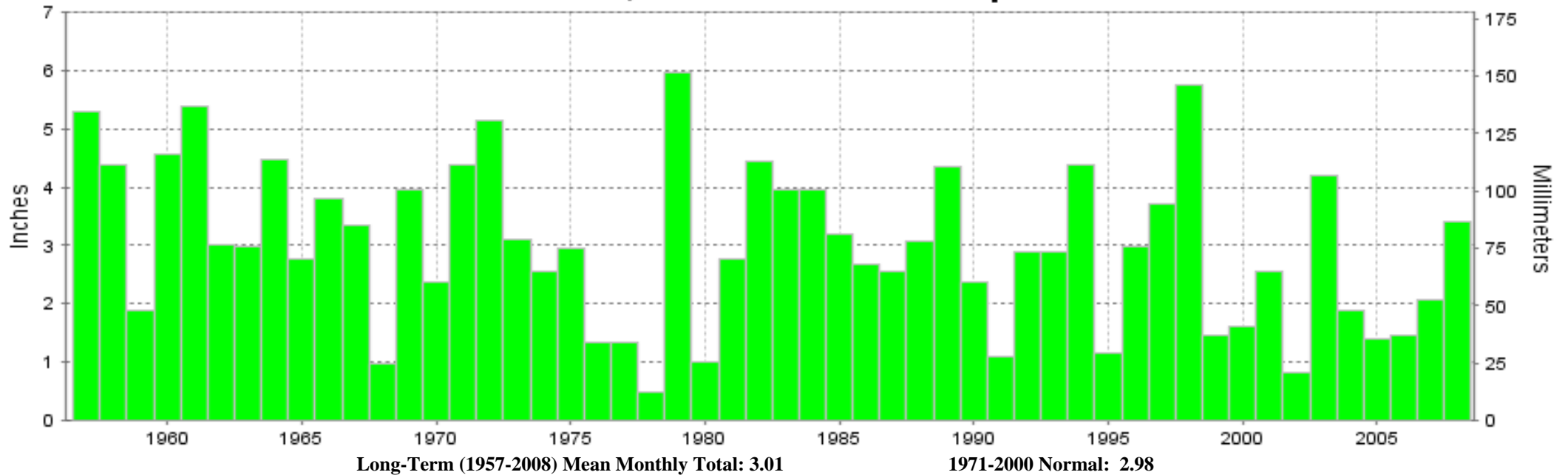
HOUR (LST)	AVERAGES										RESULTANT WIND (MPH)	
	CEILOMETER	EFF CLD AMT	DRY BULB	DEW POINT	WET BULB	RELATIVE HUMIDITY	PRESSURE (Inches, HG)		VISIBILITY (Miles)	WIND SPEED (MPH)	SPEED	DIRECTION
							STATION	SEA LEVEL				
01			40	29	36	68	29.87	30.06	9.00	8	2	28
02			39	28	35	68	29.87	30.06	9.00	7	3	27
03			39	28	35	69	29.86	30.06	9.00	7	2	28
04			38	28	34	71	29.86	30.06	8.97	7	1	28
05			38	28	34	72	29.87	30.06	8.60	7	1	28
06			38	28	34	72	29.88	30.07	8.59	7	2	28
07			37	29	34	73	29.88	30.08	8.62	6	1	28
08			38	29	35	72	29.89	30.09	8.36	7	1	28
09			41	30	37	66	29.90	30.09	8.42	10	2	28
10			44	30	38	61	29.89	30.09	8.48	10	3	27
11			46	29	40	55	29.88	30.08	8.68	9	4	27
12			49	29	41	51	29.86	30.05	8.80	11	6	27
13			50	29	42	49	29.82	30.02	8.97	11	6	27
14			51	29	42	48	29.80	30.00	8.71	10	6	27
15			52	30	43	48	29.79	29.98	8.86	10	7	27
16			52	30	43	48	29.79	29.98	9.14	11	6	27
17			51	29	42	49	29.79	29.99	9.17	10	5	27
18			48	29	41	54	29.81	30.00	9.24	8	3	27
19			46	30	40	58	29.82	30.02	9.48	8	2	28
20			44	30	39	61	29.84	30.03	9.41	8	2	28
21			44	30	38	63	29.85	30.04	9.28	8	2	28
22			43	30	38	64	29.86	30.05	9.10	9	2	28
23			42	29	37	65	29.86	30.05	9.31	10	1	28
24			41	29	36	65	29.86	30.06	9.21	9	3	27

RICHMOND, VA FEBRUARY Temperatures



Long-Term (1957-2008) Mean: 39.6
1971-2000 Normal: 39.5

RICHMOND, VA FEBRUARY Precipitation



Long-Term (1957-2008) Mean Monthly Total: 3.01

1971-2000 Normal: 2.98



**FEBRUARY 2008
RICHMOND, VA**

LOCAL CLIMATOLOGICAL DATA NOAA, National Climatic Data Center

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DIRECTOR

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