



# JANUARY 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	1300 LST	2400 LST	2400 LST	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	55	35	45	8	25	36	20	0			0.0	0.00	29.77	29.95	8.7	28	11.7	32	32	25	32	01		
02	37	27	32	-5	10	25	33	0	SN		T	T	29.90	30.15	14.9	33	16.1	37	35	29	35	02		
03	34	18	26	-11	5	21	39	0			0.0	0.00	30.45	30.68	8.9	35	9.1	32	36	25	36	03		
04	45	16	31	-6	12	24	34	0			0.0	0.00	30.45	30.63	7.1	23	7.4	22	22	18	25	04		
05	51	26	39	2	16	31	26	0			0.0	0.00	30.21	30.39	8.2	22	8.3	17	24	14	25	05		
06	66	39	53	17	37	45	12	0	RA		0.0	T	30.09	30.28	7.6	22	7.9	18	25	16	25	06		
07	74*	43	59	23	46	52	6	0			0.0	0.00	30.09	30.29	7.8	22	8.1	16	23	14	23	07		
08	71	48	60*	24	52	55	5	0	BR		0.0	0.00	30.03	30.20	10.2	22	10.5	31	23	26	23	08		
09	73	42	58	22	42	52	7	0			0.0	0.00	29.82	30.03	6.7	25	11.4	30	24	25	28	09		
10	54	39	47	11	34	41	18	0	RA		0.0	0.04	29.95	30.13	3.7	09	4.6	15	11	12	12	10		
11	71	47	59	23	50	54	6	0	RA BR		0.0	0.03	29.59	29.78	7.3	24	11.4	44*	24	32*	24	11		
12	55	39	47	11	33	41	18	0			0.0	0.00	29.87	30.06	5.3	04	5.9	15	02	12	02	12		
13	47	32	40	4	36	38	25	0	RA BR HZ		0.0	0.06	29.86	30.05	5.0	03	5.8	15	36	12	02	13		
14	49	34	42	6	27	35	23	0	FG+ FG BR		0.0	0.00	29.75	29.95	8.0	29	8.6	26	29	18	30	14		
15	41	23	32	-4	15	27	33	0			0.0	0.00	29.82	30.04	9.1	30	9.7	40	33	31	31	15		
16	44	27	36	0	18	29	29	0			0.0	0.00	30.13		3.7	36	5.0			17	01	16		
17	37	32	35	-1	31	34	30	0	RA DZ SN PL BR		T	0.60	29.99	30.15	5.3	03	6.9	18	34	15	34	17		
18	53	34	44	8	34	39	21	0	BR		0.0	0.00	29.84	30.04	6.9	26	7.9	20	28	15	26	18		
19	44	32	38	2	30	34	27	0	SN FG BR		0.8	0.11	29.86	30.08	2.9	03	4.4	15	07	12	08	19		
20	34	15	25	-11	8	23	40	0	SN BR		T	T	30.06	30.32	9.9	33	10.5	29	32	22	33	20		
21	34	12*	23*	-13	4	18	42	0			0.0	0.00	30.56	30.76	2.0	17	2.8	10	15	8	15	21		
22	45	21	33	-3	27	32	32	0	RA PL		T	0.01	30.11	30.30	7.6	23	8.1	20	24	16	22	22		
23	49	29	39	3	32	37	26	0	BR		0.0	0.00	29.87	30.06	1.3	20	3.3	16	09	10	05	23		
24	40	27	34	-2	22	30	31	0			0.0	0.00	29.85	30.05	7.4	01	7.8	30	36	23	01	24		
25	37	20	29	-7	6	21	36	0			0.0	0.00	30.26	30.46	4.5	35	7.1	32	36	23	01	25		
26	45	25	35	-2	15	28	30	0			0.0	0.00	30.02	30.22	1.4	21	2.7	14	23	10	23	26		
27	45	31	38	1	23	32	27	0			0.0	0.00	29.91	30.10	6.2	01	6.6	20	34	15	02	27		
28	50	30	40	3	22	33	25	0			0.0	0.00	29.96	30.15	3.9	35	5.5	20	32	16	33	28		
29	61	33	47	10	29	41	18	0	RA		0.0	0.01	29.70	29.85	9.3	21	9.6	28	22	22	21	29		
30	57	32	45	8	23	39	20	0	RA BR		0.0	0.10	29.64	29.89	9.9	26	12.0	38	30	29	31	30		
31	47	26	37	0	10	29	28	0			0.0	0.00	30.26	30.48	6.5	07	6.9	18	05	15	05	31		
49.8		30.1	40.0	Σ	25.0	34.7	24.7	0.0	< MONTHLY AVERAGES   TOTALS >		0.8	0.96	29.99	30.19	2.9	29	7.9	< MONTHLY AVERAGES						
4.5	2.5	3.6	-----DEPARTURE FROM NORMAL -----		-2.59		SUNSHINE, CLOUD, & VISIBILITY TABLES ON PAGE 3																	
<b>DEGREE DAYS</b>									GREATEST 24-HR PRECIPITATION : 0.60 DATE : 17				SEA LEVEL PRESSURE				DATE TIME							
MONTHLY									GREATEST 24-HR SNOWFALL : 0.8 DATE : 19				MAXIMUM : 30.86				21 1054							
TOTAL DEPARTURE									GREATEST SNOW DEPTH : DATE :				MINIMUM : 29.57				30 0454							
SEASON TO DATE									NUMBER OF -> DAYS WITH				MAXIMUM TEMP >= 90 : 0		MINIMUM TEMP <= 32 : 20		PRECIPITATION >= 0.01 INCH: 8							
TOTAL DEPARTURE									MAXIMUM TEMP <= 32 : 0		MINIMUM TEMP <= 0 : 0		PRECIPITATION >= 0.10 INCH: 3		SNOWFALL >= 1.0 INCH : 0									
HEATING : 767 -106 1960 -384									THUNDERSTORMS : 0		HEAVY FOG : 1													

**JANUARY 2008**  
**RICHMOND, VA**

# HOURLY PRECIPITATION

(WATER EQUIVALENT IN INCHES)

RICHMOND, VA (KRIC)  
JANUARY 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	T	T	
03													03												03	0.00	0.00	
04													04												04	0.00	0.00	
05													05												05	0.00	0.00	
06													06												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		T	T	0.02	0.02	T	T					10	0.04	0.04	
11		T	0.03										11	T											11	0.03	0.03	
12													12												12	0.00	0.00	
13													13			T	0.02	0.04	T	T					13	0.06	0.06	
14													14												14	0.00	0.00	
15													15												15	0.00	0.00	
16													16												16	0.00	0.00	
17													17	0.09	0.13	0.06	0.12	0.05	0.04	0.03	0.01	T	T	T	T	17	0.60	0.60
18													18												18	0.00	0.00	
19													19			T	T	0.04	0.03	0.01	0.02	T	T	T	0.01	19	0.11	0.11
20	T	T	T	T	T	T	T						20												20	T	T	
21													21												21	0.00	0.00	
22													22												22	0.01	0.01	
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												28	0.00	0.00	
29													29												29	0.01	0.01	
30			0.06	0.02	0.01	0.01	0.01	T	T	T			30												30	0.10	0.10	
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)	0.06	0.08	0.08	0.09	0.10	0.13	0.14	0.16	0.19	0.22	0.28	0.32
Ending Date	17	17	17	17	17	17	17	17	17	17	17	17
Ending Time (Hr/Min)	1319	1322	1322	1332	1340	1357	1405	1322	1349	1405	1540	1614

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 JANUARY 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							10.00	10.00	
02							9.00	10.00	
03							10.00	10.00	
04							10.00	10.00	
05							10.00	10.00	
06							10.00	10.00	
07							8.00	10.00	
08							5.00	10.00	
09							10.00	10.00	
10							7.00	10.00	
11							4.00	10.00	
12							10.00	10.00	
13							2.50	10.00	
14							0.12	10.00	
15							10.00	10.00	
16							10.00	10.00	
17							1.50	10.00	
18							1.00	10.00	
19							0.50	10.00	
20							1.50	10.00	
21							7.00	10.00	
22							7.00	10.00	
23							1.00	10.00	
24							8.00	10.00	
25							10.00	10.00	
26							10.00	10.00	
27							10.00	10.00	
28							9.00	10.00	
29							10.00	10.00	
30							4.00	10.00	
31							10.00	10.00	
MONTHLY AVGS							6.97	10.00	
<b>SUNSHINE (Minutes)</b>									
Total : 0			Possible : 18462						
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				
1		7			21				

# OBSERVATIONS AT 3-HOURLY INTERVALS

RICHMOND, VA

JANUARY 2008

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												
																														Observation Time (LST)	Eff Cld Amt Oktas	DRY BULB	DEW POINT	WET BULB	RELATIVE HUMIDITY (PCT)	SPEED (MPH)	DIRECTION Tens of Deg	STATION	SEA LEVEL		
SUNRISE: 0724							JAN 01							SUNSET: 1702							SUNRISE: 0724							JAN 07							SUNSET: 1707						
01	CLR	NC			10.00		39	33	37	79	8	18	29.88	30.07	01	SCT	085			10.00		50	42	46	74	8	22	30.07	30.27												
04	CLR	NC			10.00		39	33	37	79	8	18	29.80	29.99	04	FEW	075			10.00		48	44	46	86	5	22	30.10	30.29												
07	CLR	NC			10.00		38	35	37	89	8	21	29.73	29.92	07	SCT	090			10.00		46	44	45	93	5	20	30.12	30.32												
10	CLR	NC			10.00		48	38	43	68	11	27	29.73	29.92	10	SCT	250			10.00		59	47	53	65	9	24	30.15	30.35												
13	FEW	080			10.00		54	21	41	28	20	29	29.67	29.86	13	BKN	250			10.00		71	48	58	44	9	22	30.09	30.28												
16	FEW	080			10.00		50	14	37	24	17	31	29.70	29.90	16	OVC	250			10.00		71	49	59	46	13	23	30.07	30.26												
19	FEW	080			10.00		42	16	33	35	9	30	29.78	29.97	19	OVC	250			10.00		59	48	53	67	8	21	30.09	30.29												
22	CLR	NC			10.00		38	18	31	44	11	29	29.79	29.98	22	SCT	250			10.00		55	47	51	75	8	21	30.10	30.29												
SUNRISE: 0724							JAN 02							SUNRISE: 0724							JAN 08							SUNSET: 1708													
01	CLR	NC			10.00		34	16	28	48	8	30	29.77	29.97	01	FEW	250			10.00		56	49	52	78	9	22	30.08	30.27												
04	CLR	NC			10.00		31	13	25	47	14	30	29.77	29.96	04	BKN	250			9.00		50	47	49	90	6	21	30.07	30.26												
07	OVC	080			10.00		30	9	24	41	9	30	29.83	30.03	07	SCT	250			6.00	BR	49	48	48	96	7	20	30.08	30.27												
10	OVC	200			10.00		30	17	26	58	21	32	29.91	30.11	10	BKN	250			10.00		59	53	56	81	8	23	30.10	30.29												
13	OVC	250			10.00		36	11	28	35	24	35	29.91	30.11	13	BKN	250			10.00		70	53	60	55	15	24	30.02	30.21												
16	FEW	250			10.00		37	6	28	27	23	34	29.97	30.17	16	BKN	250			10.00		69	54	60	59	11	23	29.97	30.17												
19	CLR	NC			10.00		31	7	24	36	15	35	30.10	30.30	19	BKN	250			10.00		59	52	55	78	8	21	29.95	30.15												
22	CLR	NC			10.00		29	8	23	41	15	36	30.21	30.41	22	BKN	250			10.00		62	55	58	78	10	20	29.88	30.08												
SUNRISE: 0724							JAN 03							SUNRISE: 0724							JAN 09							SUNSET: 1709													
01	CLR	NC			10.00		26	1	20	34	17	36	30.30	30.50	01	SCT	250			10.00		60	55	57	84	13	21	29.83	30.02												
04	CLR	NC			10.00		23	2	18	40	13	36	30.38	30.58	04	SCT	250			10.00		60	55	57	84	17	21	29.77	29.96												
07	CLR	NC			10.00		22	3	17	44	9	34	30.47	30.67	07	OVC	200			10.00		62	55	58	78	17	22	29.74	29.93												
10	CLR	NC			10.00		28	5	22	37	17	34	30.53	30.73	10	OVC	250			10.00		66	55	60	68	15	26	29.81	30.00												
13	FEW	050			10.00		33	5	25	30	16	01	30.50	30.70	13	SCT	250			10.00		72	44	57	37	9	30	29.79	29.98												
16	CLR	NC			10.00		33	5	25	30	14	36	30.48	30.68	16	BKN	250			10.00		69	30	51	23	9	32	29.83	30.01												
19	CLR	NC			10.00		27	7	22	43	0	00	30.52	30.72	19	BKN	250			10.00		60	26	45	27	10	35	29.91	30.10												
22	CLR	NC			10.00		19	12	17	74	0	00	30.56	30.77	22	BKN	250			10.00		49	26	40	41	0	00	29.98	30.17												
SUNRISE: 0724							JAN 04							SUNRISE: 0724							JAN 10							SUNSET: 1710													
01	CLR	NC			10.00		19	12	17	74	0	00	30.54	30.73	01	FEW	250			10.00		42	30	37	63	0	00	29.99	30.18												
04	CLR	NC			10.00		18	11	16	74	0	00	30.50	30.71	04	SCT	250			10.00		42	27	36	55	6	05	30.00	30.19												
07	CLR	NC			10.00		19	11	17	71	5	20	30.53	30.73	07	BKN	250			10.00		42	27	36	55	3	02	30.03	30.22												
10	SCT	250			10.00		30	16	26	56	9	21	30.51	30.71	10	OVC	250			10.00		50	29	41	44	10	10	30.04	30.23												
13	FEW	250			10.00		41	11	31	29	16	23	30.42	30.62	13	OVC	036			10.00		53	27	42	37	8	13	29.94	30.14												
16	FEW	250			10.00		44	9	33	24	10	23	30.36	30.55	16	OVC	047			7.00	-RA	48	40	44	74	5	07	29.90	30.09												
19	FEW	200			10.00		35	14	28	42	10	22	30.36	30.55	19	OVC	041			10.00		45	42	44	89	5	09	29.86	30.05												
22	FEW	200			10.00		33	14	27	46	10	22	30.34	30.53	22	BKN	022			10.00		46	42	44	86	6	13	29.78	29.98												
SUNRISE: 0724							JAN 05							SUNRISE: 0724							JAN 11							SUNSET: 1711													
01	FEW	250			10.00		28	15	24	58	7	22	30.29	30.49	01	OVC	011			10.00		47	43	45	86	0	00	29.69	29.89												
04	SCT	200			10.00		26	15	23	63	8	21	30.24	30.44	04	OVC	005			5.00	BR	49	47	48	93	3	15	29.61	29.80												
07	SCT	200			10.00		28	15	24	58	9	21	30.24	30.44	07	OVC	150			10.00		62	59	60	90	15	20	29.55	29.75												
10	SCT	250			10.00		39	15	31	38	10	23	30.24	30.44	10	OVC	150			10.00		66	60	62	81	20	22	29.53	29.72												
13	OVC	220			10.00		50	13	37	23	11	24	30.16	30.35	13	BKN	250			10.00		69	56	61	63	17	24	29.52	29.70												
16	OVC	250			10.00		50	13	37	23	9	23	30.13	30.32	16	SCT	250			10.00		70	48	58	46	21	24	29.52	29.70												
19	OVC	150			10.00		46	14	35	27	9	23	30.17	30.36	19	OVC	250			10.00		64	48	55	56	5	28	29.59	29.78												
22	OVC	150			10.00		42	19	34	40	8	22	30.14	30.34	22	BKN	250			10.00		56	38	47	51	11	35	29.68	29.87												
SUNRISE: 0724							JAN 06							SUNRISE: 0724							JAN 12							SUNSET: 1712													
01	OVC	250			10.00		40	24	34	53	6	20	30.10	30.29	01	BKN	250			10.00		50	35	43	57	7	04	29.73	29.92												
04	OVC	250			10.00		42	30	37	63	8	21	30.10	30.29	04	BKN	250			10.00		45	33	40	63	6	04	29.76	29.96												
07	OVC	250			10.00		43	33	39	68	6	22	30.11	30.31	07	SCT	250			10.00		42	33	38	71	3	05	29.83	30.02												
10	OVC	250			10.00	-RA	50	36	44	59	8	25	30.14	30.33	10	OVC	041			10.00		48	33	41	56	9	06	29.91	30.11												
13	FEW	110			10.00		61	39	50	44	14	24	30.07	30.26	13	OVC	047			10.00		53	33	44	47	9	01	29.87	30.07												
16	FEW	100			10.00		65	42	53	43	13	24	30.04	30.24	16	BKN	250			10.00		53	32	44	45	6	36	29.88	30.07												
19	SCT	250			10.00		55	42	49	62	0	00	30.08	30.27	19	BKN	200			10.00		46	33	40	61	5	06	29.91	30.11												
22	FEW	100			10.00		52	42	47	69	8	21	30.09	30.28	22	SCT	250			10.00		41	32	37	70	3	07	29.95	30.14												

# OBSERVATIONS AT 3-HOURLY INTERVALS

# RICHMOND, VA

JANUARY 2008

KRIC

WBAN # 13740

HOUR (LST)	SKY COVER	CEILING 100's of FT.	SATELLITE		VISIBILITY (MILES)	WEATHER	TEMPERATURE °F			WIND SPEED (MPH) DIRECTION Tens of Deg	PRESSURE (INCHES, HG)		HOUR (LST)	SKY COVER	CEILING 100's of FT.	SATELLITE		VISIBILITY (MILES)	WEATHER	TEMPERATURE °F			WIND SPEED (MPH) DIRECTION Tens of Deg	PRESSURE (INCHES, HG)											
			Observation Time (LST)	Eff Cld Amt Oktas			DRY BULB	DEW POINT	WET BULB		RELATIVE HUMIDITY (PCT)	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						
																														DRY BULB	DEW POINT	WET BULB	RELATIVE HUMIDITY (PCT)	STATION	SEA LEVEL
<b>SUNRISE: 0723</b>												<b>JAN 13</b>												<b>SUNSET: 1713</b>											
01	BKN	250			10.00		39	31	36	73	6	04	29.95	30.14	01	OVC	150			10.00		44	36	40	74	6	29	29.89	30.09						
04	SCT	250			9.00		33	29	31	85	6	04	29.94	30.13	04	OVC	150			10.00		40	35	38	82	8	36	29.91	30.11						
07	SCT	250			7.00		32	30	31	92	8	04	29.92	30.11	07	OVC	150			10.00		37	28	34	70	7	06	29.95	30.14						
10	SCT	250			10.00		44	36	40	74	6	07	29.92	30.12	10	OVC	150			10.00		38	26	33	62	5	10	29.98	30.18						
13	OVC	017			10.00		46	38	42	74	5	07	29.83	30.03	13	OVC	027			10.00		40	24	34	53	7	06	29.85	30.04						
16	OVC	021			2.50	-RA BR	44	42	43	93	6	01	29.80	30.00	16	OVC	016		0.50	SN FG		34	31	33	89	0	00	29.87	30.07						
19	OVC	080			6.00	BR	42	40	41	93	3	06	29.75	29.95	19	OVC	007		1.50	-SN BR		33	32	33	96	0	00	29.85	30.05						
22	BKN	005			6.00	BR	39	38	39	96	6	33	29.77	29.97	22	OVC	080		1.50	-SN BR		33	32	33	96	3	28	29.82	30.01						
<b>SUNRISE: 0723</b>												<b>JAN 14</b>												<b>SUNSET: 1714</b>											
01	SCT	021			3.00	BR	39	37	38	93	5	27	29.74	29.94	01	OVC	090		1.50	-SN BR		33	32	33	96	3	21	29.78	29.97						
04	VV	001			0.12	FG	36	35	36	96	5	27	29.74	29.93	04	OVC	100		4.00	-SN BR		34	32	33	92	7	34	29.82	30.01						
07	VV	001			0.12	FG	35	35	35	100	5	23	29.73	29.93	07	OVC	060		10.00			28	15	24	58	13	35	29.98	30.18						
10	SCT	090			8.00		42	35	39	76	9	31	29.77	29.97	10	CLR	NC		10.00			25	4	20	40	20	34	30.11	30.31						
13	SCT	046			10.00		48	27	39	44	11	27	29.71	29.91	13	CLR	NC		10.00			29	1	22	30	16	33	30.13	30.33						
16	BKN	250			10.00		48	20	37	33	14	30	29.72	29.91	16	CLR	NC		10.00			30	-6	22	20	11	31	30.20	30.40						
19	BKN	090			10.00		42	19	34	40	15	29	29.79	29.98	19	CLR	NC		10.00			24	-3	18	30	6	34	30.32	30.52						
22	FEW	085			10.00		37	18	30	46	11	30	29.83	30.02	22	CLR	NC		10.00			20	-0	16	41	3	36	30.41	30.61						
<b>SUNRISE: 0723</b>												<b>JAN 15</b>												<b>SUNSET: 1715</b>											
01	CLR	NC			10.00		33	18	28	54	7	29	29.83	30.02	01	CLR	NC		10.00			18	3	15	52	0	00	30.48	30.68						
04	CLR	NC			10.00		29	19	26	66	5	28	29.81	30.01	04	CLR	NC		10.00			13	6	11	73	0	00	30.53	30.73						
07	CLR	NC			10.00		28	18	25	66	7	27	29.80	30.00	07	CLR	NC		10.00			13	6	11	73	0	00	30.59	30.80						
10	FEW	100			10.00		36	17	30	46	9	29	29.82	30.02	10	CLR	NC		10.00			25	1	19	35	3	01	30.66	30.86						
13	BKN	090			10.00		38	13	30	36	20	30	29.76	29.96	13	FEW	250		10.00			30	-3	22	24	3	29	30.60	30.81						
16	SCT	250			10.00		38	8	29	29	17	32	29.79	29.99	16	CLR	NC		10.00			33	3	25	28	7	18	30.55	30.75						
19	FEW	060			10.00		35	11	28	37	11	32	29.88	30.08	19	CLR	NC		10.00			26	4	20	39	7	16	30.54	30.75						
22	CLR	NC			10.00		32	12	26	43	7	31	29.97	30.17	22	CLR	NC		10.00			23	9	19	55	5	16	30.51	30.71						
<b>SUNRISE: 0722</b>												<b>JAN 16</b>												<b>SUNSET: 1716</b>											
01	CLR	NC			10.00		29	14	24	53	8	33	30.00	30.20	01	BKN	250		10.00			22	14	20	71	5	17	30.45	30.65						
04	CLR	NC			10.00		29	15	25	56	9	31	30.07	30.27	04	BKN	250		10.00			23	15	21	71	3	15	30.35	30.55						
07	FEW	250			10.00		28	16	24	61	5	31	30.12	30.32	07	OVC	025		10.00			27	16	24	63	6	23	30.28	30.48						
10	BKN	250			10.00		37	17	30	44	17	01	30.18	30.38	10	OVC	020		10.00	-RA		32	17	27	54	7	26	30.21	30.41						
13															13	OVC	080		10.00			40	29	36	65	8	21	30.06	30.26						
16	OVC	250			10.00		42	16	33	35	0	00	30.14		16	OVC	075		10.00			43	37	40	79	11	23	29.95	30.15						
19	OVC	200			10.00		36	20	30	52	0	00	30.16		19	BKN	110		10.00			41	37	39	86	13	24	29.89	30.09						
22	OVC	200			10.00		33	23	29	67	3	12	30.20		22	OVC	080		10.00	-RA		40	37	39	89	7	23	29.84	30.04						
<b>SUNRISE: 0722</b>												<b>JAN 17</b>												<b>SUNSET: 1717</b>											
01	OVC	150			10.00		33	24	30	70	3	14	30.19		01	OVC	090		7.00			40	38	39	93	7	26	29.82	30.02						
04	OVC	150			10.00		34	26	31	73	0	00	30.15	30.35	04	OVC	200		9.00			38	35	37	89	7	26	29.80	30.00						
07	OVC	070			10.00		35	27	32	73	0	00	30.12	30.32	07	BKN	150		3.00	BR		32	31	32	96	0	00	29.86	30.06						
10	OVC	041			1.50	-SN BR	34	31	33	89	6	07	30.09	30.29	10	FEW	250		10.00			43	33	39	68	7	09	29.93	30.12						
13	OVC	005			1.50	-RA BR	35	34	35	96	8	06	29.94	30.14	13	SCT	050		10.00			46	29	39	52	0	00	29.88	30.07						
16	OVC	005			1.50	RA BR	36	35	36	96	10	03	29.84	30.04	16	SCT	250		10.00			49	31	41	50	8	15	29.85	30.05						
19	OVC	004			7.00	-RA	36	35	36	96	10	01	29.77	29.97	19	BKN	250		10.00			40	31	36	70	0	00	29.89	30.08						
22	OVC	004			10.00	-DZ	35	34	35	96	13	34	29.77	29.97	22	BKN	250		10.00			36	29	33	76	3	13	29.88	30.08						
<b>SUNRISE: 0722</b>												<b>JAN 18</b>												<b>SUNSET: 1718</b>											
01	OVC	005			10.00		35	34	35	96	9	35	29.75	29.95	01	BKN	045		10.00			35	30	33	82	0	00	29.85	30.05						
04	OVC	003			3.00	BR	35	34	35	96	6	28	29.76	29.96	04	FEW	250		10.00			31	29	30	92	5	04	29.81	30.01						
07	OVC	003			1.00	BR	34	33	34	96	8	25	29.82	30.01	07	OVC	009		9.00			33	29	31	85	5	05	29.80	29.99						
10	BKN	250			10.00		39	36	38	89	10	24	29.88	30.07	10	OVC	013		10.00			36	26	32	67	5	02	29.80	30.00						
13	SCT	250			10.00		51	37	45	59	10	26	29.84	30.04	13	OVC	047		10.00			37	19	31	48	15	34	29.76	29.96						
16	SCT	250			10.00		52	32	43	47	14	24	29.84	30.04	16	SCT	250		10.00			40	14	31	35	11	36	29.80	30.00						
19	BKN	250			10.00		44	32	39	63	0	00	29.88	30.08	19	OVC	090		10.00			36	20	30	52	8	34	29.90	30.10						
22	OVC	200			10.00		44	35	40	71	7	26	29.90	30.10	22	FEW	080		10.00			32	18	27	56	16	36	30.02	30.22						

# OBSERVATIONS AT 3-HOURLY INTERVALS

RICHMOND, VA

JANUARY 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 Cld Amt Oktas		VISIBILITY (MILES)	DRY BULB	DEW POINT	WET BULB	RELATIVE HUMIDITY (PCT)	SPEED (MPH)	DIRECTION Tens of Deg	STATION	SEA LEVEL			
<b>SUNRISE: 0718</b>						<b>JAN 25</b>						<b>SUNSET: 1725</b>					
01	CLR	NC			10.00	27	11	22	51	13	36	30.14	30.34				
04	CLR	NC			10.00	23	5	18	46	11	01	30.25	30.45				
07	CLR	NC			10.00	21	5	17	50	9	36	30.32	30.52				
10	CLR	NC			10.00	26	5	21	40	9	03	30.37	30.57				
13	CLR	NC			10.00	32	5	25	32	5	33	30.28	30.48				
16	CLR	NC			10.00	37	2	27	23	6	26	30.25	30.45				
19	FEW	250			10.00	27	6	21	41	3	21	30.25	30.45				
22	FEW	250			10.00	27	7	22	43	0	00	30.21	30.41				
<b>SUNRISE: 0717</b>						<b>JAN 26</b>						<b>SUNSET: 1726</b>					
01	BKN	250			10.00	26	12	22	55	3	21	30.16	30.36				
04	BKN	200			10.00	26	14	22	60	0	00	30.15	30.35				
07	OVC	200			10.00	28	15	24	58	3	17	30.11	30.31				
10	OVC	200			10.00	33	17	28	52	6	20	30.11	30.31				
13	OVC	200			10.00	39	13	30	34	6	26	30.01	30.21				
16	BKN	250			10.00	44	14	34	30	0	00	29.94	30.14				
19	OVC	080			10.00	41	15	32	35	0	00	29.92	30.11				
22	OVC	060			10.00	38	19	31	46	0	00	29.90	30.10				
<b>SUNRISE: 0717</b>						<b>JAN 27</b>						<b>SUNSET: 1728</b>					
01	OVC	110			10.00	35	21	30	57	6	02	29.85	30.05				
04	BKN	250			10.00	31	23	28	72	7	01	29.85	30.05				
07	OVC	100			10.00	32	23	29	69	3	03	29.90	30.09				
10	BKN	060			10.00	36	22	31	57	7	34	29.93	30.13				
13	SCT	055			10.00	44	22	36	42	8	34	29.88	30.08				
16	BKN	055			10.00	43	23	35	45	9	01	29.89	30.08				
19	BKN	060			10.00	39	23	33	53	5	06	29.93	30.12				
22	OVC	060			10.00	37	23	32	57	5	36	29.96	30.16				
<b>SUNRISE: 0716</b>						<b>JAN 28</b>						<b>SUNSET: 1729</b>					
01	OVC	050			10.00	38	24	33	57	8	36	29.96	30.16				
04	FEW	045			10.00	35	22	30	59	8	36	29.98	30.17				
07	CLR	NC			10.00	31	24	29	75	6	29	30.01	30.21				
10	CLR	NC			10.00	40	23	34	51	13	01	30.05	30.24				
13	FEW	250			10.00	46	20	36	36	7	36	29.95	30.15				
16	FEW	250			10.00	49	19	38	30	5	32	29.90	30.09				
19	BKN	250			10.00	38	22	32	53	0	00	29.92	30.11				
22	OVC	250			10.00	33	23	29	67	3	15	29.89	30.09				
<b>SUNRISE: 0715</b>						<b>JAN 29</b>						<b>SUNSET: 1730</b>					
01	SCT	150			10.00	37	24	32	59	5	23	29.85	30.04				
04	OVC	100			10.00	39	28	35	65	0	00	29.78	29.97				
07	OVC	100			10.00	40	33	37	76	5	20	29.77	29.97				
10	OVC	150			10.00	47	30	40	52	9	20	29.74	29.93				
13	OVC	200			10.00	56	30	44	37	10	20	29.62	29.81				
16	OVC	200			10.00	61	25	45	25	13	23	29.57	29.76				
19	BKN	200			10.00	53	27	42	37	7	22	29.59	29.78				
22	BKN	200			10.00	55	31	44	40	16	21	29.52	29.72				
<b>SUNRISE: 0714</b>						<b>JAN 30</b>						<b>SUNSET: 1731</b>					
01	OVC	180			10.00	56	33	45	42	14	22	29.45	29.64				
04	OVC	047			8.00	49	45	47	86	13	20	29.39	29.58				
07	OVC	013			4.00	53	50	51	90	14	25	29.44	29.64				
10	FEW	060			10.00	51	19	39	28	22	29	29.64	29.84				
13	CLR	NC			10.00	49	10	36	21	11	27	29.73	29.92				
16	CLR	NC			10.00	50	3	35	14	13	30	29.80	30.00				
19	CLR	NC			10.00	44	8	32	23	6	29	29.92	30.11				
22	CLR	NC			10.00	33	15	27	48	0	00	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 Cld Amt Oktas		VISIBILITY (MILES)	DRY BULB	DEW POINT	WET BULB	RELATIVE HUMIDITY (PCT)	SPEED (MPH)	DIRECTION Tens of Deg	STATION	SEA LEVEL			
<b>SUNRISE: 0714</b>						<b>JAN 31</b>						<b>SUNSET: 1732</b>					
01	CLR	NC			10.00	32	11	26	42	7	05	30.10	30.29				
04	CLR	NC			10.00	30	8	24	39	5	05	30.21	30.41				
07	CLR	NC			10.00	26	10	22	51	6	04	30.29	30.49				
10	SCT	250			10.00	37	7	28	28	10	05	30.37	30.57				
13	SCT	250			10.00	45	4	32	18	5	05	30.35	30.55				
16	BKN	250			10.00	45	9	33	23	11	08	30.27	30.47				
19	BKN	150			10.00	39	9	30	29	8	10	30.30	30.50				
22	OVC	030			10.00	38	21	32	50	6	08	30.29	30.48				

## 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.

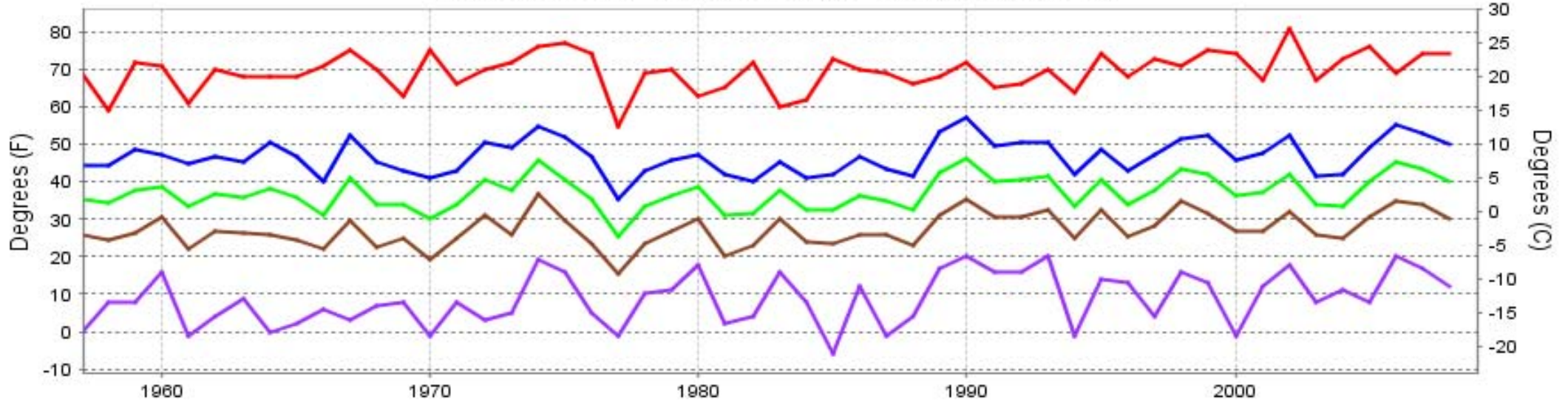
& = Original observation contained additional weather elements.

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	26	33	66	29.98	30.17	9.40	6	2	27
02			36	26	33	68	29.98	30.18	9.45	6	2	27
03			35	26	32	71	29.99	30.18	9.19	6	2	27
04			35	26	32	72	29.98	30.18	8.94	6	2	27
05			35	26	32	72	29.98	30.18	8.91	7	2	27
06			35	26	32	73	29.99	30.19	8.84	6	2	27
07			35	26	32	73	30.00	30.20	8.71	7	2	27
08			35	26	32	71	30.01	30.21	8.60	7	4	27
09			38	27	34	65	30.03	30.22	8.94	8	3	27
10			41	26	36	57	30.04	30.23	9.66	11	3	27
11			43	25	37	51	30.03	30.23	9.69	10	4	27
12			45	24	37	46	30.00	30.20	9.73	11	5	27
13			47	24	38	42	29.97	30.17	9.72	11	5	27
14			48	23	38	40	29.96	30.15	9.73	10	5	27
15			48	22	39	40	29.96	30.14	9.23	10	5	27
16			48	23	38	42	29.96	30.15	9.08	10	5	27
17			45	23	37	45	29.97	30.16	9.18	8	4	27
18			43	23	36	50	29.98	30.17	9.44	7	3	27
19			41	24	35	53	29.99	30.18	9.50	6	2	27
20			40	24	35	56	30.00	30.19	9.53	6	2	27
21			39	25	34	59	30.00	30.19	9.53	7	1	28
22			38	25	34	61	30.01	30.20	9.60	7	2	27
23			38	26	33	63	30.01	30.20	9.27	7	2	27
24			37	25	33	64	30.00	30.19	9.53	7	2	28

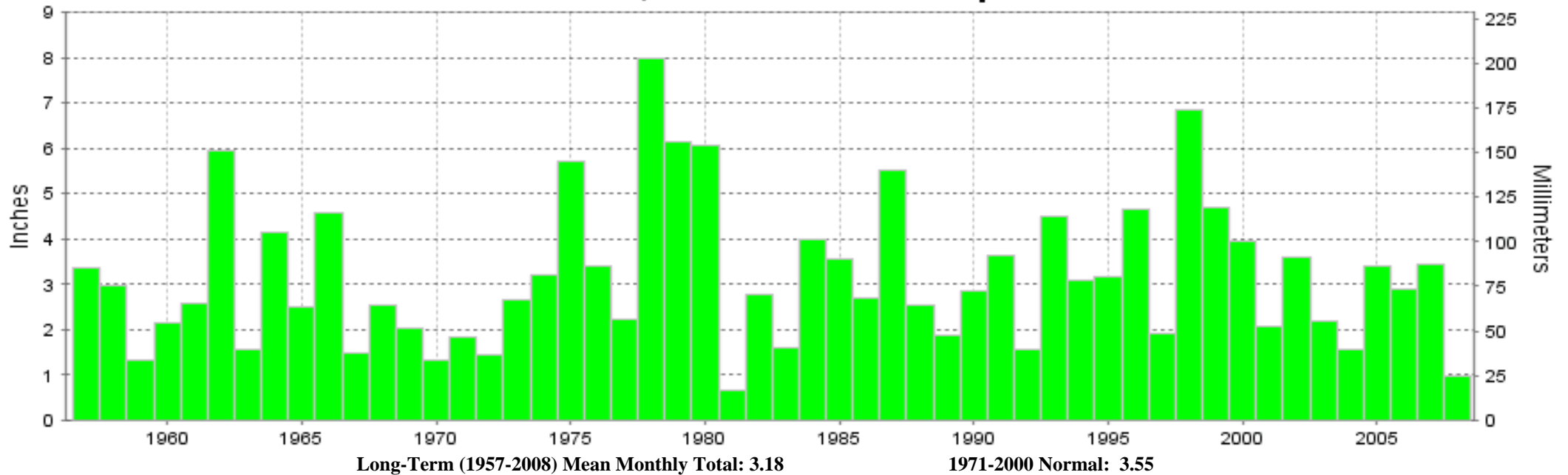
## RICHMOND, VA JANUARY Temperatures



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

**Long-Term (1957-2008) Mean: 37.0**  
**1971-2000 Normal: 36.4**

## RICHMOND, VA JANUARY Precipitation



Long-Term (1957-2008) Mean Monthly Total: 3.18

1971-2000 Normal: 3.55

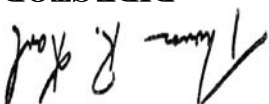




**JANUARY 2008  
RICHMOND, VA**

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NOAA, National Climatic Data Center**

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