



# OCTOBER 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					
																			3-SEC		2-MIN			
11	12	13	14	15	16	17	18	19	20	21	22	23	24											
01	76	56	66	2	56	60	0	1	RA BR			0.0	T	29.54	29.72	3.3	32	4.7	32	36	26	36	01	
02	69	50	60	-3	44	51	5	0				0.0	0.00	29.65	29.86	5.2	29	6.0	22	32	16	28	02	
03	74	45	60	-3	47	53	5	0				0.0	0.00	29.82	30.03	4.2	23	4.4	26	22	16	25	03	
04	77	49	63	1	53	57	2	0				0.0	0.00	29.98	30.18	1.4	25	2.1	13	34	10	26	04	
05	82	53	68	6	56	60	0	3	BR			0.0	0.00	30.04	30.24	0.6	08	3.2	13	06	9	27	05	
06	76	55	66	4	53	58	0	1	BR			0.0	0.00	30.09	30.28	5.1	03	6.0	16	02	14	01	06	
07	68	49	59	-2	46	51	6	0				0.0	0.00	30.16	30.35	3.8	04	4.5	16	03	13	04	07	
08	71	48	60	-1	52	55	5	0				0.0	0.00	29.97	30.14	4.2	18	4.5	17	19	13	19	08	
09	76	63	70	9	62	65	0	5	RA			0.0	T	29.85	30.04	3.0	22	3.2	13	23	10	22	09	
10	78	58	68	7	58	62	0	3	BR			0.0	0.00	29.98	30.20	5.9	06	6.4	22	07	17	07	10	
11	76	55	66	6	52	57	0	1	BR			0.0	0.00	30.17	30.38	5.9	06	6.1	20	06	15	07	11	
12	77	51	64	4	53	57	1	0	FG+ FG BR			0.0	0.00	30.28	30.48	3.6	07	5.0	16	13	13	11	12	
13	80	50	65	6	52	57	0	0				0.0	0.00	30.22	30.39	1.6	26	1.7	14	26	10	26	13	
14	85	50	68	9	55	59	0	3				0.0	0.00	30.03	30.21	1.6	21	2.1	13	22	9	23	14	
15	84	57	71	13	61	64	0	6	BR			0.0	0.00	29.93	30.11	0.6	17	0.9	10	07	8	09	15	
16	88*	61	75*	17	61	66	0	10	RA BR			0.0	T	29.81	30.00	3.4	31	5.3	23	03	17	04	16	
17	68	52	60	2	51	53	5	0	RA BR			0.0	0.66	29.91	30.10	6.8	03	21.8	23	04	15	03	17	
18	60	46	53	-5	43	48	12	0	RA			0.0	T	29.92	30.13	9.3	02	9.6	23	04	17	02	18	
19	60	39	50	-8	34	42	15	0				0.0	0.00	30.09	30.30	8.8	02	9.2	26	04	21	03	19	
20	65	37	51	-6	35	43	14	0				0.0	0.00	30.09	30.26	1.9	31	3.5	13	33	9	27	20	
21	73	40	57	1	38	47	8	0				0.0	0.00	29.90	30.10	5.4	31	8.3	24	31	20	31	21	
22	60	39	50	-6	33	42	15	0				0.0	0.00	30.12	30.36	7.0	01	7.5	29	36	23	02	22	
23	60	36	48	-8	39	43	17	0				0.0	0.00	30.37	30.58	5.8	06	6.6	18	02	13	03	23	
24	61	41	51	-4	48	50	14	0	RA			0.0	0.01	30.22	30.37	4.5	09	5.2	16	11	13	11	24	
25	70	57	64	9	60	62	1	0	RA BR			0.0	0.38	29.76	29.93	4.6	15	8.5	26	17	20	31	25	
26	67	47	57	2	47	51	8	0	MIFG BCFG BR			0.0	0.00	29.77	29.97	4.1	22	4.6	18	22	15	23	26	
27	60	39	50	-4	40	44	15	0	RA DZ BR			0.0	0.23	29.78	29.97	7.0	35	9.5	30	02	23	36	27	
28	57	39	48	-6	31	40	17	0	RA			0.0	0.04	29.71	29.91	13.6	30	14.1	43*	30	29*	32	28	
29	56	36	46	-8	26	38	19	0				0.0	0.00	29.83	30.04	8.6	28	11.3	29	27	24	26	29	
30	56	35	46*	-8	27	37	19	0				0.0	0.00	30.22	30.46	4.0	35	4.4	28	35	21	35	30	
31	68	32*	50	-4	32	42	15	0				0.0	0.00	30.32	30.50	4.2	22	4.4	17	25	13	23	31	

70.3	47.3	58.8	☼	46.6	52.1	7.0	1.1	< MONTHLY AVERAGES   TOTALS >				0.0	1.32	29.98	30.18	1.8	35	6.3	< MONTHLY AVERAGES				
1.0	0.1	0.5		----- DEPARTURE FROM NORMAL -----								-2.28	SUNSHINE, CLOUD, & VISIBILITY TABLES ON PAGE 3										
<b>DEGREE DAYS</b>								GREATEST 24-HR PRECIPITATION : 0.66 DATE : 17				SEA LEVEL PRESSURE				DATE TIME							
MONTHLY								GREATEST 24-HR SNOWFALL : 0.0 DATE :				MAXIMUM : 30.63				23 1114							
TOTAL DEPARTURE								GREATEST SNOW DEPTH : DATE :				MINIMUM : 29.64				01 1507							
SEASON TO DATE								NUMBER OF -> DAYS WITH				MAXIMUM TEMP >= 90 : 0				MINIMUM TEMP <= 32 : 1				PRECIPITATION >= 0.01 INCH : 5			
HEATING : 218 -7 227 -26								MAXIMUM TEMP <= 32 : 0				MINIMUM TEMP <= 0 : 0				PRECIPITATION >= 0.10 INCH : 3							
COOLING : 33 0 1636 208								THUNDERSTORMS : 0				HEAVY FOG : 1				SNOWFALL >= 1.0 INCH : 0							

**OCTOBER 2008**  
**RICHMOND, VA**

# HOURLY PRECIPITATION

(WATER EQUIVALENT IN INCHES)

RICHMOND, VA (KRIC)  
OCTOBER 2008

WBAN # 13740

Date	FOR HOUR (LST) ENDING AT												Date	FOR HOUR (LST) ENDING AT												Date	Sum of Hourly Data	2400 LST
	1	2	3	4	5	6	7	8	9	10	11	12		13	14	15	16	17	18	19	20	21	22	23	24			Water Equiv.
01					T								01												01	T	T	
02													02												02	0.00	0.00	
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		T											09												09	T	T	
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												14	0.00	0.00	
15													15												15	0.00	0.00	
16													16												16	T	T	
17					0.03	0.04	T	0.14	0.04	0.15	0.03	0.01	17	0.01	0.02	0.02	0.10	0.05	T	T	0.01	0.01	T	17	0.66	0.66		
18					T								18												18	T	T	
19													19												19	0.00	0.00	
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									T	0.01	24	0.01	0.01		
25	0.02	0.03	0.01	T	T			T	T	0.03	T	T	25	0.02	0.02	0.17	0.05	0.03	T					25	0.38	0.38		
26													26												26	0.00	0.00	
27													27		T	0.03	0.05	0.09	0.04	0.01	T	T	T	27	0.23	0.23		
28	0.02	0.02	T										28												28	0.04	0.04	
29													29												29	0.00	0.00	
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)												
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 OCTOBER 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							4.00	10.00	
02							10.00	10.00	
03							10.00	10.00	
04							10.00	10.00	
05							5.00	10.00	
06							4.00	10.00	
07							10.00	10.00	
08							10.00	10.00	
09							7.00	10.00	
10							4.00	10.00	
11							5.00	10.00	
12							0.25	10.00	
13							9.00	10.00	
14							10.00	10.00	
15							5.00	10.00	
16							5.00	10.00	
17							2.00	10.00	
18							6.00	10.00	
19							10.00	10.00	
20							10.00	10.00	
21							10.00	10.00	
22							10.00	10.00	
23							10.00	10.00	
24							10.00	10.00	
25							1.25	10.00	
26							7.00	10.00	
27							4.00	10.00	
28							10.00	10.00	
29							10.00	10.00	
30							10.00	10.00	
31							10.00	10.00	
MONTHLY AVGS							7.37	10.00	
<b>SUNSHINE (Minutes)</b>									
Total : 0					Possible : 20853				
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			3				19		

# OBSERVATIONS AT 3-HOURLY INTERVALS

RICHMOND, VA

OCTOBER 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
<b>SUNRISE: 0605      OCT 01      SUNSET: 1753</b>														<b>SUNRISE: 0610      OCT 07      SUNSET: 1744</b>															
01	SCT	090			8.00		64	62	63	93	3	26	29.57	29.76	01	CLR	NC			10.00		53	49	51	86	5	02	30.18	30.37
04	OVC	130			5.00	BR	62	60	61	93	0	00	29.54	29.73	04	CLR	NC			10.00		50	47	49	90	6	03	30.18	30.37
07	BKN	110			4.00	BR	63	61	62	93	0	00	29.55	29.74	07	FEW	250			10.00		50	45	48	83	9	02	30.22	30.41
10	SCT	120			10.00		72	58	64	62	0	00	29.54	29.73	10	SCT	250			10.00		62	46	54	56	8	06	30.23	30.42
13	BKN	095			10.00		74	54	62	50	3	18	29.50	29.68	13	BKN	250			10.00		67	43	55	42	5	34	30.17	30.36
16	BKN	150			10.00		68	55	60	63	5	33	29.47	29.65	16	BKN	250			10.00		67	45	55	45	0	00	30.10	30.29
19	BKN	090			10.00		62	51	56	67	13	01	29.53	29.72	19	FEW	250			10.00		56	49	52	78	0	00	30.10	30.29
22	FEW	090			10.00		57	51	54	80	5	31	29.58	29.77	22	BKN	250			10.00		51	46	49	83	0	00	30.10	30.29
<b>SUNRISE: 0605      OCT 02      SUNSET: 1751</b>														<b>SUNRISE: 0611      OCT 08      SUNSET: 1743</b>															
01	CLR	NC			10.00		55	48	51	77	7	32	29.59	29.78	01	BKN	250			10.00		49	46	48	89	0	00	30.06	30.25
04	CLR	NC			10.00		53	45	49	74	7	28	29.60	29.80	04	BKN	200			10.00		50	46	48	86	3	17	30.03	30.22
07	FEW	050			10.00		52	44	48	74	6	28	29.66	29.85	07	OVC	250			10.00		50	47	48	90	3	12	30.02	30.22
10	FEW	020			10.00		64	40	52	42	11	34	29.69	29.88	10	OVC	250			10.00		63	47	55	56	11	21	30.03	30.22
13	FEW	050			10.00		66	40	53	39	13	30	29.67	29.86	13	BKN	250			10.00		68	52	59	57	10	19	29.95	30.14
16	FEW	050			10.00		67	42	54	40	7	28	29.66	29.85	16	OVC	250			10.00		71	54	61	55	9	18	29.89	30.08
19	CLR	NC			10.00		57	47	52	69	0	00	29.71	29.90	19	OVC	110			10.00		64	58	60	81	5	17	29.87	30.06
22	CLR	NC			10.00		53	48	50	83	6	21	29.75	29.94	22	OVC	200			10.00		63	57	60	81	0	00	29.86	30.05
<b>SUNRISE: 0606      OCT 03      SUNSET: 1750</b>														<b>SUNRISE: 0612      OCT 09      SUNSET: 1741</b>															
01	CLR	NC			10.00		52	47	49	83	0	00	29.77	29.96	01	OVC	080			10.00		65	59	61	81	6	20	29.84	30.03
04	CLR	NC			10.00		46	44	45	93	5	19	29.78	29.97	04	OVC	090			10.00		63	59	61	87	3	21	29.82	30.01
07	CLR	NC			10.00		49	46	48	89	0	00	29.81	30.00	07	OVC	110			10.00		64	60	62	87	3	18	29.85	30.04
10	CLR	NC			10.00		68	46	56	45	8	26	29.84	30.03	10	OVC	110			10.00		69	61	64	76	0	00	29.89	30.08
13	CLR	NC			10.00		72	44	57	37	11	24	29.83	30.02	13	OVC	110			10.00		74	63	67	69	6	21	29.83	30.02
16	CLR	NC			10.00		74	46	59	37	10	25	29.82	30.01	16	OVC	200			10.00		75	64	68	69	7	21	29.82	30.01
19	CLR	NC			10.00		61	52	56	72	0	00	29.87	30.07	19	OVC	250			10.00		69	65	66	87	0	00	29.86	30.05
22	CLR	NC			10.00		56	50	53	80	0	00	29.92	30.11	22	BKN	250			10.00		67	64	65	90	0	00	29.89	30.08
<b>SUNRISE: 0607      OCT 04      SUNSET: 1748</b>														<b>SUNRISE: 0613      OCT 10      SUNSET: 1740</b>															
01	CLR	NC			10.00		54	50	52	86	0	00	29.94	30.14	01	BKN	250			6.00	BR	63	61	62	93	0	00	29.90	30.09
04	CLR	NC			10.00		51	48	49	90	0	00	29.96	30.15	04	BKN	250			6.00	BR	64	62	63	93	5	01	29.91	30.10
07	CLR	NC			10.00		53	49	51	86	0	00	30.00	30.20	07	BKN	250			10.00		64	59	61	84	8	03	29.97	30.16
10	CLR	NC			10.00		67	54	60	63	6	24	30.02	30.21	10	BKN	250			10.00		73	55	62	53	13	08	30.04	30.22
13	FEW	050			10.00		75	53	62	46	3	28	29.98	30.17	13	BKN	250			10.00		78	54	64	44	8	07	30.02	30.21
16	SCT	055			10.00		76	52	62	43	7	22	29.97	30.16	16	BKN	250			10.00		74	56	63	54	7	07	30.03	30.22
19	FEW	055			10.00		66	57	61	73	0	00	30.00	30.20	19	BKN	250			10.00		66	58	61	76	5	06	30.06	30.24
22	CLR	NC			10.00		59	56	57	90	0	00	30.03	30.22	22	BKN	250			10.00		61	56	58	84	3	05	30.09	30.28
<b>SUNRISE: 0608      OCT 05      SUNSET: 1747</b>														<b>SUNRISE: 0613      OCT 11      SUNSET: 1738</b>															
01	CLR	NC			9.00		57	55	56	93	0	00	30.04	30.23	01	OVC	250			10.00		59	55	57	87	5	05	30.11	30.29
04	CLR	NC			8.00		55	53	54	93	0	00	30.03	30.22	04	FEW	250			8.00		58	55	56	90	7	04	30.11	30.29
07	CLR	NC			5.00	BR	55	53	54	93	0	00	30.08	30.27	07	BKN	250			6.00	BR	57	55	56	93	8	04	30.17	30.37
10	CLR	NC			10.00		72	57	63	59	6	24	30.09	30.28	10	SCT	250			10.00		69	51	59	53	11	06	30.22	30.41
13	SCT	050			10.00		79	56	65	45	6	22	30.03	30.22	13	BKN	250			10.00		75	48	60	39	8	07	30.20	30.39
16	SCT	250			10.00		80	56	65	44	3	10	30.01	30.20	16	BKN	250			10.00		72	47	58	41	7	07	30.19	30.38
19	SCT	250			10.00		68	59	63	73	6	07	30.04	30.23	19	BKN	200			10.00		62	51	56	67	5	06	30.21	30.40
22	CLR	NC			10.00		63	58	60	84	3	05	30.06	30.25	22	BKN	250			10.00		59	51	55	75	3	04	30.25	30.44
<b>SUNRISE: 0609      OCT 06      SUNSET: 1745</b>														<b>SUNRISE: 0614      OCT 12      SUNSET: 1737</b>															
01	CLR	NC			7.00		59	57	58	93	3	02	30.06	30.25	01	BKN	250			10.00		55	52	53	90	0	00	30.25	30.44
04	CLR	NC			4.00	BR	57	55	56	93	6	01	30.06	30.25	04	SCT	250			10.00		53	51	52	93	7	03	30.25	30.44
07	SCT	250			6.00	BR	57	53	55	87	6	03	30.07	30.27	07	SCT	200			6.00	BR	54	52	53	93	8	02	30.30	30.49
10	BKN	250			10.00		68	54	60	61	6	07	30.10	30.29	10	BKN	007			10.00		64	59	61	84	5	09	30.33	30.53
13	BKN	250			10.00		74	55	63	52	6	05	30.08	30.27	13	CLR	NC			10.00		75	51	61	43	9	10	30.29	30.48
16	SCT	250			10.00		74	52	61	46	9	03	30.07	30.26	16	FEW	250			10.00		74	51	61	45	8	10	30.28	30.47
19	BKN	250			10.00		62	52	56	70	6	04	30.11	30.30	19	FEW	250			10.00		63	55	58	75	5	10	30.29	30.49
22	BKN	250			10.00		57	50	53	78	5	02	30.16	30.35	22	CLR	NC			10.00		56	53	54	90	0	00	30.31	30.50

# OBSERVATIONS AT 3-HOURLY INTERVALS

# RICHMOND, VA

## OCTOBER 2008

## 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		
<b>SUNRISE: 0615</b>						<b>OCT 13</b>						<b>SUNSET: 1735</b>																	
01	FEW	250			10.00		54	52	53	93	0	00	30.28	30.47	01	CLR	NC			10.00		46	37	42	71	10	01	30.02	30.22
04	SCT	250			10.00		52	50	51	93	0	00	30.26	30.45	04	CLR	NC			10.00		44	36	41	74	10	36	30.03	30.22
07	SCT	250			9.00		50	48	49	93	0	00	30.26	30.46	07	FEW	080			10.00		44	35	40	71	11	01	30.09	30.28
10	SCT	250			10.00		69	55	61	61	0	00	30.27	30.46	10	FEW	080			10.00		53	36	45	53	14	04	30.14	30.33
13	SCT	250			10.00		76	51	62	42	5	30	30.20	30.39	13	FEW	050			10.00		59	33	47	38	13	02	30.12	30.32
16	SCT	250			10.00		79	51	63	38	6	29	30.14	30.33	16	CLR	NC			10.00		58	28	45	32	15	02	30.12	30.32
19	BKN	250			10.00		64	56	59	75	0	00	30.13	30.32	19	CLR	NC			10.00		47	34	41	61	5	09	30.13	30.32
22	BKN	250			10.00		61	56	58	84	0	00	30.11	30.30	22	CLR	NC			10.00		42	36	39	79	0	00	30.13	30.33
<b>SUNRISE: 0616</b>						<b>OCT 14</b>						<b>SUNRISE: 0622</b>						<b>OCT 19</b>						<b>SUNSET: 1727</b>					
01	CLR	NC			10.00		55	53	54	93	0	00	30.10	30.29	01	CLR	NC			10.00		41	34	38	76	0	00	30.14	30.33
04	FEW	200			10.00		52	49	50	90	0	00	30.08	30.27	04	CLR	NC			10.00		39	34	37	82	6	33	30.14	30.34
07	SCT	250			10.00		51	49	50	93	0	00	30.09	30.29	07	FEW	250			10.00		38	34	36	86	3	36	30.16	30.35
10	BKN	250			10.00		74	59	65	60	6	19	30.08	30.27	10	SCT	250			10.00		56	33	46	42	5	32	30.14	30.33
13	SCT	250			10.00		82	54	65	38	7	18	29.99	30.17	13	BKN	250			10.00		62	28	47	28	0	00	30.06	30.25
16	SCT	250			10.00		85	51	65	31	6	27	29.95	30.14	16	BKN	250			10.00		64	32	49	30	6	23	30.01	30.20
19	BKN	250			10.00		63	59	61	87	5	19	29.96	30.15	19	SCT	250			10.00		49	41	45	74	3	16	30.00	30.20
22	SCT	250			10.00		61	58	59	90	0	00	29.95	30.14	22	FEW	250			10.00		44	39	42	83	6	23	29.98	30.18
<b>SUNRISE: 0617</b>						<b>OCT 15</b>						<b>SUNRISE: 0623</b>						<b>OCT 21</b>						<b>SUNSET: 1725</b>					
01	BKN	250			10.00		60	56	58	87	0	00	29.94	30.13	01	FEW	250			10.00		45	40	43	83	5	22	29.94	30.13
04	BKN	250			10.00		59	56	57	90	0	00	29.93	30.12	04	FEW	250			10.00		42	39	41	89	5	22	29.89	30.09
07	BKN	250			10.00		62	58	60	87	0	00	29.96	30.15	07	FEW	250			10.00		42	40	41	93	3	22	29.89	30.09
10	OVC	095			10.00		76	60	66	58	0	00	29.98	30.17	10	SCT	250			10.00		65	42	53	43	10	28	29.88	30.07
13	SCT	100			10.00		82	63	70	53	3	11	29.93	30.12	13	SCT	050			10.00		71	43	56	37	13	29	29.84	30.03
16	FEW	045			10.00		83	62	70	49	0	00	29.89	30.08	16	SCT	250			10.00		70	41	55	35	10	33	29.84	30.03
19	SCT	250			9.00		71	65	67	81	0	00	29.89	30.08	19	SCT	250			10.00		55	32	45	42	8	02	29.93	30.12
22	FEW	250			7.00		68	63	65	84	0	00	29.89	30.08	22	FEW	250			10.00		49	31	41	50	7	01	30.00	30.19
<b>SUNRISE: 0618</b>						<b>OCT 16</b>						<b>SUNRISE: 0624</b>						<b>OCT 22</b>						<b>SUNSET: 1723</b>					
01	CLR	NC			7.00		66	62	64	87	0	00	29.87	30.06	01	FEW	250			10.00		45	31	39	58	7	01	30.02	30.22
04	FEW	250			7.00		63	60	61	90	0	00	29.84	30.03	04	FEW	250			10.00		42	31	37	65	9	35	30.07	30.26
07	SCT	250			5.00	BR	62	59	60	90	5	22	29.84	30.03	07	FEW	250			10.00		42	31	37	65	6	33	30.12	30.32
10	SCT	250			10.00		78	61	67	56	5	27	29.83	30.02	10	SCT	250			10.00		54	33	45	45	16	36	30.16	30.35
13	SCT	150			10.00		86	59	69	40	7	28	29.77	29.96	13	SCT	250			10.00		58	33	47	39	9	01	30.14	30.33
16	BKN	150			10.00		84	60	69	44	9	30	29.76	29.95	16	SCT	250			10.00		58	31	46	36	11	03	30.15	30.35
19	OVC	140			10.00		78	63	68	60	5	28	29.78	29.97	19	FEW	250			10.00		47	36	42	66	6	05	30.23	30.42
22	OVC	070			10.00		73	63	67	71	8	02	29.83	30.02	22	FEW	250			10.00		43	34	39	71	3	02	30.30	30.49
<b>SUNRISE: 0619</b>						<b>OCT 17</b>						<b>SUNRISE: 0625</b>						<b>OCT 23</b>						<b>SUNSET: 1722</b>					
01	BKN	095			10.00		66	55	60	68	9	03	29.86	30.05	01	CLR	NC			10.00		40	34	38	79	8	04	30.33	30.52
04	OVC	042			10.00		64	48	55	56	8	02	29.88	30.06	04	CLR	NC			10.00		37	33	35	86	7	02	30.35	30.54
07	OVC	044			10.00		55	51	53	86	15	03	29.92	30.11	07	FEW	250			10.00		38	33	36	82	10	02	30.39	30.59
10	OVC	055			5.00	-RA BR	54	52	53	93	8	03	29.94	30.13	10	SCT	250			10.00		50	39	45	66	6	06	30.43	30.63
13	OVC	065			10.00		54	51	52	90	8	06	29.90	30.09	13	SCT	250			10.00		59	40	50	50	9	08	30.39	30.58
16	OVC	027			2.50	-RA BR	54	52	53	93	11	36	29.89	30.09	16	BKN	044			10.00		56	42	49	60	5	11	30.37	30.57
19	OVC	047			10.00		52	50	51	93	3	01	29.92	30.11	19	OVC	048			10.00		53	43	48	69	5	08	30.38	30.58
22	OVC	050			6.00	BR	53	50	51	90	6	36	29.92	30.11	22	FEW	045			10.00		45	41	43	86	3	08	30.40	30.60
<b>SUNRISE: 0620</b>						<b>OCT 18</b>						<b>SUNRISE: 0626</b>						<b>OCT 24</b>						<b>SUNSET: 1721</b>					
01	OVC	060			6.00	BR	53	50	51	90	5	35	29.88	30.07	01	BKN	250			10.00		43	40	42	89	0	00	30.35	30.55
04	OVC	140			10.00		50	45	48	83	7	35	29.87	30.07	04	OVC	200			10.00		42	39	41	89	5	06	30.30	30.49
07	SCT	130			10.00		46	41	44	83	9	36	29.90	30.09	07	OVC	200			10.00		44	41	43	89	5	05	30.28	30.48
10	OVC	045			10.00		52	44	48	74	9	02	29.93	30.12	10	BKN	150			10.00		52	45	49	77	7	09	30.25	30.45
13	OVC	065			10.00		58	44	51	60	8	03	29.91	30.11	13	OVC	150			10.00		59	50	54	72	8	13	30.18	30.37
16	OVC	080			10.00		58	40	49	51	11	04	29.93	30.12	16	OVC	150			10.00		60	53	56	78	9	11	30.09	30.28
19	OVC	070			10.00		54	40	47	59	10	02	29.99	30.19	19	OVC	150			10.00		58	54	56	87	5	09	30.05	30.24
22	BKN	080			10.00		52	39	46	61	11	02	30.03	30.22	22	OVC	048			10.00		58	55	56	90	5	09	30.02	30.21

# OBSERVATIONS AT 3-HOURLY INTERVALS

**RICHMOND, VA**

**OCTOBER 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
<b>SUNRISE: 0627      OCT 25      SUNSET: 1720</b>														
01	OVC	070			10.00	-RA	59	57	58	93	6	11	29.95	30.14
04	OVC	080			10.00		61	59	60	93	10	14	29.86	30.06
07	BKN	090			10.00		62	60	61	93	9	14	29.81	30.01
10	OVC	028			2.50	-RA BR	65	62	63	90	13	16	29.74	29.93
13	OVC	017			2.50	-RA BR	68	65	66	90	8	18	29.63	29.82
16	OVC	028			2.50		70	68	69	93	9	21	29.58	29.77
19	OVC	042			10.00		63	60	61	90	3	31	29.65	29.85
22	OVC	028			10.00		59	54	56	84	6	03	29.72	29.91
<b>SUNRISE: 0628      OCT 26      SUNSET: 1718</b>														
01	OVC	047			10.00		56	54	55	93	0	00	29.74	29.93
04	SCT	050			7.00	BCFG	51	50	50	96	0	00	29.77	29.96
07	FEW	055			10.00	MIFG	48	46	47	93	0	00	29.80	29.99
10	SCT	250			10.00		59	45	52	60	3	14	29.83	30.02
13	SCT	037			10.00		64	45	54	50	9	24	29.78	29.97
16	CLR	NC			10.00		65	47	55	52	10	22	29.74	29.93
19	CLR	NC			10.00		53	47	50	80	6	21	29.76	29.95
22	CLR	NC			10.00		52	45	49	77	5	19	29.77	29.96
<b>SUNRISE: 0629      OCT 27      SUNSET: 1717</b>														
01	CLR	NC			10.00		53	45	49	74	8	23	29.75	29.94
04	CLR	NC			10.00		52	45	49	77	5	26	29.72	29.91
07	FEW	200			10.00		49	45	47	86	0	00	29.74	29.93
10	SCT	075			10.00		59	42	50	54	22	01	29.80	29.99
13	OVC	050			10.00		52	33	44	49	15	01	29.79	29.98
16	OVC	050			9.00	-RA	41	37	39	86	11	36	29.81	30.00
19	OVC	090			10.00	-DZ	40	38	39	93	5	34	29.82	30.01
22	OVC	034			10.00	-RA	42	38	40	86	9	32	29.80	30.00
<b>SUNRISE: 0630      OCT 28      SUNSET: 1716</b>														
01	OVC	025			10.00	-RA	42	38	40	86	10	31	29.74	29.93
04	FEW	050			10.00		40	37	39	89	7	28	29.67	29.86
07	FEW	050			10.00		40	34	37	79	11	28	29.67	29.86
10	FEW	050			10.00		51	33	43	50	23	32	29.67	29.87
13	BKN	200			10.00		56	28	44	34	24	31	29.66	29.85
16	BKN	250			10.00		53	26	42	35	21	32	29.70	29.90
19	SCT	200			10.00		47	26	39	44	18	30	29.78	29.98
22	CLR	NC			10.00		43	27	37	53	8	27	29.82	30.01
<b>SUNRISE: 0631      OCT 29      SUNSET: 1715</b>														
01	SCT	200			10.00		41	28	36	60	9	26	29.79	29.98
04	BKN	065			10.00		43	28	37	56	10	25	29.78	29.97
07	SCT	200			10.00		41	28	36	60	10	26	29.81	30.01
10	FEW	200			10.00		49	27	40	43	17	25	29.82	30.01
13	BKN	200			10.00		52	24	41	34	16	28	29.79	29.99
16	SCT	150			10.00		56	23	42	28	10	28	29.79	29.98
19	FEW	070			10.00		48	23	38	37	11	35	29.91	30.11
22	BKN	080			10.00		45	26	37	47	6	36	30.00	30.19
<b>SUNRISE: 0632      OCT 30      SUNSET: 1714</b>														
01	FEW	075			10.00		41	25	35	53	3	33	30.05	30.24
04	BKN	070			10.00		39	29	35	67	0	00	30.13	30.32
07	FEW	065			10.00		38	25	33	60	6	34	30.23	30.42
10	FEW	050			10.00		49	23	39	36	14	36	30.31	30.50
13	SCT	250			10.00		53	23	41	31	6	VR	30.29	30.49
16	SCT	250			10.00		55	21	41	27	8	35	30.30	30.50
19	FEW	250			10.00		40	32	37	73	0	00	30.34	30.54
22	CLR	NC			10.00		37	31	35	79	0	00	30.37	30.57

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
<b>SUNRISE: 0633      OCT 31      SUNSET: 1713</b>														
01	CLR	NC			10.00		34	30	32	85	0	00	30.37	30.56
04	CLR	NC			10.00		34	29	32	82	0	00	30.37	30.56
07	CLR	NC			10.00		33	29	31	85	0	00	30.40	30.59
10	CLR	NC			10.00		55	32	45	42	9	24	30.38	30.57
13	CLR	NC			10.00		65	30	49	27	8	21	30.29	30.48
16	CLR	NC			10.00		66	33	50	29	6	21	30.23	30.42
19	CLR	NC			10.00		53	38	46	57	0	00	30.23	30.43
22	CLR	NC			10.00		50	36	44	59	3	22	30.22	30.41

## 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.

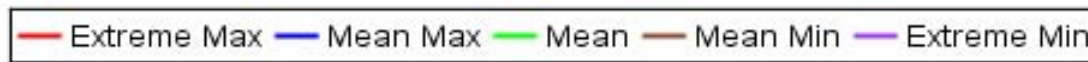
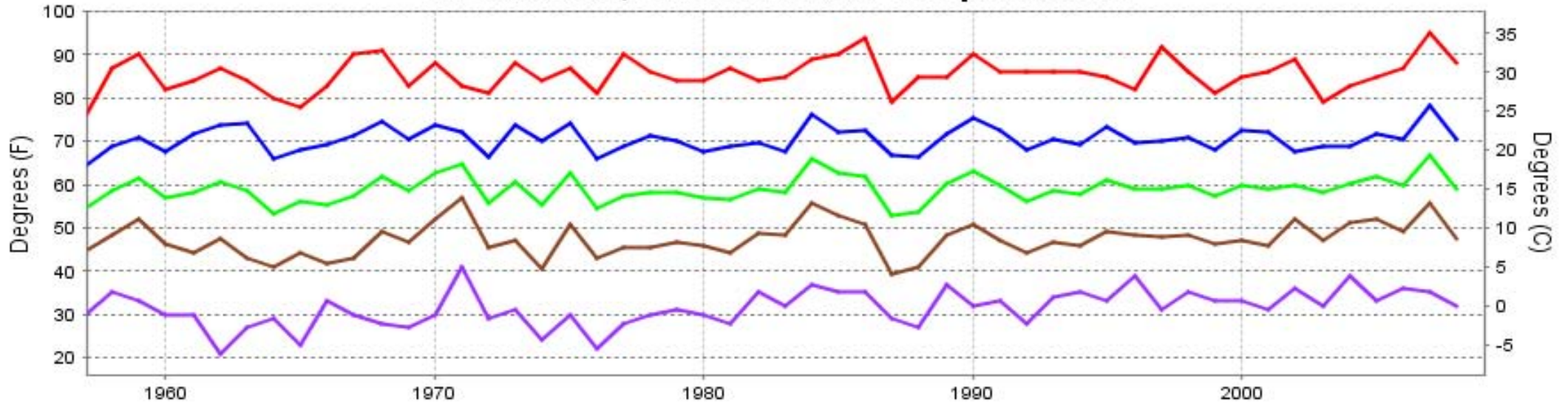
& = Original observation contained additional weather elements.

See page 3 for additional notes.

## SUMMARY BY HOUR

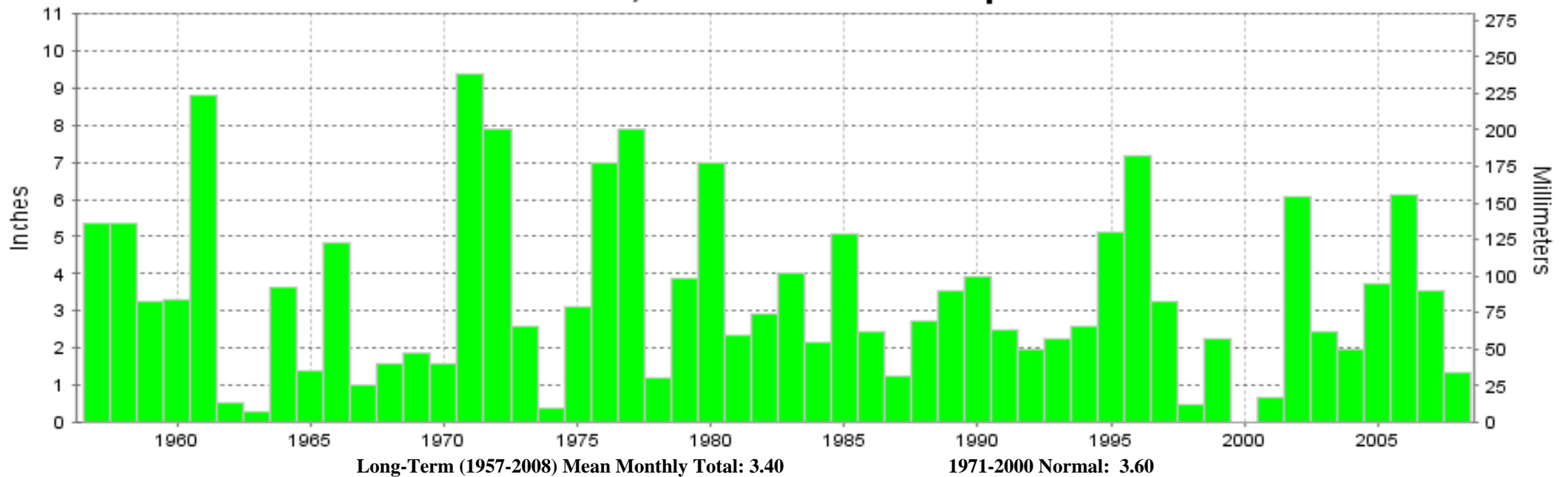
HOUR (LST)	AVERAGES										RESULTANT WIND (MPH)	
	CEILOMETER	EFF CLD AMT	DRY BULB	DEW POINT	WET BULB	RELATIVE HUMIDITY	PRESSURE (Inches, HG)		VISIBILITY (Miles)	WIND SPEED (MPH)	SPEED	DIRECTION
							STATION	SEA LEVEL				
01			52	47	50	83	29.98	30.17	9.45	4	3	34
02			51	47	49	85	29.98	30.17	9.19	4	2	36
03			51	46	49	85	29.97	30.16	9.23	4	2	35
04			51	46	48	85	29.97	30.17	9.19	4	2	35
05			50	45	48	84	29.98	30.18	9.13	4	3	35
06			50	45	48	86	29.99	30.19	9.13	4	2	35
07			50	46	48	85	30.00	30.20	9.06	5	2	01
08			54	47	51	79	30.02	30.21	9.27	6	2	02
09			59	48	53	68	30.02	30.22	9.33	8	2	02
10			62	47	54	58	30.02	30.21	9.60	9	2	35
11			65	46	55	53	30.01	30.20	9.77	9	2	33
12			66	46	56	50	30.00	30.19	9.52	9	2	31
13			68	45	56	47	29.97	30.17	9.76	9	2	32
14			68	45	56	46	29.96	30.15	9.60	9	2	32
15			68	45	56	47	29.96	30.15	9.43	9	2	32
16			67	46	56	49	29.95	30.15	9.48	8	2	32
17			65	47	55	55	29.96	30.15	9.31	6	2	34
18			61	48	54	63	29.97	30.17	9.84	5	2	36
19			58	48	53	71	29.98	30.18	9.97	5	2	03
20			57	48	52	74	29.99	30.18	9.81	4	2	02
21			55	47	51	75	30.00	30.19	9.87	3	2	01
22			54	47	51	78	30.01	30.20	9.77	4	2	36
23			53	47	50	80	30.01	30.20	9.68	4	2	35
24			53	47	50	81	30.00	30.19	9.55	4	2	36

## RICHMOND, VA OCTOBER Temperatures



**Long-Term (1957-2008) Mean: 58.9**  
**1971-2000 Normal: 58.3**

## RICHMOND, VA OCTOBER Precipitation



**Long-Term (1957-2008) Mean Monthly Total: 3.40**

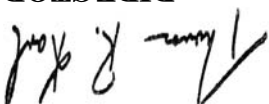
**1971-2000 Normal: 3.60**



OCTOBER 2008  
RICHMOND, VA

# LOCAL CLIMATOLOGICAL DATA NOAA, National Climatic Data Center

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