



# OCTOBER 2010 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



**OCTOBER 2010  
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					
																			3-SEC		2-MIN			
																			SPEED 20	DIR 21	SPEED 22	DIR 23		
01	75	58	67	3	53	59	0	2	RA BR	0		0.0	0.01	29.54	29.77	13.6	36	13.9	32	02	25	02	01	
02	72	50	61	-2	46	53	4	0		0		0.0	0.00	29.79	29.99	6.3	04	7.0	20	03	15	02	02	
03	65	50	58	-5	52	54	7	0	RA BR	0		0.0	0.12	29.81	30.00	9.7	03	9.9	22	03	18	04	03	
04	60	47	54	-8	48	51	11	0	RA DZ BR	0		0.0	0.09	29.91	30.11	11.1	36	11.4	26	01	18	02	04	
05	66	44	55	-7	42	48	10	0		0		0.0	0.00	29.93	30.12	7.0	32	7.7	26	32	18	32	05	
06	65	42	54	-8	43	49	11	0		0		0.0	0.00	29.80	29.98	5.9	29	6.3	31	33	21	29	06	
07	79	49	64	3	46	54	1	0		0		0.0	0.00	29.70	29.90	7.2	29	9.2	24	29	18	28	07	
08	77	48	63	2	45	53	2	0		0		0.0	0.00	29.85	30.04	1.9	31	4.5	17	35	12	27	08	
09	84	46	65	4	46	55	0	0		0		0.0	0.00	29.80	29.99	1.7	31	2.3	20	15	10	27	09	
10	83	52	68	7	53	59	0	3		0		0.0	0.00	29.76	29.94	2.9	26	4.7	18	02	13	24	10	
11	88*	56	72	12	54	61	0	7		0		0.0	0.00	29.67	29.86	4.4	27	5.3	24	30	14	28	11	
12	87	58	73	13	54	62	0	8	RA	0		0.0	0.10	29.63	29.83	2.0	30	4.9	45*	32	35*	32	12	
13	73	58	66	7	53	58	0	1	FU	0		0.0	0.00	29.78	29.98	4.8	06	6.3	24	09	16	05	13	
14	65	51	58	-1	56	57	7	0	TS TSRA RA BR	0		0.0	0.67	29.67	29.85	2.4	35	6.0	41	03	15	01	14	
15	64	49	57	-1	42	49	8	0	RA BR	0		0.0	0.08	29.62	29.82	8.5	29	9.3	28	28	23	29	15	
16	69	45	57	-1	39	48	8	0		0		0.0	0.00	29.80	30.01	7.9	31	8.6	29	33	21	33	16	
17	75	40	58	0	43	50	7	0		0		0.0	0.00	29.83	30.02	5.3	24	5.4	25	18	16	24	17	
18	74	47	61	3	50	54	4	0		0		0.0	0.00	29.77	29.96	2.4	09	3.3	15	07	9	08	18	
19	69	55	62	4	53	56	3	0	RA BR	0		0.0	T	29.71	29.91	3.9	05	4.9	18	04	14	05	19	
20	58	53	56	-1	54	54	9	0	RA BR	0		0.0	0.41	29.72	29.90	3.1	04	4.6	21	10	13	03	20	
21	74	45	60	4	46	52	5	0	BR	0		0.0	0.00	29.60	29.80	6.1	27	8.9	29	31	23	26	21	
22	63	41	52	-4	36	44	13	0		0		0.0	0.00	29.90	30.13	4.1	35	4.6	30	33	15	35	22	
23	73	37	55	-1	40	48	10	0		0		0.0	0.00	30.06	30.26	4.6	22	5.1	17	26	13	22	23	
24	77	48	63	8	47	54	2	0		0		0.0	0.00	29.98	30.15	7.7	22	8.1	25	24	21	24	24	
25	78	59	69	14	61	63	0	4	RA	0		0.0	T	29.79	29.96	11.7	21	11.8	33	22	26	22	25	
26	78	61	70	15	66	68	0	5	BR	0		0.0	0.00	29.71	29.89	10.7	20	10.9	25	21	20	21	26	
27	85	70	78*	24	70	72	0	13	TS TSRA RA BR	0		0.0	0.66	29.73	29.93	12.3	22	13.1	35	22	26	20	27	
28	80	58	69	15	57	63	0	4	BR	0		0.0	0.00	29.75	29.94	6.7	28	9.1	26	01	20	01	28	
29	61	39	50	-4	34	44	15	0		0		0.0	0.00	29.92	30.14	9.1	01	9.5	29	35	23	36	29	
30	60	35*	48*	-6	36	43	17	0		0		0.0	0.00	29.95	30.11	7.7	22	8.1	22	25	17	24	30	
31	73	48	61	7	38	49	4	0		0		0.0	0.00	29.74	29.96	5.2	30	9.4	25	25	20	24	31	
72.6		49.6	61.1	Σ	48.5	54.3	5.1	1.5	< MONTHLY AVERAGES   TOTALS >			0.0	2.14	29.78	29.97	2.7	30	7.6	< MONTHLY AVERAGES					
3.3		2.4	2.8		<-----DEPARTURE FROM NORMAL----->							-1.46	SUNSHINE, CLOUD, & VISIBILITY TABLES ON PAGE 3											
<b>DEGREE DAYS</b>									GREATEST 24-HR PRECIPITATION : 0.67 DATE : 14				SEA LEVEL PRESSURE				DATE TIME							
MONTHLY									GREATEST 24-HR SNOWFALL : 0.0 DATE :				MAXIMUM : 30.31				23 0959							
TOTAL DEPARTURE									GREATEST SNOW DEPTH : 0 DATE :				MINIMUM : 29.58				01 0054							
SEASON TO DATE									NUMBER OF -> DAYS WITH				MAXIMUM TEMP >= 90 : 0		MINIMUM TEMP <= 32 : 0		PRECIPITATION >= 0.01 INCH: 8							
HEATING : 158 -67									THUNDERSTORMS : 2		MAXIMUM TEMP <= 32 : 0		MINIMUM TEMP <= 0 : 0		PRECIPITATION >= 0.10 INCH: 5									
COOLING : 47 14													HEAVY FOG : 0		SNOWFALL >= 1.0 INCH : 0									

# HOURLY PRECIPITATION

(WATER EQUIVALENT IN INCHES)

RICHMOND, VA (KRIC)  
OCTOBER 2010

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	0.01	T				T	T					01												01	0.01	0.01	
02													02												02	0.00	0.00	
03													03			T	0.04	0.02	T	0.02	0.02	0.01	T	0.01	03	0.12	0.12	
04	T	T	0.01	0.02	0.05	0.01	T	T	T				04											04	0.09	0.09		
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							0.10				12	0.10	0.10		
13													13											13	0.00	0.00		
14				T		T	T	0.18	0.22	0.12	0.08	0.05	14	0.02	T	T	T	T					14	0.67	0.67			
15												T	15	0.07	0.01	T							15	0.08	0.08			
16													16											16	0.00	0.00		
17													17											17	0.00	0.00		
18													18											18	0.00	0.00		
19													19										T	19	T	T		
20	T	0.10	0.06		T	0.03	0.02	0.01			0.01	0.02	20	0.13	0.03	T	T	T					20	0.41	0.41			
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							25	T	T		
26													26											26	0.00	0.00		
27	T	0.06	0.02	0.10	0.04	0.11							27			T	T	T	T	0.18	0.14	0.01	27	0.66	0.66			
28													28											28	0.00	0.00		
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)	0.10	0.13	0.14	0.17	0.21	0.29	0.34	0.38	0.43	0.46	0.53	0.57
Ending Date	14	14	14	14	14	14	14	14	14	14	14	14
Ending Time (Hr/Min)	0753	0753	0803	0803	0816	0832	0839	0903	0920	0939	1009	1034

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 2010

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							2.50	10.00	
02							10.00	10.00	
03							3.00	10.00	
04							5.00	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							6.00	10.00	
14							0.75	10.00	
15							2.00	10.00	
16							10.00	10.00	
17							10.00	10.00	
18							10.00	10.00	
19							1.00	10.00	
20							2.00	10.00	
21							3.00	10.00	
22							10.00	10.00	
23							10.00	10.00	
24							10.00	10.00	
25							10.00	10.00	
26							6.00	10.00	
27							2.50	10.00	
28							2.00	10.00	
29							10.00	10.00	
30							10.00	10.00	
31							10.00	10.00	
MONTHLY AVGS							7.28	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		
0			9				19		

OBSERVATIONS AT 3-HOURLY INTERVALS

RICHMOND, VA  
OCTOBER 2010

KRIC

WBAN # 13740

Table with columns for HOUR (LST), SKY COVER, CEILING, SATELLITE, WEATHER, TEMPERATURE (DRY BULB, DEW POINT, WET BULB), WIND (SPEED, DIRECTION), PRESSURE (STATION, SEA LEVEL). Includes data for OCT 01 through OCT 12.

# OBSERVATIONS AT 3-HOURLY INTERVALS

## RICHMOND, VA OCTOBER 2010 KRIC

### WBAN # 13740

HOUR (LST)	SKY COVER	CEILING 100's of FT.	SATELLITE		WEATHER	TEMPERATURE °F			WIND		PRESSURE (INCHES, HG)		HOUR (LST)	SKY COVER	CEILING 100's of FT.	SATELLITE		WEATHER	TEMPERATURE °F			WIND		PRESSURE (INCHES, HG)						
			Observation Time (LST)	Eff Cld Amt Oktas		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			
			VISIBILITY (MILES)	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)	SPEED (MPH)	DIRECTION Tens of Deg	STATION	SEA LEVEL						
			<b>SUNRISE: 0615</b>			<b>OCT 13</b>			<b>SUNSET: 1735</b>						<b>SUNRISE: 0621</b>			<b>OCT 19</b>			<b>SUNSET: 1727</b>									
01	BKN	250			10.00		65	56	60	73	8	01	29.72	29.91	01	OVC	250			10.00	BR		55	53	54	93	0	00	29.68	29.87
04	SCT	250			10.00		62	49	55	63	8	04	29.74	29.93	04	OVC	002			1.00	BR		56	55	55	96	5	02	29.67	29.86
07	BKN	250			10.00		58	52	55	81	7	03	29.81	30.00	07	OVC	012			10.00			57	55	56	93	9	02	29.71	29.90
10	BKN	250			10.00		65	52	58	63	7	09	29.85	30.04	10	OVC	022			10.00			60	50	55	70	3	13	29.75	29.94
13	BKN	250			10.00		70	53	60	55	3	11	29.81	30.00	13	BKN	026			10.00			68	52	59	57	7	01	29.72	29.91
16	BKN	250			7.00		70	52	60	53	6	10	29.77	29.96	16	BKN	250			10.00			67	53	59	61	3	08	29.70	29.90
19	SCT	250			10.00		62	53	57	73	5	10	29.81	30.00	19	BKN	250			10.00			60	54	57	81	7	07	29.74	29.93
22	BKN	100			10.00		60	56	58	87	3	14	29.82	30.01	22	OVC	029			10.00			58	53	55	84	6	08	29.76	29.95
			<b>SUNRISE: 0616</b>			<b>OCT 14</b>			<b>SUNSET: 1734</b>						<b>SUNRISE: 0622</b>			<b>OCT 20</b>			<b>SUNSET: 1726</b>									
01	BKN	100			10.00		59	56	57	90	5	12	29.78	29.97	01	OVC	110			10.00			57	54	55	90	3	10	29.75	29.94
04	OVC	080			10.00		59	57	58	93	5	13	29.72	29.91	04	OVC	003			4.00	BR		57	56	56	96	8	02	29.74	29.93
07	OVC	020			6.00	BR	61	59	60	93	3	03	29.69	29.88	07	OVC	035			4.00	-RA BR		54	53	53	96	7	06	29.74	29.93
10	OVC	021			2.00	RA BR	60	59	59	97	8	17	29.66	29.85	10	OVC	007			8.00			55	53	54	93	8	05	29.74	29.93
13	OVC	029			10.00		63	61	62	93	8	32	29.59	29.78	13	OVC	048			4.00	-RA BR		53	52	52	96	6	02	29.71	29.90
16	OVC	080			10.00	-RA	61	58	59	90	7	01	29.59	29.78	16	OVC	080			5.00	BR		55	53	54	93	5	04	29.67	29.86
19	SCT	120			6.00	BR	58	57	57	97	0	00	29.62	29.82	19	OVC	006			2.00	BR		55	53	54	93	0	00	29.68	29.88
22	CLR	NC			10.00		53	44	49	72	9	33	29.65	29.84	22	OVC	019			2.00	BR		55	54	54	96	3	25	29.69	29.88
			<b>SUNRISE: 0617</b>			<b>OCT 15</b>			<b>SUNSET: 1733</b>						<b>SUNRISE: 0623</b>			<b>OCT 21</b>			<b>SUNSET: 1725</b>									
01	BKN	200			10.00		51	41	46	69	3	34	29.65	29.84	01	FEW	022			3.00	BR		51	50	50	96	3	22	29.65	29.84
04	OVC	150			10.00		52	41	47	66	6	29	29.63	29.82	04	BKN	005			4.00	BR		53	52	52	96	6	23	29.61	29.80
07	SCT	200			10.00		53	37	46	55	8	28	29.62	29.81	07	SCT	004			5.00	BR		51	50	50	96	7	22	29.59	29.78
10	BKN	250			10.00		62	41	51	46	14	26	29.59	29.79	10	SCT	250			10.00			63	48	55	58	13	26	29.58	29.77
13	OVC	055			2.00	-RA BR	52	47	49	83	7	33	29.58	29.77	13	FEW	050			10.00			73	41	56	32	17	28	29.52	29.70
16	FEW	100			10.00		58	48	53	70	10	26	29.57	29.76	16	SCT	250			10.00			74	41	56	31	13	27	29.52	29.70
19	SCT	100			10.00		57	45	51	64	11	29	29.64	29.83	19	FEW	075			10.00			61	41	51	48	9	02	29.65	29.84
22	CLR	NC			10.00		54	40	47	59	11	31	29.71	29.90	22	CLR	NC			10.00			49	44	47	83	0	00	29.71	29.91
			<b>SUNRISE: 0618</b>			<b>OCT 16</b>			<b>SUNSET: 1731</b>						<b>SUNRISE: 0624</b>			<b>OCT 22</b>			<b>SUNSET: 1723</b>									
01	CLR	NC			10.00		52	39	46	61	8	31	29.72	29.91	01	CLR	NC			10.00			43	39	41	86	0	00	29.75	29.94
04	CLR	NC			10.00		49	39	44	69	8	29	29.76	29.96	04	CLR	NC			10.00			46	41	44	83	3	34	29.81	30.01
07	CLR	NC			10.00		48	38	43	68	8	29	29.84	30.03	07	FEW	250			10.00			44	37	41	77	0	00	29.88	30.08
10	CLR	NC			10.00		61	38	50	43	13	31	29.87	30.06	10	FEW	250			10.00			57	34	46	42	14	35	29.96	30.15
13	FEW	055			10.00		66	37	52	34	18	35	29.82	30.01	13	SCT	250			10.00			62	30	47	30	10	31	29.95	30.15
16	CLR	NC			10.00		68	36	52	31	11	33	29.81	30.00	16	FEW	250			10.00			61	30	47	31	8	01	29.96	30.15
19	CLR	NC			10.00		53	43	48	69	0	00	29.83	30.02	19	CLR	NC			10.00			48	38	43	68	0	00	30.00	30.20
22	CLR	NC			10.00		49	43	46	80	0	00	29.87	30.06	22	CLR	NC			10.00			44	37	41	77	0	00	30.05	30.24
			<b>SUNRISE: 0619</b>			<b>OCT 17</b>			<b>SUNSET: 1730</b>						<b>SUNRISE: 0625</b>			<b>OCT 23</b>			<b>SUNSET: 1722</b>									
01	CLR	NC			10.00		44	42	43	93	0	00	29.89	30.08	01	CLR	NC			10.00			39	36	38	89	0	00	30.06	30.25
04	CLR	NC			10.00		43	41	42	93	0	00	29.89	30.09	04	CLR	NC			10.00			40	37	39	89	0	00	30.07	30.26
07	CLR	NC			10.00		47	41	44	80	0	00	29.92	30.11	07	CLR	NC			10.00			41	37	39	86	0	00	30.09	30.28
10	CLR	NC			10.00		64	40	52	42	11	23	29.89	30.08	10	FEW	250			10.00			57	40	49	53	5	24	30.12	30.31
13	CLR	NC			10.00		73	38	55	28	10	27	29.80	29.99	13	FEW	250			10.00			69	37	53	31	7	VR	30.05	30.24
16	CLR	NC			10.00		74	43	57	33	13	24	29.75	29.94	16	FEW	250			10.00			71	41	55	34	9	23	30.04	30.23
19	FEW	250			10.00		62	48	55	60	7	23	29.75	29.94	19	FEW	250			10.00			58	46	52	65	8	21	30.05	30.24
22	CLR	NC			10.00		60	47	53	62	5	25	29.77	29.96	22	SCT	250			10.00			58	45	51	62	5	20	30.04	30.24
			<b>SUNRISE: 0620</b>			<b>OCT 18</b>			<b>SUNSET: 1729</b>						<b>SUNRISE: 0626</b>			<b>OCT 24</b>			<b>SUNSET: 1721</b>									
01	CLR	NC			10.00		53	47	50	80	0	00	29.78	29.97	01	BKN	250			10.00			55	44	50	67	0	00	30.04	30.24
04	CLR	NC			10.00		50	46	48	86	0	00	29.79	29.98	04	FEW	160			10.00			50	44	47	80	6	21	30.03	30.22
07	SCT	250			10.00		49	46	48	89	0	00	29.83	30.02	07	BKN	250			10.00			52	46	49	80	6	21	30.03	30.22
10	BKN	085			10.00		64	48	55	56	8	07	29.85	30.04	10	BKN	250			10.00			68	47	57	47	8	24	30.02	30.22
13	OVC	250			10.00		70	48	58	46	3	19	29.76	29.95	13	BKN	250			10.00			73	44	57	35	13	24	29.95	30.14
16	BKN	250			10.00		72	52	61	50	0	00	29.71	29.91	16	BKN	250			10.00			76	45	59	33	13	23	29.90	30.09
19	BKN	250			10.00		62	53	57	73	7	10	29.72	29.92	19	BKN	250			10.00			63	49	55	60	9	19	29.89	30.08
22	OVC	250			10.00		58	55	56	90	3	12	29.72	29.91	22	BKN	250			10.00			58	50	54	75	7	21	29.89	30.08

# OBSERVATIONS AT 3-HOURLY INTERVALS

# RICHMOND, VA

OCTOBER 2010 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						
															WEATHER					
<b>SUNRISE: 0627      OCT 25      SUNSET: 1720</b>						01	SCT	250			10.00	62	58	60	87	10	22	29.88	30.06	
04	FEW	250				10.00	61	59	60	93	8	20	29.83	30.02						
07	OVC	250				10.00	61	59	60	93	5	19	29.84	30.03						
10	BKN	250				10.00	71	61	65	71	14	21	29.81	30.00						
13	OVC	250				10.00	77	63	68	62	21	22	29.74	29.92						
16	OVC	250				10.00	72	64	67	76	16	21	29.67	29.86						
19	OVC	250				10.00	66	61	63	84	10	20	29.71	29.91						
22	OVC	250				10.00	64	60	62	87	10	22	29.73	29.92						
<b>SUNRISE: 0628      OCT 26      SUNSET: 1718</b>						01	BKN	100			10.00	63	61	62	93	6	21	29.75	29.94	
04	BKN	100				9.00	61	60	60	97	5	20	29.73	29.91						
07	OVC	010				10.00	66	64	65	93	6	20	29.74	29.93						
10	OVC	014				10.00	71	66	68	84	13	22	29.74	29.93						
13	OVC	250				10.00	77	68	71	74	15	20	29.69	29.88						
16	OVC	250				10.00	78	68	71	71	15	22	29.65	29.84						
19	FEW	250				10.00	74	68	70	82	14	19	29.66	29.85						
22	OVC	200				10.00	74	69	71	84	14	20	29.68	29.87						
<b>SUNRISE: 0629      OCT 27      SUNSET: 1717</b>						01	OVC	150			10.00	-RA	73	70	71	90	16	21	29.71	29.90
04	OVC	040				4.00	-RA	BR	73	71	72	93	20	22	29.70	29.88				
07	BKN	150				9.00	72	70	71	93	13	20	29.72	29.91						
10	BKN	120				10.00	78	71	73	79	16	21	29.77	29.96						
13	BKN	080				10.00	83	70	74	65	17	23	29.73	29.92						
16	BKN	150				10.00	83	68	73	61	15	22	29.72	29.91						
19	OVC	120				10.00	78	70	73	77	11	21	29.76	29.95						
22	SCT	045				10.00	-RA	72	71	71	97	9	22	29.78	29.97					
<b>SUNRISE: 0630      OCT 28      SUNSET: 1716</b>						01	BKN	100			10.00	BR	70	69	69	97	8	24	29.78	29.97
04	FEW	110				5.00	BR	66	66	66	100	6	22	29.76	29.95					
07	OVC	005				2.00	BR	69	68	68	97	5	25	29.78	29.97					
10	BKN	250				10.00	75	68	70	79	10	26	29.78	29.97						
13	BKN	250				10.00	78	55	64	45	11	29	29.72	29.91						
16	BKN	250				10.00	76	54	63	47	13	28	29.70	29.89						
19	BKN	250				10.00	69	49	58	49	6	32	29.74	29.93						
22	FEW	250				10.00	62	39	51	43	9	34	29.76	29.95						
<b>SUNRISE: 0631      OCT 29      SUNSET: 1715</b>						01	CLR	NC			10.00		55	37	47	51	21	02	29.82	30.01
04	CLR	NC				10.00	47	37	43	68	6	01	29.88	30.08						
07	CLR	NC				10.00	47	35	42	63	5	02	29.94	30.13						
10	FEW	030				10.00	57	34	46	42	17	34	29.97	30.16						
13	SCT	050				10.00	60	33	48	36	15	01	29.93	30.12						
16	SCT	055				10.00	58	32	46	37	10	01	29.93	30.12						
19	FEW	250				10.00	49	34	42	56	6	02	30.00	30.19						
22	CLR	NC				10.00	45	33	40	63	5	02	30.03	30.23						
<b>SUNRISE: 0632      OCT 30      SUNSET: 1714</b>						01	FEW	250			10.00		41	35	38	79	0	00	30.04	30.23
04	CLR	NC				10.00	39	34	37	82	0	00	30.05	30.24						
07	BKN	250				10.00	35	33	34	92	3	20	30.06	30.25						
10	OVC	250				10.00	51	35	44	54	7	21	30.05	30.25						
13	OVC	250				10.00	57	32	46	39	13	22	29.92	30.12						
16	OVC	250				10.00	58	34	47	41	15	22	29.84	30.03						
19	OVC	250				10.00	53	38	46	57	10	21	29.79	29.98						
22	OVC	250				10.00	52	41	47	66	9	22	29.74	29.93						

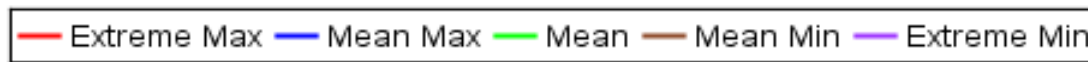
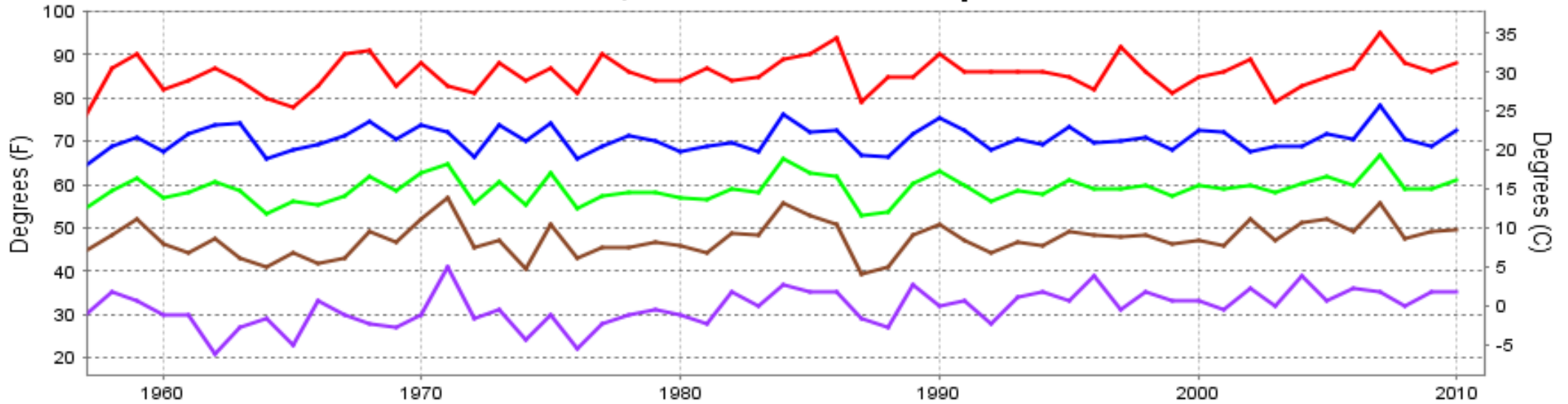
HOUR (LST)	SKY COVER	CEILING 100's of FT.	SATELLITE		WEATHER	TEMPERATURE °F			WIND		PRESSURE (INCHES, HG)								
			Observation Time (LST)	Eff Cld Amt Oktas		VISIBILITY (MILES)	DRY BULB	DEW POINT	WET BULB	RELATIVE HUMIDITY (PCT)	SPEED (MPH)	DIRECTION Tens of Deg	STATION	SEA LEVEL					
															WEATHER				
<b>SUNRISE: 0633      OCT 31      SUNSET: 1713</b>						01	OVC	250			10.00	56	42	49	60	15	25	29.69	29.88
04	OVC	250				10.00	56	42	49	60	11	27	29.67	29.86					
07	BKN	250				10.00	54	41	48	62	9	26	29.70	29.89					
10	BKN	250				10.00	63	38	51	40	13	29	29.73	29.93					
13	SCT	250				10.00	71	34	53	26	11	31	29.71	29.91					
16	FEW	200				10.00	71	33	52	25	8	30	29.74	29.93					
19	FEW	250				10.00	59	39	49	48	13	04	29.86	30.05					
22	CLR	NC				10.00	54	35	45	49	11	04	29.97	30.16					

**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

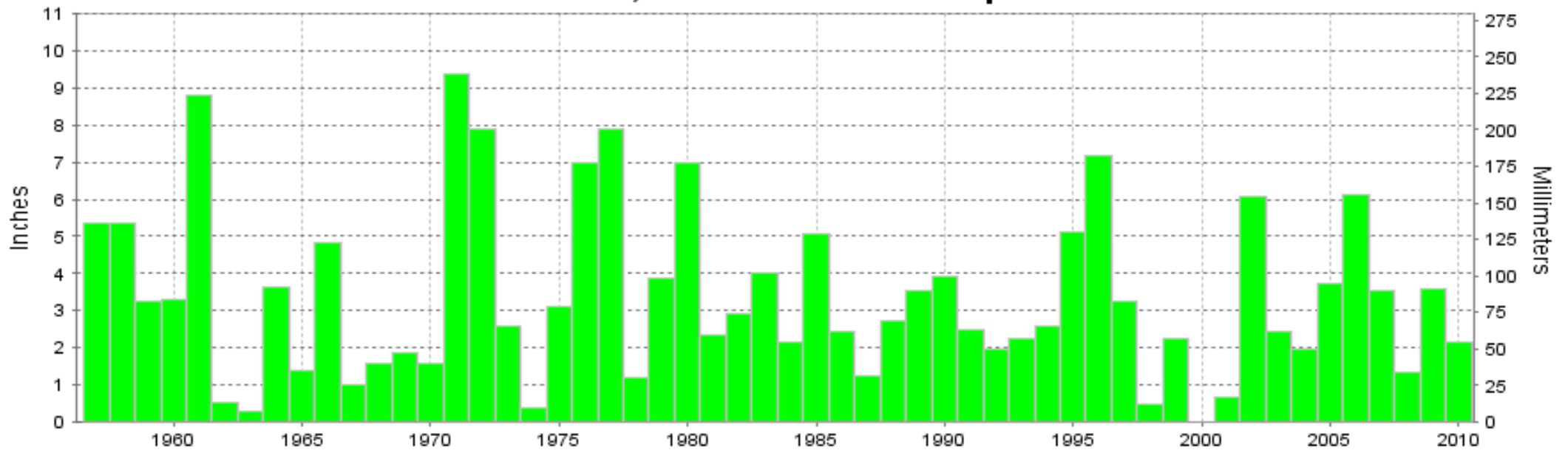
HOUR (LST)	AVERAGES								RESULTANT WIND (MPH)			
	CEILOMETER	EFF CLD AMT	DRY BULB	DEW POINT	WET BULB	RELATIVE HUMIDITY	PRESSURE (Inches, HG)		VISIBILITY (Miles)	WIND SPEED (MPH)	SPEED	DIRECTION
							STATION	SEA LEVEL				
01			56	49	52	80	29.78	29.97	9.53	5	2	28
02			55	49	52	81	29.78	29.97	9.26	6	2	28
03			54	49	51	82	29.77	29.96	9.32	5	2	28
04			54	48	51	84	29.78	29.97	8.90	5	2	28
05			53	48	51	84	29.79	29.98	8.94	6	2	28
06			53	48	50	85	29.80	29.99	9.00	6	1	28
07			53	49	51	84	29.81	30.00	9.23	6	1	29
08			57	50	53	77	29.82	30.01	9.28	7	2	28
09			61	49	55	66	29.82	30.02	9.45	9	2	28
10			65	49	56	58	29.82	30.01	9.68	10	3	28
11			67	48	57	52	29.81	30.00	9.58	10	5	27
12			69	47	57	49	29.79	29.98	9.84	11	5	27
13			70	47	58	48	29.77	29.96	9.55	11	5	27
14			71	47	58	46	29.75	29.94	9.74	10	5	27
15			71	47	58	46	29.74	29.93	9.74	11	5	27
16			70	47	58	47	29.74	29.93	9.74	10	5	27
17			68	48	57	52	29.75	29.94	9.39	8	3	28
18			63	49	56	62	29.76	29.95	9.55	7	1	29
19			62	49	55	66	29.78	29.97	9.61	7	1	30
20			60	49	54	69	29.78	29.98	9.45	6	1	29
21			59	49	54	72	29.79	29.98	9.37	6	1	29
22			58	49	53	73	29.80	29.99	9.74	6	2	28
23			57	48	53	74	29.80	29.99	9.74	7	2	28
24			56	48	52	76	29.80	29.99	9.87	6	2	28

## RICHMOND, VA OCTOBER Temperatures



**Long-Term (1957-2010) Mean: 59.0**  
**1971-2000 Normal: 58.3**

## RICHMOND, VA OCTOBER Precipitation



**Long-Term (1957-2010) Mean Monthly Total: 3.38**

**1971-2000 Normal: 3.60**



OCTOBER 2010  
RICHMOND, VA

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