



DECEMBER 2007 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 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			
01	51	29	40	-5	15	32	25	0	RA SN PL			T	T	30.26	30.45	5.2	04	5.8	20	03	16	02	01	
02	53	34	44	0	33	40	21	0	RA			0.0	0.09	30.12	30.25	3.1	19	4.4	21	20	16	22	02	
03	59	36	48	4	32	42	17	0	RA			0.0	0.06	29.64	29.84	14.0	29	16.3	38	32	31	33	03	
04	47	26	37	-6	16	30	28	0				0.0	0.00	29.68	29.87	8.4	30	9.7	30	31	23	32	04	
05	38	24	31	-12	27	31	34	0	RA SN FG BR			T	0.06	29.59	29.80	1.7	04	6.0	30	36	22	01	05	
06	38	24	31*	-12	15	25	34	0				0.0	0.00	30.06	30.31	6.0	02	6.9	29	03	22	01	06	
07	44	21	33	-10	26	32	32	0	RA FZRA GL UP			T	T	30.16	30.34	2.2	21	2.6	13	19	10	19	07	
08	54	41	48	6	37	42	17	0				0.0	0.00	30.12	30.31	0.3	35	1.8	10	09	9	09	08	
09	61	45	53	11	45	49	12	0	RA BR			0.0	T	30.17	30.35	1.5	16	3.0	12	22	10	22	09	
10	79*	49	64	22	56	60	1	0	RA BR HZ			0.0	T	30.01	30.21	5.2	25	8.4	21	25	17	25	10	
11	54	48	51	10	48	50	14	0	FG BR HZ			0.0	0.00	30.12	30.30	3.0	18	5.8	15	22	13	22	11	
12	77	52	65*	24	50	55	0	0	FG BR			0.0	0.00	29.88	30.10	3.2	26	10.9	28	05	23	04	12	
13	56	47	52	11	42	46	13	0	RA BR			0.0	0.07	29.93	30.11	1.9	13	7.0	20	32	16	31	13	
14	52	39	46	5	41	43	19	0	FG+ BR			0.0	0.00	29.97	30.20	4.1	04	4.6	17	04	14	04	14	
15	41	34	38	-2	30	35	27	0	RA DZ BR			0.0	0.49	30.11	30.26	7.8	06	8.4	21	36	16	01	15	
16	51	35	43	3	31	37	22	0	RA DZ BR			0.0	0.44	29.39	29.57	11.7	29	14.0	45*	27	35*	27	16	
17	43	28	36	-4	15	29	29	0				0.0	0.00	29.86	30.12	8.4	30	9.2	24	28	20	33	17	
18	43	20*	32	-8	18	28	33	0				0.0	0.00	30.19	30.40	2.0	19	2.3	10	23	8	23	18	
19	47	30	39	-1	27	34	26	0	RA			0.0	0.02	30.01	30.20	6.0	22	6.7	23	24	20	24	19	
20	49	28	39	0	28	34	26	0	BCFG BR			0.0	0.00	30.01	30.22	2.1	06	3.5	22	04	16	03	20	
21	48	34	41	2	33	37	24	0	HZ			0.0	0.00	30.08	30.29	6.4	05	6.6	20	06	14	05	21	
22	50	42	46	7	40	43	19	0				0.0	0.00	30.19	30.38	6.7	05	7.0	17	34	12	05	22	
23	67	44	56	17	50	52	9	0	RA DZ FG+ FG BR			0.0	0.18	29.86	30.03	6.2	22	10.0	29	24	23	26	23	
24	53	35	44	6	24	37	21	0				0.0	0.00	29.86	30.08	8.0	25	8.3	20	26	15	27	24	
25	52	32	42	4	28	37	23	0	RA			0.0	T	30.06	30.27	1.5	08	2.0	20	14	13	05	25	
26	40	35	38	0	34	37	27	0	RA BR			0.0	0.60	29.90	30.07	10.1	02	10.7	35	03	25	02	26	
27	57	35	46	8	38	41	19	0	MIFG BR			0.0	0.00	29.90	30.10	4.9	24	5.7	22	24	18	24	27	
28	55	32	44	6	41	44	21	0	RA MIFG BR			0.0	0.23	30.06	30.24	5.1	13	6.0	20	18	14	18	28	
29	61	46	54	16	51	52	11	0	RA DZ BR			0.0	0.08	29.83	30.03	1.4	24	5.1	25	21	18	21	29	
30	48	41	45	8	40	42	20	0	RA BR			0.0	0.92	29.85	30.04	4.4	08	6.8	22	12	17	13	30	
31	55	36	46	9	34	39	19	0	RA FG+ BR			0.0	T	29.84	30.06	3.3	26	5.8	24	34	17	34	31	

52.4			35.5			44.0			☼	33.7			39.8			20.7		0.0		< MONTHLY AVERAGES TOTALS >				T		3.24		29.96		30.15		1.2		31		6.8		< MONTHLY AVERAGES			
2.7			4.4			3.6				<-----DEPARTURE FROM NORMAL----->												0.12		SUNSHINE, CLOUD, & VISIBILITY TABLES ON PAGE 3																	
DEGREE DAYS										GREATEST 24-HR PRECIPITATION : 0.93 DATE : 15-16										SEA LEVEL PRESSURE				DATE TIME																	
MONTHLY					SEASON TO DATE					GREATEST 24-HR SNOWFALL : T DATE : 07+					MAXIMUM : 30.55 01 2054																										
TOTAL DEPARTURE					TOTAL DEPARTURE					GREATEST SNOW DEPTH : DATE :					MINIMUM : 29.42 16 1454																										
HEATING :		643		-105		1193		-278		NUMBER OF -> DAYS WITH		MAXIMUM TEMP >= 90 : 0		MINIMUM TEMP <= 32 : 11		PRECIPITATION >= 0.01 INCH : 12																									
COOLING :		0		-1		1844		409		MAXIMUM TEMP <= 32 : 0		MINIMUM TEMP <= 0 : 0		PRECIPITATION >= 0.10 INCH : 6																											
										THUNDERSTORMS : 0		HEAVY FOG : 3		SNOWFALL >= 1.0 INCH : 0																											

**DECEMBER 2007
RICHMOND, VA**

HOURLY PRECIPITATION

(WATER EQUIVALENT IN INCHES)

RICHMOND, VA (KRIC)
DECEMBER 2007

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	T	T	
02													02			T	T	0.01	0.02	T	T	0.04	0.02	T	02	0.09	0.09	
03	0.03	0.03											03												03	0.06	0.06	
04													04												04	0.00	0.00	
05												T	05	0.03	T								T	T	05	0.06	0.06	
06													06												06	0.00	0.00	
07													07												07	T	T	
08													08												08	0.00	0.00	
09													09												09	T	T	
10													10												10	T	T	
11													11												11	0.00	0.00	
12													12												12	0.00	0.00	
13													13					0.06	0.01	T				13	0.07	0.07		
14													14												14	0.00	0.00	
15													15		T	0.01	T	T	T	T	0.01	0.06	0.11	0.08	0.22	15	0.49	0.49
16	0.23	0.07	T	0.11	0.01	0.01	T	T					16												16	0.44	0.44	
17													17												17	0.00	0.00	
18													18												18	0.00	0.00	
19													19												19	0.02	0.02	
20													20												20	0.00	0.00	
21													21												21	0.00	0.00	
22													22												22	0.00	0.00	
23	T	T	T	T	T								23			T	0.18	T						23	0.18	0.18		
24													24												24	0.00	0.00	
25													25												25	T	T	
26													26	0.11	0.05	T	0.04	0.02	0.03	T				26	0.60	0.60		
27													27												27	0.00	0.00	
28													28												28	0.23	0.23	
29	T	T		T	T	T	T	0.01	0.02	0.04	0.01	T	29	T	T		T	T			0.02	0.15	0.04	0.01	0.01	29	0.08	0.08
30													30	0.03	0.12	0.25	0.23	0.09	0.09	T	0.02	0.03	0.02	0.02	T	30	0.92	0.92
31	T	T											31												31	T	T	

* 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)	0.07	0.12	0.14	0.16	0.18	0.24	0.30	0.37	0.44	0.49	0.57	0.62
Ending Date	15	15	15	15	15	30	30	30	30	30	30	30
Ending Time (Hr/Min)	2331	2335	2336	2336	2336	1532	1526	1545	1604	1558	1608	1615

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 DECEMBER 2007

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							7.00	10.00	
03							6.00	10.00	
04							10.00	10.00	
05							0.75	10.00	
06							10.00	10.00	
07							10.00	10.00	
08							8.00	10.00	
09							6.00	10.00	
10							4.00	10.00	
11							0.50	10.00	
12							0.50	10.00	
13							2.50	10.00	
14							0.12	10.00	
15							3.00	10.00	
16							2.00	10.00	
17							10.00	10.00	
18							10.00	10.00	
19							10.00	10.00	
20							6.00	10.00	
21							6.00	10.00	
22							10.00	10.00	
23							0.12	10.00	
24							10.00	10.00	
25							10.00	10.00	
26							2.00	10.00	
27							5.00	10.00	
28							2.00	10.00	
29							1.50	10.00	
30							1.75	10.00	
31							0.25	10.00	
MONTHLY AVGS							5.32	10.00	
SUNSHINE (Minutes)									
Total : 0					Possible : 17909				
Percent Possible : 0									
NUMBER OF DAYS WITH : SKY CONDITION									
Clear		Partly CLDY			Cloudy			Missing	
MINIMUM VISIBILITY (MILES)									
<= .25			<= 3.0				>= 7.0		
3			13				12		

OBSERVATIONS AT 3-HOURLY INTERVALS

RICHMOND, VA

DECEMBER 2007 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		VISIBILITY (MILES)	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	VISIBILITY (MILES)	DRY BULB	DEW POINT	WET BULB	RELATIVE HUMIDITY (PCT)	SPEED (MPH)	DIRECTION Tens of Deg	STATION	SEA LEVEL
SUNRISE: 0705 DEC 01						SUNSET: 1652						SUNRISE: 0710 DEC 07						SUNSET: 1651											
01	SCT	250			10.00	34	20	29	57	0	00	30.11	30.31	01	CLR	NC			10.00	24	15	21	68	0	00	30.22	30.42		
04	BKN	250			10.00	34	21	29	59	0	00	30.12	30.32	04	BKN	250			10.00	23	18	21	81	0	00	30.21	30.40		
07	BKN	250			10.00	35	18	29	50	0	00	30.21	30.41	07	OVC	250			10.00	29	24	27	82	6	22	30.20	30.40		
10	BKN	250			10.00	43	17	34	35	15	02	30.31	30.51	10	OVC	095			10.00	34	27	31	76	7	22	30.20	30.40		
13	SCT	250			10.00	49	11	36	21	10	01	30.26	30.46	13	OVC	250			10.00	41	26	35	55	7	25	30.13	30.33		
16	SCT	250			10.00	48	5	34	17	7	04	30.26	30.45	16	OVC	200			10.00	44	26	37	49	3	22	30.09	30.29		
19	BKN	250			10.00	39	12	30	33	6	06	30.34	30.54	19	OVC	150			10.00	42	29	37	60	0	00	30.10	30.30		
22	OVC	130			10.00	40	15	32	36	6	10	30.34	30.54	22	OVC	090			10.00	42	34	39	73	0	00	30.08	30.28		
SUNRISE: 0706 DEC 02						SUNSET: 1651						SUNRISE: 0711 DEC 08						SUNSET: 1651											
01	OVC	250			10.00	38	21	32	50	6	08	30.30	30.50	01	OVC	065			10.00	43	36	40	76	0	00	30.06	30.26		
04	OVC	250			10.00	37	23	32	57	0	00	30.26	30.45	04	OVC	110			10.00	43	35	40	73	0	00	30.06	30.25		
07	OVC	250			10.00	35	24	31	64	0	00	30.26	30.45	07	OVC	250			10.00	44	36	41	74	0	00	30.07	30.27		
10	OVC	250			10.00	41	27	36	58	3	20	30.23	30.42	10	OVC	090			10.00	47	36	42	66	0	00	30.11	30.30		
13	OVC	140			10.00	50	33	43	52	7	19	30.08	30.27	13	BKN	100			10.00	51	34	43	52	6	36	30.09	30.29		
16	OVC	110			10.00	50	37	44	61	5	18	29.98	30.17	16	BKN	200			10.00	54	36	46	51	5	01	30.12	30.32		
19	OVC	060			10.00	47	42	45	83	6	14	29.87	30.06	19	BKN	200			8.00	44	37	41	77	0	00	30.17	30.36		
22	OVC	060			7.00	50	46	48	86	9	22	29.72	29.91	22	OVC	150			10.00	47	40	44	77	0	00	30.20	30.40		
SUNRISE: 0707 DEC 03						SUNSET: 1651						SUNRISE: 0712 DEC 09						SUNSET: 1651											
01	OVC	080			6.00	54	51	52	90	13	23	29.61	29.81	01	OVC	065			10.00	47	39	43	74	0	00	30.20	30.39		
04	OVC	180			10.00	55	50	52	83	13	26	29.55	29.75	04	OVC	045			10.00	48	41	45	77	0	00	30.21	30.41		
07	BKN	200			10.00	53	48	50	83	13	24	29.52	29.71	07	BKN	250			8.00	45	41	43	86	5	06	30.23	30.43		
10	BKN	250			10.00	57	40	49	53	24	33	29.58	29.77	10	OVC	034			8.00	49	43	46	80	3	08	30.25	30.45		
13	SCT	250			10.00	53	21	40	29	24	33	29.65	29.85	13	BKN	020			10.00	57	46	51	67	8	20	30.16	30.36		
16	SCT	250			10.00	47	20	37	34	18	30	29.71	29.91	16	BKN	250			10.00	60	48	54	65	0	00	30.09	30.28		
19	CLR	NC			10.00	41	18	33	40	21	30	29.77	29.97	19	OVC	250			10.00	55	48	51	77	3	14	30.09	30.28		
22	BKN	140			10.00	37	19	31	48	11	29	29.77	29.96	22	SCT	250			10.00	53	49	51	86	5	18	30.07	30.26		
SUNRISE: 0708 DEC 04						SUNSET: 1651						SUNRISE: 0713 DEC 10						SUNSET: 1651											
01	OVC	140			10.00	36	17	30	46	14	29	29.73	29.93	01	CLR	NC			4.00	55	53	54	93	8	22	30.01	30.21		
04	BKN	250			10.00	34	17	28	50	9	28	29.69	29.89	04	SCT	250			6.00	62	58	60	87	13	25	30.01	30.20		
07	BKN	250			10.00	34	16	28	48	9	28	29.70	29.90	07	BKN	250			6.00	61	58	59	90	10	24	30.02	30.21		
10	BKN	250			10.00	40	18	32	41	15	28	29.69	29.88	10	BKN	250			8.00	70	59	63	68	6	25	30.04	30.24		
13	BKN	250			10.00	45	15	34	30	18	32	29.63	29.83	13	BKN	250			10.00	77	57	65	50	13	25	29.98	30.17		
16	BKN	250			10.00	45	15	34	30	9	30	29.59	29.79	16	BKN	250			10.00	77	56	64	48	9	27	29.98	30.17		
19	BKN	250			10.00	38	15	30	39	9	36	29.65	29.85	19	BKN	250			10.00	70	57	62	64	0	00	30.02	30.21		
22	SCT	250			10.00	32	15	27	49	0	00	29.69	29.88	22	FEW	250			7.00	55	49	52	80	10	05	30.07	30.27		
SUNRISE: 0709 DEC 05						SUNSET: 1651						SUNRISE: 0714 DEC 11						SUNSET: 1651											
01	FEW	090			10.00	27	16	24	63	0	00	29.67	29.86	01	OVC	007			4.00	50	47	49	90	6	06	30.11	30.31		
04	SCT	120			10.00	27	17	24	66	0	00	29.66	29.86	04	OVC	013			8.00	49	45	47	86	6	05	30.13	30.32		
07	OVC	090			10.00	30	23	28	75	0	00	29.66	29.86	07	OVC	009			9.00	48	44	46	86	5	03	30.19	30.38		
10	OVC	037			10.00	36	26	32	67	10	17	29.61	29.81	10	OVC	010			6.00	51	45	48	80	0	00	30.21	30.41		
13	OVC	006			1.00	34	32	33	92	5	17	29.52	29.72	13	OVC	012			7.00	54	48	51	80	5	18	30.13	30.32		
16	BKN	085			10.00	38	34	36	86	0	00	29.44	29.64	16	OVC	010			2.00	54	49	51	83	10	20	30.07	30.26		
19	OVC	070			7.00	38	34	36	86	5	03	29.53	29.72	19	OVC	005			2.00	53	51	52	93	9	20	30.06	30.25		
22	OVC	030			7.00	36	32	34	85	16	02	29.67	29.87	22	OVC	002			1.25	53	52	52	96	9	21	30.00	30.19		
SUNRISE: 0709 DEC 06						SUNSET: 1651						SUNRISE: 0714 DEC 12						SUNSET: 1652											
01	OVC	028			10.00	31	24	29	75	14	01	29.83	30.03	01	BKN	009			0.50	55	53	54	93	13	21	29.91	30.10		
04	CLR	NC			10.00	28	20	25	72	10	02	29.94	30.14	04	CLR	NC			2.50	55	53	54	93	8	22	29.86	30.06		
07	CLR	NC			10.00	26	16	23	66	13	02	30.08	30.28	07	CLR	NC			9.00	58	54	56	87	10	25	29.84	30.03		
10	CLR	NC			10.00	30	13	25	49	14	01	30.16	30.36	10	FEW	250			10.00	68	55	60	63	10	27	29.87	30.06		
13	FEW	250			10.00	36	12	28	37	6	06	30.15	30.35	13	BKN	200			10.00	76	53	63	45	13	27	29.83	30.02		
16	FEW	250			10.00	37	9	28	31	0	00	30.15	30.35	16	BKN	150			10.00	75	55	63	50	3	29	29.86	30.05		
19	SCT	200			10.00	29	13	24	51	5	14	30.19	30.39	19	BKN	150			10.00	57	45	51	64	14	06	29.98	30.17		
22	FEW	250			10.00	26	15	23	63	0	00	30.23	30.43	22	BKN	150			10.00	53	40	47	62	6	06	30.04	30.23		

OBSERVATIONS AT 3-HOURLY INTERVALS

RICHMOND, VA

DECEMBER 2007 KRIC

WBAN # 13740

HOUR (LST)	SKY COVER	CEILING 100's of FT.	SATELLITE		WEATHER	TEMPERATURE °F			WIND SPEED (MPH) DIRECTION Tens of Deg	PRESSURE (INCHES, HG)		HOUR (LST)	SKY COVER	CEILING 100's of FT.	SATELLITE		WEATHER	TEMPERATURE °F			WIND SPEED (MPH) DIRECTION Tens of Deg	PRESSURE (INCHES, HG)					
			Observation Time (LST)	Eff Cld Amt Oktas		VISIBILITY (MILES)	DRY BULB	DEW POINT		WET BULB	RELATIVE HUMIDITY (PCT)				STATION	SEA LEVEL		Observation Time (LST)	Eff Cld Amt Oktas	VISIBILITY (MILES)		DRY BULB	DEW POINT	WET BULB	RELATIVE HUMIDITY (PCT)	STATION	SEA LEVEL
SUNRISE: 0715 DEC 13						SUNSET: 1652						SUNRISE: 0719 DEC 19						SUNSET: 1654									
01	OVC	040				51	37	45	59	8	07	30.07	30.26	01	OVC	150				35	23	31	62	7	18	30.11	30.31
04	OVC	040				49	37	44	63	8	09	30.06	30.25	04	OVC	150				34	22	30	62	5	19	30.08	30.28
07	OVC	028				48	36	43	63	9	11	30.01	30.21	07	OVC	250				35	23	31	62	9	19	30.05	30.24
10	OVC	021				48	37	43	66	8	14	29.98	30.17	10	BKN	100				42	21	34	43	13	22	30.03	30.23
13	OVC	017				51	41	46	69	7	18	29.81	30.00	13	OVC	100				43	33	39	68	15	25	29.95	30.14
16	OVC	095				53	47	50	80	11	32	29.79	29.98	16	BKN	080				47	32	41	56	6	26	29.92	30.11
19	OVC	080			BR	50	48	49	93	3	22	29.82	30.01	19	CLR	NC				36	30	34	79	6	24	29.96	30.16
22	OVC	085			BR	51	48	49	90	5	26	29.85	30.04	22	CLR	NC				33	30	32	89	0	00	29.98	30.18
SUNRISE: 0716 DEC 14						SUNSET: 1652						SUNRISE: 0719 DEC 20						SUNSET: 1654									
01	FEW	150				49	46	48	89	5	28	29.87	30.06	01	CLR	NC				30	28	29	92	3	24	29.97	30.16
04	VV	001			FG	42	42	42	100	3	07	29.91	30.10	04	CLR	NC				32	29	31	89	0	00	29.97	30.16
07	VV	001			FG	40	40	40	100	3	06	29.96	30.16	07	FEW	200			BCFG	31	29	30	92	5	01	30.02	30.22
10	VV	001			FG	43	43	43	100	0	00	30.02	30.22	10	BKN	250				38	30	35	73	7	05	30.08	30.28
13	OVC	009				48	43	46	83	6	05	30.00	30.19	13	FEW	250				45	28	38	51	0	00	30.03	30.22
16	BKN	250				49	42	46	77	7	03	30.01	30.21	16	FEW	250				48	28	40	46	0	00	30.01	30.21
19	OVC	002			BR	43	42	43	96	6	05	30.06	30.26	19	BKN	200				37	28	34	70	3	09	30.02	30.22
22	BKN	002			BR	41	39	40	93	7	04	30.13	30.32	22	BKN	250				34	27	31	76	0	00	30.06	30.26
SUNRISE: 0716 DEC 15						SUNSET: 1652						SUNRISE: 0720 DEC 21						SUNSET: 1655									
01	SCT	250				37	31	35	79	7	05	30.17	30.37	01	OVC	200				35	30	33	82	0	00	30.05	30.25
04	OVC	032				38	28	34	67	6	05	30.19	30.38	04	OVC	130				36	30	34	79	3	03	30.05	30.25
07	BKN	250				34	26	31	73	5	05	30.19	30.38	07	OVC	140				37	30	34	76	3	08	30.06	30.25
10	OVC	200				39	28	35	65	9	08	30.21	30.41	10	OVC	150				41	32	37	70	9	06	30.11	30.30
13	OVC	050				40	27	35	60	8	08	30.15	30.35	13	OVC	090				44	34	40	68	6	06	30.08	30.27
16	OVC	042				37	32	35	82	10	06	30.05	30.24	16	OVC	027				46	36	42	68	9	07	30.07	30.27
19	OVC	031				36	34	35	92	8	04	29.95	30.15	19	SCT	060				39	34	37	82	7	04	30.12	30.32
22	OVC	010			BR	38	37	38	96	7	05	29.78	29.98	22	OVC	060				42	36	39	79	8	04	30.15	30.34
SUNRISE: 0717 DEC 16						SUNSET: 1653						SUNRISE: 0721 DEC 22						SUNSET: 1655									
01	OVC	012			+RA BR	38	37	38	96	13	01	29.56	29.76	01	OVC	013				42	38	40	86	7	04	30.17	30.36
04	OVC	008			-RA BR	36	35	36	96	11	06	29.34	29.53	04	OVC	014				43	39	41	86	9	04	30.17	30.37
07	OVC	005			-DZ BR	36	35	36	96	0	00	29.31	29.51	07	OVC	009				44	40	42	86	6	05	30.21	30.41
10	OVC	002			BR	37	36	37	96	10	27	29.25	29.44	10	OVC	014				47	41	44	80	8	06	30.25	30.44
13	BKN	015				45	40	43	83	17	26	29.23	29.42	13	OVC	016				49	41	45	74	7	07	30.20	30.39
16	SCT	055				48	29	40	48	25	29	29.29	29.49	16	OVC	016				49	41	45	74	9	07	30.20	30.40
19	CLR	NC				40	20	33	45	21	29	29.45	29.65	19	OVC	070				47	41	44	80	5	06	30.18	30.37
22	CLR	NC				38	20	32	48	16	27	29.52	29.72	22	OVC	011				46	41	44	83	6	02	30.14	30.34
SUNRISE: 0718 DEC 17						SUNSET: 1653						SUNRISE: 0721 DEC 23						SUNSET: 1656									
01	CLR	NC				35	18	29	50	14	29	29.62	29.82	01	OVC	005			4.00 -RA BR	45	42	44	89	5	02	30.08	30.28
04	CLR	NC				33	17	28	52	13	28	29.73	29.92	04	VV	001			0.50 -DZ FG	44	44	44	100	3	04	30.04	30.23
07	CLR	NC				33	15	27	48	7	30	29.85	30.05	07	VV	001			0.25 FG	45	45	45	100	0	00	29.97	30.16
10	CLR	NC				37	15	30	41	11	31	29.96	30.15	10	OVC	001			1.00 BR	50	49	49	96	7	16	29.90	30.10
13	FEW	060				42	14	32	32	15	33	29.96	30.16	13	OVC	200				61	58	59	90	15	17	29.72	29.92
16	CLR	NC				42	12	32	29	9	29	29.98	30.18	16	OVC	095			3.00 -RA BR	64	62	63	93	15	21	29.66	29.85
19	CLR	NC				37	15	30	41	5	25	30.03	30.23	19	BKN	030				64	58	60	81	16	24	29.68	29.88
22	CLR	NC				29	17	25	61	7	02	30.10	30.29	22	FEW	030				58	45	51	62	17	27	29.73	29.92
SUNRISE: 0718 DEC 18						SUNSET: 1653						SUNRISE: 0721 DEC 24						SUNSET: 1656									
01	CLR	NC				27	17	24	66	0	00	30.14	30.34	01	CLR	NC				49	30	41	48	11	27	29.78	29.97
04	CLR	NC				24	17	22	75	0	00	30.19	30.39	04	CLR	NC				43	28	37	56	7	27	29.81	30.01
07	CLR	NC				22	16	20	78	0	00	30.23	30.43	07	FEW	250				36	25	32	64	7	25	29.87	30.06
10	FEW	250				32	20	28	61	3	18	30.29	30.48	10	FEW	250				44	23	36	44	10	26	29.94	30.13
13	BKN	250				40	17	32	39	6	24	30.23	30.43	13	SCT	250				51	21	39	31	13	25	29.89	30.08
16	OVC	250				42	14	33	32	0	00	30.19	30.39	16	SCT	250				53	21	40	29	9	24	29.89	30.09
19	BKN	250				36	17	30	46	6	17	30.18	30.38	19	BKN	250				43	24	36	47	6	20	29.94	30.13
22	OVC	250				36	22	31	57	5	19	30.18	30.38	22	BKN	250				44	25	37	47	6	24	29.96	30.16

OBSERVATIONS AT 3-HOURLY INTERVALS

RICHMOND, VA

DECEMBER 2007

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: 0722 DEC 25						SUNSET: 1657								
01	OVC	250				41	25	35	53	0	00	29.98	30.18	
04	OVC	200				41	28	36	60	5	35	30.03	30.22	
07	OVC	200				37	29	34	73	0	00	30.08	30.28	
10	OVC	250				47	27	39	46	8	06	30.16	30.35	
13	BKN	250				49	25	39	39	0	00	30.10	30.30	
16	BKN	250				50	27	41	41	6	06	30.08	30.27	
19	OVC	250				40	30	36	68	0	00	30.09	30.29	
22	BKN	250				35	30	33	82	0	00	30.07	30.27	
SUNRISE: 0722 DEC 26						SUNSET: 1657								
01	OVC	200				36	29	33	76	0	00	30.06	30.25	
04	OVC	150				37	32	35	82	7	02	29.98	30.18	
07	OVC	130				39	32	36	76	9	05	29.95	30.15	
10	OVC	055			-RA BR	38	36	37	93	14	02	29.90	30.10	
13	OVC	080			-RA BR	39	36	38	89	20	02	29.76	29.95	
16	OVC	070			RA BR	39	36	38	89	10	01	29.79	29.99	
19	OVC	075			BR	38	36	37	93	11	36	29.82	30.01	
22	OVC	006			BR	38	36	37	93	9	35	29.83	30.03	
SUNRISE: 0723 DEC 27						SUNSET: 1658								
01	FEW	070			BR	36	34	35	92	3	32	29.82	30.02	
04	OVC	019			BR	38	36	37	93	5	31	29.84	30.03	
07	BKN	032				39	34	37	82	0	00	29.89	30.09	
10	BKN	100				44	37	41	77	5	23	29.91	30.11	
13	FEW	095				55	38	47	53	16	24	29.85	30.05	
16	CLR	NC				57	41	49	55	9	23	29.88	30.07	
19	SCT	100				47	40	44	77	5	23	29.95	30.14	
22	CLR	NC				44	40	42	86	0	00	30.00	30.19	
SUNRISE: 0723 DEC 28						SUNSET: 1659								
01	FEW	150				43	40	42	89	0	00	30.03	30.22	
04	CLR	NC			BR	38	37	38	96	0	00	30.08	30.27	
07	FEW	150			BR	34	34	34	100	5	04	30.13	30.33	
10	OVC	060				47	39	43	74	6	12	30.13	30.32	
13	OVC	200				53	37	46	55	9	12	30.08	30.27	
16	OVC	060				52	41	47	66	8	13	30.04	30.23	
19	OVC	150				50	44	47	80	8	13	30.00	30.20	
22	OVC	040			-RA BR	50	49	49	96	13	15	29.89	30.08	
SUNRISE: 0723 DEC 29						SUNSET: 1659								
01	OVC	060			-RA	58	56	57	93	16	21	29.81	30.01	
04	OVC	028				60	59	59	97	9	22	29.77	29.97	
07	OVC	006			-RA BR	51	51	51	100	3	29	29.79	29.99	
10	OVC	022			-RA BR	56	54	55	93	6	32	29.84	30.03	
13	OVC	030			BR	53	51	52	93	0	00	29.82	30.01	
16	OVC	030			-DZ	53	50	51	90	0	00	29.83	30.02	
19	BKN	060				52	49	50	90	0	00	29.89	30.08	
22	BKN	055				50	48	49	93	0	00	29.91	30.11	
SUNRISE: 0723 DEC 30						SUNSET: 1700								
01	BKN	250			BR	47	46	47	96	3	07	29.92	30.11	
04	OVC	250				45	40	43	83	6	07	29.95	30.14	
07	OVC	250				44	35	40	71	6	09	29.95	30.15	
10	OVC	032				45	36	41	71	7	08	29.97	30.17	
13	OVC	018			-RA	43	40	42	89	6	04	29.87	30.06	
16	OVC	055			+RA BR	41	40	41	96	9	07	29.80	29.99	
19	OVC	005				42	41	42	96	15	13	29.66	29.85	
22	OVC	005			BR	43	43	43	100	0	00	29.64	29.83	

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: 0724 DEC 31						SUNSET: 1701								
01	OVC	009			-RA BR	41	40	41	96	10	33	29.70	29.89	
04	FEW	075				39	37	38	93	3	31	29.72	29.92	
07	OVC	002			BR	39	38	39	96	7	29	29.83	30.03	
10	CLR	NC				44	36	40	74	7	29	29.92	30.11	
13	CLR	NC				53	31	43	43	8	27	29.90	30.09	
16	CLR	NC				55	26	43	33	0	00	29.90	30.09	
19	CLR	NC				42	32	38	68	0	00	29.93	30.12	
22	CLR	NC				39	33	37	79	6	17	29.94	30.13	

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.

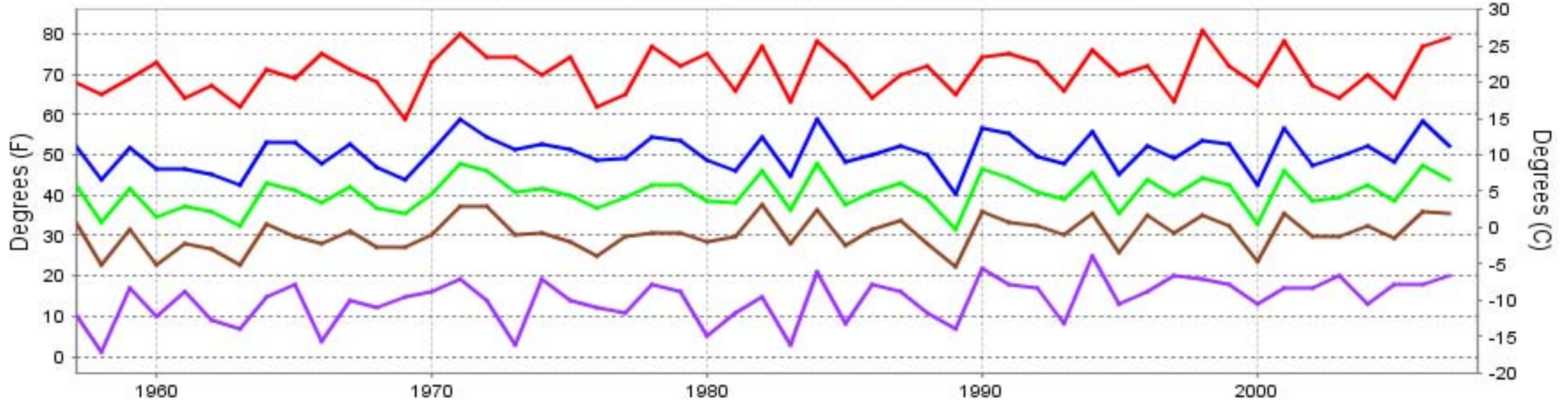
& = Original observation contained additional weather elements.

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			41	34	38	76	29.96	30.15	7.89	6	2	31
02			41	34	38	77	29.96	30.15	8.40	5	2	31
03			40	34	38	78	29.96	30.16	8.21	6	2	32
04			40	33	38	78	29.96	30.15	8.29	5	2	32
05			40	33	37	78	29.96	30.16	8.17	5	2	32
06			39	33	37	78	29.97	30.16	7.73	5	1	35
07			39	33	37	78	29.98	30.18	8.11	5	1	33
08			40	33	37	78	29.98	30.18	7.78	6	1	32
09			42	34	39	73	29.99	30.19	7.98	7	1	33
10			45	34	40	68	30.00	30.20	8.37	8	1	32
11			47	34	41	63	29.99	30.19	8.38	9	2	31
12			48	34	42	61	29.97	30.16	8.60	9	2	30
13			49	34	43	59	29.94	30.14	8.84	10	3	29
14			50	34	43	56	29.93	30.12	9.19	9	3	29
15			51	34	44	56	29.92	30.11	9.28	9	3	29
16			50	34	43	58	29.93	30.12	8.92	7	2	30
17			48	34	42	62	29.94	30.13	8.87	8	1	34
18			45	34	41	68	29.94	30.14	8.76	6	1	35
19			44	34	40	71	29.95	30.15	8.85	7	1	35
20			43	35	40	73	29.96	30.16	8.60	6	1	33
21			43	35	40	75	29.96	30.15	8.15	6	1	36
22			42	35	39	76	29.96	30.15	8.17	6	2	33
23			42	34	39	76	29.96	30.15	8.27	6	1	33
24			42	34	39	75	29.96	30.15	8.31	7	2	31

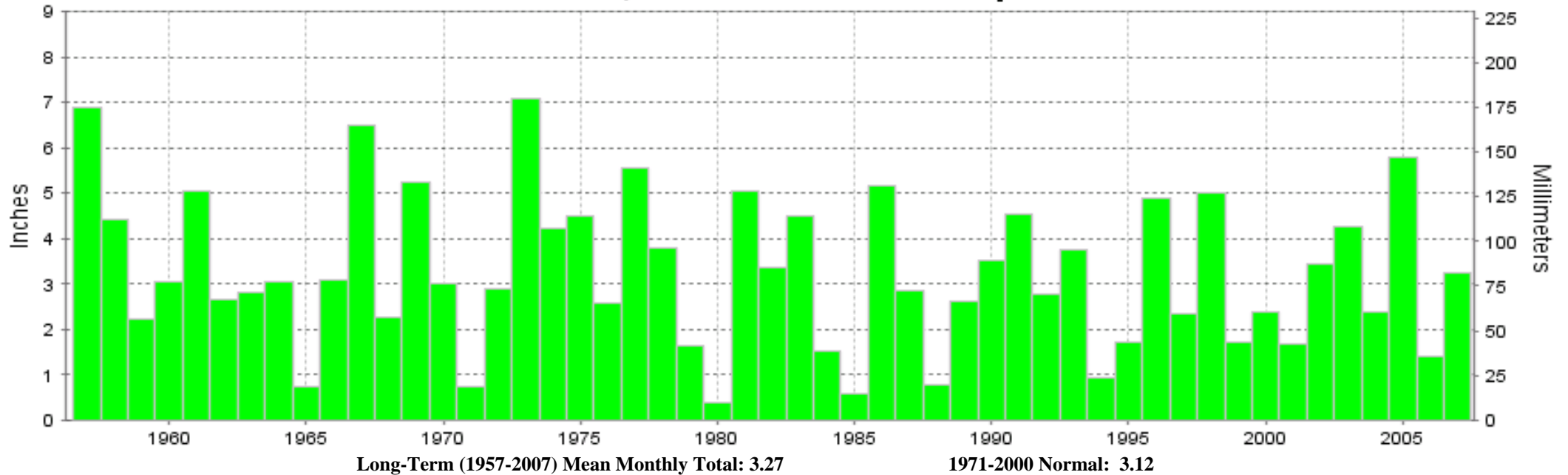
RICHMOND, VA DECEMBER Temperatures



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

Long-Term (1957-2007) Mean: 40.4
1971-2000 Normal: 40.4

RICHMOND, VA DECEMBER Precipitation



Long-Term (1957-2007) Mean Monthly Total: 3.27

1971-2000 Normal: 3.12



**DECEMBER 2007
RICHMOND, VA**

**LOCAL CLIMATOLOGICAL DATA
NOAA, National Climatic Data Center**

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