



DECEMBER 2005

LOCAL CLIMATOLOGICAL DATA

NOAA, National Climatic Data Center

RICHMOND, VA

RICHMOND INTL AIRPORT (RIC)
 Lat: 37°30' N Long: 77°19' W Elev (Ground): 164 Feet
 Time Zone: EASTERN WBAN: 13740 ISSN #:0198-537X

DECEMBER 2005
RICHMOND, VA

DATE	TEMPERATURE °F							DEG DAYS BASE 65°		WEATHER	SNOW/ICE ON GND(IN)		PRECIPITATION (INCHES)		PRESSURE (INCHES OF HG)		WIND SPEED = MPH DIR = TENS OF DEGREES								DATE
	MAXIMUM	MINIMUM	AVERAGE	DEP FROM NORMAL	AVERAGE DEW PT	AVERAGE WET BULB	HEATING	COOLING	0700 LST		1300 LST	2400 LST	2400 LST	AVERAGE STATION	AVERAGE SEA LEVEL	RESULTANT SPEED	RES DIR	AVERAGE SPEED	MAXIMUM						
																			5-SEC		2-MIN				
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	48	33	41	-4	30	37	24	0	RA			0.0	0.01	29.74	29.93	3.8	32	6.8	18	01	16	36	01		
02	47	31	39	-5	19	32	26	0				0.0	0.00	29.75	29.94	11.5	29	12.2	35*	29	28*	29	02		
03	43	30	37	-7	17	31	28	0	RA			0.0	0.08	29.97	30.16	1.8	24	4.7	14	18	12	18	03		
04	64*	39	52*	-9	42	46	13	0	RA			0.0	0.04	29.73	29.92	4.2	22	11.1	24	24	20	01	04		
05	43	32	38	-5	32	34	27	0	RA SN FG+ BR			4.2	1.30	29.90	30.09	6.1	04	6.7	17	02	14	01	05		
06	38	27	33	-10	27	31	32	0	RA SN PL BR			0.2	0.03	30.00	30.19	3.8	33	5.8	15	34	13	34	06		
07	42	22	32	-11	21	28	33	0	MIFG BR			0.0	0.00	30.30	30.50	2.7	30	4.5	16	31	14	31	07		
08	38	24	31	-11	17	26	34	0	UP			0.0	T	30.44	30.64	4.6	06	5.9	16	13	14	13	08		
09	43	31	37	-5	26	32	28	0	RA FZRA BR UP			T	0.50	29.99	30.18	6.7	25	32	20	31	20	01	09		
10	45	22	34	-8	24	29	31	0				0.0	0.00	29.88	30.08	6.0	19	6.0	21	17	16	20	10		
11	50	29	40	-1	26	35	25	0				0.0	0.00	29.55	29.74	10.1	25	10.7	28	25	23	27	11		
12	49	32	41	0	27	35	24	0	RA			0.0	T	29.68	29.87	3.1	27	8.3	23	28	18	27	12		
13	37	22	30	-11	13	25	35	0				0.0	0.00	30.07	30.27	10.1	01	10.3	28	01	23	01	13		
14	31	19	25*	-16	14	22	40	0				0.0	0.00	30.25	30.45	5.4	03	5.8	14	03	10	02	14		
15	55	29	42	2	35	37	23	0	RA FZRA SN PL BR			T	1.84	29.86	30.05	5.7	07	9.0	25	25	18	27	15		
16	50	35	43	3	32	38	22	0	RA BR			0.0	0.06	29.78	29.97	6.4	27	7.0	21	25	18	27	16		
17	43	32	38	-2	29	34	27	0				0.0	0.00	30.28	30.48	0.7	18	2.3	10	14	9	15	17		
18	45	30	38	-2	31	35	27	0	RA SN BR			T	0.02	30.27	30.47	3.0	03	3.4	12	03	9	02	18		
19	48	25	37	-3	26	32	28	0	BCFG BR			0.0	0.00	30.09	30.29	3.7	34	4.7	17	31	15	31	19		
20	42	18	30	-9	14	25	35	0				0.0	0.00	30.04	30.24	1.9	27	3.1	14	31	12	26	20		
21	38	19	29	-10	15	24	36	0				0.0	0.00	30.06	30.26	0.8	04	2.8	13	22	10	21	21		
22	44	18*	31	-8	19	27	34	0				0.0	0.00	30.08	30.28	3.6	20	5.1	15	19	12	19	22		
23	60	24	42	3	20	33	23	0				0.0	0.00	29.87	30.07	8.8	21	9.1	20	22	16	22	23		
24	60	30	45	7	23	35	20	0				0.0	0.00	29.76	29.95	6.5	19	7.0	14	19	13	18	24		
25	60	37	49	11	40	44	16	0	RA FG+ BR			0.0	1.70	29.46	29.65	4.4	16	7.4	24	24	21	24	25		
26	52	40	46	8	35	41	19	0	RA			0.0	T	29.41	29.60	11.9	27	12.7	33	30	25	28	26		
27	50	29	40	2	28	35	25	0				0.0	0.00	29.77	29.96	2.5	26	4.1	14	31	12	30	27		
28	60	32	46	8	36	42	19	0	RA			0.0	0.07	29.61	29.80	9.3	17	9.5	23	16	20	19	28		
29	52	44	48	10	45	47	17	0	RA BR			0.0	0.16	29.31	29.50	5.2	26	7.6	22	19	17	18	29		
30	55	33	44	7	33	40	21	0				0.0	0.00	29.66	29.85	1.1	02	5.0	18	36	16	01	30		
31	59	35	47	10	37	42	18	0	RA			0.0	T	29.63	29.82	2.6	21	5.9	20	24	16	01	31		
48.1 29.1 38.6 ■■										26.9 34.0 26.1 0.0		< MONTHLY AVERAGES TOTALS->		4.4	5.81	29.88	30.07			6.8	<- MONTHLY AVERAGES				
-1.6 -2.0 -1.8 ■■				<-----DEPARTURE FROM NORMAL----->										2.69		SUNSHINE, CLOUD, & VISIBILITY TABLES ON PAGE 3									
DEGREE DAYS										GREATEST 24-HR PRECIPITATION: 1.90 DATE :15-16				SEA LEVEL PRESSURE DATE TIME											
MONTHLY TOTAL DEPARTURE										GREATEST 24-HR SNOWFALL: 4.2 DATE :05				MAXIMUM : 30.78 08 0954											
SEASON TO DATE TOTAL DEPARTURE										GREATEST SNOW DEPTH: DATE :				MINIMUM : 29.41 29 1154											
HEATING: 810		62		1321		-150				NUMBER OF DAYS WITH =>		MAXIMUM TEMP ≥ 90: 0		MINIMUM TEMP ≤ 32: 23		PRECIPITATION ≥ 0.01 INCH : 12									
COOLING: 0		-1		1838		403						MAXIMUM TEMP ≤ 32 : 1		MINIMUM TEMP ≤ 0 : 0		PRECIPITATION ≥ 0.10 INCH : 5									
												THUNDERSTORMS : 0		HEAVY FOG : 2		SNOWFALL ≥ 1.0 INCH : 1									

HOURLY PRECIPITATION

(WATER EQUIVALENT IN INCHES)

RICHMOND, VA

DECEMBER 2005

RIC

WBAN # 13740

DATE	FOR HOUR (LST) ENDING AT												DATE	FOR HOUR (LST) ENDING AT												DATE	Sum if Different (See Note)	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													01					T	0.01						01		0.01		
02													02												02		0.00		
03													03										0.02	0.06	03		0.08		
04	0.03	T		0.03	T	T	0.01	T					04										T		04		0.04		
05	T	0.01	0.01	0.03	0.02	0.06	0.07	0.04	0.03	0.10	0.08	0.05	05	0.07	0.08	0.08	0.12	0.05	T	0.04	0.02	0.13	0.10	0.03	0.07	05	1.29	1.30	
06	0.01	0.02	T	T	T	T							06												06		0.03		
07													07												07		0.00		
08													08											T	08		T		
09	T	T	0.05	0.15	0.11	0.19	0.11	0.01					09												09	0.62	0.50		
10													10												10		0.00		
11													11												11		0.00		
12													12												12		T		
13													13												13		0.00		
14													14												14		0.00		
15						T	T	T	T	0.04	0.03	0.03	15	0.02	0.03	0.07	0.05	0.10	0.22	0.31	0.24	0.05	0.44	0.15	0.06	15		1.84	
16	0.06												16												16		0.06		
17													17												17		0.00		
18							T	0.01	0.01	T	T		18												18		0.02		
19													19												19		0.00		
20													20												20		0.00		
21													21												21		0.00		
22													22												22		0.00		
23													23												23		0.00		
24													24												24		0.00		
25								T	T	0.35	0.21	0.03	25	T	0.01	0.04	0.66	T		T	0.40	T		25		1.70			
26						T							26												26		T		
27													27												27		0.00		
28													28										0.02	0.03	0.02	28		0.07	
29	0.07	0.05	0.01	T				T	0.02	T	T	T	29		T	0.01	T							29		0.16			
30													30												30		0.00		
31									T				31												31		T		

MAXIMUM SHORT DURATION PRECIPITATION (See Note)

Time Period (Minutes)	5	10	15	20	30	45	60	80	100	120	150	180
Precipitation (Inches)	.32	.40	.49	.57	.65	.66	.66	.68	.68	.70	.75	.79
Ending Date	25	25	25	25	25	25	25	25	25	25	15	15
Ending Time (Hour/Min)	1909	1536	1541	1546	1554	1554	1554	1554	1554	1554	1947	1947

Date and time are not entered for TRACE amounts.

Note : The sum of the hourly totals is given when it differs from the daily total. 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.

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		
	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	SQ Squalls
PR Partial	RA Rain	PY Spray	SS Sandstorm
SH Shower(s)	SG Snow Grains	SA Sand	GL Glaze
TS Thunderstorm	SN Snow	VA Volcanic Ash	
VC In the Vicinity	UP Unknown Precipitation		

Intensity (as indicated on pages 4 to 6):
'+' = Heavy ' ' = Moderate '-' = Light

RICHMOND, VA DECEMBER 2005

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:

DATE	SUNSHINE		CLOUDINESS (OKTAS)				VISIBILITY (MILES)		RESERVED
	TOTAL MINUTES	PERCENT POSSIBLE	SR–SS		MN–MN		MINIMUM	MAXIMUM	
			CEILOMETER	SATELLITE	CEILOMETER	SATELLITE			
01							10.00	10.00	
02							10.00	10.00	
03							7.00	10.00	
04							10.00	10.00	
05							.25	10.00	
06							1.50	10.00	
07							6.00	10.00	
08							10.00	10.00	
09							2.00	10.00	
10							9.00	10.00	
11							10.00	10.00	
12							10.00	10.00	
13							10.00	10.00	
14							10.00	10.00	
15							1.50	10.00	
16							10.00	10.00	
17							10.00	10.00	
18							5.00	10.00	
19							4.00	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							.25	10.00	
26							7.00	10.00	
27							10.00	10.00	
28							7.00	10.00	
29							.75	10.00	
30							10.00	10.00	
31							10.00	10.00	
MONTHLY AVGS							7.46	10.00	
SUNSHINE (MINUTES)									
Total: Possible: Percent Possible:									
NUMBER OF DAYS WITH: SKY CONDITION									
CLR PTLY CLDY CLOUDY MISSING 31									
MINIMUM VISIBILITY (MILES)									
<=0.25 <=3.0 >=7.0 2 6 22									

OBSERVATIONS AT 3-HOURLY INTERVALS

RICHMOND, VA

DECEMBER 2005

RIC

WBAN # 13740

HOUR (LST)	SKY COVER		CEILING 100'S OF FT	SATELLITE		OBSERVATION TIME (LST)	EFF CLD AMT Okta	VISIBILITY (MILES)	WEATHER	TEMPERATURE °F				WIND		PRESSURE (INCHES, HG)		HOUR (LST)	SKY COVER		CEILING 100'S OF FT	SATELLITE		OBSERVATION TIME (LST)	EFF CLD AMT Okta	VISIBILITY (MILES)	WEATHER	TEMPERATURE °F				WIND		PRESSURE (INCHES, HG)		
	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					DRY BULB	DEW POINT	WET BULB	RELATIVE HUMIDITY (PCT)	SPEED (MPH)	DIRECTION TENS OF DEG	STATION	SEA LEVEL	
																																				DRY BULB
SUNRISE: 0705										DEC 01				SUNSET: 1652				SUNRISE: 0711										DEC 07				SUNSET: 1651				
01	CLR	NC						10.00		39	30	35	70	8	01	29.88	30.08	01	CLR	NC							7.00		25	23	24	92	5	21	30.15	30.35
04	CLR	NC						10.00		35	28	32	76	8	35	29.87	30.06	04	CLR	NC						9.00		26	22	25	84	0	00	30.18	30.38	
07	SCT	NC						10.00		33	27	31	78	8	35	29.86	30.06	07	CLR	NC					7.00	MIFG	22	20	21	92	0	00	30.24	30.44		
10	BKN	250						10.00		41	27	35	57	9	01	29.84	30.03	10	CLR	NC					10.00		34	25	31	70	7	30	30.30	30.50		
13	BKN	150						10.00		46	29	39	51	3	05	29.70	29.90	13	CLR	NC					10.00		39	21	33	48	8	29	30.28	30.47		
16	SCT	NC						10.00		48	30	40	50	8	27	29.62	29.81	16	CLR	NC					10.00		40	20	33	45	8	28	30.31	30.51		
19	OVC	042						10.00	-RA	44	34	40	68	3	VR	29.61	29.81	19	CLR	NC					10.00		32	23	29	69	0	00	30.38	30.58		
22	BKN	100						10.00		39	34	37	82	5	21	29.60	29.80	22	CLR	NC					10.00		31	19	27	61	9	03	30.44	30.64		
SUNRISE: 0706										DEC 02				SUNSET: 1651				SUNRISE: 0712										DEC 08				SUNSET: 1651				
01	CLR	NC						10.00		41	32	37	70	12	29	29.60	29.80	01	CLR	NC					10.00		28	17	25	63	9	03	30.48	30.68		
04	CLR	NC						10.00		36	31	34	82	6	26	29.64	29.83	04	CLR	NC					10.00		27	15	23	61	9	04	30.50	30.71		
07	FEW	NC						10.00		36	28	33	73	12	26	29.68	29.88	07	CLR	NC					10.00		23	16	21	74	5	36	30.55	30.75		
10	FEW	NC						10.00		44	25	37	47	16	27	29.72	29.91	10	CLR	NC					10.00		29	14	24	54	6	04	30.58	30.78		
13	SCT	NC						10.00		47	14	35	26	21	31	29.70	29.90	13	CLR	NC					10.00		33	16	28	49	3	05	30.47	30.67		
16	CLR	NC						10.00		43	10	32	26	15	30	29.76	29.95	16	CLR	NC					10.00		33	17	28	52	7	09	30.41	30.61		
19	CLR	NC						10.00		37	9	28	31	9	30	29.85	30.04	19	BKN	095					10.00		31	18	27	59	5	04	30.39	30.59		
22	CLR	NC						10.00		32	11	26	41	7	31	29.91	30.11	22	OVC	080					10.00		31	23	28	72	9	11	30.24	30.44		
SUNRISE: 0707										DEC 03				SUNSET: 1651				SUNRISE: 0712										DEC 09				SUNSET: 1651				
01	FEW	NC						10.00		30	12	25	47	5	27	29.93	30.12	01	OVC	055				10.00	UP	32	25	29	75	0	00	30.05	30.24			
04	OVC	150						10.00		31	14	26	49	3	33	29.96	30.16	04	OVC	006				2.00	FZRA BR	32	30	31	92			30.00	30.20			
07	OVC	150						10.00		33	20	29	59	0	00	30.02	30.22	07	OVC	004				8.00	-RA	33	32	33	96			29.89	30.09			
10	OVC	080						10.00		37	12	29	36	8	31	30.05	30.25	10	BKN	006				10.00		35	32	34	89	8	29	29.95	30.14			
13	SCT	NC						10.00		41	9	31	27	3	25	29.98	30.18	13	CLR	NC				10.00		42	23	35	47	15	30	29.92	30.12			
16	OVC	100						10.00		43	13	33	29	0	00	29.96	30.16	16	CLR	NC				10.00		42	23	35	47	12	34	29.97	30.16			
19	OVC	100						10.00		41	22	34	47	3	18	29.94	30.14	19	CLR	NC				10.00		36	24	32	62	10	01	30.04	30.24			
22	OVC	050						10.00		43	23	35	45	9	18	29.90	30.09	22	CLR	NC				10.00		30	20	27	66	0	00	30.08	30.28			
SUNRISE: 0708										DEC 04				SUNSET: 1651				SUNRISE: 0713										DEC 10				SUNSET: 1651				
01	OVC	050						10.00	-RA	39	34	37	82	7	16	29.79	29.98	01	CLR	NC				10.00		26	20	24	78	0	00	30.06	30.26			
04	OVC	043						10.00		42	39	41	89	8	19	29.66	29.85	04	CLR	NC				10.00		24	20	23	84	0	00	30.04	30.24			
07	OVC	065						10.00		45	42	44	90	12	21	29.62	29.81	07	CLR	NC				9.00		23	20	22	88	0	00	30.04	30.24			
10	BKN	200						10.00		52	45	48	77	14	23	29.65	29.85	10	BKN	250				10.00		32	24	29	73	8	18	30.02	30.22			
13	BKN	200						10.00		58	48	53	70	14	22	29.63	29.82	13	SCT	NC				10.00		41	26	35	55	13	19	29.88	30.08			
16	BKN	200						10.00		62	48	55	60	9	24	29.68	29.87	16	CLR	NC				10.00		44	28	38	53	8	19	29.77	29.97			
19	OVC	180						10.00		52	43	48	72	15	04	29.82	30.01	19	CLR	NC				10.00		36	25	32	64	7	18	29.71	29.91			
22	OVC	100						10.00		45	35	41	68	9	07	29.90	30.09	22	CLR	NC				10.00		33	26	30	75	7	19	29.65	29.85			
SUNRISE: 0709										DEC 05				SUNSET: 1651				SUNRISE: 0714										DEC 11				SUNSET: 1652				
01	OVC	046						10.00	-RA	42	34	39	73	8	06	29.93	30.12	01	CLR	NC				10.00		33	28	31	82	8	21	29.57	29.77			
04	OVC	037						10.00	-PLRA	38	34	36	86	6	04	29.97	30.17	04	CLR	NC				10.00		34	26	31	73	7	23	29.55	29.74			
07	OVC	009						1.50	-PLSN BR	33	32	33	96	3	15	30.03	30.22	07	FEW	NC				10.00		34	24	30	67	9	25	29.55	29.75			
10	OVC	002						0.50	-SN FG	33	32	33	96	5	06	29.97	30.16	10	CLR	NC				10.00		43	25	36	49	12	24	29.55	29.74			
13	OVC	004						0.50	SN FG	33	32	33	96	3	05	29.92	30.11	13	FEW	NC				10.00		49	27	40	43	20	27	29.50	29.68			
16	OVC	006						0.50	SN FG	33	32	33	96	8	04	29.87	30.06	16	BKN	060				10.00		48	26	39	42	16	28	29.53	29.72			
19	OVC	006						3.00	-RA BR	33	31	32	92	10	05	29.78	29.98	19	SCT	NC				10.00		43	27	37	53	13	24	29.58	29.78			
22	OVC	008						1.50	-SN BR	33	30	32	89	9	02	29.79	29.98	22	SCT	NC				10.00		40	26	35	58	9	27	29.61	29.80			
SUNRISE: 0710										DEC 06				SUNSET: 1651				SUNRISE: 0715										DEC 12				SUNSET: 1652				
01	OVC	007						1.50	-PL BR	32	30	31	92	9	36	29.77	29.97	01	OVC	180				10.00		37	26	33	65	6	23	29.59	29.78			
04	OVC	011						1.50	-SN BR	32	29	31	88	8	36	29.84	30.03	04	OVC	150				10.00		34	26	31	73	6	23	29.60	29.79			
07	BKN	060						3.00	BR	31	28	30	89	7	33	29.90	30.10	07	BKN	200				10.00		35	26	32	70	5	22	29.64	29.84			
10	CLR	NC						10.00		34	27	31	76	6	35	29.99	30.19	10	OVC	070				10.00		43	28	37	56	8	25	29.68	29.87			
13	SCT	NC						10.00		37	26	33	65	9	36	30.02	30.22	13	BKN	085				10.00		48	28	40	46	13	26	29.62	29.82			
16	SCT	NC						10.00		37	27	33	67	0	00	30.05	30.24																			

OBSERVATIONS AT 3-HOURLY INTERVALS

RICHMOND, VA
DECEMBER 2005

RIC

WBAN # 13740

HOUR (LST)	SATELLITE		WEATHER	TEMPERATURE °F			WIND		PRESSURE (INCHES, HG)		HOUR (LST)	SATELLITE		WEATHER	TEMPERATURE °F			WIND		PRESSURE (INCHES, HG)					
	SKY COVER	CEILING 100'S OF FT		DRY BULB	DEW POINT	WET BULB	SPEED (MPH)	DIRECTION TENS OF DEG	STATION	SEA LEVEL		SKY COVER	CEILING 100'S OF FT		DRY BULB	DEW POINT	WET BULB	SPEED (MPH)	DIRECTION TENS OF DEG	STATION	SEA LEVEL				
	OBSERVATION TIME (LST)	EFF CLD AMT Oktas		RELATIVE HUMIDITY (PCT)	RELATIVE HUMIDITY (PCT)	RELATIVE HUMIDITY (PCT)	RELATIVE HUMIDITY (PCT)	RELATIVE HUMIDITY (PCT)	RELATIVE HUMIDITY (PCT)	RELATIVE HUMIDITY (PCT)		OBSERVATION TIME (LST)	EFF CLD AMT Oktas		RELATIVE HUMIDITY (PCT)	RELATIVE HUMIDITY (PCT)	RELATIVE HUMIDITY (PCT)	RELATIVE HUMIDITY (PCT)	RELATIVE HUMIDITY (PCT)	RELATIVE HUMIDITY (PCT)	RELATIVE HUMIDITY (PCT)				
SUNRISE: 0715				DEC 13				SUNSET: 1652				SUNRISE: 0719				DEC 19				SUNSET: 1654					
01	OVC	041		34	19	29	54	13	02	29.87	30.07	01	OVC	250		4.00	BR	31	29	30	92	0	00	30.14	30.34
04	FEW	NC		29	15	25	56	9	02	29.93	30.13	04	OVC	250		7.00	BCFG	31	28	30	89	0	00	30.11	30.31
07	CLR	NC		27	13	23	55	10	01	30.00	30.20	07	BKN	140		5.00	BR	28	25	27	88	0	00	30.11	30.31
10	CLR	NC		32	14	26	47	15	03	30.08	30.28	10	BKN	140		10.00		40	33	37	77	8	32	30.11	30.31
13	CLR	NC		36	13	29	39	10	01	30.06	30.26	13	OVC	150		10.00		45	27	38	49	10	35	30.04	30.24
16	CLR	NC		35	10	27	35	9	01	30.10	30.29	16	SCT	NC		10.00		45	23	37	42	10	31	30.03	30.23
19	CLR	NC		27	11	22	51	6	01	30.16	30.36	19	FEW	NC		10.00		36	24	32	62	9	01	30.07	30.27
22	CLR	NC		24	9	20	52	6	36	30.21	30.41	22	CLR	NC		10.00		30	19	26	64	6	02	30.10	30.29
SUNRISE: 0716				DEC 14				SUNSET: 1652				SUNRISE: 0720				DEC 20				SUNSET: 1654					
01	CLR	NC		22	10	19	60	9	02	30.24	30.44	01	CLR	NC		10.00		26	19	24	75	3	32	30.09	30.29
04	CLR	NC		20	9	17	62	8	01	30.25	30.45	04	CLR	NC		10.00		22	18	21	85	0	00	30.06	30.26
07	BKN	250		20	12	18	71	7	01	30.28	30.48	07	CLR	NC		10.00		20	17	19	89	0	00	30.07	30.27
10	OVC	150		25	14	22	63	9	02	30.31	30.51	10	FEW	NC		10.00		31	16	26	54	6	27	30.09	30.29
13	OVC	150		29	14	24	54	3	VR	30.26	30.46	13	FEW	NC		10.00		39	10	30	30	9	22	30.01	30.21
16	OVC	120		30	15	25	54	0	00	30.25	30.45	16	CLR	NC		10.00		41	8	31	26	7	28	29.98	30.17
19	BKN	110		29	17	25	61	3	03	30.21	30.41	19	CLR	NC		10.00		30	14	25	51	0	00	30.00	30.20
22	OVC	100		29	20	26	69	6	04	30.19	30.38	22	FEW	NC		10.00		27	13	23	55	0	00	30.02	30.22
SUNRISE: 0717				DEC 15				SUNSET: 1652				SUNRISE: 0720				DEC 21				SUNSET: 1655					
01	OVC	022		29	20	26	69	7	01	30.16	30.36	01	SCT	NC		10.00		27	12	23	53	8	02	30.04	30.24
04	OVC	020		29	21	26	72	6	01	30.12	30.32	04	FEW	NC		10.00		25	11	21	55	0	00	30.07	30.27
07	OVC	055		30	23	28	75	8	04	30.07	30.27	07	FEW	NC		10.00		19	13	17	77	0	00	30.11	30.31
10	OVC	030		32	29	31	88	7	05	30.03	30.23	10	CLR	NC		10.00		32	16	27	52	7	03	30.12	30.32
13	OVC	005		40	38	39	93	12	10	29.86	30.05	13	CLR	NC		10.00		36	15	29	42	3	VR	30.04	30.24
16	OVC	007		43	41	42	93	14	10	29.73	29.92	16	CLR	NC		10.00		38	14	30	37	8	24	30.02	30.22
19	OVC	005		45	44	45	97	7	06	29.61	29.80	19	FEW	NC		10.00		29	16	25	58	0	00	30.03	30.23
22	OVC	020		51	50	51	96	13	14	29.51	29.70	22	CLR	NC		10.00		26	17	23	69	0	00	30.05	30.25
SUNRISE: 0717				DEC 16				SUNSET: 1653				SUNRISE: 0721				DEC 22				SUNSET: 1655					
01	OVC	003		41	40	41	96	9	27	29.48	29.66	01	CLR	NC		10.00		23	16	21	74	5	36	30.05	30.25
04	OVC	005		38	37	38	97	6	29	29.55	29.74	04	CLR	NC		10.00		25	16	22	69	3	35	30.08	30.28
07	CLR	NC		36	33	35	89	8	24	29.64	29.84	07	CLR	NC		10.00		20	15	19	81	0	00	30.13	30.33
10	FEW	NC		43	34	39	71	10	31	29.76	29.96	10	FEW	NC		10.00		33	21	29	61	0	00	30.17	30.37
13	SCT	NC		49	28	40	45	10	28	29.79	29.98	13	CLR	NC		10.00		41	21	34	45	8	18	30.08	30.28
16	OVC	250		47	28	39	48	9	25	29.84	30.04	16	FEW	NC		10.00		43	20	35	40	10	20	30.06	30.26
19	BKN	200		41	29	36	62	3	24	29.95	30.15	19	SCT	NC		10.00		32	19	28	59	6	19	30.06	30.26
22	BKN	200		41	30	37	65	5	28	30.02	30.22	22	BKN	250		10.00		31	21	28	67	7	18	30.02	30.22
SUNRISE: 0718				DEC 17				SUNSET: 1653				SUNRISE: 0721				DEC 23				SUNSET: 1656					
01	FEW	NC		36	30	34	79	0	00	30.09	30.29	01	FEW	NC		10.00		30	18	26	61	8	20	29.97	30.17
04	BKN	250		35	28	32	76	5	34	30.17	30.37	04	FEW	NC		10.00		31	19	27	61	7	20	29.94	30.14
07	OVC	200		32	29	31	88	0	00	30.25	30.45	07	FEW	NC		10.00		27	18	24	69	7	19	29.94	30.14
10	OVC	180		38	29	34	70	0	00	30.33	30.53	10	CLR	NC		10.00		39	22	33	50	9	22	29.93	30.13
13	OVC	200		42	28	37	58	5	15	30.31	30.51	13	CLR	NC		10.00		57	19	42	23	10	22	29.83	30.03
16	OVC	160		42	26	36	53	5	16	30.31	30.51	16	CLR	NC		10.00		58	15	41	18	13	22	29.80	30.00
19	OVC	150		38	28	34	68	0	00	30.34	30.54	19	FEW	NC		10.00		46	22	37	38	10	21	29.82	30.01
22	OVC	150		35	30	33	82	0	00	30.33	30.53	22	CLR	NC		10.00		44	20	35	38	7	23	29.81	30.01
SUNRISE: 0719				DEC 18				SUNSET: 1654				SUNRISE: 0722				DEC 24				SUNSET: 1657					
01	OVC	150		35	31	33	85	3	36	30.31	30.51	01	CLR	NC		10.00		37	21	31	52	7	20	29.77	29.96
04	OVC	140		37	29	34	73	6	04	30.29	30.49	04	SCT	NC		10.00		35	22	30	59	9	19	29.77	29.97
07	OVC	032		37	30	34	76	6	04	30.33	30.53	07	BKN	250		10.00		31	22	28	69	7	18	29.78	29.97
10	OVC	015		36	34	35	93	6	04	30.35	30.55	10	CLR	NC		10.00		43	23	35	45	8	22	29.81	30.01
13	BKN	020		42	34	39	73	7	36	30.27	30.46	13	FEW	NC		10.00		57	22	43	26	6	25	29.73	29.93
16	CLR	NC		45	32	40	61	3	VR	30.23	30.42	16	CLR	NC		10.00		59	26	45	28	10	17	29.71	29.90
19	FEW	NC		35	31	33	85	0	00	30.22	30.42	19	FEW	NC		10.00		44	25	37	47	10	18	29.73	29.93
22	BKN	250		32	30	31	92	0	00	30.20	30.40	22	CLR	NC		10.00		38	23	32	55	8	19	29.73	29.93

OBSERVATIONS AT 3-HOURLY INTERVALS

RICHMOND, VA

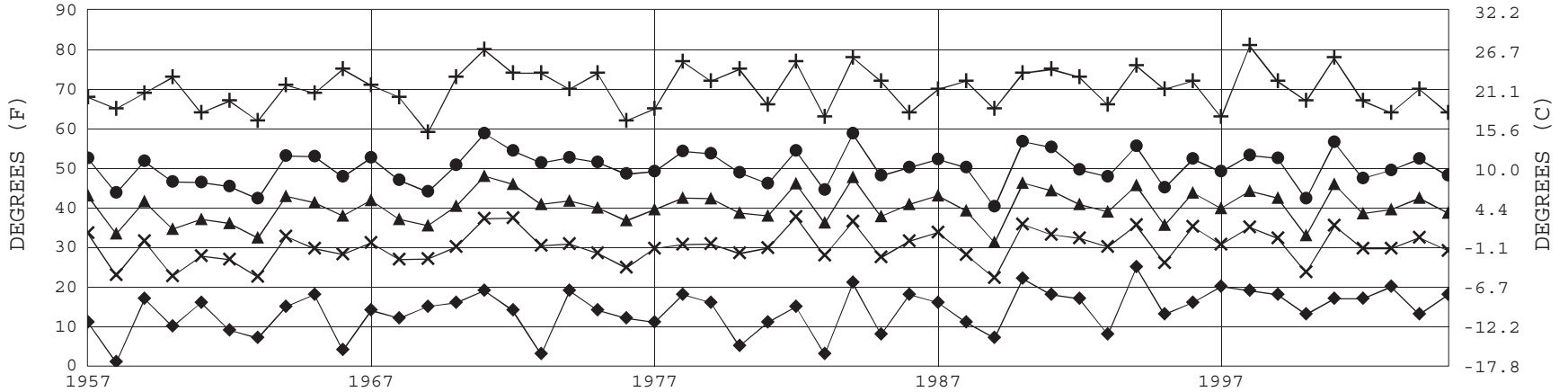
DECEMBER 2005

RIC

WBAN # 13740

HOUR (LST)	SATELLITE		WEATHER	TEMPERATURE °F				WIND		PRESSURE (INCHES, HG)		HOUR (LST)	SATELLITE		WEATHER	TEMPERATURE °F				WIND		PRESSURE (INCHES, HG)														
	SKY COVER	CEILING 100'S OF FT		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: 0722 DEC 25 SUNSET: 1657												SUNRISE: 0724 DEC 31 SUNSET: 1701																								
01	FEW	NC		10.00	38	24	33	57	3	19	29.70	29.89	01	BKN	120		10.00	40	35	38	83	0	00	29.70	29.89											
04	OVC	080		10.00	41	28	36	60	0	00	29.67	29.86	04	BKN	250		10.00	36	34	35	93	5	12	29.66	29.85											
07	BKN	022		10.00	43	29	37	58	7	11	29.60	29.80	07	BKN	090		10.00	40	36	38	86	0	00	29.64	29.84											
10	OVC	021	-RA BR	2.00	42	39	41	89	12	12	29.55	29.74	10	BKN	250		10.00	45	39	42	80	8	20	29.62	29.81											
13	OVC	003	BR	2.00	51	50	51	96	12	13	29.39	29.58	13	BKN	250		10.00	55	41	48	59	8	22	29.54	29.72											
16	OVC	008	-RA BR	4.00	57	56	56	96	8	27	29.32	29.50	16	SCT	NC		10.00	58	38	48	48	15	29	29.55	29.74											
19	OVC	001	-RA FG	0.25	49	48	48	97	6	01	29.30	29.49	19	SCT	NC		10.00	51	38	45	61	6	24	29.63	29.82											
22	SCT	NC		10.00	44	42	43	93	8	19	29.31	29.50	22	SCT	NC		10.00	41	36	39	82	0	00	29.68	29.88											
SUNRISE: 0722 DEC 26 SUNSET: 1658												3-HOURLY OBSERVATION NOTES																								
01	CLR	NC		9.00	43	41	42	93	5	22	29.27	29.46	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, VV = 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.																							
04	BKN	080		10.00	45	42	44	90	8	24	29.27	29.45																								
07	OVC	120		10.00	45	41	43	86	8	24	29.29	29.48																								
10	SCT	NC		10.00	49	40	45	71	18	27	29.36	29.54																								
13	BKN	080		10.00	50	30	41	46	23	30	29.38	29.56																								
16	SCT	NC		10.00	51	29	42	43	22	29	29.43	29.62																								
19	FEW	NC		10.00	46	29	39	51	13	27	29.55	29.74																								
22	CLR	NC		10.00	41	29	36	62	9	26	29.61	29.81																								
SUNRISE: 0723 DEC 27 SUNSET: 1658												SUMMARY BY HOUR																								
01	CLR	NC		10.00	38	28	34	68	5	24	29.64	29.83	AVERAGES																							
04	CLR	NC		10.00	36	28	33	73	7	26	29.69	29.89	HOUR (LST)	CEILOMETER	EFF CLD AMT	DRY BULB	DEW POINT	WET BULB	RELATIVE HUMIDITY	PRESSURE (INCHES, HG)		VISIBILITY (MILES)	WIND SPEED (MPH)	RESULTANT WIND (MPH)												
07	SCT	NC		10.00	31	27	29	85	5	31	29.75	29.95								STATION	SEA LEVEL			SPEED	DIRECTION											
10	FEW	NC		10.00	40	29	36	65	8	31	29.82	30.02	01			34	26	31	73	29.87	30.06	9.31	6	1	31											
13	BKN	250		10.00	48	27	39	44	6	25	29.78	29.98	02			34	26	31	75	29.87	30.07	9.40	6	2	30											
16	BKN	250		10.00	49	27	40	43	8	27	29.78	29.98	03			33	26	31	76	29.88	30.07	9.32	6	1	31											
19	SCT	NC		10.00	39	29	35	67	0	00	29.80	29.99	04			33	26	31	76	29.87	30.07	9.34	5	1	30											
22	CLR	NC		10.00	37	28	34	70	0	00	29.80	29.99	05			33	26	30	76	29.87	30.07	9.34	4	1	29											
SUNRISE: 0723 DEC 28 SUNSET: 1659												06												32	26	30	78	29.88	30.08	9.16	4	1	24			
01	FEW	NC		10.00	35	28	32	76	5	17	29.76	29.96	07			32	26	30	80	29.89	30.09	9.05	5	1	25											
04	CLR	NC		10.00	34	28	32	79	6	17	29.73	29.93	08			33	26	30	79	29.90	30.10	8.77	5	1	25											
07	SCT	NC		10.00	36	30	34	79	12	17	29.71	29.90	09			36	28	33	73	29.91	30.11	8.98	6	2	26											
10	OVC	250		10.00	44	34	40	68	10	19	29.70	29.90	10			39	28	35	67	29.92	30.11	9.18	8	3	28											
13	OVC	250		10.00	60	39	50	46	16	17	29.58	29.78	11			41	28	36	61	29.91	30.10	9.27	9	3	29											
16	OVC	250		10.00	60	40	50	48	9	17	29.54	29.72	12			43	27	37	56	29.88	30.07	9.42	9	4	28											
19	OVC	250		10.00	55	40	48	57	12	17	29.50	29.69	13			45	27	38	53	29.85	30.05	9.40	10	4	27											
22	OVC	043	-RA	10.00	51	44	48	77	16	15	29.43	29.62	14			46	27	39	50	29.84	30.04	9.37	10	5	26											
SUNRISE: 0723 DEC 29 SUNSET: 1660												15												46	27	39	50	29.84	30.03	9.20	9	4	26			
01	OVC	055	-RA	10.00	50	48	49	93	9	18	29.36	29.54	16			46	27	39	51	29.85	30.04	9.37	8	4	27											
04	OVC	008		10.00	50	49	49	96	7	17	29.27	29.45	17			44	27	37	55	29.85	30.05	9.39	6	2	25											
07	OVC	004		7.00	50	49	49	96	7	18	29.25	29.43	18			41	27	36	60	29.86	30.06	9.14	6	2	29											
10	OVC	014	-RA BR	6.00	51	49	50	92	8	24	29.26	29.44	19			39	27	35	64	29.87	30.07	9.23	6	1	33											
13	OVC	012		10.00	51	48	50	89	9	29	29.23	29.41	20			38	27	34	67	29.88	30.07	9.48	6	0	0											
16	OVC	043		10.00	51	48	50	89	7	30	29.30	29.48	21			37	27	33	68	29.88	30.07	9.40	7	1	18											
19	SCT	NC		10.00	49	39	44	69	9	29	29.38	29.56	22			37	27	33	69	29.88	30.08	9.29	6	1	17											
22	FEW	NC		10.00	45	33	40	63	10	29	29.45	29.64	23			36	27	33	71	29.88	30.07	9.27	6	1	21											
SUNRISE: 0724 DEC 30 SUNSET: 1701												24												35	27	32	73	29.87	30.07	9.18	7	1	23			
01	FEW	NC		10.00	43	31	38	63	8	29	29.50	29.69																								
04	CLR	NC		10.00	38	31	35	76	5	26	29.56	29.76																								
07	CLR	NC		10.00	37	30	34	76	3	29	29.64	29.83																								
10	SCT	NC		10.00	46	35	41	66	5	VR	29.72	29.91																								
13	BKN	250		10.00	53	35	45	51	9	01	29.67	29.87																								
16	SCT	NC		10.00	53	35	45	51	3	VR	29.68	29.87																								
19	BKN	250		10.00	45	35	41	68	9	07	29.71	29.91																								
22	BKN	250		10.00	42	33	38	71	6	09	29.72	29.91																								

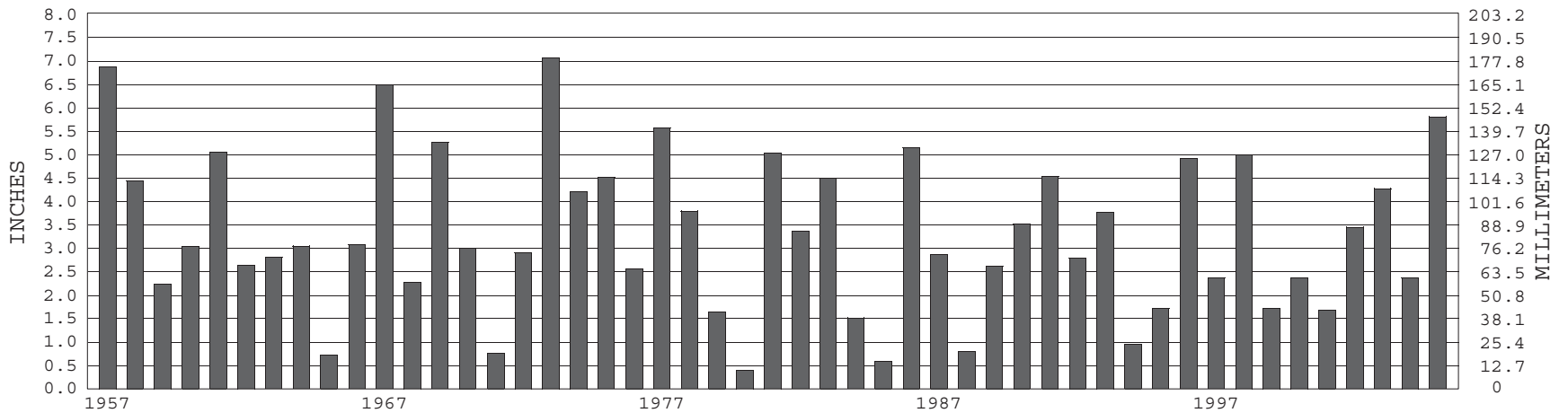
RICHMOND, VA DECEMBER TEMPERATURES



+ Extreme Max. ● Mean Max. ▲ Mean × Mean Min. ◆ Extreme Min.

Long-Term (1957-2005) Mean: 40.2 1971-2000 Normal: 40.4

RICHMOND, VA DECEMBER PRECIPITATION



Long-Term (1957-2005) Mean Monthly Total: 3.31

1971-2000 Normal: 3.12



DECEMBER 2005

RICHMOND, VA

LOCAL CLIMATOLOGICAL DATA

NOAA, National Climatic Data Center

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