



APRIL 2002

LOCAL CLIMATOLOGICAL DATA

NOAA, National Climatic Data Center

RICHMOND, VA

R.E.BYRD INTERNATIONAL AP (RIC)
 Lat: 37°30' N Long: 77°19' W Elev (Ground): 164 Feet
 Time Zone: EASTERN WBAN: 13740 ISSN #:0198-537X

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																												
																			SPEED	DIR	SPEED	DIR																											
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	66	43	55	2	40	48	10	0	RA BR			0.0	T	29.76		5.7	30	7.2	23	30	6	06	01																										
02	74	41	58	5	44	52	7	0				0.0	0.00	29.86	30.04	9.5	18	11.2	31	20	25	20	02																										
03	83	45	64	11	51	57	1	0	TS TSRA RA BR			0.0	0.13	29.76	29.95	3.7	26	16.5	41	27	36*	28	03																										
04	55	36	46	-7	25	37	19	0				0.0	0.00	30.09	30.28	8.6	01	9.7	32	01	28	01	04																										
05	54	35	45	-9	24	37	20	0				0.0	0.00	30.04	30.24	7.2	01	8.6	22	01	17	35	05																										
06	50	34	42*	-12	22	34	23	0				0.0	0.00	30.09	30.28	9.3	36	9.9	26	33	21	35	06																										
07	56	29*	43	-11	24	36	22	0				0.0	0.00	30.23	30.43	3.5	16	6.5	26	23	16	20	07																										
08	73	37	55	0	43	50	10	0				0.0	0.00	30.14	30.33	12.5	19	12.8	29	18	24	19	08																										
09	77	55	66	11	57	61	0	1	RA			0.0	0.01	30.04	30.23	12.2	21	12.9	33	21	28	22	09																										
10	69	46	58	3	47	53	7	0	RA BR			0.0	0.02	30.18	30.37	7.3	03	9.9	33	02	26	02	10																										
11	70	40	55	-1	44	50	10	0	BR			0.0	0.00	30.30	30.49	9.0	07	9.9	24	07	20	11	11																										
12	72	49	61	4	55	57	4	0	RA DZ BR			0.0	0.02	30.20	30.39	3.3	06	5.5	14	02	12	02	12																										
13	78	59	69	12	60	63	0	4	RA BR			0.0	T	30.05	30.23	8.7	18	9.2	24	20	18	20	13																										
14	84	57	71	14	60	64	0	6	RA BR			0.0	T	29.89	30.08	11.9	20	12.2	29	20	22	20	14																										
15	86	62	74	17	64	67	0	9	RA BR			0.0	0.19	29.87	30.05	5.4	21	7.0	21	21	17	22	15																										
16	91	62	77	19	63	68	0	12				0.0	0.00	29.94	30.13	4.0	19	5.7	18	13	16	14	16																										
17	94*	64	79*	21	62	68	0	14	RA			0.0	T	29.91	30.09	6.4	22	7.3	17	23	15	23	17																										
18	90	64	77	19	64	68	0	12	TS TSRA RA BR			0.0	0.30	29.90	30.09	2.2	03	7.0	29	29	23	29	18																										
19	89	62	76	18	66	68	0	11	TS TSRA RA BR HZ			0.0	0.18	29.80	29.99	2.5	23	7.0	41*	36	30	34	19																										
20	83	65	74	15	65	68	0	9	TS TSRA BR			0.0	0.11	29.70	29.88	4.3	29	6.2	22	36	20	36	20																										
21	66	51	59	0	57	57	6	0	TSRA RA BR			0.0	0.39	29.75	29.94	6.8	07	7.8	16	05	13	06	21																										
22	74	49	62	3	52	55	3	0	TSRA RA BR			0.0	0.15	29.64	29.82	3.6	35	8.8	23	01	18	03	22																										
23	58	41	50	-9	35	43	15	0				0.0	0.00	29.97	30.16	9.9	36	10.4	25	02	20	31	23																										
24	65	38	52	-8	37	45	13	0				0.0	0.00	30.05	30.24	2.2	13	5.9	18	16	16	15	24																										
25	77	47	62	2	51	55	3	0	RA BR			0.0	0.35	29.84	30.02	1.5	23	10.4	29	01	24	01	25																										
26	66	40	53	-7	35	46	12	0				0.0	0.00	30.05	30.24	3.1	27	4.6	18	26	15	28	26																										
27	71	41	56	-4	48	53	9	0	RA BR			0.0	0.34	30.07	30.26	5.4	15	6.9	23	19	20	18	27																										
28	79	60	70	9	64	66	0	5	RA BR HZ			0.0	0.14	29.61	29.79	12.2	21	12.7	33	23	26	21	28																										
29	70	47	59	-2	45	53	6	0				0.0	0.00	29.61	29.79	9.5	32	11.3	28	26	21	31	29																										
30	71	38	55	-6	41	49	10	0				0.0	0.00	29.77	29.96	7.8	22	9.0	28	20	22	23	30																										
										73.0		47.9		60.5		■ ■		48.2		54.3		7.0		2.8		< MONTHLY AVERAGES		TOTALS-->		0.0		2.33		29.94		1.3		22		9.0		<- MONTHLY AVERAGES							
										4.1		2.6		3.4		■ ■		<-----DEPARTURE FROM NORMAL----->										- .85		SUNSHINE, CLOUD, & VISIBILITY TABLES ON PAGE 3																			
DEGREE DAYS										GREATEST 24-HR PRECIPITATION: 0.54 DATE :21-22										SEA LEVEL PRESSURE DATE TIME																													
MONTHLY TOTAL DEPARTURE										SEASON TO DATE TOTAL DEPARTURE										GREATEST 24-HR SNOWFALL: 0.0 DATE :										MAXIMUM : 30.55 11 0954																			
HEATING: 210 -31 3184 -718										GREATEST SNOW DEPTH:										MINIMUM : 29.60 28 2254																													
COOLING: 83 50 92 50										NUMBER OF DAYS WITH →										MAXIMUM TEMP ≥ 90: 3										MINIMUM TEMP ≤ 32: 1										PRECIPITATION ≥ 0.01 INCH : 13									
																				MAXIMUM TEMP ≤ 32 : 0										MINIMUM TEMP ≤ 0 : 0										PRECIPITATION ≥ 0.10 INCH : 10									
																				THUNDERSTORMS : 6										HEAVY FOG : 0										SNOWFALL ≥ 1.0 INCH : 0									

APRIL 2002
RICHMOND, VA

HOURLY PRECIPITATION

(WATER EQUIVALENT IN INCHES)

RICHMOND, VA

APRIL 2002

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	T												01												01		T		
02													02												02		0.00		
03													03			T	0.11	0.02						03		0.13			
04													04											04		0.00			
05													05											05		0.00			
06													06											06		0.00			
07													07											07		0.00			
08													08											08		0.00			
09													09										T	T	0.01		0.01		
10	0.01	0.01			T	T							10											10		0.02			
11													11											11		0.00			
12				T	T	T							12				T	T	0.02	T				12		0.02			
13	T												13											13		T			
14													14											14		T			
15	T	T	0.18	T	0.01								15											15		0.19			
16													16											16		0.00			
17													17											17		T			
18													18						0.02	0.10	T	0.11	0.03	0.04	18		0.30		
19			T	0.01	T						T	T	19			T	0.17							19		0.18			
20			0.08	0.03									20											20		0.11			
21													21	0.15	0.02									21		0.39			
22	T	0.10	0.04	0.01									22											22		0.15			
23													23											23		0.00			
24													24											24		0.00			
25	T	T	0.01	0.03	0.02	0.17	0.10	0.01	0.01				25											25		0.35			
26													26											26		0.00			
27													27											27		0.34			
28	0.05	0.02	T		0.03	T	T	0.04	T	T			28	T							0.03	0.22	0.07	0.02	28		0.14		
29													29											29		0.00			
30													30											30		0.00			

MAXIMUM SHORT DURATION PRECIPITATION (See Note)

Time Period (Minutes)	5	10	15	20	30	45	60	80	100	120	150	180
Precipitation (Inches)	.10	.13	.16	.17	.17	.21	.23	.26	.28	.31	.34	.34
Ending Date	03	19	19	19	19	27	27	27	27	27	27	27
Ending Time (Hour/Min)	1553	1517	1517	1517	1517	2156	2202	2202	2216	2236	2305	2305

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 APRIL 2002

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							4.00	10.00	
02							10.00	10.00	
03							1.00	10.00	
04							10.00	10.00	
05							10.00	10.00	
06							10.00	10.00	
07							10.00	10.00	
08							10.00	10.00	
09							8.00	10.00	
10							3.00	10.00	
11							1.75	10.00	
12							4.00	10.00	
13							5.00	10.00	
14							3.00	10.00	
15							3.00	10.00	
16							8.00	10.00	
17							10.00	10.00	
18							2.00	10.00	
19							1.75	10.00	
20							3.00	10.00	
21							3.00	10.00	
22							2.50	10.00	
23							10.00	10.00	
24							9.00	10.00	
25							1.75	10.00	
26							10.00	10.00	
27							1.50	10.00	
28							1.50	10.00	
29							8.00	10.00	
30							7.00	10.00	
MONTHLY AVGS							6.10	10.00	
SUNSHINE (MINUTES)									
Total: Possible: Percent Possible:									
NUMBER OF DAYS WITH:									
SKY CONDITION									
CLR PTLY CLDY CLOUDY MISSING									
30									
MINIMUM VISIBILITY (MILES)									
<=0.25 <=3.0 >=7.0									
0 10 15									

OBSERVATIONS AT 3-HOURLY INTERVALS

RICHMOND, VA

APRIL 2002

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	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
SUNRISE: 0555				APR 01	SUNSET: 1832				SUNRISE: 0546				APR 07	SUNSET: 1837															
01	OVC	017			6.00	BR	49	49	49	100	5	36	29.66	29.85	01	CLR	NC			10.00	35	18	29	50	0	00	30.23	30.42	
04	OVC	014			10.00		49	48	48	97	12	32	29.65	29.84	04	CLR	NC			10.00	31	19	27	61	0	00	30.23	30.43	
07	BKN	012			10.00		48	46	47	93	3	30	29.72	29.91	07	CLR	NC			10.00	33	23	30	67	7	01	30.28	30.48	
10	FEW	NC			10.00		56	45	51	66	8	30	29.77	29.96	10	CLR	NC			10.00	44	22	36	41	3	17	30.30	30.50	
13	SCT	NC			10.00		64	39	52	40	12	29	29.76		13	CLR	NC			10.00	51	24	40	35	10	20	30.26	30.45	
16	SCT	NC			10.00		65	36	51	34	13	27	29.75		16	FEW	NC			10.00	56	24	43	29	15	19	30.18	30.38	
19	CLR	NC			10.00		56	37	47	49	6	04	29.79		19	FEW	NC			10.00	50	25	40	38	9	17	30.17	30.37	
22	CLR	NC			10.00		52	31	43	45	0	00	29.87	30.07	22	CLR	NC			10.00	43	33	39	68	9	15	30.20	30.40	
SUNRISE: 0553				APR 02	SUNSET: 1833				SUNRISE: 0545				APR 08	SUNSET: 1838															
01	CLR	NC			10.00		47	36	42	66	3	02	29.89	30.08	01	CLR	NC			10.00	42	36	39	79	9	18	30.18	30.38	
04	CLR	NC			10.00		42	36	39	79	3	11	29.90	30.09	04	CLR	NC			10.00	38	34	36	86	6	18	30.18	30.37	
07	BKN	200			10.00		46	39	43	77	0	00	29.94	30.14	07	BKN	180			10.00	41	37	39	86	5	20	30.22	30.42	
10	CLR	NC			10.00		61	43	52	52	12	17	29.94	30.13	10	SCT	NC			10.00	58	43	50	58	14	22	30.23	30.42	
13	CLR	NC			10.00		72	45	57	38	14	20	29.84	30.03	13	FEW	NC			10.00	70	46	57	42	16	21	30.12	30.32	
16	SCT	NC			10.00		74	46	59	37	18	21	29.77	29.96	16	SCT	NC			10.00	72	48	59	43	21	19	30.05	30.24	
19	BKN	250			10.00		68	46	56	45	14	18	29.76	29.96	19	BKN	250			10.00	65	47	55	52	12	18	30.05	30.24	
22	SCT	NC			10.00		64	53	58	68	15	19	29.79	29.98	22	BKN	250			10.00	63	50	56	63	15	18	30.07	30.27	
SUNRISE: 0552				APR 03	SUNSET: 1834				SUNRISE: 0543				APR 09	SUNSET: 1839															
01	FEW	NC			10.00		61	57	59	87	15	19	29.77	29.96	01	BKN	250			10.00	61	53	57	75	14	20	30.09	30.28	
04	FEW	NC			10.00		59	58	58	96	13	20	29.73	29.91	04	BKN	250			10.00	58	53	55	84	12	19	30.07	30.25	
07	SCT	NC			6.00	BR	60	59	59	96	12	20	29.73	29.92	07	OVC	250			10.00	60	54	57	80	13	20	30.08	30.27	
10	BKN	200			10.00		74	60	65	62	16	21	29.71	29.89	10	BKN	200			10.00	71	57	63	61	21	20	30.07	30.26	
13	BKN	200			10.00		83	54	65	37	20	22	29.63	29.82	13	OVC	050			10.00	75	58	65	55	15	22	30.03	30.22	
16	OVC	080			1.00	TSRA BR	68	58	62	70	20	31	29.64	29.83	16	OVC	080			10.00	75	58	65	55	13	22	29.98	30.17	
19	FEW	NC			10.00		53	43	48	69	18	02	29.80	30.00	19	OVC	140			10.00	72	58	64	61	6	17	29.98	30.17	
22	OVC	085			10.00		50	32	42	50	15	03	29.99	30.18	22	OVC	080			10.00	-RA	67	62	64	84	10	23	30.03	30.22
SUNRISE: 0550				APR 04	SUNSET: 1835				SUNRISE: 0542				APR 10	SUNSET: 1840															
01	OVC	095			10.00		44	27	37	51	20	36	30.05	30.24	01	OVC	039			8.00	-RA	63	63	63	100	7	21	30.04	30.23
04	SCT	NC			10.00		39	24	33	55	14	34	30.06	30.25	04	OVC	015			4.00	BR	63	63	63	100	5	24	30.05	30.24
07	CLR	NC			10.00		38	22	32	53	13	36	30.14	30.34	07	OVC	033			10.00	55	48	51	77	14	01	30.15	30.35	
10	SCT	NC			10.00		46	24	37	42	15	05	30.15	30.35	10	OVC	045			10.00	55	43	49	64	13	04	30.23	30.42	
13	FEW	NC			10.00		51	23	40	33	9	04	30.10	30.29	13	SCT	NC			10.00	65	45	54	49	10	03	30.21	30.40	
16	SCT	NC			10.00		54	23	41	30	9	01	30.04	30.24	16	SCT	NC			10.00	69	42	55	38	10	01	30.18	30.37	
19	FEW	NC			10.00		48	26	39	42	6	05	30.05	30.25	19	FEW	NC			10.00	60	40	50	48	6	08	30.22	30.41	
22	BKN	250			10.00		44	28	38	53	3	05	30.08	30.27	22	FEW	NC			10.00	50	40	45	68	5	11	30.27	30.47	
SUNRISE: 0549				APR 05	SUNSET: 1836				SUNRISE: 0540				APR 11	SUNSET: 1841															
01	OVC	250			10.00		43	28	37	56	12	01	30.09	30.28	01	FEW	NC			10.00	45	44	45	97	0	00	30.29	30.48	
04	BKN	150			10.00		41	22	34	47	10	36	30.08	30.28	04	CLR	NC			6.00	BR	42	42	42	100	5	35	30.28	30.47
07	CLR	NC			10.00		39	23	33	53	9	02	30.12	30.32	07	CLR	NC			5.00	BR	47	46	47	97	7	02	30.33	30.52
10	FEW	NC			10.00		48	23	38	37	16	36	30.12	30.32	10	CLR	NC			10.00	60	45	52	58	16	08	30.36	30.55	
13	FEW	NC			10.00		52	22	40	31	13	35	30.04	30.24	13	CLR	NC			10.00	68	35	52	30	16	09	30.31	30.50	
16	FEW	NC			10.00		53	21	40	29	7	36	29.97	30.16	16	FEW	NC			10.00	67	41	54	39	13	09	30.27	30.46	
19	FEW	NC			10.00		48	23	38	37	5	09	29.95	30.14	19	BKN	250			10.00	58	48	53	70	10	07	30.28	30.47	
22	BKN	095			10.00		42	30	37	62	0	00	29.98	30.17	22	OVC	019			10.00	54	49	51	83	9	07	30.30	30.49	
SUNRISE: 0548				APR 06	SUNSET: 1836				SUNRISE: 0539				APR 12	SUNSET: 1842															
01	BKN	090			10.00		42	33	38	71	6	33	30.00	30.19	01	OVC	015			10.00	53	48	50	83	6	06	30.28	30.47	
04	FEW	NC			10.00		36	29	33	76	5	04	30.00	30.19	04	OVC	011			7.00	-DZ	51	49	50	92	8	03	30.24	30.43
07	BKN	090			10.00		36	27	33	70	9	01	30.05	30.24	07	OVC	006			5.00	BR	50	49	49	96	6	04	30.26	30.46
10	BKN	040			10.00		42	26	36	53	16	33	30.09	30.28	10	OVC	012			8.00		55	51	53	87	5	01	30.26	30.45
13	BKN	075			10.00		47	15	36	28	15	34	30.08	30.27	13	BKN	140			10.00	67	56	61	68	3	VR	30.21	30.40	
16	SCT	NC			10.00		49	16	37	27	16	35	30.07	30.27	16	OVC	060			10.00	72	58	64	61	0	00	30.13	30.32	
19	CLR	NC			10.00		42	16	33	35	10	01	30.13	30.33	19	OVC	043			10.00	-RA	67	64	65	91	7	12	30.11	30.30
22	CLR	NC			10.00		36	18	30	48	8	36	30.18	30.38	22	SCT	NC			10.00	62	61	61	96	5	11	30.12	30.32	

OBSERVATIONS AT 3-HOURLY INTERVALS

RICHMOND, VA

APRIL 2002

RIC

WBAN # 13740

HOUR (LST)	SATELLITE		VISIBILITY (MILES)	WEATHER	TEMPERATURE °F				WIND		PRESSURE (INCHES, HG)		HOUR (LST)	SATELLITE		VISIBILITY (MILES)	WEATHER	TEMPERATURE °F				WIND		PRESSURE (INCHES, HG)					
	SKY COVER	CEILING 100'S OF FT			OBSERVATION TIME (LST)	EFF CLD AMT %	DRY BULB	DEW POINT	WET BULB	RELATIVE HUMIDITY (PCT)	SPEED (MPH)	DIRECTION TENS OF DEG		STATION	SEA LEVEL			SKY COVER	CEILING 100'S OF FT	OBSERVATION TIME (LST)	EFF CLD AMT %	DRY BULB	DEW POINT	WET BULB	RELATIVE HUMIDITY (PCT)	SPEED (MPH)	DIRECTION TENS OF DEG	STATION	SEA LEVEL
SUNRISE: 0538					APR 13					SUNSET: 1843					SUNRISE: 0529					APR 19					SUNSET: 1848				
01	SCT	NC	10.00		61	61	61	100	8	15	30.12	30.31	01	OVC	150	8.00		66	65	65	96	5	23	29.84	30.02				
04	BKN	060	10.00		61	61	61	100	6	16	30.09	30.28	04	OVC	150	5.00	-RA BR	64	64	64	100	3	20	29.82	30.01				
07	OVC	060	10.00		62	62	62	100	3	17	30.10	30.29	07	CLR	NC	5.00	BR	66	65	65	96	0	00	29.84	30.03				
10	OVC	200	10.00		70	60	64	71	12	21	30.09	30.28	10	OVC	250	7.00		76	68	71	77	8	22	29.82	30.01				
13	OVC	045	10.00		74	57	64	56	13	21	30.04	30.23	13	BKN	250	10.00		85	66	72	53	3	VR	29.78	29.97				
16	OVC	250	10.00		77	57	65	50	12	20	29.97	30.16	16	BKN	250	10.00		72	68	69	87	0	00	29.77	29.96				
19	BKN	150	10.00		71	62	66	73	12	18	29.97	30.16	19	OVC	200	10.00		69	68	68	96	8	17	29.76	29.95				
22	SCT	NC	10.00		65	60	62	84	8	18	30.00	30.19	22	OVC	250	5.00	BR	66	66	66	100	6	19	29.77	29.96				
SUNRISE: 0536					APR 14					SUNSET: 1844					SUNRISE: 0528					APR 20					SUNSET: 1849				
01	SCT	NC	10.00		62	61	61	96	8	20	29.99	30.18	01	OVC	200	7.00		67	65	66	93	5	25	29.77	29.96				
04	CLR	NC	7.00		58	58	58	100	6	19	29.94	30.13	04	OVC	110	7.00		66	66	66	100	3	26	29.72	29.91				
07	SCT	NC	7.00		61	61	61	100	6	19	29.98	30.16	07	OVC	200	6.00	BR	66	66	66	100	5	23	29.71	29.90				
10	SCT	NC	10.00		76	61	67	60	9	23	29.96	30.14	10	BKN	120	10.00		76	66	70	72	0	00	29.70	29.89				
13	BKN	060	10.00		82	59	68	46	16	20	29.88	30.07	13	OVC	140	10.00		80	64	70	58	6	VR	29.65	29.84				
16	BKN	250	10.00		83	58	67	43	17	19	29.80	29.99	16	OVC	120	10.00		80	64	70	58	12	27	29.64	29.83				
19	OVC	090	10.00		76	61	67	60	15	19	29.81	30.00	19	OVC	075	10.00		75	64	68	69	5	31	29.65	29.84				
22	BKN	250	10.00		70	60	64	71	15	19	29.82	30.01	22	BKN	200	10.00		69	66	67	90	5	32	29.71	29.90				
SUNRISE: 0535					APR 15					SUNSET: 1845					SUNRISE: 0527					APR 21					SUNSET: 1850				
01	OVC	100	10.00		67	63	64	87	12	20	29.83	30.02	01	SCT	NC	6.00	BR	65	64	64	97	7	03	29.72	29.91				
04	OVC	100	10.00	-RA	64	64	64	100	7	21	29.84	30.03	04	BKN	100	10.00		62	58	60	86	5	08	29.75	29.93				
07	BKN	080	10.00		65	65	65	100	6	22	29.88	30.07	07	OVC	110	10.00		61	57	59	87	3	07	29.78	29.96				
10	SCT	NC	10.00		76	66	70	72	7	VR	29.90	30.09	10	OVC	020	10.00		65	58	61	78	10	09	29.77	29.96				
13	SCT	NC	10.00		82	63	70	53	8	22	29.86	30.05	13	OVC	060	3.00	-RA BR	57	57	57	100	9	08	29.78	29.98				
16	BKN	065	10.00		83	60	68	46	5	VR	29.83	30.02	16	OVC	007	7.00		57	57	57	100	9	06	29.75	29.94				
19	BKN	250	10.00		75	65	69	71	8	12	29.85	30.04	19	OVC	010	10.00		54	53	53	97	7	10	29.72	29.91				
22	SCT	NC	10.00		69	63	65	81	7	19	29.90	30.09	22	OVC	008	10.00		52	51	52	97	10	10	29.70	29.89				
SUNRISE: 0533					APR 16					SUNSET: 1845					SUNRISE: 0525					APR 22					SUNSET: 1851				
01	BKN	250	10.00		68	64	66	87	7	20	29.92	30.11	01	OVC	006	3.00	-RA BR	50	50	50	100	16	36	29.73	29.92				
04	BKN	250	10.00		65	63	64	93	5	21	29.91	30.10	04	OVC	150	10.00		51	51	51	100	6	15	29.57	29.76				
07	CLR	NC	10.00		68	64	66	87	5	22	29.97	30.16	07	OVC	006	6.00	BR	53	52	52	96	5	27	29.61	29.80				
10	CLR	NC	10.00		85	64	71	50	6	VR	29.99	30.18	10	OVC	004	6.00	BR	56	56	56	100	9	21	29.57	29.76				
13	SCT	NC	10.00		89	60	70	38	0	00	29.95	30.14	13	OVC	250	10.00		70	59	63	68	12	25	29.55	29.73				
16	FEW	NC	10.00		90	60	71	37	8	26	29.90	30.09	16	SCT	NC	10.00		68	60	63	76	9	04	29.55	29.74				
19	SCT	NC	10.00		82	64	70	55	13	14	29.92	30.11	19	CLR	NC	10.00		62	57	59	84	7	01	29.64	29.83				
22	CLR	NC	10.00		72	64	67	76	6	16	29.94	30.13	22	CLR	NC	10.00		55	41	48	59	8	36	29.77	29.96				
SUNRISE: 0532					APR 17					SUNSET: 1846					SUNRISE: 0524					APR 23					SUNSET: 1852				
01	CLR	NC	10.00		70	63	66	79	5	19	29.93	30.12	01	CLR	NC	10.00		49	39	44	69	8	36	29.83	30.02				
04	CLR	NC	10.00		65	62	63	90	7	19	29.92	30.11	04	FEW	NC	10.00		45	36	41	71	8	02	29.89	30.08				
07	CLR	NC	10.00		68	65	66	90	5	20	29.96	30.14	07	BKN	070	10.00		46	32	40	58	16	02	29.96	30.15				
10	FEW	NC	10.00		85	65	72	51	6	22	29.95	30.14	10	SCT	NC	10.00		52	32	43	47	18	36	30.01	30.20				
13	SCT	NC	10.00		93	61	72	34	12	22	29.89	30.08	13	OVC	055	10.00		53	33	44	47	8	33	29.99	30.19				
16	BKN	200	10.00		91	59	70	34	8	22	29.84	30.03	16	SCT	NC	10.00		57	35	47	44	12	33	29.95	30.14				
19	BKN	120	10.00		86	60	69	42	10	24	29.86	30.05	19	CLR	NC	10.00		51	34	43	52	7	01	29.98	30.17				
22	BKN	250	10.00		79	60	67	52	8	26	29.89	30.08	22	CLR	NC	10.00		44	38	41	79	6	03	30.04	30.23				
SUNRISE: 0531					APR 18					SUNSET: 1847					SUNRISE: 0523					APR 24					SUNSET: 1853				
01	BKN	250	10.00		73	62	66	69	5	26	29.90	30.08	01	CLR	NC	10.00		39	37	38	93	0	00	30.04	30.24				
04	BKN	250	10.00		69	62	65	78	3	26	29.90	30.08	04	CLR	NC	10.00		40	34	37	79	3	28	30.08	30.27				
07	OVC	160	10.00		71	62	66	73	5	33	29.94	30.13	07	CLR	NC	10.00		45	37	41	74	6	35	30.13	30.32				
10	BKN	150	10.00		77	63	68	62	6	03	29.95	30.14	10	CLR	NC	10.00		56	32	45	40	0	00	30.13	30.33				
13	FEW	NC	10.00		88	63	72	43	7	VR	29.90	30.09	13	CLR	NC	10.00		61	34	48	36	6	22	30.07	30.26				
16	OVC	250	10.00		87	63	71	45	7	14	29.85	30.04	16	FEW	NC	10.00		64	34	50	33	0	00	29.99	30.19				
19	OVC	030	7.00	-TSRA	70	68	69	93	15	33	29.92	30.11	19	FEW	NC	10.00		58	39	49	50	8	12	29.98	30.18				
22	OVC	065	8.00	-TSRA	67	65	66	93	12	14	29.88	30.07	22	SCT	NC	10.00		53	44	49	72	14	15	30.01	30.20				

OBSERVATIONS AT 3-HOURLY INTERVALS

RICHMOND, VA

APRIL 2002

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
SUNRISE: 0522				APR 25				SUNSET: 1854				SUNRISE: APR 31				SUNSET:									
01	OVC	100		10.00	-RA	53	46	50	77	10	15	29.96	30.15												
04	OVC	035		9.00		51	49	50	92	14	15	29.90	30.09												
07	OVC	011		3.00	BR	53	53	53	100	10	17	29.85	30.04												
10	OVC	005		3.00	BR	59	59	59	100	12	19	29.78	29.97												
13	SCT	NC		10.00		74	62	67	67	15	28	29.71	29.90												
16	BKN	090		10.00		67	57	61	71	21	01	29.72	29.91												
19	SCT	NC		10.00		59	45	52	60	7	02	29.80	30.00												
22	BKN	250		10.00		51	40	46	66	9	36	29.91	30.11												
SUNRISE: 0520				APR 26				SUNSET: 1855																	
01	BKN	250		10.00		51	29	42	43	3	29	29.98	30.17												
04	BKN	250		10.00		44	36	41	73	0	00	30.00	30.19												
07	OVC	180		10.00		50	32	42	50	7	26	30.06	30.26												
10	OVC	150		10.00		55	32	45	42	5	VR	30.11	30.30												
13	BKN	200		10.00		62	34	49	35	10	29	30.08	30.27												
16	SCT	NC		10.00		66	34	51	31	8	26	30.02	30.21												
19	SCT	NC		10.00		61	33	48	35	6	27	30.03	30.23												
22	CLR	NC		10.00		48	43	46	83	6	14	30.08	30.27												
SUNRISE: 0519				APR 27				SUNSET: 1856																	
01	CLR	NC		10.00		46	45	46	96	0	00	30.08	30.28												
04	CLR	NC		10.00		42	42	42	100	3	03	30.10	30.29												
07	CLR	NC		9.00		48	47	47	96	0	00	30.15	30.35												
10	BKN	250		10.00		64	47	55	54	6	12	30.16	30.35												
13	OVC	250		10.00		69	46	57	44	9	17	30.11	30.30												
16	OVC	200		10.00		70	43	56	38	10	15	30.03	30.22												
19	OVC	085		10.00		64	50	56	61	9	12	30.01	30.20												
22	OVC	012		2.00	RA BR	60	60	60	100	6	18	30.01	30.20												
SUNRISE: 0518				APR 28				SUNSET: 1856																	
01	OVC	006		3.00	-RA BR	60	60	60	100	10	19	29.90	30.09												
04	OVC	007		3.00	BR	61	61	61	100	9	19	29.80	29.98												
07	OVC	005		1.50	-RA BR	63	63	63	100	12	19	29.73	29.93												
10	OVC	025		2.00	BR	68	67	67	96	14	20	29.67	29.86												
13	BKN	150		6.00	HZ	73	67	69	81	16	22	29.57	29.76												
16	OVC	200		10.00		78	65	70	64	16	22	29.47	29.65												
19	BKN	250		10.00		72	65	67	79	13	22	29.44	29.62												
22	FEW	NC		10.00		67	64	65	91	16	22	29.42	29.60												
SUNRISE: 0517				APR 29				SUNSET: 1857																	
01	CLR	NC		8.00		68	64	66	87	9	28	29.44	29.62												
04	CLR	NC		10.00		65	46	55	51	10	30	29.48	29.66												
07	CLR	NC		10.00		62	46	54	56	13	32	29.56	29.75												
10	BKN	050		10.00		63	44	53	50	12	34	29.61	29.80												
13	SCT	NC		10.00		66	44	54	45	14	31	29.60	29.79												
16	SCT	NC		10.00		69	42	55	38	15	30	29.59	29.78												
19	SCT	NC		10.00		62	42	52	48	16	01	29.65	29.84												
22	CLR	NC		10.00		51	40	46	66	10	01	29.77	29.96												
SUNRISE: 0515				APR 30				SUNSET: 1858																	
01	CLR	NC		10.00		46	40	43	79	0	00	29.81	30.00												
04	SCT	NC		10.00		41	38	40	89	0	00	29.85	30.04												
07	CLR	NC		10.00		48	40	44	74	7	27	29.88	30.07												
10	CLR	NC		10.00		59	37	48	44	9	22	29.86	30.06												
13	FEW	NC		10.00		67	40	53	37	10	19	29.76	29.96												
16	SCT	NC		10.00		70	39	54	32	21	22	29.67	29.86												
19	FEW	NC		10.00		64	45	54	50	12	20	29.66	29.85												
22	CLR	NC		10.00		62	46	54	56	14	22	29.65	29.84												

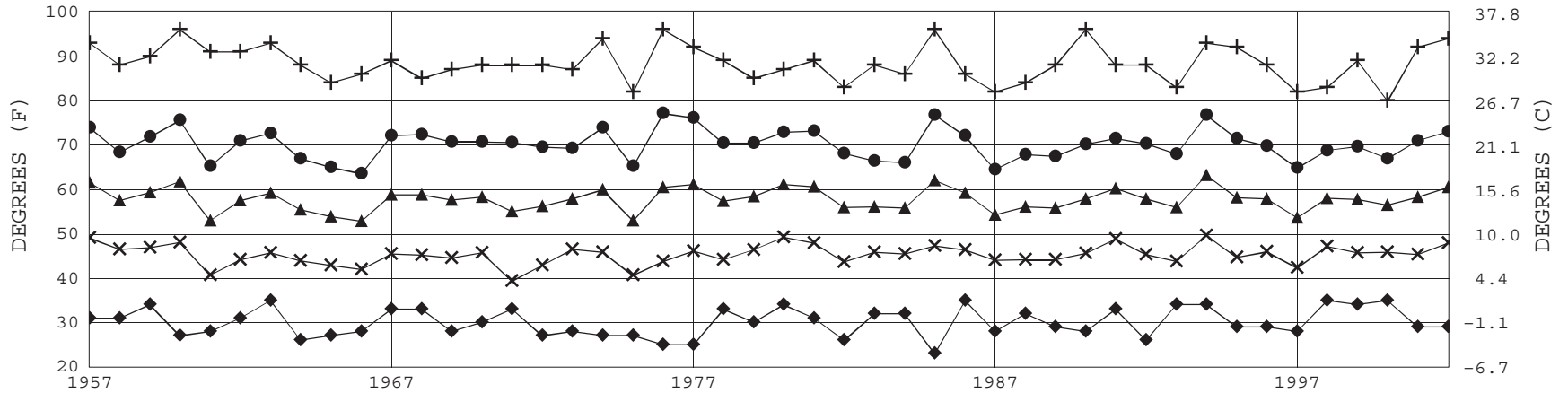
3-HOURLY OBSERVATION NOTES

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, 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.

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			55	49	52	82	29.95	30.14	8.97	7	1	23	
02			54	49	52	83	29.94	30.13	8.80	8	1	22	
03			53	48	51	85	29.93	30.12	8.67	6	1	17	
04			52	48	50	86	29.93	30.12	8.93	6	1	22	
05			51	47	50	87	29.94	30.13	8.23	7	1	32	
06			51	47	49	87	29.96	30.15	7.72	6	0	0	
07			54	48	51	83	29.97	30.16	8.45	7	1	31	
08			57	49	53	76	29.98	30.17	9.08	10	2	32	
09			60	49	54	69	29.99	30.18	9.10	9	1	23	
10			63	49	56	62	29.98	30.17	9.20	9	1	22	
11			66	48	57	55	29.96	30.16	9.67	10	3	23	
12			68	48	57	51	29.95	30.14	9.57	11	4	24	
13			70	48	58	48	29.93	30.12	9.63	10	4	24	
14			71	47	58	45	29.91	30.10	9.87	10	4	24	
15			71	48	59	45	29.89	30.08	9.87	11	3	26	
16			70	48	58	47	29.88	30.07	9.60	11	3	25	
17			69	48	58	50	29.88	30.08	9.90	12	1	23	
18			67	48	57	52	29.89	30.08	9.93	10	1	19	
19			63	48	56	60	29.90	30.09	9.90	9	2	12	
20			61	48	55	65	29.92	30.11	9.73	9	2	13	
21			59	49	54	70	29.93	30.13	9.67	8	2	13	
22			58	49	53	73	29.94	30.13	9.50	9	3	17	
23			57	49	53	77	29.94	30.13	9.42	8	2	17	
24			56	49	53	80	29.95	30.14	9.33	8	1	19	

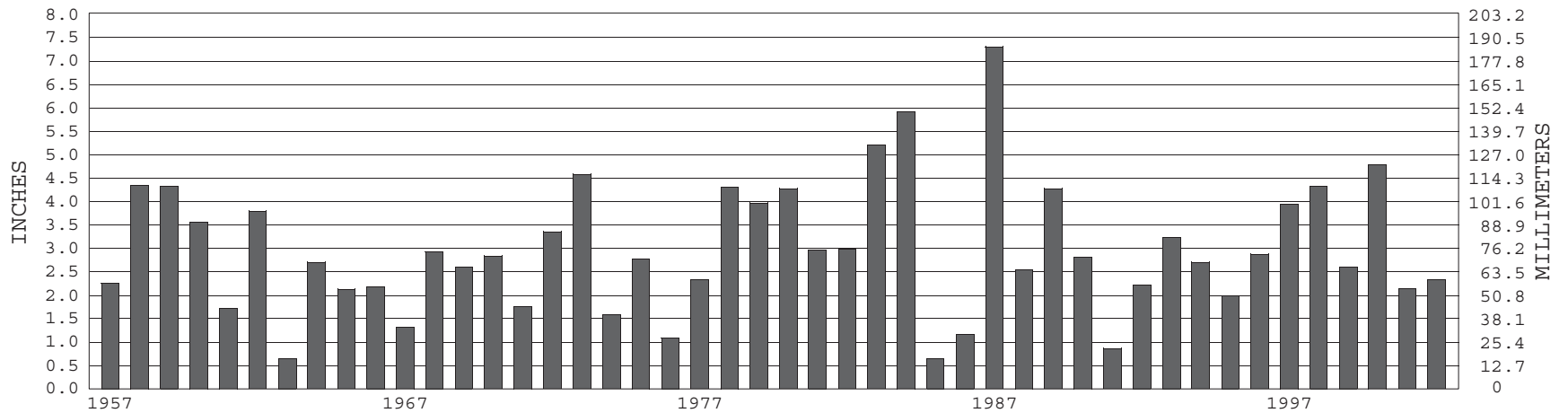
RICHMOND, VA APRIL TEMPERATURES



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

Long-Term (1957-2002) Mean: 57.8 1961-1990 Normal: 57.1

RICHMOND, VA APRIL PRECIPITATION



Long-Term (1957-2002) Mean Monthly Total: 2.98

1961-1990 Normal: 3.18



APRIL 2002

RICHMOND, VA

LOCAL CLIMATOLOGICAL DATA

NOAA, National Climatic Data Center

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