



MARCH 2001

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															
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	52	30	41	-2	22	35	24	0	BR HZ				0.00	29.70	29.89	3.1	27	6.6	29	28	18	24	01													
02	63	38	51	8	33	42	14	0	RA SN				0.03	29.53	29.72	4.0	26	6.7	23	26	20	26	02													
03	53	35	44	0	36	42	21	0					0.00	29.64	29.83	2.8	16	3.5	12	17	10	17	03													
04	47	41	44	0	42	43	21	0	RA BR				0.30	29.58	29.77	6.1	05	7.8	25	08	21	10	04													
05	47	31	39	-5	32	36	26	0	RA DZ SN FG+ BR UP				0.08	29.43	29.62	12.4	34	12.7	28	32	23	36	05													
06	41	26	34	-11	16	27	31	0	SN				T	29.41	29.60	17.9	32	18.6	39	32	32	32	06													
07	50	34	42	-3	23	34	23	0					0.00	29.70	29.89	11.4	34	12.0	30	33	22	35	07													
08	53	27	40	-5	26	35	25	0					0.00	29.82	30.01	2.6	18	6.3	17	23	15	14	08													
09	54	33	44	-2	23	36	21	0	RA				T	29.72	29.91	7.6	32	10.4	25	30	22	31	09													
10	49	25	37	-9	18	31	28	0					0.00	29.88	30.08	3.1	29	5.8	21	33	15	30	10													
11	67	29	48	2	27	39	17	0					0.00	29.88	30.08	8.0	23	10.3	30	23	24	24	11													
12	59	35	47	0	37	42	18	0	RA BR				0.09	29.92	30.12	5.8	10	7.6	22	14	18	14	12													
13	73	46	60*	13	46	52	5	0	RA FG+ BR				0.08	29.42	29.61	9.5	27	10.9	45*	31	35*	31	13													
14	65	42	54	7	31	44	11	0					0.00	29.66	29.85	7.7	28	8.9	25	27	22	27	14													
15	50	39	45	-3	41	44	20	0	RA DZ BR				0.68	29.68	29.87	7.1	05	8.7	24	01	18	01	15													
16	54	41	48	0	45	46	17	0	RA BR				T	29.69	29.89	0.9	34	5.6	14	03	12	02	16													
17	64	43	54	6	41	46	11	0	BR				0.00	29.77	29.96	5.2	29	7.5	32	32	25	31	17													
18	54	35	45	-4	24	36	20	0					0.00	30.04	30.23	10.9	35	11.3	32	01	25	33	18													
19	55	29	42	-7	20	34	23	0					0.00	30.22	30.41	4.2	03	6.3	22	02	16	05	19													
20	52	30	41	-8	34	38	24	0	RA BR				0.23	30.11	30.30	10.4	06	10.8	29	07	22	07	20													
21	55	44	50	0	50	51	15	0	RA BR				0.93	29.50	29.69	11.2	05	13.5	36	09	24	08	21													
22	61	42	52	2	35	43	13	0					0.00	29.52	29.71	15.7	32	16.3	38	30	30	30	22													
23	64	35	50	0	28	41	15	0					0.00	29.70	29.89	8.4	29	9.4	37	28	25	28	23													
24	74*	34	54	3	33	44	11	0	RA				T	29.71	29.90	7.4	27	12.9	38	22	30	24	24													
25	51	32	42	-9	24	35	23	0					0.00	29.85	30.04	2.4	12	7.3	20	15	17	01	25													
26	46	27	37	-14	17	31	28	0					0.00	29.89	30.08	8.6	35	10.0	25	36	21	34	26													
27	44	22*	33*	-19	9	26	32	0					0.00	30.12	30.31	6.1	35	7.2	22	32	18	34	27													
28	53	23	38	-14	20	32	27	0					0.00	30.14	30.34	2.2	15	5.4	20	19	14	19	28													
29	62	38	50	-2	42	43	15	0	RA BR				1.10	29.91	30.10	5.9	09	7.8	26	16	21	14	29													
30	66	43	55	2	46	49	10	0	RA BR				0.16	29.54	29.73	4.0	31	7.3	36	24	26	27	30													
31	53	44	49	-4	43	45	16	0	RA BR				0.09	29.62	29.81	4.1	06	4.6	17	31	13	31	31													
55.8											34.6	45.2	■ ■	31.1	39.4	19.5	0.0	< MONTHLY AVERAGES		TOTALS->		3.77	29.75	29.94	3.6	34	9.0	<- MONTHLY AVERAGES								
-3.7											-1.7	-2.8	■ ■	<-----DEPARTURE FROM NORMAL----->											0.16	SUNSHINE, CLOUD, & VISIBILITY TABLES ON PAGE 3										
DEGREE DAYS											GREATEST 24-HR PRECIPITATION: 1.26 DATE: 29-30											SEA LEVEL PRESSURE DATE TIME														
MONTHLY TOTAL DEPARTURE											SEASON TO DATE TOTAL DEPARTURE											MAXIMUM : 30.47 19 0954														
HEATING: 605 78 3889 228											NUMBER OF DAYS WITH →											MINIMUM : 29.49 13 1554														
COOLING: 0 0 0 0											MAXIMUM TEMP ≥ 90: 0											PRECIPITATION ≥ 0.01 INCH : 11														
											MAXIMUM TEMP ≤ 32 : 0											PRECIPITATION ≥ 0.10 INCH : 6														
											THUNDERSTORMS : 0											HEAVY FOG : 2														
																						SNOWFALL ≥ 1.0 INCH :														

MARCH 2001
RICHMOND, VA

HOURLY PRECIPITATION

(WATER EQUIVALENT IN INCHES)

RICHMOND, VA

MARCH 2001

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												01		0.00		
02													02												02		0.03		
03													03												03		0.00		
04	T	T	T	0.02	0.01	0.01	T		0.01	0.03	0.04	0.01	04	0.02	0.03	0.03	0.01	0.01	0.02		T		0.01	0.03	0.01	04	0.30		
05		T	T	T	T	T	T	0.01	0.06	0.01	T	T	05								T	T	T		05		0.08		
06	T	T	T									T	06												06		T		
07													07												07		0.00		
08													08												08		0.00		
09			T			T	T						09												09		T		
10													10												10		0.00		
11													11												11		0.00		
12													12								T	T	0.04	0.04	0.01	12	0.09		
13	T	0.04	0.01										13	0.02	0.01										13	0.08			
14													14												14	0.00			
15											0.01	0.04	15	0.04	0.05	0.12	0.16	0.15	0.10	0.01	T			15	0.68				
16													16						T	T					16	T			
17													17												17	0.00			
18													18												18	0.00			
19													19												19	0.00			
20													20			T	T	T	0.01	0.04	0.05	0.02	0.07	0.04	20	0.23			
21	0.02	0.08	0.08	0.07	0.18	0.16	0.11	0.03	0.04	0.04	0.04		21		0.01	0.02	0.02	0.02						0.01	21	0.93			
22													22												22	0.00			
23													23												23	0.00			
24													24					T	T	T	T	T			24	T			
25													25												25	0.00			
26													26												26	0.00			
27													27												27	0.00			
28													28												28	0.00			
29					T	T	0.01	0.01	0.04	0.05	0.03	0.04	29	0.05	0.04	0.09	0.09	0.07	0.09	0.09	0.14	0.11	0.10	0.03	0.02	29	1.10		
30	0.16	T	T					T	0.04	T	0.01		30											T	30	0.16			
31													31											T	31	0.09			

MAXIMUM SHORT DURATION PRECIPITATION (See Note)

Time Period (Minutes)	5	10	15	20	30	45	60	80	100	120	150	180
Precipitation (Inches)												
Ending Date												
Ending Time (Hour/Min)												

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 1961–1990

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 MARCH 2001

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							6.00	10.00	
02							9.00	10.00	
03							10.00	10.00	
04							1.00	10.00	
05							.25	10.00	
06							9.00	10.00	
07							10.00	10.00	
08							8.00	10.00	
09							10.00	10.00	
10							10.00	10.00	
11							10.00	10.00	
12							4.00	10.00	
13							<.25	10.00	
14							10.00	10.00	
15							1.00	10.00	
16							4.00	10.00	
17							4.00	10.00	
18							10.00	10.00	
19							10.00	10.00	
20							4.00	10.00	
21							1.00	10.00	
22							10.00	10.00	
23							10.00	10.00	
24							10.00	10.00	
25							10.00	10.00	
26							10.00	10.00	
27							10.00	10.00	
28							9.00	10.00	
29							1.50	10.00	
30							1.50	10.00	
31							3.00	10.00	
MONTHLY AVGS							6.83	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 7 18									

OBSERVATIONS AT 3-HOURLY INTERVALS

RICHMOND, VA

MARCH 2001

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: 0640						MAR 01	SUNSET: 1803						SUNRISE: 0632						MAR 07	SUNSET: 1809									
01	OVC	023			10.00		38	32	36	79	8	10	29.77	29.96	01	OVC	055			10.00	35	18	29	50	16	33	29.57	29.77	
04	BKN	026			10.00		37	31	35	79	0	00	29.75	29.94	04	OVC	043			10.00	35	18	29	50	15	33	29.59	29.79	
07	CLR	NC			7.00		32	30	31	92	0	00	29.77	29.96	07	OVC	044			10.00	36	20	30	52	13	33	29.65	29.84	
10	FEW	NC			10.00		40	27	35	60	9	03	29.78	29.97	10	BKN	040			10.00	41	24	35	51	18	35	29.69	29.88	
13	CLR	NC			10.00		49	10	36	21	12	29	29.72	29.92	13	OVC	047			10.00	45	25	37	46	10	36	29.68	29.87	
16	SCT	NC			10.00		51	9	37	18	15	27	29.64	29.84	16	BKN	250			10.00	49	25	39	39	9	34	29.70	29.89	
19	FEW	NC			10.00		42	16	33	35	7	18	29.63	29.82	19	OVC	250			10.00	44	25	37	47	5	36	29.75	29.94	
22	BKN	250			10.00		38	20	32	48	8	22	29.61	29.81	22	BKN	250			10.00	39	25	34	57	14	01	29.82	30.01	
SUNRISE: 0639						MAR 02	SUNSET: 1804						SUNRISE: 0630						MAR 08	SUNSET: 1810									
01	OVC	200			10.00		43	15	33	32	6	28	29.58	29.78	01	OVC	250			10.00	33	23	30	67	8	01	29.85	30.05	
04	OVC	120			10.00		38	24	33	57	3	06	29.55	29.74	04	CLR	NC			10.00	30	22	27	72	0	00	29.85	30.04	
07	OVC	055			9.00	-RA	38	34	36	86	7	19	29.56	29.76	07	CLR	NC			8.00	28	23	26	81	3	33	29.89	30.09	
10	OVC	100			10.00		44	37	41	76	7	18	29.54	29.72	10	CLR	NC			10.00	41	24	35	51	3	VR	29.90	30.09	
13	OVC	250			10.00		54	36	46	51	6	VR	29.47	29.65	13	CLR	NC			10.00	48	25	39	41	10	24	29.82	30.01	
16	BKN	250			10.00		62	38	50	41	12	29	29.44	29.62	16	BKN	100			10.00	51	25	40	36	7	22	29.75	29.95	
19	OVC	250			10.00		56	37	47	49	13	27	29.51	29.69	19	CLR	NC			10.00	46	26	38	46	6	17	29.73	29.93	
22	OVC	250			10.00		53	36	45	52	9	28	29.55	29.74	22	BKN	085			10.00	40	34	37	79	9	13	29.73	29.93	
SUNRISE: 0638						MAR 03	SUNSET: 1805						SUNRISE: 0629						MAR 09	SUNSET: 1811									
01	OVC	250			10.00		48	35	42	61	3	28	29.57	29.76	01	OVC	085			10.00	43	31	38	63	8	16	29.69	29.88	
04	BKN	250			10.00		38	34	36	86	0	00	29.58	29.77	04	OVC	110			10.00	40	31	36	70	6	20	29.65	29.84	
07	BKN	150			10.00		35	33	34	93	0	00	29.62	29.82	07	BKN	050			10.00	41	31	37	67	6	27	29.67	29.86	
10	OVC	150			10.00		50	36	44	59	7	18	29.64	29.83	10	SCT	NC			10.00	47	24	38	41	10	33	29.70	29.90	
13	OVC	140			10.00		52	36	45	55	8	19	29.65	29.84	13	FEW	NC			10.00	51	18	38	27	16	31	29.68	29.87	
16	OVC	140			10.00		52	37	45	57	8	18	29.61	29.81	16	BKN	085			10.00	50	17	38	27	22	30	29.67	29.87	
19	OVC	180			10.00		48	38	43	68	3	13	29.67	29.86	19	SCT	NC			10.00	41	16	32	36	12	36	29.76	29.96	
22	OVC	180			10.00		46	38	42	73	3	15	29.70	29.90	22	CLR	NC			10.00	36	15	29	42	9	35	29.83	30.02	
SUNRISE: 0636						MAR 04	SUNSET: 1806						SUNRISE: 0627						MAR 10	SUNSET: 1812									
01	OVC	090			10.00		47	37	42	69	0	00	29.70	29.89	01	CLR	NC			10.00	33	17	28	52	10	32	29.84	30.03	
04	OVC	060			5.00	-RA BR	43	41	42	93	5	08	29.68	29.88	04	CLR	NC			10.00	30	17	26	59	6	32	29.84	30.04	
07	OVC	055			8.00		43	41	42	93	6	VR	29.66	29.85	07	CLR	NC			10.00	28	18	25	66	3	31	29.88	30.08	
10	OVC	006			1.00	-RA BR	45	45	45	100	9	06	29.66	29.85	10	CLR	NC			10.00	39	18	32	43	13	32	29.92	30.11	
13	OVC	008			1.50	-RA BR	45	44	45	97	8	06	29.58	29.77	13	CLR	NC			10.00	45	16	35	31	3	VR	29.89	30.09	
16	OVC	011			2.50	-RA BR	44	43	44	96	13	06	29.53	29.72	16	CLR	NC			10.00	48	16	36	28	10	23	29.86	30.05	
19	OVC	006			2.00	BR	41	41	41	100	8	01	29.51	29.69	19	CLR	NC			10.00	41	20	33	43	6	19	29.87	30.07	
22	OVC	004			2.50	-RA BR	41	41	41	100	9	03	29.43	29.62	22	CLR	NC			10.00	34	22	30	61	3	18	29.91	30.11	
SUNRISE: 0635						MAR 05	SUNSET: 1807						SUNRISE: 0626						MAR 11	SUNSET: 1813									
01	OVC	002			5.00	BR	41	41	41	100	13	35	29.40	29.59	01	CLR	NC			10.00	33	22	29	64	0	00	29.89	30.09	
04	OVC	006			4.00	-DZ BR	39	39	39	100	14	36	29.36	29.54	04	SCT	NC			10.00	32	20	28	61	5	18	29.89	30.08	
07	OVC	006			7.00	-RA	36	36	36	100	15	33	29.41	29.59	07	BKN	250			10.00	32	24	29	73	9	20	29.90	30.09	
10	OVC	011			9.00	-SN	35	33	34	93	13	32	29.46	29.65	10	BKN	250			10.00	52	27	42	38	18	21	29.89	30.09	
13	BKN	025			10.00		41	34	38	76	16	33	29.44	29.63	13	FEW	NC			10.00	62	29	47	29	16	22	29.84	30.03	
16	BKN	049			10.00		45	32	39	61	13	33	29.41	29.59	16	FEW	NC			10.00	66	26	48	22	16	24	29.80	29.99	
19	BKN	070			10.00		40	23	34	51	14	34	29.45	29.64	19	FEW	NC			10.00	55	29	44	37	7	22	29.86	30.06	
22	OVC	085			10.00		34	25	31	70	9	34	29.51	29.70	22	CLR	NC			10.00	53	32	44	45	8	33	29.94	30.14	
SUNRISE: 0633						MAR 06	SUNSET: 1808						SUNRISE: 0625						MAR 12	SUNSET: 1814									
01	OVC	065			9.00	-SN	31	21	28	67	15	35	29.46	29.65	01	CLR	NC			10.00	44	32	39	63	8	04	29.99	30.19	
04	CLR	NC			10.00		27	8	22	45	14	29	29.43	29.62	04	FEW	NC			10.00	39	32	36	76	6	05	29.99	30.19	
07	BKN	070			10.00		26	8	21	46	13	28	29.38	29.57	07	SCT	NC			10.00	37	32	35	82	0	00	30.08	30.28	
10	OVC	100			10.00		31	14	26	49	25	31	29.34	29.53	10	OVC	250			10.00	46	32	40	58	7	VR	30.10	30.29	
13	OVC	050			10.00		36	15	29	42	25	31	29.33	29.51	13	BKN	250			10.00	56	33	46	42	3	VR	30.00	30.19	
16	OVC	060			10.00		38	17	31	43	25	33	29.35	29.54	16	OVC	055			10.00	54	40	47	59	12	13	29.88	30.08	
19	OVC	060			10.00		37	19	31	48	15	32	29.45	29.64	19	OVC	027			10.00	49	43	46	80	13	12	29.80	30.00	
22	OVC	060			10.00		36	21	31	55	23	33	29.52	29.71	22	OVC	013			10.00	45	45	45	100	0	00	29.70	29.89	

OBSERVATIONS AT 3-HOURLY INTERVALS

RICHMOND, VA

MARCH 2001

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 Oktas	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	DRY BULB	DEW POINT	WET BULB	RELATIVE HUMIDITY (PCT)	SPEED (MPH)	DIRECTION TENS OF DEG	STATION	SEA LEVEL
SUNRISE: 0623 MAR 13					SUNSET: 1815					SUNRISE: 0614 MAR 19					SUNSET: 1820														
01	OVC	003	3.00	-RA BR	47	47	47	100	0	00	29.55	29.75	01	CLR	NC	10.00		34	21	29	59	9	36	30.18	30.38				
04	VV	001	0.13	FG	48	48	48	100	0	00	29.49	29.67	04	CLR	NC	10.00		33	19	28	56	5	36	30.19	30.39				
07	BKN	020	0.50	FG	49	49	49	100	3	31	29.44	29.62	07	CLR	NC	10.00		31	21	28	67	5	35	30.23	30.43				
10	CLR	NC	10.00		65	59	61	81	15	24	29.40	29.58	10	CLR	NC	10.00		45	17	35	33	9	03	30.28	30.47				
13	OVC	050	5.00	RA	65	55	59	70	23	26	29.33	29.52	13	CLR	NC	10.00		51	16	38	25	10	01	30.23	30.42				
16	SCT	NC	10.00		72	46	58	40	16	28	29.31	29.49	16	CLR	NC	10.00		55	17	40	22	8	10	30.16	30.36				
19	FEW	NC	10.00		63	38	51	40	8	29	29.38	29.57	19	FEW	NC	10.00		47	19	37	33	7	11	30.20	30.39				
22	FEW	NC	10.00		56	33	45	42	7	25	29.45	29.63	22	FEW	NC	10.00		39	26	34	60	0	00	30.23	30.43				
SUNRISE: 0622 MAR 14					SUNSET: 1816					SUNRISE: 0613 MAR 20					SUNSET: 1821														
01	CLR	NC	10.00		53	32	44	45	12	29	29.55	29.74	01	FEW	NC	8.00		32	27	30	82	5	01	30.23	30.42				
04	CLR	NC	10.00		45	33	40	63	8	21	29.53	29.71	04	FEW	NC	10.00		32	24	29	73	0	00	30.21	30.40				
07	FEW	NC	10.00		47	34	41	61	6	29	29.62	29.81	07	OVC	250	10.00		32	27	30	82	8	03	30.21	30.41				
10	CLR	NC	10.00		57	32	46	39	15	32	29.65	29.85	10	OVC	150	10.00		44	29	38	55	12	06	30.21	30.41				
13	CLR	NC	10.00		62	27	47	26	16	28	29.68	29.87	13	OVC	045	10.00		50	32	42	50	13	07	30.15	30.35				
16	BKN	250	10.00		65	28	48	25	15	30	29.67	29.86	16	OVC	040	10.00		49	37	44	64	15	08	30.07	30.26				
19	BKN	200	10.00		59	28	45	31	6	26	29.76	29.95	19	OVC	047	9.00	-RA	45	42	44	90	13	06	30.00	30.20				
22	BKN	200	10.00		47	33	41	59	0	00	29.77	29.96	22	OVC	014	4.00	-RA BR	44	44	44	100	14	06	29.94	30.14				
SUNRISE: 0620 MAR 15					SUNSET: 1817					SUNRISE: 0611 MAR 21					SUNSET: 1822														
01	OVC	250	10.00		44	33	39	65	0	00	29.78	29.97	01	OVC	008	6.00	-RA BR	47	47	47	100	18	06	29.78	29.97				
04	OVC	250	10.00		45	33	40	63	7	08	29.74	29.93	04	OVC	010	4.00	RA BR	49	49	49	100	21	08	29.63	29.82				
07	OVC	180	10.00		46	37	42	71	7	07	29.76	29.96	07	OVC	014	1.75	RA BR	50	50	50	100	20	07	29.54	29.72				
10	OVC	065	10.00		50	41	46	71	6	14	29.73	29.92	10	OVC	009	1.50	-RA BR	53	53	53	100	7	08	29.52	29.70				
13	OVC	075	6.00	-RA BR	48	48	48	100	9	07	29.62	29.81	13	OVC	008	10.00		54	54	54	100	6	05	29.46	29.64				
16	OVC	007	1.00	+RA BR	46	46	46	100	9	05	29.54	29.72	16	OVC	005	10.00		54	54	54	100	13	36	29.40	29.59				
19	OVC	008	10.00	-DZ	45	45	45	100	14	01	29.58	29.78	19	OVC	005	10.00		50	50	50	100	10	03	29.42	29.60				
22	OVC	010	9.00		44	44	44	100	10	01	29.66	29.85	22	OVC	006	10.00		47	46	46	97	13	36	29.43	29.61				
SUNRISE: 0619 MAR 16					SUNSET: 1818					SUNRISE: 0610 MAR 22					SUNSET: 1823														
01	OVC	010	10.00		43	42	43	97	10	01	29.69	29.88	01	OVC	006	10.00		44	43	44	96	13	35	29.42	29.61				
04	OVC	030	10.00		42	41	42	96	6	01	29.73	29.93	04	OVC	010	10.00		43	40	42	89	18	34	29.43	29.61				
07	OVC	035	10.00		42	41	42	96	3	06	29.74	29.94	07	OVC	024	10.00		43	37	40	80	15	34	29.48	29.67				
10	OVC	013	10.00		45	43	44	93	6	16	29.76	29.95	10	BKN	090	10.00		49	38	44	66	17	32	29.51	29.69				
13	OVC	020	10.00		52	47	49	83	7	14	29.67	29.86	13	SCT	NC	10.00		59	37	48	44	23	32	29.49	29.67				
16	OVC	027	10.00		53	48	50	83	0	00	29.62	29.81	16	BKN	250	10.00		60	34	48	38	28	30	29.51	29.70				
19	OVC	019	6.00	BR	51	48	50	89	9	31	29.64	29.84	19	BKN	200	10.00		51	30	42	45	12	33	29.60	29.80				
22	OVC	011	6.00	BR	49	48	48	97	7	27	29.67	29.86	22	BKN	200	10.00		49	29	41	46	9	30	29.64	29.83				
SUNRISE: 0617 MAR 17					SUNSET: 1818					SUNRISE: 0608 MAR 23					SUNSET: 1824														
01	BKN	013	5.00	BR	47	46	46	97	8	28	29.68	29.88	01	SCT	NC	10.00		45	30	39	56	8	29	29.67	29.86				
04	OVC	006	5.00	BR	45	45	45	100	3	29	29.71	29.90	04	SCT	NC	10.00		39	29	35	67	5	25	29.69	29.88				
07	OVC	006	4.00	BR	44	44	44	100	3	24	29.76	29.95	07	CLR	NC	10.00		40	26	35	58	9	26	29.73	29.92				
10	CLR	NC	10.00		50	45	48	83	5	VR	29.80	29.99	10	CLR	NC	10.00		53	24	41	32	10	28	29.74	29.94				
13	BKN	060	10.00		58	43	50	58	7	VR	29.75	29.95	13	FEW	NC	10.00		59	28	45	31	13	26	29.68	29.87				
16	BKN	080	10.00		61	41	51	48	6	24	29.72	29.91	16	BKN	100	10.00		64	32	49	30	14	28	29.61	29.80				
19	SCT	NC	10.00		55	37	47	51	10	28	29.79	29.98	19	FEW	NC	10.00		57	26	44	31	12	34	29.69	29.88				
22	CLR	NC	10.00		47	32	41	56	14	30	29.87	30.06	22	CLR	NC	10.00		48	29	40	47	0	00	29.76	29.95				
SUNRISE: 0616 MAR 18					SUNSET: 1819					SUNRISE: 0607 MAR 24					SUNSET: 1825														
01	BKN	250	10.00		42	30	37	62	9	33	29.88	30.08	01	CLR	NC	10.00		38	31	35	76	0	00	29.77	29.96				
04	BKN	250	10.00		38	31	35	76	0	00	29.92	30.11	04	CLR	NC	10.00		39	31	36	73	3	16	29.75	29.95				
07	FEW	NC	10.00		37	27	33	67	9	36	29.99	30.18	07	FEW	NC	10.00		40	32	37	73	6	23	29.76	29.95				
10	FEW	NC	10.00		43	24	36	47	18	34	30.04	30.24	10	CLR	NC	10.00		63	38	51	40	17	22	29.69	29.89				
13	FEW	NC	10.00		50	25	40	38	12	33	30.05	30.25	13	FEW	NC	10.00		71	34	53	26	28	25	29.59	29.78				
16	FEW	NC	10.00		52	21	40	30	16	35	30.04	30.23	16	OVC	100	10.00		70	34	52	27	13	25	29.56	29.75				
19	FEW	NC	10.00		45	17	35	33	9	36	30.09	30.29	19	OVC	100	10.00		57	37	48	47	20	33	29.67	29.86				
22	CLR	NC	10.00		42	19	34	40	5	31	30.17	30.36	22	BKN	075	10.00		51	25	40	36	14	34	29.79	29.98				

OBSERVATIONS AT 3-HOURLY INTERVALS

RICHMOND, VA

MARCH 2001

RIC

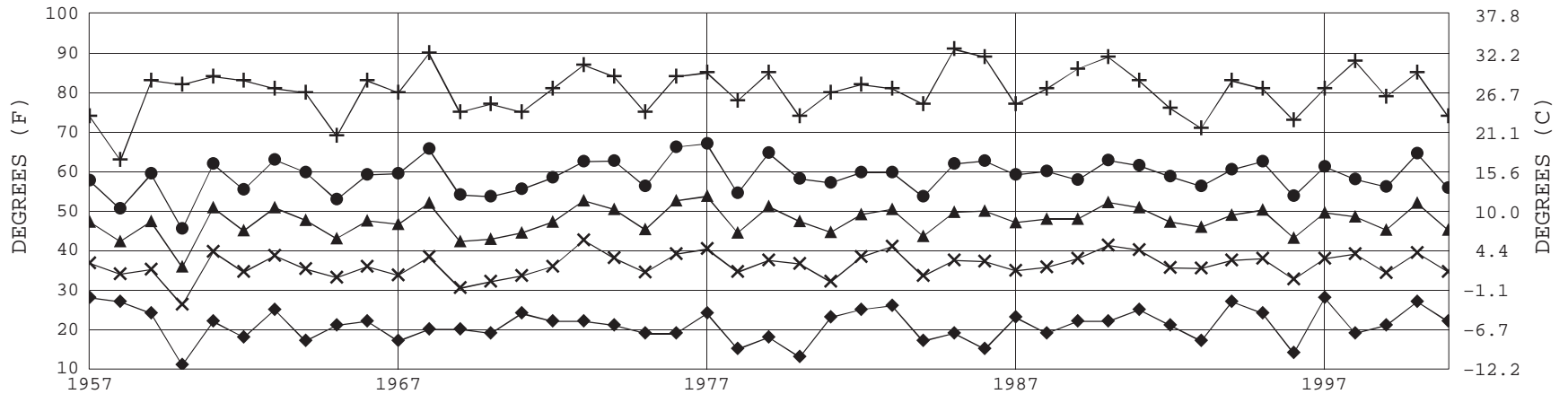
WBAN # 13740

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
<p>SUNRISE: 0605 MAR 25 SUNSET: 1826</p>																									
01	BKN	080		10.00	43	25	36	49	10	03	29.86	30.05	01	BKN	250		10.00	47	42	45	83	6	06	29.64	29.83
04	BKN	250		10.00	35	24	31	64	6	02	29.88	30.08	04	OVC	080		10.00	46	41	44	83	5	05	29.62	29.81
07	BKN	250		10.00	34	23	30	64	5	05	29.93	30.13	07	OVC	036		10.00	45	42	44	90	3	02	29.63	29.83
10	BKN	250		10.00	42	21	34	43	3	VR	29.93	30.13	10	OVC	028		9.00	47	44	46	90	8	05	29.65	29.85
13	BKN	250		10.00	47	20	37	34	6	VR	29.86	30.06	13	OVC	015		10.00	49	44	47	83	7	07	29.63	29.82
16	SCT	NC		10.00	51	24	40	35	9	15	29.78	29.98	16	OVC	030		10.00	51	43	47	74	0	00	29.60	29.80
19	SCT	NC		10.00	46	27	38	47	8	15	29.77	29.97	19	BKN	110		10.00	49	42	46	77	3	06	29.59	29.78
22	CLR	NC		10.00	39	29	35	67	13	15	29.79	29.99	22	OVC	075		10.00	46	42	44	86	5	08	29.60	29.79
<p>SUNRISE: 0604 MAR 26 SUNSET: 1827</p>																									
01	OVC	110		10.00	35	31	33	85	5	19	29.77	29.96	<p>3-HOURLY OBSERVATION NOTES</p>												
04	OVC	060		10.00	36	32	34	86	3	07	29.77	29.96	<p>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.</p>												
07	BKN	110		10.00	36	24	32	62	12	34	29.84	30.03	<p>Ceiling is reported in hundreds of feet above ground level for clouds at or below 12,000 feet.</p>												
10	FEW	NC		10.00	41	19	33	41	14	33	29.89	30.09	<p>NC= No ceiling detected.</p>												
13	CLR	NC		10.00	43	12	33	28	5	VR	29.88	30.07	<p>& = Original observation contained additional weather elements.</p>												
16	CLR	NC		10.00	44	9	33	24	9	34	29.86	30.05	<p>See page 3 for additional notes.</p>												
19	CLR	NC		10.00	35	8	27	32	15	03	29.94	30.14													
22	CLR	NC		10.00	30	4	23	33	10	01	30.02	30.22													
<p>SUNRISE: 0602 MAR 27 SUNSET: 1828</p>																									
01	CLR	NC		10.00	27	6	21	41	10	01	30.06	30.26													
04	CLR	NC		10.00	25	6	20	44	6	36	30.07	30.27													
07	CLR	NC		10.00	26	9	21	48	6	35	30.12	30.32													
10	FEW	NC		10.00	35	8	27	32	13	31	30.16	30.36													
13	CLR	NC		10.00	39	8	29	28	10	32	30.11	30.31													
16	CLR	NC		10.00	42	9	31	25	6	VR	30.07	30.27													
19	CLR	NC		10.00	38	11	29	33	6	34	30.11	30.30													
22	CLR	NC		10.00	32	16	27	52	6	04	30.17	30.37													
<p>SUNRISE: 0601 MAR 28 SUNSET: 1829</p>																									
01	CLR	NC		9.00	29	17	25	61	3	04	30.18	30.38													
04	CLR	NC		10.00	25	16	22	69	0	00	30.17	30.37													
07	CLR	NC		10.00	27	21	25	78	0	00	30.22	30.42													
10	CLR	NC		10.00	41	16	32	36	3	VR	30.22	30.42													
13	CLR	NC		10.00	47	18	36	31	3	VR	30.13	30.33													
16	BKN	250		10.00	52	18	39	26	12	23	30.07	30.27													
19	BKN	250		10.00	47	20	37	34	6	15	30.07	30.27													
22	BKN	250		10.00	40	33	37	77	10	14	30.09	30.29													
<p>SUNRISE: 0559 MAR 29 SUNSET: 1829</p>																									
01	BKN	250		10.00	38	31	35	76	7	14	30.09	30.28													
04	OVC	080		10.00	38	31	35	76	6	13	30.07	30.27													
07	OVC	040		6.00	38	37	38	97	3	06	30.08	30.27													
10	OVC	018		2.50	40	40	40	100	8	07	30.06	30.26													
13	OVC	018		2.50	42	42	42	100	9	08	29.99	30.19													
16	OVC	005		2.50	46	46	46	100	10	07	29.84	30.03													
19	OVC	005		2.50	52	52	52	100	9	10	29.71	29.91													
22	OVC	003		7.00	48	48	48	100	12	03	29.59	29.78													
<p>SUNRISE: 0558 MAR 30 SUNSET: 1830</p>																									
01	OVC	028		6.00	49	49	49	100	6	26	29.55	29.73													
04	OVC	003		7.00	45	45	45	100	5	31	29.50	29.69													
07	OVC	007		10.00	43	43	43	100	8	29	29.54	29.72													
10	BKN	008		10.00	47	45	46	93	7	33	29.54	29.72													
13	OVC	250		10.00	57	47	52	69	9	26	29.52	29.70													
16	BKN	250		10.00	65	48	56	54	13	29	29.51	29.70													
19	SCT	NC		10.00	59	50	54	72	8	14	29.54	29.72													
22	FEW	NC		10.00	51	43	47	74	8	05	29.62	29.81													

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			40	31	37	71	29.76	29.96	9.06	8	4	35
02			40	31	36	72	29.76	29.95	9.26	6	3	35
03			39	30	36	72	29.75	29.94	8.97	6	2	35
04			38	30	35	75	29.75	29.94	8.88	6	2	1
05			38	30	35	77	29.76	29.95	9.00	6	3	36
06			37	30	35	77	29.77	29.96	8.93	6	2	35
07			37	31	35	78	29.78	29.97	8.75	6	3	33
08			41	32	37	73	29.79	29.98	8.58	9	4	35
09			43	32	39	67	29.79	29.98	8.40	10	5	35
10			46	32	40	61	29.79	29.98	9.13	10	4	32
11			48	32	41	57	29.78	29.97	9.26	11	4	32
12			50	32	42	54	29.76	29.95	9.29	10	4	30
13			51	31	43	51	29.74	29.93	9.19	10	5	30
14			53	31	44	48	29.71	29.91	9.23	12	5	30
15			54	31	44	47	29.70	29.90	9.15	11	5	31
16			54	31	44	47	29.70	29.89	9.23	12	5	30
17			53	31	44	48	29.70	29.89	9.03	11	5	32
18			51	31	43	50	29.71	29.90	9.10	11	5	33
19			48	31	41	56	29.73	29.92	9.34	9	3	35
20			46	32	40	61	29.74	29.93	9.40	9	4	1
21			45	31	39	63	29.75	29.94	9.27	9	4	36
22			43	32	39	66	29.76	29.95	9.15	8	4	35
23			43	31	38	67	29.76	29.95	8.90	8	3	34
24			41	32	38	71	29.76	29.95	8.97	8	3	36

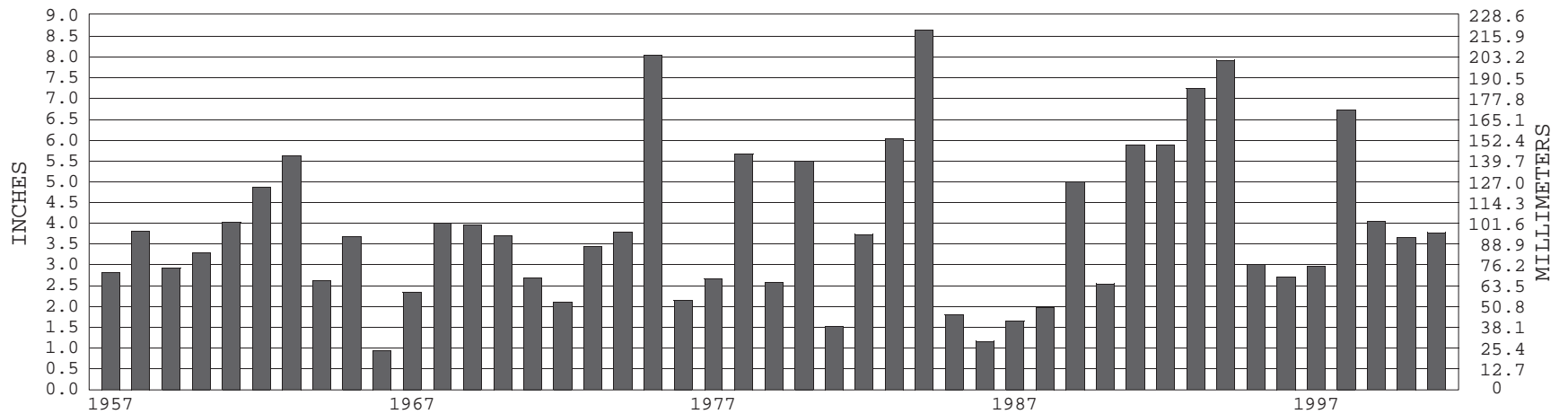
RICHMOND, VA MARCH TEMPERATURES



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

Long-Term (1957-2001) Mean: 47.5 1961-1990 Normal: 48.0

RICHMOND, VA MARCH PRECIPITATION



Long-Term (1957-2001) Mean Monthly Total: 3.89

1961-1990 Normal: 3.61



MARCH 2001
RICHMOND, VA

LOCAL CLIMATOLOGICAL DATA

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