



JANUARY 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																																				
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	36	19	28	-9	12	23	37	0	HZ	0		0.0	0.00	30.03	30.23	7.2	36	8.3	22	02	17	02	01																																		
02	34	20	27*	-10	15	24	38	0	SN BR	0		T	T	30.15	30.35	4.4	36	4.6	17	01	14	01	02																																		
03	31	26	29	-8	25	27	36	0	SN FZFG BR	7		7.7	0.77	29.81	30.00	11.2	36	11.6	26	36	21	35	03																																		
04	39	21	30	-7	17	25	35	0		6		0.0	0.00	29.97	30.16	6.5	31	9.0	26	36	22	34	04																																		
05	47	18*	33	-4	19	29	32	0		5		0.0	0.00	29.98	30.17	6.8	23	7.5	15	24	14	26	05																																		
06	34	21	28	-8	30	31	37	0	RA BR	2		0.0	1.23	29.57	29.76	1.0	28	6.6	22	27	17	27	06																																		
07	38	32	35	-1	34	35	30	0	RA SN BR	1		0.0	0.01	29.55	29.74	7.1	28	8.3	22	32	17	32	07																																		
08	41	24	33	-3	21	28	32	0		0		0.0	0.00	29.88	30.08	5.2	24	6.9	15	23	13	25	08																																		
09	55	27	41	5	29	37	24	0		0		0.0	0.00	29.71	29.91	11.8	21	12.0	24	23	21	21	09																																		
10	65	47	56	20	44	49	9	0		0		0.0	0.00	29.70	29.89	6.6	24	7.0	18	23	15	23	10																																		
11	55	37	46	10	39	45	19	0	RA BR	0		0.0	0.02	29.71	29.90	6.1	28	9.1	28	31	24	35	11																																		
12	51	27	39	3	31	37	26	0	RA BR	0		0.0	0.04	29.76	29.95	6.2	20	7.4	21	18	18	19	12																																		
13	51	32	42	6	28	38	23	0	RA BR	0		0.0	0.03	29.62	29.81	10.8	27	12.2	32*	32	25*	30	13																																		
14	55	25	40	4	32	39	25	0		0		0.0	0.00	29.87	30.06	6.7	18	7.3	22	18	18	18	14																																		
15	58	37	48	12	35	42	17	0		0		0.0	0.00	29.78	29.97	8.4	28	9.6	23	26	20	26	15																																		
16	48	24	36	0	26	34	29	0		0		0.0	0.00	30.06	30.26	1.9	21	4.8	14	33	13	32	16																																		
17	54	37	46	10	33	40	19	0		0		0.0	0.00	29.86	30.05	7.3	22	9.4	20	24	16	25	17																																		
18	51	31	41	5	30	37	24	0	RA BR	0		0.0	0.04	29.97	30.16	4.0	36	6.0	22	29	18	29	18																																		
19	38	31	35	-1	30	33	30	0	RA SN FG+ BR	0		1.0	0.85	29.83	30.02	4.4	05	7.1	20	34	17	32	19																																		
20	44	27	36	0	31	34	29	0	RA SN BR	0		T	0.01	29.95	30.14	2.4	03	5.6	28	36	22	36	20																																		
21	49	32	41	5	39	39	24	0	RA BR	0		0.0	0.15	29.83	30.03	6.5	22	8.1	21	23	16	23	21																																		
22	57	31	44	8	32	38	21	0		0		0.0	0.00	30.16	30.35	4.9	23	6.7	15	24	13	23	22																																		
23	49	35	42	6	44	45	23	0	RA BR	0		0.0	0.16	30.00	30.19	9.4	21	9.9	23	21	21	20	23																																		
24	69	44	57	21	56	57	8	0	RA BR	0		0.0	0.05	29.65	29.84	12.4	23	13.1	31	22	24	22	24																																		
25	58	33	46	10	34	41	19	0	RA BR	0		0.0	0.22	29.93	30.12	5.8	35	9.2	28	02	22	36	25																																		
26	60	29	45	8	31	38	20	0		0		0.0	0.00	30.10	30.30	6.5	21	6.8	20	23	16	23	26																																		
27	67	30	49	12	37	44	16	0		0		0.0	0.00	30.05	30.24	7.2	21	7.7	17	22	14	19	27																																		
28	71	46	59	22	44	51	6	0		0		0.0	0.00	29.94	30.12	7.5	21	8.1	23	24	21	25	28																																		
29	76	44	60	23	47	53	5	0		0		0.0	0.00	29.87	30.06	7.3	23	8.0	20	24	16	25	29																																		
30	81*	54	68*	31	54	59	0	3		0		0.0	0.00	29.90	30.08	6.3	22	9.6	24	23	20	23	30																																		
31	58	49	54	17	51	52	11	0	FG+ BR HZ	0		0.0	0.00	30.01	30.20	2.6	07	4.5	16	04	13	06	31																																		
52.3										31.9		42.1		■ ■		33.2		38.8		22.7		0.1		< MONTHLY AVERAGES		TOTALS->		8.7		3.58		29.88		30.07		3.7		25		8.1		<- MONTHLY AVERAGES															
7.0										4.3		5.7		■ ■		<-----DEPARTURE FROM NORMAL----->																				0.03		SUNSHINE, CLOUD, & VISIBILITY TABLES ON PAGE 3																			
DEGREE DAYS										GREATEST 24-HR PRECIPITATION: 1.23 DATE :06										SEA LEVEL PRESSURE										DATE		TIME																									
MONTHLY										GREATEST 24-HR SNOWFALL: 7.7 DATE :03										MAXIMUM										:		30.46		02 0954																							
TOTAL DEPARTURE										GREATEST SNOW DEPTH: 7 DATE :03										MINIMUM										:		29.48		06 1654																							
HEATING: 704										NUMBER OF DAYS WITH										MAXIMUM TEMP ≥ 90: 0										MINIMUM TEMP ≤ 32: 20										PRECIPITATION ≥ 0.01 INCH : 13																	
COOLING: 3										SEASON TO DATE TOTAL DEPARTURE 1868										MAXIMUM TEMP ≤ 32 : 1										MINIMUM TEMP ≤ 0 : 0										PRECIPITATION ≥ 0.10 INCH : 6																	
										-204										THUNDERSTORMS : 0										HEAVY FOG : 2										SNOWFALL ≥ 1.0 INCH : 2																	

JANUARY 2002
RICHMOND, VA

HOURLY PRECIPITATION

(WATER EQUIVALENT IN INCHES)

RICHMOND, VA

JANUARY 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													01												01		0.00		
02													02															0.00	
03	0.06	0.06	0.05	0.03	0.01	T	0.02	0.01	0.01	0.01	T	T	03	T	T	T	0.01	T									T	0.77	
04													04																0.00
05													05																0.00
06													06	0.31	0.36		0.03	0.03	T									1.23	
07													07	T	T	T	T	T										0.01	
08													08																0.00
09													09																0.00
10													10																0.00
11													11																0.02
12													12																0.04
13	0.03	T											13																0.04
14													14																0.03
15													15																0.00
16													16																0.00
17													17																0.00
18						T	0.02	0.01	0.01	T	T		18																0.04
19													19	0.15	0.14	0.05	0.02	T	0.04	0.06	0.05	0.06	0.05	0.07	0.02				0.85
20	0.01												20																0.01
21													21																0.15
22													22																0.00
23													23	0.01	T														0.16
24													24	T															0.05
25	0.07	0.07	T	0.04	0.04	T							25								T	T	T	0.02	0.03				0.22
26													26																0.00
27													27																0.00
28													28																0.00
29													29																0.00
30													30																0.00
31													31																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)												
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 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 JANUARY 2002

Ceilorometer (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							2.00	10.00	
03							.50	10.00	
04							10.00	10.00	
05							10.00	10.00	
06							.75	10.00	
07							2.00	10.00	
08							10.00	10.00	
09							10.00	10.00	
10							10.00	10.00	
11							2.00	10.00	
12							5.00	10.00	
13							4.00	10.00	
14							10.00	10.00	
15							10.00	10.00	
16							10.00	10.00	
17							10.00	10.00	
18							6.00	10.00	
19							.25	10.00	
20							5.00	10.00	
21							2.00	10.00	
22							10.00	10.00	
23							.50	10.00	
24							5.00	10.00	
25							3.00	10.00	
26							10.00	10.00	
27							10.00	10.00	
28							9.00	10.00	
29							10.00	10.00	
30							10.00	10.00	
31							.25	10.00	
MONTHLY AVGS							6.39	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									
1 8 15									

OBSERVATIONS AT 3-HOURLY INTERVALS

RICHMOND, VA

JANUARY 2002

RIC

WBAN # 13740

HOUR (LST)	SKY COVER		CEILING 100'S OF FT	SATELLITE		VISIBILITY (MILES)	WEATHER	TEMPERATURE °F			WIND		PRESSURE (INCHES, HG)		HOUR (LST)	SKY COVER		CEILING 100'S OF FT	SATELLITE		VISIBILITY (MILES)	WEATHER	TEMPERATURE °F			WIND		PRESSURE (INCHES, HG)																			
	OBSERVATION TIME (LST)	EFF CLD AMT Okta		DRY BULB	DEW POINT			WET BULB	RELATIVE HUMIDITY (PCT)	SPEED (MPH)	DIRECTION TENS OF DEG	STATION	SEA LEVEL	OBSERVATION TIME (LST)		EFF CLD AMT Okta	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												
																																				OKTA	OKTA										
SUNRISE: 0724								JAN 01								SUNSET: 1702								SUNRISE: 0724								JAN 07								SUNSET: 1707							
01	SCT	NC			6.00	HZ		27	18	24	69	0	00	29.90	30.09	01	OVC	042			2.00	BR		34	34	34	100	7	22	29.41	29.60																
04	BKN	250			10.00			24	11	20	57	13	03	29.95	30.15	04	OVC	055			9.00			35	35	35	100	7	25	29.44	29.63																
07	CLR	NC			10.00			19	11	17	71	7	03	29.99	30.19	07	OVC	045			7.00			35	34	35	96	6	27	29.47	29.66																
10	CLR	NC			10.00			27	14	23	58	14	01	30.06	30.26	10	OVC	030			4.00	-RASN BR		36	35	36	97	6	24	29.52	29.71																
13	CLR	NC			10.00			33	13	27	43	12	32	30.01	30.20	13	OVC	012			6.00	-RA BR		37	36	37	96	13	30	29.51	29.70																
16	FEW	NC			10.00			35	9	27	34	10	35	30.03	30.22	16	OVC	017			10.00	-RA		37	36	37	96	14	31	29.57	29.76																
19	FEW	NC			10.00			25	11	21	55	0	00	30.08	30.28	19	BKN	080			10.00			36	35	36	97	9	27	29.65	29.85																
22	FEW	NC			10.00			22	10	19	60	6	35	30.12	30.32	22	OVC	070			10.00			37	32	35	82	10	29	29.70	29.89																
SUNRISE: 0724								JAN 02								SUNRISE: 0724								JAN 08								SUNSET: 1708															
01	CLR	NC			10.00			22	10	19	60	6	35	30.16	30.36	01	CLR	NC			10.00			30	24	28	79	6	33	29.78	29.98																
04	BKN	250			10.00			23	12	20	63	10	01	30.18	30.38	04	CLR	NC			10.00			29	23	27	78	5	29	29.84	30.03																
07	OVC	250			10.00			23	12	20	63	8	01	30.20	30.40	07	CLR	NC			10.00			28	19	25	69	8	29	29.89	30.09																
10	OVC	200			10.00			28	15	24	58	10	01	30.26	30.46	10	CLR	NC			10.00			33	19	28	56	10	29	29.97	30.17																
13	OVC	250			10.00			32	15	27	50	6	01	30.15	30.35	13	CLR	NC			10.00			37	20	31	50	7	24	29.89	30.09																
16	OVC	150			10.00			33	15	27	48	0	00	30.12	30.32	16	FEW	NC			10.00			40	21	33	47	9	21	29.87	30.07																
19	OVC	120			10.00			28	17	25	63	0	00	30.09	30.29	19	CLR	NC			10.00			31	21	28	67	6	19	29.89	30.09																
22	OVC	075			10.00			31	21	28	67	0	00	30.05	30.24	22	CLR	NC			10.00			28	21	26	75	9	19	29.87	30.07																
SUNRISE: 0724								JAN 03								SUNRISE: 0724								JAN 09								SUNSET: 1709															
01	VV	002			0.50	SN FZFG		27	27	27	100	5	02	29.98	30.18	01	CLR	NC			10.00			28	22	26	78	9	20	29.82	30.02																
04	VV	003			0.50	SN FZFG		26	26	26	100	10	04	29.89	30.09	04	BKN	250			10.00			29	23	27	78	8	19	29.78	29.98																
07	OVC	007			1.00	-SN BR		27	27	27	100	10	01	29.86	30.06	07	OVC	250			10.00			32	24	29	73	9	21	29.77	29.97																
10	VV	006			0.50	SN FZFG		27	27	27	100	10	36	29.84	30.04	10	OVC	250			10.00			38	26	33	62	10	20	29.74	29.94																
13	OVC	015			1.75	-SN BR		27	25	26	92	15	36	29.74	29.93	13	OVC	250			10.00			51	31	42	46	14	21	29.67	29.87																
16	OVC	048			10.00			29	23	27	78	12	36	29.71	29.91	16	BKN	180			10.00			53	34	44	49	13	20	29.63	29.82																
19	OVC	075			10.00			30	22	27	72	7	36	29.73	29.93	19	BKN	150			10.00			50	33	43	52	17	21	29.63	29.83																
22	BKN	120			10.00			31	20	27	64	15	36	29.76	29.96	22	BKN	250			10.00			49	35	43	59	17	23	29.64	29.84																
SUNRISE: 0724								JAN 04								SUNRISE: 0724								JAN 10								SUNSET: 1710															
01	CLR	NC			10.00			30	19	26	64	16	35	29.77	29.97	01	FEW	NC			10.00			48	36	43	63	13	23	29.66	29.85																
04	CLR	NC			10.00			27	18	24	69	12	34	29.86	30.06	04	BKN	250			10.00			49	37	44	64	8	25	29.67	29.86																
07	CLR	NC			10.00			25	16	22	69	10	34	29.95	30.15	07	OVC	150			10.00			50	39	45	66	9	23	29.71	29.90																
10	CLR	NC			10.00			30	16	26	56	10	33	30.05	30.24	10	OVC	150			10.00			51	42	47	71	6	24	29.74	29.93																
13	CLR	NC			10.00			35	19	30	52	9	31	30.00	30.20	13	OVC	250			10.00			63	47	54	56	10	26	29.70	29.89																
16	FEW	NC			10.00			39	18	32	43	8	28	29.98	30.18	16	OVC	250			10.00			64	49	56	58	6	24	29.68	29.87																
19	CLR	NC			10.00			29	16	25	58	8	23	30.01	30.21	19	OVC	065			10.00			54	48	51	80	0	00	29.72	29.91																
22	CLR	NC			10.00			24	15	21	68	8	21	30.01	30.20	22	OVC	085			10.00			51	48	50	89	6	22	29.70	29.89																
SUNRISE: 0724								JAN 05								SUNRISE: 0724								JAN 11								SUNSET: 1711															
01	SCT	NC			10.00			33	17	28	52	10	26	29.98	30.18	01	BKN	095			10.00			51	47	49	86	6	22	29.64	29.83																
04	CLR	NC			10.00			30	15	25	54	7	26	29.98	30.18	04	BKN	250			10.00			52	47	49	83	8	21	29.57	29.76																
07	SCT	NC			10.00			20	13	18	74	3	19	30.02	30.22	07	OVC	060			10.00			54	48	51	80	10	21	29.55	29.73																
10	BKN	250			10.00			29	17	25	61	3	19	30.04	30.24	10	OVC	100			10.00			48	48	48	100	6	31	29.66	29.85																
13	OVC	250			10.00			43	19	34	38	8	24	29.98	30.17	13	OVC	140			10.00			52	37	45	57	17	31	29.68	29.87																
16	BKN	250			10.00			45	24	37	44	8	22	29.93	30.13	16	SCT	NC			10.00			51	32	43	48	15	34	29.74	29.93																
19	BKN	250			10.00			37	22	32	54	8	21	29.95	30.15	19	FEW	NC			10.00			46	30	39	54	10	30	29.83	30.02																
22	BKN	250			10.00			33	25	30	72	8	21	29.94	30.14	22	CLR	NC			10.00			41	29	36	62	6	25	29.85	30.05																
SUNRISE: 0724								JAN 06								SUNRISE: 0724								JAN 12								SUNSET: 1712															
01	SCT	NC			10.00			28	23	26	81	6	19	29.88	30.08	01	CLR	NC			10.00			37	28	34	70	7	27	29.88	30.07																
04	OVC	150			9.00			26	23	25	88	7	19	29.86	30.06	04	CLR	NC			10.00			30	25	28	82	5	24	29.89	30.08																
07	OVC	150			10.00			30	27	29	88	10	17	29.79	29.99	07	CLR	NC			10.00			32	27	30	82	5	23	29.90	30.10																
10	OVC	048			6.00	BR		33	29	32	85	3	11	29.69	29.89	10	CLR	NC			10.00			42	32	38	68	5	VR	29.89	30.09																
13	OVC	020			0.75	+RA BR		32	32	32	100	14	02	29.48	29.67	13	FEW	NC			10.00			50	32	42	50	12	17	29.78	29.97																
16	OVC	006			2.00	RA BR		34	34	34	100	3	04	29.29	29.48	16	OVC	200			10.00			50	31	42	48	14	19	29.69	29.88																
19	OVC	005			2.00	BR		34	34	34	100	10	30	29.34	29.56	19	OVC	140			10.00			44	33	39	65	9	18	29.64	29.83																
22	OVC	006			2.00	BR		34	34	34	100	9	26	29.40	29.59	22	OVC	070			10.00			46	34	41	63	12	19	29.55	29.74																

OBSERVATIONS AT 3-HOURLY INTERVALS

RICHMOND, VA

JANUARY 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: 0723				JAN 13				SUNSET: 1713				SUNRISE: 0721				JAN 19				SUNSET: 1719									
01	OVC	030		5.00	-RA BR	41	41	41	100	8	19	29.43	29.62	01	OVC	200		10.00	34	21	29	59	3	10	30.07	30.27			
04	BKN	120		10.00		41	41	41	100	9	24	29.38	29.56	04	OVC	200		10.00	32	25	29	75	0	00	30.06	30.25			
07	FEW	NC		10.00		42	32	38	68	13	28	29.48	29.66	07	OVC	060		10.00	35	27	32	72	7	12	30.01	30.21			
10	CLR	NC		10.00		45	24	37	44	20	31	29.61	29.80	10	OVC	036		10.00	38	28	34	68	10	06	29.97	30.17			
13	CLR	NC		10.00		50	24	40	36	17	29	29.63	29.82	13	OVC	004		10.00	35	32	34	89	9	02	29.85	30.04			
16	CLR	NC		10.00		51	23	40	33	18	26	29.68	29.87	16	OVC	006		10.00	2.50	-RA	34	34	34	100	10	12	29.61	29.81	
19	CLR	NC		10.00		46	21	37	37	7	27	29.77	29.96	19	OVC	004		10.00	2.50	-RA BR	34	34	34	100	8	34	29.63	29.83	
22	SCT	NC		10.00		39	24	33	55	6	23	29.85	30.04	22	OVC	004		10.00	2.50	-RA BR	34	34	34	100	6	34	29.57	29.76	
SUNRISE: 0723				JAN 14				SUNSET: 1714				SUNRISE: 0721				JAN 20				SUNSET: 1720									
01	BKN	200		10.00		42	23	35	47	5	26	29.89	30.08	01	OVC	050		10.00	6.00	BR	34	34	34	100	7	33	29.65	29.85	
04	BKN	150		10.00		35	25	31	67	3	16	29.93	30.12	04	SCT	NC		10.00	33	31	32	92	14	01	29.81	30.01			
07	CLR	NC		10.00		29	23	27	78	6	15	29.92	30.11	07	CLR	NC		10.00	29	29	29	100	0	00	29.94	30.14			
10	BKN	250		10.00		43	29	37	58	6	18	29.95	30.15	10	BKN	250		10.00	36	32	34	86	6	05	30.04	30.24			
13	OVC	200		10.00		53	34	44	49	14	18	29.88	30.08	13	FEW	NC		10.00	41	29	36	62	0	00	30.02	30.22			
16	OVC	150		10.00		52	34	44	50	13	19	29.81	30.01	16	BKN	250		10.00	43	29	37	58	0	00	30.00	30.20			
19	OVC	120		10.00		50	37	44	61	7	17	29.78	29.98	19	OVC	180		10.00	37	31	35	79	6	18	30.01	30.21			
22	OVC	110		10.00		48	40	44	74	8	21	29.77	29.96	22	OVC	250		10.00	35	33	34	93	7	15	29.98	30.18			
SUNRISE: 0723				JAN 15				SUNSET: 1715				SUNRISE: 0720				JAN 21				SUNSET: 1721									
01	BKN	200		10.00		44	40	42	85	7	21	29.73	29.92	01	OVC	140		10.00	32	32	32	100	3	14	29.93	30.13			
04	CLR	NC		10.00		40	39	40	97	6	20	29.69	29.89	04	OVC	150		10.00	33	33	33	100	5	19	29.90	30.09			
07	FEW	NC		10.00		40	37	39	89	7	26	29.71	29.91	07	BKN	200		10.00	5.00	BR	33	33	33	100	0	00	29.83	30.03	
10	CLR	NC		10.00		51	39	45	64	8	29	29.77	29.96	10	OVC	020		10.00	3.00	RA BR	36	36	36	100	7	20	29.84	30.04	
13	CLR	NC		10.00		58	38	48	48	14	25	29.74	29.93	13	OVC	006		10.00	5.00	BR	42	42	42	100	14	23	29.75	29.95	
16	CLR	NC		10.00		56	33	46	42	14	28	29.75	29.95	16	CLR	NC		10.00	49	46	47	90	9	24	29.73	29.92			
19	CLR	NC		10.00		50	30	41	46	9	28	29.82	30.01	19	CLR	NC		10.00	43	43	43	100	9	22	29.79	29.98			
22	CLR	NC		10.00		44	28	38	53	12	30	29.91	30.11	22	CLR	NC		10.00	43	43	43	100	10	25	29.88	30.08			
SUNRISE: 0722				JAN 16				SUNSET: 1716				SUNRISE: 0720				JAN 22				SUNSET: 1722									
01	CLR	NC		10.00		38	25	33	60	10	32	29.99	30.18	01	CLR	NC		10.00	40	38	39	93	9	27	29.95	30.14			
04	CLR	NC		10.00		30	24	28	79	5	34	30.03	30.23	04	CLR	NC		10.00	32	31	32	96	3	25	30.03	30.22			
07	OVC	250		10.00		28	24	27	85	0	00	30.09	30.29	07	CLR	NC		10.00	35	30	33	82	7	25	30.13	30.32			
10	BKN	250		10.00		39	24	33	55	3	VR	30.15	30.34	10	CLR	NC		10.00	46	33	40	61	7	27	30.23	30.42			
13	OVC	250		10.00		45	25	37	46	3	VR	30.10	30.30	13	CLR	NC		10.00	53	28	42	38	9	25	30.21	30.41			
16	BKN	250		10.00		47	26	39	44	8	19	30.04	30.24	16	FEW	NC		10.00	56	30	45	37	7	23	30.20	30.40			
19	OVC	250		10.00		42	29	37	60	5	18	30.05	30.25	19	BKN	250		10.00	42	32	38	68	6	14	30.22	30.42			
22	OVC	250		10.00		41	30	37	65	9	19	30.02	30.22	22	BKN	250		10.00	39	32	36	76	8	19	30.21	30.40			
SUNRISE: 0722				JAN 17				SUNSET: 1717				SUNRISE: 0719				JAN 23				SUNSET: 1723									
01	OVC	150		10.00		38	30	35	73	7	19	29.95	30.14	01	OVC	120		10.00	45	34	40	66	8	20	30.20	30.39			
04	OVC	110		10.00		40	30	36	68	12	19	29.89	30.09	04	OVC	050		10.00	45	33	40	63	9	20	30.17	30.36			
07	OVC	120		10.00		38	31	35	76	7	19	29.85	30.05	07	OVC	090		10.00	9.00	-RA	40	40	40	100	14	20	30.10	30.30	
10	OVC	150		10.00		45	32	39	61	12	23	29.85	30.05	10	OVC	055		10.00	8.00	-RA	45	45	45	100	12	20	30.08	30.27	
13	OVC	150		10.00		53	32	44	45	13	25	29.80	29.99	13	OVC	005		10.00	8.00	-RA	48	48	48	100	10	21	29.96	30.16	
16	OVC	150		10.00		54	35	45	49	12	24	29.80	30.00	16	OVC	003		10.00	1.00	BR	47	47	47	100	6	24	29.89	30.09	
19	OVC	150		10.00		50	36	44	59	8	22	29.83	30.03	19	OVC	012		10.00	49	49	49	100	13	23	29.87	30.07			
22	OVC	150		10.00		47	36	42	66	3	27	29.85	30.05	22	BKN	250		10.00	48	48	47	96	12	22	29.84	30.03			
SUNRISE: 0722				JAN 18				SUNSET: 1718				SUNRISE: 0718				JAN 24				SUNSET: 1725									
01	OVC	120		10.00		45	29	38	54	3	02	29.87	30.07	01	SCT	NC		10.00	46	45	46	97	8	21	29.79	29.98			
04	OVC	055		10.00		43	29	37	58	5	05	29.89	30.08	04	OVC	005		10.00	6.00	BR	50	49	50	97	8	21	29.75	29.94	
07	OVC	040		7.00	-RA	37	37	37	100	5	07	29.92	30.11	07	OVC	010		10.00	8.00	-RA	57	55	56	93	13	21	29.70	29.89	
10	BKN	070		7.00		40	40	40	100	0	00	29.96	30.16	10	OVC	020		10.00	63	61	62	93	18	22	29.62	29.82			
13	SCT	NC		10.00		49	37	44	64	13	31	29.92	30.12	13	OVC	120		10.00	66	59	62	78	18	24	29.60	29.79			
16	FEW	NC		10.00		49	24	39	38	13	35	29.94	30.14	16	BKN	120		10.00	66	59	62	78	10	25	29.57	29.76			
19	CLR	NC		10.00		39	20	32	46	0	00	30.02	30.22	19	OVC	120		10.00	64	58	60	81	15	23	29.61	29.80			
22	FEW	NC		10.00		33	21	29	61	7	05	30.08	30.27	22	OVC	110		10.00	62	57	59	84	13	26	29.59	29.78			

OBSERVATIONS AT 3-HOURLY INTERVALS

RICHMOND, VA

JANUARY 2002

RIC

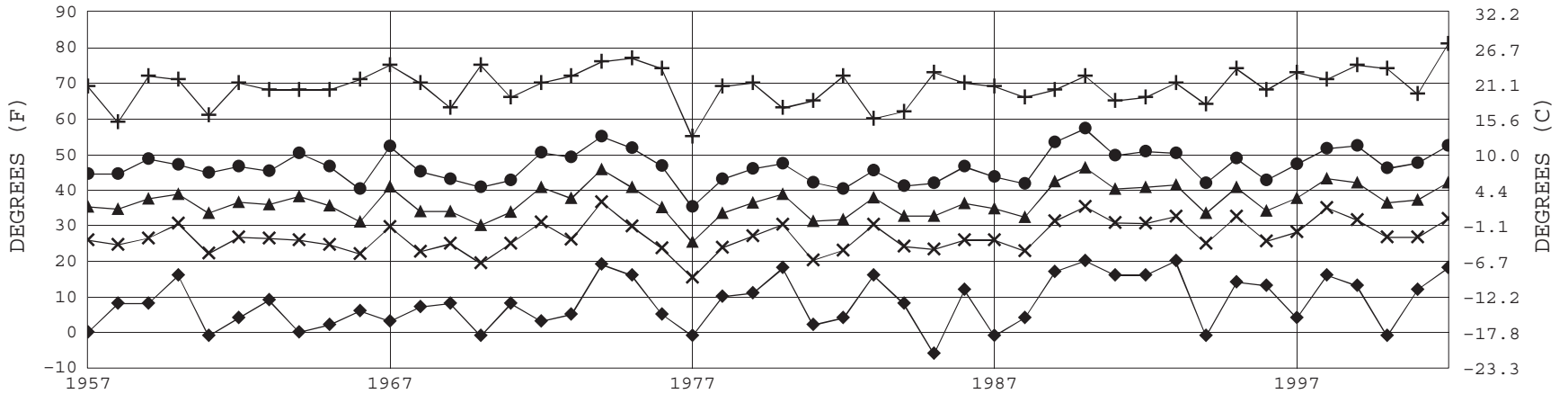
WBAN # 13740

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	STATION	SEA LEVEL
SUNRISE: 0718				JAN 25				SUNSET: 1726				SUNRISE: 0714				JAN 31				SUNSET: 1732							
01	OVC	045		6.00	RA BR	57	57	57	100	10	24	29.60	29.79	01	SCT	NC		10.00		55	50	52	83	7	02	29.99	30.18
04	OVC	007		4.00	-RA BR	50	50	50	100	18	35	29.67	29.86	04	FEW	NC		10.00		51	50	51	96	8	03	30.02	30.21
07	OVC	075		10.00		44	41	43	89	10	36	29.84	30.03	07	OVC	009		7.00		50	48	49	93	8	06	30.07	30.26
10	FEW	NC		10.00		46	35	41	66	14	01	29.96	30.16	10	OVC	006		5.00	BR	50	49	49	96	5	05	30.10	30.29
13	CLR	NC		10.00		50	23	39	35	13	36	29.98	30.18	13	OVC	008		5.00	BR	53	50	51	89	3	15	30.04	30.23
16	FEW	NC		10.00		51	22	40	32	7	31	30.03	30.22	16	OVC	014		3.00	BR	57	53	55	87	5	13	29.97	30.16
19	CLR	NC		10.00		35	30	33	82	5	17	30.07	30.27	19	SCT	NC		4.00	BR	55	54	54	96	0	00	29.95	30.14
22	CLR	NC		10.00		36	27	33	70	3	18	30.11	30.30	22	FEW	NC		2.50	BR	53	53	53	100	3	19	29.92	30.11
SUNRISE: 0717				JAN 26				SUNSET: 1727				3-HOURLY OBSERVATION NOTES															
01	CLR	NC		10.00		33	27	31	78	7	19	30.11	30.31	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.													
04	CLR	NC		10.00		36	28	33	73	6	24	30.12	30.31	Ceiling is reported in hundreds of feet above ground level for clouds at or below 12,000 feet.													
07	CLR	NC		10.00		30	28	29	92	6	19	30.13	30.33	NC = No ceiling detected.													
10	CLR	NC		10.00		45	33	40	63	10	22	30.17	30.36	& = Original observation contained additional weather elements.													
13	CLR	NC		10.00		57	32	46	39	12	21	30.09	30.29	See page 3 for additional notes.													
16	CLR	NC		10.00		60	32	47	35	8	19	30.05	30.24														
19	CLR	NC		10.00		49	33	42	55	5	17	30.06	30.26														
22	CLR	NC		10.00		43	32	38	65	0	00	30.07	30.27														
SUNRISE: 0717				JAN 27				SUNSET: 1728																			
01	CLR	NC		10.00		38	31	35	76	8	21	30.06	30.25														
04	CLR	NC		10.00		38	30	35	73	6	22	30.06	30.25														
07	CLR	NC		10.00		35	30	33	82	6	20	30.07	30.27														
10	FEW	NC		10.00		49	34	42	57	9	23	30.10	30.29														
13	SCT	NC		10.00		65	35	51	33	9	25	30.04	30.23														
16	SCT	NC		10.00		67	42	54	41	12	18	30.00	30.19														
19	CLR	NC		10.00		50	40	45	68	8	18	30.01	30.21														
22	SCT	NC		10.00		46	44	45	93	9	19	30.02	30.22														
SUNRISE: 0716				JAN 28				SUNSET: 1729																			
01	BKN	250		10.00		48	47	47	96	7	19	30.00	30.19														
04	BKN	050		10.00		52	51	52	97	9	20	29.97	30.17														
07	OVC	045		10.00		55	52	53	90	7	21	29.98	30.17														
10	SCT	NC		10.00		59	55	57	87	8	18	29.98	30.17														
13	OVC	250		10.00		70	44	56	39	17	23	29.91	30.10														
16	FEW	NC		10.00		71	33	53	25	10	22	29.86	30.05														
19	CLR	NC		10.00		59	34	47	39	3	20	29.89	30.08														
22	FEW	NC		10.00		53	38	46	57	5	20	29.89	30.09														
SUNRISE: 0715				JAN 29				SUNSET: 1730																			
01	SCT	NC		10.00		47	38	43	71	7	21	29.85	30.04														
04	BKN	250		10.00		44	38	41	79	7	22	29.84	30.03														
07	BKN	250		10.00		45	38	42	77	6	24	29.86	30.05														
10	OVC	250		10.00		63	45	54	52	9	24	29.89	30.08														
13	OVC	250		10.00		73	52	61	48	14	25	29.85	30.05														
16	OVC	250		10.00		74	53	62	48	13	25	29.84	30.03														
19	BKN	250		10.00		65	53	58	66	5	19	29.89	30.08														
22	BKN	250		10.00		60	53	56	78	7	19	29.89	30.09														
SUNRISE: 0714				JAN 30				SUNSET: 1731																			
01	OVC	200		10.00		62	53	57	73	9	22	29.89	30.08														
04	OVC	200		10.00		57	53	55	87	8	20	29.87	30.06														
07	SCT	NC		10.00		56	54	55	93	8	21	29.89	30.08														
10	OVC	250		10.00		70	57	62	64	13	23	29.91	30.10														
13	OVC	250		10.00		79	57	66	47	14	21	29.85	30.04														
16	OVC	250		10.00		80	51	63	37	13	22	29.84	30.03														
19	SCT	NC		10.00		65	54	59	68	8	19	29.90	30.09														
22	BKN	095		10.00		63	53	57	70	13	03	29.95	30.14														

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			39	32	36	78	29.86	30.06	8.89	7	4	24	
02			39	32	36	79	29.87	30.06	9.09	7	3	24	
03			38	32	36	81	29.87	30.07	9.18	7	2	24	
04			37	32	35	81	29.87	30.06	9.27	8	2	25	
05			37	32	35	83	29.87	30.07	9.11	7	2	25	
06			37	32	35	83	29.88	30.07	9.45	8	3	25	
07			37	32	35	84	29.89	30.09	9.06	7	3	23	
08			37	32	35	83	29.90	30.10	8.63	7	2	26	
09			40	34	38	79	29.91	30.11	8.63	7	2	26	
10			43	34	39	72	29.92	30.12	8.82	8	3	27	
11			46	35	41	68	29.92	30.11	8.49	9	4	27	
12			48	35	42	64	29.89	30.10	8.59	10	6	26	
13			49	34	43	59	29.86	30.06	8.65	11	6	26	
14			51	33	43	56	29.84	30.04	8.74	11	7	26	
15			51	33	43	55	29.83	30.03	8.84	11	6	25	
16			51	33	43	55	29.83	30.03	8.98	10	5	24	
17			49	33	42	58	29.84	30.04	8.95	8	5	24	
18			45	33	40	65	29.85	30.05	8.97	7	4	22	
19			44	34	40	69	29.86	30.06	9.27	7	4	22	
20			43	33	39	71	29.87	30.06	9.18	7	4	22	
21			42	34	39	74	29.87	30.06	9.16	6	4	23	
22			42	34	39	75	29.87	30.07	9.16	8	4	23	
23			41	34	38	76	29.88	30.07	9.03	8	3	24	
24			40	33	37	78	29.87	30.07	8.69	7	3	24	

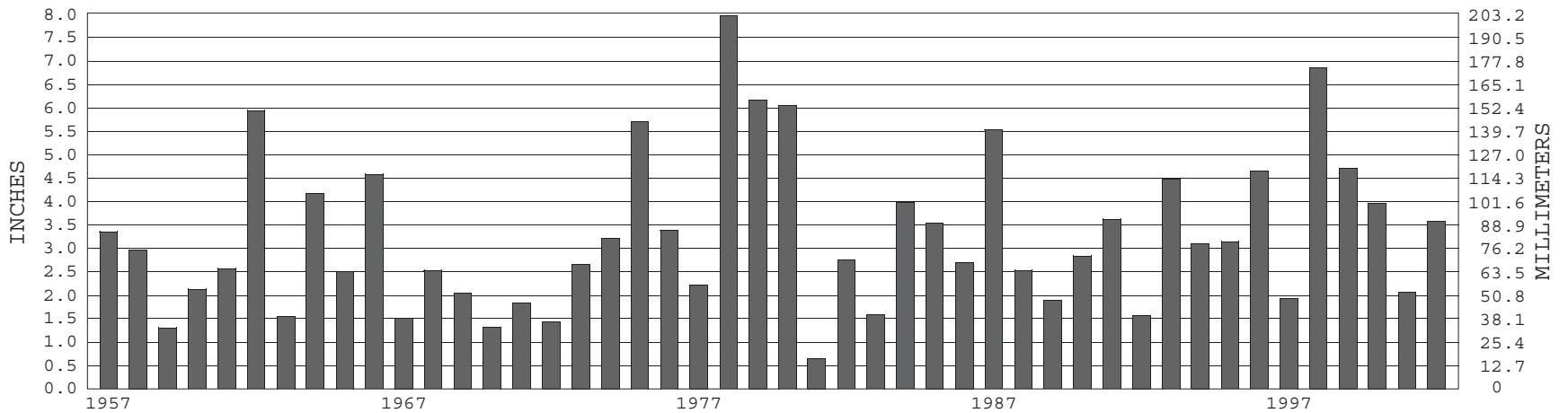
RICHMOND, VA JANUARY TEMPERATURES



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

Long-Term (1957-2002) Mean: 36.7 1961-1990 Normal: 36.4

RICHMOND, VA JANUARY PRECIPITATION



Long-Term (1957-2002) Mean Monthly Total: 3.28

1961-1990 Normal: 3.55



JANUARY 2002

RICHMOND, VA

LOCAL CLIMATOLOGICAL DATA

NOAA, National Climatic Data Center

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