



JANUARY 2003

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	64	51	58*	21	58	58	7	0	RA BR	0		0.0	1.01	29.53	29.72	5.5	16	9.0	36*	25	32*	25	01							
02	51	42	47	10	41	43	18	0	DZ BR	0		0.0	T	29.74	29.93	6.5	05	8.1	18	36	16	04	02							
03	45	34	40	3	41	41	25	0	RA DZ BR	0		0.0	0.19	29.62	29.81	6.8	35	7.7	20	33	16	34	03							
04	43	27	35	-2	29	34	30	0		0		0.0	0.00	29.80	29.99	6.0	33	6.5	20	33	16	33	04							
05	41	26	34	-3	29	31	31	0	SN BR	0		T	T	29.90	30.09	1.9	16	2.6	13	14	12	13	05							
06	48	31	40	4	34	35	25	0	RA SN BR	T		T	0.32	29.77	29.97	4.0	32	4.9	25	30	20	31	06							
07	41	26	34	-2	15	28	31	0		0		0.0	0.00	29.82	30.01	9.7	28	13.1	29	32	22	33	07							
08	56	39	48	12	31	40	17	0		0		0.0	0.00	29.33	29.52	12.6	23	13.3	29	25	22	25	08							
09	67*	47	57	21	37	48	8	0		0		0.0	0.00	29.24	29.42	11.2	24	11.7	25	24	21	24	09							
10	52	39	46	10	27	38	19	0		0		0.0	0.00	29.50	29.69	10.2	29	10.9	30	29	21	32	10							
11	40	25	33	-3	15	27	32	0		0		0.0	0.00	29.89	30.08	6.4	30	8.5	22	31	17	31	11							
12	37	21	29	-7	11	23	36	0		0		0.0	0.00	30.14	30.34	4.9	31	6.1	16	32	15	32	12							
13	49	20	35	-1	16	29	30	0		0		0.0	0.00	29.92	30.12	7.4	23	10.3	23	24	18	23	13							
14	37	27	32	-4	24	29	33	0	SN BR	0		T	T	29.95	30.14	3.1	05	4.7	16	22	12	23	14							
15	37	21	29	-7	15	26	36	0	SN BR	0		T	T	30.04	30.23	6.0	29	8.1	23	28	18	26	15							
16	32	18	25	-11	15	22	40	0	SN FG+ FZFG BR	4		4.0	0.19	30.06	30.26	2.0	10	4.5	15	11	13	13	16							
17	32	20	26	-10	18	23	39	0	SN FZFG BR	2		0.5	0.02	29.79	29.98	8.9	34	9.4	30	36	22	36	17							
18	25	8*	17*	-19	8	15	48	0		2		0.0	0.00	29.98	30.17	0.9	12	5.5	14	01	13	02	18							
19	34	17	26	-10	13	23	39	0		2		0.0	0.00	29.84	30.04	8.8	25	10.7	24	27	21	27	19							
20	55	29	42	6	27	34	23	0		0		0.0	0.00	29.69	29.88	6.5	24	11.7	25	30	21	22	20							
21	30	23	27	-9	20	25	38	0		0		0.0	0.00	29.87	30.07	5.2	06	5.6	13	08	10	01	21							
22	34	20	27	-9	11	21	38	0		0		0.0	0.00	29.94	30.13	5.4	01	7.0	21	02	17	02	22							
23	23	15	19	-17	2	15	46	0	SN BR	0		T	T	29.85	30.05	14.9	33	16.4	33	31	26	31	23							
24	38	15	27	-9	7	20	38	0	SN	0		T	T	30.09	30.29	7.4	33	9.2	28	01	22	35	24							
25	39	19	29	-7	14	23	36	0		0		0.0	0.00	30.14	30.34	0.7	08	3.8	13	05	10	22	25							
26	48	21	35	-2	21	30	30	0	SN	0		T	T	29.92	30.11	4.9	22	9.1	22	01	18	01	26							
27	33	13	23	-14	4	17	42	0	SN BR	0		T	T	30.22	30.41	11.0	35	11.6	30	35	24	01	27							
28	41	10	26	-11	13	24	39	0		0		0.0	0.00	30.12	30.32	6.9	20	7.5	22	22	18	22	28							
29	45	35	40	3	34	37	25	0	RA BR	0		0.0	0.17	29.95	30.14	2.2	20	7.5	17	22	16	22	29							
30	35	31	33	-4	31	32	32	0	RA DZ FZRA SN PL BR	T		1.4	0.25	30.14	30.33	9.0	03	9.2	16	02	14	03	30							
31	35	32	34	-3	33	33	31	0	RA DZ FG+ BR	0		0.0	0.03	29.97	30.17	6.5	01	6.7	15	02	12	02	31							
MONTHLY AVERAGES											TOTALS->					<- MONTHLY AVERAGES														
DEPARTURE FROM NORMAL																SUNSHINE, CLOUD, & VISIBILITY TABLES ON PAGE 3														
DEGREE DAYS											GREATEST 24-HR PRECIPITATION: 1.04 DATE: 31-01					SEA LEVEL PRESSURE					DATE TIME									
MONTHLY TOTAL DEPARTURE											GREATEST 24-HR SNOWFALL: 4.0 DATE: 16					MAXIMUM					: 30.52 27 1954									
SEASON TO DATE TOTAL DEPARTURE											GREATEST SNOW DEPTH: 4 DATE: 16					MINIMUM					: 29.29 09 0354									
HEATING: 962 89 2502 158											NUMBER OF DAYS WITH					MAXIMUM TEMP ≥ 90: 0					MINIMUM TEMP ≤ 32: 24					PRECIPITATION ≥ 0.01 INCH: 8				
COOLING: 0 0 0 0																MAXIMUM TEMP ≤ 32: 5					MINIMUM TEMP ≤ 0: 0					PRECIPITATION ≥ 0.10 INCH: 6				
																THUNDERSTORMS: 0					HEAVY FOG: 2					SNOWFALL ≥ 1.0 INCH: 2				

JANUARY 2003
RICHMOND, VA

HOURLY PRECIPITATION

(WATER EQUIVALENT IN INCHES)

RICHMOND, VA

JANUARY 2003

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	0.10	0.13	0.10			0.02	0.31	0.08	T	T	T	T	01			0.01	0.21	0.04	T			0.01			01		1.01	
02													02												02		T	
03	T	T	0.01	0.01	0.02	0.02	0.01	0.02	0.08	T			03	T	T	0.01	0.01	T				T	T	T	03		0.19	
04													04												04		0.00	
05													05			T									05		T	
06													06			T	T	0.09	0.05	0.14	0.04	T			06		0.32	
07													07												07		0.00	
08													08												08		0.00	
09													09												09		0.00	
10													10												10		0.00	
11													11												11		0.00	
12													12												12		0.00	
13													13												13		0.00	
14													14		T	T								T	14		0.00	
15	T	T	T										15					T	T	T	T	T	T	T	15		T	
16													16									T	0.08	0.08	0.03	16		0.19
17	0.02	T											17												17		0.02	
18													18												18		0.00	
19													19												19		0.00	
20													20												20		0.00	
21													21												21		0.00	
22													22												22		0.00	
23	T	T		T	T	T	T	T					23												23		T	
24	T	T											24												24		T	
25													25												25		0.00	
26													26												26		T	
27	T	T											27												27		T	
28													28												28		0.00	
29													29	0.01	0.01	0.01	0.03	0.04	0.02	0.01	T				29		0.17	
30			T	T	T	0.01	T	T	0.01	0.01	0.01	0.01	30	0.01	0.04	0.05	0.04	T	T	T	0.01	0.03	0.02	T	30		0.25	
31													31	0.01	T	T	T	T	T	0.01	0.01	T	T	T	31		0.03	

MAXIMUM SHORT DURATION PRECIPITATION (See Note)

Time Period (Minutes)	5	10	15	20	30	45	60	80	100	120	150	180
Precipitation (Inches)	.12	.17	.19	.20	.23	.28	.36	.40	.41	.41	.41	.41
Ending Date	01	01	01	01	01	01	01	01	01	01	01	01
Ending Time (Hour/Min)	0618	0620	0623	0623	0631	0656	0703	0703	0719	0719	0719	0719

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 2003

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							.75	10.00	
02							2.50	10.00	
03							.75	10.00	
04							10.00	10.00	
05							6.00	10.00	
06							1.00	10.00	
07							10.00	10.00	
08							10.00	10.00	
09							10.00	10.00	
10							10.00	10.00	
11							10.00	10.00	
12							10.00	10.00	
13							10.00	10.00	
14							3.00	10.00	
15							5.00	10.00	
16							.13	10.00	
17							1.50	10.00	
18							10.00	10.00	
19							10.00	10.00	
20							10.00	10.00	
21							10.00	10.00	
22							10.00	10.00	
23							5.00	10.00	
24							5.00	10.00	
25							10.00	10.00	
26							10.00	10.00	
27							2.00	10.00	
28							10.00	10.00	
29							1.50	10.00	
30							.75	7.00	
31							.25	2.50	
MONTHLY AVGS							6.47	9.66	
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 11 17									

OBSERVATIONS AT 3-HOURLY INTERVALS

RICHMOND, VA

JANUARY 2003

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
01	OVC	002				57	57	57	100	5	15	29.79	29.98	01	BKN	090				32	25	29	75	14	32	29.84	30.03		
04	OVC	023				58	58	58	100	9	13	29.72	29.91	04	CLR	NC				28	18	25	66	13	33	29.90	30.10		
07	OVC	025			RA BR	60	60	60	100	14	14	29.66	29.85	07	CLR	NC				26	15	23	63	9	32	29.95	30.14		
10	OVC	090			-RA	60	60	60	100	7	13	29.57	29.76	10	CLR	NC				30	13	25	49	14	29	29.99	30.19		
13	OVC	045				63	62	62	97	10	14	29.42	29.60	13	CLR	NC				35	13	28	40	15	28	29.87	30.07		
16	OVC	014				62	62	62	100	15	20	29.35	29.54	16	FEW	NC				39	13	30	34	12	24	29.79	29.99		
19	BKN	150				56	55	55	97	9	21	29.39	29.57	19	BKN	140				36	15	29	42	13	22	29.71	29.91		
22	OVC	007				52	52	52	100	9	33	29.47	29.65	22	OVC	090				39	15	31	38	16	22	29.58	29.78		
					SUNRISE: 0724	JAN 02										SUNRISE: 0724	JAN 08												
01	BKN	050				50	49	49	96	10	35	29.52	29.70	01	OVC	095				40	15	31	36	14	24	29.45	29.64		
04	OVC	025				47	44	46	90	8	01	29.62	29.82	04	FEW	NC				43	21	35	42	14	25	29.37	29.56		
07	OVC	032				44	41	43	89	9	02	29.71	29.90	07	OVC	200				42	23	35	47	13	25	29.38	29.57		
10	OVC	015				44	40	42	85	8	03	29.81	30.01	10	OVC	250				47	30	40	52	14	24	29.38	29.57		
13	OVC	019				45	40	43	83	8	10	29.77	29.97	13	SCT	NC				54	37	46	53	13	26	29.34	29.52		
16	OVC	022				44	39	42	83	6	09	29.79	29.99	16	OVC	250				55	39	47	55	16	22	29.33	29.51		
19	OVC	015				42	39	41	89	8	09	29.82	30.01	19	BKN	250				45	38	42	77	9	20	29.33	29.52		
22	OVC	005			-DZ BR	42	42	42	100	7	10	29.80	30.00	22	SCT	NC				49	38	44	66	15	22	29.23	29.41		
					SUNRISE: 0724	JAN 03										SUNRISE: 0724	JAN 09												
01	OVC	002			-DZ BR	42	42	42	100	7	07	29.74	29.93	01	CLR	NC				52	34	44	50	17	23	29.12	29.30		
04	OVC	002			-DZ BR	43	43	43	100	5	01	29.70	29.90	04	CLR	NC				55	33	45	44	16	24	29.11	29.29		
07	OVC	003			-RA	42	42	42	100	5	02	29.65	29.85	07	BKN	250				55	34	45	45	12	26	29.19	29.37		
10	OVC	003				44	44	44	100	6	02	29.62	29.82	10	FEW	NC				60	37	49	42	15	24	29.30	29.48		
13	OVC	001			-RA BR	43	43	43	100	9	34	29.54	29.73	13	CLR	NC				66	38	52	36	9	24	29.28	29.46		
16	OVC	006				42	41	42	96	9	34	29.55	29.74	16	SCT	NC				64	39	51	40	14	24	29.27	29.45		
19	OVC	006				39	39	39	100	10	33	29.59	29.79	19	BKN	200				58	40	49	51	13	22	29.30	29.48		
22	SCT	NC				36	34	35	93	9	33	29.61	29.80	22	BKN	200				51	41	46	69	7	23	29.29	29.48		
					SUNRISE: 0724	JAN 04										SUNRISE: 0724	JAN 10												
01	BKN	060				35	33	34	93	7	31	29.62	29.81	01	BKN	250				50	36	44	59	8	24	29.29	29.47		
04	OVC	080				37	31	35	79	8	33	29.65	29.85	04	FEW	NC				50	29	41	44	8	31	29.34	29.52		
07	OVC	030				37	31	35	79	7	33	29.72	29.91	07	SCT	NC				46	30	39	54	9	30	29.43	29.61		
10	BKN	055				37	29	34	73	12	33	29.81	30.01	10	CLR	NC				47	26	38	44	16	33	29.53	29.71		
13	BKN	060				41	27	35	57	12	32	29.78	29.98	13	FEW	NC				49	27	40	43	9	27	29.51	29.69		
16	BKN	048				43	26	36	51	12	31	29.83	30.02	16	FEW	NC				49	24	39	38	16	27	29.53	29.71		
19	CLR	NC				35	26	32	70	7	01	29.87	30.07	19	CLR	NC				43	24	36	47	9	28	29.60	29.80		
22	FEW	NC				31	24	29	76	0	00	29.93	30.13	22	CLR	NC				41	21	34	45	15	29	29.66	29.85		
					SUNRISE: 0724	JAN 05										SUNRISE: 0724	JAN 11												
01	CLR	NC				26	24	25	92	0	00	29.94	30.14	01	SCT	NC				38	21	32	51	12	30	29.72	29.91		
04	BKN	150				28	25	27	88	0	00	29.94	30.14	04	CLR	NC				32	17	27	54	8	35	29.80	30.00		
07	BKN	150				28	27	28	96	0	00	29.95	30.15	07	CLR	NC				26	14	22	60	7	01	29.89	30.09		
10	OVC	110				32	28	31	85	7	13	29.96	30.16	10	FEW	NC				33	13	27	43	7	29	29.95	30.14		
13	OVC	150				37	31	35	79	9	13	29.85	30.05	13	CLR	NC				37	12	29	36	13	24	29.89	30.08		
16	BKN	065				40	30	36	68	3	19	29.84	30.03	16	CLR	NC				39	11	30	31	13	27	29.87	30.07		
19	SCT	NC				35	31	33	85	3	35	29.86	30.06	19	CLR	NC				34	13	27	42	6	26	29.92	30.12		
22	SCT	NC				33	32	33	96	3	25	29.84	30.04	22	SCT	NC				31	15	26	52	9	27	29.96	30.16		
					SUNRISE: 0724	JAN 06										SUNRISE: 0724	JAN 12												
01	OVC	200			BR	32	32	32	100	0	00	29.81	30.01	01	CLR	NC				26	11	22	53	5	02	30.02	30.22		
04	OVC	200			BR	32	32	32	100	0	00	29.78	29.98	04	CLR	NC				25	10	21	53	9	33	30.08	30.28		
07	BKN	250			BR	32	32	32	100	0	00	29.76	29.96	07	CLR	NC				25	7	20	46	14	31	30.15	30.35		
10	SCT	NC			BR	37	34	36	89	7	32	29.80	30.00	10	CLR	NC				29	6	23	38	12	32	30.21	30.41		
13	SCT	NC				46	35	41	66	5	35	29.72	29.91	13	FEW	NC				34	9	27	35	0	00	30.16	30.36		
16	OVC	029			-RA	43	38	41	82	13	34	29.70	29.89	16	FEW	NC				37	11	29	34	6	32	30.14	30.34		
19	OVC	010			-SN BR	33	33	33	100	6	35	29.76	29.96	19	FEW	NC				29	12	24	49	0	00	30.17	30.37		
22	OVC	100				34	34	34	100	8	31	29.81	30.01	22	FEW	NC				25	16	22	69	0	00	30.15	30.35		

OBSERVATIONS AT 3-HOURLY INTERVALS

RICHMOND, VA

JANUARY 2003

RIC

WBAN # 13740

HOUR (LST)	SATELLITE		VISIBILITY (MILES)	WEATHER	TEMPERATURE °F			RELATIVE HUMIDITY (PCT)	WIND		PRESSURE (INCHES, HG)		HOUR (LST)	SATELLITE		VISIBILITY (MILES)	WEATHER	TEMPERATURE °F			RELATIVE HUMIDITY (PCT)	WIND		PRESSURE (INCHES, HG)					
	SKY COVER	CEILING 100'S OF FT			OBSERVATION TIME (LST)	EFF CLD AMT OtkAs	DRY BULB		DEW POINT	WET BULB	SPEED (MPH)	DIRECTION TENS OF DEG		STATION	SEA LEVEL			SKY COVER	CEILING 100'S OF FT	OBSERVATION TIME (LST)		EFF CLD AMT OtkAs	DRY BULB	DEW POINT	WET BULB	SPEED (MPH)	DIRECTION TENS OF DEG	STATION	SEA LEVEL
<p>SUNRISE: 0723 JAN 13 SUNSET: 1713</p>																													
01	FEW	NC	10.00		23	14	20	68	8	21	30.10	30.30	01	SCT	NC	10.00		18	12	16	77	3	12	29.82	30.02				
04	SCT	NC	10.00		21	14	19	74	8	19	30.04	30.24	04	OVC	080	10.00		20	14	18	78	6	22	29.77	29.98				
07	OVC	250	10.00		23	16	21	74	7	20	30.00	30.20	07	FEW	NC	10.00		23	14	20	68	10	26	29.81	30.01				
10	FEW	NC	10.00		35	13	28	40	13	23	29.97	30.17	10	FEW	NC	10.00		29	15	25	56	14	28	29.90	30.10				
13	CLR	NC	10.00		46	10	34	23	16	26	29.82	30.02	13	SCT	NC	10.00		30	11	24	45	12	30	29.88	30.08				
16	FEW	NC	10.00		48	15	36	27	15	24	29.79	29.98	16	CLR	NC	10.00		33	10	26	38	17	25	29.87	30.07				
19	CLR	NC	10.00		36	20	30	52	7	21	29.81	30.01	19	FEW	NC	10.00		24	11	20	57	9	19	29.87	30.07				
22	OVC	120	10.00		42	25	35	51	12	35	29.86	30.05	22	OVC	150	10.00		30	16	26	56	13	21	29.82	30.02				
<p>SUNRISE: 0723 JAN 14 SUNSET: 1714</p>																													
01	FEW	NC	10.00		34	20	29	56	6	03	29.92	30.11	01	FEW	NC	10.00		30	17	26	59	13	20	29.72	29.92				
04	FEW	NC	10.00		29	21	26	72	6	01	29.94	30.14	04	FEW	NC	10.00		29	18	25	64	12	20	29.66	29.86				
07	CLR	NC	10.00		30	20	27	66	0	00	29.99	30.19	07	CLR	NC	10.00		33	20	29	59	15	22	29.62	29.82				
10	OVC	200	10.00		31	18	27	59	8	08	30.02	30.21	10	SCT	NC	10.00		40	25	34	55	17	23	29.64	29.84				
13	OVC	250	10.00		35	18	29	50	0	00	29.94	30.14	13	BKN	060	10.00		50	33	43	52	12	29	29.61	29.80				
16	OVC	075	10.00		34	28	32	79	3	18	29.89	30.09	16	SCT	NC	10.00		54	34	45	47	13	31	29.63	29.83				
19	OVC	065	10.00		34	29	32	82	3	08	29.92	30.12	19	BKN	140	10.00		43	32	38	65	8	34	29.75	29.95				
22	OVC	025	3.00	-SN BR	31	31	31	100	5	04	29.91	30.11	22	BKN	150	10.00		35	30	33	82	6	08	29.81	30.01				
<p>SUNRISE: 0723 JAN 15 SUNSET: 1715</p>																													
01	OVC	008	7.00	-SN	28	28	28	100	13	36	29.95	30.15	01	CLR	NC	10.00		30	21	27	69	5	08	29.84	30.04				
04	OVC	008	10.00		26	26	26	100	6	36	29.98	30.17	04	SCT	NC	10.00		27	16	24	63	5	07	29.86	30.06				
07	FEW	NC	6.00	BR	24	24	24	100	5	29	30.02	30.22	07	OVC	055	10.00		28	17	25	63	7	07	29.88	30.08				
10	CLR	NC	10.00		31	25	29	79	8	27	30.06	30.26	10	OVC	050	10.00		29	18	25	64	9	09	29.89	30.09				
13	FEW	NC	10.00		35	10	27	35	15	28	30.02	30.22	13	OVC	028	10.00		28	20	25	72	7	07	29.82	30.01				
16	FEW	NC	10.00		37	5	28	26	10	28	30.01	30.21	16	OVC	028	10.00		29	22	27	75	7	02	29.84	30.04				
19	CLR	NC	10.00		32	3	24	29	10	26	30.07	30.27	19	OVC	150	10.00		27	22	25	81	3	03	29.88	30.08				
22	CLR	NC	10.00		27	5	21	39	9	34	30.11	30.31	22	BKN	150	10.00		24	23	24	96	5	01	29.92	30.12				
<p>SUNRISE: 0722 JAN 16 SUNSET: 1716</p>																													
01	CLR	NC	10.00		23	8	19	53	3	04	30.15	30.35	01	FEW	NC	10.00		21	11	18	65	6	01	29.93	30.13				
04	SCT	NC	10.00		19	11	17	71	7	03	30.18	30.38	04	OVC	250	10.00		21	12	19	68	8	03	29.92	30.12				
07	OVC	200	10.00		20	10	17	65	0	00	30.21	30.41	07	SCT	NC	10.00		20	11	18	68	0	00	29.96	30.16				
10	BKN	250	10.00		23	10	19	57	3	VR	30.22	30.42	10	SCT	NC	10.00		23	11	20	60	7	01	29.99	30.19				
13	OVC	150	10.00		29	12	24	49	7	13	30.09	30.29	13	BKN	250	10.00		30	13	25	49	7	27	29.90	30.10				
16	OVC	110	10.00		31	15	26	52	9	16	30.00	30.20	16	OVC	200	10.00		33	11	26	40	6	VR	29.87	30.07				
19	OVC	075	10.00		30	16	26	56	7	12	29.90	30.10	19	BKN	250	10.00		27	12	23	53	6	06	29.90	30.10				
22	OVC	003	0.25	+SN FZFG	26	26	26	100	0	00	29.84	30.03	22	OVC	100	10.00		24	7	20	48	12	35	29.95	30.15				
<p>SUNRISE: 0722 JAN 17 SUNSET: 1717</p>																													
01	OVC	042	1.75	-SN FZFG	26	26	26	100	7	01	29.70	29.90	01	OVC	070	9.00	-SN	21	12	19	68	12	36	29.94	30.14				
04	SCT	NC	4.00	BR	24	20	23	88	5	34	29.65	29.85	04	OVC	080	9.00	-SN	20	12	18	71	12	02	29.90	30.10				
07	OVC	060	3.00	BR	22	22	22	100	10	33	29.69	29.89	07	OVC	040	9.00	-SN	16	12	15	84	12	35	29.88	30.08				
10	BKN	090	10.00		27	19	24	72	17	35	29.78	29.98	10	OVC	250	10.00		17	4	14	56	14	34	29.86	30.06				
13	SCT	NC	10.00		29	16	25	58	16	35	29.78	29.97	13	SCT	NC	10.00		21	0	16	39	16	33	29.79	29.99				
16	SCT	NC	10.00		31	17	26	56	13	31	29.78	29.98	16	SCT	NC	10.00		22	-2	17	35	20	33	29.76	29.96				
19	BKN	070	10.00		26	17	23	69	3	02	29.86	30.06	19	SCT	NC	10.00		18	-7	13	32	26	32	29.82	30.03				
22	FEW	NC	10.00		25	9	21	50	9	32	29.93	30.13	22	BKN	110	10.00		15	-5	11	40	14	29	29.86	30.06				
<p>SUNRISE: 0722 JAN 18 SUNSET: 1718</p>																													
01	CLR	NC	10.00		20	7	17	57	6	33	29.97	30.17	01	OVC	029	9.00		16	4	13	59	14	30	29.88	30.08				
04	CLR	NC	10.00		15	6	13	67	12	02	30.01	30.22	04	OVC	110	10.00		17	5	14	59	8	31	29.92	30.12				
07	CLR	NC	10.00		12	3	10	67	3	03	30.06	30.26	07	CLR	NC	10.00		16	7	14	67	9	32	30.02	30.22				
10	CLR	NC	10.00		16	5	13	62	7	07	30.08	30.28	10	CLR	NC	10.00		27	6	21	41	15	35	30.12	30.32				
13	CLR	NC	10.00		22	7	18	52	0	00	29.99	30.19	13	CLR	NC	10.00		34	6	26	31	12	32	30.13	30.32				
16	CLR	NC	10.00		24	11	20	57	7	14	29.93	30.13	16	BKN	250	10.00		37	3	27	24	9	31	30.11	30.31				
19	SCT	NC	10.00		18	9	16	68	6	18	29.91	30.11	19	BKN	250	10.00		31	7	24	36	6	26	30.18	30.38				
22	BKN	250	10.00		16	10	14	77	9	18	29.88	30.08	22	CLR	NC	10.00		20	11	18	68	5	14	30.19	30.39				

OBSERVATIONS AT 3-HOURLY INTERVALS

RICHMOND, VA

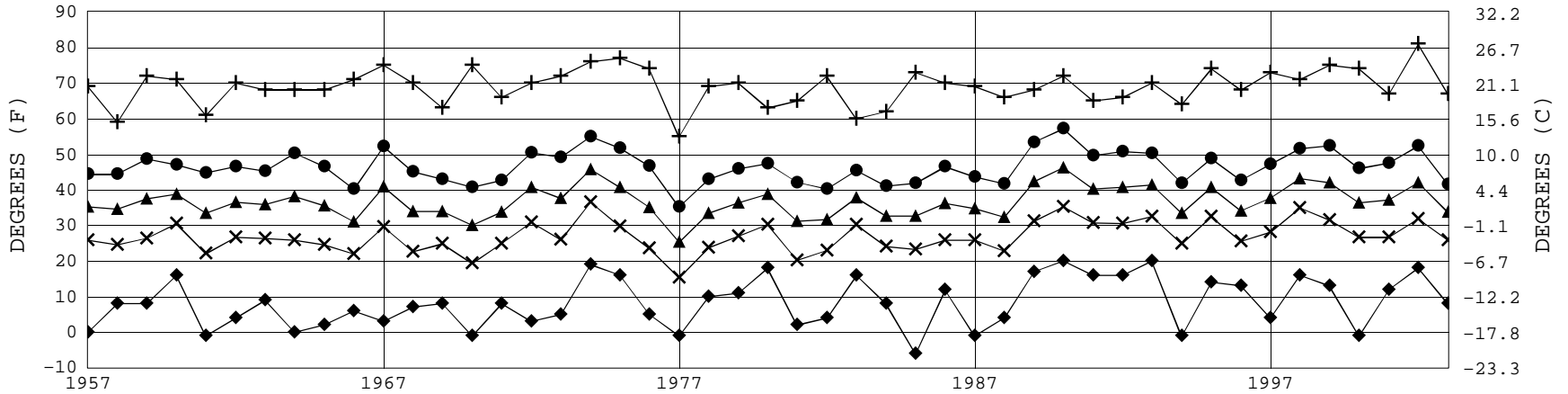
JANUARY 2003

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	DRY BULB	DEW POINT	WET BULB	RELATIVE HUMIDITY (PCT)	SPEED (MPH)	DIRECTION TENS OF DEG		STATION	SEA LEVEL		OBSERVATION TIME (LST)	EFF CLD AMT	DRY BULB	DEW POINT	WET BULB	RELATIVE HUMIDITY (PCT)	SPEED (MPH)	DIRECTION TENS OF DEG	STATION
SUNRISE: 0718				JAN 25				SUNSET: 1725				SUNRISE: 0714				JAN 31				SUNSET: 1732				
01	BKN	250		24	12	21	60	8	05	30.19	30.39	01	OVC	002	2.50	BR	32	32	32	100	10	01	30.07	30.27
04	BKN	250		22	12	19	66	3	05	30.17	30.37	04	OVC	002	2.50	BR	32	32	32	100	8	02	30.04	30.24
07	SCT	NC		20	13	18	74	0	00	30.19	30.39	07	OVC	002	1.75	BR	33	32	33	96	7	02	30.03	30.23
10	FEW	NC		25	14	22	63	6	05	30.21	30.41	10	OVC	002	0.75	BR	33	33	33	100	7	01	30.05	30.25
13	CLR	NC		33	15	27	48	0	00	30.14	30.34	13	OVC	001	0.50	FG	33	33	33	100	6	36	29.97	30.16
16	CLR	NC		39	14	31	36	5	VR	30.08	30.28	16	OVC	001	0.50	-DZ FG	34	34	34	100	7	02	29.90	30.10
19	FEW	NC		30	15	25	54	0	00	30.10	30.30	19	OVC	002	0.75	-DZ BR	34	34	34	100	6	34	29.90	30.10
22	CLR	NC		25	17	23	72	0	00	30.08	30.28	22	OVC	003	2.00	-DZ BR	34	34	34	100	7	02	29.85	30.05
SUNRISE: 0717				JAN 26				SUNSET: 1726				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.																								
01	CLR	NC		25	16	22	69	0	00	30.03	30.23													
04	CLR	NC		25	16	22	69	7	21	30.00	30.20													
07	SCT	NC		24	18	22	77	7	19	29.99	30.19													
10	SCT	NC		35	23	31	61	8	21	29.96	30.16													
13	SCT	NC		44	19	35	37	9	20	29.85	30.04													
16	BKN	200		46	20	36	35	10	22	29.77	29.97													
19	OVC	110		43	22	35	43	7	23	29.82	30.02													
22	OVC	070		38	28	34	68	14	01	29.89	30.08													
SUNRISE: 0717				JAN 27				SUNSET: 1728				SUMMARY BY HOUR												
AVERAGES												RESULTANT WIND (MPH)												
HOUR (LST)	CEILOMETER	EFF CLD AMT	DRY BULB	DEW POINT	WET BULB	RELATIVE HUMIDITY	PRESSURE (INCHES, HG)		VISIBILITY (MILES)	WIND SPEED (MPH)	DIRECTION													
							STATION	SEA LEVEL			SPEED	DIRECTION												
01			31	23	28	73	29.85	30.05	8.31	8	3	33												
02			31	22	28	73	29.85	30.05	8.81	8	3	32												
03			30	22	27	72	29.86	30.05	9.08	8	3	34												
04			30	22	27	72	29.85	30.05	8.87	8	3	34												
05			30	21	27	71	29.86	30.05	8.68	8	3	31												
06			30	22	27	73	29.87	30.06	8.50	8	3	32												
07			29	22	27	74	29.88	30.08	8.80	7	3	31												
08			29	22	27	75	29.89	30.09	8.94	7	2	32												
09			31	22	28	71	29.90	30.10	8.82	9	3	32												
10			34	22	30	64	29.91	30.11	9.09	10	4	31												
11			35	22	31	61	29.90	30.10	8.93	11	6	31												
12			37	21	32	57	29.88	30.07	9.05	10	5	29												
13			38	22	33	56	29.84	30.04	9.03	10	4	29												
14			39	23	33	56	29.83	30.02	9.04	10	5	29												
15			40	22	34	55	29.82	30.02	8.71	10	6	28												
16			40	22	34	55	29.82	30.02	8.84	10	5	27												
17			38	23	33	58	29.83	30.03	8.94	9	4	28												
18			36	22	32	60	29.84	30.04	8.99	8	3	29												
19			34	22	30	65	29.85	30.05	9.06	7	2	28												
20			34	23	30	67	29.86	30.06	9.15	7	2	26												
21			33	23	30	70	29.86	30.06	9.02	7	2	30												
22			32	23	29	73	29.86	30.06	8.48	8	3	30												
23			32	23	29	73	29.86	30.06	8.49	8	2	33												
24			31	22	28	73	29.86	30.05	8.54	7	2	32												

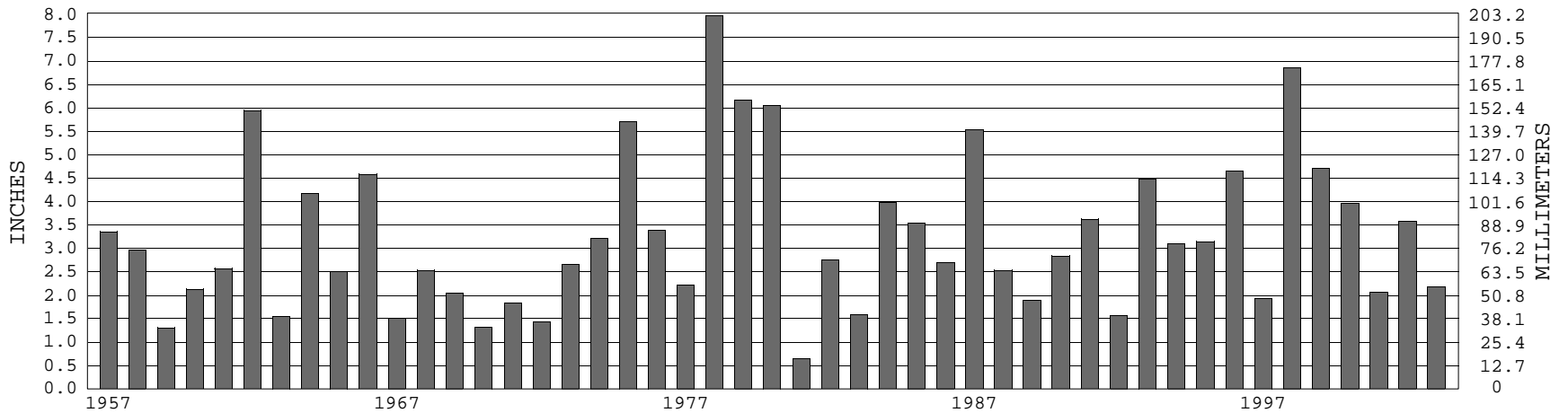
RICHMOND, VA JANUARY TEMPERATURES



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

Long-Term (1957-2003) Mean: 36.7 1961-1990 Normal: 36.4

RICHMOND, VA JANUARY PRECIPITATION



Long-Term (1957-2003) Mean Monthly Total: 3.25

1961-1990 Normal: 3.55



JANUARY 2003

RICHMOND, VA

LOCAL CLIMATOLOGICAL DATA

NOAA, National Climatic Data Center

I certify that this is an official publication of the National Oceanic and Atmospheric Administration (NOAA). It is compiled using information from weather observing sites operated by NOAA – National Weather Service / Department Of Transportation – Federal Aviation Administration and received at the National Climatic Data Center (NCDC), Asheville, North Carolina 28801.

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