



JANUARY 1999

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	11	12	13	14	15	16	17	18	19	20	21	22	23	24												
01	39	20	30	-7	15	25	35	0				0.00	30.12	30.33	5.3	35	8.2	20	03	17	02	01												
02	37	23	30	-7	17	25	35	0	RA FZRA BR			0.02	30.19	30.40	9.2	05	9.5	20	06	16	08	02												
03	59	35	47	11	41	46	18	0	RA BR			1.81	29.55	29.75	6.5	22	12.5	40*	14	32*	14	03												
04	35	23	29	-7	11	24	36	0				0.00	29.96	30.17	8.1	29	8.7	18	36	15	32	04												
05	29	16	23*	-13	7	18	42	0				0.00	30.18	30.40	4.3	33	4.9	15	36	13	01	05												
06	39	13*	26	-10	12	22	39	0				0.00	30.09	30.30	9.7	20	9.9	25	21	20	21	06												
07	51	31	41	5	24	34	24	0				0.00	30.08	30.29	3.6	26	8.3	23	29	20	22	07												
08	34	29	32	-4	23	29	33	0	RA FZRA BR			0.08	30.11	30.32	3.0	07	4.9	16	06	13	06	08												
09	62	31	47	11	37	42	18	0	RA SN FG+ BR			T	29.68	29.89	2.5	32	13.7	32	01	29	01	09												
10	33	21	27	-9	9	22	38	0				0.00	29.96	30.17	4.7	33	10.7	32	02	25	36	10												
11	43	22	33	-3	17	28	32	0				0.00	29.99	30.20	7.1	22	9.1	23	18	18	19	11												
12	62	38	50	14	29	41	15	0				0.00	29.90	30.11	13.1	21	13.8	28	23	22	25	12												
13	64	37	51	15	35	44	14	0	RA			T	29.94	30.15	6.7	21	7.5	26	24	20	23	13												
14	53	33	43	8	38	39	22	0	RA DZ FG+ BR			0.08	30.03	30.24	8.2	04	9.0	21	05	17	05	14												
15	48	27	38	3	32	35	27	0	RA DZ FG+ BR			0.64	29.76	29.97	4.9	30	7.7	20	28	17	31	15												
16	56	25	41	6	25	34	24	0				0.00	29.90	30.11	8.4	21	8.8	29	21	24	22	16												
17	59	28	44	9	33	39	21	0	RA			T	30.01	30.21	4.2	13	4.8	20	12	16	11	17												
18	65	41	53	18	49	52	12	0	TS TSRA RA BR			0.27	29.70	29.90	9.2	20	13.3	32	24	28	19	18												
19	56	42	49	14	25	39	16	0				0.00	29.86	30.07	8.9	25	9.8	22	27	18	27	19												
20	52	36	44	9	34	40	21	0				0.00	29.90	30.11	4.6	09	5.8	20	11	16	11	20												
21	58	36	47	12	43	45	18	0	BR			0.00	29.88	30.08	1.8	01	3.7	14	19	11	19	21												
22	66	43	55	20	51	52	10	0	BR HZ			0.00	30.00	30.20	3.2	11	4.9	14	13	11	13	22												
23	75*	56	66*	31	60	61	0	1	RA FG+ BR			0.43	29.92	30.12	11.5	17	11.6	33	25	28	24	23												
24	60	38	49	14	53	54	16	0	RA BR			1.37	29.77	29.98	0.6	25	8.6	28	32	21	31	24												
25	57	31	44	8	35	40	21	0	BR			0.00	30.03	30.24	1.3	30	6.6	26	01	22	02	25												
26	49	29	39	3	29	35	26	0				0.00	30.25	30.46	1.8	15	3.7	14	01	11	02	26												
27	64	33	49	13	39	44	16	0	BR			0.00	29.94	30.14	8.6	21	9.0	21	20	20	20	27												
28	72	49	61	25	46	53	4	0				0.00	29.80	30.00	8.8	25	9.4	22	28	17	27	28												
29	60	34	47	11	33	41	18	0				0.00	30.11	30.31	8.6	02	9.0	28	01	21	01	29												
30	50	30	40	4	27	34	25	0	BR			0.00	30.29	30.50	5.4	02	6.2	22	01	17	02	30												
31	36	26	31	-5	20	28	34	0				0.00	30.52	30.73	6.6	05	7.8	17	04	15	01	31												
										52.4		31.5	42.0	■ ■	30.6	37.6	22.9	0.0	< MONTHLY AVERAGES		TOTALS-->		4.70	29.98	30.19	1.5	23	8.4	<- MONTHLY AVERAGES					
										6.7	5.8	6.3	■ ■	<----- DEPARTURE FROM NORMAL ----->										1.46	SUNSHINE, CLOUD, & VISIBILITY TABLES ON PAGE 3									
DEGREE DAYS										GREATEST 24-HR PRECIPITATION: 1.83 DATE: 02-03										SEA LEVEL PRESSURE DATE TIME														
MONTHLY TOTAL DEPARTURE										GREATEST 24-HR SNOWFALL: DATE: DATE:										MAXIMUM : 30.80 31 1023														
SEASON TO DATE TOTAL DEPARTURE										GREATEST SNOWFALL: DATE: DATE:										MINIMUM : 29.61 03 0452														
HEATING: 710 -198 2002 -396										NUMBER OF DAYS WITH →										MAXIMUM TEMP ≥ 90: 0														
COOLING: 1 1 1 1																				MINIMUM TEMP ≤ 32: 17														
																				MAXIMUM TEMP ≤ 32: 1														
																				MINIMUM TEMP ≤ 0: 0														
																				THUNDERSTORMS: 1														
																				HEAVY FOG: 4														
																				PRECIPITATION ≥ 0.01 INCH: 8														
																				PRECIPITATION ≥ 0.10 INCH: 5														
																				SNOWFALL ≥ 1.0 INCH: :														

JANUARY 1999 RICHMOND, VA

HOURLY PRECIPITATION

(WATER EQUIVALENT IN INCHES)

RICHMOND, VA

JANUARY 1999

RIC

WBAN # 13740

DATE	FOR HOUR (LST) ENDING AT												DATE	FOR HOUR (LST) ENDING AT												DATE	Sum if Different (See Note 2)	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			0.02	
03	T	T	0.01	0.01	0.15	1.15	0.24		0.04	T			03							T	0.01	0.01	T	T	03	1.60		1.81	
04													04												04			0.00	
05													05												05			0.00	
06													06												06			0.00	
07													07												07			0.00	
08													08	T	T		T	T	T	T	T	T			08	0.06		0.08	
09													09	T			T			T					09			T	
10													10												10			0.00	
11													11												11			0.00	
12													12												12			0.00	
13													13										T		13			T	
14	T	0.01	0.01	T				0.03	0.01	T			14	0.02	T			T	T					14			0.08		
15	T	0.02	0.03	0.06	0.17	0.11	0.21	0.04	T				15											15			0.64		
16													16												16			0.00	
17													17												17			T	
18	T	0.02	0.04		0.02	T	0.06	0.01					18	0.04		0.08	T						T	T	18			0.27	
19													19												19			0.00	
20													20												20			0.00	
21													21												21			0.00	
22													22												22			0.00	
23													23				T	T	T	T		0.18	0.11	0.14	23			0.43	
24	0.03	0.03	0.17	0.12	0.07	0.09	0.06	0.12	0.12	0.10	0.20	0.06	24	0.06	0.05	0.05	0.01	T						24			1.37		
25													25												25			0.00	
26													26												26			0.00	
27													27												27			0.00	
28													28												28			0.00	
29													29												29			0.00	
30													30												30			0.00	
31													31												31			0.00	

MAXIMUM SHORT DURATION PRECIPITATION (See Note 1)

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 1: NCDC derives these data from one-minute ASOS values. The table is not printed when inconsistent with ASOS hourly totals.

Note 2: 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.

OBSERVATIONS AT 3-HOURLY INTERVALS

RICHMOND, VA

JANUARY 1999

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
SUNRISE: 0724 JAN 01 SUNSET: 1702																											
01	SCT	NC		10.00	24	19	23	81	6	20	29.95	30.16	01	FEW	NC		10.00	35	18	29	50	15	23	29.94	30.15		
04	BKN	250		10.00	25	20	23	81	0	00	29.96	30.17	04	BKN	070		10.00	36	22	31	57	14	24	29.95	30.15		
07	OVC	250		10.00	21	18	20	88	0	00	30.01	30.22	07	FEW	NC		10.00	32	25	29	75	6	21	30.00	30.21		
10	CLR	NC		10.00	34	19	29	54	13	31	30.11	30.32	10	FEW	NC		10.00	46	30	39	54	10	27	30.06	30.27		
13	SCT	NC		10.00	39	16	31	39	16	34	30.11	30.32	13	BKN	250		10.00	49	27	40	43	10	28	30.07	30.27		
16	SCT	NC		10.00	37	13	29	37	10	34	30.14	30.35	16	BKN	250		10.00	46	27	38	47	0	00	30.11	30.32		
19	SCT	NC		10.00	29	12	24	49	14	03	30.24	30.45	19	BKN	100		10.00	36	21	31	55	7	06	30.20	30.41		
22	OVC	120		10.00	28	8	22	43	15	03	30.31	30.52	22	OVC	065		10.00	34	18	29	52	6	08	30.24	30.45		
SUNRISE: 0724 JAN 02 SUNSET: 1703																											
01	SCT	NC		10.00	25	6	20	44	10	04	30.36	30.57	01	BKN	070		10.00	32	17	27	54	5	07	30.25	30.46		
04	OVC	110		10.00	25	7	20	46	9	04	30.36	30.57	04	OVC	055		10.00	32	14	26	47	9	09	30.23	30.43		
07	BKN	150		10.00	24	10	20	55	6	06	30.37	30.58	07	OVC	026		10.00	31	10	25	42	9	06	30.21	30.42		
10	OVC	028		10.00	27	11	22	51	10	05	30.36	30.57	10	OVC	042		10.00	31	15	26	52	7	05	30.21	30.42		
13	OVC	026		10.00	28	15	24	58	8	06	30.25	30.45	13	OVC	035		4.00	-RA	BR	32	30	31	92	0	00	30.12	30.32
16	OVC	022		10.00	29	19	26	66	9	05	30.14	30.35	16	OVC	075		2.00	BR	32	29	31	88	0	00	30.04	30.24	
19	OVC	010		5.00	30	28	29	92	9	05	30.04	30.25	19	OVC	060		2.00	BR	33	31	32	92	3	18	29.99	30.19	
22	OVC	004		2.00	32	31	32	96	10	07	29.88	30.09	22	OVC	180		2.00	BR	33	32	33	96	3	17	29.92	30.13	
SUNRISE: 0724 JAN 03 SUNSET: 1704																											
01	OVC	022		6.00	46	44	45	93	15	12	29.63	29.83	01	SCT	NC		2.00	BR	34	31	33	89	3	26	29.81	30.02	
04	OVC	015		8.00	58	55	56	90	26	15	29.45	29.65	04	OVC	002		1.00	BR	33	31	32	92	3	23	29.73	29.93	
07	OVC	023		2.50	52	52	52	100	0	00	29.43	29.63	07	OVC	003		1.50	BR	47	47	47	100	9	18	29.63	29.83	
10	BKN	010		10.00	47	45	46	93	15	27	29.50	29.70	10	OVC	008		10.00	56	54	55	93	16	18	29.59	29.80		
13	CLR	NC		10.00	52	42	47	69	12	26	29.47	29.67	13	BKN	060		10.00	60	54	57	80	18	22	29.52	29.72		
16	CLR	NC		10.00	53	37	46	55	10	25	29.52	29.72	16	OVC	043		10.00	54	44	49	69	14	30	29.57	29.77		
19	CLR	NC		10.00	46	33	40	61	12	26	29.62	29.82	19	OVC	060		9.00	-RA	38	26	33	62	23	01	29.72	29.93	
22	CLR	NC		10.00	39	26	34	60	12	28	29.71	29.92	22	OVC	080		10.00	34	17	28	50	18	01	29.85	30.06		
SUNRISE: 0724 JAN 04 SUNSET: 1704																											
01	SCT	NC		10.00	34	20	29	56	8	29	29.79	29.99	01	OVC	075		10.00	30	9	24	41	15	01	29.91	30.12		
04	BKN	200		10.00	30	16	26	56	10	30	29.84	30.04	04	CLR	NC		10.00	24	9	20	52	15	36	29.95	30.16		
07	BKN	250		10.00	27	11	22	51	8	31	29.92	30.13	07	CLR	NC		10.00	21	8	18	57	13	35	30.02	30.22		
10	OVC	250		10.00	30	9	24	41	12	29	30.01	30.22	10	CLR	NC		10.00	26	7	21	44	14	34	30.06	30.27		
13	BKN	250		10.00	33	9	26	36	9	31	29.96	30.17	13	CLR	NC		10.00	31	6	24	35	8	34	30.01	30.22		
16	FEW	NC		10.00	33	8	26	35	9	29	29.97	30.18	16	CLR	NC		10.00	33	6	25	32	3	VR	29.94	30.15		
19	FEW	NC		10.00	29	8	23	41	3	29	30.01	30.22	19	CLR	NC		10.00	25	11	21	55	7	19	29.94	30.15		
22	CLR	NC		10.00	26	9	21	48	7	28	30.06	30.27	22	CLR	NC		10.00	25	12	21	58	7	19	29.91	30.12		
SUNRISE: 0724 JAN 05 SUNSET: 1705																											
01	CLR	NC		10.00	21	9	18	59	8	36	30.10	30.31	01	CLR	NC		10.00	30	13	25	49	12	22	29.88	30.09		
04	FEW	NC		10.00	19	9	16	65	0	00	30.14	30.35	04	CLR	NC		10.00	26	14	22	60	6	22	29.90	30.11		
07	CLR	NC		10.00	17	10	15	74	6	34	30.17	30.39	07	OVC	250		10.00	24	16	22	71	6	22	29.99	30.19		
10	CLR	NC		10.00	22	6	18	50	9	35	30.23	30.44	10	FEW	NC		10.00	37	17	30	44	12	26	30.07	30.28		
13	CLR	NC		10.00	27	5	21	39	10	29	30.18	30.39	13	SCT	NC		10.00	41	14	32	33	7	26	30.05	30.26		
16	CLR	NC		10.00	28	5	22	37	9	32	30.17	30.38	16	SCT	NC		10.00	43	15	33	32	9	21	30.02	30.23		
19	CLR	NC		10.00	25	5	20	42	3	29	30.21	30.42	19	BKN	250		10.00	37	19	31	48	8	17	30.02	30.23		
22	CLR	NC		10.00	17	10	15	74	0	00	30.23	30.44	22	CLR	NC		10.00	34	22	30	61	10	18	29.99	30.19		
SUNRISE: 0724 JAN 06 SUNSET: 1706																											
01	CLR	NC		10.00	17	8	15	68	0	00	30.20	30.42	01	BKN	150		10.00	40	22	33	49	18	19	29.92	30.12		
04	CLR	NC		10.00	15	8	13	74	3	21	30.19	30.40	04	OVC	120		10.00	42	24	35	49	15	20	29.88	30.08		
07	CLR	NC		10.00	14	7	12	73	5	16	30.19	30.40	07	OVC	180		10.00	44	26	37	49	13	19	29.90	30.10		
10	OVC	120		10.00	25	13	21	60	10	19	30.16	30.37	10	OVC	150		10.00	50	28	41	43	15	21	29.92	30.12		
13	BKN	110		10.00	34	11	27	38	18	20	30.06	30.27	13	OVC	250		10.00	60	30	47	32	17	25	29.87	30.07		
16	OVC	120		10.00	38	13	30	36	16	20	30.01	30.22	16	OVC	250		10.00	60	33	48	36	13	23	29.87	30.08		
19	SCT	NC		10.00	35	15	29	44	10	20	30.01	30.22	19	SCT	NC		10.00	52	32	43	47	12	20	29.92	30.12		
22	SCT	NC		10.00	32	16	27	52	13	20	29.98	30.19	22	BKN	250		10.00	51	32	43	48	12	20	29.93	30.14		

OBSERVATIONS AT 3-HOURLY INTERVALS

RICHMOND, VA

JANUARY 1999

RIC

WBAN # 13740

HOUR (LST)	SATELLITE		WEATHER	TEMPERATURE °F			RELATIVE HUMIDITY (PCT)	WIND		PRESSURE (INCHES, HG)		HOUR (LST)	SATELLITE		WEATHER	TEMPERATURE °F			RELATIVE HUMIDITY (PCT)	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	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
SUNRISE: 0723				JAN 13				SUNSET: 1713				SUNRISE: 0721				JAN 19				SUNSET: 1719					
01	SCT	NC		10.00	47	31	40	54	6	18	29.94	30.14	01	CLR	NC		10.00	49	28	40	45	9	23	29.76	29.97
04	FEW	NC		10.00	38	29	34	70	7	20	29.94	30.14	04	FEW	NC		10.00	47	27	39	46	12	26	29.78	29.98
07	OVC	250		10.00	41	28	36	60	7	17	29.95	30.15	07	FEW	NC		10.00	44	26	37	49	14	25	29.84	30.05
10	OVC	250		10.00	50	30	41	46	7	20	29.97	30.17	10	BKN	200		10.00	48	25	39	41	12	26	29.90	30.10
13	OVC	200		10.00	61	33	48	35	15	24	29.91	30.11	13	CLR	NC		10.00	53	20	40	27	13	25	29.88	30.08
16	OVC	200		10.00	63	38	51	40	13	23	29.92	30.12	16	BKN	250		10.00	56	20	42	25	8	26	29.86	30.06
19	OVC	110		10.00	57	39	48	51	5	19	29.96	30.16	19	CLR	NC		10.00	46	25	38	44	7	20	29.92	30.12
22	OVC	090		10.00	57	41	49	55	0	00	29.97	30.17	22	BKN	250		10.00	45	27	38	49	5	19	29.92	30.12
SUNRISE: 0723				JAN 14				SUNSET: 1714				SUNRISE: 0721				JAN 20				SUNSET: 1720					
01	OVC	065		10.00	53	43	48	71	3	15	29.98	30.18	01	BKN	250		10.00	42	28	36	58	5	24	29.92	30.12
04	OVC	006		5.00 BR	45	43	44	93	16	05	30.03	30.24	04	OVC	250		10.00	39	33	37	79	0	00	29.92	30.13
07	OVC	005		4.00 BR	42	39	40	90	9	07	30.08	30.28	07	OVC	150		10.00	39	32	36	76	7	18	29.93	30.14
10	OVC	003		1.75 BR	40	40	40	99	8	02	30.12	30.32	10	OVC	250		10.00	47	28	39	48	14	10	29.95	30.16
13	OVC	001		0.25 RA FG	38	38	38	97	10	02	30.08	30.28	13	OVC	120		10.00	51	32	43	48	7	11	29.89	30.10
16	OVC	002		0.50 FG	38	35	37	89	9	36	30.05	30.25	16	BKN	110		10.00	52	38	45	59	7	10	29.86	30.06
19	OVC	002		2.00 BR	36	35	36	97	10	02	30.02	30.23	19	BKN	250		10.00	44	38	41	79	6	05	29.89	30.10
22	OVC	002		<.25 FG	35	35	35	100	6	04	29.95	30.15	22	FEW	NC		10.00	40	38	39	93	5	05	29.89	30.10
SUNRISE: 0723				JAN 15				SUNSET: 1715				SUNRISE: 0720				JAN 21				SUNSET: 1721					
01	OVC	001		<.25 DZ FG	33	33	33	100	5	03	29.81	30.02	01	SCT	NC		10.00	39	38	39	96	5	01	29.90	30.10
04	OVC	002		1.00 -RA BR	35	35	35	100	12	31	29.69	29.90	04	OVC	075		10.00	39	39	39	100	5	02	29.89	30.09
07	OVC	050		10.00 -RA	35	34	35	99	5	32	29.67	29.88	07	OVC	250		8.00	38	38	38	100	3	30	29.89	30.10
10	OVC	007		9.00	35	34	35	96	7	32	29.73	29.94	10	SCT	NC		7.00	44	42	43	93	5	36	29.91	30.12
13	FEW	NC		10.00	44	36	41	73	12	29	29.73	29.93	13	OVC	250		10.00	56	44	50	65	3	31	29.85	30.05
16	SCT	NC		10.00	48	33	42	56	7	30	29.72	29.93	16	BKN	250		9.00	58	47	52	67	7	19	29.83	30.03
19	FEW	NC		10.00	41	25	35	53	10	32	29.83	30.03	19	OVC	037		10.00	57	47	52	69	5	36	29.86	30.07
22	CLR	NC		10.00	32	28	31	85	3	07	29.90	30.11	22	OVC	041		10.00	51	45	48	80	5	36	29.90	30.11
SUNRISE: 0722				JAN 16				SUNSET: 1716				SUNRISE: 0720				JAN 22				SUNSET: 1722					
01	CLR	NC		10.00	29	26	28	89	0	00	29.91	30.12	01	SCT	NC		10.00	44	43	44	96	5	36	29.91	30.11
04	CLR	NC		10.00	28	24	27	85	3	19	29.91	30.12	04	BKN	016		9.00	44	43	44	96	3	06	29.95	30.15
07	CLR	NC		10.00	27	22	25	81	5	17	29.92	30.13	07	OVC	022		6.00 BR	45	45	45	100	0	00	30.01	30.21
10	SCT	NC		10.00	40	26	35	58	13	20	29.95	30.16	10	OVC	055		6.00 BR	51	48	50	89	3	VR	30.04	30.24
13	BKN	250		10.00	52	24	41	34	20	21	29.86	30.07	13	OVC	012		8.00	60	52	56	75	5	14	30.02	30.22
16	BKN	250		10.00	56	26	43	32	12	22	29.84	30.05	16	OVC	048		8.00	66	58	61	75	6	15	29.99	30.20
19	BKN	250		10.00	47	27	39	46	10	19	29.88	30.08	19	OVC	065		7.00	61	58	59	90	7	14	30.01	30.22
22	SCT	NC		10.00	46	27	38	47	3	23	29.91	30.11	22	BKN	250		6.00 BR	56	56	56	100	10	12	30.01	30.22
SUNRISE: 0722				JAN 17				SUNSET: 1717				SUNRISE: 0719				JAN 23				SUNSET: 1723					
01	SCT	NC		10.00	43	27	37	53	6	21	29.93	30.14	01	OVC	001		0.75 BR	57	57	57	100	9	16	30.02	30.23
04	SCT	NC		10.00	37	27	33	67	0	00	29.96	30.16	04	VV	001		<.25 FG	56	56	56	100	7	14	30.01	30.21
07	BKN	200		10.00	30	27	29	88	0	00	30.04	30.25	07	OVC	003		0.50 FG	57	57	57	100	7	16	30.01	30.22
10	BKN	250		10.00	41	33	38	74	0	00	30.09	30.29	10	SCT	NC		10.00	63	61	62	93	14	16	30.00	30.21
13	BKN	250		10.00	58	36	48	44	10	10	30.06	30.27	13	OVC	042		10.00	71	61	65	71	15	17	29.90	30.11
16	OVC	250		10.00	54	35	45	49	9	14	30.01	30.22	16	BKN	047		10.00 -RA	71	60	64	68	22	17	29.83	30.04
19	OVC	200		10.00	47	36	42	66	6	13	30.02	30.23	19	BKN	039		10.00	66	62	64	87	15	16	29.81	30.01
22	OVC	200		10.00	45	36	41	71	6	14	29.98	30.18	22	OVC	036		10.00 -RA	62	61	61	96	8	20	29.81	30.01
SUNRISE: 0722				JAN 18				SUNSET: 1718				SUNRISE: 0719				JAN 24				SUNSET: 1724					
01	OVC	090		10.00 -RA	46	43	45	89	5	10	29.89	30.09	01	OVC	060		8.00 -RA	59	59	59	100	10	17	29.78	29.98
04	OVC	009		5.00 BR	50	50	50	100	9	18	29.82	30.02	04	OVC	004		4.00 -RA BR	59	59	59	100	8	16	29.73	29.93
07	OVC	030		2.00 +RA BR	56	56	56	100	15	17	29.76	29.96	07	OVC	004		5.00 RA BR	59	59	59	100	10	16	29.68	29.88
10	OVC	010		6.00 BR	59	58	58	96	14	17	29.69	29.89	10	OVC	006		3.00 RA BR	60	59	59	96	18	29	29.76	29.96
13	OVC	016		8.00	63	61	62	93	18	19	29.55	29.75	13	OVC	038		2.50 RA BR	55	54	54	96	9	28	29.73	29.93
16	BKN	250		10.00	60	53	56	78	17	26	29.55	29.75	16	BKN	008		7.00 -RA	55	54	54	96	7	29	29.73	29.93
19	CLR	NC		10.00	51	42	47	71	7	28	29.69	29.89	19	OVC	030		8.00	51	49	50	92	7	01	29.84	30.04
22	CLR	NC		10.00	49	35	43	59	7	25	29.72	29.93	22	CLR	NC		10.00	43	39	41	86	7	03	29.93	30.14

OBSERVATIONS AT 3-HOURLY INTERVALS

RICHMOND, VA

JANUARY 1999

RIC

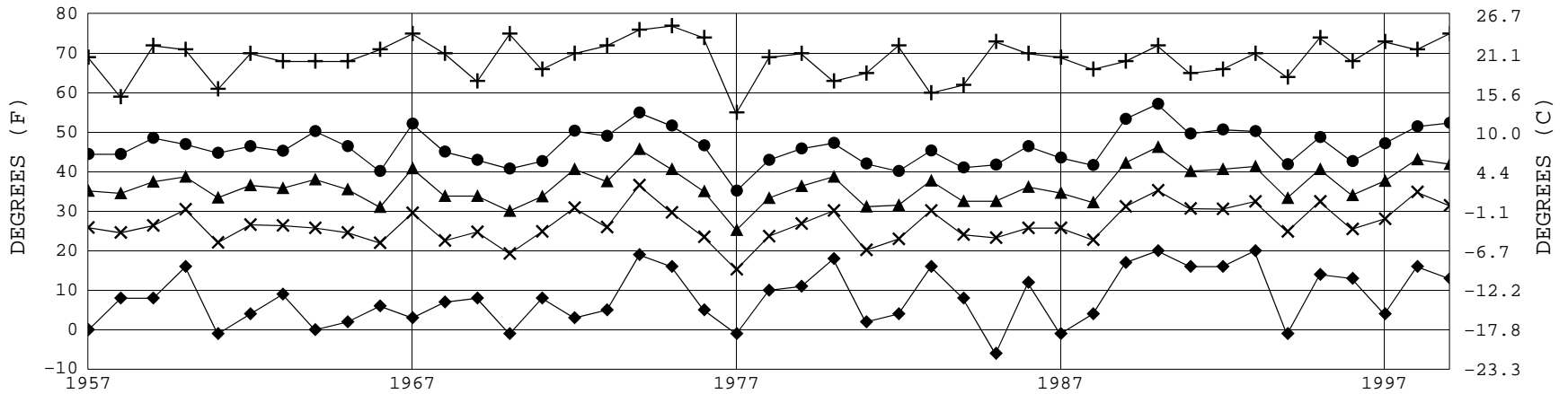
WBAN # 13740

HOUR (LST)	SKY COVER		CEILING 100'S OF FT	SATELLITE		WEATHER	TEMPERATURE ° F			RELATIVE HUMIDITY (PCT)	WIND		PRESSURE (INCHES, HG)		HOUR (LST)	SKY COVER		CEILING 100'S OF FT	SATELLITE		WEATHER	TEMPERATURE ° F			RELATIVE HUMIDITY (PCT)	WIND		PRESSURE (INCHES, HG)			
	SKY COVER	CEILING 100'S OF FT		OBSERVATION TIME (LST)	EFF CLD AMT Okltas		VISIBILITY (MILES)	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 Okltas	VISIBILITY (MILES)	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	CLR	NC			8.00		38	37	38	97	0	00	29.95	30.15	01	BKN	250			10.00		33	23	30	67	8	03	30.44	30.64		
04	CLR	NC			4.00	BR	36	36	36	100	0	00	29.98	30.19	04	BKN	250			10.00		31	22	28	69	9	02	30.46	30.67		
07	CLR	NC			2.50	BR	31	31	31	100	3	14	30.04	30.25	07	OVC	250			10.00		27	21	25	78	7	02	30.52	30.74		
10	CLR	NC			10.00		42	35	39	76	9	15	30.05	30.26	10	BKN	250			10.00		34	22	30	61	12	06	30.56	30.78		
13	CLR	NC			10.00		51	37	45	59	6	VR	29.96	30.17	13	BKN	220			10.00		36	16	29	44	12	07	30.53	30.76		
16	CLR	NC			10.00		57	34	46	42	6	VR	29.95	30.15	16	BKN	200			10.00		35	12	28	38	7	07	30.54	30.76		
19	OVC	065			10.00		55	36	46	49	17	30	30.05	30.26	19	BKN	200			10.00		29	19	26	66	5	15	30.55	30.77		
22	CLR	NC			10.00		41	34	38	76	7	03	30.17	30.38	22	OVC	026			10.00		30	22	27	72	6	04	30.51	30.73		
SUNRISE: 0717							JAN 26		SUNSET: 1726							3-HOURLY OBSERVATION NOTES															
01	CLR	NC			10.00		39	30	35	70	9	02	30.23	30.44	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		33	30	32	89	0	00	30.26	30.47	Ceiling is reported in hundreds of feet above ground level for clouds at or below 12,000 feet.																
07	BKN	250			9.00		30	28	29	92	3	02	30.31	30.51	NC= No ceiling detected.																
10	CLR	NC			10.00		41	27	36	57	5	12	30.32	30.53	& = Original observation contained additional weather elements.																
13	BKN	250			10.00		45	27	38	49	5	VR	30.27	30.47	See page 3 for additional notes.																
16	CLR	NC			10.00		48	30	40	50	8	17	30.21	30.41																	
19	CLR	NC			10.00		39	31	36	73	5	15	30.22	30.42																	
22	CLR	NC			10.00		36	30	34	79	0	00	30.19	30.40																	
SUNRISE: 0717							JAN 27		SUNSET: 1728																						
01	CLR	NC			10.00		34	30	32	85	3	15	30.15	30.36																	
04	CLR	NC			9.00		36	31	34	82	5	18	30.12	30.32																	
07	BKN	250			7.00		34	31	33	89	6	19	30.10	30.31																	
10	FEW	NC			10.00		46	37	42	71	13	21	30.03	30.24																	
13	OVC	250			10.00		59	40	50	49	9	21	29.90	30.11																	
16	OVC	250			10.00		64	43	53	46	15	22	29.79	29.99																	
19	BKN	250			10.00		57	48	52	72	12	22	29.78	29.98																	
22	BKN	250			8.00		48	45	47	89	8	22	29.75	29.96																	
SUNRISE: 0716							JAN 28		SUNSET: 1729																						
01	OVC	250			10.00		58	48	53	70	12	25	29.75	29.96																	
04	OVC	250			10.00		55	47	51	74	10	26	29.78	29.98																	
07	OVC	250			10.00		54	45	49	72	9	25	29.83	30.03																	
10	OVC	250			10.00		60	45	52	58	12	24	29.85	30.05																	
13	SCT	NC			10.00		71	46	57	41	12	28	29.79	29.99																	
16	SCT	NC			10.00		70	44	56	39	9	27	29.78	29.98																	
19	BKN	250			10.00		57	45	51	64	8	21	29.79	29.99																	
22	BKN	090			10.00		61	44	52	54	6	26	29.81	30.01																	
SUNRISE: 0715							JAN 29		SUNSET: 1730																						
01	BKN	250			10.00		58	45	51	62	3	34	29.84	30.04																	
04	BKN	250			10.00		53	38	46	57	17	02	29.93	30.13																	
07	OVC	150			10.00		46	34	41	63	16	01	30.05	30.25																	
10	OVC	250			10.00		45	30	39	56	17	02	30.16	30.37																	
13	FEW	NC			10.00		50	29	41	44	9	01	30.16	30.36																	
16	BKN	250			10.00		51	28	41	41	7	03	30.14	30.35																	
19	BKN	250			10.00		44	30	38	58	5	05	30.20	30.41																	
22	OVC	250			10.00		39	30	35	70	0	00	30.22	30.42																	
SUNRISE: 0715							JAN 30		SUNSET: 1731																						
01	OVC	250			8.00		35	30	33	82	0	00	30.24	30.45																	
04	OVC	250			7.00		32	30	31	92	6	35	30.23	30.43																	
07	SCT	NC			8.00		31	28	30	89	3	34	30.27	30.48																	
10	BKN	250			10.00		41	28	36	60	15	02	30.33	30.54																	
13	BKN	250			10.00		48	27	39	44	10	01	30.29	30.50																	
16	SCT	NC			10.00		50	23	39	35	6	VR	30.25	30.46																	
19	SCT	NC			10.00		41	23	34	49	7	06	30.31	30.52																	
22	FEW	NC			10.00		34	26	31	73	7	04	30.39	30.60																	

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	30	35	72	29.97	30.18	8.80	7	1	20
02			38	30	35	74	29.97	30.18	8.55	8	1	20
03			38	30	35	75	29.97	30.18	8.57	8	1	18
04			37	30	35	76	29.97	30.17	8.16	8	0	0
05			37	30	34	78	29.97	30.17	7.96	8	1	21
06			37	30	34	78	29.98	30.19	7.73	7	1	22
07			36	30	34	79	29.99	30.20	7.94	7	1	19
08			36	29	34	78	30.02	30.23	7.87	7	1	21
09			40	31	37	72	30.01	30.22	8.62	9	2	22
10			43	31	38	66	30.02	30.23	9.12	11	2	26
11			45	31	40	61	30.02	30.22	9.16	10	3	25
12			47	31	41	57	29.99	30.20	9.07	11	4	24
13			49	31	42	54	29.97	30.17	9.12	10	4	25
14			50	31	42	52	29.95	30.16	9.22	11	4	25
15			50	31	42	51	29.94	30.15	9.08	11	4	24
16			50	31	42	51	29.95	30.15	9.24	9	4	24
17			47	31	41	56	29.96	30.16	9.23	9	2	24
18			44	31	39	61	29.97	30.18	9.42	8	1	19
19			43	31	38	63	29.99	30.19	9.13	9	1	21
20			42	31	38	67	30.00	30.20	9.11	7	1	10
21			40	31	37	71	30.00	30.20	9.01	7	1	12
22			40	30	36	70	30.00	30.21	8.97	7	0	0
23			39	30	36	71	30.00	30.20	8.75	7	1	18
24			39	30	36	71	29.99	30.20	8.74	8	1	21

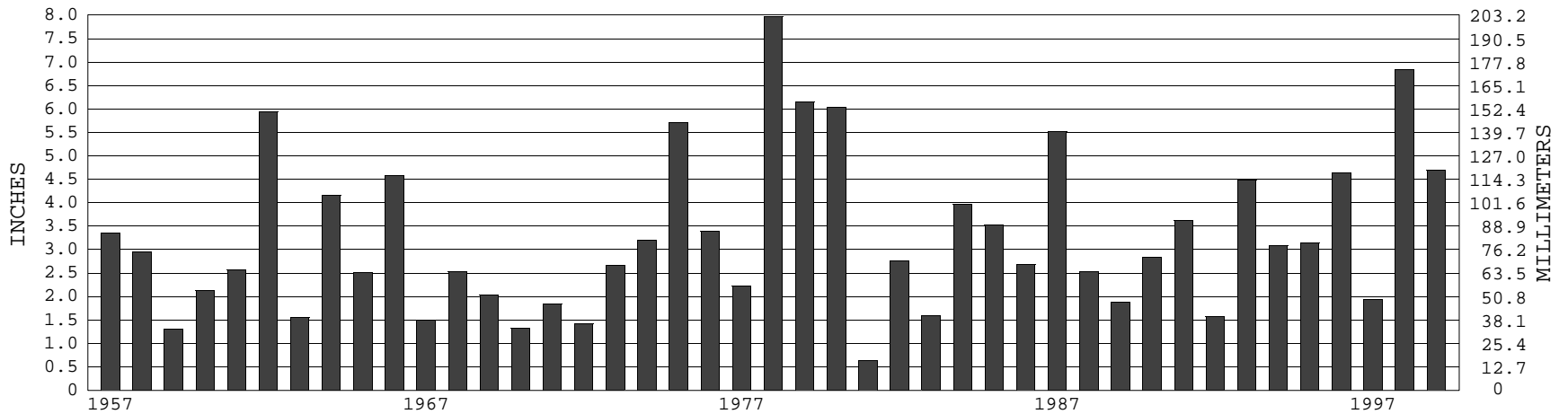
RICHMOND, VA JANUARY TEMPERATURES



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

Long-Term (1957-1999) Mean: 36.6 1961-1990 Normal: 35.7

RICHMOND, VA JANUARY PRECIPITATION



Long-Term (1957-1999) Mean Monthly Total: 3.28

1961-1990 Normal: 3.24



**JANUARY 1999
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.

DIRECTOR

NOTICE

Effective July 1, 1996, the National Weather Service & Federal Aviation Administration began using the METAR format for Hourly Observations.

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