



DECEMBER 2000

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): 165 Feet
 Time Zone: EASTERN WBAN: 13740 ISSN #:0198-537X

DECEMBER 2000
 RICHMOND, VA

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	25																	
01	49	25	37	-8	26	33	28	0					0.00	30.10	30.30	0.8	24	1.8	13	02	10	02	01																		
02	46	26	36	-8	26	32	29	0	SN				T	30.24	30.44	8.9	03	9.0	23	03	18	04	02																		
03	32	23	28	-16	16	24	37	0					0.00	30.31	30.51	11.5	01	11.6	24	01	20	01	03																		
04	47	20	34	-9	11	25	31	0					0.00	30.20	30.40	4.5	36	5.2	14	01	12	01	04																		
05	51	22	37	-6	19	31	28	0					0.00	29.93	30.13	6.8	26	8.2	28	25	21	28	05																		
06	36	23	30	-13	14	26	35	0					0.00	29.97	30.17	1.1	03	5.1	17	01	14	01	06																		
07	47	30	39	-3	24	33	26	0					0.00	29.78	29.97	6.8	24	8.3	25	25	20	25	07																		
08	57	30	44	2	28	37	21	0					0.00	29.83	30.02	2.7	24	6.1	17	25	14	25	08																		
09	42	25	34	-8	22	30	31	0					0.00	30.19	30.38	4.6	04	5.6	20	04	16	04	09																		
10	36	28	32	-9	31	33	33	0	RA DZ BR				0.17	30.11	30.31	5.9	36	6.6	16	32	13	33	10																		
11	48	31	40	-1	38	38	25	0	DZ FG BR				0.01	29.92	30.12	2.0	19	3.6	21	19	16	19	11																		
12	55	29	42	1	29	40	23	0	BR				0.00	29.90	30.09	9.6	28	14.8	39	29	30	29	12																		
13	39	24	32	-9	17	27	33	0	RA DZ BR				T	30.39	30.59	6.6	05	7.8	16	09	13	08	13																		
14	49	31	40	0	37	38	25	0	RA DZ BR				0.17	30.07	30.26	2.8	26	6.8	18	04	15	04	14																		
15	44	29	37	-3	30	34	28	0	BR				0.00	30.32	30.52	4.8	04	5.4	16	03	14	04	15																		
16	55	34	45	5	40	40	20	0	RA DZ FG+ BR				0.54	29.98	30.18	2.9	03	6.5	18	01	15	01	16																		
17	67*	31	49*	9	40	46	16	0	TS TSRA RA FG+ BR				1.34	29.49	29.68	16.4	23	19.6	45*	26	36*	24	17																		
18	43	27	35	-4	20	29	30	0					0.00	29.91	30.11	2.7	25	5.2	23	24	17	24	18																		
19	47	28	38	-1	29	33	27	0	RA SN BR				0.08	29.66	29.86	3.4	28	6.9	23	32	20	33	19																		
20	31	20	26	-13	16	23	39	0	SN				T	29.94	30.14	6.1	30	7.4	21	30	17	30	20																		
21	36	17	27	-12	19	25	38	0	SN				T	30.08	30.28	3.5	19	4.0	14	20	13	21	21																		
22	41	19	30	-8	16	27	35	0	SN PL BR				0.01	29.98	30.18	8.8	28	11.5	30	26	24	31	22																		
23	31	13	22*	-16	6	18	43	0					0.00	30.34	30.54	1.3	35	3.5	18	02	15	01	23																		
24	45	21	33	-5	15	26	32	0					0.00	30.12	30.32	5.3	22	7.4	17	22	14	23	24																		
25	31	19	25	-13	4	19	40	0					0.00	30.37	30.57	11.6	35	11.9	25	33	22	36	25																		
26	32	13*	23	-15	6	20	42	0	SN BR				0.02	30.31	30.52	3.8	31	6.3	17	36	14	36	26																		
27	39	19	29	-8	26	28	36	0	SN MIFG BCFG BR				0.04	29.96	30.16	1.0	18	3.0	14	24	12	23	27																		
28	32	23	28	-9	13	24	37	0					0.00	29.82	30.02	9.1	36	9.4	29	32	25	34	28																		
29	32	17	25	-12	16	23	40	0					0.00	29.78	29.97	3.8	02	4.9	15	02	12	02	29																		
30	33	19	26	-11	16	23	39	0	SN				T	29.61	29.80	8.1	30	9.9	23	28	18	26	30																		
31	39	18	29	-8	10	23	36	0					0.00	29.84	30.04	10.4	27	10.9	25	30	21	29	31																		
< MONTHLY AVERAGES										TOTALS->				2.38	30.01	30.21	2.8	31	7.6	<- MONTHLY AVERAGES																					
-7.9										-6.2				-7.1				<-----DEPARTURE FROM NORMAL----->										-0.88				SUNSHINE, CLOUD, & VISIBILITY TABLES ON PAGE 3									
DEGREE DAYS										GREATEST 24-HR PRECIPITATION: 1.36 DATE: 16-17										SEA LEVEL PRESSURE DATE TIME																					
MONTHLY TOTAL DEPARTURE										SEASON TO DATE TOTAL DEPARTURE										GREATEST 24-HR SNOWFALL: DATE: DATE: DATE:										MAXIMUM MINIMUM : 30.71 13 0954 : 29.47 17 1154											
HEATING: 983 211										1795 305										NUMBER OF DAYS WITH => MAXIMUM TEMP ≥ 90: 0 MINIMUM TEMP ≤ 32: 30										PRECIPITATION ≥ 0.01 INCH : 9											
COOLING: 0 0										1266 -82										MAXIMUM TEMP ≤ 32 : 7 MINIMUM TEMP ≤ 0 : 0										PRECIPITATION ≥ 0.10 INCH : 4											
																				THUNDERSTORMS : 1 HEAVY FOG : 2										SNOWFALL ≥ 1.0 INCH :											

HOURLY PRECIPITATION

(WATER EQUIVALENT IN INCHES)

RICHMOND, VA

DECEMBER 2000

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		T	T										02												02		T	
03													03												03		0.00	
04													04												04		0.00	
05													05												05		0.00	
06													06												06		0.00	
07													07												07		0.00	
08													08												08		0.00	
09													09												09		0.00	
10													10	0.04	0.01	T		T	T	T				10		0.17		
11													11											11		0.01		
12													12								T	0.01	T	12		0.00		
13													13									T	T	13		T		
14	0.03	T	0.05	T	T	0.02	T				0.07		14											14		0.17		
15													15											15		0.00		
16													16		T	T	0.01	T	T	T	T	T	0.01	T	16		0.54	
17	0.01	0.19	0.20	0.08	0.11	0.18	0.09	0.10	0.02	0.02	0.02	T	17		T	T								17		1.34		
18													18												18		0.00	
19													19		T	T	T	T	0.02	0.03	0.02	0.01	T	T	19		0.08	
20		T	T	T									20												20		T	
21													21												21		T	
22	T	T	0.01	T	T								22												22		0.01	
23													23												23		0.00	
24													24												24		0.00	
25													25												25		0.00	
26													26												26		0.02	
27	0.03	0.01	T										27												27		0.04	
28													28												28		0.00	
29													29												29		0.00	
30													30	T	T										30		T	
31													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)	.23	.34	.41	.46	.51	.52	.52	.73	.76	.76	.77	.78
Ending Date	17	17	17	17	17	17	17	17	17	17	17	17
Ending Time (Hour/Min)	0710	0711	0714	0722	0725	0740	0740	0820	0837	0837	0905	0934

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 DECEMBER 2000

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							8.00	10.00	
02							10.00	10.00	
03							10.00	10.00	
04							10.00	10.00	
05							10.00	10.00	
06							10.00	10.00	
07							10.00	10.00	
08							10.00	10.00	
09							8.00	10.00	
10							1.50	10.00	
11							.50	7.00	
12							6.00	10.00	
13							5.00	10.00	
14							.75	10.00	
15							6.00	10.00	
16							.06	10.00	
17							.25	10.00	
18							10.00	10.00	
19							.75	10.00	
20							7.00	10.00	
21							8.00	10.00	
22							2.50	10.00	
23							10.00	10.00	
24							10.00	10.00	
25							10.00	10.00	
26							1.25	10.00	
27							.75	10.00	
28							10.00	10.00	
29							10.00	10.00	
30							10.00	10.00	
31							10.00	10.00	
MONTHLY AVGS							6.89	9.90	
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 19									

OBSERVATIONS AT 3-HOURLY INTERVALS

RICHMOND, VA
DECEMBER 2000

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		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		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)									OBSERVATION TIME (LST)	EFF CLD AMT Oktas		VISIBILITY (MILES)								
SUNRISE: 0706 DEC 01 SUNSET: 1651																								
01	CLR	NC		32	24	29	73	0	00	30.09	30.29	01	OVC	048		10.00	36	20	30	52	7	17	29.77	29.97
04	CLR	NC		28	24	27	85	0	00	30.10	30.29	04	OVC	100		10.00	34	28	32	79	8	21	29.74	29.93
07	FEW	NC		28	22	26	78	0	00	30.12	30.32	07	BKN	150		10.00	34	22	30	61	8	25	29.74	29.94
10	CLR	NC		41	29	36	62	0	00	30.15	30.35	10	BKN	180		10.00	40	23	34	51	10	23	29.78	29.97
13	SCT	NC		45	25	37	46	5	25	30.08	30.28	13	SCT	NC		10.00	44	21	35	40	15	25	29.74	29.93
16	BKN	250		47	25	38	42	5	26	30.07	30.27	16	SCT	NC		10.00	46	22	37	38	12	27	29.78	29.97
19	BKN	130		38	26	33	62	0	00	30.10	30.29	19	CLR	NC		10.00	37	23	32	57	6	16	29.81	30.01
22	OVC	060		37	29	34	73	0	00	30.12	30.32	22	BKN	110		10.00	33	25	30	72	0	00	29.82	30.02
SUNRISE: 0706 DEC 02 SUNSET: 1651																								
01	BKN	110		38	29	34	70	7	03	30.12	30.32	01	SCT	NC		10.00	34	27	31	76	10	18	29.79	29.99
04	OVC	080		37	34	36	89	8	04	30.15	30.35	04	OVC	090		10.00	41	28	36	60	8	22	29.76	29.96
07	OVC	046		36	33	35	89	8	02	30.19	30.39	07	BKN	250		10.00	35	27	32	72	5	17	29.76	29.96
10	OVC	050		39	27	34	62	16	03	30.25	30.44	10	OVC	250		10.00	45	29	38	54	8	24	29.79	29.99
13	OVC	070		39	25	34	57	12	04	30.26	30.45	13	OVC	250		10.00	55	27	43	34	6	26	29.75	29.94
16	BKN	070		38	22	32	53	9	04	30.26	30.45	16	BKN	150		10.00	55	27	43	34	10	30	29.80	29.99
19	FEW	NC		31	20	27	64	7	03	30.29	30.49	19	OVC	150		10.00	45	29	38	54	3	01	29.88	30.08
22	CLR	NC		27	18	24	69	6	01	30.31	30.51	22	FEW	NC		10.00	34	27	31	76	0	00	29.97	30.17
SUNRISE: 0707 DEC 03 SUNSET: 1651																								
01	CLR	NC		25	17	23	72	7	02	30.31	30.51	01	CLR	NC		10.00	30	26	29	85	0	00	30.04	30.23
04	SCT	NC		25	16	22	69	10	02	30.31	30.50	04	CLR	NC		10.00	28	24	27	85	3	01	30.09	30.29
07	BKN	100		25	16	22	69	14	02	30.32	30.52	07	FEW	NC		10.00	30	24	28	79	5	04	30.17	30.36
10	OVC	095		27	17	24	66	13	01	30.37	30.57	10	BKN	250		10.00	37	23	32	57	14	04	30.25	30.45
13	OVC	100		31	18	27	59	16	02	30.29	30.49	13	FEW	NC		10.00	41	20	33	43	10	03	30.21	30.41
16	BKN	150		31	16	26	54	12	02	30.28	30.48	16	BKN	150		10.00	40	19	33	43	6	07	30.21	30.41
19	BKN	200		29	13	24	51	10	01	30.29	30.49	19	BKN	150		10.00	36	18	30	48	6	06	30.22	30.42
22	CLR	NC		24	13	21	62	7	36	30.28	30.48	22	BKN	150		10.00	32	21	28	64	6	05	30.22	30.42
SUNRISE: 0708 DEC 04 SUNSET: 1651																								
01	CLR	NC		24	14	21	65	9	35	30.28	30.47	01	BKN	150		10.00	30	22	27	72	6	03	30.22	30.42
04	CLR	NC		22	13	19	68	5	35	30.25	30.45	04	BKN	180		10.00	30	25	28	82	8	04	30.18	30.37
07	CLR	NC		21	11	18	65	9	36	30.26	30.46	07	OVC	150		10.00	31	27	29	85	8	36	30.16	30.36
10	CLR	NC		35	12	28	38	7	01	30.26	30.46	10	OVC	039		3.00	33	32	33	96	9	02	30.15	30.35
13	CLR	NC		45	7	33	21	7	35	30.20	30.40	13	OVC	004		1.50	34	34	34	100	10	33	30.09	30.29
16	CLR	NC		46	6	33	19	5	32	30.16	30.36	16	OVC	013		1.50	36	36	36	100	8	34	30.06	30.25
19	CLR	NC		31	10	25	42	0	00	30.14	30.34	19	OVC	011		1.50	35	35	35	100	7	01	30.06	30.26
22	CLR	NC		24	12	21	60	3	14	30.10	30.30	22	OVC	013		3.00	36	36	36	100	7	32	30.06	30.25
SUNRISE: 0709 DEC 05 SUNSET: 1651																								
01	CLR	NC		24	14	21	65	3	23	30.04	30.24	01	OVC	013		5.00	36	36	36	100	6	32	30.05	30.24
04	SCT	NC		28	12	23	51	6	22	29.99	30.18	04	OVC	250		2.50	34	34	34	100	0	00	30.00	30.20
07	CLR	NC		25	11	21	55	7	21	29.94	30.14	07	OVC	250		1.25	32	32	32	100	5	34	30.01	30.21
10	CLR	NC		40	18	32	41	9	25	29.92	30.12	10	OVC	060		1.25	36	36	36	100	0	00	30.04	30.24
13	CLR	NC		49	26	40	41	13	29	29.86	30.06	13	OVC	040		4.00	40	38	39	93	0	00	29.96	30.16
16	FEW	NC		49	25	39	39	9	29	29.85	30.04	16	OVC	019		6.00	41	39	40	93	6	15	29.90	30.10
19	FEW	NC		44	24	36	45	7	28	29.90	30.10	19	OVC	005		2.50	41	41	41	100	8	16	29.81	30.01
22	OVC	220		40	19	32	43	8	30	29.96	30.16	22	OVC	001		0.50	44	44	44	100	8	19	29.74	29.93
SUNRISE: 0710 DEC 06 SUNSET: 1651																								
01	SCT	NC		35	18	29	50	5	29	29.99	30.18	01	BKN	013		6.00	49	49	49	100	15	19	29.60	29.79
04	CLR	NC		27	12	23	53	9	01	30.02	30.22	04	BKN	095		9.00	53	51	52	93	20	21	29.54	29.73
07	OVC	250		24	12	21	60	5	36	30.07	30.27	07	CLR	NC		10.00	54	49	51	83	17	23	29.58	29.78
10	OVC	250		30	11	24	45	8	07	30.08	30.28	10	FEW	NC		10.00	53	25	41	34	17	29	29.79	29.98
13	OVC	250		33	12	27	42	0	00	29.99	30.19	13	SCT	NC		10.00	50	19	38	29	22	31	29.90	30.09
16	OVC	200		34	13	27	42	3	VR	29.94	30.14	16	SCT	NC		10.00	45	16	35	31	12	30	30.05	30.24
19	OVC	110		32	16	27	52	3	14	29.87	30.07	19	SCT	NC		10.00	37	16	30	42	8	34	30.18	30.37
22	OVC	085		33	20	29	59	6	19	29.83	30.03	22	SCT	NC		10.00	31	14	26	49	9	36	30.28	30.47

OBSERVATIONS AT 3-HOURLY INTERVALS

RICHMOND, VA

DECEMBER 2000

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: 0716 DEC 13					SUNSET: 1652					SUNRISE: 0719 DEC 19					SUNSET: 1654														
01	FEW	NC	10.00		29	13	24	51	9	01	30.35	30.54	01	BKN	250	10.00		31	26	29	82	0	00	29.82	30.01				
04	CLR	NC	10.00		27	11	22	51	9	03	30.38	30.58	04	OVC	250	10.00		28	25	27	88	6	13	29.77	29.97				
07	CLR	NC	10.00		24	11	20	57	5	04	30.45	30.65	07	OVC	100	7.00		30	27	29	88	3	17	29.73	29.93				
10	FEW	NC	10.00		32	15	27	50	13	04	30.51	30.71	10	OVC	100	10.00		37	30	34	76	6	18	29.73	29.93				
13	SCT	NC	10.00		37	15	30	41	8	07	30.45	30.65	13	OVC	100	10.00		47	27	39	46	8	25	29.58	29.78				
16	OVC	180	10.00		38	18	31	44	8	07	30.42	30.62	16	OVC	033	10.00	-RA	42	30	37	62	9	29	29.58	29.78				
19	OVC	044	10.00		36	24	32	62	12	09	30.39	30.59	19	OVC	006	2.00	-SN BR	33	33	33	100	9	33	29.58	29.78				
22	OVC	020	10.00		34	24	30	67	6	04	30.25	30.45	22	OVC	009	2.50	-SN BR	31	31	31	100	10	33	29.59	29.79				
SUNRISE: 0716 DEC 14					SUNSET: 1652					SUNRISE: 0720 DEC 20					SUNSET: 1655														
01	OVC	011	5.00	DZ BR	31	31	31	100	7	31	30.12	30.32	01	OVC	015	10.00		30	28	29	92	8	33	29.62	29.82				
04	OVC	004	2.00	DZ BR	32	32	32	100	10	31	30.04	30.24	04	OVC	070	10.00		28	21	26	75	12	30	29.71	29.91				
07	OVC	006	2.00	BR	32	32	32	100	3	28	30.03	30.22	07	OVC	032	10.00		24	14	21	65	10	30	29.84	30.03				
10	OVC	014	2.00	BR	33	33	33	100	7	18	30.03	30.23	10	CLR	NC	10.00		25	12	21	58	9	32	29.97	30.17				
13	OVC	110	10.00		43	42	43	97	8	21	29.97	30.16	13	CLR	NC	10.00		30	13	25	49	6	29	29.99	30.19				
16	BKN	130	10.00		49	46	47	90	8	21	30.01	30.20	16	CLR	NC	10.00		30	13	25	49	8	31	30.01	30.21				
19	FEW	NC	7.00		38	38	38	100	6	21	30.09	30.29	19	FEW	NC	10.00		24	15	21	68	6	22	30.10	30.30				
22	BKN	026	7.00		39	39	39	100	6	05	30.19	30.38	22	SCT	NC	10.00		24	16	22	71	0	00	30.12	30.32				
SUNRISE: 0717 DEC 15					SUNSET: 1653					SUNRISE: 0720 DEC 21					SUNSET: 1655														
01	CLR	NC	10.00		37	34	36	89	5	06	30.25	30.44	01	CLR	NC	10.00		21	16	20	81	0	00	30.14	30.34				
04	FEW	NC	10.00		33	32	33	96	3	02	30.30	30.50	04	CLR	NC	9.00		19	16	18	88	0	00	30.14	30.35				
07	SCT	NC	10.00		30	30	30	100	6	02	30.36	30.56	07	BKN	150	9.00		20	17	19	89	0	00	30.13	30.33				
10	OVC	250	10.00		37	31	35	79	8	05	30.42	30.61	10	BKN	150	10.00		27	20	25	75	5	19	30.14	30.34				
13	OVC	250	10.00		42	30	37	62	7	05	30.33	30.53	13	BKN	250	10.00		34	19	29	54	8	18	30.05	30.25				
16	OVC	250	10.00		42	28	37	58	5	09	30.32	30.51	16	BKN	120	10.00		35	19	30	52	8	19	30.02	30.22				
19	OVC	200	10.00		36	30	34	79	5	07	30.30	30.50	19	OVC	120	10.00		32	20	28	61	3	16	30.02	30.22				
22	BKN	200	10.00		32	29	31	88	3	08	30.29	30.49	22	OVC	090	10.00		33	23	30	67	3	18	30.00	30.20				
SUNRISE: 0718 DEC 16					SUNSET: 1653					SUNRISE: 0721 DEC 22					SUNSET: 1656														
01	OVC	030	10.00		35	32	34	89	8	01	30.24	30.43	01	OVC	041	6.00	-SN	35	28	32	76	7	23	29.95	30.15				
04	OVC	013	6.00	BR	35	35	35	100	13	02	30.18	30.37	04	OVC	085	7.00	-SN	32	31	32	96	7	18	29.88	30.08				
07	OVC	006	5.00	-RA BR	35	35	35	100	5	03	30.14	30.34	07	BKN	050	9.00		28	27	28	96	6	22	29.86	30.06				
10	OVC	004	3.00	-RA BR	37	37	37	100	7	34	30.10	30.30	10	CLR	NC	10.00		37	27	33	67	13	27	29.89	30.09				
13	OVC	002	0.50	FG	41	41	41	100	6	34	29.97	30.16	13	SCT	NC	10.00		40	14	31	35	16	29	29.88	30.08				
16	OVC	002	1.00	-DZ BR	41	41	41	100	3	12	29.89	30.09	16	CLR	NC	10.00		35	2	26	24	15	29	29.98	30.18				
19	VV	001	0.13	-DZ FG	42	42	42	100	6	14	29.84	30.03	19	CLR	NC	10.00		29	3	22	33	12	30	30.10	30.29				
22	VV	001	0.06	-DZ FG	45	45	45	100	6	16	29.71	29.91	22	CLR	NC	10.00		24	1	19	37	13	33	30.20	30.40				
SUNRISE: 0718 DEC 17					SUNSET: 1653					SUNRISE: 0721 DEC 23					SUNSET: 1656														
01	OVC	003	2.00	-TSRA BR	59	59	59	100	16	17	29.57	29.76	01	CLR	NC	10.00		18	2	14	49	10	36	30.28	30.47				
04	OVC	015	3.00	-TSRA BR	65	65	65	100	20	18	29.42	29.62	04	CLR	NC	10.00		15	4	13	61	7	33	30.32	30.52				
07	BKN	025	10.00	TS	67	63	64	87	20	22	29.32	29.51	07	CLR	NC	10.00		13	4	11	67	6	36	30.35	30.55				
10	OVC	041	10.00		57	48	52	72	20	23	29.34	29.54	10	CLR	NC	10.00		21	4	17	47	0	00	30.42	30.62				
13	SCT	NC	10.00		55	32	45	42	28	25	29.28	29.47	13	CLR	NC	10.00		28	4	22	35	0	00	30.36	30.56				
16	BKN	048	10.00		45	27	38	49	25	26	29.43	29.63	16	SCT	NC	10.00		30	4	23	33	5	VR	30.34	30.54				
19	CLR	NC	10.00		37	16	30	42	24	26	29.67	29.86	19	SCT	NC	10.00		25	9	21	50	0	00	30.33	30.53				
22	CLR	NC	10.00		32	16	27	52	17	24	29.76	29.96	22	OVC	150	10.00		24	12	21	60	3	15	30.31	30.51				
SUNRISE: 0719 DEC 18					SUNSET: 1654					SUNRISE: 0722 DEC 24					SUNSET: 1657														
01	CLR	NC	10.00		30	17	26	59	9	23	29.81	30.01	01	FEW	NC	10.00		21	12	19	68	3	20	30.27	30.47				
04	CLR	NC	10.00		29	17	25	61	8	25	29.89	30.08	04	OVC	100	10.00		24	13	21	62	3	17	30.22	30.42				
07	CLR	NC	10.00		28	17	25	63	8	25	29.95	30.15	07	OVC	095	10.00		25	12	21	58	8	20	30.18	30.38				
10	CLR	NC	10.00		34	17	28	50	9	31	30.00	30.20	10	CLR	NC	10.00		32	11	26	41	12	22	30.17	30.37				
13	CLR	NC	10.00		40	18	32	41	0	00	29.93	30.13	13	SCT	NC	10.00		39	14	31	36	13	19	30.04	30.24				
16	SCT	NC	10.00		42	19	34	40	0	00	29.91	30.11	16	FEW	NC	10.00		45	18	35	34	10	25	30.01	30.21				
19	SCT	NC	10.00		34	23	30	64	0	00	29.91	30.11	19	CLR	NC	10.00		31	19	27	61	7	22	30.02	30.22				
22	BKN	250	10.00		31	25	29	79	3	13	29.88	30.08	22	CLR	NC	10.00		35	18	29	50	8	34	30.08	30.28				

OBSERVATIONS AT 3-HOURLY INTERVALS

RICHMOND, VA

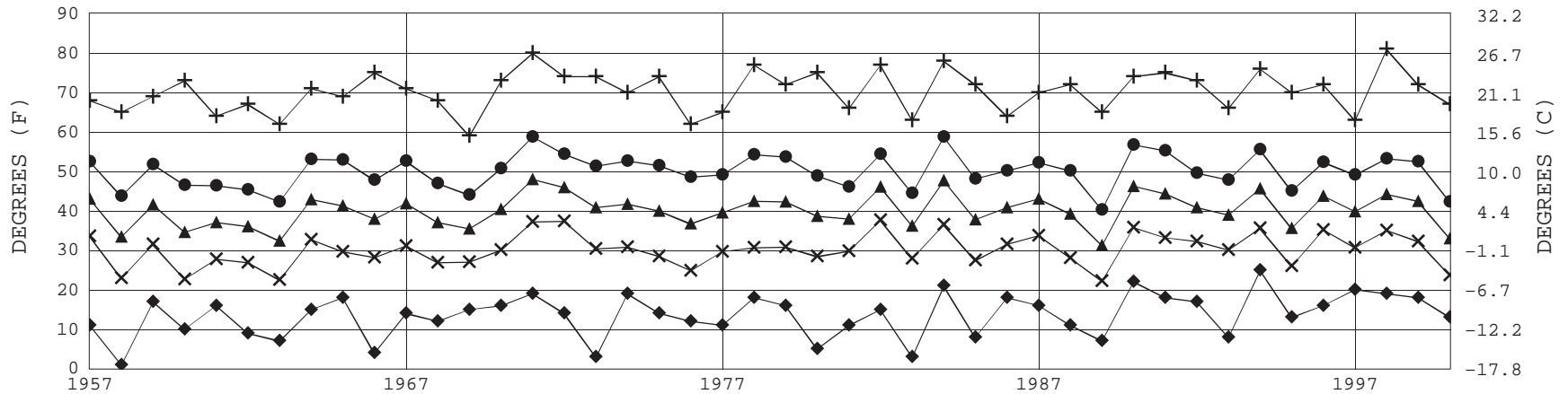
DECEMBER 2000

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)											
	SKY COVER	CEILING 100'S OF FT		OBSERVATION TIME (LST)	EFF CLD AMT Ok/as			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 Ok/as			DRY BULB	DEW POINT	WET BULB	RELATIVE HUMIDITY (PCT)	SPEED (MPH)	DIRECTION TENS OF DEG	STATION	SEA LEVEL										
SUNRISE: 0722 DEC 25								SUNSET: 1657								SUNRISE: 0724 DEC 31								SUNSET: 1701																	
01	CLR	NC			10.00			30	14	25	51	14	01	30.15	30.35	01	CLR	NC			10.00			22	7	18	52	10	25	29.69	29.88										
04	CLR	NC			10.00			26	7	21	44	14	35	30.25	30.45	04	CLR	NC			10.00			20	8	17	60	10	26	29.73	29.93										
07	CLR	NC			10.00			21	5	17	50	9	34	30.33	30.53	07	CLR	NC			10.00			19	9	16	65	8	25	29.78	29.98										
10	CLR	NC			10.00			26	3	20	37	14	35	30.43	30.63	10	CLR	NC			10.00			28	11	23	49	10	26	29.85	30.05										
13	CLR	NC			10.00			27	1	21	32	18	33	30.40	30.60	13	CLR	NC			10.00			37	13	29	37	10	27	29.83	30.03										
16	CLR	NC			10.00			28	-1	21	28	15	35	30.40	30.60	16	CLR	NC			10.00			38	13	30	36	16	27	29.84	30.04										
19	CLR	NC			10.00			20	1	16	43	7	36	30.43	30.63	19	SCT	NC			10.00			33	10	26	38	14	30	29.91	30.11										
22	CLR	NC			10.00			19	4	15	52	7	36	30.45	30.66	22	CLR	NC			10.00			29	9	23	43	8	29	29.98	30.18										
SUNRISE: 0722 DEC 26								SUNSET: 1658								3-HOURLY OBSERVATION NOTES																									
01	CLR	NC			10.00			19	4	15	52	10	35	30.44	30.65	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.																									
04	CLR	NC			10.00			16	5	13	62	8	35	30.44	30.65																										
07	CLR	NC			10.00			14	5	12	67	5	34	30.42	30.62																										
10	CLR	NC			10.00			23	5	18	46	10	01	30.44	30.64																										
13	CLR	NC			10.00			29	1	22	30	6	VR	30.29	30.49																										
16	BKN	250			10.00			31	2	23	29	8	28	30.23	30.43																										
19	OVC	120			10.00			25	11	21	55	5	22	30.20	30.40																										
22	OVC	050			10.00			31	7	24	36	7	26	30.17	30.37																										
SUNRISE: 0723 DEC 27								SUNSET: 1659								SUMMARY BY HOUR																									
01	OVC	023	1.50		10.00		-SN BR	26	26	26	100	3	19	30.13	30.33	AVERAGES																									
04	BKN	110			10.00			25	25	25	100	5	19	30.08	30.28	RESULTANT WIND (MPH)																									
07	CLR	NC	7.00		10.00		MIFG	20	20	20	100	3	19	30.05	30.25	HOUR (LST) CEILOMETER EFF CLD AMT DRY BULB DEW POINT WET BULB RELATIVE HUMIDITY PRESSURE (INCHES, HG) VISIBILITY (MILES) WIND SPEED (MPH) SPEED DIRECTION																									
10	BKN	070			10.00			28	27	28	96	5	35	30.05	30.25	01			30	23	28	75	30.01	30.21	8.89	7	2	33													
13	OVC	250			10.00			35	27	32	72	0	00	29.95	30.15	02			30	23	28	77	30.01	30.21	9.00	7	2	34													
16	BKN	150			10.00			38	29	34	70	5	18	29.89	30.09	03			30	23	28	78	30.01	30.21	8.85	7	2	32													
19	BKN	150			10.00			34	28	32	79	0	00	29.85	30.05	04			29	23	27	77	30.00	30.20	8.95	8	2	31													
22	BKN	150			10.00			30	29	30	96	0	00	29.80	30.00	05			28	22	26	78	30.00	30.20	8.77	7	2	32													
SUNRISE: 0723 DEC 28								SUNSET: 1659								06																28	22	26	78	30.01	30.21	8.90	7	2	30
01	BKN	150			10.00			29	27	28	92	7	02	29.78	29.98	07																28	21	26	78	30.02	30.21	9.04	7	2	30
04	SCT	NC			10.00			26	22	25	84	0	00	29.77	29.97	08																29	22	27	77	30.03	30.23	8.72	7	3	32
07	BKN	060			10.00			24	21	23	88	6	35	29.81	30.01	09																31	22	28	70	30.05	30.24	8.96	9	4	32
10	FEW	NC			10.00			30	12	25	47	15	36	29.91	30.11	10																34	21	30	62	30.05	30.25	8.98	9	4	33
13	BKN	250			10.00			32	5	24	32	14	34	29.85	30.05	11																36	20	31	56	30.05	30.24	9.03	9	4	30
16	OVC	200			10.00			31	6	24	35	12	35	29.81	30.01	12																38	20	32	52	30.02	30.22	9.18	10	5	30
19	BKN	200			10.00			27	7	21	43	8	03	29.79	29.99	13																39	20	32	50	29.99	30.19	9.23	9	5	30
22	OVC	200			10.00			25	10	21	53	10	01	29.82	30.02	14																40	20	33	49	29.98	30.18	9.31	8	4	29
SUNRISE: 0723 DEC 29								SUNSET: 1660								15																40	20	33	49	29.99	30.18	9.25	9	5	28
01	BKN	200			10.00			22	11	19	63	6	34	29.83	30.03	16																39	20	33	50	29.99	30.19	9.31	9	4	30
04	FEW	NC			10.00			20	11	18	68	8	35	29.80	30.00	17																37	20	31	53	30.00	30.19	9.27	8	3	29
07	FEW	NC			10.00			18	11	16	74	7	36	29.82	30.03	18																35	20	30	57	30.01	30.21	9.10	6	3	29
10	CLR	NC			10.00			25	14	22	63	8	07	29.85	30.05	19																33	20	29	61	30.01	30.21	8.81	7	2	31
13	BKN	150			10.00			31	17	26	56	0	00	29.78	29.97	20																33	21	29	64	30.02	30.22	8.82	6	2	33
16	OVC	150			10.00			31	18	27	59	5	05	29.74	29.94	21																32	21	28	65	30.02	30.22	8.59	6	2	31
19	OVC	120			10.00			30	19	26	64	3	05	29.72	29.92	22																31	21	28	68	30.02	30.22	8.81	6	2	32
22	BKN	120			10.00			28	21	26	75	3	02	29.71	29.91	23																31	22	28	71	30.02	30.22	8.60	6	2	35
SUNRISE: 0724 DEC 30								SUNSET: 1701								24																30	9	24	41	13	27	29.60	29.80		
01	SCT	NC			10.00			24	20	23	84	6	33	29.64	29.83	25																25	7	20	46	13	27	29.67	29.86		
04	FEW	NC			10.00			21	19	20	92	5	35	29.60	29.80	PUBLISHED BY: NCDC, ASHEVILLE, NC.																									
07	CLR	NC			10.00			19	18	19	96	7	32	29.60	29.80	PAGE 6																									
10	FEW	NC			10.00			27	20	25	75	10	34	29.60	29.80																										
13	OVC	055			10.00		-SN	32	19	28	59	14	30	29.56	29.76																										
16	OVC	080			10.00			32	20	28	61	13	29	29.56	29.75																										
19	BKN	055			10.00			30	9	24	41	13	27	29.60	29.80																										
22	CLR	NC			10.00			25	7	20	46	13	27	29.67	29.86																										

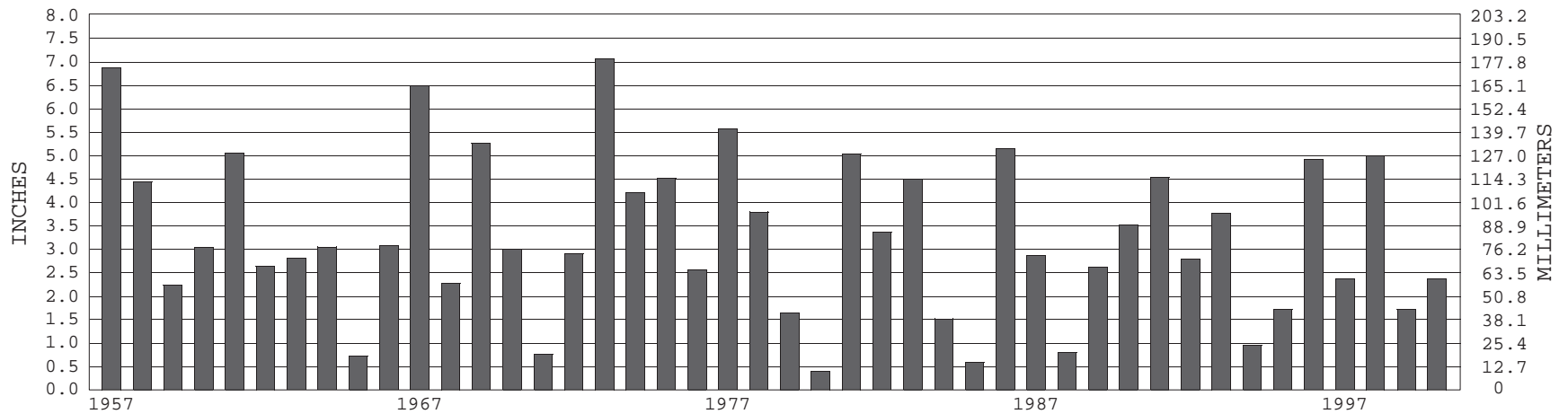
RICHMOND, VA DECEMBER TEMPERATURES



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

Long-Term (1957-2000) Mean: 40.1 1961-1990 Normal: 40.1

RICHMOND, VA DECEMBER PRECIPITATION



Long-Term (1957-2000) Mean Monthly Total: 3.28

1961-1990 Normal: 3.26



DECEMBER 2000
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

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