OCTOBER 2001
LOCAL CLIMATOLOGICAL DATA
NOAA, National Climatic Data Center

RICHMOND, VA
R.E.BYRD INTERNATIONAL AP (RIC)
Lat: 37°30' N Long: 77°19' W Elev (Ground): 164 Feet
Time Zone: EASTERN WBAN: 13740 ISSN #:0198−537X

DATE	TEMPERATURE °F MAXIMUM	MINIMUM	AVERAGE	DEP FROM NORMAL	AVERAGE DEW PT	AVERAGE WET BULB	DEG DAYS BASE 65° HEATING	COOLING	WEATHER	SNOW/ICE ON GND(IN) 0700 LST DEPTH	1300 LST WATER EQUIV	PRECIPITATION (INCHES) 2400 LST SNOW−FALL	2400 LST WATER EQUIV	PRESSURE (INCHES OF HG) AVERAGE STATION	AVERAGE SEA LEVEL	WIND SPEED = MPH DIR = TENS OF DEGREES RESULTANT SPEED	RES DIR	AVERAGE SPEED	MAXIMUM 5−SEC SPEED	5−SEC DIR	MAXIMUM 2−MIN SPEED	2−MIN DIR	DATE
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	68	48	58	−6	44	50	7	0	RA			0.0	T	29.79	29.97	6.4	34	6.7	24	36	18	34	01
02	80	49	65	1	53	58	0	0				0.0	0.00	29.85	30.04	3.6	26	4.4	20	28	13	24	02
03	84	56	70	6	58	62	0	5	BR			0.0	0.00	29.92	30.11	6.3	21	6.7	20	23	16	22	03
04	84	55	70	7	56	61	0	5				0.0	0.00	29.90	30.09	5.0	22	6.0	20	23	17	23	04
05	83	55	69	6	58	63	0	4	BR			0.0	0.00	29.84	30.02	9.6	20	10.1	26	21	22	21	05
06	70	47	59	−3	56	58	6	0	RA BR			0.0	0.29	29.75	29.94	2.5	26	10.1	30	32	24	32	06
07	62	39	51	−11	37	44	14	0				0.0	0.00	30.04	30.23	5.0	34	6.5	23	31	17	33	07
08	60	35	48	−13	34	41	17	0				0.0	0.00	30.33	30.52	5.0	02	5.5	25	01	16	02	08
09	64	33	49	−12	38	44	16	0				0.0	0.00	30.42	30.61	1.5	13	3.5	20	11	13	20	09
10	74	41	58	−3	51	54	7	0				0.0	0.00	30.27	30.46	4.2	19	4.9	20	21	17	23	10
11	78	51	65	5	55	59	0	0				0.0	0.00	30.12	30.31	5.3	18	6.2	18	19	14	19	11
12	77	52	65	6	58	61	0	0				0.0	0.00	29.97	30.15	4.5	18	5.1	15	22	12	24	12
13	81	56	69	10	59	62	0	4				0.0	0.00	29.93	30.11	5.5	16	6.0	23	14	16	15	13
14	80	57	69	10	64	66	0	4	RA BR			0.0	0.36	29.75	29.93	9.8	17	11.3	29	17	22	17	14
15	72	49	61	2	49	55	4	0				0.0	0.00	29.93	30.12	3.1	30	4.9	23	29	16	31	15
16	75	48	62	4	48	53	3	0	RA			0.0	T	29.82	30.01	5.2	21	11.3	31	28	24	30	16
17	63	40	52	−6	35	44	13	0				0.0	0.00	29.92	30.11	9.5	28	10.8	28	31	25	31	17
18	61	34	48	−10	34	42	17	0				0.0	0.00	30.14	30.33	1.6	36	3.2	17	36	12	36	18
19	69	37	53	−4	43	48	12	0				0.0	0.00	29.99	30.18	5.0	19	5.5	18	23	15	22	19
20	77	50	64	7	51	56	1	0	BR			0.0	0.00	29.94	30.13	3.3	22	4.8	13	26	10	25	20
21	80	44	62	5	56	59	3	0	BR			0.0	0.00	30.01	30.20	5.2	20	5.4	18	20	16	19	21
22	83	53	68	12	58	62	0	3	BR			0.0	0.00	29.86	30.05	2.7	20	3.8	12	22	10	21	22
23	83	53	68	12	61	63	0	3	BR			0.0	0.00	29.71	29.90	6.5	18	6.6	22	22	18	22	23
24	86*	59	73*	17	63	66	0	8	BR			0.0	0.00	29.60	29.78	9.7	20	10.4	25	23	21	22	24
25	79	55	67	12	45	58	0	2				0.0	0.00	29.60	29.79	13.1	25	15.1	39*	26	31*	26	25
26	62	45	54	−1	26	42	11	0				0.0	0.00	29.77	29.96	12.0	29	13.6	36	30	28	29	26
27	55	39	47	−8	28	38	18	0				0.0	0.00	29.96	30.15	11.2	31	12.1	26	36	22	32	27
28	54	35	45*	−10	29	38	20	0				0.0	0.00	30.29	30.48	8.3	35	8.9	28	02	23	01	28
29	60	31*	46	−8	32	39	19	0				0.0	0.00	30.34	30.54	1.9	33	2.4	10	30	9	04	29
30	69	33	51	−3	37	45	14	0				0.0	0.00	30.27	30.46	3.9	03	4.8	20	36	15	02	30
31	67	40	54	0	47	50	11	0	BR			0.0	0.00	30.28	30.47	1.8	15	3.8	14	17	10	19	31
	72.3	45.8	59.1		47.2	52.9	6.9	1.2	< MONTHLY AVERAGES TOTALS−>			0.0	0.65	29.98	30.17	2.7	24	7.1					<− MONTHLY AVERAGES
	1.6	−.7	0.5		<−−−−−−−−−−−−−DEPARTURE FROM NORMAL−−−−−−−−−−−−−>								−2.88	SUNSHINE, CLOUD, & VISIBILITY TABLES ON PAGE 3									

DEGREE DAYS

	MONTHLY TOTAL	MONTHLY DEPARTURE	SEASON TO DATE TOTAL	SEASON TO DATE DEPARTURE
HEATING:	213	−20	270	14
COOLING:	38	4	1346	−2

GREATEST 24−HR PRECIPITATION: 0.36 DATE :14
GREATEST 24−HR SNOWFALL: 0.0 DATE :
GREATEST SNOW DEPTH: DATE :

SEA LEVEL PRESSURE		DATE	TIME
MAXIMUM	30.69	09	0854
MINIMUM	29.69	25	0554

NUMBER OF DAYS WITH →

MAXIMUM TEMP ≥ 90:	0	MINIMUM TEMP ≤ 32 :	1
MAXIMUM TEMP ≤ 32 :	0	MINIMUM TEMP ≤ 0 :	0
THUNDERSTORMS :	0	HEAVY FOG :	0
PRECIPITATION ≥ 0.01 INCH :	2		
PRECIPITATION ≥ 0.10 INCH :	2		
SNOWFALL ≥ 1.0 INCH :	0		

OCTOBER 2001
RICHMOND, VA

HOURLY PRECIPITATION

(WATER EQUIVALENT IN INCHES)

RICHMOND, VA

OCTOBER 2001 RIC WBAN # 13740

DATE	FOR HOUR (LST) ENDING AT												DATE	FOR HOUR (LST) ENDING AT												DATE	Sum if Different (See Note)	2400 LST Water Equiv.
	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											T		01													01		T
02													02													02		0.00
03													03													03		0.00
04													04													04		0.00
05													05													05		0.00
06							T	T	0.01	0.17	0.08	0.01	06	0.02												06		0.29
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							0.05	0.25	0.06				14		0.36
15													15													15		0.00
16													16								T	T				16		T
17													17													17		0.00
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													23													23		0.00
24													24													24		0.00
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)

Time Period (Minutes)	5	10	15	20	30	45	60	80	100	120	150	180
Precipitation (Inches)	.07	.11	.14	.16	.19	.23	.27	.33	.36	.36	.36	.36
Ending Date	14	14	14	14	14	14	14	14	14	14	14	14
Ending Time (Hour/Min)	1908	1913	1917	1920	1917	1928	2002	2008	2014	2014	2014	2014

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 occurence 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		
DESCRIPTOR	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
OCTOBER 2001

Ceilometer (30−second) data are used to derive cloudiness at or below 12,000 feet. This cloudiness is the mean cloud cover detected during sunrise to sunset (SR−SS), or midnight to midnight (MN−MN).

Satellite data are used to derive cloudiness above 12,000 feet. Effective Cloud Amount is based on the cloud cover and the transparency of the clouds within the satellite field of view (approx. 31x31 miles).

Sky Condition is based on the sum (not to exceed 8) of the sunrise to sunset cloud cover below and above 12,000 feet. Both ceilometer and satellite data must be present to compute Sky Condition. Clear = 0−2 oktas, Partly Cloudy = 3−6 oktas, Cloudy = 7−8 oktas.

A Heating (Cooling) Degree Day is the difference between the average daily temperature and 65 degrees F. The HDD season begins July 1, the CDD season begins January 1.

Dew Point is the temperature to which the air must be cooled to achieve 100% relative humidity.
Wet Bulb is the temperature the air would have if cooled to saturation at constant pressure by evaporation of water into it.

Snow Depth, Snowfall, and Sunshine data may come from nearby sites that the National Weather Service deems Climatologically representative of this site.

ADDITIONAL NOTES:

DATE	SUNSHINE		CLOUDINESS (OKTAS)				VISIBILITY (MILES)		RESERVED
			SR−SS		MN−MN				
	TOTAL MINUTES	PERCENT POSSIBLE	CEILOMETER	SATELLITE	CEILOMETER	SATELLITE	MINIMUM	MAXIMUM	
01							10.00	10.00	
02							10.00	10.00	
03							6.00	10.00	
04							7.00	10.00	
05							5.00	10.00	
06							2.00	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							7.00	10.00	
13							10.00	10.00	
14							2.50	10.00	
15							10.00	10.00	
16							10.00	10.00	
17							10.00	10.00	
18							10.00	10.00	
19							10.00	10.00	
20							6.00	10.00	
21							5.00	10.00	
22							2.50	10.00	
23							2.50	10.00	
24							6.00	10.00	
25							8.00	10.00	
26							10.00	10.00	
27							10.00	10.00	
28							10.00	10.00	
29							10.00	10.00	
30							10.00	10.00	
31							5.00	10.00	
MONTHLY AVGS							7.94	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
0	3	21

OBSERVATIONS AT 3–HOURLY INTERVALS

RICHMOND, VA

OCTOBER 2001 RIC WBAN # 13740

HOUR (LST)	SKY COVER	CEILING 100'S OF FT	SATELLITE: OBSERVATION TIME (LST)	SATELLITE: EFF CLD AMT Oktas	VISIBILITY (MILES)	WEATHER	TEMPERATURE ℉: DRY BULB	TEMPERATURE ℉: DEW POINT	TEMPERATURE ℉: WET BULB	RELATIVE HUMIDITY (PCT)	WIND: SPEED (MPH)	WIND: DIRECTION TENS OF DEG	PRESSURE (INCHES,HG): STATION	PRESSURE (INCHES,HG): SEA LEVEL
					SUNRISE: 0605	OCT 01			SUNSET: 1752					
01	OVC	075			10.00		53	44	49	72	9	36	29.84	30.03
04	BKN	120			10.00		52	44	48	75	7	31	29.80	29.99
07	SCT	NC			10.00		51	42	47	71	8	32	29.80	29.99
10	OVC	120			10.00		58	43	50	58	8	36	29.81	30.00
13	BKN	140			10.00		65	43	54	45	13	35	29.77	29.96
16	BKN	140			10.00		66	43	54	43	10	34	29.73	29.93
19	BKN	200			10.00		57	48	52	72	0	00	29.74	29.93
22	SCT	NC			10.00		52	47	49	83	0	00	29.79	29.98
					SUNRISE: 0606	OCT 02			SUNSET: 1751					
01	CLR	NC			10.00		50	45	48	83	0	00	29.79	29.98
04	CLR	NC			10.00		51	47	49	86	0	00	29.78	29.98
07	CLR	NC			10.00		51	48	50	89	0	00	29.84	30.03
10	FEW	NC			10.00		72	52	61	50	10	29	29.88	30.07
13	CLR	NC			10.00		78	55	64	45	8	26	29.85	30.04
16	CLR	NC			10.00		79	57	66	47	7	27	29.83	30.01
19	CLR	NC			10.00		68	60	63	76	0	00	29.86	30.06
22	SCT	NC			10.00		65	58	61	78	0	00	29.91	30.10
					SUNRISE: 0607	OCT 03			SUNSET: 1749					
01	BKN	085			10.00		64	57	60	78	3	17	29.92	30.11
04	FEW	NC			10.00		58	55	56	90	5	21	29.92	30.11
07	CLR	NC			6.00	BR	58	55	56	90	3	19	29.96	30.15
10	CLR	NC			10.00		74	60	65	62	6	21	29.98	30.17
13	CLR	NC			10.00		82	57	67	43	12	24	29.92	30.11
16	CLR	NC			10.00		83	57	67	41	12	23	29.87	30.06
19	CLR	NC			10.00		67	60	63	79	8	20	29.89	30.08
22	CLR	NC			10.00		65	59	61	81	6	19	29.91	30.10
					SUNRISE: 0608	OCT 04			SUNSET: 1748					
01	CLR	NC			10.00		62	57	59	84	7	21	29.90	30.09
04	CLR	NC			10.00		59	55	57	87	6	19	29.89	30.08
07	CLR	NC			8.00		58	55	56	90	5	19	29.93	30.12
10	CLR	NC			10.00		75	59	65	58	7	23	29.95	30.14
13	CLR	NC			10.00		83	54	65	37	8	24	29.90	30.09
16	FEW	NC			10.00		83	53	65	36	9	24	29.85	30.04
19	CLR	NC			10.00		67	57	61	71	8	21	29.87	30.07
22	CLR	NC			10.00		65	56	60	73	0	00	29.90	30.09
					SUNRISE: 0608	OCT 05			SUNSET: 1746					
01	CLR	NC			10.00		61	56	58	84	3	18	29.90	30.09
04	CLR	NC			9.00		57	54	55	90	6	19	29.89	30.09
07	CLR	NC			5.00	BR	56	55	55	97	3	19	29.92	30.11
10	CLR	NC			10.00		74	58	64	57	9	23	29.93	30.12
13	FEW	NC			10.00		82	57	67	43	14	23	29.83	30.02
16	CLR	NC			10.00		81	59	67	47	18	21	29.77	29.96
19	CLR	NC			10.00		73	60	65	64	12	19	29.75	29.93
22	FEW	NC			10.00		71	61	65	71	17	19	29.72	29.91
					SUNRISE: 0609	OCT 06			SUNSET: 1745					
01	SCT	NC			10.00		68	63	65	84	14	19	29.69	29.88
04	BKN	150			10.00		67	63	64	87	14	20	29.64	29.83
07	OVC	095			10.00		69	65	66	87	16	22	29.65	29.84
10	OVC	018			2.00	+RA BR	62	59	60	90	22	32	29.72	29.91
13	OVC	027			10.00		56	54	55	93	9	04	29.75	29.94
16	OVC	090			10.00		59	54	56	83	5	04	29.75	29.95
19	OVC	180			10.00		54	49	51	83	3	33	29.84	30.03
22	BKN	180			10.00		51	48	50	89	5	33	29.88	30.07

HOUR (LST)	SKY COVER	CEILING 100'S OF FT	SATELLITE: OBSERVATION TIME (LST)	SATELLITE: EFF CLD AMT Oktas	VISIBILITY (MILES)	WEATHER	TEMPERATURE ℉: DRY BULB	TEMPERATURE ℉: DEW POINT	TEMPERATURE ℉: WET BULB	RELATIVE HUMIDITY (PCT)	WIND: SPEED (MPH)	WIND: DIRECTION TENS OF DEG	PRESSURE (INCHES,HG): STATION	PRESSURE (INCHES,HG): SEA LEVEL
					SUNRISE: 0610	OCT 07			SUNSET: 1743					
01	CLR	NC			10.00		47	42	45	83	7	32	29.89	30.08
04	CLR	NC			10.00		44	39	42	83	9	01	29.94	30.13
07	CLR	NC			10.00		43	39	41	86	3	VR	30.02	30.21
10	CLR	NC			10.00		55	37	47	51	8	29	30.06	30.25
13	FEW	NC			10.00		60	34	48	38	13	30	30.02	30.21
16	CLR	NC			10.00		61	35	49	38	12	34	30.01	30.21
19	CLR	NC			10.00		50	37	44	61	6	03	30.08	30.27
22	CLR	NC			10.00		44	36	41	73	5	04	30.15	30.35
					SUNRISE: 0611	OCT 08			SUNSET: 1742					
01	CLR	NC			10.00		40	36	38	86	0	00	30.20	30.39
04	CLR	NC			10.00		37	35	36	93	3	34	30.22	30.42
07	CLR	NC			10.00		38	32	36	79	7	01	30.31	30.50
10	CLR	NC			10.00		54	33	45	45	13	02	30.37	30.57
13	CLR	NC			10.00		58	33	47	39	10	03	30.33	30.53
16	FEW	NC			10.00		58	32	46	38	8	01	30.33	30.53
19	FEW	NC			10.00		46	36	42	68	7	04	30.37	30.56
22	CLR	NC			10.00		39	36	38	89	0	00	30.41	30.60
					SUNRISE: 0612	OCT 09			SUNSET: 1740					
01	CLR	NC			10.00		36	34	35	93	0	00	30.43	30.63
04	CLR	NC			10.00		34	33	34	97	5	36	30.44	30.64
07	CLR	NC			10.00		36	33	35	89	3	33	30.48	30.68
10	CLR	NC			10.00		55	36	46	49	3	08	30.49	30.69
13	CLR	NC			10.00		62	38	50	41	9	12	30.42	30.61
16	FEW	NC			10.00		63	41	52	45	3	VR	30.36	30.55
19	CLR	NC			10.00		51	45	48	80	9	12	30.36	30.55
22	CLR	NC			10.00		47	43	45	86	0	00	30.37	30.56
					SUNRISE: 0613	OCT 10			SUNSET: 1739					
01	CLR	NC			10.00		44	43	44	96	0	00	30.34	30.54
04	CLR	NC			10.00		43	41	42	93	0	00	30.32	30.52
07	OVC	250			10.00		44	43	44	96	0	00	30.34	30.53
10	BKN	250			10.00		65	55	59	70	9	19	30.33	30.53
13	BKN	250			10.00		73	56	63	55	9	23	30.26	30.45
16	BKN	250			10.00		73	55	62	53	12	20	30.20	30.40
19	SCT	NC			10.00		59	55	57	87	5	15	30.20	30.40
22	BKN	250			10.00		60	54	57	80	8	16	30.20	30.39
					SUNRISE: 0614	OCT 11			SUNSET: 1738					
01	SCT	NC			10.00		54	53	53	97	7	18	30.18	30.37
04	FEW	NC			10.00		53	52	52	96	0	00	30.16	30.36
07	CLR	NC			10.00		52	52	52	100	5	14	30.19	30.38
10	CLR	NC			10.00		71	59	64	66	10	21	30.19	30.38
13	BKN	060			10.00		75	56	64	52	8	23	30.10	30.29
16	BKN	250			10.00		75	57	64	54	10	18	30.06	30.25
19	SCT	NC			10.00		61	55	58	81	8	12	30.05	30.24
22	SCT	NC			10.00		59	56	57	90	7	14	30.04	30.23
					SUNRISE: 0615	OCT 12			SUNSET: 1736					
01	CLR	NC			10.00		55	55	55	100	5	13	30.01	30.19
04	CLR	NC			10.00		54	54	54	100	0	00	30.00	30.19
07	OVC	250			10.00		54	53	53	97	0	00	30.01	30.20
10	OVC	250			10.00		70	61	64	73	7	19	30.00	30.19
13	OVC	250			10.00		76	57	65	52	9	16	29.94	30.13
16	OVC	250			10.00		74	59	65	60	5	20	29.90	30.09
19	OVC	250			10.00		68	60	63	76	6	15	29.93	30.12
22	OVC	250			10.00		64	59	61	84	8	14	29.94	30.13

OBSERVATIONS AT 3–HOURLY INTERVALS

RICHMOND, VA

OCTOBER 2001 RIC WBAN # 13740

HOUR (LST)	SKY COVER	CEILING 100'S OF FT	SATELLITE: OBSERVATION TIME (LST)	SATELLITE: EFF CLD AMT Oktas	VISIBILITY (MILES)	WEATHER	TEMPERATURE ℉: DRY BULB	TEMPERATURE ℉: DEW POINT	TEMPERATURE ℉: WET BULB	RELATIVE HUMIDITY (PCT)	WIND: SPEED (MPH)	WIND: DIRECTION TENS OF DEG	PRESSURE (INCHES,HG): STATION	PRESSURE (INCHES,HG): SEA LEVEL
					SUNRISE: 0616	**OCT 13**			**SUNSET: 1735**					
01	BKN	250			10.00		61	57	59	87	5	17	29.92	30.11
04	SCT	NC			10.00		58	56	57	93	0	00	29.92	30.11
07	SCT	NC			10.00		57	56	56	96	0	00	29.96	30.15
10	FEW	NC			10.00		72	62	66	71	7	19	29.97	30.16
13	FEW	NC			10.00		79	60	67	52	12	19	29.91	30.10
16	SCT	NC			10.00		78	61	67	56	10	17	29.88	30.06
19	SCT	NC			10.00		67	61	63	81	10	12	29.90	30.10
22	BKN	250			10.00		61	59	60	93	8	14	29.94	30.13
					SUNRISE: 0617	**OCT 14**			**SUNSET: 1733**					
01	SCT	NC			5.00	BR	58	58	58	100	7	14	29.90	30.09
04	OVC	060			5.00	BR	59	59	59	100	8	15	29.87	30.06
07	BKN	250			5.00	BR	59	59	59	100	8	12	29.83	30.02
10	OVC	060			10.00		73	65	68	76	14	16	29.82	30.01
13	OVC	048			10.00		78	66	70	67	16	17	29.70	29.89
16	OVC	050			10.00		78	66	70	67	18	16	29.61	29.80
19	OVC	034			5.00	+RA BR	72	69	70	91	12	17	29.61	29.80
22	OVC	012			10.00		69	69	69	100	10	22	29.68	29.87
					SUNRISE: 0618	**OCT 15**			**SUNSET: 1732**					
01	BKN	055			10.00		64	62	63	93	8	31	29.74	29.93
04	FEW	NC			10.00		54	51	52	90	3	02	29.80	29.98
07	CLR	NC			10.00		50	49	49	96	0	00	29.90	30.10
10	CLR	NC			10.00		69	46	57	44	9	29	29.96	30.15
13	CLR	NC			10.00		71	43	56	36	7	36	29.97	30.16
16	CLR	NC			10.00		71	45	57	39	0	00	29.95	30.14
19	CLR	NC			10.00		58	52	55	81	0	00	29.99	30.19
22	CLR	NC			10.00		53	49	51	86	3	13	30.01	30.20
					SUNRISE: 0619	**OCT 16**			**SUNSET: 1731**					
01	CLR	NC			10.00		51	50	51	96	3	13	30.02	30.21
04	CLR	NC			10.00		49	48	48	97	9	14	29.96	30.16
07	CLR	NC			10.00		51	49	50	92	0	00	29.92	30.11
10	CLR	NC			10.00		67	55	60	66	12	18	29.87	30.06
13	CLR	NC			10.00		74	50	60	43	17	18	29.72	29.92
16	FEW	NC			10.00		74	51	61	45	17	19	29.62	29.81
19	OVC	060			10.00		60	43	51	53	12	31	29.72	29.91
22	OVC	090			10.00		55	36	46	49	20	30	29.78	29.98
					SUNRISE: 0619	**OCT 17**			**SUNSET: 1729**					
01	CLR	NC			10.00		49	37	44	64	8	24	29.80	29.99
04	CLR	NC			10.00		45	36	41	71	10	24	29.82	30.01
07	CLR	NC			10.00		44	37	41	76	8	24	29.88	30.07
10	CLR	NC			10.00		56	37	47	49	17	27	29.92	30.11
13	CLR	NC			10.00		62	33	49	34	15	31	29.90	30.09
16	CLR	NC			10.00		61	32	48	34	15	28	29.90	30.09
19	CLR	NC			10.00		54	31	44	42	6	30	29.98	30.18
22	CLR	NC			10.00		48	33	42	56	5	31	30.06	30.25
					SUNRISE: 0620	**OCT 18**			**SUNSET: 1728**					
01	CLR	NC			10.00		44	33	39	65	0	00	30.10	30.29
04	CLR	NC			10.00		38	33	36	83	3	34	30.14	30.33
07	CLR	NC			10.00		37	33	35	86	5	36	30.18	30.38
10	CLR	NC			10.00		54	30	44	40	8	36	30.22	30.41
13	CLR	NC			10.00		59	31	46	35	0	00	30.14	30.33
16	CLR	NC			10.00		60	32	47	35	3	18	30.10	30.29
19	CLR	NC			10.00		49	38	44	66	0	00	30.11	30.30
22	CLR	NC			10.00		43	37	40	80	0	00	30.10	30.30

HOUR (LST)	SKY COVER	CEILING 100'S OF FT	SATELLITE: OBSERVATION TIME (LST)	SATELLITE: EFF CLD AMT Oktas	VISIBILITY (MILES)	WEATHER	TEMPERATURE ℉: DRY BULB	TEMPERATURE ℉: DEW POINT	TEMPERATURE ℉: WET BULB	RELATIVE HUMIDITY (PCT)	WIND: SPEED (MPH)	WIND: DIRECTION TENS OF DEG	PRESSURE (INCHES,HG): STATION	PRESSURE (INCHES,HG): SEA LEVEL
					SUNRISE: 0621	**OCT 19**			**SUNSET: 1727**					
01	CLR	NC			10.00		39	37	38	93	5	15	30.09	30.28
04	CLR	NC			10.00		40	37	39	89	5	14	30.06	30.25
07	FEW	NC			10.00		38	37	38	97	0	00	30.06	30.25
10	FEW	NC			10.00		58	44	51	60	10	19	30.05	30.25
13	CLR	NC			10.00		64	42	53	45	0	00	29.96	30.15
16	SCT	NC			10.00		69	41	55	36	12	20	29.90	30.09
19	FEW	NC			10.00		56	49	52	77	5	16	29.91	30.10
22	CLR	NC			10.00		52	50	51	93	9	20	29.91	30.10
					SUNRISE: 0622	**OCT 20**			**SUNSET: 1725**					
01	SCT	NC			10.00		53	53	53	100	8	20	29.91	30.10
04	FEW	NC			7.00		51	51	51	100	7	21	29.90	30.09
07	CLR	NC			6.00	BR	55	54	54	96	9	25	29.93	30.12
10	CLR	NC			10.00		67	49	57	53	8	28	29.96	30.16
13	CLR	NC			10.00		75	45	59	34	3	VR	29.91	30.11
16	CLR	NC			10.00		75	48	60	39	6	18	29.90	30.10
19	CLR	NC			10.00		62	50	56	65	0	00	29.96	30.15
22	CLR	NC			10.00		56	50	53	81	5	14	30.01	30.20
					SUNRISE: 0623	**OCT 21**			**SUNSET: 1724**					
01	CLR	NC			10.00		51	50	51	96	0	00	30.03	30.22
04	CLR	NC			8.00		48	48	48	100	0	00	30.03	30.22
07	CLR	NC			5.00	BR	45	45	45	100	0	00	30.07	30.26
10	CLR	NC			10.00		69	61	64	76	7	21	30.07	30.27
13	FEW	NC			10.00		78	61	67	56	15	19	30.01	30.20
16	BKN	250			10.00		79	61	68	54	13	21	29.96	30.15
19	BKN	250			10.00		64	60	62	87	3	18	29.96	30.15
22	BKN	250			10.00		63	62	62	97	6	18	29.96	30.15
					SUNRISE: 0624	**OCT 22**			**SUNSET: 1723**					
01	BKN	041			10.00		64	63	63	96	8	20	29.94	30.13
04	SCT	NC			6.00	BR	59	59	59	100	7	20	29.90	30.09
07	CLR	NC			2.50	BR	57	57	57	100	6	18	29.91	30.10
10	CLR	NC			10.00		72	60	65	66	3	24	29.91	30.10
13	CLR	NC			10.00		83	55	66	38	6	VR	29.83	30.02
16	CLR	NC			10.00		82	56	66	41	3	19	29.79	29.98
19	CLR	NC			10.00		66	58	61	75	5	13	29.82	30.01
22	CLR	NC			10.00		62	56	59	81	5	11	29.82	30.01
					SUNRISE: 0625	**OCT 23**			**SUNSET: 1722**					
01	CLR	NC			8.00		56	55	55	97	0	00	29.77	29.96
04	CLR	NC			5.00	BR	57	57	57	100	0	00	29.77	29.96
07	CLR	NC			5.00	BR	55	55	55	100	0	00	29.79	29.98
10	BKN	250			10.00		73	64	67	74	8	19	29.77	29.96
13	OVC	250			10.00		81	64	70	57	10	20	29.68	29.87
16	BKN	250			10.00		81	64	70	57	9	19	29.64	29.83
19	FEW	NC			10.00		70	62	65	76	8	17	29.64	29.83
22	FEW	NC			10.00		64	60	62	87	8	19	29.65	29.83
					SUNRISE: 0626	**OCT 24**			**SUNSET: 1720**					
01	FEW	NC			10.00		60	59	59	96	8	19	29.64	29.83
04	FEW	NC			10.00		63	62	62	97	9	20	29.62	29.81
07	FEW	NC			6.00	BR	63	63	63	100	8	20	29.63	29.81
10	CLR	NC			10.00		75	68	70	79	10	19	29.65	29.84
13	FEW	NC			10.00		85	59	69	42	13	23	29.58	29.76
16	FEW	NC			10.00		83	60	68	46	14	22	29.55	29.72
19	CLR	NC			10.00		70	61	64	73	8	18	29.56	29.75
22	CLR	NC			10.00		71	63	66	76	9	18	29.55	29.74

OBSERVATIONS AT 3–HOURLY INTERVALS

RICHMOND, VA

OCTOBER 2001 RIC WBAN # 13740

HOUR (LST)	SKY COVER	CEILING 100'S OF FT	SATELLITE: OBSERVATION TIME (LST)	SATELLITE: EFF CLD AMT Oktas	VISIBILITY (MILES)	WEATHER	TEMPERATURE ℉: DRY BULB	TEMPERATURE ℉: DEW POINT	TEMPERATURE ℉: WET BULB	RELATIVE HUMIDITY (PCT)	WIND: SPEED (MPH)	WIND: DIRECTION TENS OF DEG	PRESSURE (INCHES,HG): STATION	PRESSURE (INCHES,HG): SEA LEVEL
					SUNRISE: 0627	OCT 25			SUNSET: 1719					
01	CLR	NC			10.00		72	66	68	82	13	19	29.55	29.72
04	CLR	NC			10.00		70	67	68	90	14	20	29.53	29.70
07	FEW	NC			10.00		70	67	68	90	9	22	29.53	29.71
10	FEW	NC			10.00		79	60	67	52	23	27	29.57	29.76
13	CLR	NC			10.00		78	31	55	18	23	25	29.59	29.78
16	FEW	NC			10.00		74	30	53	20	21	27	29.60	29.79
19	FEW	NC			10.00		66	28	49	24	9	27	29.66	29.85
22	CLR	NC			10.00		62	29	47	29	9	29	29.72	29.91
					SUNRISE: 0628	OCT 26			SUNSET: 1718					
01	CLR	NC			10.00		55	31	44	40	9	25	29.73	29.92
04	CLR	NC			10.00		52	29	42	41	8	25	29.75	29.94
07	CLR	NC			10.00		49	30	41	48	7	27	29.77	29.96
10	CLR	NC			10.00		58	25	44	28	22	29	29.76	29.96
13	CLR	NC			10.00		62	22	45	21	21	26	29.71	29.90
16	FEW	NC			10.00		61	22	45	22	18	29	29.71	29.90
19	SCT	NC			10.00		53	25	41	34	17	33	29.80	29.99
22	CLR	NC			10.00		46	24	37	42	13	33	29.86	30.05
					SUNRISE: 0629	OCT 27			SUNSET: 1717					
01	CLR	NC			10.00		44	24	36	45	9	29	29.87	30.07
04	CLR	NC			10.00		40	24	34	53	9	28	29.87	30.06
07	CLR	NC			10.00		40	25	34	55	8	29	29.91	30.10
10	CLR	NC			10.00		49	28	40	45	10	31	29.94	30.14
13	BKN	060			10.00		54	30	44	40	15	35	29.91	30.10
16	OVC	075			10.00		50	29	41	44	17	32	29.95	30.14
19	BKN	085			10.00		46	29	39	51	9	32	30.04	30.23
22	BKN	250			10.00		44	31	39	60	13	32	30.10	30.29
					SUNRISE: 0630	OCT 28			SUNSET: 1716					
01	CLR	NC			10.00		41	31	37	67	12	33	30.12	30.32
04	FEW	NC			10.00		37	30	34	76	9	33	30.18	30.37
07	CLR	NC			10.00		35	30	33	82	6	34	30.25	30.45
10	FEW	NC			10.00		48	27	39	44	17	02	30.33	30.52
13	CLR	NC			10.00		53	28	42	38	12	36	30.30	30.49
16	CLR	NC			10.00		53	28	42	38	8	36	30.29	30.49
19	CLR	NC			10.00		43	29	37	58	0	00	30.34	30.54
22	CLR	NC			10.00		37	30	34	76	3	35	30.38	30.57
					SUNRISE: 0631	OCT 29			SUNSET: 1714					
01	CLR	NC			10.00		35	29	33	78	7	02	30.37	30.57
04	CLR	NC			10.00		33	29	32	85	3	33	30.38	30.58
07	CLR	NC			10.00		33	29	32	85	3	33	30.41	30.61
10	CLR	NC			10.00		49	32	42	52	3	35	30.42	30.62
13	CLR	NC			10.00		58	32	46	38	0	00	30.34	30.54
16	CLR	NC			10.00		59	32	47	36	5	26	30.28	30.48
19	CLR	NC			10.00		46	35	41	66	0	00	30.29	30.48
22	CLR	NC			10.00		39	34	37	82	0	00	30.28	30.48
					SUNRISE: 0632	OCT 30			SUNSET: 1713					
01	FEW	NC			10.00		38	33	36	83	0	00	30.23	30.43
04	CLR	NC			10.00		37	33	35	86	0	00	30.23	30.42
07	CLR	NC			10.00		35	32	34	89	0	00	30.26	30.46
10	FEW	NC			10.00		64	33	50	32	13	03	30.29	30.48
13	BKN	250			10.00		69	38	53	32	13	02	30.24	30.43
16	BKN	250			10.00		67	40	53	37	9	02	30.23	30.42
19	BKN	250			10.00		57	41	49	55	7	07	30.29	30.48
22	OVC	250			10.00		50	42	46	74	6	05	30.32	30.51

HOUR (LST)	SKY COVER	CEILING 100'S OF FT	SATELLITE: OBSERVATION TIME (LST)	SATELLITE: EFF CLD AMT Oktas	VISIBILITY (MILES)	WEATHER	TEMPERATURE ℉: DRY BULB	TEMPERATURE ℉: DEW POINT	TEMPERATURE ℉: WET BULB	RELATIVE HUMIDITY (PCT)	WIND: SPEED (MPH)	WIND: DIRECTION TENS OF DEG	PRESSURE (INCHES,HG): STATION	PRESSURE (INCHES,HG): SEA LEVEL
					SUNRISE: 0633	OCT 31			SUNSET: 1712					
01	SCT	NC			10.00		46	42	44	86	3	07	30.32	30.51
04	FEW	NC			9.00		43	42	43	97	5	31	30.31	30.50
07	CLR	NC			5.00	BR	42	41	42	96	0	00	30.34	30.54
10	BKN	250			10.00		59	50	54	72	3	VR	30.34	30.54
13	BKN	250			10.00		64	47	55	54	5	18	30.28	30.47
16	FEW	NC			10.00		66	48	56	52	6	17	30.21	30.40
19	CLR	NC			10.00		54	48	51	80	9	14	30.21	30.40
22	CLR	NC			10.00		49	49	49	100	0	00	30.23	30.42

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 Visibilty = 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.

SUMMARY BY HOUR

HOUR (LST)	AVERAGES: CEILOMETER	AVERAGES: EFF CLD AMT	AVERAGES: DRY BULB	AVERAGES: DEW POINT	AVERAGES: WET BULB	AVERAGES: RELATIVE HUMIDITY	AVERAGES: PRESSURE (INCHES,HG): STATION	AVERAGES: PRESSURE (INCHES,HG): SEA LEVEL	AVERAGES: VISIBILITY (MILES)	AVERAGES: WIND SPEED (MPH)	RESULTANT WIND (MPH): SPEED	RESULTANT WIND (MPH): DIRECTION
01			52	47	50	84	29.97	30.16	9.77	5	2	21
02			51	47	49	86	29.97	30.16	9.58	6	3	22
03			51	46	48	85	29.96	30.15	9.55	5	3	22
04			50	46	48	88	29.97	30.16	9.32	5	2	23
05			49	46	48	88	29.98	30.17	9.15	4	2	23
06			49	45	47	88	29.99	30.18	8.85	5	2	25
07			49	46	48	89	30.00	30.19	8.50	4	2	24
08			55	48	52	81	30.01	30.21	9.00	6	3	25
09			61	49	55	67	30.02	30.21	9.68	9	4	27
10			64	49	56	58	30.02	30.21	9.74	10	4	27
11			67	48	57	52	30.01	30.20	9.94	10	4	28
12			69	47	57	47	29.99	30.18	9.87	10	4	26
13			70	46	57	44	29.96	30.15	10.00	10	4	25
14			71	46	58	43	29.94	30.13	10.00	10	5	25
15			71	46	58	43	29.93	30.12	10.00	9	5	24
16			70	47	58	45	29.93	30.12	10.00	10	5	23
17			67	47	57	50	29.93	30.12	10.00	9	3	22
18			63	48	55	61	29.94	30.13	10.00	7	2	19
19			59	48	54	69	29.96	30.15	9.84	6	2	17
20			57	48	53	73	29.97	30.16	9.84	5	2	17
21			56	48	52	76	29.98	30.17	10.00	6	2	21
22			55	48	51	78	29.99	30.18	10.00	6	2	21
23			54	47	51	80	29.99	30.18	10.00	6	3	21
24			53	47	50	83	29.98	30.18	9.94	5	2	23

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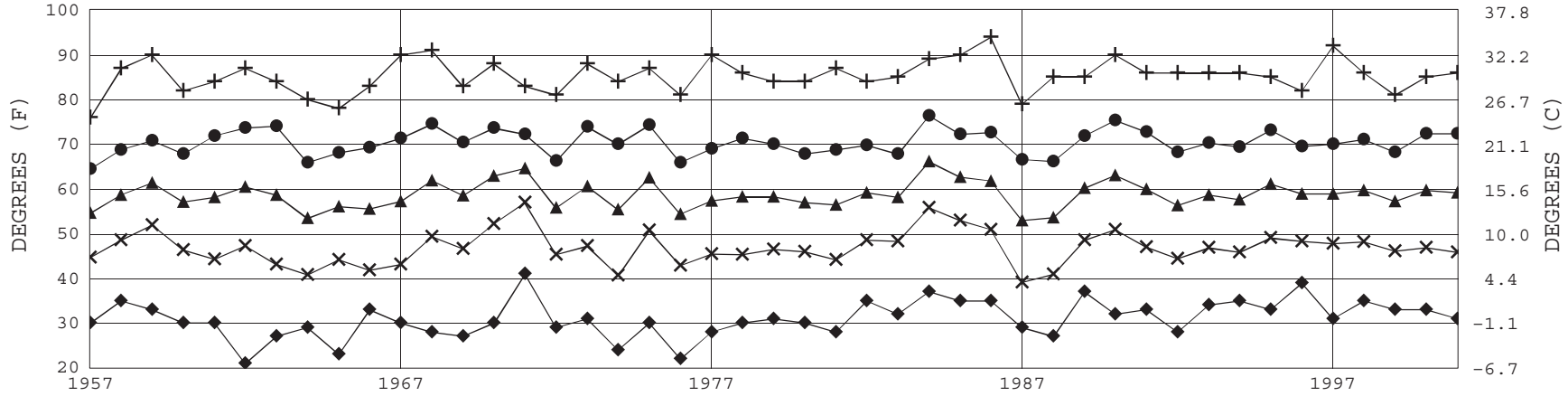
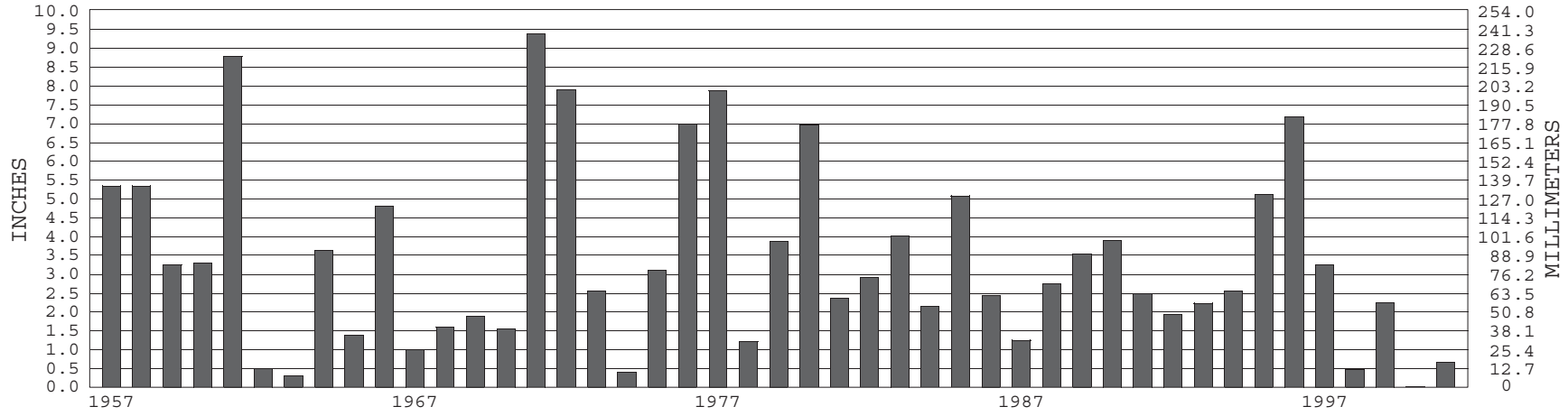
RICHMOND, VA OCTOBER TEMPERATURES



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

Long-Term (1957-2001) Mean: 58.7 1961-1990 Normal: 58.6

RICHMOND, VA OCTOBER PRECIPITATION



Long-Term (1957-2001) Mean Monthly Total: 3.37 1961-1990 Normal: 3.53

OCTOBER 2001
RICHMOND, VA

LOCAL CLIMATOLOGICAL DATA

NOAA, National Climatic Data Center

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Thomas R Karl

DIRECTOR

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