



JUNE 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	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
01	73	53	63	-7	50	57	2	0			0.0	0.00	29.51	29.69	14.8	31	15.4	38	31	32*	31	01		
02	73	52*	63	-7	44	53	2	0			0.0	0.00	29.84	30.03	4.3	36	6.5	18	01	15	01	02		
03	72	54	63*	-7	59	61	2	0	RA		0.0	0.04	29.78	29.97	7.7	15	8.2	21	15	17	14	03		
04	80	63	72	2	68	68	0	7	RA FG BR		0.0	0.15	29.63	29.81	2.9	18	7.9	16	18	15	19	04		
05	77	60	69	-1	57	61	0	4	RA FG BR		0.0	0.26	29.71	29.90	4.3	28	7.7	20	27	16	27	05		
06	80	56	68	-2	56	62	0	3			0.0	0.00	29.84	30.02	0.6	16	6.1	20	36	16	01	06		
07	76	66	71	0	70	70	0	6	RA FG BR		0.0	1.46	29.67	29.86	7.2	19	9.5	25	23	22	22	07		
08	70	63	67	-4	65	65	0	2	RA DZ FG BR		0.0	T	29.68	29.87	4.5	07	6.4	14	01	12	13	08		
09	82	64	73	1	62	66	0	8	TSRA RA FG+ BR		0.0	0.39	29.72	29.91	1.5	28	4.9	20	29	16	29	09		
10	83	59	71	-2	63	67	0	6			0.0	0.00	29.85	30.04	4.3	13	6.1	15	17	13	16	10		
11	89	67	78	5	69	72	0	13	TS TSRA RA BR		0.0	0.12	29.78	29.96	8.2	22	9.5	41*	28	30	29	11		
12	88	68	78	4	72	73	0	13	TS TSRA RA BR		0.0	0.15	29.76	29.94	7.7	20	8.4	30	23	25	23	12		
13	87	71	79	5	72	74	0	14	RA BR		0.0	T	29.72	29.91	11.1	22	11.4	22	24	18	23	13		
14	88	70	79	5	72	74	0	14	RA		0.0	T	29.75	29.93	6.6	22	8.4	29	36	24	36	14		
15	83	70	77	3	70	72	0	12	RA BR		0.0	0.02	29.80	29.98	3.3	03	5.6	21	04	17	01	15		
16	77	66	72	-2	66	68	0	7	RA BR		0.0	0.02	29.95	30.14	5.7	09	6.2	21	08	15	08	16		
17	66	62	64	-10	62	63	1	0	RA FG BR		0.0	0.17	29.98	30.17	6.1	08	6.4	18	12	15	11	17		
18	80	61	71	-3	67	68	0	6	RA DZ FG+ BR		0.0	0.04	29.76	29.95	2.0	23	4.1	15	21	13	21	18		
19	81	68	75	1	70	71	0	10	RA BR HZ		0.0	0.91	29.62	29.80	2.3	01	4.7	22	33	18	34	19		
20	75	61	68	-7	63	65	0	3	RA BR HZ		0.0	0.09	29.67	29.86	6.5	36	7.7	33	31	28	31	20		
21	75	57	66	-9	55	60	0	1	RA		0.0	T	29.70	29.89	7.6	32	8.4	22	30	17	31	21		
22	80	59	70	-5	57	62	0	5			0.0	0.00	29.70	29.88	6.3	33	8.1	26	35	20	01	22		
23	88	66	77	2	57	65	0	12			0.0	0.00	29.74	29.92	6.2	33	6.9	22	36	16	02	23		
24	91	66	79	4	64	69	0	14			0.0	0.00	29.86	30.05	3.3	36	4.4	17	01	13	02	24		
25	93	65	79	3	65	71	0	14	BR HZ		0.0	0.00	29.87	30.05	2.7	29	4.8	15	27	13	28	25		
26	94	71	83*	7	69	74	0	18	HZ		0.0	0.00	29.76	29.94	4.2	25	6.6	16	25	13	25	26		
27	93	68	81	5	67	72	0	16	TS RA HZ		0.0	0.03	29.73	29.91	4.1	30	7.8	28	32	24	36	27		
28	82	67	75	-1	63	67	0	10	RA		0.0	0.02	29.91	30.09	1.1	08	6.0	31	18	25	18	28		
29	88	63	76	0	68	71	0	11	BR HZ		0.0	0.00	29.98	30.16	4.5	20	5.6	16	18	14	20	29		
30	94*	70	82	5	70	73	0	17	BR HZ		0.0	0.00	29.96	30.14	3.0	20	5.2	22	21	17	21	30		

JUNE 2003 RICHMOND, VA

81.9	63.5	72.7	■ ■	63.7	67.1	0.2	8.2	< MONTHLY AVERAGES	TOTALS-->	0.0	3.87	29.77	29.96	1.8	31	7.2	<- MONTHLY AVERAGES	
-1.7	0.2	-.8	■ ■	-----DEPARTURE FROM NORMAL-----						0.33	SUNSHINE, CLOUD, & VISIBILITY TABLES ON PAGE 3							
DEGREE DAYS								GREATEST 24-HR PRECIPITATION: 1.46 DATE :07				SEA LEVEL PRESSURE				DATE TIME		
MONTHLY TOTAL DEPARTURE				SEASON TO DATE TOTAL DEPARTURE				GREATEST 24-HR SNOWFALL: 0.0 DATE :				MAXIMUM : 30.22		16 2254				
HEATING: 7				-1 4119				GREATEST SNOW DEPTH: DATE :				MINIMUM : 29.44		01 0054				
COOLING: 246				-31 322				NUMBER OF DAYS WITH →		MAXIMUM TEMP ≥ 90: 5		MINIMUM TEMP ≤ 32: 0		PRECIPITATION ≥ 0.01 INCH : 15				
								MAXIMUM TEMP ≤ 32 : 0		MINIMUM TEMP ≤ 0 : 0		PRECIPITATION ≥ 0.10 INCH : 8						
								THUNDERSTORMS : 4		HEAVY FOG : 2		SNOWFALL ≥ 1.0 INCH : 0						

HOURLY PRECIPITATION

(WATER EQUIVALENT IN INCHES)

RICHMOND, VA

JUNE 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													01												01		0.00		
02													02												02		0.00		
03													03	T	T	T	0.01	0.01	T	0.01					03		0.04		
04				0.04	T	T	0.05	0.01		T	T		04	T	T	T	0.04	0.01	T		0.01	T			04		0.15		
05	0.10	0.13	0.03	T									05												05		0.26		
06													06												06		0.00		
07					0.01	0.06	0.42	0.06	0.11	0.01	0.02	0.01	07	0.05	0.30	0.25	0.07	0.02	0.07	T	T	T	T		07		1.46		
08	T												08										T	T	08		T		
09	0.25	0.13	0.01										09												09		0.39		
10													10												10		0.00		
11													11								0.10	0.01	0.01	T	11		0.12		
12													12			T	0.07	0.01	0.07					12		0.15			
13													13			T									13		T		
14													14									T	T	T	14		T		
15													15						T	T	0.02				15		0.02		
16					T								16		T	0.02	T							T	16		0.02		
17	T				0.02	T	T			0.01	0.02	0.03	17	0.01	0.01	0.01	T	T	0.01	0.03	0.03	0.01	T		17		0.17		
18	T	T	T		0.60	0.01				T			18										T	T	18		0.04		
19	0.05	0.03	0.03	0.05	0.60		0.09	0.02	0.03	T	0.01		19											0.01	19		0.91		
20												0.08	20	0.01								T	T		20		0.09		
21													21		T										21		T		
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					T								27							T	T				27		0.03		
28	0.01	T							T				28								0.01		T	0.03	28		0.02		
29													29												29		0.00		
30													30												30		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)	.33	.49	.54	.56	.59	.61	.62	.64	.65	.67	.68	.70
Ending Date	19	19	19	19	19	19	19	19	19	19	19	19
Ending Time (Hour/Min)	0411	0413	0416	0419	0423	0428	0428	0428	0428	0428	0428	0428

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 JUNE 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							10.00	10.00	
02							10.00	10.00	
03							8.00	10.00	
04							.50	10.00	
05							.50	10.00	
06							7.00	10.00	
07							.50	10.00	
08							.50	8.00	
09							.25	10.00	
10							9.00	10.00	
11							1.00	10.00	
12							2.50	10.00	
13							3.00	10.00	
14							9.00	10.00	
15							2.00	10.00	
16							2.00	10.00	
17							.50	10.00	
18							.25	10.00	
19							.75	10.00	
20							3.00	10.00	
21							10.00	10.00	
22							10.00	10.00	
23							10.00	10.00	
24							8.00	10.00	
25							5.00	10.00	
26							5.00	8.00	
27							3.00	10.00	
28							8.00	10.00	
29							5.00	10.00	
30							4.00	10.00	
MONTHLY AVGS							4.65	9.87	
SUNSHINE (MINUTES)									
Total: Possible: Percent Possible:									
NUMBER OF DAYS WITH:									
SKY CONDITION									
CLR PTLY CLDY CLOUDY MISSING 30									
MINIMUM VISIBILITY (MILES)									
<=0.25 <=3.0 >=7.0 1 15 11									

OBSERVATIONS AT 3-HOURLY INTERVALS

RICHMOND, VA

JUNE 2003

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)																	
	DRY BULB	DEW POINT		WET BULB	RELATIVE HUMIDITY (PCT)			SPEED (MPH)	DIRECTION TENS OF DEG	STATION	SEA LEVEL	DRY BULB	DEW POINT	WET BULB	RELATIVE HUMIDITY (PCT)		SPEED (MPH)	DIRECTION TENS OF DEG		STATION	SEA LEVEL																										
SUNRISE: 0450								JUN 01								SUNSET: 1924								SUNRISE: 0448								JUN 07								SUNSET: 1928							
01	BKN	090				10.00		63	53	57	70	14	29	29.27	29.44	01	OVC	150					7.00			66	61	63	84	7	14	29.80	29.99														
04	OVC	040				10.00		62	50	55	65	18	31	29.32	29.50	04	OVC	015				7.00			67	62	64	84	8	14	29.75	29.94															
07	FEW	NC				10.00		63	49	55	60	18	32	29.39	29.57	07	OVC	005				1.00	-RA BR		67	67	67	100	9	18	29.73	29.92															
10	FEW	NC				10.00		68	50	58	53	20	30	29.45	29.63	10	OVC	007				2.00	-RA BR		72	72	72	100	10	18	29.69	29.88															
13	BKN	055				10.00		71	50	59	47	21	31	29.52	29.70	13	OVC	014				2.00	-RA BR		75	74	74	96	13	20	29.63	29.82															
16	BKN	060				10.00		71	50	59	47	17	34	29.57	29.75	16	OVC	150				6.00	-RA BR		74	73	73	97	10	20	29.58	29.77															
19	SCT	NC				10.00		66	50	57	56	6	35	29.65	29.84	19	OVC	038				7.00			72	72	72	100	7	18	29.59	29.78															
22	FEW	NC				10.00		57	51	54	81	0	00	29.72	29.91	22	OVC	055				9.00	-RA		72	72	72	100	3	18	29.63	29.82															
SUNRISE: 0450								JUN 02								SUNSET: 1925								SUNRISE: 0448								JUN 08								SUNSET: 1928							
01	CLR	NC				10.00		54	45	49	72	9	36	29.75	29.94	01	OVC	012				5.00	BR		65	64	64	97	7	01	29.65	29.84															
04	CLR	NC				10.00		54	40	47	59	12	36	29.78	29.97	04	OVC	017				5.00	BR		64	62	63	93	6	01	29.66	29.85															
07	CLR	NC				10.00		57	41	49	55	6	35	29.86	30.05	07	OVC	007				4.00	BR		64	62	63	93	8	03	29.70	29.89															
10	CLR	NC				10.00		64	41	52	43	7	VR	29.88	30.07	10	OVC	010				7.00			67	63	64	87	7	07	29.71	29.90															
13	CLR	NC				10.00		69	41	55	36	5	VR	29.85	30.05	13	OVC	012				7.00			70	65	67	84	5	11	29.69	29.88															
16	CLR	NC				10.00		71	41	55	34	5	VR	29.82	30.01	16	OVC	008				3.00	BR		69	66	67	90	7	09	29.65	29.84															
19	OVC	250				10.00		67	49	57	53	0	00	29.84	30.03	19	OVC	006				5.00	BR		68	67	67	96	8	12	29.67	29.85															
22	BKN	250				10.00		58	51	54	78	5	15	29.88	30.07	22	OVC	004				4.00	BR		66	65	65	96	7	13	29.68	29.87															
SUNRISE: 0449								JUN 03								SUNSET: 1925								SUNRISE: 0448								JUN 09								SUNSET: 1929							
01	BKN	250				10.00		54	50	52	87	3	14	29.85	30.04	01	OVC	001				0.50	-TSRA FG		65	65	65	100	6	31	29.68	29.87															
04	OVC	120				10.00		56	54	55	93	5	13	29.84	30.03	04	OVC	002				7.00			64	64	64	100	6	15	29.63	29.82															
07	OVC	120				10.00		60	58	59	93	6	15	29.87	30.06	07	OVC	003				1.25	BR		66	66	66	100	0	00	29.69	29.88															
10	BKN	150				10.00		69	59	63	70	13	16	29.84	30.03	10	SCT	NC				10.00			73	64	67	74	5	VR	29.73	29.91															
13	OVC	095				10.00	-RA	70	58	63	66	10	16	29.82	30.01	13	SCT	NC				10.00			80	60	68	51	7	30	29.71	29.90															
16	OVC	140				10.00	-RA	69	64	66	84	10	13	29.70	29.89	16	FEW	NC				10.00			82	54	65	38	12	29	29.72	29.91															
19	OVC	080				10.00		66	63	64	90	6	13	29.69	29.88	19	CLR	NC				10.00			76	64	68	67	7	20	29.75	29.94															
22	OVC	150				10.00		67	65	66	93	8	16	29.67	29.86	22	CLR	NC				10.00			69	61	64	76	5	17	29.80	29.99															
SUNRISE: 0449								JUN 04								SUNSET: 1926								SUNRISE: 0448								JUN 10								SUNSET: 1929							
01	OVC	095				10.00		68	65	66	90	7	19	29.65	29.84	01	CLR	NC				10.00			66	62	64	87	3	23	29.81	30.00															
04	OVC	045				4.00	-RA BR	67	67	67	100	5	16	29.64	29.82	04	CLR	NC				10.00			60	60	60	100	0	00	29.83	30.02															
07	OVC	020				2.00	RA BR	67	67	67	100	8	18	29.64	29.83	07	CLR	NC				10.00			70	62	65	76	3	02	29.90	30.09															
10	OVC	020				2.50	-RA	70	68	69	93	9	20	29.63	29.82	10	FEW	NC				10.00			79	61	68	54	8	10	29.90	30.09															
13	BKN	250				10.00		79	70	73	74	14	20	29.61	29.80	13	OVC	080				10.00			79	64	69	60	9	18	29.87	30.06															
16	OVC	030				4.00	-RA BR	73	71	72	94	5	33	29.59	29.78	16	SCT	NC				10.00			83	64	71	53	7	17	29.82	30.01															
19	BKN	020				3.00	BR	68	68	68	100	6	04	29.59	29.78	19	SCT	NC				10.00			77	67	70	71	8	10	29.82	30.01															
22	OVC	002				1.00	BR	65	65	65	100	6	02	29.63	29.82	22	SCT	NC				10.00			72	68	69	87	12	14	29.82	30.01															
SUNRISE: 0449								JUN 05								SUNSET: 1926								SUNRISE: 0448								JUN 11								SUNSET: 1930							
01	OVC	002				0.50	-RA FG	62	62	62	100	13	02	29.61	29.80	01	BKN	250				8.00			70	68	69	93	8	16	29.80	29.98															
04	OVC	044				10.00		60	60	60	100	5	34	29.66	29.85	04	BKN	250				2.50	BR		68	68	68	100	5	17	29.78	29.96															
07	BKN	060				7.00		61	60	60	97	6	33	29.70	29.89	07	SCT	NC				5.00	BR		71	68	69	90	8	22	29.81	30.00															
10	SCT	NC				10.00		71	59	64	66	7	29	29.72	29.91	10	SCT	NC				10.00			83	67	72	59	16	21	29.78	29.97															
13	BKN	055				10.00		75	55	63	50	6	32	29.71	29.90	13	OVC	200				10.00			85	69	74	59	12	22	29.75	29.94															
16	SCT	NC				10.00		76	54	63	47	8	23	29.71	29.90	16	OVC	250				10.00			88	70	76	55	12	24	29.73	29.92															
19	SCT	NC				10.00		73	53	61	50	8	24	29.73	29.92	19	OVC	250				8.00			82	73	76	74	7	21	29.74	29.93															
22	CLR	NC				10.00		63	56	59	78	7	18	29.77	29.96	22	OVC	055				7.00	TS		70	70	70	100	13	19	29.82	30.01															
SUNRISE: 0449								JUN 06								SUNSET: 1927								SUNRISE: 0448								JUN 12								SUNSET: 1930							
01	CLR	NC				9.00		59	55	57	87	6	20	29.78	29.96	01	OVC	040				4.00	BR		71	70	70	96	8	23	29.79	29.98															
04	CLR	NC				9.00		60	53	56	78	3	29	29.80	29.99	04	OVC	200				3.00	BR		69	69	69	100	3	18	29.73	29.92															
07	BKN	250				9.00		63	54	58	73	6	33	29.86	30.05	07	CLR	NC				5.00	BR		72	70	71	94	8	21	29.78	29.97															
10	BKN	250				10.00		73	53	61	50	6	03	29.89	30.08	10	OVC	150				7.00			80	73	75	79	12	23	29.80	29.98															
13	FEW	NC				10.00		77	54	63	45	0	00	29.85	30.04	13	BKN	035				8.00			86	75	78	70	13	19	29.76	29.94															
16	SCT	NC				10.00		80	56	65	44	7	22	29.81	30.00	16	OVC	042				7.00	-TSRA		74	70	71	88	9	24	29.75	29.94															
19	OVC	250				10.00		76	59	66	56	5	16	29.82	30.01	19	OVC	200				7.00			74	73	73	97	6	19	29.71	29.90															
22	OVC	250				9.00		67	61	63	81	8	12	29.84	30.03	22	OVC	250				7.00			73	72	72	96	6	17	29.74	29.93															

OBSERVATIONS AT 3-HOURLY INTERVALS

RICHMOND, VA

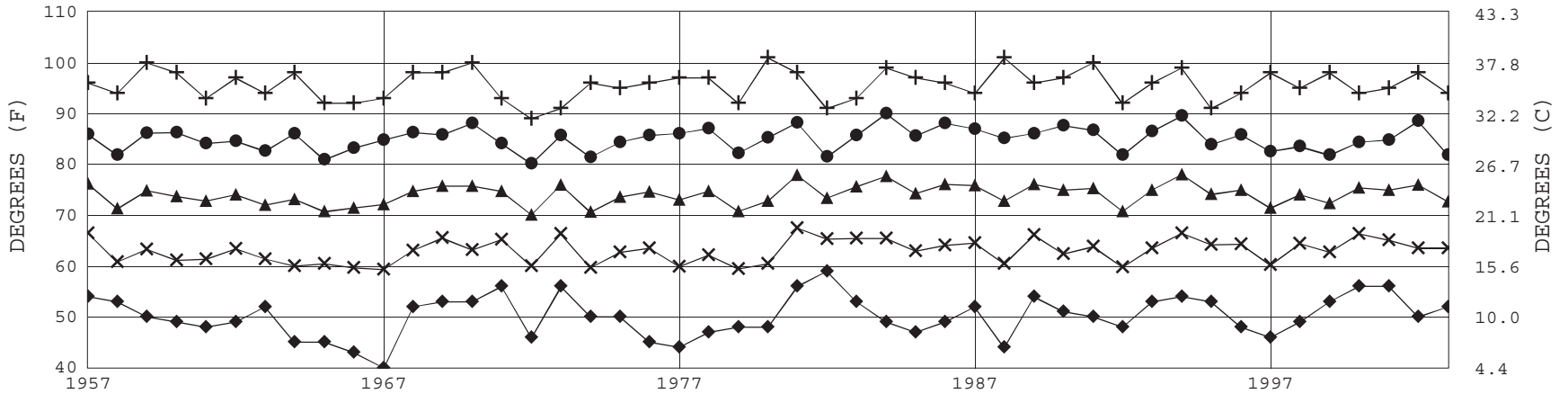
JUNE 2003

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: 0448 JUN 13					SUNSET: 1931					SUNRISE: 0448 JUN 19					SUNSET: 1933														
01	OVC	150	8.00		73	71	72	94	8	20	29.73	29.92	01	OVC	020	3.00	-RA	BR	72	71	71	97	7	20	29.67	29.85			
04	OVC	150	5.00	BR	71	71	71	100	7	20	29.72	29.91	04	OVC	006	3.00	-RA	BR	70	70	70	100	3	09	29.63	29.82			
07	BKN	250	3.00	BR	74	73	73	97	10	22	29.75	29.94	07	OVC	010	1.00	+RA	BR	71	70	70	96	6	27	29.63	29.82			
10	BKN	150	10.00		81	73	75	77	15	21	29.75	29.94	10	OVC	017	9.00	-RA		71	70	70	96	7	01	29.63	29.82			
13	OVC	040	10.00		85	73	77	68	12	21	29.72	29.90	13	BKN	090	10.00			79	69	72	72	12	03	29.60	29.78			
16	BKN	250	10.00		86	72	76	63	14	21	29.68	29.86	16	BKN	090	7.00			81	67	72	62	0	00	29.56	29.75			
19	SCT	NC	10.00		82	69	73	65	14	24	29.69	29.88	19	OVC	090	5.00	HZ		78	70	73	76	0	00	29.57	29.75			
22	OVC	120	10.00		78	71	73	79	12	23	29.73	29.92	22	BKN	250	4.00	BR		73	71	72	94	0	00	29.61	29.80			
SUNRISE: 0448 JUN 14					SUNSET: 1931					SUNRISE: 0448 JUN 20					SUNSET: 1933														
01	BKN	250	10.00		72	70	71	94	5	20	29.73	29.92	01	SCT	NC	5.00	BR		67	65	66	93	3	36	29.61	29.80			
04	OVC	150	9.00		72	70	71	94	5	20	29.73	29.92	04	FEW	NC	4.00	BR		66	65	65	96	5	35	29.63	29.82			
07	BKN	140	10.00		75	72	73	90	9	22	29.77	29.96	07	SCT	NC	4.00	BR		69	66	67	90	7	02	29.66	29.85			
10	BKN	150	10.00		80	73	75	79	10	25	29.78	29.96	10	OVC	017	5.00	HZ		71	66	68	84	5	10	29.67	29.86			
13	BKN	250	10.00		86	72	76	63	9	23	29.74	29.93	13	OVC	012	10.00			69	65	66	87	12	34	29.68	29.87			
16	BKN	250	10.00		87	73	77	63	12	22	29.69	29.88	16	SCT	NC	10.00			74	60	65	62	14	36	29.68	29.86			
19	OVC	250	10.00		83	73	76	72	9	21	29.70	29.88	19	FEW	NC	10.00			69	60	64	73	6	02	29.67	29.86			
22	OVC	037	10.00	-RA	72	68	69	87	13	35	29.80	29.99	22	OVC	080	10.00	-RA		65	62	63	90	9	34	29.72	29.91			
SUNRISE: 0448 JUN 15					SUNSET: 1931					SUNRISE: 0449 JUN 21					SUNSET: 1933														
01	BKN	150	10.00		71	68	69	90	0	00	29.77	29.95	01	SCT	NC	10.00			60	58	59	93	6	33	29.70	29.89			
04	BKN	100	10.00		71	68	69	90	5	27	29.75	29.93	04	SCT	NC	10.00			58	56	57	93	6	32	29.70	29.89			
07	BKN	200	10.00		73	70	71	90	0	00	29.79	29.98	07	SCT	NC	10.00			62	56	59	81	5	33	29.72	29.91			
10	OVC	150	10.00		80	72	75	76	6	35	29.80	29.99	10	SCT	NC	10.00			70	53	60	55	10	33	29.71	29.90			
13	OVC	050	9.00		80	72	75	76	8	03	29.79	29.97	13	OVC	060	10.00			70	53	60	55	12	34	29.69	29.88			
16	OVC	100	8.00		79	71	74	77	13	02	29.77	29.96	16	OVC	075	10.00			70	53	60	55	16	31	29.67	29.86			
19	OVC	009	4.00	-RA BR	73	71	72	94	3	14	29.82	30.01	19	BKN	050	10.00			68	54	60	61	7	30	29.67	29.86			
22	OVC	003	2.00	BR	71	70	70	96	5	04	29.85	30.04	22	SCT	NC	10.00			64	55	59	73	7	26	29.70	29.89			
SUNRISE: 0448 JUN 16					SUNSET: 1932					SUNRISE: 0449 JUN 22					SUNSET: 1934														
01	OVC	045	2.00	BR	70	69	69	97	0	00	29.86	30.05	01	FEW	NC	10.00			60	55	57	84	5	30	29.69	29.88			
04	OVC	095	2.00	BR	69	68	68	96	0	00	29.88	30.07	04	BKN	130	10.00			59	56	57	90	6	33	29.67	29.86			
07	OVC	150	7.00		70	68	69	93	6	03	29.91	30.10	07	FEW	NC	10.00			64	57	60	78	8	29	29.71	29.90			
10	OVC	080	10.00		76	67	70	74	8	10	29.95	30.14	10	BKN	060	10.00			71	57	63	61	10	35	29.72	29.91			
13	OVC	095	10.00		76	66	70	72	5	10	29.97	30.16	13	BKN	050	10.00			75	58	65	55	15	33	29.70	29.89			
16	OVC	075	10.00		73	67	69	81	9	12	29.95	30.14	16	SCT	NC	10.00			80	58	66	47	13	01	29.67	29.86			
19	OVC	080	10.00		70	62	65	76	8	08	29.99	30.18	19	SCT	NC	10.00			75	57	64	54	5	34	29.68	29.87			
22	OVC	085	10.00		67	62	64	84	8	10	30.04	30.22	22	SCT	NC	10.00			66	59	62	78	5	21	29.70	29.89			
SUNRISE: 0448 JUN 17					SUNSET: 1932					SUNRISE: 0449 JUN 23					SUNSET: 1934														
01	OVC	014	10.00		66	62	64	87	9	08	30.03	30.22	01	BKN	110	10.00			70	57	62	64	10	28	29.70	29.89			
04	OVC	015	10.00		65	61	63	87	9	09	30.02	30.20	04	CLR	NC	10.00			68	55	60	63	6	29	29.69	29.88			
07	OVC	015	10.00		64	62	63	93	7	08	30.03	30.22	07	CLR	NC	10.00			70	57	62	64	10	31	29.73	29.92			
10	OVC	018	6.00	-RA BR	64	62	63	93	6	08	30.02	30.21	10	FEW	NC	10.00			80	56	65	44	8	36	29.75	29.93			
13	OVC	034	5.00	-RA BR	63	62	62	97	8	11	30.00	30.19	13	FEW	NC	10.00			86	57	68	37	9	34	29.72	29.91			
16	OVC	010	2.50	BR	63	61	62	93	6	08	29.96	30.15	16	FEW	NC	10.00			88	56	68	34	9	35	29.72	29.91			
19	OVC	011	2.00	-RA BR	62	62	62	100	0	00	29.93	30.12	19	CLR	NC	10.00			82	60	68	47	5	35	29.74	29.93			
22	OVC	004	2.50	BR	64	63	63	96	0	00	29.90	30.09	22	CLR	NC	10.00			71	62	65	73	0	00	29.79	29.98			
SUNRISE: 0448 JUN 18					SUNSET: 1933					SUNRISE: 0449 JUN 24					SUNSET: 1934														
01	OVC	001	0.50	-DZ FG	63	63	63	100	3	36	29.87	30.06	01	CLR	NC	10.00			70	62	65	76	0	00	29.80	29.99			
04	OVC	001	0.50	FG	62	62	62	100	6	32	29.83	30.02	04	CLR	NC	10.00			67	62	64	84	5	33	29.80	29.99			
07	OVC	002	1.50	BR	62	62	62	100	0	00	29.83	30.02	07	CLR	NC	10.00			72	63	66	73	7	35	29.85	30.04			
10	OVC	007	4.00	BR	71	68	69	90	5	VR	29.79	29.98	10	CLR	NC	10.00			83	63	70	51	8	04	29.88	30.07			
13	OVC	017	9.00		75	69	71	82	9	23	29.75	29.94	13	CLR	NC	10.00			89	63	72	42	5	VR	29.88	30.07			
16	OVC	025	9.00		78	69	72	74	7	VR	29.70	29.89	16	CLR	NC	10.00			90	64	73	42	5	35	29.87	30.06			
19	OVC	250	7.00		75	70	72	84	7	18	29.68	29.87	19	CLR	NC	10.00			85	66	72	53	6	34	29.88	30.06			
22	OVC	110	6.00	BR	73	70	71	90	0	00	29.69	29.88	22	CLR	NC	9.00			73	68	70	84	0	00	29.89	30.08			

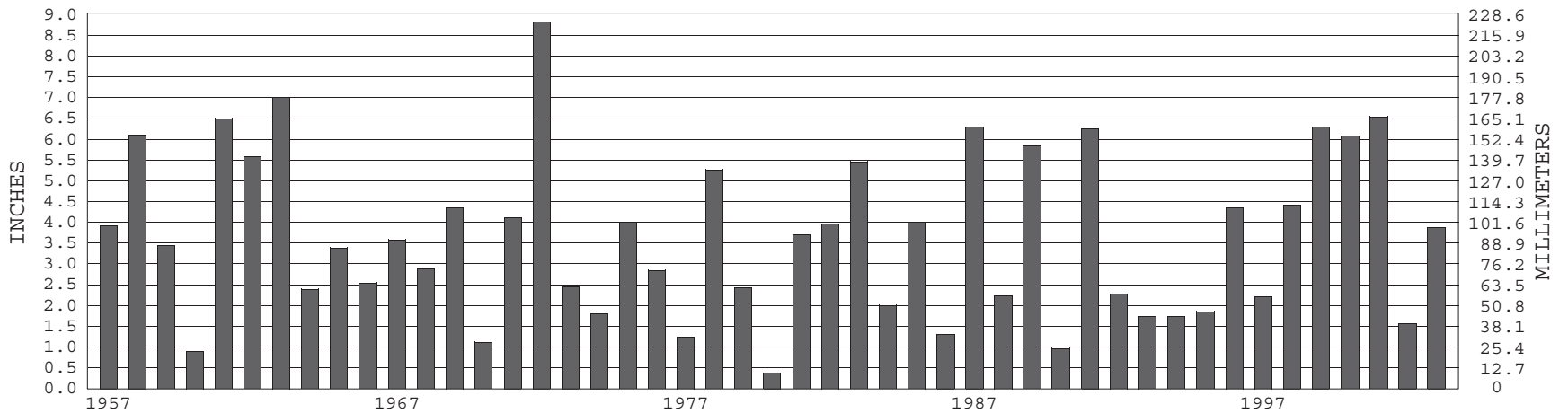
RICHMOND, VA JUNE TEMPERATURES



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

Long-Term (1957-2003) Mean: 74.0 1961-1990 Normal: 73.5

RICHMOND, VA JUNE PRECIPITATION



Long-Term (1957-2003) Mean Monthly Total: 3.66

1961-1990 Normal: 3.54



JUNE 2003
 RICHMOND, VA

LOCAL CLIMATOLOGICAL DATA

NOAA, National Climatic Data Center

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