



AUGUST 2004

LOCAL CLIMATOLOGICAL DATA

NOAA, National Climatic Data Center

RICHMOND, VA

RICHMOND INTL AIRPORT (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				
										DEPTH	WATER EQUIV	SNOW FALL	WATER EQUIV						5-SEC	2-MIN	SPEED		DIR
01	88	72	80	2	75	76	0	15	TS TSRA RA FG+ BR			0.0	1.88	29.86	30.04	2.6	14	5.1	32	36	29	36	01
02	87	73	80	2	74	75	0	15	TSRA RA BR			0.0	1.59	29.78	29.96	3.0	05	5.0	30	14	25	14	02
03	86	73	80	2	74	75	0	15	TSRA RA BR			0.0	0.44	29.65	29.84	6.0	04	7.1	23	36	21	36	03
04	91	73	82	5	72	75	0	17	BR HZ			0.0	0.00	29.62	29.80	4.3	22	5.3	16	22	14	23	04
05	79	69	74	-3	70	71	0	9	RA BR HZ			0.0	0.33	29.60	29.79	5.3	36	7.1	22	01	17	01	05
06	75	60	68	-9	55	60	0	3				0.0	0.00	29.73	29.91	11.9	36	12.3	26	36	22	01	06
07	79	57*	68	-9	55	60	0	3				0.0	0.00	29.83	30.02	2.8	32	3.7	24	01	13	32	07
08	83	60	72	-5	60	65	0	7				0.0	0.00	29.96	30.15	0.4	33	2.0	15	27	12	19	08
09	85	66	76	-1	64	68	0	11				0.0	0.00	29.95	30.14	3.8	19	4.1	13	18	12	19	09
10	89	65	77	0	66	70	0	12	BR			0.0	0.00	29.83	30.02	7.6	19	8.4	25	21	21	20	10
11	89	67	78	1	69	72	0	13	TS TSRA FG BR HZ			0.0	0.35	29.76	29.94	8.0	20	8.7	25	30	22	30	11
12	85	70	78	1	71	72	0	13	RA BR			0.0	0.21	29.73	29.92	7.9	17	8.4	23	17	18	15	12
13	80	69	75	-1	70	71	0	10	TSRA RA FG BR			0.0	0.93	29.77	29.96	1.6	16	5.5	22	17	18	19	13
14	69	64	67	-9	65	65	0	2	RA BR			0.0	1.21	29.96	30.14	7.4	01	8.2	22	01	17	36	14
15	70	64	67*	-9	66	67	0	2	RA DZ BR			0.0	0.46	30.06	30.24	1.2	05	2.0	12	07	10	06	15
16	82	67	75	-1	67	69	0	10	RA BR			0.0	1.46	29.99	30.18	4.7	03	5.6	15	01	13	01	16
17	79	65	72	-4	68	70	0	7	RA BR HZ			0.0	0.03	29.94	30.13	4.4	17	4.6	16	18	15	18	17
18	84	69	77	1	70	71	0	12	TS TSRA RA BR HZ			0.0	0.39	29.85	30.04	5.7	20	7.2	29	20	23	22	18
19	89	71	80	4	73	75	0	15	BR HZ			0.0	0.00	29.86	30.04	6.9	21	7.5	17	23	14	23	19
20	91*	73	82*	6	74	76	0	17	BR HZ			0.0	0.00	29.85	30.03	8.0	19	8.3	22	22	18	21	20
21	87	69	78	2	73	74	0	13	TSRA RA FG BR HZ			0.0	0.34	29.73	29.92	4.8	23	9.7	30	34	24	32	21
22	80	63	72	-4	63	66	0	7				0.0	0.00	29.88	30.06	4.1	03	5.0	14	01	12	04	22
23	84	62	73	-3	64	68	0	8				0.0	0.00	29.87	30.05	2.6	19	3.6	14	16	12	18	23
24	87	65	76	0	66	69	0	11	BR			0.0	0.00	29.95	30.13	3.1	15	5.0	14	08	12	09	24
25	84	64	74	-2	66	69	0	9	BR HZ			0.0	0.00	30.06	30.24	4.1	10	4.6	18	14	15	13	25
26	87	65	76	0	69	71	0	11	FG+ BR			0.0	0.00	30.04	30.23	2.9	10	4.7	15	10	13	08	26
27	87	69	78	3	70	72	0	13	FG+ BR			0.0	0.00	29.97	30.16	2.2	15	3.1	13	18	9	14	27
28	89	71	80	5	71	73	0	15	BR			0.0	0.00	29.85	30.03	4.3	17	5.6	15	14	12	13	28
29	89	70	80	5	73	75	0	15	FG+ BR			0.0	0.00	29.79	29.97	3.7	13	4.7	14	13	12	12	29
30	85	70	78	3	73	74	0	13	TSRA RA FG+ BR			0.0	6.68	29.68	29.86	7.9	03	12.7	51*	01	38*	36	30
31	84	71	78	3	70	72	0	13	BR			0.0	0.00	29.89	30.07	4.8	35	6.3	14	29	14	29	31

84.0	67.3	75.7	■ ■	68.3	70.5	0.0	10.8	< MONTHLY AVERAGES	TOTALS-->	0.0	16.30	29.85	30.03	1.2	12	6.2	<-- MONTHLY AVERAGES					
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-1.7	0.5	- .6	■ ■	<-----DEPARTURE FROM NORMAL----->						12.12	SUNSHINE, CLOUD, & VISIBILITY TABLES ON PAGE 3									
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DEGREE DAYS								GREATEST 24-HR PRECIPITATION: 6.68 DATE: 30				SEA LEVEL PRESSURE DATE TIME			
MONTHLY TOTAL DEPARTURE				SEASON TO DATE TOTAL DEPARTURE				GREATEST 24-HR SNOWFALL: 0.0 DATE:				MAXIMUM MINIMUM : 30.29 15 0954			
HEATING: 0 -1				0 0 -1				GREATEST SNOW DEPTH:				MINIMUM TEMP ≤ 32 : 0			
COOLING: 336 -31				1415 207				NUMBER OF DAYS WITH →				PRECIPITATION ≥ 0.01 INCH : 14			
								MAXIMUM TEMP ≥ 90: 2				PRECIPITATION ≥ 0.10 INCH : 13			
								MAXIMUM TEMP ≤ 32 : 0				SNOWFALL ≥ 1.0 INCH : 0			
								THUNDERSTORMS : 8				HEAVY FOG : 5			

AUGUST 2004 RICHMOND, VA

HOURLY PRECIPITATION

(WATER EQUIVALENT IN INCHES)

RICHMOND, VA

AUGUST 2004

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	0.24	1.88			
02	0.01					T						T	02											02		1.59			
03	0.22	0.14	0.05									T	03		0.03		T		0.07	0.07	T	T		03		0.44			
04													04											04		0.00			
05												0.10	05	0.13	0.09	T	T	T				0.01	T	05		0.33			
06													06											06		0.00			
07													07											07		0.00			
08													08											08		0.00			
09													09											09		0.00			
10													10											10		0.00			
11													11											11		0.35			
12													12											12		0.21			
13						T						0.01	13			0.02	0.12	0.01	0.01					13		0.93			
14							0.01						14	0.11	0.04	T	0.04	0.26	0.11				0.73	0.04	0.01	14	1.21		
15		T	T	T	T			T	0.07	0.04	0.09	0.01	15	0.06	0.01	0.01	0.07	T				T	T	T	0.03	0.23	15	0.46	
16	0.12	0.12	0.31	0.54	0.28	0.09	T						16											16		1.46			
17													17				T							17		0.03			
18													18		0.02	0.01	T	0.03						18		0.39			
19													19		0.05	0.31								19		0.00			
20													20											20		0.00			
21													21	T			0.04	0.29	T	0.01				21		0.34			
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	6.64	6.68			
31											T		31	0.11	1.27	2.10	0.58	0.44	0.62	0.52	0.70	0.30		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)	.40	.70	1.00	1.30	1.64	1.97	2.23	2.59	3.19	3.54	3.77	4.11
Ending Date	30	30	30	30	30	30	30	30	30	30	30	30
Ending Time (Hour/Min)	1435	1440	1437	1441	1442	1443	1502	1442	1446	1502	1518	1606

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 AUGUST 2004

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							.50	10.00	
02							1.25	10.00	
03							5.00	10.00	
04							4.00	10.00	
05							1.75	10.00	
06							10.00	10.00	
07							10.00	10.00	
08							8.00	10.00	
09							8.00	10.00	
10							5.00	10.00	
11							.50	10.00	
12							2.00	10.00	
13							.50	10.00	
14							1.00	7.00	
15							1.50	10.00	
16							1.25	10.00	
17							4.00	10.00	
18							1.50	10.00	
19							3.00	9.00	
20							1.50	7.00	
21							.50	10.00	
22							9.00	10.00	
23							7.00	10.00	
24							4.00	10.00	
25							1.75	10.00	
26							<.25	10.00	
27							<.25	10.00	
28							.75	10.00	
29							.25	10.00	
30							.25	10.00	
31							6.00	10.00	
MONTHLY AVGS							3.41	9.77	
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									
3 19 6									

OBSERVATIONS AT 3-HOURLY INTERVALS

RICHMOND, VA

AUGUST 2004

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: 0514 AUG 01 SUNSET: 1918																													
01	CLR	NC	10.00		76	75	75	97	0	00	29.87	30.06	01	CLR	NC	10.00		58	53	55	84	6	33	29.78	29.97				
04	BKN	250	10.00		75	74	74	96	0	00	29.87	30.06	04	CLR	NC	10.00		59	53	56	81	0	00	29.77	29.96				
07	BKN	250	0.50	FG	75	75	75	100	3	17	29.89	30.08	07	CLR	NC	10.00		63	53	57	70	8	30	29.81	30.00				
10	BKN	250	10.00		82	75	77	79	7	19	29.89	30.08	10	SCT	NC	10.00		72	54	61	53	8	30	29.83	30.02				
13	BKN	250	10.00		87	74	78	65	5	17	29.86	30.04	13	SCT	NC	10.00		76	53	63	45	6	36	29.82	30.01				
16	SCT	NC	10.00		87	75	78	67	8	14	29.80	29.98	16	BKN	065	10.00		76	51	62	42	3	VR	29.81	30.00				
19	OVC	016	10.00		77	72	74	85	21	03	29.83	30.01	19	SCT	NC	10.00		72	58	64	61	3	10	29.84	30.03				
22	OVC	033	4.00	+RA BR	73	71	72	94	0	00	29.84	30.03	22	BKN	080	10.00		67	61	63	81	0	00	29.90	30.09				
SUNRISE: 0515 AUG 02 SUNSET: 1917																													
01	OVC	014	10.00		73	72	72	96	0	00	29.81	30.00	01	BKN	085	10.00		64	60	62	87	0	00	29.92	30.11				
04	OVC	015	10.00		73	72	72	96	0	00	29.80	29.98	04	CLR	NC	9.00		61	59	60	93	0	00	29.93	30.12				
07	OVC	150	10.00		75	73	74	94	0	00	29.81	30.00	07	BKN	075	10.00		65	61	63	87	0	00	29.98	30.16				
10	OVC	150	10.00		80	75	77	85	0	00	29.80	29.99	10	FEW	NC	10.00		76	58	65	54	6	22	29.98	30.16				
13	BKN	150	10.00		86	75	78	70	7	01	29.76	29.95	13	SCT	NC	10.00		81	58	67	46	0	00	29.95	30.14				
16	OVC	046	10.00		79	74	75	85	13	09	29.73	29.92	16	OVC	060	10.00		82	59	68	46	6	34	29.94	30.13				
19	OVC	017	6.00	-RA BR	75	75	75	100	9	03	29.75	29.93	19	BKN	060	10.00		76	62	67	62	5	03	29.96	30.15				
22	OVC	003	10.00		74	74	74	100	7	01	29.74	29.93	22	CLR	NC	10.00		67	63	64	87	0	00	29.99	30.17				
SUNRISE: 0515 AUG 03 SUNSET: 1916																													
01	OVC	023	5.00	TSRA BR	74	74	74	100	7	16	29.73	29.92	01	FEW	NC	10.00		67	63	64	87	0	00	29.97	30.16				
04	OVC	100	10.00		73	73	73	100	6	02	29.69	29.88	04	OVC	100	9.00		67	64	65	91	0	00	29.96	30.15				
07	OVC	004	10.00		73	73	73	100	8	02	29.69	29.88	07	BKN	100	10.00		69	64	66	84	0	00	29.98	30.17				
10	BKN	080	10.00		82	74	76	77	13	06	29.67	29.86	10	CLR	NC	10.00		80	61	68	52	3	22	29.99	30.18				
13	BKN	030	10.00		82	73	76	74	14	03	29.63	29.82	13	SCT	NC	10.00		83	63	70	51	7	20	29.96	30.15				
16	BKN	250	10.00		85	73	77	68	14	04	29.61	29.79	16	BKN	095	10.00		82	63	70	53	8	15	29.92	30.10				
19	SCT	NC	10.00		80	73	75	79	5	02	29.59	29.78	19	SCT	NC	10.00		76	66	70	72	8	20	29.91	30.10				
22	FEW	NC	10.00		77	74	75	90	0	00	29.62	29.80	22	FEW	NC	9.00		71	66	68	84	3	17	29.92	30.11				
SUNRISE: 0516 AUG 04 SUNSET: 1915																													
01	CLR	NC	5.00	BR	75	73	74	94	5	27	29.63	29.81	01	CLR	NC	9.00		69	64	66	84	3	15	29.89	30.08				
04	CLR	NC	6.00	BR	75	73	74	94	0	00	29.62	29.81	04	CLR	NC	7.00		66	63	64	90	3	16	29.88	30.07				
07	CLR	NC	5.00	HZ	77	72	74	85	5	30	29.65	29.84	07	FEW	NC	6.00	BR	68	65	66	90	6	19	29.88	30.07				
10	CLR	NC	9.00		86	70	75	59	0	00	29.66	29.85	10	FEW	NC	9.00		80	67	71	64	8	20	29.87	30.06				
13	SCT	NC	8.00		90	70	76	52	8	24	29.63	29.82	13	SCT	NC	10.00		86	66	73	51	14	20	29.81	30.00				
16	FEW	NC	10.00		90	69	76	50	10	19	29.59	29.78	16	SCT	NC	10.00		86	65	72	50	15	21	29.78	29.97				
19	FEW	NC	4.00	HZ	83	75	77	77	7	19	29.58	29.77	19	SCT	NC	7.00		79	69	72	72	8	18	29.77	29.96				
22	CLR	NC	4.00	HZ	80	74	76	82	7	21	29.60	29.78	22	FEW	NC	8.00		74	68	70	82	9	19	29.79	29.98				
SUNRISE: 0517 AUG 05 SUNSET: 1914																													
01	CLR	NC	4.00	BR	76	73	74	91	6	20	29.55	29.74	01	FEW	NC	7.00		72	67	69	84	8	18	29.77	29.96				
04	OVC	200	4.00	HZ	78	72	74	82	7	24	29.55	29.73	04	CLR	NC	7.00		68	66	67	93	7	19	29.76	29.95				
07	OVC	150	2.50	BR	77	74	75	90	6	36	29.57	29.76	07	SCT	NC	6.00	BR	71	67	68	87	7	20	29.78	29.97				
10	OVC	150	10.00		78	69	72	74	9	03	29.60	29.78	10	SCT	NC	8.00		81	70	74	69	8	20	29.77	29.96				
13	OVC	035	2.00	-RA BR	74	72	73	94	10	36	29.62	29.80	13	FEW	NC	10.00		88	70	76	55	17	21	29.74	29.92				
16	OVC	009	10.00		69	67	68	93	12	02	29.59	29.78	16	BKN	200	7.00		88	70	76	55	13	19	29.71	29.90				
19	OVC	040	10.00		69	67	68	93	6	36	29.64	29.83	19	OVC	030	2.00	+TSRA BR	74	71	72	91	8	30	29.77	29.96				
22	OVC	095	10.00		69	68	68	96	7	32	29.67	29.85	22	OVC	150	7.00		74	71	72	91	6	20	29.76	29.95				
SUNRISE: 0518 AUG 06 SUNSET: 1913																													
01	OVC	110	10.00		68	67	67	96	8	34	29.65	29.83	01	BKN	150	5.00	BR	71	70	70	96	5	18	29.75	29.94				
04	CLR	NC	10.00		66	63	64	90	16	01	29.63	29.82	04	SCT	NC	5.00	BR	70	69	69	97	5	18	29.74	29.92				
07	SCT	NC	10.00		64	54	58	70	13	01	29.71	29.90	07	OVC	250	5.00	BR	72	71	71	97	6	18	29.76	29.95				
10	FEW	NC	10.00		70	52	60	53	17	36	29.74	29.93	10	BKN	250	8.00		79	72	74	79	6	20	29.76	29.95				
13	SCT	NC	10.00		74	50	60	43	15	35	29.74	29.93	13	OVC	200	9.00		84	70	74	63	10	17	29.72	29.91				
16	SCT	NC	10.00		74	49	60	41	17	36	29.73	29.92	16	OVC	015	2.00	+RA BR	75	73	74	94	8	18	29.71	29.90				
19	FEW	NC	10.00		69	49	58	49	6	34	29.76	29.94	19	OVC	035	2.50	-RA BR	74	73	73	97	17	14	29.69	29.88				
22	CLR	NC	10.00		62	53	57	73	5	33	29.78	29.97	22	OVC	005	10.00		73	72	72	96	9	19	29.70	29.88				

OBSERVATIONS AT 3-HOURLY INTERVALS

RICHMOND, VA

AUGUST 2004

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	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
SUNRISE: 0524				AUG 13				SUNSET: 1905				SUNRISE: 0529				AUG 19				SUNSET: 1856							
01	OVC	100		10.00	72	70	71	94	12	20	29.71	29.90	01	SCT	NC		6.00	BR	71	70	70	96	6	19	29.83	30.02	
04	OVC	034		10.00	70	69	69	97	10	20	29.71	29.89	04	BKN	005		4.00	BR	73	72	72	96	7	20	29.84	30.03	
07	OVC	017		10.00	70	69	69	97	3	14	29.72	29.91	07	OVC	005		5.00	BR	73	72	72	96	10	21	29.86	30.05	
10	OVC	023		1.00	72	71	71	97	3	34	29.75	29.94	10	OVC	250		7.00		82	73	76	74	6	VR	29.89	30.07	
13	OVC	046		10.00	77	70	72	79	0	00	29.76	29.95	13	SCT	NC		8.00		87	73	77	63	8	20	29.85	30.04	
16	BKN	065		10.00	79	72	74	79	3	VR	29.77	29.96	16	FEW	NC		7.00		88	73	77	61	10	21	29.84	30.02	
19	BKN	250		10.00	76	72	73	88	6	12	29.82	30.01	19	FEW	NC		5.00	HZ	82	76	78	82	7	20	29.83	30.02	
22	OVC	009		0.50	70	69	69	97	12	22	29.87	30.06	22	CLR	NC		4.00	BR	77	75	76	94	6	18	29.88	30.07	
SUNRISE: 0525				AUG 14				SUNSET: 1903				SUNRISE: 0530				AUG 20				SUNSET: 1854							
01	OVC	015		5.00	67	66	66	97	7	03	29.89	30.08	01	CLR	NC		4.00	BR	76	74	75	94	0	00	29.88	30.06	
04	OVC	025		6.00	65	63	64	93	8	02	29.91	30.09	04	CLR	NC		2.50	BR	74	73	73	97	0	00	29.88	30.06	
07	OVC	130		4.00	65	64	64	97	8	02	29.94	30.13	07	FEW	NC		2.50	BR	74	73	73	97	6	18	29.89	30.08	
10	OVC	015		2.00	66	65	65	96	7	02	29.99	30.18	10	CLR	NC		7.00		84	74	77	72	6	22	29.90	30.08	
13	OVC	006		2.00	67	66	66	97	6	02	30.02	30.21	13	SCT	NC		6.00	HZ	91	74	79	57	17	20	29.86	30.05	
16	OVC	006		2.00	67	66	66	97	14	03	29.92	30.11	16	OVC	250		7.00		89	71	77	55	16	20	29.81	30.00	
19	OVC	008		3.00	67	66	66	97	10	02	29.91	30.10	19	OVC	200		5.00	HZ	81	74	76	79	7	17	29.79	29.98	
22	OVC	004		3.00	65	64	64	97	9	30	29.99	30.18	22	CLR	NC		6.00	BR	77	73	74	88	7	17	29.80	29.98	
SUNRISE: 0526				AUG 15				SUNSET: 1902				SUNRISE: 0531				AUG 21				SUNSET: 1853							
01	OVC	007		3.00	64	63	63	96	5	31	30.00	30.19	01	CLR	NC		5.00	BR	77	74	75	90	10	19	29.77	29.96	
04	OVC	003		1.50	65	64	64	97	0	00	30.03	30.22	04	CLR	NC		4.00	BR	76	74	75	94	12	19	29.72	29.91	
07	OVC	010		2.50	67	65	66	93	0	00	30.05	30.24	07	BKN	120		4.00	BR	77	74	75	90	12	19	29.72	29.91	
10	OVC	012		10.00	69	66	67	90	0	00	30.10	30.29	10	BKN	140		8.00		84	74	77	72	15	23	29.71	29.90	
13	OVC	015		3.00	68	67	67	96	5	19	30.09	30.28	13	OVC	140		10.00		83	74	77	74	9	24	29.69	29.88	
16	OVC	017		5.00	69	68	68	96	5	04	30.06	30.25	16	OVC	027		2.50	TSRA BR	76	73	74	91	21	32	29.68	29.86	
19	OVC	033		6.00	69	68	68	96	0	00	30.05	30.24	19	OVC	150		6.00	BR	74	72	73	94	5	03	29.73	29.91	
22	OVC	032		7.00	68	68	68	100	5	06	30.03	30.22	22	OVC	060		10.00		71	69	70	94	8	01	29.81	30.00	
SUNRISE: 0526				AUG 16				SUNSET: 1860				SUNRISE: 0531				AUG 22				SUNSET: 1852							
01	OVC	034		3.00	67	67	67	100	7	05	30.01	30.20	01	SCT	NC		10.00		68	66	67	93	9	02	29.82	30.01	
04	OVC	008		3.00	68	68	68	100	9	36	29.97	30.16	04	FEW	NC		10.00		64	62	63	93	6	01	29.84	30.03	
07	OVC	007		10.00	69	68	68	96	8	36	30.01	30.19	07	SCT	NC		10.00		65	63	64	93	6	01	29.90	30.09	
10	SCT	NC		10.00	74	67	69	79	8	36	30.01	30.20	10	BKN	250		10.00		74	62	67	67	7	05	29.92	30.11	
13	SCT	NC		10.00	78	64	69	62	9	05	29.99	30.18	13	BKN	250		10.00		76	62	67	62	7	01	29.90	30.09	
16	FEW	NC		10.00	82	64	70	55	5	06	29.97	30.16	16	BKN	250		10.00		80	61	68	52	6	36	29.86	30.05	
19	CLR	NC		9.00	76	68	71	77	0	00	29.97	30.16	19	BKN	250		10.00		73	65	68	76	3	08	29.85	30.04	
22	CLR	NC		9.00	69	65	66	87	5	12	29.99	30.18	22	FEW	NC		9.00		67	64	65	91	6	12	29.87	30.06	
SUNRISE: 0527				AUG 17				SUNSET: 1858				SUNRISE: 0532				AUG 23				SUNSET: 1850							
01	CLR	NC		7.00	69	67	68	93	0	00	29.98	30.17	01	CLR	NC		8.00		66	64	65	93	3	19	29.86	30.05	
04	BKN	095		5.00	67	66	66	97	0	00	29.97	30.16	04	CLR	NC		9.00		64	61	62	90	0	00	29.85	30.03	
07	OVC	110		5.00	69	68	68	96	0	00	29.99	30.18	07	SCT	NC		9.00		65	62	63	90	0	00	29.88	30.07	
10	BKN	040		10.00	77	69	72	77	7	19	29.99	30.18	10	CLR	NC		10.00		77	63	68	62	7	21	29.90	30.09	
13	OVC	120		10.00	79	68	72	69	10	17	29.94	30.12	13	SCT	NC		10.00		82	61	69	49	5	VR	29.86	30.05	
16	BKN	100		10.00	78	70	73	76	7	17	29.90	30.09	16	FEW	NC		10.00		83	64	71	53	7	22	29.82	30.01	
19	FEW	NC		5.00	76	68	71	77	5	16	29.88	30.07	19	SCT	NC		10.00		77	67	70	71	6	17	29.84	30.03	
22	CLR	NC		5.00	70	68	69	93	0	00	29.89	30.07	22	CLR	NC		8.00		71	68	69	90	0	00	29.88	30.07	
SUNRISE: 0528				AUG 18				SUNSET: 1857				SUNRISE: 0533				AUG 24				SUNSET: 1849							
01	BKN	095		5.00	71	69	70	94	6	19	29.87	30.06	01	CLR	NC		6.00	BR	68	66	67	93	3	19	29.90	30.09	
04	OVC	090		6.00	71	69	70	94	8	22	29.86	30.05	04	CLR	NC		7.00		66	65	65	96	3	21	29.89	30.08	
07	OVC	010		4.00	71	71	71	100	6	19	29.87	30.06	07	CLR	NC		5.00	BR	68	66	67	93	3	21	29.95	30.14	
10	OVC	017		6.00	78	71	73	79	8	21	29.88	30.07	10	FEW	NC		9.00		80	68	72	67	5	27	29.97	30.16	
13	BKN	035		7.00	83	71	75	67	13	18	29.83	30.02	13	FEW	NC		10.00		85	65	72	51	9	10	29.94	30.13	
16	BKN	150		10.00	76	72	73	88	7	12	29.83	30.02	16	SCT	NC		10.00		85	64	71	50	6	13	29.92	30.11	
19	SCT	NC		9.00	74	72	73	94	6	16	29.81	30.00	19	SCT	NC		8.00		79	68	72	69	3	12	29.95	30.14	
22	CLR	NC		10.00	71	68	69	90	6	19	29.84	30.03	22	FEW	NC		5.00	BR	70	68	69	93	5	12	29.99	30.18	

OBSERVATIONS AT 3-HOURLY INTERVALS

RICHMOND, VA

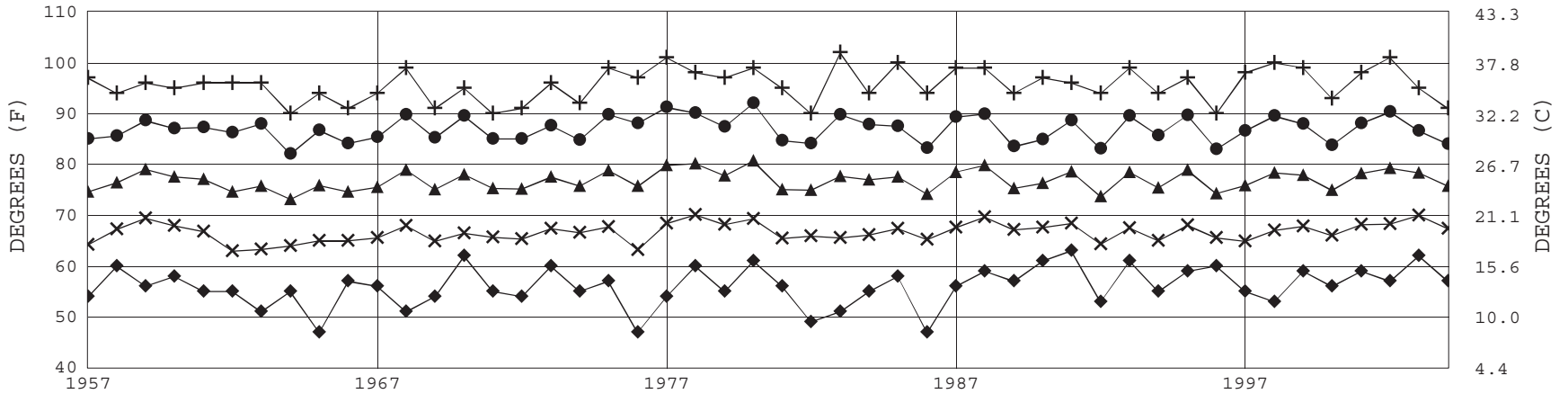
AUGUST 2004

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: 0534								AUG 25				SUNSET: 1848				SUNRISE: 0539								AUG 31				SUNSET: 1839			
01	CLR	NC				3.00	BR	67	66	66	97	3	12	30.01	30.20	01	OVC	120				10.00		72	72	72	99	12	30	29.77	29.96
04	CLR	NC				3.00	BR	66	65	65	96	0	00	30.03	30.22	04	OVC	250				10.00		71	69	70	92	6	29	29.80	29.98
07	BKN	028				1.75	BR	68	66	67	93	3	01	30.06	30.25	07	BKN	250				9.00		74	69	71	86	3	32	29.85	30.04
10	BKN	025				7.00		77	69	72	77	8	08	30.08	30.27	10	BKN	200				10.00		80	69	73	69	12	01	29.91	
13	SCT	NC				10.00		80	67	71	64	8	10	30.07	30.25	13	BKN	200				10.00		83	69	74	63	10	32	29.91	30.09
16	SCT	NC				10.00		82	61	69	49	10	15	30.04	30.23	16	BKN	035				8.00		83	70	74	65	6	36	29.87	30.06
19	FEW	NC				6.00	HZ	74	68	70	82	6	10	30.04	30.23	19	SCT	NC				10.00		78	71	73	79	3	04	29.91	30.10
22	CLR	NC				5.00	BR	70	67	68	90	0	00	30.07	30.26	22	SCT	NC				7.00		74	71	72	91	5	05	29.96	30.15
SUNRISE: 0535								AUG 26				SUNSET: 1846				<h3>3-HOURLY OBSERVATION NOTES</h3> <p>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.</p>															
01	CLR	NC				3.00	BR	66	65	65	96	3	36	30.07	30.26																
04	SCT	NC				2.00	BR	65	64	64	97	6	01	30.06	30.25																
07	VV	001				<.25	FG					0	00	30.07	30.26																
10	BKN	018				10.00		79	71	74	77	6	VR	30.08	30.27																
13	SCT	NC				10.00		84	68	73	59	5	VR	30.03	30.22																
16	SCT	NC				10.00		84	71	75	65	9	09	29.98	30.17																
19	FEW	NC				10.00		78	71	73	79	12	12	30.00	30.19																
22	CLR	NC				7.00		73	71	72	94	7	12	30.02	30.21																
SUNRISE: 0536								AUG 27				SUNSET: 1845																			
01	SCT	NC				3.00	BR	70	70	70	100	0	00	30.00	30.19																
04	VV	001				0.25	FG	70	70	70	100	0	00	30.00	30.19																
07	VV	001				<.25	FG	70	70	70	100	0	00	30.04	30.22																
10	SCT	NC				9.00		78	72	74	82	0	00	30.03	30.22																
13	FEW	NC				10.00		84	67	73	57	7	17	29.97	30.16																
16	FEW	NC				10.00		86	65	72	50	7	17	29.92	30.11																
19	FEW	NC				10.00		79	70	73	74	8	15	29.91	30.10																
22	CLR	NC				10.00		74	72	73	94	3	14	29.94	30.13																
SUNRISE: 0537								AUG 28				SUNSET: 1843																			
01	CLR	NC				8.00		71	70	70	96	0	00	29.91	30.09																
04	OVC	002				3.00	BR	72	72	72	100	5	19	29.87	30.06																
07	BKN	002				2.00	BR	73	72	72	96	6	23	29.90	30.09																
10	FEW	NC				10.00		82	72	75	72	8	21	29.87	30.06																
13	SCT	NC				10.00		87	70	75	57	6	12	29.85	30.03																
16	FEW	NC				10.00		87	68	74	53	9	15	29.79	29.98																
19	FEW	NC				10.00		79	68	72	69	9	13	29.77	29.96																
22	CLR	NC				10.00		73	70	71	90	5	14	29.81	30.00																
SUNRISE: 0537								AUG 29				SUNSET: 1842																			
01	CLR	NC				9.00		70	70	70	100	5	12	29.80	29.98																
04	OVC	002				3.00	BR	72	72	72	100	0	00	29.78	29.97																
07	VV	001				0.25	FG	73	73	73	100	3	20	29.81	29.99																
10	BKN	250				10.00		83	75	77	77	5	VR	29.82	30.01																
13	BKN	250				10.00		86	73	77	65	5	VR	29.79	29.98																
16	BKN	250				10.00		88	75	79	66	9	10	29.74	29.93																
19	OVC	250				10.00		81	76	77	85	9	10	29.74	29.93																
22	OVC	250				10.00		76	73	74	91	12	13	29.78	29.96																
SUNRISE: 0538								AUG 30				SUNSET: 1840																			
01	SCT	NC				10.00		71	69	70	94	3	06	29.77	29.96																
04	BKN	023				10.00		72	71	71	97	9	06	29.76	29.95																
07	OVC	003				8.00		74	74	74	100	9	07	29.75	29.94																
10	OVC	026				10.00		82	75	77	79	10	07	29.72	29.91																
13	OVC	029				1.75	+TSRA BR	77	75	76	94	13	03	29.63	29.82																
16	OVC	026				1.00	+RA BR	75	74	74	96	17	06	29.55	29.74																
19	OVC	019				2.00	+RA BR	75	74	74	96	22	36	29.56	29.75																
22	OVC	095				10.00	-RA					10	32	29.70																	

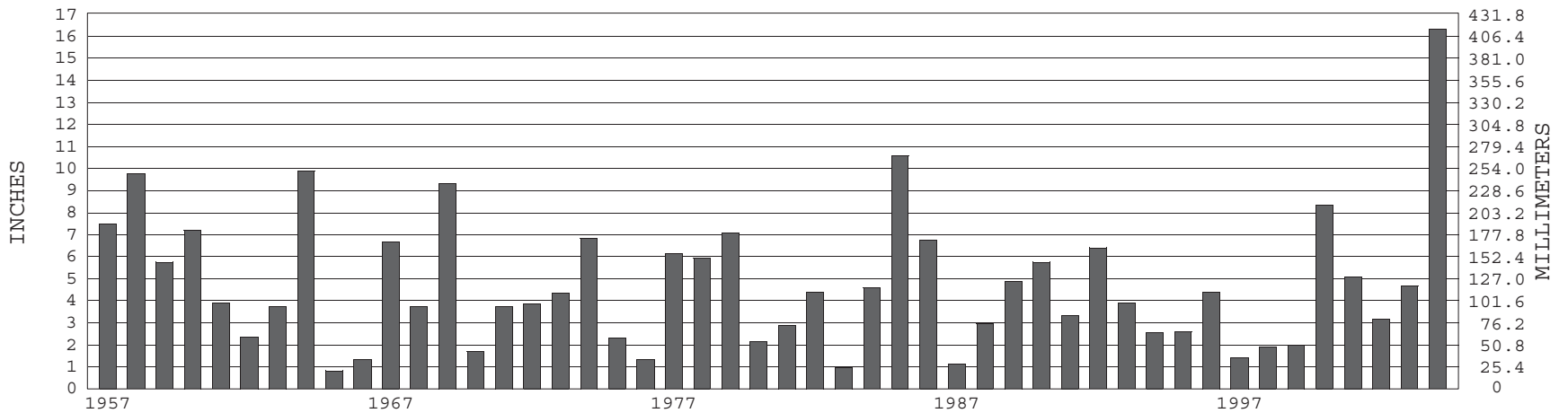
RICHMOND, VA AUGUST TEMPERATURES



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

Long-Term (1957-2004) Mean: 76.8 1971-2000 Normal: 76.3

RICHMOND, VA AUGUST PRECIPITATION



Long-Term (1957-2004) Mean Monthly Total: 4.75

1971-2000 Normal: 4.18



AUGUST 2004

RICHMOND, VA

LOCAL CLIMATOLOGICAL DATA

NOAA, National Climatic Data Center

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

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