



MAY 1997

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

MAY 1997
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											
01	79	58	69	7	52	59	0	4	TSRA RA BR HZ	0		0.0	0.08	29.48	29.68	10.5	23	15.1	29	31	23	23	01											
02	72	46	59	-3	39	50	6	0		0		0.0	0.00	29.84	30.04	3.9	20	9.3	25	18	18	18	02											
03	77	57	67	5	56	60	0	2	TSRA RA BR	0		0.0	0.52	29.55	29.75	12.7	21	15.3	39	23	32	23	03											
04	67	51	59	-4	36	48	6	0		0		0.0	0.00	29.79	29.99	12.3	30	13.1	30	30	23	27	04											
05	71	43	57	-6	33	47	8	0		0		0.0	0.00	29.94	30.14	6.4	24	8.0	29	28	21	22	05											
06	78	48	63	0	40	52	2	0	RA	0		0.0	T	29.75	29.95	9.9	25	12.9	32	25	26	26	06											
07	73	45	59	-4	35	48	6	0		0		0.0	0.00	29.96	30.17	7.4	31	10.1	26	26	22	29	07											
08	71	41	56*	-8	42	50	9	0	RA	0		0.0	T	29.92	30.13	3.9	11	6.7	22	19	18	13	08											
09	76	55	66	2	54	58	0	1	TSRA RA BR	0		0.0	0.14	29.63	29.84	7.4	25	9.2	17	25	14	26	09											
10	64	52	58	-6			7	0		0		0.0	0.00	29.71		8.3	30	10.8	17	29	17	29	10											
11	73	46	60	-5	39	50	5	0		0		0.0	0.00	29.82		6.0	26	7.1	15	25	13	25	11											
12	83	52	68	3	44	55	0	3		0		0.0	0.00	29.62	29.82	11.7	21	12.2	30	22	24	23	12											
13	67	48	58	-7	47	53	7	0		0		0.0	0.00	29.54	29.74	6.8	36	9.3	22	36	20	01	13											
14	75	42	59	-6	44	52	6	0	TS TSRA RA BR	0		0.0	0.09	29.66	29.87	3.7	22	6.3	24	24	18	32	14											
15	80	52	66	0	49	57	0	1	RA	0		0.0	0.02	29.53	29.73	9.5	26	12.1	47*	29	41*	30	15											
16	68	46	57	-9	33	46	8	0		0		0.0	0.00	29.75	29.96	10.0	28	10.9	29	30	23	29	16											
17	77	40*	59	-7	41	51	6	0	HZ	0		0.0	0.00	29.73	29.93	10.6	25	10.8	30	29	23	28	17											
18	91	50	71	4	51	60	0	6		0		0.0	0.00	29.73	29.93	6.0	22	6.7	20	20	16	20	18											
19	94*	71	83*	16	56	66	0	18		0		0.0	0.00	29.63	29.83	10.6	23	11.0	20	20	16	20	19											
20	80	63	72	5	59	64	0	7	RA	0		0.0	T	29.64	29.84	3.2	34	7.8	23	01	18	01	20											
21	73	48	61	-6	35	49	4	0		0		0.0	0.00	29.84	30.05	9.1	36	9.0	30	02	23	01	21											
22	72	44	58	-10	35	47	7	0		0		0.0	0.00	29.94	30.14	8.4	34	8.3	26	33	21	34	22											
23	74	46	60	-8	38	49	5	0		0		0.0	0.00	30.00	30.21	7.0	34	5.8	20	30	16	01	23											
24	85	49	67	-1	54	60	0	2		0		0.0	0.00	29.87	30.07	4.4	21	6.7	23	22	20	20	24											
25	79	64	72	3	65	68	0	7	TSRA RA BR	0		0.0	0.26	29.65	29.85	14.8	21	15.0	31	23	23	21	25											
26	70	53	62	-7	59	60	3	0	RA DZ BR	0		0.0	0.25	29.66	29.86	5.9	01	8.7	25	03	20	02	26											
27	68	47	58	-11	50	54	7	0	BR	0		0.0	0.00	30.00	30.21	6.9	07	8.4	21	10	17	09	27											
28	69	44	57	-12	42	49	8	0		0		0.0	0.00	30.20	30.40	7.2	07	8.9	24	11	20	11	28											
29	74	42	58	-12	49	54	7	0		0		0.0	0.00	30.12	30.33	5.5	09	6.7	22	14	17	14	29											
30	77	58	68	-2	59	62	0	3	RA BR	0		0.0	T	29.99	30.19	3.9	05	2.6	10	16	8	16	30											
31	81	58	70	0	61	65	0	5		0		0.0	0.00	29.81	30.01	4.1	09	4.3	13	12	10	12	31											
< MONTHLY AVERAGES											TOTALS-->		0.0 1.36		29.78		<-- MONTHLY AVERAGES																	
-2.4 -3.9 -3.1											<----- DEPARTURE FROM NORMAL ----->											-2.48		SUNSHINE, CLOUD, & VISIBILITY TABLES ON PAGE 3										
DEGREE DAYS											GREATEST 24-HR PRECIPITATION: 0.52 DATE: 3				SEA LEVEL PRESSURE DATE TIME																			
MONTHLY TOTAL DEPARTURE											GREATEST 24-HR SNOWFALL: 0.0 DATE:				MAXIMUM : 30.45 28 1044																			
SEASON TO DATE TOTAL DEPARTURE											GREATEST SNOW DEPTH: 0 DATE:				MINIMUM : 29.53 01 1638																			
HEATING: 117 56 3864 -99											NUMBER OF DAYS WITH =>				MAXIMUM TEMP ≥ 90: 2				MINIMUM TEMP ≤ 32: 0				PRECIPITATION ≥ 0.01 INCH : 7											
COOLING: 59 -33 65 -37															MAXIMUM TEMP ≤ 32 : 0				MINIMUM TEMP ≤ 0 : 0				PRECIPITATION ≥ 0.10 INCH : 4											
															THUNDERSTORMS : 5				HEAVY FOG : 0				SNOWFALL ≥ 1.0 INCH : 0											

HOURLY PRECIPITATION

(WATER EQUIVALENT IN INCHES)

RICHMOND, VA

MAY 1997

RIC

WBAN # 13740

DATE	FOR HOUR (LST) ENDING AT												DATE	FOR HOUR (LST) ENDING AT												DATE	Sum if Different (See Note 2)	2400 LST	
	1	2	3	4	5	6	7	8	9	10	11	12		13	14	15	16	17	18	19	20	21	22	23	24			Water	Equiv.
01													01		T	0.08									01		0.08		
02													02												02		0.00		
03					0.02	0.02	0.29	0.10	0.08	0.01	T	T	03		T	T								03		0.52			
04													04											04		0.00			
05													05											05		0.00			
06					T								06											06		T			
07													07											07		0.00			
08													08											08		T			
09													09			0.01	T	T	T	T				09	0.01	0.14			
10													10											10		0.00			
11													11											11		0.00			
12													12											12		0.00			
13													13											13		0.00			
14													14								T	T	0.02	0.07	14		0.09		
15	T	0.01			T			0.01					15								T	T		15		0.02			
16													16											16		0.00			
17													17											17		0.00			
18													18											18		0.00			
19													19											19		0.00			
20													20	T										20		T			
21													21											21		0.00			
22													22											22		0.00			
23													23											23		0.00			
24													24											24		0.00			
25													25						0.01		0.01		T	25	0.02	0.26			
26													26	T	T	T								26		0.25			
27		T	0.01	0.02	0.05	0.06	T	0.02	0.05	0.01	0.02	0.01	27											27		0.00			
28													28											28		0.00			
29													29											29		0.00			
30													30											30		T			
31													31											31		0.00			

MAXIMUM SHORT DURATION PRECIPITATION (See Note 1)

Time Period (Minutes)	5	10	15	20	30	45	60	80	100	120	150	180
Precipitation (Inches)	.13	.18	.24	.26	.28	.29	.30	.31	.34	.39	.46	.47
Ending Date	03	03	03	03	03	03	03	03	03	03	03	03
Ending Time (Hour/Min)	0617	0621	0626	0627	0627	0626	0627	0627	0751	0754	0825	0825

Date and time are not entered for TRACE amounts.

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

Note 2: The sum of the hourly totals is given when it differs from the daily total. NWS does not edit ASOS hourly values but may edit daily and monthly totals. Hourly, daily, and monthly totals are printed as reported by the ASOS site.

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	PE 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 MAY 1997

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 at constant pressure by evaporation of moisture into it, to 100% relative humidity.

ADDITIONAL NOTES:

DATE	SUNSHINE		CLOUDINESS (OKTAS)				VISIBILITY (MILES)		RESERVED
	TOTAL MINUTES	PERCENT POSSIBLE	SR-SS		MN-MN		MINIMUM	MAXIMUM	
			CEILOMETER	SATELLITE	CEILOMETER	SATELLITE			
01							5.00	10.00	
02							10.00	10.00	
03							1.25	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							2.50	10.00	
10							10.00	10.00	
11							10.00	10.00	
12							10.00	10.00	
13							10.00	10.00	
14							4.00	10.00	
15							8.00	10.00	
16							10.00	10.00	
17							10.00	10.00	
18							10.00	10.00	
19							10.00	10.00	
20							10.00	10.00	
21							10.00	10.00	
22							10.00	10.00	
23							10.00	10.00	
24							8.00	10.00	
25							7.00	10.00	
26							2.00	10.00	
27							4.00	10.00	
28							10.00	10.00	
29							10.00	10.00	
30							5.00	10.00	
31							10.00	10.00	
MONTHLY AVGS							8.28	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			24			

OBSERVATIONS AT 3-HOURLY INTERVALS

RICHMOND, VA

MAY 1997

RIC

WBAN # 13740

HOUR (LST)	≤ 12K FEET		SATELLITE		WEATHER	TEMPERATURE °F			WIND		PRESSURE (INCHES, HG)		HOUR (LST)	≤ 12K FEET		SATELLITE		WEATHER	TEMPERATURE °F			WIND		PRESSURE (INCHES, HG)											
	SKY COVER	CEILING 100'S OF FT	OBSERVATION TIME (LST)	EFF CLD AMT Oktas		VISIBILITY (MILES)	DRY BULB	DEW POINT	WET BULB	RELATIVE HUMIDITY (PCT)	SPEED (MPH)	DIRECTION TENS OF DEG		STATION	SEA LEVEL	SKY COVER	CEILING 100'S OF FT		OBSERVATION TIME (LST)	EFF CLD AMT Oktas	VISIBILITY (MILES)	DRY BULB	DEW POINT	WET BULB	RELATIVE HUMIDITY (PCT)	SPEED (MPH)	DIRECTION TENS OF DEG	STATION	SEA LEVEL						
SUNRISE: 0514						MAY 01						SUNSET: 1859						SUNRISE: 0508						MAY 07						SUNSET: 1904					
01	CLR	NC			10.00	58	51	54	78	13	18	29.57	29.76	01	CLR	NC			10.00	52	38	45	59	15	36	29.94	30.14								
04	FEW	NC			7.00	59	56	57	90	16	19	29.52	29.72	04	CLR	NC			10.00	48	38	43	68	10	36	29.98	30.18								
07	OVC	012			6.00	61	56	58	84	16	19	29.51	29.71	07	CLR	NC			10.00	53	38	46	57	9	36	30.03	30.23								
10	CLR	NC			10.00	73	60	65	64	23	21	29.47	29.67	10	CLR	NC			10.00	62	28	47	28	15	28	30.05	30.25								
13	SCT	NC			10.00	78	60	67	54	20	22	29.40	29.60	13	FEW	NC			10.00	67	31	50	26	16	27	29.96	30.16								
16	SCT	NC			10.00	75	64	68	69	13	21	29.34	29.54	16	FEW	NC			10.00	72	30	52	21	17	27	29.89	30.09								
19	SCT	NC			10.00	75	40	56	28	10	28	29.40	29.59	19	CLR	NC			10.00	68	34	52	28	6	25	29.88	30.09								
22	CLR	NC			10.00	66	37	52	34	14	32	29.60	29.80	22	CLR	NC			10.00	56	39	48	53	3	06	29.97	30.17								
SUNRISE: 0513						MAY 02						SUNRISE: 0507						MAY 08						SUNSET: 1905											
01	CLR	NC			10.00	57	36	47	45	10	34	29.72	29.92	01	CLR	NC			10.00	51	34	43	52	5	02	29.99	30.19								
04	CLR	NC			10.00	51	36	44	56	6	01	29.80	30.01	04	CLR	NC			10.00	45	36	41	71	3	34	30.01	30.21								
07	CLR	NC			10.00	54	36	46	51	7	02	29.90	30.10	07	CLR	NC			10.00	51	38	45	61	3	VR	30.05	30.25								
10	CLR	NC			10.00	63	36	50	37	5	VR	29.92	30.12	10	CLR	NC			10.00	61	32	48	34	5	08	30.03	30.24								
13	CLR	NC			10.00	69	36	53	30	9	22	29.87	30.08	13	CLR	NC			10.00	67	39	53	36	6	14	29.94	30.14								
16	CLR	NC			10.00	72	39	55	30	8	21	29.83	30.03	16	CLR	NC			10.00	69	44	56	41	8	14	29.86	30.06								
19	CLR	NC			10.00	64	43	53	46	9	17	29.81	30.01	19	OVC	075			10.00	60	49	54	67	6	08	29.85	30.06								
22	CLR	NC			10.00	60	47	53	62	13	16	29.84	30.04	22	OVC	100			10.00	60	50	55	70	13	15	29.77	29.97								
SUNRISE: 0512						MAY 03						SUNRISE: 0506						MAY 09						SUNSET: 1906											
01	BKN	026			10.00	58	47	52	67	16	18	29.76	29.97	01	BKN	095			10.00	62	52	56	70	12	20	29.72	29.92								
04	BKN	023			10.00	59	53	56	81	13	18	29.71	29.91	04	CLR	NC			10.00	58	50	54	75	7	23	29.69	29.89								
07	OVC	018			2.00	60	58	59	93	10	18	29.66	29.86	07	CLR	NC			10.00	61	53	57	75	8	25	29.69	29.89								
10	CLR	NC			10.00	65	64	64	97	15	17	29.55	29.75	10	CLR	NC			10.00	71	55	62	57	9	22	29.66	29.86								
13	FEW	NC			10.00	76	58	65	54	26	23	29.46	29.66	13	CLR	NC			10.00	74	53	62	48	7	21	29.58	29.78								
16	SCT	NC			10.00	72	58	63	61	26	22	29.42	29.62	16	OVC	032			7.00	60	58	59	93	7	28	29.59	29.80								
19	CLR	NC			10.00	68	56	61	66	14	22	29.42	29.62	19	BKN	120			10.00	58	55	56	91	9	27	29.54	29.75								
22	CLR	NC			10.00	65	57	60	76	13	22	29.47	29.67	22	SCT	NC			10.00	65	55	56	91	8	32	29.62									
SUNRISE: 0511						MAY 04						SUNRISE: 0505						MAY 10						SUNSET: 1907											
01	CLR	NC			10.00	60	43	51	53	13	28	29.56	29.76	01	SCT	NC			10.00	57	54	55	90	10	31	29.64	29.84								
04	CLR	NC			10.00	55	40	48	57	17	29	29.64	29.84	04	CLR	NC			10.00	52	50	51	93	8	27	29.64	29.84								
07	CLR	NC			10.00	55	35	46	47	13	32	29.77	29.97	07	CLR	NC			10.00	53	50	51	91	9	27	29.68	29.88								
10	FEW	NC			10.00	61	35	49	38	22	29	29.81	30.01	10	SCT	NC			10.00	59	36	48	42	12	31	29.68									
13	SCT	NC			10.00	66	36	51	33	17	29	29.80	30.00	13	BKN	055			10.00	65	37	51	36	16	29	29.67	29.87								
16	FEW	NC			10.00	65	33	50	31	16	29	29.80	30.01	16	OVC	055			10.00	60	51	55	72	14	32	29.70	29.90								
19	SCT	NC			10.00	61	34	48	36	13	29	29.86	30.06	19	BKN	080			10.00	58	54	56	86	5	34	29.76	29.96								
22	FEW	NC			10.00	54	38	46	55	7	25	29.94	30.14	22	SCT	NC			10.00	55	51	53	86	7	31	29.84	30.04								
SUNRISE: 0510						MAY 05						SUNRISE: 0504						MAY 11						SUNSET: 1907											
01	FEW	NC			10.00	45	30	39	56	3	23	29.95	30.16	01	CLR	NC			10.00	52	49	50	91	3	27	29.85	30.06								
04	CLR	NC			10.00	48	31	41	52	5	28	29.97	30.17	04	CLR	NC			10.00	46	44	45	92	5	25	29.86	30.06								
07	FEW	NC			10.00	51	31	42	46	5	28	30.03	30.23	07	CLR	NC			10.00	50	47	49	88	8	27	29.90	30.11								
10	FEW	NC			10.00	68	35	52	30	6	22	30.03	30.24	10	FEW	NC			10.00					7	35	29.90									
13	CLR	NC			10.00	68	30	50	24	10	22	29.97	30.17	13	FEW	NC			10.00	69	33	52	26	12	27	29.82	30.02								
16	CLR	NC			10.00	70	30	51	23	10	21	29.89	30.09	16	CLR	NC			10.00	73	31	53	21	8	25	29.76	29.96								
19	CLR	NC			10.00	64	35	50	34	10	19	29.85	30.06	19	CLR	NC			10.00	69	34	52	27	8	25	29.74	29.94								
22	CLR	NC			10.00	59	38	49	46	13	19	29.84	30.04	22	CLR	NC			10.00	60	39	50	46	5	20	29.74									
SUNRISE: 0509						MAY 06						SUNRISE: 0503						MAY 12						SUNSET: 1908											
01	BKN	100			10.00	60	40	50	48	15	20	29.77	29.98	01	CLR	NC			10.00	57	36	47	45	6	20	29.72	29.92								
04	OVC	100			10.00	60	41	51	50	10	21	29.74	29.94	04	CLR	NC			10.00	54	40	47	59	3	21	29.69	29.90								
07	SCT	NC			10.00	57	47	52	69	13	22	29.75	29.95	07	CLR	NC			10.00	58	43	50	58	9	22	29.70	29.91								
10	CLR	NC			10.00	69	46	56	43	18	24	29.72	29.92	10	CLR	NC			10.00	72	44	57	37	14	24	29.66	29.86								
13	BKN	075			10.00	75	44	58	33	17	25	29.67	29.86	13	FEW	NC			10.00	82	40	60	22	20	23	29.59	29.79								
16	CLR	NC			10.00	77	32	55	19	23	32	29.68	29.88	16	FEW	NC			10.00	80	44	60	29	15	21	29.55	29.75								
19	CLR	NC			10.00	69	30	51	23	10	33	29.76	29.96	19	FEW	NC			10.00	70	48	58	46	9	20	29.54	29.75								
22	CLR	NC			10.00	55	37	47	51	0	00	29.87	30.07	22	CLR	NC			10.00	67	50	58	55	12	19	29.56	29.75								

OBSERVATIONS AT 3-HOURLY INTERVALS

RICHMOND, VA

MAY 1997

RIC

WBAN # 13740

HOUR (LST)	≤ 12K FEET		SATELLITE		WEATHER	TEMPERATURE °F				WIND		PRESSURE (INCHES, HG)		HOUR (LST)	≤ 12K FEET		SATELLITE		WEATHER	TEMPERATURE °F				WIND		PRESSURE (INCHES, HG)									
	SKY COVER	CEILING 100'S OF FT	OBSERVATION TIME (LST)	EFF CLD AMT Oktas		VISIBILITY (MILES)	DRY BULB	DEW POINT	WET BULB	RELATIVE HUMIDITY (PCT)	SPEED (MPH)	DIRECTION TENS OF DEG	STATION		SEA LEVEL	SKY COVER	CEILING 100'S OF FT	OBSERVATION TIME (LST)		EFF CLD AMT Oktas	VISIBILITY (MILES)	DRY BULB	DEW POINT	WET BULB	RELATIVE HUMIDITY (PCT)	SPEED (MPH)	DIRECTION TENS OF DEG	STATION	SEA LEVEL						
																														WEATHER	WEATHER				
SUNRISE: 0502						MAY 13						SUNSET: 1909						SUNRISE: 0457						MAY 19						SUNSET: 1914					
01	CLR	NC			10.00	64	56	59	75	9	19	29.52	29.72	01	SCT	NC			10.00	72	52	60	50	7	22	29.66	29.85								
04	OVC	023			10.00	62	57	59	84	5	24	29.52	29.72	04	BKN	100			10.00	71	53	61	53	7	21	29.65	29.84								
07	OVC	070			10.00	58	46	52	65	8	02	29.52	29.72	07	CLR	NC			10.00	72	55	62	54	8	24	29.69	29.89								
10	OVC	045			10.00	63	46	54	54	14	01	29.51	29.71	10	CLR	NC			10.00	84	56	67	38	14	26	29.68	29.88								
13	BKN	048			10.00	65	46	55	51	8	02	29.48	29.68	13	FEW	NC			10.00	93	56	70	29	14	25	29.64	29.84								
16	SCT	NC			10.00	60	44	52	56	15	36	29.51	29.72	16	FEW	NC			10.00	93	58	70	31	14	23	29.58	29.78								
19	FEW	NC			10.00	54	44	49	69	7	36	29.56	29.76	19	CLR	NC			10.00	85	59	69	42	13	21	29.56	29.76								
22	CLR	NC			10.00	49	44	47	83	5	14	29.61	29.82	22	BKN	085			10.00	81	60	68	49	13	22	29.61	29.81								
SUNRISE: 0501						MAY 14						SUNSET: 1910						SUNRISE: 0456						MAY 20						SUNSET: 1915					
01	CLR	NC			10.00	45	43	44	93	3	19	29.64	29.85	01	BKN	110			10.00	80	61	68	52	10	24	29.59	29.79								
04	CLR	NC			8.00	42	42	42	100	5	18	29.67	29.88	04	FEW	NC			10.00	73	63	67	71	5	20	29.57	29.76								
07	CLR	NC			7.00	49	45	47	86	3	24	29.72	29.93	07	SCT	NC			10.00	74	63	67	70	7	26	29.60	29.79								
10	CLR	NC			10.00	64	44	54	48	7	VR	29.73	29.93	10	FEW	NC			10.00	78	62	68	59	6	29	29.64	29.83								
13	FEW	NC			10.00	72	38	55	29	16	23	29.68	29.88	13	BKN	021			10.00	71	62	65	73	13	01	29.66	29.85								
16	BKN	080			10.00	73	39	55	29	7	24	29.63	29.83	16	BKN	120			10.00	75	61	66	62	6	02	29.64	29.84								
19	BKN	090			10.00	68	48	57	49	6	16	29.62	29.82	19	SCT	NC			10.00	70	56	62	61	8	05	29.66	29.85								
22	OVC	085			10.00	63	50	56	63	8	19	29.61	29.81	22	OVC	050			10.00	65	48	56	54	9	03	29.73	29.93								
SUNRISE: 0500						MAY 15						SUNSET: 1911						SUNRISE: 0456						MAY 21						SUNSET: 1916					
01	BKN	090			8.00	57	55	56	93	0	00	29.62	29.82	01	OVC	070			10.00	61	37	49	41	22	02	29.79	29.99								
04	BKN	120			10.00	57	55	56	93	8	20	29.56	29.76	04	OVC	070			10.00	56	33	46	42	12	01	29.80	30.00								
07	BKN	110			10.00	60	56	58	86	10	23	29.59	29.79	07	BKN	080			10.00	57	36	47	45	5	36	29.85	30.05								
10	CLR	NC			10.00	72	56	62	57	14	27	29.57	29.77	10	FEW	NC			10.00	65	35	51	33	6	VR	29.86	30.06								
13	SCT	NC			10.00	76	51	62	42	16	25	29.52	29.71	13	BKN	080			10.00	70	37	53	30	15	33	29.82	30.02								
16	CLR	NC			10.00	79	48	61	34	15	24	29.44	29.64	16	BKN	085			10.00	69	37	53	31	8	02	29.80	30.01								
19	FEW	NC			10.00	74	44	58	34	8	29	29.43	29.63	19	FEW	NC			10.00	63	35	50	35	12	01	29.85	30.05								
22	BKN	110			10.00	65	33	50	31	7	31	29.52	29.72	22	FEW	NC			10.00	54	36	46	51	5	VR	29.91	30.12								
SUNRISE: 0459						MAY 16						SUNSET: 1912						SUNRISE: 0455						MAY 22						SUNSET: 1917					
01	CLR	NC			10.00	50	32	42	50	15	30	29.65	29.85	01	CLR	NC			10.00	51	34	43	52	6	33	29.95	30.15								
04	CLR	NC			10.00	47	32	41	56	12	28	29.70	29.90	04	CLR	NC			10.00	47	33	41	59	8	33	29.95	30.15								
07	CLR	NC			10.00	50	34	43	54	10	28	29.76	29.96	07	CLR	NC			10.00	54	32	44	43	9	31	29.98	30.19								
10	CLR	NC			10.00	59	33	47	38	12	30	29.79	29.99	10	CLR	NC			10.00	62	29	47	29	15	35	29.98	30.19								
13	FEW	NC			10.00	64	33	49	32	12	29	29.76	29.97	13	CLR	NC			10.00	67	34	51	30	9	33	29.93	30.13								
16	FEW	NC			10.00	67	32	50	27	13	28	29.74	29.94	16	CLR	NC			10.00	71	33	53	25	15	32	29.87	30.07								
19	CLR	NC			10.00	64	34	50	33	10	24	29.75	29.96	19	CLR	NC			10.00	66	35	51	32	8	36	29.88	30.08								
22	CLR	NC			10.00	56	35	46	46	7	25	29.80	30.00	22	CLR	NC			10.00	53	41	47	64	5	36	29.95	30.15								
SUNRISE: 0459						MAY 17						SUNSET: 1913						SUNRISE: 0454						MAY 23						SUNSET: 1918					
01	CLR	NC			10.00	47	38	43	71	0	00	29.80	30.00	01	CLR	NC			10.00	49	40	45	71	0	00	29.99	30.19								
04	CLR	NC			10.00	44	37	41	76	0	00	29.80	30.00	04	CLR	NC			10.00	48	36	43	63	6	36	30.02	30.22								
07	FEW	NC			10.00	52	40	46	64	8	20	29.79	29.99	07	CLR	NC			10.00	54	37	46	53	12	01	30.06	30.27								
10	CLR	NC			10.00	68	37	53	32	16	23	29.76	29.96	10	CLR	NC			10.00	64	35	50	34	10	29	30.08	30.28								
13	CLR	NC			10.00	73	39	55	29	18	21	29.68	29.88	13	CLR	NC			10.00	70	35	53	28	8	31	30.01	30.21								
16	CLR	NC			10.00	73	41	56	32	24	26	29.64	29.85	16	CLR	NC			10.00	73	36	54	26	7	VR	29.95	30.15								
19	CLR	NC			10.00	72	47	58	41	14	28	29.67	29.87	19	CLR	NC			10.00	69	36	53	30	3	VR	29.95	30.15								
22	CLR	NC			10.00	65	42	53	44	9	28	29.74	29.94	22	CLR	NC			10.00	58	44	51	60	3	12	29.97	30.17								
SUNRISE: 0458						MAY 18						SUNSET: 1913						SUNRISE: 0454						MAY 24						SUNSET: 1918					
01	CLR	NC			10.00	55	44	50	67	3	17	29.75	29.95	01	CLR	NC			10.00	54	46	50	75	5	13	29.97	30.17								
04	CLR	NC			10.00	51	47	49	86	3	19	29.76	29.96	04	CLR	NC			10.00	50	47	48	89	0	00	29.94	30.14								
07	CLR	NC			10.00	58	51	54	78	3	16	29.80	30.00	07	CLR	NC			10.00	60	54	57	80	7	17	29.95	30.15								
10	CLR	NC			10.00	76	54	63	47	6	24	29.80	30.00	10	CLR	NC			10.00	74	53	62	48	5	22	29.93	30.13								
13	FEW	NC			10.00	86	53	66	32	8	24	29.74	29.93	13	SCT	NC			10.00	81	54	65	39	12	22	29.87	30.07								
16	SCT	NC			10.00	88	50	65	27	13	25	29.69	29.89	16	FEW	NC			10.00	83	54	65	37	13	22	29.81	30.01								
19	CLR	NC			10.00	85	55	67	36	6	20	29.67	29.87	19	CLR	NC			10.00	75	58	65	55	6	18	29.78	29.98								
22	CLR	NC			10.00	76	54	63	47	7	21	29.68	29.88	22	CLR	NC			10.00	71	58	63	63	7	16	29.79	29.99								

OBSERVATIONS AT 3-HOURLY INTERVALS

RICHMOND, VA

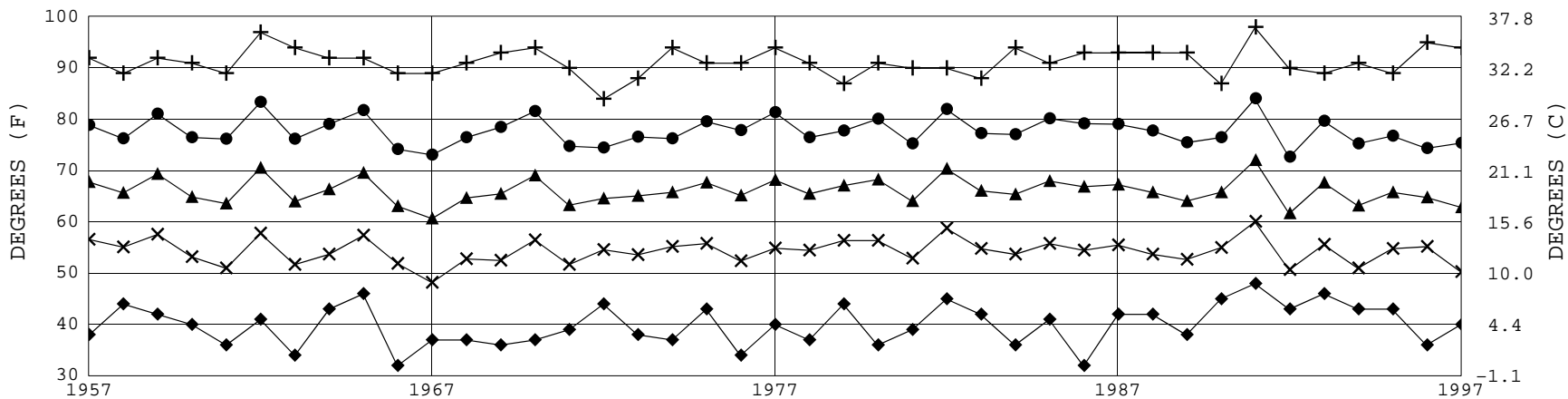
MAY 1997

RIC

WBAN # 13740

HOUR (LST)	≤ 12K FEET		SATELLITE		WEATHER	TEMPERATURE °F			WIND	PRESSURE (INCHES, HG)		HOUR (LST)	≤ 12K FEET		SATELLITE		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: 0453						MAY 25						SUNSET: 1919						SUNRISE: 0450						MAY 31						SUNSET: 1923					
01	CLR	NC		10.00		69	57	62	66	14	20	29.77	29.97	01	CLR	NC		10.00		63	60	61	90	0	00	29.89	30.09								
04	CLR	NC		10.00		67	60	63	79	12	21	29.74	29.94	04	CLR	NC		10.00		58	57	57	97	0	00	29.88	30.08								
07	BKN	120		10.00		69	63	65	81	14	20	29.73	29.93	07	CLR	NC		10.00		64	61	62	90	0	00	29.90	30.09								
10	SCT	NC		10.00		77	65	69	66	21	22	29.69	29.89	10	FEW	NC		10.00		75	60	66	60	5	10	29.87	30.07								
13	BKN	019		9.00		75	67	70	76	20	20	29.65	29.85	13	BKN	044		10.00		78	61	67	56	5	VR	29.82	30.02								
16	SCT	NC		10.00		77	67	70	71	17	21	29.57	29.77	16	SCT	NC		10.00		79	62	68	56	5	08	29.75	29.95								
19	SCT	NC		8.00	-TSRA	74	69	71	85	15	18	29.54	29.74	19	SCT	NC		10.00		77	62	68	60	5	09	29.72	29.92								
22	OVC	014		10.00		70	69	69	97	17	21	29.55	29.75	22	OVC	055		10.00		69	64	66	84	9	12	29.74	29.94								
SUNRISE: 0453						MAY 26						SUNSET: 1920						3-HOURLY OBSERVATION NOTES																	
01	OVC	060		10.00		70	67	68	90	12	21	29.53	29.72	Sky Cover is the amount of the sky obscured. CLR = 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	BKN	070		5.00	-RA BR	68	67	67	96	7	22	29.51	29.71																						
07	OVC	007		6.00	-RA BR	61	60	60	97	15	02	29.56	29.76																						
10	OVC	009		2.00	-RA BR	59	57	58	93	17	02	29.64	29.84																						
13	BKN	019		4.00	DZ BR	59	58	58	96	9	03	29.68	29.88																						
16	BKN	025		9.00		61	57	59	87	8	04	29.71	29.91																						
19	OVC	095		8.00		60	57	58	90	5	04	29.75	29.95																						
22	CLR	NC		3.00	BR	55	55	55	100	0	00	29.80	30.01																						
SUNRISE: 0452						MAY 27						SUNSET: 1921						SUMMARY BY HOUR																	
01	CLR	NC		4.00	BR	53	52	52	96	3	02	29.82	30.03	AVERAGES																					
04	BKN	026		7.00		55	53	54	93	5	35	29.86	30.06	HOUR (LST)	CEILOMETER	EFF CLD AMT	DRY BULB	DEW POINT	WET BULB	RELATIVE HUMIDITY	PRESSURE (INCHES, HG)		VISIBILITY (MILES)	WIND SPEED (MPH)	RESULTANT WIND (MPH)										
07	BKN	100		10.00		55	52	53	90	8	03	29.93	30.14								STATION	SEA LEVEL			SPEED	DIRECTION									
10	BKN	110		10.00		63	49	55	60	9	08	30.00	30.20	01			57	46	51	70	29.79	29.99	9.74	8	2	27									
13	BKN	043		10.00		64	49	56	58	13	08	30.02	30.23	02			56	46	51	72	29.79	29.99	9.81	8	3	27									
16	BKN	070		10.00		64	49	56	58	9	10	30.03	30.24	03			55	46	50	76	29.79	29.99	9.68	7	2	27									
19	FEW	NC		10.00		59	50	54	72	12	10	30.09	30.29	04			54	46	50	76	29.79	29.99	9.48	7	3	27									
22	CLR	NC		10.00		51	48	50	89	6	06	30.16	30.36	05			53	46	50	78	29.80	30.01	9.32	7	2	25									
SUNRISE: 0452						MAY 28						SUNSET: 1921						06			54	47	51	78	29.81	30.01	9.39	7	2	26					
01	CLR	NC		10.00		47	45	46	93	6	03	30.16	30.36	07			57	47	52	71	29.82	30.03	9.32	8	2	24									
04	CLR	NC		10.00		44	42	43	93	8	01	30.18	30.38	08			61	48	54	64	29.83	30.04	9.40	8	2	27									
07	CLR	NC		10.00		51	47	49	86	9	01	30.23	30.43	09			64	48	56	57	29.83	30.03	9.48	9	4	27									
10	CLR	NC		10.00		61	43	52	52	13	06	30.25	30.45	10			67	46	56	49	29.82	30.02	9.73	10	4	23									
13	CLR	NC		10.00		67	39	53	36	14	09	30.21	30.41	11			69	46	57	46	29.81	30.01	9.76	10	5	27									
16	CLR	NC		10.00		67	39	53	36	14	13	30.19	30.39	12			71	46	58	44	29.79	29.99	9.87	11	5	27									
19	CLR	NC		10.00		60	40	50	48	6	13	30.20	30.40	13			72	45	58	41	29.77	29.97	9.77	12	6	27									
22	CLR	NC		10.00		50	42	46	74	6	12	30.20	30.40	14			72	45	58	41	29.76	29.96	9.81	11	6	27									
SUNRISE: 0451						MAY 29						SUNSET: 1922						15			72	46	58	43	29.75	29.95	9.56	12	5	30					
01	CLR	NC		10.00		45	42	44	90	0	00	30.19	30.39	16			72	46	58	43	29.74	29.94	9.87	11	5	27									
04	CLR	NC		10.00		43	41	42	93	0	00	30.17	30.37	17			72	46	58	44	29.73	29.93	9.84	10	4	27									
07	CLR	NC		10.00		53	47	50	80	7	09	30.18	30.39	18			71	46	58	44	29.73	29.93	9.97	9	3	27									
10	FEW	NC		10.00		64	48	55	56	3	01	30.16	30.36	19			68	47	57	51	29.75	29.95	9.87	8	2	27									
13	FEW	NC		10.00		71	42	56	35	7	16	30.11	30.31	20			64	48	56	59	29.76	29.96	9.87	7	1	27									
16	FEW	NC		10.00		71	54	61	55	14	12	30.06	30.27	21			62	48	55	62	29.78	29.98	9.68	8	2	27									
19	CLR	NC		10.00		64	53	58	68	13	11	30.08	30.28	22			61	47	54	63	29.79	30.00	9.77	7	3	27									
22	OVC	095		10.00		60	54	57	80	9	12	30.09	30.29	23			60	48	54	66	29.80	30.00	9.81	8	3	27									
SUNRISE: 0451						MAY 30						SUNSET: 1923						24			58	47	52	68	29.80	30.00	9.55	8	2	27					
01	OVC	060		10.00		59	57	58	93	5	15	30.06	30.26																						
04	OVC	004		7.00		59	58	58	96	0	00	30.04	30.24																						
07	OVC	060		8.00		60	58	59	93	0	00	30.05	30.25																						
10	OVC	050		10.00		68	59	63	73	5	35	30.05	30.25																						
13	BKN	060		10.00		75	58	65	55	5	VR	30.00	30.19																						
16	BKN	055		10.00		75	59	65	58	7	13	29.94	30.14																						
19	BKN	055		10.00		71	60	64	68	3	11	29.93	30.13																						
22	CLR	NC		10.00		65	59	61	81	3	13	29.94	30.14																						

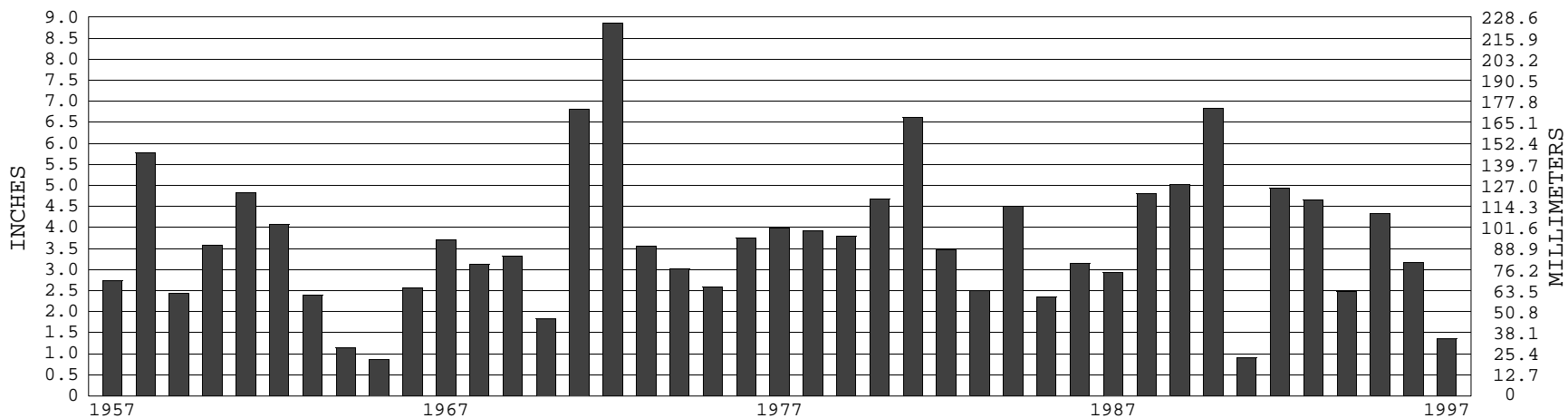
RICHMOND, VA MAY TEMPERATURES



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

Long-Term (1957-1997) Mean: 66.0 1961-1990 Normal: 66.0

RICHMOND, VA MAY PRECIPITATION



Long-Term (1957-1997) Mean Monthly Total: 3.70

1961-1990 Normal: 3.84



MAY 1997
RICHMOND, VA

LOCAL CLIMATOLOGICAL DATA

NOAA, National Climatic Data Center

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Kenneth D Hadean

DIRECTOR

NOTICE

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

We welcome your questions or comments, please contact us at
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