



JUNE 2013 LOCAL CLIMATOLOGICAL DATA NOAA, National Climatic Data Center

RICHMOND, VA
RICHMOND INTERNATIONAL AIRPORT (KRIC)
 Lat:37° 30'N Long: 77° 19'W Elev (Ground) 164 Feet
 Time Zone : EASTERN WBAN: 13740 ISSN#: 0198-537X



Date 1	Temperature °F						Deg Days BASE 65°		WEATHER 10	SNOW/ICE ON GND(IN)		PRECIPITATION ON GND(IN)		PRESSURE (INCHES OF HG)		WIND SPEED = MPH DIR = TENS OF DEGREES								Date 24
	MAXIMUM 2	MINIMUM 3	AVERAGE 4	DEP FROM NORMAL 5	AVERAGE DEW PT 6	AVERAGE WET BULB 7	HEATING 8	COOLING 9		0700 LST 11	1300 LST 12	2400 LST 13	2400 LST 14	AVERAGE STATION 15	AVERAGE SEA LEVEL 16	RESULTANT SPEED 17	RES DIR 18	AVERAGE SPEED 19	MAXIMUM					
																			3-SEC		2-MIN			
01	93	69	81	11	66	71	0	16		0		0.0	0.00	29.86	30.05	12.0	21	12.2	32	20	21	20	01	
02	90	69	80	10	66	70	0	15	TS TSRA RA BR	0		0.0	0.30	29.78	29.95	10.7	21	11.3	28	21	23	21	02	
03	86	70	78	8	67	70	0	13	RA	0		0.0	0.02	29.70	29.89	3.0	23	5.6	18	23	16	23	03	
04	81	59	70	0	51	60	0	5		0		0.0	0.00	29.86	30.07	4.7	02	5.9	23	36	18	01	04	
05	82	57*	70	0	54	61	0	5		0		0.0	0.00	29.95	30.13	4.2	13	5.1	20	16	15	15	05	
06	79	58	69*	-1	62	65	0	4	RA	0		0.0	T	29.80	29.96	8.8	13	9.2	28	13	20	15	06	
07	74	70	72	1	69	70	0	7	TS TSRA RA BR	0		0.0	2.67	29.52	29.70	1.3	02	8.6	24	30	18	30	07	
08	82	66	74	3	66	68	0	9	RA BR	0		0.0	0.44	29.74	29.97	2.3	20	3.2			15	26	08	
09	87	65	76	4	68	70	0	11		0		0.0	0.00	29.95	30.13	5.0	13	6.0	24	14	20	14	09	
10	82	73	78	5	72	73	0	13	RA BR	0		0.0	0.34	29.81	29.98	9.3	19	9.8	38	19	30	19	10	
11	88	71	80	7	66	70	0	15	RA	0		0.0	T	29.67	29.87	9.7	25	10.7	25	27	20	27	11	
12	92	66	79	5	68	72	0	14		0		0.0	0.00	29.69	29.88	6.6	25	7.3	22	27	17	27	12	
13	95	69	82	8	70	72	0	17	TS TSRA RA FG BR	0		0.0	0.62	29.49	29.66	9.5	24	11.0	48*	29	39*	30	13	
14	80	64	72	-2	55	61	0	7		0		0.0	0.00	29.64	29.86	7.7	34	9.3	28	35	21	35	14	
15	85	59	72	-2	57	64	0	7		0		0.0	0.00	29.86	30.05	3.3	25	4.4	21	25	13	27	15	
16	91	65	78	4	65	70	0	13	TS TSRA RA	0		0.0	T	29.82	30.00	9.9	23	10.3	26	21	21	25	16	
17	85	71	78	4	70	72	0	13	RA BR	0		0.0	0.17	29.78	29.97	7.3	20	7.9	18	20	16	19	17	
18	80	67	74	0	70	71	0	9	TS TSRA RA BR	0		0.0	0.75	29.67	29.86	2.2	20	6.6	23	27	18	19	18	
19	77	65	71	-3	64	67	0	6	BR	0		0.0	0.00	29.83	30.04	3.0	04	5.2	20	20	12	01	19	
20	81	62	72	-3	57	63	0	7		0		0.0	0.00	30.06	30.25	3.7	11	3.9	18	14	14	13	20	
21	83	58	71	-4	61	65	0	6		0		0.0	0.00	30.09	30.27	2.9	09	3.9	17	10	14	12	21	
22	86	65	76	1	67	69	0	11	TS TSRA RA BR	0		0.0	0.19	30.04	30.23	3.5	12	5.6	22	17	18	18	22	
23	86	69	78	3	71	73	0	13	RA DZ BR	0		0.0	0.24	29.97	30.16	6.5	20	8.1	22	20	18	10	23	
24	91	72	82	7	72	75	0	17	TS BR	0		0.0	0.00	29.94	30.12	7.9	20	8.1	24	23	15	19	24	
25	96*	73	85*	9	70	75	0	20	BR	0		0.0	0.00	29.84	30.02	7.4	23	8.4	25	22	14	22	25	
26	95	73	84	8	71	74	0	19	TS TSRA RA BR	0		0.0	0.29	29.74	29.91	7.0	22	8.2	30	26	22	25	26	
27	89	70	80	4	70	73	0	15		0		0.0	0.00	29.59	29.76	9.5	21	10.7	32	25	24	23	27	
28	93	73	83	7	70	73	0	18	TS RA BR	0		0.0	T	29.43	29.60	9.6	22	10.4	28	21	22	21	28	
29	91	72	82	6	70	73	0	17	RA	0		0.0	0.12	29.44	29.65	6.9	20	8.1	21	19	16	19	29	
30	88	73	81	4	72	74	0	16	TS TSRA RA BR	0		0.0	0.35	29.61	29.80	7.7	18	8.3	22	19	17	26	30	

86.3	67.1	76.7	☼	65.9	69.5	0.0	11.9	< MONTHLY AVERAGES TOTALS >				0.0	6.50	29.77	29.96	4.2	21	7.8	< MONTHLY AVERAGES			
0.2	2.6	1.4		-----DEPARTURE FROM NORMAL -----								2.57	SUNSHINE, CLOUD, & VISIBILITY TABLES ON PAGE 3									
DEGREE DAYS				SEASON TO DATE				GREATEST 24-HR PRECIPITATION : 2.67 DATE : 07				SEA LEVEL PRESSURE				DATE TIME						
MONTHLY				TOTAL DEPARTURE				GREATEST 24-HR SNOWFALL : 0.0 DATE :				MAXIMUM : 30.30				21 0854						
TOTAL DEPARTURE				TOTAL DEPARTURE				GREATEST SNOW DEPTH : 0 DATE :				MINIMUM : 29.52				28 1718						
HEATING :		0 -7		3690		-83		NUMBER OF ->		MAXIMUM TEMP >= 90 : 10		MINIMUM TEMP <= 32 : 0		PRECIPITATION >= 0.01 INCH : 13								
COOLING :		358 43		571		95		DAYS WITH		MAXIMUM TEMP <= 32 : 0		MINIMUM TEMP <= 0 : 0		PRECIPITATION >= 0.10 INCH : 12								
										THUNDERSTORMS : 10		HEAVY FOG : 0		SNOWFALL >= 1.0 INCH : 0								

**JUNE 2013
RICHMOND, VA**

HOURLY PRECIPITATION

(WATER EQUIVALENT IN INCHES)

RICHMOND, VA (KRIC)
JUNE 2013

WBAN # 13740

Date	FOR HOUR (LST) ENDING AT												Date	FOR HOUR (LST) ENDING AT												Date	Sum of Hourly Data	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													01												01	0.00	0.00	
02													02												02	0.30	0.30	
03	T	0.01	T							T		T	03		0.01				T	0.12	0.10	0.08	T	T	T	03	0.02	0.02
04													04											T	T	04	0.00	0.00
05													05												05	0.00	0.00	
06													06			T				T	T	T	T	T	06	T	T	
07	T	T	T	0.01	0.04	0.07	0.13	0.25	0.25	0.19	0.05	0.35	07	0.42	0.24	0.12	0.04	0.06	0.22	0.19	0.04	T	T	T	07	2.67	2.67	
08							T	0.01	0.03	0.38	0.02	T	08											08	0.44	0.44		
09													09												09	0.00	0.00	
10		T		0.05			T	T	T	T		0.06	10	0.02	0.07				T	0.08	0.06		T	10	0.34	0.34		
11						T							11											11	T	T		
12													12											12	0.00	0.00		
13													13			0.61	T	0.01	T					13	0.62	0.62		
14													14											14	0.00	0.00		
15													15											15	0.00	0.00		
16													16										T	16	T	T		
17		T	T	0.03	T	0.02	0.11	T	0.01			T	17											17	0.17	0.17		
18								T	0.01			T	18	0.33	T		0.38	0.03	T	T				18	0.75	0.75		
19													19											19	0.00	0.00		
20													20											20	0.00	0.00		
21													21											21	0.00	0.00		
22													22			0.01	0.15			T	0.02		0.01	T	22	0.19	0.19	
23	0.01	0.02	0.14	0.04	T	0.01	T	T	T	0.02			23											23	0.24	0.24		
24													24											24	0.00	0.00		
25													25											25	0.00	0.00		
26													26						0.13	0.09	0.07	T		26	0.29	0.29		
27													27											27	0.00	0.00		
28													28			T	T	T						28	T	T		
29	0.12	T											29											29	0.12	0.12		
30					0.18					T			30										T	0.17	30	0.35	0.35	

* Indicates sum of Hourly and Daily disagree.

MAXIMUM SHORT DURATION PRECIPITATION (See Note)

Time Period (Minutes)	5	10	15	20	30	45	60	80	100	120	150	180
Precipitation (Inches)	0.41	0.55	0.58	0.60	0.60	0.61	0.61	0.66	0.71	0.77	0.93	1.01
Ending Date	13	13	13	13	13	13	13	07	07	07	07	07
Ending Time (Hr/Min)	1530	1532	1537	1540	1540	1556	1556	1227	1252	1303	1347	1350

Note : The hourly and daily precipitation totals are printed in the last 2 columns and hi-lighted in red when they disagree. 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.

Date and time are not entered for TRACE amounts.

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.

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).

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	
PR Partial	RA Rain	PY Spray	SQ Squalls
SH Shower(s)	SG Snow Grains	SA Sand	SS Sandstorm
TS Thunderstorm	SN Snow	VA Volcanic Ash	
VC In the Vicinity	UP Unkown Precipitation		GL Glaze

Intensity (as indicated on pages 4 to 6):
'+' = Heavy '' = Moderate '-' = Light

RICHMOND, VA JUNE 2013

Sky Condition is based on the sum (not to exceed 8) of the sunrise to sunset cloud cover below and above 12,000 feet.

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.

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

NORMALS ARE FOR THE YEARS 1981-2010

ADDITIONAL NOTES & ERRATA:

Station Augmentation-SANDSTON COOP
Lat/Lon:37.54417/-77.27583 Elevation:165
Distance:4 MI Dir:E
Augmented Elements:Temp, Precip, Snow
Equipment:MMTS, SRG, Snowboard

Beginning with the January 2013 LCD, monthly mean temperature calculations have changed to the National Data Stewardship Team standard. Monthly maximum and minimum temperature are not rounded until after monthly mean temperature is calculated. This is the most accurate outcome, but may be slightly different from the mean derived from rounded monthly maximum and minimum.

Beginning in Jun 2013 Monthly Max & Min SLP is being calculated from hourly data received and Not from Monthly Summary Message from ASOS.

Date	VISIBILITY (MILES)	
	MINIMUM	MAXIMUM
01	10.00	10.00
02	3.00	10.00
03	10.00	10.00
04	10.00	10.00
05	10.00	10.00
06	10.00	10.00
07	1.75	10.00
08	1.25	10.00
09	7.00	10.00
10	4.00	10.00
11	7.00	10.00
12	9.00	10.00
13	5.00	10.00
14	10.00	10.00
15	10.00	10.00
16	10.00	10.00
17	3.00	10.00
18	0.75	10.00
19	2.50	10.00
20	9.00	10.00
21	9.00	10.00
22	5.00	10.00
23	2.00	10.00
24	5.00	10.00
25	6.00	10.00
26	3.00	10.00
27	8.00	10.00
28	5.00	10.00
29	4.00	10.00
30	5.00	10.00
AVGS	6.18	10.00
MINIMUM VISIBILITY (MILES)		
<= .25	<= 3.0	>= 7.0
0	8	14

OBSERVATIONS AT 3-HOURLY INTERVALS

RICHMOND, VA

JUNE 2013

KRIC

WBAN # 13740

HOUR (LST)	SKY COVER	CEILING 100's of FT.	VISIBILITY (MILES)	WEATHER	TEMPERATURE °F			RELATIVE HUMIDITY (PCT)	WIND		PRESSURE (INCHES, HG)		HOUR (LST)	SKY COVER	CEILING 100's of FT.	VISIBILITY (MILES)	WEATHER	TEMPERATURE °F			RELATIVE HUMIDITY (PCT)	WIND		PRESSURE (INCHES, HG)					
					DRY BULB	DEW POINT	WET BULB		SPEED (MPH)	DIRECTION Tens of Deg	STATION	SEA LEVEL						DRY BULB	DEW POINT	WET BULB		SPEED (MPH)	DIRECTION Tens of Deg	STATION	SEA LEVEL				
SUNRISE: 0450					JUN 01					SUNSET: 1924					SUNRISE: 0448					JUN 07					SUNSET: 1928				
01	CLR	NC	10.00		72	66	68	82	10	19	29.90	30.09	01	OVC	070	10.00			72	69	70	91	11	17	29.65	29.84			
04	FEW	250	10.00		72	67	69	84	9	21	29.91	30.10	04	OVC	120	10.00	-RA		71	69	70	94	6	18	29.63	29.81			
07	FEW	250	10.00		76	68	71	77	15	21	29.92	30.11	07	OVC	030	3.00	RA BR		71	69	70	94	7	11	29.59	29.78			
10	SCT	250	10.00		86	68	74	55	16	22	29.89	30.08	10	OVC	034	5.00	RA BR		71	70	70	96	10	09	29.50	29.69			
13	BKN	050	10.00		91	66	74	44	16	22	29.85	30.04	13	OVC	095	3.00	RA BR		73	71	72	94	7	10	29.44	29.62			
16	SCT	300	10.00		93	63	73	37	13	22	29.81	30.00	16	OVC	055	5.00	-RA BR		73	71	72	94	11	02	29.36	29.54			
19	FEW	300	10.00		85	63	71	48	9	21	29.80	29.99	19	OVC	015	6.00	-RA BR		71	68	69	90	11	32	29.41	29.59			
22	FEW	300	10.00		77	65	69	66	9	19	29.82	30.01	22	OVC	070	10.00			70	67	68	90	11	29	29.56	29.75			
SUNRISE: 0450					JUN 02					SUNSET: 1925					SUNRISE: 0448					JUN 08					SUNSET: 1928				
01	CLR	NC	10.00		76	65	69	69	15	21	29.80	29.98	01	BKN	250	10.00			69	67	68	93	5	18	29.62	29.81			
04	CLR	NC	10.00		71	65	67	81	8	19	29.78	29.96	04	OVC	002	1.25	BR		69	68	68	96	3	20	29.67	29.86			
07	FEW	250	10.00		74	65	68	74	15	21	29.79	29.98	07	OVC	110	7.00	-RA		71	69	70	94	5	16	29.72	29.91			
10	BKN	250	10.00		83	65	71	55	14	20	29.77	29.96	10	OVC	037	6.00	-RA BR		70	67	68	90	9	26	29.79	29.98			
13	BKN	110	10.00		89	66	74	47	14	22	29.75	29.94	13	SCT	020	10.00			78	64	69	62	5	VR	29.78	29.97			
16	BKN	220	10.00		84	66	72	55	11	21	29.72	29.91	16	SCT	040	10.00			80	64	70	58	0	00	29.80	29.99			
19	OVC	065	3.00	TSRA BR	72	70	71	94	5	18	29.75	29.94	19	SCT	300	10.00			77	67	70	71	5	19	29.85	30.04			
22	OVC	140	10.00		70	68	69	93	3	17	29.74	29.93	22	SCT	300	10.00			68	65	66	90	0	00	29.91	30.10			
SUNRISE: 0449					JUN 03					SUNSET: 1925					SUNRISE: 0448					JUN 09					SUNSET: 1929				
01	SCT	110	10.00	-RA	70	67	68	90	3	27	29.73	29.92	01	SCT	300	9.00			67	64	65	91	0	00	29.92	30.11			
04	BKN	025	10.00		70	69	69	97	6	18	29.69	29.88	04	BKN	300	8.00			66	64	65	93	3	13	29.94	30.13			
07	OVC	070	10.00		73	71	72	94	7	20	29.72	29.91	07	OVC	300	10.00			71	68	69	90	0	00	29.98	30.17			
10	OVC	110	10.00		75	69	71	82	11	20	29.70	29.89	10	OVC	300	10.00			79	70	73	74	5	VR	29.99	30.18			
13	OVC	250	10.00		80	69	73	69	7	24	29.67	29.86	13	OVC	300	10.00			85	65	72	51	8	13	29.95	30.14			
16	BKN	250	10.00		84	66	72	55	0	00	29.65	29.83	16	SCT	250	10.00			86	70	75	59	11	14	29.90	30.09			
19	BKN	250	10.00		77	67	70	71	5	18	29.67	29.86	19	OVC	250	10.00			78	69	72	74	7	01	29.94	30.13			
22	OVC	055	10.00	-RA	74	63	67	69	0	00	29.76	29.95	22	OVC	250	10.00			74	70	71	88	9	13	29.92	30.11			
SUNRISE: 0449					JUN 04					SUNSET: 1926					SUNRISE: 0448					JUN 10					SUNSET: 1929				
01	OVC	090	10.00		71	65	67	81	3	01	29.78	29.97	01	OVC	130	9.00			73	71	72	94	6	18	29.92	30.10			
04	FEW	090	10.00		65	57	60	76	9	01	29.79	29.98	04	OVC	013	8.00			73	71	72	94	6	15	29.89	30.07			
07	FEW	060	10.00		67	49	57	53	13	01	29.87	30.06	07	BKN	070	7.00			75	72	73	90	9	18	29.88	30.07			
10	FEW	065	10.00		73	49	60	43	9	03	29.93	30.11	10	OVC	022	10.00			79	72	74	79	9	18	29.84	30.03			
13	FEW	065	10.00		78	48	61	35	7	VR	29.91	30.10	13	OVC	095	7.00	-RA		78	73	75	85	15	20	29.77	29.96			
16	SCT	300	10.00		80	46	61	30	0	00	29.89	30.08	16	BKN	250	10.00			82	72	75	72	13	18	29.70	29.89			
19	FEW	300	10.00		73	48	59	41	5	04	29.89	30.08	19	OVC	100	4.00	RA BR		77	74	75	90	17	18	29.68	29.87			
22	FEW	300	10.00		61	51	56	70	5	15	29.96	30.15	22	OVC	041	9.00			74	72	73	94	7	19	29.70	29.89			
SUNRISE: 0449					JUN 05					SUNSET: 1926					SUNRISE: 0448					JUN 11					SUNSET: 1930				
01	CLR	NC	10.00		61	53	57	75	0	00	29.95	30.14	01	BKN	200	10.00			72	70	71	94	8	21	29.69	29.88			
04	BKN	060	10.00		62	57	59	84	0	00	29.95	30.14	04	BKN	013	10.00			72	69	70	91	8	21	29.68	29.87			
07	BKN	250	10.00		68	57	62	68	3	27	29.99	30.18	07	BKN	120	9.00			73	69	70	87	7	21	29.68	29.87			
10	BKN	250	10.00		76	51	62	42	9	12	29.98	30.17	10	BKN	041	10.00			79	66	70	65	14	27	29.68	29.87			
13	BKN	250	10.00		80	54	64	41	5	07	29.94	30.13	13	SCT	060	10.00			85	64	71	50	16	26	29.67	29.85			
16	SCT	300	10.00		80	54	64	41	13	15	29.90	30.09	16	SCT	085	10.00			86	64	72	48	17	26	29.64	29.83			
19	SCT	300	10.00		72	52	61	50	9	12	29.90	30.09	19	SCT	080	10.00			83	63	70	51	10	27	29.67	29.85			
22	FEW	300	10.00		64	52	57	65	7	14	29.92	30.11	22	CLR	NC	10.00			76	65	69	69	7	25	29.71	29.90			
SUNRISE: 0449					JUN 06					SUNSET: 1927					SUNRISE: 0448					JUN 12					SUNSET: 1930				
01	CLR	NC	10.00		60	53	56	78	6	13	29.89	30.08	01	CLR	NC	10.00			72	64	67	76	5	24	29.71	29.89			
04	CLR	NC	10.00		59	54	56	83	0	00	29.86	30.05	04	FEW	190	10.00			70	63	66	79	5	29	29.73	29.92			
07	OVC	250	10.00		65	60	62	84	6	11	29.85	30.03	07	FEW	190	10.00			77	65	69	66	5	28	29.73	29.92			
10	OVC	060	10.00		74	64	68	71	14	14	29.82	30.01	10	SCT	250	10.00			86	67	73	53	10	25	29.72	29.91			
13	OVC	100	10.00		77	64	69	64	13	12	29.77	29.96	13	BKN	250	10.00			91	67	75	45	13	27	29.69	29.87			
16	OVC	300	10.00		77	63	68	62	10	14	29.71	29.90	16	SCT	250	10.00			92	68	75	46	13	28	29.66	29.85			
19	BKN	075	10.00	-RA	74	64	68	71	11	13	29.68	29.87	19	BKN	250	10.00			85	72	76	65	8	20	29.65	29.83			
22	OVC	017	10.00		73	66	69	79	14	15	29.68	29.87	22	FEW	250	10.00			80	73	75	79	0	00	29.66	29.84			

OBSERVATIONS AT 3-HOURLY INTERVALS

RICHMOND, VA

JUNE 2013

KRIC

WBAN # 13740

HOUR (LST)	SKY COVER	CEILING 100's of FT.	VISIBILITY (MILES)	WEATHER	TEMPERATURE °F						WIND		PRESSURE (INCHES, HG)		HOUR (LST)	SKY COVER	CEILING 100's of FT.	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				
																										RELATIVE HUMIDITY (PCT)	SPEED (MPH)	DIRECTION Tens of Deg	STATION
SUNRISE: 0448 JUN 13					SUNSET: 1931						SUNRISE: 0448 JUN 19					SUNSET: 1933													
01	FEW	300	9.00		78	73	75	85	7	22	29.62	29.80	01	BKN	003	6.00		BR	66	65	65	96	7	34	29.70	29.89			
04	FEW	300	9.00		76	73	74	91	6	15	29.57	29.75	04	OVC	003	3.00		BR	66	64	65	93	8	02	29.72	29.91			
07	OVC	300	7.00		81	73	75	77	10	24	29.53	29.72	07	OVC	300	9.00			70	64	66	82	3	VR	29.80	29.99			
10	OVC	300	10.00		87	72	77	61	13	23	29.52	29.70	10	BKN	043	10.00			73	64	67	74	7	04	29.86	30.05			
13	BKN	300	10.00		92	71	77	51	18	22	29.41	29.60	13	OVC	045	10.00			73	64	67	74	7	35	29.90	30.09			
16	OVC	110	7.00	-TSRA	71	68	69	90	15	28	29.41	29.58	16	OVC	250	10.00			75	65	69	71	9	09	29.89	30.08			
19	BKN	250	10.00		71	67	68	87	14	24	29.42	29.61	19	BKN	250	10.00			72	65	68	79	7	12	29.91	30.10			
22	SCT	060	10.00		71	67	68	87	11	27	29.47	29.65	22	BKN	250	10.00			68	65	66	90	0	00	29.96	30.15			
SUNRISE: 0448 JUN 14					SUNSET: 1931						SUNRISE: 0448 JUN 20					SUNSET: 1933													
01	CLR	NC	10.00		68	58	62	70	6	28	29.49	29.67	01	SCT	017	9.00			65	62	63	90	0	00	30.01	30.20			
04	SCT	055	10.00		66	56	60	70	9	32	29.52	29.71	04	OVC	085	10.00			64	61	62	90	0	00	30.02	30.21			
07	SCT	050	10.00		67	55	60	66	13	34	29.59	29.78	07	BKN	085	10.00			68	61	64	78	3	11	30.06	30.25			
10	BKN	060	10.00		71	56	62	59	13	36	29.67	29.86	10	BKN	060	10.00			76	57	65	52	6	09	30.09	30.28			
13	SCT	055	10.00		76	53	62	45	16	02	29.72	29.91	13	SCT	070	10.00			80	57	66	45	6	10	30.08	30.27			
16	SCT	060	10.00		78	52	63	40	9	03	29.73	29.92	16	SCT	250	10.00			80	53	64	39	6	09	30.05	30.24			
19	FEW	250	10.00		76	54	63	47	5	29	29.75	29.94	19	BKN	250	10.00			71	55	62	57	7	12	30.07	30.26			
22	CLR	NC	10.00		64	58	60	81	3	22	29.80	29.99	22	BKN	250	10.00			64	54	58	70	0	00	30.08	30.27			
SUNRISE: 0448 JUN 15					SUNSET: 1932						SUNRISE: 0449 JUN 21					SUNSET: 1933													
01	CLR	NC	10.00		66	57	61	73	5	26	29.83	30.02	01	BKN	300	10.00			61	54	57	78	0	00	30.09	30.28			
04	CLR	NC	10.00		61	56	58	84	3	27	29.83	30.02	04	FEW	300	10.00			59	56	57	90	0	00	30.08	30.27			
07	CLR	NC	10.00		71	58	63	63	0	00	29.90	30.09	07	FEW	300	10.00			65	60	62	84	0	00	30.11	30.30			
10	FEW	300	10.00		78	57	65	48	0	00	29.90	30.09	10	SCT	300	10.00			76	60	66	58	8	04	30.11	30.29			
13	SCT	060	10.00		84	56	67	38	11	28	29.88	30.07	13	SCT	040	10.00			79	61	68	54	6	09	30.10	30.29			
16	SCT	250	10.00		84	55	66	37	8	22	29.85	30.04	16	SCT	250	10.00			82	64	70	55	3	12	30.07	30.26			
19	FEW	060	10.00		80	57	66	45	6	22	29.85	30.03	19	FEW	040	10.00			75	65	69	71	11	11	30.07	30.26			
22	CLR	NC	10.00		70	61	65	73	0	00	29.87	30.06	22	CLR	NC	10.00			68	64	66	87	0	00	30.08	30.27			
SUNRISE: 0448 JUN 16					SUNSET: 1932						SUNRISE: 0449 JUN 22					SUNSET: 1934													
01	CLR	NC	10.00		68	61	64	78	0	00	29.86	30.05	01	SCT	055	10.00			66	64	65	93	0	00	30.07	30.26			
04	FEW	170	10.00		66	61	63	84	0	00	29.85	30.03	04	BKN	048	10.00			66	63	64	90	3	36	30.07	30.26			
07	BKN	250	10.00		72	63	66	73	10	23	29.87	30.06	07	SCT	250	10.00			72	63	66	73	3	04	30.08	30.27			
10	FEW	250	10.00		82	65	71	56	15	22	29.83	30.01	10	SCT	300	10.00			81	66	71	61	8	16	30.05	30.24			
13	BKN	250	10.00		87	67	74	51	14	22	29.78	29.97	13	BKN	300	10.00			83	68	73	61	7	12	30.04	30.23			
16	BKN	250	10.00		89	65	73	45	14	24	29.76	29.95	16	BKN	250	10.00		-RA	75	72	73	90	0	00	30.01	30.20			
19	OVC	250	10.00		83	69	74	63	10	21	29.77	29.96	19	BKN	150	10.00			74	69	71	85	9	16	30.00	30.19			
22	OVC	200	10.00		81	68	72	65	13	22	29.79	29.97	22	BKN	180	10.00			71	69	70	94	0	00	30.01	30.19			
SUNRISE: 0448 JUN 17					SUNSET: 1932						SUNRISE: 0449 JUN 23					SUNSET: 1934													
01	OVC	150	10.00		79	68	72	69	9	24	29.79	29.98	01	OVC	029	10.00		-RA	70	68	69	93	8	06	29.98	30.17			
04	BKN	090	10.00		72	68	69	87	6	21	29.80	29.99	04	OVC	075	7.00		-RA	71	70	70	96	7	14	29.95	30.14			
07	BKN	090	3.00	-RA BR	71	68	69	90	9	21	29.82	30.01	07	OVC	006	2.50		-RA BR	72	70	71	94	8	18	29.98	30.17			
10	OVC	140	9.00		75	70	72	84	8	21	29.81	30.00	10	OVC	018	2.00		BR	75	72	73	90	7	27	30.01	30.20			
13	OVC	250	9.00		80	72	75	76	7	21	29.79	29.98	13	BKN	032	10.00			83	70	74	65	9	21	29.99	30.17			
16	BKN	250	10.00		85	70	75	61	11	18	29.74	29.93	16	BKN	250	10.00			85	72	76	65	10	19	29.93	30.12			
19	BKN	250	10.00		79	71	74	77	6	18	29.73	29.92	19	BKN	250	10.00			82	72	75	72	6	19	29.94	30.13			
22	BKN	250	10.00		76	72	73	88	11	18	29.77	29.96	22	BKN	250	10.00			78	72	74	82	11	21	29.96	30.15			
SUNRISE: 0448 JUN 18					SUNSET: 1933						SUNRISE: 0449 JUN 24					SUNSET: 1934													
01	BKN	300	9.00		73	70	71	90	6	19	29.72	29.91	01	OVC	300	10.00			74	72	73	94	6	20	29.97	30.16			
04	OVC	250	6.00	BR	72	70	71	94	5	15	29.69	29.88	04	BKN	300	10.00			73	71	72	94	5	19	29.98	30.16			
07	OVC	019	4.00	BR	74	71	72	91	7	18	29.72	29.91	07	SCT	300	10.00			77	72	74	85	8	22	29.98	30.16			
10	OVC	110	10.00		76	72	73	88	7	20	29.69	29.88	10	BKN	300	10.00			85	72	76	65	10	20	29.98	30.17			
13	BKN	039	3.00	-RA BR	76	73	74	91	8	20	29.64	29.83	13	BKN	300	10.00			89	73	78	59	11	20	29.94	30.12			
16	OVC	060	0.75	TS+RA BR	71	69	70	94	11	29	29.63	29.81	16	BKN	300	10.00			88	71	76	57	13	19	29.88	30.06			
19	BKN	150	10.00		71	68	69	90	6	02	29.62	29.81	19	BKN	300	10.00		TS	86	72	76	63	6	21	29.88	30.06			
22	SCT	250	10.00		68	66	67	93	0	00	29.68	29.87	22	SCT	300	10.00			78	73	75	85	8	20	29.89	30.08			

OBSERVATIONS AT 3-HOURLY INTERVALS

HOUR (LST)	SKY COVER	CEILING 100's of FT.	VISIBILITY (MILES)	WEATHER	TEMPERATURE °F			RELATIVE HUMIDITY (PCT)	WIND		PRESSURE (INCHES, HG)						
					DRY BULB	DEW POINT	WET BULB		SPEED (MPH)	DIRECTION Tens of Deg	STATION	SEA LEVEL					
SUNRISE: 0450 JUN 25 SUNSET: 1934					01	SCT	150	10.00		76	72	73	88	7	19	29.88	30.06
04	SCT	170	10.00		74	71	72	91	7	21	29.86	30.05					
07	BKN	300	10.00		77	70	72	79	10	25	29.88	30.06					
10	SCT	300	10.00		85	70	75	61	8	26	29.87	30.06					
13	SCT	300	10.00		93	69	76	46	7	VR	29.84	30.03					
16	SCT	300	10.00		96	67	76	39	11	24	29.79	29.98					
19	SCT	300	10.00		89	70	76	53	8	21	29.76	29.95					
22	SCT	300	10.00		81	71	74	72	7	19	29.80	29.98					
SUNRISE: 0450 JUN 26 SUNSET: 1934					01	BKN	300	10.00		80	72	75	76	10	22	29.76	29.95
04	SCT	300	10.00		75	70	72	84	7	17	29.74	29.93					
07	BKN	300	10.00		78	71	73	79	10	23	29.78	29.97					
10	BKN	300	10.00		89	73	78	59	6	25	29.74	29.93					
13	SCT	300	10.00		94	71	78	48	14	24	29.72	29.91					
16	SCT	250	10.00		93	70	77	47	8	21	29.66	29.84					
19	OVC	150	7.00	-TSRA	74	70	71	88	3	17	29.69	29.88					
22	OVC	250	10.00		74	69	71	85	7	23	29.70	29.88					
SUNRISE: 0450 JUN 27 SUNSET: 1934					01	BKN	250	10.00		72	68	69	87	6	20	29.68	29.87
04	SCT	250	8.00		70	67	68	90	6	19	29.66	29.85					
07	OVC	250	10.00		74	69	71	85	7	17	29.64	29.83					
10	OVC	009	9.00		76	70	72	82	14	20	29.61	29.80					
13	BKN	100	10.00		86	72	76	63	20	22	29.54	29.72					
16	SCT	180	10.00		88	68	74	52	18	28	29.52	29.69					
19	BKN	250	10.00		85	70	75	61	10	24	29.50	29.68					
22	BKN	250	10.00		79	74	76	85	11	19	29.52	29.71					
SUNRISE: 0451 JUN 28 SUNSET: 1934					01	SCT	100	10.00		76	72	73	88	8	25	29.48	29.67
04	SCT	250	7.00		74	71	72	91	6	20	29.45	29.64					
07	BKN	250	10.00		78	72	74	82	7	23	29.47	29.65					
10	SCT	250	10.00		87	70	75	57	11	24	29.45	29.63					
13	SCT	120	10.00		92	67	75	44	11	22	29.42	29.60					
16	BKN	250	10.00	TS	88	71	76	57	17	21	29.37	29.55					
19	BKN	250	10.00		84	69	74	61	11	21	29.36	29.55					
22	SCT	080	10.00		76	69	71	79	10	20	29.41	29.59					
SUNRISE: 0451 JUN 29 SUNSET: 1934					01	OVC	110	4.00	RA BR	74	71	72	91	15	23	29.41	29.58
04	BKN	170	10.00		72	70	71	94	8	21	29.41	29.59					
07	BKN	140	10.00		72	69	70	91	7	21	29.45	29.64					
10	SCT	140	10.00		81	70	74	69	5	VR	29.47	29.65					
13	SCT	250	10.00		87	66	73	50	7	21	29.45	29.64					
16	BKN	250	10.00		89	67	74	48	10	19	29.45	29.63					
19	BKN	250	10.00		83	71	75	67	10	19	29.49	29.68					
22	SCT	250	10.00		78	72	74	82	5	16	29.53	29.72					
SUNRISE: 0451 JUN 30 SUNSET: 1934					01	SCT	300	8.00		76	74	75	94	8	18	29.55	29.73
04	BKN	110	10.00		77	73	74	88	9	19	29.56	29.75					
07	OVC	020	10.00		77	73	74	88	9	17	29.62	29.80					
10	BKN	065	10.00		81	73	75	77	8	20	29.62	29.81					
13	BKN	090	10.00		85	71	75	63	8	19	29.61	29.80					
16	BKN	250	10.00		86	72	76	63	13	16	29.60	29.79					
19	BKN	250	10.00		81	73	75	77	8	20	29.66	29.84					
22	OVC	150	10.00		77	70	72	79	6	18	29.69	29.87					

HOUR (LST)	SKY COVER	CEILING 100's of FT.	VISIBILITY (MILES)	WEATHER	TEMPERATURE °F			RELATIVE HUMIDITY (PCT)	WIND		PRESSURE (INCHES, HG)	
					DRY BULB	DEW POINT	WET BULB		SPEED (MPH)	DIRECTION Tens of Deg	STATION	SEA LEVEL

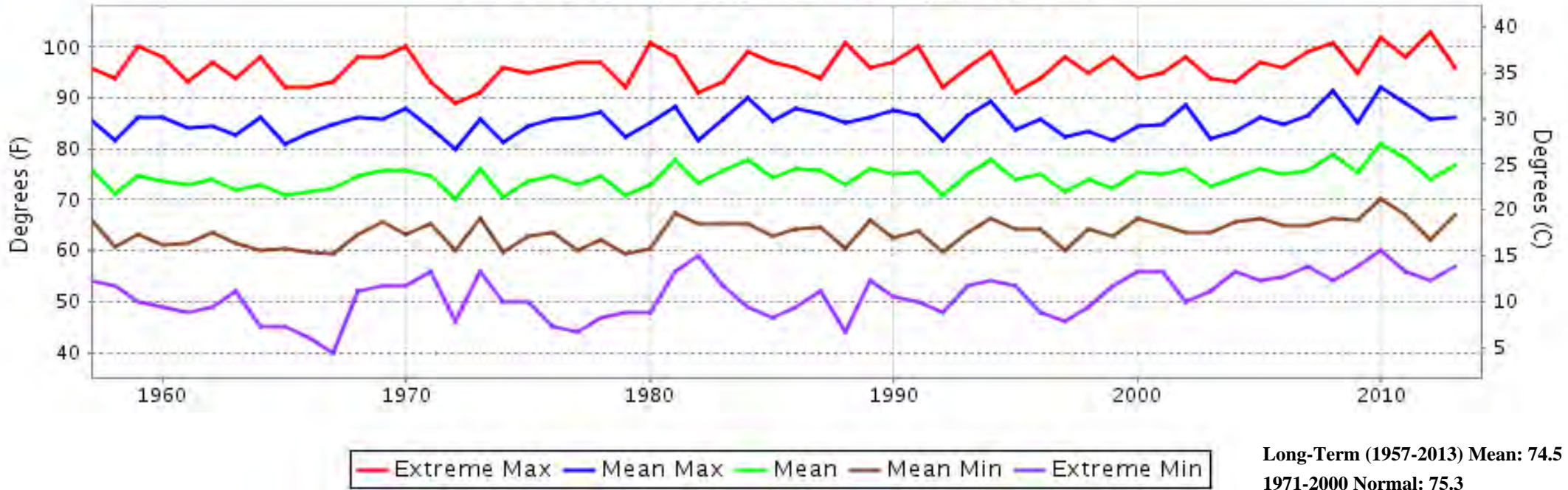
3-HOURLY OBSERVATION NOTES

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, W = 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.

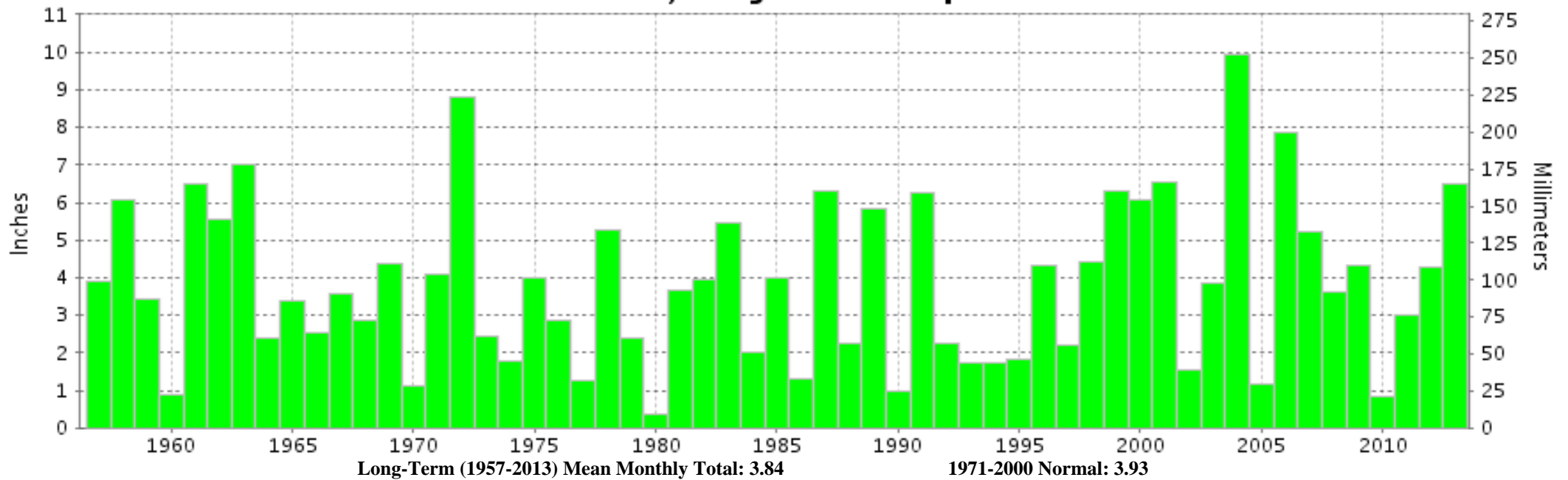
SUMMARY BY HOUR

HOUR (LST)	AVERAGES								RESULTANT WIND (MPH)	
	DRY BULB	DEW POINT	WET BULB	RELATIVE HUMIDITY	PRESSURE (Inches, HG)		VISIBILITY (Miles)	WIND SPEED (MPH)	SPEED	DIRECTION
					STATION	SEA LEVEL				
01	71	66	68	85	29.78	29.97	9.43	6	4	22
02	70	66	67	86	29.78	29.96	9.47	5	4	22
03	70	66	67	87	29.77	29.96	9.35	5	4	20
04	69	65	67	88	29.78	29.96	8.91	5	3	19
05	69	65	67	89	29.79	29.97	8.17	5	3	20
06	70	66	68	87	29.79	29.98	8.03	6	3	20
07	73	66	69	81	29.80	29.99	8.72	7	4	22
08	75	66	69	75	29.80	29.99	9.42	9	3	21
09	77	66	70	71	29.80	29.99	9.47	9	4	23
10	79	66	71	67	29.80	29.98	9.37	9	4	22
11	81	66	71	63	29.79	29.98	9.83	9	4	22
12	82	66	71	59	29.78	29.97	9.47	10	5	23
13	83	66	72	57	29.77	29.96	9.40	10	4	23
14	84	66	72	56	29.75	29.94	9.80	10	5	23
15	84	65	72	55	29.74	29.93	9.57	11	4	22
16	83	65	72	57	29.74	29.92	9.43	10	4	22
17	83	65	71	59	29.73	29.92	9.73	10	3	21
18	81	66	71	63	29.74	29.93	9.46	10	3	21
19	78	66	70	69	29.75	29.93	9.33	8	3	20
20	76	66	70	74	29.75	29.94	9.63	8	3	20
21	74	66	69	78	29.77	29.96	10.00	6	3	20
22	73	66	69	81	29.78	29.97	9.97	6	4	21
23	72	66	69	82	29.78	29.97	9.67	6	3	21
24	72	66	68	83	29.78	29.97	9.60	6	4	22

RICHMOND, VA JUNE Temperatures



RICHMOND, VA JUNE Precipitation





**JUNE 2013
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.

A handwritten signature in black ink, appearing to read "Thomas R. Karl".

DIRECTOR

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Asheville, NC 28801-5001