



JULY 2006

LOCAL CLIMATOLOGICAL DATA

NOAA, National Climatic Data Center

RICHMOND, VA
RICHMOND INTERNATIONAL AIRPORT (KRIC)
 Lat:37° 30'N Long: 77° 19'W Elev (Ground) 163 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					
																			5-SEC		2-MIN			
01	88	64	76	-1	62	68	0	11	BR HZ			0.0	0.00	29.99	30.18	4.4	18	5.0	16	19	14	21	01	
02	95	69	82	5	66	72	0	17	HZ			0.0	0.00	29.95	30.13	7.1	23	8.4	18	23	15	23	02	
03	95	73	84	7	67	72	0	19	TS BR HZ			0.0	0.00	29.90	30.09	6.2	26	8.1	32	26	26*	26	03	
04	96	71	84	7	69	73	0	19	RA BR HZ			0.0	T	29.83	30.02	10.0	22	10.3	31	23	24	23	04	
05	89	72	81	4	70	72	0	16	TS TSRA RA BR HZ			0.0	1.10	29.80	29.98	8.7	22	9.6	28	29	21	30	05	
06	81	68	75	-2	65	68	0	10	RA BR			0.0	0.54	29.86	30.07	5.7	35	8.6	20	36	16	36	06	
07	83	63	73*	-4	58	64	0	8				0.0	0.00	30.04	30.24	6.7	02	7.1	20	07	15	07	07	
08	85	63	74	-3	59	65	0	9				0.0	0.00	30.01	30.18	2.7	03	4.8	16	02	12	02	08	
09	85	63*	74	-3	60	66	0	9				0.0	0.00	29.91	30.10	7.5	19	7.8	20	22	16	19	09	
10	90	67	79	1	65	70	0	14	HZ			0.0	0.00	29.89	30.08	7.8	20	8.2	21	20	17	18	10	
11	92	72	82	4	69	73	0	17	HZ			0.0	0.00	29.95	30.14	8.5	20	8.7	20	22	17	22	11	
12	94	75	85	7	71	75	0	20	HZ			0.0	0.00	29.93	30.11	9.7	21	10.2	23	22	18	21	12	
13	93	76	85	7	71	75	0	20	TSRA RA BR HZ			0.0	T	29.83	30.02	8.4	24	10.1	26	21	21	22	13	
14	88	75	82	4	73	75	0	17	RA BR HZ			0.0	0.03	29.82	30.00	2.3	22	4.4	15	20	14	20	14	
15	93	75	84	6	72	76	0	19	BR HZ			0.0	0.00	29.78	29.96	2.7	31	4.0	18	36	16	33	15	
16	94	76	85	7	67	73	0	20				0.0	0.00	29.82	30.02	7.8	01	8.4	23	01	18	01	16	
17	99	74	87	9	68	74	0	22				0.0	0.00	29.84	30.02	2.7	02	3.8	14	05	10	01	17	
18	99*	73	86	7	70	75	0	21	BR HZ			0.0	0.00	29.81	30.00	2.3	14	3.7	15	10	10	17	18	
19	94	73	84	5	71	75	0	19	TS TSRA RA BR HZ			0.0	0.02	29.88	30.08	3.7	05	7.3	28	23	22	23	19	
20	92	70	81	2	69	73	0	16	BR HZ			0.0	0.00	29.91	30.08	3.7	22	5.8	16	20	13	22	20	
21	94	73	84	5	71	75	0	19	TS RA BR HZ			0.0	T	29.78	29.95	6.9	21	9.2	23	17	16	21	21	
22	90	73	82	3	72	75	0	17	TS TSRA RA FG BR			0.0	2.44	29.64	29.82	13.0	21	14.0	26	30	23	23	22	
23	83	70	77	-2	69	71	0	12	TSRA RA BR HZ			0.0	0.25	29.71	29.90	2.2	01	5.1	24	23	15	23	23	
24	88	67	78	0	64	69	0	13	BR			0.0	0.00	29.85	30.05	3.6	15	5.3	17	18	14	14	24	
25	85	71	78	0	69	72	0	13	RA			0.0	T	29.86	30.05	4.1	13	5.0	14	14	13	14	25	
26	90	71	81	3	69	73	0	16	BR			0.0	0.00	29.81	29.99	3.7	16	4.7	17	16	12	18	26	
27	95	75	85	7	72	76	0	20	TS TSRA RA BR HZ			0.0	0.19	29.83	30.02	6.2	20	7.9	30	30	25	30	27	
28	98	75	87	9	70	75	0	22				0.0	0.00	29.85	30.04	8.8	23	9.5	33*	26	25	26	28	
29	95	79	87	9	69	74	0	22	RA BR			0.0	T	29.80	29.98	8.5	23	9.0	24	23	21	22	29	
30	95	74	85	7	71	75	0	20	BR HZ			0.0	0.00	29.70	29.88	3.1	01	5.1	17	36	14	36	30	
31	97	76	87*	9	72	76	0	22	HZ			0.0	0.00	29.74	29.93	2.0	01	4.1	14	33	12	35	31	

91.5	71.5	81.5	☼	68.1	72.4	0.0	16.7	< MONTHLY AVERAGES TOTALS >				0.0	4.57	29.85	30.04	3.0	22	7.2	< MONTHLY AVERAGES			
4.0	3.2	3.6		-----DEPARTURE FROM NORMAL ----->										-0.10	SUNSHINE, CLOUD, & VISIBILITY TABLES ON PAGE 3							

DEGREE DAYS				GREATEST 24-HR PRECIPITATION : 2.69 DATE : 22-23				SEA LEVEL PRESSURE			
MONTHLY				GREATEST 24-HR SNOWFALL : 0.0 DATE :				MAXIMUM : 30.26 07 2254			
TOTAL DEPARTURE				GREATEST SNOW DEPTH :				MINIMUM : 29.77 22 1854			
SEASON TO DATE				NUMBER OF -> DAYS WITH				PRECIPITATION >= 0.01 INCH: 7			
HEATING : 0 0 0 0				MAXIMUM TEMP >= 90 : 21				MINIMUM TEMP <= 32 : 0			
COOLING : 519 104 981 140				MAXIMUM TEMP <= 32 : 0				PRECIPITATION >= 0.10 INCH: 5			
				THUNDERSTORMS : 8				HEAVY FOG : 0			

JULY 2006
RICHMOND, VA

HOURLY PRECIPITATION

(WATER EQUIVALENT IN INCHES)

RICHMOND, VA (KRIC)
JULY 2006

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	0.00	0.00	
03													03												03	0.00	0.00	
04													04												04	T	T	
05			0.02	T	T								05				0.43	0.31	0.03	0.11	0.12	0.07	0.01	05	1.10	1.10		
06	0.04	0.11	0.02		0.06	0.06	0.13	0.07	0.03	0.02			06											06	0.54	0.54		
07													07											07	0.00	0.00		
08													08											08	0.00	0.00		
09													09											09	0.00	0.00		
10													10											10	0.00	0.00		
11													11											11	0.00	0.00		
12													12											12	0.00	0.00		
13													13											13	T	T		
14	0.02	0.01	T	T	T								14								T	T	T	14	0.03	0.03		
15													15											15	0.00	0.00		
16													16											16	0.00	0.00		
17													17											17	0.00	0.00		
18													18											18	0.00	0.00		
19													19											19	0.02	0.02		
20													20						T	0.02	T			20	0.00	0.00		
21													21											21	T	T		
22				T									22											22	2.44	2.44		
23	0.09	0.04	0.03	0.01	0.07	T	T		T	T	T	0.01	23										0.13	2.31	23	0.25	0.25	
24													24											24	0.00	0.00		
25													25								T			25	T	T		
26													26											26	0.00	0.00		
27													27			0.17	0.02							27	0.19	0.19		
28													28											28	0.00	0.00		
29			T	T									29											29	T	T		
30													30											30	0.00	0.00		
31													31											31	0.00	0.00		

* 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)	0.66	0.91	1.11	1.21	1.52	2.01	2.40	2.47	2.50	2.52	2.55	2.57
Ending Date	22	22	22	22	22	22	22	23	23	23	23	23
Ending Time (Hr/Min)	2318	2321	2326	2329	2326	2354	2355	0008	0034	0051	0107	0139

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.

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		
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	GL Glaze
VC In the Vicinity	UP Unkown Precipitation		

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

RICHMOND, VA JULY 2006

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.

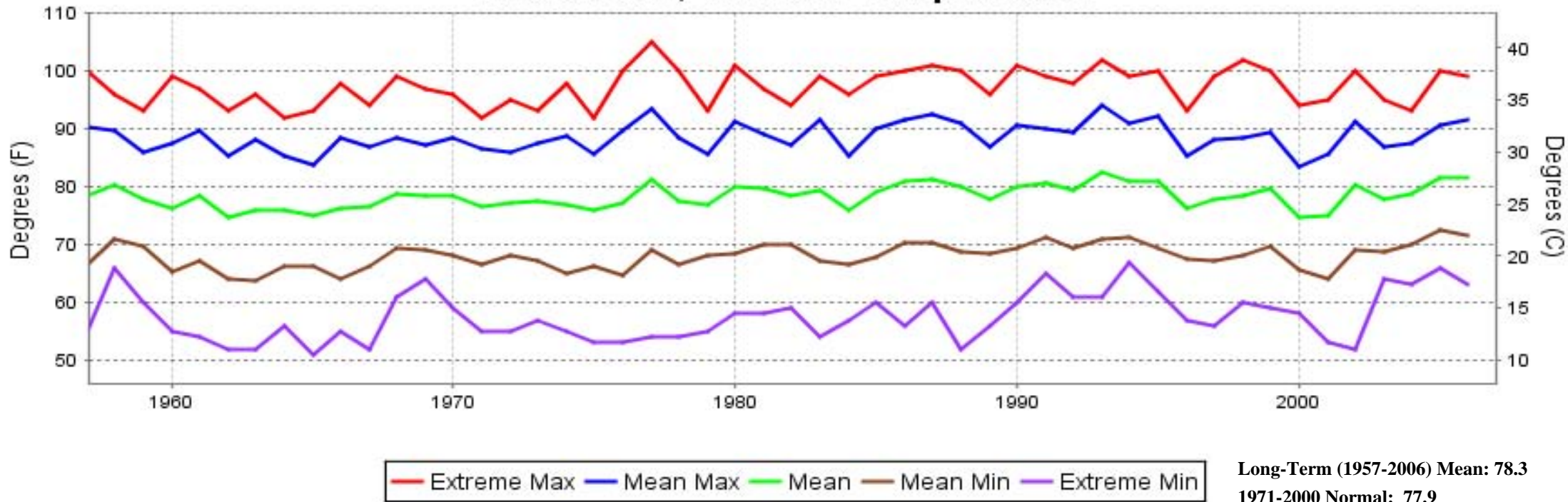
Dew Point is the temperature to which the air must be cooled to achieve 100% relative humidity. Wet Bulb is the temperature the air would have if cooled to saturation at constant pressure by evaporation of water into it.

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

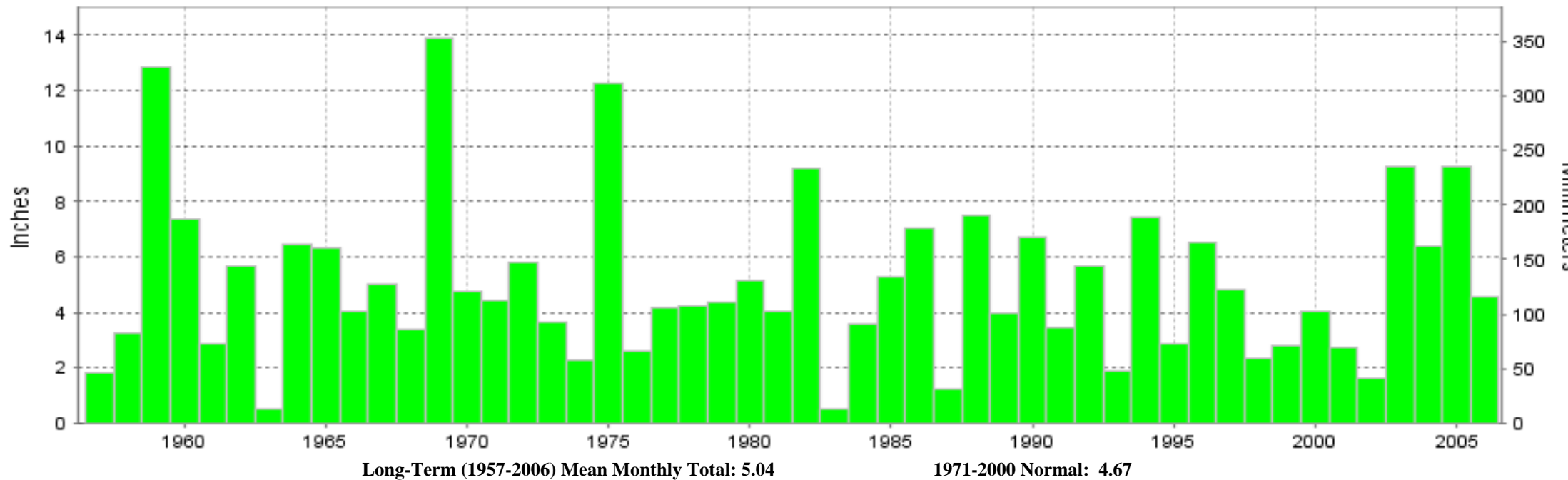
ADDITIONAL NOTES:

Date	SUNSHINE		CLOUDINESS (OKTAS)				VISIBILITY (MILES)		RESERVED
	TOTAL MINUTES	PERCENT POSSIBLE	SR-SS		MN-MN		MINIMUM	MAXIMUM	
			Sky Cover	Satellite	Sky Cover	Satellite			
01							3.00	10.00	
02							5.00	10.00	
03							4.00	9.00	
04							5.00	10.00	
05							1.00	10.00	
06							2.00	10.00	
07							10.00	10.00	
08							9.00	10.00	
09							7.00	10.00	
10							6.00	9.00	
11							5.00	7.00	
12							5.00	10.00	
13							5.00	10.00	
14							4.00	7.00	
15							3.00	10.00	
16							9.00	10.00	
17							8.00	10.00	
18							5.00	10.00	
19							5.00	10.00	
20							1.00	10.00	
21							5.00	7.00	
22							1.00	10.00	
23							4.00	10.00	
24							5.00	10.00	
25							8.00	10.00	
26							4.00	10.00	
27							2.00	8.00	
28							7.00	10.00	
29							7.00	10.00	
30							4.00	8.00	
31							5.00	8.00	
MONTHLY AVGS							4.97	9.45	
SUNSHINE (Minutes)									
Total :					Possible :				
Percent Possible :									
NUMBER OF DAYS WITH :									
SKY CONDITION									
Clear		Partly CLDY			Cloudy			Missing	
MINIMUM VISIBILITY (MILES)									
<= .25			<= 3.0				>= 7.0		
0			7				8		

RICHMOND, VA JULY Temperatures



RICHMOND, VA JULY Precipitation





**JULY 2006
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.

Thomas R. Karl
DIRECTOR

NCDC now offers an annual online subscription for the **Edited Local Climatological Data Publication**. When you purchase this subscription service, you will have **immediate online access** to all previous publications back to July 1996 and all publications thereafter until the expiration of the subscription. Your subscription is valid for one year after purchase. **The total cost for online delivery (including back issues) is significantly less than the cost for offline delivery.** To order this and other subscriptions online with your credit card, go to: **www.ncdc.noaa.gov** and choose subscriptions.

We welcome your questions or comments, please contact us at:

Toll Free Number (866) 742-3322 (voice)
Fax Number : (304) 726-4409

TDD : (828) 271-4010

or Email : ncdc.info@noaa.gov

Local Climatological Data is available at www.ncdc.noaa.gov

United States
Department of Commerce

National Oceanic and
Atmospheric Administration

National Environmental Satellite
Atmospheric Administration

For address correction, please return a photocopy of this page to Subscription Services indicating changes

NCDC Subscription Services Center
310 State Route 956 Building 300
Rocket Center, WV 26726

OFFICIAL BUSINESS, PENALTY FOR PRIVATE USE \$300

FIRST CLASS
POSTAGE AND FEES PAID
NOAA
PERMIT G-19