



FEBRUARY 2002

LOCAL CLIMATOLOGICAL DATA

NOAA, National Climatic Data Center

KNOXVILLE, TN

MC GHEE TYSON AIRPORT (TYS)
 Lat: 35° 49' N Long: 83° 59' W Elev (Ground): 979 Feet
 Time Zone: EASTERN WBAN: 13891 ISSN #:0198-4810

FEBRUARY 2002
KNOXVILLE, TN

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								
																			SPEED	DIR	SPEED	DIR							
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	69*	38	54	15	41	48	11	0	RA BR				0.28	29.07	30.11	11.6	26	16.9	36	22	29	22	01						
02	46	34	40	1	22	33	25	0					0.00	29.28	30.35	7.8	03	8.5	22	04	18	03	02						
03	43	34	39	0	29	34	26	0	RA SN BR				0.11	29.15	30.22	4.9	24	5.8	17	29	13	25	03						
04	40	28	34	-5	19	30	31	0					0.00	29.19	30.26	7.8	30	12.6	30	28	23	28	04						
05	36	24	30	-10	11	24	35	0					0.00	29.36	30.44	7.3	04	7.6	17	02	14	05	05						
06	37	32	35	-5	24	31	30	0	RA SN PL BR				0.48	29.10	30.17	4.9	03	5.7	14	04	13	04	06						
07	40	33	37	-3	35	36	28	0	RA PL BR				0.35	28.96	30.02	2.1	29	3.9	17	33	13	33	07						
08	53	25	39	-1	30	34	26	0	FG+ FZFG BR HZ				0.00	29.19	30.26	1.6	03	1.9	8	06	7	06	08						
09	59	27	43	3	35	40	22	0	FG+ FZFG BR				0.00	29.17	30.23	1.0	17	1.9	12	21	9	21	09						
10	66	40	53	12	40	46	12	0	RA BR				0.07	29.06	30.11	9.3	25	11.7	36	27	31	21	10						
11	47	31	39	-2	27	35	26	0	RA DZ				0.01	29.19	30.25	4.7	35	6.6	22	27	16	01	11						
12	54	26	40	-1	25	34	25	0					0.00	29.09	30.15	5.7	22	6.2	18	23	16	24	12						
13	51	30	41	0	24	34	24	0					0.00	29.17	30.24	2.7	03	3.7	16	01	13	01	13						
14	55	25	40	-2	23	34	25	0					0.00	29.23	30.29	1.0	36	3.0	12	32	9	04	14						
15	61	33	47	5	30	40	18	0					0.00	29.09	30.15	8.2	22	8.9	32	25	26	23	15						
16	56	42	49	7	31	41	16	0	RA DZ			T	28.98	30.03	7.8	25	9.2	25	24	22	24	16							
17	49	32	41	-1	21	34	24	0					0.00	29.08	30.14	5.1	33	7.6	25	28	22	28	17						
18	57	24	41	-1	20	33	24	0					0.00	29.23	30.29	1.8	04	2.3	14	06	10	04	18						
19	53	26	40	-3	27	36	25	0					0.00	29.13	30.19	1.4	08	2.3	8	36	8	09	19						
20	66	49	58*	15	47	53	7	0	TS RA BR				0.27	28.83	29.86	14.8	21	16.6	38*	22	32*	22	20						
21	65	42	54	11	38	45	11	0					0.00	28.94	29.98	11.2	25	12.2	36	26	29	25	21						
22	47	35	41	-3	30	36	24	0					0.00	29.05	30.11	5.1	36	6.3	21	36	16	36	22						
23	50	35	43	-1	27	35	22	0					0.00	29.05	30.11	8.8	04	9.2	18	08	16	03	23						
24	61	25	43	-1	30	38	22	0	BR HZ				0.00	29.11	30.17	0.8	06	1.9	8	33	7	29	24						
25	66	31	49	5	34	42	16	0					0.00	29.05	30.10	5.1	23	6.7	29	24	25	24	25						
26	60	27	44	-1	33	39	21	0	RA SN BR				0.12	28.89	29.93	15.2	25	16.9	32	24	28	27	26						
27	28	16*	22*	-23	8	18	43	0	SN				T	29.08	30.16	12.2	27	12.5	29	29	24	28	27						
28	38	18	28	-18	11	23	37	0	SN				T	29.21	30.29	2.8	23	4.3	17	26	15	27	28						
< MONTHLY AVERAGES											TOTALS->				1.69	29.11	30.16	2.9	27	7.6	<- MONTHLY AVERAGES								
0.2											-1.0		-0.4		<-----DEPARTURE FROM NORMAL----->		-2.32		SUNSHINE, CLOUD, & VISIBILITY TABLES ON PAGE 3										
DEGREE DAYS											GREATEST 24-HR PRECIPITATION: 0.64 DATE :06-07				SEA LEVEL PRESSURE				DATE		TIME								
MONTHLY TOTAL DEPARTURE											GREATEST 24-HR SNOWFALL:				MAXIMUM				:		05 1053								
SEASON TO DATE TOTAL DEPARTURE											GREATEST SNOW DEPTH:				MINIMUM				:		26 0353								
HEATING: 656 -41 2609 -504											NUMBER OF DAYS WITH		MAXIMUM TEMP ≥ 90: 0		MINIMUM TEMP ≤ 32: 17		PRECIPITATION ≥ 0.01 INCH: 8												
COOLING: 0 -1 0 -1													MAXIMUM TEMP ≤ 32: 1		MINIMUM TEMP ≤ 0: 0		PRECIPITATION ≥ 0.10 INCH: 6												
													THUNDERSTORMS: 1		HEAVY FOG: 2		SNOWFALL ≥ 1.0 INCH: :												

HOURLY PRECIPITATION

(WATER EQUIVALENT IN INCHES)

KNOXVILLE, TN

FEBRUARY 2002

TYS

WBAN # 13891

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						T	0.01	0.27					01												01			0.28	
02													02												02			0.00	
03													03		T	0.01	0.04	0.03	0.01	0.02	T	T	T		03			0.11	
04													04												04			0.00	
05													05												05			0.00	
06													06	0.05	0.05	0.04	0.07	0.07	0.08	0.06	T	0.02	0.03	T	T		06	0.48	
07	T	T	0.01	0.03	0.01	0.02	0.01	0.04	0.03	T	T	0.01	07	0.01	0.05	.03	0.01	0.04	0.04						07		0.35		
08													08												08			0.00	
09													09												09			0.00	
10						0.01							10			T	0.06	T							10			0.07	
11			T	T	0.01	T							11												11			0.01	
12													12												12			0.00	
13													13												13			0.00	
14													14												14			0.00	
15													15												15			0.00	
16	T	T	T	T	T	T							16												16			T	
17													17												17			0.00	
18													18												18			0.00	
19													19												19			0.00	
20								0.11	0.08	0.05	0.02	T	20							T	T	0.01	T		20			0.27	
21													21												21			0.00	
22													22												22			0.00	
23													23												23			0.00	
24													24												24			0.00	
25													25												25			0.00	
26					T	0.12	T						26	T											26			0.12	
27	T	T	T	T	T	T							27		T										27			T	
28													28												28			T	

MAXIMUM SHORT DURATION PRECIPITATION (See Note)

Time Period (Minutes)	5	10	15	20	30	45	60	80	100	120	150	180
Precipitation (Inches)	.08	.12	.16	.19	.22	.26	.28	.28	.28	.28	.28	.28
Ending Date	01	01	01	01	01	01	01	01	01	01	01	01
Ending Time (Hour/Min)	0722	0725	0728	0728	0729	0751	0758	0758	0758	0758	0758	0758

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

KNOXVILLE, TN FEBRUARY 2002

Ceilorometer (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							1.50	10.00	
02							10.00	10.00	
03							3.00	10.00	
04							7.00	10.00	
05							10.00	10.00	
06							1.25	10.00	
07							1.25	10.00	
08							<.25	10.00	
09							<.25	10.00	
10							2.50	10.00	
11							7.00	10.00	
12							7.00	10.00	
13							10.00	10.00	
14							9.00	10.00	
15							8.00	10.00	
16							10.00	10.00	
17							10.00	10.00	
18							10.00	10.00	
19							9.00	10.00	
20							3.00	10.00	
21							10.00	10.00	
22							7.00	10.00	
23							10.00	10.00	
24							4.00	10.00	
25							7.00	10.00	
26							2.50	10.00	
27							7.00	10.00	
28							9.00	10.00	
MONTHLY AVGS							6.40	10.00	
SUNSHINE (MINUTES)									
Total: Possible: Percent Possible:									
NUMBER OF DAYS WITH:									
SKY CONDITION									
CLR PTLY CLDY CLOUDY MISSING 28									
MINIMUM VISIBILITY (MILES)									
<=0.25 <=3.0 >=7.0 2 9 18									

OBSERVATIONS AT 3-HOURLY INTERVALS

KNOXVILLE, TN

FEBRUARY 2002

TYS

WBAN # 13891

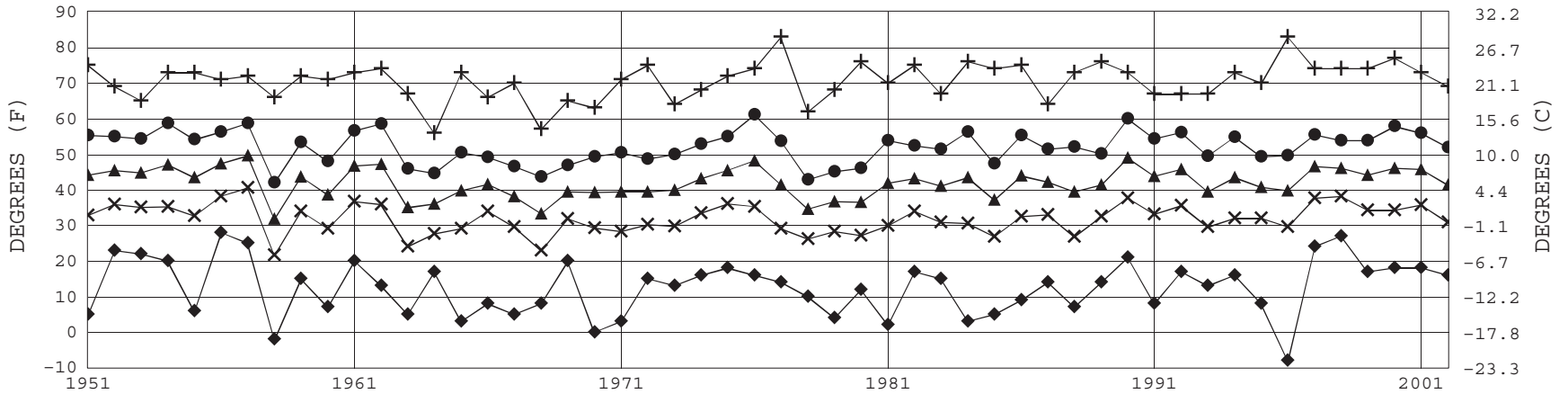
HOUR (LST)	SKY COVER		CEILING 100'S OF FT	SATELLITE		WEATHER	TEMPERATURE °F				WIND		PRESSURE (INCHES, HG)		
	SKY COVER	CEILING 100'S OF FT		OBSERVATION TIME (LST)	EFF CLD AMT Okltas		VISIBILITY (MILES)	DRY BULB	DEW POINT	WET BULB	RELATIVE HUMIDITY (PCT)	SPEED (MPH)	DIRECTION TENS OF DEG	STATION	SEA LEVEL
		SUNRISE: 0711		FEB 25		SUNSET: 1827									
01	SCT	NC					38	34	36	86	0	00	29.09	30.14	
04	SCT	NC					36	32	34	86	0	00	29.13	30.18	
07	CLR	NC					36	31	34	82	6	03	29.11	30.16	
10	CLR	NC					48	35	42	61	0	00	29.15	30.20	
13	CLR	NC					63	36	50	37	17	23	29.08	30.12	
16	BKN	250					66	37	52	34	9	25	28.99	30.03	
19	SCT	NC					56	32	45	40	7	23	28.96	30.01	
22	FEW	NC					51	35	44	54	6	19	28.94	29.98	
		SUNRISE: 0710		FEB 26		SUNSET: 1828									
01	CLR	NC					54	35	45	49	12	18	28.85	29.88	
04	BKN	065					57	40	49	53	15	20	28.73	29.75	
07	OVC	026		BR			51	51	51	100	15	22	28.78	29.81	
10	BKN	019					49	41	45	74	24	25	28.87	29.91	
13	BKN	045					44	35	40	71	20	27	28.93	29.98	
16	BKN	045					40	26	34	58	21	26	28.93	29.98	
19	SCT	NC					34	22	30	61	14	27	28.95	30.01	
22	SCT	NC					30	19	26	64	13	27	28.97	30.03	
		SUNRISE: 0709		FEB 27		SUNSET: 1829									
01	OVC	060					25	12	21	58	15	28	28.97	30.03	
04	BKN	049					21	9	18	59	18	29	28.97	30.04	
07	FEW	NC					17	5	14	59	13	27	29.03	30.10	
10	BKN	034					19	4	15	52	12	28	29.10	30.18	
13	OVC	033					23	8	19	53	10	26	29.10	30.17	
16	BKN	045		-SN			26	9	21	48	14	28	29.08	30.16	
19	SCT	NC					24	9	20	52	10	27	29.15	30.23	
22	BKN	042					23	9	19	55	8	27	29.19	30.28	
		SUNRISE: 0707		FEB 28		SUNSET: 1830									
01	BKN	042					22	10	19	60	5	28	29.19	30.28	
04	BKN	040					21	14	19	74	0	00	29.19	30.27	
07	FEW	NC					19	13	17	77	0	00	29.21	30.31	
10	SCT	NC					25	9	20	50	6	25	29.25	30.35	
13	CLR	NC					32	8	25	36	6	VR	29.21	30.30	
16	CLR	NC					38	11	29	33	13	23	29.18	30.25	
19	CLR	NC					34	11	27	38	7	18	29.19	30.27	
22	CLR	NC					30	11	24	45	0	00	29.22	30.31	
		SUNRISE:		FEB 29		SUNSET:									
		SUNRISE:		FEB 30		SUNSET:									

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, 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.

SUMMARY BY HOUR

HOUR (LST)	AVERAGES											RESULTANT WIND (MPH)	
	CEILOMETER	EFF CLD AMT	DRY BULB	DEW POINT	WET BULB	RELATIVE HUMIDITY	PRESSURE (INCHES, HG)		VISIBILITY (MILES)	WIND SPEED (MPH)	DIRECTION	SPEED	DIRECTION
							STATION	SEA LEVEL					
01			39	28	35	66	29.10	30.16	9.21	6	2	27	
02			38	28	34	69	29.10	30.15	9.14	6	2	26	
03			38	28	34	70	29.09	30.14	9.02	6	1	25	
04			37	28	33	73	29.09	30.15	8.71	6	1	27	
05			36	28	33	74	29.09	30.15	8.54	7	2	26	
06			35	28	33	76	29.10	30.16	8.57	6	1	27	
07			35	28	33	78	29.11	30.17	8.69	6	1	28	
08			35	29	32	79	29.12	30.18	7.75	6	3	27	
09			37	29	34	75	29.14	30.20	8.20	7	3	28	
10			40	29	36	67	29.15	30.21	8.47	9	3	28	
11			43	29	37	60	29.14	30.20	8.96	10	3	26	
12			45	29	38	55	29.14	30.19	9.36	10	6	26	
13			46	28	39	51	29.11	30.17	9.30	10	5	26	
14			48	27	39	47	29.09	30.14	9.55	11	4	27	
15			49	27	40	46	29.07	30.13	9.46	10	6	26	
16			49	27	40	46	29.07	30.12	9.05	9	5	26	
17			48	26	39	46	29.07	30.13	9.38	10	4	27	
18			46	26	38	47	29.08	30.14	9.59	8	4	27	
19			44	26	37	51	29.09	30.15	9.62	7	2	25	
20			43	26	36	53	29.10	30.16	9.62	7	2	27	
21			41	26	35	56	29.11	30.17	9.50	7	2	30	
22			40	26	35	57	29.11	30.17	9.54	6	2	29	
23			39	26	34	61	29.11	30.17	9.15	6	3	30	
24			39	26	34	62	29.11	30.17	9.22	6	2	31	

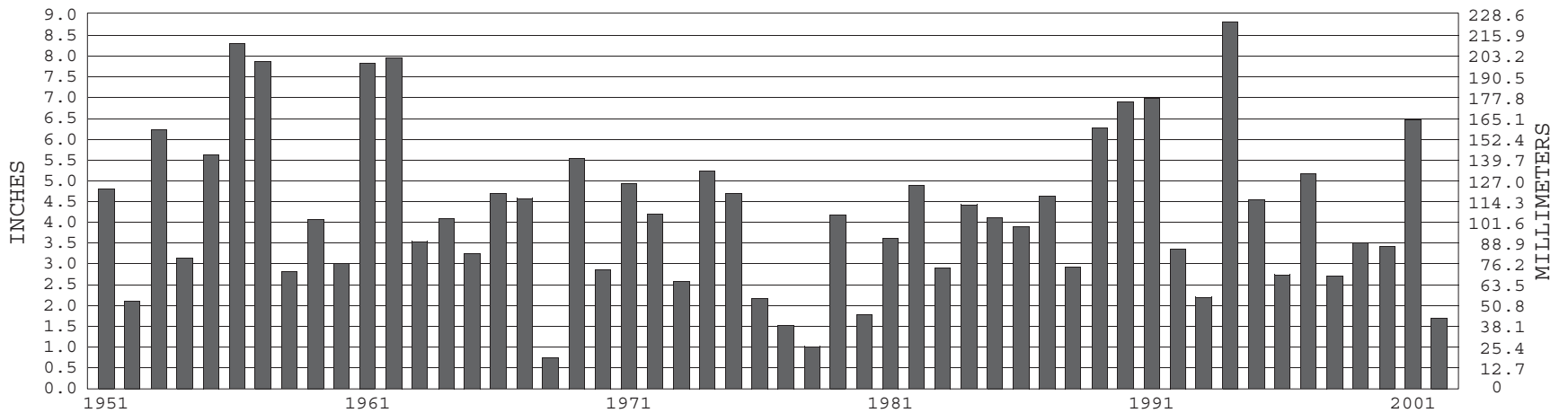
KNOXVILLE, TN FEBRUARY TEMPERATURES



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

Long-Term (1951-2002) Mean: 42.0 1961-1990 Normal: 41.8

KNOXVILLE, TN FEBRUARY PRECIPITATION



Long-Term (1951-2002) Mean Monthly Total: 4.26

1961-1990 Normal: 4.01



FEBRUARY 2002

KNOXVILLE, TN

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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