LOCAL CLIMATOLOGICAL DATA

This publication is comprised of two issues - LOCAL CLIMATOLOGICAL DATA, MONTHLY SUMMARY and LOCAL CLIMATOLOGICAL DATA, ANNUAL SUMMARY WITH COMPARATIVE DATA. They are published individually for about 300 National Weather Service stations.

LOCAL CLIMATOLOGICAL DATA, MONTHLY SUMMARY presents basic climatological data together with a table of hourly precipitation for the month and selected data summarized for every third hour (Exhibit 1) and a listing of observations at 3-hour intervals for each day (Exhibit 2). Winds in this publication, as well as in the ANNUAL SUMMARY (described below) are reported as follows:

a. Directions are reported by tens of degrees clockwise from True North or by one of the 16 compass points (N, NNE, NE, ENE, etc.).

b. Resultant wind is a vector with the direction being that of the vector sum and the magnitude being that of the vector sum divided by the number of observations in the sum. Daily resultants are based upon the eight observations per day at 3-hour intervals and are included when at least seven of the eight observations per day are available; monthly resultants are based upon the daily resultants; and the resultant for the year is based upon the 12 monthly values.

c. Average wind speed is computed from the same observations as resultant wind but without regard to direction.

d. Fastest winds are computed by one of three methods. If the direction is shown as a compass point, the speed is computed from the minimum time during which one mile of wind passed the station. If the direction is expressed in tens of degrees, the speed is the highest one minute average value recorded by the observer. Occasionally entry is the speed of the "peak gust" and is so indicated.

LOCAL CLIMATOLOGICAL DATA, ANNUAL SUMMARY WITH COMPARATIVE DATA contains the following:

a. Narrative Climatological Summary (Exhibit 3).

b. Meteorological Data for the Current Year (Exhibit 4).

   1. The average maximum and average minimum temperatures for the year are the means of the monthly values. The average temperature for the year is the mean of the year's average maximum and average minimum temperatures. Average relative humidity data for the 6-hourly synoptic observations are entered beginning with midnight, or the first observation after midnight, and the year value is the mean of the monthly values.

2. The percentage of possible sunshine for the year is based upon the observed duration - not the mean of the monthly values. Average sky cover data are based upon hourly observations between sunrise and sunset which are reported on a scale of zero to 10 where zero indicates a perfectly clear sky and 10 indicates a completely overcast sky.

3. Thunderstorms and heavy fog frequencies generally are not included in the summary for stations with less than 24-hour weather watch; if data are included for part time stations, the incomplete nature of the data is documented.

4. Station pressure data are based upon eight observations per day at 3-hour intervals and are included when at least seven of the eight observations are available. The year value is the mean of the monthly values.

c. Normals, Means, and Extremes (Exhibit 4).

1. Data from two or more locations, or exposures, are combined when comparable. Accumulated data for elements not currently available are usually retained and the period of record documented. Data in columns under "Mean number of days" are generally limited to complete calendar years and if otherwise, a clarifying footnote is included. The number of years of record for other columns is the number of Januaries (a matter of computer expediency beginning with the 1969 issue) but a partial year at the beginning of the period or a significant break in the record is documented by footnotes until 10 years of data have been accumulated.

2. Mean wind speeds obtained from autographic records for earlier years may be combined with data from hourly observations, or observations at 3-hour intervals, to obtain the mean values for the period of record. The year value is the mean of the monthly values.

3. The mean monthly percent of possible sunshine values are derived by averaging the monthly percentages for the period of record. The year value is the average of yearly percentages for the period of record and is not necessarily the mean of the monthly values.

4. Year values in "Mean number of days" columns are derived from the sum of all actual values (not monthly means) for the period of record. Due to rounding of monthly means, the year value may not be the sum of the monthly means. Monthly means for the mean number of days clear, partly cloudy, and cloudy are adjusted when necessary to cause the sum of the three to equal the number of days in the month; the adjustment being by increasing or decreasing the value for partly cloudy by one.

d. Sequential tables of monthly and annual values of average temperature, heating degree days, cooling degree days, precipitation, and snowfall (Exhibit 5):

1. Data are entered for a maximum of the most recent 40 years of record (20 years for degree days). Stations with short period records may supplement the data in the tables with values from a local cooperative station. In such cases, the substation is included in the station location table.

2. The long-term means (Record Mean) for average temperature, precipitation, and snowfall may be for a longer or shorter period of record than the period listed in the table.

e. A station location table showing in detail a history of any changes in the location and elevation (in feet) of the instrumentation (Exhibit 6).

DECEMBER 1978
FORT SMITH, ARKANSAS
NATIONAL WEATHER SERVICE OFC
MUNICIPAL AIRPORT

Local Climatological Data

MONTHLY SUMMARY

LATITUDE 35° 20′ N LONGITUDE 94° 22′ W ELEVATION (GROUND): 447 FT. STANDARD TIME USED: CENTRAL WBAN #13964

DATE	TEMPERATURE °F MAXIMUM	MINIMUM	AVERAGE	DEPARTURE FROM NORMAL	AVERAGE DEW POINT	DEGREE DAYS BASE 65° HEATING (SEASON BEGINS WITH JULY 1)	COOLING (SEASON BEGINS WITH JAN. 1)	WEATHER TYPES ON DATES OF OCCURRENCE 1 FOG 2 HEAVY FOG 3 THUNDERSTORM 4 ICE PELLETS 5 HAIL 6 GLAZE 7 DUSTSTORM 8 SMOKE, HAZE 9 BLOWING SNOW	SNOW, ICE PELLETS OR ICE ON GROUND AT 06AM IN.	PRECIPITATION WATER EQUIVALENT IN	SNOW, ICE PELLETS IN.	AVG. STATION PRESSURE IN. - - - ELEV. 463 FEET M.S.L.	WIND RESULTANT DIR.	RESULTANT SPEED M.P.H.	AVERAGE SPEED M.P.H.	FASTEST MILE SPEED M.P.H.	FASTEST MILE DIRECTION	SUNSHINE MINUTES	PERCENT OF POSSIBLE	SKY COVER TENTHS SUNRISE TO SUNSET	MIDNIGHT TO MIDNIGHT	DATE
1	2	3	4	5	6	7A	7B	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
1	63	40	52	7	41	13	0		0	0	0	29.39	10	8.1	8.9	9	SE	372	62	7	6	1
2	73	47	60	15	54	5	0	1 3 8	0	.20	0	29.27	11	7.2	9.5	23	W	18	3	10	10	2
3	56	25	41	-3	30	24	0	1	0	.01	0	29.41	30	12.8	13.2	17	W	77	13	8	7	3
4	45	22	34	-10	20	31	0		0	0	0	29.47	26	5.9	6.2	9	W	595	100	0	1	4
5	66	27	47	3	28	18	0		0	0	0	29.19	13	3.1	7.2	23	SW	594	100	0	0	5
6	45	38	42	-2	37	23	0	1	0	.72	0	29.38	07	2.1	6.3	12	E	0	0	10	10	6
7	42	29	36	-7	34	29	0	1 6 8	0	.01	0	29.49	30	7.7	10.8	14	N	0	0	10	10	7
8	29	23	26	-17	21	39	0	1 4 6	T	.04	T	29.71	34	12.5	12.7	20	NW	0	0	10	10	8
9	32	18	25*	-18	13	40	0		0	0	0	29.87	29	10.1	10.6	15	W	591	100	0	1	9
10	45	17*	31	-12	16	34	0		0	0	0	29.91	20	1.0	3.9	6	SW	590	100	0	0	10
11	50	20	35	-7	20	30	0		0	0	0	29.95	25	3.3	4.3	10	W	558	95	1	1	11
12	60	22	41	-1	23	24	0		0	0	0	29.86	14	1.9	4.8	16	SW	589	100	0	0	12
13	52	25	39	-3	24	26	0		0	0	0	29.97	34	5.2	6.0	17	N	397	67	6	5	13
14	52	20	36	-6	21	29	0		0	0	0	29.90	22	1.3	3.7	7	SW	572	97	2	3	14
15	55	25	40	-1	28	25	0		0	0	0	29.57	06	6.6	6.6	10	E	300	51	5	5	15
16	58	28	43	2	30	22	0		0	0	0	29.72	35	6.7	9.1	18	N	180	31	9	8	16
17	48	19	34	-7	20	31	0		0	0	0	30.00	05	.6	4.9	5	E	452	77	6	5	17
18	61	38	50	9	34	15	0		0	0	0	29.58	15	1.6	7.3	16	SW	0	0	10	10	18
19	77*	43	60*	19	49	5	0	1	0	0	0	29.29	17	2.3	7.2	12	SW	302	51	9	9	19
20	68	38	53	12	48	12	0		0	.20	0	29.23	29	7.0	10.1	22	W	131	22	10	7	20
21	49	26	38	-2	23	27	0		0	0	0	29.58	27	7.0	7.3	12	W	587	100	0	0	21
22	57	21	39	-1	25	26	0		0	0	0	29.57	08	2.5	3.0	5	E	586	100	0	0	22
23	61	31	46	6	32	19	0		0	.09	0	29.32	09	3.1	8.8	12	E	316	55	8	6	23
24	41	24	33	-7	25	32	0		0	0	0	29.41	31	8.2	9.8	18	NW	264	45	6	4	24
25	53	23	38	-2	24	27	0		0	0	0	29.49	06	4.2	4.8	7	E	586	100	0	0	25
26	50	25	38	-2	21	27	0		0	0	0	29.76	36	3.3	5.8	7	N	388	66	4	3	26
27	42	21	32	-7	19	33	0		0	0	0	29.82	10	6.8	8.3	12	E	206	35	7	6	27
28	56	36	46	7	24	19	0		0	.01	0	29.57	10	10.2	10.8	13	E	192	33	8	9	28
29	45	41	43	4	36	22	0	1	0	.29	0	29.56	07	6.8	9.1	13	E	0	0	10	10	29
30	44	31	38	-1	32	27	0	1 6	0	.23	0	29.68	25	7.5	9.5	12	W	0	0	10	10	30
31	34	22	28	-11	27	37	0	1 6	0	1.46	0	29.58	27	9.3	9.9	23	W	0	0	10	10	31
SUM	1610	SUM	865			TOTAL 771	TOTAL 0			TOTAL 3.26	TOTAL T	FOR THE MONTH: 29.60	33	1.4	7.7	23	W	TOTAL 9443	% FOR MONTH 76	SUM 176	SUM 166	
AVG.	51.9	AVG. 27.9	AVG. 39.9	DEP. -1.6	AVG. 28	DEP. 42	DEP. 0	NUMBER OF DAYS PRECIPITATION >.01 INCH 11		DEP.						DATE: 31+		POSSIBLE 18269		AVG. 5.7	AVG. 5.4	

NUMBER OF DAYS				SEASON TO DATE	
MAXIMUM TEMP.		MINIMUM TEMP.		TOTAL	TOTAL
≥ 90°	≤ 32°	≤ 32°	≤ 0°	DEP.	DEP.
0	2	23	0	-39	238

SNOW, ICE PELLETS	
TOTAL	TOTAL
1263	2260
NUMBER OF DAYS PRECIPITATION >.01 INCH	11
SNOW, ICE PELLETS >1.0 INCH	0
THUNDERSTORMS	1
HEAVY FOG	0

GREATEST IN 24 HOURS AND DATES			
PRECIPITATION		SNOW, ICE PELLETS	
1.59	30-31	T	8

GREATEST DEPTH ON GROUND OF SNOW, ICE PELLETS OR ICE AND DATE	
T	8

CLEAR 10 PARTLY CLOUDY 7 CLOUDY 14

* EXTREME FOR THE MONTH - LAST OCCURRENCE IF MORE THAN ONE.
T TRACE AMOUNT
+ ALSO ON AN EARLIER DATE, OR DATES.
HEAVY FOG: - VISIBILITY 1/4 MILE OR LESS.
FIGURES FOR WIND DIRECTIONS ARE TENS OF DEGREES CLOCKWISE FROM TRUE NORTH. 00 = CALM.
DATA IN COLS. 6 AND 12-15 ARE BASED ON 7 OR MORE OBSERVATIONS PER DAY AT 3-HOUR INTERVALS.
FASTEST MILE WIND SPEEDS ARE FASTEST OBSERVED ONE-MINUTE VALUES WHEN DIRECTIONS ARE IN TENS OF DEGREES. THE / WITH THE DIRECTION INDICATES PEAK GUST SPEED.
ANY ERRORS DETECTED WILL BE CORRECTED AND CHANGES IN SUMMARY DATA WILL BE ANNOTATED IN THE ANNUAL SUMMARY

SUMMARY BY HOURS

HOUR LOCAL TIME	AVERAGES SKY COVER TENTHS	STATION PRESSURE IN.	TEMPERATURE AIR °F	WET BULB °F	DEW PT. °F	RELATIVE HUMIDITY %	WIND SPEED M.P.H.	RESULTANT WIND DIRECTION	SPEED M.P.H.
00	4	29.60	36	33	28	76	6.2	03	1.4
03	5	29.60	33	31	28	81	6.5	36	2.2
06	5	29.60	32	31	27	83	6.5	35	1.8
09	6	29.63	36	33	29	78	8.1	01	2.0
12	6	29.61	46	39	29	56	10.0	28	1.8
15	6	29.56	49	41	28	48	11.0	26	2.5
18	5	29.57	42	37	28	58	7.7	32	1.2
21	5	29.60	37	34	28	70	6.0	35	2.0

HOURLY PRECIPITATION (WATER EQUIVALENT IN INCHES)

DATE	A. M. HOUR ENDING AT 1	2	3	4	5	6	7	8	9	10	11	12	P. M. HOUR ENDING AT 1	2	3	4	5	6	7	8	9	10	11	12	DATE
1																									1
2																						T	.05	.15	2
3	T		T	T	T	.01				T	T														3
4																									4
5																									5
6													T	T	T	.04	.11	.06	.15	.11	.10	.11	.04	T	6
7	T			T	T	.01	T		T	T	T	T											T		7
8	T	.01	T	T	T	.02	T	T	.01	T															8
9																									9
10																									10
11																									11
12																									12
13																									13
14																									14
15																									15
16																									16
17																									17
18																									18
19																									19
20		T	.05	.04	.01	.03	.05	.01	.01	T															20
21																									21
22																									22
23																				T	T	.09			23
24																									24
25																									25
26																									26
27																									27
28		T	.01													T									28
29					T	.01	.01			.01	.05	.08	.12	T									.01	T	29
30	.01	T	T	T	T	T	T			.02	.08	.05	T	T		T	T	T	T	T	.01	T	.02	.06	30
31	.05	.10	.17	.13	.15	.24	.21	.07	.11	.16	.06	.01	T	T											31

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USCOMM--NOAA--ASHEVILLE 01/25/79 350

DECEMBER 1978 FORT SMITH, ARKANSAS

EXHIBIT 2

OBSERVATIONS AT 3-HOUR INTERVALS

HOUR	SKY COVER TENTHS	CEILING HNDS. OF FT.	VISIBILITY WHOLE MILES	VISIBILITY 16THS MILE	WEATHER	TEMPERATURE AIR °F	TEMPERATURE WET BULB °F	TEMPERATURE DEW PT. °F	REL. HUM. %	WIND DIR	WIND SPEED KNOTS
DAY 01											
00	2	UNL	15		R	42	40	38	86	08	6
03	0	UNL	15			41	39	37	86	07	6
06	7	46	12			41	40	38	89	07	5
09	10	UNL	15			45	43	40	83	09	10
12	7	UNL	20			60	51	42	52	14	8
15	4	UNL	20			63	53	44	50	13	10
18	8	UNL	10			53	48	44	72	11	9
21	4	UNL	10			48	46	43	83	08	8
DAY 02											
00	4	UNL	10			47	45	44	89	09	8
03	10	27	6		F	50	48	47	89	07	9
06	10	29	6		F	54	52	50	86	08	5
09	10	250	8			57	55	53	87	07	7
12	10	30	15			72	63	58	62	13	10
15	10	33	20			72	64	59	64	18	13
18	10	26	10			69	64	61	76	12	7
21	10	250	7			62	60	59	90	07	7
DAY 03											
00	10	7	5		F	56	55	54	93	28	10
03	10	10	10		R	45	43	41	86	28	14
06	10	11	15			38	37	35	89	30	13
09	10	12	10			34	33	30	85	32	11
12	10	17	15			33	30	25	72	31	13
15	9	200	25			33	29	21	61	30	13
18	0	UNL	15			29	25	16	58	32	10
21	0	UNL	15			27	24	16	63	30	8
DAY 04											
00	3	UNL	15			25	23	18	69	26	5
03	9	140	15			26	24	18	72	27	6
06	1	UNL	20			23	22	19	85	26	4
09	0	UNL	25			27	25	21	78	25	6
12	0	UNL	25			38	32	20	48	27	10
15	0	UNL	25			45	36	20	37	28	8
18	0	UNL	15			38	32	21	50	22	4
21	0	UNL	15			32	29	23	69	00	0
DAY 05											
00	0	UNL	15			30	28	23	75	06	3
03	0	UNL	15			27	26	24	88	10	3
06	0	UNL	20			29	28	25	85	06	6
09	0	UNL	25			34	32	28	79	06	7
12	0	UNL	25			54	44	32	43	12	8
15	0	UNL	25			65	49	30	27	20	12
18	0	UNL	15			60	46	30	32	22	8
21	0	UNL	15			42	39	34	73	07	3
DAY 06											
00	0	UNL	15			43	39	33	68	16	4
03	0	UNL	15			40	37	33	76	04	5
06	10	20	15			42	39	35	76	25	6
09	10	25	15			42	39	35	76	26	5
12	10	12	7			45	41	37	74	08	3
15	10	5	1		LF	44	43	41	89	06	8
18	10	18	3		RF	43	42	41	93	09	9
21	10	5	3		RF	41	40	39	93	01	4
DAY 07											
00	10	15	5		RF	41	40	39	93	07	6
03	10	3	5		F	42	41	40	93	10	5
06	10	2	1	8	LF	42	42	41	96	27	10
09	10	3	1		LF	39	38	37	93	29	12
12	10	5	7			38	37	35	89	30	8
15	10	9	7			35	33	30	82	30	10
18	10	10	5		H	31	29	26	82	29	13
21	10	13	5		H	31	29	25	78	31	11
DAY 08											
00	10	11	4		F	29	28	25	85	35	11
03	10	7	3		ZLF	28	27	24	85	32	9
06	10	11	7		ZL	25	24	21	85	35	8
09	10	23	10			25	24	20	81	33	13
12	10	40	15			26	24	19	75	34	14
15	10	23	20			28	26	20	72	34	10
18	10	22	15			26	24	18	72	33	13
21	10	22	12			24	23	18	78	33	10
DAY 09											
00	10	46	15			23	21	14	68	32	10
03	10	40	15			22	20	12	65	30	10
06	0	UNL	15			19	18	12	74	31	8
09	0	UNL	25			20	18	12	71	28	8
12	0	UNL	25			27	23	13	55	30	13
15	0	UNL	25			32	26	13	45	27	12
18	0	UNL	25			26	22	12	55	27	8
21	0	UNL	15			21	19	14	74	27	5
DAY 10											
00	0	UNL	15			20	19	14	77	24	3
03	0	UNL	15			18	18	15	88	00	0
06	0	UNL	15			18	18	15	88	08	3
09	0	UNL	25			22	21	19	88	08	4
12	0	UNL	25			38	30	14	37	27	4
15	2	UNL	25			45	34	15	30	22	7
18	0	UNL	15			37	29	14	39	18	3
21	0	UNL	15			28	26	20	72	04	3
DAY 11											
00	0	UNL	15			23	22	19	85	23	3
03	0	UNL	15			22	21	19	88	00	0
06	0	UNL	15			21	20	18	88	00	0
09	5	UNL	25			27	26	23	85	12	3
12	0	UNL	25			44	35	21	40	24	11
15	0	UNL	25			48	37	19	32	29	7
18	0	UNL	25			38	32	20	48	27	3
21	0	UNL	15			29	27	22	75	27	3
DAY 12											
00	0	UNL	15			27	26	22	81	06	3
03	0	UNL	15			23	22	20	88	00	0
06	0	UNL	15			22	21	19	88	06	2
09	0	UNL	25			29	28	25	85	07	4
12	0	UNL	25			44	38	29	56	07	6
15	0	UNL	25			60	44	22	23	21	11
18	0	UNL	20			45	36	22	40	20	4
21	0	UNL	20			33	30	23	67	13	3
DAY 13											
00	0	UNL	20			29	27	23	78	00	0
03	0	UNL	20			26	25	22	85	06	2
06	0	UNL	20			26	25	22	85	00	0
09	2	UNL	25			37	34	28	70	30	4
12	4	UNL	25			50	40	27	41	32	10
15	10	250	25			50	39	24	36	35	11
18	10	UNL	20			43	35	20	40	02	8
21	10	UNL	20			38	32	22	53	31	7
DAY 14											
00	8	UNL	20			29	27	22	75	26	4
03	8	UNL	15			26	25	21	81	22	3
06	4	UNL	15			23	22	20	88	23	3
09	2	UNL	25			27	26	24	88	09	3
12	4	UNL	25			42	36	26	53	08	6
15	0	UNL	25			52	39	17	25	24	7
18	0	UNL	20			42	34	19	40	00	0
21	0	UNL	20			33	29	20	59	00	0
DAY 15											
00	0	UNL	20			29	27	22	75	00	0
03	0	UNL	15			27	26	23	85	06	5
06	10	UNL	15			27	26	23	85	06	4
09	10	40	25			32	30	25	75	05	7
12	0	UNL	25			45	38	29	54	06	8
15	9	UNL	25			55	46	35	47	06	10
18	4	UNL	20			47	41	34	61	07	6
21	0	UNL	15			40	37	34	79	07	6
DAY 16											
00	10	40	10			43	40	36	76	07	7
03	10	22	10			43	40	37	79	05	5
06	10	15	8			43	41	38	83	06	5
09	10	14	7			48	45	41	77	34	4
12	10	250	15			57	46	34	42	33	12
15	8	UNL	25			55	42	25	31	34	15
18	10	250	15			47	36	15	28	34	8
21	6	UNL	15			36	29	16	44	29	7
DAY 17											
00	0	UNL	15			29	26	18	63	23	3
03	0	UNL	15			25	23	17	72	25	5
06	0	UNL	15			20	19	15	81	24	4
09	0	UNL	25			31	28	21	66	24	3
12	8	UNL	25			42	34	21	43	06	6
15	9	250	25			48	37	20	33	05	6
18	10	140	15			42	35	23	47	06	4
21	10	120	15			39	33	23	53	08	3
DAY 18											
00	10	120	15			41	35	24	51	05	6
03	10	100	15			39	34	27	62	06	3
06	10	100	15			40	35	28	62	07	5
09	10	250	25			42	37	29	60	05	7
12	10	200	25			58	48	36	44	22	13
15	10	220	25			61	51	41	48	21	9
18	10	250	15			55	49	43	64	19	5
21	10	250	15			47	45	42	83	06	3
DAY 19											
00	10	31	8			50	47	45	83	10	5
03	10	UNL	8			47	45	44	89	06	5
06	4	UNL	4		F	45	44	43	93	06	4
09	10	UNL	3		F	49	48	47	93	05	7
12	9	120	20			71	61	54	55	20	11
15	9	120	25			75	62	52	45	21	8
18	9	250	15			63	56	51	65	21	5
21	10	200	10			65	59	54	68	24	5
DAY 20											
00	10	150	10			66	60	56	70	23	5
03	10	120	7		R	58	56	55	90	03	5
06	10	75	6		R	64	61	59	84	25	5
09	10	90	15		R	64	60	58	81	22	12
12	9	100	20			67	60	55	66	30	15
15	9	110	10			52	46	39	61	31	11
18	5	UNL	10			44	40	34	68	29	8
21	0	UNL	7			43	36	25	49	34	9
DAY 21											
00	0	UNL	10			38	32	22	53	30	9
03	0	UNL	15			31	28	23	72	25	6
06	0	UNL	15			26	25	22	85	27	7
09	0	UNL	25			32	29	24	72	25	7
12	0	UNL	25			42	35	24	49	27	8
15	0	UNL	25			48	38	21	34	27	10
18	0	UNL	15			38	32	22	53	26	4
21	0	UNL	15			31	29	25	78	00	0
DAY 22											
00	0	UNL	15			29	28	24	82	05	3
03	0	UNL	15			26	25	22	85	04	4
06	0	UNL	15			22	22	20	92	09	3
09	0	UNL	25			30	28	25	82	11	3
12	0	UNL	25			47	38	26	44	14	3
15	0	UNL	25			58	43	26	32	06	3
18	0	UNL	25			44	37	27	51	12	2
21	0	UNL	20			34	31	27	76	00	0
DAY 23											
00	0	UNL	20			31	29	26	82	06	3
03	0	UNL	15			32	30	26	79	04	7
06	0	UNL	15			33	30	26	75	07	7
09	10	250	25			38	34	29	70	07	8
12	10	250	25			60	47	32	35	21	8
15	7	250	25			59	48	36	42	15	13
18	8	50	25			51	44	37	59	12	5
21	10	45	15		RW	49	45	40	71	32	10
DAY 24											
00	0	UNL	15			41	38	35	79	27	7
03	0	UNL	15			36	33	27	70	33	14
06	10	19	10			35	32	27	73	33	11
09	10	19	10			31	28	23	72	34	11
12	7	21	20			31	28	22	69	30	8
15	0	UNL	20			38	33	23	55	27	8
18	0	UNL	25			32	28	20	61	25	7
21	0	UNL	20			28	25	19	69	26	2
DAY 25											
00	0	UNL	20			24	23	19	81	00	0
03	0	UNL	15			24	23	20	85	04	5
06	0	UNL	15			23	22	20	88	08	4
09	0	UNL	25			29	28	24	82	07	5
12	0	UNL	25			44	37	25	47	06	4
15	0	UNL	25			53	42	27	37	08	8
18	1	UNL	25			43	37	28	56	01	7
21	0	UNL	20			33	31	28	82	00	0
DAY 26											
00	0	UNL	20			34	31	27	76	05	5
03	0	UNL	15			29	28	24	82	27	3
06	9	65	15			36	32	24	62	36	8
09	10	80	25			37	32	22	55	33	4
12	1	UNL	25			43	34	19	38	18	3
15	0	UNL	25			50	38	17	27	34	5
18	0	UNL	25			39	32	18	43	35	8
21	0	UNL	20			34	29	18	52	11	4
DAY 27											
00	0	UNL	20			25	23	17	72	02	6
03	0	UNL	15			25	24	20	81	05	4
06	2	UNL	15			23	22	18	81	08	4
09	2	UNL	25			28	26	22	78	07	7
12	10	75	25			40	33	19	43	14	11
15	10	70	25			42	34	20	41	12	10
18	10	70	15			40	33	20	45	11	7
21	10	65	15			39	32	19	45	10	9
DAY 28											
00	10	60	15			38	31	19	46	10	10
03	10	36	10			36	32	24	62	08	9
06	10	38	15			37	32	23	57	08	10
09	10	50	25			37	32	23	57	08	11
12	10	50	25			46	37	22	39	13	12
15	5	UNL	25			55	42	25	31	12	9
18	10	70	15			49	41	31	50	10	7
21	10	50	15			48	40	28	46	09	7
DAY 29											
00	10	55	15			45	38	28	51	08	8
03	10	50	15			42	37	29	60	06	7
06	10	60	10			41	38	33	73	05	6
09	10	38	20			42	39	34	73	09	9
12	10	13	4		R	41	39	37	86	07	10
15	10	4	3		F	43	42	40	89	08	8
18	10	3	2	8	F	43	42	41	93	07	8
21	10	2	1	8	F	44	43	42	93	07	7
DAY 30											
00	10	2	1		LF	44	43	42	93	08	7
03	10	2	2		LF	35	35	34	96	25	11
06	10	2	2		LF	34	33	32	92	25	10
09	10	2	0	8	F	34	33	32	92	25	8
12	10	4	3		F	33	32	30	89	25	8
15	10	5	3		F	33	32	30	89	25	8
18	10	3	2		LF	32	31	29	89	26	7
21	10	1	0	12	ZLF	31	30	29	92	24	7
DAY 31											
00	10	2	2		ZRF	31	30	29	92	24	8
03	10	5	3		RF	32	31	29	89	26	5
06	10	3	3		RF	32	31	30	92	24	6
09	10	3	2	8	RF	33	32	30	89	26	8
12	10	5	5		F	34	33	31	89	28	6
15	10	7	5		F	29	28	25	85	27	16
18	10	12	7			27	26	22	81	30	10
21	10	12	7			24	23	18	78	29	10

STATION

FORT SMITH ARK

YEAR & MONTH

78 12

NOTES

CEILING

UNL INDICATES UNLIMITED

WEATHER

- * TORNADO
- T THUNDERSTORM
- Q SQUALL
- R RAIN
- RW RAIN SHOWERS
- ZR FREEZING RAIN
- L DRIZZLE
- ZL FREEZING DRIZZLE
- S SNOW
- SP SNOW PELLETS
- IC ICE CRYSTALS
- SW SNOW SHOWERS
- SG SNOW GRAINS
- IP ICE PELLETS
- A HAIL
- F FOG
- IF ICE FOG
- OF GROUND FOG
- BD BLOWING DUST
- BN BLOWING SAND
- BS BLOWING SNOW
- BY BLOWING SPRAY
- K SMOKE
- H HAZE
- D DUST

WIND

DIRECTIONS ARE THOSE FROM WHICH THE WIND BLOWS. INDICATED IN TENS OF DEGREES FROM TRUE NORTH: I.E., 09 FOR EAST, 18 FOR SOUTH, 27 FOR WEST. ENTRY OF 00 IN THE DIRECTION COLUMN INDICATES CALM.

SPEED IS EXPRESSED IN KNOTS; MULTIPLY BY 1.15 TO CONVERT TO MILES PER HOUR.

Local Climatological Data

Annual Summary With Comparative Data

1978

FORT SMITH, ARKANSAS

Narrative Climatological Summary

A summary of records shows that the climate of the Fort Smith area has varied very little, generally, since the station was first established over three-fourths of a century ago. Variations from the averages do occur, but seasonal and yearly averages vary but little.

The highest temperature ever recorded was 113°; the lowest 15° below zero. The greatest yearly rainfall was 71.81 inches; the least 19.80 inches. These are the extremes; however, the average year has adequate rainfall for the production of farm crops. The bottom lands are very fertile and produce large yields of hay and other crops, which include beans and spinach. Since the average winter does not produce severe cold weather, two or more crops can usually be raised during the year. This is notably true of spinach, of which three or four harvests can be made each year. The uplands, which consist of both wooded areas and open grazing lands, are not so productive but, thanks to adequate rainfall, furnish excellent range throughout the year.

The climate is well suited to the raising of fruits and berries, and a large acreage of these is grown each year. Among the principal ones are peaches, pears, apples, strawberries, and boysenberries. The mild winters and adequate rainfall are productive of much vegetation, and small wild game is plentiful. The streams and lakes are normally well filled with water, in which excellent game fish abound.

Summer temperatures, especially in the lower valley land, occasionally rise to uncomfortable heights during the hottest summer days; however, the mountain areas, within a short distance of Fort Smith, afford adequate relief, and many resorts and cottages are located on the main highways, as well as in the more isolated areas of the mountains.

The surrounding terrain has a perceptible influence of Fort Smith weather. The City is located at the confluence of the Poteau and Arkansas Rivers; 20-odd miles to the northwest are the Cookson Hills with an elevation of approximately 1,500 feet above sea level; and to the northeast are the Boston Mountains with an elevation of about 2,700 feet. West, south, and east the general terrain consists of broken hills separated by creek and river-bottom land. The final effect of the contour and topography of the Arkansas River Valley, with their significant bearing on the winds of the region, is to give those of Fort Smith a predominantly east or northeast direction during all seasons of the year.

noaa NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION / ENVIRONMENTAL DATA AND INFORMATION SERVICE / NATIONAL CLIMATIC CENTER ASHEVILLE, N.C.

EXHIBIT 4

Meteorological Data For The Current Year

Station: FORT SMITH, ARKANSAS # 13964 MUNICIPAL AIRPORT Standard time used: CENTRAL Latitude: 35° 20' N Longitude: 94° 22' W Elevation (ground): 447 feet Year: 1978

Month	Temperature °F: Averages: Daily maximum	Daily minimum	Monthly	Extremes: Highest	Date	Lowest	Date	Degree days Base 65 °F: Heating	Cooling	Precipitation in inches: Water equivalent: Total	Greatest in 24 hrs.	Date	Snow, Ice pellets: Total	Greatest in 24 hrs.	Date	Relative humidity, pct. (Local time): Hour 00	Hour 06	Hour 12	Hour 18	Wind: Resultant: Direction	Speed m.p.h.	Average speed m.p.h.	Fastest mile: Speed m.p.h.	Direction	Date	Percent of possible sunshine	Average sky cover, tenths, sunrise to sunset	Number of days: Sunrise to sunset: Clear	Partly cloudy	Cloudy	Precipitation .01 inch or more	Snow, Ice pellets 1.0 inch or more	Thunderstorms	Heavy fog, visibility ¼ mile or less	Temperature °F: Maximum (b): 90° and above	32° and below	Minimum: 32° and below	0° and below	Average station pressure mb Elev. 463 feet m.s.l.
JAN	36.5	19.4	28.0	66	5	10	21	1143	0	2.15	0.88	16	11.7	4.9	11-12	75	79	65	66	35	3.1	8.5	32	NW	25	48	7.0	6	8	17	8	4	0	4	0	14	28	0	1007.5
FEB	39.0	24.7	31.9	67	24	4	19	924	0	2.66	1.08	12-13	10.0	5.8	16-17	75	77	64	65	03	2.0	8.6	32	W	13	40	6.9	7	4	17	9	5	0	2	0	6	25	0	1005.4
MAR	59.2	35.6	47.4	87	31	16	4	537	0	4.20	2.14	23-24	0.2	0.2	8	78	80	58	53	34	2.1	8.8	30	E	16	52	6.3	9	6	16	11	0	4	3	0	0	9	0	1001.0
APR	76.5	49.5	63.0	86	7	34	21	113	60	1.94	0.77	10	0.0	0.0		73	83	44	46	14	0.5	8.6	34	W	18	72	5.9	6	11	13	10	0	10	1	0	0	0	0	997.6
MAY	78.7	57.6	68.2	91	26	45	5	69	173	5.16	1.40	20-21	0.0	0.0		84	87	59	57	08	2.1	8.2	34	W	1	68	6.0	10	7	14	13	0	12	2	3	0	0	0	996.3
JUN	87.1	66.3	76.7	95	29	51	9	0	357	3.05	0.90	6	0.0	0.0		83	88	59	58	12	1.9	6.0	30	N	20	72	5.1	12	8	10	10	0	10	0	12	0	0	0	999.7
JUL	97.5	72.7	85.1	104	30	67	28	0	632	0.49	0.31	15	0.0	0.0		73	84	46	40	11	1.8	6.8	42	N	26	88	2.8	22	7	2	3	0	4	0	30	0	0	0	998.0
AUG	95.6	70.4	83.0	104	13	61	31	0	567	0.47	0.41	28-29	0.0	0.0		68	80	44	42	08	2.2	7.2	26	NW	2	67	4.8	11	13	7	4	0	4	0	25	0	0	0	999.7
SEP	89.8	67.7	78.8	100	4	57	30	0	419	0.84	0.31	8-9	0.0	0.0		77	85	51	52	10	2.8	6.5	18	SW	18	56	6.6	7	9	14	5	0	4	2	17	0	0	0	999.7
OCT	78.6	45.2	61.9	92	21	30	27	133	46	0.17	0.05	10	0.0	0.0		67	81	39	38	07	1.5	6.5	23	SW	25	77	2.9	21	4	6	5	0	3	1	3	0	1	0	1003.1
NOV	63.7	42.2	53.0	84	4	28	28	359	6	7.12	2.34	15	0.0	0.0		80	85	63	65	06	2.0	7.2	24	SW	13	40	6.2	10	6	14	8	0	5	1	0	0	6	0	1002.7
DEC	51.9	27.9	39.9	77	19	17	10	771	0	3.26	1.59	30-31	T	T	8	76	83	56	58	33	1.4	7.7	23	W	31	52	5.7	10	7	14	11	0	1	0	0	2	23	0	1002.4
YEAR	71.2	48.3	59.8	104	AUG 13	4	FEB 19	4049	2260	31.51	2.34	NOV 15	21.9	5.8	FEB 16-17	76	83	54	53	05	1.2	7.6	42	N	JUL 26	62	5.5	131	90	144	97	9	57	16	90	22	92	0	1001.1

Normals, Means, And Extremes

Month	Temperatures °F: Normal: Daily maximum	Daily minimum	Monthly	Extremes: Record highest	Year	Record lowest	Year	Normal Degree days Base 65 °F: Heating	Cooling	Precipitation in inches: Water equivalent: Normal	Maximum monthly	Year	Minimum monthly	Year	Maximum in 24 hrs.	Year	Snow, Ice pellets: Maximum monthly	Year	Maximum in 24 hrs.	Year	Relative humidity pct. (Local time): Hour 00	Hour 06	Hour 12	Hour 18	Wind: Mean speed m.p.h.	Prevailing direction	Fastest mile: Speed m.p.h.	Direction	Year	Pct. of possible sunshine	Mean sky cover, tenths, sunrise to sunset	Mean number of days: Sunrise to sunset: Clear	Partly cloudy	Cloudy	Precipitation .01 inch or more	Snow, Ice pellets 1.0 inch or more	Thunderstorms	Heavy fog, visibility ¼ mile or less	Temperatures °F: Max. (b): 90° and above	32° and below	Min.: 32° and below	0° and below	Average station pressure mb. Elev. 463 feet m.s.l.
(a)				33		33					33		33		33		33		33		14	14	14	14	33	14	33	33		33	33	33	33	33	33	33	33	33	33	14	14	14	14	6
J	49.9	28.0	39.0	81	1952	-10	1977	806	0	2.38	11.33	1949	0.33	1976	5.42	1949	13.0	1977	7.4	1977	76	80	59	61	8.1	ENE	42	N	1967	49	6.4	9	6	16	7	1	1	2	0	4	24	*	1004.5
F	54.0	32.0	43.3	86	1962	-9	1951	608	0	3.20	7.94	1951	0.14	1947	3.96	1966	11.5	1960	5.8	1978	73	78	55	53	8.5	ENE	56	N	1956	55	6.0	9	6	13	8	1	2	1	0	1	18	0	1002.3
M	62.1	38.5	50.3	94	1974	7	1948	471	15	3.64	8.52	1953	0.80	1971	3.62	1953	5.3	1960	5.3	1968	71	77	51	48	9.5	ENE	41	SW	1960	56	6.7	9	7	15	9	*	5	1	*	*	8	0	997.9
A	74.2	50.2	62.2	93	1962	22	1975	132	48	4.74	10.32	1957	0.90	1955	5.12	1964	T	1973	T	1973	74	81	51	47	8.9	ENE	45	*	1966	60	6.0	9	7	14	10	0	7	*	*	0	1	0	998.8
M	81.3	58.6	70.1	98	1951	35	1954	17	175	5.48	12.09	1957	0.79	1970	5.02	1968	0.0		0.0		81	86	55	54	7.8	NE	57	NW	1960	63	6.0	8	10	13	10	0	9	1	1	0	0	0	996.6
J	89.0	67.0	78.0	105	1953	47	1972	0	390	3.93	10.40	1950	0.38	1954	3.48	1977	0.0		0.0		82	87	56	55	6.7	NE	58	N	1951	69	5.4	10	10	10	8	0	8	1	12	0	0	0	998.2
J	93.8	70.5	82.2	111	1954	50	1972	0	533	3.24	10.41	1960	0.11	1947	7.13	1960	0.0		0.0		80	87	54	51	6.3	NE	44	NE	1965	71	5.2	11	11	9	8	0	8	1	23	0	0	0	999.3
A	93.5	69.3	81.4	110	1964	51	1967	0	508	2.91	6.57	1971	0.44	1973	5.09	1971	0.0		0.0		80	87	51	50	6.4	NE	44	NE	1950	71	4.8	12	11	8	7	0	7	1	21	0	0	0	999.9
S	86.3	61.7	74.0	106	1947	33	1967	0	274	3.31	8.96	1974	0.06	1956	3.95	1974	0.0		0.0		84	87	56	58	6.6	NE	52	NE	1949	64	5.0	12	6	10	8	0	5	1	9	0	0	0	1000.0
O	76.5	49.9	63.2	96	1963	22	1952	135	79	3.47	12.05	1951	T	1964	5.90	1951	0.0		0.0		91	86	50	56	6.7	NE	54	N	1946	66	4.7	14	7	10	6	0	3	2	2	0	1	0	1002.7
N	62.7	38.0	50.4	86	1955	8	1976	438	0	3.08	14.01	1946	0.59	1954	6.91	1973	4.7	1976	4.7	1976	78	82	55	60	7.8	NE	56	N	1952	56	5.4	12	5	13	7	*	3	1	0	*	9	0	1002.3
D	52.2	30.8	41.5	82	1951	1	1963	729	0	2.89	10.09	1971	0.53	1950	5.78	1971	7.2	1975	7.1	1975	78	81	60	64	8.1	ENE	45	SW	1971	51	6.0	10	6	15	7	*	2	2	0	1	20	0	1002.1
YR	73.0	49.6	61.3	111	JUL 1954	-10	JAN 1977	3336	2022	42.27	14.01	NOV 1946	T	OCT 1964	7.13	JUL 1960	13.0	JAN 1977	7.4	JAN 1977	78	83	54	55	7.6	NE	58	N	JUN 1951	62	5.6	125	94	146	96	3	57	15	68	6	81	*	1000.4

Means and extremes above are from existing and comparable exposures. Annual extremes have been exceeded at other sites in the locality as follows: Highest temperature 113 in August 1936; lowest temperature -15 in February 1899; maximum monthly precipitation 15.02 in June 1945; maximum precipitation in 24 hours 8.58 in June 1945; maximum monthly snowfall 18.3 in February 1921; and maximum snowfall in 24 hours 17.5 in February 1921.

(a) Length of record, years, through the current year unless otherwise noted, based on January data.
(b) 70° and above at Alaskan stations.
* Less than one half.
T Trace.

NORMALS - Based on record for the 1941-1970 period.
DATE OF AN EXTREME - The most recent in cases of multiple occurrence.
PREVAILING WIND DIRECTION - Record through 1963.
WIND DIRECTION - Numerals indicate tens of degrees clockwise from true north. 00 indicates calm.
FASTEST MILE WIND - Speed is fastest observed 1-minute value when the direction is in tens of degrees.

Average Temperature

Year	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Annual
1939	45.6	41.4	56.4	59.7	71.0	79.1	85.5	83.6	83.4	67.0	49.2	46.5	64.0
1940	26.4	41.8	52.3	59.9	68.5	76.8	81.0	78.9	72.4	67.2	49.6	46.0	60.1
1941	43.2	41.0	48.0	64.4	73.4	77.2	83.4	81.2	76.8	68.4	50.8	45.6	62.8
1942	37.4	41.8	52.7	64.7	68.8	78.4	82.4	80.4	72.5	63.6	54.6	42.8	61.6
1943	40.4	48.2	47.2	64.9	70.8	80.8	85.6	88.0	73.6	61.5	50.2	40.0	62.6
1944	41.5	47.4	51.0	62.1	71.6	80.8	82.7	81.6	74.9	66.1	53.6	38.0	62.5
#1945	39.9	43.8	58.4	62.4	67.8	76.0	80.1	80.6	75.0	60.8	53.4	36.3	61.2
1946	39.7	47.4	58.0	65.3	66.1	76.2	82.6	81.4	74.4	65.0	52.6	47.9	63.0
1947	41.6	36.6	45.1	61.2	67.4	78.0	80.2	86.4	77.1	69.2	47.6	43.6	61.2
1948	33.4	42.4	49.4	66.8	69.0	78.8	81.4	79.4	74.0	60.8	50.4	43.8	60.8
1949	38.3	45.0	51.8	60.6	72.9	79.4	83.1	79.6	70.2	62.8	52.4	43.8	61.7
1950	46.3	46.8	48.7	59.1	70.4	77.9	77.5	77.3	71.8	67.7	47.2	37.8	60.5
1951	39.7	44.3	50.3	58.4	69.9	76.2	82.2	83.3	72.5	63.9	45.4	42.0	60.7
1952	46.1	47.3	49.5	58.2	69.2	82.6	83.6	82.6	73.3	56.7	48.5	40.7	61.6
1953	42.9	45.1	55.4	57.0	70.6	84.6	81.1	79.4	74.9	65.0	49.3	40.3	62.1
1954	39.2	49.9	49.7	64.9	65.3	80.4	88.1	86.7	78.6	64.7	51.7	42.6	63.7
1955	41.0	42.5	52.1	66.2	72.3	74.7	84.3	80.9	77.0	62.7	48.5	40.0	61.8
1956	37.5	45.2	52.4	59.0	73.8	77.8	83.4	84.2	75.3	67.3	48.2	45.6	62.5
1957	38.4	49.7	49.3	60.5	71.3	78.1	84.8	80.9	71.8	59.6	49.4	46.7	61.7
1958	38.6	38.0	45.0	60.7	70.7	77.9	81.9	80.7	75.0	62.2	52.9	38.1	60.1
1959	36.8	43.1	51.2	60.7	73.3	77.3	80.0	81.8	75.3	61.6	45.3	45.2	61.0
#1960	39.5	37.4	41.8	63.4	67.9	77.4	80.8	82.0	77.0	64.9	52.0	38.7	60.2
1961	35.7	45.8	54.1	58.8	67.8	75.0	80.0	77.7	72.5	63.3	49.9	40.0	60.1
1962	34.1	47.0	48.6	59.5	75.8	77.6	82.7	82.0	72.5	65.9	50.3	42.1	61.5
1963	31.8	38.9	55.4	64.3	71.3	80.5	82.8	82.8	74.7	70.6	52.3	34.2	61.6
#1964	40.6	40.5	50.1	64.4	71.3	78.1	83.7	80.6	73.0	59.5	54.1	41.1	61.4
1965	42.0	41.4	41.7	64.4	71.9	77.5	82.2	80.9	74.8	61.7	55.2	46.4	61.7
1966	34.6	41.3	52.5	60.5	68.3	75.7	84.4	77.7	71.3	59.2	54.3	40.4	60.0
1967	41.0	40.0	58.3	65.9	67.4	78.5	78.2	76.7	70.1	62.1	49.3	41.3	60.7
1968	39.6	39.5	51.7	61.3	68.2	78.9	80.3	82.7	71.8	62.0	48.1	39.1	60.3
1969	40.7	42.8	45.3	63.7	70.7	76.0	84.6	80.0	74.4	61.9	49.1	41.2	60.8
1970	34.2	43.3	47.8	63.5	71.3	77.1	81.4	84.3	76.9	60.5	48.9	44.2	61.1
1971	39.1	41.6	48.9	59.7	66.4	78.7	80.3	77.9	74.8	66.8	50.4	46.4	60.9
1972	38.9	43.6	52.6	61.7	67.1	77.0	77.8	79.9	75.6	60.8	43.2	36.1	59.6
1973	36.6	40.2	54.6	57.6	65.6	74.7	80.1	79.4	74.5	64.3	54.5	40.1	60.2
1974	38.3	44.5	56.4	60.5	71.7	72.4	81.8	77.2	65.7	62.0	49.5	40.2	60.0
1975	41.6	39.8	46.7	59.1	69.8	75.7	79.5	79.4	68.6	62.4	51.2	40.9	59.6
1976	36.9	50.7	59.7	61.7	63.9	72.8	78.8	77.4	70.3	55.1	42.0	37.8	58.4
1977	26.5	43.3	54.5	63.9	72.5	80.1	82.6	81.8	77.1	61.6	52.3	39.8	61.2
1978	28.0	31.9	47.4	63.0	68.2	76.7	85.1	83.0	78.8	61.9	53.0	39.9	59.8
RECORD MEAN	39.1	42.9	51.7	61.9	69.6	77.8	82.1	81.2	74.6	63.3	50.9	42.0	61.4
MAX	48.9	53.1	62.6	72.9	80.1	88.2	92.9	92.3	85.7	75.2	61.7	51.6	72.1
MIN	29.3	32.7	40.8	50.8	59.1	67.4	71.2	70.1	63.4	51.3	40.0	32.4	50.7

Heating Degree Days

FORT SMITH, AK

Season	July	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	Total
1958-59	0	0	15	140	361	826	864	607	421	179	11	0	3426
1959-60	0	0	0	137	591	608	785	796	728	117	62	0	3824
#1960-61	0	0	0	102	396	809	902	532	344	238	46	0	3369
1961-62	0	0	14	125	454	769	952	498	501	204	4	0	3521
1962-63	0	0	10	84	635	704	1020	724	317	93	41	0	3630
#1963-64	0	0	10	22	376	952	751	706	455	102	16	2	3399
1964-65	0	0	14	189	338	733	705	658	712	83	0	0	3428
1965-66	0	0	16	144	286	576	938	659	384	152	30	0	3185
1966-67	0	0	8	207	325	770	735	695	272	63	48	0	3123
1967-68	0	0	32	158	464	726	781	734	420	131	22	0	3468
1968-69	0	0	0	161	508	795	745	613	604	75	13	3	3317
1969-70	0	0	0	182	474	731	951	600	528	112	30	5	3613
1970-71	0	0	10	181	479	639	795	647	495	176	37	0	3459
1971-72	0	0	23	24	441	571	804	616	378	145	36	1	3041
1972-73	1	0	14	176	648	887	873	688	315	258	59	0	3919
1973-74	0	0	9	97	316	764	821	565	304	166	6	1	3049
1974-75	0	0	54	113	465	761	718	699	562	217	10	0	3599
1975-76	0	0	62	141	430	741	863	413	353	123	80	0	3206
1976-77	0	0	20	317	682	837	1186	602	352	88	9	0	4093
1977-78	0	0	0	142	377	773	1143	924	537	113	69	0	4078
1978-79	0	0	0	133	359	771							

Cooling Degree Days

Year	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Total
1969	1	0	0	42	196	338	613	472	290	91	4	0	2047
1970	0	0	2	76	230	376	516	606	374	47	4	0	2231
1971	0	0	2	25	86	416	482	408	321	86	9	0	1835
1972	0	0	0	58	107	369	404	471	338	55	0	0	1802
1973	0	0	0	42	86	297	472	457	299	80	8	0	1741
1974	0	0	43	40	224	231	527	385	82	28	7	0	1567
1975	0	0	3	46	163	327	457	454	175	67	23	0	1715
1976	0	4	9	33	54	239	435	388	187	16	0	0	1365
1977	0	0	0	60	250	460	554	528	367	40	3	0	2262
1978	0	0	0	60	173	357	632	567	419	46	6	0	2260

Precipitation

Year	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Annual
1939	1.97	5.88	1.24	4.35	3.43	4.88	0.57	1.21	0.23	4.09	3.84	1.57	33.26
1940	1.07	1.93	1.20	5.85	2.70	4.01	2.54	5.26	2.82	2.16	4.64	3.44	37.62
1941	4.18	3.05	0.80	4.52	2.19	4.70	3.72	3.48	3.30	9.97	2.35	2.24	45.10
1942	2.19	2.27	1.53	7.96	5.01	4.85	1.79	3.46	4.13	5.18	3.88	5.06	47.31
1943	0.22	1.07	3.80	4.12	14.71	4.86	0.34	1.22	5.14	4.79	0.33	2.57	43.17
1944	2.07	5.80	5.18	4.79	6.06	4.45	2.28	7.19	0.39	3.32	2.97	4.36	48.85
#1945	1.03	8.54	13.03	7.35	5.72	15.02	5.90	2.78	9.09	1.42	1.35	0.58	71.81
1946	4.72	5.01	3.11	6.77	8.55	4.44	0.53	0.78	1.57	2.08	14.01	6.31	57.88
1947	0.46	0.14	1.99	5.88	6.19	2.73	0.11	1.38	4.89	4.00	2.28	5.11	35.16
1948	0.79	4.68	2.95	1.67	5.41	4.09	1.62	3.39	0.14	1.94	1.04	3.74	31.46
1949	11.33	5.99	3.32	3.78	4.38	2.86	0.69	1.42	3.75	5.60	0.72	2.55	46.39
1950	5.75	3.01	1.74	2.48	6.45	2.27	9.50	2.12	3.80	0.83	0.79	0.53	39.27
1951	3.81	7.94	1.40	3.13	1.58	8.79	3.54	4.96	5.57	12.05	4.00	1.36	58.11
1952	1.20	1.37	5.16	5.60	3.45	0.65	1.39	2.50	1.68	1.38	6.09	1.67	32.14
1953	2.37	2.14	8.52	7.35	3.88	0.51	6.98	2.52	0.60	1.02	2.00	3.02	40.91
1954	4.87	0.55	1.85	4.37	2.67	0.38	0.74	2.02	2.12	4.99	0.59	5.42	30.57
1955	1.51	3.78	5.18	0.90	6.38	2.15	1.39	2.83	4.65	0.57	1.50	0.66	31.47
1956	1.32	5.58	1.74	2.77	3.44	3.95	1.93	2.36	0.06	1.37	4.53	1.63	30.68
1957	3.13	5.26	2.40	10.32	12.09	5.63	0.80	5.83	5.88	1.03	7.03	1.38	60.78
1958	1.23	1.38	5.16	3.81	5.61	10.40	5.69	4.51	4.44	1.32	4.22	0.97	48.74
1959	0.61	1.34	4.87	3.28	4.84	5.70	7.18	1.76	4.47	4.88	3.20	4.21	46.36
1960	2.42	2.67	1.43	1.70	8.79	1.78	10.41	1.63	1.67	1.76	0.61	5.04	40.51
1961	0.44	2.17	5.26	1.38	5.56	3.99	8.62	5.17	3.18	2.25	5.08	3.00	46.70
1962	3.08	3.00	2.67	2.25	1.37	2.63	4.58	2.55	4.99	4.90	2.90	0.80	35.72
1963	0.70	1.06	1.62	3.37	3.88	4.08	6.21	0.86	1.90	0.07	1.10	2.24	27.09
1964	0.63	3.21	6.08	9.17	5.16	0.63	0.41	5.62	3.18	T	4.16	1.41	39.66
1965	1.69	3.08	2.26	1.97	7.85	2.69	1.96	3.81	2.14	0.90	1.16	1.37	30.88
1966	2.23	4.79	1.17	8.50	3.14	1.23	1.32	2.87	1.26	0.40	2.73	1.96	31.60
1967	0.99	0.57	1.21	6.81	5.79	1.95	3.02	1.64	2.50	6.96	0.81	5.26	37.51
1968	2.81	1.11	8.00	3.71	11.33	2.65	1.61	1.27	2.87	1.79	9.02	5.55	51.74
1969	2.84	2.87	2.60	3.07	1.99	4.57	1.93	2.37	2.19	9.05	0.62	4.16	38.26
1970	0.75	1.98	3.22	9.42	0.79	3.19	0.97	3.11	7.75	8.41	1.21	1.41	42.21
1971	1.65	2.45	0.80	2.88	4.36	3.20	2.77	6.57	1.35	3.74	2.40	10.09	42.26
1972	0.68	1.01	1.28	2.62	2.33	1.51	4.85	1.13	3.47	6.43	6.63	1.01	33.55
1973	3.56	1.10	8.24	6.80	3.76	7.64	1.53	0.44	5.17	4.39	10.92	3.78	57.33
1974	0.96	1.80	4.09	4.96	1.93	4.68	0.64	6.22	8.96	3.02	4.27	2.43	44.66
1975	2.27	3.71	6.70	2.09	6.91	5.86	2.47	4.91	2.49	0.28	3.15	3.66	44.50
1976	0.33	0.70	4.20	3.77	4.91	4.62	1.29	2.82	2.65	5.39	1.05	1.82	33.55
1977	1.93	1.46	6.29	1.04	2.17	4.17	2.61	2.61	4.63	0.87	3.21	1.30	32.29
1978	2.15	2.66	4.20	1.94	5.16	3.05	0.49	0.47	0.84	0.17	7.12	3.26	31.51
RECORD MEAN	2.43	2.69	3.32	4.13	4.84	3.88	3.06	3.10	3.28	3.22	3.11	2.85	39.91

Snowfall

Season	July	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	Total
1939-40	0.0	0.0	0.0	0.0	0.0	2.7	9.4	1.5	0.0	0.0	0.0	0.0	13.6
1940-41	0.0	0.0	0.0	0.0	0.0	0.0	T	6.5	T	0.0	0.0	0.0	6.5
1941-42	0.0	0.0	0.0	0.0	0.0	1.1	4.4	0.9	T	0.0	0.0	0.0	6.4
1942-43	0.0	0.0	0.0	0.0	0.0	0.8	1.5	0.0	T	0.0	0.0	0.0	2.3
1943-44	0.0	0.0	0.0	0.0	0.0	T	8.8	4.3	0.2	0.0	0.0	0.0	13.3
1944-45	0.0	0.0	0.0	0.0	0.0	T	2.0	4.2	0.0	0.0	0.0	0.0	6.2
#1945-46	0.0	0.0	0.0	0.0	0.0	0.9	0.0	2.0	0.0	0.0	0.0	0.0	2.9
1946-47	0.0	0.0	0.0	0.0	0.0	2.1	T	1.3	T	0.0	0.0	0.0	3.4
1947-48	0.0	0.0	0.0	0.0	0.0	0.0	3.2	2.0	1.2	0.0	0.0	0.0	6.4
1948-49	0.0	0.0	0.0	0.0	T	0.0	0.8	0.0	0.7	0.0	0.0	0.0	1.5
1949-50	0.0	0.0	0.0	0.0	0.0	T	0.5	T	T	0.0	0.0	0.0	0.5
1950-51	0.0	0.0	0.0	0.0	0.0	0.8	2.4	T	T	0.0	0.0	0.0	3.2
1951-52	0.0	0.0	0.0	0.0	2.7	T	0.0	3.7	0.0	0.0	0.0	0.0	6.4
1952-53	0.0	0.0	0.0	0.0	3.9	T	0.6	0.0	T	0.0	0.0	0.0	4.5
1953-54	0.0	0.0	0.0	0.0	0.0	T	6.3	0.0	T	0.0	0.0	0.0	6.3
1954-55	0.0	0.0	0.0	0.0	0.0	T	5.5	0.0	T	0.0	0.0	0.0	5.5
1955-56	0.0	0.0	0.0	0.0	0.8	0.6	3.0	0.9	T	0.0	0.0	0.0	5.3
1956-57	0.0	0.0	0.0	0.0	0.0	0.0	T	0.0	T	T	0.0	0.0	T
1957-58	0.0	0.0	0.0	0.0	T	T	1.0	3.8	2.0	0.0	0.0	0.0	6.8
1958-59	0.0	0.0	0.0	0.0	0.4	5.0	1.3	0.5	T	0.0	0.0	0.0	7.2
1959-60	0.0	0.0	0.0	0.0	T	T	5.5	11.5	2.5	0.0	0.0	0.0	19.5
1960-61	0.0	0.0	0.0	0.0	0.0	T	0.4	6.5	0.0	0.0	0.0	0.0	6.9
1961-62	0.0	0.0	0.0	0.0	0.0	T	3.9	T	0.0	0.0	0.0	0.0	3.9
1962-63	0.0	0.0	0.0	0.0	0.0	T	T	T	0.0	0.0	0.0	0.0	T
1963-64	0.0	0.0	0.0	0.0	0.0	4.0	0.8	0.0	T	0.0	0.0	0.0	4.8
1964-65	0.0	0.0	0.0	0.0	0.0	T	0.1	T	T	0.0	0.0	0.0	0.1
1965-66	0.0	0.0	0.0	0.0	0.0	0.0	5.8	1.9	T	0.0	0.0	0.0	7.7
1966-67	0.0	0.0	0.0	0.0	0.0	1.0	0.1	T	4.0	0.0	0.0	0.0	5.1
1967-68	0.0	0.0	0.0	0.0	T	2.0	0.3	3.0	5.3	0.0	0.0	0.0	10.6
1968-69	0.0	0.0	0.0	0.0	T	T	0.0	3.7	0.0	0.0	0.0	0.0	3.7
1969-70	0.0	0.0	0.0	0.0	T	2.4	5.2	T	0.2	0.0	0.0	0.0	7.8
1970-71	0.0	0.0	0.0	0.0	0.0	0.0	T	0.3	1.6	T	0.0	0.0	1.9
1971-72	0.0	0.0	0.0	0.0	2.8	2.0	0.3	0.5	0.0	0.0	0.0	0.0	5.6
1972-73	0.0	0.0	0.0	0.0	1.7	0.7	4.4	T	0.0	T	0.0	0.0	6.8
1973-74	0.0	0.0	0.0	0.0	0.0	1.8	T	0.3	0.0	0.0	0.0	0.0	2.1
1974-75	0.0	0.0	0.0	0.0	2.0	T	0.0	5.8	1.8	0.0	0.0	0.0	9.6
1975-76	0.0	0.0	0.0	0.0	2.7	7.2	T	0.0	0.0	0.0	0.0	0.0	9.9
1976-77	0.0	0.0	0.0	0.0	4.7	0.0	13.0	T	0.0	0.0	0.0	0.0	17.7
1977-78	0.0	0.0	0.0	0.0	T	T	11.7	10.0	0.2	0.0	0.0	0.0	21.9
1978-79	0.0	0.0	0.0	0.0	0.0	T							
RECORD MEAN	0.0	0.0	0.0	0.0	0.6	0.9	2.3	1.7	0.6	T	0.0	0.0	6.1

# Indicates a station move or relocation of instruments. See Station Location table.

Record mean values above are means through the current year for the period beginning in 1882 for temperature and precipitation, 1946 for snowfall.

EXHIBIT 6

STATION LOCATION

FORT SMITH, ARKANSAS

Location	Occupied from	Occupied to	Airline distance and direction from previous location	Latitude North	Longitude West	Elevation above Sea level: Ground at temperature site	Elevation above Ground: Wind instruments	Extreme thermometers	Psychrometer	Telepsychrometer	Tipping bucket rain gage	Weighing rain gage	8" rain gage	Hygrothermometer		Remarks
CITY																
Government Building 2nd Street & Garrison Avenue	6/01/82	2/18/85		35° 22'	94° 24'	449		18					29			U. S. Signal Corps.
Eberle Building, NE Corner 6th Street and Garrison Avenue	2/18/85	12/31/89	1200 ft. E	35° 22'	94° 24'			54	54				48			
Office Block, Grand Central Hotel, SE side 6th near Garrison	1/01/90	3/31/95	500 ft.NW	35° 22'	94° 24'		81	73	73				65			
Hotel Main, 606-608 Garrison Avenue	4/01/95	7/01/99	600 ft.SSE	35° 22'	94° 24'		72	63	63				56			
Opera House Building 422 Garrison Avenue	7/01/99	7/31/00	700 ft. W	35° 22'	94° 24'		82	74	74				66			
Federal Building 6th & Rogers Avenue	8/01/00	9/13/37	400 ft.SE	35° 22'	94° 24'	448	94	79	79				72			
New Post Office and Courthouse Building 6th & Rogers Avenue	9/13/37	9/26/45	(X)	35° 22'	94° 24'	449	82	54	48		48	48	47			(X) - On same lot as Federal Building
AIRPORT																
Administration Building Municipal Airport	9/26/45	8/30/60	4.5 mi. SE	35° 22'	94° 23'	458	30	5	5			5	3			
Terminal Building Municipal Airport	8/30/60	Present	1800 ft.ENE	35° 20'	94° 22'	c447	23	6 d5	6 d5		3	a5	3	b5		a - 24 feet to 8/22/61. b - Commissioned 2000 feet SSE of thermometer site 4/1/64. c - 449 feet to 4/1/64. d - Effective 9/20/73.

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I certify that this is an official publication of the National Oceanic and Atmospheric Administration, and is compiled from records on file at the National Climatic Center, Asheville, North Carolina 28801.

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