

1999

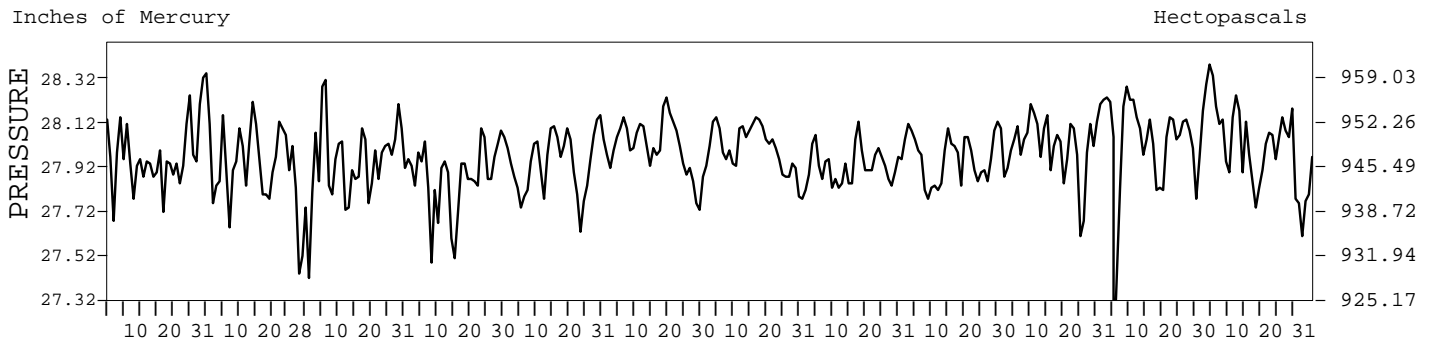
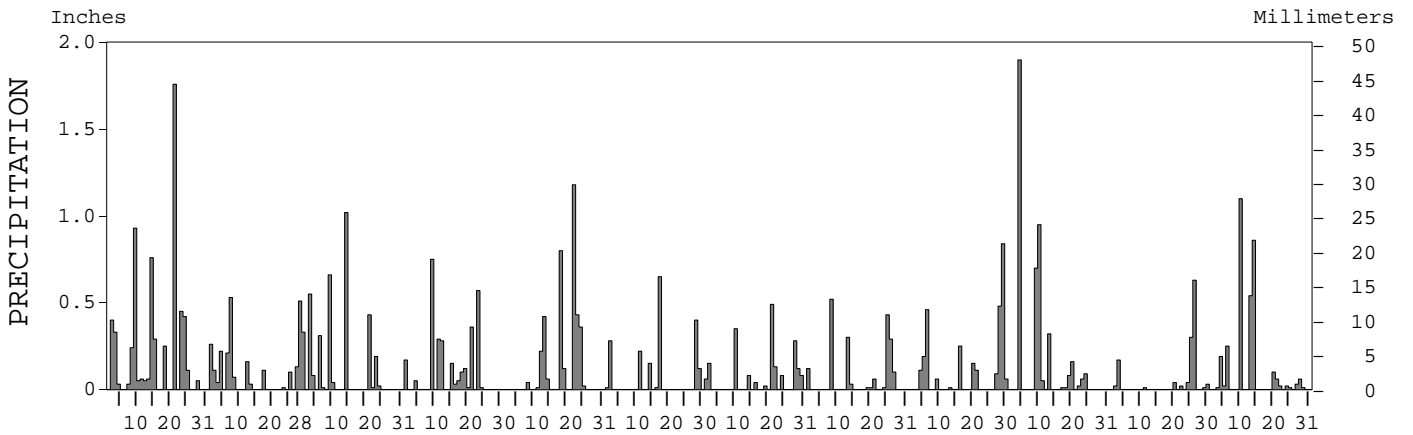
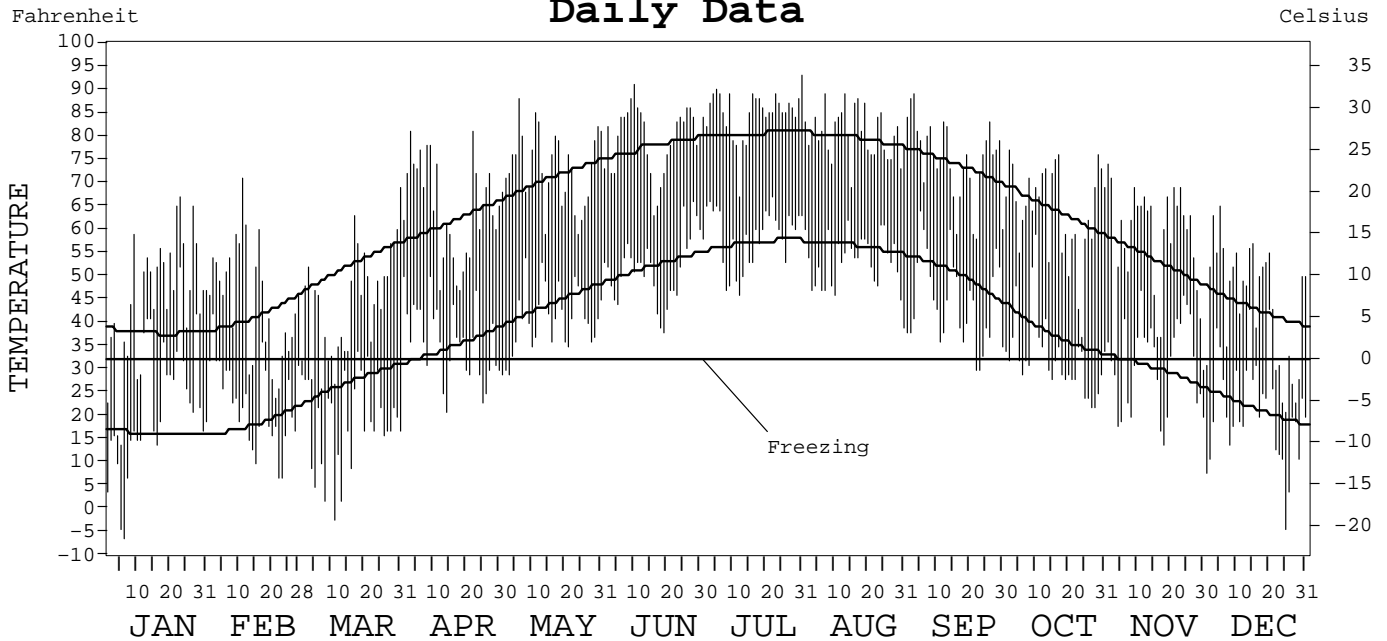
LOCAL CLIMATOLOGICAL DATA  
ANNUAL SUMMARY WITH COMPARATIVE DATA



ISSN 0198-5620

ELKINS,  
WEST VIRGINIA (EKN)

Daily Data



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*Thomas R. Karl*

NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION	NATIONAL ENVIRONMENTAL AND INFORMATION SERVICE	NATIONAL SATELLITE, DATA, AND INFORMATION SERVICE	NATIONAL CLIMATIC DATA CENTER ASHEVILLE, NORTH CAROLINA	DIRECTOR NATIONAL CLIMATIC DATA CENTER
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# METEOROLOGICAL DATA FOR 1999

## ELKINS, WV (EKN)

LATITUDE: 38° 53' 07" N      LONGITUDE: 79° 51' 10" W      ELEVATION (FT): GRND: 1980      BARO: 1980      TIME ZONE: EASTERN (UTC + 5)      WBAN: 13729

	ELEMENT	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	YEAR	
TEMPERATURE °F	MEAN DAILY MAXIMUM	45.1	44.5	44.6	64.6	73.0	79.3	84.9	80.5	74.9	64.0	57.4	44.3	63.1	
	HIGHEST DAILY MAXIMUM	67	71	69	81	88	91	93	89	89	77	74	65	93	
	DATE OF OCCURRENCE	23	11	31	22+	06	10	31	13+	03	02	01	05	JUL 31	
	MEAN DAILY MINIMUM	22.1	22.8	18.9	35.9	40.7	51.4	58.5	53.0	44.6	32.7	31.4	21.3	36.1	
	LOWEST DAILY MINIMUM	-6	7	-2	21	29	38	46	39	30	22	14	-4	-6	
	DATE OF OCCURRENCE	06	23+	11	14	03+	19	12	31	23+	28+	18	25	JAN 06	
	AVERAGE DRY BULB	33.6	33.7	31.8	50.3	56.9	65.4	71.7	66.8	59.8	48.4	44.4	32.8	49.6	
	MEAN WET BULB		30.5	29.1	44.5	50.5		65.8	60.7	53.9			30.0		
	MEAN DEW POINT		25.6	22.9	37.2	44.1		62.7	56.9	50.0			24.9		
	NUMBER OF DAYS WITH:														
	MAXIMUM ≥ 90°	0	0	0	0	0	1	2	0	0	0	0	0	0	3
	MAXIMUM ≤ 32°	5	5	5	0	0	0	0	0	0	0	1	8	24	
	MINIMUM ≤ 32°	24	26	29	12	3	0	0	0	2	19	14	27	156	
	MINIMUM ≤ 0°	2	0	1	0	0	0	0	0	0	0	0	1	4	
H/C	HEATING DEGREE DAYS	968	873	1023	433	246	68	9	24	169	507	613	990	5923	
	COOLING DEGREE DAYS	0	0	0	0	2	84	225	86	18	0	0	0	415	
RH	MEAN (PERCENT)	73	77	71	65	68	76	77	76	78	78	73	75	74	
	HOUR 01 LST	79	81	79	83	89	92	95	94	96	92	81	83	87	
	HOUR 07 LST	81	88	87	78	86	91	92	93	97	94	85	82	88	
	HOUR 13 LST	61	64	55	46	43	53	53	51	49	50	54	60	53	
	HOUR 19 LST	70	75	63	50	52	64	65	64	77	82	73	78	68	
S	PERCENT POSSIBLE SUNSHINE														
W/O	NUMBER OF DAYS WITH:														
	HEAVY FOG (VISBY ≤ 1/4 MI)	3	5	4	6	7	14	9	16	8	10	7	6	95	
	THUNDERSTORMS	2	0	0	2	4	1	10	6	0	2	0	0	27	
CLOUDINESS	SUNRISE-SUNSET: (OKTAS)														
	CEILOMETER (≤ 12,000 FT.)														
	SATELLITE (> 12,000 FT.)														
	MIDNIGHT-MIDNIGHT: (OKTAS)														
	CEILOMETER (≤ 12,000 FT.)														
	SATELLITE (> 12,000 FT.)														
NUMBER OF DAYS WITH:															
CLEAR															
PARTLY CLOUDY															
CLOUDY															
PR	MEAN STATION PRESS. (IN.)	27.99	27.94	27.93	27.88	27.95	28.01	28.00	27.94	27.96	28.05		28.00		
	MEAN SEA-LEVEL PRESS. (IN.)		30.11		30.00	30.06		30.08		30.06			30.16		
WINDS	RESULTANT SPEED (MPH)	3.7	2.4	2.8	3.1	1.4	0.2	0.7	0.8	1.0	1.3		2.3		
	RES. DIR. (TENS OF DEGS.)	23	28	29	27	27	19	29	27	30	27		26		
	MEAN SPEED (MPH)	7.0	5.3	5.5	6.5	3.9	3.1	3.4	3.2	3.0	3.4	4.8	4.3	4.5	
	PREVAIL. DIR. (TENS OF DEGS.)	16	30	31	27	33	16	30	36	35	30	31	26	30	
	MAXIMUM 2-MINUTE WIND:														
	SPEED (MPH)	38	26	26	40	24	23	21	25	31	30	22	26	40	
	DIR. (TENS OF DEGS.)	28	30	30	30	25	25	35	23	32	31	30	25	30	
	DATE OF OCCURRENCE	18	07	18+	09	24	02	28	13	29	04	15+	16	APR 09	
	MAXIMUM 5-SECOND WIND:														
	SPEED (MPH)	51	37	38	51	35	30	26	32	43	41	31	37	51	
DIR. (TENS OF DEGS.)	27	32	31	31	26	23	35	23	32	30	24	25	31		
DATE OF OCCURRENCE	18	04	06+	09	22	02	28	13	29	04	03	16	APR 09		
PRECIPITATION	WATER EQUIVALENT:														
	TOTAL (IN.)	6.27	2.49	3.65	2.94	3.66	1.84	1.88	1.88	2.81	4.35	1.27	3.28	36.32	
	GREATEST 24-HOUR (IN.)	1.76	0.60	1.02	0.75	1.59	0.66	0.49	0.54	0.90	1.90	0.77	1.10	1.90	
	DATE OF OCCURRENCE	21	07-08	14	09	22-23	16-17	21	25-26	29-30	04	25-26	10	OCT 04	
	NUMBER OF DAYS WITH:														
	PRECIPITATION ≥ 0.01	18	14	12	14	11	8	12	11	12	12	10	15	149	
PRECIPITATION ≥ 0.10	11	10	7	9	7	6	6	6	8	5	3	6	84		
PRECIPITATION ≥ 1.00	1	0	1	0	1	0	0	0	0	1	0	1	5		
SNOWFALL	SNOW, ICE PELLETS, HAIL:														
	TOTAL (IN.)														
	GREATEST 24-HOUR (IN.)														
	DATE OF OCCURRENCE														
	MAXIMUM SNOW DEPTH (IN.)														
	DATE OF OCCURRENCE														
NUMBER OF DAYS WITH:															
SNOWFALL ≥ 1.0															

# NORMALS, MEANS, AND EXTREMES

## ELKINS, WV (EKN)

LATITUDE: 38° 53' 07" N      LONGITUDE: 79° 51' 10" W      ELEVATION (FT): GRND: 1980      BARO: 1980      TIME ZONE: EASTERN (UTC + 5)      WBAN: 13729

ELEMENT		POR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	YEAR	
TEMPERATURE °F	NORMAL DAILY MAXIMUM	30	37.9	41.3	52.1	61.6	70.9	77.6	80.4	79.3	73.6	63.6	52.9	42.6	61.1	
	MEAN DAILY MAXIMUM	44	39.8	42.4	51.6	62.1	70.9	78.1	81.1	79.8	73.6	64.3	52.3	43.1	61.6	
	HIGHEST DAILY MAXIMUM	55	76	72	84	89	93	93	99	95	97	86	80	76	99	
	YEAR OF OCCURRENCE		1950	1996	1954	1986	1996	1952	1988	1948	1953	1951	1958	1951	1951	JUL 1988
	MEAN OF EXTREME MAXS.	44	62.4	64.3	75.0	80.8	84.4	87.3	88.9	87.9	85.2	79.1	72.0	64.3	77.6	
	NORMAL DAILY MINIMUM	30	16.2	18.3	27.1	34.8	44.0	52.0	56.9	56.2	49.9	37.2	29.7	21.3	37.0	
	MEAN DAILY MINIMUM	44	18.4	19.7	27.1	35.5	44.7	53.0	57.4	56.1	49.3	36.9	29.2	21.9	37.4	
	LOWEST DAILY MINIMUM	55	-24	-22	-15	3	20	25	32	34	27	11	0	-24	-24	
	YEAR OF OCCURRENCE		1984	1996	1978	1985	1978	1977	1988	1965	1963	1952	1958	1989	1989	DEC 1989
	MEAN OF EXTREME MINS.	44	-7.4	-4.7	6.1	18.1	27.7	38.0	44.6	44.3	33.8	20.6	11.0	-1.9	19.2	
	NORMAL DRY BULB	30	27.1	29.8	39.6	48.2	57.4	64.8	68.7	67.8	61.8	50.4	41.3	32.0	49.1	
	MEAN DRY BULB	44	29.2	31.1	39.3	48.8	57.8	65.5	69.3	68.0	61.5	50.6	40.9	32.5	49.5	
	MEAN WET BULB	14	27.8	30.4	35.9	44.3	53.5	61.9	65.9	64.3	57.8	46.9	36.1	28.5	46.1	
	MEAN DEW POINT	14	20.9	23.0	26.9	34.3	44.9	57.9	62.6	60.9	54.4	41.7	30.7	23.6	40.2	
	NORMAL NO. DAYS WITH:															
MAXIMUM ≥ 90°	30	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.9	0.7	0.1	0.0	0.0	0.0	1.9	
MAXIMUM ≤ 32°	30	10.6	7.7	2.4	0.2	0.0	0.0	0.0	0.0	0.0	*	1.6	6.7	29.2		
MINIMUM ≤ 32°	30	27.4	24.1	21.9	13.1	3.4	0.1	*	0.0	0.7	11.3	19.4	25.5	146.9		
MINIMUM ≤ 0°	30	4.5	3.0	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.8	9.7		
H/C	NORMAL HEATING DEG. DAYS	30	1175	986	787	504	249	62	11	23	131	458	711	1023	6120	
	NORMAL COOLING DEG. DAYS	30	0	0	0	0	13	56	126	110	35	6	0	0	346	
RH	NORMAL (PERCENT)	30	73	73	71	69	71	77	80	82	82	77	75	78	76	
	HOUR 01 LST	30	78	80	81	81	86	94	96	97	96	91	83	84	87	
	HOUR 07 LST	30	80	81	82	83	87	92	94	96	95	90	84	82	87	
	HOUR 13 LST	30	64	62	56	52	54	59	61	62	62	55	60	66	59	
	HOUR 19 LST	30	72	70	61	56	61	69	73	79	84	76	74	75	71	
S	PERCENT POSSIBLE SUNSHINE	11	29	32	39	46	44	48	44	44	45	46	37	28	40	
W/O	MEAN NO. DAYS WITH:															
	HEAVY FOG (VISBY ≤ 1/4 MI)	29	2.2	2.0	2.1	2.1	5.5	11.1	13.0	16.5	14.5	9.8	3.1	2.4	84.3	
	THUNDERSTORMS	29	0.3	0.6	1.9	3.9	6.1	7.8	9.4	7.1	3.0	1.2	0.7	0.4	42.4	
CLOUDINESS	MEAN:															
	SUNRISE-SUNSET (OKTAS)	50	6.4	6.2	6.1	5.8	5.7	5.8	5.6	5.5	5.3	5.0	5.9	6.2	5.8	
	MIDNIGHT-MIDNIGHT (OKTAS)	4	4.7	4.5	4.5	4.9	4.4	4.0	4.4	4.3	4.0	3.4	4.3	4.7	4.3	
	MEAN NO. DAYS WITH:															
	CLEAR	50	3.4	3.4	4.2	4.1	4.4	3.1	2.4	2.5	4.2	7.2	4.4	4.1	47.4	
PARTLY CLOUDY	50	5.6	5.5	6.4	7.8	9.3	11.1	12.3	13.4	11.1	8.2	6.2	5.3	102.2		
CLOUDY	50	22.0	19.3	20.4	18.1	17.3	15.9	15.7	14.5	14.3	12.9	18.7	21.0	210.1		
PR	MEAN STATION PRESSURE (IN)	12	27.91	27.90	27.90	27.90	27.90	27.98	28.00	28.01	27.99	28.01	28.00	28.00	27.96	
	MEAN SEA-LEVEL PRES. (IN)	14	30.13	30.11	30.07	30.01	30.05	30.01	30.08	30.11	30.12	30.16	30.15	30.16	30.10	
WINDS	MEAN SPEED (MPH)	20	7.1	7.3	7.9	7.5	5.9	4.6	3.9	3.7	3.9	4.4	6.2	6.4	5.7	
	PREVAIL. DIR (TENS OF DEGS)	5	30	30	30	31	31	30	30	30	30	30	30	30	30	
	MAXIMUM 2-MINUTE:															
	SPEED (MPH)	3	38	32	33	40	33	40	21	25	31	30	28	34	40	
	DIR. (TENS OF DEGS)		28	23	29	30	29	27	35	23	32	31	28	30	30	
	YEAR OF OCCURRENCE		1999	1997	1997	1999	1997	1998	1999	1999	1999	1999	1998	1998	APR 1999	
	MAXIMUM 5-SECOND:															
	SPEED (MPH)	3	51	43	45	51	43	64	31	32	48	41	38	46	64	
DIR. (TENS OF DEGS)		27	11	24	31	25	02	29	23	27	30	28	30	02		
YEAR OF OCCURRENCE		1999	1998	1998	1999	1997	1998	1997	1999	1998	1999	1998	1998	JUN 1998		
PRECIPITATION	NORMAL (IN)	30	3.08	3.00	3.83	3.82	4.12	4.46	4.53	4.35	3.76	3.08	3.33	3.48	44.84	
	MAXIMUM MONTHLY (IN)	55	6.27	6.51	8.85	6.95	15.76	10.05	12.02	10.40	7.52	8.43	11.08	6.73	15.76	
	YEAR OF OCCURRENCE		1999	1994	1963	1972	1996	1998	1996	1980	1988	1954	1985	1978	MAY 1996	
	MINIMUM MONTHLY (IN)	55	1.05	0.79	1.39	1.02	1.45	1.66	1.31	1.09	0.32	0.31	1.19	0.90	0.31	
	YEAR OF OCCURRENCE		1967	1978	1957	1971	1970	1988	1987	1976	1985	1963	1976	1965	OCT 1963	
	MAXIMUM IN 24 HOURS (IN)	37	1.85	3.09	2.94	2.02	3.35	2.63	2.91	3.21	2.88	3.62	5.10	2.22	5.10	
	YEAR OF OCCURRENCE		1971	1994	1963	1966	1996	1986	1996	1969	1988	1985	1985	1970	NOV 1985	
	NORMAL NO. DAYS WITH:															
PRECIPITATION ≥ 0.01	30	18.0	15.9	16.5	15.3	14.3	13.7	14.1	12.7	11.4	11.5	14.2	17.3	174.9		
PRECIPITATION ≥ 1.00	30	0.1	0.1	0.5	0.3	0.6	0.9	0.9	0.7	0.9	0.3	0.6	0.4	6.3		
SNOWFALL	NORMAL (IN)	30	20.7	17.4	10.4	4.9	0.*	0.0	0.0	0.0	0.0	0.5	6.0	14.7	74.6	
	MAXIMUM MONTHLY (IN)	34	54.1	32.0	33.5	24.8	0.7	T	0.0	0.0	0.0	3.9	23.7	36.7	54.1	
	YEAR OF OCCURRENCE		1985	1986	1993	1987	1963	1994				1979	1995	1993	JAN 1985	
	MAXIMUM IN 24 HOURS (IN)	34	18.8	12.8	16.9	11.6	0.7	T	0.0	0.0	0.0	3.6	12.4	17.8	18.8	
	YEAR OF OCCURRENCE		1996	1983	1993	1987	1963	1994				1979	1970	1967	JAN 1996	
	MAXIMUM SNOW DEPTH (IN)	40	20	17	18	20	0	0	0	0	0	2	19	17	20	
	YEAR OF OCCURRENCE		1977	1977	1993	1962						1979	1950	1967	APR 1962	
	NORMAL NO. DAYS WITH:															
SNOWFALL ≥ 1.0	30	6.4	5.8	3.5	1.5	0.0	0.0	0.0	0.0	0.0	0.2	2.1	4.8	24.3		

PRECIPITATION (inches) 1999 ELKINS, WV (EKN)

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL
1970	1.53	1.92	2.80	4.46	1.45	4.65	5.88	4.83	3.28	1.95	2.43	5.51	40.69
1971	4.33	3.16	2.90	1.02	4.23	2.34	4.10	3.87	6.29	1.85	2.76	1.65	38.50
1972	5.46	5.62	3.16	6.95	4.72	7.03	4.56	2.09	2.67	4.64	5.82	6.02	58.74
1973	2.05	2.52	2.13	5.87	3.75	3.53	3.82	3.47	3.66	4.22	3.28	4.53	42.83
1974	4.04	3.41	3.48	2.93	5.23	7.38	1.93	6.84	3.38	2.03	2.18	3.20	46.03
1975	4.17	2.84	4.64	4.38	7.28	4.87	2.56	3.55	3.71	2.49	2.04	3.76	46.29
1976	3.10	3.05	3.17	1.13	1.94	3.23	6.17	1.09	4.71	6.28	1.19	2.66	37.72
1977	1.73	1.13	3.40	2.83	1.96	5.08	4.49	5.60	2.14	3.74	3.30	2.59	37.99
1978	4.26	0.79	2.25	1.99	4.24	6.84	7.28	4.85	1.47	1.88	2.90	6.73	45.48
1979	5.88	3.63	2.03	3.40	5.71	4.94	6.22	5.06	4.61	5.16	3.54	2.33	52.51
1980	2.75	1.90	4.80	5.46	3.66	5.04	7.80	10.40	3.94	1.99	3.76	2.08	53.58
1981	1.15	4.22	2.76	3.72	5.79	8.33	3.43	1.72	6.26	3.48	1.54	3.17	45.57
1982	3.53	4.14	6.34	2.15	2.26	6.46	6.01	4.61	4.35	1.42	3.92	2.55	47.74
1983	1.59	1.50	3.69	5.26	5.49	4.05	2.03	3.59	1.98	4.13	3.65	3.57	40.53
1984	1.69	4.42	4.89	3.96	2.64	2.52	5.66	7.21	2.23	4.08	3.94	3.87	47.11
1985	3.26	1.99	4.68	2.44	6.95	3.56	5.58	2.78	0.32	6.00	11.08	2.59	51.23
1986	2.09	5.27	3.44	3.38	3.04	7.84	6.42	5.03	4.29	2.91	5.68	2.61	52.00
1987	4.00	2.95	1.50	3.94	3.88	2.97	1.31	4.29	5.69	1.51	3.18	3.54	38.76
1988	2.81	2.50	2.92	3.14	4.84	1.66	3.60	4.05	7.52	2.03	3.60	2.35	41.02
1989	3.78	3.82	5.52	4.10	6.09	5.94	5.31	7.98	2.17	3.75	3.65	3.03	55.14
1990	3.62	2.87	2.25	3.72	7.03	4.01	4.01	3.25	4.11	3.31	1.66	6.12	45.96
1991	4.10	2.50	5.94	3.12	2.32	2.59	8.34	3.52	1.92	2.37	2.66	6.09	45.47
1992	2.66	3.72	4.33	2.58	3.20	1.95	8.26	2.49	2.63	0.80	2.66	4.47	39.75
1993	1.71	2.87	6.30	3.90	2.69	2.12	2.71	2.18	6.24	2.49	4.54	4.97	42.72
1994	5.21	6.51	6.29	3.96	5.13	4.57	5.97	5.69	1.13	0.43	2.63	2.55	50.07
1995	3.98	2.90	2.80	3.10	5.43	4.46	1.74	3.79	1.57	2.07	3.55	3.40	38.79
1996	5.29	4.72	4.38	3.43	15.76	5.30	12.02	5.02	6.45	2.65	4.47	3.39	72.88
1997	2.39	1.73	7.42	2.07	5.71	2.68	3.37	3.72	3.55	1.17	4.87	2.33	41.01
1998	4.28	2.54	3.33	4.78	4.02	10.05	3.75	4.30	4.06	1.96	1.40	1.99	46.46
1999	6.27	2.49	3.65	2.94	3.66	1.84	1.88	1.88	2.81	4.35	1.27	3.28	36.32
POR= 101 YRS	3.67	3.12	4.08	3.70	4.37	4.90	5.11	4.09	3.43	2.88	2.90	3.38	45.63

WBAN : 13729

AVERAGE TEMPERATURE (°F) 1999 ELKINS, WV (EKN)

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL
1970	20.0	29.5	35.9	49.6	59.8	64.4	67.9	67.2	64.1	53.1	41.4	33.0	48.8
1971	24.2	31.5	34.5	45.4	55.4	68.8	68.1	67.0	66.2	57.7	39.7	41.1	50.0
1972	33.8	28.8	38.6	48.3	57.8	60.8	68.0	68.0	63.5	48.5	39.9	39.2	49.6
1973	30.3	30.2	48.0	47.9	55.4	67.2	69.1	68.5	62.5	52.8	41.5	32.6	50.5
1974	39.0	30.6	42.5	49.1	57.1	62.0	66.5	67.1	59.4	46.5	38.6	30.2	49.1
1975	31.3	33.7	35.7	43.7	60.1	65.6	68.4	69.8	60.3	53.8	44.9	34.5	50.2
1976	26.8	39.0	44.7	48.3	55.8	66.7	67.7	65.7	59.9	46.7	32.5	27.5	48.4
1977	15.0	28.3	45.5	52.5	60.8	62.0	69.2	68.8	65.9	48.6	44.6	28.9	49.2
1978	19.6	16.6	36.5	49.3	56.6	65.0	69.1	70.4	65.0	47.5	44.2	33.8	47.8
1979	25.7	22.4	42.9	49.2	58.0	63.5	68.0	68.1	61.6	49.0	43.0	34.0	48.8
1980	30.0	23.2	36.7	48.1	58.5	62.9	70.1	71.1	64.6	47.5	37.3	30.9	48.4
1981	20.4	31.7	35.0	52.2	53.7	66.0	68.1	65.1	59.6	47.0	37.4	27.6	47.0
1982	24.1	32.5	41.3	44.8	60.8	63.3	69.8	64.9	60.7	51.8	44.5	39.0	49.8
1983	29.3	30.8	38.3	46.0	53.9	63.5	67.8	69.0	59.8	51.9	40.4	27.5	48.2
1984	24.2	35.6	34.5	47.8	54.8	65.9	65.9	67.9	58.6	58.8	37.7	41.3	49.4
1985	21.6	28.4	41.0	50.2	59.1	63.2	68.9	66.7	61.6	54.8	50.6	27.6	49.5
1986	26.5	33.1	38.0	50.1	58.4	65.1	71.8	66.6	63.1	52.6	42.9	33.0	50.1
1987	27.7	31.3	40.4	47.0	61.3	67.0	71.6	69.5	62.1	45.2	43.2	34.4	50.1
1988	23.9	29.5	38.7	48.0	57.2	62.7	70.7	71.6	61.4	43.7	41.8	31.5	48.4
1989	35.5	29.5	42.5	45.6	54.8	67.0	71.2	68.0	63.1	51.4	39.6	18.4	48.9
1990	35.7	37.7	44.3	48.3	56.8	65.7	69.9	70.0	63.0	52.2	42.9	38.5	52.1
1991	31.3	34.4	41.2	52.4	65.3	67.2	71.8	69.2	62.0	51.6	39.5	36.0	51.8
1992	30.7	35.2	39.4	48.3	56.3	63.7	70.4	66.3	62.8	48.3	43.0	32.6	49.8
1993	36.3	28.0	35.2	47.9	58.1	66.3	73.3	72.0	63.4	49.6	41.4	30.7	50.2
1994	23.8	32.5	39.2	53.9	53.0	69.0	71.3	67.8	60.6	50.2	46.3	38.0	50.5
1995	31.9	29.2	41.7	48.6	58.2	67.9	71.7	73.7	61.0	53.7	36.0	28.4	50.2
1996	28.6	30.2	35.2	49.1	58.9	67.4	66.3	68.0	61.5	51.3	35.2	36.5	49.0
1997	29.8	36.5	42.2	44.0	52.4	64.4	68.8	66.1	59.8	49.8	37.1	32.1	48.6
1998	36.0	37.6	40.1	49.8	60.9	65.7	69.1	68.4	63.6	50.2	40.2	35.1	51.4
1999	33.6	33.7	31.8	50.3	56.9	65.4	71.7	66.8	59.8	48.4	44.4	32.8	49.6
POR= 101 YRS	30.4	31.4	39.6	48.9	58.1	65.9	69.7	68.5	62.6	51.6	40.8	32.5	50.0

HEATING DEGREE DAYS (base 65°F) 1999 ELKINS, WV (EKN)

YEAR	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	TOTAL
1970-71	26	14	97	362	702	987	1258	930	938	580	296	5	6195
1971-72	0	18	54	233	756	731	961	1047	815	494	217	156	5482
1972-73	30	13	76	504	745	793	1068	966	522	509	304	28	5558
1973-74	12	12	110	373	698	996	799	959	692	472	255	119	5497
1974-75	29	11	188	564	784	1074	1037	871	901	632	174	46	6311
1975-76	2	7	160	341	596	940	1175	746	625	492	292	44	5420
1976-77	24	44	152	564	968	1159	1548	1021	600	377	151	136	6744
1977-78	22	17	59	503	608	1111	1401	1349	877	465	265	70	6747
1978-79	13	6	75	534	617	961	1213	1187	680	467	231	83	6067
1979-80	39	46	130	491	652	954	1080	1203	872	500	210	113	6290
1980-81	4	5	72	538	823	1050	1375	928	924	384	339	42	6484
1981-82	21	54	187	553	822	1150	1265	904	728	600	166	76	6526
1982-83	13	57	149	403	609	798	1099	951	817	563	336	85	5880
1983-84	30	21	184	404	729	1153	1258	847	937	511	318	50	6442
1984-85	39	22	199	190	811	727	1338	1020	738	437	194	101	5816
1985-86	1	27	160	312	427	1153	1185	888	830	443	218	68	5712
1986-87	9	50	98	397	657	987	1149	938	753	533	163	43	5777
1987-88	12	26	122	605	645	939	1264	1024	808	506	243	131	6325
1988-89	27	6	119	653	686	1031	908	987	689	573	321	20	6020
1989-90	0	29	120	416	755	1438	903	758	637	496	249	49	5850
1990-91	1	4	131	394	654	814	1038	852	730	383	80	43	5124
1991-92	0	6	144	406	760	893	1056	856	785	495	267	82	5750
1992-93	4	32	122	510	654	996	884	1028	918	508	210	49	5915
1993-94	0	2	115	472	705	1056	1273	902	795	328	369	29	6046
1994-95	4	16	138	452	552	831	1019	997	717	488	224	31	5469
1995-96	4	0	142	358	863	1126	1123	1002	915	482	217	29	6261
1996-97	39	9	140	417	886	879	1082	790	703	623	392	75	6035
1997-98	14	45	160	460	832	1012	892	759	765	450	141	77	5607
1998-99	5	9	82	450	737	922	968	873	1023	433	246	68	5816
1999-	9	24	169	507	613	990							

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COOLING DEGREE DAYS (base 65°F) 1999 ELKINS, WV (EKN)

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL
1970	0	0	0	2	28	52	123	86	75	1	0	0	367
1971	0	0	0	0	6	128	105	88	99	11	3	0	440
1972	0	0	0	0	3	36	131	111	36	0	0	0	317
1973	0	0	0	3	11	98	147	125	41	3	0	0	428
1974	0	0	0	1	15	35	81	85	27	0	0	0	244
1975	0	0	0	0	25	70	114	161	27	0	0	0	397
1976	0	0	0	1	16	105	117	73	2	0	0	0	314
1977	0	0	1	6	26	55	160	142	91	0	4	0	485
1978	0	0	0	1	13	76	147	179	82	0	0	0	498
1979	0	0	0	2	21	45	142	149	33	0	0	0	392
1980	0	0	0	0	16	57	169	202	69	0	0	0	513
1981	0	0	0	6	0	76	126	65	32	0	0	0	305
1982	0	0	0	0	43	33	170	60	30	1	0	0	337
1983	0	0	0	0	0	46	124	153	33	4	0	0	360
1984	0	0	0	2	9	82	72	117	16	6	0	0	304
1985	0	0	0	0	17	54	129	87	63	5	0	0	355
1986	0	0	0	1	20	78	224	104	46	18	0	0	491
1987	0	0	0	0	57	109	224	171	42	0	0	0	603
1988	0	0	0	0	6	67	211	220	18	1	0	0	523
1989	0	0	0	0	10	90	198	130	70	1	0	0	499
1990	0	0	3	1	3	78	158	167	74	4	0	0	488
1991	0	0	0	13	97	116	217	144	61	0	0	0	648
1992	0	0	0	0	3	49	178	79	62	0	0	0	371
1993	0	0	0	2	5	97	263	225	69	2	2	0	665
1994	0	0	0	4	2	158	208	106	16	0	0	0	494
1995	0	0	0	5	21	124	219	274	27	16	0	0	686
1996	0	0	0	10	35	109	87	110	40	0	0	0	391
1997	0	0	0	0	6	65	139	84	10	0	0	0	304
1998	0	0	0	0	21	104	141	120	44	0	0	0	430
1999	0	0	0	0	2	84	225	86	18	0	0	0	415

SNOWFALL (inches) 1999 ELKINS, WV (EKN)

YEAR	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	TOTAL
1970-71	0.0	0.0	0.0	0.0	13.2	16.9	25.2	14.1	33.5	4.8	T	0.0	107.7
1971-72	0.0	0.0	0.0	0.0	11.0	1.6	4.1	26.9	7.2	4.6	0.0	0.0	55.4
1972-73	0.0	0.0	0.0	2.2	7.4	6.7	4.6	9.9	7.6	7.4	T	0.0	45.8
1973-74	0.0	0.0	0.0	2.5	3.2	25.0	0.8	15.1	1.9	2.0	0.0	0.0	50.5
1974-75	0.0	0.0	0.0	T	6.8	17.7	16.9	10.0	11.1	3.6	0.0	0.0	66.1
1975-76	0.0	0.0	0.0	0.0	3.9	6.5	21.0	8.1	8.6	1.8	T	0.0	49.9
1976-77	0.0	0.0	0.0	T	14.8	21.1	37.3	14.3	1.3	2.6	0.0	0.0	91.4
1977-78	0.0	0.0	0.0	T	5.3	12.6	32.8	13.2	13.8	T	0.0	0.0	77.7
1978-79	0.0	0.0	0.0	T	2.0	5.1	30.8	18.7	4.2	3.0	0.0	0.0	63.8
1979-80	0.0	0.0	0.0	3.9	3.8	10.2	23.0	19.7	14.1	3.6	0.0	0.0	78.3
1980-81	0.0	0.0	0.0	0.4	4.0	8.0	23.6	12.1	14.9	0.6	0.0	0.0	63.6
1981-82	0.0	0.0	0.0	0.4	8.4	20.6	18.2	10.1	13.4	7.1	0.0	0.0	78.2
1982-83	0.0	0.0	0.0	T	1.3	10.5	17.0	27.0	10.5	1.8	0.0	0.0	68.1
1983-84	0.0	0.0	0.0	T	11.1	7.0	26.4	23.7	21.6	2.9	0.0	0.0	92.7
1984-85	0.0	0.0	0.0	0.0	4.0	4.0	54.1	21.3	0.5	8.0	0.0	0.0	91.9
1985-86	0.0	0.0	0.0	0.0	0.0	22.6	33.5	32.0	16.8	18.8	0.0	0.0	123.7
1986-87	0.0	0.0	0.0	0.0	1.0	4.0	42.6	19.5	4.9	24.8	0.0	0.0	96.8
1987-88	0.0	0.0	0.0	T	12.4	20.3	21.5	16.1	15.9	1.6	0.0	0.0	87.8
1988-89	0.0	0.0	0.0	T	2.1	14.3	11.5	14.1	1.8	7.9	0.5	0.0	52.2
1989-90	0.0	0.0	0.0	0.9	9.0	32.2	21.7	9.0	12.3	13.8	0.0	0.0	98.9
1990-91	0.0	0.0	0.0	T	T	8.9	19.9	20.0	18.9	0.3	0.0	0.0	68.0
1991-92	0.0	0.0	0.0	0.0	5.8	6.9	29.5	11.8	19.3	5.8	0.0	0.0	79.1
1992-93	0.0	0.0	0.0	2.4	3.4	27.5	4.4	27.4	33.5	2.5	0.0	T	101.1
1993-94	0.0	0.0	0.0	3.1	3.5	36.7	45.0	15.1	21.2	0.5	0.0	T	125.1
1994-95	0.0	0.0	0.0	0.0	0.5	3.1	20.9	11.1	7.5	0.4	0.0	0.0	43.5
1995-96	0.0	0.0	0.0	0.0	23.7	22.9	44.6	24.3	16.1	5.0	T	0.0	136.6
1996-97													
1997-98													
1998-99													
1999-													
POR= 33 YRS	0.0	0.0	0.0	0.5	6.4	14.8	21.3	17.4	11.7	4.1	0.0	T	76.2

WBAN : 13729

REFERENCE NOTES:

<p>PAGE 1: THE TEMPERATURE GRAPH SHOWS NORMAL MAXIMUM AND NORMAL MINIMUM DAILY TEMPERATURES (SOLID CURVES) AND THE ACTUAL DAILY HIGH AND LOW TEMPERATURES (VERTICAL BARS).</p> <p>PAGE 2 AND 3: H/C INDICATES HEATING AND COOLING DEGREE DAYS. RH INDICATES RELATIVE HUMIDITY W/O INDICATES WEATHER AND OBSTRUCTIONS S INDICATES SUNSHINE. PR INDICATES PRESSURE. CLOUDINESS ON PAGE 3 IS THE SUM OF THE CEILOMETER AND SATELLITE DATA NOT TO EXCEED EIGHT EIGHTHS(OKTAS).</p> <p>GENERAL: T INDICATES TRACE PRECIPITATION, AN AMOUNT GREATER THAN ZERO BUT LESS THAN THE LOWEST REPORTABLE VALUE. + INDICATES THE VALUE ALSO OCCURS ON EARLIER DATES. BLANK ENTRIES DENOTE MISSING OR UNREPORTED DATA. NORMALS ARE 30-YEAR AVERAGES (1961 - 1990). ASOS INDICATES AUTOMATED SURFACE OBSERVING SYSTEM. PM INDICATES THE LAST DAY OF THE PREVIOUS MONTH. POR (PERIOD OF RECORD) BEGINS WITH THE JANUARY DATA MONTH AND IS THE NUMBER OF YEARS USED TO COMPUTE THE MEAN. INDIVIDUAL MONTHS WITHIN THE POR MAY BE MISSING. WHEN THE POR FOR A NORMAL IS LESS THAN 30 YEARS, THE NORMAL IS PROVISIONAL AND IS BASED ON THE NUMBER OF YEARS INDICATED. 0.* OR * INDICATES THE VALUE OR MEAN-DAYS-WITH IS BETWEEN 0.00 AND 0.05. CLOUDINESS FOR ASOS STATIONS DIFFERS FROM THE NON-ASOS OBSERVATION TAKEN BY A HUMAN OBSERVER. ASOS STATION CLOUDINESS IS BASED ON TIME-AVERAGED CEILOMETER DATA FOR CLOUDS AT OR BELOW 12,000 FEET AND ON SATELLITE DATA FOR CLOUDS ABOVE 12,000 FEET. THE NUMBER OF DAYS WITH CLEAR, PARTLY CLOUDY, AND CLOUDY CONDITIONS FOR ASOS STATIONS IS THE SUM OF THE CEILOMETER AND SATELLITE DATA FOR THE SUNRISE TO SUNSET PERIOD.</p>	<p>GENERAL CONTINUED: CLEAR INDICATES 0 - 2 OKTAS, PARTLY CLOUDY INDICATES 3 - 6 OKTAS, AND CLOUDY INDICATES 7 OR 8 OKTAS. WHEN AT LEAST ONE OF THE ELEMENTS (CEILOMETER OR SATELLITE) IS MISSING, THE DAILY CLOUDINESS IS NOT COMPUTED. WIND DIRECTION IS RECORDED IN TENS OF DEGREES (2 DIGITS) CLOCKWISE FROM TRUE NORTH. "00" INDICATES CALM. "36" INDICATES TRUE NORTH. RESULTANT WIND IS THE VECTOR AVERAGE OF THE SPEED AND DIRECTION. AVERAGE TEMPERATURE IS THE SUM OF THE MEAN DAILY MAXIMUM AND MINIMUM TEMPERATURE DIVIDED BY 2. SNOWFALL DATA COMPRISE ALL FORMS OF FROZEN PRECIPITATION, INCLUDING HAIL. A HEATING (COOLING) DEGREE DAY IS THE DIFFERENCE BETWEEN THE AVERAGE DAILY TEMPERATURE AND 65° F. DRY BULB IS THE TEMPERATURE OF THE AMBIENT AIR. DEW POINT IS THE TEMPERATURE TO WHICH THE AIR MUST BE COOLED TO ACHIEVE 100 PERCENT RELATIVE HUMIDITY. WET BULB IS THE TEMPERATURE THE AIR WOULD HAVE IF THE MOISTURE CONTENT WAS INCREASED TO 100 PERCENT RELATIVE HUMIDITY.</p> <p>ON JULY 1, 1996, THE NATIONAL WEATHER SERVICE BEGAN USING THE "METAR" OBSERVATION CODE THAT WAS ALREADY EMPLOYED BY MOST OTHER NATIONS OF THE WORLD. THE MOST NOTICEABLE DIFFERENCE IN THIS ANNUAL PUBLICATION WILL BE THE CHANGE IN UNITS FROM TENTHS TO EIGHTHS(OKTAS) FOR REPORTING THE AMOUNT OF SKY COVER.</p>
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1999  
ELKINS,  
WEST VIRGINIA (EKN)

Elkins, West Virginia, is located near the principal storm tracks and is therefore subjected to frequent weather changes throughout the year. While changes may be rigorous, they bring relief from summer heat waves and winter cold waves. The airport and city are located near the middle of a valley with a narrow floor and ridges at or near 3,000 feet. The ridges are oriented north northeast to south southwest, 3 to 4 miles to the east and west. The valley is located on the general northwest slope of the Appalachian Mountains which crest about 20 miles to the southeast at about 4,500 feet, with some higher peaks.

The seasonal climates vary greatly from year to year. When the Atlantic High extends westward, warm weather with high humidities occur in both summer and winter. Conversely, if the Atlantic High is displaced eastward and the circulation is principally from the northwest, weather is colder than normal. Hottest weather is from warm westerlies which have been over land for a long time and have a path over the south central or southwestern areas of the United States.

Summers are characterized by warm, humid, showery weather, but the heat is moderated by elevation and orographically induced cloudiness. A daily high temperature of 90 or above may occasionally be expected during the summer months. Winters are moderately severe with rapid changes. Snowfall may be frequent, and at times, heavy. However, it seldom remains on the ground for extended periods. Snows often fall upon warm ground thereby causing preliminary melting, then freezing, resulting in slippery road conditions. Glaze formation upon the ground or upon wires and trees is rare. Cold spells alternate frequently with thaws, and snow is subject to frequent complete melting during the winter. Severe cold spells occur occasionally but they seldom last more than two or three days. A daily low of zero degrees or below can be expected several times annually.

Significant climatic characteristics are associated with air currents rising and descending over the mountains. Orographic lifting of air delays post-frontal clearing after the passage of a cold front, especially during the winter when low clouds and snow flurries sometimes persist for 24 hours or more after the front has passed. While this upslope effect prevails with winds from the north-west quadrant, a foehn effect prevails with easterly and southerly winds, tending to diminish existing low cloud layers and to keep ceilings higher than otherwise anticipated. Nocturnal radiation fog is common during the summer and the autumn but it usually dissipates rapidly after sunrise.

Tornadoes are rare in this area, and severe thunderstorms are very infrequent. However, occasionally intense local rainfall from warm-season thunderstorms causes flash flooding in the narrow valleys of the area. Due to the remote location of the city with respect to concentrated industry, the air is usually relatively unpolluted. There are no important smoke sources in the locality, and smoke or haze seldom reduces the visibility below four miles.

The average last occurrence in the spring of temperatures as low as 32 is early to mid-May, and the first occurrence in the autumn is early October. The length of the growing season averages about 148 days.

STATION LOCATION

ELKINS, WEST VIRGINIA

LOCATION	OCCUPIED FROM	OCCUPIED TO	AIRLINE DISTANCES AND DIRECTIONS FROM PREVIOUS LOCATION	LATITUDE NORTH	LONGITUDE WEST	ELEVATION ABOVE												AUCOMPARATION	* Type	REMARKS
						SEA LEVEL	GROUND													
							ORGANIZATION	WIND	TEMPERATURE	EMERGENCY	RELATIVE HUMIDITY	SUNSHINE	PRECIPITATION	WIND DIRECTION	WIND SPEED	WIND GUST	WIND VELOCITY			
<u>CITY</u>																				
Warfield-Dann Building 3rd Street & Davis Ave.	01/01/99	01/01/18	NA	38°56'	79°51'	1927	50	42	42	NA	31	NA	31	NA	NA	NA	NA	Roof of two-story building in center of town; no high buildings near.		
Post Office Federal Building, Davis and 4th	01/01/18	08/31/44	1 blk N	38°56'	79°51'	1927	67 a78	6	1	61	NA	53	NA b53	53	NA	NA	NA	Roof of three-story building in center of town; no high buildings near. a - Effective 1/25/33. b - Installed 11/9/40.		
<u>AIRPORT</u>																				
Building at SE end of Runway at Elkins AP (Harper Field)	02/12/35	09/01/44	NA	38°53'	79°51'	1990	31	5	5	NA	NA	NA	3	NA	NA	NA	NA	Exposure rural and over sod. Hills and trees south		
Administration Building south center Municipal Airport (Harper Field)	09/01/44	08/01/54	1980 ft. WNW	38°53'	79°51'	1970	45	6	6	NA	5	5	5 c3	NA	NA	NA	NA	Consolidated with WFO in new location as part of Airport expansion. Continuity of record c - Effective 6/24/53.		
CAA INSAC Building at Municipal Airport.	08/01/54	03/14/62	150ft. NE	38°53'	79°51'	1970	45	5	5	NA	NA	5	3	NA	NA	NA	NA	CAA only after 8/16/54. Precipitation data incomplete for 1960-62; tables completed from cooperative records.		
Administration Building Elkins-Randolph County Airport	03/14/62	05/01/96	150ft. SSE	38°53'	79°51'	1970 f1948	43 d20	5 g17	4 g16	NA h33	NA h15	4 g16	3 g15	NA e4 i4	NA	NA	NA	Weather Bureau operation d - Moved to field 8/17/69. e - Commissioned 1200' NNE of Thermometer site 10/19/69. f - Effective 10/19/69. g - Moved to roof 3/1/73. h - Installed 7/1/83. i - Type change 5/30/85.		
Elkins-Randolph County Airport	05/01/96	Present	NA	38°53'	79°51'	1980										S		ASOS Commissioned 05/01/96		

SUBSCRIPTION: Price and ordering information available through: National Climatic Data Center, Federal Building, Asheville, North Carolina 28801.  
INQUIRIES/COMMENTS CALL: (828) 271-4800

National Climatic Data Center  
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