

2002

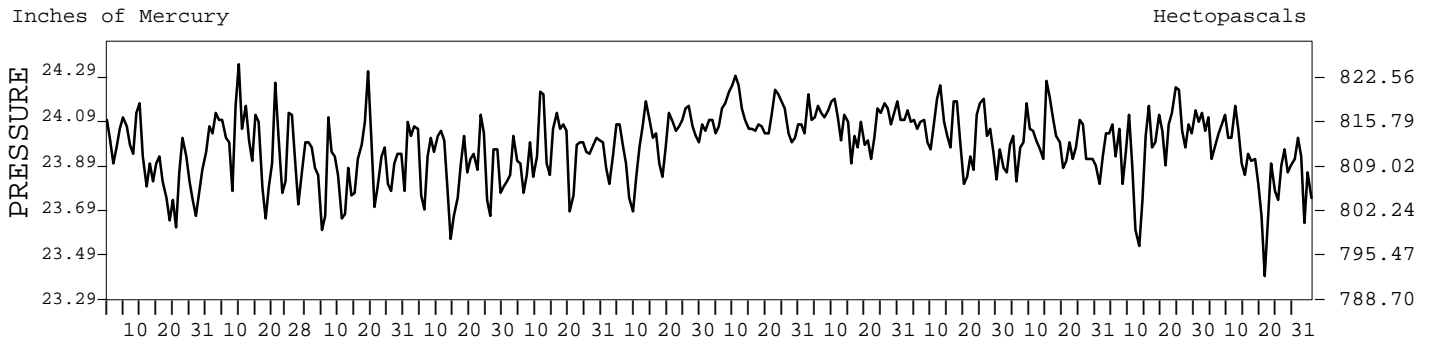
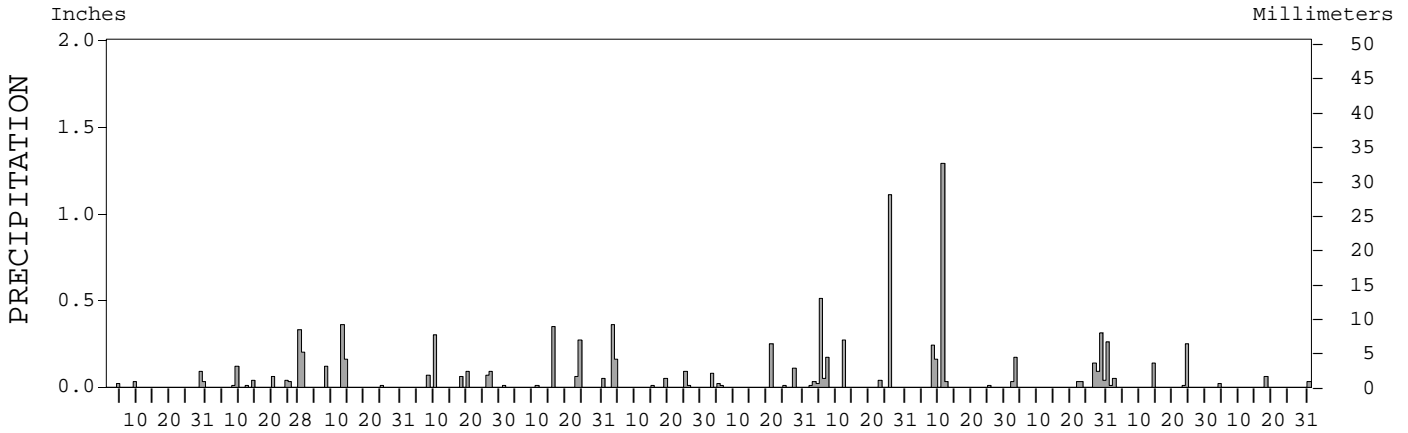
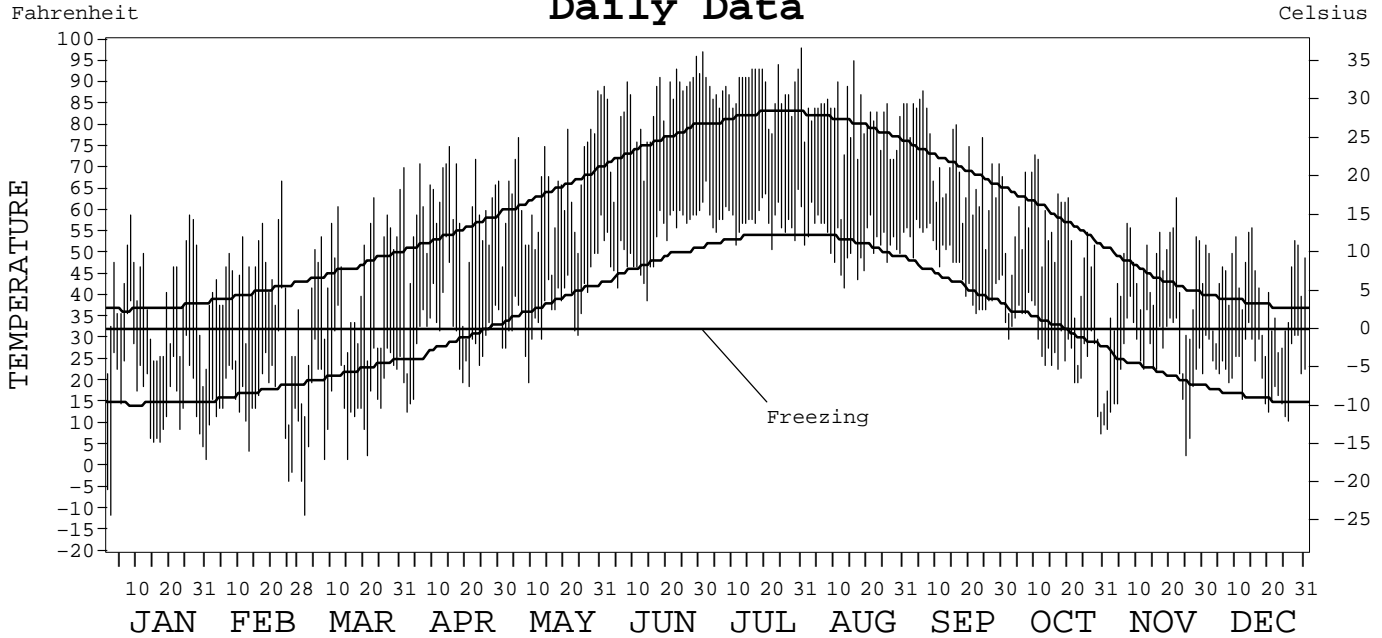
LOCAL CLIMATOLOGICAL DATA ANNUAL SUMMARY WITH COMPARATIVE DATA



ISSN 0198-5787

CHEYENNE,
WYOMING (CYS)

Daily Data



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Thomas R. Karl

NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION	NATIONAL ENVIRONMENTAL SATELLITE, DATA, AND INFORMATION SERVICE	NATIONAL CLIMATIC DATA CENTER ASHEVILLE, NORTH CAROLINA	DIRECTOR NATIONAL CLIMATIC DATA CENTER
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METEOROLOGICAL DATA FOR 2002

CHEYENNE, WY (CYS)

LATITUDE: 41° 09' 28" N LONGITUDE: 104° 48' 25" W ELEVATION (FT): GRND: 6125 BARO: 6128 TIME ZONE: MOUNTAIN (UTC + 7) WBAN: 24018

	ELEMENT	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	YEAR	
TEMPERATURE °F	MEAN DAILY MAXIMUM	38.9	42.0	42.3	58.2	64.9	83.1	88.7	80.8	71.1	50.4	44.1	41.7	58.8	
	HIGHEST DAILY MAXIMUM	59	67	65	75	88	96	98	95	88	73	63	56	98	
	DATE OF OCCURRENCE	26+	23	31	15	30	29	31	16	06	10	22	15	JUL 31	
	MEAN DAILY MINIMUM	16.0	16.3	16.6	30.6	37.5	52.3	58.4	52.3	47.1	27.9	24.7	23.0	33.6	
	LOWEST DAILY MINIMUM	-11	-3	-11	13	20	39	51	42	36	8	3	11	-11	
	DATE OF OCCURRENCE	02	25	02	02	09	14	22	13	22	30	25	26	MAR 02	
	AVERAGE DRY BULB	27.5	29.2	29.5	44.4	51.2	67.7	73.6	66.6	59.1	39.2	34.4	32.4	46.2	
	MEAN WET BULB	21.7	22.5	24.2	35.4	41.3	51.6	56.2	53.1	48.5	33.1	28.4	26.0	36.8	
	MEAN DEW POINT	8.5	7.6	14.4	22.0	29.8	36.8	42.5	42.2	39.1	25.1	18.0	14.7	25.1	
	NUMBER OF DAYS WITH:														
	MAXIMUM ≥ 90°	0	0	0	0	0	9	15	2	0	0	0	0	0	26
	MAXIMUM ≤ 32°	11	5	10	2	0	0	0	0	0	4	5	8	45	
	MINIMUM ≤ 32°	29	27	30	16	10	0	0	0	0	22	21	30	185	
MINIMUM ≤ 0°	2	2	2	0	0	0	0	0	0	0	0	0	6		
H/C	HEATING DEGREE DAYS	1154	997	1090	610	432	56	0	41	205	791	911	1006	7293	
	COOLING DEGREE DAYS	0	0	0	0	12	145	271	95	36	0	0	0	559	
RH	MEAN (PERCENT)	49	46	58	47	50	37	38	49	54	65	54	52	50	
	HOUR 05 LST	56	52	70	62	69	57	59	70	70	74	60	59	63	
	HOUR 11 LST	38	38	48	35	37	24	26	33	40	54	46	43	38	
	HOUR 17 LST	45	38	46	34	35	25	26	33	42	54	51	47	40	
	HOUR 23 LST	54	52	65	57	60	46	44	60	63	73	59	59	58	
S	PERCENT POSSIBLE SUNSHINE	77	81	76	72	72	86	87	79	81	62	75	70	76	
W/O	NUMBER OF DAYS WITH:														
	HEAVY FOG (VISBY ≤ 1/4 MI)	0	4	4	0	1	0	1	0	1	8	1	3	23	
	THUNDERSTORMS	0	0	0	1	4	8	7	11	3	0	1	0	35	
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.)	23.88	23.97	23.87	23.88	23.93	23.97	24.08	24.06	24.00	23.97	23.98	23.87	23.95	
	MEAN SEA-LEVEL PRESS. (IN.)		30.15	30.01		29.89	29.82	29.92		29.92	30.05	30.11	29.99		
WINDS	RESULTANT SPEED (MPH)	10.1	10.9	7.9	5.0	2.7	2.8	2.4	3.0	3.3	3.2	10.0	9.4	5.8	
	RES. DIR. (TENS OF DEGS.)	28	29	27	27	26	25	30	25	27	29	29	28	28	
	MEAN SPEED (MPH)	14.2	15.2	13.8	13.5	12.8	10.9	10.3	11.0	10.7	10.6	13.3	12.5	12.4	
	PREVAIL. DIR. (TENS OF DEGS.)	28	28	26	28	28	29	28	28	18	28	28	28	28	
	MAXIMUM 2-MINUTE WIND:														
	SPEED (MPH)	49	54	48	45	45	43	39	41	35	36	41	47	54	
	DIR. (TENS OF DEGS.)	28	28	26	27	25	22	28	14	26	28	28	27	28	
	DATE OF OCCURRENCE	12	08	27	16	22	01	26	26	17	11	22	28+	FEB 08	
	MAXIMUM 5-SECOND WIND:														
	SPEED (MPH)	64	63	59	53	55	58	46	47	40	41	48	59	64	
DIR. (TENS OF DEGS.)	28	28	27	27	16	22	28	13	27	28	28	26	28		
DATE OF OCCURRENCE	12	08	27	16	21	01	26	26	17+	11+	22	28	JAN 12		
PRECIPITATION	WATER EQUIVALENT:														
	TOTAL (IN.)	0.17	0.64	0.85	0.68	0.75	0.68	0.48	2.21	1.73	1.10	0.46	0.11	9.86	
	GREATEST 24-HOUR (IN.)	0.12	0.33	0.52	0.30	0.35	0.37	0.25	1.11	1.30	0.37	0.25	0.06	1.30	
	DATE OF OCCURRENCE	29-30	28	13-14	10	16	03-04	21	26	11-12	28-29	24	18	SEP 11-12	
	NUMBER OF DAYS WITH:														
	PRECIPITATION ≥ 0.01	4	8	5	6	6	6	6	9	5	9	5	3	72	
PRECIPITATION ≥ 0.10	0	2	4	1	2	2	2	4	3	4	2	0	26		
PRECIPITATION ≥ 1.00	0	0	0	0	0	0	0	1	1	0	0	0	2		
SNOWFALL	SNOW, ICE PELLETS, HAIL:														
	TOTAL (IN.)	2.7	10.3	11.4	1.7	2.5	T	T	T	0.0	13.1	8.3	1.6	51.6	
	GREATEST 24-HOUR (IN.)	1.8	3.6	4.2	0.8	1.8	T	T	T	0.0	4.9	5.2	1.0	5.2	
	DATE OF OCCURRENCE	29	28	01	20	24	25+	21	26+		31	24	18	NOV 24	
	MAXIMUM SNOW DEPTH (IN.)	1	1	6	T	2	0	0	0	0	5	9	T	9	
	DATE OF OCCURRENCE	31+	27+	02	20+	24					31	02+	25+	NOV 02+	
NUMBER OF DAYS WITH:															
SNOWFALL ≥ 1.0	1	3	4	0	1	0	0	0	0	4	2	1	16		

NORMALS, MEANS, AND EXTREMES

CHEYENNE, WY (CYS)

LATITUDE: 41° 09' 28" N LONGITUDE: 104° 48' 25" W ELEVATION (FT): GRND: 6125 BARO: 6128 TIME ZONE: MOUNTAIN (UTC + 7) WBAN: 24018

ELEMENT		POR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	YEAR
TEMPERATURE °F	NORMAL DAILY MAXIMUM	30	37.1	40.5	46.4	54.4	64.4	75.4	81.9	79.8	70.3	58.2	44.5	38.1	57.6
	MEAN DAILY MAXIMUM	55	37.9	40.6	44.9	54.4	64.5	75.2	81.2	79.4	70.5	59.0	45.5	39.0	57.7
	HIGHEST DAILY MAXIMUM	67	66	71	74	83	91	100	100	96	95	83	75	69	100
	YEAR OF OCCURRENCE		1982	1962	1986	1992	2000	1954	1939	1979	1995	1992	1999	1939	JUN 1954
	MEAN OF EXTREME MAXS.	55	56.9	59.2	65.1	73.9	81.4	89.3	91.2	89.4	84.8	76.3	64.7	57.6	74.2
	NORMAL DAILY MINIMUM	30	14.8	17.2	22.0	28.7	38.3	47.5	53.4	52.0	42.9	32.5	22.1	16.1	32.3
	MEAN DAILY MINIMUM	55	15.4	18.1	21.7	29.9	39.6	48.5	53.6	52.2	43.2	33.0	22.9	17.2	32.9
	LOWEST DAILY MINIMUM	67	-29	-34	-21	-8	16	25	38	36	8	-1	-16	-28	-34
	YEAR OF OCCURRENCE		1984	1936	1943	1975	1947	1951	1952	1975	1985	1991	1993	1990	FEB 1936
	MEAN OF EXTREME MINS.	55	-8.8	-3.9	1.8	14.0	27.6	37.7	45.1	43.6	29.7	17.1	2.7	-5.1	16.8
	NORMAL DRY BULB	30	26.5	29.3	33.6	42.5	52.0	61.3	68.4	66.4	57.4	47.0	35.2	27.8	45.6
	MEAN DRY BULB	55	26.7	29.3	33.3	42.1	52.1	61.7	67.4	65.8	56.8	45.9	34.2	28.1	45.3
	MEAN WET BULB	19	22.7	23.6	29.1	35.2	44.4	51.8	53.1	52.6	44.8	35.4	26.3	21.7	36.7
	MEAN DEW POINT	19	12.7	14.4	19.8	26.0	36.0	43.1	44.2	44.6	36.0	26.0	17.3	12.2	27.7
	NORMAL NO. DAYS WITH:														
MAXIMUM ≥ 90°	30	0.0	0.0	0.0	0.0	*	1.3	5.2	2.1	0.1	0.0	0.0	0.0	8.7	
MAXIMUM ≤ 32°	30	9.3	7.0	5.4	1.4	*	0.0	0.0	0.0	0.2	0.7	4.1	8.9	37.0	
MINIMUM ≤ 32°	30	28.8	26.1	27.7	18.0	3.6	0.0	0.0	0.0	2.1	12.2	24.4	28.5	171.4	
MINIMUM ≤ 0°	30	4.4	2.5	1.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.5	3.4	11.9	
H/C	NORMAL HEATING DEG. DAYS	30	1197	1001	939	686	414	136	29	42	255	593	936	1160	7388
	NORMAL COOLING DEG. DAYS	30	0	0	0	0	1	41	126	86	19	0	0	0	273
RH	NORMAL (PERCENT)	30	52	55	56	54	56	54	51	51	52	50	54	54	53
	HOUR 05 LST	30	57	61	65	68	71	71	70	69	67	61	60	58	65
	HOUR 11 LST	30	45	46	46	43	42	40	36	36	38	38	43	46	42
	HOUR 17 LST	30	49	48	47	42	44	41	38	38	38	41	50	52	44
	HOUR 23 LST	30	58	61	64	65	67	64	63	63	62	59	60	59	62
S	PERCENT POSSIBLE SUNSHINE	63	64	67	67	63	61	67	69	68	70	69	61	60	66
W/O	MEAN NO. DAYS WITH:														
	HEAVY FOG(VISBY≤1/4 MI)	68	1.0	1.9	3.2	3.3	3.0	1.9	1.2	1.4	1.9	2.1	1.9	1.4	24.2
	THUNDERSTORMS	68	0.0	0.0	0.2	2.1	7.7	11.3	13.1	10.5	4.5	0.9	0.0	0.0	50.3
CLOUDINESS	MEAN:														
	SUNRISE-SUNSET (OKTAS)	1		4.8	6.4		7.2	4.0						4.0	
	MIDNIGHT-MIDNIGHT (OKTAS)	1					7.2	4.0							
	MEAN NO. DAYS WITH:														
	CLEAR	1	4.0	7.0	5.0		4.0	13.0							
PARTLY CLOUDY	1	3.0	6.0	5.0		12.0	8.0								
CLOUDY	1	3.0	4.0	11.0		13.0	7.0								
PR	MEAN STATION PRESSURE(IN)	30	23.90	23.89	23.80	23.90	23.90	24.00	24.11	24.11	24.10	24.01	23.91	23.91	23.96
	MEAN SEA-LEVEL PRES. (IN)	18	30.06	30.05	29.97	29.92	29.88	29.97	29.96	29.99	30.00	30.03	30.03	30.07	29.99
WINDS	MEAN SPEED (MPH)	45	15.2	14.7	14.4	14.1	12.6	11.4	10.4	10.4	11.2	12.3	13.5	14.6	12.9
	PREVAIL.DIR(TENS OF DEGS)	23	28	28	28	28	28	28	28	28	28	28	28	28	28
	MAXIMUM 2-MINUTE:														
	SPEED (MPH)	7	55	59	48	55	45	51	46	56	48	53	59	63	63
	DIR. (TENS OF DEGS)		25	27	26	30	25	27	20	25	28	26	27	27	27
	YEAR OF OCCURRENCE		2000	1999	2002	1999	2002	1998	2001	1996	2000	2001	1999	1998	DEC 1998
	MAXIMUM 5-SECOND:														
SPEED (MPH)	7	64	71	60	69	55	61	59	60	60	63	68	75	75	
DIR. (TENS OF DEGS)		28	27	29	32	16	28	32	25	22	26	27	26	26	
YEAR OF OCCURRENCE		2002	1999	2000	1999	2002	2001	1996	1996	2000	2001	1999	1998	DEC 1998	
PRECIPITATION	NORMAL (IN)	30	0.45	0.44	1.05	1.55	2.48	2.12	2.26	1.82	1.43	0.75	0.64	0.46	15.45
	MAXIMUM MONTHLY (IN)	67	2.78	2.16	3.65	5.04	6.00	5.32	5.01	6.64	4.52	3.57	2.48	1.68	6.64
	YEAR OF OCCURRENCE		1949	1953	1990	1942	1995	1955	1973	1985	1973	1942	1979	1937	AUG 1985
	MINIMUM MONTHLY (IN)	67	T	T	0.12	0.34	0.11	0.07	0.48	0.03	0.01	0.03	T	0.03	T
	YEAR OF OCCURRENCE		1952	1983	1966	1992	1974	1980	2002	1944	1992	1964	1965	1959	FEB 1983
	MAXIMUM IN 24 HOURS (IN)	67	1.41	1.60	1.88	1.94	2.07	2.68	3.42	6.06	2.75	1.70	1.66	1.19	6.06
	YEAR OF OCCURRENCE		1949	1953	1946	1984	1991	1955	1973	1985	1973	1947	1979	1979	AUG 1985
	NORMAL NO. DAYS WITH:														
	PRECIPITATION ≥ 0.01	30	5.1	6.0	9.2	9.3	11.3	10.2	10.8	9.6	7.5	5.6	6.0	6.0	96.6
PRECIPITATION ≥ 1.00	30	*	0.0	0.0	0.1	0.4	0.2	0.2	0.1	0.2	0.0	*	*	1.2	
SNOWFALL	NORMAL (IN)	30	7.3	6.8	12.5	9.1	2.5	0.*	0.0	0.0	1.6	4.1	8.5	7.9	60.3
	MAXIMUM MONTHLY (IN)	67	35.5	23.3	39.2	31.8	30.4	8.7	1.0	0.5	11.8	21.3	31.1	21.3	39.2
	YEAR OF OCCURRENCE		1980	1995	1990	1984	1943	1947	1994	1993	2000	1969	1979	1958	MAR 1990
	MAXIMUM IN 24 HOURS (IN)	67	12.7	14.0	15.6	17.4	15.0	8.7	1.0	0.5	10.1	8.6	19.8	11.7	19.8
	YEAR OF OCCURRENCE		1992	1953	1973	1984	1942	1947	1994	1993	2000	1990	1979	1979	NOV 1979
	MAXIMUM SNOW DEPTH (IN)	54	23	12	19	15	12	0	0	0	8	10	26	17	26
	YEAR OF OCCURRENCE		1980	1989	1990	1984	1978				2000	1990	1979	1979	NOV 1979
	NORMAL NO. DAYS WITH:														
SNOWFALL ≥ 1.0	30	2.4	2.3	3.7	2.4	0.7	0.0	0.0	0.0	0.5	1.3	2.5	2.3	18.1	

PRECIPITATION (inches) 2002 CHEYENNE, WY (CYS)

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL
1973	0.23	0.07	1.85	1.75	0.31	1.20	5.01	0.27	4.52	0.06	1.25	1.06	17.58
1974	0.48	0.03	1.24	0.50	0.11	2.81	1.41	1.29	0.50	0.91	0.49	0.10	9.87
1975	0.40	0.17	1.17	0.47	2.27	1.49	2.62	0.39	0.52	0.49	0.20	0.52	10.71
1976	0.32	0.71	0.32	1.79	2.07	0.68	2.39	1.40	0.77	0.15	0.28	0.10	10.98
1977	0.14	0.08	1.21	1.86	2.50	2.44	3.49	1.07	0.19	0.08	0.35	0.24	13.65
1978	0.58	0.78	0.35	0.52	3.98	0.63	0.98	1.38	0.12	0.50	0.45	0.54	10.81
1979	0.27	0.14	1.34	0.77	2.90	3.32	1.83	1.86	0.32	0.46	2.48	1.50	17.19
1980	2.71	0.73	1.36	0.93	2.39	0.07	2.00	1.55	0.97	0.51	0.46	0.08	13.76
1981	0.30	0.20	0.70	0.73	5.67	1.66	2.85	2.90	0.31	0.85	0.09	0.45	16.71
1982	0.41	0.19	0.17	0.53	3.56	4.52	2.71	1.81	2.87	1.20	0.43	0.83	19.23
1983	0.02	T	2.96	4.45	2.31	2.81	2.12	1.95	0.78	0.49	2.34	0.46	20.69
1984	0.54	0.84	1.28	3.71	0.78	2.43	2.57	2.84	0.65	1.55	0.11	0.34	17.64
1985	0.66	0.19	0.36	1.10	1.05	1.59	3.99	6.64	1.78	0.94	0.84	0.80	19.94
1986	0.13	0.50	0.54	2.26	1.03	2.42	1.04	1.55	2.47	1.78	0.66	0.18	14.56
1987	0.09	0.90	1.25	0.68	4.43	1.80	2.04	1.23	0.93	0.33	0.76	0.85	15.29
1988	0.52	0.65	1.34	1.84	3.09	2.03	1.79	1.79	1.66	0.09	0.42	0.53	15.75
1989	0.27	1.26	0.49	0.48	1.37	2.51	1.70	1.79	1.62	0.41	0.14	0.69	12.73
1990	0.35	0.69	3.65	1.66	3.37	1.03	3.64	1.98	0.80	1.35	0.72	0.39	19.63
1991	0.36	0.12	0.43	1.15	3.84	4.56	3.39	1.49	1.87	0.44	0.87	0.13	18.65
1992	1.18	0.11	1.75	0.34	1.86	2.11	1.87	1.90	0.01	0.46	1.69	0.49	13.77
1993	0.35	0.81	0.63	2.49	1.92	3.32	0.64	2.21	3.16	1.85	1.23	0.30	18.91
1994	0.66	0.88	0.55	1.45	2.05	1.44	2.13	1.49	0.38	1.55	0.34	0.57	13.49
1995	0.12	1.02	0.19	1.49	6.00	4.58	1.08	0.89	3.39	0.78	0.37	0.18	20.09
1996	0.50	0.07	1.50	1.51	2.24	1.79	3.10	1.79	2.34	0.50	0.45	0.01	15.80
1997	0.39	0.31	0.44	1.68	2.47	3.48	2.80	4.33	2.06	1.09	0.20	0.59	19.84
1998	0.07	0.29	0.69	1.09	2.35	1.63	1.21	0.96	0.49	1.27	0.31	0.46	10.82
1999	0.35	0.13	0.46	5.02	2.04	2.13	2.38	0.78	2.11	0.27	0.25	0.19	16.11
2000	0.35	0.59	1.48	0.58	1.38	0.46	2.64	1.87	2.64	0.69	0.30	0.75	13.73
2001	0.41	0.33	0.56	2.49	2.24	1.45	3.31	0.74	1.18	0.40	0.23	0.13	13.47
2002	0.17	0.64	0.85	0.68	0.75	0.68	0.48	2.21	1.73	1.10	0.46	0.11	9.86
POR= 131 YRS	0.43	0.56	1.05	1.76	2.45	1.88	2.02	1.53	1.25	0.81	0.50	0.41	14.65

WBAN : 24018

AVERAGE TEMPERATURE (°F) 2002 CHEYENNE, WY (CYS)

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL
1973	23.7	29.7	31.9	37.3	51.4	62.9	65.8	68.4	54.1	49.3	35.3	29.4	44.9
1974	24.1	31.9	37.1	43.3	55.0	64.1	70.1	65.2	55.3	48.3	35.6	26.6	46.4
1975	25.5	25.0	30.2	37.5	48.4	57.9	67.3	66.3	56.0	48.1	34.2	32.6	44.1
1976	26.9	32.9	30.9	42.7	51.1	59.7	69.2	65.0	57.7	43.4	33.5	30.6	45.3
1977	22.4	32.9	32.1	44.7	53.4	65.2	68.2	63.5	60.7	48.3	34.4	29.0	46.2
1978	22.1	25.0	37.7	43.9	49.0	61.0	68.7	64.3	59.6	47.9	33.5	21.1	44.5
1979	17.3	31.6	36.0	44.9	49.9	61.5	69.9	65.9	62.9	49.8	29.5	32.9	46.0
1980	22.2	29.4	33.0	42.3	51.2	65.5	71.4	66.5	60.4	46.7	36.8	38.5	47.0
1981	33.4	32.2	36.8	50.1	50.5	63.7	69.0	65.2	61.2	46.1	40.7	30.7	48.3
1982	25.5	28.2	36.1	41.8	50.5	57.5	67.7	69.1	56.7	45.1	31.4	28.3	44.8
1983	32.8	33.5	32.0	34.8	47.4	57.3	67.8	70.2	59.0	48.6	32.3	15.0	44.2
1984	24.3	28.4	32.4	35.7	53.6	59.4	68.4	66.6	53.0	40.0	35.0	27.0	43.7
1985	19.5	23.3	35.2	45.6	54.3	61.1	69.3	66.8	52.8	45.1	26.2	26.1	43.8
1986	37.0	30.1	42.2	43.9	50.6	64.5	68.5	67.0	55.3	44.6	34.3	28.7	47.2
1987	29.1	31.6	32.4	46.7	54.5	63.3	69.2	64.9	58.0	46.9	36.7	25.7	46.6
1988	21.5	28.4	32.3	44.4	53.3	67.4	69.7	68.7	57.5	50.3	35.3	28.7	46.5
1989	30.2	17.3	37.4	44.3	54.3	60.3	70.6	67.0	57.5	46.5	38.7	24.3	45.7
1990	31.5	28.7	31.9	42.8	49.3	64.1	65.0	66.4	62.2	46.7	38.7	20.8	45.7
1991	25.0	36.2	36.4	41.1	52.4	62.5	67.7	67.7	58.0	46.1	31.7	31.6	46.4
1992	30.5	36.7	38.6	48.6	55.0	60.8	64.6	63.8	60.0	49.2	30.9	25.5	47.0
1993	26.1	24.9	37.2	42.1	53.4	58.7	66.1	64.8	54.3	44.1	29.2	30.7	44.3
1994	29.4	27.2	38.6	43.3	56.9	66.3	68.0	69.4	61.7	46.9	34.6	33.3	48.0
1995	30.7	32.6	36.8	39.5	45.7	59.0	67.8	71.6	57.1	45.8	38.4	30.0	46.3
1996	23.0	30.2	31.6	42.7	51.7	63.6	68.3	66.3	56.6	45.8	34.7	30.1	45.4
1997	24.7	26.7	38.3	35.9	51.7	62.6	68.3	65.0	59.2	46.1	31.4	28.3	44.9
1998	30.6	30.6	32.7	41.2	53.3	56.8	70.3	68.7	64.0	45.8	39.5	26.6	46.7
1999	30.8	34.6	37.6	38.4	50.5	60.3	70.0	67.7	54.0	47.6	44.0	32.0	47.3
2000	29.8	34.7	37.1	45.4	55.5	62.5	72.2	70.5	58.2	46.3	25.9	25.3	47.0
2001	27.6	26.9	35.1	44.3	52.6	64.2	72.2	69.5	61.5	47.2	38.9	29.2	47.4
2002	27.5	29.2	29.5	44.4	51.2	67.7	73.6	66.6	59.1	39.2	34.4	32.4	46.2
POR= 129 YRS	26.2	28.1	32.8	41.6	51.1	61.2	67.8	66.4	57.5	46.3	35.0	28.4	45.2

HEATING DEGREE DAYS (base 65°F) 2002 CHEYENNE, WY (CYS)

YEAR	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	TOTAL
1973-74	80	4	323	482	883	1098	1264	922	862	643	304	110	6975
1974-75	4	55	302	509	873	1180	1215	1115	1070	819	506	212	7860
1975-76	11	39	274	515	920	998	1175	924	1048	661	425	158	7148
1976-77	11	44	224	664	937	1059	1314	894	1014	602	352	44	7159
1977-78	21	74	150	511	910	1108	1324	1115	840	627	491	157	7328
1978-79	28	73	200	523	937	1358	1471	933	893	597	459	139	7611
1979-80	2	62	105	468	1058	990	1321	1027	984	673	424	65	7179
1980-81	0	41	151	558	840	812	974	913	868	440	445	95	6137
1981-82	21	50	120	580	722	1058	1216	1025	892	687	446	227	7044
1982-83	29	7	264	608	1002	1131	992	875	1016	898	538	233	7593
1983-84	23	0	202	502	974	1547	1259	1058	1002	870	348	177	7962
1984-85	6	15	365	769	892	1171	1403	1163	917	576	323	162	7762
1985-86	11	37	364	612	1158	1199	862	970	698	629	440	71	7051
1986-87	4	20	286	630	914	1121	1102	928	1002	542	321	78	6948
1987-88	27	79	214	554	841	1213	1343	1056	1008	611	361	42	7349
1988-89	12	18	236	449	884	1116	1075	1332	851	615	334	180	7102
1989-90	4	18	236	566	779	1257	1037	1012	1021	662	480	106	7178
1990-91	75	28	127	558	784	1364	1231	799	879	712	385	95	7037
1991-92	26	17	217	586	993	1031	1062	813	811	488	307	131	6482
1992-93	63	92	161	484	1014	1216	1198	1118	856	680	351	202	7435
1993-94	45	58	322	642	1068	1059	1097	1053	809	644	249	43	7089
1994-95	24	16	131	552	904	978	1057	901	866	758	588	199	6974
1995-96	37	6	283	589	793	1076	1293	1002	1031	663	411	77	7261
1996-97	16	29	269	590	905	1076	1242	1065	820	867	400	102	7381
1997-98	34	58	181	577	1001	1130	1059	957	994	706	352	256	7305
1998-99	7	10	104	587	754	1183	1055	845	840	791	444	150	6770
1999-00	8	27	322	534	625	1015	1083	870	858	581	305	130	6358
2000-01	2	8	242	573	1167	1223	1155	1064	922	614	377	106	7453
2001-02	0	11	135	545	776	1102	1154	997	1090	610	432	56	6908
2002-	0	41	205	791	911	1006							

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COOLING DEGREE DAYS (base 65°F) 2002 CHEYENNE, WY (CYS)

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL
1973	0	0	0	0	0	65	112	116	0	0	0	0	293
1974	0	0	0	0	4	88	173	67	17	0	0	0	349
1975	0	0	0	0	0	7	90	86	10	0	0	0	193
1976	0	0	0	0	0	7	145	50	15	0	0	0	217
1977	0	0	0	0	0	59	126	38	29	0	0	0	252
1978	0	0	0	0	1	43	150	59	44	0	0	0	297
1979	0	0	0	0	1	42	160	100	49	0	0	0	352
1980	0	0	0	0	0	88	205	94	21	0	0	0	408
1981	0	0	0	0	0	59	156	64	15	0	0	0	294
1982	0	0	0	0	0	8	120	140	21	0	0	0	289
1983	0	0	0	0	0	10	115	169	28	0	0	0	322
1984	0	0	0	0	1	14	118	72	8	0	0	0	213
1985	0	0	0	0	0	52	150	98	8	0	0	0	308
1986	0	0	0	0	0	62	118	89	0	0	0	0	269
1987	0	0	0	0	0	35	164	83	9	0	0	0	291
1988	0	0	0	0	4	122	166	140	18	0	0	0	450
1989	0	0	0	0	7	46	188	86	19	0	0	0	346
1990	0	0	0	0	0	86	84	79	49	0	0	0	298
1991	0	0	0	0	2	28	119	106	13	4	0	0	272
1992	0	0	0	1	2	15	58	63	16	0	0	0	155
1993	0	0	0	0	0	19	89	60	6	0	0	0	174
1994	0	0	0	0	3	91	125	156	38	0	0	0	413
1995	0	0	0	0	0	23	132	218	50	0	0	0	423
1996	0	0	0	0	2	40	124	73	24	0	0	0	263
1997	0	0	0	0	0	37	144	65	13	0	0	0	259
1998	0	0	0	0	0	17	182	131	78	0	0	0	408
1999	0	0	0	0	0	18	170	114	0	0	0	0	302
2000	0	0	0	0	19	59	231	187	44	0	0	0	540
2001	0	0	0	0	0	91	229	158	38	0	0	0	516
2002	0	0	0	0	12	145	271	95	36	0	0	0	559

SNOWFALL (inches) 2002 CHEYENNE, WY (CYS)

YEAR	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	TOTAL
1973-74	0.0	0.0	T	0.5	17.4	13.9	5.0	0.8	16.3	8.0	0.0	0.0	61.9
1974-75	0.0	0.0	1.9	1.4	2.4	1.5	5.8	4.3	14.0	5.4	0.8	0.0	37.5
1975-76	0.0	0.0	0.6	5.5	4.7	8.4	6.0	8.5	9.0	6.7	T	T	49.4
1976-77	0.0	0.0	0.0	1.5	3.5	1.2	2.5	0.8	12.9	7.0	T	0.0	29.4
1977-78	0.0	0.0	0.0	0.4	4.3	5.6	7.0	12.0	2.5	1.0	18.3	0.0	51.1
1978-79	0.0	0.0	0.1	2.0	9.3	17.6	6.7	2.2	21.1	4.0	14.1	T	77.1
1979-80	0.0	0.0	0.0	3.6	31.1	15.6	35.5	10.7	17.8	3.4	3.8	0.0	121.5
1980-81	0.0	0.0	0.0	1.1	6.3	2.1	3.4	2.9	9.0	2.0	0.8	0.0	27.6
1981-82	0.0	0.0	0.0	4.6	0.8	5.8	5.6	2.4	1.7	2.0	4.0	0.0	26.9
1982-83	0.0	0.0	0.0	12.2	7.9	13.1	0.1	T	31.9	25.7	10.1	0.0	101.0
1983-84	0.0	0.0	T	0.2	27.2	7.0	7.9	12.1	13.0	31.8	T	0.0	99.2
1984-85	0.0	0.0	1.6	3.8	1.5	5.6	9.8	1.9	3.6	2.6	0.4	0.0	30.8
1985-86	0.0	0.0	7.4	6.0	12.4	13.0	1.3	4.9	5.6	11.3	3.8	0.0	65.7
1986-87	0.0	0.0	0.0	9.2	6.9	2.2	1.1	9.9	13.7	4.4	T	0.0	47.4
1987-88	0.0	0.0	0.0	1.3	4.5	16.1	9.0	7.5	16.0	7.5	2.2	0.0	64.1
1988-89	0.0	0.0	0.2	0.0	4.5	7.2	4.4	17.6	5.0	4.3	T	T	43.2
1989-90	T	T	2.6	3.4	1.9	9.7	5.6	11.6	39.2	5.6	1.3	T	80.9
1990-91	T	T	T	12.3	8.8	6.6	7.7	1.6	3.7	10.5	T	T	51.2
1991-92	T	T	T	7.5	9.1	2.0	18.2	0.8	11.3	0.7	4.4	0.5	54.5
1992-93	T	T	0.0	2.1	25.5	10.9	7.1	14.6	6.6	11.3	T	0.5	78.6
1993-94	0.0	0.5	5.5	3.1	18.0	5.7	11.5	16.1	4.2	9.1	T	T	73.7
1994-95	1.0	0.0	0.9	2.3	3.0	10.0	2.7	23.3	4.4	13.2	2.6	T	63.4
1995-96	0.0	0.0	3.0	6.4	6.4	3.6	11.9	2.1	21.9	8.7	0.1	T	64.1
1996-97	T	T	1.2	2.0	7.0	0.4	10.5	7.9	8.4	23.3	2.8	T	63.5
1997-98	T	T	T	8.8	2.5	10.9	1.3	3.4	8.4	10.1	1.1	0.7	47.2
1998-99	T	0.0	0.0	0.3	4.0	13.5	6.4	2.4	4.9	17.0	0.9	T	49.4
1999-00	0.0	0.0	3.7	3.3	4.3	2.9	2.9	10.7	16.2	1.7	0.2	0.0	45.9
2000-01	T	T	11.8	0.7	4.3	13.5	8.6	6.8	7.0	23.2	13.1	T	89.0
2001-02	T	0.0	T	2.6	4.3	2.1	2.7	10.3	11.4	1.7	2.5	T	37.6
2002-	T	T	0.0	13.1	8.3	1.6							
POR= 66 YRS	0.0	0.0	1.1	3.8	7.1	6.2	6.3	6.4	11.5	9.2	3.5	0.2	55.3

WBAN : 24018

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 EIGHTS(OKTAS) FOR REPORTING THE AMOUNT OF SKY COVER.</p>
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2002 CHEYENNE, WYOMING (CYS)

The city of Cheyenne is located on a broad plateau between the North and South Platte Rivers in the extreme southeastern corner of Wyoming at an elevation of approximately 6,100 feet. The surrounding country is mostly rolling prairie which is used primarily for grazing. The ground level rises rapidly to a ridge approximately 9,000 feet in elevation about 30 miles west of the city. This ridge is known as the Laramie Mountains, one of the ranges of the Rockies, and extends in a north-south direction. Because of this ridge, winds from the northwest through west to southwest are downslope and produce a marked chinook effect in Cheyenne which is especially noticeable during the winter months. Also, winds from the north through east to south are upslope and may cause fog or low stratus clouds in the Cheyenne area throughout the year. Because of this terrain variation, the wind direction plays an important role in controlling the local temperature and weather.

Cheyenne experiences large diurnal and annual temperature ranges. This is due to the advent of both warm and cold air masses and the relatively high elevation of the city which permits rapid incoming and outgoing radiation. The daily temperature range averages about 30 degrees in the summer and 23 degrees in the winter. Many cold air masses from the north during the winter months miss Cheyenne. Because of the downslope of land to the east and the prevailing westerlies, some of the cold air masses do move over the city, but only about 13 percent of the days in an average January, the coldest month of the year, show temperatures dropping to zero or below. Temperatures during the winter months average a few degrees higher than over the Mississippi and Missouri Valleys at the same latitude.

Windy days are quite frequent during the winter and spring months. Since the wind is usually strongest during the daytime it is a very noticeable weather element. Usually the strong winds are from a westerly direction and this tends to raise the temperature because the air is moving downslope.

Most of the air masses reaching this area move in from the Pacific and since the mountains to the west are quite effective moisture barriers the climate is semi-arid. Fortunately, about 70 percent of normal annual precipitation occurs during the growing season. In the summer months, precipitation is mostly of the shower type and occurs mainly with thunderstorms. Hail is frequent and occasionally destructive in some thunderstorms. Most of the snow falls during the late winter and early spring months. It is not uncommon to have heavy snow in May.

The growing season in Cheyenne averages about 132 days a year and extends from around May 18th to September 27th. Freezing temperatures have occurred as late in the spring as mid-June, and as early in the fall as late August.

Relative humidity averages near 50 percent on an annual basis with large daily variations. Very seldom is the relative humidity above 30 percent when the temperature is above 80 degrees.

STATION LOCATION

CHEYENNE, WYOMING

LOCATION	Occupied From	Occupied To	Airline Distances and Directions from previous Location	LATITUDE NORTH	LONGITUDE WEST	ELEVATION ABOVE										AUTOMATIC OBSERVING EQUIPMENT *	* TYPE M = AMOS T = AUTOB S = ASOS W = AWOS REMARKS
						SEA LEVEL		GROUND									
						GROUND TEMPERATURE	WIND INSTRUMENT	EXTREME THERMOMETERS	PSYCHROMETER	SUNSHINE SWITCH	TIPPING BUCKET	WEIGHING RAIN GAGE	8 INCH RAIN GAGE	HYGROMETER			
*NOTE:																	
<u>AIRPORT</u>																	
Municipal Airport 4000 Morrie Avenue	11/21/75	8/17/93	2000 ft. E	41°09'	104°49'	6126	m33	5	5	7	4	4	4	m5 n5	m. Not moved 11/21/75. n. Type change 7/31/87.		
Municipal Airport 1301 Airport Parkway	8/17/93	11/01/95	0.25 mi. E	41°09'	104°48'	6126	o33	o5	o5	o7	o4	o4	o4	o5	o. Not moved 8/17/93.		
Municipal Airport	11/01/95	Present	NA	41°09'	104°48'	P6125								S	ASOS Commissioned 11/01/95 p. Ground Elevation		

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* NOTES: For earlier station history see previous editions.