

2004

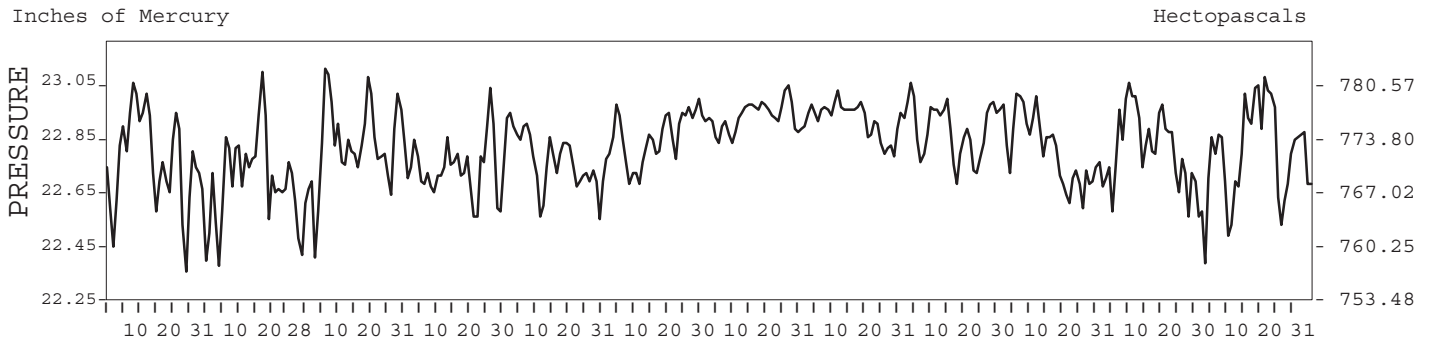
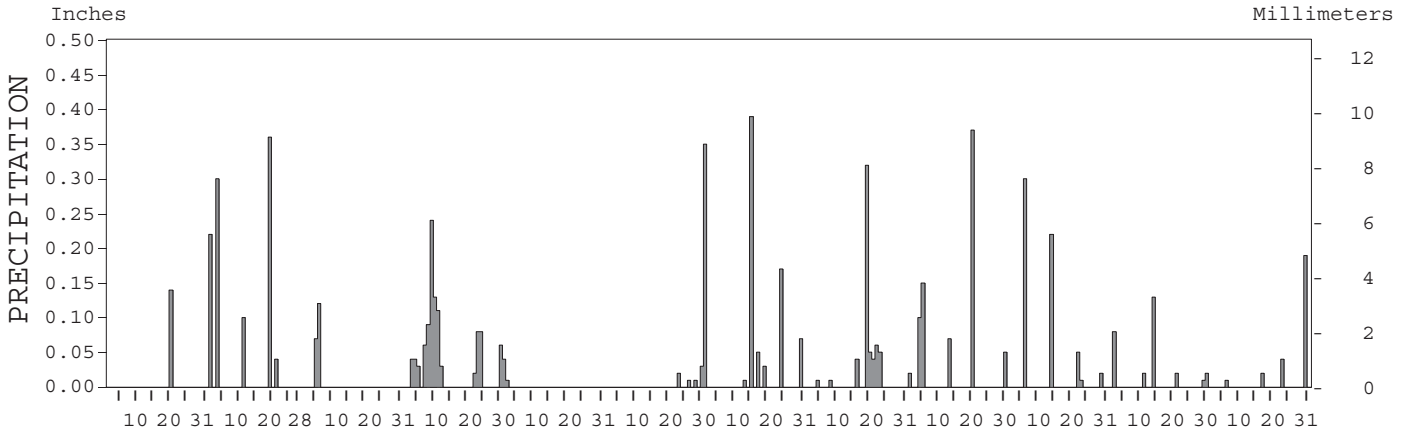
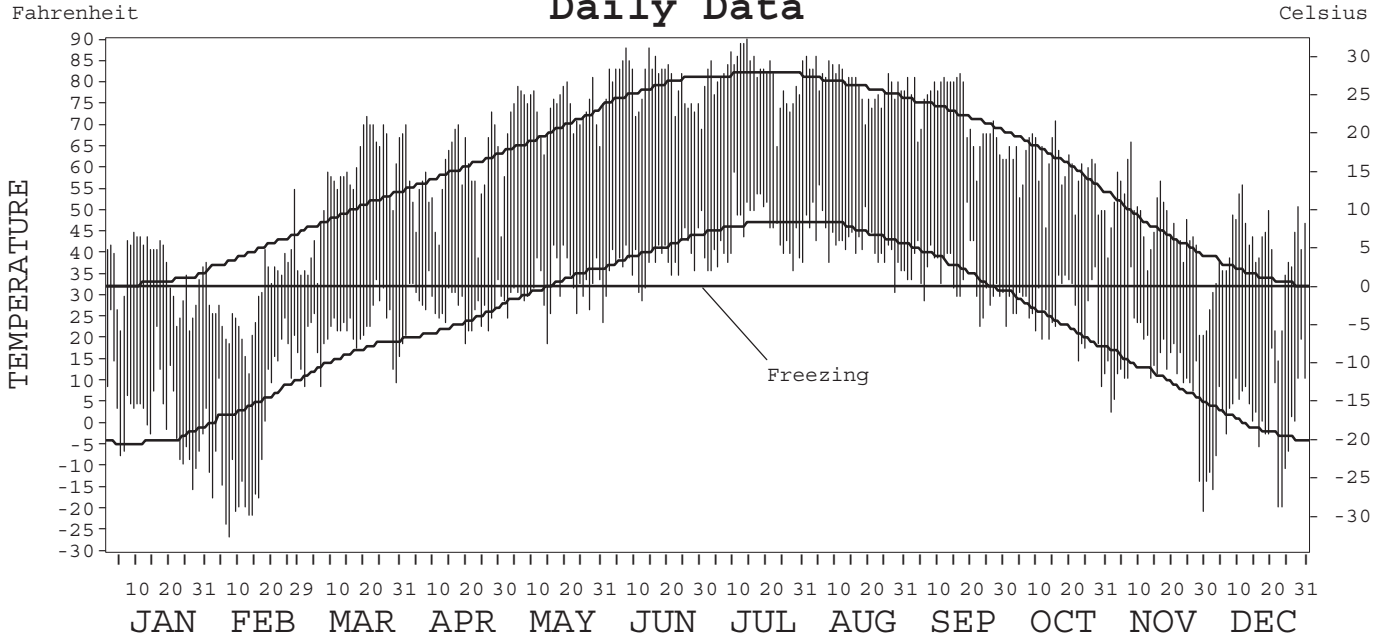
LOCAL CLIMATOLOGICAL DATA
ANNUAL SUMMARY WITH COMPARATIVE DATA



ISSN 0198-7720

ALAMOSA,
COLORADO (ALS)

Daily Data



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Thomas R. Karl

NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION

NATIONAL ENVIRONMENTAL AND INFORMATION SERVICE

NATIONAL CLIMATIC DATA CENTER ASHEVILLE, NORTH CAROLINA

DIRECTOR NATIONAL CLIMATIC DATA CENTER

METEOROLOGICAL DATA FOR 2004

ALAMOSA, CO (ALS)

LATITUDE: 37° 26' 10" N LONGITUDE: 105° 51' 56" W ELEVATION (FT): GRND: 7533 BARO: 7536 TIME ZONE: MOUNTAIN (UTC + 7) WBAN: 23061

ELEMENT		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	YEAR	
TEMPERATURE °F	MEAN DAILY MAXIMUM	35.8	29.7	57.2	58.0	73.1	79.8	81.4	79.8	73.2	59.8	46.6	39.1	59.5	
	HIGHEST DAILY MAXIMUM	45	55	72	73	81	88	90	86	82	71	66	56	90	
	DATE OF OCCURRENCE	09	27	20	27	28	14+	14	04+	17	16	08	12	JUL 14	
	MEAN DAILY MINIMUM	2.5	-2.3	21.5	27.6	31.8	38.7	44.4	42.9	34.9	26.0	13.2	.9	23.5	
	LOWEST DAILY MINIMUM	-15	-26	9	19	19	29	36	31	23	9	-20	-19	-26	
	DATE OF OCCURRENCE	27	07	06+	19	14	12	28+	28	23	30	30	24+	FEB 07	
	AVERAGE DRY BULB	19.2	13.7	39.4	42.8	52.5	59.3	62.9	61.4	54.1	42.9	29.9	20.0	41.5	
	MEAN WET BULB	15.8	12.3	31.5	34.8	39.6		51.6		43.5	35.9	25.1			
	MEAN DEW POINT	8.9	7.8	20.2	24.3	21.6		42.1		32.3	27.4	17.6			
	NUMBER OF DAYS WITH:														
	MAXIMUM ≥ 90°	0	0	0	0	0	0	1	0	0	0	0	0	0	1
	MAXIMUM ≤ 32°	11	17	0	0	0	0	0	0	0	0	2	6	36	
MINIMUM ≤ 32°	31	29	30	26	19	4	0	1	12	24	29	31	236		
MINIMUM ≤ 0°	14	16	0	0	0	0	0	0	0	0	2	12	44		
H/C	HEATING DEGREE DAYS	1414	1478	785	659	380	164	97	113	320	677	1045	1388	8520	
	COOLING DEGREE DAYS	0	0	0	0	0	0	40	9	0	0	0	0	49	
RH	MEAN (PERCENT)	68	77	54	56	34	43	54	54	50	60	65	66	57	
	HOUR 05 LST	81	83	79	79	64	74	85	80	76	81	82	81	79	
	HOUR 11 LST	56	70	41	39	17	24	34	36	32	44	53	54	42	
	HOUR 17 LST	52	64	31	43	16	23	32	31	29	39	49	50	38	
	HOUR 23 LST	77	85	61	71	42	55	68	65	62	71	75	77	67	
S	PERCENT POSSIBLE SUNSHINE														
W/O	NUMBER OF DAYS WITH:														
	HEAVY FOG (VISBY ≤ 1/4 MI)	5	10	3	5	0	0	0	1	0	2	1	0	27	
	THUNDERSTORMS	0	0	0	7	1	15	24	20	7	5	1	0	80	
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.)	22.74	22.69	22.81	22.73	22.76	22.84	22.91	22.91	22.86	22.77	22.79	22.80	22.80	
	MEAN SEA-LEVEL PRESS. (IN.)	30.22	30.21	30.10	29.95			30.03		30.02	30.01	30.16	30.29		
WINDS	RESULTANT SPEED (MPH)	1.8	1.3	1.2		6.1	2.5	0.8	1.8	2.7	4.2	1.7	1.2		
	RES. DIR. (TENS OF DEGS.)	20	16	20		23	22	21	16	20	19	16	21		
	MEAN SPEED (MPH)	5.3	4.7	6.6	10.1	10.5	8.4	6.9	7.4	7.4	8.1	6.2	5.1	7.2	
	PREVAIL.DIR. (TENS OF DEGS.)	19	17	14	09	23	25	24	11	17	18	12	18	19	
	MAXIMUM 2-MINUTE WIND:														
	SPEED (MPH)	39	36	35	47	47	44	35	31	36	33	31	32	47	
	DIR. (TENS OF DEGS.)	21	09	34	21	24	29	28	04	25	26	09	24	24	
	DATE OF OCCURRENCE	03	11	23	29	11	25	07	15+	03	17	28	30	MAY 11	
	MAXIMUM 5-SECOND WIND:														
	SPEED (MPH)	46	44	45	55	55	54	51	39	43	41	37	39	55	
DIR. (TENS OF DEGS.)	20	09	12	21	24	29	24	12	25	26	10	25	24		
DATE OF OCCURRENCE	03	11	20	29	11	25	07	01	03	17	28+	30	MAY 11		
PRECIPITATION	WATER EQUIVALENT:														
	TOTAL (IN.)	0.14	1.02	0.19	1.05	0.01	0.42	0.72	0.60	0.74	0.60	0.28	0.26	6.03	
	GREATEST 24-HOUR (IN.)	0.14	0.36	0.19	0.24	0.01	0.38	0.39	0.34	0.37	0.30	0.13	0.19	0.39	
	DATE OF OCCURRENCE	20	19	04-05	08	01	29-30	14	18-19	19	05	13	29	JUL 14	
	NUMBER OF DAYS WITH:														
	PRECIPITATION ≥ 0.01	1	5	2	14	1	5	6	9	5	5	6	4	63	
PRECIPITATION ≥ 0.10	1	4	1	3	0	1	2	1	3	2	1	1	20		
PRECIPITATION ≥ 1.00	0	0	0	0	0	0	0	0	0	0	0	0	0		
SNOWFALL	SNOW, ICE PELLETS, HAIL:														
	TOTAL (IN.)	1.5	14.0	1.0	3.2	0.1	0.0	0.0	0.0	0.0	0.0	3.6	0.7	24.1	
	GREATEST 24-HOUR (IN.)	1.5	4.5	1.0	1.8	0.1	0.0	0.0	0.0	0.0	0.0	2.0	0.6	4.5	
	DATE OF OCCURRENCE	20	19	04-05	10-11	01						01	22	FEB 19	
	MAXIMUM SNOW DEPTH (IN.)	1	7	1	2	0	0	0	0	0	0	2	1	7	
	DATE OF OCCURRENCE	25+	20+	05	11							01	03+	FEB 20+	
	NUMBER OF DAYS WITH:														
	SNOWFALL ≥ 1.0	1	4	0	1	0	0	0	0	0	1	0	0	7	

NORMALS, MEANS, AND EXTREMES

ALAMOSA, CO (ALS)

LATITUDE: 37° 26' 10" N LONGITUDE: 105° 51' 56" W ELEVATION (FT): GRND: 7533 BARO: 7536 TIME ZONE: MOUNTAIN (UTC + 7) WBAN: 23061

	ELEMENT	POR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	YEAR
TEMPERATURE °F	NORMAL DAILY MAXIMUM	30	33.1	40.2	49.6	58.7	68.3	78.4	81.7	78.9	72.5	61.7	45.7	34.8	58.6
	MEAN DAILY MAXIMUM	56	34.4	40.2	48.9	58.7	68.6	78.3	82.2	79.5	73.6	62.8	46.9	36.1	59.2
	HIGHEST DAILY MAXIMUM	58	62	66	73	80	90	95	96	91	87	81	71	61	96
	YEAR OF OCCURRENCE		1971	1986	1989	1989	2002	1994	1989	2002	1990	1979	1980	1958	JUL 1989
	MEAN OF EXTREME MAXS.	56	48.8	53.8	63.8	72.4	80.1	87.5	88.9	86.5	82.6	74.6	61.5	50.6	70.9
	NORMAL DAILY MINIMUM	30	-3.7	4.7	15.8	22.8	32.4	40.4	46.4	45.2	36.5	23.9	11.1	-7	22.9
	MEAN DAILY MINIMUM	56	-1.9	5.2	15.7	24.0	33.1	41.2	47.3	45.5	36.6	24.5	11.6	.1	23.6
	LOWEST DAILY MINIMUM	58	-5.0	-3.5	-2.0	-6	11	24	30	29	15	-10	-30	-42	-50
	YEAR OF OCCURRENCE		1948	1948	1964	1973	1967	1990	1997	1964	1999	1945	1952	1978	JAN 1948
	MEAN OF EXTREME MINS.	56	-21.5	-14.1	-1.2	9.1	20.1	30.5	39.0	36.5	24.2	9.6	-6.2	-18.6	9.0
	NORMAL DRY BULB	30	14.7	22.5	32.7	40.8	50.4	59.4	64.1	62.1	54.5	42.8	28.4	17.1	40.8
	MEAN DRY BULB	58	16.4	22.5	32.3	41.3	50.9	59.7	64.8	62.4	55.2	43.7	29.2	18.0	41.4
	MEAN WET BULB	61	20.6	24.2	31.3	37.5	43.3	49.9	55.7	55.5	47.4	36.8	26.6	16.3	37.1
	MEAN DEW POINT	61	10.9	13.1	19.2	20.7	29.5	34.2	46.1	49.4	39.6	26.3	17.1	8.2	26.2
	NORMAL NO. DAYS WITH:														
MAXIMUM ≥ 90°	30	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.8	*	0.0	0.0	0.0	0.0	1.3
MAXIMUM ≤ 32°	30	13.7	5.9	0.8	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.3	3.9	11.5	36.2
MINIMUM ≤ 32°	30	31.0	28.2	30.6	27.0	13.7	1.8	*	0.1	7.2	27.0	29.5	31.0	227.1	
MINIMUM ≤ 0°	30	18.5	9.1	1.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.1	4.3	15.6	48.7
H/C	NORMAL HEATING DEG. DAYS	30	1551	1189	985	719	451	169	47	91	302	675	1082	1475	8736
	NORMAL COOLING DEG. DAYS	30	0	0	0	0	0	7	27	10	0	0	0	0	44
RH	NORMAL (PERCENT)	30	66	62	53	46	44	42	51	58	54	52	61	66	55
	HOUR 05 LST	30	81	81	77	72	74	75	84	86	82	78	81	80	79
	HOUR 11 LST	30	60	53	42	32	29	29	37	42	39	38	49	57	42
	HOUR 17 LST	30	55	45	35	29	28	24	34	38	33	33	47	54	38
	HOUR 23 LST	30	80	77	68	61	58	56	66	72	68	65	76	78	69
S	PERCENT POSSIBLE SUNSHINE														
W/O	MEAN NO. DAYS WITH:														
	HEAVY FOG (VISBY ≤ 1/4 MI)	31	3.9	2.5	1.9	1.2	0.9	0.5	0.9	1.1	1.3	1.0	2.2	3.6	21.0
	THUNDERSTORMS	31	0.0	0.2	0.5	1.7	6.8	7.4	13.8	14.2	6.1	1.7	0.1	0.0	52.5
CLOUDINESS	MEAN:														
	SUNRISE-SUNSET (OKTAS)	2	3.2	4.8	4.5	4.8	4.3	2.7	2.4	5.1	2.4	3.6	4.0	3.2	3.8
	MIDNIGHT-MIDNIGHT (OKTAS)	1	4.0	4.8	4.8	4.8	4.3	3.6	2.8	5.3	2.4	4.0	5.2	3.2	4.1
	MEAN NO. DAYS WITH:														
CLEAR	2	15.5	8.0	8.3	7.5	11.0	14.3	16.0	5.0	9.5	10.5	6.0	12.0	123.6	
PARTLY CLOUDY	2	6.0	6.3	4.3	7.5	7.3	6.0	6.5	10.0	1.5	6.5	5.5	7.5	74.9	
CLOUDY	2	5.7	7.0	3.0	7.5	5.7	5.0	1.0	9.0	1.5	3.0	3.5	2.5	54.4	
PR	MEAN STATION PRESSURE (IN)	22	22.77	22.72	22.70	22.70	22.76	22.85	22.95	22.97	22.90	22.85	22.79	22.77	22.81
	MEAN SEA-LEVEL PRES. (IN)	16	30.28	30.15	30.03	29.94	29.93	29.95	30.02	30.09	30.08	30.04	30.16	30.30	30.08
WINDS	MEAN SPEED (MPH)	12	5.3	6.7	8.0	10.1	9.7	8.9	6.8	6.1	6.5	6.5	5.7	4.8	7.1
	PREVAIL. DIR (TENS OF DEGS)	41	24	19	18	18	24	24	18	18	18	18	18	20	18
	MAXIMUM 2-MINUTE:														
	SPEED (MPH)	11	41	46	49	51	47	49	44	38	54	45	48	43	54
	DIR. (TENS OF DEGS)		23	23	22	24	24	20	24	24	26	30	21	21	26
	YEAR OF OCCURRENCE		1996	1993	1999	1999	2004	1998	2003	2001	2000	1997	1994	1998	SEP 2000
	MAXIMUM 5-SECOND:														
SPEED (MPH)	11	54	62	60	75	57	57	63	56	67	54	55	52	75	
DIR. (TENS OF DEGS)		22	19	22	21	18	20	23	01	25	31	21	21	21	
YEAR OF OCCURRENCE		1999	1998	1999	1999	1996	1998	2003	2002	2000	1997	1994	1998	APR 1999	
PRECIPITATION	NORMAL (IN)	30	0.25	0.21	0.46	0.54	0.70	0.59	0.94	1.19	0.89	0.67	0.48	0.33	7.25
	MAXIMUM MONTHLY (IN)	58	0.75	1.42	1.62	1.72	1.85	2.58	3.50	5.40	1.94	2.37	1.23	1.52	5.40
	YEAR OF OCCURRENCE		1979	1963	1992	1990	1973	1969	1968	1993	1959	1969	1991	1964	AUG 1993
	MINIMUM MONTHLY (IN)	57	T	T	T	T	0.01	T	0.02	0.21	T	T	T	T	T
	YEAR OF OCCURRENCE		1981	1954	1955	1972	1975	1980	1994	1980	1956	1983	1989	1980	NOV 1989
	MAXIMUM IN 24 HOURS (IN)	58	0.47	1.15	1.15	1.33	1.04	1.04	1.57	1.34	1.82	1.27	0.78	0.93	1.82
	YEAR OF OCCURRENCE		1956	1963	1992	1952	1990	1969	1971	1993	1959	1969	1985	1964	SEP 1959
	NORMAL NO. DAYS WITH:														
PRECIPITATION ≥ 0.01	30	3.8	3.8	5.4	5.1	6.1	5.4	8.5	10.1	6.4	4.8	4.4	4.0	67.8	
PRECIPITATION ≥ 1.00	30	0.0	0.0	*	*	0.0	0.0	*	0.1	0.0	0.0	0.0	0.0	0.1	
SNOWFALL	NORMAL (IN)	30	4.6	2.7	5.9	3.6	1.9	0.*	0.0	0.0	0.*	3.1	4.4	4.8	31.0
	MAXIMUM MONTHLY (IN)	57	13.8	16.0	29.2	16.4	13.5	0.2	T	0.0	4.2	20.3	19.8	27.7	29.2
	YEAR OF OCCURRENCE		1979	1963	1973	1947	1978	1983	1981		1961	1969	1972	1967	MAR 1973
	MAXIMUM IN 24 HOURS (IN)	57	9.4	11.5	14.0	10.0	12.0	0.2	T	0.0	4.2	15.5	9.2	15.8	15.8
	YEAR OF OCCURRENCE		1987	1963	1962	1957	1990	1983	1981	1994	1961	1969	1985	1967	DEC 1967
	MAXIMUM SNOW DEPTH (IN)	60	10	10	11	11	4	T	T	0	1	12	12	18	18
	YEAR OF OCCURRENCE		1992	1963	1992	1957	1978	1990	1990		1959	1991	1972	1964	DEC 1964
NORMAL NO. DAYS WITH:															
SNOWFALL ≥ 1.0	30	1.4	1.1	2.0	1.0	0.7	0.0	0.0	0.0	0.1	0.7	1.4	1.6	10.0	

PRECIPITATION (inches) 2004 ALAMOSA, CO (ALS)

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL
1975	0.38	0.22	0.50	0.33	0.01	0.65	0.51	0.90	1.47	0.78	0.43	0.04	6.22
1976	0.05	0.33	0.39	0.50	0.77	0.07	1.43	1.22	0.67	0.51	0.20	0.07	6.21
1977	0.25	0.27	0.14	0.82	0.35	1.17	2.20	0.63	1.15	0.08	0.63	0.17	7.86
1978	0.33	0.07	0.13	0.20	1.59	1.23	1.04	0.27	0.19	0.51	0.90	0.81	7.27
1979	0.75	0.09	0.29	0.42	0.94	0.72	0.19	1.61	0.22	0.19	0.50	0.55	6.47
1980	0.32	0.31	0.65	1.48	1.21	T	0.54	0.21	0.46	0.52	0.01	T	5.71
1981	T	0.13	0.62	0.01	0.99	0.95	1.43	1.94	1.40	0.34	0.78	0.33	8.92
1982	0.07	0.49	0.40	0.37	0.57	0.22	0.51	0.58	1.85	0.19	0.25	0.49	5.99
1983	0.21	0.25	0.85	0.32	0.87	1.23	0.50	0.87	0.38	T	0.78	0.99	7.25
1984	0.14	0.28	1.12	0.49	0.18	0.55	0.74	1.07	0.36	1.48	0.10	0.59	7.10
1985	0.28	0.28	0.44	0.97	0.37	0.47	1.68	0.91	1.33	2.02	0.68	0.37	9.80
1986	0.05	0.10	0.37	1.08	0.74	0.67	0.54	0.66	1.20	1.18	1.02	0.12	7.73
1987	0.65	0.48	0.29	0.85	1.00	0.14	0.03	1.06	0.22	0.31	0.95	0.51	6.49
1988	0.26	0.25	0.18	0.35	0.51	0.83	0.66	1.08	0.64	0.20	0.35	0.11	5.42
1989	0.31	0.28	0.10	0.09	0.12	0.14	1.46	0.35		0.09	T	0.15	
1990	0.62	0.20	0.43	1.72	0.78	0.45	1.86	1.28	1.48	0.72	0.90	0.75	11.19
1991	0.14	0.36	0.32	0.16	0.66	0.30	0.59	0.88	0.70	0.95	1.23	0.98	7.27
1992	0.08	0.08	1.62	0.04	1.13	1.23	1.21	1.97	0.50	0.01	0.48	0.79	9.14
1993	0.25	0.39	0.68	0.42	0.93	0.14	0.33	5.40	0.58	0.32	0.35	0.10	9.89
1994	0.22	0.04	0.45	0.39	1.78	0.15	0.02	1.22	1.01	0.88	0.84	0.07	7.07
1995	0.10	0.09	0.36	0.87	0.63	1.26	0.95	0.85	1.60	0.00	0.20	0.13	7.04
1996	0.06	0.01	0.36	0.66	0.03	1.16	0.57	0.94	0.57	0.86	0.22	T	5.44
1997	0.33	0.77	0.04	0.17	0.51	0.79	0.92	0.92	1.69	0.43	0.54	0.19	7.30
1998	T	0.03	0.53	0.67	0.01	0.27	1.45	1.03	0.86	1.66	0.35	0.01	6.87
1999	0.07	T	0.22	1.15	1.07	0.32	0.31	3.08	1.09	0.24	T	0.03	7.58
2000	0.23	0.02	0.52	0.60	0.10	0.54	0.37	1.01	0.23	1.24	0.05	0.11	5.02
2001	0.36	0.56	1.02	0.27	1.09	0.07	2.75	3.22	0.11	0.03	0.26	0.13	9.87
2002	0.50	0.23	0.07	0.15	0.04	0.02	0.84	0.32	1.38	0.57	0.06	0.24	4.42
2003	0.01	0.28	0.51	0.24	0.11	0.60	0.94	1.26	1.29	0.38	0.58	0.30	6.50
2004	0.14	1.02	0.19	1.05	0.01	0.42	0.72	0.60	0.74	0.60	0.28	0.26	6.03
POR= 59 YRS	0.27	0.30	0.42	0.53	0.66	0.55	1.08	1.25	0.81	0.65	0.38	0.33	7.23

WBAN : 23061

AVERAGE TEMPERATURE (°F) 2004 ALAMOSA, CO (ALS)

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL
1975	6.8	22.0	31.8	37.3	47.4	57.7	64.7	61.6	54.2	42.4	26.3	16.9	39.1
1976	13.8	29.8	32.3	42.4	50.8	57.9	64.9	60.5	54.3	39.7	28.0	13.3	40.6
1977	13.2	23.5	29.3	43.0	50.6	61.4	65.3	63.9	56.7	44.8	33.0	24.5	42.4
1978	22.8	25.3	35.9	43.3	48.1	60.8	65.4	60.2	55.5	44.4	32.6	8.0	41.9
1979	6.0	10.6	30.4	41.4	50.7	58.0	63.6	61.1	55.9	45.7	21.0	18.5	38.6
1980	20.8	29.4	30.2	38.2	48.5	61.9	67.0	61.9	56.0	40.4	30.4	28.1	42.7
1981	23.7	25.6	33.2	45.5	50.1	62.6	65.9	61.9	56.2	43.6	34.6	20.7	43.6
1982	17.8	22.2	33.2	40.2	48.5	57.2	64.1	64.2	55.6	41.4	30.8	20.9	41.3
1983	20.3	26.2	34.2	36.3	46.8	56.5	65.3	64.7	57.7	43.2	27.7	13.8	41.1
1984	1.6	10.8	27.1	38.1	55.2	58.6	65.9	63.2	56.3	40.7	29.9	20.1	39.0
1985	17.7	21.6	34.5	43.9	51.4	60.3	65.3	63.0	52.2	44.3	30.0	17.4	41.8
1986	25.0	29.7	36.8	43.4	50.5	60.3	63.1	62.8	52.6	41.3	31.3	20.4	43.1
1987	13.4	23.4	31.0	42.7	50.7	61.0	63.9	62.3	52.7	45.4	27.1	14.7	40.7
1988	4.5	17.2	31.5	42.8	50.1	61.8	64.5	63.9	53.5	46.1	29.8	17.8	40.3
1989	15.0	21.5	37.2	44.7	53.3	58.9	65.9	62.3	55.8	42.2	31.4	19.6	42.3
1990	14.8	25.9	36.4	43.3	49.3	62.5	63.6	61.1	58.3	44.4	31.7	13.3	42.1
1991	10.9	26.1	34.0	40.0	51.6	59.4	64.8	63.4	55.4	44.5	22.7	5.2	39.8
1992	1.4	14.5	29.6	47.0	53.5	58.8	62.1	60.8	55.0	45.2	22.1	6.7	38.1
1993	11.9	19.1	33.9	41.7	50.8	58.7	63.3	61.1	53.4	41.1	25.8	18.5	39.9
1994	19.3	22.7	34.8	41.8	52.3	62.4	63.1	63.5	54.2	42.3	25.5	22.6	42.0
1995	23.3	33.2	34.6	38.9	47.4	56.8	62.0	64.7	53.7	42.2	32.4	23.6	42.7
1996	20.8	28.6	32.0	41.7	55.2	60.0	65.1	62.7	52.6	40.2	31.6	21.5	42.7
1997	16.0	22.3	34.9	37.8	50.6	59.1	62.6	62.7	57.9	42.5	27.5	8.7	40.2
1998	15.4	24.2	32.5	38.3	51.0	58.2	65.7	63.2	57.9	42.9	34.1	23.6	42.3
1999	25.6	28.4	37.3	38.7	49.3	58.0	64.7	62.7	53.4	43.2	32.7	20.1	42.8
2000	24.2	29.3	33.6	44.5	53.9	60.6	64.8	64.6	56.5	43.5	24.6	21.8	43.5
2001	14.8	24.0	34.2	44.1	54.1	60.9	65.8	62.6	56.1	44.3	30.5	19.0	42.5
2002	16.8	19.7	31.3	46.7	51.2	62.5	66.0	62.4	55.3	42.0	29.7	18.8	41.9
2003	26.5	25.3	33.9	41.6	52.4	58.2	68.3	64.3	54.6	47.3	31.7	19.0	43.6
2004	19.2	13.7	39.4	42.8	52.5	59.3	62.9	61.4	54.1	42.9	29.9	20.0	41.5
POR= 59 YRS	16.6	22.7	32.4	41.4	50.7	59.8	64.8	62.4	55.2	43.6	29.2	18.1	41.4

HEATING DEGREE DAYS (base 65°F) 2004 ALAMOSA, CO (ALS)

YEAR	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	TOTAL
1975-76	26	102	319	695	1157	1485	1579	1014	1010	672	432	208	8699
1976-77	24	132	314	779	1104	1596	1598	1155	1097	655	440	104	8998
1977-78	19	51	246	621	951	1252	1302	1103	900	647	516	126	7734
1978-79	18	141	278	632	966	1762	1827	1518	1069	704	438	203	9556
1979-80	57	127	267	590	1312	1438	1363	1029	1071	798	504	107	8663
1980-81	5	102	263	757	1031	1136	1274	1097	979	576	458	102	7780
1981-82	14	108	256	656	904	1366	1457	1192	977	736	508	230	8404
1982-83	59	47	275	724	1016	1361	1380	1080	946	856	556	249	8549
1983-84	28	35	213	674	1112	1582	1964	1567	1166	799	297	188	9625
1984-85	11	56	252	748	1051	1384	1462	1209	937	625	415	146	8296
1985-86	30	66	378	636	1045	1473	1231	983	866	639	446	138	7931
1986-87	63	75	366	728	1004	1377	1594	1160	1049	661	436	115	8628
1987-88	66	96	364	601	1130	1557	1872	1381	1031	658	454	102	9312
1988-89	28	50	337	577	1049	1453	1544	1211	854	600	357	180	8240
1989-90	17	82	270	698	1001	1400	1550	1089	880	640	480	105	8212
1990-91	59	118	201	633	990	1599	1671	1081	954	742	410	172	8630
1991-92	33	51	280	630	1263	1852	1973	1459	1093	535	350	179	9698
1992-93	97	131	295	607	1281	1803	1638	1280	958	692	435	185	9402
1993-94	51	118	342	735	1167	1435	1412	1179	930	693	387	89	8538
1994-95	62	53	319	700	1174	1307	1287	882	934	777	538	238	8271
1995-96	102	25	334	701	969	1276	1364	1047	1018	692	299	147	7974
1996-97	26	78	366	762	992	1343	1512	1186	924	811	441	169	8610
1997-98	74	80	209	691	1119	1738	1527	1137	999	795	430	212	9011
1998-99	7	58	208	682	920	1276	1217	1018	851	784	482	206	7709
1999-00	30	69	339	667	962	1388	1257	1026	968	607	337	124	7774
2000-01	25	33	249	660	1206	1333	1550	1138	946	622	333	126	8221
2001-02	17	80	259	634	1025	1420	1488	1261	1039	545	424	83	8275
2002-03	12	90	283	704	1050	1425	1188	1105	958	697	385	197	8094
2003-04	3	52	306	540	990	1418	1414	1478	785	659	380	164	8189
2004-	97	113	320	677	1045	1388							

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COOLING DEGREE DAYS (base 65°F) 2004 ALAMOSA, CO (ALS)

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL
1975	0	0	0	0	0	0	24	4	0	0	0	0	28
1976	0	0	0	0	0	1	25	0	0	0	0	0	26
1977	0	0	0	0	0	2	36	25	2	0	0	0	65
1978	0	0	0	0	0	8	39	0	0	0	0	0	47
1979	0	0	0	0	0	0	21	13	0	0	0	0	34
1980	0	0	0	0	0	22	76	12	0	0	0	0	110
1981	0	0	0	0	0	35	47	19	0	0	0	0	101
1982	0	0	0	0	0	0	38	27	0	0	0	0	65
1983	0	0	0	0	0	4	43	30	1	0	0	0	78
1984	0	0	0	0	2	1	45	8	0	0	0	0	56
1985	0	0	0	0	0	9	47	9	0	0	0	0	65
1986	0	0	0	0	0	3	11	14	0	0	0	0	28
1987	0	0	0	0	0	0	39	22	0	0	0	0	61
1988	0	0	0	0	0	13	17	22	0	0	0	0	52
1989	0	0	0	0	0	6	52	6	0	0	0	0	64
1990	0	0	0	0	0	35	22	3	7	0	0	0	67
1991	0	0	0	0	0	12	33	8	0	0	0	0	53
1992	0	0	0	0	0	1	12	6	0	0	0	0	19
1993	0	0	0	0	0	6	6	4	0	0	0	0	16
1994	0	0	0	0	0	16	12	14	0	0	0	0	42
1995	0	0	0	0	0	0	19	23	4	0	0	0	46
1996	0	0	0	0	0	0	35	15	0	0	0	0	50
1997	0	0	0	0	0	0	5	17	0	0	0	0	22
1998	0	0	0	0	0	14	37	9	0	0	0	0	60
1999	0	0	0	0	0	2	28	3	0	0	0	0	33
2000	0	0	0	0	0	0	27	27	0	0	0	0	54
2001	0	0	0	0	0	10	53	14	0	0	0	0	77
2002	0	0	0	0	2	17	47	17	0	0	0	0	83
2003	0	0	0	0	0	1	112	37	0	0	0	0	150
2004	0	0	0	0	0	0	40	9	0	0	0	0	49

SNOWFALL (inches) 2004 ALAMOSA, CO (ALS)

YEAR	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	TOTAL
1975-76	0.0	0.0	0.0	0.5	5.9	0.8	0.8	3.4	6.4	2.1	0.0	0.0	19.9
1976-77	0.0	0.0	T	6.5	2.6	2.1	3.4	5.7	2.5	7.1	T	0.0	29.9
1977-78	0.0	0.0	0.0	0.0	0.4	3.9	4.4	0.9	1.0	0.1	13.5	0.0	24.2
1978-79	0.0	0.0	0.0	0.2	4.1	12.1	13.8	0.9	3.0	1.8	2.4	T	38.3
1979-80	0.0	0.0	0.0	1.1	5.3	6.8	5.0	2.1	6.3	8.3	2.3	0.0	37.2
1980-81	0.0	0.0	0.0	2.2	0.1	T	T	1.8	6.0	0.0	T	0.0	10.1
1981-82	T	0.0	0.0	T	5.4	4.9	1.2	6.9	2.9	1.4	2.1	0.0	24.8
1982-83	0.0	0.0	0.0	2.1	2.2	6.0	3.4	5.1	10.2	3.5	0.5	0.2	33.2
1983-84	0.0	0.0	0.0	0.0	8.1	11.2	1.4	2.8	10.6	2.8	T	0.0	36.9
1984-85	0.0	0.0	0.0	6.7	0.9	5.6	2.8	2.8	6.1	0.8	1.2	0.0	26.9
1985-86	0.0	0.0	0.0	6.0	9.7	6.7	0.5	1.0	3.5	4.5	2.1	0.0	34.0
1986-87	0.0	0.0	T	2.7	6.9	1.9	12.8	7.0	3.9	8.4	0.0	0.0	43.6
1987-88	0.0	0.0	0.0	0.0	6.8	7.5	6.0	2.9	3.4	0.7	0.0	0.0	27.3
1988-89	0.0	0.0	0.0	0.0	3.0	1.4	5.2	3.0	1.0	0.9	0.0	0.0	14.5
1989-90	0.0	0.0		T	T	2.2	13.0	2.5	3.3	9.2	4.8	0.0	
1990-91	0.0	0.0	0.0	0.2	6.4	9.9	1.4	4.6	3.2	1.4	0.2	T	27.3
1991-92	0.0	0.0	0.0	15.1	10.2	8.9	0.9	1.7	16.2	0.3	1.0	T	54.3
1992-93	0.0	0.0											
1993-94													
1994-95										0.0	0.0		
1995-96			0.0	0.0	1.3	1.7	0.9	0.3	3.3	5.1	0.0	0.0	
1996-97	0.0	0.0	0.0	11.5	2.1								
1997-98				1.3	5.6	4.1	T	0.7	5.1	8.6	0.0	0.0	
1998-99	0.0	0.0	0.0	1.8	2.3	0.3	1.7	T	2.8	7.2	5.9	0.0	22.0
1999-00	0.0	0.0	0.0	T	T	0.3	3.5	0.2	6.3	0.2	0.0	0.0	10.5
2000-01	0.0	0.0	0.0	0.0	0.0	1.8	5.5	6.6	1.4	1.4	6.4	0.0	23.1
2001-02	0.0	0.0	0.0	T	2.8	2.6	7.4	4.3	0.9	0.0	T	0.0	18.0
2002-03	0.0	0.0	0.0	T	0.6	3.4	0.1	5.7	3.9	0.4	0.0	0.0	14.1
2003-04	0.0	0.0	0.0	0.0	3.4	4.3	1.5	14.0	1.0	3.2	0.1	0.0	27.5
2004-	0.0	0.0	0.0	0.0	3.6	0.7							
POR= 56 YRS	T	0.0	0.2	2.8	3.9	5.1	4.2	4.1	5.6	4.2	1.8	T	31.9

WBAN : 23061

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 (1971 - 2000). 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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2004
ALAMOSA,
COLORADO (ALS)

Alamosa is located in the south-central part of Colorado, near the center of the San Luis Valley which lies in a broad depression between mountain ranges converging to the north. The valley is the first of a series of basins along the Rio Grande River. The mountain ranges to the east reach altitudes over 14,000 feet and those to the west are between 13,000 and 14,000 feet. The length of the valley from north to south is over 80 miles, and its greatest width is about 50 miles. The valley floor ranges in altitude from 7,500 to near 8,000 feet and has a remarkably flat surface, except for a range of low hills across the southern portion. From the lowest areas which lie along an axis near the eastern border, the valley floor rises to the foothills, steeply to the east and more gently to the west.

The climate of the San Luis Valley is marked by cold winters and moderate summers, light precipitation, and much sunshine. At Alamosa about 80 percent of the annual precipitation occurs from April to October, most of it in the form of scattered light showers and thunderstorms that develop over the mountains and move into the valley during the afternoon. More than half of these thunderstorms occur during July and August. Hail frequently falls in some parts of the valley during their movement. Winter snows occur mainly in frequent light falls, with occasional falls as early as September or as late as May. A good snow cover will remain on the ground for several weeks during the coldest months.

All agriculture in the valley is dependent on irrigation, using water supplied by the more abundant precipitation in the surrounding mountains. Summer grazing of cattle and sheep on nearby mountain ranges and smaller valleys is extensive. A wide variety of vegetables, grains and feed crops are grown locally, with potatoes being the main commercial crop.

Summer is characterized by frequent days with maximum temperatures in the middle 80s and minimum temperatures in the low 40s. Relative humidity ranges from about 76 percent in the early mornings to around 40 percent during the afternoons. Winds are light during the coldest weather, but are strong with occasional blowing dust during the spring and early summer months.

Based on the 1951-1980 period, the average first occurrence of 32 degrees Fahrenheit in the fall is September 8 and the average last occurrence in the spring is June 8.

STATION LOCATION

ALAMOSA, COLORADO

LOCATION	Occupied From	Occupied To	Airline Distances and Directions from previous Location	LATITUDE		ELEVATION ABOVE										AUTOMATIC OBSERVING EQUIPMENT *	* TYPE M = AMOS T = AUTOB S = ASOS W = AWOS REMARKS
				NORTH	WEST	GROUND											
						SEA LEVEL	GROUND	WIND INSTRUMENT	EXTREME THERMOMETERS	PSYCHROMETER	SUNSHINE SWITCH	TIPPING BUCKET	RAIN GAUGE	WINDHOLE	8 INCH RAIN GAUGE		
AIRPORT																	
Alamosa Airport	1/14/45	10/20/54	2.5mi..SE	37°26'	105°51'	7534	33	5	5				4	3			
Alamosa Airport	10/20/54	11/17/77	0.5 mi..W	37°27'	105°52'	7538 a7536	b33	5	5	c5	c5		4	4	c4	c4	
Alamosa Airport	11/17/77	5/1/80	450 ft..S	37°27'	105°52'	7536	30	5	5				4	4			
+ Bergman Field (Name Change 5/80)	5/1/80	09/01/92		37°27'	105°52'												
San Luis Valley Regional Airport	09/01/92	Present	NA	37°26'	105°52'	d7533									S	ASOS Commissioned 09/01/92 d. Ground elevation.	

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* NOTES: For earlier station history see previous edition.