

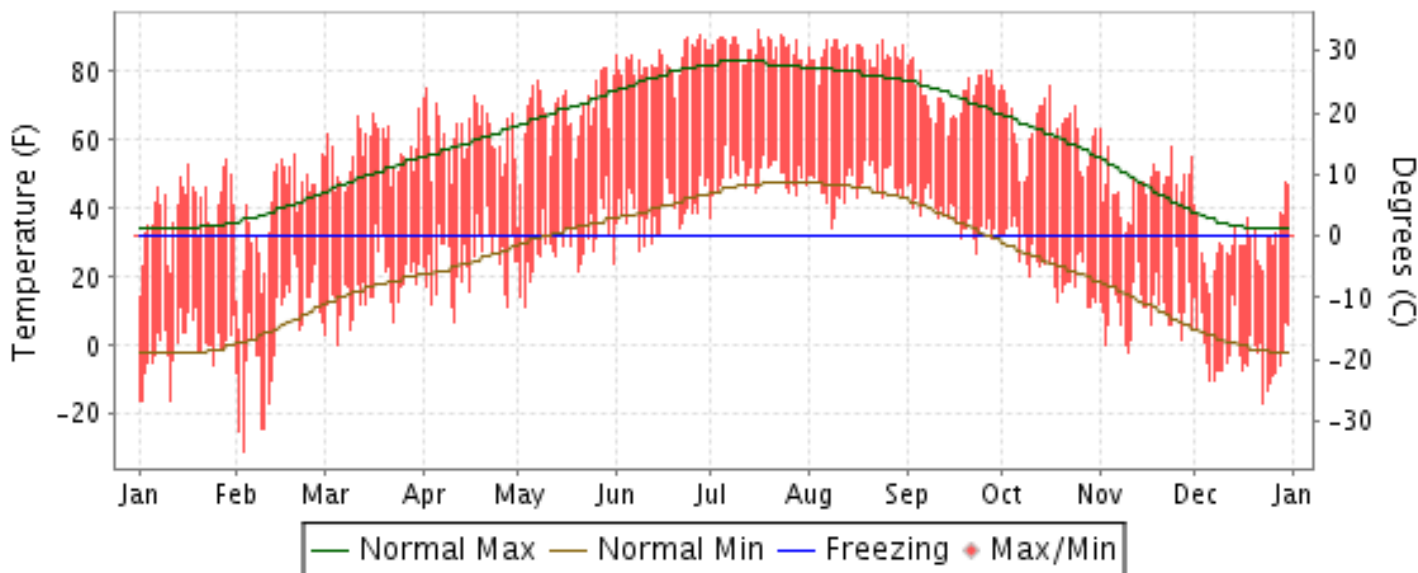


2011 LOCAL CLIMATOLOGICAL DATA ANNUAL SUMMARY WITH COMPARATIVE DATA

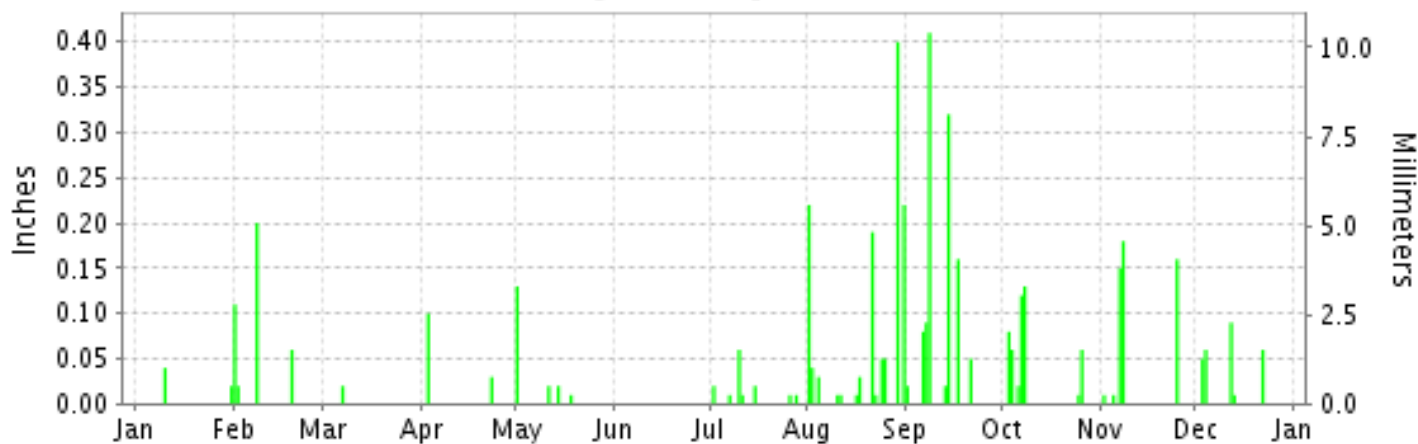
ISSN 0198-7720

ALAMOSA, COLORADO (KALS)

Daily Max/Min Temperature



Daily Precipitation



Daily Station Pressure



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NATIONAL
CLIMATIC DATA CENTER
ASHEVILLE, NORTH CAROLINA

Thomas R. Karl
DIRECTOR
NATIONAL CLIMATIC DATA CENTER

METEOROLOGICAL DATA FOR 2011

ALAMOSA (KALS)

LATITUDE: 37° 26'N LONGITUDE: -105° 51'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	39.5	39.3	56.6	61.9	68.0	83.4	87.2	85.2	73.9	62.8	47.1	30.5	61.3	
	HIGHEST DAILY MAXIMUM	54	56	69	75	81	91	92	89	84	76	63	48	92	
	DATE OF OCCURRENCE	29	28+	31	02	29+	28	16	24	03	16+	01	30	JUL 16	
	MEAN DAILY MINIMUM	-0.2	3.0	16.5	24.7	29.3	39.4	49.5	46.9	37.9	23.6	10.8	-2.2	23.3	
	LOWEST DAILY MINIMUM	-16	-31	0	7	11	28	37	34	27	11	-2	-17	-31	
	DATE OF OCCURRENCE	11+	03	05	11	03	08	01	08	23	29+	10	23	FEB 03	
	AVERAGE DRY BULB	19.7	21.2	36.6	43.3	48.7	61.4	68.4	66.1	55.9	43.2	29.0	14.2	42.3	
	MEAN WET BULB	14.7	16.5	28.0	32.8	37.0	45.0	54.5	53.5	46.1	34.6	23.8	10.8	33.1	
	MEAN DEW POINT	5.3	7.0	10.7	15.3	20.0	24.7	44.5	44.4	37.9	24.1	14.4	5.2	21.1	
	NUMBER OF DAYS WITH:														
	MAXIMUM >= 90°	0	0	0	0	0	2	8	0	0	0	0	0	10	
	MAXIMUM <= 32°	5	8	0	0	0	0	0	0	0	0	0	21	34	
	MINIMUM <= 32°	31	28	29	25	23	5	0	0	5	26	30	31	233	
MINIMUM <= 0°	16	11	1	0	0	0	0	0	0	0	3	21	52		
H/C	HEATING DEGREE DAYS	1400	1223	872	645	500	113	4	9	268	668	1073	1568	8343	
	COOLING DEGREE DAYS	0	0	0	0	1	13	115	52	1	0	0	0	182	
RH	MEAN (PERCENT)	59	59	39	37	38	28	48	54	59	54	59	71	50	
	HOUR 05 LST	79	74	63	60	58	48	73	83	88	79	76	79	72	
	HOUR 11 LST	38	39	20	23	19	13	25	28	33	30	39	56	30	
	HOUR 17 LST	45	50	24	24	26	13	32	39	45	42	50	72	39	
	HOUR 23 LST	71	69	52	47	52	41	63	70	74	70	70	79	63	
S	PERCENT POSSIBLE SUNSHINE														
W/O	NUMBER OF DAYS WITH:														
	HEAVY FOG(VISBY <= 1/4 MI)	0	1	0	1	0	0	0	2	2	2	0	8	16	
	THUNDERSTORMS	0	0	0	0	0	0	5	5	5	0	0	0	15	
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.)	22.73	22.67	22.70	22.63	22.68	22.79	22.90	22.92	22.93	22.83	22.76	22.79	22.78	
	MEAN SEA-LEVEL PRESS. (IN.)	30.19	30.10	29.97	29.81	29.83	29.86	29.97	30.01	30.11	30.08	30.13	30.32	30.03	
WINDS	RESULTANT SPEED (MPH)	1.1	4.5	5.0	6.5	6.7	7.1	2.5	1.0	1.4	2.4	3.6	0.2	3.2	
	RES. DIR. (TENS OF DEGS.)	32	22	24	24	22	23	18	25	18	21	22	06	23	
	MEAN SPEED (MPH)	4.5	8.3	10.3	12.4	11.5	10.7	6.9	5.5	5.3	6.0	7.0	4.9	7.8	
	PREVAIL.DIR.(TENS OF DEGS.)	01	23	24	25	22	24	19	20	11	24	19	31	24	
	MAXIMUM 2-MINUTE WIND														
	SPEED (MPH)	32	45	44	55	47	47	36	39	35	45	41	43	55	
	DIR. (TENS OF DEGS.)	34	20	23	24	21	24	27	19	26	20	20	10	24	
	DATE OF OCCURRENCE	17	19	24	03	30	01	09	13	15	06	05	01	APR 03	
	MAXIMUM 3-SECOND WIND:														
	SPEED (MPH)	41	61	53	70	58	61	47	48	44	56	53	54	70	
DIR. (TENS OF DEGS.)	32	19	24	24	21	20	01	19	23	21	27	11	24		
DATE OF OCCURRENCE	17	19	24	03	09	30	03	13	20	06	12	01	APR 03		
PRECIPITATION	WATER EQUIVALENT:														
	TOTAL (IN.)	0.06	0.39	0.02	0.13	0.18	T	0.14	1.27	1.15	0.48	0.51	0.27		
	GREATEST 24-HOUR (IN.)	0.04	0.20	0.02	0.10	0.13	T	0.07	0.40	0.44	0.25	0.33	0.10		
	DATE OF OCCURRENCE	10	08	07	03	01	30+	10-11	29	07-08	07-08	07-08	12-13		
	NUMBER OF DAYS WITH:														
	PRECIPITATION 0.01	2	4	1	2	4	0	7	13	8	7	5	5		
PRECIPITATION 0.10	0	2	0	1	1	0	0	4	3	2	3	0			
PRECIPITATION 1.00	0	0	0	0	0	0	0	0	0	0	0	0			
SNOWFALL	SNOW,ICE PELLETS,HAIL														
	TOTAL (IN.)	1.1	4.5	0.2	1.0	0.4	0.0	0.0	0.0	0.0	1.8	5.6	5.0	19.6	
	GREATEST 24-HOUR (IN.)	0.9	3.0	0.2	1.0	0.4	0.0	0.0	0.0	0.0	1.2	3.0	1.6	3.0	
	DATE OF OCCURRENCE	10	08	07	03	01					08	08	04	NOV 08	
	MAXIMUM SNOW DEPTH (IN.)	T	3	T	1	T	0	0	0	0	1	4	2	4	
	DATE OF OCCURRENCE	31+	10+	08	04	02+					08	08+	13+	NOV 08+	
	NUMBER OF DAYS WITH:														
SNOWFALL >= 1.0	0	2	0	1	0	0	0	0	0	1	2	2	8		

NORMALS, MEANS, AND EXTREMES ALAMOSA (KALS)

LATITUDE: 37° 26'N LONGITUDE: -105° 51'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	64	34.5	40.2	49.3	58.9	68.5	78.3	82.3	79.7	73.6	62.6	47.4	36.0	59.3
	HIGHEST DAILY MAXIMUM	65	62	66	73	80	90	95	96	91	87	81	71	62	96
	YEAR OF OCCURRENCE		1971	1986	1989	1989	2002	1994	1989	2002	1990	1979	1980	2010	JUL 1989
	MEAN OF EXTREME MAXS.	64	48.9	53.8	64.3	72.3	80.4	87.5	89.2	86.5	82.5	74.8	62.0	51.0	71.1
	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	64	-1.5	5.2	16.0	23.9	33.1	41.0	47.5	45.6	36.5	24.5	11.7	0.7	23.7
	LOWEST DAILY MINIMUM	65	-50	-35	-20	-6	11	24	30	29	15	-10	-30	-42	-50
	YEAR OF OCCURRENCE		1948	1948	1964	1973	2011	2008	1997	1964	1999	1945	1952	1978	JAN 1948
	MEAN OF EXTREME MINS.	64	-20.0	-13.8	-0.9	9.0	20.0	30.3	39.2	36.4	24.3	9.6	-5.7	-17.2	9.3
	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	64	16.6	22.9	32.7	41.4	50.9	59.8	64.9	62.7	55.1	43.6	29.6	18.4	41.6
	MEAN WET BULB	28	12.3	17.9	25.7	30.7	38.3	45.5	51.8	51.3	43.4	33.4	22.5	13.7	32.2
	MEAN DEW POINT	28	8.0	13.4	18.9	22.9	29.9	37.1	45.5	46.2	37.4	26.8	17.3	8.8	26.0
	NORMAL NO. DAYS WITH: MAXIMUM >= 90	30	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	0.3	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	0.1	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	67	62	53	46	44	42	51	58	54	52	61	66	55
	HOURLY 05 LST	30	81	81	77	72	74	75	84	86	82	78	81	80	79
	HOURLY 11 LST	30	60	53	42	32	29	29	37	42	39	38	49	57	42
	HOURLY 17 LST	30	55	45	35	29	28	24	34	38	33	33	47	55	38
	HOURLY 23 LST	30	80	77	68	61	58	56	66	73	68	65	76	79	69
S	PERCENT POSSIBLE SUNSHINE														
W/O	MEAN NO. DAYS WITH: HEAVY FOG(VISBY <= 1/4 MI)	29	4.9	3.2	2.9	1.9	1.0	0.5	0.8	1.7	1.4	1.5	2.2	4.5	26.5
	THUNDERSTORMS	32	0.0	0.2	0.5	1.9	5.2	7.0	11.6	10.2	5.8	1.7	0.1	0.0	44.2
CLOUDINESS	MEAN: SUNRISE-SUNSET (OKTAS)	1	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	3	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	3	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)	28	22.76	22.72	22.70	22.70	22.76	22.84	22.94	22.95	22.90	22.84	22.79	22.76	22.81
	MEAN SEA-LEVEL PRES. (IN)	28	30.27	30.14	29.99	29.91	29.90	29.94	30.03	30.06	30.06	30.08	30.16	30.25	30.07
WINDS	MEAN SPEED (MPH)	28	5.3	6.7	8.7	10.3	10.1	9.0	6.9	6.4	6.8	6.7	6.4	5.3	7.4
	PREVAIL.DIR.(TENS OF DEGS)	48	25	23	24	19	25	25	19	19	19	19	19	21	19
	MAXIMUM 2-MINUTE: SPEED (MPH)	18	41	46	49	55	49	52	45	39	54	45	48	47	55
	DIR. (TENS OF DEGS)		23	23	22	24	23	22	13	19	26	20	21	23	24
	YEAR OF OCCURRENCE		1996	1993	1999	2011	2010	2007	2006	2011	2000	2011	1994	2009	APR 2011
	MAXIMUM 3-SECOND SPEED (MPH)	18	54	62	60	75	61	67	64	56	67	56	55	61	75
	DIR. (TENS OF DEGS)		33	19	22	21	23	24	22	01	25	21	21	22	21
YEAR OF OCCURRENCE		2009	1998	1999	1999	2010	2007	2007	2002	2000	2011	1994	2009	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)	65	1.09	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		2005	1963	1992	1990	1973	1969	1968	1993	1959	1969	1991	1964	AUG 1993
	MINIMUM MONTHLY (IN)	64	T	T	T	T	0.01	T	0.02	0.21	T	T	T	T	0.01
	YEAR OF OCCURRENCE		1981	1954	1955	1972	1975	2011	1994	1980	1956	1983	1989	1980	MAY 1975
	MAXIMUM IN 24 HOURS (IN)	64	0.54	1.15	1.15	1.33	1.04	1.04	3.73	1.34	1.82	1.27	0.78	0.93	3.73
	YEAR OF OCCURRENCE		2005	1963	1992	1952	1990	1969	2007	1993	1959	1969	1985	1964	JUL 2007
	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)	64	13.9	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)	64	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)	67	10	10	11	11	4	T	T	0	1	12	12	18	18
	YEAR OF OCCURRENCE		1992	1963	1992	1957	1978	1990	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) 2011 ALAMOSA (KALS)

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL
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	1.28	0.09	T	0.15	4.37
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
2005	1.09	0.38	0.79	0.78	0.38	0.36	0.17	1.59	1.12	1.18	0.08	0.04	7.96
2006	0.17	0.02	0.57	0.36	0.18	0.15	2.94	1.08	0.60	1.59	0.15	0.62	8.43
2007	0.48	0.07	1.05	1.49	0.53	0.25	2.62	0.49	1.06	0.07	0.42	1.21	9.74
2008	0.29	0.57	0.13	0.18	0.43	0.15	0.36	1.23	0.21	0.85	0.60	0.48	5.48
2009	0.10	0.02	0.53	1.12	1.17	0.59	0.45	0.70	1.04	1.33	0.11	0.10	7.26
2010	0.65	0.19	1.01	0.62	0.09	0.11	1.03	0.47	0.73	0.69	0.02	0.38	5.99
2011	0.06	0.39	0.02	0.13	0.18	T	0.14	1.27	1.15	0.48	0.51	0.27	4.60
POR= 64 YRS	0.28	0.26	0.42	0.52	0.62	0.53	1.06	1.19	0.82	0.66	0.37	0.34	7.07

WBAN : 23061

AVERAGE TEMPERATURE (°F) 2011 ALAMOSA (KALS)

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL
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
2005	24.0	27.3	32.1	42.6	52.8	59.2	66.3	62.3	57.0	45.9	32.4	21.2	43.6
2006	21.5	25.2	33.6	44.6	53.9	61.8	65.7	63.4	51.2	43.5	32.3	19.3	43.0
2007	8.5	22.7	37.3	42.6	51.8	60.7	66.3	65.4	57.0	44.3	30.7	12.3	41.6
2008	5.7	16.6	32.9	40.9	49.1	58.8	65.7	63.6	54.9	43.7	31.3	19.6	40.2
2009	19.6	27.3	35.1	41.1	55.1	58.3	64.7	60.8	54.6	40.4	33.4	16.1	42.2
2010	18.7	17.8	32.8	42.4	50.8	62.4	66.4	64.4	58.1	44.9	28.3	28.1	42.9
2011	19.7	21.2	36.6	43.3	48.7	61.4	68.4	66.1	55.9	43.2	29.0	14.2	42.3
POR= 64 YRS	16.6	22.9	32.7	41.4	50.9	59.8	64.9	62.7	55.1	43.6	29.6	18.4	41.5

HEATING DEGREE DAYS (base 65°F) 2011 ALAMOSA (KALS)

YEAR	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	TOTAL
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
2004-05	97	113	320	677	1045	1388	1269	1048	1012	665	371	172	8177
2005-06	21	94	233	586	970	1350	1343	1107	969	603	336	89	7701
2006-07	29	56	406	658	975	1408	1741	1176	850	665	403	129	8496
2007-08	7	18	232	635	1021	1625	1831	1396	988	715	488	184	9140
2008-09	16	63	299	654	1004	1399	1403	1047	917	708	299	200	8009
2009-10	35	130	305	759	943	1509	1430	1318	991	669	433	100	8622
2010-11	18	42	200	617	1095	1138	1400	1223	872	645	500	113	7863
2011-	4	9	268	668	1073	1568							

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COOLING DEGREE DAYS (base 65°F) 2011 ALAMOSA (KALS)

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
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
2005	0	0	0	0	0	6	69	20	0	0	0	0	95
2006	0	0	0	0	0	2	58	13	0	0	0	0	73
2007	0	0	0	0	0	8	55	37	0	0	0	0	100
2008	0	0	0	0	0	2	45	26	0	0	0	0	73
2009	0	0	0	0	0	6	31	4	0	0	0	0	41
2010	0	0	0	0	1	27	69	31	0	0	0	0	128
2011	0	0	0	0	1	13	115	52	1	0	0	0	182

SNOWFALL (inches) 2011 ALAMOSA (KALS)

YEAR	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	TOTAL
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	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	0.0	0.0	7.2	10.1	3.0	3.2	4.0	3.5	1.0	0.0	32.0
1993-94	0.0	0.0	0.0	1.0	6.0	3.0	5.0	T	4.0	3.0	0.0	0.0	22.0
1994-95	0.0	0.0	0.0	4.0	5.0	T	2.0	T	6.0	10.0	T	0.0	27.0
1995-96	0.0	0.0	0.0	0.0	1.3	1.7	0.9	0.3	3.3	5.1	0.0	0.0	12.6
1996-97	T	0.0	0.0	11.5	2.1	T	3.6	14.6	2.3	2.0	0.0	0.0	36.1
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
2004-05	0.0	0.0	0.0	0.2	3.6	0.7	13.9	3.6	7.4	3.7	T	0.0	33.1
2005-06	0.0	0.0	0.0	1.0	0.5	0.6	4.2	0.3	6.1	2.2	0.0	0.0	14.9
2006-07	0.0	0.0	0.0	0.4	1.6	11.7	6.7	1.9	4.7	8.9	T	0.0	35.9
2007-08	0.0	0.0	0.0	T	3.9	13.2	5.0	10.0	2.3	3.3	T	0.0	37.7
2008-09	0.0	0.0	0.0	1.4	4.0	6.4	2.0	T	7.1	10.2	0.0	0.0	31.1
2009-10	0.0	0.0	0.0	5.7	1.5	1.4	7.1	3.1	11.2	T	0.5	0.0	30.5
2010-11	0.0	0.0	0.0	0.5	T	2.8	1.1	4.5	0.2	1.0	0.4	0.0	10.5
2011-	0.0	0.0	0.0	1.8	5.6	5.0							
POR= 64 YRS	T	0.0	0.2	2.8	3.9	5.1	4.4	4.2	5.5	4.1	1.4	0.1	31.7

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. 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.</p>	<p>GENERAL CONTINUED: 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. 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. STATION HISTORY STOPPED WITH THE 2009 ANNUAL. IF YOU NEED HISTORY GO TO "MULTI-NETWORK MEDADATA SYSTEM", URL IS: https://mi3.ncdc.noaa.gov/mi3qry/login.cfm SNOWFALL STOPPED MONTH & YEAR INDICATED ABOVE. NO FURTHER YEARS INCLUDED UNLESS RESTARTED.</p> <p>NOTE: The "Period of Record:(POR) for all "averages" is based on the "Summary of the Day First Order Station" and "Cooperative Summary of the Day" archives.</p>
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2011 ALAMOSA COLORADO (KALS)

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 History

ALAMOSA, CO

NAME	Begin Date	End Date	Latitude	Longitude	Elevation Feet	Relocation	Platform
ALAMOSA AP	1955-01-01	1973-01-01	37° 27'	-105° 52'	7539		AIRWAYS, COOP
ALAMOSA BERGMAN FIELD	1988-05-17	1992-09-01	37° 27'	-105° 52'	7540		COOP, WXSVC
ALAMOSA BERGMAN FIELD	1980-05-01	1988-05-17	37° 27'	-105° 52'	7536		COOP, WXSVC
ALAMOSA SAN LUIS VALLEY REGIONAL AP	1992-09-01	1999-04-23	37° 26'	-105° 51'	7533		ASOS, COOP, WXSVC
ALAMOSA AP	1947-11-01	1955-01-01	37° 25'	-105° 51'	7539		AIRWAYS, COOP
ALAMOSA SAN LUIS VALLEY REGIONAL AP	1999-04-23	2005-06-14	37° 26'	-105° 51'	7533		ASOS, COOP, WXSVC
ALAMOSA AP	1945-01-01	1947-11-01	37° 25'	-105° 51'	7535		AIRWAYS
ALAMOSA AP	1973-01-01	1979-01-01	37° 27'	-105° 52'	7539		COOP, WXSVC
ALAMOSA AP	1979-01-01	1980-05-01	37° 27'	-105° 52'	7536		COOP, WXSVC
ALAMOSA SAN LUIS VALLEY REGIONAL AP	2005-06-14	Present	37° 26'	-105° 51'	7533		ASOS, COOP, WXSVC

Element History

Element	Begin Date	End Date	Frequency	Time Of Observation	Equipment *	Equipment * Modifications	Equipment Exposure
TEMP	2011-12-21	Present	DAILY	2400	ATEMP		
EVAP	1988-05-17	1995-07-01	DAILY	0700	PAN-LEVEL		
EVAP	1988-05-17	1995-07-01	DAILY	0700	WIND		
PRECIP	1988-05-17	1995-07-01	DAILY	2400	UNIV	RCRD	
PRECIP	1999-04-23	2002-11-27	DAILY	2400	TB	RCRD	
TEMP	1945-01-01	1982-01-01	DAILY	2400			
PRECIP	1988-05-17	1995-07-01	HOURLY	2400			
PRECIP	1995-07-01	1999-04-23	DAILY	2400	UNIV	RCRD	
TEMP	2002-11-27	2011-12-21	DAILY	2400	ATEMP		
PRECIP	2011-12-21	Present	DAILY	2400	PCPNX	SHLD	
TEMP	1999-04-23	2002-11-27	DAILY	2400	HYGR		
PRECIP	2002-11-27	2011-12-21	DAILY	2400	PCPNX	SHLD	
PRECIP	1945-01-01	1982-01-01	DAILY	2400	UNIV	RCRD	
PRECIP	1982-01-01	1988-05-17	HOURLY	2400			
EVAP	1982-01-01	1988-05-17	DAILY	1700			
EVAP	1995-07-01	1999-04-23	DAILY	0700	PAN-LEVEL		
PRECIP	1995-07-01	1999-04-23	HOURLY	2400	UNIV	RCRD	
TEMP	1982-01-01	1988-05-17	DAILY	2400			
PRECIP	1982-01-01	1988-05-17	DAILY	2400	UNIV	RCRD	
EVAP	1995-07-01	1999-04-23	DAILY	0700	SIXS		
PRECIP	2011-12-21	Present	HOURLY	2400	AWPAG	SHLD; RCRD; HTD	
EVAP	1945-01-01	1982-01-01	DAILY	1700			
EVAP	1988-05-17	1995-07-01	DAILY	0700	SIXS		
EVAP	1995-07-01	1999-04-23	DAILY	0700	WIND		
TEMP	1988-05-17	1995-07-01	DAILY	2400	HYGR		
TEMP	1995-07-01	1999-04-23	DAILY	2400	HYGR		
PRECIP	1999-04-23	2002-11-27	HOURLY	2400	TB	RCRD	
PRECIP	2002-11-27	2011-12-21	HOURLY	2400	AHTB	SHLD; RCRD; HTD	

* For explanation of codes and abbreviations see Station Metadata link below.

Other Station Information can be found at:

ASOS Implementation by NWS: <http://www.nws.noaa.gov/ops2/Surface/asosimplementation.htm>

Station Metadata website: <http://www.ncdc.noaa.gov/homr>

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