

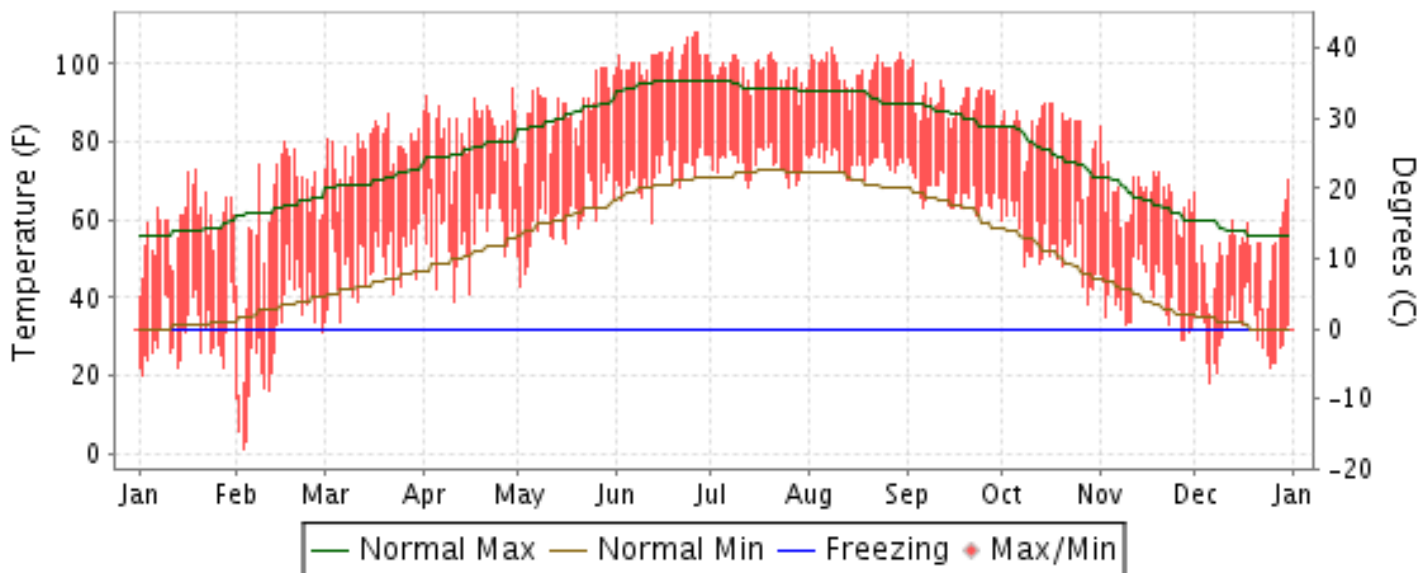


# 2011 LOCAL CLIMATOLOGICAL DATA ANNUAL SUMMARY WITH COMPARATIVE DATA

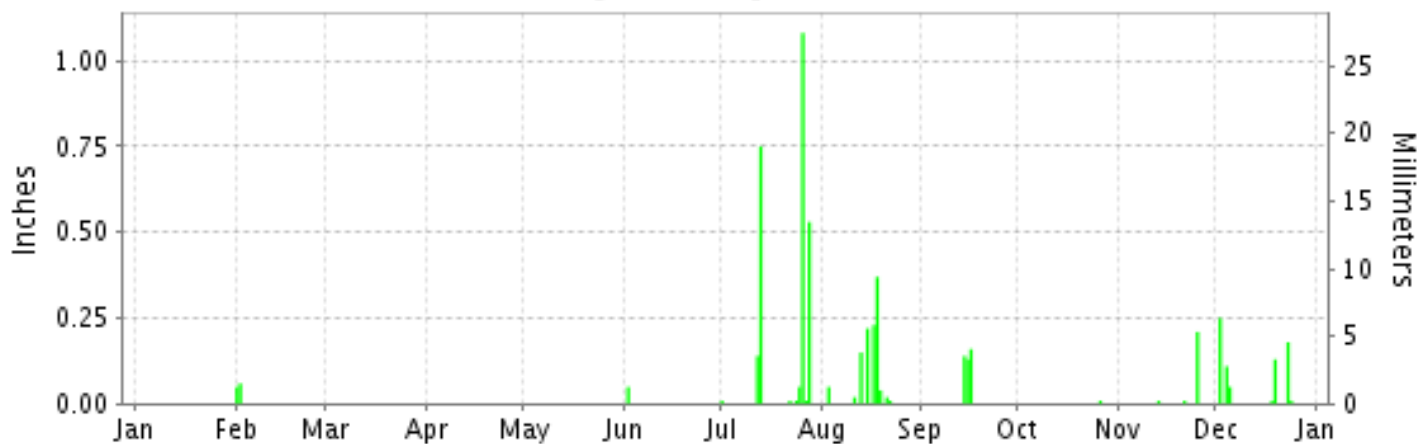
ISSN 0198-5027

## EL PASO, TEXAS (KELP)

### Daily Max/Min Temperature



### Daily Precipitation



### Daily Station Pressure



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ASHEVILLE, NORTH CAROLINA

*Thomas R. Karl*  
DIRECTOR  
NATIONAL CLIMATIC DATA CENTER

# METEOROLOGICAL DATA FOR 2011

## EL PASO (KELP)

LATITUDE: 31° 48'N      LONGITUDE: -106° 22'W      ELEVATION (FT): GRND: 3918 BARO: 3945      TIME ZONE: MOUNTAIN (UTC -7)      WBAN: 23044

ELEMENT		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	YEAR	
TEMPERATURE °F	MEAN DAILY MAXIMUM	58.8	60.6	78.1	83.8	88.4	101.4	98.1	98.8	91.1	82.2	66.4	52.3	80.0	
	HIGHEST DAILY MAXIMUM	73	80	87	94	99	108	103	104	101	90	84	70	108	
	DATE OF OCCURRENCE	19	16	21	29	29+	27+	20	08	03	17+	01	31	JUN 27+	
	MEAN DAILY MINIMUM	30.3	29.7	48.3	56.8	60.6	71.9	74.4	75.2	67.0	53.6	40.7	31.1	53.3	
	LOWEST DAILY MINIMUM	20	1	34	39	43	59	68	70	61	38	29	18	1	
	DATE OF OCCURRENCE	02	03	06+	11	02	12	26+	19+	23	28	28+	06	FEB 03	
	AVERAGE DRY BULB	44.6	45.2	63.2	70.3	74.5	86.7	86.3	87.0	79.1	67.9	53.6	41.7	66.7	
	MEAN WET BULB	34.1	32.9	43.8	47.2	49.4	57.2	64.9	65.7	58.2	50.0	41.8	35.8	48.4	
	MEAN DEW POINT	17.1	11.8	15.1	15.3	16.5	26.9	51.7	53.1	41.7	31.0	26.0	28.9	27.9	
	NUMBER OF DAYS WITH:														
	MAXIMUM >= 90°	0	0	0	3	17	30	30	30	19	3	0	0	132	
	MAXIMUM <= 32°	0	2	0	0	0	0	0	0	0	0	0	0	2	
	MINIMUM <= 32°	22	14	0	0	0	0	0	0	0	0	4	16	56	
	MINIMUM <= 0°	0	0	0	0	0	0	0	0	0	0	0	0	0	
H/C	HEATING DEGREE DAYS	627	549	89	26	14	0	0	0	0	48	337	712	2402	
	COOLING DEGREE DAYS	0	1	40	192	317	660	669	688	430	144	0	0	3141	
RH	MEAN (PERCENT)	36	30	16	13	13	14	34	35	30	28	37	65	29	
	HOUR 05 LST	50	43	26	21	21	23	50	50	44	44	50	78	42	
	HOUR 11 LST	26	24	13	10	10	9	27	27	25	20	30	52	23	
	HOUR 17 LST	25	20	9	8	7	9	20	23	20	19	29	56	20	
	HOUR 23 LST	41	33	17	14	16	15	41	39	34	32	40	74	33	
S	PERCENT POSSIBLE SUNSHINE														
W/O	NUMBER OF DAYS WITH:														
	HEAVY FOG(VISBY <= 1/4 MI)	0	0	0	0	0	0	0	0	0	0	0	3	3	
	THUNDERSTORMS	0	0	0	0	0	3	11	11	5	2	2	0	34	
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.)	26.07	26.05	26.00	25.92	25.93	25.95	25.99	26.00	26.07	26.05	26.08	26.12	26.02	
	MEAN SEA-LEVEL PRESS. (IN.)	30.02	30.01	29.86	29.74	29.73	29.70	29.76	29.77	29.87	29.90	30.00	30.09	29.87	
WINDS	RESULTANT SPEED (MPH)	1.6	2.9	5.4	9.8	8.0	3.9	3.5	1.0	1.8	0.8	2.1	2.6	2.5	
	RES. DIR. (TENS OF DEGS.)	29	26	27	26	26	24	14	19	09	25	27	01	26	
	MEAN SPEED (MPH)	6.3	8.8	9.4	13.4	12.6	9.4	8.3	6.9	7.0	6.4	7.1	7.2	8.6	
	PREVAIL.DIR.(TENS OF DEGS.)	36	25	26	25	25	25	14	15	11	35	01	36	25	
	MAXIMUM 2-MINUTE WIND														
	SPEED (MPH)	37	46	53	48	43	41	53	35	36	33	45	35	53	
	DIR. (TENS OF DEGS.)	27	26	26	28	28	25	21	11	35	24	28	26	21	
	DATE OF OCCURRENCE	31	08	07	26	10	19	26	13	25	26	21	19	JUL 26	
	MAXIMUM 3-SECOND WIND:														
	SPEED (MPH)	47	61	66	70	52	52	78	43	48	40	55	43	78	
DIR. (TENS OF DEGS.)	29	26	27	28	24	24	22	10	19	24	28	25	22		
DATE OF OCCURRENCE	31	08	07	26	10	19	26	13	25	26	21	19	JUL 26		
PRECIPITATION	WATER EQUIVALENT:														
	TOTAL (IN.)	T	0.11	0.00	0.00	0.00	0.05	2.59	1.11	0.43	0.01	0.23	0.74		
	GREATEST 24-HOUR (IN.)	T	0.11	0.00	0.00	0.00	0.05	1.13	0.41	0.27	0.01	0.21	0.25		
	DATE OF OCCURRENCE	20	01-02				02	25-26	18-19	15-16	26	25	02		
	NUMBER OF DAYS WITH:														
	PRECIPITATION 0.01	0	2	0	0	0	1	9	9	3	1	3	7		
PRECIPITATION 0.10	0	0	0	0	0	0	4	4	3	0	1	4			
PRECIPITATION 1.00	0	0	0	0	0	0	1	0	0	0	0	0			
SNOWFALL	SNOW,ICE PELLETS,HAIL														
	TOTAL (IN.)	0.0	1.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.1	4.6	
	GREATEST 24-HOUR (IN.)	0.0	1.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.1	2.1	
	DATE OF OCCURRENCE		02										23	DEC 23	
	MAXIMUM SNOW DEPTH (IN.)	0	2	0	0	0	0	0	0	0	0	0	0	2	
	DATE OF OCCURRENCE		02											FEB 02	
NUMBER OF DAYS WITH:															
SNOWFALL >= 1.0	0	1	0	0	0	0	0	0	0	0	0	1	2		

# NORMALS, MEANS, AND EXTREMES EL PASO (KELP)

**LATITUDE:** 31° 48'N      **LONGITUDE:** -106° 22'W      **ELEVATION (FT):** GRND: 3918 BARO: 3945      **TIME ZONE:** MOUNTAIN (UTC -7)      **WBAN: 23044**

	ELEMENT	POR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	YEAR
<b>TEMPERATURE °F</b>	NORMAL DAILY MAXIMUM	30	57.2	63.4	70.2	78.1	86.7	95.3	94.5	92.0	87.1	77.9	65.5	57.4	77.1
	MEAN DAILY MAXIMUM	64	57.8	63.2	70.2	78.9	87.7	96.0	95.3	93.1	87.9	78.7	66.2	58.0	77.8
	HIGHEST DAILY MAXIMUM	72	80	83	89	98	105	114	112	108	104	96	87	80	114
	YEAR OF OCCURRENCE		1970	2009	1989	1989	2005	1994	1979	1980	1982	1994	1983	1973	JUN 1994
	MEAN OF EXTREME MAXS.	64	70.8	76.4	82.8	90.4	97.9	104.5	103.4	100.5	96.7	89.7	78.9	70.7	88.6
	NORMAL DAILY MINIMUM	30	32.9	37.5	43.7	51.1	60.6	68.8	72.0	70.2	63.7	51.8	39.8	33.4	52.1
	MEAN DAILY MINIMUM	64	31.5	35.6	41.8	49.8	58.6	67.0	70.2	68.7	62.4	50.8	38.5	31.8	50.6
	LOWEST DAILY MINIMUM	72	-8	1	14	23	31	46	57	56	41	25	0	5	-8
	YEAR OF OCCURRENCE		1962	2011	1971	1983	1967	1988	1988	1973	1945	1970	1996	1953	JAN 1962
	MEAN OF EXTREME MINS.	64	17.4	21.1	26.7	35.4	45.3	56.1	63.7	62.3	52.1	37.4	24.4	18.0	38.3
	NORMAL DRY BULB	30	45.1	50.5	57.0	64.6	73.7	82.1	83.3	81.1	75.4	64.9	52.7	45.4	64.7
	MEAN DRY BULB	64	44.7	49.4	56.0	64.4	73.2	81.6	82.8	80.9	75.1	64.8	52.4	44.9	64.2
	MEAN WET BULB	28	33.2	35.2	37.9	41.9	48.7	55.9	63.2	63.8	58.7	49.0	39.0	34.0	46.7
	MEAN DEW POINT	28	27.1	28.3	29.3	31.8	38.9	48.1	57.4	59.2	53.3	43.3	32.6	27.8	39.8
	NORMAL NO. DAYS WITH: MAXIMUM >= 90	30	0.0	0.0	0.0	2.3	13.2	25.9	26.8	24.0	14.3	2.4	0.0	0.0	108.9
	MAXIMUM <= 32	30	0.3	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.2	0.8
MINIMUM <= 32	30	17.8	10.7	4.4	0.9	0.0	0.0	0.0	0.0	0.0	0.5	8.1	17.6	60.0	
MINIMUM <= 0	30	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
<b>H/C</b>	NORMAL HEATING DEG. DAYS	30	632	424	272	100	8	0	0	0	9	89	386	623	2543
	NORMAL COOLING DEG. DAYS	30	0	2	8	72	262	497	552	483	305	71	2	0	2254
<b>RH</b>	NORMAL (PERCENT)	30	52	43	34	28	29	31	45	49	49	48	47	53	42
	HOURLY 05 LST	30	66	58	48	42	43	47	64	69	68	65	64	67	58
	HOURLY 11 LST	30	44	37	29	23	24	26	37	41	41	39	39	45	35
	HOURLY 17 LST	30	35	28	21	18	18	19	29	33	33	31	33	38	28
	HOURLY 23 LST	30	56	46	35	30	30	33	48	54	55	53	53	57	46
<b>S</b>	PERCENT POSSIBLE SUNSHINE	54	78	82	86	89	90	90	82	81	83	84	83	77	84
<b>W/O</b>	MEAN NO. DAYS WITH: HEAVY FOG(VISBY <= 1/4 MI)	48	0.5	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.2	0.7	1.6
	THUNDERSTORMS	64	0.2	0.4	0.6	1.0	2.8	4.6	10.6	9.9	4.3	1.9	0.3	0.3	36.9
<b>CLOUDINESS</b>	MEAN: SUNRISE-SUNSET (OKTAS)	53	3.7	3.4	3.4	2.8	2.6	2.2	3.5	3.4	2.7	2.5	2.7	3.4	3.0
	MIDNIGHT-MIDNIGHT (OKTAS)	32	3.3	3.1	2.8	2.4	2.4	2.2	3.6	3.6	2.9	2.2	2.5	3.0	2.8
	MEAN NO. DAYS WITH: CLEAR	53	13.9	13.6	15.1	16.7	18.5	19.8	12.0	13.6	17.4	18.5	17.2	14.8	191.1
	PARTLY CLOUDY	53	7.5	7.3	8.4	8.0	8.2	7.4	13.1	11.9	7.1	6.7	6.1	7.2	98.9
	CLOUDY	53	9.7	7.3	7.5	5.2	4.2	2.7	5.4	4.9	5.0	5.2	6.2	8.5	71.8
<b>PR</b>	MEAN STATION PRESSURE(IN)	28	26.10	26.05	26.00	25.98	25.97	25.98	26.05	26.06	26.06	26.07	26.09	26.08	26.04
	MEAN SEA-LEVEL PRES. (IN)	28	30.06	29.98	29.89	29.82	29.77	29.76	29.83	29.86	29.87	29.93	30.01	30.06	29.90
<b>WINDS</b>	MEAN SPEED (MPH)	28	7.4	8.4	9.5	10.4	9.7	8.6	7.6	6.9	6.9	7.1	7.3	7.1	8.1
	PREVAIL.DIR(TENS OF DEGS)	40	36	28	26	26	26	15	15	15	11	36	01	36	26
	MAXIMUM 2-MINUTE: SPEED (MPH)	16	64	51	56	56	45	51	53	54	41	45	53	56	64
	DIR. (TENS OF DEGS)		26	24	27	26	25	32	21	26	35	26	27	24	26
	YEAR OF OCCURRENCE		1996	1998	2010	2001	1999	2000	2011	2002	1996	2009	2005	2009	JAN 1996
	MAXIMUM 3-SECOND SPEED (MPH)	16	75	61	84	70	58	61	78	69	51	70	64	68	84
	DIR. (TENS OF DEGS)		26	26	26	28	24	33	22	26	33	23	24	25	26
	YEAR OF OCCURRENCE		1996	2011	2010	2011	1999	2006	2011	2002	2009	2009	1998	2009	MAR 2010
<b>PRECIPITATION</b>	NORMAL (IN)	30	0.45	0.39	0.26	0.23	0.38	0.87	1.49	1.75	1.61	0.81	0.42	0.77	9.43
	MAXIMUM MONTHLY (IN)	72	1.84	1.92	2.26	1.42	4.22	3.18	5.53	6.85	6.68	4.31	2.01	3.29	6.85
	YEAR OF OCCURRENCE		1949	2005	1958	1983	1992	1984	1968	2006	1974	1945	2004	1991	AUG 2006
	MINIMUM MONTHLY (IN)	72	0.00	0.00	0.00	0.00	T	0.04	T	T	T	0.00	0.00	0.00	0.00
	YEAR OF OCCURRENCE		1967	1943	2002	1978	1962	1990	1978	1962	1959	1952	1964	1955	MAR 2002
	MAXIMUM IN 24 HOURS (IN)	72	0.80	1.02	1.72	1.08	2.40	1.91	2.63	2.89	2.52	1.77	1.19	1.76	2.89
	YEAR OF OCCURRENCE		2007	2003	1941	1966	1992	2009	1968	2005	1958	1945	1943	1987	AUG 2005
	NORMAL NO. DAYS WITH: PRECIPITATION >= 0.01	30	4.7	3.1	2.2	1.7	2.8	3.5	8.2	8.8	6.5	4.9	3.1	4.3	53.8
	PRECIPITATION >= 1.00	30	0.0	0.0	0.0	0.0	0.1	0.1	0.3	0.3	0.4	*	0.0	0.1	1.3
<b>SNOWFALL</b>	NORMAL (IN)	30	1.5	0.8	0.3	0.7	0.0	0.0	0.0	0.0	0.0	0.1	0.9	2.4	6.7
	MAXIMUM MONTHLY (IN)	62	8.3	8.9	7.3	16.5	T	T	T	T	T	1.0	12.7	25.9	25.9
	YEAR OF OCCURRENCE		1949	1956	1958	1983	2007	1992	2007	2007	2009	1980	1976	1987	DEC 1987
	MAXIMUM IN 24 HOURS (IN)	62	5.2	7.2	7.3	8.8	T	T	T	T	T	1.0	7.8	16.8	16.8
	YEAR OF OCCURRENCE		1992	1956	1958	1983	1992	1992	1990	2007	2009	1980	1961	1987	DEC 1987
	MAXIMUM SNOW DEPTH (IN)	53	6	7	7	9	0	0	0	0	0	1	7	14	14
	YEAR OF OCCURRENCE		1983	1956	1958	1983						1993	1968	1987	DEC 1987
	NORMAL NO. DAYS WITH: SNOWFALL >= 1.0	30	0.5	0.3	0.1	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.5	1.9

**PRECIPITATION (inches) 2011 EL PASO (KELP)**

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL
1982	0.34	0.55	T	0.05	0.19	0.18	1.00	0.48	5.28	T	0.29	2.61	10.97
1983	0.35	0.60	0.45	1.42	0.05	0.23	0.43	0.97	1.51	1.48	0.34	0.16	7.99
1984	0.31	0.00	0.44	0.01	0.59	3.18	0.69	5.57	0.58	3.12	0.51	1.17	16.17
1985	0.95	0.19	0.59	0.07	0.01	0.10	1.32	1.46	1.47	1.82	0.13	0.05	8.16
1986	0.01	0.39	0.39	T	0.83	3.05	2.66	0.70	0.85	0.45	1.42	1.42	12.17
1987	0.29	0.30	0.49	0.32	0.24	2.24	0.64	2.22	0.89	0.15	0.29	2.87	10.94
1988	0.25	0.70	0.10	0.23	0.15	0.03	3.35	3.46	1.52	0.59	0.24	0.44	11.06
1989	0.11	0.72	0.62	T	0.65	T	1.23	3.06	0.48	0.23	T	0.16	7.26
1990	0.29	0.14	0.41	0.25	0.10	T	3.96	1.98	3.46	0.58	1.34	0.34	12.85
1991	0.82	0.66	0.10	T	0.23	0.01	2.69	2.06	1.82	0.20	0.50	3.29	12.38
1992	1.14	0.16	0.50	0.30	4.22	0.27	0.65	2.11	0.15	0.27	0.28	1.35	11.40
1993	1.34	0.32	0.01	0.12	T	1.47	0.95	2.73	1.32	0.17	0.49	0.71	9.63
1994	0.03	0.23	0.37	0.65	0.80	0.67	0.18	0.02	0.03	0.35	0.54	1.61	5.48
1995	0.26	0.88	0.42	0.04	0.01	1.74	0.28	0.76	3.18	T	0.26	0.03	7.86
1996	0.11	0.19	T	0.49	0.00	2.36	1.97	1.87	1.24	T	0.16	.00	8.39
1997	0.38	0.29	0.64	0.43	0.52	1.11	0.91	1.41	1.55	0.19	0.79	1.41	9.63
1998	0.05	0.15	0.18	0.04	T	0.27	2.07	0.53	0.66	2.14	0.34	0.34	6.77
1999	0.10	0.00	0.04	T	0.02	1.44	2.00	1.43	1.94	0.56	0.00	0.63	8.16
2000	0.00	0.03	0.06	0.28	T	2.45	1.59	0.70	T	0.82	1.06	0.42	7.41
2001	0.06	0.24	0.40	T	0.18	0.30	0.36	1.72	0.30	T	0.60	0.13	4.29
2002	T	1.22	0.00	0.00	T	0.35	1.34	0.76	0.48	1.09	T	1.65	6.89
2003	T	1.37	0.18	0.02	T	0.49	0.55	0.66	0.08	0.33	0.52	0.01	4.21
2004	0.36	0.05	0.80	1.06	0.50	0.93	1.70	3.04	0.89	0.39	2.01	0.36	12.09
2005	0.66	1.92	0.08	0.14	0.93	T	0.66	4.35	2.77	1.36	0.00	T	12.87
2006	0.02	0.28	T	0.01	0.89	0.27	3.17	6.85	4.99	0.92	0.06	0.05	17.51
2007	1.81	0.19	0.02	0.31	1.30	0.51	2.08	0.57	1.71	0.09	1.07	0.46	10.12
2008	0.14	0.15	T	T	0.03	0.48	4.34	2.61	1.52	0.15	0.17	0.27	9.86
2009	0.01	T	0.06	0.01	0.77	2.24	0.49	0.59	2.50	0.21	0.96	0.84	8.68
2010	0.66	1.43	0.02	0.13	0.01	1.08	1.07	0.31	1.62	0.18	T	0.16	6.67
2011	T	0.11	0.00	0.00	0.00	0.05	2.59	1.11	0.43	0.01	0.23	0.74	5.27
POR= 64 YRS	0.40	0.45	0.27	0.20	0.34	0.73	1.59	1.57	1.41	0.66	0.39	0.59	8.60

WBAN : 23044

**AVERAGE TEMPERATURE (°F) 2011 EL PASO (KELP)**

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL
1982	42.3	48.7	57.7	64.4	69.6	80.9	84.2	83.5	77.1	64.6	53.2	43.3	64.1
1983	41.6	49.5	54.6	56.3	68.9	77.3	82.9	81.8	78.7	66.6	54.3	45.5	63.2
1984	44.4	47.0	55.7	62.0	75.0	79.5	81.1	80.4	72.9	61.4	51.6	45.7	63.1
1985	40.0	45.6	55.2	64.2	72.1	79.0	79.4	80.6	72.8	61.4	52.9	43.1	62.2
1986	44.7	52.1	55.7	67.3	71.5	77.7	80.0	80.4	74.1	62.4	49.4	42.6	63.2
1987	41.3	46.2	51.2	59.7	68.6	78.1	81.6	79.1	72.1	67.0	51.4	40.5	61.4
1988	42.6	48.4	53.4	61.1	70.3	79.0	80.3	77.6	72.4	66.7	54.0	42.6	62.4
1989	43.6	51.4	58.7	67.4	74.2	81.3	81.8	79.1	73.4	63.2	53.3	41.9	64.1
1990	44.1	49.1	56.1	66.4	73.1	87.1	80.2	76.8	73.9	63.4	52.9	44.8	64.0
1991	44.3	51.1	53.9	64.0	72.6	79.0	78.6	79.5	70.7	65.4	50.3	46.3	63.0
1992	44.0	50.2	58.1	67.9	70.6	81.5	85.1	81.3	77.8	66.5	48.0	44.7	64.6
1993	48.5	51.4	57.9	66.7	74.6	82.7	85.2	82.5	75.8	64.4	52.3	46.9	65.7
1994	45.6	50.4	58.3	66.7	75.7	89.0	88.1	86.2	78.3	66.6	54.4	49.4	67.4
1995	47.1	56.3	59.7	65.2	74.3	80.2	83.1	82.8	74.1	65.6	55.0	47.6	65.9
1996	46.5	54.5	54.6	65.5	80.1	83.5	82.9	79.6	73.5	65.5		46.3	
1997	44.2	48.2	58.6	61.5	74.3	81.0	82.7	81.6	78.4	63.6	52.2	40.6	63.9
1998	47.1	47.6	54.0	59.5	74.4	82.2	83.5	80.6	79.2	66.0	55.2	45.8	64.6
1999	48.1	53.6	58.0	63.2	74.2	80.0	81.2	81.2	75.4	63.9	56.5	43.4	64.9
2000	49.7	54.0	57.2	68.3	79.0	80.3	84.1	81.5	78.6	62.5	47.6	44.0	65.6
2001	41.8	50.1	56.3	65.5	76.0	83.3	84.3	81.0	76.9	67.6	54.7	42.7	65.0
2002	46.2	47.1	56.8	69.9	75.0	85.2	82.3	84.5	77.0	64.4	52.2	43.9	65.4
2003	48.7	50.2	55.5	65.4	76.0	81.3	84.9	83.8	77.6	68.5	55.2	44.6	66.0
2004	46.4	45.8	59.9	63.8	76.3	81.5	82.8	79.2	73.8	65.8	50.3	43.8	64.1
2005	48.7	50.0	55.4	64.8	74.0	83.8	85.6	80.0	78.1	65.0	55.4	47.9	65.7
2006	49.1	52.3	59.1	69.8	78.2	83.6	83.7	78.8	71.5	64.5	56.5	43.6	65.9
2007	42.6	50.6	59.3	64.3	72.6	81.7	82.2	83.4	77.6	68.0	55.5	46.0	65.3
2008	45.3	52.8	57.9	65.4	74.2	85.3	80.5	79.2	71.9	65.7	54.1	47.8	65.0
2009	48.1	53.4	59.6	65.7	77.4	81.8	86.7	84.1	75.6	65.4	55.2	44.0	66.4
2010	43.5	49.1	55.6	64.9	74.2	85.2	83.2	84.5	78.8	68.5	53.3	50.6	66.0
2011	44.6	45.2	63.2	70.3	74.5	86.7	86.3	87.0	79.1	67.9	53.6	41.7	66.7
POR= 64 YRS	44.7	49.4	56.0	64.4	73.2	81.6	82.8	80.9	75.1	64.8	52.4	44.9	64.2

**HEATING DEGREE DAYS (base 65°F) 2011 EL PASO (KELP)**

YEAR	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	TOTAL
1982-83	0	0	0	88	344	668	720	430	316	284	23	0	2873
1983-84	0	0	0	52	317	599	633	514	285	126	8	0	2534
1984-85	0	0	18	144	404	592	768	537	302	71	5	0	2841
1985-86	0	0	10	125	358	670	621	356	283	47	22	0	2492
1986-87	0	0	1	116	460	687	725	521	420	173	5	0	3108
1987-88	0	0	0	13	405	750	686	474	360	121	16	0	2825
1988-89	0	2	2	17	337	684	661	377	208	52	9	0	2349
1989-90	0	0	2	108	344	708	640	439	271	45	20	0	2577
1990-91	0	2	8	88	354	617	636	383	336	78	3	0	2505
1991-92	0	0	26	66	434	576	644	423	209	49	3	0	2430
1992-93	0	0	0	21	502	624	504	373	222	53	4	0	2303
1993-94	0	0	0	145	375	551	596	401	218	38	0	0	2324
1994-95	0	0	0	41	313	475	548	240	185	84	6	0	1892
1995-96	0	0	15	31	292	533	562	305	322	89	0	0	2149
1996-97	0	0	0	103		571	635	467	202	155	0	0	
1997-98	0	0	0	150	378	746	550	481	342	187	0	0	2834
1998-99	0	0	0	80	289	590	518	315	218	114	1	0	2125
1999-00	0	0	4	108	253	662	466	314	242	49	2	0	2100
2000-01	0	0	3	145	513	644	711	412	265	71	0	0	2764
2001-02	0	0	0	18	315	684	578	496	264	12	0	0	2367
2002-03	0	0	0	87	377	647	499	409	291	65	1	0	2376
2003-04	0	0	0	41	302	625	568	549	188	100	6	0	2379
2004-05	0	0	1	44	434	654	498	416	293	75	9	0	2424
2005-06	0	0	0	69	293	523	486	349	189	16	0	0	1925
2006-07	0	0	0	75	251	654	689	397	202	82	5	0	2355
2007-08	0	0	0	51	279	581	607	349	235	73	10	0	2185
2008-09	0	0	1	56	330	527	515	332	183	82	0	0	2026
2009-10	0	0	2	98	289	643	659	441	296	66	16	0	2510
2010-11	0	0	0	15	344	436	627	549	89	26	14	0	2100
2011-	0	0	0	48	337	712							

WBAN : 23044

**COOLING DEGREE DAYS (base 65°F) 2011 EL PASO (KELP)**

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
1982	0	0	14	70	167	484	602	583	371	82	0	0	2373
1983	0	0	0	32	151	374	564	527	417	108	6	0	2179
1984	0	0	2	44	324	441	507	482	260	38	8	0	2106
1985	0	0	9	55	233	428	457	488	252	18	0	0	1940
1986	0	3	0	122	228	391	474	485	281	41	0	0	2025
1987	0	0	0	22	121	399	521	446	222	83	2	0	1816
1988	0	0	9	15	186	429	478	399	226	76	16	0	1834
1989	0	2	20	130	300	494	530	442	261	60	0	0	2239
1990	0	1	0	96	278	667	480	374	282	43	0	0	2221
1991	0	0	0	55	245	424	428	455	204	88	0	0	1899
1992	0	0	3	144	182	500	628	511	389	75	0	0	2432
1993	0	0	11	110	306	538	632	550	331	132	2	0	2612
1994	0	0	17	92	338	725	722	666	404	100	3	0	3067
1995	0	0	27	97	304	462	567	559	292	58	1	0	2367
1996	0	6	7	112	475	560	561	462	263	125		0	
1997	0	0	10	53	298	489	556	518	408	116	0	0	2448
1998	0	0	8	30	299	527	581	491	434	116	0	0	2486
1999	0	0	8	67	291	457	506	511	324	81	5	0	2250
2000	0	0	4	159	443	463	600	517	417	77	0	0	2680
2001	0	0	4	95	351	554	606	506	365	108	13	0	2602
2002	0	0	16	166	316	612	543	609	365	74	0	0	2701
2003	0	0	3	83	346	494	626	591	386	155	13	0	2697
2004	0	0	37	72	363	501	559	448	274	75	0	0	2329
2005	0	0	2	75	298	569	647	473	398	75	9	0	2546
2006	0	1	12	167	416	566	585	437	201	68	4	0	2457
2007	0	0	33	65	251	508	543	577	384	150	1	0	2512
2008	0	0	24	90	301	617	487	448	212	85	8	0	2272
2009	0	11	26	109	393	511	679	597	325	117	0	0	2768
2010	0	0	9	71	311	613	571	611	421	131	0	0	2738
2011	0	1	40	192	317	660	669	688	430	144	0	0	3141

**SNOWFALL (inches) 2011 EL PASO (KELP)**

YEAR	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	TOTAL
1982-83	0.0	0.0	0.0	0.0	0.3	18.2	T	0.0	T	16.5	0.0	0.0	35.0
1983-84	0.0	0.0	0.0	0.0	T	T	T	0.0	6.1	0.0	0.0	0.0	6.1
1984-85	0.0	0.0	0.0	0.0	T	2.9	5.4	1.1	0.0	0.0	0.0	0.0	9.4
1985-86	0.0	0.0	0.0	0.0	0.0	0.9	T	0.9	T	0.0	0.0	0.0	1.8
1986-87	0.0	0.0	0.0	0.0	0.0	0.6	3.4	2.8	0.6	0.0	0.0	0.0	7.4
1987-88	0.0	0.0	0.0	0.0	0.0	25.9	T	6.6	0.0	0.0	0.0	0.0	32.5
1988-89	0.0	0.0	0.0	0.0	T	0.3	0.0	0.0	T	0.0	T	0.0	0.3
1989-90	0.0	0.0	0.0	0.0	0.0	T	T	T	0.0	T	T	0.0	T
1990-91	T	0.0	0.0	0.0	4.3	T	1.5	T	T	0.0	T	0.0	5.8
1991-92	0.0	0.0	0.0	0.0	0.0	0.5	6.9	0.0	T	0.0	T	T	7.4
1992-93	0.0	0.0	0.0	0.0	0.0	1.6	0.0	0.0	0.0	0.0	0.0	0.0	1.6
1993-94	0.0	0.0	T	0.8	0.0	1.6	0.3	0.0	0.0	0.0	0.0	0.0	2.7
1994-95	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1995-96	0.0	0.0	0.0	0.0	0.0	T	1.6	0.0		T	0.0		
1996-97													
1997-98													
1998-99													
1999-00													
2000-01													
2001-02													
2002-03													
2003-04													
2004-05													
2005-													
2006-07							2.1	T	0.0	0.0	T	0.0	
2007-08	T	T	T	0.0	7.7	0.0	0.0	T	T	0.0	0.0	0.0	7.7
2008-09	0.0	0.0	0.0	0.0	0.0	T	T	T	0.0	0.0	0.0	0.0	T
2009-10	0.0	0.0	T	T	2.5	5.8	T	0.5	T	T	0.0	0.0	8.8
2010-11	0.0	0.0	0.0	T	0.0	0.5	0.0	1.5	0.0	0.0	0.0	0.0	2.0
2011-	0.0	0.0	0.0	0.0	0.0	3.1							
POR= 63 YRS	T	T	T	T	0.9	1.6	1.0	0.7	0.3	0.3	T	T	4.8

WBAN : 23044

**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 EIGHTS(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: <a href="https://mi3.ncdc.noaa.gov/mi3qry/login.cfm">https://mi3.ncdc.noaa.gov/mi3qry/login.cfm</a> SNOWFALL STOPPED MONTH &amp; YEAR INDICATED ABOVE. NO FURTHER YEARS INCLUDED UNLESS RESTARTED.</p> <p><b>NOTE:</b> 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 EL PASO TEXAS (KELP)

The city of El Paso is located in the extreme west point of Texas at an elevation of about 3,700 feet . The National Weather Service station is located on a mesa about 200 feet higher than the city. The climate of the region is characterized by an abundance of sunshine throughout the year, high daytime summer temperatures, very low humidity, scanty rainfall, and a relatively mild winter season. The Franklin Mountains begin within the city limits and extend northward for about 16 miles. Peaks of these mountains range from 4,687 to 7,152 feet above sea level.

Rainfall throughout the year is light, insufficient for any growth except desert vegetation. Irrigation is necessary for crops, gardens, and lawns. Dry periods lasting several months are not unusual. Almost half of the precipitation occurs in the three-month period, July through September, from brief but often heavy thunderstorms. Small amounts of snow fall nearly every winter, but snow cover rarely amounts to more than an inch and seldom remains on the ground for more than a few hours.

Daytime summer temperatures are high, frequently above 90 degrees and occasionally above 100 degrees. Summer nights are usually comfortable, with temperatures in the 60s. It should be noted that when temperatures are high the relative humidity is generally quite low. A 20-year tabulation of observations with temperatures above 90 degrees shows that in April, May, and June the humidity averaged from 10 to 14 percent, while in July, August, and September it averaged 22 to 24 percent. This low humidity aids the efficiency of evaporative air coolers, which are widely used in homes and public buildings and are quite effective in cooling the air to comfortable temperatures.

Winter daytime temperatures are mild. At night they drop below freezing about half the time in December and January. The flat, irrigated land of the Rio Grande Valley in the vicinity of El Paso is noticeably cooler, particularly at night, than the airport or the city proper, both in summer and winter. This results in more comfortable temperatures in summer but increases the severity of freezes in winter. The cooler air in the Valley also causes marked short-period fluctuations of temperature and dewpoint at the airport with changes in wind direction, especially during the early morning hours.

Dust and sandstorms are the most unpleasant features of the weather in El Paso. While wind velocities are not excessively high, the soil surface is dry and loose and natural vegetation is sparse, so moderately strong winds raise considerable dust and sand. A tabulation of duststorms for a period of 20 years shows that they are most frequent in March and April, and comparatively rare in the period July through December. prevailing winds are from the north in winter and the south in summer.

# Station History

EL PASO, TX

NAME	Begin Date	End Date	Latitude	Longitude	Elevation Feet	Relocation	Platform
EL PASO INTL AP	1995-06-01	1995-12-27	31° 48'	-106° 22'	3918		ASOS, COOP, USHCN
EL PASO INTL AP	1946-08-01	1964-01-01	31° 48'	-106° 24'	3940		AIRWAYS, COOP, USHCN
EL PASO INTL AP	1973-01-01	1981-12-31	31° 48'	-106° 24'	3918		COOP, USHCN, WXSVC
EL PASO INTL AP	1981-12-31	1995-06-01	31° 48'	-106° 24'	3918		COOP, USHCN
EL PASO INTL AP	1964-01-01	1973-01-01	31° 48'	-106° 24'	3918		AIRWAYS, COOP, USHCN
EL PASO INTL AP	1995-12-27	2011-04-15	31° 48'	-106° 22'	3918	1 MI N	ASOS, COOP, USHCN
EL PASO INTL AP	1942-12-14	1946-08-01	31° 48'	-106° 24'			AIRWAYS
EL PASO INTL AP	2011-04-15	Present	31° 48'	-106° 22'	3918		ASOS, COOP, USHCN
EL PASO MUNICIPAL AP	1930-03-01	1942-12-14	31° 48'	-106° 24'			AIRWAYS

# Element History

Element	Begin Date	End Date	Frequency	Time Of Observation	Equipment *	Equipment * Modifications	Equipment Exposure
PRECIP	1963-09-01	1994-10-25	DAILY	2400	UNIV	RCRD	
TEMP	1994-10-25	1995-06-01	DAILY	2400	HYGR		
PRECIP	1930-03-01	1963-09-01	DAILY	2400	UNIV	RCRD	
TEMP	1963-09-01	1994-10-25	DAILY	2400			
TEMP	1930-03-01	1963-09-01	DAILY	2400			
PRECIP	1995-06-01	Present	DAILY	2400	TB	RCRD	
PRECIP	1994-10-25	1995-06-01	DAILY	2400	UNIV	RCRD	
PRECIP	1995-06-01	Present	HOURLY	2400	TB	RCRD	
PRECIP	1963-09-01	1994-10-25	HOURLY	2400	UNIV	RCRD	
TEMP	1995-06-01	Present	DAILY	2400	HYGR		
PRECIP	1994-10-25	1995-06-01	HOURLY	2400	UNIV	RCRD	

\* 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>

INQUIRES/COMMENTS CALL: (828) 271-4800, option 2

Fax Number : (828) 271-4876

TDD : (828) 271-4010

Email : [ncdc.info@noaa.gov](mailto:ncdc.info@noaa.gov)

NOAA/National Climatic Data Center

Attn: User Engagement & Services Branch

151 Patton Avenue

Asheville, NC 28801-5001

Visit our Web Site for other weather data: [www.ncdc.noaa.gov](http://www.ncdc.noaa.gov)