

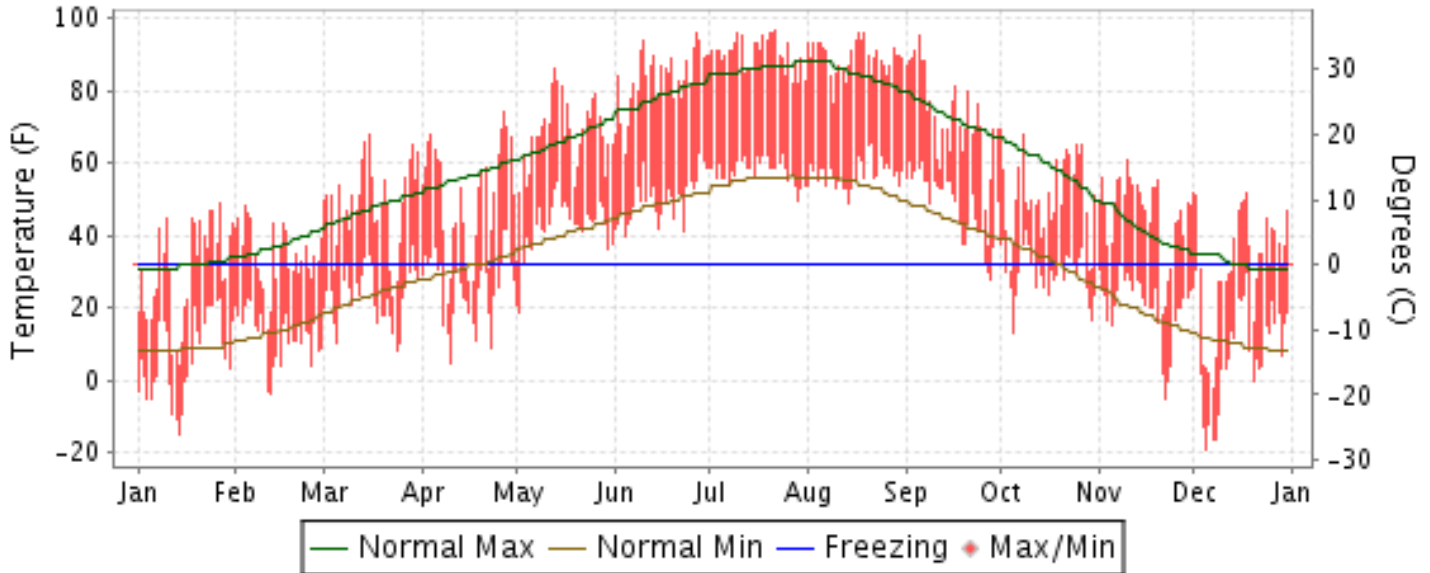


2013 LOCAL CLIMATOLOGICAL DATA ANNUAL SUMMARY WITH COMPARATIVE DATA

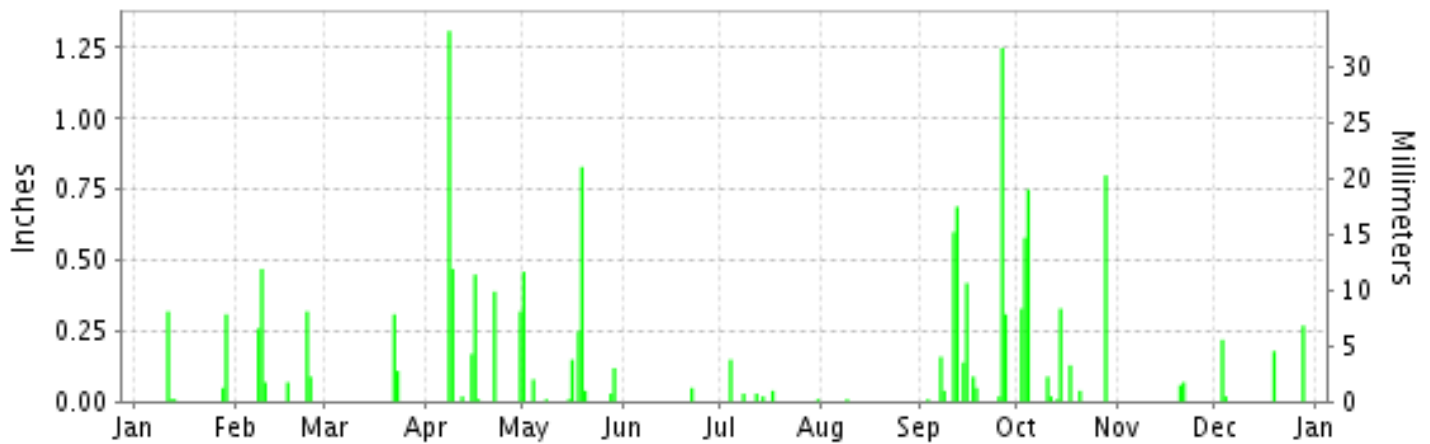
ISSN 0198-5809

LANDER, WYOMING (KLND)

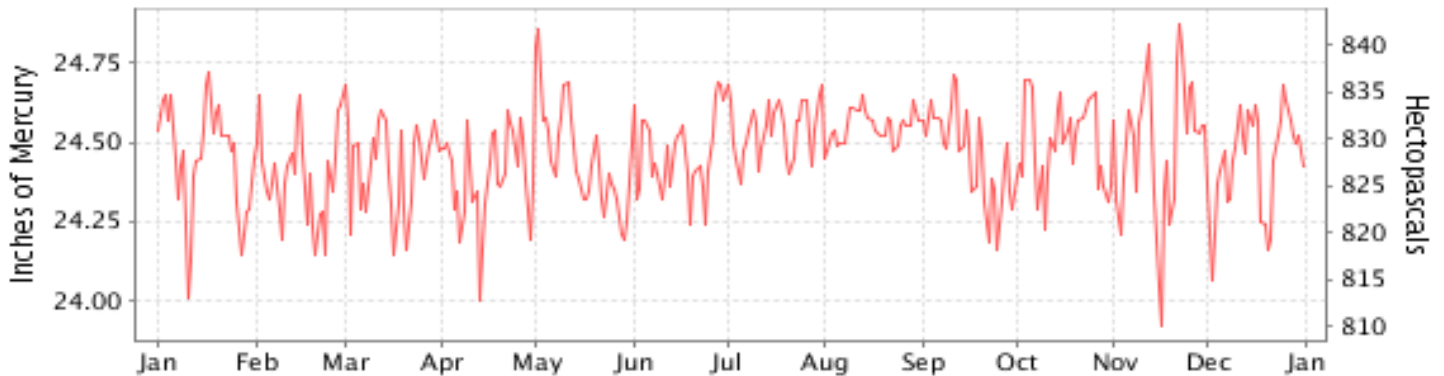
Daily Max/Min Temperature



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 2013

LANDER (KLND)

LATITUDE: 42° 48'N LONGITUDE: 108° 43'W ELEVATION (FT): GRND: 5592 BARO: 5560 TIME ZONE: MOUNTAIN (UTC -7) WBAN: 24021

ELEMENT		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	YEAR	
TEMPERATURE °F	MEAN DAILY MAXIMUM	30.2	34.5	48.7	50.5	67.4	83.3	90.3	89.1	72.3	51.1	46.1	31.9	58.0	
	HIGHEST DAILY MAXIMUM	49	48	68	74	86	96	97	96	95	69	61	52	97	
	DATE OF OCCURRENCE	27	04	15	27	13	27	22	19+	05	01	10	18+	JUL 22	
	MEAN DAILY MINIMUM	6.7	12.4	23.4	25.7	42.4	50.2	58.1	57.3	48.6	29.9	20.4	8.4	32.0	
	LOWEST DAILY MINIMUM	-15	-4	8	5	19	40	50	49	28	13	-5	-19	-19	
	DATE OF OCCURRENCE	14	12	24	10	02	04	29	14	28	05	22	05	DEC 05	
	AVERAGE DRY BULB	18.5	23.4	36.1	38.1	54.9	66.7	74.2	73.2	60.5	40.5	33.3	20.1	45.0	
	MEAN WET BULB	15.1	19.9	28.9	30.8	44.3	50.3	56.3	54.4	50.4	35.5	27.3	16.5	35.8	
	MEAN DEW POINT	7.8	11.9	17.3	19.9	33.3	34.4	42.8	38.8	42.2	29.6	18.6	9.7	25.5	
	NUMBER OF DAYS WITH:														
	MAXIMUM >= 90°	0	0	0	0	0	7	20	16	2	0	0	0	45	
	MAXIMUM <= 32°	16	11	4	6	0	0	0	0	0	3	4	15	59	
MINIMUM <= 32°	31	28	27	24	3	0	0	0	3	20	30	31	197		
MINIMUM <= 0°	10	2	0	0	0	0	0	0	0	0	2	7	21		
H/C	HEATING DEGREE DAYS	1438	1156	891	800	314	54	0	0	192	753	943	1385	7926	
	COOLING DEGREE DAYS	0	0	0	0	9	114	294	261	65	0	0	0	743	
RH	MEAN (PERCENT)	65	62	50	54	49	33	37	32	57	70	59	67	53	
	HOUR 05 LST	71	68	65	66	66	53	54	48	70	79	69	72	65	
	HOUR 11 LST	59	54	40	44	38	24	27	24	46	61	47	59	44	
	HOUR 17 LST	62	59	39	44	38	19	24	21	51	67	54	66	45	
	HOUR 23 LST	67	68	55	61	55	37	41	36	64	75	67	72	58	
W/O	NUMBER OF DAYS WITH:														
	HEAVY FOG(VISBY <= 1/4 MI)	2	2	1	6	1	0	0	0	2	4	0	5	23	
	THUNDERSTORMS	0	0	1	0	6	0	0	1	3	0	0	0	11	
PR	MEAN STATION PRESS. (IN.)	24.45	24.39	24.43	24.40	24.45	24.46	24.54	24.55	24.47	24.49	24.50	24.44	24.46	
	MEAN SEA-LEVEL PRESS. (IN.)	30.18	30.06	30.01	29.94	29.90	29.84	29.90	29.91	29.89	30.05	30.11	30.14	29.99	
WINDS	RESULTANT SPEED (MPH)	0.9	1.3	1.9	1.9	2.9	3.4	2.2	2.4	2.1	1.0	1.3	0.8	1.8	
	RES. DIR. (TENS OF DEGS.)	25	27	27	29	28	27	28	26	26	29	27	25	28	
	MEAN SPEED (MPH)	3.7	4.2	6.2	6.2	7.0	7.5	6.2	6.3	5.9	4.3	4.6	4.8	5.6	
	PREVAIL.DIR.(TENS OF DEGS.)	31	25	26	23	25	25	25	26	25	32	25	15	25	
	MAXIMUM 2-MINUTE WIND														
	SPEED (MPH)	33	30	54	38	43	46	45	46	54	26	35	48	54	
	DIR. (TENS OF DEGS.)	21	33	26	24	24	26	28	21	16	26	25	26	16	
	DATE OF OCCURRENCE	10	01	17	13	17	13	29	01	07	08	16	02	SEP 07	
	MAXIMUM 3-SECOND WIND:														
	SPEED (MPH)	46	41	68	49	52	62	56	58	66	37	48	59	68	
DIR. (TENS OF DEGS.)	22	33	26	25	24	26	28	21	15	26	26	28	26		
DATE OF OCCURRENCE	10	01	17	13	17	13	29	01	07	08	16	02	MAR 17		
PRECIPITATION	WATER EQUIVALENT:														
	TOTAL (IN.)	0.70	1.28	0.42	3.14	1.98	0.05	0.28	0.01	3.78	3.08	0.13	0.69	15.54	
	GREATEST 24-HOUR (IN.)	0.32	0.68	0.42	1.60	0.85	0.05	0.15	0.01	1.56	1.13	0.13	0.27	1.60	
	DATE OF OCCURRENCE	11	08-09	22-23	08-09	19-20	22	04	09	26-27	03-04	20-21	28	APR 08-09	
	NUMBER OF DAYS WITH:														
PRECIPITATION 0.01	5	6	2	8	10	1	6	1	12	10	2	4	67		
PRECIPITATION 0.10	2	3	2	6	5	0	1	0	7	6	0	3	35		
PRECIPITATION 1.00	0	0	0	1	0	0	0	0	1	0	0	0	2		
SNOWFALL	SNOW,ICE PELLETS,HAIL														
	TOTAL (IN.)	12.7	23.8	5.1	43.3	10.5	0.0	0.0	0.0	4.1	21.9	3.5	13.1	138.0	
	GREATEST 24-HOUR (IN.)	6.1	10.8	2.7	12.6	10.5	0.0	0.0	0.0	2.1	11.3	2.5	5.0	12.6	
	DATE OF OCCURRENCE	29	09	22	08	01				26	04	21	28	APR 08	
	MAXIMUM SNOW DEPTH (IN.)	6	12	3	17	10	0	0	0	3	10	3	5	17	
	DATE OF OCCURRENCE	17+	10+	24+	09	01				27	04	21	29+	APR 09	
	NUMBER OF DAYS WITH:														
SNOWFALL >= 1.0	2	6	2	7	1	0	0	0	2	4	2	3	29		

NORMALS, MEANS, AND EXTREMES LANDER (KLND)

LATITUDE: 42° 48'N **LONGITUDE:** 108° 43'W **ELEVATION (FT):** GRND: 5592 BARO: 5560 **TIME ZONE:** MOUNTAIN (UTC -7) **WBAN: 24021**

	ELEMENT	POR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	YEAR
TEMPERATURE °F	NORMAL DAILY MAXIMUM	30	33.1	36.5	47.4	56.4	66.5	77.5	86.8	85.0	72.8	58.5	42.8	31.8	57.9
	MEAN DAILY MAXIMUM	66	32.0	37.0	46.0	55.9	66.1	77.1	86.6	84.8	73.3	59.5	43.2	33.5	57.9
	HIGHEST DAILY MAXIMUM	67	63	68	76	83	93	100	101	101	95	86	70	64	101
	YEAR OF OCCURRENCE		1971	1951	2012	2012	2003	1954	2006	1979	2013	2010	2010	1980	JUL 2006
	MEAN OF EXTREME MAXS.	66	51.9	54.8	64.6	74.3	82.9	91.5	95.9	94.4	88.6	77.7	62.6	53.8	74.4
	NORMAL DAILY MINIMUM	30	10.2	13.9	23.6	31.3	40.1	48.4	55.6	54.3	44.4	32.7	19.7	9.6	32.0
	MEAN DAILY MINIMUM	66	9.0	13.8	22.0	30.8	40.0	48.3	55.8	54.2	44.4	33.2	19.8	11.0	31.9
	LOWEST DAILY MINIMUM	67	-37	-28	-16	-2	18	25	39	35	10	-3	-18	-37	-37
	YEAR OF OCCURRENCE		1963	1949	1960	1973	1954	1951	1993	1962	1965	1991	1985	1983	DEC 1983
	MEAN OF EXTREME MINS.	66	-12.4	-6.6	3.0	16.3	27.2	36.5	46.4	44.2	30.1	16.5	-0.4	-9.5	15.9
	NORMAL DRY BULB	30	21.7	25.2	35.5	43.9	53.3	63.0	71.2	69.6	58.6	45.6	31.2	20.7	45.0
	MEAN DRY BULB	66	20.5	25.4	34.0	43.3	53.0	62.8	71.2	69.5	58.9	46.3	31.5	22.3	44.9
	MEAN WET BULB	30	15.9	18.6	26.0	32.4	40.3	46.5	51.3	49.3	42.9	34.7	23.6	16.3	33.2
	MEAN DEW POINT	30	12.8	15.1	21.8	27.3	35.2	40.8	45.4	43.3	37.4	29.2	20.4	13.1	28.5
	NORMAL NO. DAYS WITH: MAXIMUM >= 90	30	0.0	0.0	0.0	0.0	0.1	2.4	11.5	7.6	0.3	0.0	0.0	0.0	21.9
MAXIMUM <= 32	30	14.0	8.9	3.2	0.9	0.0	0.0	0.0	0.0	0.2	0.8	6.3	14.9	49.2	
MINIMUM <= 32	30	30.8	27.4	27.1	16.2	4.3	0.1	0.0	0.0	1.8	13.4	26.8	30.8	178.7	
MINIMUM <= 0	30	5.3	3.3	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.1	1.6	5.8	16.7	
H/C	NORMAL HEATING DEG. DAYS	30	1344	1114	915	635	368	126	16	24	219	602	1012	1373	7748
	NORMAL COOLING DEG. DAYS	30	0	0	0	0	5	64	208	168	27	0	0	0	472
RH	NORMAL (PERCENT)	30	66	63	56	52	51	44	40	39	45	52	62	65	53
	HOUR 05 LST	30	70	69	67	65	66	60	55	53	58	65	69	69	64
	HOUR 11 LST	30	62	58	50	45	43	38	34	33	39	46	57	62	47
	HOUR 17 LST	30	61	54	44	40	37	30	26	26	32	40	56	62	42
	HOUR 23 LST	30	69	66	60	57	55	47	42	42	48	57	66	68	56
S	PERCENT POSSIBLE SUNSHINE	50	65	68	70	66	64	72	75	75	72	67	58	61	68
W/O	MEAN NO. DAYS WITH: HEAVY FOG(VISBY <= 1/4 MI)	50	1.5	1.4	0.9	1.4	0.4	0.0	0.0	0.0	0.3	0.7	1.0	1.3	8.9
	THUNDERSTORMS	65	0.0	0.0	0.2	1.3	4.9	7.8	10.3	8.3	3.4	0.7	0.0	0.0	36.9
CLOUDINESS	MEAN: SUNRISE-SUNSET (OKTAS)	50	4.9	4.9	5.0	5.0	5.1	4.1	3.4	3.4	3.5	4.0	4.8	4.4	4.4
	MIDNIGHT-MIDNIGHT (OKTAS)	32	4.3	4.3	4.7	5.0	4.8	3.9	3.3	3.2	3.3	3.8	4.4	4.0	4.1
	MEAN NO. DAYS WITH: CLEAR	50	7.9	7.0	7.0	5.9	6.3	10.4	13.5	13.0	13.4	11.4	7.6	9.6	113.0
	PARTLY CLOUDY	50	9.9	9.6	9.9	10.1	10.7	10.8	11.3	11.6	8.6	9.1	9.7	9.6	120.9
	CLOUDY	50	13.2	11.7	14.1	14.0	13.8	8.8	5.7	5.9	7.6	9.9	12.3	11.8	128.8
PR	MEAN STATION PRESSURE(IN)	30	24.44	24.42	24.39	24.39	24.42	24.46	24.54	24.55	24.53	24.49	24.45	24.44	24.46
	MEAN SEA-LEVEL PRES. (IN)	30	30.13	30.07	29.96	29.89	29.87	29.85	29.90	29.92	29.96	30.01	30.07	30.13	29.98
WINDS	MEAN SPEED (MPH)	30	5.0	5.0	6.6	7.4	7.4	7.6	7.1	7.0	6.4	5.6	5.3	4.9	6.3
	PREVAIL.DIR(TENS OF DEGS)	38	25	25	25	25	25	25	25	25	25	25	25	25	25
	MAXIMUM 2-MINUTE: SPEED (MPH)	17	49	64	68	52	55	54	60	54	54	59	45	56	68
	DIR. (TENS OF DEGS)		23	26	23	24	18	24	22	18	16	22	25	25	23
	YEAR OF OCCURRENCE		2009	2003	1999	2008	2010	2011	2007	2010	2013	2007	2006	2008	MAR 1999
	MAXIMUM 3-SECOND SPEED (MPH)	17	73	77	84	69	70	71	74	66	69	74	67	76	84
	DIR. (TENS OF DEGS)		27	25	24	19	18	23	21	21	18	22	26	24	24
YEAR OF OCCURRENCE		2012	2003	1999	2006	2010	2011	2007	2010	2000	2007	2011	2008	MAR 1999	
PRECIPITATION	NORMAL (IN)	30	0.41	0.58	1.16	1.87	2.20	1.27	0.78	0.61	1.05	1.29	0.86	0.58	12.66
	MAXIMUM MONTHLY (IN)	67	1.65	2.18	3.44	6.44	6.79	6.88	2.50	2.38	4.68	4.90	3.37	2.02	6.88
	YEAR OF OCCURRENCE		1949	1955	1998	1999	2011	1947	1977	2004	1973	1994	1983	1997	JUN 1947
	MINIMUM MONTHLY (IN)	67	T	T	0.02	0.19	0.06	T	0.05	T	0.01	T	0.01	0.03	0.01
	YEAR OF OCCURRENCE		1952	2009	2004	2007	2006	1971	1963	1970	1992	1988	2009	1954	NOV 2009
	MAXIMUM IN 24 HOURS (IN)	67	0.81	0.95	1.28	2.22	3.21	3.56	2.13	2.25	2.21	1.87	1.38	1.25	3.56
	YEAR OF OCCURRENCE		1963	2004	1977	1999	2011	1947	1977	2004	1973	1994	1983	1985	JUN 1947
	NORMAL NO. DAYS WITH: PRECIPITATION >= 0.01	30	3.9	5.1	6.7	8.0	8.2	6.3	5.9	5.4	6.0	5.6	5.2	4.5	70.8
PRECIPITATION >= 1.00	30	0.0	0.0	0.1	0.2	0.4	0.3	0.0	0.0	0.1	0.2	0.0	0.0	1.3	
SNOWFALL	NORMAL (IN)	30	7.6	10.3	16.1	16.8	4.8	0.1	0.0	0.0	2.7	9.8	13.1	10.1	91.4
	MAXIMUM MONTHLY (IN)	66	26.5	43.8	52.0	70.4	33.9	18.4	T	T	32.9	39.9	48.7	34.6	70.4
	YEAR OF OCCURRENCE		1962	1955	1977	1999	1975	1947	1995	1992	1982	1971	1983	2007	APR 1999
	MAXIMUM IN 24 HOURS (IN)	66	13.8	21.0	20.3	28.6	20.8	18.4	T	T	16.9	19.4	23.1	20.5	28.6
	YEAR OF OCCURRENCE		1980	1987	1973	1999	1975	1947	1995	1992	1982	1966	1958	1985	APR 1999
	MAXIMUM SNOW DEPTH (IN)	54	23	23	27	26	18	9	0	0	13	22	21	28	28
	YEAR OF OCCURRENCE		1984	1984	1973	1973	1975	1951			1965	2008	1983	1985	DEC 1985
NORMAL NO. DAYS WITH: SNOWFALL >= 1.0	30	2.2	2.8	3.6	3.8	1.2	0.0	0.0	0.0	0.7	2.0	3.0	2.5	21.8	

PRECIPITATION (inches) 2013 LANDER (KLND)

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL
1984	0.95	1.16	0.80	3.61	0.27	1.48	1.54	1.21	1.04	0.58	0.48	0.07	13.19
1985	0.45	0.26	0.48	0.83	0.83	1.70	1.00	0.07	1.74	0.16	1.55	1.62	10.69
1986	0.30	1.04	0.49	2.15	1.79	0.27	0.89	0.64	0.44	2.83	1.10	0.22	12.16
1987	0.79	1.73	2.24	1.36	2.37	1.39	0.49	1.50	0.30	0.94	1.20	0.72	15.03
1988	0.05	0.37	1.38	0.93	1.95	0.20	0.33	0.66	0.91	T	0.13	0.72	7.63
1989	0.04	0.76	0.37	1.13	5.30	2.72	0.27	0.80	2.19	1.21	0.32	0.39	15.50
1990	0.02	0.12	1.55	1.90	0.42	0.36	1.88	0.39	1.50	0.75	2.27	0.41	11.57
1991	0.41	0.75	0.39	2.83	4.50	0.73	0.91	0.14	0.43	1.35	1.98	0.28	14.70
1992	0.51	0.17	1.95	0.21	3.27	1.39	2.22	0.57	0.01	0.49	1.61	0.82	13.22
1993	1.00	0.34	1.47	1.90	1.79	4.96	0.83	0.46	0.42	1.34	1.62	0.41	16.54
1994	1.10	0.24	1.22	1.76	0.07	0.31	0.12	0.47	0.47	4.90	1.00	0.26	11.92
1995	0.66	0.87	0.60	3.33	5.47	2.59	1.29	0.24	1.45	1.38	1.43	0.37	19.68
1996	0.67	0.55	1.62	0.65	2.51	0.39	.10	.08	2.23	1.28	1.15	.27	11.50
1997	0.67	0.69	0.92	2.39	2.22	1.00	1.16	0.82	1.21	0.94	0.61	2.02	14.65
1998	0.13	0.60	3.44	1.17	0.81	3.71	0.91	0.54	1.37	3.28	1.33	0.24	17.53
1999	0.10	0.65	0.71	6.44	0.97	1.09	0.11	0.58	2.01	0.65	0.03	0.15	13.49
2000	0.02	0.25	0.76	1.71	1.71	0.66	0.20	0.43	1.03	1.13	0.48	0.23	8.61
2001	0.14	0.54	0.42	1.07	0.50	0.19	0.07	0.45	1.29	0.09	0.45	0.17	5.38
2002	0.28	0.20	0.61	1.27	1.68	0.25	0.98	0.07	0.37	1.72	0.48	0.18	8.09
2003	0.32	1.10	0.95	0.88	1.28	1.70	0.43	0.74	1.06	0.91	0.07	0.82	10.26
2004	0.10	1.54	0.02	3.48	0.67	1.68	1.12	2.38	1.08	1.22	0.40	0.18	13.87
2005	0.80	0.05	0.94	1.66	4.34	0.31	0.36	0.54	0.41	1.88	0.41	0.39	12.09
2006	0.14	0.89	0.74	1.25	0.06	0.03	0.15	0.29	1.30	1.81	0.42	0.34	7.42
2007	0.67	0.18	1.70	0.19	1.93	0.63	0.77	0.78	0.66	0.94	0.17	1.77	10.39
2008	0.21	0.69	0.58	0.90	6.13	0.82	0.21	0.84	0.80	2.21	0.21	0.54	14.14
2009	0.24	T	2.03	3.61	0.64	3.22	1.85	0.69	0.71	2.41	0.01	0.79	16.20
2010	0.37	0.76	1.87	2.29	4.70	1.92	0.63	0.23	0.02	0.18	0.75	0.78	14.50
2011	0.59	1.39	0.28	1.10	6.79	0.55	0.07	0.13	0.66	1.90	0.99	0.97	15.42
2012	0.44	0.87	0.36	1.02	1.84	0.04	0.08	0.03	0.35	0.68	0.49	0.40	6.60
2013	0.70	1.28	0.42	3.14	1.98	0.05	0.28	0.01	3.78	3.08	0.13	0.69	15.54
POR= 66 YRS	0.48	0.62	1.11	2.00	2.49	1.33	0.72	0.51	1.03	1.28	0.79	0.55	12.91

WBAN : 24021

AVERAGE TEMPERATURE (°F) 2013 LANDER (KLND)

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL
1984	16.1	20.4	31.1	40.3	55.9	63.2	73.3	72.4	55.1	41.5	32.2	20.5	43.5
1985	16.2	24.5	36.0	48.3	59.1	65.4	73.7	67.1	53.2	45.4	17.8	16.1	43.6
1986	22.0	24.6	44.1	44.9	52.5	68.2	68.7	69.8	55.2	45.9	31.2	18.8	45.5
1987	16.9	28.1	32.2	50.7	57.5	65.9	70.3	66.7	60.7	48.5	30.2	20.6	45.7
1988	19.1	29.7	33.2	48.8	55.6	72.5	75.3	70.9	58.7	53.6	34.7	20.6	47.7
1989	24.8	10.5	38.5	47.5	53.8	61.4	74.0	68.0	58.5	46.0	35.3	22.0	45.0
1990	29.1	28.7	37.0	46.4	52.5	65.1	70.7	70.9	64.8	47.2	33.4	13.3	46.6
1991	18.9	33.9	37.6	41.5	52.2	64.3	72.2	71.5	60.0	46.4	26.7	20.8	45.5
1992	20.6	33.1	41.6	50.7	57.3	63.3	65.7	68.1	60.2	50.1	28.9	15.9	46.3
1993	11.4	11.0	33.3	43.6	55.8	58.7	64.7	66.1	57.2	45.7	24.6	24.3	41.4
1994	28.7	21.7	38.7	46.2	60.5	67.0	71.2	71.7	62.8	43.6	29.2	29.0	47.5
1995	20.3	31.3	37.2	41.7	48.7	59.5	69.0	71.8	59.3	43.7	38.0	27.6	45.7
1996	19.9	27.7	31.2	44.6	51.7	65.9	72.7	71.5	57.6	45.4	34.8	26.1	45.8
1997	22.0	26.5	37.2	37.3	54.1	63.9	68.6	68.8	60.4	45.3	31.2	15.4	44.2
1998	23.6	25.5	29.2	42.9	53.7	54.8	72.0	70.0	63.4	45.7	34.5	23.6	44.9
1999	29.4	31.9	39.2	37.3	50.7	60.3	70.7	70.7	55.0	48.1	41.3	29.3	47.0
2000	27.6	33.1	37.0	47.3	55.9	63.0	73.4	72.9	57.4	45.7	16.0	18.6	45.7
2001	18.0	18.6	36.1	45.8	56.4	65.9	74.4	72.9	63.1	47.1	35.5	21.6	46.3
2002	21.9	24.7	28.0	43.5	52.2	66.4	74.9	67.3	60.0	39.4	29.5	21.7	44.1
2003	28.3	18.1	36.6	47.7	54.4	60.6	76.0	73.5	56.8	50.4	24.4	25.3	46.0
2004	19.2	23.0	38.0	44.5	53.2	61.1	68.7	66.2	58.7	46.9	32.3	27.0	44.9
2005	23.7	30.3	37.1	44.2	52.2	61.6	74.2	68.1	60.5	48.4	35.4	20.9	46.4
2006	30.3	23.7	34.3	47.2	56.5	68.8	75.9	70.2	56.6	44.1	35.6	26.3	47.5
2007	14.5	29.9	42.2	45.0	54.7	66.9	75.7	71.7	59.5	47.8	35.6	15.8	46.6
2008	15.0	25.4	32.9	41.0	50.7	61.0	73.5	70.4	57.0	44.6	38.7	21.6	44.3
2009	28.0	31.8	33.2	41.7	55.3	58.4	68.6	67.1	62.6	37.2	36.0		
2010	17.3	21.6	36.4	42.6	46.8		70.7	69.8	62.1	51.8	32.7	26.5	
2011	22.7	18.6	37.1	41.8	47.9	60.9	73.3	72.7	61.9	49.2	32.3	16.6	44.6
2012	27.6	26.0	44.2	49.4	54.7	68.2	75.5	72.9	63.2	45.3	37.8	23.7	49.0
2013	18.5	23.4	36.1	38.1	54.9	66.7	74.2	73.2	60.5	40.5	33.3	20.1	45.0
POR= 66 YRS	20.5	25.4	34.0	43.3	53.0	62.8	71.2	69.5	58.9	46.3	31.5	22.3	44.9

HEATING DEGREE DAYS (base 65°F) 2013 LANDER (KLND)

YEAR	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	TOTAL
1984-85	0	0	316	721	977	1372	1507	1132	890	493	181	84	7673
1985-86	4	41	363	602	1413	1507	1329	1126	641	596	385	26	8033
1986-87	10	5	288	584	1006	1424	1486	1026	1008	425	239	46	7547
1987-88	14	50	146	501	1038	1372	1417	1018	981	481	296	15	7329
1988-89	1	7	217	347	905	1371	1239	1525	816	522	342	154	7446
1989-90	0	20	204	581	886	1329	1105	1011	860	552	382	123	7053
1990-91	22	0	95	545	939	1599	1422	865	844	696	391	62	7480
1991-92	7	1	179	572	1143	1361	1369	919	716	425	240	93	7025
1992-93	50	53	150	457	1075	1514	1658	1509	976	635	278	206	8561
1993-94	76	33	233	590	1205	1256	1117	1206	806	560	144	53	7279
1994-95	11	9	98	655	1066	1108	1380	938	853	692	496	189	7495
1995-96	14	0	219	653	801	1154	1389	1073	1038	605	407	37	7390
1996-97	0	1	255	602	900	1200	1326	1074	854	823	331	73	7439
1997-98	30	32	165	603	1007	1533	1279	1099	1103	658	339	303	8151
1998-99	1	2	126	592	905	1276	1096	920	790	827	436	150	7121
1999-00	6	4	296	516	703	1098	1152	917	861	525	283	99	6460
2000-01	0	7	249	590	1463	1433	1450	1294	890	569	264	97	8306
2001-02	0	0	113	549	878	1338	1326	1121	1142	641	401	79	7588
2002-03	1	28	188	788	1058	1334	1132	1308	876	512	354	151	7730
2003-04	0	21	258	447	1211	1224	1415	1212	830	608	362	137	7725
2004-05	28	55	209	554	973	1171	1274	966	858	616	390	168	7262
2005-06	4	35	177	507	881	1360	1069	1152	942	526	280	14	6947
2006-07	0	14	254	641	877	1192	1557	975	700	593	316	70	7189
2007-08	0	7	202	525	877	1520	1544	1143	987	715	441	158	8119
2008-09	2	18	235	627	784	1339	1141	923	977	694	304	211	7255
2009-10	20	44	123	855	861		1473	1207	881	665	558		
2010-11	25	24	100	404	960	1187	1304	1292	856	692	522	152	7518
2011-12	0	0	107	494	974	1491	1153	1124	636	464	319	45	6807
2012-13	0	2	85	602	810	1276	1438	1156	891	800	314	54	7428
2013-	0	0	192	753	943	1385							

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COOLING DEGREE DAYS (base 65°F) 2013 LANDER (KLND)

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
1984	0	0	0	0	13	87	264	237	26	0	0	0	627
1985	0	0	0	0	8	102	284	113	16	0	0	0	523
1986	0	0	0	0	6	131	131	159	1	0	0	0	428
1987	0	0	0	4	15	81	188	105	22	0	0	0	415
1988	0	0	0	0	9	248	329	196	33	0	0	0	815
1989	0	0	0	0	3	51	284	120	16	0	0	0	474
1990	0	0	0	0	0	133	204	189	97	0	0	0	623
1991	0	0	0	0	0	50	238	209	34	0	0	0	531
1992	0	0	0	2	10	49	79	154	13	0	0	0	307
1993	0	0	0	0	1	24	74	74	7	0	0	0	180
1994	0	0	0	0	10	121	211	223	37	0	0	0	602
1995	0	0	0	0	0	29	148	218	55	0	0	0	450
1996	0	0	0	0	1	74	248	210	40	1	0	0	574
1997	0	0	0	0	1	49	150	158	34	0	0	0	392
1998	0	0	0	0	0	3	226	164	86	0	0	0	479
1999	0	0	0	0	0	19	190	187	3	0	0	0	399
2000	0	0	0	0	9	46	264	259	30	0	0	0	608
2001	0	0	0	0	7	129	298	253	64	0	0	0	751
2002	0	0	0	0	13	129	316	105	43	0	0	0	606
2003	0	0	0	0	33	26	345	289	17	0	0	0	710
2004	0	0	0	0	5	23	147	101	26	0	0	0	302
2005	0	0	0	0	2	73	293	136	49	0	0	0	553
2006	0	0	0	0	23	135	344	182	10	0	0	0	694
2007	0	0	0	0	3	134	338	222	43	0	0	0	740
2008	0	0	0	0	5	44	271	193	2	0	0	0	515
2009	0	0	0	0	10	19	139	117	59	0	0		
2010	0	0	0	0	1		210	180	19	2	0	0	
2011	0	0	0	0	0	33	264	245	24	10	0	0	576
2012	0	0	0	1	8	148	332	254	36	0	0	0	779
2013	0	0	0	0	9	114	294	261	65	0	0	0	743

SNOWFALL (inches) 2013 LANDER (KLND)

YEAR	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	TOTAL
1984-85	0.0	0.0	3.5	10.4	8.7	2.3	9.1	4.7	8.6	8.4	0.0	0.0	55.7
1985-86	0.0	0.0	7.6	2.2	32.3	28.0	4.9	13.8	5.7	14.4	11.3	0.0	120.2
1986-87	0.0	0.0	0.0	11.9	17.5	5.3	14.1	32.7	26.7	17.5	T	0.0	125.7
1987-88	0.0	0.0	0.0	1.0	13.7	14.4	1.1	6.2	30.7	5.0	3.9	0.0	76.0
1988-89	0.0	0.0	0.4	0.0	3.2	13.3	0.6	14.3	6.7	11.1	T	0.0	49.6
1989-90	0.0	0.0	0.0	16.9	4.3	8.6	0.6	2.9	20.9	2.8	2.5	0.0	59.5
1990-91	T	T	0.0	6.9	28.5	6.5	6.6	10.3	2.2	36.9	4.8	T	102.7
1991-92	0.0	0.0	T	16.4	26.4	3.0	10.7	2.7	16.0	0.0	T	T	75.2
1992-93	0.0	T	0.0	3.4	27.5	16.1	17.1	5.5	13.1	16.8	0.0	0.5	100.0
1993-94	T	0.0	0.3	6.9	23.1	7.6	19.5	5.8	12.9	12.8	0.0	0.0	88.9
1994-95	0.0	0.0	T	20.2	11.9	6.5	8.7	13.8	4.8	28.1	9.7	2.6	106.3
1995-96	T	0.0	2.0	13.7	16.1	6.0	9.8	11.0	22.5	7.0	T	T	88.1
1996-97	0.0	0.0	4.2	12.6	16.9								
1997-98							2.2	9.1	40.0	7.7	T	2.7	
1998-99	0.0	0.0	0.0	10.6	11.8	7.1	1.8	3.2	14.7	70.4	1.5	0.0	121.1
1999-00	0.0	0.0	7.9	11.6	0.5	3.7	0.5	5.2	14.7	3.7	0.0	0.0	47.8
2000-01	0.0	0.0	9.8	3.0	16.5	5.2	2.5	12.8	5.3	7.0	8.4	0.0	70.5
2001-02	0.0	0.0	T	0.9	9.3	6.3	5.0	5.3	16.6	14.9	11.3	0.0	69.6
2002-03	0.0	0.0	0.0	23.4	8.0	4.0	4.8	21.8	20.1	0.4	3.9	0.0	86.4
2003-04	0.0	0.0	5.4	18.5	2.7	17.3	3.4	37.0	T	17.4	3.2	0.0	104.9
2004-05	0.0	0.0	0.0	9.7	20.1	2.6	16.5	0.5	15.1	23.4	0.3	0.0	88.2
2005-06	0.0	0.0	0.0	4.4	6.6	8.4	4.2	20.2	10.2	16.5	0.5	0.0	71.0
2006-07	0.0	0.0	0.0	10.5	2.5	4.5	15.3	3.4	29.7	T	9.4	T	75.3
2007-08	0.0	0.0	2.1	5.8	3.5	34.6	7.0	11.0	9.2	12.3	12.7	0.0	98.2
2008-09	0.0	0.0	0.0	30.2	0.1	10.5	6.7	T	34.3	33.1	T	0.0	114.9
2009-10	0.0	0.0	0.5	27.9	T	15.4	5.5	22.5	23.7		16.5	0.0	
2010-11	0.0	0.0	0.0	0.0	7.6	9.7	9.4	18.8	2.6	8.5	12.5	0.0	69.1
2011-12	0.0	0.0	0.0	4.0	9.9	15.2	8.3	14.3	7.5	4.1	0.6	0.0	63.9
2012-13	0.0	0.0	0.0	5.6	4.8	5.3	12.7	23.8	5.1	43.3	10.5	0.0	111.1
2013-	0.0	0.0	4.1	21.9	3.5	13.1							
POR= 65 YRS	T	T	2.3	9.9	12.5	10.2	8.8	11.5	17.0	19.2	6.4	0.6	98.4

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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. 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 CLEAR INDICATES 0 - 2 OKTAS, PARTLY CLOUDY INDICATES 3 - 6 OKTAS, AND CLOUDY INDICATES 7 OR 8 OKTAS.</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</p>	<p>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 STATION HISTORY INFORMATION GO TO "Historical Observing Metadata Repository", URL IS: http://www.ncdc.noaa.gov/homr/ 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 "Summary of the Day First Order Station" and "Cooperative Summary of the Day" archives.</p>
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2013 LANDER WYOMING (KLND)

Lander, located in the central Wyoming valley of the Popo Agie River, lies at the foot and east of the Wind River Range. Situated on a flat-topped mesa, the airport station is 1 1/2 miles south-southeast and approximately 200 feet above the town.

The terrain to the north, east and south varies from rolling to broken with some grass covered hills 2 to 5 miles distant, rising approximately 400 feet above the station elevation. To the west and southwest the foothills of the Wind River Range begin about 3 miles from the station, sloping upward to over 12,000 feet above sea level along the Continental Divide, 20 miles distant.

Because Lander is in a pocket, winds from all directions except northeast are downslope and produce a Chinook effect, most noticeable in winds from westerly quadrants. The airport, on its mesa, receives more wind than the town of Lander, the wind speed averaging 4.7 mph for the 56 years of record kept in the town. Because of light winds, steep temperature inversions are the rule during winter nights and early mornings. Temperatures in the valley will be as much as 15 degrees lower than at the airport on calm, clear nights when there is a snow cover. However, when the wind is calm and the humidities low, the chilling effect is much less than is usual in extreme cold. Winds are often so light that little or no mixing occurs between the cold surface air and the warmer layer 2,000 to 3,000 feet above the valley. For several days each winter, temperatures are 20 to 30 degrees lower than in the surrounding areas where higher wind speeds occur. The sheltered location, however, offers protection from most severe storms that sweep down from Canada.

Lander does not have a true spring season, and snow has been recorded in June.

Usually on 15 to 20 days a year the temperature reaches or exceeds 90 degrees. Even the warmest days are not oppressive, the humidity being low, and the nights being cool. The normal daily range of summer temperature is near 30 degrees.

Mountains block moisture from the Pacific, creating a semi-arid climate. The heaviest and most persistent precipitation comes when the wind in the lower levels is from easterly quadrants, through a combination of low pressure to the south, usually over Colorado, and high pressure to the north over Montana or the western Dakotas. Lander receives 45 percent more precipitation than the area 24 miles to the northeast and 83 percent more than areas 50 miles northeast. More than a third of the annual precipitation occurs in April and May, with another but lesser peak in September and October. Summer moisture comes from occasional showers but is very erratic and spotty. Since about one-third of the annual snowfall comes in March and April, when the temperature is comparatively high, the snow soon melts.

Hardier plants and vegetables do well in this area. Based on the 1951-1980 period, the average first occurrence of 32 degrees Fahrenheit in the fall is September 24 and the average last occurrence in the spring is May 22.

Station History

LANDER, WY

NAME	Begin Date	End Date	Latitude	Longitude	Elevation Feet	Relocation	Platform
LANDER HUNT FIELD AP	1948-01-01	1973-01-01	42° 49'	-108° 43'	5556		AIRWAYS, COOP
LANDER HUNT FIELD AP	1973-09-20	1995-10-01	42° 49'	-108° 43'	5557		COOP, WXSVC
LANDER HUNT FIELD AP	2011-12-01	Present	42° 48'	-108° 43'	5592		ASOS, COOP, WXSVC
LANDER HUNT FIELD AP	1946-06-01	1948-01-01	42° 49'	-108° 43'	5556		AIRWAYS
LANDER HUNT FIELD AP	1973-01-01	1973-09-20	42° 49'	-108° 43'	5556		COOP, WXSVC
LANDER HUNT FIELD AP	1995-10-01	1996-12-01	42° 49'	-108° 43'	5557		COOP, WXSVC
LANDER HUNT FIELD AP	1996-12-01	2011-12-01	42° 49'	-108° 43'	5557		ASOS, COOP, WXSVC

Element History

Element	Begin Date	End Date	Frequency	Time Of Observation	Equipment *	Equipment * Modifications	Equipment Exposure
TEMP	1986-05-01	1996-12-01	DAILY	2400	MXMN		
TEMP	2011-12-01	Present	DAILY	2400	ATEMP		
PRECIP	1946-05-28	1982-01-01	DAILY	2400	UNIV	RCRD	
PRECIP	1982-01-01	1986-05-01	HOURLY	2400	UNIV	RCRD	
TEMP	1982-01-01	1986-05-01	DAILY	2400			
PRECIP	2011-12-01	Present	DAILY	2400	AWPAG	RCRD;HTD	
PRECIP	1986-05-01	1996-12-01	DAILY	2400	UNIV	RCRD	
TEMP	1996-12-01	2011-12-01	DAILY	2400	HYGR		
PRECIP	1986-05-01	1996-12-01	HOURLY	2400	UNIV	RCRD	
PRECIP	1996-12-01	2011-12-01	DAILY	2400	TB	RCRD	
TEMP	1946-05-28	1982-01-01	DAILY	2400			
PRECIP	1996-12-01	2011-12-01	HOURLY	2400	TB	RCRD	
PRECIP	2011-12-01	Present	HOURLY	2400	AWPAG	RCRD;HTD	
PRECIP	1982-01-01	1986-05-01	DAILY	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

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