

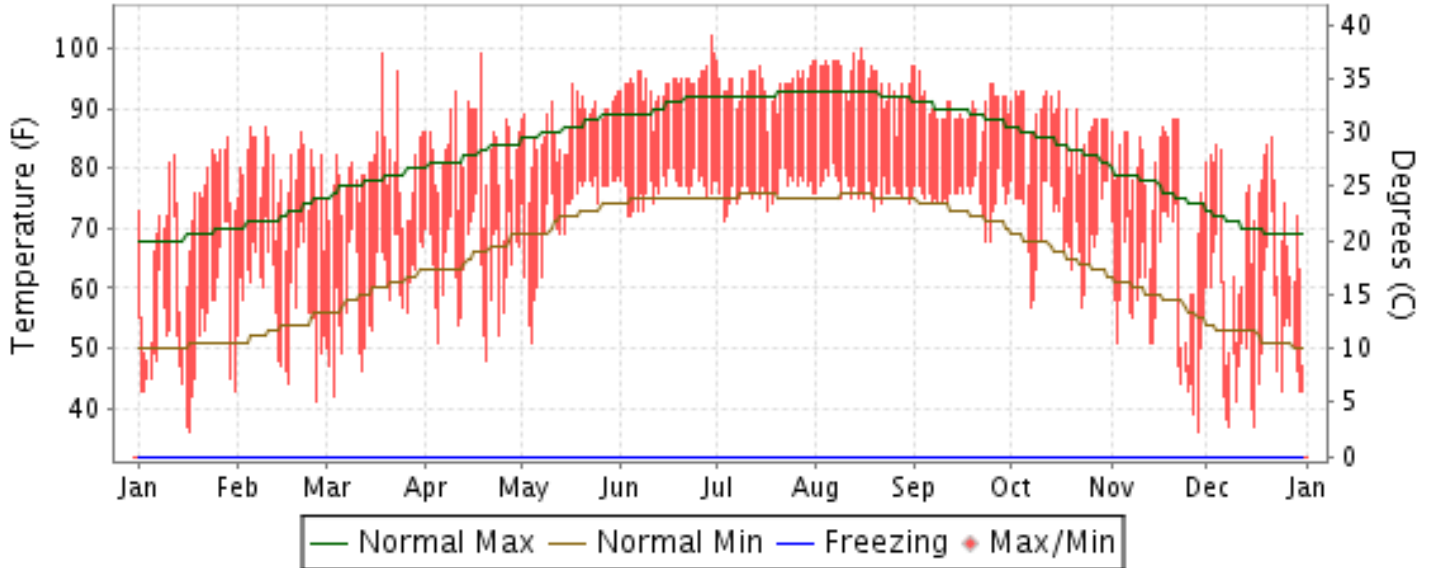


2013 LOCAL CLIMATOLOGICAL DATA ANNUAL SUMMARY WITH COMPARATIVE DATA

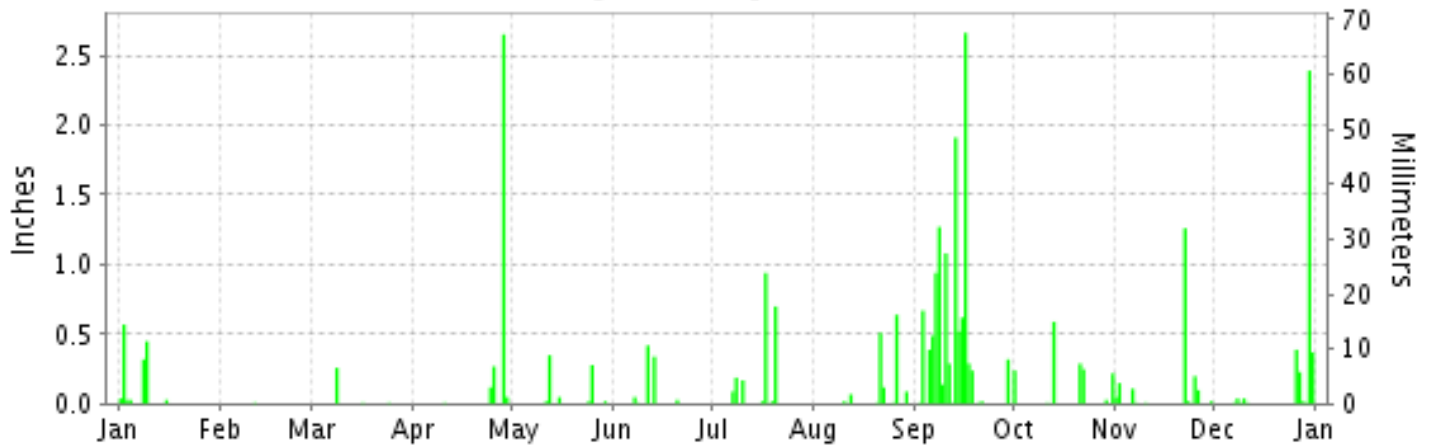
ISSN 0198-4942

BROWNSVILLE, TEXAS (KBRO)

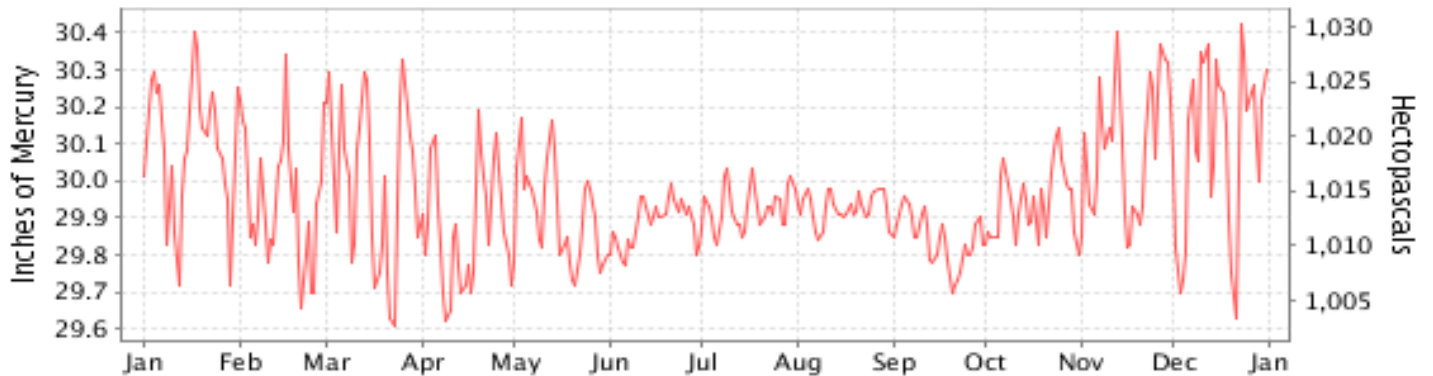
Daily Max/Min Temperature



Daily Precipitation



Daily Station Pressure



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NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION

NATIONAL ENVIRONMENTAL SATELLITE, DATA AND INFORMATION SERVICE

NATIONAL CLIMATIC DATA CENTER ASHEVILLE, NORTH CAROLINA

Thomas R. Karl
DIRECTOR
NATIONAL CLIMATIC DATA CENTER

METEOROLOGICAL DATA FOR 2013

BROWNSVILLE (KBRO)

LATITUDE:
25° 54'N

LONGITUDE:
97° 25'W

ELEVATION (FT):
GRND: 24 BARO: 24

TIME ZONE:
CENTRAL (UTC -6)

WBAN: 12919

ELEMENT		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	YEAR	
TEMPERATURE °F	MEAN DAILY MAXIMUM	70.7	79.2	79.7	83.4	87.4	94.4	94.1	95.3	90.2	87.6	76.1	69.3	84.0	
	HIGHEST DAILY MAXIMUM	85	87	99	99	94	102	98	100	97	93	88	85	102	
	DATE OF OCCURRENCE	29	10+	18	18	17	29	31+	15	01	16+	22+	21	JUN 29	
	MEAN DAILY MINIMUM	52.3	58.1	58.8	63.5	71.8	76.5	76.3	76.6	75.1	69.6	57.7	51.3	65.6	
	LOWEST DAILY MINIMUM	36	41	42	48	51	72	71	73	68	57	36	37	36	
	DATE OF OCCURRENCE	17	26	03	20	04	04+	03	19	24+	23+	28	16+	NOV 28	
	AVERAGE DRY BULB	61.5	68.7	69.3	73.4	79.6	85.5	85.2	85.9	82.7	78.6	66.9	60.3	74.8	
	MEAN WET BULB	56.7	62.4	61.5	67.7	72.6	77.6	77.3	77.7	77.2			55.5		
	MEAN DEW POINT	52.8	57.8	56.2	64.3	69.3	74.8	74.4	74.9	75.5			52.3		
	NUMBER OF DAYS WITH:														
	MAXIMUM >= 90°	0	0	2	7	13	29	29	30	17	13	0	0	0	140
MAXIMUM <= 32°	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
MINIMUM <= 32°	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
MINIMUM <= 0°	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
H/C	HEATING DEGREE DAYS	176	37	24	11	1	0	0	0	0	0	108	217	574	
	COOLING DEGREE DAYS	74	147	166	272	463	623	632	656	537	430	173	77	4250	
RH	MEAN (PERCENT)	78	74	69	77	76	76	75	75	84	76	79	79	77	
	HOUR 00 LST	87	83	79	88	88	90	88	88	93	85	89	86	87	
	HOUR 06 LST	87	87	82	90	89	95	95	95	96	90	91	87	90	
	HOUR 12 LST	63	55	51	56	59	54	58	54	70	57	62	68	59	
	HOUR 18 LST	74	65	61	72	70	66	64	64	78	70	77	76	70	
W/O	NUMBER OF DAYS WITH:														
	HEAVY FOG(VISBY <= 1/4 MI)	1	4	3	2	0	0	0	0	0	0	1	0	11	
	THUNDERSTORMS	0	0	0	1	2	0	3	1	7	1	2	0	17	
PR	MEAN STATION PRESS. (IN.)	30.10	29.95	30.01	29.88	29.91	29.89	29.93	29.93	29.85	29.94	30.09	30.10	29.97	
	MEAN SEA-LEVEL PRESS. (IN.)	30.12	29.97	30.03	29.90	29.93	29.91	29.95	29.95	29.87	29.97	30.12	30.12	29.99	
WINDS	RESULTANT SPEED (MPH)	0.9	4.4	6.8	7.2	9.9	9.4	8.5	5.7	3.4	4.2	2.7	1.1	4.7	
	RES. DIR. (TENS OF DEGS.)	10	12	13	13	14	14	14	13	09	13	36	33	13	
	MEAN SPEED (MPH)	10.7	10.3	11.6	12.3	13.0	10.8	10.1	8.0	6.8	8.2	8.6	9.4	10.0	
	PREVAIL.DIR.(TENS OF DEGS.)	33	16	15	15	15	14	15	14	13	14	33	34	15	
	MAXIMUM 2-MINUTE WIND														
	SPEED (MPH)	40	37	33	36	33	26	30	29	26	28	30	37	40	
	DIR. (TENS OF DEGS.)	17	15	15	17	14	14	17	16	09	16	32	18	17	
	DATE OF OCCURRENCE	29	20	09	09	29	25	07	06	15	30	26	21	JAN 29	
	MAXIMUM 3-SECOND WIND:														
SPEED (MPH)	49	44	45	41	41	41	37	38	41	39	38	48	49		
DIR. (TENS OF DEGS.)	19	16	17	12	14	15	17	15	09	04	32	17	19		
DATE OF OCCURRENCE	29	20	04	16	29	20	07	06	13	19	26	21	JAN 29		
PRECIPITATION	WATER EQUIVALENT:														
	TOTAL (IN.)	1.47	0.01	0.28	3.10	0.74	0.85	2.13	1.47	11.88	1.63	1.93	3.52	29.01	
	GREATEST 24-HOUR (IN.)	0.57	0.01	0.26	2.70	0.35	0.42	0.96	0.64	2.74	0.59	1.28	2.39	2.74	
	DATE OF OCCURRENCE	02	11	08	28-29	12	11	16-17	26	16-17	13	22-23	30	SEP 16-17	
	NUMBER OF DAYS WITH:														
PRECIPITATION 0.01	7	1	3	5	6	5	7	8	19	7	10	11	89		
PRECIPITATION 0.10	3	0	1	3	2	2	4	3	15	5	5	4	47		
PRECIPITATION 1.00	0	0	0	1	0	0	0	0	4	0	1	1	7		
SNOWFALL	SNOW,ICE PELLETS,HAIL														
	TOTAL (IN.)														
	GREATEST 24-HOUR (IN.)														
	DATE OF OCCURRENCE														
	MAXIMUM SNOW DEPTH (IN.)														
DATE OF OCCURRENCE															
NUMBER OF DAYS WITH:															
SNOWFALL >= 1.0															

NORMALS, MEANS, AND EXTREMES BROWNSVILLE (KBRO)

LATITUDE: 25° 54'N **LONGITUDE:** 97° 25'W **ELEVATION (FT):** GRND: 24 BARO: 24 **TIME ZONE:** CENTRAL (UTC -6) **WBAN: 12919**

	ELEMENT	POR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	YEAR
TEMPERATURE °F	NORMAL DAILY MAXIMUM	30	70.6	73.7	78.9	83.7	88.4	92.1	93.6	94.4	90.5	85.7	79.1	71.8	83.5
	MEAN DAILY MAXIMUM	90	70.5	71.4	78.3	82.8	87.8	90.6	92.5	93.8	89.6	85.3	77.1	71.0	82.6
	HIGHEST DAILY MAXIMUM	75	93	94	106	102	102	103	104	105	105	97	97	94	106
	YEAR OF OCCURRENCE		1971	1986	1984	1984	1999	2012	2003	2012	2000	2012	1988	1977	MAR 1984
	MEAN OF EXTREME MAXS.	90	83.1	86.1	90.5	93.4	94.1	95.6	96.8	97.8	96.0	91.9	88.3	84.4	91.5
	NORMAL DAILY MINIMUM	30	51.6	54.7	59.6	65.9	72.3	75.7	76.3	76.2	73.1	66.9	59.6	52.7	65.4
	MEAN DAILY MINIMUM	89	51.3	52.7	59.3	65.3	71.2	74.2	75.4	75.6	72.2	66.2	58.2	52.1	64.5
	LOWEST DAILY MINIMUM	75	19	22	32	38	51	60	68	63	55	35	31	16	16
	YEAR OF OCCURRENCE		1962	1951	1989	1980	2013	1975	1989	1967	1995	1993	1993	1989	DEC 1989
	MEAN OF EXTREME MINS.	90	34.1	37.5	41.7	50.9	60.7	68.5	72.0	71.5	63.9	52.2	41.8	35.5	52.5
	NORMAL DRY BULB	30	61.1	64.2	69.3	74.8	80.3	83.9	84.9	85.3	81.8	76.3	69.4	62.2	74.5
	MEAN DRY BULB	89	61.0	62.0	68.8	74.1	79.5	82.4	84.0	84.7	80.9	75.8	67.7	61.6	73.5
	MEAN WET BULB	30	55.7	58.5	62.2	67.6	72.9	75.9	76.4	76.5	74.4	69.1	62.8	57.0	67.4
	MEAN DEW POINT	30	54.4	57.0	60.6	66.3	71.8	74.8	75.0	75.2	73.2	67.8	61.3	55.5	66.1
	NORMAL NO. DAYS WITH: MAXIMUM >= 90	30	0.0	0.2	1.0	3.4	11.8	24.4	28.0	28.6	19.3	6.0	0.4	0.0	123.1
	MAXIMUM <= 32	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
MINIMUM <= 32	30	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	1.0	
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	
H/C	NORMAL HEATING DEG. DAYS	30	180	104	43	8	0	0	0	0	0	4	50	165	554
	NORMAL COOLING DEG. DAYS	30	59	82	174	302	476	567	618	629	504	354	180	80	4025
RH	NORMAL (PERCENT)	30	80	79	76	76	78	76	73	75	77	77	78	79	77
	HOURLY 00 LST	30	88	87	86	87	88	87	87	87	88	88	87	86	87
	HOURLY 06 LST	30	89	89	88	89	91	91	92	92	91	91	89	88	90
	HOURLY 12 LST	30	66	63	59	60	61	59	55	56	60	60	62	66	61
	HOURLY 18 LST	30	74	70	68	68	71	67	63	64	69	71	74	76	70
S	PERCENT POSSIBLE SUNSHINE	55	41	48	53	56	63	72	79	76	68	65	51	41	59
W/O	MEAN NO. DAYS WITH: HEAVY FOG (VISIBY <= 1/4 MI)	50	6.4	4.2	3.5	1.9	0.9	0.1	0.1	0.3	0.3	0.8	3.4	4.9	26.8
	THUNDERSTORMS	66	0.4	0.8	0.8	2.0	3.2	3.0	2.7	4.4	4.9	2.0	0.9	0.4	25.5
CLOUDINESS	MEAN: SUNRISE-SUNSET (OKTAS)							3.2							
	MIDNIGHT-MIDNIGHT (OKTAS)														
	MEAN NO. DAYS WITH: CLEAR	1	4.0	4.0	4.0		7.0	12.0	3.0	6.0	7.0	6.0		5.0	
	PARTLY CLOUDY	1	2.0	2.0	4.0		12.0	7.0	1.0	4.0	4.0	2.0		2.0	
	CLOUDY	1	3.0	3.0	9.0			1.0		2.0	2.0	2.0		7.0	
PR	MEAN STATION PRESSURE (IN)	30	30.09	30.03	29.96	29.90	29.87	29.88	29.94	29.92	29.91	29.96	30.03	30.07	29.96
	MEAN SEA-LEVEL PRES. (IN)	30	30.10	30.05	29.98	29.92	29.89	29.90	29.96	29.94	29.92	29.98	30.05	30.09	29.98
WINDS	MEAN SPEED (MPH)	30	10.1	11.3	12.1	12.5	12.3	10.9	10.7	9.2	7.9	8.7	9.5	9.8	10.4
	PREVAIL. DIR. (TENS OF DEGS)	38	17	16	15	16	15	15	16	15	15	16	16	34	16
	MAXIMUM 2-MINUTE: SPEED (MPH)	19	40	41	43	41	43	38	51	39	51	35	36	40	51
	DIR. (TENS OF DEGS)		17	16	17	13	32	05	26	03	30	03	18	15	26
	YEAR OF OCCURRENCE		2013	2008	2008	2006	2005	2010	2008	2003	1996	2011	2010	2006	JUL 2008
	MAXIMUM 3-SECOND SPEED (MPH)	19	51	51	52	52	56	48	68	54	69	60	47	48	69
	DIR. (TENS OF DEGS)		18	16	18	17	32	04	26	30	12	17	33	17	12
YEAR OF OCCURRENCE		2000	2008	2008	2000	2005	2010	2008	1999	2010	2002	2006	2013	SEP 2010	
PRECIPITATION	NORMAL (IN)	30	1.27	1.08	1.23	1.54	2.64	2.57	2.04	2.44	5.92	3.74	1.82	1.15	27.44
	MAXIMUM MONTHLY (IN)	74	5.11	10.25	5.94	10.35	9.12	13.06	13.24	9.56	20.18	17.12	7.69	9.45	20.18
	YEAR OF OCCURRENCE		1945	1958	1997	1991	1982	1942	2008	1975	1984	1958	1986	1940	SEP 1984
	MINIMUM MONTHLY (IN)	74	T	T	T	T	T	0.01	T	0.02	0.07	0.00	0.01	T	0.00
	YEAR OF OCCURRENCE		1956	1954	1986	2009	1978	1955	1993	1974	1959	2010	1949	1969	OCT 2010
	MAXIMUM IN 24 HOURS (IN)	74	3.00	4.98	5.38	9.37	4.56	8.18	6.68	5.48	12.19	6.67	4.08	5.69	12.19
	YEAR OF OCCURRENCE		1988	1958	2007	1991	1969	1942	2008	1980	1967	1996	1986	1940	SEP 1967
	NORMAL NO. DAYS WITH: PRECIPITATION >= 0.01	30	7.3	5.5	4.4	4.0	4.9	5.9	5.3	6.6	10.0	7.5	6.0	7.0	74.4
PRECIPITATION >= 1.00	30	0.3	0.2	0.3	0.3	1.0	0.6	0.6	0.7	1.7	1.0	0.5	0.2	7.4	
SNOWFALL	NORMAL (IN)	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
	MAXIMUM MONTHLY (IN)	63	T	T	T	0.0	0.0	0.0	0.0	T	0.0	0.0	T	T	T
	YEAR OF OCCURRENCE		1993	1973	1993					1992			1991	1966	MAR 1993
	MAXIMUM IN 24 HOURS (IN)	63	T	T	T	0.0	0.0	0.0	0.0	T	0.0	0.0	T	T	T
	YEAR OF OCCURRENCE		1993	1973	1993					1992			1991	1966	MAR 1993
	MAXIMUM SNOW DEPTH (IN)	44	T	T	0	0	0	0	0	0	0	0	0	T	T
YEAR OF OCCURRENCE		1985	1963									1983	1983	JAN 1985	
NORMAL NO. DAYS WITH: SNOWFALL >= 1.0	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	

PRECIPITATION (inches) 2013 BROWNSVILLE (KBRO)

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL
1984	4.79	0.42	0.13	T	6.18	2.44	1.59	1.80	20.18	0.93	0.02	1.85	40.33
1985	1.49	0.54	0.40	1.91	4.21	6.47	4.18	2.10	6.04	4.04	1.02	0.42	32.82
1986	1.07	0.21	T	0.87	2.89	3.72	0.35	2.14	1.71	4.61	7.69	2.42	27.68
1987	2.46	2.26	0.58	1.39	1.52	4.78	1.64	0.73	4.70	4.44	3.83	0.42	28.75
1988	3.97	1.53	1.42	T	0.25	2.86	1.00	2.56	7.48	1.80	0.14	0.07	23.08
1989	1.94	0.08	0.17	3.83	1.23	2.35	2.13	1.25	2.46	3.06	0.93	1.73	21.16
1990	0.58	0.56	0.81	1.55	2.72	1.08	1.53	2.87	3.90	2.29	0.91	0.05	18.85
1991	0.47	2.50	0.02	10.35	2.97	1.93	2.36	0.89	5.57	3.33	0.15	1.18	31.72
1992	3.50	1.99	0.12	4.15	5.55	1.50	0.40	3.71	3.62	0.85	5.61	0.85	31.85
1993	1.79	2.86	1.68	0.34	3.64	6.72	T	0.04	1.93	4.69	1.25	2.29	27.23
1994	2.01	0.44	1.84	0.71	1.25	3.32	0.15	3.39	4.09	3.91	1.42	1.59	24.12
1995	0.64	0.57	0.64	0.13	0.17	5.82	0.07	8.25	2.12	8.82	1.83	0.98	30.04
1996	0.06	0.15	T	0.50	0.08	0.01	0.65	5.77	8.57	11.49	0.66	0.77	28.71
1997	0.61	0.42	5.94	4.78	2.06	1.47	T	1.80	4.77	13.03	0.87	0.46	36.21
1998	0.37	1.72	0.62	0.04	T	0.30	T	1.36	7.82	3.59	3.72	0.29	19.83
1999	0.26	1.49	3.01	0.14	3.59	2.30	1.86	2.61	3.99	0.69	2.77	0.32	23.03
2000	0.85	0.19	2.89	0.39	1.87	0.85	0.28	4.29	0.66	2.71	0.41	1.10	16.49
2001	0.48	1.43	0.36	1.10	0.49	2.21	1.81	1.80	3.25	0.36	2.42	1.02	16.73
2002	0.09	0.98	0.22	0.64	1.96	1.88	0.84	1.87	6.04	8.31	4.22	1.24	28.29
2003	0.69	0.55	0.56	0.41	0.19	3.24	2.58	2.74	15.13	6.90	0.44	0.31	33.74
2004	1.84	0.79	3.63	2.85	5.37	3.19	0.38	2.35	4.05	1.98	1.82	1.46	29.71
2005	0.57	0.78	0.24	0.03	1.17	0.06	3.32	0.77	2.70	1.43	1.84	1.50	14.41
2006	0.68	0.14	0.42	0.05	3.46	0.24	1.90	2.89	3.67	5.02	1.16	2.04	21.67
2007	1.84	0.90	5.50	0.56	1.91	5.23	4.73	3.16	5.32	1.02	0.77	0.11	31.05
2008	1.34	0.04	0.28	3.35	0.61	0.62	13.24	2.61	9.57	3.26	2.98	0.47	38.37
2009	0.11	0.47	0.11	T	4.52	0.49	0.24	0.60	9.43	3.12	1.46	5.64	26.19
2010	0.61	4.08	0.90	1.53	2.99	7.62	5.14	0.92	12.63	0.00	0.13	0.01	36.56
2011	2.42	0.06	0.07	0.00	0.08	8.88	0.71	0.22	2.14	1.25	0.55	1.55	17.93
2012	0.34	4.24	0.51	0.26	1.14	3.85	2.17	3.85	3.76	0.80	0.16	0.32	21.40
2013	1.47	0.01	0.28	3.10	0.74	0.85	2.13	1.47	11.88	1.63	1.93	3.52	29.01
POR= 90 YRS	1.27	1.27	0.93	1.54	2.24	2.84	1.87	2.41	5.18	3.25	1.59	1.23	25.62

WBAN : 12919

AVERAGE TEMPERATURE (°F) 2013 BROWNSVILLE (KBRO)

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL
1984	55.9	62.4	69.7	76.3	79.3	82.8	84.2	84.5	79.4	79.3	68.8	70.3	74.4
1985	54.4	59.2	71.4	75.9	80.6	82.5	82.9	84.9	82.1	76.7	73.0	60.4	73.7
1986	61.0	65.9	69.0	77.0	79.4	83.1	84.8	84.8	84.4	76.3	66.7	60.2	74.4
1987	59.4	64.0	64.3	69.6	79.6	82.6	84.3	86.2	83.0	74.1	67.8	64.3	73.3
1988	55.6	61.4	66.9	73.4	78.3	81.8	85.7	84.5	80.8	76.0	72.3	64.0	73.4
1989	66.2	61.2	67.1	74.3	82.0	84.3	84.0	84.4	81.0	74.5	70.6	51.8	73.5
1990	65.1	67.0	70.2	75.5	81.0	85.4	84.5	85.4	81.3	74.9	70.8	61.8	75.2
1991	58.5	64.5	73.4	78.0	81.6	84.7	84.0	86.0	79.6	77.1	64.6	64.3	74.7
1992	58.0	65.5	70.3	72.8	76.8	84.1	85.4	84.3	82.0	76.4	66.4	64.7	73.9
1993	61.2	65.7	68.6	73.4	77.7	82.3	84.7	85.6	82.9	75.0	65.8	63.8	73.9
1994	62.6	63.6	68.1	74.1	79.9	84.1	85.7	83.1	79.7	76.3	73.9	65.7	74.7
1995	61.3	67.3	66.9	74.3	82.4	83.0	84.9	83.5	82.0	75.2	68.0	63.2	74.3
1996	60.8	63.7	65.2	72.1	82.7	84.7	86.3	84.7	81.6	76.0	69.5	64.1	74.3
1997	58.2	64.2	70.0	70.8	77.2	82.4	85.5	85.6	82.2	74.2	65.7	59.7	73.0
1998	65.3	64.5	67.9	72.1	81.5	87.3	87.1	86.5	82.9	76.8	72.2	62.0	75.5
1999	64.7	69.0	71.0	77.5	81.3	83.9	83.8	85.5	80.3	74.4	69.1	62.2	75.2
2000	66.1	70.4	74.4	75.7	82.5	84.3	85.7	84.0	82.7	74.8	68.6	57.2	75.5
2001	59.6	67.5	66.9	78.0	80.6	85.7	85.7	86.5	81.8	76.3	70.4	64.4	75.3
2002	63.8	59.7	69.5	79.1	81.6	84.5	84.7	86.4	82.6	78.3	66.2	63.0	75.0
2003	58.8	61.6	68.5	75.0	83.2	84.1	84.1	84.6	80.9	75.7	71.2	62.0	74.1
2004	62.7	62.2	72.4	74.7	79.3	84.4	86.3	86.3	81.9	80.4	71.8	62.4	75.4
2005	66.7	66.3	69.5	74.2	79.6	85.2	86.0	86.8	84.8	77.3	70.6	62.5	75.8
2006	65.1	64.4	74.0	79.8	81.8	83.2	85.0	86.4	82.4	76.8	70.7	62.3	76.0
2007	57.0	64.0	71.6	71.9	78.9	83.1	84.5	85.2	82.4	76.9	70.4	66.0	74.3
2008	61.4	68.9	70.2	75.6	80.5	85.1	82.6	85.2	80.0	74.6	69.1	63.4	74.7
2009	63.7	69.2	69.5	75.6	81.3	84.2	87.0	86.2	82.1	77.8	68.3	57.6	75.2
2010	60.6	59.1	66.2	75.3	82.4	85.6	84.9	87.1	82.7	76.7	70.0	65.1	74.6
2011	62.2	62.7	73.1	80.5	82.7	85.3	85.0	87.3	84.2	76.1	70.3	62.9	76.0
2012	66.4	66.2	72.6	79.1	82.8	86.2	85.5	86.6	83.4	78.3	72.4	67.5	77.3
2013	61.5	68.7	69.3	73.4	79.6	85.5	85.2	85.9	82.7	78.6	66.9	60.3	74.8
POR= 89 YRS	61.0	62.0	68.8	74.1	79.5	82.4	84.0	84.7	80.9	75.8	67.7	61.6	73.5

HEATING DEGREE DAYS (base 65°F) 2013 BROWNSVILLE (KBRO)

YEAR	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	TOTAL
1984-85	0	0	0	2	51	55	349	213	21	0	0	0	691
1985-86	0	0	0	1	21	184	153	97	25	0	0	0	481
1986-87	0	0	0	12	117	177	192	79	80	36	0	0	693
1987-88	0	0	0	0	53	119	298	170	65	4	0	0	709
1988-89	0	0	0	0	21	123	100	206	104	9	0	0	563
1989-90	0	0	0	16	43	415	95	45	25	2	2	0	643
1990-91	0	0	0	3	26	194	217	69	5	0	0	0	514
1991-92	0	0	1	0	121	134	223	63	26	10	0	0	578
1992-93	0	0	0	0	82	93	152	58	48	1	0	0	434
1993-94	0	0	0	36	110	134	130	115	44	7	2	0	578
1994-95	0	0	0	1	4	89	173	43	90	4	0	0	404
1995-96	0	0	0	0	44	175	177	158	122	23	0	0	699
1996-97	0	0	0	1	44	135	287	90	19	28	0	0	604
1997-98	0	0	0	6	83	196	75	53	56	3	0	0	472
1998-99	0	0	0	0	7	193	111	43	9	3	0	0	366
1999-00	0	0	0	13	31	133	96	27	1	2	0	0	303
2000-01	0	0	0	54	66	262	199	77	38	0	0	0	696
2001-02	0	0	0	0	46	116	143	179	56	0	0	0	540
2002-03	0	0	0	0	63	119	206	153	28	9	0	0	578
2003-04	0	0	0	8	44	142	142	129	1	6	0	0	472
2004-05	0	0	0	0	14	156	76	80	19	2	0	0	347
2005-06	0	0	0	0	28	141	86	105	23	0	0	0	383
2006-07	0	0	0	0	20	144	278	99	33	44	0	0	618
2007-08	0	0	0	0	57	86	170	37	33	0	0	0	383
2008-09	0	0	0	2	40	143	112	36	62	7	0	0	402
2009-10	0	0	0	0	19	252	180	173	48	0	0	0	672
2010-11	0	0	0	0	31	99	126	200	11	0	0	0	467
2011-12	0	0	0	1	38	143	67	81	22	0	0	0	352
2012-13	0	0	0	2	1	77	176	37	24	11	1	0	329
2013-	0	0	0	0	108	217							

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COOLING DEGREE DAYS (base 65°F) 2013 BROWNSVILLE (KBRO)

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
1984	24	70	190	349	451	541	604	611	441	451	175	224	4131
1985	28	57	226	334	492	533	560	623	518	370	269	47	4057
1986	36	126	155	367	453	550	620	620	584	367	174	39	4091
1987	26	58	65	181	457	533	605	663	544	289	144	105	3670
1988	15	73	131	263	416	512	649	612	481	349	245	99	3845
1989	145	108	176	296	534	586	599	607	490	318	218	12	4089
1990	105	107	194	324	503	619	612	641	494	318	209	100	4226
1991	23	62	273	395	522	599	599	657	446	383	117	120	4196
1992	13	81	198	249	375	579	640	603	518	361	129	89	3835
1993	44	82	166	260	401	522	620	647	543	349	142	103	3879
1994	61	80	149	289	471	581	646	568	446	360	278	114	4043
1995	66	115	158	292	549	551	626	582	519	324	143	128	4053
1996	54	129	134	240	553	596	668	621	507	349	187	110	4148
1997	84	74	178	209	388	530	647	643	523	297	111	40	3724
1998	88	44	151	223	518	673	692	674	545	372	229	107	4316
1999	110	159	200	383	513	573	588	642	465	312	159	58	4162
2000	137	189	300	330	549	585	649	597	535	363	179	27	4440
2001	38	153	106	399	487	630	644	675	511	356	216	103	4318
2002	115	35	203	429	518	590	618	672	537	420	109	64	4310
2003	21	65	143	317	572	582	597	612	485	347	236	55	4032
2004	75	56	236	300	451	588	668	667	513	486	225	82	4347
2005	138	122	166	284	460	614	657	682	600	390	203	69	4385
2006	95	94	308	453	525	553	626	626	529	370	196	69	4444
2007	37	79	244	260	438	548	609	636	531	376	227	127	4112
2008	65	153	204	326	488	606	554	635	457	305	168	98	4059
2009	79	161	208	332	514	582	687	664	517	400	124	30	4298
2010	51	12	91	315	545	628	625	695	538	372	187	107	4166
2011	45	145	267	472	555	614	627	696	586	349	205	85	4646
2012	117	123	265	432	558	642	640	676	559	421	227	161	4821
2013	74	147	166	272	463	623	632	656	537	430	173	77	4250

SNOWFALL (inches) 2013 BROWNSVILLE (KBRO)

YEAR	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	TOTAL
1980-81	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
1981-82	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
1982-83	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
1983-84	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
1984-85	0.0	0.0	0.0	0.0	0.0	0.0	T	0.0	0.0	0.0	0.0	0.0	T
1985-86	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
1986-87	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
1987-88	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
1988-89	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
1989-90	0.0	0.0	0.0	0.0	0.0	0.0	T	0.0	0.0	0.0	0.0	0.0	T
1990-91	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
1991-92	0.0	0.0	0.0	0.0	T	0.0	0.0	0.0	0.0	0.0	0.0	0.0	T
1992-93	0.0	T	0.0	0.0	0.0	0.0	T	0.0	T	0.0	0.0	0.0	T
1993-94	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
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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1996-97	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
1997-98	0.0	0.0	0.0	0.0	0.0	T	0.0	0.0	0.0	0.0	0.0	0.0	T
1998-99	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
1999-00	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
2000-01	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
2001-02	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
2002-03	0.0	0.0	0.0	0.0	0.0	0.0							
2003-04													
2004-05													
2005-06													
2006-07													
2007-08													
2008-09													
2009-10													
POR= 79 YRS	0.0	T	0.0	0.0	T	T	T	0.0	T	0.0	0.0	0.0	T

WBAN : 12919

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 BROWNSVILLE TEXAS (KBRO)

Brownsville is located at the southern tip of Texas. It is the largest city in the four county area referred to as the Lower Rio Grande Valley or just the Valley.

The Gulf of Mexico, located about 18 miles east, is the dominant influence on local weather. Prevailing southeast breezes off the Gulf provide a humid but generally mild climate. Winds are frequently strong and gusty in the spring.

Brownsville weather is generally favorable for outdoor activities and the Valley is a popular tourist area, especially for Winter Texans who come to enjoy the mild winters. High temperatures range mostly in the 70s and 80s from October through April, with lows in the 50s and 60s during the same period. For the remainder of the year highs are frequently in the 90s with lows in the 70s.

Temperature extremes are rare but do occur. Temperatures in the 90s have occurred in every month of the year, with 100 degree readings noted as early as March and as late as September. Temperatures of 100 degrees or more are associated with west winds bringing hot dry air out of Mexico. Very hot temperatures are often moderated by a cooling sea breeze from the Gulf during the afternoon hours.

Located about 150 miles north of the tropics, cold weather in Brownsville is infrequent and of short duration. Some winters pass without a single day with freezing temperatures. This climate permits

year around gardening and cultivation of citrus and other cold sensitive tropical and sub-tropical plants. Damaging cold comes from frigid air masses, called northers or arctic outbreaks, plunging south from Canada or the Arctic. The worst of these can drop temperatures well below freezing for several hours, and a few have produced readings in the teens. Fortunately such events are very rare since they are disastrous to the local economy.

Rainfall is not well distributed. Heaviest rains occur in May through June and mid August through mid October. Extended periods of cool rainy weather, called overrunning, can occur in winter. Torrential rains of 10 to 20 inches or more may accompany tropical storms or hurricanes that occasionally move over the area in summer or fall. Rainy spells may be followed by long dry periods. Irrigation is required to ensure production of crops such as cotton, grains, and vegetables. Snow and freezing rain or drizzle are so rare that years may pass between occurrences.

Brownsville is blessed by having little severe weather. Damaging hail or winds from heavy thunderstorms are generally limited to the Spring season and many years may elapse between occurrences. Tornadoes are even more rare. Tropical storms and hurricanes from the Gulf are a threat each summer and fall, but again, damaging storms are quite rare.

Station History

BROWNSVILLE, TX

NAME	Begin Date	End Date	Latitude	Longitude	Elevation Feet	Relocation	Platform
BROWNSVILLE MUNICIPAL AP	1930-08-02	1938-11-16	25° 55'	-97° 28'			AIRWAYS
BROWNSVILLE RIO GRANDE VALLEY INTL AP	1972-01-01	1981-12-31	25° 55'	-97° 28'	19		COOP,UPPERAIR,WXSVC
RIO GRANDE VALLEY AP	1928-10-01	1930-08-02	25° 55'	-97° 28'			AIRWAYS
BROWNSVILLE RIO GRANDE VALLEY INTL AP	1940-08-01	1946-08-01	25° 55'	-97° 28'			AIRWAYS,UPPERAIR
BROWNSVILLE RIO GRANDE VALLEY INTL AP	1946-08-01	1969-01-01	25° 55'	-97° 28'	33		AIRWAYS,COOP,UPPERAIR
BROWNSVILLE S PADRE ISLAND INTL AP	1995-03-01	2003-12-29	25° 54'	-97° 25'	24		ASOS,COOP,UPPERAIR
BROWNSVILLE S PADRE ISLAND INTL AP	2003-12-29	Present	25° 54'	-97° 25'	24		AIRWAYS,ASOS,COOP,UPPERAIR
BROWNSVILLE RIO GRANDE VALLEY INTL AP	1969-01-01	1972-01-01	25° 55'	-97° 28'	33		COOP,UPPERAIR,WXSVC
BROWNSVILLE RIO GRANDE VALLEY INTL AP	1938-11-16	1940-08-01	25° 55'	-97° 28'			AIRWAYS
BROWNSVILLE RIO GRANDE VALLEY INTL AP	1981-12-31	1994-05-01	25° 55'	-97° 28'	19		COOP,UPPERAIR
BROWNSVILLE S PADRE ISLAND INTL AP	1994-05-01	1995-03-01	25° 54'	-97° 25'	24	.5 MI W	ASOS,COOP,UPPERAIR

Element History

Element	Begin Date	End Date	Frequency	Time Of Observation	Equipment *	Equipment * Modifications	Equipment Exposure
PRECIP	1988-04-26	1994-05-01	HOURLY	2400	UNIV	RCRD	
PRECIP	1928-10-01	1963-09-01	DAILY	2400	UNIV	RCRD	
PRECIP	1994-05-01	Present	DAILY	2400	TB	RCRD	
TEMP	1988-04-26	1994-05-01	DAILY	2400	HYGR		
TEMP	1928-10-01	1963-09-01	DAILY	2400			
TEMP	1963-09-01	1988-04-26	DAILY	2400			
PRECIP	1963-09-01	1988-04-26	DAILY	2400	UNIV	RCRD	
PRECIP	1988-04-26	1994-05-01	DAILY	2400	UNIV	RCRD	
PRECIP	1994-05-01	Present	HOURLY	2400	TB	RCRD	
PRECIP	1963-09-01	1988-04-26	HOURLY	2400	UNIV	RCRD	
TEMP	1994-05-01	Present	DAILY	2400	HYGR		

* 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.orders@noaa.gov

NOAA/National Climatic Data Center

Attn: User Engagement & Services Branch

151 Patton Avenue

Asheville, NC 28801-5001

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