

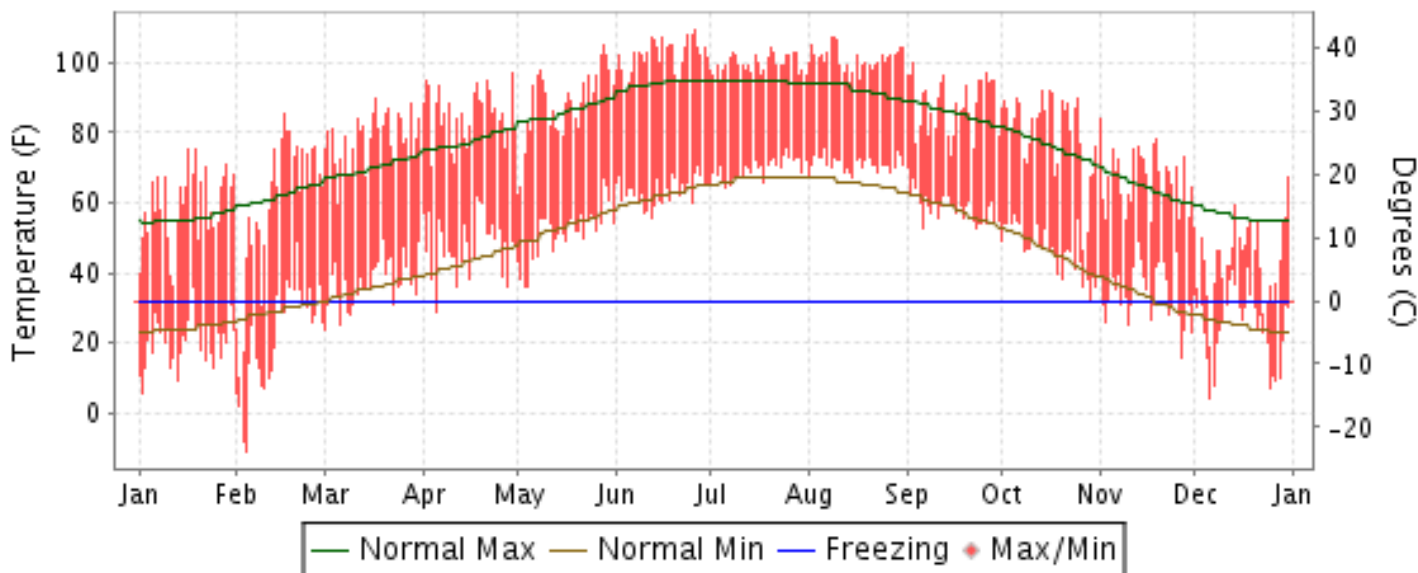


# 2011 LOCAL CLIMATOLOGICAL DATA ANNUAL SUMMARY WITH COMPARATIVE DATA

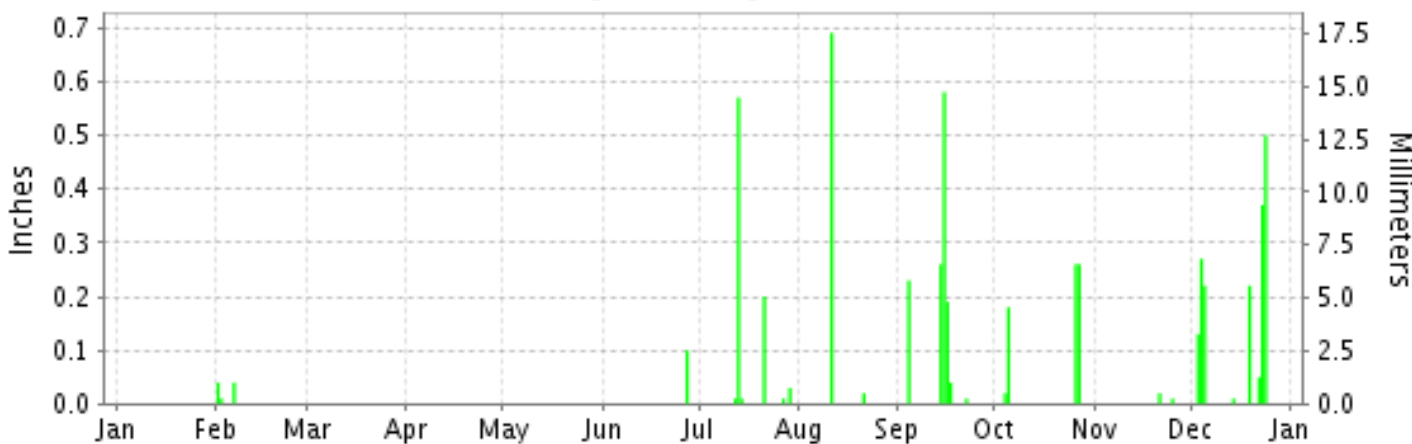
ISSN 0198-3512

## ROSWELL, NEW MEXICO (KROW)

### Daily Max/Min Temperature



### Daily Precipitation



### Daily Station Pressure



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CLIMATIC DATA CENTER  
ASHEVILLE, NORTH CAROLINA

*Thomas R. Karl*  
DIRECTOR  
NATIONAL CLIMATIC DATA CENTER

# METEOROLOGICAL DATA FOR 2011

## ROSWELL (KROW)

LATITUDE: 33° 18'N      LONGITUDE: -104° 30'W      ELEVATION (FT): GRND: 3649 BARO: 3652      TIME ZONE: MOUNTAIN (UTC -7)      WBAN: 23009

ELEMENT		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	YEAR	
TEMPERATURE °F	MEAN DAILY MAXIMUM	59.1	59.9	78.2	85.1	88.1	102.0	99.5	100.9	88.1	80.1	66.9	44.1	79.3	
	HIGHEST DAILY MAXIMUM	75	85	90	97	105	109	104	107	100	92	84	67	109	
	DATE OF OCCURRENCE	19+	16	17	29	28	26	20	09+	03	16+	01	31	JUN 26	
	MEAN DAILY MINIMUM	20.2	21.9	37.5	48.2	51.8	63.5	69.9	71.3	58.8	46.7	34.0	24.9	45.7	
	LOWEST DAILY MINIMUM	6	-11	24	29	36	56	64	67	53	32	16	4	-11	
	DATE OF OCCURRENCE	02	04	01	05	04+	12	06	15+	23+	29	27	06	FEB 04	
	AVERAGE DRY BULB	39.7	40.9	57.9	66.7	70.0	82.8	84.7	86.1	73.5	63.4	50.5	34.5	62.6	
	MEAN WET BULB	29.7	30.5	41.5	45.4	48.6	57.8	65.3	65.5	57.7	49.3	39.4	31.8	46.9	
	MEAN DEW POINT	13.3	13.9	18.0	16.3	21.3	33.9	53.4	53.6	45.6	35.6	25.5	28.0	29.9	
	NUMBER OF DAYS WITH:														
	MAXIMUM >= 90°	0	0	1	8	15	30	31	31	15	5	0	0	136	
	MAXIMUM <= 32°	0	4	0	0	0	0	0	0	0	0	0	4	8	
	MINIMUM <= 32°	30	20	7	1	0	0	0	0	0	1	15	25	99	
MINIMUM <= 0°	0	2	0	0	0	0	0	0	0	0	0	0	2		
H/C	HEATING DEGREE DAYS	779	669	218	55	41	0	0	0	0	121	426	937	3246	
	COOLING DEGREE DAYS	0	0	5	110	202	541	617	661	261	78	0	0	2475	
RH	MEAN (PERCENT)	39	42	26	17	20	21	38	37	43	43	42	80	37	
	HOUR 05 LST	57	57	45	30	34	36	56	57	62	64	60	86	54	
	HOUR 11 LST	25	30	18	11	13	14	25	24	30	30	29	70	27	
	HOUR 17 LST	29	31	12	8	10	10	25	24	31	30	32	77	27	
	HOUR 23 LST	46	48	29	20	23	24	46	44	51	52	48	85	43	
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	7	7	
	THUNDERSTORMS	0	0	0	0	0	1	0	6	3	1	0	0	11	
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.)	26.28	26.27	26.20	26.10	26.14	26.15	26.23	26.23	26.33	26.30	26.30	26.37	26.24	
	MEAN SEA-LEVEL PRESS. (IN.)	30.02	30.02	29.85	29.70	29.73	29.70	29.78	29.78	29.93	29.95	29.99	30.15	29.88	
WINDS	RESULTANT SPEED (MPH)	1.8	1.7	1.8	5.1	4.4	5.9	5.1	2.1	1.1	1.1	1.8	1.7	1.7	
	RES. DIR. (TENS OF DEGS.)	34	26	25	25	22	19	15	16	13	20	26	36	22	
	MEAN SPEED (MPH)	6.8	8.5	8.5	11.6	10.7	10.7	8.0	6.9	7.3	7.1	7.5	5.8	8.3	
	PREVAIL.DIR.(TENS OF DEGS.)	01	01	17	22	21	16	16	16	14	16	17	36	16	
	MAXIMUM 2-MINUTE WIND														
	SPEED (MPH)	35	48	39	41	39	43	43	43	36	37	46	33	48	
	DIR. (TENS OF DEGS.)	01	24	20	20	23	09	25	01	07	32	24	01	24	
	DATE OF OCCURRENCE	24	27	21	09	29	27	13	11	29	17	05	19	FEB 27	
	MAXIMUM 3-SECOND WIND:														
	SPEED (MPH)	43	63	49	53	51	60	51	60	59	61	58	39	63	
DIR. (TENS OF DEGS.)	01	25	35	22	24	09	26	02	07	30	23	01	25		
DATE OF OCCURRENCE	24	27	04	09	29	27	13	11	29	17	05	19	FEB 27		
PRECIPITATION	WATER EQUIVALENT:														
	TOTAL (IN.)	T	0.09	0.00	0.00	T	0.10	0.83	0.71	1.31	0.72	0.03	1.77		
	GREATEST 24-HOUR (IN.)	T	0.05	0.00	0.00	T	0.10	0.58	0.69	0.67	0.52	0.02	0.75		
	DATE OF OCCURRENCE	31	01-02			31	27	12-13	11	14-15	26-27	21	23-24		
	NUMBER OF DAYS WITH:														
	PRECIPITATION 0.01	0	3	0	0	0	1	6	2	6	4	2	8		
PRECIPITATION 0.10	0	0	0	0	0	1	2	1	4	3	0	6			
PRECIPITATION 1.00	0	0	0	0	0	0	0	0	0	0	0	0			
SNOWFALL	SNOW,ICE PELLETS,HAIL														
	TOTAL (IN.)	T	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	T	0.0	15.5	18.0	
	GREATEST 24-HOUR (IN.)	T	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	T	0.0	4.8	4.8	
	DATE OF OCCURRENCE	31	02								27		23	DEC 23	
	MAXIMUM SNOW DEPTH (IN.)	0	1	0	0	0	0	0	0	0	0	0	8	8	
	DATE OF OCCURRENCE		04+										25+	DEC 25+	
NUMBER OF DAYS WITH:															
SNOWFALL >= 1.0	0	2	0	0	0	0	0	0	0	0	0	3	5		

# NORMALS, MEANS, AND EXTREMES ROSWELL (KROW)

LATITUDE: 33° 18'N      LONGITUDE: -104° 30'W      ELEVATION (FT): GRND: 3649 BARO: 3652      TIME ZONE: MOUNTAIN (UTC -7)      WBAN: 23009

	ELEMENT	POR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	YEAR
TEMPERATURE °F	NORMAL DAILY MAXIMUM	30	55.6	62.0	70.0	77.7	86.0	94.0	94.8	92.3	85.7	76.5	64.5	56.3	76.3
	MEAN DAILY MAXIMUM	58	54.9	60.5	68.2	76.8	85.5	93.6	94.1	92.2	85.7	76.3	64.2	55.5	75.6
	HIGHEST DAILY MAXIMUM	39	82	87	93	99	107	114	111	107	103	99	88	83	114
	YEAR OF OCCURRENCE		1975	2006	1989	1989	2000	1994	1995	2011	2000	2000	1996	2008	JUN 1994
	MEAN OF EXTREME MAXS.	64	74.1	78.6	84.3	91.1	98.0	103.9	102.4	100.4	96.9	90.6	80.9	73.8	89.6
	NORMAL DAILY MINIMUM	30	24.4	29.3	35.7	43.3	53.2	62.0	66.7	65.5	58.3	46.3	33.3	25.1	45.3
	MEAN DAILY MINIMUM	58	26.2	30.7	37.3	45.6	55.2	64.0	68.1	66.7	59.4	47.3	34.8	27.0	46.9
	LOWEST DAILY MINIMUM	39	-9	-11	9	23	34	47	0	54	40	14	4	-8	-11
	YEAR OF OCCURRENCE		1979	2011	2002	1973	1975	1992	1997	2010	2000	1991	1976	1978	FEB 2011
	MEAN OF EXTREME MINS.	64	10.4	14.8	22.7	31.2	42.8	54.4	62.4	60.4	48.6	34.2	19.9	12.4	34.5
	NORMAL DRY BULB	30	40.0	45.7	52.9	60.5	69.6	78.0	80.8	78.9	72.0	61.4	48.9	40.7	60.8
	MEAN DRY BULB	63	40.6	45.5	52.6	61.2	70.2	78.7	81.0	79.2	72.3	61.5	49.2	41.1	61.1
	MEAN WET BULB	28	30.0	32.9	37.6	41.9	50.7	58.2	63.6	63.7	58.0	48.1	36.9	31.1	46.1
	MEAN DEW POINT	28	25.0	27.0	30.2	33.7	42.9	52.4	58.1	59.4	53.1	42.8	31.2	24.7	40.0
	NORMAL NO. DAYS WITH: MAXIMUM >= 90	30	0.0	0.0	0.2	1.5	9.9	21.4	25.3	22.6	10.5	1.9	0.0	0.0	93.3
	MAXIMUM <= 32	30	1.8	0.8	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	1.7	4.7
	MINIMUM <= 32	30	25.1	16.4	7.5	1.9	0.0	0.0	0.0	0.0	0.0	1.1	12.3	24.2	88.5
MINIMUM <= 0	30	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.3	
H/C	NORMAL HEATING DEG. DAYS	30	775	542	378	182	51	2	0	0	18	144	485	755	3332
	NORMAL COOLING DEG. DAYS	30	0	0	1	47	194	391	488	431	228	32	2	0	1814
RH	NORMAL (PERCENT)	30	57	50	42	37	40	44	48	53	55	53	52	56	49
	HOURLY 05 LST	30	71	66	58	54	59	65	69	74	75	70	68	68	66
	HOURLY 11 LST	30	50	44	34	30	33	35	40	44	47	43	44	48	41
	HOURLY 17 LST	30	41	33	26	22	24	27	32	36	39	36	38	41	33
	HOURLY 23 LST	30	62	55	45	41	44	48	54	60	62	59	59	61	54
S	PERCENT POSSIBLE SUNSHINE	7	60	68	75	77	80	83	77	73	72	77	73	71	74
W/O	MEAN NO. DAYS WITH: HEAVY FOG(VISBY <= 1/4 MI)	43	2.4	1.8	0.6	0.2	0.4	0.1	0.1	0.1	0.6	1.7	1.7	1.9	11.6
	THUNDERSTORMS	58	0.1	0.1	0.7	1.5	3.7	5.3	6.6	6.5	3.5	1.5	0.4	0.1	30.0
CLOUDINESS	MEAN: SUNRISE-SUNSET (OKTAS) MIDNIGHT-MIDNIGHT (OKTAS)														
	MEAN NO. DAYS WITH: CLEAR	9	11.3	12.1	14.2	14.3	13.4	17.2	11.1	12.8	12.8	18.1	15.8	14.9	168.0
	PARTLY CLOUDY	9	8.8	7.8	9.1	8.9	11.8	9.9	14.7	12.2	7.9	5.9	7.1	9.0	113.1
	CLOUDY	9	10.9	8.3	7.7	6.8	5.8	2.9	5.2	6.0	9.3	7.0	7.1	7.1	84.1
PR	MEAN STATION PRESSURE(IN)	28	26.32	26.28	26.23	26.19	26.19	26.21	26.28	26.30	26.30	26.30	26.31	26.32	26.27
	MEAN SEA-LEVEL PRES. (IN)	28	30.07	29.99	29.90	29.82	29.79	29.78	29.85	29.88	29.91	29.95	30.01	30.07	29.92
WINDS	MEAN SPEED (MPH)	28	7.6	8.6	9.6	10.4	9.9	9.8	8.6	7.8	8.0	7.8	7.7	7.3	8.6
	PREVAIL.DIR(TENS OF DEGS)	32	17	17	17	17	16	16	16	16	17	17	17	36	16
	MAXIMUM 2-MINUTE: SPEED (MPH)	15	49	48	49	56	51	53	52	43	47	49	48	51	56
	DIR. (TENS OF DEGS)		26	24	24	25	23	35	35	01	01	01	26	24	25
	YEAR OF OCCURRENCE		2006	2011	2010	2003	2003	2003	2009	2011	2009	2007	2006	2008	APR 2003
	MAXIMUM 3-SECOND SPEED (MPH)	15	59	63	64	64	58	63	66	60	59	61	62	62	66
	DIR. (TENS OF DEGS)		21	25	23	25	23	14	35	02	07	30	27	24	35
YEAR OF OCCURRENCE		2010	2011	2010	2003	2003	2010	2009	2011	2011	2011	2006	2008	JUL 2009	
PRECIPITATION	NORMAL (IN)	30	0.39	0.41	0.35	0.58	1.30	1.62	1.99	2.31	1.98	1.29	0.53	0.59	13.34
	MAXIMUM MONTHLY (IN)	39	1.03	2.02	2.84	2.89	4.57	5.02	6.88	6.48	6.58	5.91	2.95	3.07	6.88
	YEAR OF OCCURRENCE		1992	1987	2001	2004	1992	1986	1991	1974	1980	1998	2004	1997	JUL 1991
	MINIMUM MONTHLY (IN)	39	T	0.00	0.00	T	T	0.02	0.01	0.07	0.05	T	0.00	0.00	0.00
	YEAR OF OCCURRENCE		2011	1999	1980	2009	2011	1990	1980	2000	2003	2007	1991	1976	FEB 1999
	MAXIMUM IN 24 HOURS (IN)	39	0.76	1.41	2.22	2.24	1.77	3.05	4.91	3.94	2.71	3.89	1.33	1.10	4.91
	YEAR OF OCCURRENCE		2007	1988	2001	1985	1981	1981	1981	1977	1980	1986	1984	1997	JUL 1981
	NORMAL NO. DAYS WITH: PRECIPITATION >= 0.01	30	4.1	3.4	2.9	3.0	4.4	5.3	6.6	8.2	6.7	4.3	2.8	3.9	55.6
PRECIPITATION >= 1.00	30	0.0	*	0.1	0.1	0.4	0.4	0.4	0.5	0.4	0.4	0.0	*	2.7	
SNOWFALL	NORMAL (IN)	30	3.1	2.6	0.9	0.4	0.*	0.0	0.0	0.0	0.0	0.3	1.3	3.3	11.9
	MAXIMUM MONTHLY (IN)	32	10.4	16.9	6.8	5.3	0.8	1.0	0.0	0.0	1.0	4.2	12.3	21.0	21.0
	YEAR OF OCCURRENCE		1997	1988	1984	1983	1989	1991			1989	1976	1980	1997	DEC 1997
	MAXIMUM IN 24 HOURS (IN)	32	7.3	16.5	6.8	4.0	2.0	1.0	0.0	0.0	1.0	3.1	6.3	9.7	16.5
	YEAR OF OCCURRENCE		1980	1988	2005	1983	1988	1991	1973	1973	1989	1976	1980	1987	FEB 1988
	MAXIMUM SNOW DEPTH (IN)	50	9	13	3	2	0	0	0	0	0	2	9	16	16
	YEAR OF OCCURRENCE		1997	1956	2008	1983						1993	2007	1997	DEC 1997
NORMAL NO. DAYS WITH: SNOWFALL >= 1.0	30	1.0	0.9	0.4	0.2	0.0	0.0	0.0	0.0	0.0	0.1	0.5	1.0	4.1	

**PRECIPITATION (inches) 2011 ROSWELL (KROW)**

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL
1982	0.66	0.20	0.12	0.41	0.20	0.76	1.03	0.93	2.00	0.20	0.92	1.62	9.05
1983	0.50	0.22	0.11	0.64	0.93	0.67	0.37	0.80	0.42	3.43	1.52	0.42	10.03
1984	0.04	T	0.46	0.03	1.62	4.52	0.85	5.03	1.04	2.74	1.57	0.85	18.75
1985	0.37	0.04	0.70	2.48	2.22	2.58	2.71	0.34	1.93	0.98	0.12	0.07	14.54
1986	0.67	0.50	0.12	0.31	1.19	5.02	1.11	3.11	3.93	5.48	1.89	1.47	24.80
1987	0.45	2.02	0.20	0.26	1.54	3.69	0.40	4.71	0.78	0.28	0.46	1.41	16.20
1988	0.22	1.48	0.03	0.27	3.42	1.27	4.45	0.51	1.56	0.01	0.03	0.51	13.76
1989	0.32	0.49	0.23	0.07	0.44	0.07	1.14	1.93	1.22	0.10	0.00	0.07	6.08
1990	0.41	0.22	0.74	0.84	0.11	0.02	1.24	1.20	1.44	0.38	0.57	0.32	7.49
1991	0.29	0.33	0.02	0.02	1.04	1.24	6.88	3.40	4.10	0.12	0.95	2.67	21.06
1992	1.03	0.70	0.20	0.65	4.57	2.12	1.08	1.56	0.10	0.50	0.08	0.68	13.27
1993	0.75	0.20	0.01	1.15	0.38	0.56	3.39	2.19	0.88	0.55	0.13	0.16	10.35
1994	0.03	T	0.68	0.40	3.93	0.11	0.76	1.19	1.20	1.65	0.72	0.08	10.75
1995	0.97	0.08	0.17	0.31	0.32	2.28	0.48	0.89	2.78	T	0.10	0.07	8.45
1996	0.16	0.02	0.09	0.27	T	2.66	5.42	3.94	1.27	.22	.12	T	14.17
1997	0.60	1.53	0.06	2.38	1.48	0.69	2.70	2.16	1.97	1.63	0.31	3.07	18.58
1998	T	0.13	0.82	0.05	T	0.18	1.96	1.44	0.24	5.91	0.22	0.80	11.75
1999	0.51	0.00	1.85	1.11	2.76	2.83	2.76	0.97	0.50	0.44	T	0.47	14.20
2000	T	T	0.68	0.15	T	1.67	1.12	0.07	0.05	2.03	2.11	0.31	8.19
2001	0.66	0.42	2.84	0.25	1.31	0.47	0.27	0.51	0.34	0.25	1.11	0.24	8.67
2002	0.52	0.14	1.64	0.01	T	3.62	1.00	0.74	1.88	2.11	0.08	1.10	12.84
2003	0.05	0.44	0.17	0.02	0.39	0.61	0.54	0.28	T	0.14	0.24	0.02	2.90
2004	T	0.49	0.15	2.89	0.39	0.87	1.87	0.74	4.51	1.03	2.95	0.59	16.48
2005	0.62	1.02	0.69	0.29	0.91	0.08	0.42	4.82	0.36	1.39	0.01	T	10.61
2006	T	0.17	0.01	0.20	0.37	1.31	1.05	3.34	3.18	1.69	0.05	0.11	11.48
2007	0.86	0.28	1.46	1.45	2.03	1.17	2.25	0.65	1.33	T	0.55	0.50	12.53
2008	0.03	0.02	0.05	T	1.86	1.45	1.80	4.35	1.66	0.77	0.01	0.09	12.09
2009	T	T	0.26	T	0.52	0.65	3.53	0.39	0.68	0.94	0.40	1.19	8.56
2010	0.50	1.31	0.77	0.53	0.12	4.21	2.89	2.01	1.82	1.02	T	T	15.18
2011	T	0.09	0.00	0.00	T	0.10	0.83	0.71	1.31	0.72	0.03	1.77	5.56
POR= 64 YRS	0.38	0.40	0.43	0.49	1.00	1.41	1.85	2.01	1.69	1.15	0.44	0.49	11.74

WBAN : 23009

**AVERAGE TEMPERATURE (°F) 2011 ROSWELL (KROW)**

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL
1982	38.9	42.7	53.4	60.5	68.0	76.7	80.9	80.5	73.6	59.4	47.0	37.8	60.0
1983	38.9	45.5	52.8	54.7	66.3	76.5	81.6	81.4	76.1	62.9	51.8	35.2	60.3
1984	38.5	46.5	51.7	60.2	72.5	75.8	79.1	76.2	69.3	57.7	48.5	42.1	59.8
1985	37.0	43.2	54.2	63.4	70.1	75.8	79.4	80.4	70.7	61.1	53.2	40.3	60.7
1986	44.1	46.8	56.2	64.6	69.1	75.9	79.2	78.6	72.1	59.3	46.0	40.0	61.0
1987	39.7	44.9	49.1	57.3	67.5	75.8	80.2	78.7	70.6	63.9	49.0	39.3	59.7
1988	37.6	44.5	51.4	59.7	68.2	77.5	78.6	78.7	72.2	64.0	53.3	40.6	60.5
1989	43.1	43.8	56.6	65.6	74.3	78.4	81.6	79.6	71.3	63.3	51.3	37.2	62.2
1990	42.5	47.0	53.1	62.7	70.5	85.0	79.9	77.7	74.6	62.8	52.5	41.7	62.5
1991	39.8	49.6	55.3	64.1	74.2	79.8	78.6	78.3	68.1	61.7	46.4	41.5	61.5
1992	38.4	47.2	54.2	62.8	67.0	75.4	80.6	78.9	74.2	64.4	45.9	41.1	60.8
1993	42.3	45.6	53.8	62.3	70.1	79.9	83.0	79.8	72.4	59.3	45.4	42.2	61.3
1994	41.2	44.8	54.0	61.6	70.2	83.6	83.7	82.3	73.7	62.4	51.2	46.0	62.9
1995	43.9	52.1	53.5	60.4	70.5	77.4	82.8	82.4	71.9	63.7	53.4	44.1	63.0
1996	42.6	49.5	50.7	62.3	79.0	81.3	82.1	78.5	70.8	61.1	49.8	44.7	62.7
1997	38.7	41.4	54.5	55.6	68.2	76.5		79.1	74.1	60.4	46.6	33.4	
1998	38.7	45.2	50.1	56.7	72.5	80.2	83.0	78.0	77.5	63.0	51.8	42.0	61.6
1999	45.3	50.0	53.1	59.6	67.3	75.6	79.6	80.7	71.7	61.2	53.7	40.1	61.5
2000	43.9	51.5	53.7	63.8	75.9	77.9	82.9	81.4	75.8	61.0	43.5	38.3	62.5
2001	36.9	47.1	50.7	63.1	71.2	80.5	84.2	79.8	74.3	63.9	51.6	41.1	62.0
2002	43.2	44.0	50.3	65.6	72.0	81.1	80.7	81.7	73.6	58.8	48.1	40.8	61.7
2003	43.9	46.8	55.1	63.6	72.5	77.0	82.5	80.3	73.6	65.0	52.0	42.1	62.9
2004	43.6	42.5	56.9	59.9	71.9	77.7	79.1	76.6	71.2	61.1	47.0	39.8	60.6
2005	45.0	46.3	50.7	58.7	69.0	80.0	82.2	77.7	75.6	61.3	51.7	42.1	61.7
2006	45.9	46.5	54.5	66.7	75.1	81.1	82.7	78.2	67.8	59.4	50.8	40.5	62.4
2007	36.0	44.8	54.5	58.7	66.3	77.0	78.8	80.9	75.7	65.4	50.8	43.4	61.0
2008	40.1	49.7	54.5	61.2	70.7	81.8	79.0	77.7	69.8	60.7	50.0	41.6	61.4
2009	42.3	48.9	55.3	60.8	71.1	79.8	81.3	80.0	71.1	60.0	51.3	36.0	61.5
2010	38.6	42.5	51.0	61.3	69.2	80.8	78.9	80.1	75.3	63.7	48.3	44.3	61.2
2011	39.7	40.9	57.9	66.7	70.0	82.8	84.7	86.1	73.5	63.4	50.5	34.5	62.6
POR= 63 YRS	40.6	45.5	52.6	61.2	70.2	78.7	81.0	79.2	72.3	61.5	49.2	41.1	61.1

**HEATING DEGREE DAYS (base 65°F) 2011 ROSWELL (KROW)**

YEAR	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	TOTAL
1982-83	0	0	2	195	530	834	802	541	372	322	44	2	3644
1983-84	0	0	7	115	389	920	817	529	404	164	19	0	3364
1984-85	0	0	56	227	488	704	863	604	332	85	10	1	3370
1985-86	0	0	46	131	344	759	641	504	271	77	31	0	2804
1986-87	0	0	0	181	564	770	779	556	484	243	22	0	3599
1987-88	0	0	4	71	476	788	844	588	417	163	36	0	3387
1988-89	0	7	7	56	359	749	673	590	275	90	7	0	2813
1989-90	0	0	23	121	405	854	691	497	366	119	62	0	3138
1990-91	0	0	0	98	369	715	775	426	299	68	8	0	2758
1991-92	0	0	59	152	551	719	815	509	325	117	32	3	3282
1992-93	0	0	0	64	563	734	697	538	341	124	24	0	3085
1993-94	0	0	8	221	583	699	733	559	338	136	16	0	3293
1994-95	0	0	8	127	417	581	648	357	359	180	11	0	2688
1995-96	0	0	31	74	343	643	686	449	440	130	0	0	2796
1996-97	0	0	22	182	449	621	808	656	319	295	25	0	3377
1997-98	0	0	7	187	549	974	808	547	463	250	0	0	3785
1998-99	0	0	0	127	390	708	600	414	363	179	44	0	2825
1999-00	0	0	21	145	330	764	648	387	342	105	9	0	2751
2000-01	0	0	13	181	638	820	866	496	434	88	23	0	3559
2001-02	0	0	0	79	394	734	667	581	449	74	6	0	2984
2002-03	0	0	0	218	501	744	646	505	301	92	9	0	3016
2003-04	0	0	1	64	396	706	654	647	266	178	22	0	2934
2004-05	1	0	18	121	534	771	612	516	437	187	59	0	3256
2005-06	0	0	0	159	393	704	582	512	321	48	4	0	2723
2006-07	0	0	26	199	423	753	891	560	319	202	46	0	3419
2007-08	0	0	0	91	415	665	766	435	325	147	36	0	2880
2008-09	0	0	0	162	446	718	699	446	301	165	10	0	2947
2009-10	0	0	19	195	404	894	808	624	432	128	38	0	3542
2010-11	0	0	0	60	496	634	779	669	218	55	41	0	2952
2011-	0	0	0	121	426	937							

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**COOLING DEGREE DAYS (base 65°F) 2011 ROSWELL (KROW)**

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
1982	0	0	6	35	124	357	499	488	266	27	0	0	1802
1983	0	0	0	21	89	353	523	512	346	58	0	0	1902
1984	0	0	2	26	256	331	443	356	189	6	0	0	1609
1985	0	0	8	44	175	332	457	485	224	18	0	0	1743
1986	0	0	6	74	167	331	447	429	221	10	0	0	1685
1987	0	0	0	17	108	330	478	432	176	43	0	0	1584
1988	0	0	0	11	140	382	430	441	230	32	15	0	1681
1989	0	4	19	115	303	412	523	460	217	75	0	0	2128
1990	0	0	4	57	241	607	472	403	295	37	2	0	2118
1991	0	0	3	48	300	451	431	419	158	59	0	0	1869
1992	0	0	0	56	101	319	492	436	283	52	0	0	1739
1993	0	0	0	51	189	454	564	463	236	53	0	0	2010
1994	0	0	6	39	181	566	586	540	277	55	6	0	2256
1995	0	0	11	47	188	378	560	547	246	42	0	0	2019
1996	0	9	0	55	436	499	538	427	204	66	0	0	2234
1997	0	0	1	20	129	350		446	287	54	0	0	
1998	0	0	7	7	241	467	565	410	381	71	0	0	2149
1999	0	0	0	26	123	328	458	493	227	34	0	0	1689
2000	0	0	0	75	352	394	560	514	342	62	0	0	2299
2001	0	0	1	37	221	474	605	467	285	49	0	0	2139
2002	0	0	4	97	228	489	494	521	265	36	1	0	2135
2003	0	1	0	55	248	368	549	481	266	70	14	0	2052
2004	0	0	21	30	245	391	445	368	210	9	0	0	1719
2005	0	0	0	4	190	459	538	403	322	50	0	0	1966
2006	0	0	4	104	323	487	556	416	115	33	0	0	2038
2007	0	0	2	21	94	366	435	502	330	113	0	1	1864
2008	0	0	6	41	219	513	439	400	151	35	0	0	1804
2009	0	2	8	46	207	451	511	472	209	46	0	0	1952
2010	0	0	4	27	172	480	437	475	312	26	0	0	1933
2011	0	0	5	110	202	541	617	661	261	78	0	0	2475

## SNOWFALL (inches) 2011 ROSWELL (KROW)

YEAR	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	TOTAL
1982-83	0.0	0.0	0.0	0.0	7.1	8.0	2.4	1.0	0.0	5.3	0.0	0.0	23.8
1983-84	0.0	0.0	0.0	0.0	0.0	3.5	0.5	T	4.8		0.0	0.0	
1984-85	0.0	0.0	0.0	0.0	0.0	5.4	1.9	0.3	0.0	0.0	0.0	0.0	7.6
1985-86	0.0	0.0	0.0	0.0	0.0	1.1	5.4	4.9	0.0	0.0	0.0	0.0	11.4
1986-87	0.0	0.0	0.0	T	0.5	3.4	5.5	8.7	0.5	0.0	0.0	0.0	18.6
1987-88	0.0	0.0	0.0	0.0	0.0	15.3	0.4	16.9	T	T	0.0	0.0	32.6
1988-89	0.0	0.0	0.0	0.0	T	3.9	T	1.2	4.3	T	0.8	0.0	10.2
1989-90	0.0	0.0	1.0	0.0	0.0	T	2.7	T	1.2	0.0	0.0	0.0	4.9
1990-91	0.0	0.0	0.0	0.0	0.5	0.8	1.9	0.0	0.0	T	T	1.0	4.2
1991-92	0.0	0.0	0.0	1.2	T	2.9	4.4	0.0	0.0	T	0.0	T	8.5
1992-93	0.0	0.0	0.0	0.0	T	5.0	T	0.0	T	0.0	0.0	0.0	5.0
1993-94	0.0	0.0	0.0	1.8	T	T	0.6	0.0	0.9	0.0	T	0.0	3.3
1994-95	0.0	0.0	0.0	0.0	T	0.0	1.0	0.0	0.0	0.0	0.0	T	1.0
1995-96	0.0	0.0	0.0	0.0	1.0	0.7	1.4	0.3	1.4	0.4	0.0	T	5.2
1996-97	0.0	0.0	0.0	0.1	T	.5	10.4	5.9					
1997-98						21.0							
1998-99						0.5							
1999-00													
2000-01													
2001-02													
2002-03													
2003-04													
2004-05					1.0	10.1	T	T	6.8	0.0	0.0	0.0	
2005-06	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.1
2006-07	0.0	0.0	0.0	0.0	4.6	1.8	7.6	1.9	0.0	0.3	0.0	0.0	16.2
2007-08	0.0	0.0	0.0	0.0	10.9	1.0	0.3	0.0	2.6	0.0	0.0	0.0	14.8
2008-09	0.0	0.0	0.0	0.0	0.0	T	0.0	0.0	0.2	0.0	0.0	0.0	0.2
2009-10	0.0	0.0	0.0	0.0	T	8.0	3.0	6.8	0.6	0.0	0.0	0.0	18.4
2010-11	0.0	0.0	0.0	0.0	T	T	T	2.5	0.0	0.0	0.0	0.0	2.5
2011-	0.0	0.0	0.0	T	0.0	15.5							
POR= 58 YRS	0.0	0.0	0.0	0.1	1.1	3.0	2.0	2.0	1.0	0.2	T	T	9.4

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### REFERENCE NOTES :

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).

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).

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.

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: <https://mi3.ncdc.noaa.gov/mi3qry/login.cfm>  
SNOWFALL STOPPED MONTH & YEAR INDICATED ABOVE. NO FURTHER YEARS INCLUDED UNLESS RESTARTED.

#### 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.

# 2011 ROSWELL NEW MEXICO (KROW)

The climate at Roswell conforms to the basic trend of the four seasons, but shows certain deviations related to geography. Higher landmasses almost surround the valley location, with a long, gradual descent from points southwest through west and north. The topography acts to modify air masses, especially the cold outbreaks in wintertime. Downslope warming of air, as well as air interchange within a tempering environment, often prevents sharp cooling. Moreover, the elevation of 3,600 feet is high enough to moderate the heat and humidity compared to locations to the south and east.

Summer moves into a wet phase that delivers the most important rain of the year. Rather frequent showers and thunderstorms from June through September account for over half of the annual precipitation. Storm clouds that build up from the heat of the day, overspread the sky on many afternoons, retarding a further rise in temperature. At the same time, relative humidity shows moderation, ranging from about 70 percent in early morning to 30 percent in the mid-afternoon. Temperatures are quite warm on most summer days with readings of 100 degrees or higher occurring on 10 days in an average year.

Rainfall tapers off markedly in the fall with decline in storm activity. This leaves usually agreeable conditions because of low wind movement and mostly clear skies. Frosty nights alternate with warm days. Relative humidity reaches rather low levels in autumn, but dryness is not as rigorous as in the spring.

In winter, sub-freezing at night is tempered by considerable warming during the day. Zero or lower temperatures occur on only one day in an average winter. Sub-zero cold spells are of short duration. Winter is the season of least precipitation.

Spring ushers in the driest season of the year with respect to relative humidity. Wind movement shows a large increase, especially from the plateau areas of the west. Most of the 60 days a year with winds of 25 mph or more occur from February to May. Destructive storms seldom strike the city, but minor damage results from thundersqualls or hailstorms about once a year. Rain is most erratic in spring, ranging from none of consequence in some years, to excessive amounts in others.

# Station History

ROSWELL, NM

NAME	Begin Date	End Date	Latitude	Longitude	Elevation Feet	Relocation	Platform
WALKER AFB	1953-01-01	1967-03-31	33° 18'	-104° 31'			MILITARY
ROSWELL INDUSTRIAL AIR PARK	2006-08-31	2008-11-25	33° 18'	-104° 30'	3649		AIRSAMPLE,ASOS,COOP,USHCN
ROSWELL INDUSTRIAL AIR CENTER	1972-01-01	1972-12-01	33° 18'	-104° 31'	3649		WXSVC
ROSWELL INDUSTRIAL AIR PARK	2008-11-25	Present	33° 18'	-104° 30'	3649		AIRSAMPLE,AIRWAYS,ASOS,COOP,USHCN
ROSWELL INDUSTRIAL AIR PARK	1972-12-01	1981-12-31	33° 18'	-104° 31'	3649		COOP,USHCN,WXSVC
ROSWELL INDUSTRIAL AIR PARK	1997-10-01	2004-03-31	33° 18'	-104° 30'	3649		ASOS,COOP,USHCN
WALKER AAF	1942-07-01	1944-01-01	33° 16'	-104° 31'			MILITARY
ROSWELL INDUSTRIAL AIR PARK	1996-10-01	1997-10-01	33° 18'	-104° 32'	3649		ASOS,COOP,USHCN
WALKER AAF	1944-01-01	1947-07-01	33° 18'	-104° 31'			MILITARY
WALKER AFB	1947-07-01	1953-01-01	33° 18'	-104° 31'			MILITARY
ROSWELL INDUSTRIAL AIR PARK	1981-12-31	1996-10-01	33° 18'	-104° 31'	3649		COOP,USHCN
ROSWELL INDUSTRIAL AIR PARK	2004-03-31	2006-07-31	33° 18'	-104° 30'	3649		ASOS,COOP,USHCN
ROSWELL INDUSTRIAL AIR CENTER	1968-03-01	1972-01-01	33° 19'	-104° 31'			AIRWAYS
ROSWELL INDUSTRIAL AIR PARK	2006-07-31	2006-08-31	33° 18'	-104° 30'	3649		AIRSAMPLE,ASOS,COOP,USHCN

# Element History

Element	Begin Date	End Date	Frequency	Time Of Observation	Equipment *	Equipment * Modifications	Equipment Exposure
TEMP	1968-03-01	1983-01-01	DAILY	2400			
TEMP	1989-07-06	1995-07-01	DAILY	2400	HYGR		
TEMP	2002-03-25	2004-03-31	DAILY	2400	ATEMP		
TEMP	1996-06-01	1996-10-01	DAILY	2400	HYGR		
PRECIP	1996-10-01	1997-10-01	DAILY	2400	TB	RCRD	
PRECIP	1997-10-01	2002-03-25	HOURLY	2400	F&P	RCRD	
PRECIP	1996-10-01	1997-10-01	DAILY	2400	F&P	RCRD	
PRECIP	2002-03-25	2004-03-31	HOURLY		AHTB	RCRD;HTD	
TEMP	2004-03-31	2004-06-08	DAILY	2400	ATEMP		
TEMP	1942-07-01	1967-03-31	DAILY	2400			
TEMP	1995-07-01	1996-06-01	DAILY	2400	HYGR		
TEMP	1997-10-01	2002-03-25	DAILY	2400	HYGR		
PRECIP	2004-03-31	2004-06-08	DAILY	2400	PCPNX		
PRECIP	2004-06-08	Present	DAILY	2400	PCPNX		
TEMP	2004-06-08	Present	DAILY	2400	ATEMP		
PRECIP	1996-06-01	1996-10-01	DAILY	2400	SRG		
PRECIP	1996-10-01	1997-10-01	HOURLY	2400	TB	RCRD	
PRECIP	1942-07-01	1967-03-31	DAILY	2400			
TEMP	1983-01-01	1989-07-06	DAILY	2400			
PRECIP	1989-07-06	1995-07-01	DAILY	2400	SRG		
PRECIP	1995-07-01	1995-09-01	HOURLY	2400	F&P	RCRD	
PRECIP	1968-03-01	1983-01-01	DAILY	2400			
PRECIP	1995-07-01	1996-06-01	DAILY	2400	SRG		
PRECIP	1996-06-01	1996-10-01	DAILY	2400	F&P	RCRD	
TEMP	1996-10-01	1997-10-01	DAILY	2400	HYGR		
PRECIP	1997-10-01	2002-03-25	DAILY	2400	F&P	RCRD	
PRECIP	2004-03-31	2004-06-08	HOURLY	2400	AHTB	RCRD;HTD	
PRECIP	1983-01-01	1989-07-06	HOURLY	2400			
PRECIP	1983-01-01	1989-07-06	DAILY	2400			
PRECIP	1989-07-06	1995-07-01	HOURLY	2400			
PRECIP	2002-03-25	2004-03-31	DAILY	2400	PCPNX		
PRECIP	2004-06-08	Present	HOURLY	2400	AWPAG	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>

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

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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)