

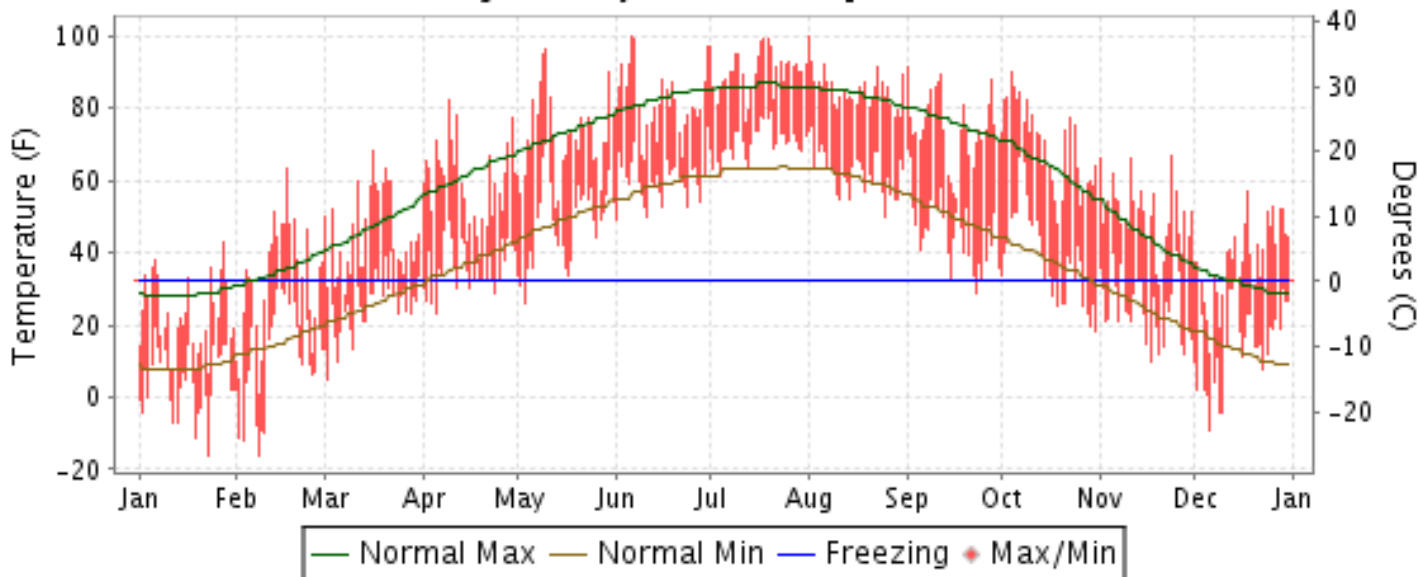


# 2011 LOCAL CLIMATOLOGICAL DATA ANNUAL SUMMARY WITH COMPARATIVE DATA

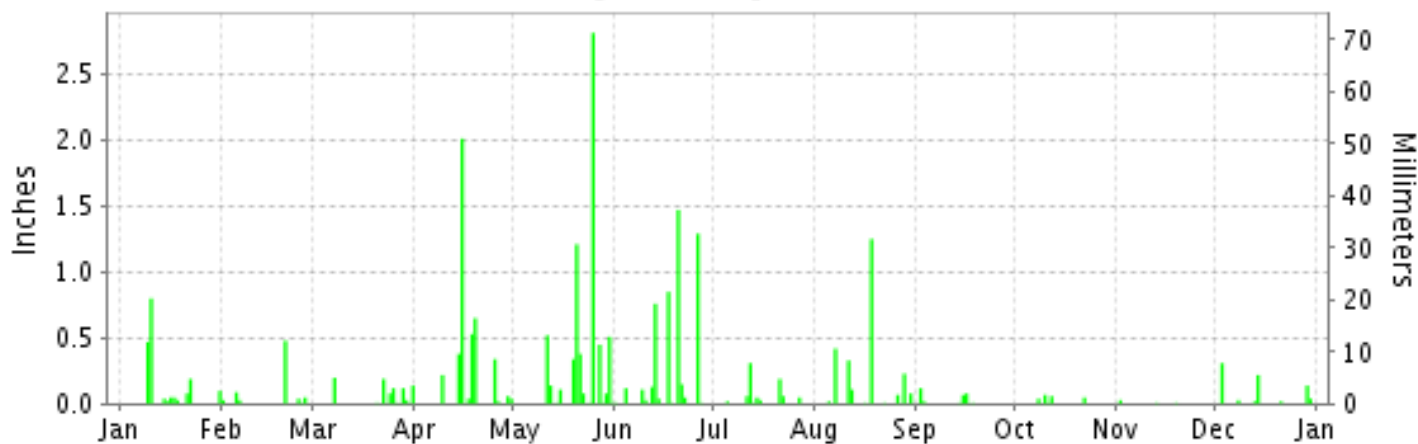
ISSN 0198-2095

## SIOUX CITY, IOWA (KSUX)

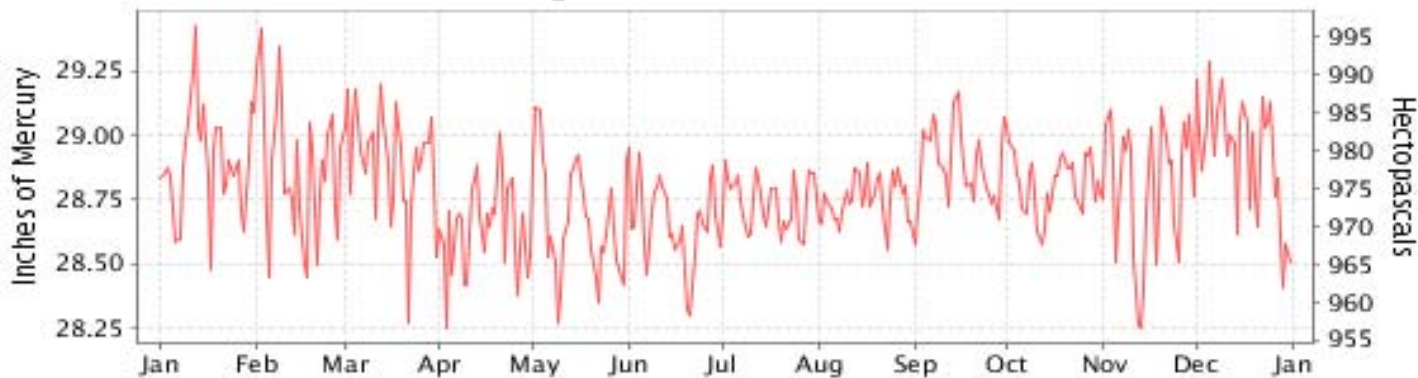
### Daily Max/Min Temperature



### Daily Precipitation



### Daily Station Pressure



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NATIONAL  
CLIMATIC DATA CENTER  
ASHEVILLE, NORTH CAROLINA

*Thomas R. Karl*  
DIRECTOR  
NATIONAL CLIMATIC DATA CENTER

# METEOROLOGICAL DATA FOR 2011

## SIOUX CITY (KSUX)

LATITUDE: 42° 23'N      LONGITUDE: -96° 22'W      ELEVATION (FT): GRND: 1095 BARO: 1139      TIME ZONE: CENTRAL (UTC -6)      WBAN: 14943

ELEMENT		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	YEAR
TEMPERATURE °F	MEAN DAILY MAXIMUM	22.7	32.0	45.3	59.3	72.0	81.4	90.1	84.8	74.4	69.3	50.4	38.2	60.0
	HIGHEST DAILY MAXIMUM	43	63	68	82	96	100	99	100	91	90	67	57	100
	DATE OF OCCURRENCE	28	17	16	09	10	06	19+	01	01	04	24	18	AUG 01
	MEAN DAILY MINIMUM	4.4	11.3	25.1	36.1	48.2	60.3	70.5	62.3	45.9	38.5	24.6	14.9	36.8
	LOWEST DAILY MINIMUM	-16	-16	5	23	26	49	61	50	29	18	10	-9	-16
	DATE OF OCCURRENCE	23	08	02	05	03	01	04	25	23	31	17	06	FEB 08
	AVERAGE DRY BULB	13.6	21.7	35.2	47.7	60.1	70.9	80.3	73.6	60.2	53.9	37.5	26.6	48.4
	MEAN WET BULB	12.6	19.7	32.3	42.3	52.8	63.6	73.0	66.9	53.4	45.7	33.1	25.0	
	MEAN DEW POINT	8.7	15.1	27.0	36.0	45.4	59.3	69.8	63.4	47.5	36.9	24.5	19.8	37.8
	NUMBER OF DAYS WITH:													
MAXIMUM >= 90°	0	0	0	0	3	5	19	4	1	1	0	0	0	33
MAXIMUM <= 32°	23	12	3	0	0	0	0	0	0	0	1	8	47	
MINIMUM <= 32°	31	28	27	11	2	0	0	0	2	10	25	31	167	
MINIMUM <= 0°	10	6	0	0	0	0	0	0	0	0	0	3	19	
H/C	HEATING DEGREE DAYS	1587	1207	913	512	209	13	0	0	184	370	818	1184	6997
	COOLING DEGREE DAYS	0	0	0	1	65	196	481	272	46	32	0	0	1093
RH	MEAN (PERCENT)	79	76	75	68	62	69	73	73	67	57	61	74	70
	HOUR 00 LST	80	78	81	76	71	77	82	86	82	65	66	80	77
	HOUR 06 LST	82	82	85	83	79	84	85	88	87	78	74	81	82
	HOUR 12 LST	76	71	68	58	50	60	62	59	49	42	51	66	59
	HOUR 18 LST	77	73	65	55	49	57	61	59	49	40	51	72	59
S	PERCENT POSSIBLE SUNSHINE													
W/O	NUMBER OF DAYS WITH:													
	HEAVY FOG(VISBY <= 1/4 MI)	2	3	0	1	0	1	0	5	5	0	2	3	22
	THUNDERSTORMS	0	1	1	1	7	7	4	6	1	1	0	0	29
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.)	28.90	28.87	28.90	28.64	28.67	28.66	28.74	28.75	28.89	28.82	28.79	28.92	28.80
	MEAN SEA-LEVEL PRESS. (IN.)	30.14	30.10	30.10	29.81	29.84	29.82	29.89	29.91	30.06	30.00	30.00	30.15	29.99
WINDS	RESULTANT SPEED (MPH)	4.4	3.4	2.4	3.8	1.6	1.7	4.2	1.4	1.7	0.7	0.9	2.3	0.8
	RES. DIR. (TENS OF DEGS.)	33	34	04	36	09	12	15	13	33	19	30	31	01
	MEAN SPEED (MPH)	9.9	10.5	10.7	12.3	11.5	10.4	7.5	6.7	6.7	9.7	10.4	8.6	9.6
	PREVAIL.DIR.(TENS OF DEGS.)	32	33	33	32	13	13	18	16	33	33	11	32	32
	MAXIMUM 2-MINUTE WIND													
	SPEED (MPH)	40	33	35	39	41	54	38	40	35	35	43	36	54
	DIR. (TENS OF DEGS.)	33	33	32	16	24	33	25	27	33	16	33	32	33
	DATE OF OCCURRENCE	07	14	12	29	11	26	11	07	29	06	26	15	JUN 26
	MAXIMUM 3-SECOND WIND:													
	SPEED (MPH)	48	45	45	49	49	67	48	53	44	44	53	44	67
DIR. (TENS OF DEGS.)	33	33	32	16	24	32	24	28	33	16	33	33	32	
DATE OF OCCURRENCE	07	14	12	29	11	26	11	07	29	06	26	31	JUN 26	
PRECIPITATION	WATER EQUIVALENT:													
	TOTAL (IN.)	1.83	0.73	0.90	4.29	6.67	5.03	0.78	2.53	0.31	0.23	0.05	0.78	24.13
	GREATEST 24-HOUR (IN.)	1.15	0.48	0.20	2.20	2.82	1.47	0.31	1.25	0.15	0.07	0.03	0.31	2.82
	DATE OF OCCURRENCE	09-10	20	07	14-15	24-25	20	12	18	15-16	10	02	03	MAY 24-25
	NUMBER OF DAYS WITH:													
	PRECIPITATION 0.01	10	7	9	10	15	14	9	10	6	5	3	7	105
PRECIPITATION 0.10	4	1	5	6	9	8	2	5	1	0	0	3	44	
PRECIPITATION 1.00	0	0	0	1	2	2	0	1	0	0	0	0	6	
SNOWFALL	SNOW,ICE PELLETS,HAIL													
	TOTAL (IN.)	21.1	3.8	6.0	T	0.0	0.0	0.0	0.0	0.0	0.0	T	2.9	33.8
	GREATEST 24-HOUR (IN.)	9.5	1.7	2.4	T	0.0	0.0	0.0	0.0	0.0	0.0	T	2.6	9.5
	DATE OF OCCURRENCE	10	26	07	20+							19	03	JAN 10
	MAXIMUM SNOW DEPTH (IN.)	15	7	2	0	0	0	0	0	0	0	0	3	15
	DATE OF OCCURRENCE	24+	05+	25									06+	JAN 24+
NUMBER OF DAYS WITH:														
SNOWFALL >= 1.0	4	1	3	0	0	0	0	0	0	0	0	1	9	

# NORMALS, MEANS, AND EXTREMES

## SIOUX CITY (KSUX)

LATITUDE: 42° 23'N      LONGITUDE: -96° 22'W      ELEVATION (FT): GRND: 1095 BARO: 1139      TIME ZONE: CENTRAL (UTC -6)      WBAN: 14943

ELEMENT		POR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	YEAR
TEMPERATURE °F	NORMAL DAILY MAXIMUM	30	28.7	35.0	47.3	61.7	73.2	82.5	86.2	83.7	76.0	63.7	44.8	31.7	59.5
	MEAN DAILY MAXIMUM	116	27.5	31.5	45.1	60.0	72.2	80.1	86.4	84.0	74.6	63.9	45.5	32.5	58.6
	HIGHEST DAILY MAXIMUM	71	71	71	91	97	102	108	108	104	103	94	82	70	108
	YEAR OF OCCURRENCE		2002	2000	1968	1980	1967	1988	1995	1955	2000	1997	2006	1998	JUL 1995
	MEAN OF EXTREME MAXS.	116	50.4	55.8	71.5	85.9	90.9	96.0	97.2	95.5	91.5	84.6	69.5	54.3	78.6
	NORMAL DAILY MINIMUM	30	8.5	15.3	25.7	37.3	49.2	58.5	62.9	60.6	50.1	38.0	24.8	12.8	37.0
	MEAN DAILY MINIMUM	116	8.7	13.3	25.3	37.4	49.7	58.6	64.5	62.2	51.4	40.3	26.0	14.6	37.7
	LOWEST DAILY MINIMUM	71	-26	-26	-22	-2	25	38	42	37	24	12	-9	-24	-26
	YEAR OF OCCURRENCE		1970	1962	1960	1975	1997	1950	1971	1950	1945	1993	1991	1989	JAN 1970
	MEAN OF EXTREME MINS.	116	-14.2	-8.5	3.7	21.5	33.8	45.9	52.0	49.5	34.4	22.4	7.3	-7.2	20.1
	NORMAL DRY BULB	30	18.6	25.1	36.5	49.5	61.2	70.5	74.6	72.1	63.1	50.8	34.8	22.3	48.3
	MEAN DRY BULB	116	18.1	22.4	35.2	48.7	61.0	69.4	75.5	73.1	63.0	52.1	35.8	23.6	48.2
	MEAN WET BULB	27	18.1	22.1	31.6	41.8	52.5	62.3	67.5	65.9	56.1	43.7	30.9	21.0	42.8
	MEAN DEW POINT	27	15.0	19.0	27.8	37.7	49.2	59.6	65.6	64.1	53.3	40.1	28.3	18.4	39.8
	NORMAL NO. DAYS WITH:														
	MAXIMUM >= 90	30	0.0	0.0	0.0	0.5	1.0	5.6	9.2	6.5	2.4	0.2	0.0	0.0	25.4
MAXIMUM <= 32	30	18.0	12.5	4.4	0.4	0.0	0.0	0.0	0.0	0.0	0.1	5.1	15.2	55.7	
MINIMUM <= 32	30	30.6	26.6	22.4	8.9	0.6	0.0	0.0	0.0	0.7	7.6	23.2	30.2	150.8	
MINIMUM <= 0	30	8.5	4.4	0.7	*	0.0	0.0	0.0	0.0	0.0	0.0	0.7	5.3	19.6	
H/C	NORMAL HEATING DEG. DAYS	30	1439	1131	885	473	172	25	3	10	128	434	891	1309	6900
	NORMAL COOLING DEG. DAYS	30	0	0	0	11	53	198	311	246	87	8	0	0	914
RH	NORMAL (PERCENT)	30	74	74	70	63	64	66	71	74	70	67	74	77	70
	HOURLY 00 LST	30	77	79	77	71	72	75	80	84	80	75	79	80	77
	HOURLY 06 LST	30	78	80	81	79	80	82	87	89	87	82	82	82	82
	HOURLY 12 LST	30	69	67	61	52	54	56	59	61	56	54	65	72	61
	HOURLY 18 LST	30	71	68	60	50	50	51	57	61	56	55	68	75	60
S	PERCENT POSSIBLE SUNSHINE	56	57	56	57	59	61	67	73	70	66	63	51	50	61
W/O	MEAN NO. DAYS WITH:														
	HEAVY FOG(VISBY <= 1/4 MI) THUNDERSTORMS	48 64	2.1 0.0	2.5 0.3	2.1 1.2	0.9 3.2	0.7 6.5	0.6 8.2	1.1 7.8	2.4 7.1	1.9 4.6	1.3 1.7	2.2 0.4	3.4 0.1	21.2 41.1
CLOUDINESS	MEAN: SUNRISE-SUNSET (OKTAS) MIDNIGHT-MIDNIGHT (OKTAS)														
	MEAN NO. DAYS WITH:														
	CLEAR														
	PARTLY CLOUDY CLOUDY	1 1	3.0 3.0		6.0 5.0		1.0 10.0	4.0 8.0							
PR	MEAN STATION PRESSURE(IN)	28	28.91	28.91	28.85	28.76	28.76	28.75	28.80	28.83	28.84	28.85	28.86	28.90	28.84
	MEAN SEA-LEVEL PRES. (IN)	28	30.15	30.14	30.06	29.95	29.93	29.91	29.95	29.99	30.01	30.04	30.06	30.13	30.03
WINDS	MEAN SPEED (MPH)	28	11.1	11.1	11.8	12.6	11.6	9.9	8.4	8.2	9.2	10.1	10.9	10.8	10.5
	PREVAIL.DIR(TENS OF DEGS)	40	33	33	33	33	33	17	17	14	15	33	33	33	33
	MAXIMUM 2-MINUTE:														
	SPEED (MPH)	16	55	51	57	53	52	62	63	51	48	51	52	49	63
	DIR. (TENS OF DEGS)		33	32	33	32	18	33	34	33	20	32	33	33	34
	YEAR OF OCCURRENCE		1996	2003	1996	1996	2004	2000	2008	2010	1998	1996	2005	2000	JUL 2008
	MAXIMUM 3-SECOND														
	SPEED (MPH)	16	66	57	68	64	77	74	74	66	57	61	62	58	77
DIR. (TENS OF DEGS)		33	31	33	21	19	32	35	33	21	32	29	33	19	
YEAR OF OCCURRENCE		2005	1996	1996	2001	1998	2000	2008	2010	1998	1996	1998	2000	MAY 1998	
PRECIPITATION	NORMAL (IN)	30	0.59	0.62	2.00	2.75	3.75	3.61	3.30	2.90	2.42	1.99	1.40	0.66	25.99
	MAXIMUM MONTHLY (IN)	71	2.44	2.66	5.90	6.73	8.46	8.78	10.33	9.07	9.69	5.70	4.10	2.56	10.33
	YEAR OF OCCURRENCE		1949	1971	1987	1984	1959	1967	1972	2007	1965	2009	1948	2006	JUL 1972
	MINIMUM MONTHLY (IN)	71	0.11	0.07	0.04	0.45	0.60	0.53	0.36	0.12	0.07	T	0.01	0.01	0.01
	YEAR OF OCCURRENCE		1986	1996	1994	1942	1955	1988	2006	1971	1950	1958	1967	1943	NOV 1967
	MAXIMUM IN 24 HOURS (IN)	71	1.15	2.15	2.75	2.20	2.82	3.89	5.50	4.28	3.14	4.55	3.45	1.18	5.50
	YEAR OF OCCURRENCE		2011	1971	1987	2011	2011	1957	1972	1961	2009	1979	1948	1959	JUL 1972
	NORMAL NO. DAYS WITH:														
	PRECIPITATION >= 0.01	30	6.6	6.3	8.5	10.1	11.4	10.1	9.3	9.2	8.1	6.8	7.1	6.5	100.0
PRECIPITATION >= 1.00	30	*	0.1	0.5	0.6	0.8	1.1	0.7	0.7	0.6	0.3	0.3	0.0	5.7	
SNOWFALL	NORMAL (IN)	30	6.3	5.5	5.8	1.9	0.*	0.0	0.0	0.0	0.*	0.8	4.8	6.3	31.4
	MAXIMUM MONTHLY (IN)	70	29.1	24.5	26.2	9.7	4.0	T	T	0.0	0.4	9.8	16.5	34.0	34.0
	YEAR OF OCCURRENCE		1982	1993	1962	1983	1945	1996	1992		1961	1991	1983	2009	DEC 2009
	MAXIMUM IN 24 HOURS (IN)	70	17.4	15.2	18.4	6.8	4.0	T	T	0.0	0.4	8.8	12.4	9.4	18.4
	YEAR OF OCCURRENCE		1982	1993	2004	1957	1945	1996	1992		1961	1991	1983	1994	MAR 2004
	MAXIMUM SNOW DEPTH (IN)	63	28	27	28	7	0	0	0	0	0	4	13	20	28
	YEAR OF OCCURRENCE		2010	2004	1962	1957						1982	1983	2009	JAN 2010
	NORMAL NO. DAYS WITH:														
SNOWFALL >= 1.0	30	1.7	1.8	1.7	0.6	0.0	0.0	0.0	0.0	0.0	0.2	1.6	2.0	9.6	

**PRECIPITATION (inches) 2011 SIOUX CITY (KSUX)**

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL
1982	1.58	0.38	1.53	0.64	6.93	1.82	3.63	1.54	3.64	4.83	1.75	2.23	30.50
1983	0.39	0.68	4.91	2.19	4.41	4.58	1.27	1.16	3.07	2.09	3.08	0.45	28.28
1984	0.17	1.14	1.79	6.73	5.54	6.79	2.56	0.79	0.71	4.59	1.85	1.36	34.02
1985	0.29	0.12	2.20	5.04	3.24	1.15	0.41	3.69	4.50	1.20	1.01	0.52	23.37
1986	0.11	0.63	3.03	5.73	3.00	5.35	3.26	1.86	5.06	2.56	1.13	0.21	31.93
1987	0.23	0.41	5.90	0.61	4.20	3.09	3.08	3.94	1.44	0.44	0.90	0.48	24.72
1988	0.73	0.43	0.59	2.50	2.47	0.53	2.93	5.16	5.17	0.08	2.08	0.58	23.25
1989	0.96	0.36	0.86	0.94	1.51	1.83	5.76	2.01	4.33	0.19	0.24	0.40	19.39
1990	0.30	0.31	2.18	1.61	7.48	4.20	3.22	1.34	0.86	1.48	0.87	0.78	24.63
1991	0.46	0.38	2.02	3.48	3.87	5.27	0.77	2.17	2.17	2.04	2.70	0.87	26.20
1992	0.60	0.77	3.52	1.13	3.56	2.74	4.81	4.60	2.82	3.69	0.95	0.80	29.99
1993	0.70	2.08	0.85	3.66	3.06	4.23	6.71	6.43	1.29	1.84	1.03	0.53	32.41
1994	1.09	0.65	0.04	2.37	0.88	3.44	4.53	3.33	4.59	2.01	2.24	1.04	26.21
1995	0.31	0.18	2.09	4.74	4.81	2.18	1.36	2.04	3.52	2.22	0.64	0.31	24.40
1996	1.17	0.07	1.09	0.84	6.22	4.39	7.33	4.69	2.65	.86	1.83	.43	31.57
1997	0.35	0.34	0.46	2.42	3.71	3.09	1.94	0.63	2.43	1.29	0.26	0.20	17.12
1998	0.80	0.46	4.01	6.06	2.87	5.67	1.49	3.55	0.42	3.49	1.82	0.15	30.79
1999	0.33	0.81	0.89	4.66	5.21	7.90	3.30	4.57	0.52	0.24	0.67	0.35	29.45
2000	0.40	0.76	0.71	1.87	3.91	5.66	3.14	1.78	1.06	2.23	1.55	0.69	23.76
2001	1.72	0.61	0.87	5.21	5.87	2.57	2.18	3.40	3.39	1.20	3.05	0.45	30.52
2002	0.44	0.38	0.95	2.99	2.60	3.69	4.16	5.67	1.27	2.64	0.22	0.13	25.14
2003	0.22	0.94	1.67	3.15	3.79	4.04	3.72	1.67	6.65	0.63	1.16	0.55	28.19
2004	0.83	1.09	4.36	1.36	4.32	4.12	2.93	0.97	3.42	0.58	1.44	0.12	25.54
2005	0.45	1.12	0.80	4.18	3.39	4.13	2.51	1.45	2.84	2.48	1.91	0.77	26.03
2006	0.24	0.38	2.61	3.37	0.87	3.23	0.36	6.98	5.45	0.82	0.47	2.56	27.34
2007	0.87	1.90	4.19	4.64	4.74	2.70	2.19	9.07	3.67	3.88	0.03	1.70	39.58
2008	0.73	0.81	1.23	2.79	5.20	3.35	4.39	2.67	3.34	4.61	1.06	1.46	31.64
2009	0.27	0.71	1.44	1.62	1.00	5.26	5.55	3.52	4.56	5.70	0.81	2.38	32.82
2010	1.43	0.87	1.38	1.49	1.41	6.40	9.23	4.50	2.99	0.95	0.45	0.95	32.05
2011	1.83	0.73	0.90	4.29	6.67	5.03	0.78	2.53	0.31	0.23	0.05	0.78	24.13
POR= 116 YRS	0.65	0.82	1.53	2.52	3.67	4.03	3.28	2.99	2.93	1.77	1.12	0.78	26.09

WBAN : 14943

**AVERAGE TEMPERATURE (°F) 2011 SIOUX CITY (KSUX)**

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL
1982	6.4	20.4	34.0	46.5	62.4	65.4	76.4	72.4	63.1	53.2	34.2	26.3	46.7
1983	22.5	28.1	36.5	43.2	56.5	68.1	77.2	80.9	66.3	52.6	38.2	6.0	48.0
1984	20.7	31.7	29.3	46.8	57.8	70.4	73.7	74.9	60.4	51.8	37.9	24.4	48.3
1985	17.8	23.7	41.5	54.7	64.5	67.9	74.5	69.3	61.4	51.4	25.9	13.8	47.2
1986	28.0	23.0	41.0	51.2	61.8	72.9	76.8	68.6	64.0	51.9	31.9	27.0	49.8
1987	26.9	34.8	40.5	54.8	66.4	74.3	76.9	70.1	64.0	46.6	41.6	28.9	52.2
1988	16.0	20.8	39.4	49.0	67.5	76.5	76.4	76.1	64.9	47.4	37.5	27.2	49.9
1989	29.9	15.3	34.0	52.2	61.1	69.4	77.4	72.7	61.9	52.6	32.9	14.3	47.8
1990	30.4	28.4	40.2	49.2	58.3	73.4	73.4	73.6	67.8	51.2	40.0	19.6	50.5
1991	15.7	33.1	40.2	52.9	65.0	73.9	74.5	74.0	64.3	49.0	28.3	28.9	50.0
1992	30.7	34.7	40.4	46.7	60.8	68.1	68.6	66.8	62.1	51.1	33.3	24.0	48.9
1993	17.5	18.5	31.6	46.5	59.1	67.7	73.1	72.5	58.4	49.4	32.2	25.6	46.0
1994	12.1	17.7	39.5	49.1	63.8	72.6	70.9	69.9	66.7	54.0	38.5	23.4	48.2
1995	20.6	28.8	36.4	45.8	56.9	70.1	74.9	77.0	60.7	50.1	31.7	25.6	48.2
1996	14.6	26.2	29.0	46.1	57.4	71.4	70.5	70.4	60.6	51.2	28.2	15.3	45.1
1997	14.6	24.8	37.9	42.8	55.5	71.8	74.1	70.7	64.8	52.4	32.4	28.5	47.5
1998	23.2	34.8	30.6	50.2	65.2	66.5	74.6	73.5	70.1	54.2	40.5	27.8	50.9
1999	18.9	32.5	37.0	49.2	61.4	68.5	77.7	70.9	61.0	50.5	44.2	28.8	50.1
2000	22.1	33.5	42.4	50.8	64.4	68.2	73.6	73.8	64.4	53.0	27.2	11.5	48.7
2001	21.9	15.6	30.8	51.6	61.6	70.4	75.8	71.6	61.3	50.5	46.5	28.6	48.9
2002	27.6	29.1	28.8	51.0	57.9	74.8	77.8	71.5	64.9	44.5	34.8	28.6	49.3
2003	20.7	22.1	36.6	50.8	58.0	68.5	74.4	74.4	60.1	53.2	35.0	28.4	48.5
2004	18.7	21.6	41.1	52.3	61.4	67.0	71.8	68.2	68.4	52.2	38.8	28.9	49.2
2005	20.1	32.2	38.9	54.0	61.2	74.9	77.4	74.0	70.1	52.9	39.1	21.1	51.3
2006	33.5	25.1	35.7	53.9	63.4	72.2	77.6	72.8	59.7	48.0	36.9	30.2	50.8
2007	19.3	17.0	42.7	48.1	65.7	71.9	76.5	74.5	63.8	54.5	36.9	18.8	49.1
2008	15.5	18.0	33.1	45.8	58.5	69.5	74.6	71.7	63.7	51.9	36.4	17.0	46.3
2009	16.6	27.6	36.8	48.1	62.2	70.0	70.2	70.1	64.3	44.4	43.3	17.8	47.6
2010	13.5	18.0	39.2	55.4	60.7	71.8	75.1	75.9	64.0	54.1	36.6	20.1	48.7
2011	13.6	21.7	35.2	47.7	60.1	70.9	80.3	73.6	60.2	53.9	37.5	26.6	48.4
POR= 116 YRS	18.1	22.4	35.2	48.7	61.0	69.4	75.5	73.1	63.0	52.1	35.8	23.6	48.2

**HEATING DEGREE DAYS (base 65°F) 2011 SIOUX CITY (KSUX)**

YEAR	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	TOTAL
1982-83	0	17	132	366	916	1197	1310	1027	879	648	270	44	6806
1983-84	0	0	113	390	799	1825	1365	956	1098	543	235	7	7331
1984-85	0	5	194	405	805	1254	1459	1149	720	336	86	45	6458
1985-86	1	13	221	414	1168	1581	1142	1172	737	409	124	1	6983
1986-87	0	27	79	396	984	1172	1178	840	752	332	76	6	5842
1987-88	1	44	80	563	693	1111	1514	1276	786	475	47	6	6596
1988-89	0	9	75	542	818	1165	1083	1387	956	428	164	35	6662
1989-90	0	7	161	389	956	1567	1065	1018	759	500	218	21	6661
1990-91	0	2	85	431	744	1401	1521	887	759	379	148	2	6359
1991-92	0	0	150	488	1092	1115	1056	872	757	551	173	21	6275
1992-93	15	45	140	437	944	1262	1466	1297	1032	550	194	49	7431
1993-94	0	12	211	499	978	1217	1633	1322	782	488	136	9	7287
1994-95	1	12	73	338	790	1285	1372	1006	878	567	245	47	6614
1995-96	4	1	198	468	994	1214	1560	1122	1109	562	273	28	7533
1996-97	5	0	181	427	1098	1533	1557	1119	834	660	302	0	7716
1997-98	9	19	85	431	974	1127	1288	841	1062	441	83	79	6439
1998-99	0	0	34	334	723	1146	1423	902	861	465	145	55	6088
1999-00	0	3	164	449	621	1117	1322	908	695	419	98	36	5832
2000-01	7	2	131	368	1128	1652	1328	1377	1053	418	160	31	7655
2001-02	0	7	149	449	548	1122	1153	998	1115	437	274	3	6255
2002-03	0	7	106	628	901	1122	1364	1197	873	430	223	33	6884
2003-04	0	0	188	373	894	1128	1429	1254	734	391	176	52	6619
2004-05	12	40	41	398	778	1112	1385	910	801	336	179	1	5993
2005-06	1	1	43	412	768	1355	972	1109	901	337	147	9	6055
2006-07	0	2	185	547	836	1073	1412	1336	686	523	77	9	6686
2007-08	0	0	121	343	836	1428	1527	1357	983	569	220	2	7386
2008-09	0	0	99	412	851	1483	1495	1041	864	508	142	39	6934
2009-10	5	18	67	633	646	1455	1590	1311	790	297	208	1	7021
2010-11	0	0	77	338	846	1386	1587	1207	913	512	209	13	7088
2011-	0	0	184	370	818	1184							

WBAN : 14943

**COOLING DEGREE DAYS (base 65°F) 2011 SIOUX CITY (KSUX)**

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
1982	0	0	0	3	41	79	358	254	85	7	0	0	827
1983	0	0	0	0	16	144	385	502	158	9	0	0	1214
1984	0	0	0	4	16	180	279	320	61	3	0	0	863
1985	0	0	0	35	77	134	302	153	120	1	0	0	822
1986	0	0	2	3	34	246	367	142	55	0	0	0	849
1987	0	0	0	34	132	292	377	210	56	0	0	0	1101
1988	0	0	0	3	132	356	363	361	80	0	0	0	1295
1989	0	0	0	53	49	175	391	254	71	12	0	0	1005
1990	0	0	0	33	14	278	267	272	176	10	0	0	1050
1991	0	0	0	22	156	276	302	287	135	1	0	0	1179
1992	0	0	0	7	49	119	133	108	57	13	0	0	486
1993	0	0	0	0	18	135	261	247	17	18	0	0	696
1994	0	0	0	20	104	242	188	172	130	2	0	0	858
1995	0	0	0	0	1	207	320	380	73	12	0	0	993
1996	0	0	0	1	43	227	179	178	55	7	0	0	690
1997	0	0	0	0	13	212	298	204	89	49	0	0	865
1998	0	0	0	2	95	135	304	271	191	5	0	0	1003
1999	0	0	0	0	39	168	402	193	52	7	0	0	861
2000	0	0	0	2	85	140	284	284	119	4	0	0	918
2001	0	0	0	24	64	202	343	218	45	6	0	0	902
2002	0	0	0	23	60	305	401	216	109	0	0	0	1114
2003	0	0	0	14	15	144	303	297	47	13	0	0	833
2004	0	0	0	16	71	120	227	147	148	6	0	0	735
2005	0	0	0	14	70	307	390	285	202	43	0	0	1311
2006	0	0	0	12	106	234	398	251	33	29	0	0	1063
2007	0	0	1	24	106	224	362	302	92	27	0	0	1138
2008	0	0	0	0	26	144	304	213	64	14	2	0	767
2009	0	0	0	9	62	197	174	182	53	0	0	0	677
2010	0	0	1	16	83	211	321	346	55	7	0	0	1040
2011	0	0	0	1	65	196	481	272	46	32	0	0	1093

**SNOWFALL (inches) 2011 SIOUX CITY (KSUX)**

YEAR	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	TOTAL
1982-83	0.0	0.0	0.0	8.0	0.3	12.4	3.2	6.8	19.1	9.7	0.0	0.0	59.5
1983-84	0.0	0.0	0.0	0.0	16.5	9.4	1.8	10.2	17.8	5.1	0.0	0.0	60.8
1984-85	0.0	0.0	0.0	T	2.2	6.2	3.7	0.9	10.8	T	0.0	0.0	23.8
1985-86	0.0	0.0	T	T	9.4	9.0	1.4	1.9	5.4	2.1	0.0	0.0	29.2
1986-87	0.0	0.0	0.0	T	5.1	2.1	3.5	3.4	7.7	T	0.0	0.0	21.8
1987-88	0.0	0.0	0.0	T	5.4	1.9	7.5	5.5	1.0	4.4	0.0	0.0	25.7
1988-89	0.0	0.0	0.0	0.0	9.1	1.9	3.3	6.2	6.3	0.3	T	0.0	27.1
1989-90	T	0.0	0.0	0.0	2.4	7.1	5.5	3.8	3.0	0.1	T	T	21.9
1990-91	0.0	0.0	0.0	0.4	5.7	7.7	6.7	3.9	8.5	T	0.0	T	32.9
1991-92	0.0	0.0	0.0	9.8	8.4	0.5	1.2	1.8	2.1	6.2	T	0.0	30.0
1992-93	T	0.0	0.0	T	1.7	6.9	7.8	24.5	2.4	0.3	0.0	0.0	43.6
1993-94	0.0	0.0	T	T	10.2	9.1	7.9	12.9	0.4	2.9	T	T	43.4
1994-95	0.0	0.0	0.0	0.0	8.4	13.9	2.6	1.9	8.5	0.3	0.0	0.0	35.6
1995-96	0.0	0.0	0.0	0.0	1.5	2.7	8.1	0.1	4.7	2.0	T	T	
1996-97	0.0	0.0	0.0	0.0	0.0	9.7			1.6		0.0	0.0	
1997-98	0.0	0.0	0.0	0.3	0.9	1.6	5.7	3.0	11.5	0.1	0.0	T	
1998-99	0.0	0.0	0.0	0.0	4.1	5.0	7.3	13.6	9.4	0.8	0.0	0.0	40.2
1999-00	T	0.0	0.0	T	1.5	4.6	4.1	4.0	1.0	1.9	0.0	0.0	17.1
2000-01	0.0	0.0	0.0	0.0	8.3	18.0	12.2	7.3	2.2	0.2	0.0	T	48.2
2001-02	0.0	0.0	0.0	0.0	T	3.5	7.0	4.4	10.6	T	0.0	0.0	25.5
2002-03	0.0	0.0	0.0	7.6	2.3	1.2	3.1	4.9	2.8	9.5	0.0	0.0	31.4
2003-04	0.0	0.0	0.0	T	1.3	5.7	16.6	14.5	20.2	0.0	0.0	0.0	58.3
2004-05	0.0	0.0	0.0	0.0	0.5	T	9.6	3.7	0.1	0.0	0.0	0.0	13.9
2005-06	0.0	0.0	0.0	0.0	10.6	6.6	0.6	6.4	11.0	0.0	0.0	0.0	35.2
2006-07	0.0	0.0	0.0	0.3	0.5	1.8	15.6	20.0	12.3	0.1	0.0	0.0	50.6
2007-08	0.0	0.0	0.0	0.0	0.0	12.2	14.5	10.4	6.0	0.7	0.0	0.0	43.8
2008-09	0.0	0.0	0.0	0.0	2.9	22.6	5.1	2.7	1.7	0.5	0.0	0.0	35.5
2009-10	0.0	0.0	0.0	1.8	T	34.0	13.6	9.9	0.5	0.0	0.0	0.0	59.8
2010-11	0.0	0.0	0.0	0.0	0.2	10.2	21.1	3.8	6.0	T	0.0	0.0	41.3
2011-	0.0	0.0	0.0	0.0	T	2.9							
POR= 63 YRS	T	0.0	T	0.7	3.4	6.8	7.1	6.3	7.4	1.4	T	T	33.1

WBAN : 14943

**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 SIOUX CITY IOWA (KSUX)

Sioux City is located along the Missouri River at a point where Iowa borders both Nebraska and South Dakota. Except for the river valleys, the countryside is rolling. The Sioux City business section lies in the river valley and the residential sections, for the most part, are spread over the hills which range from 100 to 200 feet higher than the valley. The local topography causes minor variations in wind and temperature.

Located in the midland of a continent and in the northern half of the Great Plains, the climate of Sioux City is typically continental and is largely determined by the movement and interaction of the large-scale weather systems. Under normal conditions, winters are cold and summers warm, and most of the precipitation comes during the warmer months from April to September. There is

considerable fluctuation in temperature and precipitation from season to season and from year to year, as elsewhere in the northern plains. Except for an occasional dry year, the climate is quite favorable for agriculture with corn, the small grains, and grasses producing abundantly.

The grass usually starts to grow about the middle of April. The growing season averages about 160 days. Summers are sunny and most summer rains are associated with showers or thunderstorms. Winds are lightest in the summer months, except for occasional strong gusts with thunderstorms. Winds gradually increase in autumn and winter and usually reach their highest average velocities in April.

# Station History

SIoux CITY, IA

NAME	Begin Date	End Date	Latitude	Longitude	Elevation Feet	Relocation	Platform
SIoux CITY GATEWAY AP	1939-12-01	1943-01-01	42° 25'	-96° 22'			AIRWAYS
SIoux CITY GATEWAY AP	1947-12-01	1954-01-01	42° 22'	-96° 22'	1095		AIRWAYS, COOP
SIoux CITY GATEWAY AP	1995-06-01	1995-07-01	42° 23'	-96° 22'	1093		ASOS, COOP, WXSVC
SIoux CITY GATEWAY AP	2011-01-01	Present	42° 23'	-96° 22'	1095		AIRWAYS, ASOS, COOP
SIoux CITY GATEWAY AP	1954-01-01	1973-01-01	42° 24'	-96° 22'	1095		AIRWAYS, COOP
SIoux CITY GATEWAY AP	1995-07-01	1996-07-01	42° 23'	-96° 22'	1095	.5 MI W	ASOS, COOP, WXSVC
SIoux CITY GATEWAY AP	1943-01-01	1947-12-01	42° 22'	-96° 22'			AIRWAYS
SIoux CITY GATEWAY AP	1973-01-01	1995-06-01	42° 24'	-96° 22'	1095		COOP, WXSVC
SIoux CITY GATEWAY AP	1996-07-01	2011-01-01	42° 23'	-96° 22'	1095		AIRWAYS, ASOS, COOP

# Element History

Element	Begin Date	End Date	Frequency	Time Of Observation	Equipment *	Equipment * Modifications	Equipment Exposure
PRECIP	1987-10-01	1995-07-01	DAILY	2400	UNIV	RCRD	
DEWPNTTEMP	2011-10-14	Present	DAILY	2400	TEMPX		
PRECIP	2011-10-14	Present	HOURLY	2400	AWPAG	RCRD;HTD	
PRECIP	1982-01-01	1987-10-01	DAILY	2400	UNIV	RCRD	
TEMP	1987-10-01	1995-07-01	DAILY	2400	HYGR		
PRECIP	1987-10-01	1995-07-01	HOURLY	2400			
PRECIP	2011-01-01	2011-10-14	DAILY	2400	PCPNX		
TEMP	1982-01-01	1987-10-01	DAILY	2400			
PRECIP	1995-07-01	2011-01-01	DAILY	2400	AHTB	RCRD;HTD	
PRECIP	1939-12-01	1982-01-01	DAILY	2400	UNIV	RCRD	
PRECIP	1982-01-01	1987-10-01	HOURLY	2400			
TEMP	1995-07-01	2011-01-01	DAILY	2400	ATEMP		
WIND	2011-10-14	Present	DAILY	2400	WINDX		
PRECIP	2011-10-14	Present	DAILY	2400	PCPNX		
TEMP	1939-12-01	1982-01-01	DAILY	2400			
PRECIP	1995-07-01	2011-01-01	HOURLY	2400	AHTB	RCRD;HTD	
PRECIP	2011-01-01	2011-10-14	HOURLY	2400	AWPAG	RCRD;HTD	
TEMP	2011-01-01	2011-10-14	DAILY	2400	ATEMP		
TEMP	2011-10-14	Present	DAILY	2400	ATEMP		

\* 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

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