

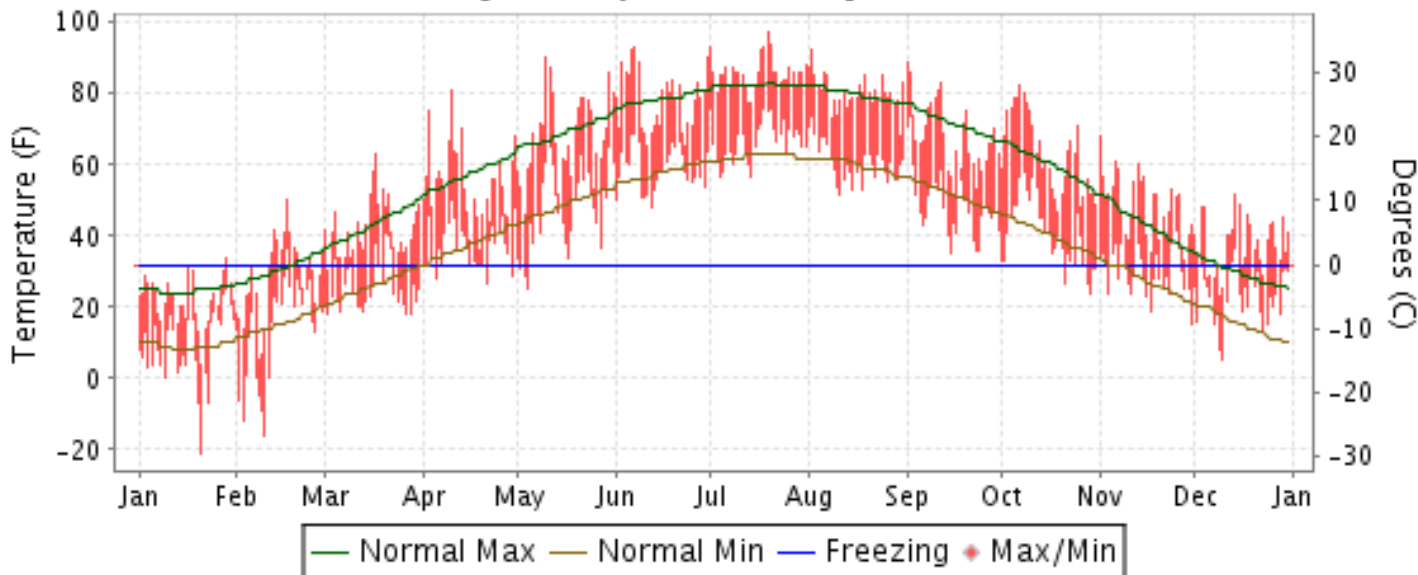


2011 LOCAL CLIMATOLOGICAL DATA ANNUAL SUMMARY WITH COMPARATIVE DATA

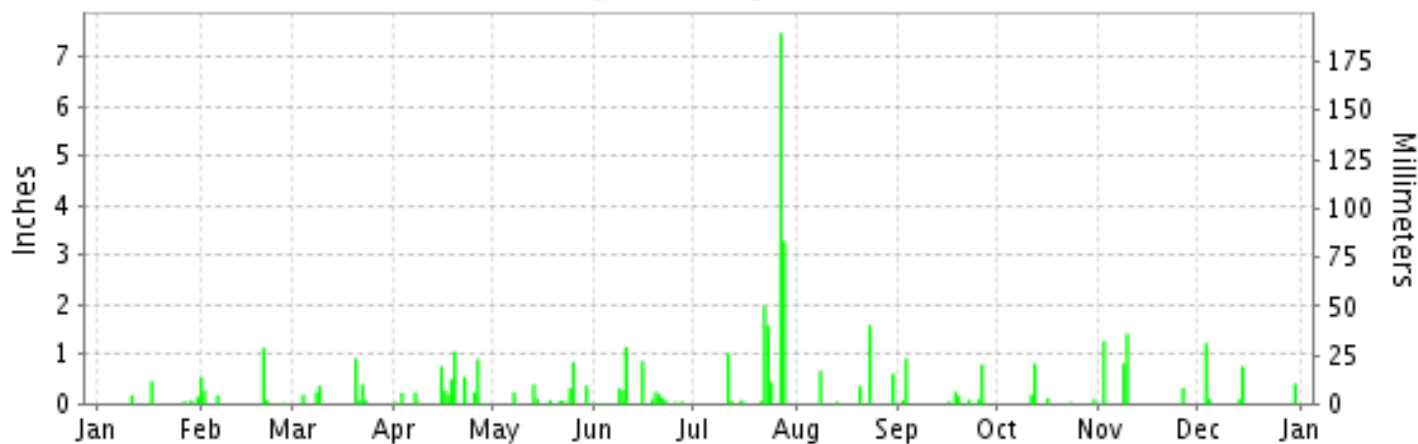
ISSN 0198-2079

DUBUQUE, IOWA (KDBQ)

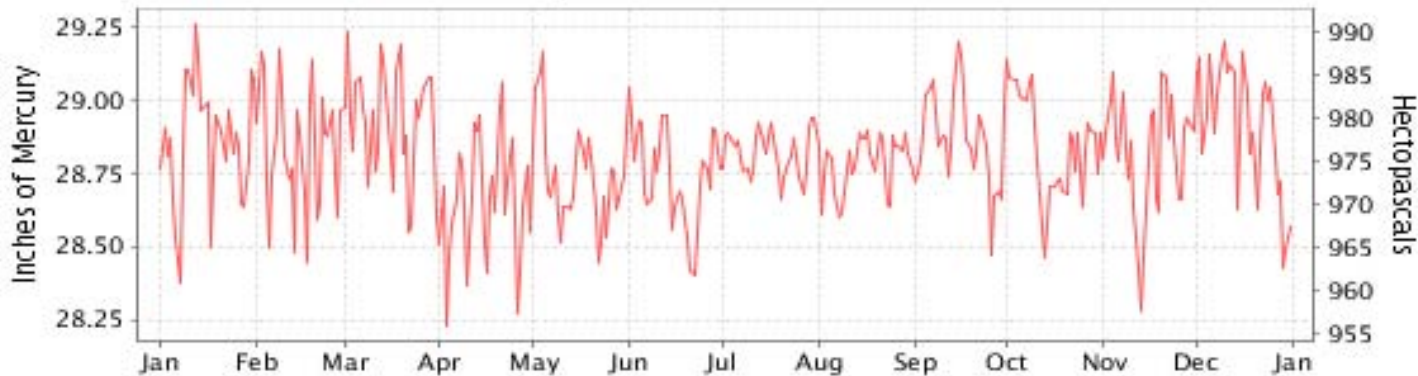
Daily Max/Min Temperature



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

DUBUQUE (KDBQ)

LATITUDE: 42° 23'N LONGITUDE: -90° 42'W ELEVATION (FT): GRND: 1056 BARO: 1072 TIME ZONE: CENTRAL (UTC -6) WBAN: 94908

ELEMENT		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	YEAR	
TEMPERATURE °F	MEAN DAILY MAXIMUM	22.2	28.6	42.3	55.2	68.2	78.2	85.8	80.3	68.1	63.3	48.6	37.7	56.5	
	HIGHEST DAILY MAXIMUM	34	50	63	81	90	93	97	92	89	82	68	52	97	
	DATE OF OCCURRENCE	29	17	17	10	10	07	19	02	01	07	01	14	JUL 19	
	MEAN DAILY MINIMUM	9.2	13.8	25.7	37.4	47.7	59.1	66.8	60.7	48.8	40.7	30.0	23.2	38.6	
	LOWEST DAILY MINIMUM	-21	-16	18	27	25	48	57	52	35	24	15	5	-21	
	DATE OF OCCURRENCE	21	10	28+	21	04	12	14+	11	15	29	30	10	JAN 21	
	AVERAGE DRY BULB	15.7	21.2	34.0	46.3	58.0	68.7	76.3	70.5	58.5	52.0	39.3	30.5	47.6	
	MEAN WET BULB	14.7	20.9	30.9	42.2	52.4	63.2	71.5	65.7	53.7	46.0	36.0	28.6	43.8	
	MEAN DEW POINT	10.7	16.9	25.5	37.0	46.8	59.6	68.5	62.5	50.1	40.2	31.2	25.4	39.5	
	NUMBER OF DAYS WITH:														
	MAXIMUM >= 90°	0	0	0	0	1	3	5	1	0	0	0	0	0	10
MAXIMUM <= 32°	30	17	1	0	0	0	0	0	0	0	0	8	56		
MINIMUM <= 32°	31	27	26	10	3	0	0	0	0	7	19	29	152		
MINIMUM <= 0°	4	7	0	0	0	0	0	0	0	0	0	0	11		
H/C	HEATING DEGREE DAYS	1520	1219	953	554	266	31	0	2	233	405	763	1065	7011	
	COOLING DEGREE DAYS	0	0	0	1	57	150	358	178	43	9	0	0	796	
RH	MEAN (PERCENT)	79	79	73	72	69	75	78	77	78	68	75	82	75	
	HOUR 00 LST	81	81	78	79	77	85	89	89	85	75	78	87	82	
	HOUR 06 LST	83	83	85	84	81	86	91	92	91	83	84	89	86	
	HOUR 12 LST	75	75	64	64	62	64	63	62	63	53	66	73	65	
	HOUR 18 LST	78	78	65	65	57	64	68	68	71	63	72	81	69	
S	PERCENT POSSIBLE SUNSHINE														
W/O	NUMBER OF DAYS WITH:														
	HEAVY FOG(VISBY <= 1/4 MI)	4	6	3	4	2	3	2	2	9	1	1	3	40	
	THUNDERSTORMS	0	0	2	4	5	7	8	4	2	2	0	0	34	
CLOUDINESS	SUNRISE-SUNSET: (OKTAS)														
	CEILOMETER (<= 12,000 FT.)														
	SATELLITE (> 12,000 FT.)														
	MIDNIGHT-MIDNIGHT: (OKTAS)														
	CEILOMETER (<= 12,000 FT.)														
SATELLITE (> 12,000 FT.)															
NUMBER OF DAYS WITH:															
CLEAR															
PARTLY CLOUDY															
CLOUDY															
PR	MEAN STATION PRESS. (IN.)	28.87	28.84	28.93	28.65	28.74	28.74	28.82	28.79	28.87	28.85	28.82	28.92	28.82	
	MEAN SEA-LEVEL PRESS. (IN.)	30.08	30.05	30.12	29.82	29.89	29.88	29.95	29.93	30.03	30.01	30.00	30.11	29.99	
WINDS	RESULTANT SPEED (MPH)	3.6	1.8	2.7	1.2	1.5	3.0	2.3	1.0	3.4	2.6	2.4	3.4	1.0	
	RES. DIR. (TENS OF DEGS.)	30	29	04	02	11	19	19	26	34	26	23	24	27	
	MEAN SPEED (MPH)	10.0	11.3	9.9	12.1	11.3	9.2	6.4	5.5	7.8	8.9	11.9	10.0	9.5	
	PREVAIL.DIR.(TENS OF DEGS.)	31	20	03	29	04	21	19	01	01	17	20	20	20	
	MAXIMUM 2-MINUTE WIND														
	SPEED (MPH)	31	34	37	36	37	37	47	28	40	31	32	31	47	
	DIR. (TENS OF DEGS.)	25	02	28	32	33	27	31	20	34	29	21	30	31	
	DATE OF OCCURRENCE	01	01	12	04	09	08	11	23	29	14	18	15	JUL 11	
	MAXIMUM 3-SECOND WIND:														
SPEED (MPH)	74	46	48	46	53	44	74	35	51	40	43	41	74		
DIR. (TENS OF DEGS.)	16	36	29	32	12	27	31	19	29	29	20	31	31		
DATE OF OCCURRENCE	03	02	12	04	29	08	11	23	29	14	18	15	JUL 11		
PRECIPITATION	WATER EQUIVALENT:														
	TOTAL (IN.)	0.99	2.29	2.28	5.07	2.55	3.51	16.01	3.30	2.50	1.26	3.85	2.68	46.29	
	GREATEST 24-HOUR (IN.)	0.46	1.13	0.92	1.19	1.16	1.42	10.62	1.59	0.92	0.81	1.74	1.32	10.62	
	DATE OF OCCURRENCE	17	20	20	18-19	24-25	09-10	27-28	23	03	12	08-09	03-04	JUL 27-28	
	NUMBER OF DAYS WITH:														
	PRECIPITATION 0.01	11	9	7	14	12	15	10	7	11	5	5	9	115	
PRECIPITATION 0.10	3	4	5	10	6	8	6	4	5	4	4	5	64		
PRECIPITATION 1.00	0	1	0	1	0	1	5	1	0	0	2	1	12		
SNOWFALL	SNOW,ICE PELLETS,HAIL														
	TOTAL (IN.)	11.3	18.4	5.3	1.0	0.0	0.0	0.0	0.0	0.0	0.0	1.6	1.0	38.6	
	GREATEST 24-HOUR (IN.)	4.7	10.6	4.1	0.9	0.0	0.0	0.0	0.0	0.0	0.0	1.6	0.5	10.6	
	DATE OF OCCURRENCE	17	01	09	16							09	17	FEB 01	
	MAXIMUM SNOW DEPTH (IN.)	7	17	5	0	0	0	0	0	0	0	T	1	17	
	DATE OF OCCURRENCE	30+	02	09								11+	17	FEB 02	
NUMBER OF DAYS WITH:															
SNOWFALL >= 1.0	3	3	2	0	0	0	0	0	0	0	1	0	9		

NORMALS, MEANS, AND EXTREMES DUBUQUE (KDBQ)

LATITUDE: 42° 23'N LONGITUDE: -90° 42'W ELEVATION (FT): GRND: 1056 BARO: 1072 TIME ZONE: CENTRAL (UTC -6) WBAN: 94908

	ELEMENT	POR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	YEAR
TEMPERATURE °F	NORMAL DAILY MAXIMUM	30	24.8	30.8	43.3	57.4	69.3	78.6	82.1	79.8	71.9	60.3	43.6	29.7	56.0
	MEAN DAILY MAXIMUM	59	25.3	30.6	42.4	57.9	69.0	78.2	82.0	80.0	72.2	60.6	44.5	30.3	56.1
	HIGHEST DAILY MAXIMUM	59	60	66	85	93	91	100	101	100	97	90	75	67	101
	YEAR OF OCCURRENCE		2002	2000	1986	1980	2006	1988	1988	1988	1955	1997	2000	1998	JUL 1988
	MEAN OF EXTREME MAXS.	59	44.7	48.9	66.6	79.0	84.8	90.1	92.1	90.8	86.9	79.4	64.8	50.2	73.2
	NORMAL DAILY MINIMUM	30	9.2	15.4	26.2	37.5	48.8	57.9	62.4	60.2	51.7	40.5	27.8	15.2	37.7
	MEAN DAILY MINIMUM	59	9.8	14.5	25.0	37.5	48.0	57.6	62.0	60.1	51.3	40.4	27.9	15.5	37.5
	LOWEST DAILY MINIMUM	59	-30	-27	-20	11	21	36	44	40	28	13	-17	-25	-30
	YEAR OF OCCURRENCE		2009	1996	1962	1973	2005	1972	1984	1986	1984	1952	1977	1983	JAN 2009
	MEAN OF EXTREME MINS.	59	-13.4	-7.4	5.8	22.3	33.0	45.0	50.6	48.6	36.0	24.6	9.6	-6.9	20.7
	NORMAL DRY BULB	30	17.0	23.1	34.8	47.5	59.1	68.3	72.3	70.0	61.8	50.4	35.7	22.5	46.9
	MEAN DRY BULB	59	17.6	22.6	33.7	47.7	58.5	68.1	72.0	70.1	61.7	50.5	36.2	22.9	46.8
	MEAN WET BULB	28	17.2	21.7	31.0	41.5	52.0	61.7	65.9	64.5	56.2	44.3	32.8	21.6	42.5
	MEAN DEW POINT	28	14.6	18.5	27.3	37.2	48.8	59.0	63.8	62.5	53.7	41.3	30.1	19.2	39.7
	NORMAL NO. DAYS WITH: MAXIMUM >= 90	30	0.0	0.0	0.0	*	*	1.5	3.9	2.2	0.6	*	0.0	0.0	
	MAXIMUM <= 32	30	21.9	15.2	5.8	0.5	0.0	0.0	0.0	0.0	0.0	*	5.3	17.3	
MINIMUM <= 32	30	30.5	26.2	22.9	8.6	0.5	0.0	0.0	0.0	0.5	6.1	20.9	29.5		
MINIMUM <= 0	30	9.1	4.9	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	5.0		
H/C	NORMAL HEATING DEG. DAYS	30	1492	1189	949	536	226	40	8	21	158	465	879	1307	
	NORMAL COOLING DEG. DAYS	30	0	0	0	6	37	138	233	175	61	6	0	0	
RH	NORMAL (PERCENT)	30													
	hour 00 LST	30													
	hour 06 LST	30													
	hour 12 LST	30													
	hour 18 LST	30													
S	PERCENT POSSIBLE SUNSHINE														
W/O	MEAN NO. DAYS WITH: HEAVY FOG(VISBY <= 1/4 MI)	31	4.4	3.6	3.3	2.1	2.0	1.6	2.7	3.5	2.8	2.1	3.1	5.4	36.6
	THUNDERSTORMS	43	0.1	0.2	1.3	2.6	4.5	5.3	5.2	4.6	2.7	1.8	0.7	0.1	29.1
CLOUDINESS	MEAN: SUNRISE-SUNSET (OKTAS)														
	MIDNIGHT-MIDNIGHT (OKTAS)														
	MEAN NO. DAYS WITH: CLEAR														
	PARTLY CLOUDY CLOUDY														
PR	MEAN STATION PRESSURE(IN)	28	28.89	28.90	28.86	28.79	28.81	28.82	28.85	28.89	28.89	28.88	28.87	28.89	28.86
	MEAN SEA-LEVEL PRES. (IN)	28	30.10	30.10	30.05	29.96	29.96	29.95	29.99	30.03	30.04	30.05	30.05	30.10	30.03
WINDS	MEAN SPEED (MPH)	28	11.3	11.4	11.9	12.4	10.8	9.2	8.0	7.7	8.7	10.3	11.4	11.0	10.3
	PREVAIL.DIR(TENS OF DEGS)	18	30	20	03	19	19	20	21	19	20	20	20	20	20
	MAXIMUM 2-MINUTE: SPEED (MPH)	16	37	45	46	47	46	55	47	66	61	44	49	41	66
	DIR. (TENS OF DEGS)		28	26	28	25	19	25	31	32	36	25	23	24	32
	YEAR OF OCCURRENCE		1996	2001	2002	2001	2002	2005	2011	1998	2010	2010	1998	2001	AUG 1998
	MAXIMUM 3-SECOND SPEED (MPH)	16	74	54	58	69	54	67	74	78	85	60	63	54	85
	DIR. (TENS OF DEGS)		16	26	28	25	19	18	31	31	35	24	23	30	35
	YEAR OF OCCURRENCE		2011	2001	2002	2001	2002	2005	2011	1998	2010	2010	1998	2004	SEP 2010
PRECIPITATION	NORMAL (IN)	30	1.28	1.42	2.57	3.49	4.12	4.08	3.73	4.59	3.56	2.50	2.49	1.69	35.52
	MAXIMUM MONTHLY (IN)	59	6.04	3.81	6.50	7.69	9.43	10.49	16.01	9.90	15.46	8.58	10.63	4.61	16.01
	YEAR OF OCCURRENCE		1960	2008	1959	1964	1962	1969	2011	1987	1965	1967	1961	2007	JUL 2011
	MINIMUM MONTHLY (IN)	59	0.31	0.07	0.36	0.81	0.69	0.70	0.87	0.08	0.07	0.00	0.17	0.08	0.00
	YEAR OF OCCURRENCE		1964	1995	1958	1985	1992	1988	1991	1969	1979	1996	2002	1995	OCT 1996
	MAXIMUM IN 24 HOURS (IN)	59	3.75	2.24	2.57	2.65	4.60	5.90	10.62	8.95	8.85	2.58	5.09	2.31	10.62
	YEAR OF OCCURRENCE		1960	1953	1998	1964	1962	2002	2011	2002	1967	1959	1961	1971	JUL 2011
	NORMAL NO. DAYS WITH: PRECIPITATION >= 0.01	30	9.7	8.0	10.5	11.7	12.2	11.0	9.6	9.6	8.9	9.3	10.1	10.0	120.6
	PRECIPITATION >= 1.00	30	0.2	0.1	0.3	0.7	0.8	1.0	0.7	1.2	0.9	0.5	0.4	0.2	7.0
	SNOWFALL	NORMAL (IN)	30	10.6	8.7	7.6	3.2	0.*	0.0	0.0	0.0	0.0	0.1	4.5	10.5
MAXIMUM MONTHLY (IN)		58	29.3	32.5	30.2	19.8	3.1	T	0.0	T	T	1.5	13.9	37.6	37.6
YEAR OF OCCURRENCE			1979	2008	1959	1973	1966	1993		2008	1986	1976	1986	2000	DEC 2000
MAXIMUM IN 24 HOURS (IN)		58	11.8	11.9	15.5	14.6	3.1	T	0.0	T	T	1.5	10.4	15.0	15.5
YEAR OF OCCURRENCE			1971	1962	1959	1973	1966	1993		2008	1986	1976	1992	1990	MAR 1959
MAXIMUM SNOW DEPTH (IN)		48	25	22	23	17	3	0	0	0	0	1	9	20	25
YEAR OF OCCURRENCE			1979	1962	1962	1973	1994					1962	1986	2000	JAN 1979
NORMAL NO. DAYS WITH: SNOWFALL >= 1.0	30	3.4	2.7	2.2	0.9	0.0	0.0	0.0	0.0	0.0	0.1	1.4	3.0	13.7	

PRECIPITATION (inches) 2011 DUBUQUE (KDBQ)

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL
1982											5.30	4.14	
1983	0.70	2.17	2.91	3.39	6.42	1.56	3.38	2.23	3.54	1.78	3.88	2.44	34.40
1984	0.81	1.05	1.68	4.08	4.20	6.19	2.31	1.37	2.22	6.55	1.77	2.77	35.00
1985	1.17	2.51	4.35	0.81	4.51	1.09	2.19	3.44	4.89	4.94	4.22	2.20	36.32
1986	0.82	2.26	1.96	2.74	5.92	5.72	2.75	4.29	13.06	3.60	1.61	0.68	45.41
1987	0.79	0.80	2.11	1.53	5.19	2.05	5.55	9.90	3.31	1.03	3.41	3.16	38.83
1988	1.32	0.74	2.31	2.21	0.97	0.70	1.97	3.73	2.72	1.73	2.69	1.48	22.57
1989	0.90	0.45	1.85	2.32	2.25	1.85	3.01	4.35	2.38	2.18	0.81	0.39	22.74
1990	1.27	1.06	4.63	2.27	4.91	5.68	4.28	8.01	0.57	1.35	2.66	2.86	39.55
1991	1.16	0.45	5.81	3.88	4.24	3.34	0.87	3.90	3.76	3.86	4.28	1.59	37.14
1992	1.49	1.87	1.55	3.82	0.69	1.02	7.52	1.63	4.57	1.09	6.84	2.12	34.21
1993	1.37	0.99	3.10	4.61	5.40	8.04	8.50	8.05	4.50	1.64	1.03	0.98	48.21
1994	1.37	2.42	0.48	3.10	1.10	5.77	6.70	6.67	4.51	0.53	2.71	1.73	37.09
1995	1.00	0.07	2.32	5.14	5.33	2.90	2.48	0.29	1.40	2.73	2.40	0.08	26.14
1996	2.65	0.35	1.05	2.09	7.56	5.24	2.37	1.98	1.97	4.14	1.68	.77	31.85
1997	0.86	1.86	1.20	3.12	2.93	5.35	2.75	3.41	4.11	0.95	0.77	0.90	28.21
1998	1.05	2.93	5.43	5.10	3.27	7.84	1.61	6.38	3.75	4.48	1.31	0.14	43.29
1999	2.18	0.94	0.91	6.65	4.41	4.98	7.65	2.87	1.70	1.33	0.57	0.86	35.05
2000	1.39	1.44	0.94	3.35	5.55	8.01	2.52	2.36	3.43	1.00	1.26	2.15	33.40
2001	1.36	3.12	1.01	2.80	5.69	3.66	1.16	3.81	5.59	3.40	1.89	1.31	34.80
2002	0.37	1.09	1.55	4.00	4.40	8.42	4.12	9.71	3.47	3.49	0.17	0.73	41.52
2003	0.39	0.42	0.90	2.84	4.01	2.75	4.46	0.25	3.74	1.33	5.85	1.81	28.75
2004	0.39	1.29	4.79	1.28	7.27	3.30	1.49	3.20	0.64	4.40	1.99	1.09	31.13
2005	2.01	1.34	0.90	2.26	2.72	3.08	1.43	5.07	1.91	0.48	2.63	1.65	25.48
2006	1.32	0.35	3.59	6.60	2.68	3.78	6.78	1.97	4.61	2.23	2.59	1.62	38.12
2007	0.86	2.24	2.71	6.08	1.11	2.24	8.84	6.06	4.20	3.48	0.27	4.61	42.70
2008	1.21	3.81	2.68	6.03	8.57	7.16	5.16	1.54	3.66	1.98	1.26	3.02	46.08
2009	1.06	1.40	4.17	4.22	3.07	2.94	7.44	8.78	1.71	7.08	1.69	3.75	47.31
2010	1.77	0.85	1.05	5.78	4.79	7.74	12.68	3.60	2.47	1.50	1.37	3.08	46.68
2011	0.99	2.29	2.28	5.07	2.55	3.51	16.01	3.30	2.50	1.26	3.85	2.68	46.29
POR= 59 YRS	1.28	1.40	2.64	3.97	4.26	4.29	4.49	4.43	3.77	2.76	2.45	1.89	37.63

WBAN : 94908

AVERAGE TEMPERATURE (°F) 2011 DUBUQUE (KDBQ)

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL
1982											35.7	30.5	
1983	23.1	28.2	35.3	43.4	54.9	69.8	75.9	76.6	62.9	51.2	39.0	9.6	47.5
1984	15.7	30.7	28.4	47.7	55.1	68.9	70.6	72.4	60.6	53.9	37.4	27.4	47.4
1985	11.9	19.3	39.8	54.0	61.3	65.8	71.3	67.1	61.8	49.8	30.4	8.7	45.1
1986	18.4	19.2	37.3	50.9	59.5	67.2	73.6	65.0	63.3	50.8	30.9	25.7	46.8
1987	23.1	31.9	38.4	51.5	62.4	71.0	75.0	69.1	61.7	44.7	40.8	27.8	49.8
1988	13.9	17.9	36.0	47.5	62.6	71.3	76.1	74.7	64.2	45.1	37.7	25.3	47.7
1989	27.4	14.4	32.3	46.5	58.1	67.0	73.5	67.9	58.5	52.3	34.2	13.3	45.5
1990	28.7	26.8	38.8	47.6	55.1	68.3	71.1	70.8	64.2	49.2	41.2	20.0	48.5
1991	14.5	26.9	37.9	50.9	64.1	72.2	73.2	71.3	61.3	49.6	30.3	26.3	48.2
1992	24.7	30.4	36.8	45.3	59.4	66.7	66.7	64.4	59.4	48.8	32.9	23.5	46.6
1993	20.8	20.3	31.7	44.4	59.3	66.2	71.4	71.1	57.3	48.3	34.7	26.2	46.0
1994	9.7	16.7	36.1	48.3	59.2	70.2	69.7	66.4	64.8	52.9	39.9	29.0	46.9
1995	18.7	23.1	37.3	43.6	57.4	70.7	73.3	76.9	60.2	49.7	28.8	21.9	46.8
1996	16.3	23.0	29.3	44.4	54.7	68.0	68.8	70.4	61.2	50.2	29.2	20.7	44.7
1997	15.1	24.5	35.5	43.9	53.0	68.9	70.9	67.5	62.3	51.5	32.2	26.5	46.0
1998	24.2	35.6	34.7	48.8	63.9	67.0	71.9	72.0	66.1	52.0	40.4	29.7	50.5
1999	16.2	31.7	34.3	50.1	60.3	68.4	75.5	68.1	60.3	50.2	43.0	25.8	48.7
2000	20.1	30.3	42.3	47.3	60.8	66.3	70.6	71.1	62.6	54.3	33.5	10.4	47.5
2001	19.6	18.6	30.7	52.2	60.3	66.8	73.4	71.2	59.6	48.5	46.6	29.8	48.1
2002	28.5	29.4	31.3	47.7	55.1	69.7	74.0	69.9	64.3	45.7	34.4	27.4	48.1
2003	17.9	18.9	33.7	47.8	55.8	65.6	70.6	72.9	60.6	50.0	36.6	27.5	46.5
2004	16.3	23.7	39.0	49.4	59.7	66.2	69.3	65.0	65.1	50.6	40.4	25.9	47.6
2005	19.0	29.3	34.2	52.2	55.6	72.2	73.0	70.8	66.3	51.6	38.5	17.7	48.4
2006	31.7	22.6	35.7	52.0	58.8	67.5	74.1	70.8	58.7	46.2	40.3	30.8	49.1
2007	22.3	13.1	39.9	45.8	63.7	68.9	71.1	72.3	64.2	55.1	36.2	20.6	47.8
2008	16.1	15.8	29.6	47.0	56.1	68.1	72.1	68.8	63.4	49.8	37.1	16.1	45.0
2009	10.7	24.5	36.7	46.9	57.8	67.8	65.5	66.6	62.4	44.8	42.8	21.2	45.6
2010	15.3	20.4	40.6	53.9	59.8	69.5	73.7	72.9	61.4	52.4	37.9	15.9	47.8
2011	15.7	21.2	34.0	46.3	58.0	68.7	76.3	70.5	58.5	52.0	39.3	30.5	47.6
POR= 59 YRS	17.6	22.6	33.7	47.7	58.5	68.1	72.0	70.1	61.7	50.5	36.2	22.9	46.8

HEATING DEGREE DAYS (base 65°F) 2011 DUBUQUE (KDBQ)

YEAR	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	TOTAL
1982-83					871	1063	1294	1021	913	641	306	25	
1983-84	5	0	144	429	773	1716	1523	988	1126	513	307	11	7535
1984-85	9	8	198	339	824	1158	1642	1275	776	362	135	64	6790
1985-86	4	23	198	465	1032	1744	1438	1276	856	433	180	45	7694
1986-87	3	56	112	428	1013	1210	1292	922	816	410	149	16	6427
1987-88	3	46	127	619	718	1146	1581	1361	892	519	113	20	7145
1988-89	1	14	87	611	813	1226	1160	1416	1010	549	247	41	7175
1989-90	2	15	208	394	917	1602	1120	1063	805	547	301	38	7012
1990-91	7	1	139	490	707	1388	1561	1063	833	425	159	10	6783
1991-92	3	6	197	477	1033	1191	1241	994	865	585	212	46	6850
1992-93	33	75	201	495	958	1281	1362	1246	1026	610	194	74	7555
1993-94	0	10	241	516	901	1199	1712	1348	893	509	207	22	7558
1994-95	6	44	91	370	746	1109	1432	1168	850	636	232	24	6708
1995-96	10	0	187	468	1078	1331	1507	1167	1101	612	342	53	7856
1996-97	7	0	164	457	1065	1366	1540	1128	908	627	367	16	7645
1997-98	15	28	112	457	975	1186	1259	820	931	479	100	78	6440
1998-99	0	0	64	396	729	1087	1508	926	947	441	166	51	6315
1999-00	0	11	186	450	652	1206	1384	1002	697	526	166	50	6330
2000-01	2	3	157	330	941	1685	1399	1292	1057	380	195	75	7516
2001-02	9	7	180	505	545	1085	1124	990	1039	540	319	32	6375
2002-03	0	6	101	597	911	1160	1452	1284	966	522	283	76	7358
2003-04	1	4	183	455	844	1152	1503	1190	796	465	199	59	6851
2004-05	15	77	75	445	731	1205	1418	992	944	378	287	3	6570
2005-06	6	7	74	435	788	1460	1028	1181	903	384	254	35	6555
2006-07	0	3	199	592	734	1055	1313	1446	776	573	91	20	6802
2007-08	4	3	110	333	858	1370	1507	1423	1093	535	279	10	7525
2008-09	0	5	97	469	832	1507	1675	1128	870	536	225	45	7389
2009-10	38	42	93	616	659	1351	1535	1243	747	330	223	3	6880
2010-11	0	5	143	387	802	1516	1520	1219	953	554	266	31	7396
2011-	0	2	233	405	763	1065							

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COOLING DEGREE DAYS (base 65°F) 2011 DUBUQUE (KDBQ)

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
1982											0	0	
1983	0	0	0	0	0	176	349	367	90	9	0	0	991
1984	0	0	0	1	9	138	190	243	72	1	0	0	654
1985	0	0	0	41	28	93	206	94	112	0	0	0	574
1986	0	0	2	15	15	116	276	64	67	0	0	0	555
1987	0	0	0	11	76	203	322	182	34	0	0	0	828
1988	0	0	0	0	49	216	351	325	68	0	0	0	1009
1989	0	0	1	1	41	110	272	112	21	9	0	0	567
1990	0	0	0	29	1	143	203	191	120	6	0	0	693
1991	0	0	0	8	136	234	264	207	91	4	0	0	944
1992	0	0	0	0	44	105	94	63	39	1	0	0	346
1993	0	0	0	0	27	117	204	209	17	5	0	0	579
1994	0	0	0	15	36	185	158	97	91	2	0	0	584
1995	0	0	0	0	1	203	273	377	49	3	0	0	906
1996	0	0	0	0	28	149	130	175	58	0	0	0	540
1997	0	0	0	0	1	142	205	110	36	45	0	0	539
1998	0	0	1	0	75	148	222	224	105	0	0	0	775
1999	0	0	0	0	28	157	333	115	51	0	0	0	684
2000	0	0	0	0	41	96	183	200	93	7	1	0	621
2001	0	0	0	5	54	138	278	209	27	0	0	0	711
2002	0	0	0	26	20	177	286	166	88	4	0	0	767
2003	0	0	0	9	1	101	180	255	57	0	0	0	603
2004	0	0	0	4	40	102	155	81	85	4	0	0	471
2005	0	0	0	2	5	227	261	196	118	30	0	0	839
2006	0	0	0	1	70	113	291	190	16	17	0	0	698
2007	0	0	5	4	55	146	201	234	91	34	0	0	770
2008	0	0	0	0	10	113	228	131	54	6	0	0	542
2009	0	0	0	1	9	136	62	102	23	0	0	0	333
2010	0	0	0	4	69	145	280	256	43	4	0	0	801
2011	0	0	0	1	57	150	358	178	43	9	0	0	796

SNOWFALL (inches) 2011 DUBUQUE (KDBQ)

YEAR	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	TOTAL
1982-83					0.0	0.0	5.9	15.6	18.4	12.3	0.0	0.0	
1983-84	0.0	0.0	0.0	0.0	1.3	18.4	11.5	0.9	10.7	3.1	0.0	0.0	45.9
1984-85	0.0	0.0	0.0	0.0	1.0	14.2	13.7	6.4	8.1	0.1	0.0	0.0	43.5
1985-86	0.0	0.0	0.0	0.0	10.4	18.7	15.8	12.8	0.8	1.3	0.0	0.0	59.8
1986-87	0.0	0.0	T	T	13.9	3.3	8.7	T	8.0	T	0.0	0.0	33.9
1987-88	0.0	0.0	0.0	0.0	1.1	20.9	8.4	8.3	1.5	1.7	0.0	0.0	41.9
1988-89					1.0	4.4	2.4	8.3	7.7	0.2	T	0.0	
1989-90	0.0	0.0	0.0	T	1.8	8.3	7.1	9.7	0.5	0.3	0.0	0.0	27.7
1990-91	0.0	0.0	0.0	0.0	5.3	18.8	12.5	2.6	12.7	0.1	T	0.0	52.0
1991-92	0.0	0.0	0.0	T	3.7	6.5	9.1	10.7	6.0	0.2	0.0	0.0	36.2
1992-93	0.0	0.0	0.0	0.4	12.6	7.4	8.6	8.6	14.9	11.3	0.0	T	63.8
1993-94	0.0	0.0	0.0	T	1.0	5.6	15.0	23.7	0.6	6.0	0.0	0.0	51.9
1994-95	0.0	0.0	0.0	0.0	T	16.0	13.2	0.5	6.5	0.4	0.0	0.0	36.6
1995-96	0.0	0.0	0.0		4.6	0.5	17.2			1.8	0.0	0.0	
1996-97				0.0	5.2								
1997-98							7.1	0.2	10.1	T	0.0	0.0	
1998-99	0.0	0.0	0.0	0.0	1.1	1.8	18.8	2.4	8.8	0.0	0.0	0.0	32.9
1999-00	0.0	0.0	0.0	0.0	0.0	7.3	19.3	9.4	2.0	2.8	0.0	0.0	40.8
2000-01	0.0	0.0	0.0	0.0	0.7	37.6	3.5	7.8	3.1	T	0.0	0.0	52.7
2001-02	0.0	0.0	0.0	0.0	T	0.6	4.8	2.9	8.7	1.2	0.0	0.0	18.2
2002-03	0.0	0.0	0.0	T	T	1.1	4.1	8.1	7.4	2.7	0.0	0.0	23.4
2003-04	0.0	0.0	0.0	T	T	6.2	6.7	14.5	2.5	0.0	0.0	0.0	29.9
2004-05	0.0	0.0	0.0	0.0	0.9	1.1	15.5	4.0	4.9	T	T	0.0	26.4
2005-06	0.0	0.0	0.0	0.0	3.8	14.2	2.1	7.2	7.8	T	0.0	0.0	35.1
2006-07	0.0	0.0	0.0	T	1.3	T	8.8	20.7	2.9	6.6	0.0	0.0	40.3
2007-08	0.0	0.0	0.0	0.0	2.2	20.6	13.2	32.5	7.7	2.5	0.0	0.0	78.7
2008-09	0.0	T	0.0	0.2	4.5	24.3	15.6	6.3	2.5	0.5	0.0	0.0	53.9
2009-10	0.0	0.0	0.0	T	T	20.5	7.0	11.9	3.9	0.0	0.0	0.0	43.3
2010-11	0.0	0.0	0.0	0.0	T	27.5	11.3	18.4	5.3	1.0	0.0	0.0	63.5
2011-	0.0	0.0	0.0	0.0	1.6	1.0							
POR= 58 YRS	0.0	T	T	0.1	3.0	10.4	9.5	8.6	8.3	2.2	0.1	T	42.2

WBAN : 94908

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 EIGHTHS(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.</p> <p>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.</p>
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2011 DUBUQUE IOWA (KDBQ)

The terrain around Dubuque varies from gently rolling, 10 to 15 miles to the south and west, to steep hills and bluffs around the city and along the Mississippi River.

The principal feature of the climate in Dubuque is its variety. The Dubuque area is subject to weather ranging from the cold, dry, arctic air masses in the winter, with readings as low as 32 degrees below zero, to the hot, dry weather of the desert southwest in the summer when the temperatures reach about 110. More often the area is covered by mild Pacific air that has lost considerable moisture in crossing the mountains far to the west, or by cool, dry Canadian air, or by warm, moist air from the Gulf regions. Most of the year the latter three types of air masses dominate Dubuque weather, with the invasions of Gulf air rarely occurring in the winter.

The seasons vary widely from year to year at Dubuque. For example, successive invasions of cold air from the north may bring a long, cold winter with snow-covered ground from mid November until March and many days of sub-zero temperatures. Another winter can be mild with bare ground most of the season and only a few sub-zero temperature readings. The summers, too, may vary from hot and humid with considerable thunderstorm activity when the Gulf air prevails, to relatively cool, dry weather when air of northerly origin dominates the season.

All seasons are marked by storms that accompany the changes from one type of air mass to another. In winter, rain changes to sleet and snow, and occasionally a peal of thunder is heard at the height of a snowstorm. In summer, thunderstorms are frequently heavy. They are occasionally accompanied by hail and on rare occasions by tornadoes. Thunderstorms have been sufficiently intense at times to raise the Mississippi River, which is about one-fourth mile wide at Debuque, nearly 5 feet overnight. Flash floods have drowned many people.

Most of the precipitation occurs during the spring and fall seasons. The last occurrence of snow and freezing rain can be in late May, and the first occurrence in late September.

While the climate of Dubuque does not lack for variety, there are times when a particular weather condition may persist for an extended period. Cold weather has lasted as long as 20 days in succession with sub-zero readings. Heat waves have persisted for 10 or more days with readings around 100 degrees each day. Hot, dry spells occasionally plague the crops and livestock in summer, but there are frequent periods of mild, dry weather in the spring and frequently in the autumn.

Station History

DUBUQUE, IA

NAME	Begin Date	End Date	Latitude	Longitude	Elevation Feet	Relocation	Platform
DUBUQUE MUNICIPAL AP	1951-01-26	1951-02-01	42° 24'	-90° 42'	1065		AIRWAYS
DUBUQUE REGIONAL AP	1991-10-15	1995-09-01	42° 24'	-90° 42'	1056		AIRWAYS, COOP
DUBUQUE REGIONAL AP	1995-09-01	Present	42° 23'	-90° 42'	1056		ASOS, COOP
DUBUQUE MUNICIPAL AP	1950-09-01	1951-01-26	42° 24'	-90° 42'			AIRWAYS
DUBUQUE MUNICIPAL AP	1975-06-01	1981-09-01	42° 24'	-90° 42'	1056		AIRWAYS, COOP
DUBUQUE MUNICIPAL AP	1973-01-01	1975-06-01	42° 24'	-90° 42'	1056		COOP, WXSVC
DUBUQUE MUNICIPAL AP	1982-09-01	1991-10-15	42° 24'	-90° 42'	1056		AIRWAYS, COOP
DUBUQUE MUNICIPAL AP	1951-02-01	1965-06-01	42° 24'	-90° 42'	1065		AIRWAYS, COOP
DUBUQUE MUNICIPAL AP	1965-06-01	1973-01-01	42° 24'	-90° 42'	1056		AIRWAYS, COOP

Element History

Element	Begin Date	End Date	Frequency	Time Of Observation	Equipment *	Equipment * Modifications	Equipment Exposure
PRECIP	1951-02-01	1963-04-01	HOURLY	2400			
TEMP	1963-04-01	1981-09-01	DAILY	2400			
PRECIP	1982-09-01	1982-11-19	DAILY	2400			
EVAP	1982-11-19	1987-10-05	DAILY	0800	MONEL(F)		
TEMPATOBS	1982-11-19	1987-10-05	ONCE DAILY - AM	0600	FRONTIER		
TEMPATOBS	1987-10-05	1995-10-01	ONCE DAILY - AM	0600	FRONTIER		
TEMP	1987-10-05	1997-03-06	DAILY	2400	HYGR		
PRECIP	1951-02-01	1963-04-01	DAILY	2400	UNIV	RCRD	
PRECIP	1987-10-05	1997-03-06	DAILY	2400	UNIV	RCRD	
EVAP	1963-04-01	1981-09-01	DAILY	0800			
EVAP	1982-09-01	1982-11-19	DAILY	0800	MONEL(F)		
TEMP	1982-11-19	1987-10-05	DAILY	2400	HYGR		
EVAP	1987-10-05	1988-03-01	DAILY	0800	MONEL(F)		
PRECIP	1963-04-01	1981-09-01	DAILY	2400	UNIV	RCRD	
PRECIP	1963-04-01	1981-09-01	HOURLY	2400			
PRECIP	1982-11-19	1987-10-05	DAILY	2400			
PRECIP	1997-03-06	Present	HOURLY	2400	TB	RCRD	
PRECIP	1997-03-06	Present	DAILY	2400	TB	RCRD	
TEMP	1951-02-01	1963-04-01	DAILY	2400			
PRECIP	1987-10-05	1997-03-06	HOURLY	2400	UNIV	RCRD	
TEMP	1982-09-01	1982-11-19	DAILY	2400	HYGR		
TEMP	1997-03-06	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

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TDD : (828) 271-4010

Email : ncdc.info@noaa.gov

NOAA/National Climatic Data Center

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151 Patton Avenue

Asheville, NC 28801-5001

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