

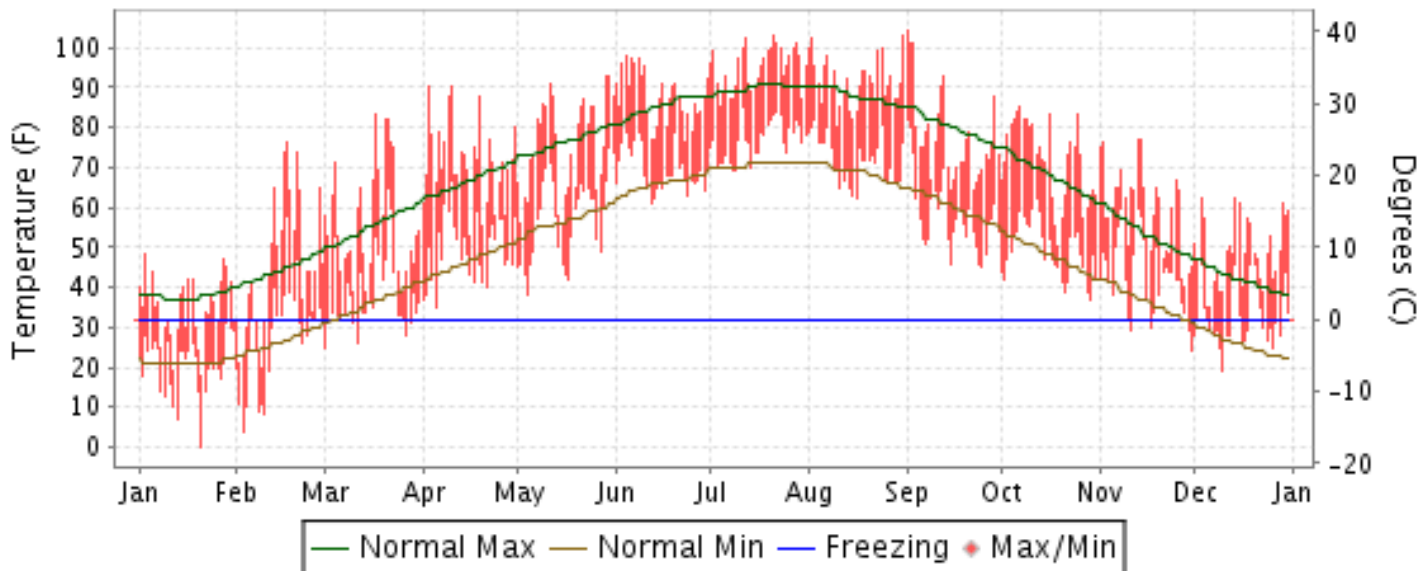


2011 LOCAL CLIMATOLOGICAL DATA ANNUAL SUMMARY WITH COMPARATIVE DATA

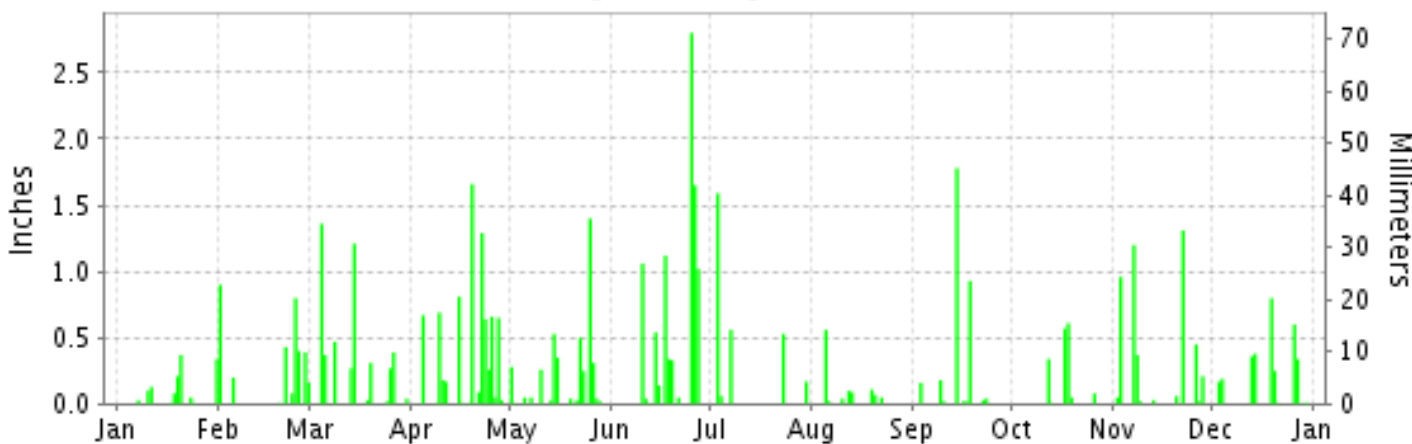
ISSN 0198-2907

ST LOUIS, MISSOURI (KSTL)

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 2011

ST LOUIS (KSTL)

LATITUDE: 38° 45'N LONGITUDE: -90° 22'W ELEVATION (FT): GRND: 531 BARO: 710 TIME ZONE: CENTRAL (UTC -6) WBAN: 13994

ELEMENT		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	YEAR	
TEMPERATURE °F	MEAN DAILY MAXIMUM	34.9	45.5	56.2	71.4	75.7	87.4	94.8	91.4	77.4	71.6	59.2	48.7	67.9	
	HIGHEST DAILY MAXIMUM	48	76	83	90	93	98	103	103	104	85	77	62	104	
	DATE OF OCCURRENCE	03	17	17	10+	30+	04	21	31	01	07	14+	14+	SEP 01	
	MEAN DAILY MINIMUM	20.5	27.7	38.3	49.6	57.1	69.5	76.6	71.8	58.0	49.3	42.6	32.8	49.5	
	LOWEST DAILY MINIMUM	0	4	25	35	38	61	69	62	45	37	24	19	0	
	DATE OF OCCURRENCE	21	03	01	05	04	12	08+	16	25	29	30	10	JAN 21	
	AVERAGE DRY BULB	27.7	36.6	47.3	60.5	66.4	78.5	85.7	81.6	67.7	60.5	50.9	40.8	58.7	
	MEAN WET BULB	24.9	32.5	41.4	52.8	59.4	69.2	75.5	70.7	58.9	51.5	45.0	36.7	51.5	
	MEAN DEW POINT	18.8	25.4	34.5	45.6	54.2	63.9	71.1	65.4	52.3	43.1	38.1	30.9	45.3	
	NUMBER OF DAYS WITH:														
	MAXIMUM >= 90°	0	0	0	2	3	13	25	20	5	0	0	0	0	68
	MAXIMUM <= 32°	12	8	0	0	0	0	0	0	0	0	0	0	0	20
MINIMUM <= 32°	31	18	8	0	0	0	0	0	0	0	5	19	81		
MINIMUM <= 0°	1	0	0	0	0	0	0	0	0	0	0	0	0	1	
H/C	HEATING DEGREE DAYS	1149	788	558	170	125	0	0	0	56	176	424	741	4187	
	COOLING DEGREE DAYS	0	2	15	41	176	410	651	523	145	44	7	0	2014	
RH	MEAN (PERCENT)	70	66	65	62	67	63	64	60	62	57	66	69	64	
	HOUR 00 LST	73	70	69	67	74	70	71	68	69	65	68	74	70	
	HOUR 06 LST	75	74	75	74	80	73	77	77	79	76	73	78	76	
	HOUR 12 LST	65	60	56	55	57	53	53	47	52	41	59	61	55	
	HOUR 18 LST	67	60	57	53	60	54	56	51	51	46	62	65	57	
S	PERCENT POSSIBLE SUNSHINE														
W/O	NUMBER OF DAYS WITH:														
	HEAVY FOG(VISBY <= 1/4 MI)	0	1	2	0	0	0	0	0	2	0	2	2	9	
	THUNDERSTORMS	0	3	3	12	5	12	7	3	3	3	1	1	53	
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.)	29.32	29.30	29.31	29.06	29.14	29.16	29.20	29.17	29.26	29.28	29.26	28.56	29.17	
	MEAN SEA-LEVEL PRESS. (IN.)	30.13	30.09	30.09	29.80	29.88	29.88	29.92	29.89	30.00	30.04	30.03	30.18	29.99	
WINDS	RESULTANT SPEED (MPH)	2.4	2.5	0.9	2.7	2.5	3.2	2.1	0.7	2.5	2.3	3.2	2.7	1.6	
	RES. DIR. (TENS OF DEGS.)	29	26	07	21	20	18	18	16	32	25	22	24	23	
	MEAN SPEED (MPH)	8.0	9.6	9.8	11.0	9.4	9.0	6.6	7.0	7.5	7.5	10.8	7.9	8.7	
	PREVAIL.DIR.(TENS OF DEGS.)	29	30	11	11	17	15	19	15	32	29	17	17	17	
	MAXIMUM 2-MINUTE WIND														
	SPEED (MPH)	29	52	38	41	48	39	32	26	43	31	35	28	52	
	DIR. (TENS OF DEGS.)	28	28	31	27	25	31	34	26	20	19	24	25	28	
	DATE OF OCCURRENCE	11	27	23	19	23	27	12	24	03	25	14	30	FEB 27	
	MAXIMUM 3-SECOND WIND:														
	SPEED (MPH)	39	67	48	49	62	56	54	36	68	39	43	48	68	
DIR. (TENS OF DEGS.)	31	28	29	27	26	32	32	25	20	19	24	29	20		
DATE OF OCCURRENCE	07	27	23	19	23	27	12	24	03	25	14	30	SEP 03		
PRECIPITATION	WATER EQUIVALENT:														
	TOTAL (IN.)	1.33	3.37	4.74	7.88	4.16	9.10	2.91	1.04	3.18	1.66	4.68	3.12	47.17	
	GREATEST 24-HOUR (IN.)	0.58	1.18	1.72	1.66	1.52	4.45	1.65	0.58	1.78	1.18	1.31	1.05	4.45	
	DATE OF OCCURRENCE	19-20	24-25	04-05	19	25-26	25-26	03-04	05-06	14	17-18	22	19-20	JUN 25-26	
	NUMBER OF DAYS WITH:														
PRECIPITATION 0.01	10	9	11	17	17	12	5	8	9	6	11	11	126		
PRECIPITATION 0.10	5	7	8	11	8	9	4	3	4	3	6	8	76		
PRECIPITATION 1.00	0	0	2	2	1	5	1	0	1	0	2	0	14		
SNOWFALL	SNOW,ICE PELLETS,HAIL														
	TOTAL (IN.)	14.7	6.5	7.5	T	T	T	0.0	0.0	0.0	0.0	T	2.0	30.7	
	GREATEST 24-HOUR (IN.)	5.7	3.0	4.0	T	T	T	0.0	0.0	0.0	0.0	T	1.9	5.7	
	DATE OF OCCURRENCE	20	01	26	22+	25+	26					28	27	JAN 20	
	MAXIMUM SNOW DEPTH (IN.)	9	5	3	0	0	0	0	0	0	0	0	2	9	
	DATE OF OCCURRENCE	20	06	27									27	JAN 20	
NUMBER OF DAYS WITH:															
SNOWFALL >= 1.0	5	2	2	0	0	0	0	0	0	0	0	1	10		

NORMALS, MEANS, AND EXTREMES ST LOUIS (KSTL)

LATITUDE:
38° 45'N

LONGITUDE:
-90° 22'W

ELEVATION (FT):
GRND: 531 BARO: 710

TIME ZONE:
CENTRAL (UTC -6)

WBAN: 13994

	ELEMENT	POR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	YEAR
TEMPERATURE °F	NORMAL DAILY MAXIMUM	30	37.9	44.3	55.4	66.7	76.5	85.3	89.8	87.9	80.1	68.3	53.8	42.0	65.7
	MEAN DAILY MAXIMUM	66	38.9	44.0	54.5	67.1	76.2	85.1	89.0	87.7	80.2	69.1	54.7	42.7	65.8
	HIGHEST DAILY MAXIMUM	54	76	85	89	93	94	102	107	107	104	94	85	76	107
	YEAR OF OCCURRENCE		1970	1972	1985	2002	1996	1988	1980	1984	2011	2006	1989	1970	AUG 1984
	MEAN OF EXTREME MAXS.	66	63.7	68.6	79.2	86.9	89.6	95.3	98.6	98.5	93.3	86.2	75.3	66.3	83.5
	NORMAL DAILY MINIMUM	30	21.2	26.5	36.2	46.5	56.6	65.9	70.6	68.6	60.3	48.2	36.7	25.8	46.9
	MEAN DAILY MINIMUM	66	22.0	26.1	34.9	46.2	55.9	65.5	69.8	68.0	59.5	48.1	36.7	26.6	46.6
	LOWEST DAILY MINIMUM	54	-18	-12	-5	22	31	43	51	47	36	23	1	-16	-18
	YEAR OF OCCURRENCE		1985	1996	1960	1975	1976	1969	1972	1986	1974	1976	1964	1989	JAN 1985
	MEAN OF EXTREME MINS.	66	1.1	6.7	16.5	30.5	40.8	52.8	58.8	56.9	44.1	32.8	19.8	7.1	30.7
	NORMAL DRY BULB	30	29.6	35.4	45.8	56.6	66.5	75.6	80.2	78.2	70.2	58.3	45.3	33.9	56.3
	MEAN DRY BULB	66	30.5	35.1	44.7	56.6	66.1	75.4	79.4	77.9	69.9	58.6	45.7	34.7	56.2
	MEAN WET BULB	28	27.4	30.8	39.3	48.8	58.4	66.7	70.3	69.2	61.5	50.7	40.3	30.9	49.5
	MEAN DEW POINT	28	24.3	27.5	35.1	44.9	55.1	64.0	68.0	67.0	58.6	47.4	36.9	27.6	46.4
	NORMAL NO. DAYS WITH: MAXIMUM >= 90	30	0.0	0.0	0.0	0.3	1.3	8.6	15.8	12.2	4.5	0.1	0.0	0.0	42.8
	MAXIMUM <= 32	30	11.0	6.6	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.7	6.3	25.7
	MINIMUM <= 32	30	25.6	19.2	12.2	2.5	*	0.0	0.0	0.0	0.0	1.3	10.2	22.1	93.1
MINIMUM <= 0	30	1.8	0.6	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8	3.2	
H/C	NORMAL HEATING DEG. DAYS	30	1097	844	613	294	79	6	0	1	46	246	583	949	4758
	NORMAL COOLING DEG. DAYS	30	0	0	7	32	114	316	461	396	196	36	3	0	1561
RH	NORMAL (PERCENT)	30	75	73	68	64	67	67	68	70	70	69	72	76	70
	HOURLY 00 LST	30	79	77	74	70	76	77	77	80	79	76	76	79	77
	HOURLY 06 LST	30	82	83	81	79	83	83	84	87	87	84	82	83	83
	HOURLY 12 LST	30	69	65	59	55	56	56	56	57	57	56	63	69	60
	HOURLY 18 LST	30	71	66	59	54	56	56	56	58	59	60	66	73	61
S	PERCENT POSSIBLE SUNSHINE	37	50	52	54	56	59	66	69	64	63	60	46	43	57
W/O	MEAN NO. DAYS WITH: HEAVY FOG (VISIB <= 1/4 MI)	48	2.1	1.5	1.1	0.5	0.6	0.3	0.3	0.4	0.5	0.6	0.9	1.8	10.6
	THUNDERSTORMS	66	0.7	0.9	3.0	5.6	6.8	7.9	7.0	6.1	3.6	2.4	1.6	0.8	46.4
CLOUDINESS	MEAN: SUNRISE-SUNSET (OKTAS)	48	5.4	5.3	5.4	5.2	5.1	4.8	4.4	4.2	4.1	4.0	4.9	5.3	4.8
	MIDNIGHT-MIDNIGHT (OKTAS)	32	5.0	5.1	5.1	4.9	4.7	4.3	3.8	3.8	3.9	3.9	4.8	5.1	4.5
	MEAN NO. DAYS WITH: CLEAR	48	7.3	6.6	6.5	6.9	7.1	7.1	9.3	10.1	11.4	12.3	8.6	7.1	100.3
	PARTLY CLOUDY	48	6.6	6.5	8.0	8.2	9.5	11.0	11.3	11.1	8.2	7.5	6.6	6.6	101.1
	CLOUDY	48	17.1	15.1	16.5	14.9	14.4	11.9	10.4	9.8	10.4	11.2	14.9	17.3	163.9
PR	MEAN STATION PRESSURE (IN)	28	29.42	29.45	29.37	29.29	29.30	29.30	29.33	29.35	29.38	29.40	29.41	29.42	29.37
	MEAN SEA-LEVEL PRES. (IN)	28	30.14	30.12	30.04	29.95	29.95	29.94	29.97	30.00	30.03	30.06	30.08	30.14	30.04
WINDS	MEAN SPEED (MPH)	28	10.1	10.2	10.7	10.7	9.2	8.3	7.8	7.3	7.7	8.6	9.8	9.8	9.2
	PREVAIL. DIR. (TENS OF DEGS)	42	31	31	31	31	19	19	25	19	19	17	31	31	31
	MAXIMUM 2-MINUTE: SPEED (MPH)	15	43	52	46	53	48	49	43	45	43	47	41	46	53
	DIR. (TENS OF DEGS)		27	28	26	26	25	20	27	31	20	24	24	26	26
	YEAR OF OCCURRENCE		2008	2011	2009	2006	2011	2009	2004	2005	2011	2010	1998	2009	APR 2006
	MAXIMUM 3-SECOND SPEED (MPH)	15	59	67	60	70	63	64	55	58	68	62	53	56	70
	DIR. (TENS OF DEGS)		28	28	26	27	24	17	06	26	20	22	24	27	27
YEAR OF OCCURRENCE		2008	2011	2009	2006	2010	2002	2006	2008	2011	2010	1998	2009	APR 2006	
PRECIPITATION	NORMAL (IN)	30	2.14	2.28	3.60	3.69	4.11	3.76	3.90	2.98	2.96	2.76	3.71	2.86	38.75
	MAXIMUM MONTHLY (IN)	54	9.01	4.68	8.39	10.32	12.92	12.35	10.71	6.44	9.77	12.38	9.95	7.82	12.92
	YEAR OF OCCURRENCE		2005	1986	2008	1994	1995	2003	1981	1970	2008	2009	1985	1982	MAY 1995
	MINIMUM MONTHLY (IN)	54	0.10	0.25	1.09	0.99	.78	0.44	0.60	0.08	T	0.21	0.44	0.32	0.08
	YEAR OF OCCURRENCE		1986	1963	1966	1977	2005	1991	1970	1971	1979	1975	1969	1958	AUG 1971
	MAXIMUM IN 24 HOURS (IN)	54	3.07	2.60	2.95	4.91	6.55	4.45	3.47	3.17	4.58	2.88	3.71	4.03	6.55
	YEAR OF OCCURRENCE		2005	1999	1977	1979	1995	2011	1982	1993	2008	2009	1985	1982	MAY 1995
	NORMAL NO. DAYS WITH: PRECIPITATION >= 0.01	30	9.4	8.2	11.1	11.4	11.3	9.6	8.3	8.1	7.5	8.5	10.1	9.4	112.9
	PRECIPITATION >= 1.00	30	0.3	0.5	0.5	0.6	1.0	1.1	1.2	0.9	0.9	0.6	1.0	0.7	9.3
SNOWFALL	NORMAL (IN)	30	7.4	4.8	3.3	0.6	0.0	0.0	0.0	0.0	0.0	0.*	1.5	4.9	22.5
	MAXIMUM MONTHLY (IN)	75	23.9	20.8	22.3	6.5	0.6	T	T	0.0	0.0	T	11.3	26.3	26.3
	YEAR OF OCCURRENCE		1977	1993	1960	1971	1993	2011	1997			2010	1951	1973	DEC 1973
	MAXIMUM IN 24 HOURS (IN)	75	13.9	11.7	10.7	6.1	0.6	T	T	0.0	0.0	T	10.3	12.0	13.9
	YEAR OF OCCURRENCE		1982	1993	1989	1971	1993	2011	1997			2010	1951	1973	JAN 1982
	MAXIMUM SNOW DEPTH (IN)	63	13	20	17	6	0	0	0	0	0	0	10	12	20
	YEAR OF OCCURRENCE		1978	1982	1978	1971							1951	1973	FEB 1982
	NORMAL NO. DAYS WITH: SNOWFALL >= 1.0	30	2.0	1.2	0.7	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.4	1.5	6.1

PRECIPITATION (inches) 2011 ST LOUIS (KSTL)

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL
1982	4.90	1.37	2.88	2.55	4.85	5.96	7.91	5.27	5.27	2.30	3.89	7.82	54.97
1983	0.72	0.95	3.54	7.30	6.32	4.32	1.23	2.24	1.24	5.40	7.79	3.75	44.80
1984	0.84	3.43	5.37	6.29	5.19	2.74	0.76	0.64	8.88	7.12	5.50	4.89	51.65
1985	0.53	3.77	5.18	3.60	3.30	9.43	5.23	3.66	0.43	1.96	9.95	3.69	50.73
1986	0.10	4.68	1.22	1.23	2.42	4.43	2.61	2.22	7.99	5.34	1.58	1.06	34.88
1987	1.98	1.40	2.16	1.74	2.00	3.59	5.04	5.56	1.62	1.74	4.09	7.46	38.38
1988	3.30	2.27	4.73	1.15	1.44	1.97	3.02	2.31	1.99	1.86	6.65	3.24	33.93
1989	2.58	1.43	4.53	2.10	4.11	2.34	4.59	3.00	1.69	0.95	0.59	0.69	28.60
1990	1.42	3.53	2.66	3.07	9.59	3.02	3.34	2.84	0.78	4.96	3.36	6.52	45.09
1991	1.52	0.98	3.20	3.27	3.87	0.44	5.18	0.98	2.98	5.70	3.26	2.10	33.48
1992	1.12	1.89	3.45	2.46	1.45	1.19	4.31	3.45	2.98	1.21	6.32	3.66	33.49
1993	3.54	2.75	3.31	6.16	3.94	7.12	5.06	4.78	9.16	2.61	4.85	1.48	54.76
1994	2.09	1.51	1.27	10.32	1.72	2.16	1.42	3.76	1.18	2.85	4.90	1.52	34.70
1995	4.39	1.33	3.19	3.33	12.92	2.96	2.16	4.52	0.74	2.01	1.28	2.85	41.68
1996	3.27	0.52	3.06	7.97	4.34	3.72	6.33	1.57	2.86	2.67	6.50	.86	43.67
1997	2.74	4.14	2.85	2.66	3.05	2.00	1.44	3.36	2.73	2.05	2.36	1.85	31.23
1998	2.88	2.93	6.00	4.63	3.62	6.90	6.39	2.35	1.86	2.51	2.72	0.83	43.62
1999	5.10	3.52	2.40	3.72	2.20	5.26	4.22	1.95	1.09	2.04	0.72	1.84	34.06
2000	1.23	3.11	1.88	1.84	5.84	8.22	2.25	3.64	2.62	2.60	2.79	1.35	37.37
2001	1.12	2.48	1.45	3.01	2.81	3.60	4.00	1.99	2.81	5.50	3.06	3.46	35.29
2002	3.16	0.83	3.67	4.25	7.81	5.26	1.47	4.12	2.44	4.78	1.14	2.02	40.95
2003	0.96	2.00	2.80	4.29	3.97	12.35	2.51	2.54	4.15	2.81	5.34	2.34	46.06
2004	3.97	0.85	4.36	1.94	9.75	0.83	5.52	4.10	0.23	3.21	5.74	1.77	42.27
2005	9.01	1.84	1.47	2.17	0.78	5.10	2.22	3.87	5.30	1.52	3.35	1.22	37.85
2006	1.63	0.46	3.26	2.10	2.88	2.37	2.73	2.27	1.28	3.66	5.25	2.04	29.93
2007	3.11	1.98	2.80	3.18	4.26	2.88	3.11	1.57	1.71	1.97	1.25	2.75	30.57
2008	1.98	4.60	8.39	3.76	10.84	1.89	7.50	1.59	9.77	1.23	1.86	4.55	57.96
2009	0.77	2.33	3.04	4.06	4.72	6.42	4.20	2.48	3.16	12.38	3.11	4.25	50.92
2010	1.20	2.09	2.35	3.01	4.64	4.04	6.69	3.62	3.73	1.06	5.34	1.30	39.07
2011	1.33	3.37	4.74	7.88	4.16	9.10	2.91	1.04	3.18	1.66	4.68	3.12	47.17
POR= 66 YRS	2.14	2.18	3.35	3.64	4.11	4.13	3.85	2.90	3.00	2.87	3.21	2.51	37.89

WBAN : 13994

AVERAGE TEMPERATURE (°F) 2011 ST LOUIS (KSTL)

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL
1982	22.5	28.6	45.3	51.5	70.7	70.6	79.3	75.2	68.0	58.3	46.3	41.6	54.8
1983	32.3	38.1	44.5	50.3	62.3	75.3	83.5	84.2	72.0	59.7	48.2	20.5	55.9
1984	28.3	40.4	37.1	54.1	63.2	79.5	78.3	80.7	68.2	61.8	44.3	40.7	56.4
1985	22.6	30.5	49.5	60.4	67.6	71.6	79.3	74.7	70.9	61.4	46.5	27.3	55.2
1986	34.9	34.5	49.2	60.8	68.2	78.3	82.8	74.0	73.3	58.3	41.5	35.4	57.6
1987	30.6	40.1	48.6	56.9	72.6	77.9	81.0	78.9	70.5	53.8	49.1	38.0	58.2
1988	29.2	30.5	45.2	57.1	69.0	77.7	81.6	82.7	72.5	53.9	47.2	37.2	57.0
1989	41.2	28.2	45.0	57.7	64.3	74.8	79.3	77.8	67.4	61.3	47.1	24.1	55.7
1990	42.9	41.3	49.8	55.7	63.6	77.2	80.2	77.9	74.1	58.1	52.7	34.7	59.0
1991	29.3	41.7	50.1	61.5	73.0	79.9	80.9	79.7	72.4	60.5	42.4	39.2	59.2
1992	37.0	42.7	48.5	57.8	65.1	73.8	79.0	73.4	69.2	59.4	44.3	35.7	57.2
1993	32.1	31.7	41.5	54.2	66.4	75.1	81.9	80.4	66.4	56.1	43.9	37.2	55.6
1994	26.8	35.0	47.7	57.7	65.0	79.0	79.5	76.6	70.2	61.5	52.1	41.5	57.7
1995	31.1	36.4	49.0	56.8	64.7	75.6	81.3	83.9	68.0	60.9	42.7	33.8	57.0
1996	29.4	37.4	41.0	54.6	68.6	74.6	75.8	77.6	67.2	58.1	39.0	35.5	54.9
1997	26.7	38.1	47.6	50.9	61.7	73.6	80.2	76.0	70.2	59.1	42.0	35.1	55.1
1998	36.4	42.6	43.2	55.3	71.2	75.5	78.9	79.1	75.0	60.2	49.5	37.2	58.7
1999	31.3	42.5	42.8	58.6	66.8	74.9	82.9	76.5	69.7	58.8	52.6	38.3	58.0
2000	33.0	42.9	49.1	55.2	69.0	72.9	77.6	80.4	69.6	61.3	41.3	21.6	56.2
2001	30.5	35.1	41.5	63.1	68.7	74.1	80.7	79.6	68.8	57.7	53.1	39.9	57.7
2002	38.1	39.3	42.8	59.5	63.6	78.0	82.8	80.0	73.4	55.3	44.1	37.5	57.9
2003	28.1	31.4	47.5	58.1	65.1	71.3	79.9	80.8	67.7	60.0	49.3	38.7	56.5
2004	30.9	35.9	49.9	59.3	70.8	74.4	77.9	73.6	71.5	60.2	49.3	36.9	57.6
2005	33.9	40.4	43.9	59.0	66.5	78.8	80.0	80.0	73.9	58.8	48.6	32.0	58.0
2006	42.3	35.3	46.6	62.1	66.2	76.2	82.6	80.1	67.5	55.3	46.9	40.7	58.5
2007	34.1	29.3	53.6	53.9	70.9	76.4	78.4	84.4	74.0	63.1	46.5	35.5	58.3
2008	33.0	32.4	43.9	54.2	63.2	76.8	79.3	76.7	70.3	58.3	44.8	32.5	55.5
2009	28.9	39.0	49.3	56.0	67.0	77.7	75.6	76.4	69.8	53.7	51.8	33.7	56.6
2010	27.2	30.5	48.9	64.0	68.1	80.6	82.4	82.2	71.3	61.9	48.8	30.3	58.0
2011	27.7	36.6	47.3	60.5	66.4	78.5	85.7	81.6	67.7	60.5	50.9	40.8	58.7
POR= 66 YRS	30.5	35.1	44.7	56.7	66.1	75.4	79.4	77.9	69.9	58.6	45.7	34.7	56.2

HEATING DEGREE DAYS (base 65°F) 2011 ST LOUIS (KSTL)

YEAR	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	TOTAL
1982-83	0	0	49	261	569	721	1008	745	632	437	117	7	4546
1983-84	0	0	58	192	498	1376	1133	705	860	342	115	0	5279
1984-85	0	0	103	151	616	746	1308	960	487	200	42	10	4623
1985-86	0	0	64	145	550	1159	929	850	506	194	44	0	4441
1986-87	0	11	12	221	699	910	1062	691	501	267	10	0	4384
1987-88	0	0	12	346	490	830	1102	995	610	241	17	3	4646
1988-89	0	0	5	354	528	854	730	1029	625	293	128	4	4550
1989-90	0	0	73	183	536	1261	679	657	496	327	85	9	4306
1990-91	3	0	24	250	375	934	1101	648	474	154	21	0	3984
1991-92	0	0	67	191	674	796	859	642	509	264	95	5	4102
1992-93	0	3	46	204	615	902	1014	927	726	327	52	13	4829
1993-94	0	0	58	292	628	852	1179	833	531	261	84	1	4719
1994-95	0	0	33	155	388	722	1045	794	488	260	88	0	3973
1995-96	0	0	65	167	664	961	1096	797	735	322	67	14	4888
1996-97	0	0	57	235	776	908	1180	746	530	418	142	5	4997
1997-98	0	0	13	271	684	922	880	621	689	293	19	24	4416
1998-99	0	0	1	175	460	859	1038	626	679	214	41	7	4100
1999-00	0	0	41	226	370	826	985	638	490	297	36	8	3917
2000-01	0	0	57	176	709	1338	1063	831	721	154	47	13	5109
2001-02	0	0	50	246	352	772	826	714	683	234	120	0	3997
2002-03	0	0	12	338	620	847	1135	937	536	249	64	27	4765
2003-04	0	0	50	176	470	812	1048	836	466	225	55	0	4138
2004-05	1	4	9	175	460	865	961	681	648	216	82	0	4102
2005-06	0	0	16	243	495	1017	696	826	567	135	95	0	4090
2006-07	0	0	40	344	535	747	953	992	385	360	18	0	4374
2007-08	0	0	15	167	550	908	982	940	644	332	107	0	4645
2008-09	0	0	15	229	600	1001	1111	723	494	315	61	3	4552
2009-10	0	4	18	342	389	964	1164	960	496	101	61	0	4499
2010-11	0	0	14	148	477	1069	1149	788	558	170	125	0	4498
2011-	0	0	56	176	424	741							

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COOLING DEGREE DAYS (base 65°F) 2011 ST LOUIS (KSTL)

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
1982	0	0	0	7	191	186	453	322	146	63	15	4	1387
1983	0	0	3	3	41	322	578	603	274	36	2	0	1862
1984	0	0	0	24	67	442	423	493	202	57	2	1	1711
1985	0	0	14	70	128	214	451	310	245	43	2	0	1477
1986	0	0	25	75	150	407	561	298	267	21	0	0	1804
1987	0	0	0	32	251	393	501	439	183	5	20	0	1824
1988	0	0	4	10	144	389	521	556	238	16	0	0	1878
1989	0	0	11	80	111	305	450	403	151	75	6	0	1592
1990	0	0	30	55	47	382	480	408	304	41	12	0	1759
1991	0	0	19	56	277	452	498	463	295	58	3	0	2121
1992	0	0	7	54	104	277	440	268	182	36	0	0	1368
1993	0	0	1	9	102	320	529	483	107	23	0	0	1574
1994	0	0	4	48	90	428	453	365	194	53	7	0	1642
1995	0	0	0	22	85	322	510	595	164	47	0	0	1745
1996	0	5	0	16	188	309	342	402	132	25	0	0	1419
1997	0	0	1	1	44	268	477	349	173	99	0	0	1412
1998	0	0	21	7	217	347	439	446	305	33	2	3	1820
1999	0	0	0	28	104	309	563	364	190	37	5	0	1600
2000	0	5	6	8	167	251	398	483	202	69	5	0	1594
2001	0	0	0	106	166	293	492	457	167	29	2	1	1713
2002	0	0	1	75	81	396	560	471	270	43	0	0	1897
2003	0	0	1	49	71	221	470	498	140	29	8	0	1487
2004	0	0	4	60	242	291	408	279	209	31	0	0	1524
2005	0	0	2	41	135	420	473	469	289	55	9	0	1893
2006	0	0	5	54	138	326	556	474	123	50	0	0	1726
2007	0	0	38	32	206	350	422	611	293	113	0	0	2065
2008	0	0	0	17	56	361	451	369	181	30	1	0	1466
2009	0	0	13	52	127	389	339	364	167	0	4	0	1455
2010	0	0	6	78	163	473	551	540	213	59	0	0	2083
2011	0	2	15	41	176	410	651	523	145	44	7	0	2014

SNOWFALL (inches) 2011 ST LOUIS (KSTL)

YEAR	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	TOTAL
1982-83	0.0	0.0	0.0	0.0	T	T	3.3	0.3	1.4	2.4	0.0	0.0	7.4
1983-84	0.0	0.0	0.0	0.0	T	6.5	2.3	9.9	5.2	0.0	0.0	0.0	23.9
1984-85	0.0	0.0	0.0	0.0	1.7	1.8	5.1	1.3	T	0.0	0.0	0.0	9.9
1985-86	0.0	0.0	0.0	0.0	T	5.7	1.0	6.1	0.2	T	0.0	0.0	13.0
1986-87	0.0	0.0	0.0	0.0	T	T	23.6	0.6	T	0.0	0.0	0.0	24.2
1987-88	0.0	0.0	0.0	0.0	T	7.3	1.4	6.7	2.8	0.0	0.0	0.0	18.2
1988-89	0.0	0.0	0.0	0.0	2.9	5.9	0.1	3.9	11.0	0.0	0.0	0.0	23.8
1989-90	0.0	0.0	0.0	T	T	9.1	0.2	6.9	8.4	T	T	T	24.6
1990-91	0.0	0.0	0.0	0.0	T	13.2	1.9	T	1.7	0.0	0.0	0.0	16.8
1991-92	0.0	0.0	0.0	T	3.9	0.4	3.8	2.3	3.1	0.0	0.0	0.0	13.5
1992-93	0.0	0.0	0.0	0.0	T	0.7	5.5	20.8	3.0	0.3	0.6	T	30.9
1993-94	0.0	0.0	0.0	T	1.6	1.1	5.0	1.0	0.2	1.4	0.0	0.0	10.3
1994-95	0.0	0.0	0.0	0.0	0.0	0.1	3.5	1.6	0.5	T	0.0	0.0	5.7
1995-96	0.0	0.0	0.0	0.0	0.9	7.9	13.4	2.8	1.0	T	0.0	0.0	26.0
1996-97	T	0.0	0.0	T	1.5	1.5	13.1	0.8	T	4.2	0.0	0.0	
1997-98	T	0.0	0.0	0.0	2.6	4.1	5.7	0.5	5.9	T	0.2	0.0	19.0
1998-99	0.0	0.0	0.0	0.0	0.0	1.8	12.0	1.5	0.5	T	0.0	0.0	15.8
1999-00	0.0	0.0	0.0	0.0	0.0	0.3	5.0	T	4.8	T	0.0	0.0	10.1
2000-01	0.0	0.0	0.0	0.0	0.0	15.9	0.7	1.6	T	0.4	0.0	0.0	18.6
2001-02	0.0	0.0	0.0	T	0.2	T	6.2	2.6	5.0	0.0	0.0	0.0	14.0
2002-03	0.0	0.0	0.0	0.0	0.2	9.4	7.4	12.7	0.1	T	0.0	0.0	29.8
2003-04	0.0	0.0	0.0	0.0	T	3.3	2.2	1.9	T	0.0	T	0.0	7.4
2004-05	T	0.0	0.0	0.0	1.8	T	7.7	3.2	0.1	0.0	0.0	T	12.8
2005-06	0.0	0.0	0.0	0.0	T	3.8	1.0	3.1	2.6	T	0.0	0.0	10.5
2006-07	0.0	0.0	0.0	0.0	2.3	2.1	3.7	4.7	0.4	T	0.0	0.0	13.2
2007-08	0.0	0.0	0.0	0.0	T	7.8	4.2	8.2	10.0	T	T	0.0	30.2
2008-09	0.0	0.0	0.0	0.0	2.4	1.5	7.0	0.1	1.8	0.1	0.0	0.0	12.9
2009-10	0.0	0.0	0.0	0.0	0.0	3.3	3.6	7.6	T	T	0.0	0.0	14.5
2010-11	0.0	0.0	0.0	T	0.2	7.9	14.7	6.5	7.5	T	T	T	36.8
2011-	0.0	0.0	0.0	0.0	T	2.0							
POR= 67 YRS	T	0.0	0.0	T	1.2	3.7	5.7	4.3	3.7	0.4	T	T	19.0

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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 ST. LOUIS MISSOURI (KSTL)

St Louis is located at the confluence of the Missouri and Mississippi Rivers and near the geographical center of the United States. Its position in the middle latitudes allows the area to be affected by warm moist air that originates in the Gulf of Mexico, as well as cold air masses that originate in Canada. The alternate invasion of these airmasses produces a wide variety of weather conditions, and allows the region to enjoy a true four-season climate.

During the summer months, air originating from the Gulf of Mexico tends to dominate the area, producing warm and humid conditions. Since 1870, records indicate that temperatures of 90 degrees or higher occur on about 35-40 days per year. Extremely hot days (100 degrees or more) are expected on no more than five days per year.

Winters are brisk and stimulating, but prolonged periods of extremely cold weather are rare. Records show that temperatures drop to zero or below an average of 2 or 3 days per year, and temperatures as cold as 32 degrees or lower occur less than 25 days in most years. Snowfall has averaged a little over 18 inches per winter season, and snowfall of an inch or less is received on 5 to 10 days in most years.

Normal annual precipitation for St. Louis is a little less than 34 inches. The three winter months are the driest, with an average total of about 6 inches of precipitation. The spring months of March through May are normally the wettest with normal total rainfall of just under 10.5 inches. It is not unusual to have extended dry periods of one to two weeks during growing season.

Thunderstorms normally occur on between 40 and 50 days per year. During any year, there are usually a few of these thunderstorms that are severe, and produce large hail and damaging winds. Tornadoes have produced extensive damage and loss of life in the St. Louis area.

Station History

ST LOUIS, MO

NAME	Begin Date	End Date	Latitude	Longitude	Elevation Feet	Relocation	Platform
ST LOUIS LAMBERT FIELD	1929-09-01	1947-11-01	38° 45'	-90° 22'			AIRWAYS
ST LOUIS LAMBERT INTL AP	1989-03-01	1996-06-01	38° 45'	-90° 22'	568		COOP, WXSVC
ST LOUIS LAMBERT INTL AP	2002-01-18	Present	38° 45'	-90° 22'	531		ASOS, COOP, WXSVC
ST LOUIS LAMBERT INTL AP	1973-01-01	1978-01-01	38° 45'	-90° 22'	564		COOP, WXSVC
ST LOUIS LAMBERT FIELD	1947-11-01	1959-01-01	38° 45'	-90° 22'	577		AIRWAYS, COOP
ST LOUIS LAMBERT FIELD	1959-01-01	1971-12-01	38° 45'	-90° 22'	564		AIRWAYS, COOP
ST LOUIS LAMBERT INTL AP	1978-01-01	1989-03-01	38° 45'	-90° 22'	535		COOP, WXSVC
ST LOUIS LAMBERT INTL AP	1996-06-01	2002-01-18	38° 45'	-90° 22'	568	.7 MI E	ASOS, COOP, WXSVC
ST LOUIS LAMBERT INTL AP	1971-12-01	1973-01-01	38° 45'	-90° 22'	564		AIRWAYS, COOP

Element History

Element	Begin Date	End Date	Frequency	Time Of Observation	Equipment *	Equipment * Modifications	Equipment Exposure
TEMP	1982-01-01	1988-07-11	DAILY	2400			
PRECIP	1988-07-11	1995-07-01	DAILY	2400	UNIV	RCRD	
TEMP	2002-01-18	Present	DAILY	2400	HYGR		
PRECIP	2002-01-18	Present	DAILY	2400	AHTB	RCRD;HTD	
PRECIP	1988-07-11	1995-07-01	HOURLY	2400			
PRECIP	1995-07-01	2002-01-18	DAILY	2400	UNIV	RCRD	
PRECIP	2002-01-18	Present	HOURLY	2400	AHTB	RCRD;HTD	
TEMP	1995-07-01	2002-01-18	DAILY	2400	MXMN		
PRECIP	1982-01-01	1988-07-11	DAILY	2400	UNIV	RCRD	
PRECIP	1929-09-01	1982-01-01	DAILY	2400	UNIV	RCRD	
TEMP	1929-09-01	1982-01-01	DAILY	2400			
PRECIP	1982-01-01	1988-07-11	HOURLY	2400			
TEMP	1988-07-11	1995-07-01	DAILY	2400	MXMN		
PRECIP	1995-07-01	2002-01-18	HOURLY	2400	UNIV	RCRD	

* For explanation of codes and abbreviations see Station Metadata link below.

Other Station Information can be found at:

ASOS Implementation by NWS: <http://www.nws.noaa.gov/ops2/Surface/asosimplementation.htm>

Station Metadata website: <http://www.ncdc.noaa.gov/homr>

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

Fax Number : (828) 271-4876

TDD : (828) 271-4010

Email : ncdc.info@noaa.gov

NOAA/National Climatic Data Center

Attn: User Engagement & Services Branch

151 Patton Avenue

Asheville, NC 28801-5001

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