

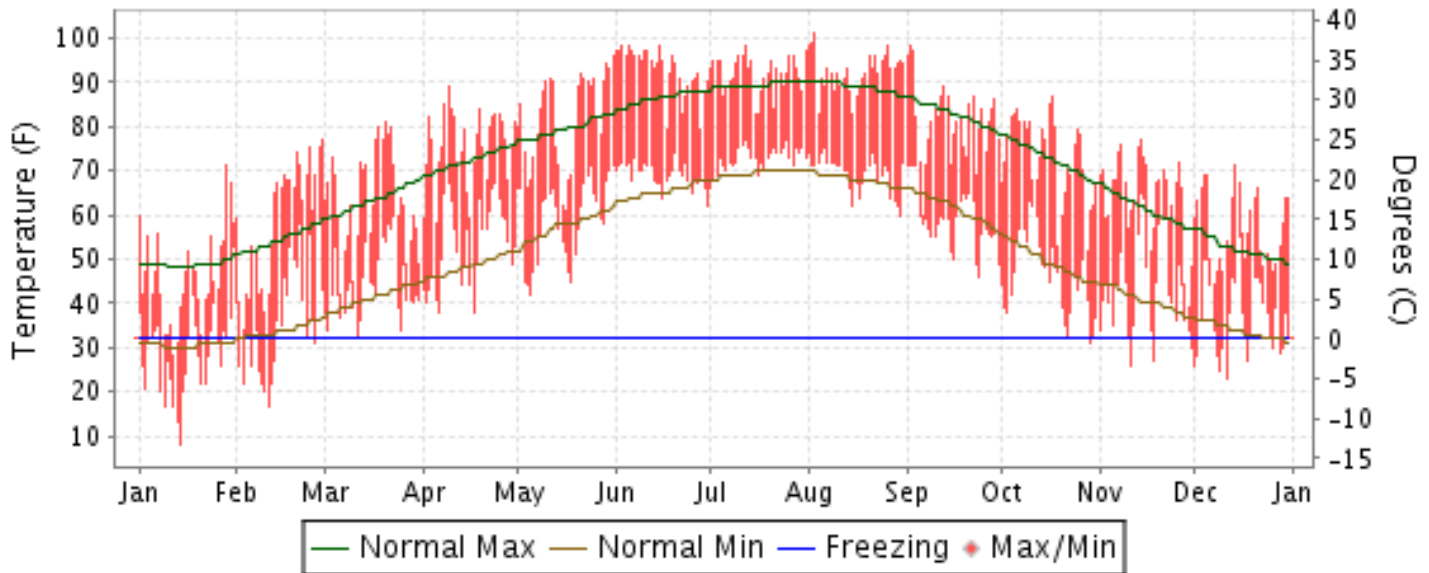


2011 LOCAL CLIMATOLOGICAL DATA ANNUAL SUMMARY WITH COMPARATIVE DATA

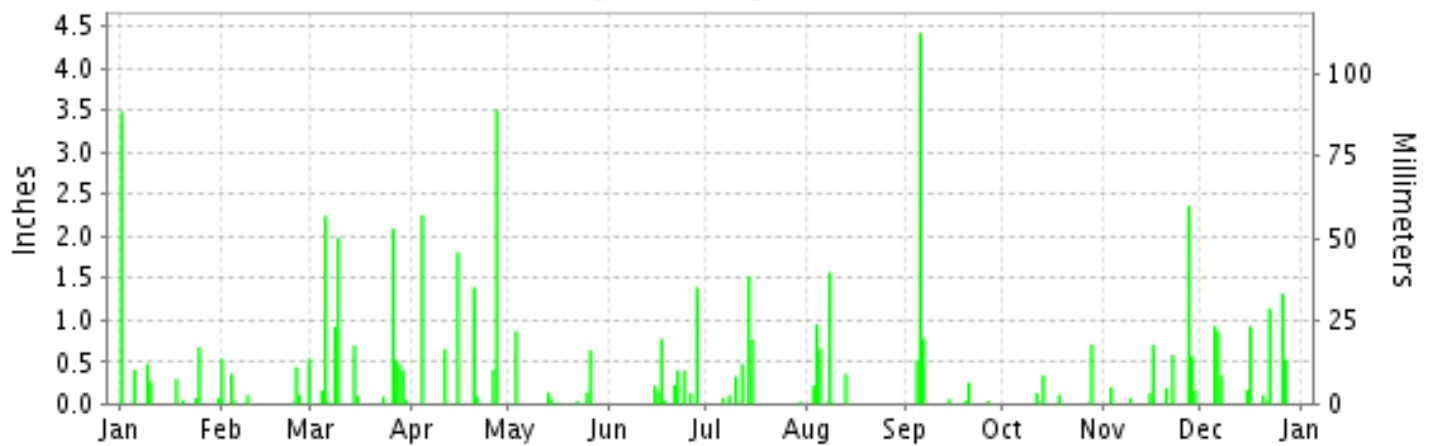
ISSN 0197-9485

HUNTSVILLE, ALABAMA (KHSV)

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

HUNTSVILLE (KHSV)

LATITUDE:
34° 38'N

LONGITUDE:
-86° 47'W

ELEVATION (FT):
GRND: 624 BARO: 645

TIME ZONE:
CENTRAL (UTC -6)

WBAN: 03856

ELEMENT		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	YEAR	
TEMPERATURE °F	MEAN DAILY MAXIMUM	46.1	58.6	63.6	75.7	81.5	92.7	91.9	92.4	81.0	73.1	64.2	56.8	73.1	
	HIGHEST DAILY MAXIMUM	71	77	81	89	96	98	98	101	98	87	77	71	101	
	DATE OF OCCURRENCE	29	28	20	09	31	15+	12	03	02	17	14	14	AUG 03	
	MEAN DAILY MINIMUM	28.5	36.2	44.2	53.2	58.7	69.1	72.7	69.2	59.0	46.2	43.4	36.6	51.4	
	LOWEST DAILY MINIMUM	8	17	32	38	42	62	66	60	46	31	26	23	8	
	DATE OF OCCURRENCE	14	11	11	17+	05	30	01	30	24	29	11	11	JAN 14	
	AVERAGE DRY BULB	37.3	47.4	53.9	64.5	70.1	80.9	82.3	80.8	70.0	59.7	53.8	46.7	62.3	
	MEAN WET BULB	34.0	41.8	48.6	57.9	62.5	70.8	74.6	71.9	63.2	51.9	48.7	42.4	55.7	
	MEAN DEW POINT	28.9	35.1	43.4	52.4	57.7	66.4	71.6	68.0	59.3	45.6	42.9	37.6	50.7	
	NUMBER OF DAYS WITH:														
	MAXIMUM >= 90°	0	0	0	0	11	24	23	23	3	0	0	0	0	84
	MAXIMUM <= 32°	2	0	0	0	0	0	0	0	0	0	0	0	0	2
MINIMUM <= 32°	20	11	1	0	0	0	0	0	0	1	4	12	49		
MINIMUM <= 0°	0	0	0	0	0	0	0	0	0	0	0	0	0		
H/C	HEATING DEGREE DAYS	852	488	347	101	62	0	0	0	20	186	340	560	2956	
	COOLING DEGREE DAYS	0	3	12	92	228	486	545	497	176	26	11	0	2076	
RH	MEAN (PERCENT)	74	66	71	67	68	66	74	70	73	66	70	74	70	
	HOUR 00 LST	79	71	77	74	82	80	86	84	86	82	73	80	80	
	HOUR 06 LST	83	77	82	85	85	83	89	89	86	86	80	83	84	
	HOUR 12 LST	65	56	62	54	53	48	58	52	56	44	59	63	56	
	HOUR 18 LST	66	59	66	57	55	51	62	60	68	58	66	70	62	
S	PERCENT POSSIBLE SUNSHINE														
W/O	NUMBER OF DAYS WITH:														
	HEAVY FOG(VISBY <= 1/4 MI)	2	0	0	0	1	1	1	3	4	0	1	3	16	
	THUNDERSTORMS	3	2	6	6	3	11	11	9	1	1	2	56		
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.)	29.39	29.41	29.39	29.27	29.28	29.30	29.30	29.25	29.30	29.38	29.43	29.52	29.35	
	MEAN SEA-LEVEL PRESS. (IN.)	30.09	30.11	30.08	29.95	29.96	29.97	29.97	29.92	29.98	30.07	30.12	30.21	30.04	
WINDS	RESULTANT SPEED (MPH)	1.1	1.6	1.1	5.2	1.8	0.7	1.0	0.6	1.0	0.4	2.8	1.1	0.9	
	RES. DIR. (TENS OF DEGS.)	34	22	12	20	20	22	15	34	07	04	17	14	19	
	MEAN SPEED (MPH)	5.9	8.8	8.3	8.7	6.7	5.4	3.7	3.2	5.1	5.4	8.1	6.0	6.3	
	PREVAIL.DIR.(TENS OF DEGS.)	12	21	13	20	16	23	11	33	12	10	16	14	20	
	MAXIMUM 2-MINUTE WIND														
	SPEED (MPH)	26	33	29	43	30	35	30	51	22	22	25	28	51	
	DIR. (TENS OF DEGS.)	31	29	10	25	27	34	34	36	02	30	20	15	36	
	DATE OF OCCURRENCE	07	28	09	27	25	26	04	03	05	19	13	20	AUG 03	
	MAXIMUM 3-SECOND WIND:														
SPEED (MPH)	32	46	37	59	43	46	39	69	31	30	37	38	69		
DIR. (TENS OF DEGS.)	27	29	12	26	26	36	32	34	03	31	21	15	34		
DATE OF OCCURRENCE	11	24	08	27	25	18	04	03	05	19	13	20	AUG 03		
PRECIPITATION	WATER EQUIVALENT:														
	TOTAL (IN.)	5.81	2.15	9.76	10.11	1.91	3.74	3.31	3.80	6.12	1.35	4.98	6.37	59.41	
	GREATEST 24-HOUR (IN.)	3.48	0.55	2.81	3.50	0.87	1.39	2.29	1.59	4.53	0.73	2.51	1.85	4.53	
	DATE OF OCCURRENCE	01	24-25	08-09	27	03	28	14-15	08-09	05-06	27-28	27-28	26-27	SEP 05-06	
	NUMBER OF DAYS WITH:														
PRECIPITATION 0.01	9	8	13	7	7	9	7	7	7	8	9	10	101		
PRECIPITATION 0.10	6	6	10	6	4	8	5	5	4	4	8	9	75		
PRECIPITATION 1.00	1	0	3	4	0	1	1	1	1	0	1	2	15		
SNOWFALL	SNOW,ICE PELLETS,HAIL														
	TOTAL (IN.)	9.2	2.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	T	T	11.5	
	GREATEST 24-HOUR (IN.)	6.5	2.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	T	T	6.5	
	DATE OF OCCURRENCE	09	09									29+	07	JAN 09	
	MAXIMUM SNOW DEPTH (IN.)	9	2	0	0	0	0	0	0	0	0	0	0	9	
	DATE OF OCCURRENCE	10	10											JAN 10	
NUMBER OF DAYS WITH:															
SNOWFALL >= 1.0	2	1	0	0	0	0	0	0	0	0	0	0	3		

NORMALS, MEANS, AND EXTREMES HUNTSVILLE (KHSV)

LATITUDE: 34° 38'N LONGITUDE: -86° 47'W ELEVATION (FT): GRND: 624 BARO: 645 TIME ZONE: CENTRAL (UTC -6) WBAN: 03856

ELEMENT		POR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	YEAR
TEMPERATURE °F	NORMAL DAILY MAXIMUM	30	48.9	54.6	63.4	72.3	79.6	86.5	89.4	89.0	83.0	72.9	61.6	52.4	71.1
	MEAN DAILY MAXIMUM	53	49.3	54.3	63.1	73.1	80.2	87.1	89.6	89.5	83.6	73.6	62.4	52.5	71.5
	HIGHEST DAILY MAXIMUM	45	77	83	88	91	96	101	102	105	101	91	84	77	105
	YEAR OF OCCURRENCE		2002	1996	2007	2006	2011	1988	2008	2007	1999	2007	2000	2002	AUG 2007
	MEAN OF EXTREME MAXS.	53	68.3	74.5	80.2	86.3	90.1	95.0	96.8	96.3	92.9	85.7	78.0	69.8	84.5
	NORMAL DAILY MINIMUM	30	30.7	34.0	41.2	48.4	57.5	65.4	69.5	68.1	61.7	49.6	40.7	33.8	50.1
	MEAN DAILY MINIMUM	53	30.4	34.0	41.1	49.6	58.2	65.9	69.5	68.4	62.1	49.8	40.5	33.3	50.2
	LOWEST DAILY MINIMUM	45	-11	1	6	25	36	45	-11	51	38	29	15	-11	-11
	YEAR OF OCCURRENCE		1985	1996	1980	2007	1971	1972	1985	2004	2001	2001	1976	1985	DEC 1985
	MEAN OF EXTREME MINS.	53	10.6	15.9	24.1	33.4	44.0	54.9	61.3	59.8	47.1	33.8	24.1	16.2	35.4
	NORMAL DRY BULB	30	39.8	44.3	52.3	60.4	68.6	76.0	79.5	78.6	72.4	61.3	51.2	43.1	60.6
	MEAN DRY BULB	53	39.9	44.1	52.1	61.4	69.2	76.6	79.6	79.0	72.9	61.7	51.5	43.0	60.9
	MEAN WET BULB	28	36.1	39.0	45.4	52.8	61.6	68.6	71.9	70.8	64.8	54.5	45.9	38.6	54.2
	MEAN DEW POINT	28	33.2	36.0	41.6	49.3	59.1	66.9	70.6	69.3	62.6	52.0	43.1	35.9	51.6
	NORMAL NO. DAYS WITH: MAXIMUM >= 90	30	0.0	0.0	0.0	0.1	1.2	9.1	16.5	14.8	5.5	0.1	0.0	0.0	47.3
	MAXIMUM <= 32	30	2.8	1.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	*	1.3	5.3
	MINIMUM <= 32	30	18.1	12.7	6.1	0.8	0.0	0.0	0.0	0.0	0.0	0.5	7.6	15.5	61.3
MINIMUM <= 0	30	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.3	
H/C	NORMAL HEATING DEG. DAYS	30	780	587	404	180	41	1	0	0	18	165	417	669	3262
	NORMAL COOLING DEG. DAYS	30	0	1	8	40	142	326	446	417	238	47	5	1	1671
RH	NORMAL (PERCENT)	30	74	70	66	65	71	73	76	75	74	71	72	74	72
	HOURLY 00 LST	30	79	76	73	75	83	86	88	88	86	84	80	79	81
	HOURLY 06 LST	30	82	81	81	83	87	88	91	92	90	88	85	82	86
	HOURLY 12 LST	30	65	60	56	51	55	57	60	58	58	53	59	64	58
	HOURLY 18 LST	30	70	62	57	52	59	61	65	65	67	64	66	69	63
S	PERCENT POSSIBLE SUNSHINE														
W/O	MEAN NO. DAYS WITH: HEAVY FOG(VISBY <= 1/4 MI)	48	2.0	1.2	1.1	0.8	1.2	1.2	1.6	1.9	1.9	1.9	1.8	1.8	18.4
	THUNDERSTORMS	53	1.5	2.2	4.4	5.1	6.9	8.3	10.2	7.5	4.0	2.0	1.9	1.2	55.2
CLOUDINESS	MEAN: SUNRISE-SUNSET (OKTAS)														
	MIDNIGHT-MIDNIGHT (OKTAS)														
	MEAN NO. DAYS WITH: CLEAR														
	PARTLY CLOUDY CLOUDY														
PR	MEAN STATION PRESSURE(IN)	28	29.47	29.43	29.38	29.34	29.33	29.33	29.36	29.35	29.37	29.42	29.45	29.47	29.39
	MEAN SEA-LEVEL PRES. (IN)	28	30.17	30.13	30.07	30.02	30.01	30.00	30.02	30.02	30.04	30.10	30.14	30.17	30.07
WINDS	MEAN SPEED (MPH)	28	8.4	8.8	9.2	8.7	7.7	6.2	5.3	5.2	6.3	6.6	7.5	8.1	7.3
	PREVAIL.DIR(TENS OF DEGS)	39	13	36	13	19	12	14	12	12	12	12	12	14	12
	MAXIMUM 2-MINUTE: SPEED (MPH)	18	38	41	41	44	39	56	38	51	38	43	38	39	56
	DIR. (TENS OF DEGS)		29	26	24	18	27	24	29	36	01	00	20	26	24
	YEAR OF OCCURRENCE		1997	1997	2006	2005	1997	1995	1997	2011	2004	1995	2006	2009	JUN 1995
	MAXIMUM 3-SECOND SPEED (MPH)	18	52	51	51	59	52	56	52	69	51	55	45	52	69
	DIR. (TENS OF DEGS)		29	28	24	26	29	21	29	34	03	25	19	29	34
YEAR OF OCCURRENCE		2008	1997	2006	2011	1997	1995	2008	2011	2004	2001	2006	2008	AUG 2011	
PRECIPITATION	NORMAL (IN)	30	5.52	4.95	6.68	4.54	5.24	4.22	4.40	3.32	4.29	3.54	5.22	5.59	57.51
	MAXIMUM MONTHLY (IN)	45	10.92	10.14	17.00	10.29	11.88	14.99	9.44	9.81	9.78	12.06	11.53	18.68	18.68
	YEAR OF OCCURRENCE		1982	1994	1980	1991	1983	1989	1973	1986	1980	1975	1977	1980	DEC 1980
	MINIMUM MONTHLY (IN)	45	1.32	0.59	1.12	0.42	0.78	0.17	0.79	0.58	0.48	0.01	1.82	0.91	0.01
	YEAR OF OCCURRENCE		1986	1978	2007	1986	2007	1988	1983	1998	1998	2000	1971	1980	OCT 2000
	MAXIMUM IN 24 HOURS (IN)	45	4.90	5.83	7.70	3.85	5.90	4.81	5.21	4.89	4.53	6.04	4.23	10.22	10.22
	YEAR OF OCCURRENCE		1982	1995	1973	1983	1983	1992	2001	1986	2011	1975	2010	1990	DEC 1990
	NORMAL NO. DAYS WITH: PRECIPITATION >= 0.01	30	12.1	9.8	11.9	9.9	10.3	10.0	10.4	8.3	8.4	7.0	9.8	11.0	118.9
PRECIPITATION >= 1.00	30	1.7	1.5	2.0	1.5	1.6	1.3	1.1	0.9	1.5	1.2	1.7	1.6	17.6	
SNOWFALL	NORMAL (IN)	30	1.3	0.7	0.4	0.*	0.0	0.0	0.0	0.0	0.0	0.*	0.*	0.1	2.5
	MAXIMUM MONTHLY (IN)	38	9.6	4.2	7.3	T	T	T	0.0	T	0.0	T	0.8	2.8	9.6
	YEAR OF OCCURRENCE		1988	1985	1993	2009	1993	1994	1994	1990		1993	1974	2010	JAN 1988
	MAXIMUM IN 24 HOURS (IN)	38	9.6	3.6	7.3	T	T	T	0.0	T	0.0	T	0.8	2.5	9.6
	YEAR OF OCCURRENCE'		1988	1985	1993	2009	1993	1994	1994	1990		1993	1974	2010	JAN 1988
	MAXIMUM SNOW DEPTH (IN)	44	11	6	2	T	0	0	0	0	0	0	4	2	11
	YEAR OF OCCURRENCE		1964	1960	1980	1987							1966	2010	JAN 1964
NORMAL NO. DAYS WITH: SNOWFALL >= 1.0	30	0.4	0.4	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9	

PRECIPITATION (inches) 2011 HUNTSVILLE (KHSV)

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL
1982	10.92	6.12	2.70	10.02	3.89	3.10	4.09	3.92	0.55	1.98	5.49	6.87	59.65
1983	2.26	5.17	5.02	9.95	11.88	5.87	0.79	1.35	2.17	2.59	8.60	11.74	67.39
1984	3.66	3.65	5.86	5.85	7.51	3.40	4.51	4.58	0.76	6.67	6.89	2.69	56.03
1985	4.65	4.18	3.48	3.01	6.56	4.72	6.49	7.19	3.26	7.01	1.86	2.65	55.06
1986	1.32	4.43	3.26	0.42	5.68	4.85	3.07	9.81	5.10	3.90	7.87	4.86	54.57
1987	6.48	7.74	4.16	1.31	2.60	4.42	2.49	1.45	8.97	1.30	5.85	5.08	51.85
1988	6.19	2.40	3.02	3.79	1.99	0.17	5.24	1.11	7.91	3.24	6.60	5.00	46.66
1989	7.64	6.80	6.45	2.96	4.24	14.99	5.44	6.83	5.19	2.65	6.75	3.64	73.58
1990	7.89	9.34	8.92	4.48	4.38	2.66	3.55	1.89	2.34	3.40	4.73	18.68	72.26
1991	2.77	8.46	9.33	10.29	8.68	1.72	2.59	4.53	3.34	2.49	4.05	12.01	70.26
1992	2.76	3.21	4.92	2.49	2.45	10.59	6.13	3.38	5.86	2.61	5.19	6.01	55.60
1993	4.52	2.79	7.90	3.51	8.27	1.56	2.17	5.72	4.48	1.83	3.88	4.93	51.56
1994	6.59	10.14	9.36	3.11	5.64	9.98	3.96	3.44	2.39	5.32	3.66	2.49	66.08
1995	3.51	7.00	3.44	4.47	3.37	4.59	4.15	1.38	4.59	6.85	5.15	4.15	52.65
1996	7.29	2.25	8.40	5.89	2.17	2.54	7.13	4.41	7.87	2.70	5.30	4.16	60.11
1997	5.79	4.97	6.39	3.24	6.21	6.00	1.39	4.50	5.42	8.32	1.96	3.42	57.61
1998	7.54	7.03	5.15	2.79	2.91	1.42	5.30	0.58	0.48	2.37	3.00	7.13	45.70
1999	9.29	2.69	5.14	3.53	6.61	5.61	2.53	0.66	0.92	1.24	4.07	3.40	45.69
2000	4.24	2.61	5.76	8.40	1.29	5.04	1.31	1.16	1.81	0.01	7.63	3.63	42.89
2001	5.60	4.57	6.43	3.52	7.31	7.03	7.59	4.45	3.50	3.77	3.53	6.31	63.61
2002	4.98	2.26	5.82	1.71	5.93	1.71	6.38	2.19	6.02	3.45	3.95	6.14	50.54
2003	1.45	7.81	1.84	3.18	10.43	6.18	4.76	3.17	5.97	1.16	5.76	3.16	54.87
2004	3.08	7.13	5.76	2.94	3.34	4.97	5.23	3.50	3.97	4.16	7.61	7.68	59.37
2005	2.18	4.47	4.02	5.35	1.89	4.15	3.69	3.00	2.91	0.10	2.96	4.93	39.65
2006	5.93	2.49	2.37	4.66	3.37	1.85	2.18	3.56	3.89	3.97	4.40	3.92	42.59
2007	2.81	2.53	1.12	3.28	0.78	1.65	4.32	3.11	1.26	3.27	2.78	1.74	28.65
2008	3.60	3.30	4.36	3.98	5.10	1.61	2.34	4.03	1.33	4.12	2.58	11.95	48.30
2009	4.56	3.05	4.97	5.80	10.20	1.63	6.75	5.44	5.96	8.17	3.01	8.16	67.70
2010	5.21	3.26	4.97	2.59	4.87	2.75	1.99	3.46	2.53	5.06	7.69	2.23	46.61
2011	5.81	2.15	9.76	10.11	1.91	3.74	3.31	3.80	6.12	1.35	4.98	6.37	59.41
POR= 53 YRS	5.01	5.27	6.18	4.70	4.98	4.10	4.48	3.44	3.98	3.32	4.60	5.56	55.62

WBAN : 03856

AVERAGE TEMPERATURE (°F) 2011 HUNTSVILLE (KHSV)

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL
1982	38.9	44.6	55.5	56.8	71.1	74.4	79.1	77.0	70.6	61.6	51.6	49.0	60.9
1983	38.8	43.2	50.0	54.9	66.3	73.7	80.3	82.3	71.6	62.1	50.0	36.6	59.2
1984	35.3	45.1	49.5	58.1	66.4	76.6	77.1	76.2	70.0	68.3	48.2	51.7	60.2
1985	31.7	40.5	54.7	62.3	68.6	76.6	77.9	77.0	70.7	64.9	57.9	36.0	59.9
1986	38.9	46.9	53.3	61.5	70.2	78.1	82.0	77.2	75.6	62.2	54.8	42.3	61.9
1987	39.2	45.5	53.6	58.4	73.6	77.3	80.3	81.9	72.3	55.7	53.5	47.2	61.5
1988	36.7	41.3	51.6	60.4	67.8	77.4	79.9	81.2	73.1	55.8	53.2	43.4	60.2
1989	46.5	43.3	54.5	59.4	66.6	74.6	78.4	78.1	71.4	60.7	50.9	33.8	59.9
1990	46.9	52.0	54.3	59.7	67.4	77.1	79.6	81.4	76.2	61.8	55.2	46.8	63.2
1991	43.0	47.5	54.0	64.4	72.2	76.6	80.9	79.7	74.0	62.7	47.7	46.7	62.5
1992	41.8	47.9	51.6	60.3	66.9	73.5	79.1	74.5	71.7	60.3	49.9	43.1	60.1
1993	44.5	41.8	48.7	57.1	68.6	77.3	83.6	80.6	71.1	59.9	49.7	42.0	60.4
1994	35.6	46.3	53.0	64.3	66.6	78.0	77.7	75.7	69.8	62.6	55.3	46.9	61.0
1995	41.4	42.9	54.6	61.5	69.2	73.5	79.2	81.5	72.0	61.2	45.9	40.4	60.3
1996	38.8	42.1	47.4	57.9	72.7	76.7	78.1	77.0	69.8	61.8	48.8	46.3	59.8
1997	40.8	47.9	57.1	56.7	65.2	72.5	80.2	76.7	73.2	60.3	46.8	40.6	59.8
1998	45.0	45.9	51.0	59.8	72.8	80.5	80.9	79.4	78.2	65.6	53.9	47.3	63.4
1999	46.2	48.7	48.4	65.6	69.2	76.2	80.5	80.7	73.8	62.3	54.3	44.6	62.5
2000	41.6	49.7	55.6	58.5	73.2	77.3	80.4	80.9	73.1	64.7	49.8	34.8	61.6
2001	37.2	47.5	47.7	63.8	69.5	74.3	78.8	77.4	70.2	58.8	56.7	46.8	60.7
2002	44.2	43.1	52.5	65.1	68.5	78.2	80.2	79.7	77.0	64.8	48.2	42.1	62.0
2003	35.4	43.2	54.1	62.8	69.5	74.1	77.6	79.4	72.0	62.1	56.0	41.2	60.6
2004	40.5	42.8	56.1	60.5	73.0	76.2	77.0	74.2	72.7	66.0	55.6	42.2	61.4
2005	46.2	47.8	50.8	60.8	67.7	76.8	80.1	81.7	75.8	62.3	52.7	39.4	61.8
2006	47.6	41.9	53.3	66.6	69.8	77.8	82.2	82.8	71.3	59.2	51.1	46.4	62.5
2007	43.1	41.0	60.0	59.0	72.4	80.1	78.6	85.8	76.6	66.2	51.6	49.5	63.7
2008	39.8	45.9	53.0	61.5	69.0	79.1	80.8	78.9	74.2	61.7	48.8	45.6	61.5
2009	40.9	46.1	55.0	60.6	69.7	80.1	77.5	78.3	74.2	60.8	53.5	42.5	61.6
2010	37.0	38.2	50.2	64.8	73.3	82.0	83.7	84.7	76.1	62.9	53.2	38.2	62.0
2011	37.3	47.4	53.9	64.5	70.1	80.9	82.3	80.8	70.0	59.7	53.8	46.7	62.3
POR= 53 YRS	39.9	44.1	52.1	61.4	69.2	76.6	79.6	79.0	72.9	61.7	51.5	43.0	60.9

HEATING DEGREE DAYS (base 65°F) 2011 HUNTSVILLE (KHSV)

YEAR	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	TOTAL
1982-83	0	0	35	180	401	511	802	604	460	311	46	0	3350
1983-84	0	0	35	115	444	871	916	569	479	225	70	2	3726
1984-85	0	0	26	32	499	407	1027	682	336	145	26	2	3182
1985-86	0	0	25	74	232	893	804	499	363	147	31	0	3068
1986-87	0	2	0	140	311	697	791	539	346	226	1	0	3053
1987-88	0	0	3	283	340	546	870	679	418	158	22	1	3320
1988-89	0	0	2	289	344	661	568	607	334	233	76	0	3114
1989-90	0	0	29	159	420	958	557	361	340	198	49	0	3071
1990-91	0	0	18	173	292	557	677	485	355	59	11	0	2627
1991-92	0	0	24	126	510	559	712	488	409	192	52	0	3072
1992-93	0	0	8	150	448	671	628	644	499	244	24	0	3316
1993-94	0	0	23	188	461	706	905	515	369	109	44	0	3320
1994-95	0	0	20	100	289	554	724	615	322	140	44	0	2808
1995-96	0	0	20	156	571	755	803	662	540	228	21	0	3756
1996-97	0	0	16	136	486	573	744	473	254	249	55	4	2990
1997-98	0	0	0	206	540	750	615	529	457	173	16	2	3288
1998-99	0	0	0	73	329	556	579	451	507	87	6	0	2588
1999-00	0	0	20	137	312	626	718	441	288	195	2	0	2739
2000-01	0	0	17	109	475	931	854	488	530	109	8	0	3521
2001-02	0	0	42	216	246	560	645	606	389	98	57	0	2859
2002-03	0	0	0	98	504	703	910	604	339	113	3	0	3274
2003-04	0	0	22	114	282	732	757	636	284	181	31	0	3039
2004-05	0	2	4	54	290	700	577	472	440	141	49	0	2729
2005-06	0	0	2	172	375	787	532	641	377	73	37	0	2996
2006-07	0	0	16	228	417	568	670	664	206	222	6	0	2997
2007-08	0	0	0	95	392	478	778	550	366	148	26	0	2833
2008-09	0	0	0	165	481	600	741	523	316	191	22	0	3039
2009-10	0	0	7	161	333	691	863	747	452	74	17	0	3345
2010-11	0	0	9	108	347	825	852	488	347	101	62	0	3139
2011-	0	0	20	186	340	560							

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COOLING DEGREE DAYS (base 65°F) 2011 HUNTSVILLE (KHSV)

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
1982	0	0	31	11	205	289	446	380	208	81	7	19	1677
1983	0	0	4	13	96	267	479	544	242	36	2	0	1683
1984	0	0	3	23	120	357	383	352	182	140	1	2	1563
1985	0	0	20	70	145	356	407	382	204	76	28	0	1688
1986	0	0	10	48	199	400	535	387	323	62	11	0	1975
1987	0	0	2	34	273	377	486	532	230	0	3	4	1941
1988	0	0	8	24	116	381	467	510	251	13	0	0	1770
1989	0	4	16	71	132	291	423	415	228	34	2	0	1616
1990	0	1	13	45	130	369	463	517	359	82	8	0	1987
1991	0	0	24	46	241	358	499	461	298	64	0	0	1991
1992	0	0	0	57	120	264	444	302	216	13	3	0	1419
1993	0	0	2	12	142	377	581	493	210	38	10	0	1865
1994	0	0	1	96	98	398	403	340	171	34	5	0	1546
1995	0	0	10	41	184	262	448	521	234	46	3	0	1749
1996	0	7	0	21	268	356	411	379	166	43	5	0	1656
1997	0	0	15	9	67	235	477	367	250	67	0	0	1487
1998	0	0	29	27	263	473	500	456	402	96	0	13	2259
1999	0	1	0	110	143	344	488	491	291	60	0	0	1928
2000	2	5	3	7	263	376	485	498	265	109	27	0	2040
2001	0	1	0	78	154	286	437	393	204	29	5	0	1587
2002	7	0	11	111	171	400	479	462	364	99	7	0	2111
2003	0	0	9	55	150	277	396	457	236	32	20	0	1632
2004	4	0	14	53	288	345	379	298	239	95	16	0	1731
2005	0	0	5	24	137	360	474	526	331	95	15	0	1967
2006	0	0	19	128	194	390	540	560	212	53	4	0	2100
2007	0	0	58	47	245	460	430	650	353	140	0	4	2387
2008	0	3	1	47	155	430	496	436	283	69	0	3	1923
2009	0	0	16	63	175	461	394	422	292	38	0	0	1861
2010	0	0	0	71	280	518	589	617	348	47	0	0	2470
2011	0	3	12	92	228	486	545	497	176	26	11	0	2076

SNOWFALL (inches) 2011 HUNTSVILLE (KHSV)

YEAR	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	TOTAL
1982-83	0.0	0.0	0.0	0.0	0.0	T	T	T	T	0.0	0.0	0.0	T
1983-84	0.0	0.0	0.0	0.0	0.0	0.6	1.0	1.0	T	0.0	0.0	0.0	2.6
1984-85	0.0	0.0	0.0	0.0	0.0	T	4.0	4.2	0.0	0.0	0.0	0.0	8.2
1985-86	0.0	0.0	0.0	0.0	0.0	0.9	T	T	0.0	0.0	0.0	0.0	0.9
1986-87	0.0	0.0	0.0	0.0	T	T	1.1	T	T	T	0.0	0.0	1.1
1987-88	0.0	0.0	0.0	0.0	0.0	0.0	9.6	1.0	T	0.0	0.0	0.0	10.6
1988-89	0.0	0.0	0.0	0.0	0.0	T	0.2	0.3	T	0.0	0.0	0.0	0.5
1989-90	0.0	0.0	0.0	T	T	0.3	0.0	0.0	T	0.0	0.0	0.0	0.3
1990-91	0.0	T	0.0	0.0	0.0	T	T	T	T	0.0	0.0	0.0	T
1991-92	0.0	0.0	0.0	0.0	T	0.0	0.2	0.0	T	0.0	0.0	0.0	0.2
1992-93	0.0	0.0	0.0	0.0	T	T	0.0	T	7.3	T	T	0.0	7.3
1993-94	0.0	0.0	0.0	T	0.0	T	0.1	0.0	0.0	0.0	0.0	T	0.1
1994-95	0.0	0.0	0.0	0.0	0.0	0.0	0.1	1.8	0.0	0.0	0.0	0.0	
1995-96		0.0	0.0	0.0			2.4						
1996-97													
1997-98								0.7					
1998-99													
1999-00													
2000-01						0.5	1.0						
2001-02													
2002-03													
2003-04													
2004-05						T	T	0.0	T	0.0	0.0	0.0	
2005-06	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.2	T	T	0.0	0.0	0.4
2006-07	0.0	0.0	0.0	0.0	0.0	0.0	T	1.0	0.0	0.0	0.0	0.0	1.0
2007-08	0.0	0.0	0.0	0.0	0.0	0.0	0.6	T	0.1	0.0	0.0	0.0	0.7
2008-09	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.6	T	0.0	0.0	0.7
2009-10	0.0	0.0	0.0	0.0	0.0	0.3	0.7	0.9	1.3	0.0	0.0	0.0	3.2
2010-11	0.0	0.0	0.0	0.0	T	2.8	9.2	2.3	0.0	0.0	0.0	0.0	14.3
2011-	0.0	0.0	0.0	0.0	T	T							
POR= 52 YRS	0.0	T	0.0	T	0.1	0.7	1.4	0.7	0.4	T	T	T	3.3

WBAN : 03856

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 HUNTSVILLE ALABAMA (KHSV)

Huntsville has a temperate climate. Summers are characterized by warm and humid weather, with rather frequent thunderstorms. Winters are usually rather cool, but vary considerably from one year to the next.

The city of Huntsville is almost surrounded by the foothills of the Appalachian Mountains. The Tennessee River winds its way westward about 7 miles to the south of the city, and the broad, fertile Tennessee River Valley, with flat to gently rolling terrain, extends to the west. The weather station is located at the Huntsville-Madison County Airport, which is 11 miles southwest of the center of Huntsville. Mountain ridges, with elevations from 1,200 to 1,600 feet above sea level, are located some 14 miles to the northeast, east, and southeast of the airport.

Cold air masses from the continent are predominant over the area during the winter season, but, at times, mild air from the Gulf of Mexico spreads northward to Huntsville or beyond, and may persist for several days in succession. The contrast between air masses frequenting the region in winter provides a potential source of energy for producing extensive periods of low cloudiness and rain, the result being that four months, December through March, account for about 43 percent of the normal annual precipitation. Severely cold weather seldom occurs.

In the transition from winter to spring, appearances of warm, moist air in place of the cold air become more frequent, and the greatest variety of weather usually occurs during this season. Spring season thunderstorms in the vicinity of the boundary between warm and cold air masses are more likely to be accompanied by locally severe weather conditions than thunderstorms in other seasons.

Day to day weather changes in the summer season are rather small, other than the occurrence of thunderstorms that provide relief from the heat on about one-third of the days. Temperatures frequently rise to 90 degrees or higher, but reach 100 degrees only on rare occasions.

During the fall the weather is usually dry and pleasant. The air masses are cooler in the lower levels and the thunderstorm activity of summer decreases sharply. The dry air is very favorable for the harvesting of cotton and hay crops, important items in the economy of the area. A major departure from the relatively dry weather of fall is an occasional rainy spell of one or more days associated with a decaying hurricane drifting northward from the Gulf of Mexico.

Precipitation amounts for the drier months of the fall are appreciably less than for the relatively wet season in winter. However, with the exception of an infrequent long dry spell, precipitation distribution is such as to provide adequate moisture for plant growth throughout the year. Precipitation is mostly in the form of rain, but snow can be expected to some extent each winter and seasonal totals have ranged from less than 1 inch to over 20 inches.

The growing season is 214 days. The climate is suitable for truck farming, as well as for staple crops and livestock. The average date for the last occurrence of freezing temperatures in the spring is late March and the average date of the first freeze is late October.

Station History

HUNTSVILLE, AL

NAME	Begin Date	End Date	Latitude	Longitude	Elevation Feet	Relocation	Platform
HUNTSVILLE MADISON COUNTY AP	1981-12-31	1988-09-01	34° 39'	-86° 46'	624		COOP
HUNTSVILLE INTL AP JONES FIELD	1988-09-01	1994-08-01	34° 39'	-86° 46'	624		COOP
HUNTSVILLE MADISON COUNTY AP	1967-10-29	1969-01-01	34° 39'	-86° 46'	623		AIRWAYS, COOP
HUNTSVILLE MADISON COUNTY AP	1969-01-01	1970-10-01	34° 39'	-86° 46'	623		COOP, WXSVC
HUNTSVILLE MADISON COUNTY AP	1970-10-01	1981-12-31	34° 39'	-86° 46'	624		COOP, WXSVC
HUNTSVILLE INTL AP JONES FIELD	2006-07-19	Present	34° 38'	-86° 47'	624		ASOS, COOP
HUNTSVILLE INTL AP JONES FIELD	1995-07-14	2006-07-19	34° 38'	-86° 47'	624		ASOS, COOP
HUNTSVILLE MADISON COUNTY AP	1958-10-22	1967-10-29	34° 42'	-86° 34'	605	.1 MI XX	AIRWAYS, COOP
HUNTSVILLE INTL AP JONES FIELD	1994-08-01	1995-07-14	34° 38'	-86° 47'	624	.8 MI W	ASOS, COOP

Element History

Element	Begin Date	End Date	Frequency	Time Of Observation	Equipment *	Equipment * Modifications	Equipment Exposure
PRECIP	2002-11-01	2003-02-19	DAILY	2400	PCPN1		
TEMP	2006-07-19	2008-07-28	DAILY	2400	HYGR		
EVAP	1976-02-01	1990-08-01	DAILY	1800			
PRECIP	1976-02-01	1990-08-01	DAILY	2400			
PRECIP	1990-08-01	1999-10-01	HOURLY	2400			
PRECIP	1999-10-01	2002-11-01	DAILY	2400	TB	RCRD	
PRECIP	2006-07-19	2008-07-28	HOURLY	2400	TB	RCRD	
PRECIP	2003-02-19	2006-07-19	HOURLY	2400	TB	RCRD	
PRECIP	1967-10-29	1976-02-01	DAILY	2400			
PRECIP	1976-02-01	1990-08-01	HOURLY	2400			
EVAP	1990-08-01	1994-08-01	DAILY	0600	MONEL(H)		
PRECIP	2002-11-01	2003-02-19	HOURLY	2400	TB	RCRD	
EVAP	1967-10-29	1976-02-01	DAILY	1800			
TEMP	1976-02-01	1990-08-01	DAILY	2400			
PRECIP	1990-08-01	1999-10-01	DAILY	2400	TB	RCRD	
TEMP	2003-02-19	2006-07-19	DAILY	2400	HYGR		
PRECIP	2006-07-19	2008-07-28	DAILY	2400	PCPN1		
TEMP	2008-07-28	Present	DAILY	2400	HYGR		
TEMP	1990-08-01	1999-10-01	DAILY	2400	HYGR		
PRECIP	2003-02-19	2006-07-19	DAILY	2400	TB	RCRD	
TEMP	1967-10-29	1976-02-01	DAILY	2400			
TEMP	1999-10-01	2002-11-01	DAILY	2400	HYGR		
PRECIP	1999-10-01	2002-11-01	HOURLY	2400	TB	RCRD	
TEMP	2002-11-01	2003-02-19	DAILY	2400	HYGR		
PRECIP	2008-07-28	Present	DAILY	2400	PCPNX		
PRECIP	2008-07-28	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>

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