

2004

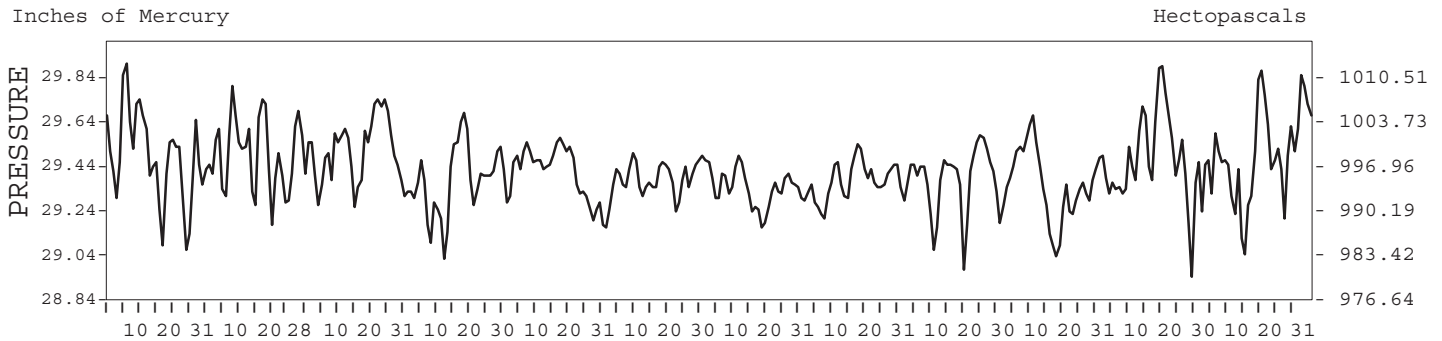
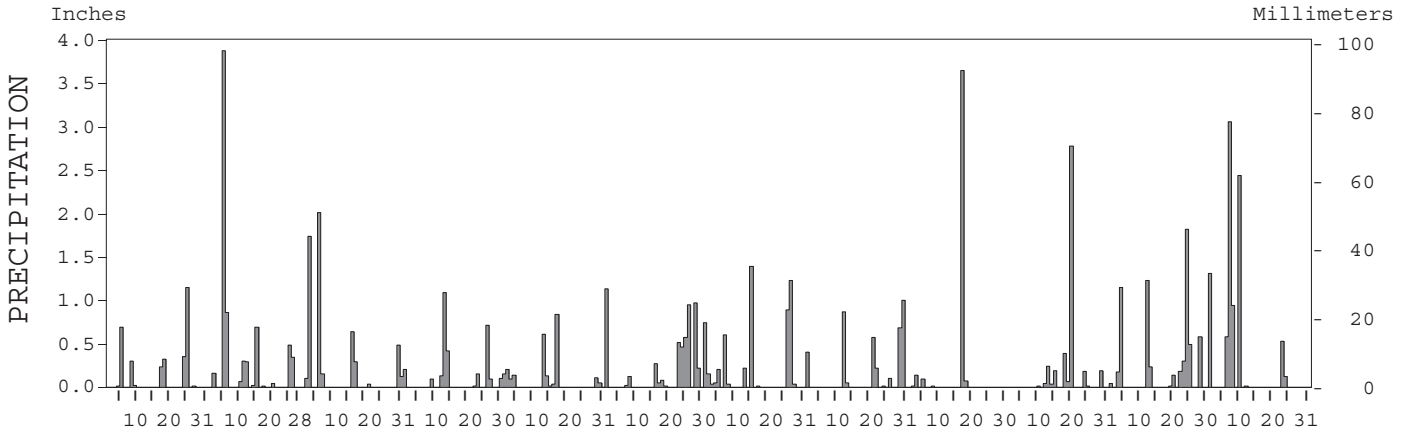
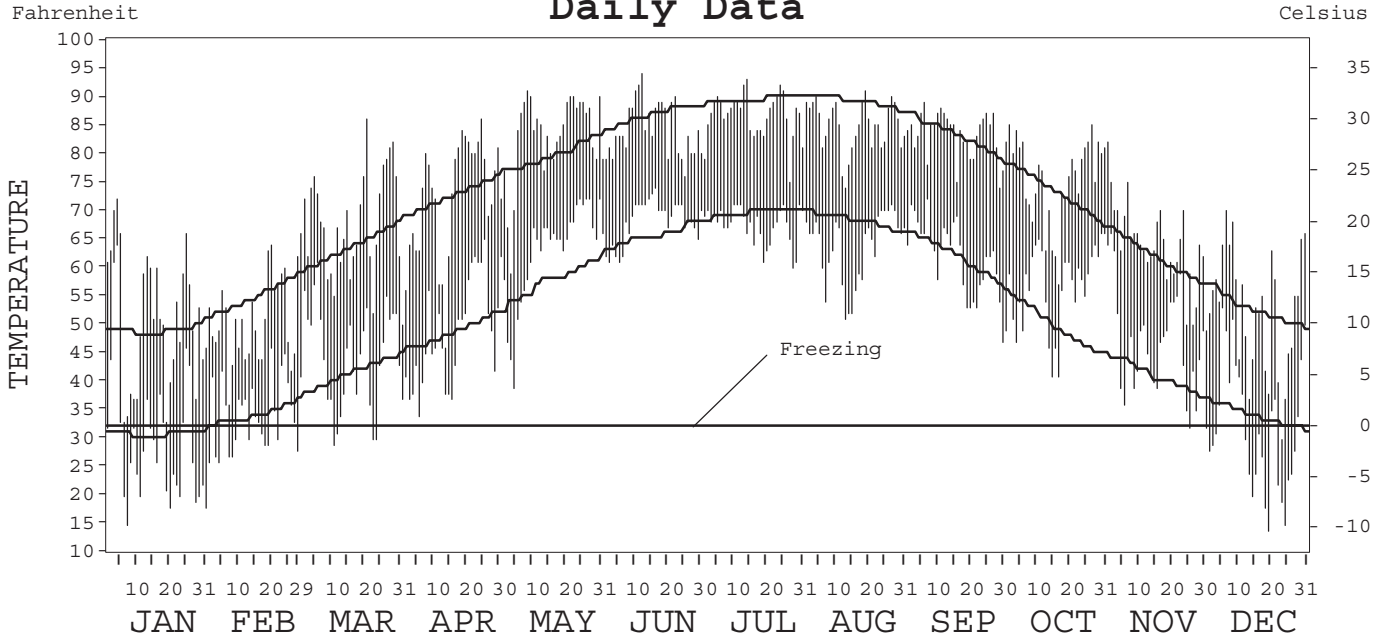
LOCAL CLIMATOLOGICAL DATA  
ANNUAL SUMMARY WITH COMPARATIVE DATA



ISSN 0197-9485

HUNTSVILLE,  
ALABAMA (HSV)

Daily Data



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*Thomas R. Karl*

NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION	NATIONAL ENVIRONMENTAL SATELLITE, DATA, AND INFORMATION SERVICE	NATIONAL CLIMATIC DATA CENTER ASHEVILLE, NORTH CAROLINA	DIRECTOR NATIONAL CLIMATIC DATA CENTER
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# METEOROLOGICAL DATA FOR 2004

## HUNTSVILLE, AL (HSV)

LATITUDE: 34° 38' 37" N      LONGITUDE: 86° 47' 08" W      ELEVATION (FT): GRND: 642      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	51.0	51.2	67.8	72.4	83.1	84.3	86.6	84.8	83.4	75.6	64.3	52.4	71.4	
	HIGHEST DAILY MAXIMUM	72	66	86	86	91	94	93	91	89	85	82	70	94	
	DATE OF OCCURRENCE	04	29	20	24	08	12	14	19	06	27+	01	07	JUN 12	
	MEAN DAILY MINIMUM	29.9	34.3	44.4	48.6	62.9	68.1	67.4	63.6	61.9	56.4	46.8	31.9	51.4	
	LOWEST DAILY MINIMUM	15	26	29	34	39	61	60	51	47	41	32	14	14	
	DATE OF OCCURRENCE	07	04+	10	05	04	05+	28	13	30	17+	26	20	DEC 20	
	AVERAGE DRY BULB	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	
	MEAN WET BULB	36.6	39.0	49.4	53.0	66.0	70.7	72.1	68.6	65.5	61.1	50.9	38.7	56.0	
	MEAN DEW POINT	30.8	33.8	42.0	45.9	62.0	68.2	70.2	65.8	61.6	58.1	46.2	33.5	51.5	
	NUMBER OF DAYS WITH:														
	MAXIMUM ≥ 90°	0	0	0	0	5	4	6	3	0	0	0	0	18	
	MAXIMUM ≤ 32°	0	0	0	0	0	0	0	0	0	0	0	1	1	
MINIMUM ≤ 32°	21	12	4	0	0	0	0	0	0	0	1	18	56		
MINIMUM ≤ 0°	0	0	0	0	0	0	0	0	0	0	0	0	0		
H/C	HEATING DEGREE DAYS	757	636	284	181	31	0	0	2	4	54	290	700	2939	
	COOLING DEGREE DAYS	4	0	14	53	288	345	379	298	239	95	16	0	1731	
RH	MEAN (PERCENT)	71	74	64	64	72	80	82	79	73	79	74	73	74	
	HOUR 00 LST	74	78	75	74	84	91	93	91	86	89	81	82	83	
	HOUR 06 LST	81	82	79	84	89	92	95	93	89	92	84	85	87	
	HOUR 12 LST	62	66	50	47	58	67	68	62	55	64	63	61	60	
	HOUR 18 LST	66	69	53	49	59	69	75	71	66	75	73	69	66	
S	PERCENT POSSIBLE SUNSHINE														
W/O	NUMBER OF DAYS WITH:														
	HEAVY FOG (VISBY ≤ 1/4 MI)	0	3	2	0	3	1	4	4	0	6	2	3	28	
	THUNDERSTORMS	0	1	4	5	4	3	12	5	0	3	3	2	42	
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.)	29.48	29.49	29.50	29.37	29.40	29.38	29.33	29.37	29.37	29.36	29.46	29.50	29.42	
	MEAN SEA-LEVEL PRESS. (IN.)	30.17	30.18	30.19	30.05	30.07	30.05	30.00	30.04	30.04	30.03	30.15	30.20	30.10	
WINDS	RESULTANT SPEED (MPH)	1.1	2.1	1.5	1.6	3.8	1.2	0.6	1.2	3.6	2.3	2.1	1.0	0.5	
	RES. DIR. (TENS OF DEGS.)	32	07	23	23	20	19	32	36	06	18	12	25	17	
	MEAN SPEED (MPH)	7.4	8.1	8.1	7.6	7.3	5.0	4.2	5.1	7.6	6.3	7.0	7.1	6.7	
	PREVAIL. DIR. (TENS OF DEGS.)	35	13	16	20	22	19	31	01	12	11	11	29	12	
	MAXIMUM 2-MINUTE WIND:														
	SPEED (MPH)	31	32	31	25	30	26	31	24	38	23	24	28	38	
	DIR. (TENS OF DEGS.)	20	11	31	23	28	26	31	30	01	26	28	15	01	
	DATE OF OCCURRENCE	25	05	07	21	31+	22	25+	11	16	14	30+	22	SEP 16	
	MAXIMUM 5-SECOND WIND:														
	SPEED (MPH)	37	38	40	29	38	33	43	33	51	29	33	33	51	
DIR. (TENS OF DEGS.)	20	11	30	22	29	27	29	25	03	26	28	29	03		
DATE OF OCCURRENCE	25	05	07	21+	31	22	14	20	16	14	30	22	SEP 16		
PRECIPITATION	WATER EQUIVALENT:														
	TOTAL (IN.)	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	
	GREATEST 24-HOUR (IN.)	1.50	4.49	2.15	1.39	1.13	1.37	1.39	1.00	3.72	2.81	2.12	3.24	4.49	
	DATE OF OCCURRENCE	24-25	05-06	05-06	12-13	31	24-25	14	29	16-17	18-19	23-24	05-06	FEB 05-06	
	NUMBER OF DAYS WITH:														
PRECIPITATION ≥ 0.01	9	12	10	10	11	13	13	8	6	12	12	7	123		
PRECIPITATION ≥ 0.10	6	8	9	7	7	9	8	6	2	6	11	6	85		
PRECIPITATION ≥ 1.00	1	1	2	1	1	0	2	1	1	1	4	2	17		
SNOWFALL	SNOW, ICE PELLETS, HAIL:														
	TOTAL (IN.)														
	GREATEST 24-HOUR (IN.)														
	DATE OF OCCURRENCE														
	MAXIMUM SNOW DEPTH (IN.)														
	DATE OF OCCURRENCE														
	NUMBER OF DAYS WITH:														
	SNOWFALL ≥ 1.0														

# NORMALS, MEANS, AND EXTREMES

## HUNTSVILLE, AL (HSV)

LATITUDE: 34° 38' 37" N      LONGITUDE: 86° 47' 08" W      ELEVATION (FT): GRND: 642      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	46	48.9	54.1	62.7	72.7	80.2	86.6	89.4	88.8	85.4	75.1	63.6	53.6	71.8
	HIGHEST DAILY MAXIMUM	37	77	83	86	90	96	101	104	103	101	90	84	79	104
	YEAR OF OCCURRENCE		2002	1996	2004	2002	1996	1988	1993	1990	1999	1998	2000	1998	JUL 1993
	MEAN OF EXTREME MAXS.	47	68.0	72.5	79.9	86.1	89.9	94.7	96.6	95.7	93.0	85.3	78.0	69.7	84.1
	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	50.0
	MEAN DAILY MINIMUM	46	30.2	33.5	40.8	49.5	58.0	65.6	69.3	68.0	62.0	49.9	40.5	33.2	50.0
	LOWEST DAILY MINIMUM	37	-11	1	6	26	36	45	54	51	38	29	15	-3	-11
	YEAR OF OCCURRENCE		1985	1996	1980	1992	1971	1972	1972	2004	2001	2001	1976	1989	JAN 1985
	MEAN OF EXTREME MINS.	47	10.0	15.6	23.8	33.2	43.9	54.4	61.4	59.3	46.9	34.0	23.8	15.8	35.2
	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	47	39.4	44.0	51.9	61.2	69.0	76.1	79.3	78.6	72.6	61.8	51.4	42.8	60.7
	MEAN WET BULB	42	36.3	39.3	46.0	54.0	62.1	68.7	72.1	71.0	65.8	55.2	46.7	39.0	54.7
	MEAN DEW POINT	42	30.7	33.2	39.4	47.6	57.5	65.0	69.0	68.0	62.1	50.4	41.5	33.6	49.8
	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
	HOUR 00 LST	30	79	76	73	75	83	86	88	88	86	84	80	79	81
	HOUR 06 LST	30	82	81	81	83	87	88	91	92	90	88	85	82	86
	HOUR 12 LST	30	65	60	56	51	55	57	60	58	58	53	58	64	58
	HOUR 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)	37	2.2	1.5	1.2	1.0	1.3	1.5	1.7	2.1	1.8	2.1	1.8	1.7	19.9
	THUNDERSTORMS	37	1.7	2.3	4.7	4.9	6.9	8.4	10.4	7.6	4.6	2.1	2.3	1.2	57.1
CLOUDINESS	MEAN:														
	SUNRISE-SUNSET (OKTAS)	1			6.4		3.2	4.0		4.0		5.6			
	MIDNIGHT-MIDNIGHT (OKTAS)	1			5.6					3.2		5.6			
	MEAN NO. DAYS WITH:														
CLEAR	1	1.0						4.0	7.0	6.0	9.0		7.0		
PARTLY CLOUDY	1								1.0	5.0	3.0		2.0		
CLOUDY	1	1.0							1.0	4.0	3.0		7.0		
PR	MEAN STATION PRESSURE (IN)	32	29.42	29.42	29.35	29.34	29.32	29.33	29.36	29.37	29.38	29.42	29.44	29.46	29.38
	MEAN SEA-LEVEL PRES. (IN)	43	30.16	30.10	30.05	30.02	30.01	30.01	30.03	30.04	30.05	30.10	30.13	30.16	30.07
WINDS	MEAN SPEED (MPH)	36	8.9	9.3	9.7	9.3	7.9	6.7	5.9	5.8	6.8	7.0	8.0	8.8	7.8
	PREVAIL. DIR (TENS OF DEGS)	32	12	36	13	20	13	13	11	12	11	11	11	13	13
	MAXIMUM 2-MINUTE:														
	SPEED (MPH)	10	38	41	36	43	39	56	52	43	38	43	35	37	56
	DIR. (TENS OF DEGS)		29	26	14	24	27	24	01	29	01	01	12	12	24
	YEAR OF OCCURRENCE		1997	1997	2003	1999	1997	1995	2002	2000	2004	1995	2000	2003	JUN 1995
	MAXIMUM 5-SECOND:														
SPEED (MPH)	10	45	51	41	49	52	56	68	63	51	55	45	48	68	
DIR. (TENS OF DEGS)		29	28	30	31	29	21	04	29	03	25	12	22	04	
YEAR OF OCCURRENCE		1997	1997	2002	1998	1997	1995	2002	2000	2004	2001	2000	1996	JUL 2002	
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)	37	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	1975	1977	1990	1990	DEC 1990
	MINIMUM MONTHLY (IN)	37	1.32	0.59	1.84	0.42	1.29	0.17	0.79	0.58	0.48	0.01	1.82	0.91	0.01
	YEAR OF OCCURRENCE		1986	1978	2003	1986	2000	1988	1983	1998	1998	2000	1971	1980	OCT 2000
	MAXIMUM IN 24 HOURS (IN)	37	4.90	5.83	7.70	3.85	5.90	4.81	5.21	4.89	4.23	6.04	3.79	10.22	10.22
	YEAR OF OCCURRENCE		1982	1995	1973	1983	1983	1992	2001	1986	1997	1975	2000	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.*	0.1	2.5	
	MAXIMUM MONTHLY (IN)	30	9.6	4.2	7.3	T	T	T	0.0	T	0.0	T	0.8	1.0	
	YEAR OF OCCURRENCE		1988	1985	1993	1993	1993	1994		1990		1993	1974	1974	JAN 1988
	MAXIMUM IN 24 HOURS (IN)	30	9.6	3.6	7.3	T	T	T	0.0	T	0.0	T	0.8	1.0	
	YEAR OF OCCURRENCE		1988	1985	1993	1993	1993	1994		1990		1993	1974	1974	JAN 1988
	MAXIMUM SNOW DEPTH (IN)	36	11	6	2	T	0	0	0	0	0	0	4	2	
	YEAR OF OCCURRENCE		1964	1960	1980	1987							1966	1963	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) 2004 HUNTSVILLE, AL (HSV)

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL
1975	5.38	4.96	12.17	3.17	6.48	4.61	8.32	3.57	5.11	12.06	3.59	3.55	72.97
1976	3.94	3.36	6.84	1.84	6.60	7.30	4.35	1.27	7.40	4.38	2.61	3.47	53.36
1977	3.71	3.40	9.50	6.68	4.13	2.40	3.41	2.46	9.03	5.31	11.53	2.25	63.81
1978	3.86	0.59	4.81	2.89	6.30	3.87	5.64	3.45	2.83	0.79	3.63	7.68	46.34
1979	5.95	5.49	5.74	7.46	4.03	2.60	6.49	3.04	5.38	2.91	6.65	2.20	57.94
1980	5.50	1.79	17.00	5.04	9.08	2.09	1.87	3.55	9.78	2.46	5.83	0.91	64.90
1981	1.80	3.09	5.93	2.87	3.55	1.99	3.72	4.37	0.78	4.07	5.41	4.23	41.81
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
POR= 46 YRS	5.14	4.91	6.46	4.67	5.16	4.37	4.65	3.38	4.01	3.27	4.75	5.68	56.45

WBAN : 03856

AVERAGE TEMPERATURE (°F) 2004 HUNTSVILLE, AL (HSV)

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL
1975	45.8	45.6	48.1	59.9	69.7	75.6	77.0	78.1	68.2	62.6	52.6	42.2	60.5
1976	36.3	50.7	55.3	59.0	63.1	73.3	77.1	76.4	68.8	55.1	42.9	40.0	58.2
1977	28.7	42.4	55.3	63.6	71.5	77.2	82.7	80.2	73.6	58.3	52.7	41.5	60.6
1978	30.5	34.2	48.2	61.5	67.5	77.3	80.2	78.6	74.8	58.9	57.6	45.4	59.6
1979	33.3	40.2	52.6	60.1	66.9	74.1	77.7	77.5	71.1	61.0	49.2	41.7	58.8
1980	40.5	37.5	47.7	59.4	69.2	76.0	82.2	81.1	75.6	58.0	49.9	40.6	59.8
1981	35.1	44.9	49.2	65.6	65.6	77.8	79.6	76.6	68.5	59.1	52.1	40.2	59.5
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
POR= 46 YRS	39.6	44.0	51.8	61.1	69.0	76.2	79.5	78.7	72.6	61.8	51.4	42.9	60.7

HEATING DEGREE DAYS (base 65°F) 2004 HUNTSVILLE, AL (HSV)

YEAR	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	TOTAL
1975-76	0	0	65	126	376	699	883	415	303	181	93	0	3141
1976-77	0	0	19	306	658	766	1120	628	301	105	12	0	3915
1977-78	0	0	4	216	367	721	1062	855	514	129	60	0	3928
1978-79	0	0	0	191	223	602	974	691	385	155	48	0	3269
1979-80	0	0	0	152	469	714	753	793	532	178	21	1	3613
1980-81	0	0	12	239	448	749	922	559	486	57	66	0	3538
1981-82	0	0	36	206	381	762	804	564	314	250	8	0	3325
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-	0	2	4	54	290	700							

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COOLING DEGREE DAYS (base 65°F) 2004 HUNTSVILLE, AL (HSV)

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL
1975	0	0	3	53	156	325	378	413	170	59	11	0	1568
1976	0	3	14	8	43	257	380	360	142	8	0	0	1215
1977	0	1	8	70	222	372	557	477	271	13	4	0	1995
1978	0	0	0	34	145	374	477	427	298	10	8	0	1773
1979	0	0	9	16	113	280	400	393	189	36	0	0	1436
1980	0	0	0	17	157	338	542	508	335	28	1	0	1926
1981	0	0	4	83	91	391	456	366	151	28	2	0	1572
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

SNOWFALL (inches) 2004 HUNTSVILLE, AL (HSV)

YEAR	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	TOTAL
1975-76	0.0	0.0	0.0	0.0	T	T	0.2	0.0	0.0	0.0	0.0	0.0	0.2
1976-77	0.0	0.0	0.0	0.0	0.1	T	0.9	T	0.0	0.0	0.0	0.0	1.0
1977-78	0.0	0.0	0.0	0.0	0.0	T	3.4	0.5	T	0.0	0.0	0.0	3.9
1978-79	0.0	0.0	0.0	0.0	0.0	T	1.1	2.5	T	0.0	0.0	0.0	3.6
1979-80	0.0	0.0	0.0	0.0	0.0	0.0	T	2.8	2.0	0.0	0.0	0.0	4.8
1980-81	0.0	0.0	0.0	0.0	T	T	T	0.5	0.0	0.0	0.0	0.0	0.5
1981-82	0.0	0.0	0.0	0.0	0.0	T	4.3	T	0.3	0.0	0.0	0.0	4.6
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	0.0	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	
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-						T							
POR= 27 YRS	0.0	T	0.0	T	0.0	0.1	1.4	0.8	0.4	T	T	T	2.7

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.</p>	<p>GENERAL CONTINUED: 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. 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.</p> <p>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.</p>
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# 2004 HUNTSVILLE, ALABAMA (HSV)

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 LOCATION

HUNTSVILLE, ALABAMA

LOCATION	Occupied From	Occupied To	Airline Distances and Directions from previous Location	LATITUDE NORTH	LONGITUDE WEST	ELEVATION ABOVE								AUTOMATIC OBSERVING EQUIPMENT *	* TYPE M = AMOS T = AUTOB S = ASOS W = AWOS  REMARKS	
						SEA LEVEL		GROUND								HYGROMETER
						GROUND	TEMPERATURE	WIND INSTRUMENT	EXTREME THERMOMETERS	PSYCHROMETER	SUNSHINE SWITCH	TIPPING BUCKET	RAIN GAUGE			
*NOTE:																
<u>AIRPORT</u>																
Huntsville-Madison County Airport +	10/29/67	08/01/94	11 mi. WSW	34°39'	86°46'	624	25	5	5			d4	4	4	7e7	d. Added 9/1/72. e. Type change 10/18/85.
+Huntsville-Madison County Jetport Effective January 1974																
Int'l/Jones Field	08/01/94	Present	NA	34°39'	86°47'	f642									S	ASOS Commissioned 08/01/94. f. Ground elevation.

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\* NOTES: For earlier station history see previous editions.