

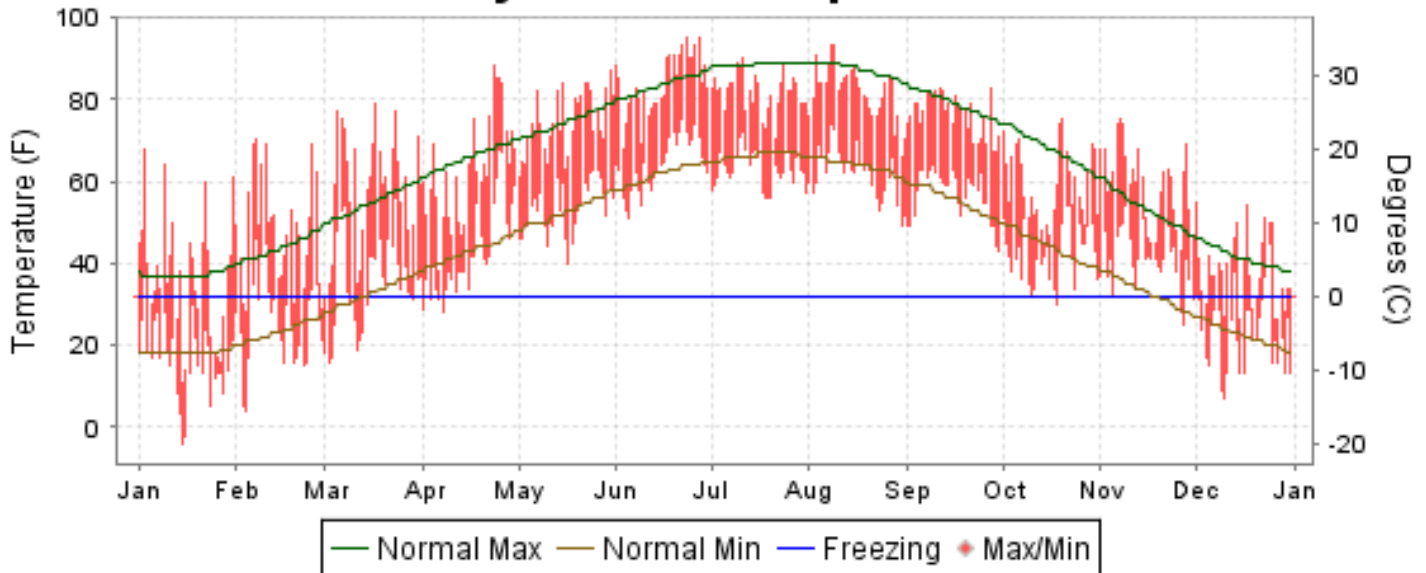


2009 LOCAL CLIMATOLOGICAL DATA ANNUAL SUMMARY WITH COMPARATIVE DATA

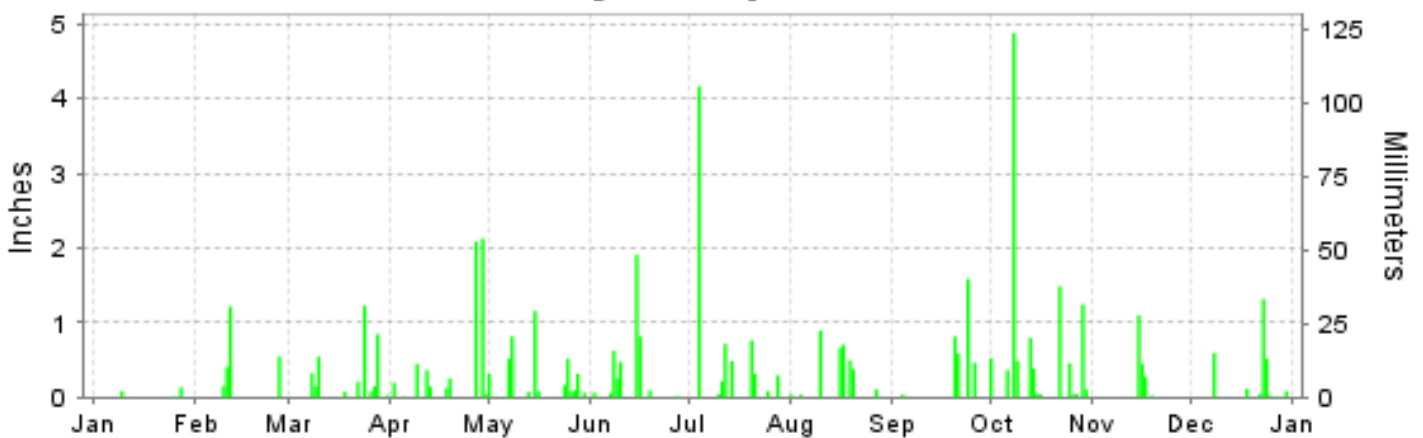
ISSN 0198-2834

COLUMBIA, MISSOURI (KCOU)

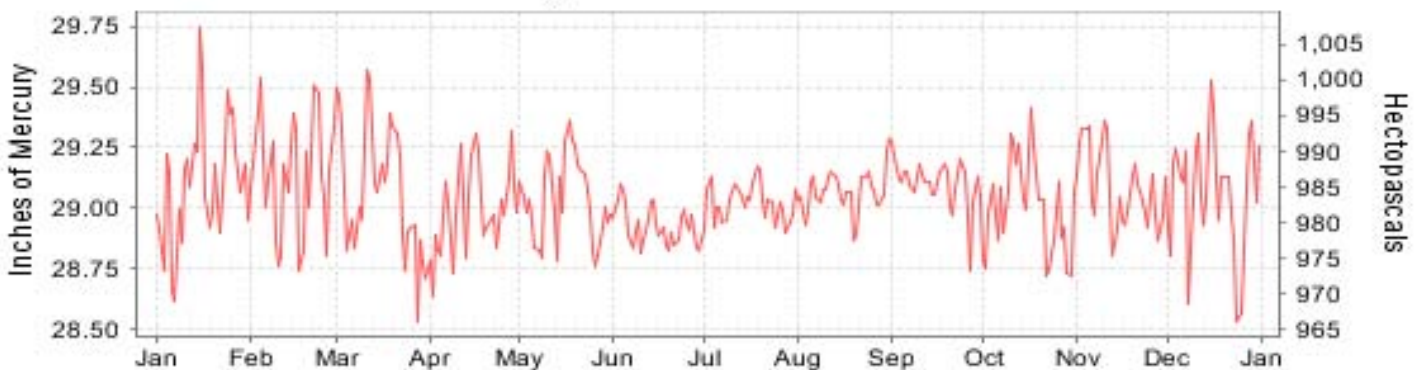
Daily Max/Min Temperature



Daily Precipitation



Daily Station Pressure



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NATIONAL
OCEANIC AND
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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 2009

COLUMBIA (KCOU)

LATITUDE: 38° 49'N LONGITUDE: -92° 13'W ELEVATION (FT): GRND: 893 BARO: 884 TIME ZONE: CENTRAL (UTC -6) WBAN: 03945

ELEMENT		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	YEAR	
TEMPERATURE °F	MEAN DAILY MAXIMUM	37.3	48.0	58.1	63.2	74.5	84.1	81.7	81.9	76.2	59.1	59.1	38.4	63.5	
	HIGHEST DAILY MAXIMUM	68	70	79	88	87	95	90	93	83	75	75	55	95	
	DATE OF OCCURRENCE	03	07	17	23	30	27+	11	09+	27+	20	07	01	JUN 27+	
	MEAN DAILY MINIMUM	16.7	25.5	35.0	42.9	53.4	64.3	62.8	62.0	56.8	42.3	40.8	23.0	43.8	
	LOWEST DAILY MINIMUM	-4	4	16	28	40	51	56	49	43	30	25	7	-4	
	DATE OF OCCURRENCE	15	04	02	07	17	05	20+	30	30	18	27	10	JAN 15	
	AVERAGE DRY BULB	27.0	36.8	46.6	53.1	64.0	74.2	72.3	72.0	66.5	50.7	50.0	30.7	53.7	
	MEAN WET BULB	23.3	32.2	40.7	47.8	57.6	67.3	66.7	66.3	60.5	46.6	44.4	27.4	48.4	
	MEAN DEW POINT	16.6	24.8	33.7	41.3	52.5	63.9	63.3	63.2	56.8	42.7	38.6	22.0	43.3	
	NUMBER OF DAYS WITH:														
	MAXIMUM >= 90°	0	0	0	0	0	10	1	3	0	0	0	0	0	14
	MAXIMUM <= 32°	10	4	1	0	0	0	0	0	0	0	0	8	23	
MINIMUM <= 32°	30	21	12	4	0	0	0	0	0	2	4	28	101		
MINIMUM <= 0°	2	0	0	0	0	0	0	0	0	0	0	0	2		
H/C	HEATING DEGREE DAYS	1169	785	567	387	90	7	0	11	34	436	446	1055	4987	
	COOLING DEGREE DAYS	0	0	2	38	67	289	234	236	86	0	0	0	952	
RH	MEAN (PERCENT)	68	66	64	66	69	74	75	77	76	77	68	74	71	
	HOUR 00 LST	71	71	68	72	80	84	84	86	84	82	72	77	78	
	HOUR 06 LST	77	78	78	80	85	88	89	90	90	87	79	80	83	
	HOUR 12 LST	59	56	53	56	53	61	62	66	60	69	60	69	60	
	HOUR 18 LST	61	58	56	58	58	62	64	68	72	72	63	72	64	
S	PERCENT POSSIBLE SUNSHINE														
W/O	NUMBER OF DAYS WITH:														
	HEAVY FOG(VISBY <= 1/4 MI)	0	1	0	0	1	3	0	3	8	1	0	2	19	
	THUNDERSTORMS	0	1	6	2	4	7	6	6	2	4	1	1	40	
CLOUDNESS	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.)	29.11	29.14	29.08	28.98	29.03	28.93	29.02	29.07	29.10	29.01	29.09	29.06	29.05	
	MEAN SEA-LEVEL PRESS. (IN.)	30.11	30.13	30.05	29.94	29.98	29.86	29.96	30.01	30.05	29.97	30.06	30.04	30.01	
WINDS	RESULTANT SPEED (MPH)	2.5	0.6	2.9	0.4	1.3	1.8	0.3	2.1	3.1	1.8	1.4	3.6	0.9	
	RES. DIR. (TENS OF DEGS.)	29	26	15	25	17	21	27	19	06	20	18	23	21	
	MEAN SPEED (MPH)	9.8	11.1	11.4	11.2	7.7	7.8	6.4	7.4	6.5	9.1	9.1	10.6	9.0	
	PREVAIL.DIR.(TENS OF DEGS.)	29	31	16	31	16	16	29	16	06	13	19	17	06	
	MAXIMUM 2-MINUTE WIND														
	SPEED (MPH)	35	32	40	32	52	39	30	35	28	32	28	37	52	
	DIR. (TENS OF DEGS.)	32	16	22	32	30	01	26	31	29	24	02	28	30	
	DATE OF OCCURRENCE	14	10	24	20	07	23	12	17	28	30	10	09	MAY 07	
	MAXIMUM 3-SECOND WIND:														
	SPEED (MPH)	44	43	49	41	63	48	40	44	41	40	35	47	63	
DIR. (TENS OF DEGS.)	29	15	22	32	31	02	29	32	24	24	03	28	31		
DATE OF OCCURRENCE	14	09	24	19	07	23	12	17	21	30	10	09	MAY 07		
PRECIPITATION	WATER EQUIVALENT:														
	TOTAL (IN.)	0.26	2.34	3.67	5.85	4.27	4.40	7.14	3.37	3.54	10.99	1.87	2.76	50.46	
	GREATEST 24-HOUR (IN.)	0.14	1.63	1.23	2.17	1.34	2.49	4.17	0.93	1.59	4.88	1.35	1.35	4.88	
	DATE OF OCCURRENCE	27	10-11	24	29-30	07-08	15-16	04	16-17	24	08	15-16	22-23	OCT 08	
	NUMBER OF DAYS WITH:														
	PRECIPITATION 0.01	4	4	11	11	13	12	10	9	7	17	5	9	112	
PRECIPITATION 0.10	1	4	7	8	8	6	7	6	4	10	3	4	68		
PRECIPITATION 1.00	0	1	1	2	1	1	1	0	1	3	1	1	13		
SNOWFALL	SNOW,ICE PELLETS,HAIL														
	TOTAL (IN.)	1.2	T	T	T	0.0	0.0	0.0	0.0	0.0	0.0	T	5.0	6.2	
	GREATEST 24-HOUR (IN.)	0.6	T	T	T	0.0	0.0	0.0	0.0	0.0	0.0	T	3.0	3.0	
	DATE OF OCCURRENCE	27	28+	29+	06+							30+	30	DEC 30	
	MAXIMUM SNOW DEPTH (IN.)	1	0	0	0	0	0	0	0	0	0	0	1	1	
	DATE OF OCCURRENCE	29+											30+	DEC 30+	
NUMBER OF DAYS WITH:															
SNOWFALL >= 1.0	0	0	0	0	0	0	0	0	0	0	0	1	1		

NORMALS, MEANS, AND EXTREMES COLUMBIA (KCOU)

LATITUDE:
38 ° 49'N

LONGITUDE:
-92 ° 13'W

ELEVATION (FT):
GRND: 893 BARO: 884

TIME ZONE:
CENTRAL (UTC -6)

WBAN: 03945

	ELEMENT	POR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	YEAR	
TEMPERATURE °F	NORMAL DAILY MAXIMUM	30	37.4	43.9	55.1	65.9	74.6	83.6	88.6	87.3	79.1	68.0	53.4	41.5	64.9	
	MEAN DAILY MAXIMUM	99	38.5	40.2	54.1	64.4	74.6	81.8	88.6	87.5	78.2	68.3	52.8	41.8	64.2	
	HIGHEST DAILY MAXIMUM	40	74	82	85	90	92	103	111	110	101	94	83	76	111	
	YEAR OF OCCURRENCE		1989	1972	1986	1987	1998	1988	1980	1984	1971	2006	1978	1991	1991	JUL 1980
	MEAN OF EXTREME MAXS.	102	60.3	68.3	78.5	84.5	86.6	92.7	97.6	98.4	91.8	84.7	74.2	64.0	81.8	
	NORMAL DAILY MINIMUM	30	18.2	23.4	33.0	42.9	52.8	61.8	66.3	64.0	55.4	44.1	33.0	22.5	43.1	
	MEAN DAILY MINIMUM	99	20.6	22.4	33.5	43.4	53.6	61.6	66.8	65.4	56.4	45.9	33.7	24.7	44.0	
	LOWEST DAILY MINIMUM	40	-19	-15	-5	19	29	40	48	42	29	22	0	-20	-20	
	YEAR OF OCCURRENCE		1982	1979	1978	2007	1976	1993	1975	1986	2003	1993	1991	1989	1989	DEC 1989
	MEAN OF EXTREME MINS.	102	-1.6	2.6	14.9	28.0	39.2	50.6	56.3	54.7	40.6	29.5	17.5	4.1	28.0	
	NORMAL DRY BULB	30	27.8	33.7	44.0	54.4	63.7	72.7	77.4	75.7	67.3	56.0	43.2	32.0	54.0	
	MEAN DRY BULB	102	29.6	31.3	43.8	54.0	64.1	71.8	77.7	76.4	67.3	57.1	43.2	33.3	54.1	
	MEAN WET BULB	26	26.2	29.8	38.2	47.5	57.8	66.0	69.6	68.3	60.4	49.7	38.9	29.3	48.5	
	MEAN DEW POINT	26	22.9	26.2	33.6	43.2	54.9	63.7	67.4	66.0	57.6	46.2	35.4	25.9	45.3	
	NORMAL NO. DAYS WITH: MAXIMUM >= 90	30	0.0	0.0	0.0	0.1	0.3	4.8	14.1	12.0	4.2	0.1	0.0	0.0	35.6	
	MAXIMUM <= 32	30	12.0	6.8	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.5	7.4	29.0	
MINIMUM <= 32	30	27.1	21.0	14.6	3.3	*	0.0	0.0	0.0	*	2.5	13.7	24.9	107.1		
MINIMUM <= 0	30	2.7	1.3	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	*	1.4	5.6		
H/C	NORMAL HEATING DEG. DAYS	30	1153	891	656	336	115	10	1	2	72	291	642	1008	5177	
	NORMAL COOLING DEG. DAYS	30	0	0	3	18	70	245	396	341	152	20	1	0	1246	
RH	NORMAL (PERCENT)	30	74	72	67	66	72	73	72	73	72	70	72	75	72	
	HOURLY 00 LST	30	77	76	72	71	80	83	83	83	81	77	77	78	78	
	HOURLY 06 LST	30	80	81	79	79	86	87	88	89	88	85	83	82	84	
	HOURLY 12 LST	30	67	64	58	56	61	60	58	57	58	57	63	69	61	
	HOURLY 18 LST	30	70	66	58	55	61	62	60	61	64	62	68	71	63	
S	PERCENT POSSIBLE SUNSHINE	27	50	49	50	55	57	64	67	64	60	59	47	45	56	
W/O	MEAN NO. DAYS WITH: HEAVY FOG(VISBY <= 1/4 MI)	40	2.8	2.5	2.0	1.2	1.8	1.1	1.6	1.9	2.2	1.7	1.5	3.3	23.6	
	THUNDERSTORMS	40	0.7	1.1	2.8	5.0	7.8	7.5	7.4	6.8	4.6	3.1	1.8	0.7	49.3	
CLOUDNESS	MEAN: SUNRISE-SUNSET (OKTAS)															
	MIDNIGHT-MIDNIGHT (OKTAS)															
	MEAN NO. DAYS WITH: CLEAR	1	1.0	2.0	4.0		7.0	12.0								
	PARTLY CLOUDY	1	2.0	2.0	4.0		2.0	5.0								
	CLOUDY	1	3.0	3.0	12.0		8.0	7.0								
PR	MEAN STATION PRESSURE(IN)	26	29.14	29.12	29.06	28.99	29.00	29.01	29.05	29.07	29.09	29.10	29.10	29.14	29.07	
	MEAN SEA-LEVEL PRES. (IN)	26	30.13	30.11	30.03	29.95	29.94	29.95	29.98	30.01	30.03	30.06	30.07	30.12	30.03	
WINDS	MEAN SPEED (MPH)	26	10.7	10.6	11.5	11.4	9.3	8.3	7.7	7.6	8.2	9.4	10.5	10.5	9.6	
	PREVAIL.DIR(TENS OF DEGS)	34	31	31	32	19	19	19	19	19	19	17	19	31	19	
	MAXIMUM 2-MINUTE: SPEED (MPH)	14	41	41	41	54	52	48	44	59	38	47	45	39	59	
	DIR. (TENS OF DEGS)		23	24	24	23	30	33	25	01	27	25	19	26	01	
	YEAR OF OCCURRENCE		1996	2001	2007	2002	2009	2006	2003	2003	2003	1996	1998	2008	AUG 2003	
	MAXIMUM 3-SECOND SPEED (MPH)	14	49	51	52	68	63	74	55	81	46	59	53	49	81	
	DIR. (TENS OF DEGS)		31	24	25	33	31	32	25	36	27	25	24	26	36	
	YEAR OF OCCURRENCE		2005	2001	2007	2001	2009	2006	2003	2003	2007	1996	1998	2008	AUG 2003	
PRECIPITATION	NORMAL (IN)	30	1.73	2.20	3.21	4.16	4.87	4.02	3.80	3.75	3.42	3.18	3.47	2.47	40.28	
	MAXIMUM MONTHLY (IN)	40	5.94	6.18	10.09	11.69	12.31	10.28	12.14	10.19	12.06	10.99	10.42	6.96	12.31	
	YEAR OF OCCURRENCE		2005	1985	1973	1994	1995	1985	1981	2005	1993	2009	1985	1982	MAY 1995	
	MINIMUM MONTHLY (IN)	40	0.05	0.11	0.78	0.89	1.43	0.35	0.24	0.21	0.45	1.03	0.42	0.48	0.05	
	YEAR OF OCCURRENCE		1986	2006	1971	2000	1998	1980	1976	1976	1979	1992	1989	1996	JAN 1986	
	MAXIMUM IN 24 HOURS (IN)	40	2.27	2.88	4.03	4.50	5.73	3.87	5.95	5.43	4.72	4.94	2.97	2.88	5.95	
	YEAR OF OCCURRENCE		2008	1985	1990	1996	1995	1995	1989	1993	2008	1998	1983	1982	JUL 1989	
	NORMAL NO. DAYS WITH: PRECIPITATION >= 0.01	30	7.9	8.5	10.8	11.1	12.1	9.1	8.5	8.1	8.4	8.9	9.6	8.9	111.9	
	PRECIPITATION >= 1.00	30	0.2	0.5	0.7	0.9	1.1	1.2	1.1	1.2	0.9	0.8	1.0	0.6	10.2	
SNOWFALL	NORMAL (IN)	30	7.3	7.3	3.3	0.8	0.0	0.0	0.0	0.0	0.0	0.*	2.4	4.6	25.7	
	MAXIMUM MONTHLY (IN)	36	23.5	20.2	18.0	7.1	T	T	T	T	T	0.1	8.3	17.8	23.5	
	YEAR OF OCCURRENCE		1979	1993	1978	1980	1990	1990	1995	2003		1976	1971	1973	JAN 1979	
	MAXIMUM IN 24 HOURS (IN)	36	19.7	12.7	8.8	7.1	T	T	T	T	0.0	0.1	8.1	12.7	19.7	
	YEAR OF OCCURRENCE'		1995	1993	1990	1980	1990	1990	1995	2003		1976	1975	1987	JAN 1995	
	MAXIMUM SNOW DEPTH (IN)	35	13	14	12	5	0	0	0	0	0	0	8	15	15	
	YEAR OF OCCURRENCE		1995	1993	1978	1980							1975	2006	DEC 2006	
	NORMAL NO. DAYS WITH: SNOWFALL >= 1.0	30	2.1	2.0	1.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.7	1.4	7.4	

PRECIPITATION (inches) 2009 COLUMBIA (KCOU)

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL
1980	0.63	1.42	2.71	2.42	3.36	0.35	1.39	2.98	1.93	4.35	1.00	1.12	23.66
1981	0.88	1.09	1.33	5.47	7.71	8.02	12.14	2.48	0.68	4.03	3.60	1.10	48.53
1982	3.16	1.23	3.23	2.51	5.33	5.03	3.31	8.96	4.33	1.82	2.20	6.96	48.07
1983	0.28	0.45	2.74	9.06	4.94	3.82	1.97	3.27	3.20	4.96	8.87	2.72	46.28
1984	0.30	3.18	4.48	7.23	3.46	6.87	5.29	0.88	5.58	4.55	3.89	4.99	50.70
1985	1.13	6.18	3.18	2.89	5.04	10.28	1.91	6.14	2.08	2.74	10.42	3.38	55.37
1986	0.05	4.10	1.16	2.67	5.33	1.98	3.43	3.01	9.58	6.02	2.31	2.05	41.69
1987	2.04	0.90	1.82	1.87	2.78	2.24	5.24	3.17	2.92	1.75	3.35	5.48	33.56
1988	1.57	2.23	4.09	1.97	2.45	0.47	2.26	4.14	2.32	1.25	4.35	3.42	30.52
1989	1.32	1.57	2.95	1.94	4.84	3.23	7.36	7.24	1.54	1.44	0.42	0.78	34.63
1990	1.97	3.86	7.22	2.84	10.51	7.20	6.00	3.95	0.93	2.58	3.07	3.49	53.62
1991	1.56	0.11	2.13	4.45	4.17	2.36	3.23	3.86	3.43	3.81	3.09	2.72	34.92
1992	0.52	1.96	3.82	1.83	1.57	1.64	5.40	1.61	4.25	1.03	8.10	2.64	34.37
1993	2.37	1.99	2.14	5.54	4.81	7.28	10.16	8.37	12.06	2.05	4.20	1.52	62.49
1994	0.82	2.15	1.31	11.69	2.39	2.87	1.51	4.08	1.01	4.16	5.38	0.90	38.27
1995	4.78	1.80	0.96	7.19	12.31	6.05	4.84	4.55	1.59	1.15	1.30	1.72	48.24
1996	2.90	0.37	2.37	6.49	6.52	2.35	3.50	1.76	5.70	2.86	4.69	.48	39.99
1997	2.35	4.85	1.86	2.70	5.78	3.16	0.42	5.50	2.30	3.11	3.34	1.79	37.16
1998	1.42	4.30	4.60	5.07	1.43	7.05	5.58	0.43	4.40	7.28	1.87	1.22	44.65
1999	3.00	2.15	2.49	5.15	3.88	3.32	1.85	0.83	1.43	1.31	1.00	3.36	29.77
2000	0.77	3.39	2.11	0.89	5.55	5.44	4.07	9.10	1.75	3.60	1.74	0.87	39.28
2001	2.69	4.41	1.09	3.40	6.37	5.24	3.98	3.23	3.01	4.03	1.61	1.45	40.51
2002	2.58	0.62	1.61	4.69	10.08	3.30	2.32	8.49	1.60	4.02	0.91	2.08	42.30
2003	0.88	1.40	2.81	4.37	4.93	5.58	1.07	3.03	7.76	2.13	2.00	3.47	39.43
2004	2.37	0.70	7.25	3.77	5.47	2.73	5.10	6.26	1.10	4.82	5.40	0.98	45.95
2005	5.94	1.94	0.92	4.33	2.01	4.66	0.62	10.19	5.60	2.97	1.08	0.95	41.21
2006	1.91	0.11	3.37	3.25	1.94	3.77	2.09	4.48	1.63	3.46	2.76	1.35	30.12
2007	2.73	2.01	2.35	4.29	2.89	4.36	1.20	1.45	2.91	3.75	1.46	3.52	32.92
2008	2.57	3.69	5.37	4.27	6.34	5.44	10.52	2.58	10.77	1.28	1.38	2.57	56.78
2009	0.26	2.34	3.67	5.85	4.27	4.40	7.14	3.37	3.54	10.99	1.87	2.76	50.46
POR= 102 YRS	1.89	1.89	3.00	3.98	4.89	4.64	3.47	3.85	4.17	3.16	2.64	2.07	39.65

WBAN : 03945

AVERAGE TEMPERATURE (°F) 2009 COLUMBIA (KCOU)

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL
1980	29.3	26.6	39.0	52.2	64.3	75.3	87.0	81.7	69.9	53.5	43.3	33.8	54.7
1981	29.0	33.4	44.5	61.0	59.1	74.4	78.1	74.8	68.3	55.0	46.7	29.6	54.5
1982	22.4	30.6	45.3	51.0	66.2	68.4	78.4	73.6	66.2	56.2	44.2	39.6	53.5
1983	31.9	38.1	43.6	48.2	60.4	71.7	79.7	82.1	69.4	56.5	45.5	17.6	53.7
1984	27.6	40.0	36.7	52.5	60.8	74.4	75.5	78.8	66.2	58.4	43.3	38.5	54.4
1985	19.9	27.5	48.2	58.8	64.5	69.0	76.6	72.5	67.5	58.4	42.3	24.5	52.5
1986	33.6	32.7	48.2	58.2	66.0	76.0	80.2	71.7	71.4	57.2	39.3	34.6	55.8
1987	29.6	39.8	47.4	55.5	69.1	75.6	79.2	77.1	67.7	51.6	46.2	35.9	56.2
1988	27.7	28.1	43.8	54.1	66.1	75.2	78.6	79.0	69.5	51.1	45.3	34.0	54.4
1989	38.1	23.2	43.7	54.9	61.6	70.2	76.4	74.2	63.5	57.7	43.7	21.5	52.4
1990	39.5	38.3	46.3	53.1	59.5	73.2	75.5	75.2	70.6	55.3	50.3	31.7	55.7
1991	25.9	39.9	48.7	57.8	70.2	75.9	77.9	76.7	67.4	57.3	39.1	37.0	56.2
1992	35.2	40.1	46.5	55.0	62.1	70.3	75.2	70.3	66.0	56.8	40.7	33.4	54.3
1993	29.5	29.3	39.9	51.5	63.4	72.4	78.3	76.9	62.7	52.9	40.0	34.6	52.6
1994	24.6	31.5	45.7	54.8	62.9	75.3	75.2	74.5	66.2	57.7	47.8	37.7	54.5
1995	26.9	34.5	46.4	53.1	60.8	73.0	78.2	80.7	64.5	57.5	39.9	31.8	53.9
1996	26.3	35.0	38.2	52.1	65.6	72.2	74.3	75.1	64.8	56.3	37.9	33.3	52.6
1997	25.2	36.4	45.8	48.9	58.7	71.1	77.3	74.8	68.2	56.7	40.5	33.4	53.1
1998	34.8	40.8	40.8	53.8	69.7	73.1	76.9	77.0	72.6	57.7	48.3	35.2	56.7
1999	28.3	41.6	41.6	56.4	63.6	72.2	80.0	75.7	66.8	56.7	51.8	36.2	55.9
2000	31.7	42.0	47.2	54.0	67.1	70.3	75.8	78.5	67.9	59.9	38.7	19.8	54.4
2001	29.3	33.3	39.9	61.4	65.1	71.2	78.4	76.8	66.2	55.4	50.8	37.5	55.4
2002	34.4	37.0	40.2	56.5	60.3	74.1	78.8	77.1	70.2	51.6	41.1	35.1	54.7
2003	25.5	29.7	44.5	56.7	63.1	69.2	77.4	79.1	64.3	56.7	46.0	36.0	54.0
2004	27.6	32.6	47.0	56.5	66.4	70.4	74.2	70.2	68.7	58.2	46.8	35.4	54.5
2005	31.6	39.4	43.3	57.1	64.1	75.5	79.6	78.1	71.3	56.9	46.7	31.1	56.2
2006	41.1	34.0	46.3	61.1	64.9	73.8	80.3	79.4	65.6	53.3	47.0	37.8	57.1
2007	30.8	28.9	52.8	52.4	69.3	74.0	76.5	82.9	72.8	60.7	45.0	33.3	56.6
2008	31.4	30.9	43.8	53.2	62.6	73.8	76.6	73.4	67.0	55.7	42.4	29.8	53.4
2009	27.0	36.8	46.6	53.1	64.0	74.2	72.3	72.0	66.5	50.7	50.0	30.7	53.7
POR= 102 YRS	29.6	31.3	43.8	54.0	64.1	71.8	77.7	76.4	67.3	57.1	43.2	33.3	54.1

HEATING DEGREE DAYS (base 65°F) 2009 COLUMBIA (KCOU)

YEAR	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	TOTAL
1980-81	0	0	56	368	640	962	1110	878	630	159	211	0	5014
1981-82	0	0	32	326	544	1089	1314	955	607	416	40	25	5348
1982-83	0	3	88	297	619	783	1018	750	656	501	159	14	4888
1983-84	0	0	84	271	575	1466	1153	720	871	383	155	0	5678
1984-85	0	0	125	213	646	814	1391	1042	518	225	63	16	5053
1985-86	0	2	99	210	674	1249	964	897	521	227	53	0	4896
1986-87	0	15	13	251	765	937	1093	699	539	307	19	0	4638
1987-88	0	2	29	409	560	898	1150	1064	653	323	37	2	5127
1988-89	4	2	16	434	583	955	828	1164	660	356	169	14	5185
1989-90	0	2	122	244	635	1342	781	740	590	390	172	13	5031
1990-91	7	1	39	311	435	1027	1205	698	511	221	49	0	4504
1991-92	0	0	110	254	771	861	918	717	567	320	136	15	4669
1992-93	0	13	88	264	722	973	1094	995	775	396	87	27	5434
1993-94	0	4	117	375	743	935	1244	930	592	327	107	3	5377
1994-95	0	5	79	248	514	843	1173	848	567	357	153	0	4787
1995-96	0	0	122	236	747	1019	1191	863	823	392	106	23	5522
1996-97	0	0	90	274	805	975	1228	792	589	477	212	15	5457
1997-98	3	0	29	309	727	971	930	673	757	332	32	35	4798
1998-99	0	0	6	236	490	918	1131	650	718	269	76	17	4511
1999-00	0	0	77	264	389	884	1024	663	546	327	68	13	4255
2000-01	0	0	68	191	791	1393	1099	880	769	178	82	20	5471
2001-02	0	0	67	300	421	846	943	777	762	295	176	1	4588
2002-03	0	0	23	437	714	920	1217	983	625	272	93	36	5320
2003-04	0	0	84	254	568	894	1150	933	555	278	92	3	4811
2004-05	0	19	18	223	540	911	1026	708	663	253	104	0	4465
2005-06	0	0	32	286	547	1044	735	865	576	155	119	0	4359
2006-07	0	0	66	396	533	837	1053	1006	394	392	27	0	4704
2007-08	0	0	19	200	593	977	1037	983	651	366	125	0	4951
2008-09	0	0	39	298	673	1085	1169	785	567	387	90	7	5100
2009-	0	11	34	436	446	1055							

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COOLING DEGREE DAYS (base 65°F) 2009 COLUMBIA (KCOU)

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
1980	0	0	0	13	78	319	688	523	211	17	0	0	1849
1981	0	0	1	44	34	285	413	308	138	19	0	0	1242
1982	0	0	0	4	84	134	422	274	127	32	3	0	1080
1983	0	0	0	3	23	223	460	536	222	14	0	0	1481
1984	0	0	0	15	30	287	331	436	166	14	0	1	1280
1985	0	0	7	46	56	143	367	243	180	13	0	0	1055
1986	0	0	10	31	90	337	479	231	212	15	0	0	1405
1987	0	0	0	29	151	324	447	384	113	0	3	0	1451
1988	0	0	2	1	78	317	433	442	159	12	0	0	1444
1989	0	0	6	63	73	176	364	293	83	25	2	0	1085
1990	0	0	17	37	10	264	342	326	214	18	1	0	1229
1991	0	0	12	11	219	338	405	371	190	22	0	0	1568
1992	0	0	0	27	53	181	326	184	126	18	0	0	915
1993	0	0	2	0	46	259	419	379	56	6	0	0	1167
1994	0	0	1	26	48	319	322	305	120	28	4	0	1173
1995	0	0	0	6	30	249	416	495	114	11	0	0	1321
1996	0	2	0	10	134	246	306	320	91	12	0	0	1121
1997	0	0	0	0	24	208	389	311	130	57	0	0	1119
1998	0	0	14	4	186	282	375	379	240	15	0	0	1495
1999	0	0	0	19	41	239	475	336	140	17	0	0	1267
2000	0	0	1	4	140	180	340	430	161	42	7	0	1305
2001	0	0	0	76	91	213	425	373	108	8	0	0	1294
2002	0	0	0	48	36	282	435	383	187	30	0	0	1401
2003	0	0	0	28	42	169	391	441	72	5	3	0	1151
2004	0	0	2	27	144	171	293	184	135	18	0	0	974
2005	0	0	0	22	85	326	458	414	226	42	6	0	1579
2006	0	0	3	44	123	271	480	454	92	43	0	0	1510
2007	0	0	23	19	167	276	365	562	262	74	1	0	1749
2008	0	0	0	19	56	269	369	267	106	19	0	0	1105
2009	0	0	2	38	67	289	234	236	86	0	0	0	952

SNOWFALL (inches) 2009 COLUMBIA (KCOU)

YEAR	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	TOTAL
1980-81	0.0	0.0	0.0	T	5.8	1.6	1.4	8.8	T	0.0	0.0	0.0	17.6
1981-82	0.0	0.0	0.0	0.0	T	10.4	6.8	11.7	T	3.0	0.0	0.0	31.9
1982-83	0.0	0.0	0.0	0.0	0.2	T	1.2	1.9	0.7	T	0.0	0.0	4.0
1983-84	0.0	0.0	0.0	0.0	1.1	11.7	2.5	9.8	7.2	0.0	0.0	0.0	32.3
1984-85	0.0	0.0	0.0	0.0	2.7	1.6	14.8	7.1	T	0.0	0.0	0.0	26.2
1985-86	0.0	0.0	0.0	0.0	0.2	3.0	T	8.5	T	T	0.0	0.0	11.7
1986-87	0.0	0.0	0.0	0.0	T	T	21.2	T	T	0.0	0.0	0.0	21.2
1987-88	0.0	0.0	0.0	0.0	1.0	16.1	1.4	10.5	4.0	0.0	0.0	0.0	33.0
1988-89	0.0	0.0	0.0	0.0	2.3	3.6	3.7	13.3	8.1				
1989-90			0.0		0.5	6.9	0.7	6.3	8.8	0.0	T	T	
1990-91	0.0	0.0	0.0	0.0	0.2	6.1	8.0	0.2	T	0.0	0.0	0.0	14.5
1991-92	0.0	0.0	0.0	0.0	5.5	0.7	2.0	3.5	1.9	T	0.0	0.0	13.6
1992-93	0.0	0.0	0.0	0.0	0.6	1.4	7.4	20.2	2.2	T	0.0	0.0	31.8
1993-94	0.0	0.0	0.0	T	1.2	0.8	2.8	2.5	0.7	1.4	0.0	0.0	9.4
1994-95	0.0	0.0	0.0	0.0	0.0	1.2	21.6	2.3	2.2	T	0.0	0.0	27.3
1995-96	T	0.0	0.0	0.0	2.3	6.9	8.6	1.3	0.7	T	0.0	0.0	19.8
1996-97	0.0	0.0	0.0	0.0	1.0	1.1	15.2	1.1	T	T	0.0	0.0	18.4
1997-98	0.0	0.0	0.0	T	0.2	6.6	1.0	T	6.4	2.5	0.0	0.0	16.7
1998-99	0.0	0.0	0.0	0.0	0.0	1.0	10.5	1.5	T	0.0	0.0	0.0	13.0
1999-00	0.0	0.0	0.0	0.0	0.0	0.2	6.1	0.1	7.4	T	0.0	0.0	13.8
2000-01	0.0	0.0	0.0	0.0	0.0	8.8	0.2	2.7	T	0.0	0.0	0.0	11.7
2001-02	0.0	0.0	0.0	0.0	T	T	4.0	T	4.8	0.0	0.0	0.0	8.8
2002-03	0.0	0.0	0.0	0.0	T	6.2	7.1	4.2	0.0	T	0.0	0.0	17.5
2003-04	0.0	T	0.0	0.0	0.0	8.7	2.4	1.2	T	0.0	T	0.0	12.3
2004-05	0.0	0.0	0.0	0.0	5.2	0.0	5.6	1.3	T	T	0.0	0.0	12.1
2005-06	0.0	0.0	0.0	0.0	T	2.1	T	1.3	T	T	0.0	0.0	3.4
2006-07	0.0	0.0	0.0	0.0	2.3	13.0	7.4	3.7	0.8	T	0.0	0.0	27.2
2007-08	0.0	0.0	0.0	0.0	T	10.0	1.5	2.9	T	T	0.0	0.0	14.4
2008-09	0.0	0.0	0.0	0.0	0.5	1.9	1.2	T	T	T	0.0	0.0	3.6
2009-	0.0	0.0	0.0	0.0	T	5.0							
POR= 39 YRS	T	T	0.0	T	1.6	4.6	6.2	5.2	2.9	0.6	T	T	21.1

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REFERENCE NOTES :

<p>PAGE 1: THE TEMPERATURE GRAPH SHOWS NORMAL MAXIMUM AND NORMAL MINIMUM DAILY TEMPERATURES (SOLID CURVES) AND THE ACTUAL DAILY HIGH AND LOW TEMPERATURES (VERTICAL BARS).</p> <p>PAGE 2 AND 3: H/C INDICATES HEATING AND COOLING DEGREE DAYS. RH INDICATES RELATIVE HUMIDITY W/O INDICATES WEATHER AND OBSTRUCTIONS S INDICATES SUNSHINE. PR INDICATES PRESSURE. CLOUDINESS ON PAGE 3 IS THE SUM OF THE CEILOMETER AND SATELLITE DATA NOT TO EXCEED EIGHT EIGHTHS(OKTAS).</p> <p>GENERAL: T INDICATES TRACE PRECIPITATION, AN AMOUNT GREATER THAN ZERO BUT LESS THAN THE LOWEST REPORTABLE VALUE. + INDICATES THE VALUE ALSO OCCURS ON EARLIER DATES. BLANK ENTRIES DENOTE MISSING OR UNREPORTED DATA. NORMALS ARE 30-YEAR AVERAGES (1971 - 2000). ASOS INDICATES AUTOMATED SURFACE OBSERVING SYSTEM. PM INDICATES THE LAST DAY OF THE PREVIOUS MONTH. POR (PERIOD OF RECORD) BEGINS WITH THE JANUARY DATA MONTH AND IS THE NUMBER OF YEARS USED TO COMPUTE THE MEAN. INDIVIDUAL MONTHS WITHIN THE POR MAY BE MISSING. WHEN THE POR FOR A NORMAL IS LESS THAN 30 YEARS, THE NORMAL IS PROVISIONAL AND IS BASED ON THE NUMBER OF YEARS INDICATED. 0.* OR * INDICATES THE VALUE OR MEAN-DAYS-WITH IS BETWEEN 0.00 AND 0.05. CLOUDINESS FOR ASOS STATIONS DIFFERS FROM THE NON-ASOS OBSERVATION TAKEN BY A HUMAN OBSERVER. ASOS STATION CLOUDINESS IS BASED ON TIME-AVERAGED CEILOMETER DATA FOR CLOUDS AT OR BELOW 12,000 FEET AND ON SATELLITE DATA FOR CLOUDS ABOVE 12,000 FEET. THE NUMBER OF DAYS WITH CLEAR, PARTLY CLOUDY, AND CLOUDY CONDITIONS FOR ASOS STATIONS IS THE SUM OF THE CEILOMETER AND SATELLITE DATA FOR THE SUNRISE TO SUNSET PERIOD. CLEAR INDICATES 0 - 2 OKTAS, PARTLY CLOUDY INDICATES 3 - 6 OKTAS, AND CLOUDY INDICATES 7 OR 8 OKTAS. WHEN AT LEAST ONE OF THE ELEMENTS (CEILOMETER OR SATELLITE) IS MISSING, THE DAILY CLOUDINESS IS NOT COMPUTED.</p>	<p>GENERAL CONTINUED: WIND DIRECTION IS RECORDED IN TENS OF DEGREES (2 DIGITS) CLOCKWISE FROM TRUE NORTH. "00" INDICATES CALM. "36" INDICATES TRUE NORTH. RESULTANT WIND IS THE VECTOR AVERAGE OF THE SPEED AND DIRECTION. AVERAGE TEMPERATURE IS THE SUM OF THE MEAN DAILY MAXIMUM AND MINIMUM TEMPERATURE DIVIDED BY 2. SNOWFALL DATA COMPRISE ALL FORMS OF FROZEN PRECIPITATION, INCLUDING HAIL. A HEATING (COOLING) DEGREE DAY IS THE DIFFERENCE BETWEEN THE AVERAGE DAILY TEMPERATURE AND 65 F. DRY BULB IS THE TEMPERATURE OF THE AMBIENT AIR. DEW POINT IS THE TEMPERATURE TO WHICH THE AIR MUST BE COOLED TO ACHIEVE 100 PERCENT RELATIVE HUMIDITY. WET BULB IS THE TEMPERATURE THE AIR WOULD HAVE IF THE MOISTURE CONTENT WAS INCREASED TO 100 PERCENT RELATIVE HUMIDITY. ON JULY 1, 1996, THE NATIONAL WEATHER SERVICE BEGAN USING THE "METAR" OBSERVATION CODE THAT WAS ALREADY EMPLOYED BY MOST OTHER NATIONS OF THE WORLD. THE MOST NOTICEABLE DIFFERENCE IN THIS ANNUAL PUBLICATION WILL BE THE CHANGE IN UNITS FROM TENTHS TO EIGHTS(OKTAS) FOR REPORTING THE AMOUNT OF SKY COVER. STATION HISTORY STOPPED WITH THE 2009 ANNUAL. IF YOU NEED HISTORY GO TO "MULTI-NETWORK METADATA SYSTEM", URL IS: https://mi3.ncdc.noaa.gov/mi3qry/login.cfm</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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2009 COLUMBIA MISSOURI (KCOU)

Columbia, Missouri, with its interior continental location, experiences moderately cold winters and warm summers that are often humid.

There are usually a few days of temperatures below zero during the winter months, but there have been several winters when the temperature did not get this cold. Periods of cold weather are usually interrupted by periods of at least a few mild days. It is not uncommon to find some days with temperatures in the 60s in the midst of the winter months. Some snow falls each winter, but it is very unlikely that a snow cover will persist for more than three weeks. Most of the time when snow does fall, it stays on the ground for less than a week. March is the month in which substantial amounts of snowfall are most likely.

Temperatures of 100 degrees or more occur in most summers, but there have been several summers when temperatures failed to reach this high. The late spring and early summer months produce more frequent and larger amounts of rain than the other months of the year. Thus, in addition to being warm, these months are often quite humid. By late summer smaller amounts of rain fall and rains occur less frequently, so by mid-August, the moisture in the top 2 feet of soil is often depleted.

The average occurrence of the last temperature as cold as 32 degrees in spring is early April, and the first 32 degree temperature in the fall occurs in late October.

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