

**QUALITY CONTROLLED LOCAL CLIMATOLOGICAL DATA**

(final)

NOAA, National Climatic Data Center

Month: 09/2010

Station Location: SOUTHERN ILLINOIS AIRPORT (93810)

CARBONDALE/MURPHYBORO, IL

Lat. 37.779 Lon. -89.249

Elevation(Ground): 406 ft. above sea level

Date	Temperature (Fahrenheit)					Degree Days Base 65 Degrees			Sun		Significant Weather	Snow/Ice on Ground(In) Precipitation (In)				Pressure(inches of Hg)		Wind: Speed=mph Dir=tens of degrees							
	Max.	Min.	Avg.	Dep From Normal	Avg. Dew pt.	Avg. Wet Bulb	Heating	Cooling	Sunrise LST	Sunset LST		1200 UTC	1800 UTC	2400 LST	2400 LST	Avg. Station	Avg. Sea Level	Resultant Speed	Res Dir	Avg. Speed	max 5-second		max 2-minute		
	1	2	3	4	5	6	7	8	9	10		11	13	14	15	16	17	18	19	20	21	22	23	24	25
01	90	71	81*	M	69	72	0	16	-	-	VCTS	M	M	M	T	29.52	29.97	5.0	19	7.7	22	180	17	210	01
02	84	72	78	M	69	71	0	13	-	-	TSRA RA BR VCTS	M	M	M	0.19	29.48	29.92	8.4	20	8.8	26	250	20	260	02
03	79	58	69	M	54	61	0	4	-	-	RA	M	M	M	0.05	29.57	30.00	8.8	31	9.1	24	310	17	310	03
04	77	50	64	M	49	56	1	0	-	-		M	M	M	0.00	29.61	30.05	4.6	31	5.3	23	340	18	340	04
05	82	47	65	M	50	57	0	0	-	-	BR	M	M	M	0.00	29.55	30.01	3.9	18	4.4	17	180	14	180	05
06	89	52	71	M	54	61	0	6	-	-		M	M	M	0.00	29.53	29.97	8.9	18	9.6	30	200	23	200	06
07	89	64	77	M	61	66	0	12	-	-		M	M	M	0.00	29.62	30.06	3.6	26	6.4	22	330	17	330	07
08	84	61	73	M	57	62	0	8	-	-		M	M	M	0.00	29.65	30.10	0.7	01	1.7	10	330	8	320	08
09	73	61	67	M	60	62	0	2	-	-	RA BR	M	M	M	0.58	29.53	29.99	3.7	10	3.8	16	100	12	080	09
10	69	63	66	M	63	64	0	1	-	-	RA FG BR	M	M	M	0.42	29.41	29.87	4.9	10	5.1	22	150	17	140	10
11	81	57	69	M	65	67	0	4	-	-	RA FG+ FG BR	M	M	M	0.04	29.49	29.91	5.1	31	6.2	26	320	18	310	11
12	85	50	68	M	54	60	0	3	-	-	FG BR	M	M	M	0.01s	29.68	30.12	1.2	01	2.2	14	350	10	340	12
13	86	53	70	M	57	62	0	5	-	-	BR	M	M	M	0.01s	29.64	30.09	2.4	24	2.4	17	230	10	210	13
14	85	57	71	M	61	64	0	6	-	-	FG BR	M	M	M	0.00	29.61	30.06	1.5	21	1.7	13	220	10	220	14
15	89	58	74	M	63	67	0	9	-	-	RA FG+ FG BR	M	M	M	0.09	29.55	29.99	3.7	22	4.5	33	240	24	250	15
16	83	60	72	M	62	65	0	7	-	-	RA	M	M	M	0.13	29.52	29.96	4.2	28	6.3	23	240	17	240	16
17	82	51	67	M	57	60	0	2	-	-	FG+ FG BR	M	M	M	0.01s	29.65	30.08	0.2	14	0.7	10	080	9	080	17
18	88	52	70	M	59	63	0	5	-	-		M	M	M	0.01s	29.67	30.11	1.0	23	1.9	13	200	9	200	18
19	83	64	74	M	64	67	0	9	-	-		M	M	M	0.00	29.67	30.12	1.4	32	3.1	14	130	12	140	19
20	91	61	76	M	63	67	0	11	-	-	BR	M	M	M	0.01s	29.57	30.03	1.0	18	1.4	13	220	9	190	20
21	94	64	79	M	63	68	0	14	-	-	BR	M	M	M	0.00	29.51	29.95	4.7	20	5.0	20	200	15	230	21
22	86	64	75	M	65	68	0	10	-	-		M	M	M	0.00	29.60	30.03	2.3	23	4.4	17	260	13	260	22
23	94*	62	78	M	62	68	0	13	-	-	BR BLDU	M	M	M	0.00	29.57	30.02	9.0	19	9.3	36	190	25	200	23
24	83	57	70	M	61	66	0	5	-	-	RA	M	M	M	T	29.61	30.04	6.3	25	8.4	22	230	17	240	24
25	78	48	63	M	50	57	2	0	-	-	FG+ BR	M	M	M	T	29.60	30.06	2.2	03	3.1	15	050	9	050	25
26	65	51	58*	M	50	54	7	0	-	-	RA	M	M	M	0.02	29.58	30.03	8.4	36	8.7	16s	350	10s	360	26
27	71	46	59	M	46	51	6	0	-	-		M	M	M	0.00	29.47	29.93	5.5	33	6.1	20	310	15	310	27
28	78	44	61	M	47	52	4	0	-	-	FG+ FG BR	M	M	M	0.00	29.36	29.81	1.4	26	2.4	18	270	12	240	28
29	80	42*	61	M	46	53	4	0	-	-	FG+ BR	M	M	M	0.00	29.39	29.84	0.2	01	1.1	10	050	7	360	29
30	82	47	65	M	48	55	0	0	-	-	BR	M	M	M	0.00	29.47	29.90	7.5	34	7.8	30	340	22	340	30

82.7	56.2	69.5		57.6	62.2	0.8	5.5	<-----Monthly Averages   Totals----->				M	M	1.57s	29.55	30.00	1.4	25	5.0	<Monthly Average				
M	M	M	<-----Departure From Normal----->											M										

Degree Days	Monthly	Season to Date	Greatest 24-hr Precipitation: 1.00s Date: 09-10													Sea Level	Pressure	Date	Time (LST)				
	Total	Departure	Total	Departure	Greatest 24-hr Snowfall: M Date: M													Maximum	30.19	19	1054		
Heating:	24	M	M	M	Greatest Snow Depth: M Date: M													Minimum	29.76	28	1618		
Cooling:	165	M	M	M	Number of Days with ----->													Max Temp >=90:				Precipitation >=.01 inch:	13
																		Max Temp <=32:				Precipitation >=.10 inch:	
																		Thunderstorms :				Snowfall >=1.0 inch :	M
																		Heavy Fog :					

\* EXTREME FOR THE MONTH - LAST OCCURRENCE IF MORE THAN ONE.

Data Version:  
VER2

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(final)

NOAA, National Climatic Data Center

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Station Location: SOUTHERN ILLINOIS AIRPORT (93810)

CARBONDALE/MURPHYBORO, IL

Lat. 37.779 Lon. -89.249

Elevation(Ground): 406 ft. above sea level

Date	Temperature (Fahrenheit)					Degree Days Base 65 Degrees			Sun		Significant Weather	Snow/Ice on Ground(In) Precipitation (In)				Pressure(inches of Hg)		Wind: Speed=mph Dir=tens of degrees							
	Max.	Min.	Avg.	Dep From Normal	Avg. Dew pt.	Avg Wet Bulb	Heating	Cooling	Sunrise LST	Sunset LST		1200 UTC	1800 UTC	2400 LST	2400 LST	Avg. Station	Avg. Sea Level	Resultant Speed	Res Dir	Avg. Speed	max 5-second Speed	max 2-minute Dir			
	1	2	3	4	5	6	7	8	9	10		11	13	14	15	16	17	18	19	20	21	22	23	24	25
01	77	41	59	M	41	51	6	0	-	-		M	M	M	0.00	29.63	30.08	3.9	01	5.1	33	330	14	010	01
02	66	42	54	M	43	49	11	0	-	-		M	M	M	T	29.69	30.12	6.1	36	6.6	26	360	20	350	02
03	64	38	51	M	35	44	14	0	-	-		M	M	M	0.00	29.86	30.30	6.7	36	6.9	24	350	17	340	03
04	66	30	48	M	34	42	17	0	-	-	FG+ MIFG BR	M	M	M	0.00	29.91	30.36	2.3	36	2.7	20	010	14	360	04
05	71	32	52	M	36	43	13	0	-	-	BR	M	M	M	0.00	29.91	30.37	1.3	34	2.0	16	340	12	330	05
06	77	35	56	M	41	48	9	0	-	-	BR	M	M	M	0.00	29.73	30.21	2.0	27	2.5	17	230	13	240	06
07	84	46	65	M	47	54	0	0	-	-		M	M	M	0.00	29.67	30.12	2.2	32	3.5	15	360	12	360	07
08	84	40	62	M	43	51	3	0	-	-	BR	M	M	M	0.00	29.65	30.11	0.4	25	1.2	12	220	8	250	08
09	88	44	66	M	50	56	0	1	-	-	BR	M	M	M	0.00	29.59	30.05	0.5	22	1.0	10	250	7	230	09
10	89*	49	69	M	51	58	0	4	-	-	FG BR	M	M	M	0.00	29.49	29.95	1.8	22	2.2	15	220	12	220	10
11	88	51	70	M	50	58	0	5	-	-	RA BR	M	M	M	T	29.41	29.86	1.9	20	3.0	23	180	17	180	11
12	83	52	68	M	53	59	0	3	-	-	TS TSRA BR HZ VCTS	M	M	M	0.14	29.47	29.89	1.6	19	4.6	24	140	18	140	12
13	69	48	59	M	52	56	6	0	-	-	TS RA BR	M	M	M	0.03	29.64	30.06	6.3	33	7.0	17s	320	13	330	13
14	72	39	56	M	36	47	9	0	-	-		M	M	M	0.00	29.62	30.10	3.2	26	4.2	20	240	15	260	14
15	72	39	56	M	37	48	9	0	-	-		M	M	M	0.00	29.64	30.08	4.8	33	6.1	26	320	16	360	15
16	75	33	54	M	37	46	11	0	-	-	BR	M	M	M	0.00	29.69	30.14	3.5	20	4.1	29	320	17	240	16
17	83	48	66	M	46	54	0	1	-	-		M	M	M	0.00	29.58	30.04	3.1	24	4.9	16	290	12	250	17
18	83	47	65	M	46	54	0	0	-	-	BR	M	M	M	0.00	29.48	29.93	2.5	30	3.8	21	340	17	340	18
19	69	44	57	M	36	47	8	0	-	-		M	M	M	0.00	29.55	30.00	3.3	02	3.7	15	360	13	360	19
20	75	35	55	M	36	47	10	0	-	-	BR	M	M	M	0.00	29.49	29.95	5.4	23	5.9	21	230	16	240	20
21	71	38	55	M	32	45	10	0	-	-		M	M	M	0.00	29.58	30.02	4.4	32	5.2	23	330	17	340	21
22	78	34	56	M	34	46	9	0	-	-		M	M	M	0.00	29.67	30.11	4.7	16	5.1	20	200	16	200	22
23	83	61	72	M	39	54	0	7	-	-		M	M	M	T	29.56	30.02	11.5	18	12.0	31	190	25	190	23
24	80	64	72*	M	55	62	0	7	-	-		M	M	M	T	29.36	29.83	14.7	19	14.8	37	200	29	200	24
25	75	62	69	M	59	63	0	4	-	-		M	M	M	0.00	29.09	29.58	15.4	18	15.7	39	170	31	190	25
26	76	47	62	M	47	55	3	0	-	-	RA BR	M	M	M	0.60	29.13	29.52	14.8	21	16.7	56	210	45	210	26
27	75	45	60	M	34	49	5	0	-	-		M	M	M	0.00	29.46	29.86	9.4	23	10.9	37	240	29	220	27
28	56	32	44	M	32	40	21	0	-	-	BR	M	M	M	0.00	29.85	30.26	6.6	32	7.0	28	300	20	320	28
29	60	26*	43*	M	28	36	22	0	-	-	FZFG BR	M	M	M	0.00	29.85	30.33	0.5	35	1.5	31s	330	7	290	29
30	69	28	49	M	30	41	16	0	-	-		M	M	M	0.00	29.55	30.04	9.7	20	10.0	48	210	24	200	30
31	67	37	52	M	35	44	13	0	-	-		M	M	M	0.00	29.65	30.08	4.7	04	6.1	17	050	14	050	31

75.0 42.2 58.6 41.1 49.9 7.3 1.0 <-----Monthly Averages | Totals-----> M M 0.77s 29.59 30.04 2.0 23 6.0 <Monthly Average

M M M <-----Departure From Normal-----> M

Degree Days	Monthly	Season to Date	Greatest 24-hr Precipitation: 0.60 Date: 26		Sea Level Pressure Date Time (LST)	
	Total	Departure	Total	Departure	Maximum	30.46 29 0847
Heating:	225	M	M	M	Minimum	29.21 26 0450
Cooling:	32	M	M	M	Number of Days with	Max Temp >=90: 0 Max Temp <=32: 0 Thunderstorms : 3
					Min Temp <=32: 5 Min Temp <=0 : 0 Heavy Fog : 1	Precipitation >=.01 inch: 3 Precipitation >=.10 inch: : M Snowfall >=1.0 inch : M

\* EXTREME FOR THE MONTH - LAST OCCURRENCE IF MORE THAN ONE.

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VER2

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(final)

NOAA, National Climatic Data Center

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CARBONDALE/MURPHYBORO, IL

Lat. 37.779 Lon. -89.249

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Date	Temperature (Fahrenheit)					Degree Days Base 65 Degrees			Sun		Significant Weather	Snow/Ice on Ground (In) / Precipitation (In)				Pressure (inches of Hg)		Wind: Speed=mph / Dir=tens of degrees							
	Max.	Min.	Avg.	Dep From Normal	Avg. Dew pt.	Avg. Wet Bulb	Heating	Cooling	Sunrise LST	Sunset LST		1200 UTC	1800 UTC	2400 LST	2400 LST	Avg. Station	Avg. Sea Level	Resultant Speed	Res Dir	Avg. Speed	max 5-second		max 2-minute		
	1	2	3	4	5	6	7	8	9	10		11	13	14	15	16	17	18	19	20	21	22	23	24	25
01	64	44	54	M	30	42	11	0	-	-		M	M	M	0.00	29.80	30.26	7.3	06	7.4	18	070	13	070	01
02	59	38	49	M	29	41	16	0	-	-		M	M	M	0.00	29.77	30.24	6.7	04	6.8	17	010	15	020	02
03	66	43	55	M	28	41	10	0	-	-	RA	M	M	M	T	29.56	30.04	4.0	33	4.6	22	340	16	320	03
04	58	44	51	M	31	41	14	0	-	-	RA	M	M	M	T	29.46	29.92	12.5	33	12.8	38	330	30	320	04
05	48	27	38	M	26	35	27	0	-	-	RA	M	M	M	0.03	29.66	30.09	8.8	33	9.1	29	280	21	340	05
06	50	22*	36	M	21	31	29	0	-	-		M	M	M	0.00	29.93	30.36	0.3	05	1.4	12	330	7	340	06
07	63	25	44	M	23	37	21	0	-	-		M	M	M	0.00	29.83	30.31	8.8	20	9.1	22	190	18	210	07
08	71	37	54	M	31	44	11	0	-	-		M	M	M	0.00	29.57	30.06	7.8	19	8.4	20	200	16	190	08
09	75	38	57	M	38	48	8	0	-	-	HZ FU	M	M	M	0.00	29.55	30.00	4.6	19	5.3	20	200	14	200	09
10	75	38	57	M	43	50	8	0	-	-		M	M	M	0.00	29.65	30.08	5.3	17	5.9	24	190	18	200	10
11	78	45	62	M	44	51	3	0	-	-		M	M	M	0.00	29.84	30.28	1.2	15	1.6	13	180	9	190	11
12	78*	36	57	M	37	48	8	0	-	-	FG+ FG BR	M	M	M	0.00	29.74	30.21	5.2	16	5.4	21	160	15	190	12
13	64	40	52	M	41	47	13	0	-	-	RA BR	M	M	M	0.07	29.59	30.05	5.2	24	8.9	24	190	18	190	13
14	54	27	41	M	29	37	24	0	-	-		M	M	M	0.00	29.59	30.06	3.4	20	4.7	16	270	12	240	14
15	55	28	42	M	30	37	23	0	-	-		M	M	M	0.00	29.44	29.92	2.5	14	3.2	13	100	10	100	15
16	48	30	39	M	33	38	26	0	-	-		M	M	M	0.00	29.27	29.72	3.9	29	6.9	22	330	17	330	16
17	58	34	46	M	39	42	19	0	-	-	RA FG+ BR HZ	M	M	M	0.04	29.65	30.08	2.2	18	3.5	12	160	9	160	17
18	47	38	43	M	37	40	22	0	-	-	RA BR HZ	M	M	M	0.07	29.86	30.30	4.6	35	4.8	16	350	13	340	18
19	54	38	46	M	37	42	19	0	-	-	HZ	M	M	M	0.00	29.75	30.21	9.2	19	9.8	26	210	22	210	19
20	57	35	46	M	41	43	19	0	-	-	FG BR	M	M	M	0.00	29.71	30.19	6.2	17	6.8	16	160	13	150	20
21	67	41	54	M	52	54	11	0	-	-	FG BR HZ	M	M	M	0.00	29.60	30.06	13.8	19	14.0	37	190	28	210	21
22	70	56	63*	M	56	60	2	0	-	-	RA	M	M	M	0.17	29.49	29.93	20.9	20	21.7	51	280	33	270	22
23	56	33	45	M	33	39	20	0	-	-	RA SN	M	M	M	0.02	29.76	30.20	7.6	36	8.8	25	330	21	330	23
24	66	31	49	M	43	44	16	0	-	-	RA SN FG+ BR VCTS	M	M	M	1.25	29.41	29.91	6.4	12	9.2	31	190	22	190	24
25	67	29	48	M	40	43	17	0	-	-	RA BR UP VCTS	M	M	M	2.25	29.44	29.86	6.9	30	12.9	39	200	29	200	25
26	43	24	34*	M	21	29	31	0	-	-		M	M	M	0.00	29.63	30.08	5.5	24	6.4	20	300	15	240	26
27	48	27	38	M	26	32	27	0	-	-		M	M	M	0.00	29.72	30.18	2.7	28	4.2	16	330	13	320	27
28	54	25	40	M	29	36	25	0	-	-		M	M	M	0.00	29.67	30.15	6.8	15	7.2	20	150	15	170	28
29	56	41	49	M	41	45	16	0	-	-	RA BR	M	M	M	0.89	29.39	29.89	9.4	16	10.4	25s	150	18	150	29
30	56	32	44	M	28	34	21	0	-	-	RA	M	M	M	0.02	29.51	29.94	9.4	28	9.7	26	300	20	300	30

60.2	34.9	47.6		34.6	41.7	17.2	0.0	<-----Monthly Averages   Totals----->				M	M	4.81s	29.63	30.11	2.3	21	7.7	<Monthly Average				
M	M	M	<-----Departure From Normal----->											M										

Degree Days	Monthly	Season to Date	Greatest 24-hr Precipitation: 2.28s Date: 24-25													Sea Level	Pressure	Date	Time (LST)				
	Total	Departure	Total	Departure	Greatest 24-hr Snowfall: M Date: M													Maximum	30.44	07	0833		
Heating:	517	M	M	M	Greatest Snow Depth: M Date: M													Minimum	29.58	16	1313		
Cooling:	0	M	M	M	Number of Days with ----->													Max Temp >=90:				Precipitation >=.01 inch:	10
																		Max Temp <=32:				Precipitation >=.10 inch:	
																		Thunderstorms :				Snowfall >=1.0 inch :	M
																		0					

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	Max.	Min.	Avg.	Dep From Normal	Avg. Dew pt.	Avg Wet Bulb	Heating	Cooling	Sunrise LST	Sunset LST		1200 UTC	1800 UTC	2400 LST	2400 LST	Avg. Station	Avg. Sea Level	Resultant Speed	Res Dir	Avg. Speed	max 5-second		max 2-minute		
	1	2	3	4	5	6	7	8	9	10		11	13	14	15	16	17	18	19	20	21	22	23	24	25
01	38	21	30	M	18	26	35	0	-	-		M	M	M	0.00	29.71	30.16	7.0	27	7.1	23	250	18	240	01
02	46	21	34	M	21	29	31	0	-	-		M	M	M	0.00	29.74	30.21	2.6	19	3.1	15	200	10	220	02
03	42	21	32	M	25	30	33	0	-	-		M	M	M	0.00	29.68	30.16	3.2	06	4.6	14	120	12	120	03
04	45	32	39	M	28	33	26	0	-	-		M	M	M	0.00	29.65	30.07	10.5	33	12.9	36	330	25	320	04
05	32	22	27	M	20	26	38	0	-	-		M	M	M	0.00	29.95	30.39	9.9	33	10.3	24	320	18	320	05
06	32	20	26	M	14	22	39	0	-	-		M	M	M	0.00	29.83	30.32	7.3	31	7.8	28	330	21	340	06
07	29	16	23	M	14	19	42	0	-	-		M	M	M	0.00	29.81	30.28	3.8	33	4.5	15	350	12	330	07
08	35	12	24	M	12	20	41	0	-	-	BR HZ	M	M	M	0.00	29.85	30.31	0.7	31	1.4	13	310	8	310	08
09	39	13	26	M	15	24	39	0	-	-		M	M	M	0.00	29.73	30.22	7.3	18	7.6	22	200	17	170	09
10	54	32	43	M	29	35	22	0	-	-	BR	M	M	M	0.00	29.60	30.07	6.3	20	6.9	22	200	16	200	10
11	47	24	36	M	34	38	29	0	-	-	RA BR	M	M	M	0.42	29.28	29.77	5.7	21	11.6	31	320	23	310	11
12	25	13	19	M	13	19	46	0	-	-	SN BR UP HZ	M	M	M	0.01	29.42	29.85	16.3	30	17.2	40	320	30	300	12
13	18	5	12	M	2	9	53	0	-	-		M	M	M	0.00	29.80	30.23	9.5	32	9.6	32	310	25	320	13
14	23	1*	12*	M	6	12	53	0	-	-		M	M	M	0.00	29.77	30.26	0.7	07	1.3	7	060	6	060	14
15	32	23	28	M	19	25	37	0	-	-	FZRA BR UP	M	M	M	0.13	29.44	29.95	7.1	11	7.4	21	130	16	120	15
16	32	29	31	M	26	29	34	0	-	-	BR	M	M	M	0.06s	29.44	29.88	7.7	33	8.6	23	320	16	320	16
17	32	20	26	M	22	26	39	0	-	-	BR HZ	M	M	M	0.00	29.75	30.19	2.9	31	3.2	15	310	12	310	17
18	36	18	27	M	20	24	38	0	-	-	BR	M	M	M	0.00	29.71	30.18	0.2	28	0.5	10	350	8	340	18
19	39	17	28	M	22	26	37	0	-	-	BR	M	M	M	0.00	29.67	30.14	2.6	18	2.9	14	190	10	190	19
20	50	24	37	M	25	33	28	0	-	-	BR	M	M	M	T	29.57	30.03	6.8	15	7.3	33	170	24	170	20
21	51	37	44	M	34	39	21	0	-	-	HZ	M	M	M	0.00	29.52	29.96	2.6	01	4.8	14	340	12	330	21
22	37	28	33	M	24	29	32	0	-	-	BR HZ	M	M	M	0.00	29.91	30.32	10.4	34	10.5	24	340	20	340	22
23	39	24	32	M	25	30	33	0	-	-	BR HZ	M	M	M	0.00	29.98	30.44	2.7	04	3.4	13	010	9	030	23
24	33	29	31	M	27	30	34	0	-	-	SN FG+ FZFG BR	M	M	M	0.25	29.80	30.29	3.7	08	4.0	14	080	9	080	24
25	32	28	30	M	26	28	35	0	-	-	SN BR HZ	M	M	M	T	29.76	30.23	9.3	34	9.6	25	330	18	330	25
26	29	23	26	M	22	25	39	0	-	-	BR	M	M	M	T	29.83	30.29	12.6	33	12.7	23	350	18	330	26
27	27	14	21	M	16	20	44	0	-	-	BR HZ	M	M	M	0.00	29.90	30.37	1.7	31	3.8	17	340	13	340	27
28	40	10	25	M	21	25	40	0	-	-	BR	M	M	M	0.00	29.73	30.22	4.8	19	5.3	16	200	14	200	28
29	45	27	36	M	35	37	29	0	-	-	RA BR	M	M	M	0.12	29.45	29.95	7.7	16	7.9	24	180	18	170	29
30	56	44	50	M	44	48	15	0	-	-		M	M	M	0.00	29.34	29.80	15.5	17	15.6	35	170	28	180	30
31	65*	54	60*	M	54	56	5	0	-	-	RA BR VCTS	M	M	M	0.68	29.34	29.77	14.6	18	15.1	43	170	30	170	31

38.1 22.6 30.4 23.0 28.1 34.4 0.0 <-----Monthly Averages | Totals-----> M M 1.67s 29.67 30.14 1.6 29 7.4 <Monthly Average

M M M <-----Departure From Normal-----> M

Degree Days	Monthly	Season to Date	Greatest 24-hr Precipitation: 0.68 Date: 31	Greatest 24-hr Snowfall: M Date: M	Greatest Snow Depth: M Date: M	Sea Level Pressure	Time (LST)
	Total Departure	Total Departure					Maximum 30.54 23 1008
Heating:	1067	M M M	Number of Days with ----->	Max Temp >=90: 0	Max Temp <=32: 12	Thunderstorms : 0	Minimum 29.60 11 1725
Cooling:	0	M M M					Min Temp <=32: 28
							Precipitation >=.10 inch: Snowfall >=1.0 inch : M

\* EXTREME FOR THE MONTH - LAST OCCURRENCE IF MORE THAN ONE.

Data Version: VER2

**QUALITY CONTROLLED LOCAL CLIMATOLOGICAL DATA**

(final)

NOAA, National Climatic Data Center

Month: 01/2011

Station Location: SOUTHERN ILLINOIS AIRPORT (93810)

CARBONDALE/MURPHYBORO, IL

Lat. 37.779 Lon. -89.249

Elevation(Ground): 406 ft. above sea level

Date	Temperature (Fahrenheit)					Degree Days Base 65 Degrees			Sun		Significant Weather	Snow/Ice on Ground(In) Precipitation (In)				Pressure(inches of Hg)		Wind: Speed=mph Dir=tens of degrees							
	Max.	Min.	Avg.	Dep From Normal	Avg. Dew pt.	Avg. Wet Bulb	Heating	Cooling	Sunrise LST	Sunset LST		1200 UTC	1800 UTC	2400 LST	2400 LST	Avg. Station	Avg. Sea Level	Resultant Speed	Res Dir	Avg. Speed	max 5-second		max 2-minute		
	1	2	3	4	5	6	7	8	9	10		11	13	14	15	16	17	18	19	20	21	22	23	24	25
01	54	20	37	M	19	27	28	0	-	-	RA	M	M	M	T	29.68	30.11	7.6	30	7.5	29	320	21	320	01
02	33	19	26	M	15	23	39	0	-	-		M	M	M	0.00	29.86	30.31	3.6	24	4.7	15	290	12	290	02
03	43	20	32	M	18	27	33	0	-	-		M	M	M	0.00	29.71	30.20	8.5	19	8.8	24	180	18	180	03
04	42	19	31	M	19	28	34	0	-	-		M	M	M	0.00	29.65	30.13	3.6	29	5.7	21	230	16	230	04
05	40	18	29	M	19	26	36	0	-	-		M	M	M	0.00	29.49	29.97	1.4	13	2.0	14	140	10	130	05
06	40	21	31	M	23	28	34	0	-	-		M	M	M	T	29.32	29.82	5.1	29	5.8	20	290	15	290	06
07	41	27	34	M	27	31	31	0	-	-	SN BR	M	M	M	T	29.13	29.59	6.0	30	6.3	31	300	23	320	07
08	31	11	21	M	8	17	44	0	-	-	SN	M	M	M	T	29.57	29.98	9.8	33	10.1	36	320	26	340	08
09	31	8	20	M	12	19	45	0	-	-		M	M	M	0.00	29.83	30.27	4.6	09	5.0	17	060	14	090	09
10	33	28	31	M	16	25	34	0	-	-		M	M	M	0.00	29.73	30.22	7.4	09	7.5	17	080	14	080	10
11	30	19	25	M	17	23	40	0	-	-	SN BR	M	M	M	0.09	29.79	30.24	9.2	28	9.9	32	270	23	260	11
12	21	12	17	M	10	15	48	0	-	-	SN	M	M	M	T	30.11	30.56	8.7	31	8.9	25	310	18	300	12
13	29	9	19	M	12	18	46	0	-	-		M	M	M	0.00	30.06	30.56	3.3	22	5.2	17	190	14	190	13
14	40	21	31	M	19	27	34	0	-	-		M	M	M	0.00	29.84	30.34	8.0	20	8.2	21	210	16	200	14
15	46	27	37	M	25	31	28	0	-	-	HZ	M	M	M	0.00	29.72	30.19	3.4	28	8.2	18	340	16	340	15
16	32	20	26	M	19	24	39	0	-	-	BR HZ	M	M	M	0.00	29.73	30.22	2.8	01	3.4	13	010	9	320	16
17	46	19	33	M	31	33	32	0	-	-	RA BR HZ	M	M	M	T	29.37	29.88	5.8	17	6.3	22	210	17	190	17
18	45	30	38	M	34	36	27	0	-	-	RA BR HZ	M	M	M	0.07	29.42	29.87	7.1	32	8.6	25	330	18	330	18
19	31	27	29	M	22	27	36	0	-	-	BR HZ	M	M	M	0.00	29.69	30.12	5.0	34	6.8	17	330	14	330	19
20	28	15	22	M	19	22	43	0	-	-	SN FZFG BR HZ	M	M	M	0.07	29.68	30.14	6.1	33	7.5	23	330	17	320	20
21	19	5*	12*	M	3	12	53	0	-	-		M	M	M	0.00	29.68	30.17	2.3	36	3.7	14	310	10	310	21
22	32	14	23	M	16	22	42	0	-	-		M	M	M	0.00	29.55	30.02	4.6	18	5.3	13	230	10	210	22
23	35	24	30	M	24	27	35	0	-	-	SN BR	M	M	M	T	29.69	30.15	6.0	11	7.2	17	110	15	110	23
24	39	27	33	M	32	34	32	0	-	-	FG+ FG FZFG BR	M	M	M	0.00	29.65	30.10	2.7	19	3.8	14	170	10	170	24
25	33	26	30	M	24	27	35	0	-	-	FG+ FZFG BR HZ	M	M	M	0.00	29.64	30.11	6.2	34	6.4	16	350	13	350	25
26	37	21	29	M	24	28	36	0	-	-	BR HZ	M	M	M	0.00	29.64	30.10	4.3	33	4.7	14	280	10	330	26
27	44	17	31	M	24	29	34	0	-	-	BR	M	M	M	0.00	29.48	29.96	4.3	21	5.4	20	200	16	200	27
28	48	22	35	M	27	32	30	0	-	-	BR HZ	M	M	M	0.00	29.49	29.95	1.9	19	4.4	13	190	10	190	28
29	54*	31	43*	M	30	37	22	0	-	-	BR HZ	M	M	M	0.00	29.52	29.96	1.4	33	5.8	18	210	14	340	29
30	49	27	38	M	28	34	27	0	-	-	BR HZ	M	M	M	0.00	29.68	30.12	7.4	03	7.8	21	030	15	040	30
31	38	32	35	M	28	32	30	0	-	-	RA BR UP HZ	M	M	M	0.07	29.63	30.10	4.9	07	6.3	16	110	13	080	31

37.5 20.5 29.0 20.8 26.5 35.7 0.0 <-----Monthly Averages | Totals-----> M M 0.30s 29.65 30.11 1.6 30 6.4 <Monthly Average

M M M <-----Departure From Normal-----> M

Degree Days	Monthly	Season to Date	Greatest 24-hr Precipitation: 0.68s Date: 01	Greatest 24-hr Snowfall: M Date: M	Greatest Snow Depth: M Date: M	Sea Level Pressure Date Time (LST)		
	Total	Departure				Total	Departure	Maximum 30.70 13 0906
Heating:	1107	M	M	M	Number of Days with ----->	Max Temp >=90: 0	Min Temp <=32: 31	Precipitation >=.01 inch: 4
Cooling:	0	M	M	M		Max Temp <=32: 10		
						Thunderstorms : 0	Heavy Fog : 2	

\* EXTREME FOR THE MONTH - LAST OCCURRENCE IF MORE THAN ONE.

Data Version: VER2

**QUALITY CONTROLLED LOCAL CLIMATOLOGICAL DATA**

(final)

NOAA, National Climatic Data Center

Month: 02/2011

Station Location: SOUTHERN ILLINOIS AIRPORT (93810)

CARBONDALE/MURPHYBORO, IL

Lat. 37.779 Lon. -89.249

Elevation(Ground): 406 ft. above sea level

Date	Temperature (Fahrenheit)					Degree Days Base 65 Degrees			Sun		Significant Weather	Snow/Ice on Ground(In) Precipitation (In)				Pressure(inches of Hg)		Wind: Speed=mph Dir=tens of degrees							
	Max.	Min.	Avg.	Dep From Normal	Avg. Dew pt.	Avg. Wet Bulb	Heating	Cooling	Sunrise LST	Sunset LST		1200 UTC	1800 UTC	2400 LST	2400 LST	Avg. Station	Avg. Sea Level	Resultant Speed	Res Dir	Avg. Speed	max 5-second		max 2-minute		
	1	2	3	4	5	6	7	8	9	10		11	13	14	15	16	17	18	19	20	21	22	23	24	25
01	36	24	30	M	29	31	35	0	-	-	RA SN BR	M	M	M	0.80	29.31	29.77	5.0	33	10.5	35	250	25	260	01
02	25	19	22	M	15	20	43	0	-	-	SN	M	M	M	T	29.96	30.36	10.7	30	11.4	30	270	22	290	02
03	28	8	18	M	11	16	47	0	-	-	SN BR	M	M	M	T	30.06	30.53	4.0	34	4.6	15	350	13	340	03
04	35	13	24	M	19	24	41	0	-	-	BR UP	M	M	M	T	29.66	30.20	1.0	03	1.2	8	080	7	080	04
05	34	27	31	M	25	28	34	0	-	-	SN BR	M	M	M	0.14	29.36	29.83	6.0	22	9.3	24	200	20	200	05
06	46	29	38	M	30	35	27	0	-	-	BR	M	M	M	0.00	29.49	29.93	4.8	21	7.1	20	200	14	190	06
07	35	25	30	M	24	28	35	0	-	-	RA SN BR HZ	M	M	M	0.02	29.63	30.06	11.1	33	11.7	28	350	22	350	07
08	27	15	21	M	12	19	44	0	-	-	SN	M	M	M	T	29.96	30.39	8.3	34	9.1	22	340	18	330	08
09	17	3	10*	M	8	13	55	0	-	-	SN BR	M	M	M	0.06	29.89	30.37	3.7	35	3.9	15	350	12	360	09
10	30	-4*	13	M	4	11	52	0	-	-		M	M	M	0.00	29.80	30.30	4.5	20	4.7	20	190	16	190	10
11	38	10	24	M	13	22	41	0	-	-		M	M	M	0.00	29.70	30.18	9.3	20	9.6	22	190	18	190	11
12	53	28	41	M	25	33	24	0	-	-		M	M	M	0.00	29.77	30.24	7.6	23	8.9	23	210	16	200	12
13	60	33	47	M	31	40	18	0	-	-		M	M	M	0.00	29.54	30.00	13.6	20	14.2	31	200	25	210	13
14	54	32	43	M	30	39	22	0	-	-		M	M	M	0.00	29.78	30.20	5.3	33	8.1	26	330	21	330	14
15	57	25	41	M	29	37	24	0	-	-	BR	M	M	M	0.00	29.75	30.22	5.7	15	6.4	22	140	17	140	15
16	71	46	59	M	45	52	6	0	-	-		M	M	M	0.00	29.56	30.03	14.1	20	14.2	38	210	30	200	16
17	64	55	60*	M	50	55	5	0	-	-		M	M	M	0.00	29.44	29.88	22.9	20	23.1	51	200	37	200	17
18	65	33	49	M	35	47	16	0	-	-		M	M	M	0.00	29.76	30.17	4.2	35	8.5	24	230	18	210	18
19	50	34	42	M	27	39	23	0	-	-	RA	M	M	M	T	29.83	30.29	5.4	09	5.8	16	100	12	110	19
20	71*	45	58	M	42	51	7	0	-	-		M	M	M	0.00	29.38	29.87	10.2	19	11.9	35	220	29	200	20
21	65	39	52	M	45	49	13	0	-	-	RA BR	M	M	M	0.18	29.34	29.77	6.2	26	11.7	29	310	22	200	21
22	41	22	32	M	23	30	33	0	-	-	BR	M	M	M	0.00	29.77	30.18	6.4	34	7.6	20	320	15	340	22
23	48	23	36	M	28	34	29	0	-	-		M	M	M	0.01	29.65	30.14	4.6	14	6.1	16	140	13	130	23
24	47	39	43	M	38	40	22	0	-	-	RA BR	M	M	M	1.63	29.36	29.85	6.5	03	8.3	28	070	21	070	24
25	39	35	37	M	30	34	28	0	-	-		M	M	M	0.00	29.67	30.10	8.1	35	8.9	32	350	24	330	25
26	45	34	40	M	33	37	25	0	-	-	BR	M	M	M	0.00	29.51	29.98	3.8	18	3.9	18	180	15	200	26
27	69	29	49	M	48	50	16	0	-	-	RA BR HZ VCTS	M	M	M	0.04	29.24	29.74	8.0	19	9.4	40	200	31	210	27
28	70	26	48	M	35	38	17	0	-	-	TSRA RA BR VCTS	M	M	M	0.98	29.63	30.02	9.9	34	11.5	41	310	32	320	28

47.1	26.7	36.9		28.0	34.0	27.9	0.0	<-----Monthly Averages   Totals----->				M	M	3.86s	29.64	30.11	2.5	24	9.0	<Monthly Average					
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<-----Departure From Normal----->											M
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Degree Days	Monthly	Season to Date	Greatest 24-hr Precipitation: 1.63 Date: 24										Sea Level	Pressure	Date	Time (LST)					
	Total	Departure	Total	Departure	Greatest 24-hr Snowfall: M Date: M										Maximum	30.67	03	0750			
Heating:	782	M	M	M	Greatest Snow Depth: M Date: M										Minimum	29.41	01	1738			
Cooling:	0	M	M	M	Number of Days with ----->										Max Temp >=90: 0	Min Temp <=32: 18			Precipitation >=.01 inch: 9		
															Max Temp <=32: 5	Min Temp <=0 : 1			Precipitation >=.10 inch: :		
															Thunderstorms : 1	Heavy Fog : 0			Snowfall >=1.0 inch : M		

\* EXTREME FOR THE MONTH - LAST OCCURRENCE IF MORE THAN ONE.

Data Version: VER2

**QUALITY CONTROLLED LOCAL CLIMATOLOGICAL DATA**

(final)

NOAA, National Climatic Data Center

Month: 03/2011

Station Location: SOUTHERN ILLINOIS AIRPORT (93810)

CARBONDALE/MURPHYBORO, IL

Lat. 37.779 Lon. -89.249

Elevation(Ground): 406 ft. above sea level

Date	Temperature (Fahrenheit)					Degree Days Base 65 Degrees			Sun		Significant Weather	Snow/Ice on Ground(In) Precipitation (In)				Pressure(inches of Hg)		Wind: Speed=mph Dir=tens of degrees							
	Max.	Min.	Avg.	Dep From Normal	Avg. Dew pt.	Avg. Wet Bulb	Heating	Cooling	Sunrise LST	Sunset LST		1200 UTC	1800 UTC	2400 LST	2400 LST	Avg. Station	Avg. Sea Level	Resultant Speed	Res Dir	Avg. Speed	max 5-second		max 2-minute		
	1	2	3	4	5	6	7	8	9	10		11	13	14	15	16	17	18	19	20	21	22	23	24	25
01	56	22*	39	M	28	33	26	0	-	-	FZFG BR	M	M	M	0.00	29.80	30.27	4.5	17	4.8	26	200	14	180	01
02	58	29	44	M	32	38	21	0	-	-	BR	M	M	M	0.00	29.85	30.31	4.6	04	4.9	21	020	15	040	02
03	67	34	51	M	34	42	14	0	-	-		M	M	M	0.00	29.68	30.16	4.8	13	5.9	31	200	20	180	03
04	62	52	57	M	50	54	8	0	-	-	RA BR	M	M	M	0.22	29.52	30.00	13.3	18	13.4	33	200	26	190	04
05	60	36	48	M	38	41	17	0	-	-	RA BR VCTS	M	M	M	0.91	29.67	30.09	11.2	33	14.0	33	200	28	260	05
06	37	33	35*	M	28	33	30	0	-	-		M	M	M	0.00	29.79	30.24	6.7	02	8.4	26	010	21	360	06
07	47	30	39	M	32	36	26	0	-	-		M	M	M	0.00	29.70	30.17	5.7	11	6.2	20	080	15	070	07
08	56	40	48	M	40	44	17	0	-	-	RA BR	M	M	M	0.92	29.52	30.01	9.5	12	10.2	31	150	22	130	08
09	52	39	46	M	41	44	19	0	-	-	RA BR	M	M	M	0.01	29.46	29.90	7.2	29	9.1	25	310	18	310	09
10	40	32	36	M	32	36	29	0	-	-	RA BR HZ	M	M	M	0.02	29.72	30.16	11.1	31	11.4	26	300	21	320	10
11	57	26	42	M	31	38	23	0	-	-	BR	M	M	M	0.00	29.64	30.12	6.8	20	7.9	29	220	23	210	11
12	70	42	56	M	33	45	9	0	-	-		M	M	M	0.00	29.61	30.05	5.9	25	8.7	26	210	21	210	12
13	54	37	46	M	33	40	19	0	-	-	RA BR	M	M	M	0.22	29.82	30.27	7.2	03	8.1	22	020	16	030	13
14	42	38	40	M	37	39	25	0	-	-	RA BR	M	M	M	1.81	29.66	30.14	9.8	05	10.3	28	060	21	070	14
15	42	39	41	M	37	39	24	0	-	-	BR	M	M	M	0.01s	29.67	30.12	4.4	29	6.6	18	260	13	280	15
16	61	34	48	M	38	43	17	0	-	-	BR	M	M	M	0.00	29.73	30.19	7.9	19	8.1	26	200	17	200	16
17	73	47	60	M	49	55	5	0	-	-		M	M	M	0.00	29.57	30.04	17.1	20	17.5	51	210	40	190	17
18	67	50	59	M	47	52	6	0	-	-	RA	M	M	M	0.01	29.75	30.18	3.8	33	6.9	25	340	21	340	18
19	62	47	55	M	37	47	10	0	-	-	RA	M	M	M	0.05	29.88	30.34	6.8	07	8.8	26	060	21	060	19
20	78	44	61	M	47	55	4	0	-	-		M	M	M	0.00	29.67	30.14	10.5	19	12.7	37	200	28	200	20
21	80*	63	72*	M	51	59	0	7	-	-		M	M	M	0.00	29.59	30.06	12.2	21	12.7	29	250	22	200	21
22	73	58	66	M	54	60	0	1	-	-	VCTS	M	M	M	T	29.31	29.80	14.6	20	14.9	38	200	33	200	22
23	79	46	63	M	42	54	2	0	-	-		M	M	M	0.00	29.24	29.65	12.7	27	17.0	41	320	29	320	23
24	47	36	42	M	29	35	23	0	-	-		M	M	M	T	29.66	30.08	8.8	34	9.8	25	350	21	360	24
25	39	35	37	M	32	36	28	0	-	-	RA PL BR HZ	M	M	M	0.23	29.58	30.04	4.1	07	5.6	17	060	13	050	25
26	40	33	37	M	31	35	28	0	-	-	RA SN BR HZ	M	M	M	0.43	29.49	29.96	9.7	04	10.0	26	030	17	030	26
27	44	30	37	M	26	33	28	0	-	-		M	M	M	0.00	29.62	30.08	7.8	03	8.3	22	050	16	050	27
28	51	32	42	M	26	36	23	0	-	-	SN BR	M	M	M	T	29.68	30.13	6.5	05	7.4	22	360	17	030	28
29	50	40	45	M	25	37	20	0	-	-	RA	M	M	M	0.02	29.67	30.14	7.7	06	8.2	23	090	18	090	29
30	51	33	42	M	30	37	23	0	-	-	HZ	M	M	M	0.01	29.54	30.00	6.4	01	7.7	25	030	18	050	30
31	51	32	42	M	31	38	23	0	-	-	BR HZ	M	M	M	0.00	29.34	29.82	1.0	24	1.4	18	210	9	250	31

56.3 38.4 47.4 36.2 42.4 17.6 0.3 <-----Monthly Averages | Totals-----> M M 4.87s 29.63 30.11 0.3 21 9.3 <Monthly Average

M M M <-----Departure From Normal-----> M

Degree Days	Monthly	Season to Date	Greatest 24-hr Precipitation: 2.02s Date: 13-14		Sea Level Pressure Date Time (LST)	
	Total	Departure	Total	Departure	Maximum 30.44 19 0935	Minimum 29.51 23 1450
Heating:	547	M	M	M	Max Temp >=90: 0	Precipitation >=.01 inch: 14 Precipitation >=.10 inch: Snowfall >=1.0 inch : M
Cooling:	8	M	M	M	Max Temp <=32: 0 Thunderstorms : 0	

\* EXTREME FOR THE MONTH - LAST OCCURRENCE IF MORE THAN ONE.

Data Version:  
VER2

# QUALITY CONTROLLED LOCAL CLIMATOLOGICAL DATA

(final)

NOAA, National Climatic Data Center

Month: 04/2011

Station Location: SOUTHERN ILLINOIS AIRPORT (93810)

CARBONDALE/MURPHYBORO, IL

Lat. 37.779 Lon. -89.249

Elevation(Ground): 406 ft. above sea level

Date	Temperature (Fahrenheit)					Degree Days Base 65 Degrees			Sun		Significant Weather	Snow/Ice on Ground(In) Precipitation (In)				Pressure(inches of Hg)		Wind: Speed=mph Dir=tens of degrees							
	Max.	Min.	Avg.	Dep From Normal	Avg. Dew pt.	Avg. Wet Bulb	Heating	Cooling	Sunrise LST	Sunset LST		1200 UTC	1800 UTC	2400 LST	2400 LST	Avg. Station	Avg. Sea Level	Resultant Speed	Res Dir	Avg. Speed	max 5-second		max 2-minute		
												Depth	Water Equiv	Snow Fall	Water Equiv						Speed	Dir	Speed	Dir	Speed
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26
01	59	30*	45	M	33	41	20	0	-	-	BR HZ	M	M	M	0.00	29.34	29.78	4.8	28	5.3	23	260	17	270	01
02	69	39	54	M	32	44	11	0	-	-		M	M	M	0.00	29.52	29.95	4.3	28	7.7	24	270	18	310	02
03	80	43	62	M	50	57	3	0	-	-		M	M	M	0.00	29.18	29.67	22.3	19	22.9	62	210	47	200	03
04	75	41	58	M	45	49	7	0	-	-	TSRA RA BR	M	M	M	0.36	29.23	29.66	8.6	26	14.5	60	190	43	200	04
05	60	37	49	M	28	41	16	0	-	-		M	M	M	0.00	29.50	29.93	7.0	23	11.0	30	200	21	200	05
06	70	48	59	M	38	49	6	0	-	-		M	M	M	0.00	29.41	29.86	19.8	20	19.9	44	200	35	190	06
07	73	48	61	M	49	56	4	0	-	-		M	M	M	0.00	29.41	29.87	6.6	18	7.1	24	150	16	200	07
08	82	58	70	M	60	64	0	5	-	-	BR	M	M	M	0.00	29.42	29.85	6.3	20	7.5	21	250	16	230	08
09	86*	64	75	M	62	67	0	10	-	-	BR VCTS	M	M	M	T	29.42	29.87	8.6	19	10.2	29	210	22	220	09
10	82	71	77*	M	62	67	0	12	-	-		M	M	M	0.00	29.31	29.77	21.4	20	21.6	46	200	35	200	10
11	78	58	68	M	57	59	0	3	-	-	RA BR	M	M	M	1.10	29.33	29.76	3.3	28	8.0	29	320	23	200	11
12	67	45	56	M	44	51	9	0	-	-		M	M	M	0.00	29.60	30.02	7.7	34	8.1	24	340	18	350	12
13	73	40	57	M	43	50	8	0	-	-	BR	M	M	M	0.00	29.59	30.04	1.6	07	2.2	15	020	10	050	13
14	75	46	61	M	44	53	4	0	-	-		M	M	M	0.00	29.47	29.95	6.6	10	7.1	20	110	15	100	14
15	69	51	60	M	49	54	5	0	-	-	RA BR	M	M	M	0.72	29.09	29.57	9.8	15	14.1	56	210	43	220	15
16	51	38	45*	M	36	42	20	0	-	-	RA	M	M	M	T	29.36	29.77	11.1	26	12.3	36	300	23	300	16
17	70	37	54	M	41	49	11	0	-	-		M	M	M	0.00	29.41	29.86	11.8	21	12.4	32	210	25	190	17
18	75	59	67	M	54	59	0	2	-	-	BR	M	M	M	0.01	29.31	29.77	11.3	19	11.7	31	210	23	200	18
19	83	56	70	M	62	66	0	5	-	-	TS TSRA RA VCTS	M	M	M	0.30	29.20	29.63	17.6	21	19.2	66	250	51	260	19
20	56	44	50	M	42	46	15	0	-	-		M	M	M	0.00	29.72	30.14	7.6	34	9.2	24	330	18	310	20
21	63	44	54	M	40	47	11	0	-	-	RA	M	M	M	T	29.70	30.18	7.8	09	9.1	26	130	20	100	21
22	73	54	64	M	59	62	1	0	-	-	TS TSRA RA BR VCTS	M	M	M	0.77	29.37	29.84	10.3	18	12.3	40	200	31	200	22
23	67	57	62	M	58	60	3	0	-	-	TSRA RA BR VCTS	M	M	M	2.68	29.47	29.89	2.9	19	7.1	28s	130	21	130	23
24	64	57	61	M	58	59	4	0	-	-	RA BR VCTS	M	M	M	1.80	29.51	29.96	0.4	17	6.5	29	010	23	010	24
25	66	59	63	M	59	61	2	0	-	-	TSRA RA BR	M	M	M	2.25	29.23	29.73	2.9	17	5.8	43	220	33	220	25
26	75	58	67	M	58	61	0	2	-	-	TSRA RA BR VCTS	M	M	M	1.18	29.10	29.57	12.3	20	13.9	67s	320	29	210	26
27	68	47	58	M	53	55	7	0	-	-	TS RA BR	M	M	M	1.90	29.11	29.51	3.5	31	8.3	39	340	30	350	27
28	71	45	58	M	44	51	7	0	-	-		M	M	M	T	29.46	29.88	9.1	26	10.4	31	250	24	250	28
29	74	49	62	M	46	53	3	0	-	-		M	M	M	0.00	29.53	29.97	1.7	14	4.6	17	120	13	120	29
30	73	53	63	M	52	57	2	0	-	-	RA BR VCTS	M	M	M	0.43	29.41	29.85	11.2	18	12.1	41	210	33	200	30

70.9	49.2	60.1		48.6	54.3	6.0	1.3	<-----Monthly Averages   Totals----->				M	M	13.51s	29.39	29.83	5.8	21	10.7	<Monthly Average						
M	M	M						<-----Departure From Normal----->						M												

Degree Days	Monthly	Season to Date	Total Departure		Total Departure		Greatest 24-hr Precipitation: 3.04s Date: 26-27				Sea Level Pressure Date		Time (LST)									
	Heating: 179	M	M	M			Greatest 24-hr Snowfall: M Date: M				Maximum 30.35		21 0736									
Cooling: 39	M	M	M			Greatest Snow Depth: M Date: M				Minimum 29.34		27 0238										
Number of Days with ----->							Max Temp >=90: 0		Max Temp <=32: 0		Thunderstorms : 9		Min Temp <=32: 1		Min Temp <=0 : 0		Heavy Fog : 0		Precipitation >=.01 inch: 12			
																			Snowfall >=1.0 inch : M			

\* EXTREME FOR THE MONTH - LAST OCCURRENCE IF MORE THAN ONE.

Data Version:  
VER2



**QUALITY CONTROLLED LOCAL CLIMATOLOGICAL DATA**

(final)

NOAA, National Climatic Data Center

Month: 05/2011

Station Location: SOUTHERN ILLINOIS AIRPORT (93810)

CARBONDALE/MURPHYBORO, IL

Lat. 37.779 Lon. -89.249

Elevation(Ground): 406 ft. above sea level

Date	Temperature (Fahrenheit)					Degree Days Base 65 Degrees			Sun		Significant Weather	Snow/Ice on Ground(In) Precipitation (In)				Pressure(inches of Hg)		Wind: Speed=mph Dir=tens of degrees							
	Max.	Min.	Avg.	Dep From Normal	Avg. Dew pt.	Avg. Wet Bulb	Heating	Cooling	Sunrise LST	Sunset LST		1200 UTC	1800 UTC	2400 LST	2400 LST	Avg. Station	Avg. Sea Level	Resultant Speed	Res Dir	Avg. Speed	max 5-second		max 2-minute		
	1	2	3	4	5	6	7	8	9	10		11	13	14	15	16	17	18	19	20	21	22	23	24	25
01	67	48	58	M	53	55	7	0	-	-	TSRA RA BR VCTS	M	M	M	2.18	29.55	29.99	6.1	34	7.3	25	320	17	340	01
02	51	46	49	M	45	47	16	0	-	-	RA BR	M	M	M	1.07	29.72	30.16	7.7	01	8.2	25	010	18	020	02
03	64	43	54	M	39	47	11	0	-	-	RA BR	M	M	M	0.06	29.80	30.24	7.2	33	8.1	23	320	17	320	03
04	61	37*	49*	M	38	44	16	0	-	-		M	M	M	0.00	29.93	30.37	2.6	36	4.7	15	340	13	350	04
05	68	38	53	M	44	49	12	0	-	-	RA BR	M	M	M	0.05	29.70	30.19	5.0	19	7.0	20	200	15	200	05
06	71	50	61	M	48	53	4	0	-	-	RA	M	M	M	0.01	29.52	29.99	3.6	23	5.4	17	200	13	190	06
07	73	54	64	M	55	58	1	0	-	-	RA BR VCTS	M	M	M	0.24	29.38	29.84	8.6	20	9.0	33	160	28	160	07
08	86	55	71	M	59	64	0	6	-	-	BR	M	M	M	0.00	29.41	29.85	2.0	15	3.0	16	150	12	140	08
09	83	62	73	M	65	68	0	8	-	-	BR	M	M	M	0.00	29.35	29.80	9.5	17	10.1	33	190	26	190	09
10	85	69	77	M	66	70	0	12	-	-	BR	M	M	M	0.00	29.36	29.79	10.1	19	10.5	29	200	22	190	10
11	87	66	77	M	67	70	0	12	-	-	BR	M	M	M	0.00	29.44	29.87	6.6	20	7.1	23	210	17	210	11
12	86	66	76	M	64	68	0	11	-	-		M	M	M	0.00	29.41	29.85	5.1	20	6.3	16	190	13	190	12
13	76	61	69	M	59	62	0	4	-	-	RA BR VCTS	M	M	M	0.22	29.26	29.72	4.6	24	7.4	31	240	23	240	13
14	63	50	57	M	51	53	8	0	-	-	RA BR	M	M	M	0.76	29.31	29.75	10.9	30	11.1	26	300	18	300	14
15	56	46	51	M	48	50	14	0	-	-	RA BR	M	M	M	0.10	29.35	29.79	10.2	31	10.8	25	330	18	340	15
16	63	45	54	M	42	47	11	0	-	-	BR	M	M	M	0.02	29.49	29.93	10.7	35	10.8	28	350	20	350	16
17	63	41	52	M	41	47	13	0	-	-		M	M	M	0.00	29.44	29.89	6.4	35	7.0	24	350	18	350	17
18	73	47	60	M	49	55	5	0	-	-	RA BR	M	M	M	0.04	29.42	29.86	3.4	30	4.3	18	300	15	320	18
19	68	58	63	M	57	59	2	0	-	-	RA BR	M	M	M	0.06	29.55	29.99	3.5	11	4.4	16	060	14	060	19
20	82	60	71	M	61	65	0	6	-	-		M	M	M	0.00	29.52	29.96	5.6	14	6.7	20	180	15	170	20
21	82	65	74	M	63	66	0	9	-	-	RA	M	M	M	0.01	29.42	29.88	7.4	21	9.0	28	230	20	240	21
22	82	64	73	M	63	67	0	8	-	-	TSRA RA BR	M	M	M	0.37	29.38	29.82	14.1	20	14.6	46	200	38	200	22
23	81	61	71	M	63	65	0	6	-	-	TSRA RA VCTS	M	M	M	0.81	29.36	29.80	9.1	21	10.9	38	230	26	220	23
24	82	61	72	M	64	67	0	7	-	-	RA	M	M	M	0.03	29.36	29.81	5.2	18	6.5	21	190	17	200	24
25	84	62	73	M	66	68	0	8	-	-	RA FG BR VCTS	M	M	M	0.90	29.16	29.60	12.6	19	13.5	45	260	36	250	25
26	64	54	59	M	55	57	6	0	-	-	RA BR	M	M	M	0.06	29.37	29.79	6.7	28	10.0	26	310	20	290	26
27	67	54	61	M	52	55	4	0	-	-	RA	M	M	M	T	29.47	29.91	0.5	03	4.6	16	210	14	210	27
28	85	56	71	M	62	65	0	6	-	-	BR	M	M	M	0.00	29.33	29.78	6.5	17	6.9	29	200	22	190	28
29	89	70	80	M	64	69	0	15	-	-		M	M	M	0.00	29.46	29.87	14.7	19	15.2	39	220	31	200	29
30	90	72	81	M	66	71	0	16	-	-		M	M	M	0.00	29.62	30.03	11.2	18	11.5	31	190	24	200	30
31	91*	70	81*	M	68	72	0	16	-	-		M	M	M	0.00	29.72	30.14	6.4	21	7.1	23	190	18	200	31
	74.9	55.8	65.4		56.0	59.8	4.2	4.8	<-----Monthly Averages   Totals----->			M	M	6.99s	29.47	29.91	3.3	22	8.4	<Monthly Average					
	M	M	M	<-----Departure From Normal----->											M										

Degree Days	Monthly	Season to Date	Greatest 24-hr Precipitation: 2.74s Date: 01-02		Sea Level Pressure Date Time (LST)	
	Total	Departure	Total	Departure	Maximum 30.45 04 1046	Minimum 29.41 25 1710
Heating:	130	M	M	M	Number of Days with ----->	Precipitation >=.01 inch: 18 Precipitation >=.10 inch: Snowfall >=1.0 inch : M
Cooling:	150	M	M	M		

\* EXTREME FOR THE MONTH - LAST OCCURRENCE IF MORE THAN ONE.

Data Version:  
VER2

**QUALITY CONTROLLED LOCAL CLIMATOLOGICAL DATA**

(final)

NOAA, National Climatic Data Center

Month: 06/2011

Station Location: SOUTHERN ILLINOIS AIRPORT (93810)

CARBONDALE/MURPHYBORO, IL

Lat. 37.779 Lon. -89.249

Elevation(Ground): 406 ft. above sea level

Date	Temperature (Fahrenheit)					Degree Days Base 65 Degrees			Sun		Significant Weather	Snow/Ice on Ground (In) / Precipitation (In)				Pressure (inches of Hg)		Wind: Speed=mph / Dir=tens of degrees							
	Max.	Min.	Avg.	Dep From Normal	Avg. Dew pt.	Avg. Wet Bulb	Heating	Cooling	Sunrise LST	Sunset LST		1200 UTC	1800 UTC	2400 LST	2400 LST	Avg. Station	Avg. Sea Level	Resultant Speed	Res Dir	Avg. Speed	max 5-second Speed	max 2-minute Dir			
	1	2	3	4	5	6	7	8	9	10		11	13	14	15	16	17	18	19	20	21	22	23	24	25
01	90	67	79	M	63	68	0	14	-	-		M	M	M	0.00	29.76	30.20	1.6	04	2.2	13	080	9	030	01
02	90	66	78	M	66	70	0	13	-	-		M	M	M	0.00	29.64	30.09	3.9	12	4.5	17	130	12	100	02
03	93	70	82	M	70	74	0	17	-	-	BR HZ	M	M	M	0.00	29.62	30.05	4.6	18	5.0	16	230	13	230	03
04	96*	72	84*	M	69	74	0	19	-	-	BR HZ	M	M	M	0.00	29.65	30.09	2.7	26	3.7	15	300	10	230	04
05	90	70	80	M	67	72	0	15	-	-	BR	M	M	M	0.00	29.62	30.06	2.4	02	3.9	23	360	17	350	05
06	93	69	81	M	68	72	0	16	-	-	BR HZ	M	M	M	0.00	29.52	29.97	3.4	20	3.8	17	200	12	250	06
07	95	69	82	M	68	72	0	17	-	-	BR	M	M	M	0.00	29.48	29.92	4.7	18	5.5	20	150	14	180	07
08	93	71	82	M	69	73	0	17	-	-	BR HZ	M	M	M	0.00	29.48	29.92	6.5	20	7.1	22	200	17	190	08
09	93	70	82	M	68	73	0	17	-	-		M	M	M	0.00	29.49	29.93	5.8	19	6.7	18	190	15	200	09
10	93	71	82	M	69	73	0	17	-	-	BR HZ	M	M	M	0.00	29.45	29.89	5.9	22	6.4	22	350	17	230	10
11	86	69	78	M	67	70	0	13	-	-	TSRA VCTS	M	M	M	0.07	29.47	29.90	1.6	07	6.2	24	360	18	010	11
12	83	66	75	M	62	66	0	10	-	-	HZ	M	M	M	0.00	29.55	29.99	4.8	02	5.8	15	020	12	340	12
13	82	63	73	M	59	64	0	8	-	-	TS	M	M	M	T	29.58	30.01	2.7	09	4.7	17	090	12	070	13
14	78	64	71*	M	63	65	0	6	-	-	TSRA RA FG	M	M	M	0.66	29.47	29.93	5.8	10	8.9	37	350	28	340	14
15	90	63	77	M	62	67	0	12	-	-	VCTS	M	M	M	0.01	29.31	29.76	3.1	25	7.5	26	270	20	300	15
16	88	59*	74	M	61	66	0	9	-	-	TSRA	M	M	M	0.01	29.39	29.83	4.8	19	6.4	25	240	21	230	16
17	82	64	73	M	66	68	0	8	-	-	TSRA	M	M	M	0.44	29.41	29.85	6.7	17	9.0	35	330	24	340	17
18	82	66	74	M	68	70	0	9	-	-	BR	M	M	M	0.75s	29.39	29.83	6.1	17	9.3	44	060	32	060	18
19	85	66	76	M	68	72	0	11	-	-	BR	M	M	M	0.60s	29.32	29.76	4.4	17	8.6	48	270	33	290	19
20	90	76	83	M	71	75	0	18	-	-		M	M	M	0.00	29.29	29.72	12.4	18	12.7	30	200	23	180	20
21	89	71	80	M	71	74	0	15	-	-	RA	M	M	M	0.02	29.29	29.73	10.3	18	11.0	26	180	21	170	21
22	84	70	77	M	63	68	0	12	-	-		M	M	M	0.00	29.33	29.76	9.7	23	10.4	28	240	23	230	22
23	84	64	74	M	59	65	0	9	-	-		M	M	M	0.00	29.36	29.79	8.0	28	8.9	32	240	23	250	23
24	83	61	72	M	59	64	0	7	-	-		M	M	M	0.00	29.42	29.85	4.8	27	5.9	23	260	17	250	24
25	83	65	74	M	67	69	0	9	-	-	RA BR VCTS	M	M	M	0.25	29.44	29.88	6.5	12	7.6	20	140	15	110	25
26	85	66	76	M	68	70	0	11	-	-	TSRA RA BR VCTS	M	M	M	3.54	29.43	29.88	6.8	14	8.4	36	030	21	040	26
27	84	68	76	M	69	71	0	11	-	-	TSRA	M	M	M	0.59	29.44	29.89	2.0	22	6.4	35	250	28	240	27
28	85	64	75	M	64	68	0	10	-	-		M	M	M	0.00	29.59	30.01	4.1	36	4.9	17	300	12	330	28
29	85	66s	M	M	62	67	M	M	-	-	FG+ BR	M	M	M	0.00	29.60	M	2.0	14	M	13	150	8	130	29
30	88	63	76	M	65	69	0	11	-	-	BR	M	M	M	0.00	29.58	30.02	2.5	16	3.5	16	150	13	190	30

86.5	64.5	75.5		65.7	69.6	0.0	12.4	<-----Monthly Averages   Totals----->				M	M	0.00s	29.59	M	2.8	18	6.7	<Monthly Average					
M	M	M	<-----Departure From Normal----->											M											

Degree Days	Monthly	Season to Date	Greatest 24-hr Precipitation: 0.00s Date: M											Sea Level	Pressure	Time (LST)				
	Total	Departure	Total	Departure	Greatest 24-hr Snowfall: M Date: M											Maximum	30.09	30	0810	
Heating:	0	M	M	M	Greatest Snow Depth: M Date: M											Minimum	29.96	30	1951	
Cooling:	361	M	M	M	Number of Days with ----->											Max Temp >=90: 0s	Min Temp <=32: 0		Precipitation >=.01 inch: 0s	
																Max Temp <=32: 0	Min Temp <=0 : 0		Precipitation >=.10 inch: 0	
																Thunderstorms : 7	Heavy Fog : 1		Snowfall >=1.0 inch : M	

\* EXTREME FOR THE MONTH - LAST OCCURRENCE IF MORE THAN ONE.

Data Version: VER2

# QUALITY CONTROLLED LOCAL CLIMATOLOGICAL DATA

(final)

NOAA, National Climatic Data Center

Month: 07/2011

Station Location: SOUTHERN ILLINOIS AIRPORT (93810)

CARBONDALE/MURPHYBORO, IL

Lat. 37.779 Lon. -89.249

Elevation(Ground): 406 ft. above sea level

Date	Temperature (Fahrenheit)					Degree Days Base 65 Degrees			Sun		Significant Weather	Snow/Ice on Ground(In) Precipitation (In)				Pressure(inches of Hg)		Wind: Speed=mph Dir=tens of degrees							
	Max.	Min.	Avg.	Dep From Normal	Avg. Dew pt.	Avg. Wet Bulb	Heating	Cooling	Sunrise LST	Sunset LST		1200 UTC	1800 UTC	2400 LST	2400 LST	Avg. Station	Avg. Sea Level	Resultant Speed	Res Dir	Avg. Speed	max 5-second Speed	max 2-minute Dir			
	1	2	3	4	5	6	7	8	9	10		11	13	14	15	16	17	18	19	20	21	22	23	24	25
01	90	66*	78	M	67	71	0	13	-	-	BR	M	M	M	0.00	29.59	30.03	1.8	20	2.7	13	050	9	240	01
02	93	68	81	M	70	74	0	16	-	-	BR	M	M	M	0.00	29.57	30.02	2.1	21	2.7	18	200	9	250	02
03	95	70	83	M	70	72	0	18	-	-	TSRA RA BR VCTS	M	M	M	0.29	29.54	29.97	2.1	16	6.5	38	350	30	360	03
04	86	70	78*	M	69	72	0	13	-	-	RA BR VCTS	M	M	M	0.02	29.52	29.96	0.6	21	4.5	22	320	15	320	04
05	90	70	80	M	70	73	0	15	-	-	FG+ BR	M	M	M	0.00	29.52	29.96	0.8	01	1.8	14	330	9	080	05
06	92	70	81	M	71	74	0	16	-	-	FG BR HZ	M	M	M	0.00	29.52	29.95	1.3	22	2.8	13	230	10	210	06
07	91	70	81	M	71	73	0	16	-	-	TSRA RA BR VCTS	M	M	M	1.39	29.40	29.86	2.5	19	3.3	28	270	18	270	07
08	88	70	79	M	69	72	0	14	-	-	BR	M	M	M	0.00	29.38	29.82	4.9	35	6.2	17	040	14	040	08
09	90	67	79	M	69	73	0	14	-	-	FG+ BR HZ	M	M	M	0.00	29.48	29.90	3.0	13	3.4	17	150	10	130	09
10	95	70	83	M	75	77	0	18	-	-	BR	M	M	M	0.01s	29.46	29.89	5.1	16	5.4	23	190	14	170	10
11	99	81	90*	M	76	80	0	25	-	-	BR	M	M	M	0.00	29.46	29.89	6.1	23	6.9	20	240	14	250	11
12	99*	72	86	M	74	77	0	21	-	-	TS RA BR VCTS	M	M	M	1.93	29.47	29.91	1.4	15	4.8	40	360	30	350	12
13	90	72	81	M	72	75	0	16	-	-	BR	M	M	M	0.05	29.50	29.94	1.9	03	4.0	18	050	14	050	13
14	89	72	81	M	70	73	0	16	-	-	BR	M	M	M	0.00	29.47	29.91	4.9	06	5.4	16	070	12	080	14
15	89	71	80	M	69	72	0	15	-	-	BR HZ	M	M	M	0.00	29.48	29.92	3.4	06	4.0	14	090	10	070	15
16	91	70	81	M	71	74	0	16	-	-	BR HZ	M	M	M	0.01s	29.57	29.99	1.4	13	2.5	13	170	8	130	16
17	91	74	83	M	72	75	0	18	-	-	BR	M	M	M	0.00	29.67	30.10	4.4	19	4.6	21	170	14	190	17
18	93	73	83	M	72	76	0	18	-	-	BR	M	M	M	0.00	29.62	30.07	2.3	23	2.9	15	230	10	240	18
19	95	74	85	M	73	77	0	20	-	-	BR	M	M	M	0.00	29.51	29.95	4.2	22	4.9	14	230	10	230	19
20	97	76	87	M	73	77	0	22	-	-	BR	M	M	M	0.00	29.45	29.89	4.5	21	5.0	15	200	12	190	20
21	98	76	87	M	73	77	0	22	-	-	BR	M	M	M	0.00	29.45	29.88	2.3	20	3.6	12	230	8	180	21
22	97	76	87	M	74	78	0	22	-	-	BR	M	M	M	0.00	29.49	29.92	4.7	18	5.3	17	190	13	190	22
23	96	77	87	M	75	78	0	22	-	-	BR	M	M	M	0.00	29.54	29.97	6.1	18	6.3	25	190	14	180	23
24	95	74	85	M	74	76	0	20	-	-	RA BR VCTS	M	M	M	0.29	29.54	29.98	1.9	22	5.8	37	350	26	360	24
25	92	73	83	M	72	75	0	18	-	-	BR	M	M	M	0.03s	29.49	29.93	1.8	35	2.7	14	020	9	010	25
26	94	72	83	M	73	76	0	18	-	-	BR HZ	M	M	M	0.01s	29.42	29.87	1.7	16	2.6	18	090	8	190	26
27	95	72	84	M	73	76	0	19	-	-	BR HZ	M	M	M	0.00	29.47	29.90	4.7	18	4.9	17	170	14	200	27
28	97	72	85	M	72	76	0	20	-	-	BR	M	M	M	0.00	29.53	29.96	5.8	19	6.2	18	160	16	180	28
29	93	75	84	M	74	77	0	19	-	-	BR	M	M	M	0.00	29.57	30.00	6.0	20	6.2	18	200	13	210	29
30	94	73	84	M	74	75	0	19	-	-	RA BR	M	M	M	T	29.60	30.03	1.6	22	3.3	45	330	35	330	30
31	94	73	84	M	74	77	0	19	-	-	BR	M	M	M	M	29.62	30.05	1.0	04	2.0	13	020	8	020	31

93.2 72.2 82.7 72.0 75.1 0.0 18.0 <-----Monthly Averages | Totals-----> M M 4.03s 29.51 29.95 1.8 19 4.3 <Monthly Average

M M M <-----Departure From Normal-----> M

Degree Days	Monthly	Season to Date	Greatest 24-hr Precipitation: 1.93 Date: 12	Greatest 24-hr Snowfall: M Date: M	Greatest Snow Depth: M Date: M	Sea Level Pressure	Date	Time (LST)
	Total	Departure						
Heating:	0	M	M	M	Number of Days with ----->	Max Temp >=90: 27	Min Temp <=32: 0	Precipitation >=.01 inch: 10
Cooling:	558	M	M	M				
								Thunderstorms : 2

\* EXTREME FOR THE MONTH - LAST OCCURRENCE IF MORE THAN ONE.

Data Version: VER2

**QUALITY CONTROLLED LOCAL CLIMATOLOGICAL DATA**

(final)

NOAA, National Climatic Data Center

Month: 08/2011

Station Location: SOUTHERN ILLINOIS AIRPORT (93810)

CARBONDALE/MURPHYBORO, IL

Lat. 37.779 Lon. -89.249

Elevation(Ground): 406 ft. above sea level

Date	Temperature (Fahrenheit)					Degree Days Base 65 Degrees			Sun		Significant Weather	Snow/Ice on Ground(In) Precipitation (In)				Pressure(inches of Hg)		Wind: Speed=mph Dir=tens of degrees										
	Max.	Min.	Avg.	Dep From Normal	Avg. Dew pt.	Avg. Wet Bulb	Heating	Cooling	Sunrise LST	Sunset LST		1200 UTC	1800 UTC	2400 LST	2400 LST	Avg. Station	Avg. Sea Level	Resultant Speed	Res Dir	Avg. Speed	max 5-second		max 2-minute					
	1	2	3	4	5	6	7	8	9	10		11	13	14	15	16	17	18	19	20	21	22	23	24	25	26		
01	96	74	85	M	74	77	0	20	-	-	FG+ FG BR HZ	M	M	M	M	29.56	30.00	1.6	11	2.8	12	070	8	140	01			
02	98	69	84	M	70	74	0	19	-	-	FG+ FG BR HZ	M	M	M	0.14s	29.40	29.87	6.1	19	6.0	18	170	15	180	02			
03	98*	80	89*	M	75	79	0	24	-	-		M	M	M	0.00	29.36	29.78	2.9	30	7.0	21	220	16	220	03			
04	91	72	82	M	68	73	0	17	-	-	RA	M	M	M	T	29.47	29.90	2.3	06	4.0	3s	180	3s	170	04			
05	90	74	82	M	72	74	0	17	-	-	RA BR VCTS	M	M	M	0.14	29.47	29.90	2.4	17	3.5	4s	240	33	250	05			
06	92	75	84	M	76	78	0	19	-	-	TSRA BR VCTS	M	M	M	0.02	29.40	29.85	5.6	17	7.3	41s	240	30	230	06			
07	95	74	85	M	75	78	0	20	-	-	TS	M	M	M	0.01	29.36	29.81	5.1	23	5.2	25	230	20	220	07			
08	86	69	78	M	68	71	0	13	-	-	RA	M	M	M	T	29.31	29.77	5.7	23	6.6	20	230	15	250	08			
09	91	70	81	M	67	71	0	16	-	-		M	M	M	0.00	29.34	29.77	3.0	29	4.4	14	240	10	360	09			
10	88	66	77	M	65	69	0	12	-	-		M	M	M	T	29.43	29.85	3.6	35	5.2	21	330	13	350	10			
11	85	64	75	M	62	66	0	10	-	-		M	M	M	0.01s	29.52	29.94	1.2	03	2.1	13	040	10	050	11			
12	88	60	74	M	63	67	0	9	-	-	RA FG BR	M	M	M	0.12	29.52	29.96	2.6	17	3.6	29	270	21	270	12			
13	86	66	76	M	67	70	0	11	-	-	TS TSRA BR	M	M	M	0.90	29.47	29.91	3.3	27	4.7	48	330	40	330	13			
14	83	63	73	M	62	65	0	8	-	-	BR	M	M	M	0.01s	29.52	29.95	6.1	34	6.4	22	330	17	340	14			
15	79	59	69*	M	61	64	0	4	-	-	FG BR	M	M	M	0.01s	29.55	29.99	1.7	33	2.1	14	320	10	340	15			
16	84	57*	71	M	62	66	0	6	-	-	BR	M	M	M	0.01	29.58	30.02	0.6	18	1.4	13	190	9	200	16			
17	89	68	79	M	69	72	0	14	-	-		M	M	M	0.00	29.57	30.01	2.4	15	2.9	17	170	10	170	17			
18	92	70	81	M	71	73	0	16	-	-	TSRA RA BR	M	M	M	1.02	29.49	29.94	1.7	18	2.9	3s	170	3s	100	18			
19	86	70	78	M	70	72	0	13	-	-	TSRA RA BR	M	M	M	0.12	29.46	29.89	1.9	20	3.0	35s	290	24	280	19			
20	87	69	78	M	70	72	0	13	-	-	RA BR	M	M	M	T	29.47	29.93	0.9	19	3.5	26	130	21	130	20			
21	90	71	81	M	72	74	0	16	-	-	BR	M	M	M	0.00	29.54	29.96	1.3	25	3.2	15	330	12	320	21			
22	86	69	78	M	69	71	0	13	-	-	RA BR	M	M	M	0.02	29.57	30.02	0.6	08	1.0	12	060	8	110	22			
23	91	70	81	M	69	73	0	16	-	-		M	M	M	0.00	29.47	29.92	6.4	17	6.7	28	100	16	170	23			
24	93	75	84	M	70	74	0	19	-	-	HZ	M	M	M	0.00	29.39	29.83	10.7	21	10.8	28	200	21	190	24			
25	88	65	77	M	61	67	0	12	-	-		M	M	M	0.00	29.52	29.94	3.8	36	5.4	18	020	12	360	25			
26	88	61	75	M	63	67	0	10	-	-	BR	M	M	M	0.00	29.53	29.96	2.3	36	2.6	20	010	12	360	26			
27	91	63	77	M	64	69	0	12	-	-		M	M	M	0.01s	29.44	29.89	3.9	34	4.3	23	360	17	350	27			
28	87	63	75	M	57	64	0	10	-	-		M	M	M	0.00	29.44	29.88	5.8	35	6.3	24	360	16	350	28			
29	87	58	73	M	56	63	0	8	-	-		M	M	M	0.00	29.53	29.96	1.4	04	2.3	16	040	10	360	29			
30	90	58	74	M	60	65	0	9	-	-	BR	M	M	M	0.00	29.53	29.97	3.9	13	4.4	18	130	14	110	30			
31	93	67	80	M	64	70	0	15	-	-		M	M	M	0.00	29.54	29.98	6.6	18	7.0	24	200	20	210	31			
	89.3	67.4	78.4		66.8	70.6	0.0	13.6	<-----Monthly Averages   Totals----->			M	M	2.54s	29.47	29.91	1.0	22	4.5	<Monthly Average								
	M	M	M	<-----Departure From Normal----->										M														

Degree Days	Monthly	Season to Date	Total Departure		Total Departure		Greatest 24-hr Precipitation: 1.14 Date: 18-19		Greatest 24-hr Snowfall: M Date: M		Greatest Snow Depth: M Date: M		Sea Level Pressure Date		Time (LST)		Maximum 30.09 22 1026		Minimum 29.70 08 1628				
Heating:	0	M	M	M																			
Cooling:	421	M	M	M																			
Number of Days with ----->										Max Temp >=90: 15		Max Temp <=32: 0		Min Temp <=32: 0		Min Temp <=0 : 0		Heavy Fog : 2		Precipitation >=.01 inch: 13		Precipitation >=.10 inch: Snowfall >=1.0 inch : M	

\* EXTREME FOR THE MONTH - LAST OCCURRENCE IF MORE THAN ONE.

Data Version: VER2

**QUALITY CONTROLLED LOCAL CLIMATOLOGICAL DATA**

(final)

NOAA, National Climatic Data Center

Month: 09/2011

Station Location: SOUTHERN ILLINOIS AIRPORT (93810)

CARBONDALE/MURPHYBORO, IL

Lat. 37.779 Lon. -89.249

Elevation(Ground): 406 ft. above sea level

Date	Temperature (Fahrenheit)					Degree Days Base 65 Degrees			Sun		Significant Weather	Snow/Ice on Ground(In) Precipitation (In)				Pressure(inches of Hg)		Wind: Speed=mph Dir=tens of degrees							
	Max.	Min.	Avg.	Dep From Normal	Avg. Dew pt.	Avg Wet Bulb	Heating	Cooling	Sunrise LST	Sunset LST		1200 UTC	1800 UTC	2400 LST	2400 LST	Avg. Station	Avg. Sea Level	Resultant Speed	Res Dir	Avg. Speed	max 5-second		max 2-minute		
	1	2	3	4	5	6	7	8	9	10		11	13	14	15	16	17	18	19	20	21	22	23	24	25
01	97	68	83	M	66	71	0	18	-	-	BR	M	M	M	0.00	29.57	30.00	4.9	20	4.7	20	220	14	200	01
02	98	67	83	M	67	72	0	18	-	-	BR HZ	M	M	M	0.00	29.52	29.96	1.6	19	2.6	15	240	10	250	02
03	98*	70	84*	M	69	73	0	19	-	-	BR HZ	M	M	M	T	29.43	29.87	0.5	09	1.4	17	340	15	110	03
04	79	67	73	M	62	66	0	8	-	-		M	M	M	T	29.49	29.92	8.4	35	8.8	25	340	20	360	04
05	75	57	66	M	50	57	0	1	-	-		M	M	M	0.00	29.54	29.97	11.8	02	12.1	33	030	25	030	05
06	75	50	63	M	45	53	2	0	-	-		M	M	M	0.00	29.59	30.03	10.8	36	11.0	30	350	22	350	06
07	78	51	65	M	46	54	0	0	-	-		M	M	M	0.00	29.64	30.08	8.9	34	9.2	36	320	22	340	07
08	80	51	66	M	49	56	0	1	-	-		M	M	M	0.00	29.57	30.02	6.7	34	7.8	28	020	20	020	08
09	69	60	65	M	57	60	0	0	-	-	RA DZ BR	M	M	M	T	29.49	29.93	2.6	28	3.2	15	310	10	290	09
10	76	60	68	M	61	63	0	3	-	-	RA FG BR VCTS	M	M	M	0.02	29.54	29.99	1.7	25	2.3	14	240	12	230	10
11	83	59	71	M	60	63	0	6	-	-	FG+ FG BR	M	M	M	0.01s	29.60	30.04	0.9	34	1.2	15	010	8	300	11
12	87	54	71	M	59	64	0	6	-	-	FG BR HZ	M	M	M	0.00	29.59	30.04	2.8	19	3.3	16	250	13	210	12
13	95	63	79	M	59	66	0	14	-	-		M	M	M	0.00	29.49	29.93	7.5	21	7.8	25	240	20	230	13
14	71	56	64	M	58	60	1	0	-	-	TSRA RA BR VCTS	M	M	M	0.85	29.57	29.99	7.8	01	9.3	32	360	22	010	14
15	66	47	57	M	42	49	8	0	-	-		M	M	M	0.00	29.81	30.25	9.3	02	10.1	25	060	21	050	15
16	70	52	61	M	44	52	4	0	-	-		M	M	M	0.00	29.78	30.24	3.5	07	3.9	14	030	10	030	16
17	70	56	63	M	52	56	2	0	-	-	RA	M	M	M	0.01	29.73	30.19	0.7	08	1.2	10	120	7	090	17
18	75	58	67	M	63	64	0	2	-	-	TSRA RA BR VCTS	M	M	M	0.90	29.60	30.07	4.4	15	5.9	24	160	17	160	18
19	73	57	65	M	62	64	0	0	-	-	DZ FG+ FG BR	M	M	M	T	29.55	30.00	2.6	28	4.3	17	330	13	320	19
20	78	54	66	M	61	63	0	1	-	-	FG+ FG BR	M	M	M	0.01s	29.57	30.01	0.2	11	1.3	10	170	7	170	20
21	81	56	69	M	58	62	0	4	-	-	FG+ BR	M	M	M	0.01s	29.60	30.04	2.3	26	3.0	16	310	13	240	21
22	65	51	58	M	54	56	7	0	-	-	RA FG+ BR	M	M	M	0.13	29.68	30.13	2.7	34	3.2	13	330	10	330	22
23	69	47*	58	M	52	55	7	0	-	-	RA FG+ BR	M	M	M	0.13	29.60	30.07	2.0	20	2.3	21	220	16	210	23
24	65	54	60	M	55	57	5	0	-	-	TSRA RA BR	M	M	M	0.72	29.47	29.94	0.9	11	2.4	14	220	12	210	24
25	58	52	55*	M	54	55	10	0	-	-	RA BR VCTS	M	M	M	3.27	29.38	29.84	1.9	04	6.0	20	130	15	350	25
26	71	48	60	M	49	53	5	0	-	-	BR	M	M	M	0.01s	29.39	29.84	5.7	24	6.6	25	240	20	240	26
27	74	50	62	M	49	55	3	0	-	-	RA	M	M	M	T	29.41	29.84	5.5	26	7.0	22	240	16	260	27
28	76	49	63	M	55	59	2	0	-	-		M	M	M	T	29.40	29.84	2.6	28	3.6	17	330	12	340	28
29	86	55	71	M	51	59	0	6	-	-		M	M	M	0.01s	29.44	29.87	5.0	30	6.3	31	310	21	320	29
30	71	51	61	M	41	51	4	0	-	-		M	M	M	0.00	29.62	30.04	9.9	33	10.5	32	320	24	350	30

77.0	55.7	66.4		55.0	59.6	2.0	3.6	<-----Monthly Averages   Totals----->				M	M	6.08s	29.55	30.00	2.0	33	5.4	<Monthly Average					
M	M	M	<-----Departure From Normal----->											M											

Degree Days	Monthly	Season to Date	Greatest 24-hr Precipitation: 3.27 Date: 25													Sea Level	Pressure	Time (LST)					
	Total	Departure	Total	Departure	Greatest 24-hr Snowfall: M Date: M													Maximum	30.32	16	0823		
Heating:	60	M	M	M	Greatest Snow Depth: M Date: M													Minimum	29.74	25	1852		
Cooling:	107	M	M	M	Number of Days with ----->													Max Temp >=90:				Precipitation >=.01 inch:	13
																		Max Temp <=32:				Precipitation >=.10 inch:	
																		Thunderstorms :				Snowfall >=1.0 inch :	M

\* EXTREME FOR THE MONTH - LAST OCCURRENCE IF MORE THAN ONE.

Data Version:  
VER2

**QUALITY CONTROLLED LOCAL CLIMATOLOGICAL DATA**

(final)

NOAA, National Climatic Data Center

Month: 10/2011

Station Location: SOUTHERN ILLINOIS AIRPORT (93810)

CARBONDALE/MURPHYBORO, IL

Lat. 37.779 Lon. -89.249

Elevation(Ground): 406 ft. above sea level

Date	Temperature (Fahrenheit)					Degree Days Base 65 Degrees			Sun		Significant Weather	Snow/Ice on Ground(In) Precipitation (In)				Pressure(inches of Hg)		Wind: Speed=mph Dir=tens of degrees							
	Max.	Min.	Avg.	Dep From Normal	Avg. Dew pt.	Avg Wet Bulb	Heating	Cooling	Sunrise LST	Sunset LST		1200 UTC	1800 UTC	2400 LST	2400 LST	Avg. Station	Avg. Sea Level	Resultant Speed	Res Dir	Avg. Speed	max 5-second		max 2-minute		
	1	2	3	4	5	6	7	8	9	10		11	13	14	15	16	17	18	19	20	21	22	23	24	25
01	65	42	54	M	40	47	11	0	-	-		0	M	0.0	0.00	29.78	30.23	5.5	36	5.6	24	020	16	350	01
02	69	37	53	M	40	46	12	0	-	-		0	M	0.0	0.00	29.78	30.24	2.2	35	2.8	15	020	12	020	02
03	75	39	57	M	42	49	8	0	-	-		0	M	0.0	0.00	29.78	30.23	1.9	31	2.3	13	270	9	280	03
04	81	44	63	M	47	M	2	0	-	-		0	M	0.0	0.00	29.80	M	0.3	12	0.4	13	150	8	210	04
05	81	46	64	M	51	56	1	0	-	-	BR	0	M	0.0	0.00	29.76	30.22	1.0	15	1.2	14	150	9	170	05
06	82	50	66	M	54	58	0	1	-	-	BR	0	M	0.0	0.00	29.75	30.20	3.1	16	3.4	18	170	13	150	06
07	82	53	68	M	55	59	0	3	-	-	BR	0	M	0.0	0.00	29.81	30.26	3.8	17	4.2	20	170	15	170	07
08	80	53	67	M	55	59	0	2	-	-	BR	0	M	0.0	0.00	29.83	30.28	4.8	16	5.5	20	190	16	180	08
09	79	49	64	M	52	57	1	0	-	-	BR	0	M	0.0	0.00	29.78	30.23	2.6	13	3.0	18	140	14	110	09
10	79	49	64	M	55	59	1	0	-	-	BR	0	M	0.0	0.00	29.64	30.10	2.1	16	2.8	14	200	12	180	10
11	82	57	70	M	58	61	0	5	-	-	BR	0	M	0.0	0.00	29.48	29.95	0.3	12	0.3	10	090	9	100	11
12	75	56	66	M	60	62	0	1	-	-	TS TSRA RA BR	0	M	0.0	0.24	29.30	29.77	3.1	21	4.6	17	290	13	320	12
13	73	55	64	M	52	57	1	0	-	-	RA BR	0	M	0.0	0.06	29.23	29.66	7.0	28	8.1	28	310	18	310	13
14	73	50	62	M	39	50	3	0	-	-		0	M	0.0	0.00	29.42	29.84	8.5	28	8.9	17s	290	12s	290	14
15	71	43	57	M	38	48	8	0	-	-		0	M	0.0	0.00	29.59	30.03	4.1	27	6.0	21	280	16	270	15
16	85*	56	71*	M	45	56	0	6	-	-		0	M	0.0	0.00	29.47	29.92	8.9	22	13.4	31	230	23	220	16
17	67	47	57	M	39	49	8	0	-	-		0	M	0.0	0.00	29.47	29.94	3.7	03	4.4	20	010	15	350	17
18	51	45	48	M	43	45	17	0	-	-	RA BR VCTS	0	M	0.0	0.67	29.36	29.83	8.5	35	9.0	23	350	17	350	18
19	48	44	46*	M	40	43	19	0	-	-	RA	0	M	0.0	0.18	29.28	29.73	12.5	31	12.7	32	320	23	310	19
20	57	38	48	M	34	41	17	0	-	-		0	M	0.0	T	29.47	29.90	8.9	29	9.4	30	310	22	280	20
21	62	36	49	M	34	41	16	0	-	-		0	M	0.0	0.00	29.69	30.13	3.8	29	4.4	21	340	14	310	21
22	71	34	53	M	41	46	12	0	-	-		0	M	0.0	0.00	29.64	30.09	2.9	19	3.0	16	190	14	180	22
23	71	45	58	M	47	52	7	0	-	-	RA	0	M	M	T	29.59	30.04	5.4	19	5.6	21	200	15	210	23
24	75	45	60	M	45	52	5	0	-	-		0	M	0.0	0.00	29.70	30.13	2.6	27	6.1	21	330	15	320	24
25	79	46	63	M	46	55	2	0	-	-		0	M	0.0	0.00	29.54	30.02	13.8	19	14.4	38	210	30	210	25
26	70	50	60	M	50	54	5	0	-	-	TS RA BR	0	M	0.0	0.64	29.46	29.91	3.8	27	9.2	25	210	20	210	26
27	54	39	47	M	41	45	18	0	-	-	BR	0	M	0.0	0.02	29.62	30.05	7.5	35	7.9	23	350	18	350	27
28	58	36	47	M	37	42	18	0	-	-		0	M	0.0	0.00	29.70	30.15	1.8	02	3.4	16	020	12	040	28
29	61	32*	47	M	31	40	18	0	-	-		0	M	0.0	0.00	29.70	30.15	2.3	30	2.9	20	340	15	320	29
30	63	37	50	M	33	43	15	0	-	-		0	M	0.0	T	29.67	30.12	10.6	20	11.0	28	190	23	190	30
31	64	36	50	M	32	41	15	0	-	-		0	M	0.0	0.00	29.68	30.13	3.6	28	4.9	23	310	16	300	31

70.4 44.8 57.6 44.4 50.4 7.7 0.6 <-----Monthly Averages | Totals-----> M M 1.85s 29.60 30.05 2.0 26 5.8 <Monthly Average

M M M <-----Departure From Normal-----> M

Degree Days	Monthly	Season to Date	Greatest 24-hr Precipitation: 0.67 Date: 18	Greatest 24-hr Snowfall: M Date: M	Greatest Snow Depth: M Date: M	Sea Level Pressure Date	Time (LST)	Maximum 30.35 08 0856	Minimum 29.60 13 0429
	Total Departure	Total Departure							
Heating:	240	M M M	Number of Days with ----->	Max Temp >=90: 0	Max Temp <=32: 0	Thunderstorms : 3	Min Temp <=32: 1	Min Temp <=0 : 0	Heavy Fog : 0
Cooling:	18	M M M							

\* EXTREME FOR THE MONTH - LAST OCCURRENCE IF MORE THAN ONE.

Data Version: VER2

## QUALITY CONTROLLED LOCAL CLIMATOLOGICAL DATA

Effective January, 2005, flags will be available for most data elements:

If data are suspect:

s will appended to the value on the web form

s will be placed in a column following the suspect value in the ASCII form

If data are flagged as erroneous, it will not be printed.

### \*\*NOTICE OF CHANGE:

Effective July 28, 2000, observations contained in the Quality Controlled Local Climatological Data Hourly Observations table are reported in whole degrees Fahrenheit. The dry bulb, dew point and wet bulb temperatures were originally reported to the nearest tenth of a degree Fahrenheit. The Automated Surface Observing System (ASOS) records temperatures and dew points in whole degrees Fahrenheit and converts these values to the nearest tenth of a degree Celsius for observation transmission. Until this date, these values online have incorrectly been converted back to the nearest tenth of a degree Fahrenheit, implying a level of precision that is not present at the instrument level. We apologize for any inconvenience this may cause.

The Automated Weather Observing System (AWOS) generally records temperatures and dew points in whole degrees Fahrenheit and converts these values to the nearest whole degree Celsius for observation transmission. Also, AWOS stations will often have less data (i.e., fewer weather elements) than ASOS stations.

NCDC forms contain:

whole degree Celsius temperature values for AWOS stations

tenths degrees Celsius temperature values for ASOS stations

### FORMAT FOR DAILY TABLE

COLUMN	TERMINOLOGY
1	DATE
Temp	Degrees Fahrenheit
2	MAXIMUM
3	MINIMUM
4	AVERAGE
5	DEPARTURE FROM NORMAL
6	AVERAGE DEW POINT
7	AVERAGE WET BULB
Degree Days: Base 65 F	
8	HEATING (SEASON BEGINS WITH JULY)
9	COOLING (SEASON BEGINS WITH JANUARY)
10	SUNRISE (Calculated, not observed)
11	SUNSET (Calculated, not observed)
Significant Weather Types	Weather Phenomena
12	+FC TORNADO/WATERSPOUT FC FUNNEL CLOUD TS THUNDERSTORM GR HAIL RA RAIN

	DZ DRIZZLE SN SNOW SG SNOW GRAINS GS SMALL HAIL &/OR SNOW PELLETS PL ICE PELLETS IC ICE CRYSTALS FG+ HEAVY FOG (FG & LE.25 MILES VISIBILITY) FG FOG BR MIST UP UNKNOWN PRECIPITATION HZ HAZE FU SMOKE VA VOLCANIC ASH DU WIDESPREAD DUST DS DUSTSTORM PO SAND/DUST WHIRLS SA SAND SS SANDSTORM PY SPRAY SQ SQUALL DR LOW DRIFTING SH SHOWER FZ FREEZING MI SHALLOW PR PARTIAL BC PATCHES BL BLOWING VC VICINITY - LIGHT + HEAVY "NO SIGN" MODERATE
Snow/Ice	INCHES
13	SNOW/ICE (ON GROUND)(1200 UTC) T = TRACE M = MISSING DATA
14	WATER EQUIVALENT (1800 UTC) M = MISSING DATA
Precipitation:	INCHES (24-HR PERIOD ENDING AT INDICATED LOCAL STANDARD TIME)
15	SNOWFALL (INCHES AND TENTHS)(2400 LST)* T = TRACE M = MISSING DATA
16	WATER EQUIVALENT(INCHES & HUNDREDTHS(2400 LST) RAINFALL & MELTED SNOW M = MISSING DATA T = TRACE
Pressure	INCHES OF HG
17	AVERAGE STATION PRESSURE
18	AVERAGE SEA LEVEL PRESSURE
Wind	SPEED IN MILES PER HOUR DIRECTION TO TENS OF DEGREES
19	RESULTANT WIND SPEED
20	RESULTANT DIRECTION - (WHOLE DEGREES)
21	AVERAGE SPEED
22	MAXIMUM 5 SECOND SPEED
23	MAXIMUM 5 SECOND DIRECTION
24	MAXIMUM 2 MINUTE SPEED
25	MAXIMUM 2 MINUTE DIRECTION



26	DATE
	NOTE: RESULTANT WIND IS THE VECTOR SUM OF WIND SPEEDS AND DIRECTIONS
ELEMENTS:	
27	AVERAGE MONTHLY MAXIMUM TEMPERATURE (DEGREES F)
28	MONTHLY MAXIMUM TEMPERATURE DEPARTURE FROM NORMAL (DEGREES F)
29	AVERAGE MONTHLY MINIMUM TEMPERATURE (DEGREES F)
30	MONTHLY MINIMUM TEMPERATURE DEPARTURE FROM NORMAL (DEGREES F)
31	MONTHLY AVERAGE TEMPERATURE (DEGREES F)
32	MONTHLY AVERAGE TEMPERATURE DEPARTURE FROM NORMAL (DEGREES F)
33	MONTHLY AVERAGE DEW POINT (DEGREES F)
34	MONTHLY AVERAGE WET BULB (DEGREES F)
35	MONTHLY AVERAGE HDD
36	MONTHLY AVERAGE CDD
37	MONTHLY TOTAL HDD
38	MONTHLY HDD DEPARTURE FROM NORMAL
39	SEASON TO DATE TOTAL HDD
40	SEASON TO DATE DEPARTURE FROM NORMAL HDD
41	MONTHLY TOTAL CDD
42	MONTHLY CDD DEPARTURE FROM NORMAL
43	SEASON TO DATE TOTAL CDD
44	SEASON TO DATE DEPARTURE FROM NORMAL CDD
45	TOTAL MONTHLY SNOW/ICE WATER EQUIVALENT (INCHES)
46	TOTAL MONTHLY SNOWFALL (INCHES)*
47	GREATEST MONTHLY 24HR SNOWFALL (INCHES)
48	DATE OF GREATEST MONTHLY 24HR SNOWFALL
49	GREATEST MONTHLY 24HR SNOW DEPTH (INCHES)
50	DATE OF GREATEST MONTHLY 24HR SNOW DEPTH
51	TOTAL MONTHLY PRECIPITATION (INCHES)
52	MONTHLY PRECIPITATION DEPARTURE FROM NORMAL (INCHES)
53	GREATEST 24HR PRECIPITATION (INCHES)
54	DATE OF GREATEST 24HR PRECIPITATION
55	MONTHLY AVERAGE STATION PRESSURE (INCHES HG)
56	MONTHLY AVERAGE SEA LEVEL PRESSURE (INCHES HG)
57	MONTHLY RESULTANT WIND SPEED (MPH)
58	MONTHLY RESULTANT WIND DIRECTION (TENS OF DEGREES)
59	MONTHLY AVERAGE WIND SPEED (MPH)
60	MONTHLY MAXIMUM SEA LEVEL PRESSURE (INCHES OF HG)
61	DATE OF MONTHLY MAXIMUM SEA LEVEL PRESSURE
62	TIME OF MONTHLY MAXIMUM SEA LEVEL PRESSURE
63	MONTHLY MINIMUM SEA LEVEL PRESSURE (INCHES OF HG)
64	DATE OF MONTHLY MINIMUM SEA LEVEL PRESSURE
65	TIME OF MONTHLY MINIMUM SEA LEVEL PRESSURE
66	NUMBER OF DAYS WITH MAXIMUM TEMPERATURE >= 90 F
67	NUMBER OF DAYS WITH MAXIMUM TEMPERATURE <= 32 F
68	NUMBER OF DAYS WITH THUNDERSTORMS
69	NUMBER OF DAYS WITH MINIMUM TEMPERATURE <= 32 F
70	NUMBER OF DAYS WITH MINIMUM TEMPERATURE <= 0 F
71	NUMBER OF DAYS WITH HEAVY FOG
72	NUMBER OF DAYS WITH PRECIPITATION >= .01 INCH
73	NUMBER OF DAYS WITH PRECIPITATION >= .10 INCH
74	NUMBER OF DAYS WITH SNOWFALL >= 1.0 INCH

\* Not all stations report snow totals

M = Missing Data, or data that are not normally reported for the station.

- = values not available for sunrise/sunset.



**Table of Remarks and Supplemental Coded Data**

The following groups are reported in the **Remarks** section of the SWO reports. Remarks include clarifying or augmenting data concerning elements in the body of the SWO reports, additive coded data, and maintenance data. If an element or phenomena does not occur, is missing, or cannot be observed, the corresponding group and space are omitted (body and/or remarks) from that particular report, except for Sea-level Pressure (SLPppp). SLPNO shall be reported in a METAR when the SLP is not available. The left most column are examples.

<b>TORNADO, FUNNEL CLOUD or WATERSPOUT</b>	TORNADIC ACTIVITY	Augmented; report should include TORNADO, FUNNEL CLOUD or WATERSPOUT, time (after the hour) of beginning/end, location, movement; e.g.,TORNADO B25 N MOVE E
<b>AO2</b>	TYPE OF AUTOMATED STATION	AO1; automated station without a precipitation discriminator. AO2; automated station with precipitation discriminator.
<b>PK WND 20032/25</b>	PEAK WIND	PK WND dddff(F)/(hh)mm; direction in tens of degrees, speed in whole knots, time (reported in UTC) in minutes after the hour. Only minutes after the hour is included if the hour can be inferred from the report.
<b>WSHFT 1715</b>	WIND SHIFT,/FONT>	WSHFT followed by hours and minutes of occurrence. The term FROPA may be entered after the time if it is reasonably certain that the wind shift was a result of a frontal passage.
<b>TWR VIS 2</b>	TOWER OR SURFACE VISIBILITY	TWR VIS vvvvv: visibility reported by tower personnel,e.g., TWR VIS 2; SFC VIS vvvvv: visibility reported by ASOS or observer.
<b>VIS 3/4V1 1/2</b>	VARIABLE PREVAILING VISIBILITY	VIS v <sub>n</sub> v <sub>n</sub> v <sub>n</sub> v <sub>n</sub> Vv <sub>x</sub> v <sub>x</sub> v <sub>x</sub> v <sub>x</sub> v <sub>x</sub> ; reported if prevailing visibility is <3 statute miles and variable.
<b>VIS 3/4 RWY11</b>	VISIBILITY AT SECOND LOCATION	VIS vvvvv(LOC); reported if different than the reported prevailing visibility in the body of the report.
<b>FRQ LTG NE</b>	LIGHTNING	(FREQUENCY) LTG (LOCATION); when detected the frequency and location is reported, e.g., FRQ LTG NE, meaning frequent lightning to northeast of station. (See code details in table below)
<b>RAB07</b>	BEGINNING AND ENDING TIME OF PRECIPITATION AND THUNDERSTORMS	w'w'B(hh)mmE(hh)mm; TSB(hh)mmE(hh)mm, where w'w' is the present weather precipitation contraction, B indicates began, E indicates ended; (hh)indicates the hour (reported in UTC) the phenomena began or ended and can be omitted if the hour can be inferred from the report, mm indicates the minutes after the hour the phenomenon began or ended.
	VIRGA	Augmented to report by human observer; indicates precipitation not reaching the ground is observed.
<b>CIG 013V017</b>	VARIABLE CEILING	CIG h <sub>n</sub> h <sub>n</sub> h <sub>n</sub> Vh <sub>x</sub> h <sub>x</sub> h <sub>x</sub> ; reported if the ceiling in the body of the report is <3000 feet and variable.
<b>CIG 017</b>	CEILING HEIGHT	CIG hhh[LOC]; Ceiling height reported if secondary

<b>RWY11</b>	AT SECOND LOCATION	ceiometer site ceiling value is different than the ceiling height in the body of the report.
<b>PRESFR</b>	PRESSURE RISING OR FALLING RAPIDLY	PRESRR or PRESFR; pressure rising or falling rapidly at time of observation.
<b>SLP125</b>	SEA LEVEL PRESSURE	SLPppp; sea level pressure reported for ppp in tens, units, and tenths of hPa.
<b>P0003</b>	HOURLY PRECIPITATION AMOUNT	Prrrrr; in tens, units, tenths and hundredths of an inch since last regular hourly METAR. A trace is reported as P0000.
<b>60009</b>	3- AND 6-HOUR PRECIPITATION AMOUNT	6RRRR; precipitation amount, including water equivalent, to nearest 0.01 inches for past 6 hours reported in 00, 06, 12, and 18 UTC observations and for past 3 hours in 03, 09, 15, and 21 UTC observations. A trace is 60000.
<b>70015</b>	24-HOUR PRECIPITATION AMOUNT	7R <sub>24</sub> R <sub>24</sub> R <sub>24</sub> R <sub>24</sub> ; precipitation amount to nearest 0.01 inches for past 24 hours reported in 12 UTC observation; e.g., 70015 indicates 0.15 inches of precipitation for past 24 hours.
<b>T00640036</b>	HOURLY TEMPERATURE AND DEW POINT	Ts <sub>n</sub> T <sub>a</sub> T <sub>a</sub> T <sub>a</sub> T <sub>a</sub> s <sub>n</sub> T' <sub>a</sub> T' <sub>a</sub> T' <sub>a</sub> ; reported to nearest tenth of °C; s <sub>n</sub> : 1 if temperature or dew point below 0°C and 0 if temperature/dew point 0°C or higher.
<b>10066</b>	6-HOUR MAXIMUM TEMPERATURE	1s <sub>n</sub> T <sub>x</sub> T <sub>x</sub> T <sub>x</sub> ; maximum temperature for past 6 hours reported to nearest tenth of degree Celsius; reported on 00, 06, 12, 18 UTC reports; s <sub>n</sub> = 1 if temperature below 0°C and 0 if temperature 0°C or higher.
<b>21012</b>	6-HOUR MINIMUM TEMPERATURE	2s <sub>n</sub> T <sub>n</sub> T <sub>n</sub> T <sub>n</sub> ; minimum temperature for past 6 hours reported to nearest tenth of degree Celsius; reported on 00, 06, 12, 18 UTC reports; s <sub>n</sub> = 1 if temperature below 0°C and 0 if temperature 0°C or higher.
<b>400461006</b>	24-HOUR MAXIMUM AND MINIMUM TEMPERATURE	4s <sub>n</sub> T <sub>x</sub> T <sub>x</sub> T <sub>x</sub> s <sub>n</sub> T <sub>n</sub> T <sub>n</sub> T <sub>n</sub> ; maximum temperature for past 6 hours reported to nearest tenth of degree Celsius; reported on midnight local standard time reports; s <sub>n</sub> = 1 if temperature below 0°C and 0 if temperature 0°C or higher; e.g., 400461006 indicates a 24-hour maximum temperature of 4.6°C and a 24-hour minimum temperature of -0.6°C.
<b>58033</b>	PRESSURE TENDENCY	5appp; the character (a) and amount of change in pressure (ppp) in tenths of hPa for the past 3 hours. (See code details in table below)
<b>TSNO</b>	SENSOR STATUS INDICATORS	RVRNO: RVR missing; PWINO: precipitation identifier information not available; PNO: precipitation amount not available; FZRANO: freezing rain information not available; TSNO: thunderstorm information not available (may indicate augmenting weather observer not logged on); VISNO [LOC] visibility at second location not available, e.g. VISNO RWY06; CHINO [LOC]: (cloud-height- indicator) sky condition at secondary location not available, e.g., CHINO RWY06.
<b>\$</b>	MAINTENANCE	Maintenance is needed on the system.

	CHECK INDICATOR	
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### Table of Remarks Referring to Type and Frequency of Lightning

Type of Lightning		
Type	Contraction	Definition
Cloud-ground	CG	Lightning occurring between cloud and ground.
In-cloud	IC	Lightning which takes place within the cloud.
Cloud-cloud	CC	Streaks of lightning reaching from one cloud to another.
Cloud-air	CA	Streaks of lightning which pass from a cloud to the air, but do not strike the ground.

Frequency of Lightning		
Frequency	Contraction	Definition
Occasional	OCNL	Less than 1 flash per minute.
Frequent	FRQ	About 1 to 6 flashes per minute.
Continuous	CONS	More than 6 flashes per minute.

## HOURLY OBSERVATIONS DOCUMENTATION

WATER EQUIVALENT IN INCHES  
 T = TRACE PRECIPITATION AMOUNT  
 M = MISSING DATA

\*\* THE SUM OF THE HOURLY TOTALS IS GIVEN WHEN IT DIFFERS FROM THE DAILY TOTAL. NWS DOES NOT EDIT ASOS HOURLY VALUES BUT MAY EDIT DAILY AND MONTHLY TOTALS. HOURLY, DAILY, AND MONTHLY TOTALS ARE PRINTED AS REPORTED BY THE ASOS SITE.

HOURLY PRECIPITATION DATA ARE NOT NORMALLY AVAILABLE FOR AWOS SITES.

\*\* NCDC DERIVES THE MONTHLY SHORT DURATION PRECIPITATION FROM 1 MINUTE ASOS DATA. THE MONTHLY SHORT DURATION PRECIPITATION DATA ARE NOT PRINTED WHEN INCONSISTENT WITH ASOS HOURLY TOTALS.

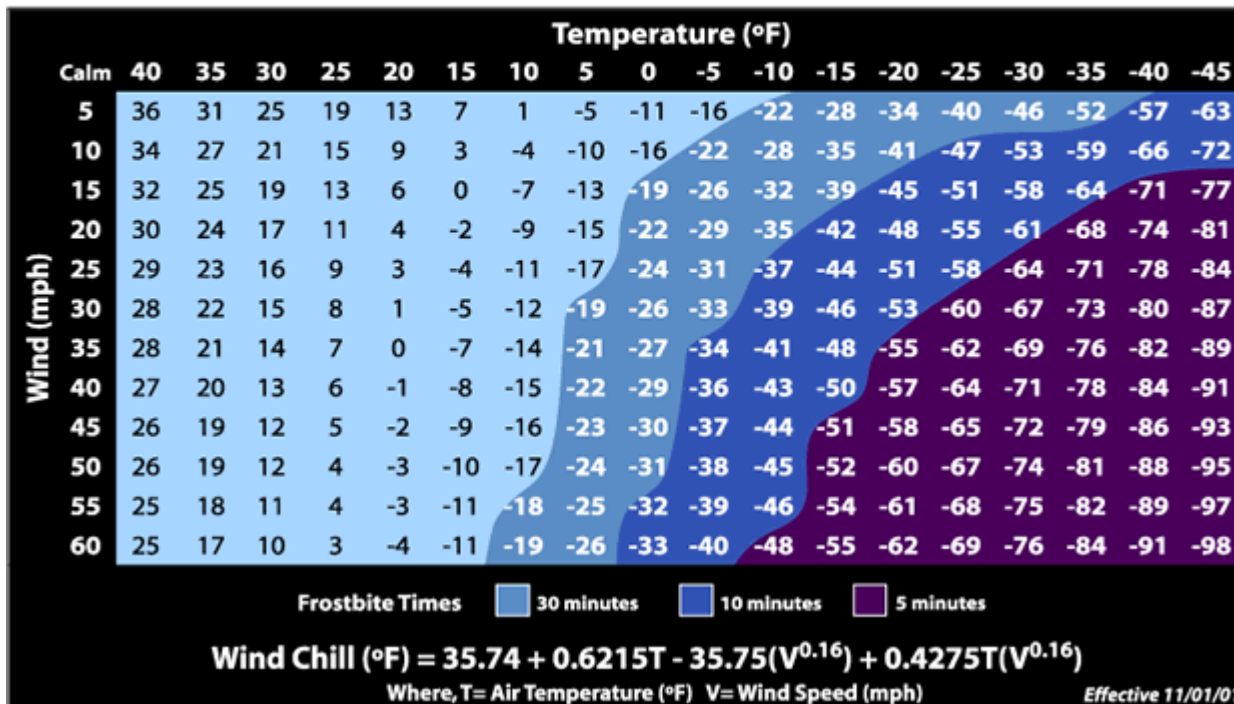
### NUMERICAL CODES LISTING FOR HOURLY OBSERVATIONS

COLUMN	TERMINOLOGY
1	DATE
2	TIME: TIME IN LST (LOCAL STANDARD TIME)
3	STATION TYPE 0 AMOS now AWOS, also USAF stations 4 MAPSO 5 Navy METAR 6 Navy Airways(obsolete) 8 SOD- Keyed from 10C 9 SOD/HPD- Keyed B16, F-6, Navy Forms 11 ASOS (NWS) 12 ASOS (FAA) 15 Climate Reference Network (CRN)
4	Sky Conditions SKY CONDITIONS BELOW 12,000 FEET AGL (ABOVE GROUND LEVEL) SKY CONDITIONS CONTRACTIONS ARE FOR EACH LAYER IN ASCENDING ORDER. NUMBERS FOLLOWING CONTRACTIONS ARE BASE HEIGHT IN HUNDREDS OF FEET ABOVE GROUND LEVEL (AGL). CLR: CLEAR BELOW 12,000 FT FEW: > 0/8 - 2/8 SKY COVER SCT SCATTERED: 3/8 - 4/8 SKY COVER BKN BROKEN: 5/8 - 7/8 SKY COVER OVC OVERCAST: 8/8 SKY COVER  VVXXX INDICATES INDEFINITE CEILING WITH THE VERTICAL VISIBILITY (XXX) LISTED IN HUNDREDS OF FEET.  WHEN CLOUDS ARE COMPOSED OF TOWERING CUMULUS OR CUMULONIMBUS, TCU OR CB (RESPECTIVELY) FOLLOW CLOUD HEIGHT.

	SOME STATIONS REPORT CLOUDS ABOVE 12,000 FEET.
5	VISIBILITY IN STATUTE MILES (SM)
6	(SEE DAILY TABLE #12 FOR EXPLANATION OF WEATHER TYPES)
7	DRY BULB TEMPERATURE (DEGREES F) WHOLE DEGREES
8	DRY BULB TEMPERATURE (DEGREES C) ASOS IN TENTHS; AWOS IN WHOLE DEGREES
9	WET BULB TEMPERATURE (DEGREES F) WHOLE DEGREES
10	WET BULB TEMPERATURE (DEGREES C) ASOS IN TENTHS; AWOS IN WHOLE DEGREES
11	DEW POINT TEMPERATURE (DEGREES F) WHOLE DEGREES
12	WET BULB TEMPERATURE (DEGREES C) ASOS IN TENTHS; AWOS IN WHOLE DEGREES
13	RELATIVE HUMIDITY (PERCENT)
14	WIND SPEED (MPH)
15	WIND DIRECTION (TENS OF DEGREES FROM TRUE NORTH) VRB = VARIABLE WITH SPEED EQUAL TO OR LESS THAN 6 KNOTS
16	WIND CHARACTERISTIC GUSTS (MPH)
17	STATION PRESSURE (INCHES IN HUNDREDTHS)
18	PRESSURE TENDENCY
19	NET 3 HOUR CHANGE (MILLIBARS)
20	SEA LEVEL PRESSURE (INCHES IN HUNDREDTHS)
21	REPORT TYPE: AA - METAR (AVIATION ROUTINE WEATHER REPORT) - HOURLY SP - METAR SPECIAL REPORT
22	PRECIPITATION TOTALS (INCHES AND HUNDREDTHS) HOURLY TOTALS IF COLUMN 20 IS "AA" (HOURLY METAR REPORT).
23	ALTIMETER (INCHES IN HUNDREDTHS)



# Wind Chill Chart



Source: <http://www.nws.noaa.gov/om/windchill/index.shtml>

Surface Weather Observations - METAR always have wind speeds originally reported in knots. The conversion table below will provide a quick conversion for winds from calm to 99 knots. The converted values are all rounded to the nearest integer. For a more accurate conversion use the following formula:

$$\text{KNOT} = 1.15155 \text{ MILES PER HOUR}$$

Knots to Miles Per Hour Conversion Chart										
K	0	1	2	3	4	5	6	7	8	9
T	MPH	MPH	MPH	MPH	MPH	MPH	MPH	MPH	MPH	MPH
S										
0	0	1	2	3	5	6	7	8	9	10
10	12	13	14	15	16	17	18	20	21	22
20	23	24	25	26	28	29	30	31	32	33
30	35	36	37	38	39	40	41	43	44	45
40	46	47	48	49	51	52	53	54	55	56
50	58	59	60	61	62	63	64	66	67	68
60	69	70	71	72	74	75	76	77	78	79
70	81	82	83	84	85	86	87	89	90	91
80	92	93	94	96	97	98	99	100	101	102
90	104	105	106	107	108	109	110	112	113	114

TEMPERATURE - HUMIDITY INDEX (STEADMAN, 1979)												
	RELATIVE HUMIDITY (PERCENT)											
	0	10	20	30	40	50	60	70	80	90	100	
T > 120	107	116	130	148								
E > 115	103	111	120	135	151							
M > 110	99	105	112	123	137	150						
P > 105	95	100	105	113	123	135	149					
E > 100	91	95	99	104	110	120	132	144				
R > 95	87	90	93	96	101	107	114	124	136			
A > 90	83	85	87	90	93	96	100	106	113	122		
T > 85	78	80	82	84	86	88	90	93	97	102	108	
U > 80	73	75	77	78	79	81	82	85	86	88	91	
R > 75	69	70	72	73	74	75	76	77	78	79	80	
E > 70	64	65	66	67	68	69	70	70	71	71	72	

**Pressure Tendency description:**

- 0: Increasing, then decreasing; atmospheric pressure the same or higher than 3 hours ago
- 1: Increasing then steady; or increasing, then increasing more slowly; atmospheric pressure now higher than 3 hours ago
- 2: Increasing (steadily or unsteadily); atmospheric pressure now higher than 3 hours ago
- 3: Decreasing or steady, then increasing; or increasing, then increasing more rapidly; atmospheric pressure now higher than 3 hours ago
- 4: Steady; atmospheric pressure the same as 3 hours ago
- 5: Decreasing, then increasing; atmospheric pressure the same or lower than 3 hours ago
- 6: Decreasing, then steady; or decreasing, then decreasing more slowly; atmospheric pressure



now lower than 3 hours ago

7: Decreasing (steadily or unsteadily); atmospheric pressure now lower than 3 hours ago

8: Steady or increasing, then decreasing; or decreasing, then decreasing more rapidly;  
atmospheric pressure now lower than 3 hours ago

9: Missing