

2000

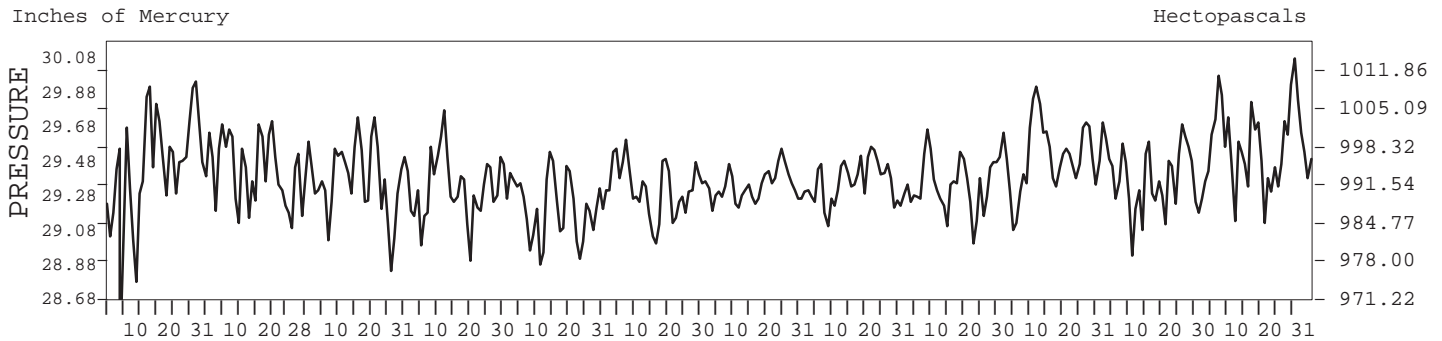
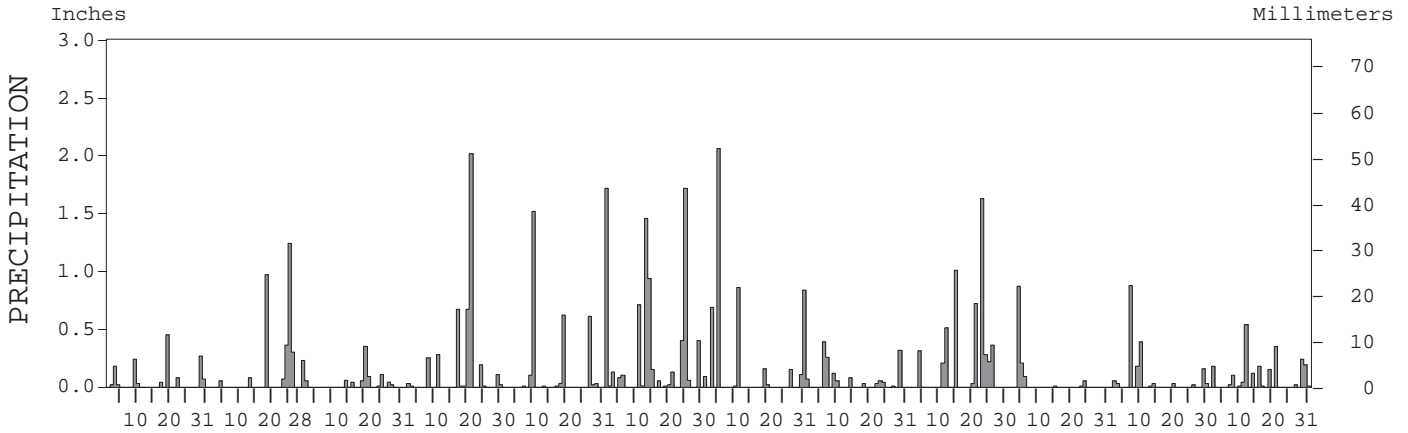
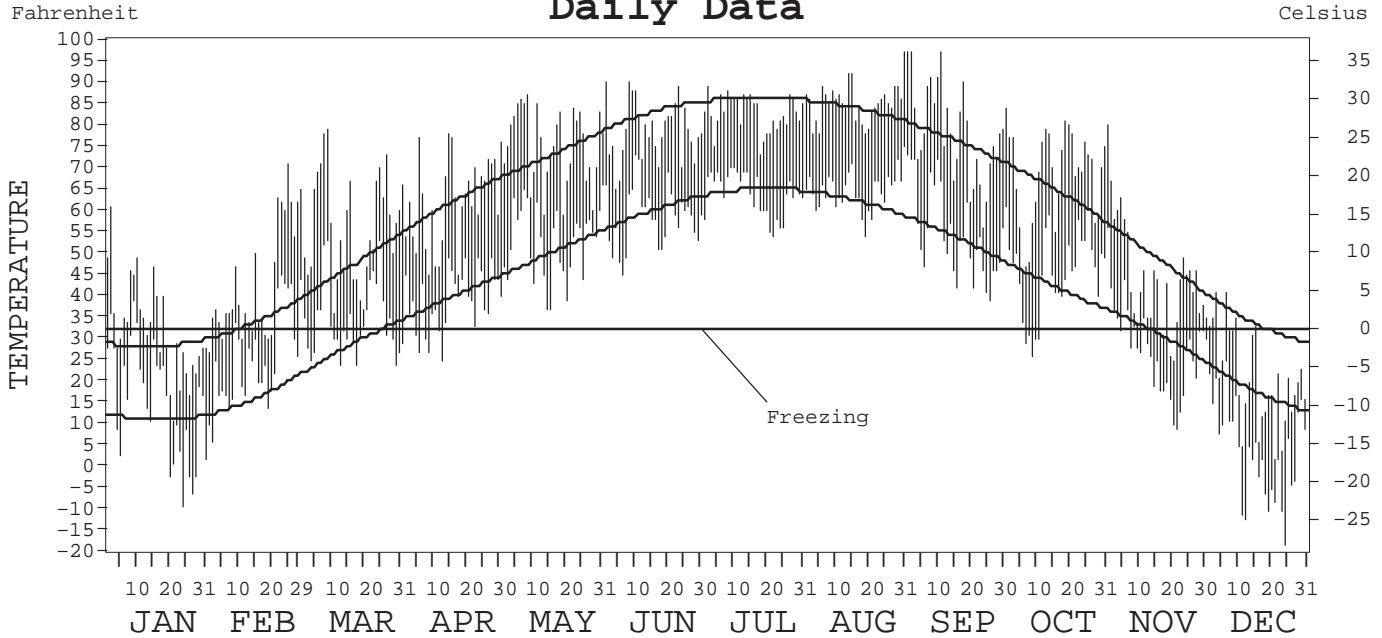
LOCAL CLIMATOLOGICAL DATA ANNUAL SUMMARY WITH COMPARATIVE DATA



ISSN 0198-1862

MOLINE, ILLINOIS (MLI)

Daily Data



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NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION	NATIONAL ENVIRONMENTAL SATELLITE, DATA, AND INFORMATION SERVICE	NATIONAL CLIMATIC DATA CENTER ASHEVILLE, NORTH CAROLINA	DIRECTOR NATIONAL CLIMATIC DATA CENTER
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METEOROLOGICAL DATA FOR 2000

MOLINE, IL (MLI)

LATITUDE: 41° 27' 55" N LONGITUDE: 90° 31' 24" W ELEVATION (FT): GRND: 605 BARO: 605 TIME ZONE: CENTRAL (UTC + 6) WBAN: 14923

ELEMENT		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	YEAR	
TEMPERATURE °F	MEAN DAILY MAXIMUM	32.3	43.0	56.3	62.1	75.3	78.6	82.8	85.2	78.1	68.1	44.5	21.5	60.6	
	HIGHEST DAILY MAXIMUM	61	71	79	78	87	90	89	97	97	84	80	41	97	
	DATE OF OCCURRENCE	02	25	08	14	08	08+	02	31	11+	01	01	07+	SEP 11+	
	MEAN DAILY MINIMUM	15.3	25.5	34.3	39.0	52.7	58.5	63.9	64.7	54.6	45.5	27.4	4.8	40.5	
	LOWEST DAILY MINIMUM	-9	6	24	25	37	45	54	54	39	26	9	-18	-18	
	DATE OF OCCURRENCE	24	02	29+	12	15+	06	22	19	26	09	22	25	DEC 25	
	AVERAGE DRY BULB	23.8	34.3	45.3	50.6	64.0	68.6	73.4	75.0	66.4	56.8	36.0	13.2	50.6	
	MEAN WET BULB		32.4	40.1	44.8	58.4	63.3	68.2	69.3	59.3	51.3	32.8	13.1		
	MEAN DEW POINT		28.4	33.7	37.9	53.8	59.5	65.5	66.2	54.4	46.0	28.2	9.0		
	NUMBER OF DAYS WITH:														
	MAXIMUM ≥ 90°	0	0	0	0	0	2	0	3	6	0	0	0	0	11
	MAXIMUM ≤ 32°	17	7	0	0	0	0	0	0	0	0	4	24	52	
	MINIMUM ≤ 32°	28	22	16	6	0	0	0	0	0	5	22	31	130	
MINIMUM ≤ 0°	5	0	0	0	0	0	0	0	0	0	0	11	16		
H/C	HEATING DEGREE DAYS	1268	883	606	427	112	29	0	98	263	866	1600	6152		
	COOLING DEGREE DAYS	0	0	1	0	88	142	266	317	146	18	3	981		
RH	MEAN (PERCENT)	77	78	67	66	72	74	78	77	70	70	76	80	74	
	HOUR 00 LST	80	84	75	74	80	86	89	87	78	80	82	83	82	
	HOUR 06 LST	82	85	83	79	86	85	90	90	87	83	84	83	85	
	HOUR 12 LST	69	70	55	55	63	63	65	62	55	55	65	76	63	
	HOUR 18 LST	77	74	55	55	59	62	67	68	60	65	73	80	66	
S	PERCENT POSSIBLE SUNSHINE														
W/O	NUMBER OF DAYS WITH:														
	HEAVY FOG (VISBY ≤ 1/4 MI)	5	3	2	1	2	3	1	3	0	5	0	2	27	
	THUNDERSTORMS	0	2	1	4	8	7	5	4	5	2	0	0	38	
CLOUDINESS	SUNRISE-SUNSET: (OKTAS)														
	CEILOMETER (≤ 12,000 FT.)														
	SATELLITE (> 12,000 FT.)														
	MIDNIGHT-MIDNIGHT: (OKTAS)														
	CEILOMETER (≤ 12,000 FT.)														
	SATELLITE (> 12,000 FT.)														
NUMBER OF DAYS WITH:															
CLEAR															
PARTLY CLOUDY															
CLOUDY															
PR	MEAN STATION PRESS. (IN.)		29.42	29.38	29.32	29.21	29.32	29.33	29.35	29.36	29.52	29.37	29.58		
	MEAN SEA-LEVEL PRESS. (IN.)		30.09	30.04	29.98	29.85		29.97		30.00	30.17	30.03			
WINDS	RESULTANT SPEED (MPH)		2.1	1.3	1.3	2.6	3.6	0.5	1.1	1.5	1.6	4.1	2.5		
	RES. DIR. (TENS OF DEGS.)		22	26	06	23	23	04	10	18	19	25	29		
	MEAN SPEED (MPH)	9.0	9.6	8.8	9.0	8.6	8.6	5.9	6.8	7.9	7.1	8.9	8.1	8.2	
	PREVAIL. DIR. (TENS OF DEGS.)	28	18	24	09	19	21	09	11	19	22	28	28	19	
	MAXIMUM 2-MINUTE WIND:														
	SPEED (MPH)	34	29	39	32	38	36	30	33	33	38	36	25	39	
	DIR. (TENS OF DEGS.)	26	25	21	19	08	27	02	35	01	06	25	32	21	
	DATE OF OCCURRENCE	02	26+	08	05	18	13	09	06	14	03	16	05	MAR 08	
	MAXIMUM 5-SECOND WIND:														
	SPEED (MPH)	44	36	52	40	41	49	38	41	45	44	43	33	52	
DIR. (TENS OF DEGS.)	26	19	20	20	32	26	03	36	01	06	24	32	20		
DATE OF OCCURRENCE	02	25+	08	05	31+	13	09	06	14	03	16	05	MAR 08		
PRECIPITATION	WATER EQUIVALENT:														
	TOTAL (IN.)	1.40	3.30	0.82	4.28	4.68	6.47	4.97	1.38	5.28	1.24	1.81	2.25	37.88	
	GREATEST 24-HOUR (IN.)	0.45	1.24	0.38	2.27	1.72	1.89	2.06	0.39	1.64	1.07	0.88	0.54	2.27	
	DATE OF OCCURRENCE	19	25	18-19	19-20	31	23-24	04	05	22-23	03-04	06	11	APR 19-20	
	NUMBER OF DAYS WITH:														
	PRECIPITATION ≥ 0.01	10	8	10	13	11	18	10	11	10	6	11	16	134	
PRECIPITATION ≥ 0.10	4	5	2	7	5	10	7	4	9	2	4	9	68		
PRECIPITATION ≥ 1.00	0	1	0	1	2	2	1	0	2	0	0	0	9		
SNOWFALL	SNOW, ICE PELLETS, HAIL:														
	TOTAL (IN.)	16.6	10.9	0.6	2.0	T	0.0	0.0	0.0	0.0	0.0	0.8	32.9	63.8	
	GREATEST 24-HOUR (IN.)	7.1	9.3	0.4	2.0	T	0.0	0.0	0.0	0.0	0.0	0.3	9.0	9.3	
	DATE OF OCCURRENCE	19	18	19	07	18						19+	11	FEB 18	
	MAXIMUM SNOW DEPTH (IN.)	9	9												
	DATE OF OCCURRENCE	30	19+												
	NUMBER OF DAYS WITH:														
SNOWFALL ≥ 1.0	5	1	0	1	0	0	0	0	0	0	0	9	16		

HEATING DEGREE DAYS (base 65°F) 2000 MOLINE, IL (MLI)

YEAR	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	TOTAL
1971-72	17	3	94	195	740	1026	1434	1280	893	504	155	25	6366
1972-73	8	7	80	459	824	1319	1170	1013	598	452	223	1	6154
1973-74	0	0	78	258	733	1274	1338	1061	812	360	235	32	6181
1974-75	0	8	180	349	739	1122	1235	1114	1058	593	117	14	6529
1975-76	9	0	162	297	594	1072	1413	855	731	385	235	2	5755
1976-77	0	5	123	569	1038	1403	1755	1059	656	286	54	15	6963
1977-78	0	5	50	420	780	1337	1625	1417	986	423	229	13	7285
1978-79	1	4	59	415	767	1305	1820	1445	884	521	172	12	7405
1979-80	5	22	95	415	831	1027	1280	1324	966	481	129	27	6602
1980-81	0	1	77	503	755	1180	1281	1055	783	322	253	3	6213
1981-82	12	9	91	459	710	1226	1682	1214	936	604	62	35	7040
1982-83	0	14	110	333	765	916	1175	917	802	578	228	17	5855
1983-84	1	0	110	377	654	1578	1406	880	1039	482	225	2	6754
1984-85	3	4	171	303	761	1042	1568	1203	692	293	66	25	6131
1985-86	0	4	133	347	888	1546	1231	1174	705	338	104	9	6479
1986-87	0	30	55	358	898	1078	1227	850	701	385	101	4	5687
1987-88	0	23	84	540	627	1046	1384	1250	807	427	90	15	6293
1988-89	1	9	45	544	736	1109	998	1326	863	461	240	28	6360
1989-90	0	4	138	334	785	1527	995	937	691	483	241	18	6153
1990-91	2	0	97	422	622	1248	1437	928	719	339	107	0	5921
1991-92	0	0	147	370	927	1049	1107	884	726	473	181	27	5891
1992-93	3	33	147	405	819	1158	1241	1156	936	488	116	53	6555
1993-94	0	1	153	433	827	1096	1557	1178	789	403	175	13	6625
1994-95	0	14	74	298	637	973	1343	1065	733	517	182	8	5844
1995-96	1	0	146	385	975	1206	1387	1151	995	519	253	27	7045
1996-97	0	0	110	356	966	1238	1474	1000	757	537	277	4	6719
1997-98	5	2	61	395	838	1110	1169	758	819	414	57	53	5681
1998-99	0	0	29	333	638	993	1390	837	869	376	103	18	5586
1999-00	0	2	129	361	581	1118	1268	883	606	427	112	29	5516
2000-	0	0	98	263	866	1600							

WBAN : 14923

COOLING DEGREE DAYS (base 65°F) 2000 MOLINE, IL (MLI)

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL
1971	0	0	0	9	32	355	203	225	212	44	0	0	1080
1972	0	0	0	3	102	165	312	294	138	6	0	0	1020
1973	0	0	0	2	2	226	312	323	103	27	0	0	995
1974	0	0	0	17	50	113	389	180	45	3	0	0	797
1975	0	0	0	1	85	241	325	319	44	29	0	0	1044
1976	0	0	0	26	12	175	341	221	72	13	0	0	860
1977	0	0	0	44	182	173	397	199	73	0	0	0	1068
1978	0	0	1	0	87	202	288	267	195	5	0	0	1045
1979	0	0	0	0	83	206	272	245	79	22	0	0	907
1980	0	0	0	11	65	158	395	343	107	1	0	0	1080
1981	0	0	0	8	27	191	275	209	50	0	0	0	760
1982	0	0	0	0	102	78	327	215	95	20	0	0	837
1983	0	0	0	1	12	260	453	459	138	14	0	0	1337
1984	0	0	0	9	21	268	261	327	116	3	0	0	1005
1985	0	0	0	64	71	165	292	154	172	0	0	0	918
1986	0	0	12	31	48	216	396	143	133	4	0	0	983
1987	0	0	0	20	162	298	453	277	71	0	3	0	1284
1988	0	0	0	0	69	263	416	410	112	3	0	0	1273
1989	0	0	4	13	53	159	356	236	52	20	0	0	893
1990	0	0	10	40	8	216	294	280	159	18	3	0	1028
1991	0	0	6	21	183	297	324	284	149	16	0	0	1280
1992	0	0	0	6	61	143	181	115	77	13	0	0	596
1993	0	0	0	0	60	217	335	317	39	8	0	0	976
1994	0	0	0	26	43	256	250	182	114	15	1	0	887
1995	0	0	0	0	11	256	365	427	69	6	0	0	1134
1996	0	0	0	0	46	208	229	253	69	6	0	0	811
1997	0	0	0	1	11	196	315	186	87	66	0	0	862
1998	0	0	11	0	109	201	321	297	166	4	0	0	1109
1999	0	0	0	2	61	223	440	192	83	9	2	0	1012
2000	0	0	1	0	88	142	266	317	146	18	3	0	981

SNOWFALL (inches) 2000 MOLINE, IL (MLI)

YEAR	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	TOTAL
1971-72	0.0	0.0	0.0	0.0	5.9	0.3	11.8	13.7	19.8	2.6	0.0	0.0	54.1
1972-73	0.0	0.0	0.0	2.0	6.7	6.6	0.4	8.6	0.5	0.9	0.0	0.0	25.7
1973-74	0.0	0.0	0.0	0.0	T	11.4	12.7	7.4	3.0	0.6	0.0	0.0	35.1
1974-75	0.0	0.0	0.0	0.0	15.6	8.8	7.6	19.3	12.2	6.2	0.0	0.0	69.7
1975-76	0.0	0.0	0.0	0.0	9.9	2.5	8.6	0.1	0.6	0.0	T	0.0	21.7
1976-77	0.0	0.0	0.0	0.0	7.7	4.1	12.3	2.5	10.8	1.0	0.0	0.0	38.4
1977-78	0.0	0.0	0.0	0.0	4.8	20.8	6.1	6.8	6.5	T	0.0	0.0	45.0
1978-79	0.0	0.0	0.0	0.0	7.1	21.7	26.7	4.5	3.4	0.6	0.0	0.0	64.0
1979-80	0.0	0.0	0.0	T	1.9	0.8	4.2	13.1	7.5	9.5	0.0	0.0	37.0
1980-81	0.0	0.0	0.0	2.4	1.1	4.5	5.3	5.6	T	0.0	0.0	0.0	18.9
1981-82	0.0	0.0	0.0	T	3.3	4.3	13.6	4.5	6.6	13.0	0.0	0.0	45.3
1982-83	0.0	0.0	0.0	0.0	T	0.5	4.7	6.2	12.7	0.7	0.0	0.0	24.8
1983-84	0.0	0.0	0.0	T	0.9	18.9	9.9	1.9	13.6	0.1	0.0	0.0	45.3
1984-85	0.0	0.0	0.0	0.0	T	9.3	13.4	7.5	0.2	T	0.0	0.0	30.4
1985-86	0.0	0.0	0.0	0.0	3.1	11.5	3.7	7.8	0.2	0.4	0.0	0.0	26.7
1986-87	0.0	0.0	0.0	0.0	2.2	0.2	9.1	T	0.1	0.0	0.0	0.0	11.6
1987-88	0.0	0.0	0.0	T	0.6	15.9	2.7	16.4	0.5	0.0	0.0	0.0	36.1
1988-89	0.0	0.0	0.0	T	1.0	2.5	T	13.8	0.4	T	T	0.0	17.7
1989-90	0.0	0.0	0.0	T	0.1	8.2	6.3	10.3	T	T	0.0	T	24.9
1990-91	0.0	0.0	0.0	0.0	T	7.5	11.1	1.5	5.4	0.0	0.0	0.0	25.5
1991-92	0.0	0.0	T	T	1.0	6.7	5.2	1.4	3.6	T	0.0	T	17.9
1992-93	0.0	0.0	0.0	T	0.6	7.2	7.0	6.4	3.0	1.0	T	0.0	25.2
1993-94	0.0	0.0	0.0	T	3.6	5.2	13.4	20.7	T	0.2	0.0	0.0	43.1
1994-95	T	0.0	0.0	0.0	T	1.8	22.2	0.9	3.5	0.1	T	0.0	28.5
1995-96	0.0	0.0	0.0	0.0	3.8	6.8	13.7	1.4	2.1	T	0.0	0.0	27.8
1996-97	0.0	0.0	0.0	0.0	2.1	6.9							
1997-98							8.5	0.2	4.1	T	0.0	0.0	
1998-99	0.0	0.0	0.0	0.0	2.6	2.7	19.0	2.6	11.2	0.0	0.0	T	38.1
1999-00	0.0	0.0	0.0	0.0	0.0	11.0	16.6	10.9	0.6	2.0	T	0.0	41.1
2000-	0.0	0.0	0.0	0.0	0.8	32.9							
POR= 67 YRS	T	0.0	0.0	0.2	2.2	7.4	8.4	5.9	5.6	1.0	0.0	T	30.7

WBAN : 14923

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 (1961 - 1990). ASOS INDICATES AUTOMATED SURFACE OBSERVING SYSTEM. PM INDICATES THE LAST DAY OF THE PREVIOUS MONTH. POR (PERIOD OF RECORD) BEGINS WITH THE JANUARY DATA MONTH AND IS THE NUMBER OF YEARS USED TO COMPUTE THE MEAN. INDIVIDUAL MONTHS WITHIN THE POR MAY BE MISSING. WHEN THE POR FOR A NORMAL IS LESS THAN 30 YEARS, THE NORMAL IS PROVISIONAL AND IS BASED ON THE NUMBER OF YEARS INDICATED. 0.* OR * INDICATES THE VALUE OR MEAN-DAYS-WITH IS BETWEEN 0.00 AND 0.05. CLOUDINESS FOR ASOS STATIONS DIFFERS FROM THE NON-ASOS OBSERVATION TAKEN BY A HUMAN OBSERVER. ASOS STATION CLOUDINESS IS BASED ON TIME-AVERAGED CEILOMETER DATA FOR CLOUDS AT OR BELOW 12,000 FEET AND ON SATELLITE DATA FOR CLOUDS ABOVE 12,000 FEET. THE NUMBER OF DAYS WITH CLEAR, PARTLY CLOUDY, AND CLOUDY CONDITIONS FOR ASOS STATIONS IS THE SUM OF THE CEILOMETER AND SATELLITE DATA FOR THE SUNRISE TO SUNSET PERIOD.</p>	<p>GENERAL CONTINUED: CLEAR INDICATES 0 - 2 OKTAS, PARTLY CLOUDY INDICATES 3 - 6 OKTAS, AND CLOUDY INDICATES 7 OR 8 OKTAS. WHEN AT LEAST ONE OF THE ELEMENTS (CEILOMETER OR SATELLITE) IS MISSING, THE DAILY CLOUDINESS IS NOT COMPUTED. WIND DIRECTION IS RECORDED IN TENS OF DEGREES (2 DIGITS) CLOCKWISE FROM TRUE NORTH. "00" INDICATES CALM. "36" INDICATES TRUE NORTH. RESULTANT WIND IS THE VECTOR AVERAGE OF THE SPEED AND DIRECTION. AVERAGE TEMPERATURE IS THE SUM OF THE MEAN DAILY MAXIMUM AND MINIMUM TEMPERATURE DIVIDED BY 2. SNOWFALL DATA COMPRISE ALL FORMS OF FROZEN PRECIPITATION, INCLUDING HAIL. A HEATING (COOLING) DEGREE DAY IS THE DIFFERENCE BETWEEN THE AVERAGE DAILY TEMPERATURE AND 65° F. DRY BULB IS THE TEMPERATURE OF THE AMBIENT AIR. DEW POINT IS THE TEMPERATURE TO WHICH THE AIR MUST BE COOLED TO ACHIEVE 100 PERCENT RELATIVE HUMIDITY. WET BULB IS THE TEMPERATURE THE AIR WOULD HAVE IF THE MOISTURE CONTENT WAS INCREASED TO 100 PERCENT RELATIVE HUMIDITY.</p> <p>ON JULY 1, 1996, THE NATIONAL WEATHER SERVICE BEGAN USING THE "METAR" OBSERVATION CODE THAT WAS ALREADY EMPLOYED BY MOST OTHER NATIONS OF THE WORLD. THE MOST NOTICEABLE DIFFERENCE IN THIS ANNUAL PUBLICATION WILL BE THE CHANGE IN UNITS FROM TENTHS TO EIGHTS(OKTAS) FOR REPORTING THE AMOUNT OF SKY COVER.</p>
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2000
MOLINE,
ILLINOIS (MLI)

The locality is in the heart of the Corn Belt. Agricultural crops include many important staple products in addition to corn. Cattle, hogs, horses, and poultry produced in Iowa and Illinois rank high in the nation. Close to the Mississippi River there is large scale truck gardening and considerable dairying. Field production of grains and livestock attains greater development farther away from the large streams, where the countryside is rolling prairie. Damaging droughts are not common. This, together with the variety of agricultural products, has led to designating the section as the Bread Basket of America.

The climate is favorable for many industries as evidenced by the large number and variety of manufacturing and other enterprises which have located and developed in the community. Among these are some of the largest producers of agricultural machinery in the world.

This area has a temperate continental climate, with a wide temperature range throughout the year. There are some intensely hot, unusually humid, periods in summer and severely cold periods in winter. Maxima of 90 degrees or more have occurred in summer as frequently as 55 days and zero or lower readings have occurred during every winter.

Freezing temperatures have occurred as late in spring as late May and as early in autumn as late September. Precipitation is usually well distributed throughout the year with the greatest amounts falling during the 177-day average crop growing season. Substantial weather changes frequently occur at three or four day intervals, as a direct result of proximity to some of the most important storm tracks.

STATION LOCATION

MOLINE, ILLINOIS

LOCATION	Occupied From	Occupied To	Airline Distances and Directions from previous Location	LATITUDE NORTH	LONGITUDE WEST	ELEVATION ABOVE										AUTOMATIC OBSERVING EQUIPMENT *	* TYPE M = AMOS T = AUTOB S = ASOS W = AWOS REMARKS
						GROUND											
						SEA LEVEL	GROUND	WIND INSTRUMENT	EXTREME THERMOMETERS	PSYCHROMETER	SUNSHINE SWITCH	TIPPING GAUGE	WEIGHING RAIN GAGE	8 INCH RAIN GAGE	HYGROMETER		
*NOTE: AIRPORT Terminal Building Quad City Airport	4/4/61	07/01/95	200' SE	41°27'	90°31'	582	i25 n30	17 n4	17 n4	27 n7	k16 n4	i5 j16 n4	15 n4	i4 m4 n4		i. Not moved 4/4/61. j. Effective 7/22/63. k. Added 6/1/64. m. Type change 6/27/85. n. Moved to field site 1/5/91.	
Quad City Airport	07/01/95	Present	NA	41°28'	90°31'	605								S	ASOS Commissioned 07/01/95		

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* NOTES: For earlier station history see previous edition.