

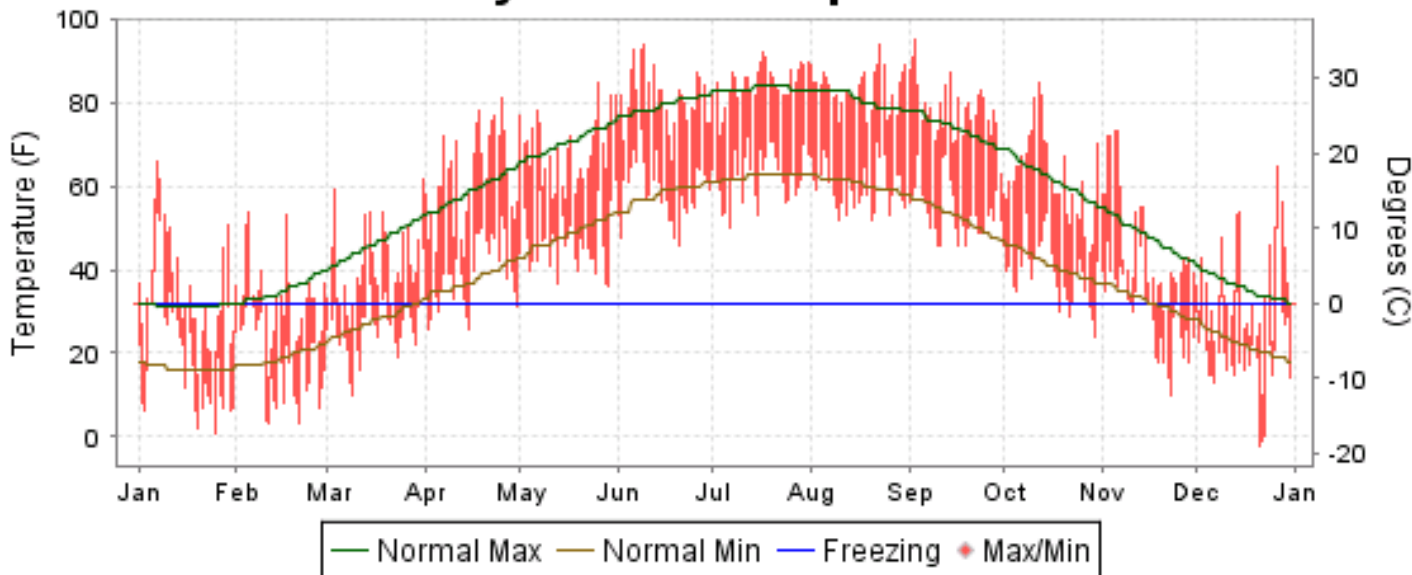


# 2008 LOCAL CLIMATOLOGICAL DATA ANNUAL SUMMARY WITH COMPARATIVE DATA

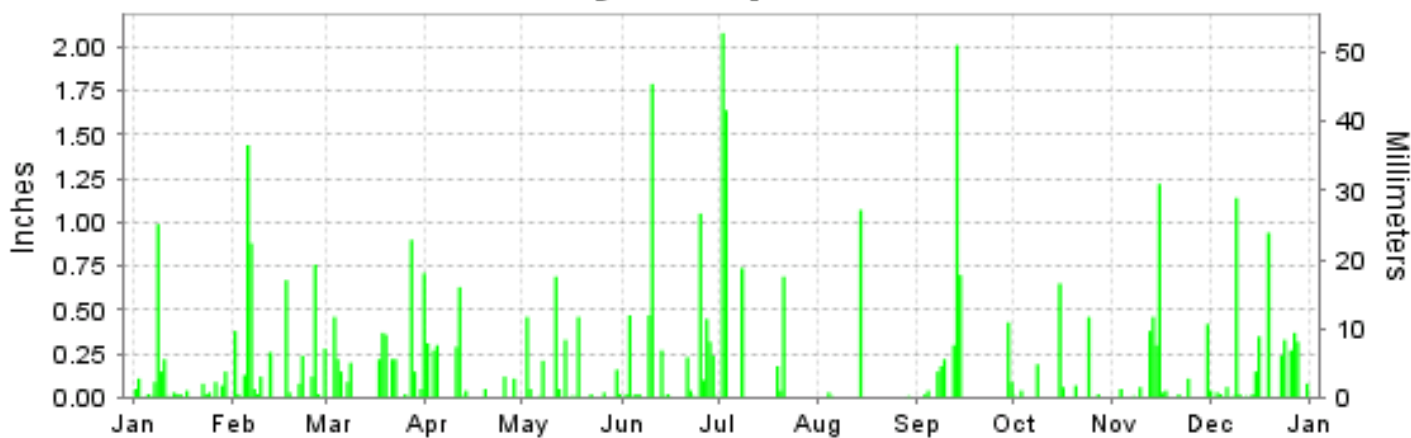
ISSN 0198-4012

## TOLEDO, OHIO (KTOL)

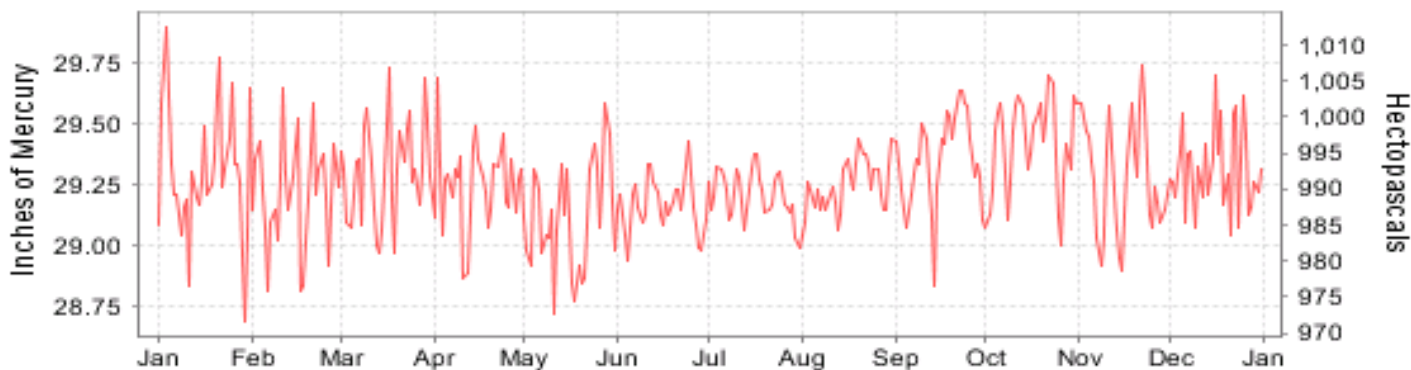
### Daily Max/Min Temperature



### Daily Precipitation



### Daily Station Pressure



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NATIONAL  
CLIMATIC DATA CENTER  
ASHEVILLE, NORTH CAROLINA

*Thomas R. Karl*  
DIRECTOR  
NATIONAL CLIMATIC DATA CENTER

# METEOROLOGICAL DATA FOR 2008

## TOLEDO (KTOL)

LATITUDE: 41 ° 35'N      LONGITUDE: -83 ° 48'W      ELEVATION (FT): GRND: 674    BARO: 693      TIME ZONE: EASTERN (UTC -5)      WBAN: 94830

ELEMENT		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	YEAR	
TEMPERATURE °F	MEAN DAILY MAXIMUM	35.3	32.4	41.4	62.4	68.6	81.0	84.7	83.5	78.5	62.2	46.4	35.4	59.3	
	HIGHEST DAILY MAXIMUM	66	54	62	81	85	94	92	94	95	85	73	65	95	
	DATE OF OCCURRENCE	07	05	31	25	26	09	17	23	03	12	06+	27	SEP 03	
	MEAN DAILY MINIMUM	19.5	17.5	26.2	39.1	46.5	59.1	62.4	59.9	54.1	39.5	30.3	20.0	39.5	
	LOWEST DAILY MINIMUM	1	3	10	26	36	46	50	52	46	24	10	-2	-2	
	DATE OF OCCURRENCE	25	21+	09	15+	29	20	06	20+	19+	30	23	21	DEC 21	
	AVERAGE DRY BULB	27.4	25.0	33.8	50.8	57.6	70.1	73.6	71.7	66.3	50.9	38.4	27.7	49.4	
	MEAN WET BULB	25.7	23.4	31.1	44.5	50.4	63.3	65.3	62.9	59.3	45.0	35.2	25.1	44.3	
	MEAN DEW POINT	20.6	18.9	25.8	36.7	43.0	58.8	60.3	57.4	54.7	38.9	29.7	20.8	38.8	
	NUMBER OF DAYS WITH:														
	MAXIMUM >= 90°	0	0	0	0	0	3	5	1	2	0	0	0	0	11
	MAXIMUM <= 32°	17	12	5	0	0	0	0	0	0	0	3	15	52	
MINIMUM <= 32°	27	28	27	6	0	0	0	0	0	6	17	28	139		
MINIMUM <= 0°	0	0	0	0	0	0	0	0	0	0	0	3	3		
H/C	HEATING DEGREE DAYS	1159	1152	959	421	244	12	1	1	30	431	790	1151	6351	
	COOLING DEGREE DAYS	0	0	0	2	21	172	275	213	78	1	0	0	762	
RH	MEAN (PERCENT)	74	77	73	62	62	70	66	65	71	67	71	77	70	
	HOUR 01 LST	78	81	79	74	74	84	80	80	86	77	77	80	79	
	HOUR 07 LST	79	84	78	71	68	75	73	75	82	80	79	79	77	
	HOUR 13 LST	66	70	62	46	46	54	48	44	48	47	58	72	55	
	HOUR 19 LST	76	75	72	56	58	67	63	62	72	72	74	78	69	
S	PERCENT POSSIBLE SUNSHINE														
W/O	NUMBER OF DAYS WITH:														
	HEAVY FOG(VISBY <= 1/4 MI)	0	4	3	3	1	5	0	0	0	0	1	2	19	
	THUNDERSTORMS	0	0	0	0	0	7	4	1	1	0	1	0	14	
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.)	29.31	29.23	29.31	29.26	29.12	29.17	29.21	29.24	29.36	29.42	29.29	29.32	29.27	
	MEAN SEA-LEVEL PRESS. (IN.)	30.09	30.00	30.08	30.01	29.86	29.90	29.94	29.98	30.09	30.17	30.05	30.10	30.02	
WINDS	RESULTANT SPEED (MPH)	8.5	3.3	0.8	1.6	2.7	4.7	4.3	1.6	0.7	2.1	4.7	6.3	3.2	
	RES. DIR. (TENS OF DEGS.)	24	25	32	22	26	24	25	31	36	26	25	24	25	
	MEAN SPEED (MPH)	11.3	9.3	8.7	8.3	8.7	7.3	6.5	5.8	5.3	6.7	7.9	10.8	8.1	
	PREVAIL.DIR.(TENS OF DEGS.)	25	24	25	09	24	23	24	25	06	24	24	24	25	
	MAXIMUM 2-MINUTE WIND														
	SPEED (MPH)	47	39	30	37	35	40	44	40	30	30	26	46	47	
	DIR. (TENS OF DEGS.)	26	24	23	25	25	26	36	36	24	24	25	26	26	
	DATE OF OCCURRENCE	30	18	25	01	03	25	02	14	29	26	16	28	JAN 30	
	MAXIMUM 3-SECOND WIND:														
	SPEED (MPH)	56	48	43	46	44	59	54	47	40	41	33	66	66	
DIR. (TENS OF DEGS.)	25	25	24	26	24	26	35	36	24	30	26	25	25		
DATE OF OCCURRENCE	30	18	25	01	03	06	02	14	29	26	16	28	DEC 28		
PRECIPITATION	WATER EQUIVALENT:														
	TOTAL (IN.)	2.20	5.50	4.34	2.13	2.51	5.55	5.37	1.12	4.14	1.50	3.10	4.40	41.86	
	GREATEST 24-HOUR (IN.)	1.02	1.70	0.92	0.78	0.74	2.26	3.72	1.07	2.05	0.71	1.29	1.16	3.72	
	DATE OF OCCURRENCE	08-09	05-06	27-28	10-11	11-12	09-10	02-03	14	12-13	15-16	14-15	09-10	JUL 02-03	
	NUMBER OF DAYS WITH:														
	PRECIPITATION 0.01	19	17	15	10	14	19	6	4	10	8	12	18	152	
PRECIPITATION 0.10	5	11	12	7	6	10	5	1	7	3	6	9	82		
PRECIPITATION 1.00	0	1	0	0	0	2	2	1	1	0	1	1	9		
SNOWFALL	SNOW,ICE PELLETS,HAIL														
	TOTAL (IN.)	6.2	23.6	17.4	T	0.0	0.0	0.0	0.0	0.0	T	2.4	7.0	56.6	
	GREATEST 24-HOUR (IN.)	1.6	7.6	3.8	T	0.0	0.0	0.0	0.0	0.0	T	1.1	3.2	7.6	
	DATE OF OCCURRENCE	02	26	08	13						27	15	16	FEB 26	
	MAXIMUM SNOW DEPTH (IN.)	2	5	4	0	0	0	0	0	0	0	1	3	5	
	DATE OF OCCURRENCE	02	26	22+								18	21+	FEB 26	
	NUMBER OF DAYS WITH:														
SNOWFALL >= 1.0	2	6	7	0	0	0	0	0	0	0	1	3	19		

# NORMALS, MEANS, AND EXTREMES TOLEDO (KTOL)

**LATITUDE:**  
41 ° 35'N

**LONGITUDE:**  
-83 ° 48'W

**ELEVATION (FT):**  
GRND: 674 BARO: 693

**TIME ZONE:**  
EASTERN (UTC -5)

**WBAN: 94830**

	ELEMENT	POR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	YEAR
<b>TEMPERATURE °F</b>	NORMAL DAILY MAXIMUM	30	31.4	35.1	46.5	58.9	70.7	79.5	83.4	81.0	74.0	62.1	48.3	36.0	58.9
	MEAN DAILY MAXIMUM	54	31.3	34.6	45.5	59.4	70.7	79.9	83.9	81.9	75.1	62.9	48.6	35.9	59.1
	HIGHEST DAILY MAXIMUM	53	66	71	81	88	95	104	104	99	98	91	80	70	104
	YEAR OF OCCURRENCE		2008	2000	1998	2002	1962	1988	1995	1993	1978	1963	2003	2001	JUL 1995
	MEAN OF EXTREME MAXS.	54	51.7	55.6	70.4	80.9	87.2	92.9	94.2	91.9	89.6	80.9	68.5	57.0	76.7
	NORMAL DAILY MINIMUM	30	16.4	18.9	27.9	37.7	48.6	58.2	62.6	60.7	52.9	41.6	32.6	22.3	40.0
	MEAN DAILY MINIMUM	54	16.6	18.7	27.1	37.5	47.5	56.8	61.3	59.6	51.9	40.9	31.9	21.8	39.3
	LOWEST DAILY MINIMUM	53	-20	-14	-6	8	25	32	40	34	26	15	2	-19	-20
	YEAR OF OCCURRENCE		1984	1982	1984	1982	2005	1972	1988	1982	1974	1976	1958	1989	JAN 1984
	MEAN OF EXTREME MINS.	54	-4.2	-0.7	8.9	21.7	32.5	42.8	48.9	47.0	35.7	25.2	16.0	1.1	22.9
	NORMAL DRY BULB	30	23.9	27.0	37.2	48.3	59.6	68.8	73.0	70.8	63.5	51.8	40.5	29.2	49.5
	MEAN DRY BULB	54	24.0	26.7	36.3	48.5	59.1	68.5	72.6	70.8	63.5	51.9	40.3	28.9	49.3
	MEAN WET BULB	25	24.0	25.5	32.7	42.7	52.7	61.9	65.9	64.9	57.9	47.0	37.3	27.6	45.0
	MEAN DEW POINT	25	20.6	21.9	28.1	37.5	48.4	58.2	62.8	62.4	54.8	43.4	33.7	24.7	41.4
	NORMAL NO. DAYS WITH:														
MAXIMUM >= 90	30	0.0	0.0	0.0	0.0	0.9	3.4	5.9	3.2	1.2	0.0	0.0	0.0	14.6	
MAXIMUM <= 32	30	16.7	12.6	4.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	1.7	10.6	45.8	
MINIMUM <= 32	30	28.5	24.6	21.5	9.6	1.0	*	0.0	0.0	0.4	6.1	16.8	26.0	134.5	
MINIMUM <= 0	30	4.3	3.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.4	8.9	
<b>H/C</b>	NORMAL HEATING DEG. DAYS	30	1281	1079	878	517	224	45	6	18	129	431	745	1107	6460
	NORMAL COOLING DEG. DAYS	30	0	0	1	7	42	148	248	190	73	6	0	0	715
<b>RH</b>	NORMAL (PERCENT)	30	77	75	70	66	67	69	71	76	76	74	76	79	73
	HOUR 01 LST	30	80	79	77	75	79	83	85	89	88	83	80	82	82
	HOUR 07 LST	30	81	81	81	79	80	82	86	91	92	87	83	83	84
	HOUR 13 LST	30	71	67	60	53	53	55	56	59	58	58	66	73	61
	HOUR 19 LST	30	76	72	65	58	57	59	61	68	71	71	74	78	68
<b>S</b>	PERCENT POSSIBLE SUNSHINE	40	41	46	50	52	60	64	65	63	61	54	37	33	52
<b>W/O</b>	MEAN NO. DAYS WITH:														
	HEAVY FOG(VISBY <= 1/4 MI) THUNDERSTORMS	45 54	1.7 0.1	1.7 0.5	1.8 1.5	0.8 3.2	0.8 4.4	1.1 6.1	0.8 6.1	1.5 5.1	1.7 2.9	1.7 1.1	1.4 0.8	2.4 0.1	17.4 31.9
<b>CLOUDNESS</b>	MEAN:														
	SUNRISE-SUNSET (OKTAS)														
	MIDNIGHT-MIDNIGHT (OKTAS)														
	MEAN NO. DAYS WITH:														
	CLEAR				2.0		2.0								
	PARTLY CLOUDY				1.0										
	CLOUDY	1	1.0	1.0	2.0										
<b>PR</b>	MEAN STATION PRESSURE(IN)	25	29.32	29.32	29.29	29.23	29.24	29.23	29.26	29.30	29.32	29.33	29.31	29.33	29.29
	MEAN SEA-LEVEL PRES. (IN)	25	30.09	30.09	30.05	29.98	29.98	29.97	29.99	30.03	30.06	30.08	30.07	30.10	30.04
<b>WINDS</b>	MEAN SPEED (MPH)	25	10.7	10.3	10.6	10.5	9.1	7.8	7.2	6.5	7.0	8.4	9.9	10.0	9.0
	PREVAIL.DIR(TENS OF DEGS)	34	25	25	07	07	24	24	24	25	25	24	25	25	25
	MAXIMUM 2-MINUTE:														
	SPEED (MPH)	13	47	46	46	48	46	53	44	43	38	45	51	48	53
	DIR. (TENS OF DEGS)		26	26	24	25	25	25	36	26	24	24	21	30	25
	YEAR OF OCCURRENCE		2008	2001	2002	1997	2000	2007	2008	1998	2001	1996	2005	1998	JUN 2007
	MAXIMUM 3-SECOND														
SPEED (MPH)	13	56	56	69	61	68	62	54	54	47	59	66	66	69	
DIR. (TENS OF DEGS)		25	26	23	27	27	26	35	26	23	25	24	25	23	
YEAR OF OCCURRENCE		2008	2001	2002	2003	1999	2007	2008	1998	2001	1996	1998	2008	MAR 2002	
<b>PRECIPITATION</b>	NORMAL (IN)	30	1.93	1.88	2.62	3.24	3.14	3.80	2.80	3.19	2.84	2.35	2.78	2.64	33.21
	MAXIMUM MONTHLY (IN)	53	4.61	5.50	5.70	6.10	6.80	8.48	9.19	8.47	8.10	6.26	6.86	6.81	9.19
	YEAR OF OCCURRENCE		1965	2008	1985	1977	2000	1981	2006	1965	1972	2001	1982	1967	JUL 2006
	MINIMUM MONTHLY (IN)	53	0.27	0.27	0.58	0.88	0.96	0.27	0.34	0.40	0.58	.27	0.55	0.54	0.27
	YEAR OF OCCURRENCE		1961	1969	1958	1962	1964	1988	1995	1976	1963	2005	1976	1958	OCT 2005
	MAXIMUM IN 24 HOURS (IN)	53	1.78	2.59	2.60	3.43	2.34	3.21	4.39	2.42	3.97	3.21	3.17	3.53	4.39
	YEAR OF OCCURRENCE		1959	1990	1985	1977	1991	1978	1969	1972	1972	1988	1982	1967	JUL 1969
NORMAL NO. DAYS WITH:															
PRECIPITATION >= 0.01	30	13.6	10.6	12.5	12.7	11.9	10.6	9.4	9.6	9.9	9.9	12.0	13.6	136.3	
PRECIPITATION >= 1.00	30	0.1	0.2	0.2	0.3	0.6	0.7	0.6	0.6	0.6	0.3	0.4	0.3	4.9	
<b>SNOWFALL</b>	NORMAL (IN)	30	10.8	8.5	5.6	1.3	0.1	0.0	0.0	0.0	0.0	0.2	2.6	8.3	37.4
	MAXIMUM MONTHLY (IN)	47	30.8	23.6	17.7	12.0	1.3	T	T	T	T	2.0	17.9	24.2	30.8
	YEAR OF OCCURRENCE		1978	2008	1993	1957	1989	1995	1992	1994	1993	1989	1966	1977	JAN 1978
	MAXIMUM IN 24 HOURS (IN)	47	12.0	7.7	9.7	9.8	1.3	T	T	T	T	1.8	8.3	13.9	13.9
	YEAR OF OCCURRENCE		2005	1981	1993	1957	1989	1995	1992	1994	1993	1989	1966	1974	DEC 1974
	MAXIMUM SNOW DEPTH (IN)	45	17	19	8	10	1	0	0	0	0	1	8	16	19
	YEAR OF OCCURRENCE		1978	1978	2002	1957	1989					1989	1966	1977	FEB 1978
NORMAL NO. DAYS WITH:															
SNOWFALL >= 1.0	30	3.3	2.8	1.7	0.4	0.0	0.0	0.0	0.0	0.0	0.1	1.0	2.5	11.8	

**PRECIPITATION (inches) 2008 TOLEDO (KTOL)**

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL
1979	1.24	0.70	2.55	4.03	3.15	4.23	3.96	4.71	2.90	2.02	4.25	2.46	36.20
1980	0.74	0.96	3.65	3.13	2.93	3.26	4.49	5.89	1.63	1.79	0.97	2.48	31.92
1981	0.48	3.27	0.63	3.54	2.38	8.48	3.72	2.28	6.05	3.79	0.84	2.93	38.39
1982	3.61	1.15	3.74	1.53	2.61	2.01	1.97	1.38	2.03	1.14	6.86	3.48	31.51
1983	0.88	0.59	1.86	4.28	3.98	4.06	3.39	2.15	1.42	3.59	5.56	3.91	35.67
1984	0.99	1.18	2.95	5.15	3.48	1.49	2.30	3.87	2.02	1.75	2.74	3.22	31.14
1985	2.02	3.23	5.70	1.40	1.85	2.90	3.86	4.30	2.53	3.05	5.89	1.62	38.35
1986	0.99	2.46	2.16	2.81	2.72	5.32	3.37	5.93	4.75	4.78	1.66	1.87	38.82
1987	1.87	0.53	1.78	1.72	2.32	5.62	1.51	4.45	2.31	2.21	2.59	3.80	30.71
1988	1.17	1.33	1.69	1.45	1.37	0.27	3.76	5.11	1.80	4.37	4.27	1.96	28.55
1989	1.80	0.74	2.03	3.50	4.87	6.74	6.31	3.59	3.30	1.36	1.89	1.29	37.42
1990	2.18	5.39	3.46	2.09	4.63	3.14	1.89	3.32	1.72	2.63	2.27	5.69	38.41
1991	1.41	1.42	1.42	4.29	4.82	1.51	0.52	1.94	0.73	5.53	2.15	1.51	27.25
1992	1.70	1.68	3.05	3.41	3.18	1.28	6.51	2.40	4.01	1.77	4.45	3.60	37.04
1993	3.17	1.71	3.46	3.06	1.13	4.60	1.60	1.15	4.50	1.51	2.73	1.25	29.87
1994	2.83	1.88	2.06	4.86	1.11	3.63	2.14	3.05	0.93	1.00	2.69	3.01	29.19
1995	3.07	0.57	1.59	4.52	2.96	4.46	0.34	2.72	1.41	3.71	2.72	0.89	28.96
1996	2.22	0.95	2.67	3.85	2.62	4.91	1.81	.74	2.74	1.75	2.79	2.92	29.97
1997	2.35	4.27	2.53	1.55	6.76	3.70	2.63	4.07	4.74	1.24	2.16	2.07	38.07
1998	2.96	3.77	3.32	4.54	2.07	1.73	2.70	5.44	0.96	2.13	1.63	0.61	31.86
1999	3.17	1.67	1.42	4.89	4.93	1.86	2.87	1.40	1.50	1.92	1.46	1.71	28.80
2000	1.19	1.08	1.84	3.55	6.80	5.52	2.29	4.15	4.98	2.83	1.36	2.53	38.12
2001	0.52	2.45	0.64	2.47	5.06	2.87	1.87	2.48	4.72	6.26	2.11	1.96	33.41
2002	2.67	1.67	3.07	4.14	3.31	2.00	1.94	1.22	2.10	1.70	2.60	2.67	29.09
2003	1.29	1.87	2.11	2.57	5.69	3.12	4.04	3.32	5.27	2.75	1.99	3.25	37.27
2004	1.29	0.44	2.36	0.97	4.67	3.89	2.57	4.10	1.41	2.36	3.33	2.08	29.47
2005	4.52	2.73	0.80	2.71	2.08	1.66	5.03	1.76	2.82	0.27	4.02	3.17	31.57
2006	2.93	1.86	2.48	1.35	6.60	3.91	9.19	3.23	2.35	4.29	3.03	4.49	45.71
2007	3.56	0.96	1.91	3.77	2.23	2.95	3.40	8.26	1.45	1.81	2.79	3.86	36.95
2008	2.20	5.50	4.34	2.13	2.51	5.55	5.37	1.12	4.14	1.50	3.10	4.40	41.86
POR= 54 YRS	1.98	1.88	2.45	3.05	3.21	3.56	3.25	3.21	2.72	2.24	2.71	2.67	32.93

WBAN : 94830

**AVERAGE TEMPERATURE (°F) 2008 TOLEDO (KTOL)**

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL
1979	17.6	15.1	38.7	45.5	57.9	67.7	70.1	68.8	63.0	51.3	40.6	32.1	47.4
1980	24.3	21.4	32.4	46.8	59.5	65.5	73.6	73.3	63.8	46.8	37.4	26.0	47.6
1981	17.6	28.5	36.5	49.9	55.4	68.4	71.7	69.8	61.3	47.7	39.6	27.4	47.8
1982	15.8	20.2	33.4	42.7	64.4	64.3	72.6	67.5	61.9	52.7	41.8	36.6	47.8
1983	27.6	30.5	37.9	44.2	54.8	67.9	74.7	73.8	64.2	51.9	41.3	20.0	49.1
1984	16.6	33.0	27.6	46.8	54.4	71.2	69.8	71.2	60.8	55.2	38.7	34.0	48.3
1985	19.5	22.6	39.3	53.5	61.6	64.8	73.2	69.1	64.0	53.3	43.9	22.3	48.9
1986	25.6	25.0	39.2	50.0	60.3	66.8	73.8	67.0	65.3	53.2	37.2	31.6	49.6
1987	25.8	30.0	39.7	50.3	62.5	70.8	74.9	71.0	63.8	45.4	44.4	33.0	51.0
1988	23.8	23.3	37.5	48.1	61.0	69.3	75.9	73.9	62.5	45.2	41.8	28.0	49.2
1989	33.1	24.5	36.7	45.5	57.2	68.2	73.2	69.8	61.8	52.2	38.5	16.8	48.1
1990	34.3	32.4	41.1	49.4	56.6	69.1	71.8	70.0	63.7	51.8	44.3	33.1	51.5
1991	25.2	31.6	40.3	52.6	67.0	72.6	74.6	73.0	62.9	55.0	37.9	33.0	52.1
1992	28.8	31.9	36.1	47.4	57.9	65.1	70.1	67.8	61.9	49.6	40.8	32.9	49.2
1993	30.2	24.7	34.3	48.3	60.6	68.1	76.1	74.3	61.1	49.8	39.7	29.5	49.7
1994	17.1	23.0	36.7	50.8	57.2	71.0	72.6	67.1	64.1	53.6	45.9	35.7	49.6
1995	28.2	25.7	40.5	46.8	60.1	72.3	76.5	78.5	62.8	55.8	36.6	25.4	50.8
1996	23.7	26.9	31.7	46.1	57.5	70.8	70.5	72.3	64.3	53.1	34.4	31.6	48.6
1997	21.9	31.4	38.6	46.2	52.5	68.8	71.7	67.3	62.4	52.1	36.6	31.3	48.4
1998	33.0	36.3	40.0	50.0	66.0	70.2	73.3	72.2	67.2	53.5	42.9	35.1	53.3
1999	24.4	33.6	34.4	50.7	62.6	70.8	77.3	69.7	65.1	51.5	44.8	31.0	51.3
2000	23.8	33.3	43.8	48.2	61.8	69.0	70.3	70.2	62.5	55.4	39.9	18.3	49.7
2001	26.0	30.4	35.2	51.5	61.4	68.7	72.7	73.4	63.1	53.6	48.5	37.0	51.8
2002	35.2	34.9	36.6	52.4	56.3	72.2	77.6	74.2	69.0	50.6	40.1	29.3	52.4
2003	20.8	23.9	36.5	48.8	56.9	66.3	71.6	72.8	62.9	51.8	45.4	31.8	49.1
2004	20.5	28.0	40.6	51.1	62.0	67.4	72.3	68.1	66.2	52.5	42.9	29.2	50.1
2005	24.2	29.3	34.0	50.2	56.4	74.3	74.9	73.9	67.3	54.3	42.9	25.2	50.6
2006	36.6	30.3	37.7	52.8	59.9	68.9	74.8	73.0	62.3	49.8	42.6	37.2	52.2
2007	29.9	17.3	40.9	47.8	63.0	70.7	71.1	73.2	66.5	59.0	39.8	29.5	50.7
2008	27.4	25.0	33.8	50.8	57.6	70.1	73.6	71.7	66.3	50.9	38.4	27.7	49.4
POR= 54 YRS	24.0	26.7	36.3	48.5	59.1	68.5	72.6	70.8	63.5	51.9	40.3	28.9	49.2

**HEATING DEGREE DAYS (base 65°F) 2008 TOLEDO (KTOL)**

YEAR	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	TOTAL
1979-80	16	33	121	440	724	1009	1258	1256	1005	542	199	83	6686
1980-81	0	3	113	560	822	1206	1464	1015	879	450	309	24	6845
1981-82	7	15	169	529	754	1160	1522	1250	972	665	81	76	7200
1982-83	3	47	148	386	690	871	1154	958	833	624	311	55	6080
1983-84	8	0	127	407	705	1389	1494	920	1151	545	341	9	7096
1984-85	11	15	173	297	782	951	1404	1182	791	368	158	58	6190
1985-86	0	16	138	356	626	1316	1216	1113	793	449	185	54	6262
1986-87	2	54	87	365	828	1027	1209	972	778	439	173	20	5954
1987-88	5	34	89	601	611	986	1269	1202	845	498	159	53	6352
1988-89	4	5	104	613	691	1141	979	1127	869	578	270	29	6410
1989-90	0	14	159	396	789	1488	947	907	742	492	262	31	6227
1990-91	4	3	125	415	612	981	1228	928	758	377	115	7	5553
1991-92	0	0	167	315	806	986	1116	953	889	525	245	62	6064
1992-93	7	25	146	473	719	987	1072	1123	943	493	156	48	6192
1993-94	0	3	151	465	756	1095	1479	1170	868	442	272	34	6735
1994-95	0	34	87	344	566	897	1137	1091	753	537	160	6	5612
1995-96	3	0	124	287	846	1221	1272	1099	1027	559	279	11	6728
1996-97	6	0	100	365	911	1027	1329	937	813	557	382	44	6471
1997-98	4	22	112	430	848	1037	985	795	783	447	63	72	5598
1998-99	0	3	52	363	655	920	1255	871	942	425	113	39	5638
1999-00	0	7	85	411	599	1047	1272	911	652	495	163	43	5685
2000-01	1	12	149	296	746	1445	1201	963	919	409	144	54	6339
2001-02	7	0	117	352	490	860	915	833	874	420	293	16	5177
2002-03	0	0	39	469	740	1099	1362	1143	877	491	242	55	6517
2003-04	0	1	102	409	582	1019	1374	1069	748	429	149	34	5916
2004-05	3	26	54	380	656	1102	1258	993	954	436	268	7	6137
2005-06	0	0	37	352	655	1229	875	964	840	360	216	15	5543
2006-07	0	0	114	469	667	852	1048	1328	739	515	140	18	5890
2007-08	3	9	65	238	753	1093	1159	1152	959	421	244	12	6108
2008-	1	1	30	431	790	1151							

WBAN : 94830

**COOLING DEGREE DAYS (base 65°F) 2008 TOLEDO (KTOL)**

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
1979	0	0	0	0	46	127	182	158	67	22	0	0	602
1980	0	0	0	3	35	106	275	265	84	4	0	0	772
1981	0	0	1	2	17	132	220	170	64	0	0	0	606
1982	0	0	0	0	68	61	245	132	62	11	0	0	579
1983	0	0	0	4	2	148	311	279	109	11	0	0	864
1984	0	0	0	5	17	203	168	214	51	1	0	0	659
1985	0	0	0	29	60	58	263	147	116	0	0	0	673
1986	0	0	1	4	48	113	282	125	103	4	0	0	680
1987	0	0	0	5	105	202	318	225	59	0	4	0	918
1988	0	0	0	0	43	190	350	286	39	5	0	0	913
1989	0	0	2	0	34	132	259	168	69	5	0	0	669
1990	0	0	7	32	11	164	222	164	91	14	0	0	705
1991	0	0	0	14	185	244	305	256	111	13	0	0	1128
1992	0	0	0	3	32	66	170	120	59	2	0	0	452
1993	0	0	0	0	26	148	351	297	41	1	0	0	864
1994	0	0	0	22	39	222	245	104	66	1	0	0	699
1995	0	0	0	0	16	230	367	426	64	8	0	0	1111
1996	0	0	0	2	53	191	184	234	85	2	0	0	751
1997	0	0	0	0	0	163	215	101	41	34	0	0	554
1998	0	0	13	0	100	233	263	236	126	11	0	0	982
1999	0	0	0	2	46	220	386	161	95	2	0	0	912
2000	0	0	2	0	69	168	170	182	82	6	0	0	679
2001	0	0	0	10	40	171	254	268	64	6	0	0	813
2002	0	0	0	50	32	240	398	290	165	29	0	0	1204
2003	0	0	0	9	2	101	216	250	47	7	1	0	633
2004	0	0	0	18	63	114	234	129	96	1	0	0	655
2005	0	0	0	0	10	294	317	281	114	28	0	0	1044
2006	0	0	0	4	64	141	310	256	42	4	0	0	821
2007	0	0	0	4	84	198	200	270	118	58	0	0	932
2008	0	0	0	2	21	172	275	213	78	1	0	0	762

## SNOWFALL (inches) 2008 TOLEDO (KTOL)

YEAR	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	TOTAL
1979-80	0.0	0.0	0.0	T	1.6	1.5	4.1	6.4	3.4	0.5	T	0.0	17.5
1980-81	0.0	0.0	0.0	0.9	3.5	11.6	6.9	11.2	3.6	0.0	0.0	0.0	37.7
1981-82	0.0	0.0	0.0	T	0.8	14.9	18.4	14.3	10.7	9.1	0.0	0.0	68.2
1982-83	0.0	0.0	0.0	T	2.2	1.2	0.7	4.1	3.6	0.7	0.0	0.0	12.5
1983-84	0.0	0.0	0.0	0.0	3.4	13.4	12.2	6.3	9.8	T	T	0.0	45.1
1984-85	0.0	0.0	0.0	0.0	2.4	5.1	14.0	12.4	2.6	2.0	0.0	0.0	38.5
1985-86	0.0	0.0	0.0	0.0	2.5	8.7	6.6	10.2	2.2	0.2	0.0	0.0	30.4
1986-87	0.0	0.0	0.0	T	4.5	1.3	20.5	0.5	10.0	2.4	0.0	0.0	39.2
1987-88	0.0	0.0	0.0	T	0.1	11.1	8.3	14.3	4.2	T	0.0	0.0	38.0
1988-89	0.0	0.0	0.0	T	2.3	6.6	2.4	4.8	2.6	0.7	1.3	0.0	20.7
1989-90	0.0	0.0	0.0	2.0	2.3	6.5	2.5	10.4	3.5	0.3	0.0	0.0	27.5
1990-91	0.0	0.0	0.0	0.0	T	8.2	5.0	10.1	T	T	0.0	0.0	23.3
1991-92	0.0	0.0	0.0	T	1.7	2.5	10.5	3.0	12.5	0.1	0.0	0.0	30.3
1992-93	T	0.0	0.0	1.0	0.2	5.2	6.3	10.2	17.7	0.8	0.0	0.0	41.4
1993-94	0.0	T	T	0.8	1.1	6.9	20.2	16.6	4.2	7.0	0.0	T	56.8
1994-95	0.0	T	0.0	0.0	T	4.8	13.6	1.2	2.6	0.1	0.0	T	22.3
1995-96	0.0	0.0	0.0	0.0	6.8	7.0	11.0	2.5	4.4	T	0.0	0.0	31.7
1996-97	0.0	0.0	0.0	0.0	8.1	15.6	15.1	3.3	3.2	T	0.0	0.0	45.3
1997-98	0.0	0.0	0.0	T	5.2	5.2	2.6	0.9	2.1	0.0	0.0	0.0	16.0
1998-99	0.0	0.0	0.0	0.0	0.0	0.5	21.9	7.3	12.7	0.0	0.0	0.0	42.4
1999-00	0.0	0.0	0.0	0.0	T	3.1	12.2	4.7	2.5	0.2	0.0	0.0	22.7
2000-01	0.0	0.0	0.0	0.0	1.2	26.0	3.2	1.9	5.2	T	0.0	0.0	37.5
2001-02	0.0	0.0	0.0	T	0.0	1.2	2.5	3.9	11.4	T	0.0	0.0	19.0
2002-03	0.0	0.0	0.0	0.0	5.7	13.6	14.1	18.8	3.7	0.5	0.0	0.0	56.4
2003-04	0.0	0.0	0.0	0.0	0.7	9.3	14.0	1.1	3.9	T	0.0	0.0	29.0
2004-05	0.0	0.0	0.0	0.0	0.5	10.0	27.6	6.4	7.5	4.0	0.0	0.0	56.0
2005-06	0.0	0.0	0.0	0.0	5.0	21.5	1.9	1.5	1.6	0.0	0.0	0.0	31.5
2006-07	0.0	0.0	0.0	T	T	1.6	6.7	14.2	3.6	2.4	0.0	0.0	28.5
2007-08	0.0	0.0	0.0	0.0	0.8	10.1	6.2	23.6	17.4	T	0.0	0.0	58.1
2008-	0.0	0.0	0.0	T	2.4	7.0							
POR= 54 YRS	T	T	T	0.1	2.8	8.6	9.8	7.9	6.1	1.3	T	T	36.6

WBAN : 94830

### REFERENCE NOTES :

<p>PAGE 1: THE TEMPERATURE GRAPH SHOWS NORMAL MAXIMUM AND NORMAL MINIMUM DAILY TEMPERATURES (SOLID CURVES) AND THE ACTUAL DAILY HIGH AND LOW TEMPERATURES (VERTICAL BARS).</p> <p>PAGE 2 AND 3: H/C INDICATES HEATING AND COOLING DEGREE DAYS. RH INDICATES RELATIVE HUMIDITY W/O INDICATES WEATHER AND OBSTRUCTIONS S INDICATES SUNSHINE. PR INDICATES PRESSURE. CLOUDINESS ON PAGE 3 IS THE SUM OF THE CEILOMETER AND SATELLITE DATA NOT TO EXCEED EIGHT EIGHTHS(OKTAS).</p> <p>GENERAL: T INDICATES TRACE PRECIPITATION, AN AMOUNT GREATER THAN ZERO BUT LESS THAN THE LOWEST REPORTABLE VALUE. + INDICATES THE VALUE ALSO OCCURS ON EARLIER DATES. BLANK ENTRIES DENOTE MISSING OR UNREPORTED DATA. NORMALS ARE 30-YEAR AVERAGES (1971 - 2000). ASOS INDICATES AUTOMATED SURFACE OBSERVING SYSTEM. PM INDICATES THE LAST DAY OF THE PREVIOUS MONTH. POR (PERIOD OF RECORD) BEGINS WITH THE JANUARY DATA MONTH AND IS THE NUMBER OF YEARS USED TO COMPUTE THE MEAN. INDIVIDUAL MONTHS WITHIN THE POR MAY BE MISSING. WHEN THE POR FOR A NORMAL IS LESS THAN 30 YEARS, THE NORMAL IS PROVISIONAL AND IS BASED ON THE NUMBER OF YEARS INDICATED. 0.* OR * INDICATES THE VALUE OR MEAN-DAYS-WITH IS BETWEEN 0.00 AND 0.05. CLOUDINESS FOR ASOS STATIONS DIFFERS FROM THE NON-ASOS OBSERVATION TAKEN BY A HUMAN OBSERVER. ASOS STATION CLOUDINESS IS BASED ON TIME-AVERAGED CEILOMETER DATA FOR CLOUDS AT OR BELOW 12,000 FEET AND ON SATELLITE DATA FOR CLOUDS ABOVE 12,000 FEET. THE NUMBER OF DAYS WITH CLEAR, PARTLY CLOUDY, AND CLOUDY CONDITIONS FOR ASOS STATIONS IS THE SUM OF THE CEILOMETER AND SATELLITE DATA FOR THE SUNRISE TO SUNSET PERIOD.</p>	<p>GENERAL CONTINUED: CLEAR INDICATES 0 - 2 OKTAS, PARTLY CLOUDY INDICATES 3 - 6 OKTAS, AND CLOUDY INDICATES 7 OR 8 OKTAS. WHEN AT LEAST ONE OF THE ELEMENTS (CEILOMETER OR SATELLITE) IS MISSING, THE DAILY CLOUDINESS IS NOT COMPUTED. WIND DIRECTION IS RECORDED IN TENS OF DEGREES (2 DIGITS) CLOCKWISE FROM TRUE NORTH. "00" INDICATES CALM. "36" INDICATES TRUE NORTH. RESULTANT WIND IS THE VECTOR AVERAGE OF THE SPEED AND DIRECTION. AVERAGE TEMPERATURE IS THE SUM OF THE MEAN DAILY MAXIMUM AND MINIMUM TEMPERATURE DIVIDED BY 2. SNOWFALL DATA COMPRISE ALL FORMS OF FROZEN PRECIPITATION, INCLUDING HAIL. A HEATING (COOLING) DEGREE DAY IS THE DIFFERENCE BETWEEN THE AVERAGE DAILY TEMPERATURE AND 65 F. DRY BULB IS THE TEMPERATURE OF THE AMBIENT AIR. DEW POINT IS THE TEMPERATURE TO WHICH THE AIR MUST BE COOLED TO ACHIEVE 100 PERCENT RELATIVE HUMIDITY. WET BULB IS THE TEMPERATURE THE AIR WOULD HAVE IF THE MOISTURE CONTENT WAS INCREASED TO 100 PERCENT RELATIVE HUMIDITY.</p> <p>ON JULY 1, 1996, THE NATIONAL WEATHER SERVICE BEGAN USING THE "METAR" OBSERVATION CODE THAT WAS ALREADY EMPLOYED BY MOST OTHER NATIONS OF THE WORLD. THE MOST NOTICEABLE DIFFERENCE IN THIS ANNUAL PUBLICATION WILL BE THE CHANGE IN UNITS FROM TENTHS TO EIGHTS(OKTAS) FOR REPORTING THE AMOUNT OF SKY COVER.</p> <p><b>NOTE:</b> 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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# 2008 TOLEDO OHIO (KTOL)

Toledo is located on the western end of Lake Erie at the mouth of the Maumee River. Except for a bank up from the river about 30 feet, the terrain is generally level with only a slight slope toward the river and Lake Erie. The city has quite a diversified industrial section and excellent harbor facilities, making it a large transportation center for rail, water, and motor freight. Generally rich agricultural land is found in the surrounding area, especially up the Maumee Valley toward the Indiana state line.

Rainfall is usually sufficient for general agriculture. The terrain is level and drainage rather poor, therefore, a little less than the normal precipitation during the growing season is better than excessive amounts. Snowfall is generally light in this area, distributed throughout the winter from November to March with frequent thaws.

The nearness of Lake Erie and the other Great Lakes has a moderating effect on the temperature, and extremes are seldom recorded. On average, only fifteen days a year experience temperatures of 90 degrees or higher, and only eight days when it drops to zero or lower. The growing season averages 160 days, but has ranged from over 220 to less than 125 days.

Humidity is rather high throughout the year in this area, and there is an excessive amount of cloudiness. In the winter months the sun shines during only about 30 percent of the daylight hours. December and January, the cloudiest months, sometimes have as little as 16 percent of the possible hours of sunshine.

Severe windstorms, causing more than minor damage, occur infrequently. There are on the average twenty-three days per year having a sustained wind velocity of 32 mph or more.

Flooding in the Toledo area is produced by several factors. Heavy rains of 1 inch or more will cause a sudden rise in creeks and drainage ditches to the point of overflow. The western shores of Lake Erie are subject to flooding when the lake level is high and prolonged periods of east to northeast winds prevail.

# Station Location

TOLEDO

LOCATION	Occupied From	Occupied To	Airline Distances and Directions from previous Location	Latitude		Longitude		ELEVATION ABOVE								REMARKS	
				NORTH	WEST	GROUND TEMPERATURE SITE	WIND INSTRUMENT	EXTREME THERMOMETERS	PSYCHROMETER	SUNSHINE SWITCH	TIPPING BUCKET RAIN GAUGE	WEIGHING RAIN GAUGE	8 INCH RAIN GAUGE	HYGROTHERMOMETER	AUTOMATIC OBSERVING EQUIPMENT *		
																	SEA LEVEL
<u>AIRPORT</u>																	
Toledo Municipal AP Transcontinental Hangar 9 miles SE of Federal Building	6/03/28	9/08/38		41° 34'	83° 28'	621	47	5	5								WB observations to 11/2/33, CAA thereafter.
Toledo Municipal AP Administration Hangar	9/08/38	1/12/55	350 ft. W	41° 34'	83° 28'	622	47	5	5		a4	a4	a3	c			CAA observations to 1/1/39, WB thereafter. a. Installed 2/1/43.
Toledo Express Airport Administration Building	1/12/55	12/01/95	15 mi. W	41° 36'	83° 48'	h669	d30	g19 i30	g19 i30	74	18 i30	18 i30	18 i30	c4	NA		c. Telepsychrometer (5') 7/1/49-1/22/55, (19') 1/12/55 until 10/1/59. Hygro. comm. 10/1/59. d. 72 feet to 11/8/58 and 20 feet to 11/1/68. g. Standby after 10/1/1959
Toledo Express Airport	12/01/95	Present	NA	41° 35'	83° 48'	j690									s		ASOS Commissioned 12/01/95 j. Ground Elevation

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