M82.2/73
U587c1
Gladwin, Mich.

LATITUDE 43° 59'
LONGITUDE 84° 29'
ELEV. (GROUND) 780 Feet

U. S. DEPARTMENT OF COMMERCE, WEATHER BUREAU
IN COOPERATION WITH **MICHIGAN WEATHER SERVICE**
CLIMATOGRAPHY OF THE UNITED STATES NO. 20 — 20

CLIMATOLOGICAL SUMMARY

STATION **GLADWIN, MICHIGAN**

MEANS AND EXTREMES FOR PERIOD 1933 - 1962

Month	Temperature (°F) Means: Daily maximum	Daily minimum	Monthly	Extremes: Record highest	Year	Record lowest	Year	** Mean degree days	Precipitation Totals (Inches): Mean	Greatest daily	Year	Snow, Sleet: Mean	Maximum monthly	Year	Greatest daily	Year	Mean number of days: Precip. .10 inch or more	Temperatures Max.: 90° and above	32° and below	Min.: 32° and below	0° and below	Month
(a)	30	30	30	30		30		30	30	30		30	30		30		30	30	30	30	30	
JANUARY	28.5	12.2	20.4	62	1944	-22	1951	1350	1.68	1.50	1938	11.2	31.4	1952	8.8	1952	5	0	21	30	5	JANUARY
FEBRUARY	30.0	11.5	20.8	56	1939	-30	1936	1300	1.53	1.40	1938	10.8	26.9	1959	10.0	1959	5	0	17	28	5	FEBRUARY
MARCH	38.9	20.1	29.5	79	1946+	-15	1943	1080	1.92	1.30	1942	6.9	13.5	1942	6.5	1957	5	0	8	28	2	MARCH
APRIL	54.7	31.6	43.2	86	1960	1	1939	650	2.67	1.80	1954	1.7	7.0	1935	6.7	1952	6	0	1	18	0	APRIL
MAY	67.3	42.0	54.7	91	1962+	21	1947	330	2.97	1.86	1955	0.1	2.5	1935	2.0	1935	7	*	0	4	0	MAY
JUNE	77.4	51.9	64.7	99	1934	30	1949+	100	3.41	3.32	1954	0	0		0		6	2	0	*	0	JUNE
JULY	82.0	55.8	68.9	105	1936	36	1940	30	2.94	3.56	1952	0	0		0		5	4	0	0	0	JULY
AUGUST	80.2	54.6	67.4	100	1955	31	1934	50	3.11	3.10	1939	0	0		0		6	3	0	*	0	AUGUST
SEPTEMBER	71.3	46.8	59.1	100	1939	22	1942	210	3.19	2.40	1947	T	T	1942	T	1942	6	1	0	2	0	SEPTEMBER
OCTOBER	60.2	37.3	48.8	87	1947	13	1936	490	2.70	2.98	1954	0.3	4.0	1933	4.0	1933	6	0	0	10	0	OCTOBER
NOVEMBER	43.9	27.5	35.7	77	1950	- 8	1950	880	2.49	2.17	1942	3.8	12.0	1959+	4.9	1949	6	0	4	22	*	NOVEMBER
DECEMBER	32.1	17.5	24.8	62	1951	-24	1946	1220	1.87	1.58	1959	9.0	27.5	1951	9.4	1940	5	0	16	29	3	DECEMBER
Year	55.5	34.1	44.8	105	JULY 1936	-30	FEB. 1936	7690	30.48	3.56	JULY 1952	43.8	31.4	JAN. 1952	10.0	FEB. 1959	68	10	67	171	15	Year

(a) Average length of record, years.

T Trace, an amount too small to measure.

** Base 65°F

+ Also on earlier dates, months, or years.

* Less than one half.

CLIMATE OF GLADWIN, MICHIGAN

Gladwin is located in the east central part of Lower Michigan about thirty miles west of Saginaw Bay. The land is level and mostly poorly drained loam to clay loam with over half having eighteen to forty two inches of overlaying wet or dry sandy loam and is devoted largely to range and second growth forest.

The climate of the Gladwin area is not influenced as much by the Great Lakes as some other Michigan areas because of the considerable distance from Lake Michigan and the thirty mile distance from Lake Huron. Winters are colder and summers warmer than at locations nearer the lakes.

Available weather data for the Gladwin area show that the highest temperature ever recorded here is 105° on July 13, 1936. The lowest of record is 39° below zero on February 20, 1929. Temperatures reach the 90° mark on an average of ten days per summer and reach the 100° mark in about one summer out of eight. At the other extreme, temperatures fall to zero or lower on an average of fifteen days during a winter season.

The coldest month of record is January, 1912, when the mean temperature (an average of the daily high and low temperatures) was 6.1°. The warmest month of record is July, 1955 when the mean temperature was 73.9°. The average dates of the last freezing temperature in the spring and the first in the fall are May 20th and September 25th, respectively.

Precipitation is heaviest during the growing season and averages 60% of the annual total for the six months period, April through September. The wettest month is June with an average rainfall of 3.41 inches. The lowest monthly average precipitation is February with 1.53 inches. The wettest single month of record is May, 1912 when a total of 11.90 inches of rain fell. Driest month of record is March, 1910 when only a trace was measured. Hourly amounts of as much as 1.10 inches may be expected about once in two years and two hourly amounts of as much as 1.40 inches may be expected about once in two years. Twenty-four hour amounts of as much as 3.7 inches occur about once in twenty-five years and twenty-four hour amounts of 4.2 inches will occur about once in fifty years.

Snowfall averages 43.8 inches during a winter season with considerable season to season variation. Totals have varied from as much as 102.4 inches in the 1951-1952 season to as little as 16.0 inches during the 1936-1937 season. The most frequent seasonal amount is between thirty and fifty inches. Six months of the year usually have measurable amounts of snowfall.

As in other parts of Michigan, cloudiness is greatest in late fall and early winter, although this cloudiness is not as pronounced as at locations nearer the lakes, especially Lakes Michigan and Superior. Spring and summer have a much larger percentage of clear and partly cloudy days. Prevailing wind direction in the area is southwest and average velocity is greatest in the early spring and lowest in late summer and early fall.

Degree day data is provided as an index of heating requirements for buildings. For example; April averages 650 degree days and February, 1300 degree days, which means that during an average February, fuel necessary for heating will be twice that required for April. Degree days for a single day are obtained by subtracting the mean temperature from 65°. The need for heating of buildings is considered none or slight if a day has an average temperature of 65° or higher.

A. H. Eichmeier
State Climatologist
Weather Bureau Office
East Lansing, Michigan

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WEATHER BUREAU

Total Precipitation (Inches)

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Ann'l
1933	.87	1.73	1.56	4.00	4.55	2.69	1.84	1.85	2.86	5.83	1.69	1.95	31.42
1934	1.00	.25	2.08	1.27	.83	1.84	1.36	2.09	5.12	2.15	4.19	.77	22.95
1935	1.46	.63	2.46	1.25	1.57	3.63	2.94	4.16	1.16	1.44	2.54	.74	23.98
1936	1.36	.73	1.01	1.75	1.72	1.04	1.01	3.22	4.03	3.68	1.48	2.67	23.70
1937	2.19	.96	.35	4.27	2.05	2.33	4.21	1.62	4.41	2.21	2.77	1.19	28.56
1938	2.62	3.83	2.74	.81	2.99	2.05	1.56	3.24	2.57	.86	1.56	1.57	26.40
1939	1.65	2.45	1.16	3.23	2.44	3.68	.42	7.18	3.48	1.68	.42	1.50	29.29
1940	1.91	.70	1.39	2.36	3.96	3.14	1.59	6.35	2.08	3.15	2.85	3.04	32.52
1941	1.94	.66	1.07	1.67	1.71	2.11	.62	1.44	5.74	6.78	2.41	1.71	27.86
1942	.96	.32	3.20	1.06	4.44	3.72	2.62	1.97	3.59	3.11	3.45	2.81	31.25
1943	1.28	.83	1.98	2.12	4.47	4.16	1.64	4.35	1.50	1.68	2.59	.55	27.15
1944	1.04	1.14	1.83	1.58	2.08	3.69	3.10	2.41	2.95	.25	2.74	.76	23.57
1945	.17	1.27	1.35	2.84	5.30	8.60	1.41	2.64	6.75	2.49	1.50	.95	35.27
1946	1.40	1.73	1.79	.70	4.21	5.02	1.42	.82	3.22	1.32	3.14	3.91	28.68
1947	2.01	.40	1.16	5.00	6.08	.85	5.04	.37	5.42	.85	2.08	1.79	31.05
1948	.71	1.87	3.74	2.39	2.09	6.35	.61	1.90	1.27	.86	5.20	1.83	28.82
1949	2.65	2.23	1.77	1.36	2.36	3.25	4.05	2.06	3.19	2.00	2.00	3.80	30.72
1950	4.07	3.26	3.30	3.13	1.25	2.57	3.61	1.68	4.06	2.09	1.41	3.36	33.79
1951	2.82	2.33	3.09	3.98	3.08	3.50	3.50	2.85	3.70	4.60	2.48	3.36	39.29
1952	4.50	1.63	2.18	2.32	1.86	1.64	9.06	4.69	1.37	.21	3.24	2.14	34.84
1953	1.69	2.12	2.37	3.53	3.08	3.31	3.14	3.08	2.22	2.41	1.25	1.41	29.61
1954	1.57	1.97	2.07	5.23	1.66	7.34	1.06	1.24	3.90	6.74	1.45	2.65	36.88
1955	1.40	1.47	1.63	2.26	4.02	2.15	2.89	4.94	.70	2.15	1.92	1.39	26.92
1956	.33	1.78	2.53	4.75	4.62	3.08	6.44	4.83	1.55	.30	2.12	1.67	34.00
1957	1.44	1.09	1.98	2.74	3.29	5.17	4.68	2.04	2.95	3.18	3.94	2.15	34.65
1958	1.60	.56	.66	2.62	1.57	2.73	1.57	2.89	2.43	2.87	3.91	.45	23.86
1959	1.54	3.07	2.35	4.83	2.34	2.66	5.27	7.05	2.18	7.54	3.11	3.57	45.51
1960	1.84	1.47	1.22	2.62	4.44	5.70	2.46	2.85	3.15	2.09	2.89	.24	30.97
1961	.31	1.29	2.98	2.77	1.67	2.01	5.33	4.57	5.67	1.85	3.15	1.66	33.26
1962	2.03	2.01	.70	1.51	3.25	2.20	3.66	2.86	2.37	4.55	1.07	.56	26.77

Average Temperature (°F)

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Ann'l
1933	28.7	19.7	29.4	43.7	57.7	70.6	70.8	66.5	64.1	47.4	30.9	22.4	46.0
1934	25.3	12.5	25.0	40.5	55.8	68.9	71.4	64.3	60.6	49.0	40.6	22.7	44.7
1935	19.6	20.6	33.1	43.8	51.4	61.3	73.6	68.3	58.0	47.3	36.0	21.7	44.6
1936	17.4	8.1	31.3	38.5	59.6	63.3	71.9	68.5	60.9	45.0	31.7	25.9	43.5
1937	22.6	23.9	27.0	41.9	56.5	64.5	70.5	71.7	59.6	45.6	35.3	22.9	45.2
1938	16.9	24.4	36.4	45.1	54.8	64.2	68.7	70.4	56.7	51.5	38.0	26.4	46.1
1939	21.0	18.5	26.1	38.8	56.7	63.8	68.5	67.8	60.1	46.2	34.8	29.8	44.3
1940	16.5	21.9	24.1	38.8	52.7	63.5	68.8	65.5	58.5	49.0	36.9	28.3	43.7
1941	21.2	21.2	22.1	45.0	56.3	65.9	70.4	66.8	61.0	48.8	38.4	31.7	45.7
1942	20.2	19.4	32.8	48.6	54.4	65.1	67.5	66.0	57.2	49.0	35.7	21.7	44.8
1943	16.1	20.9	25.0	38.9	53.0	66.6	68.6	67.2	55.5	46.6	34.4	23.8	43.1
1944	26.6	23.1	26.2	39.8	58.2	65.3	67.7	68.2	59.9	46.6	37.2	20.6	45.0
1945	14.5	21.5	42.7	45.6	49.3	60.2	64.9	66.2	58.2	45.3	37.2	20.4	43.8
1946	21.9	19.5	39.9	43.9	51.7	63.2	68.2	64.0	60.4	52.2	38.9	25.5	45.8
1947	22.5	17.8	27.2	40.4	49.5	62.5	67.6	73.6	60.2	56.8	32.6	24.8	44.6
1948	14.3	18.0	28.0	47.7	52.3	64.0	69.2	68.8	65.1	47.2	40.5	26.6	45.1
1949	25.6	24.0	29.4	45.5	56.2	68.5	71.2	68.7	55.5	51.9	33.6	27.4	46.5
1950	25.5	20.7	24.7	36.7	55.0	64.1	66.5	63.5	57.7	51.5	32.4	21.8	43.3
1951	19.9	22.7	31.2	42.8	57.7	63.2	67.3	64.3	56.4	49.0	28.4	23.3	43.9
1952	22.1	24.3	28.7	46.6	54.1	67.1	70.3	66.2	58.6	42.4	37.0	30.1	45.6
1953	24.6	25.1	32.1	41.0	55.0	65.8	69.2	68.2	57.6	51.2	39.5	29.0	46.5
1954	18.4	28.6	28.2	44.2	50.0	67.1	67.3	65.3	58.8	49.0	37.5	24.6	44.9
1955	20.0	20.8	28.8	50.5	57.0	64.9	73.9	72.4	58.5	50.9	32.5	22.6	46.1
1956	21.9	20.5	26.2	41.2	51.3	65.8	65.5	66.4	54.3	52.2	36.7	28.6	44.2
1957	16.4	25.4	32.1	45.3	52.5	64.4	68.9	64.8	57.2	46.5	37.2	27.8	44.9
1958	21.0	17.7	33.9	45.5	53.3	59.4	67.8	67.3	58.0	50.2	37.7	16.0	44.0
1959	14.3	16.3	26.7	43.5	59.3	65.9	68.4	71.9	61.4	46.5	30.0	29.1	44.4
1960	22.7	22.1	21.6	45.2	55.6	62.2	67.1	66.4	60.5	47.9	39.3	20.2	44.2
1961	18.8	27.7	34.2	42.7	52.2	64.5	69.6	66.7	63.7	50.0	35.6	23.7	45.8
1962	15.6	16.7	32.0	44.2	61.1	65.0	67.1	67.2	58.0	50.9	35.4	25.5	44.9

STATION HISTORY

In 1928 the Gladwin station was located at the Hydrologic Station two and one-half miles northwest of Gladwin on the Tobacco River. In 1940 it was moved to Gladwin and in 1941 it was moved to the Civil Aeronautics Authority Office at the airport. The CAA office was closed in February 1961 and the station was moved to the Conservation Department Office 0.5 miles north-northwest of the Gladwin Post Office and is there at present (1964).

DATES OF FREEZING TEMPERATURES IN THE SPRING AND FALL (1926-1950)

Minimum Temperature	Earliest	Average	Latest	Earliest	Average	Latest
32° or lower	5/04/33	5/20	6/21/40	8/21/34	9/25	10/18/30
28° or lower	4/03/29	5/04	5/22/32	9/03/46	10/09	11/06/31
24° or lower	3/29/33	4/22	5/13/46	9/26/47	10/25	11/26/31
20° or lower	3/11/45*	4/04	4/19/26**	10/25/49	11/12	12/05/31
16° or lower	2/26/42	3/27	4/15/26	10/27/36	11/23	12/21/44

*Also March 11, 1946
**Also March 19, 1947

Example in using table: The average date of the last temperature of 32° or colder in the spring is May 20th. The earliest date of this event in all springs of the 1926-1950 period was May 4, 1933. The latest date was June 21, 1940. In the fall, 32° or colder occurred for the first time as early as August 21, 1934 and as late as October 18, 1930. The average date is September 25th.