U. S. DEPARTMENT OF COMMERCE, WEATHER BUREAU
IN COOPERATION WITH Michigan Weather Service
CLIMATOGRAPHY OF THE UNITED STATES NO. 20 — 20

CLIMATOLOGICAL SUMMARY

LATITUDE 45° 50'
LONGITUDE 88° 04'
ELEV. (GROUND) 1155 Feet

STATION Iron Mountain, Michigan

MEANS AND EXTREMES FOR PERIOD 1932 - 1961

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	24.9	5.8	15.4	55	1944+	-35	1948	1500	1.30	.95	1939	14.5	36.5	1935	11.5	1935	5	0	24	31	11	JANUARY
FEBRUARY	27.6	6.0	16.8	53	1961+	-39	1938	1420	1.19	1.50	1937	12.2	29.0	1937	11.0	1937	4	0	19	28	10	FEBRUARY
MARCH	36.5	15.0	25.8	76	1946	-27	1948+	1190	1.71	1.25	1959	10.8	29.1	1955	12.5	1959	5	0	11	30	4	MARCH
APRIL	52.5	28.8	40.7	89	1952	0	1954+	730	2.54	2.25	1951	4.4	13.9	1950	10.5	1958	6	0	1	21	*	APRIL
MAY	66.9	39.7	53.3	100	1934	19	1958+	370	3.10	2.90	1951	0.2	3.0	1960	3.0	1960	7	*	0	8	0	MAY
JUNE	75.7	50.2	63.0	99	1934	24	1949	120	3.72	3.78	1951	T	T	1945	T	1945	8	1	0	*	0	JUNE
JULY	80.2	54.8	67.5	103	1936	35	1939	50	3.54	3.00	1938	0	0		0		7	2	0	0	0	JULY
AUGUST	77.7	53.2	65.5	101	1947	30	1945	80	4.00	4.06	1941	0	0		0		7	2	0	*	0	AUGUST
SEPTEMBER	68.3	45.1	56.7	93	1953+	19	1942	270	3.10	2.45	1941	T	T	1959+	T	1959+	7	*	0	4	0	SEPTEMBER
OCTOBER	57.7	35.9	46.8	88	1947	12	1942+	550	2.10	2.35	1959	0.6	8.1	1933	7.0	1933	5	0	*	12	0	OCTOBER
NOVEMBER	39.6	23.8	31.7	72	1944	-9	1950+	1000	2.30	1.90	1945	7.1	23.4	1948	13.0	1942	5	0	7	25	1	NOVEMBER
DECEMBER	27.9	11.4	19.7	57	1941	-25	1958	1380	1.39	1.47	1959	13.0	27.5	1938	10.3	1959	4	0	21	30	7	DECEMBER
Year	53.0	30.8	41.9	103	July 1936	-39	Feb. 1938	8600	29.99	4.06	Aug. 1941	62.8	36.5	Jan. 1935	13.0	Nov. 1942	70	5	83	189	33	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 IRON MOUNTAIN, MICHIGAN

Iron Mountain is located in the northern part of Michigan's Upper Peninsula on the Wisconsin border, about 85 miles north of Green Bay, Wisconsin and about 50 miles from Lake Superior to the northeast. The surface of the ground is rolling to hilly and the soil is mostly sandy loam to silt loam. The short season precludes the growing of many crops and most of the land is forested.

Although there is some lake influence at Iron Mountain, resulting from northerly winds crossing Lake Superior and easterly winds crossing northern Lake Michigan; still this lake influence is minimized both because of the distance from the lakes and also the direction from the lakes since winds are prevailing westerly.

The available weather data for the Iron Mountain area show that the highest temperature ever recorded here is 104° on July 29, 1917 and the lowest of record is 39° below zero on February 1, 1938. The highest monthly mean temperature of record is 76.0° in July, 1921 and the coldest monthly mean temperature of record is 1.9° below zero in January, 1912. Temperatures seldom reach 100° and days with 90° or above average five per summer. At the other extreme, temperatures fall to zero or lower on an average of thirty three days during the winter. The average dates of the last freezing temperature in the spring and the first freezing temperature in the fall are May 29th and September 19th respectively. Relative humidity figures for Escanaba, Michigan, about fifty miles to the east (nearest First Order Weather Bureau Office) show an annual average of 80% at 1:00 AM and 7:00 AM and 67% at 1:00 PM and 72% at 7:00 PM.

Precipitation is heaviest in the summer season and averages 67% of the annual total during the six months period April through September. Heaviest rainfall is in August with an average of 4.00 inches. The driest month is February with an average of 1.19 inch. The greatest monthly record of precipitation is 11.15 inches in August of 1941. The driest month of record is 0.02 inch in November, 1904. Hourly intensity of 1.1 inches or more will occur once in about two years and two hourly intensity of 1.4 inches or more will occur once in about two years. Hourly intensity of two inches or more will occur about once in fifty years. Twenty four hour totals show 2.4 inches or more will occur about once in twenty five years.

Snowfall totals 62.8 inches per calendar year with a great deal of variation from year to year. A total of 128.5 inches was measured during the 1938-39 season while only 27.3 inches was recorded during the 1943-44 season. The most usual amount is between fifty and sixty inches.

Cloudiness is greatest in the late fall and early winter while the percentage of possible sunshine is highest in the spring and summer. The difference is not as pronounced as in most other parts of Michigan because the lake effect is reduced due to Iron Mountains direction and distance from the lakes.

Degree day data is provided as an index of heating requirements for buildings. For example; April averages 730 degree days and January, 1500 degree days, which means that during an average January, fuel necessary for heating will be over twice that required for April. Degree days for a single day are obtained by subtracting the mean temperature from 65. The need for the heating of buildings is considered none or slight if a day has an average temperature of 65° or higher.

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State Climatologist
Weather Bureau Office
East Lansing, Michigan

Total Precipitation (Inches)

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Ann'l
1932	1.66	1.31	1.02	1.95	2.92	2.08	3.09	7.12	1.66	1.51	2.93	1.59	28.84
1933	.96	1.38	.99	2.07	3.56	3.29	.81	.53	2.49	2.48	.97	1.46	20.99
1934	1.11	.45	1.85	2.75	1.57	2.78	1.62	2.24	4.53	1.43	5.14	1.84	27.31
1935	2.12	.81	1.21	2.20	1.96	4.55	5.16	3.19	1.83	2.14	1.63	.68	27.48
1936	1.32	1.15	1.87	.60	2.89	1.62	1.14	5.73	2.36	2.22	.91	1.66	23.47
1937	2.51	2.85	.05	2.60	.69	.26	2.52	1.49	3.65	2.85	1.74	.84	22.05
1938	1.91	1.57	3.20	2.85	5.08	3.83	6.89	5.28	3.11	2.28	1.21	2.99	40.20
1939	2.65	2.25	2.26	2.09	5.15	4.58	1.46	3.82	1.56	1.62	.89	1.63	29.96
1940	1.46	2.29	1.23	1.95	4.58	5.93	3.65	4.00	1.62	2.93	3.61	1.75	35.00
1941	1.19	.67	.82	1.87	3.13	.91	2.47	11.15	6.41	3.93	1.47	1.31	35.33
1942	.33	.84	3.88	1.79	5.12	6.83	5.92	2.18	4.44	2.82	2.25	1.99	38.39
1943	1.67	1.25	2.53	2.57	2.78	6.29	2.26	3.33	1.71	1.48	2.39	.04	28.30
1944	.97	.68	1.69	2.06	3.41	3.89	2.97	3.07	3.95	.48	2.54	.48	26.19
1945	.72	2.62	1.35	4.48	3.20	2.57	2.70	3.46	4.40	1.74	5.58	1.55	34.37
1946	2.73	.92	1.00	.85	2.78	6.45	2.42	2.23	4.32	2.14	2.31	2.02	30.17
1947	.71	.53	.99	3.77	2.90	2.34	1.76	3.07	3.01	1.62	2.22	.90	23.82
1948	1.01	1.33	1.29	2.30	.84	3.04	3.09	3.00	1.48	.98	5.91	.82	25.09
1949	1.77	.59	1.28	.62	2.17	4.15	3.78	1.72	2.99	2.23	2.11	1.24	24.65
1950	3.13	1.17	2.32	3.38	3.24	2.98	4.81	3.12	1.22	1.09	1.59	2.20	30.25
1951	.64	1.50	3.45	7.07	3.40	7.31	7.81	6.68	4.53	2.91	1.71	1.21	48.22
1952	1.92	.97	2.23	1.47	1.49	3.36	8.66	4.40	1.15	.14	1.45	1.39	28.63
1953	.95	2.01	2.01	3.51	3.35	5.32	4.40	3.39	1.77	.60	1.46	1.44	30.21
1954	1.04	1.40	2.29	5.38	2.88	4.29	2.41	3.43	6.88	3.09	1.18	.50	34.77
1955	.74	.98	3.33	2.35	2.87	3.16	2.32	1.72	.97	3.37	1.28	1.89	24.98
1956	.67	.32	1.11	1.32	2.42	4.26	4.00	5.89	1.76	.63	2.11	1.14	25.63
1957	.47	1.15	.86	2.81	3.45	1.83	2.07	4.20	5.17	1.63	3.57	1.19	28.40
1958	.48	.08	.61	2.03	2.74	5.07	4.52	4.41	1.87	3.00	3.04	.85	28.70
1959	.55	.45	1.90	2.25	2.42	2.29	3.43	9.85	4.54	4.22	1.06	3.19	36.15
1960	1.60	.65	.31	3.58	6.98	4.11	4.14	3.24	3.08	2.87	2.19	.29	33.04
1961	.12	1.65	2.38	1.74	3.08	2.19	3.98	3.20	4.44	2.57	2.53	1.60	29.48

STATION HISTORY

The Iron Mountain station was established in 1899, the location unknown. In 1901, it was moved to the corner of 4th Street and Stevenson Ave. and observations were taken by the employees of the Chapin Mining Company until 1934 when the station was moved to the City Water Works, one mile north of the Post Office and it is there at present (1962).

Average Temperature (°F)

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Ann'l
1932	24.1	20.6	21.6	40.0	54.1	65.0	68.6	67.3	57.2	43.4	28.4	18.7	42.4
1933	22.3	13.6	24.8	39.7	55.1	69.8	69.6	65.5	62.4	43.2	27.1	16.2	42.4
1934	22.2	10.9	21.7	38.9	59.5	66.5	68.6	62.6	56.3	49.0	34.8	16.3	42.3
1935	12.1	17.2	27.9	39.7	49.2	58.4	72.0	65.1	54.9	46.0	29.2	19.4	40.9
1936	11.6	3.4	27.8	35.6	57.8	60.9	71.1	66.4	60.6	42.7	27.9	22.5	40.7
1937	11.8	16.6	22.2	37.8	54.3	62.0	68.4	68.9	54.9	45.1	36.9	17.7	41.4
1938	12.2	20.8	33.0	43.6	54.4	62.5	68.0	67.7	55.6	49.7	32.7	19.8	43.3
1939	17.6	10.9	23.7	37.6	55.9	64.0	68.1	65.5	58.3	45.2	33.9	27.3	42.3
1940	12.2	19.4	20.4	36.4	50.3	62.6	67.1	64.1	59.3	47.9	31.7	22.7	41.2
1941	17.6	18.5	23.2	46.9	58.0	66.4	68.6	63.7	59.4	46.2	34.6	26.6	44.1
1942	17.9	17.0	30.8	47.6	51.7	62.0	65.0	64.3	54.1	46.6	31.1	16.4	42.0
1943	11.2	17.4	20.1	37.7	52.0	65.0	69.5	65.5	51.9	45.7	29.0	20.9	40.5
1944	24.6	19.7	22.5	37.1	56.4	63.1	66.4	66.4	57.1	46.2	36.9	18.5	42.9
1945	10.8	17.1	36.9	41.0	47.3	58.2	63.5	64.3	55.7	43.3	30.7	16.2	40.4
1946	16.6	14.7	37.8	42.7	51.6	61.6	66.1	62.4	55.5	49.6	33.5	19.8	42.7
1947	18.3	16.4	25.7	37.5	48.2	59.9	68.5	72.4	58.3	55.9	28.6	20.1	42.5
1948	8.2	14.8	24.6	44.4	52.0	62.2	68.1	66.8	61.2	45.5	35.3	20.8	42.0
1949	19.9	17.4	26.5	44.6	54.7	68.5	69.5	67.4	55.3	50.2	32.3	20.0	43.9
1950	12.9	15.7	22.5	32.3	51.5	62.8	64.3	60.4	56.4	50.2	27.4	13.8	39.2
1951	11.9	17.8	25.0	40.3	57.9	60.1	66.8	61.4	54.7	46.0	25.3	18.0	40.4
1952	15.7	20.5	24.3	44.9	53.1	64.0	68.2	64.5	57.9	40.2	34.4	25.6	42.8
1953	19.9	18.0	28.8	38.5	53.8	63.5	66.7	66.9	57.2	51.0	37.4	23.1	43.7
1954	13.5	25.9	23.9	41.3	47.1	65.1	65.9	63.1	54.3	45.2	35.2	21.4	41.8
1955	14.0	16.2	23.8	47.7	56.9	63.0	72.4	69.0	56.8	47.7	27.9	15.1	42.5
1956	17.6	17.0	22.8	38.4	51.6	64.3	63.0	64.0	52.8	52.0	31.8	21.3	41.4
1957	7.9	18.5	26.8	42.4	52.9	62.7	68.7	64.7	54.5	45.2	32.4	21.3	41.5
1958	19.5	14.9	29.4	42.9	51.5	57.6	65.2	64.4	57.1	47.9	33.7	10.5	41.2
1959	8.0	12.5	25.7	41.8	57.4	64.7	67.3	68.7	57.6	42.4	23.6	25.9	41.3
1960	16.5	17.9	18.6	42.1	52.4	60.2	64.8	65.2	56.9	46.1	35.0	17.1	41.1
1961	13.2	23.0	30.0	38.4	50.3	62.2	66.3	65.7	57.7	48.5	32.7	18.0	42.2

DATES OF FREEZING TEMPERATURES IN THE SPRING AND FALL (1921 - 1950)

	Last in Spring			First in Fall		
Minimum Temperature	Earliest	Average	Latest	Earliest	Average	Latest
32° or Lower	4/28/22	5/29	6/21/40	8/26/45	09/19	10/13/33
28° or Lower	4/26/32	5/17	6/08/49	9/03/46	09/29	10/21/24
24° or Lower	4/17/32*	5/03	6/08/49	9/11/43	10/09	11/08/21
20° or Lower	4/01/29	4/21	5/13/43	9/28/42	10/27	11/26/31
16° or Lower	3/20/29	4/07	4/20/28	10/11/36	11/11	12/02/22

* Also occurred in 1923.

Example in using the table: The average date of the last temperature of 32° or colder in the spring is May 29th. The earliest date of this event in all springs of the 1921-50 period was April 28, 1922. The latest date was June 21, 1940. In the fall, 32° or colder occurred for the first time as early as August 26, 1945 and as late as October 13, 1933. The average date is September 19th.

Form 1030 Met'l.

MONTHLY CLIMATOLOGICAL BULLETIN
WITH COMPARATIVE DATA

Iron Mountain, Michigan — April, 1952 — Central Standard Time

Date	Temperature Max	Temperature Min	Temperature Ave	At 12:30 P. DB	At 12:30 P. DP	At 12:30 P. RH%	Precipitation Total	Precipitation Snow	Precipitation Ones	Wind PD	Wind Ave	Wind Fstm	Wind Dir.	Cld 0-10	Wea.
1	41	34	38	42	32	65	0.38	3.8	4	SE	6	12	SE	9	
2	40	30	35	41	30	65	T	T	3	NW	5	20	NW	10	
3	46	22	31	36	23	59	0.09	0.1	3	NW	3	10	NW	10	
4	41	25	33	39	29	67	0.00	0.0	2	N	5	15	N	8	
5	35	27	31	34	30	85	T	T	1	N	8	25	N	10	
6	40	22	31	35	23	61	0.00	0.0	T	N	10	30	N	1	
7	53	20	37	46	20	35	0.00	0.0	T	N	3	10	N	0	F
8	55	23	39	52	24	33	0.00	0.0	T	S	7	25	S	7	
9	42	26	34	38	37	96	0.07	0.6	T	SE	3	10	SE	10	FA
10	33	23	28	30	15	52	0.12	0.0	T	NW	9	35	NW	9	
11	39	10	25	36	18	49	0.00	0.0	0	S	6	15	S	7	
12	42	23	32	39	29	67	0.00	0.0	0	SE	5	15	SE	10	
13	37	25	36	32	32	100	0.89	4.2	4	NE	9	35	NE	10	BS
14	50	30	40	42	32	67	0.28	3.2	6	N	6	15	N	5	
15	63	25	44	54	31	41	0.00	0.0	2	N	7	20	N	0	
16	72	30	51	68	37	32	0.00	0.0	T	NW	6	15	N	0	
17	74	36	52	71	44	38	0.00	0.0	0	N	6	35	NW	0	
18	77	41	59	70	45	41	0.00	0.0	0	NW	9	20	NW	7	
19	79	49	64	77	47	35	0.00	0.0	0	NW	8	25	NW	7	
20	87	45	66	81	54	40	0.00	0.0	0	NW	5	30	NW	0	
21	78	48	63	80	72	74	T	0.0	0	N	6	20	N	8	FH
22	62	47	55	56	35	31	0.07	0.0	0	N	8	25	N	6	
23	61	28	45	55	30	38	0.00	0.0	0	E	3	10	E	7	
24	74	25	50	65	38	37	0.00	0.0	0	E	3	10	E	0	
25	75	35	55	67	39	36	0.00	0.0	0	NE	3	15	NE	0	
26	81	31	56	76	49	39	0.00	0.0	0	SE	3	10	SE	0	
27	82	43	68	77	52	40	0.00	0.0	0	SE	5	15	SW	0	
28	83	39	66	85	58	40	0.00	0.0	0	NE	4	10	NE	0	
29	86	46	66	84	52	33	0.00	0.0	0	E	4	10	E	0	
30	87	40	64	84	51	33	0.00	0.0	0	NE	4	12	E	0	
Ave	61	32	46	49	37	51	1.90t	11.9t	X	NW	6	XX	XX	4	XXXX
Nrml	54	30	42	XX	XX	XX	2.89	2.6	X	NE	8	XX	XX	6	XXXX

Symbols used in Weather Column:

A-Hail
BS-Blowing Snow
E-Sleet
F-Fog
H-Haze; K-Smoke
T-Thunderstorm
ZR-Freezing Rain
ZL-Freezing Drzl

COMPARATIVE DATA

TEMPERATURE

Year	Max.	Min.	Mean
1944	73	6	38.5
1945	79	19	42.0
1946	79	20	44.6
1947	76	14	38.1
1948	81	16	44.6
1949	81	19	35.0
1950	64	3	33.1
1951	85	19	40.7
1952	87	10	46.0

PRECIPITATION

Year	Total	Snowfall
1944	2.39	2.0
1945	5.36	9.8
1946	0.78	2.1
1947	5.20	1.2
1948	3.22	0.2
1949	0.41	0.7
1950	2.99	12.5
1951	3.30	11.3
1952	1.90	11.9

TEMPERATURE

Mean temperature, 46.0 Departure from normal +3.7
Mean maximum 60.5. Maximum on 30th 87
Mean minimum 31.6. Minimum on 11th 10
Number of days with-
Maximum 90 or above 0
Maximum 32 or below 0
Minimum 32 or below 18
Minimum 0 or below 0
Average soil temperature @ 1 foot depth 42

PRECIPITATION

Departure from normal, inches ..... -0.99
Departure from normal since January 1st .. -0.27
Greatest amount in 24 hours on 13th 0.89
Number of days with precipitation-
0.01 inch or more 7
0.25 inch or more 3
0.50 inch or more 1
1.00 inch or more 0

Snowfall:
Departure from normal, inches ..... +9.3
Greatest amount in 24 hours on 13th 4.2
Seasonal departure from normal, inches ... +27.4
Greatest depth on ground at 6:30 p.m. 6

AIR CONDITIONING DATA

Totals of-
Degree Days (Base 65) 556
Seasonal total since July 1st . 8098
Cooling Degree Days (Base 80).. 0
Seasonal total since July 1st . 0
Humidifying Mb. Days (Base 6mb) 22
Seasonal total since July 1st.. 498
De-Hmdfg Mb Days (Base 15 mb.). 0
Seasonal total since July 1st . 130

WEATHER (Number of days-)

Clear (Normal 12) 13
Partly cloudy (Normal 9) 7
Cloudy (Normal 9) 10
Hail 1
Blowing Snow 1
Freezing Rain 0
Freezing Drizzle 0
Sleet 0
Fog 3
Smoke or Haze 1
Thunderstorms 0
Cold ..... 26 Hot 0
Dry ..... 13 Humid 0
Ideal ..... 4.

TIMES OF BEGINNINGS AND ENDINGS OF EACH PRECIPITATION PERIOD

Date

1... DNa-DNa; 7:00-7:30a.; 9:00-9:45a.; 11:00a-12:00 Noon.
2... DNa-DNa; 7:30-8:00a.; 8:45-9:20a.; 12:00 Noon-12:30p.; 1:35-1:50p.
3... DNa-DNa.
5... DNa-DNa; 8:30-9:00a.; 10:30-11:00a.; 1:00-1:50p.
9... DNa-DNa; 4:00p. to past midnight...
10... Continued to DNa.
12... 10:00p to past midnight ....
13... Continued to 8:55p.; DNp to past mid.
14... Continued to DNa.
21... 9:30-10:35a.; 9:30-10:10p.
22... Midnight to 3:55a.

BAROMETRIC PRESSURE

Mean sea level, inches	30.09
Highest on 11th	30.43
Lowest on 1st	29.47

Miscellaneous:

Temperature and precipitation data from 6:30 p.m. to 6:30 p.m. DB-Dry Bulb; DP-Dew Point; OG-On Ground; PD-Prevailing Direction; Ave-Average; FstM; Fastest mile recorded on double register during any 5 minute period; D-Direction; t-total; Nrml-Normal.

Compiled by G. B. Patrick - 7-31-52;45
North-Central Weather Service
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GENERAL WEATHER SUMMARY-

Temperatures were almost four degrees above normal, and a new maximum value was recorded for this month in the past nine years. The previous high was 85 degrees in 1951. It really warmed up from the 15th of the month on, with daytime maximum's in the upper 70's and 80's for the most part. Precipitation was almost an inch below normal, with the year's deficiency at -0.27 inch. Heaviest precipitation occurred on Holy Saturday and Easter Sunday with an almost freak snowstorm. Snow cover rapidly disappeared after the 16th and noticeable was the prevailing clear skies to the end of the month. Snowfall was excessive however, with the seasonal departure from normal at the end of the month of +27.4 inches. Wind movement totalled 4,143 miles. Average relative humidity was 64%. April will be remembered for the extreme weather conditions, and for the most part, one of pleasant weather.