

U. S. DEPARTMENT OF AGRICULTURE.

---

ANNUAL SUMMARY, 1897.

---

MARYLAND AND DELAWARE SECTION  
OF THE  
CLIMATE AND CROP SERVICE  
OF THE  
WEATHER BUREAU.

IN COOPERATION WITH THE  
MARYLAND STATE WEATHER SERVICE.

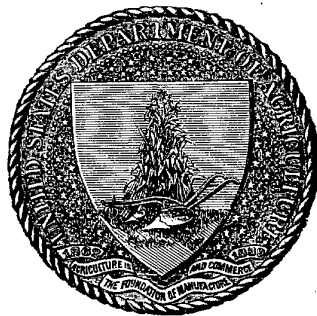
---

PUBLISHED BY AUTHORITY OF THE SECRETARY OF AGRICULTURE.

---

UNDER DIRECTION OF  
WILLIS L. MOORE,  
CHIEF OF WEATHER BUREAU,

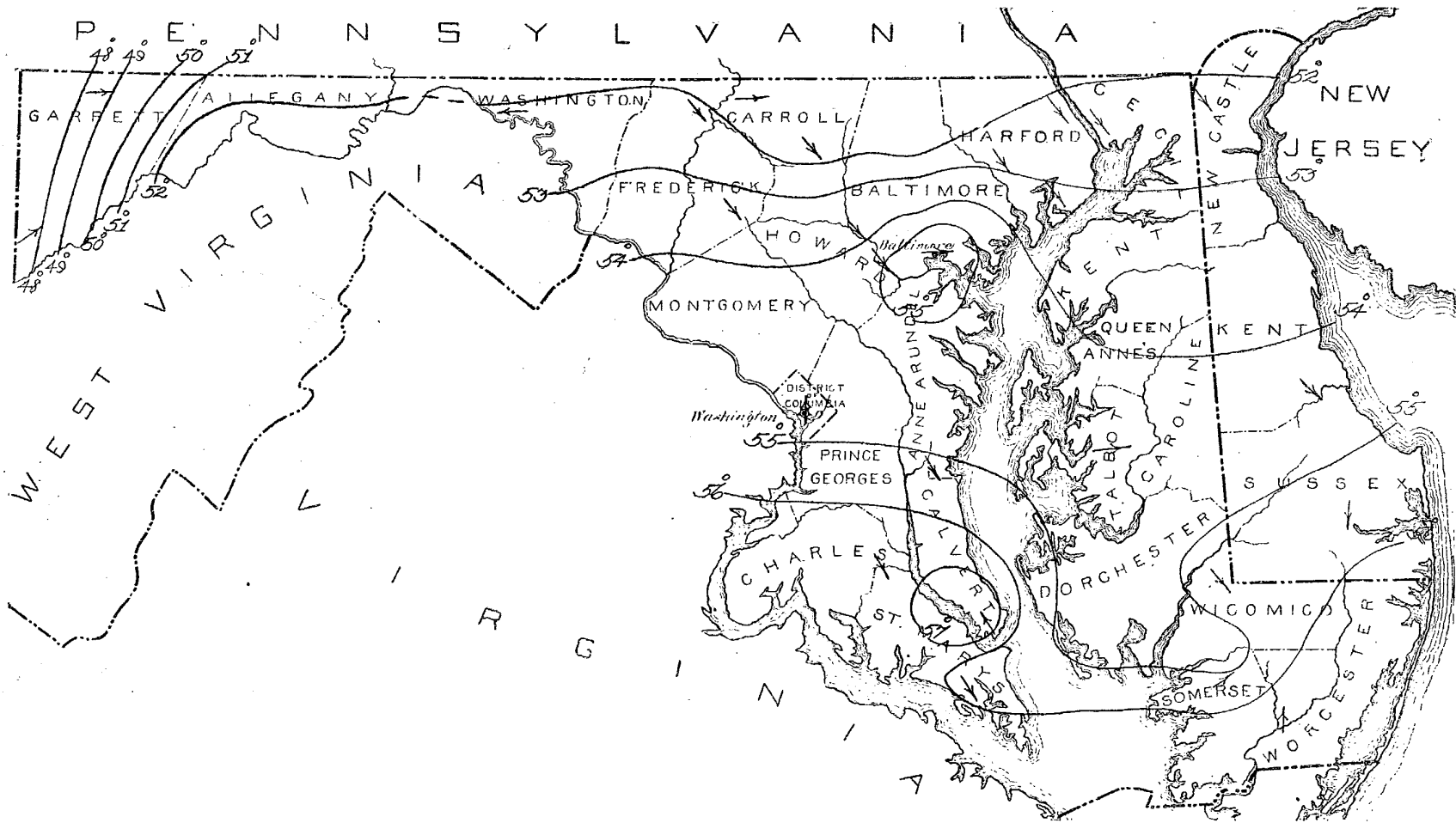
BY  
F. J. WALZ,  
SECTION DIRECTOR.



BALTIMORE, MD.:  
WEATHER BUREAU OFFICE.  
JOHNS HOPKINS UNIVERSITY.

1897.

ANNUAL MEAN ISOTHERMS AND PREVAILING WINDS, 1897.



U. S. DEPARTMENT OF AGRICULTURE,  
**CLIMATE AND CROP SERVICE**  
 OF THE  
**WEATHER BUREAU.**

Central Office,  
 WASHINGTON, D. C. }

WILLIS L. MOORE,  
 Chief.

IN COOPERATION WITH THE  
 MARYLAND STATE WEATHER SERVICE.

**MARYLAND AND DELAWARE SECTION,**

F. J. WALZ, Section Director,  
 BALTIMORE, MD.

**CLIMATOLOGY OF THE YEAR 1897.**

The climatic record for 1897, while presenting some interesting features, was, in a general sense, happily devoid of calamitous events, such as devastating winds, severe cold waves, or protracted droughts. The steady progress of the seasons was not obstructed by any very abnormal conditions, and the annual averages of heat and moisture show but slight departures from the normals established for Maryland and Delaware. The annual mean temperature,  $53.6^{\circ}$ , is almost coincident with the normal. The record for the various portions of the section ranges, by moderate gradations, from  $57^{\circ}$  in Southern Maryland to  $52^{\circ}$  in the northern counties, while west of Washington County the temperature decreases sharply over the mountain districts until the lowest annual mean of  $47^{\circ}$  is reached at Sunnyside. The lowest temperatures of the year were recorded on the 13th of January, and again during a cold wave period that lasted from the 25th until the close of the same month. At that time the ground was well covered with snow, protecting grasses and winter grain from damage. Crops escaped damage by cold until about the 22d of May, when temperatures were sufficiently low to produce killing frosts, which checked all growth, although the peach crop alone sustained permanent injury. Warm waves prevailed notably from June 30th to July 7th, and from September 10th to 13th. The annual precipitation, 44.97 inches, was about 4 inches above the normal, and nearly 7 inches more than was recorded in 1896, although in its distribution it bore a close relation to the record for that year. The greatest amount, over 60 inches, fell in Garrett County. The largest falls elsewhere, 45 to 50 inches, occurred over portions of interior Maryland and in southwestern Delaware. The least annual amounts, 32 to 40 inches, were reported from Allegany and Washington Counties and throughout a narrow section bordering on the Virginia line. With respect to the distribution of precipitation during the year, it is noticed that February was the wettest month in the western section, while elsewhere the excess of rain occurred in July. It was during the latter month that probably the heaviest rainfall ever recorded in Maryland occurred, the record being 14.75 inches in eighteen hours, at Jewell, Md., on July 26th-27th. The lightest monthly falls occurred in October in the western districts, a variable record is found to have prevailed in the northern-central division, and elsewhere through-

out the section September was the driest month. The most severe storm of the year was that of October 23d-27th. Its northeasterly movement was not attended by any damage inland, but it raged along the coast with great severity, and but for the widely heralded warnings issued from one to two days in its advance, the results to shipping would have been disastrous. As it was, very little damage was inflicted. All maritime interests were timely warned of the formation and movements of this storm, and collected reports disclose the fact that over eight hundred vessels remained in port between Norfolk and New York during its prevalence, because of the information issued by the Bureau. A storm of moderate severity, duly forecasted, affected the lower Bay on September 25th. On July 17th, Baltimore was visited by a severe local storm, the lightning, wind and rain doing much damage to city property. Severe thunderstorms occurred during the month of August, and considerable destruction of property by lightning was reported from various points.

\* \* \*

**ANNUAL SUMMARY.**

**ATMOSPHERIC PRESSURE—IN INCHES AND HUNDREDTHS.**

Annual mean at Washington, D. C., 30.10; at Baltimore, 30.07; average, 30.08; highest, 30.75, at Washington, D. C., on January 31st; lowest, 29.36, at Washington, D. C., on November 9th.

**TEMPERATURE—IN DEGREES FAHRENHEIT.**

The annual mean (entire territory),  $53.6^{\circ}$ , was  $0.2^{\circ}$  above the normal.

The highest annual mean was  $57.0^{\circ}$ , at Solomons.

The lowest annual mean was  $47.2^{\circ}$ , at Sunnyside.

The highest temperature recorded during the year was  $102^{\circ}$ , at Westernport, on July 3d.

The lowest temperature recorded during the year was  $-12^{\circ}$ , at Deer Park, on January 13th.

The annual range of temperature, within the sectional limits, was  $114^{\circ}$ .

The greatest local annual range was  $104^{\circ}$ , at Sunnyside.

The least local annual range was  $82^{\circ}$ , at Chestertown.

The greatest local daily range in the year was  $64^{\circ}$ , at Sunnyside, on January 13th.

The least local daily range in the year was 0, at several stations and on a number of dates.

**PRECIPITATION—IN INCHES AND HUNDREDTHS.**

The annual average (entire territory), 44.97, was 3.65 above the normal.

The greatest annual amount was 63.85, at Sunnyside.

The least annual amount was 32.56, at Westernport.

The greatest local monthly fall was 19.90, at Jewell, in July.

The least local monthly fall was 0.50, at Solomons, in September.

The greatest fall in twenty-four hours was 14.75, at Jewell, on July 26th-27th.

The average number of rainy days for the year was 109.

**WIND.**

The prevailing wind direction for the year was from the northwest.

The total annual wind movement was 45,224 miles at Baltimore, and 59,476 miles at Washington, D. C.

The maximum wind velocity for the year was 47 miles per hour from the northwest, at Washington, D. C., on November 16th.

**MISCELLANEOUS.**

The average number of clear days, 164.

The average number of partly cloudy days, 106.

The average number of cloudy days, 95.

The sunshine received during the year at Baltimore was 51 per cent. of the possible amount.

Thunderstorms occurred in every month but January.

Hail fell in every month except April and September.

Sleet fell in January, February, March, November, and December.

Solar halos were seen in February to May, and September to December.

Lunar halos were observed in January, March, April, July, and September to December.

Lunar coronæ were observed in every month except February, April, and September.

Auroral displays were witnessed on January 23d, March 10th and 24th, April 5th, 6th, 23d, and 27th, May 2d and 17th, September 28th, November 26th, and December 22d.

A solar corona was seen on December 20th.

Earthquake shocks were felt in various parts of Maryland and Delaware on May 31st, about 2 p. m.

\* \* \*

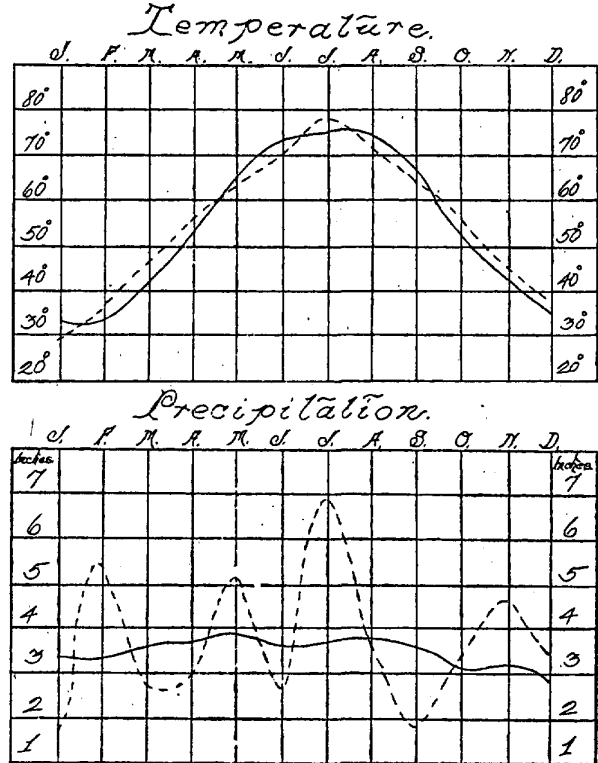
**CROP REVIEW FOR 1897.**

The crop season of 1897 opened favorably in the Maryland and Delaware section. A cold wave period, beginning on January 24th, found the tender growth of winter well protected by snow. February presented no marked features with respect to plant life. Winter grain and grasses developed under the influence of abundant moisture in March, but frequent rains retarded the early spring preparations; the killing frosts of the month were without damage. April was favorable until the 22d, when killing frosts cut down early strawberries and badly injured the peaches; much transplanting of tomatoes, cabbages and tobacco was accomplished later, and early vegetables grew thrivingly. There was a cool spell toward the close of May, and rainy periods interfered with planting and cultivation, but the month was favorable as a whole; cereals presented a fine appearance; some hay and clover cut. At the close of June oats and rye were heading nicely, and the wheat harvest well under way; corn was late, but showed good stands; small crops were in excellent shape, and a heavy clover crop of fine quality had been saved. Wheat and rye harvesting was completed in July; a heavy hay crop was reported; tobacco grew nicely, but received too much rain; fruits were variable. Wheat threshing in August gave splendid yields; corn advanced rapidly; fall plowing made good headway; most small crops did well. The growing season closed in September. Wheat, oats and rye yielded exceptionally well, tobacco excellent, potatoes and tomatoes not so good, apples a variable crop, and peaches short.

The corn crop was saved in October, the yield being above the average; fall seeding was somewhat delayed by dry weather. November was a favorable month. December was mild, with ample moisture.

\* \* \*

**CURVES OF TEMPERATURE AND PRECIPITATION FOR THE SECTION.**



Note.—Dotted lines represent averages for 1897. Solid lines show normals based on all available records of previous years.

\* \* \*

**KILLING FROSTS—LAST IN SPRING AND FIRST IN AUTUMN, AT STATIONS RECORDING THEIR OCCURRENCE.**

Stations.	Last in spring.	First in autumn.	Stations.	Last in spring.	First in autumn.
Annapolis.....	April 20	Sept. 28	Mt. St. Mary's College.....	April 21	Nov. 14
Bachman's Valley....	May 27	Sept. 28	New Market.....	April 21	Nov. 14
Baltimore.....	Oct. 31	Sept. 28	Pocomoke City.....	April 21	Oct. 18
Boetherville.....	Sept. 28	Sept. 28	Princess Anne.....	May 9	Oct. 18
Charlotte Hall.....	April 21	Nov. 13	St. Charles College.....	April 20	Nov. 13
Cherryfields.....	April 20	Nov. 13	Sharpsburg.....	April 21	Sept. 21
Chestertown.....	.....	Oct. 18	Smithsburg.....	April 20	Nov. 25
Darlington.....	.....	Oct. 30	Solomon's.....	April 20	Nov. 13
Denton.....	April 21	.....	Sunnyside.....	May 20	Sept. 21
Easton.....	April 20	Nov. 18	Taneytown.....	April 20	Oct. 4
Fallston.....	April 21	Oct. 18	Van Bibber.....	April 20	Oct. 18
Flintstone.....	April 21	Sept. 21	Woodstock.....	April 20	Oct. 18
Grantville.....	May 30	Sept. 21	Millsboro, Del.....	April 21	.....
Green Spring Furnace.	April 21	Oct. 18	Millsboro, Del.....	April 21	Oct. 31
Jewell.....	April 20	Nov. 13	Newark, Del.....	April 21	Oct. 18
Laurel.....	April 13	Oct. 18	Seaford, Del.....	April 21	Oct. 18
Mardela Springs.....	April 22	Sept. 29	Washington, D. C.....	April 21	Oct. 18

\* \* \*

**RELIEF MAP OF MARYLAND.**

The relief map presented with this Annual Summary is from a photograph of a model of the State of Maryland prepared by the World's Fair Commissioners for exhibition in the Maryland Building at Chicago. The model is the work of Cosmos Mendeleff. It has been placed by the Governor of Maryland in the custody of the Maryland Geological Survey at Johns Hopkins University.

Climatological data for the year 1897.

Stations.	Counties.	Elevation, feet.	Temperature (degrees Fahrenheit).					Precipitation (inches).					Number rainy days.	Sky.			Prevailing direction of wind.	
			Length of record, years.	Annual mean.	Highest.	Date.	Lowest.	Date.	Length of record, years.	Total for the year.	Greatest monthly.	Month.		Least monthly.	Month.	Total snowfall.		Number clear days.
<b>WESTERN MARYLAND.</b>																		
Boettcherville	Allegany 2.	700	7	49.2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Cumberland	Allegany	722	36	55.8	98	July 5	-5	Jan. 25	36-7	35.30	4.60	May†	0.70	Oct.	27.0	80	.....	.....
Deer Park	Garrett	2,457	6	51.6	91	July 5	-6	Jan. 31	.....	44.74	5.84	Nov.	1.37	Oct.	38.0	93	.....	.....
Flintstone	Allegany	800	2	51.6	96	July 5	.....	.....	.....	37.68	5.63	Feb.	0.88	Oct.	20.5	80	176	108
Grantsville	Garrett	2,400	4	48.3	94	July 5	-9	Jan. 25	.....	45.92	7.35	Feb.	0.55	Oct.	75.7	131	.....	.....
Green Spring Fur.	Washington	500	5	52.8	97	July 7	.....	.....	.....	38.22	5.20	May	0.97	Oct.	18.4	115	192	107
Hagerstown	Washington	550	6	52.8	97	July 6	.....	.....	.....	37.36	6.17	Feb.	0.87	Jan.	.....	70	175	79
Sharpsburg	Washington	450	3	52.4	94	July 6	4	Jan. 31	.....	38.57	5.25	May	1.29	Oct.	13.6	112	205	86
Smithsburg	Washington	750	1	.....	90	June 30	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Sunnyside	Garrett	2,440	5	47.2	93	July 4	-11	Jan. 25	.....	63.85	9.17	Feb.	1.06	Oct.	65.6	168	131	14
Westernport	Allegany	1,000	3	51.9	102	July 3	-1	Jan. 24	.....	32.56	4.86	Feb.	1.20	Oct.	22.5	101	.....	.....
Entire Section	.....	.....	.....	53.0	102	July 3	-12	Jan. 13	.....	41.09	9.17	Feb.	0.55	Oct.	32.6	107	156	98
<b>NORTHERN-CEN. MD.</b>																		
Bachman's Valley	Carroll	860	4	51.2	95	July 6	1	Jan. 31	.....	56.52	8.43	Nov.	2.08	Sept.	26.7	88	214	70
Baltimore	Baltimore	123	63	55.2	97	Sept. 11	8	Jan. 25	63	47.49	6.93	July	2.05	Jan.	8.0	141	126	122
Darlington Academy	Harford	300	8	52.8	92	June 30	.....	.....	.....	40.68	6.76	July	1.27	June	12.5	84	.....	.....
Fallston School	Harford	450	29	52.3	91	Sept. 11	6	Jan. 25	29	50.42	9.49	July	1.40	Sept.	15.5	127	62	239
Frederick	Frederick	350	25	53.7	95	July 7	5	Jan. 26	25	38.35	7.33	July	1.39	Jan.	20.3	109	.....	.....
Great Falls	Montgomery 3.	150	9	54.6	93	Sept. 12	6	Jan. 29	9	35.90	5.71	Feb.	0.91	Sept.	.....	91	.....	.....
Johns Hopkins Hos.	Montgomery 3.	124	3	54.2	97	Sept. 11	5	Jan. 26	3	59.04	7.92	July	1.81	Jan.	.....	137	165	75
McDonogh School	Baltimore	545	22	.....	.....	.....	4	Jan. 26	22	.....	.....	.....	.....	.....	.....	.....	.....	.....
Mt. St. Mary's College	Frederick	720	37	52.4	95	Sept. 10	3	Jan. 26	37	46.60	7.99	July	2.24	Oct.	13.8	129	.....	.....
New Market	Frederick	550	14	53.5	95	July 6	4	Jan. 26	14	49.56	9.48	July	1.61	Sept.	14.6	105	.....	.....
St. Charles College	Howard	300	3	.....	.....	.....	8	Jan. 26	3	.....	.....	.....	.....	.....	.....	.....	.....	.....
Taneytown	Carroll	495	5	.....	100	July 6	4	Jan. 25	5	49.38	7.34	May	1.70	Oct.	22.8	114	128	117
Van Bibber	Harford	20	2	52.9	98	July 10	7	Jan. 25	2	49.30	9.26	July	1.22	Sept.	.....	120	199	42
Western Md. College	Carroll	720	2	.....	.....	.....	4	Jan. 25	3	.....	.....	.....	.....	.....	.....	.....	.....	.....
Woodstock College	Baltimore	392	28	.....	.....	.....	2	Jan. 31	28	.....	.....	.....	.....	.....	.....	.....	.....	.....
Entire Section	.....	.....	.....	53.3	100	July 6	1	Jan. 31	.....	46.93	9.49	July	0.91	Sept.	16.1	112	160	110
<b>SOUTHERN MARYLAND.</b>																		
Annapolis	Anne Arundel	20	24	.....	94	June 30	.....	.....	24	.....	.....	.....	.....	.....	.....	.....	.....	.....
Charlotte Hall School	St. Mary's 2.	167	4	56.1	92	June 30	5	Jan. 29	4	42.16	6.78	July	0.95	Sept.	13.5	83	195	93
Cherryfields	St. Mary's 2.	20	4	55.4	.....	.....	.....	.....	.....	38.28	5.59	Feb.	0.58	Sept.	11.8	109	131	166
Distribut'g Reservoir	Dist. of Columbia 3	120	7	55.7	91	July 6	9	Jan. 25	7	40.20	6.82	May	0.92	Sept.	.....	101	.....	.....
Jewell	Anne Arundel	165	10	.....	93	June 30	6	Jan. 26	10	58.68	19.90	July	1.37	Sept.	6.0	91	208	77
Laurel	Prince George's	150	3	.....	95	Sept. 11	0	Jan. 30	3	45.97	6.70	July	1.55	Sept.	.....	79	.....	.....
Md. Agricultural Col.	Prince George's	170	6	.....	97	Sept. 10	-2	Jan. 30	6	.....	7.45	May	1.76	Jan.	.....	.....	.....	.....
Receiving Reservoir	Dist. of Columbia 3	160	7	55.2	90	June 25	8	Jan. 25	7	44.61	6.33	May	0.98	Sept.	.....	109	.....	.....
Solomon's	Calvert	20	6	57.0	94	Sept. 13	10	Jan. 26	6	42.14	7.39	July	0.50	Sept.	15.4	114	119	68
Washington, D. C.	Dist. of Columbia.	112	27	54.9	97	Sept. 11	8	Jan. 26	27	44.58	6.97	May	1.54	Sept.	14.7	137	159	90
Entire Section	.....	.....	.....	55.5	97	Sept. 11	-2	Jan. 30	.....	44.75	19.90	July	0.50	Sept.	10.9	103	158	114
<b>EASTERN MARYLAND.</b>																		
Chestertown	Kent	80	13	.....	90	June 29	8	Jan. 26	13	.....	8.43	July	1.28	Sept.	.....	.....	.....	.....
Easton	Talbot	35	8	54.3	93	June 30	8	Jan. 31	8	43.71	8.30	July	0.73	Sept.	9.5	120	225	66
Mardela Springs	Wicomico	35	10	55.7	95	Sept. 11	6	Jan. 31	10	50.58	9.96	July	1.17	Sept.	15.3	118	.....	.....
Pocomoke City	Worcester	37	4	.....	95	Aug. 16	12	Jan. 26	4	.....	8.09	July	.....	.....	.....	.....	.....	.....
Port Deposit	Cecil	.....	1	.....	95	July 6	.....	.....	1	.....	7.64	July	.....	.....	.....	.....	.....	.....
Princess Anne	Somerset	20	23	54.7	92	June 30	3	Jan. 31	23	45.73	11.38	July	1.25	Sept.	11.7	118	94	209
Entire Section	.....	.....	.....	54.9	95	Sept. 11	3	Jan. 31	.....	45.28	11.38	July	0.73	Sept.	13.5	112	163	120
<b>DELAWARE.</b>																		
Milford	Kent	20	18	.....	97	Sept. 11	9	Jan. 26	18	.....	8.53	July	0.81	Jan.	.....	.....	.....	.....
Millsboro	Sussex	23	5	55.4	94	Sept. 12	3	Jan. 31	5	50.16	8.16	July	1.51	Sept.	13.0	123	197	85
Newark (Del. Coll.)	Newcastle	136	4	52.4	94	Sept. 10	6	Jan. 26	4	43.73	8.70	July	0.99	Sept.	.....	116	165	109
Seaford	Sussex	40	7	.....	95	Sept. 10	8	Jan. 26	7	.....	.....	.....	1.16	Sept.	.....	.....	.....	.....
Entire Section	.....	.....	.....	54.6	97	Sept. 11	3	Jan. 31	.....	46.81	8.70	July	0.81	Jan.	14.5	110	196	80
Entire Territory	.....	.....	.....	53.6	102	July 3	-12	Jan. 13	.....	44.97	19.90	July	0.50	Sept.	18.4	109	164	106

NOTE.—Boettcherville, Fallston School, and Great Falls furnished self-registering thermometers in November.

1 Temperatures from exposed thermometers at 7 a. m., 2 p. m., and 9 p. m.

2 Temperatures from exposed thermometers at 8 a. m. and 8 p. m.

3 Temperatures from exposed thermometers at 7 a. m. and 2 p. m.

† Also in November.

Monthly and annual mean temperatures for the year 1897, with departures from the normal.

Stations.	January.		February.		March.		April.		May.		June.		July.		August.		September.		October.		November.		December.		Annual.	
	Temperature.	Departure.	Temperature.	Departure.	Temperature.	Departure.	Temperature.	Departure.	Temperature.	Departure.	Temperature.	Departure.	Temperature.	Departure.	Temperature.	Departure.	Temperature.	Departure.	Temperature.	Departure.	Temperature.	Departure.	Temperature.	Departure.	Temperature.	Departure.
<b>WESTERN MARYLAND.</b>																										
Boettcherville 2	22.6	- 5.5	29.8	- 0.5	38.0	- 2.4	46.1	- 4.7	57.6	- 4.6	69.2	- 3.2	71.6	+ 0.8	66.5	- 8.0	59.5	- 6.7	50.4	- 1.5	43.6	+ 3.8	35.6	- 0.3	49.2	- 2.7
Cumberland No. 1	31.6	+ 0.3	37.5	+ 5.5	46.4	+ 7.7	54.9	+ 3.6	62.9	+ 1.6	70.8	+ 0.5	77.2	+ 4.5	72.2	- 1.0	69.0	- 4.3	59.8	+ 7.2	47.6	+ 5.9	39.5	+ 5.7	55.8	+ 3.1
Cumberland No. 2	27.2	- 3.2	33.8	+ 1.0	43.0	+ 5.1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Deer Park	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Flintstone	27.4	.....	33.1	.....	42.5	.....	49.2	.....	58.3	.....	66.1	.....	74.1	.....	68.3	.....	57.6	.....	49.6	.....	38.0	.....	31.7	.....	.....	.....
Grantville	22.7	.....	29.0	.....	40.5	.....	45.7	.....	53.3	.....	63.8	.....	72.4	.....	65.4	.....	62.0	.....	53.7	.....	38.6	.....	32.2	.....	.....	.....
Green Spring Furnace	28.2	- 1.5	33.2	+ 2.6	43.4	+ 8.0	51.2	+ 0.4	60.3	- 3.4	69.2	- 5.2	75.6	- 0.4	70.6	- 5.9	66.5	- 2.6	56.0	+ 6.6	42.6	+ 3.3	36.4	+ 6.0	52.8	+ 0.7
Hagerstown	30.4	.....	35.6	.....	45.1	.....	53.5	.....	62.0	.....	70.1	.....	77.3	.....	72.3	.....	67.9	.....	57.4	.....	45.4	.....	35.3	.....	.....	.....
Sharpsburg	27.7	.....	33.7	.....	43.6	.....	51.6	.....	60.1	.....	67.6	.....	75.2	.....	70.3	.....	65.4	.....	55.2	.....	42.9	.....	35.3	.....	.....	.....
Smithsburg	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Sunnyside	22.8	+ 0.5	29.4	+ 7.4	40.6	+ 5.3	45.4	- 0.4	51.4	- 3.5	62.1	- 3.2	68.6	+ 2.6	63.6	- 1.8	60.4	- 1.7	51.9	+ 8.1	39.0	+ 3.2	30.6	+ 1.1	47.2	+ 1.5
Westernport	25.9	.....	33.0	.....	42.6	.....	50.7	.....	59.0	.....	70.3	.....	75.6	.....	70.4	.....	64.4	.....	56.1	.....	41.2	.....	34.0	.....	.....	.....
Average	26.6	- 2.4	32.8	+ 2.6	42.5	+ 8.4	49.8	+ 1.3	58.4	- 1.0	67.8	- 1.8	73.3	+ 3.0	68.4	- 1.8	63.8	- 0.3	54.5	+ 5.6	43.0	+ 4.4	34.6	+ 3.1	53.0	+ 1.8
<b>NORTHERN-CENTRAL MD.</b>																										
Bachman's Valley	27.0	.....	31.8	.....	41.4	.....	49.2	.....	59.0	.....	65.4	.....	74.8	.....	69.4	.....	64.4	.....	54.4	.....	43.8	.....	33.8	.....	51.2	.....
Baltimore	31.6	- 2.8	36.8	- 0.2	45.0	+ 2.9	53.0	- 0.2	62.8	- 1.1	70.1	- 3.3	76.9	- 0.3	74.3	- 0.6	68.8	+ 0.9	58.2	+ 1.5	46.3	+ 0.8	38.6	+ 1.0	55.2	- 0.1
Darlington Academy	29.4	+ 0.9	33.4	+ 5.4	43.0	+ 3.5	51.0	+ 1.0	61.2	- 0.4	67.4	- 4.1	74.5	+ 0.2	71.6	- 1.1	67.5	+ 0.9	54.8	+ 1.7	44.2	+ 2.1	35.7	- 2.3	52.8	+ 0.6
Fallston School 1	28.6	- 1.7	33.6	+ 1.3	42.4	+ 4.4	50.2	+ 0.2	60.2	- 0.9	66.7	- 3.4	74.4	+ 0.3	70.4	- 1.3	64.8	+ 0.4	56.0	+ 1.8	44.4	+ 1.9	35.8	- 1.4	52.3	+ 0.8
Frederick	29.6	- 2.0	34.3	+ 1.6	44.6	+ 3.5	52.2	+ 0.2	61.5	- 1.4	68.9	- 3.2	76.6	+ 0.9	72.0	- 1.4	66.9	+ 0.5	55.8	+ 1.3	45.6	+ 2.2	36.8	+ 1.7	53.7	+ 0.3
Great Falls 3	29.6	- 0.5	36.0	+ 3.3	45.6	+ 4.3	53.5	+ 0.3	63.1	- 1.1	71.0	- 3.8	77.6	+ 2.3	73.5	- 1.6	68.2	- 0.3	56.4	+ 2.3	43.8	+ 0.7	36.8	+ 0.7	54.6	+ 0.6
Johns Hopkins Hosp'l	29.5	.....	35.2	.....	44.4	.....	52.2	.....	62.5	.....	69.3	.....	76.4	.....	72.0	.....	68.2	.....	58.1	.....	44.7	.....	37.8	.....	.....	.....
McDonogh School	28.6	- 2.6	33.7	+ 0.3	44.4	+ 6.2	53.3	+ 2.6	62.1	+ 0.3	70.3	- 0.5	77.5	+ 0.4	72.5	+ 0.4	67.2	+ 2.0	58.1	+ 3.8	42.8	+ 1.0	34.2	+ 0.7	52.4	+ 0.4
Mt. St. Mary's College	28.0	- 2.3	32.9	+ 0.1	42.6	+ 4.2	50.9	+ 0.3	60.6	- 0.4	67.5	- 2.4	74.3	- 0.9	70.5	- 1.9	68.0	+ 3.5	57.0	+ 3.3	42.8	+ 1.0	34.2	+ 0.7	52.4	+ 0.4
New Market	28.3	- 2.8	34.9	+ 1.5	44.0	+ 5.2	52.8	+ 3.1	61.4	- 1.5	69.2	- 4.6	76.8	- 0.1	71.9	- 1.5	67.0	+ 1.4	56.5	+ 2.1	43.7	+ 1.4	35.4	+ 1.8	53.5	+ 0.5
St. Charles College	31.4	.....	35.3	.....	44.4	.....	52.8	.....	61.4	.....	69.2	.....	76.6	.....	72.9	.....	68.2	.....	58.1	.....	44.2	.....	36.0	.....	.....	.....
Taneytown	28.0	.....	33.3	.....	44.4	.....	52.4	.....	61.5	.....	69.8	.....	77.6	.....	72.9	.....	68.2	.....	58.1	.....	44.2	.....	36.0	.....	.....	.....
Van Bibber	28.6	.....	33.5	.....	41.8	.....	52.1	.....	61.6	.....	68.3	.....	76.0	.....	71.8	.....	66.1	.....	55.4	.....	43.2	.....	36.0	.....	.....	.....
Western Md. College	28.3	.....	34.4	.....	44.4	.....	53.7	.....	61.6	.....	68.3	.....	76.0	.....	71.8	.....	66.1	.....	55.4	.....	43.2	.....	36.0	.....	.....	.....
Woodstock College	29.2	- 1.6	34.4	+ 1.6	43.8	+ 5.2	50.8	- 0.3	61.3	- 0.9	67.1	- 3.9	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Average	29.0	- 1.6	34.2	+ 1.8	43.9	+ 4.6	52.0	+ 1.2	61.5	- 0.5	68.3	- 3.4	76.0	+ 0.8	71.8	- 0.8	66.9	+ 0.8	56.6	+ 1.5	44.0	+ 1.0	36.1	+ 0.9	53.3	+ 0.5
<b>SOUTHERN MARYLAND.</b>																										
Annapolis	.....	.....	.....	.....	47.0	+ 5.4	54.9	+ 2.1	64.1	+ 0.8	72.5	- 1.6	76.8	- 1.6	76.1	- 0.4	69.8	+ 0.3	60.9	+ 3.3	50.8	+ 5.0	41.0	+ 3.7	.....	.....
Charlotte Hall School	33.2	.....	37.4	.....	47.0	.....	54.6	.....	63.6	.....	69.7	.....	76.0	.....	73.8	.....	69.4	.....	59.0	.....	48.5	.....	41.4	.....	56.1	.....
Cherryfields 2	31.8	.....	36.4	.....	45.2	.....	52.9	.....	61.5	.....	70.5	.....	76.3	.....	74.8	.....	69.4	.....	59.9	.....	47.2	.....	39.4	.....	55.4	.....
Distributing Reservoirs	30.3	- 2.7	37.0	+ 4.0	46.6	+ 4.6	54.8	+ 1.3	63.8	- 0.6	71.7	- 3.6	78.3	+ 2.1	74.4	- 1.7	68.6	0.0	58.6	+ 3.8	46.5	+ 2.7	38.2	+ 2.1	55.7	+ 0.2
Jewel	31.2	- 4.0	36.2	+ 1.0	46.6	+ 6.0	53.1	- 2.2	60.1	- 4.1	68.9	- 5.9	75.6	+ 0.1	72.9	.....	67.0	.....	58.2	.....	45.0	.....	35.9	.....	.....	.....
Laurel	27.5	- 7.0	34.2	+ 0.1	44.0	+ 0.9	52.5	+ 0.8	60.1	- 2.3	67.9	.....	75.6	+ 0.2	71.0	- 2.6	67.0	- 2.8	58.1	.....	45.0	.....	35.9	.....	.....	.....
Md. Agricultural Coll	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Receiving Reservoir 3	30.0	- 3.2	36.3	+ 4.1	46.2	+ 4.8	54.0	+ 1.0	63.2	- 0.8	70.8	- 4.0	78.3	+ 2.1	73.7	- 1.9	68.3	- 1.3	58.1	+ 3.2	46.0	+ 2.2	37.6	+ 1.5	55.2	+ 0.7
Solomon's	33.2	- 3.0	37.4	+ 1.2	46.3	+ 3.3	53.9	+ 0.7	62.4	- 2.0	71.6	- 1.8	78.6	+ 1.7	76.8	- 1.2	72.5	+ 0.3	61.1	+ 2.2	49.9	+ 2.4	40.0	+ 0.5	57.0	+ 0.3
Washington, D. C.	31.0	- 1.6	36.6	+ 0.5	46.0	+ 4.6	52.9	+ 0.1	62.4	- 1.2	69.6	- 1.9	76.9	- 0.7	73.4	- 0.1	68.2	+ 0.8	58.0	+ 0.7	46.0	- 0.4	38.1	+ 2.0	54.9	+ 0.2
Average	31.7	- 4.0	36.7	+ 1.8	45.9	+ 3.5	53.6	0.0	62.5	- 1.6	70.1	- 3.5	77.2	0.0	74.1	- 1.5	68.9	- 0.1	59.3	+ 3.0	47.5	+ 1.8	38.9	+ 2.9	55.5	+ 0.2
<b>EASTERN MARYLAND.</b>																										
Chestertown	30.0	- 2.7	35.6	+ 3.5	43.1	+ 1.4	51.8	+ 1.0	61.3	- 1.3	67.8	- 4.0	75.2	- 0.6	71.8	- 2.3	65.9	+ 1.7	55.6	+ 0.4	44.4	- 1.3	.....	.....	.....	.....
Denton	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Easton	30.9	- 2.1	35.4	+ 0.9	44.6	+ 1.0	52.3	- 2.1	61.9	- 2.6	68.5	- 5.0	76.0	+ 5.2	73.4	- 1.4	67.8	- 1.3	57.3	+ 0.7	45.9	- 1.2	37.6	- 0.8	54.3	- 0.7
Mardela Springs	32.0	- 3.0	36.8	+ 0.6	46.3	+ 4.8	52.6	- 0.4	62.2	- 0.7	69.8	- 3.2	76.9	+ 2.6	74.6	- 0.5	69.7	+ 1.4	59.0	+ 4.2	48.0	- 1.7	40.0	+ 1.1	55.7	+ 0.4
Pocomoke City	37.1	.....	41.5	.....	50.9	.....	56.8	.....	65.5	.....	71.2	.....	78.8	.....	77.3	.....	73.4	.....	62.8	.....	54.0	.....	45.4	.....	.....	.....
Port Deposit	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Princess Anne	32.2	- 5.9	37.2	- 1.8	45.7	+ 1.6	52.7	- 3.3	61.1	- 3.4	67.6	- 5.1														

Monthly maximum temperatures for the year 1897, with dates.

Stations.	January.		February.		March.		April.		May.		June.		July.		August.		September.		October.		November.		December.	
	Maximum.	Date.	Maximum.	Date.	Maximum.	Date.	Maximum.	Date.	Maximum.	Date.	Maximum.	Date.	Maximum.	Date.	Maximum.	Date.	Maximum.	Date.	Maximum.	Date.	Maximum.	Date.	Maximum.	Date.
<b>WESTERN MARYLAND.</b>																								
Boettcherville	64	4	61	21	74	20	86	25	84	19	92	30	98	5	89	14	95	10	87	16	76	1	65	11
Cumberland No. 1	64	4	56	21	71	20															71	26	60	11
Cumberland No. 2	60	4																						
Deer Park											84	30	91	5	88	3	87	16	80	16	66	26	59	11
Flintstone	60	5	58	17	73	22	86	25	86	20	91	19	96	3	94	4	98	16	88	16	74	17	66	11
Grantsville	56	3	57	21	71	20	79	25	78	18	86	16	94	5	93	4	92	16	85	16	67	26	62	9
Green Spring Furnace	63	4	53	21	72	20	87	25	84	20	95	30	97	7	92	4	98	13	89	16	68	21	67	11
Hagerstown	62	4	55	22	71	21	88	25	84	20	93	30	97	6	93	15	95	11	88	16	70	27	66	11
Sharpsburg	62	4	54	17	73	20	88	25	83	20	92	30	94	6	90	4	94	13	88	16	69	16	67	11
Smithsburg							83	25	80	10	90	30	90	7	84	4	90	11	80	16	65	16	63	11
Sunnyside	60	3	59	21	69	22	79	24	76	9	87	16	93	4	87	3	89	16	82	16	69	5	60	11
Westernport	59	4	60	17	74	20	87	25	86	9	96	16	102	3	95	4	97	16	88	16	69	16	64	11
<b>NORTHERN-CENTRAL MD.</b>																								
Bachman's Valley	60	4	53	5	73	22	85	25	80	10	91	30	95	6	90	4	94	11	84	16	68	16	64	11
Baltimore	60	4	56	17	72	21	84	25	84	10	95	30	94	23	90	14	97	11	90	16	75	16	66	11
Darlington Academy	65	4	53	18	69	21	84	25	83	10	92	30	91	10	86	7	91	11	85	16	69	16	61	11
Fallston School	60	4	51	21	68	22	79	25	81	10	90	30	88	6	85	4	91	11	84	16	69	16	62	11
Frederick	64	4	51	18	72	21	89	25	83	10	93	30	95	7	90	14	95	11	86	16	69	16	66	11
Great Falls	63	4	55	17	75	22	83	25	83	20	90	30	90	6	86	4	93	12	86	17	74	17	66	12
Johns Hopkins Hosp'l.	61	4	56	17	72	20	84	25	80	12	94	30	93	23	90	14	97	11	90	16	75	16	66	11
McDonogh School	61	4	51	17	72	23	85	25	81	10	88	30		86	1	91	11	81	15					
Mt. St. Mary's College	60	4	52	18	70	21	86	25	81	20	90	30	92	7	88	14	95	10	88	16	68	16	64	11
New Market	62	4	54	17	76	23	89	25	83	19	92	30	95	6	90	14	93	11	85	16	68	20	65	11
St. Charles College	59	4	54	14	70	22	81	25	76	20									87	16	74	16	66	11
Taneytown	63	4	55	21	76	22	94	25	85	6	97	30	100	6	92	14	100	11	91	16	70	16	65	11
Van Bibber	63	4	53	18	69	22	80	25	81	10	93	30	98	10	86	4	92	11	87	1	71	16	59	10
Western Md. College	60	3	57	21	78	22	88	24	84	19	92	30							90	2	71	17	66	10
Woodstock College	61	4	61	17	72	22	86	25	82	20	88	25			88	28	90	10	85	16	73	16	66	11
<b>SOUTHERN MARYLAND.</b>																								
Annapolis					68	23	81	25	80	23	94	30	93	25	88	14	91	10	82	16	71	16	64	11
Charlotte Hall School	64	4	63	17	80	22	90	25	85	10	92	30	90	23	90	14	92	11	88	16	78	2	70	11
Distributing Reservoir	63	4	55	17	75	22	85	24	80	10	89	30	91	6	87	14	90	8	85	1	72	16	65	11
Jewell	66	4	61	17	80	22	87	25	84	10	93	30	89	3	89	14								
Laurel	64	4	58	17	80	22	87	25	82	10	90	16	92	23	91	15	95	11	90	1	67	16	62	10
Md. Agricultural Col.	54	10	60	17	78	22	86	25	81	10	91	30	90	2	90	14	97	10	88	16				
Receiving Reservoir	63	4	53	17	74	22	84	25	80	20	90	30	90	2	87	16	89	8	85	1	71	16	64	11
Solomon's	56	10	59	17	75	22	81	25	81	7	92	30	92	26	91	14	94	13	89	1	74	16	64	11
Washington, D. C.	64	4	63	17	82	22	88	25	83	10	93	30	92	23	90	14	97	11	89	16	76	16	68	11
<b>EASTERN MARYLAND.</b>																								
Chestertown	63	4	56	19	72	22	81	25	79	24	90	29	88	2	85	3	90	11	81	1	64	1		
Denton							87	25	82	19														
Easton	65	4	56	18	75	22	85	25	83	10	93	30	90	23	89	14	93	11	86	16	72	16	65	10
Mardela Springs	65	4	57	17	79	22	86	25	82	10	93	30	90	2	90	14	95	11	88	1	73	16	66	10
Pocomoke City	64	4	68	17	78	22	89	25	86	10	94	30	91	6	95	16			91	16	78	26	74	11
Port Deposit							83	25	81	10	93	30	95	6	90	2	93	10	85	16	70	16	64	12
Princess Anne	64	4	62	18	76	22	86	25	82	10	92	30	86	2	87	14	91	10	84	16	73	16	66	11
<b>DELAWARE.</b>																								
Milford	63	4	58	14	79	22	89	25	85	10	95	30	94	31	93	13	97	11	90	16				
Millsboro	64	5	59	19	80	23	86	26	84	11	90	26	92	1	90	15	94	12	87	2	72	17	68	10
Newark (Del. College)	56	4	51	18	69	22	85	25	81	10	93	30	92	10	87	15	94	10	86	16	69	16	61	10
Seaford	63	3	57	18	76	22	86	25	82	10	90	29					95		87	1	70	16	66	11

+ Readings of exposed thermometer at 2 p. m.; Fallston School and Great Falls furnished maximum thermometers in November.

Monthly minimum temperatures for the year 1897, with dates.

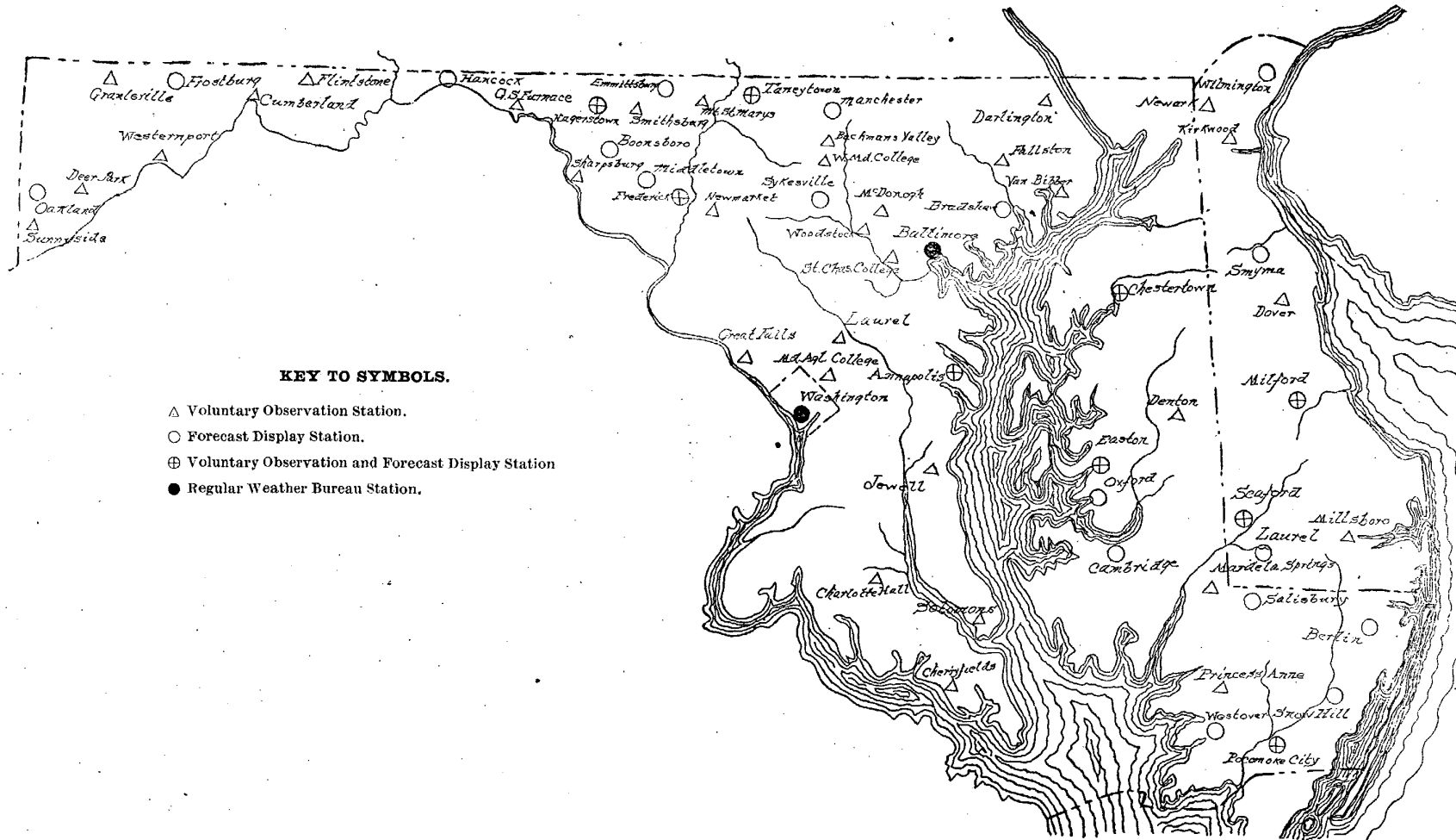
Stations.	January.		February.		March.		April.		May.		June.		July.		August.		September.		October.		November.		December.			
	Minimum.	Date.	Minimum.	Date.	Minimum.	Date.	Minimum.	Date.	Minimum.	Date.	Minimum.	Date.	Minimum.	Date.	Minimum.	Date.	Minimum.	Date.	Minimum.	Date.	Minimum.	Date.	Minimum.	Date.		
<b>WESTERN MARYLAND.</b>																										
Boettcherville																							18	24	8	25
Cumberland No. 1	3	25	13	1	25	16	31	21	45	3	45	2	60	15	55	27	43	21	31	31	24	23	15	24		
Cumberland No. 2	3	25	7	1	22	1																				
Deer Park	-12	13	3	27	12	1	17	21	27	29	30	1	41	14	39	26	22	21	21	15	5	24	4	25		
Flintstone	-6	31	0	1	17	17	20	2	33	27	32	2	50	14	44	27	28	21	22	18	17	28	5	25		
Grantsville	-9	25	3	27	14	1	18	20	30	3	29	2	49	14	43	13	29	28	26	31	8	24	1	24		
Green Spring Furnace	4	25	4	1	22	1	25	2	37	4	42	1	53	29	51	31	34	21	30	31	17	24	8	25		
Hagerstown	4	26	13	27	25	7	26	20	42	27	42	2	59	29	52	13	35	28	34	31	24	29	13	24		
Sharpsburg	3	31	9	1	24	17	26	20	39	4	40	2	59	15	53	13	35	22	32	18	21	24	10	25		
Smithsburg							24	20	39	3	46	2	59	15	53	13	38	28	33	30	22	30	11	24		
Sunnyside	-11	25	4	27	15	1	15	20	28	27	29	2	46	15	39	27	24	21	20	31	9	24	0	25		
Westernport	-1	24	9	1	21	17	24	20	34	2	36	1	52	14	47	26	32	20	28	30	18	24	7	23		
<b>NORTHERN-CENTRAL MD.</b>																										
Bachman's Valley	1	31	2	27	19	1	23	20	36	27	36	2	56	29	51	8	35	28	30	18	22	24	6	28		
Baltimore	8	25	18	1	28	17	29	20	44	4	48	2	62	29	60	8	45	21	38	18	27	30	16	24		
Darlington Academy	5	26	11	1	22	17	27	20	42	4	42	2	58	15	54	27	42	21	30	31	24	30	13	25		
Fallston School	6	25	17	5	24	17	28	20	44	3	51	2	62	15	59	27	40	21	35	18	23	30	12	25		
Frederick	5	26	9	27	26	1	27	20	39	27	39	2	59	29	54	29	38	28	32	31	26	24	12	28		
Great Falls	6	29	17	1	29	17	30	20	46	3	51	2	64	15	59	13	40	22	31	31	20	24	10	25		
Johns Hopkins Hosp'l.	5	26	15	1	20	1	27	20	42	4	44	2	60	29	58	27	42	21	40	11	24	30	14	24		
McDonogh School	4	26	15	5	25	17	26	20	44	4	45	1	60	27	42	21	42	21	37	18						
Mt. St. Mary's College	3	26	13	28	23	17	24	20	41	4	42	2	59	14	50	24	40	21	32	31	21	30	10	25		
New Market	4	26	10	1	23	17	25	20	40	8	48	2	57	23	52	7	39	28	32	18	24	30	12	25		
St. Charles College	8	26	20	1	30	1	30	20	48	3	48	2	59	14	50	24	40	21	32	31	21	30	10	25		
Taneytown	4	25	7	27	22	17	25	20	40	4	40	2	57	29	48	20	41	31	31	18	23	24	10	25		
Van Bibber	7	25	16	27	24	1	28	19	41	2	43	2	58	14	55	26	41	27	34	30	25	29	12	24		
Western Md. College	2	25	15	26	24	6	23	19	41	3																
Woodstock College	4	31	5	1	20	17	26	20	43	4	40	2														
<b>SOUTHERN MARYLAND.</b>																										
Annapolis					31	17	29	20	42	4	55	7	64	29	63	13	42	29	45	21	29	30	18	24		
Charlotte Hall School	5	29	16	1	26	1	32	20	42	4	45	2	62	15	57	7	43	21	36	30	24	24	14	25		
Distributing Reservoir	9	25	18	1	30	27	30	20	48	3	54	2	68	30	62	29	44	29	39	18	25	24	14	25		
Jewell	6	26	12	1	27	1	27	20	41	4	45	2	60	15	59	7	41	21	37	30	24	24	13	25		
Laurel	0	30	14	28	22	1	26	2	37	4	45	1	55	15	55	8	35	28	32	18	22	24	10	25		
Md. Agricultural Col.	-2	30	10	1	23	17	26	21	39	27	38	2	54	15	51	8	36	29	31	31						
Receiving Reservoir	8	25	17	1	30	13	31	20	44	4	52	2	66	15	61	27	45	28	37	18	25	24	13	25		
Solomon's	10	26	19	1	29	17	31	20	44	4	52	2	64	15	63	6	47	21	40	30	27	30	16	25		
Washington, D. C.	8	26	12	1	26	17	29	20	43	3	43	2	61	15	57	8	42	28	34	31	26	24	14	25		
<b>EASTERN MARYLAND.</b>																										
Chestertown	8	-26	11	27	20	1	30	20	45	22	43	3	60	29	59	7	43	28	36	31	26	30				
Denton					28	21	41	3	40	2	40	2	61	16	53	27	39	28	34	18	24	25	15	25		
Easton	8	31	15	1	21	1	30	20	43	9	40	2	62	15	58	7	42	29	32	31	23	24	13	25		
Mardela Springs	6	31	13	1	22	28	29	21	41	3	42	2	62	15	58	7	42	29	32	31	23	24	13	25		
Pocomoke City	12	26	20	1	27	1	32	20	43	9	46	2	64	5	60	7	43	28	38	31	28	24	16	25		
Port Deposit					28	20	43	8	46	2	61	5	58	8	58	8	43	28	35	18						
Princess Anne	3	31	16	1	23	17	25	2	37	9	40	2	60	16	55	7	38	29	32	31	23	24	13	25		
<b>DELAWARE.</b>																										
Milford	9	26	11	1	24	1	30	20	41	8	49	2	63	30	58	2	45	28	36	31						
Millsboro	3	31	13	1	22	1	27	21	41	8	40	2	61	16	54	7	42	21	33	31	21	24	12	25		
Newark (Del. College)	6	26	10	1	20	17	26	20	40	8	42	2	59	15	54	27	40	28	30	31	23	24	13	25		
Seaford	8	26	14	1	24	1	29	20	42	8	44	2														

† Readings of exposed thermometer at 7 a. m.; Fallston School and Great Falls furnished minimum thermometers in November.

Monthly and annual mean precipitation for the year 1897, with departures from the normal.

Stations.	January.		February.		March.		April.		May.		June.		July.		August.		September.		October.		November.		December.		Annual.			
	Precipitation.	Departure.	Precipitation.	Departure.	Precipitation.	Departure.	Precipitation.	Departure.	Precipitation.	Departure.	Precipitation.	Departure.	Precipitation.	Departure.	Precipitation.	Departure.	Precipitation.	Departure.	Precipitation.	Departure.	Precipitation.	Departure.	Precipitation.	Departure.	Precipitation.	Departure.		
<b>WESTERN MARYLAND.</b>																												
Boettcherville .....	1.90	-0.95	4.50	+1.47	2.80	+0.62	2.30	-0.92	4.60	+1.32	2.20	-2.12	4.30	+1.85	2.60	+0.42	1.50	-0.72	0.70	-1.45	4.60	+2.64	3.30	+0.50	35.30	+2.66		
Cumberland No. 1 .....	1.80	-0.57	5.81	+2.95	2.94	-0.30	3.00	+0.53	3.47	-1.10	1.88	-1.62	4.41	+0.93	2.26	-0.82	1.50	-1.21	0.81	-1.56	4.05	+1.98	3.30	+1.10	35.28	+0.31	86.03	
Cumberland No. 2 .....	1.76	-0.26	5.82	+3.16	2.86	-0.09																						
Deer Park .....	2.80		4.20		3.48		2.77		3.73		3.49		5.13		5.33		1.67		1.37		5.84		4.93		44.74			
Flintstone .....	2.02		5.63		3.34		2.75		4.30		2.53		5.64		2.31		2.24		2.24		4.84		3.20		37.68			
Grantsville .....	3.97		7.53		3.52		2.99		3.86		2.72		6.16		2.04		2.27		0.55		6.20		4.11		45.92			
Green Spring Furnace .....	1.96		4.78		2.94		2.19		5.20		1.85		4.73		3.91		2.08		0.97		4.75		2.86		38.22			
Hagerstown .....	0.87		6.17		3.17		2.37		4.30		1.39		4.69		2.53		2.48		0.98		4.96		3.45		37.36			
Sharpsburg .....	1.31		5.17		2.40		2.21		5.25		2.40		3.99		5.19		1.54		1.29		4.59		3.23		38.57			
Smithsburg .....																												
Summerville .....	3.07	-0.92	9.17	+5.27	4.69	+1.37	5.06	+0.02	5.83	+1.58	6.47	+1.91	5.52		2.78		2.41		1.27		5.23		2.60		42.60			
Westernport .....	1.88		4.86		2.22		3.07		3.80		1.39		3.01		3.38		1.84		1.20		3.95		1.96		32.56			
Average .....	2.12	-0.68	5.79	+3.21	3.15	+0.30	2.86	-0.84	4.51	+0.70	2.64	-1.47	4.64	+1.72	3.40	+0.70	2.08	-0.73	1.01	-1.47	5.19	+2.81	3.70	+0.92	41.09	+5.17		
<b>NORTHERN-CENTRAL MD.</b>																												
Bachman's Valley .....	2.20		7.18		5.50		3.37		7.52		3.71		5.10		5.62		2.08		2.22		8.43		3.59		56.52			
Baltimore .....	2.05	-1.28	5.13	+1.63	2.40	-1.70	3.19	-0.24	6.88	+3.10	2.57	-1.45	6.93	+2.23	4.71	+0.66	2.17	-1.71	3.67	+0.69	4.39	+1.36	3.40	+0.25	47.49	+3.54		
Darlington Academy .....	1.93	-1.75	4.20	+1.48	3.23	+1.79	3.16	-0.74	5.47	+0.55	1.27	-3.04	6.76	+3.20	2.57	-0.22	1.94	-1.85	2.85	-0.07	4.82	+1.70	2.48	-0.43	40.68	+0.62		
Fallston School .....	2.19	-1.23	5.64	+2.04	2.53	-1.20	3.22	+0.10	5.92	+2.22	3.01	-0.78	9.49	+6.32	4.67	+0.06	1.40	-2.34	3.36	+6.38	5.32	+2.08	3.67	+0.40	50.42	+7.93		
Frederick .....	1.39	-1.86	4.77	+1.99	2.72	-0.24	3.32	-1.41	3.71	+0.33	2.06	-2.48	7.33	+3.82	2.25	-0.46	1.63	-2.09	1.42	-1.11	5.01	+2.06	3.74	+0.79	38.35	-0.66		
Great Falls .....	1.22	-2.09	5.71	+3.37	2.71	-0.35	2.18	-1.09	5.42	+2.52	2.28	-0.48	5.06	+1.22	1.82	-1.06	0.91	-2.94	2.16	-0.09	4.07	+1.31	2.36	-0.87	35.90	-0.55		
Johns Hopkins Hosp'l .....	1.81		5.38		3.35		3.35		6.34		3.01		7.92		4.60		2.22		4.21		5.15		3.67		50.04			
Mt. St. Mary's College .....	2.26	-0.96	5.53	+0.47	3.04	-1.01	2.90	-0.35	5.97	+1.36	3.52	-0.46	7.99	+4.72	3.23	-0.24	2.65	-1.11	2.24	-1.57	6.15	+2.36	3.12	+0.07	46.60	+4.28		
New Market .....	1.66	-0.99	5.99	+3.67	3.28	-0.24	3.15	-0.69	5.31	+1.73	2.76	-1.08	9.48	+5.84	4.11	-0.25	1.61	-2.60	2.21	-0.61	6.69	+2.33	3.31	+0.80	49.56	+7.91		
St. Charles College .....	1.93		5.84		2.49		2.40		6.73																			
Taneytown .....	1.84		4.47		2.49		3.10		7.34		3.95		7.27		4.46		2.59		1.70		6.04		4.13		49.38			
Van Bibber .....	2.08		5.57		2.31		3.81		5.35		2.31		9.26		4.52		1.22		3.85		4.94		4.07		49.30			
Western Md. College .....	2.09		5.16		2.58		3.13		6.63																			
Woodstock College .....	1.78	-1.91	5.51	+2.19	2.74	-1.26	2.63	-0.56	6.64	+2.52	3.81	+0.17					4.57	+0.62	1.88	-1.91	2.35	-1.15	6.50	+3.44	4.17	+1.53		
Average .....	1.89	-1.49	5.29	+2.10	2.68	-0.94	3.00	-0.45	6.05	+2.25	2.91	-0.87	7.51	+3.67	3.93	-0.02	1.86	-1.97	2.72	-0.42	5.71	+2.54	3.38	+0.60	46.93	+5.00		
<b>SOUTHERN MARYLAND.</b>																												
Annapolis .....			4.68	+1.19	2.46	-2.09	2.80	-1.25	6.67	+1.87	1.73	-2.66	5.76	+1.21	4.39	-0.27	2.17	-1.78	3.69	+0.03	4.98	+1.67	3.48	-0.25				
Charlotte Hall School .....	1.75		5.03		2.52		2.33		4.69		2.69		6.78		3.04		0.95		6.21		3.19		2.98		42.16			
Cherryfields .....	1.92		5.09		5.05		2.73		2.83		2.82		2.78		3.95		0.58		5.53		1.72		2.78		38.28			
Distributing Reservoir .....	1.11	-1.83	5.84	+3.41	2.81	-0.72	2.60	-1.29	6.82	+2.93	2.09	+0.08	5.77	+2.21	2.17	+0.86	0.92	-1.72	3.19	+1.21	3.51	+0.48	3.37	+0.47	40.20	+6.09		
Jewell .....	2.19	-1.03	5.25	+1.98	3.00	-2.27	2.16	-2.84	5.79	+0.59	2.29	-1.65	19.90	+13.93	4.71	+1.31	1.37	-2.83	5.79	+1.96	2.91	-0.50	3.32	+0.74	58.68	+9.39		
Laurel .....	2.05		5.51		3.08		3.29		5.62		2.40		6.70		2.33		1.55		4.54		5.15		3.75		45.97			
Md. Agricultural Coll. .....	1.76	-2.23	6.11	+2.35	2.91	+0.19	3.35	-2.35	7.45	+2.50	3.49	-1.41	5.29	+0.48	3.02	-0.45	1.78	-0.86	4.00	+0.85	3.98	-0.02						
Receiving Reservoir .....	1.16	-2.26	5.89	+3.63	2.86	-0.16	2.77	-1.19	6.33	+1.51	3.21	+0.23	5.66	+2.35	4.59	+0.96	0.28	-1.66	2.94	+0.64	4.77	+1.83	3.45	+1.04	44.61	+8.92		
Solomon's .....	1.68	-1.43	5.51	+2.04	3.14	+0.14	2.00	-2.36	2.41	-1.62	5.69	+2.69	7.39	+4.25	3.19	+0.97	0.50	-1.25	5.42	+2.20	1.90	+1.76	3.31	+0.61	42.14	+8.00		
Washington, D. C. ....	1.98	-1.38	6.47	+3.10	2.66	-1.50	3.02	-0.17	6.97	+3.10	2.60	-1.34	5.78	+1.22	3.35	-0.57	1.54	-2.15	3.55	+0.57	3.31	+0.51	3.35	+0.38	44.58	+1.77		
Average .....	1.73	-1.69	5.59	+2.53	3.05	-0.71	2.70	-1.18	5.56	+1.33	2.96	-0.44	7.18	+3.02	3.47	-0.11	1.23	-2.46	4.48	+1.48	3.49	+0.10	3.31	+0.46	44.75	+2.33		
<b>EASTERN MARYLAND.</b>																												
Chestertown .....	2.40	-0.79	4.22	+2.41	2.97	-0.23	3.58	-1.39	4.71	+0.11	5.35	-1.35	8.43	+5.50	4.95	-0.90	1.28	-2.28	3.39	+0.49	5.58	+2.58						
Denton .....																												
Easton .....	2.04	-1.14	5.47	+2.24	2.12	-1.06	2.36	-1.53	3.32	+1.39	3.35	+0.85	8.30	+4.20	3.18	-0.22	0.73	-1.87	5.32	+2.64	3.40	+0.70	4.12	+1.70	43.71	+7.90		
Mardela Springs .....	2.48	-0.73	5.14	+1.31	3.73	-1.00	4.15	-0.75	3.79	+0.61	2.79	+0.28	9.96	+3.78	2.89	-0.65	1.17	-2.11	7.73	+3.38	2.83	+0.66	3.92	+1.81	50.58	+6.59		
Pocomoke City .....	1.95		5.87		3.46		3.29		3.07		1.35		8.09		3.00				3.65		1.59		4.25		43.73			
Port Deposit .....																												
Princess Anne .....	1.65		4.72		3.17		3.24		3.12		2.62		11.38		2.71		1.25		5.92		2.81		3.09		45.73			
Average .....	2.14	-0.89	4.89	+1.99	3.09	-0.53	3.14	-0.74	3.50	-0.63	2.71	-0.14	8.97	+4.75	3.04	-1.18	1.18	-2.10	5.00	+1.93	3.60	+0.49	4.02	+1.21	45.28	+4.16		
<b>DELAWARE.</b>																												
Milford .....	0.81	-2.41	5.56	+1.15	2.04	-1.72	2.69	-0.92	3.04	+1.16	3.27	+0.43	8.53	+4.61	2.74	-1.36	2.56	-2.67	5.73	+2.47			3.85	+0.77				
Millsboro .....	2.69	-0.64	5.82	+2.05	3.33	+0.21	3.20	-1.93	3.10	+2.32	2.45	-0.37	8.16	+4.74	4.90	+1.02	1.51	-2.78	8.17	+4.31	3.00	-0.11	3.83	+0.81	50.16	+9.63		
Newark (Del. Coll.) .....	2.35		4.30		2.27		2.87		6.17		1.17		8.70															

CHART SHOWING THE OBSERVATION AND FORECAST DISPLAY STATIONS OF THE MARYLAND AND DELAWARE SECTION.

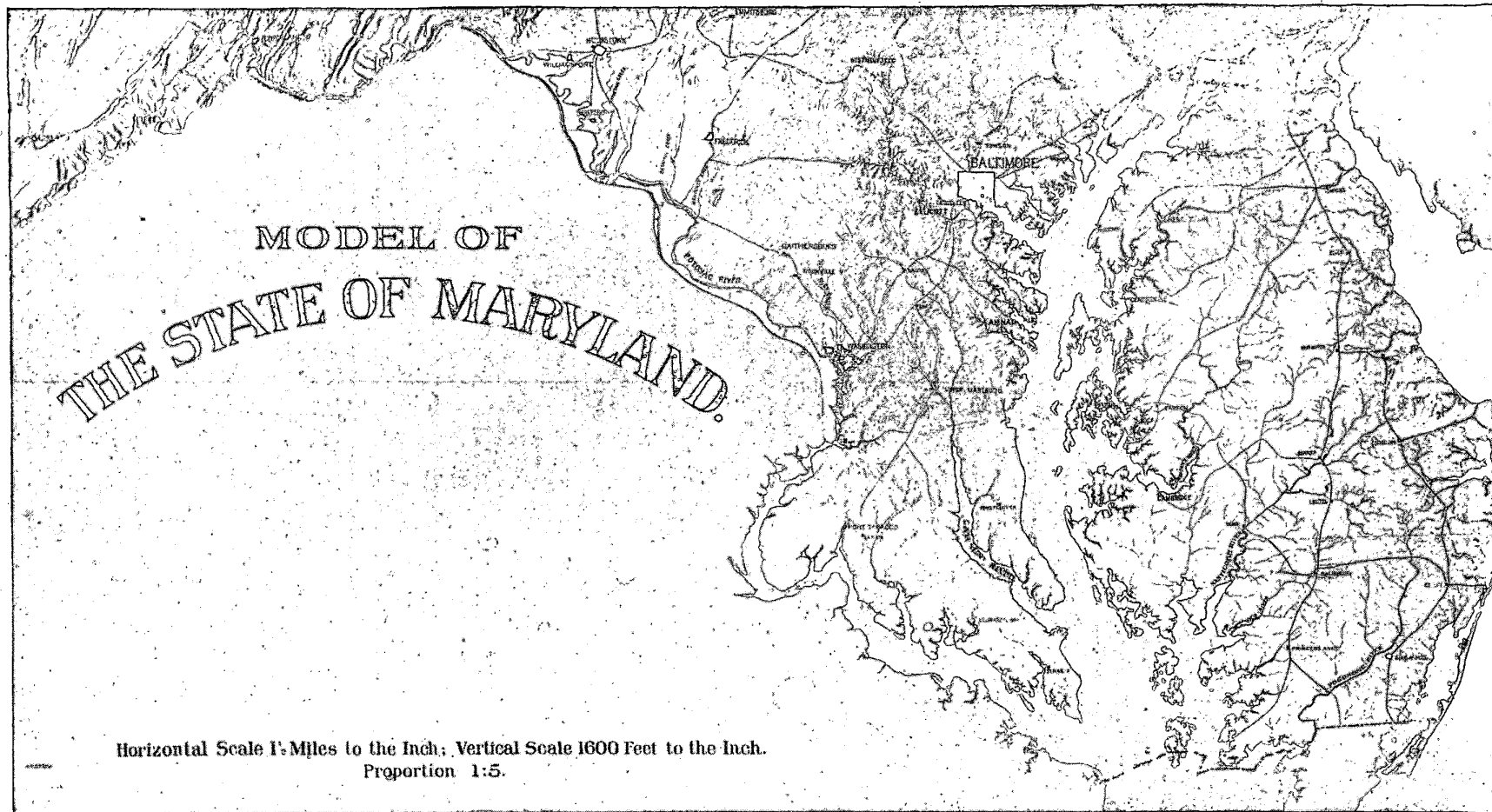


KEY TO SYMBOLS.

- △ Voluntary Observation Station.
- Forecast Display Station.
- ⊕ Voluntary Observation and Forecast Display Station
- Regular Weather Bureau Station.

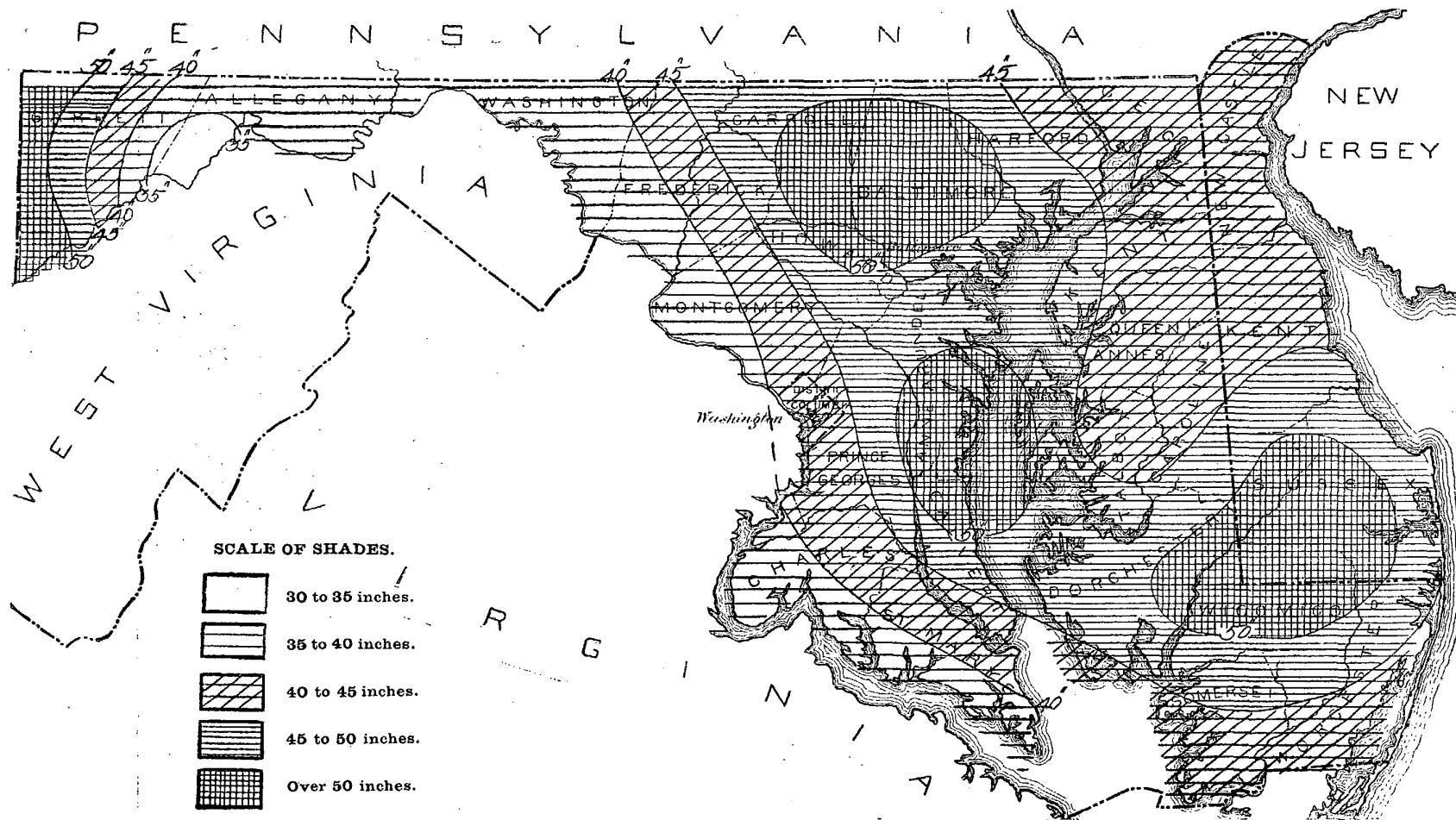
VIEW OF MODEL OF THE STATE OF MARYLAND.

[In the custody of the Maryland Geological Survey.]



NOTE.—The scales given above apply to the original model and not to this representation.

TOTAL PRECIPITATION, 1897.



**VOLUNTARY OBSERVERS.**

Stations.	Observers.	Stations.	Observers.	Stations.	Observers.
<b>MARYLAND.</b>		<b>MARYLAND—continued.</b>		<b>MARYLAND—continued.</b>	
Annapolis	J. E. Abbott.	Grantsville	J. S. Miller.	Sunnyside	J. G. Knaner.
Bachman's Valley	J. M. Myers.	Great Falls	Capt. D. D. Gaillard.	Taneytown	Prof. H. Meier.
Baltimore	U. S. Weather Bureau.	Green Spring Furnace	E. G. Kinsell.	Van Bibber	H. A. Wroth.
Baltimore, J. H. Hospital	W. L. Woods.	Hagerstown	Prof. C. E. Carl.	Westernport	Prof. O. H. Bruce.
Boettcherville	F. F. Brown.	Jewell	J. Plummer.	Western Md. College	Prof. Roland Watts.
Charlotte Hall	Prof. J. F. Coad.	Laurel	Dr. T. M. Baldwin.	Woodstock	T. J. A. Freeman, S. J.
Cherryfields	Col. J. E. Coad.	McDonogh	S. H. Moore.	<b>DELAWARE.</b>	
Chestertown	Hon. M. DeK. Smith.	Md. Agricultural Coll.	Prof. H. J. Patterson.	Kirkwood	J. S. Carnagy.
Cumberland	Shriver & Rizer.	Mardela Springs	A. E. Acworth.	Milford	J. Y. Foulk.
Cumberland	Webster Bruce.	Mt. St. Mary's College	J. A. Mitchell, Ph. D.	Millsboro	Rev. L. W. Wells.
Darlington	Prof. A. F. Galbreath.	New Market	Dr. H. H. Hopkins.	Newark	Prof. W. H. Bishop.
Deer Park	S. P. Specht.	Pocomoke City	R. M. Stevenson.	Seaford	H. L. Wallace.
Denton	F. C. Ramsdell.	Port Deposit	J. I. France.	<b>DISTRICT OF COLUMBIA.</b>	
Easton	Henry Shreve.	Princess Anne	J. R. Stewart.	Distributing Reservoir	Capt. D. D. Gaillard.
Fallston	G. G. Curtis, A. M.	St. Charles College	Rev. L. J. Harig.	Receiving Reservoir	Capt. D. D. Gaillard.
Flintstone	N. T. Downs.	Sharpsburg	R. L. Hiberger.	Washington	U. S. Weather Bureau.
Frederick	McClintock Young.	Smithsburg	Rev. L. J. Bell.		
Frederick	Miss Irene Martin.	Solomons	W. H. Marsh, M. D.		

**FORECAST DISPLAYMEN.**

[Figures in parenthesis indicate number of post-offices or addresses supplied with forecasts from distributing centers.]

Stations.	Displaymen.	Stations.	Displaymen.	Stations.	Displaymen.
<b>MARYLAND.</b>		<b>MARYLAND—continued.</b>		<b>DELAWARE—continued.</b>	
Annapolis (12)†	W. M. Abbott.	Manchester	C. J. H. Ganter.	Milford	J. T. Foulk.
Baltimore (910)	U. S. Weather Bureau.	Middletown	G. C. Rhoderick, jr.	Seaford	H. L. Wallace.
Baltimore, Anchorage†	T. Hansen.	Oakland	Dr. J. L. McComas.	Smyrna (4)	A. E. Jardine.
Baltimore	S. R. Shinn, B. & Lehigh R. R.	Ocean City	Capt. J. J. Demton.	Wilmington	Chief Operator, W. & N. R. R.
Baltimore	B. H. Griswold, Western Md. R. R.	Oxford†	H. S. Matthews.	<b>DISTRICT OF COLUMBIA.</b>	
Berlin	L. L. Dirickson, jr.	Pocomoke City	R. M. Stevenson.	Washington (208)	U. S. Weather Bureau.
Boonsboro (7)	C. E. Huntsberry.	Salisbury	A. J. Benjamin, Baltimore, Ches. & Atlantic R. R.	<b>NEW YORK.</b>	
Bradshaw (19)	B. F. Taylor.	Salisbury (17)	Miss M. D. Ellegood.	New York City (1)	U. S. Weather Bureau.
Cambridge	Samuel Leman.	Snow Hill	Pursell & Vincent.	<b>PENNSYLVANIA.</b>	
Chestertown	C. S. Smith.	Sykesville (17)	James S. Hyatt.	Philadelphia (34)	U. S. Weather Bureau.
Easton	Henry Shreve.	Westover	E. D. Long.		
Emmitsburg	Prof. J. A. Mitchell.	<b>DELAWARE.</b>			
Frederick	W. T. Delaplaine, "News."	Laurel	Sussex Countian.		
Frostburg (42)	J. N. Benson.				
Hagerstown	Ira W. Hays.				

† Wind signal display stations.

**CLIMATE AND CROP CORRESPONDENTS.**

Correspondents.	Stations.	Correspondents.	Stations.	Correspondents.	Stations.
Acworth, A. E.	Mardela Springs.	Dickerson, W. H.	Dickerson.	Lohr, P. P.	Bittinger.
Adams, H. C.	Mechanicsville.	Donaldson, R. T.	Patuxent.	Marsh, Dr. W. H.	Solomons.
Aldison, C. G.	Springfield.	Dutrow, R. C.	Adamstown.	McAvoy, Hugh	Clarkson.
Albaugh, J. H.	Libertytown.	Duttera, A.	Taneytown.	Meier, Prof. H.	Taneytown.
Allen, J. R.	Rising Sun.	Eckert, W. H.	Copperville.	Miller, J. A.	Keedysville.
Amos, J. W.	Waterbury.	Ellison, J. F.	Lake Shore.	Miller, J. S.	Grantsville.
Anderson, J. F.	Dayton.	Englar, J.	Linwood.	Moore, S. H.	McDonogh.
Baily, J. F.	Harris Lot.	Finkbine, W. B.	Annapolis.	Nelson, J. B.	St. George, Del.
Balderston, George.	Colora.	Foulk, J. Y.	Milford, Del.	Nichols, E. J.	Nichols.
Baldwin, Dr. T. M.	Laurel.	Freer, Capt. D.	Queenstown.	Patterson, Prof. H. J.	College Park.
Barnes, Rev. L. W.	Hancock.	Gibson, C. W.	Aldino.	Phelps, Dr. F. P.	Mt. Holly.
Bay, A. S.	Vale.	Graves, E.	Hill's Point.	Roe, F. P.	Greensboro.
Beall, A. L.	Collington.	Hamilton, B. F.	Newark, Del.	Shreve, Henry	Easton.
Bennett, J. S.	Vienna.	Hamilton, C. R.	Flintville.	Stallings, J. L.	St. Margarets.
Benzinger, A. M.	Woodstock.	Harig, Rev. L. J.	St. Charles College.	Stokes, S. A.	Cornersville.
Bishop, Prof. W. H.	Newark, Del.	Harris, J. S.	Coleman.	Stewart, P. E.	Jewell.
Bixler, E. C.	Westminster.	Hatch, S. S.	Crownsville.	Sweet, W. W.	Swanton.
Blakiston, J. F.	White Plains.	Hendrickson, M. C.	Dickens.	Taylor, B. F.	Bradshaw.
Blocher, I. M.	Alesia.	Hess, N. R.	Harney.	Thomas, W. B.	Malcolm.
Bloodsworth, J. R.	Mt. Vernon.	Hochstedler, D.	Cove.	Thompson, W. J.	Scarboro.
Brashears, L.	Muirkirk.	Hopkins, Dr. H. H.	New Market.	Tydings, J. H. A.	St. Margarets.
Brown, F. F.	Cumberland.	Hopkins, M. T.	Highland.	Walls, S. H.	Sudlerville.
Bunce, C. J.	Mt. Lake Park.	Huyett, M. H.	Huyett.	Watkins, B.	Rutland.
Carlin, Dr. J. S.	Slidell.	Israel, P. H.	Davidsonville.	Welber, H. A.	Graceham.
Carnagy, J. S.	Kirkwood, Del.	Jackson, C. S.	Dallsville.	Welch, E. O.	Bristol.
Carsins, E. E.	Aberdeen.	Kelly, W. T.	Preston.	Wells, Rev. L. W.	Millsboro, Del.
Coad, Prof. J. F.	Charlotte Hall.	Kinsell, E. G.	Green Spring Furnace.	Witherow, W. W.	Taneytown.
Corbin, T. R.	Corbin.	Knauer, J. G.	Sunnyside.	Witmer, D. J.	Beaver Creek.
Coulborn, Ira N.	Marion Station.	Lee, A. J.	Deer Park.	Wood, Z. H.	Allen's Fresh.
Curtiss, G. G., A. M.	Fallston.	Leister, I. Dickson	Finksburg.	Wroth, H. A.	Van Bibber.