

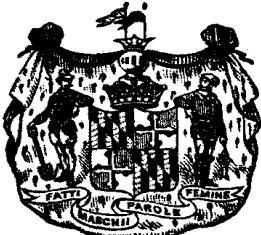
FEB 15 1896

U. S. DEPARTMENT OF AGRICULTURE, WEATHER BUREAU,

CO-OPERATING WITH THE

MARYLAND STATE WEATHER SERVICE

Established by an Act of the General Assembly of the State of Maryland, 1892,
and Maintained in Connection with



The Johns Hopkins University and the Maryland Agricultural College.
CENTRAL OFFICE, JOHNS HOPKINS UNIVERSITY, BALTIMORE, MD.

PROF. WM. B. CLARK,
JOHNS HOPKINS UNIVERSITY,
Director.

PROF. MILTON WHITNEY,
MARYLAND AGRICULTURAL COLLEGE,
Secretary and Treasurer.

DR. C. P. CRONK,
U. S. WEATHER BUREAU,
Meteorologist in Charge.

VOL. V, No. 10.

MONTHLY REPORT.

FEBRUARY 10, 1896.

Contains Review for the Month of January.

Death of Mr. E. T. Shriver.

Mr. E. T. Shriver, of Cumberland, who was probably the oldest observer of the Maryland State Weather Service, and the oldest voluntary observer of the U. S. Weather Bureau in Maryland, died February 7th. Meteorology was one of his greatest pleasures, as shown by his careful and regular series of observations extending over a period of nearly 25 years. It may safely be said that no one has been more constant and conscientious in recording climatic data, and that no set of observations has been of greater value in the deduction of Maryland's climate than that furnished by Mr. Shriver. His record of observations began in 1871, and from the beginning of 1874, almost to the day of his death, was without a break.

His last report was received at this office February 3rd, and included his observations for every day in January. The form was complete, even to the footings of the columns of figures and, as always in the case of his work, without an error.

We cannot point to another record like this, and we know that his usefulness in this, the work of spare moments, was but typical of his life as a whole.

The following extracts are quoted from an extended notice which appeared in the Cumberland *Daily News* of February 8th:

"E. T. Shriver, one of Cumberland's oldest and most highly respected citizens, died at his residence on West Washington Street, at 12.35 yesterday afternoon, at the ripe age of nearly 81. About two years ago he sustained a slight stroke of paralysis, from which he never fully recovered, and, though able for a time to resume his duties at the First National Bank, of which he

was vice-president, he had been very feeble ever since the attack. Last Sunday he had another attack, resulting in a fall which proved a great shock to his system and hastened the end. His death was peaceful and painless.

"Edwin Thomas Shriver was the son of the late Thomas Shriver, for many years mayor of Cumberland, and was born at Union Mills, Carroll County, Md., October 17, 1815. Most of his boyhood was passed in Frederick, Md., and when about 17 years old he went to Baltimore and took a position as clerk in the Susquehanna Bridge & Banking Company. In 1834, when about 19, Mr. Shriver came to Cumberland and took the position of bookkeeper in the Cumberland Bank of Alleghany, of which his uncle, the late Joseph Shriver, was cashier. In 1852 the latter became president and the deceased was made cashier. In 1864 this institution became the First National Bank. Mr. E. T. Shriver held the position of cashier until January, 1886, when he was chosen vice-president, the bank thereby retaining the benefit of his counsel and ripened experience, while the lighter duties were better fitted to his advancing years. He held the position of vice-president to the time of his death. Of quick intelligence and sound judgment, courteous to all, but firm when his mind was made up, he made a model bank officer, and his banking record (of sixty-two years in one institution) has been one seldom equaled. Both the officers and patrons of the bank placed the most implicit confidence in his judgment and integrity, and he did much toward building up the institution.

"In the course of his long and busy life Mr. Shriver found time to attend to various important interests outside those of banking. He

was one of the originators and incorporators of the Cumberland Gas Light Company in 1854 and was secretary and treasurer and a director of the company up to 1886, when he became its president, holding that position until 1893. From 1836 to 1852 he was agent at this point of the Good Intent Stage Company, one of the lines running on the National road. He was one of the originators of Cumberland's first building association, The Enterprise, soon after the war. From all this it will be seen that his life was one of great activity and usefulness.

"A study for which he had a decided bent and taste and to which he devoted a great deal of time and attention, was that of meteorology. He possessed a full set of fine instruments, including delicate recording thermometers, barometers and rain-gauges, and for the past twenty-five years had been the official observer of the government at this point. He kept full and accurate records of the temperature, rainfall, etc., and systematically tabulated them. The results were sent, first to the Smithsonian Institution, afterward to the Weather Bureau, and latterly to the Johns Hopkins University. Mr. Shriver's interest in meteorological matters never flagged. He was genial and well read, a keen observer and an excellent conversationalist. He retained his faculties up to within a day or two of his death, and to the last was a steady reader and a close watcher of the world's progress.

"By Mr. E. T. Shriver's death our city loses a citizen who, though for several years retired from active life, and always quiet and unassuming, did much toward making Cumberland what it is, and was in every department of life worthy, useful and respected."

Review of the Month—Jan.

WEATHER.

Temperature (degrees).—Monthly mean (entire territory), 31.9, being the same as the normal; highest monthly mean, 38.0, at Pocomoke City; lowest monthly mean, 25.1, at Sunnyside; highest temperature, 66, at Boettcher-ville, on the 30th; lowest temperature, —13, at

Deer Park, on the 6th; greatest local monthly range, 65, at Frederick and Hancock; least local monthly range, 43, at Van Bibber; monthly mean range, 52.8; monthly mean maximum, 39.5; monthly mean minimum, 24.6.

Precipitation (in inches).—Average, 1.80, being 1.46 below the normal; greatest amount, 3.33, at Burkittsville; least amount, 0.90, at Deer Park. The greatest fall of snow during the month, in Maryland, 8.7 inches, is reported by the observer at Oakland. Sunnyside reports 8.5 inches.

Wind.—Prevailing direction, northwest. Total movement in miles, Philadelphia, Pa., 8117; Baltimore, Md., 6299; Washington, D. C., 5513; Norfolk, Va., 6363.

Thunderstorms.—At Fallston, on the 24th; at Jewell, on the 24th; at Upper Marlboro, on the 24th.

Hail.—At Grantsville, on the 23rd; at Hancock, on the 23rd; at New Market, on the 3rd, 9th, 19th, 23rd; at Wilmington, Del., on the 31st.

Sleet.—At Deer Park, on the 23rd; at Grantsville, on the 23rd; at Green Spring Furnace, on the 23rd; at Hancock, on the 23rd; at Oakland, on the 9th, 10th, 22nd, 23rd, 24th; at Sharpsburg, on the 23rd; at Woodstock, on the 18th, 19th, 23rd.

Fogs, dense.—At Burkittsville, on the 19th, 20th, 21st, 22nd; at Jewell, on the 22nd, 24th, 25th; at Millsboro, Del., on the 22nd; at Solomon's, on the 25th; at Wilmington, Del., on the 9th, 20th, 21st, 22nd, 23rd, 24th, 25th, 30th, 31st.

Halos, Solar.—At Green Spring Furnace, on the 17th; at Jewell, on the 15th, 16th, 27th.

Halos, Lunar.—At Jewell, on the 29th, 30th; at Pocomoke City, on the 29th.

Coronas, Lunar.—At Wilmington, Del., on the 22nd, 24th.

Polar Bands.—At Cumberland, on the 13th, 29th.

Aurora.—At Solomon's, on the 8th.

Zodiacal Light.—At Cumberland, on the 12th.

Meteor.—At Mardela Springs, on the 16th.

DAILY PRECIPITATION FOR JANUARY, 1896.

NOTE.—“T” indicates a trace of rain or melted snow. † Not measured until next observation.

Reports for December, 1895, received too late for earlier publication.

* See foot-note on next page.

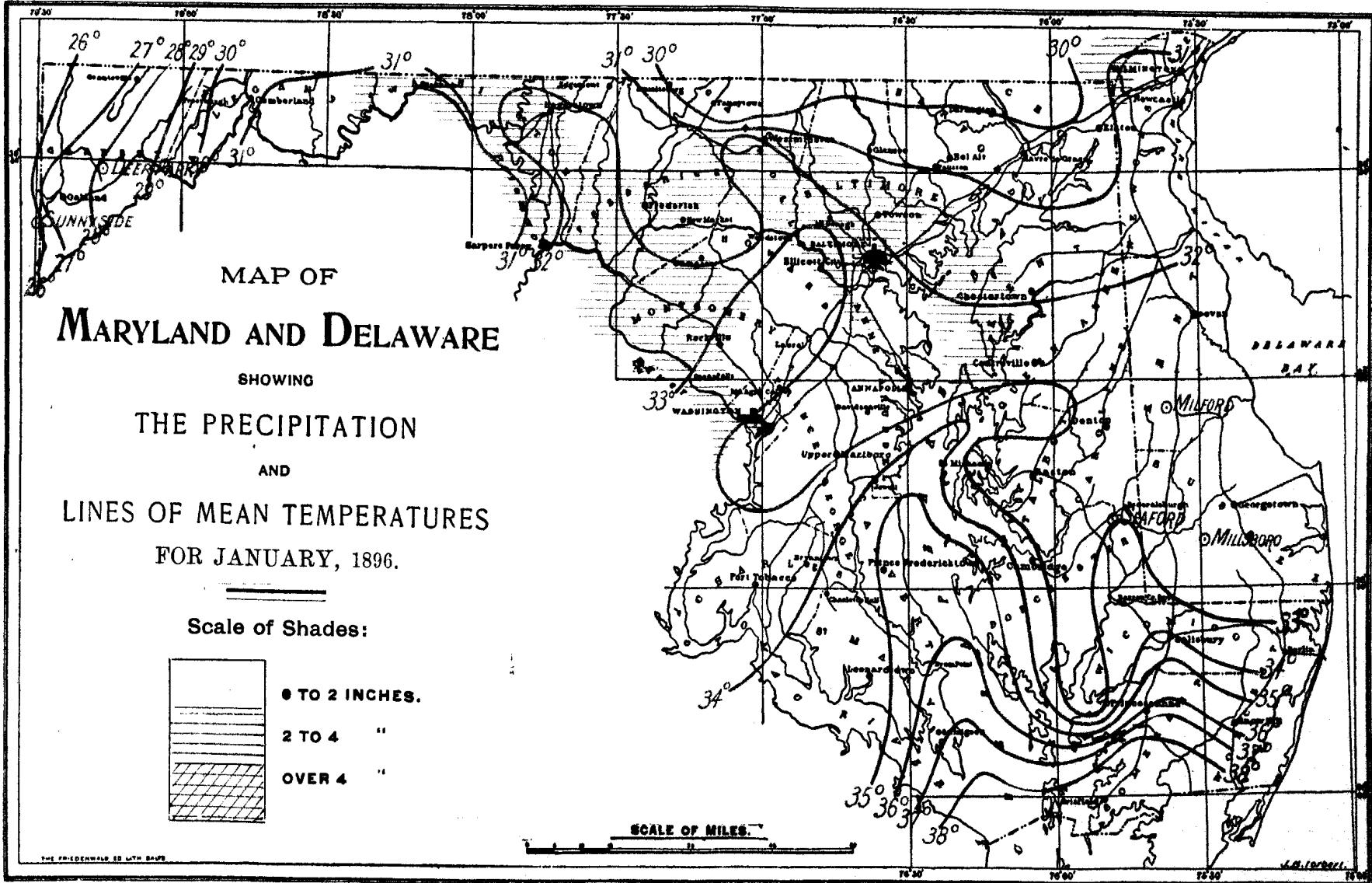
MONTHLY SUMMARY OF REPORTS FOR JANUARY, 1896.

STATIONS.	COUNTIES.	Altitude above sea in ft.	Latitude.	Longitude.	TEMPERATURE.										Total Precipi- tation.	Total Show-fall.	Clear Days.	Fair Days.	Cloudy Days.	Rainy Days. (.01 in. or more)	Prevailing Winds.
					Monthly Mean.	Mean of Max.	Mean of Min.	Max.	Min.	Degrees.	Date.	Degrees.	Date.	Monthly Range.							
WESTERN MARYLAND.																					
Sunnyside.....	Garrett.....	2440	39° 20'	79° 21'	25.1	33.3	16.9	50	31	-6	4	56	1.73	8.5	8	8	15	11	S. W.		
Oakland.....	Garrett.....	2380	39 24	79 25	27.2	37.1	17.2	52	8, 30	-7	6	59	1.81	8.7	6	8	17	13	S. W.		
Deer Park.....	Garrett.....	2457	39 25	79 20	27.4	35.3	19.6	50	30, 31	-13	6	63	0.90	4.0	...	...	...	...	...
Grantsville.....	Garrett.....	39 45	79 10	26 8	33.1	19.0	50	30	8	6	58	1.81	...	...	...	...	...	...	...
Westernport.....	Allegany.....	39 28	79 2	28.6	37.1	20.0	54	30	0	4	54	2.02	0.7	...	...	...	...	...	...
Boettcherville*.....	Allegany.....	900	39 39	78 48	30.5	...	...	66	30	4	4, 5	62	1.30	...	...	...	...	...	...
Cumberland, † Shriver & Rizer.	Allegany.....	650	39 39	78 46	36.0	46.6	25.4	75	2	5	3, 4	70	1.52	0.2	...	...	...	...	...
Cumberland, E. T. Shriver.	Allegany.....	700	39 39	78 45	30.8	36.4	25.2	56	30	6	4, 5	50	1.41	...	8	9	14	2	...		
Hancock.....	Washington.....	39 40	78 10	31.7	40.6	22.8	65	30	0	6	65	2.07	0	11	10	10	2	W.			
Green Sp. Furnace.	Washington.....	500	39 38	77 58	30.8	39.0	22.7	59	30	0	6	58	2.54	0	12	8	11	3	E.		
Hagerstown.....	Washington.....	550	39 39	77 43	32.2	39.3	25.1	61	30	6	5, 6	55	2.20	0	11	4	16	3	...		
Sharpsburg.....	Washington.....	39 25	77 44	30.7	36.5	24.9	57	30	5	6	52	2.70	T	14	4	13	4	4	S. E.		
NORTHERN-CENTRAL MD.																					
Burkittsville.....	Frederick.....	39 25	77 35	...	...	...	...	...	...	...	...	...	3.33	T	...	...	...	...	...
Mt. St. Mary's Col. "K"	Frederick.....	720	39 40	77 20	31.8	38.3	25.4	* 56	30	-5	4, 5	51	0.96	T	7	14	10	3	...		
Frederick.....	Frederick.....	250	39 25	77 25	32.4	39.2	25.6	60	16	-5	5	65	2.09	T	...	...	...	...	...
Woman's Col. Fred.	Frederick.....	39 25	77 25	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
New Market.....	Frederick.....	550	39 23	77 16	30.8	36.9	24.6	55	30	5	6	50	2.58	T	14	6	11	4	N. W.		
Bachman's Val.	Carroll.....	39 37	76 55	29.2	36.3	22.2	52	30	4	6	48	1.40	1.0	16	4	11	4	N. W.			
Western Md. Col. Westminster.	Carroll.....	39 25	77 0	32.0	38.4	25.2	54	31	4	5	50	2.07	0.4	18	3	10	3	...			
McD'n'g Sch'l.	Baltimore.....	545	39 23	76 46	32.8	38.8	26.7	55	30	6	6	49	...	...	...	...	...	...	...
Woodstock Col.	Baltimore.....	400	39 20	76 52	31.4	38.3	24.4	55	30	5	6	50	1.76	0.5	15	6	10	2	N. W.		
Baltimore.....	141	39 17	76 33	33.6	39.2	28.0	59	30	9	5	50	2.62	1.0	9	10	12	4	W.			
Johns Hopkins Hos.	...	39 17	76 33	32.2	39.0	25.3	59	30	8	5, 6	51	...	...	...	...	...	...	...
St. Charles Coll. nr Ellicott City.	Howard.....	300	39 16	76 44	34.6	40.2	29.1	60	30	10	5	50	1.79	T	22	...	9	3	N. W.		
Great Falls* ⁵ .	Montgomery.....	150	39 0	77 15	32.0	...	...	55	30	9	6	46	2.23	...	...	...	...	...	...
Fallston School* ² .	Harford.....	450	39 30	76 24	31.0	...	...	55	30	9	4, 5, 6	46	1.91	1.0	7	15	9	4	N. W.
Van Bibber "a"	Harford.....	...	...	...	31.8	36.4	27.2	51	25, 30	8	4, 5	43	2.05	2.3	...	...	...	...	...
Darlington Acad'y.	Harford.....	300	39 38	76 12	30.4	37.5	23.4	58	30	5	6	53	1.34	0.5	13	7	11	3	N. W.		
SOUTHERN MARYLAND.																					
Annapolis+.	Anne Arund'l	20	38 58	76 30	31.4	38.2	24.6	54	26	5	4	49	2.70	0	21	0	10	3	N. W.		
Jewell.....	Anne Arund'l	165	38 45	76 37	33.2	40.3	26.2	60	30	6	6	54	1.83	T	17	5	9	3	...		
Dist. Res. D. C. **	120	38 55	77 6	33.0	...	...	56	30	10	6	46	1.89	...	...	...	...	...	...	...
Rec. Res. D. C. **	160	38 57	77 7	32.7	...	...	56	30	9	6	47	1.94	...	...	...	...	...	...	...
Washington, D. C.	112	38 54	77 3	33.3	40.1	26.5	59	30	8	6	51	2.27	...	9	11	11	4	N. W.			
Md. Agric't. Col. College Park.	Pr. George's.	170	38 58	76 56	35.0	42.7	27.3	62	30	8	6	54	1.81	0.5	...	...	...	...	...
Upper Marlboro "a"	Pr. George's.	...	38 47	76 45	31.8	40.2	23.2	59	30	4	6	55	1.86	0.5	17	4	10	3	N. W.		
Solomon's.....	Calvert.....	20	38 19	76 27	34.9	41.7	28.1	61	30	11	5, 6	51	1.54	T	9	3	19	4	N.		
Charlotte Hall.....	St. Mary's.....	...	38 28	76 48	33.6	42.0	25.2	59	30	5	6	54	1.89	T	16	10	5	2	N. W.		
St. Mary's.....	...	38 11	76 24	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
EASTERN MD. AND DELAWARE.																					
Chestertown.....	Kent.....	80	39 13	76 4	31.8	38.5	25.1	56	30	8	5, 6	48	2.20	1.0	18	6	7	2	N. W.		
Denton.....	Caroline.....	42	38 53	75 50	33.8	41.8	25.8	62	25, 30	7	5	55	1.52	T	...	...	...	...	...
Easton.....	Talbot.....	35	38 46	76 5	32.5	39.9	25.2	59	24	8	6	51	1.18	0	15	9	7	3	N. W.		
Cambridge.....	Dorchester.....	38	38 44	76 7	34.8	41.3	28.3	59	24	11	5	48	1.42	2.5	11	15	5	3	N. W.		
Mardela Springs.....	Wicomico.....	25	38 28	75 45	33.1	40.9	25.3	61	24	6	6	55	0.95	T	10	12	9	3	N. W.		
Princess Anne.....	Somerset.....	20	38 12	75 41	32.6	42.0	23.1	61	24	4	6	57	1.21	T	8	17	6	7	N. W.		
Pocomoke City.....	Worcester.....	37	38 5	75 34	38.0	46.0	29.0	64	24	9	6	55	1.33	T	12	12	9	7	N. W.		
Wilmington, Del.	Newcastle.....	115	38 44	75 33	31.9	38.1	25.7	55	30	8	6	47	2.59	1.6	10	15	6	6	N. E.		
Delaware College. Newark, Del.	Newcastle.....	39 40	75 37	29.8	36.4	23.2	54	30	4	6	50	1.30	1.5	11	4	16	3	3	N. W.		
Dover, Del.	Kent.....	40	39 10	75 30	32.1	38.5	26.1	56	24, 30	9	6	47	1.57	0	19	2	10	5	N. W.		
Milford, Del.†	Kent.....	20	38 55	75 25	33.2	44.0	25.5	65	24	9	6	56	1.41	0.4	23	2	6	5	N. W.		
Seaford, Del.....	Sussex.....	38 40	75 36	33.0	41.0	25.1	61	24	6	6	55	1.03	T	...	...	...	...	...
Millsboro, Del.....	Sussex.....	38 44	75 15	32.2	40.7	23.8	63	24	6	6	57	1.81	0.2	17	7	7	6	N.			
PENNSYLVANIA.‡																					
Philadelphia.....	...	...	...	...	31.1	36.6	25.6	53	30	4	6	49	1.57	1.0	10	11	6	N. W.	
VIRGINIA.‡																					
Norfolk.....	...	...	...	...	34.4	42.1	26.6	61	24	7	6	54	1.67	...	11	10	8	4	E.
Warsaw.....	...	...	...	...	38.6	45.5	32.2	65	24	14	6	54	1.89	...	14	6	11	6	N.
AVERAGES.																					
Western Maryland.....	29.3	36.8	21.3	57.5	1.86	2.7	10.0	7.8	13.7	5.6	S. W.	
Northern-Cent'l Md.....	31.9	36.2	25.6	50.1	2.01	0.5	13.4	7.4	10.8	3.2	N. W.	
Southern Maryland.....	33.4	41.5	26.1	51.5	1.82	0.2	13.6	6.6	10.8	3.2	N. W.	
East. Md. and Del.....	33.0	41.4	25.5	52.1	1.51	0.7	13.1	9.9	8.3	4.6	N. W.	
Entire territory.....	31.9	39.5	24.6	52.8	1.80	1.0	12.5	7.6	10.8	4.2	N. W.	

* Extremes of temperature from observed readings of dry thermometer. A numeral following the name of a station indicates the hours of observation from which the mean temperature was obtained, thus:

† Mean of 7 a. m. + 2 p. m. + 9 p. m. + 4. * Mean of 8 a. m. + 8 p. m. + 2. ** Mean of 7 a. m. + 2 p. m. + 2.

The absence of a numeral indicates that the mean temperature has been obtained from daily readings of the maximum and minimum thermometers. Letters of the alphabet are used to denote the number of days



Meteorological and Weather Signal Display Stations of the Maryland State Weather Service.

Stations.	Counties.	Meteorological Observers.	Displaymen.
Annapolis	Anne Arundel	J. E. Abbott.....	W. M. Abbott.
Appleton	Cecil	J. M. Myers.....	W. C. Henderson.
Bachman's Valley	Carroll	{ C. P. Cronk. A. T. Brewer.	Weather Bureau.
Baltimore			
Baltimore, (The Anchorage)	Harford	F. F. Brown.	Thos. Hansen.
Bel Air	Allegany	J. P. Slifer.	N. N. Nock.
Boettcherville	Baltimore	J. S. Shepherd.	B. F. Taylor.
Bradshaw	Frederick	J. Francis Coad.	A. W. Nicodemus.
Buckeystown	Frederick	J. Edwin Coad.	
Burkittsville	Dorchester	Hon. M. deK. Smith.	
Cambridge	St. Mary's	Shriver and Rizer.	
Charlotte Hall School	St. Mary's	E. T. Shriver.	
Cherryfields	Kent	Prof. A. F. Gaibreath.	
Chestertown	Allegany	S. P. Specht.	
Cumberland	Harford	Prof. Wm. H. Bishop.	W. E. Reybold.
Darlington Academy	Garrett	F. C. Ramsdell.	
Deer Park	New Castle		
Delaware City, Del.	New Castle		
Delaware College, Newark, Del.	Caroline		
Denton	Montgomery		
Dickerson	Kent	Washington Aqueduct.	W. H. Dickerson.
Distributing Reservoir, D. C	Talbot	Jno. S. Jester.	
Dover, Del.	Harford	Henry Shreve.	Henry Shreve.
Easton	Allegany	G. G. Curtiss, A. M.	N. T. Downes.
Fallston School	Frederick	McClintock Young.	"The News."
Flintstone	Allegany		J. N. Benson.
Frederick	Howard		Walter Dorsey.
Frostburg	Baltimore		J. J. Dyer.
Garey P. O.	Garrett	J. S. Miller.	T. H. Bittinger.
Glyndon	Montgomery	Washington Aqueduct.	
Grantsville	Washington	E. G. Kinsell.	
Great Falls	Washington	Prof. C. E. Carl.	H. H. Meals.
Green Spring Furnace	Carroll	Dr. J. S. Diehl.	
Hagerstown	Washington		Miss C. A. Forde.
Hampstead	Washington		W. S. McCombs.
Hancock	Kent	Jos. Plummer.	
Hartly, Del.	Harford	W. L. Woods.	
Havre de Grace	Anne Arundel		
Jewell	Kent		
Johns Hopkins Hospital, Baltimore	New Castle		
Kenton, Del.	Charles	J. S. Carnagy.	
Kirkwood, Del.	Prince George's	J. S. Turner.	J. S. Turner.
La Plata	Sussex	Dr. T. M. Baldwin.	
Laurel	Allegany		
Laurel, Del.	Wicomico		E. D. C. Hegeman.
Lonaconing	Prince George's		J. J. Robinson.
Mardela Springs	Baltimore		L. A. Wilson.
Maryland Agricultural College	Frederick	A. E. Aoworth.	
McDonogh School	Anne Arundel	Prof. J. H. Patterson.	
Middletown	Frederick	H. Norwig.	
Milford, Del.	Kent	J. Y. Foulk.	G. C. Rhoderick, Jr.
Millsboro, Del.	Sussex	Rev. L. W. Wells.	J. Y. Foulk.
Mt. St. Mary's College	Frederick	J. A. Mitchell, Ph. D.	Jos. H. Martin.
Oakland	Garrett	J. Lee McComas, M. D.	J. L. McComas, M. D.
Odenton	Anne Arundel		E. B. Watts.
Princess Anne	Somerset	Jas. R. Stewart.	
Pocomoke City	Worcester	R. M. Stevenson.	R. M. Stevenson.
Pope's Creek	Charles	George Dent.	
Receiving Reservoir, D. C.	Washington Aqueduct.		
Rising Sun	Cecil		
Salisbury	Wicomico		
Seaford, Del.	Sussex		
Sharpsburg	Washington	H. L. Wallace.	
Snow Hill	Worcester	R. L. Hibarger.	
Solomon's	Calvert		
St. Charles Coll., nr. Ellicott City	Howard		Purnell & Vincent.
Sunnyside	Garrett		
Sykesville	Carroll		
Upper Marlboro	Prince George's		
Van Bibber	Harford		
Washington, D. C	Allegany		
Western Port	Howard		
West Friendship	Carroll		
Westminster	Somerset		
Westover	New Castle		
Wilmington, Del.	Frederick		
Woodsboro	Baltimore		
Woodstock College	Frederick		
Woman's College, Frederick	Frederick	T. J. A. Freeman, S. J.	
		Miss W. A. Lantz.	

U. S. WEATHER BUREAU STATIONS FURNISHING REPORTS.

Baltimore, Md.	{ J. B. Marbury. G. N. Wilson. J. H. Donaldson. Jas. J. Gray.	Weather Bureau.
Norfolk, Va.	L. M. Dey.	
Philadelphia, Pa.	S. W. Beall.	
Washington, D. C.		