

STATE WEATHER BUREAU
WEATHER BUREAU
RECEIVED JUL 25, 1895

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,
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Secretary and Treasurer.

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

VOL. V, No. 3.

MONTHLY REPORT.

JULY, 1895.

Contains Review for the Month of June.

Review of the Month—June.

WEATHER.

Temperature (degrees).—Monthly mean (entire territory), 73.2, being .7 above the normal; highest monthly mean, 77.2, at Wilmington, Del.; lowest monthly mean, 65.3, at Oakland. Highest temperature, 102, at Westernport, on the 25th; lowest temperature, 37, at Deer Park, on the 6th and 8th. Greatest local monthly range, 62, at Deer Park; least local monthly range, 30, at Oldtown. Monthly mean range (entire territory), 46.4; monthly mean maximum, 84.1; monthly mean minimum, 62.0.

In considering high monthly mean temperatures it is notable that Wilmington, Del., leads the station of Shriver and Rizer, at Cumberland, by .1 only. It is remarkable, also, that the mean temperature reported by Shriver and Rizer is 5.4 higher than that reported by E. T. Shriver, of the same place.

Precipitation (in inches).—Average (entire territory), 3.92, being .77 above the normal. Greatest amount, 7.86, at Chestertown; least amount, .75, at Westernport.

Thunderstorms.—At Baltimore on the 5th, 12th, 13th, 14th, 24th, 26th, 27th, 29th; at Charlotte Hall, on the 22nd, 24th, 27th, 29th, 30th; at Cherryfields on the 24th, 25th, 27th, 30th; at Chestertown, on the 4th, 14th, 21st, 23rd, 26th, 29th; at Deer Park, on the 13th; at Denton, on the 24th; at Dover, on the 12th, 24th, 27th, 30th; at Frederick, on the 5th, 11th, 12th, 13th, 24th, 26th, 27th, 29th, 30th; at Garrison, on the 5th, 11th, 12th, 13th, 15th, 24th, 26th, 27th, 29th, 30th; at Glyndon, on the 12th, 26th, 29th; at Grantsville, on the 4th, 13th, 14th, 19th, 24th, 26th, 27th, 30th; at Green Spring Furnace, on the 3rd, 5th, 6th, 11th, 12th, 13th, 26th; at Hancock, on the 13th, 24th, 26th, 27th; at Jewell, on

the 5th, 11th, 12th, 13th, 21st, 24th, 27th, 29th, 30th; at Laurel, on the 5th, 11th, 12th, 13th, 24th, 26th, 27th, 30th; at Mardela Springs, on the 3rd, 5th, 13th, 21st, 24th, 26th, 30th; at Milford, on the 5th, 24th; at Millsboro, on the 13th, 24th, 25th, 26th, 27th; at Mt. St. Mary's, on the 26th; at Newark, on the 2nd, 5th, 27th, 30th; at Oakland, on the 4th, 5th, 13th, 14th, 25th, 26th; at Oldtown, on the 4th, 5th, 24th, 25th; at Pocomoke City, on the 24th, 26th; at Pope's Creek, on the 5th, 24th, 29th, 30th; at Princess Anne, on the 24th, 27th, 30th; at Seaford, on the 5th, 30th; at Sharpsburg on the 5th, 13th, 26th, 27th, 29th, 30th; at Solomon's, on the 4th, 5th, 12th, 13th, 14th, 15th, 21st, 23rd, 24th, 26th, 27th, 29th, 30th; at Sunnyside, on the 4th, 13th, 14th, 21st, 24th, 26th, 27th, 30th; at Upper Marlboro, on the 28th; at Wilmington, on the 2nd, 3rd, 5th, 15th, 24th, 27th, 30th; at Woodstock College, on the 5th, 11th, 15th, 26th, 27th; at Westminster, on the 24th.

Hail.—At Denton, on the 24th; at Dover, on the 24th.

Fogs.—At Mardela Springs, on the 5th, 13th, 16th, 20th, 23rd, 28th, 29th, 30th; at Millsboro, on the 4th, 5th, 12th, 20th, 23rd, 28th; at Sunnyside, on the 15th, 18th, 22nd, 28th, 29th, 30th.

Halos, Solar.—At Green Spring Furnace, on 15th.

Halos, Lunar.—At Millsboro, on 5th.

Corona, Lunar.—At Millsboro, on 29th.

CROPS.

Week ending June 3rd.

Corn improved considerably, but was damaged by cutworms. Much replanting was done. Wheat was heading and looked well. Clover was blossoming, and the hay prospects were about average. Truck was in excellent condition. The fruit prospects were fine.

MAP OF
MARYLAND AND DELAWARE
 SHOWING
 THE PRECIPITATION
 AND
 LINES OF MEAN TEMPERATURES
 FOR JUNE, 1895.

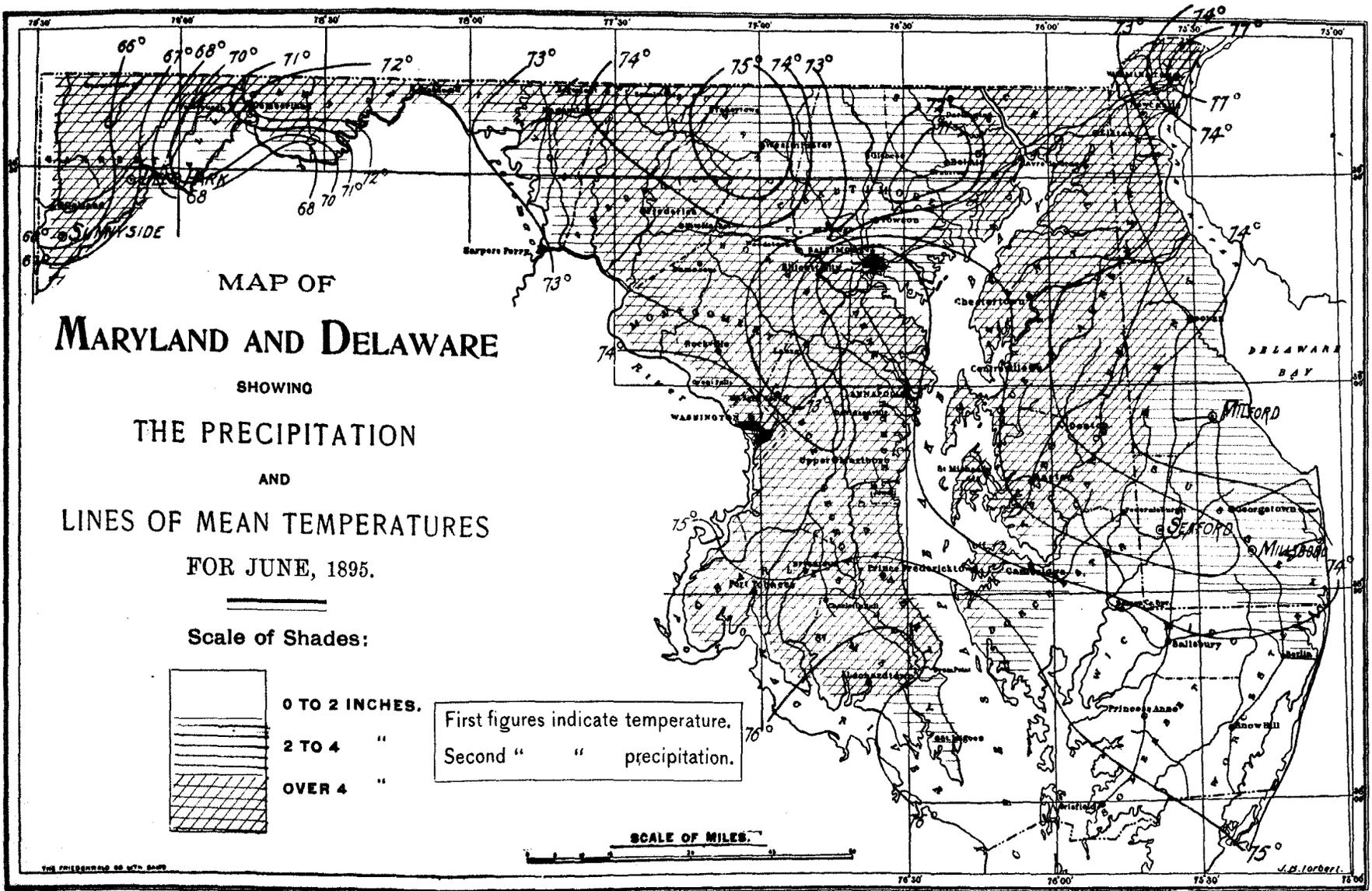
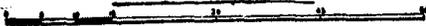
Scale of Shades:



0 TO 2 INCHES.
 2 TO 4 "
 OVER 4 "

First figures indicate temperature.
 Second " " precipitation.

SCALE OF MILES.



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

Stations.	County.	Meteorological Observer.	Displayman.
Annapolis	Anne Arundel	J. E. Abbott	W. M. Abbott.
Appleton	Cecil		W. C. Henderson.
Bachman's Valley	Carroll	J. M. Myers.	
Baltimore		J. B. Marbury.	
		G. N. Wilson.	
		A. T. Brewer.	
		F. S. Coale.	
Bel Air	Harford		N. N. Nock.
Bel Alton	Charles	Walter Cox.	
Boettcherville	Allegany	F. F. Brown.	
Bradshaw	Baltimore		B. F. Taylor.
Buckeystown	Frederick		A. W. Nicodemus.
Burkittsville	Frederick	J. P. Slifer.	
Cambridge	Dorchester		Samuel Lehman.
Charlotte Hall School	St. Mary's	J. Francis Coad.	
Cherryfields	St. Mary's	J. Edwin Coad.	
Chestertown	Kent	Hon. M. deK. Smith.	
Cumberland	Allegany	Shriver and Rizer.	
		E. T. Shriver.	
Darlington Academy	Harford	Prof. A. F. Galbreath.	
Deer Park	Garrett	S. P. Specht.	
Delaware City, Del.	New Castle		W. E. Reybold.
Denton	Caroline	F. C. Ramsdell.	
Dickerson	Montgomery		W. H. Dickerson.
Distributing Reservoir, D. C.		Maj. J. G. D. Knight.	
Dover, Del.	Kent	Jno. S. Jester.	Philip Burnet.
Easton	Talbot	Henry Shreve.	Henry Shreve.
Fallston School	Harford	G. G. Curtiss, A. M.	
Flintstone	Allegany		N. T. Downes.
Frederick	Frederick	McClintock Young.	"The News."
Woman's College, Frederick	Frederick	Miss W. A. Lantz.	
Frederica, Del.	Kent		Miss E. V. Newnom.
			Miss L. T. Frazier.
			Walter Dorsey.
Garey P. O.	Howard		
Garrison	Baltimore	A. W. Nyce.	
Glyndon	Baltimore	J. E. Henry	J. J. Dyer.
Grantsville	Garrett	J. S. Miller	T. H. Bittinger.
Great Falls	Montgomery	Maj. J. G. D. Knight.	
Green Spring Furnace	Washington	E. G. Kinsell.	
Hagerstown	Washington	Prof. C. E. Carl.	
Hampstead	Carroll		H. H. Meals.
Hancock	Washington	Dr. J. S. Diehl.	
Hartly, Del.	Kent		Miss C. A. Forde.
Havre de Grace	Harford		W. S. McCombs.
Johns Hopkins Hospital, Baltimore		W. L. Woods.	
Kenton, Del.	Kent		W. S. Arthurs.
Kirkwood, Del.	New Castle	J. S. Carnagy.	
La Plata	Charles	J. S. Turner	J. S. Turner.
Laurel	Prince George's	Dr. T. M. Baldwin.	
Laurel, Del.	Sussex		E. D. C. Hegeman.
Lonaconing	Allegany		J. J. Robinson.
Mardela Springs	Wicomico	A. E. Acworth	L. A. Wilson.
Marshall Hall	Charles	F. H. Deal.	
Maryland Agricultural College	Prince George's	Prof. J. H. Patterson.	
McDonogh School	Baltimore	H. Norwig.	
Middletown	Frederick		G. C. Rhoderick, Jr.
Milford, Del.	Kent	J. Y. Foulk.	J. Y. Foulk.
Millsboro, Del.	Sussex	Rev. L. W. Wells.	
Mt. St. Mary's College	Frederick	J. A. Mitchell, Ph. D.	Jos. H. Martin.
Newark College, Del.	New Castle	Prof. Wm. H. Bishop.	
Oakland	Garrett	J. Lee McComas, M. D.	J. L. McComas, M. D.
Odenton	Anne Arundel		E. B. Watts.
Oldtown	Allegany	Dr. H. C. Shipley.	
Princess Anne	Somerset	Jas. R. Stewart	L. F. Wilson.
Pocomoke City	Worcester	E. M. Stevenson	R. M. Stevenson.
Pope's Creek	Charles	George Dent.	
Receiving Reservoir, D. C.		Maj. J. G. D. Knight.	
Rising Sun	Cecil		Dr. L. R. Kirk.
Salisbury	Wicomico		L. W. Gunby.
Seaford, Del.	Sussex	H. L. Wallace	H. L. Wallace.
Sharpsburg	Washington	R. L. Hiberger.	
Smyrna, Del.	Kent		A. D. Yocum.
Snow Hill	Worcester		Purnell & Vincent.
Solomon's	Calvert	W. H. Marsh, M. D.	
†Sparrow's Point	Baltimore		Md. Steel Co.
St. Charles Coll., nr. Ellicott City	Howard	Rev. H. M. Chapuis, S. S.	
Sunnyside	Garrett	John G. Knauer.	
Sykesville	Carroll		J. S. Hyatt.
Upper Marlboro	Prince George's	J. B. Perrie.	
Washington, D. C.		S. W. Beall.	
Western Port	Allegany	Prof. O. H. Bruce.	
West Friendship	Howard		Postmaster.
Westminster	Carroll	Prof. Roland Watts.	
Westover	Somerset		E. D. Long.
Wilmington, Del.	New Castle	F. C. D. McKay	Wm. Lawton.
Woodsboro	Frederick		G. F. Smith.
Woodstock College	Baltimore	T. J. A. Freeman, S. J.	
*Birdsneest, Va.	Northampton	C. R. Moore.	
*Norfolk, Va.	Norfolk	Jas. J. Gray.	
*Warsaw, Va.	Richmond	C. H. Constable.	

*Stations of the Virginia State Weather Service. †Whistle signals only.

MONTHLY SUMMARY OF REPORTS FOR JUNE, 1895.

STATIONS.	COUNTIES.	Altitude above sea in ft.	Latitude.	Longitude.	TEMPERATURE.							Total Precipitation.	Total Snow-fall.	Clear Days.	Partly Cloudy Days.	Cloudy Days.	Rainy Days. (.01 in. or more)	Prevailing Winds.	
					Monthly Mean.	Mean of Max.	Mean of Min.	Max.		Min.									Monthly Range.
								Degrees	Date.	Degrees	Date.								
WESTERN MARYLAND.																			
Sunnyside 1*	Garrett	2440	39°20'	79°21'	66.7	.....	.....	92	3, 4	39	8	53	5.97	.....	14	6	10	11	S. W.
Oakland	Garrett	2380	39 24	79 18	65.3	77.3	52.8	88	4	40	8	48	4.01	.....	16	13	1	11	S. W.
Deer Park	Garrett	2457	39 25	79 13	66.1	81.1	51.1	99	4	37	6, 8	62	4.01	.....	.....	.....	.....	.....	.....
Grantsville	Garrett	.....	39 45	79 10	66.5	79.0	54.0	90	4	41	7, 8	49	4.07	.....	12	13	5	9	.....
Westernport	Allegheny	.....	39 28	78 2	70.2	89.5	54.8	102	25	45	7	57	7.75	.....	.....	.....	.....	.....	.....
Boettcherville 1*	Allegheny	.....	39 39	78 43	71.7	.....	.....	100	3	50	8	50	4.90	.....	.....	.....	.....	.....	.....
Cumberland, Shriver & Rizer.	Allegheny	650	39 39	78 46	77.1	88.9	65.3	101	4	54	7	47	4.87	.....	.....	.....	.....	.....	.....
Cumberland, E. T. Shriver.	Allegheny	700	39 39	78 45	72.2	82.0	62.5	97	3	50	6, 7	47	4.42	.....	21	5	1	10	.....
Oldtown	Allegheny	.....	39 33	78 37	67.5	69.5	65.6	86	3	56	7, 19	30	3.69	.....	22	6	2	7	S. E.
Hancock	Washington	.....	39 40	78 10	72.6	85.9	59.4	100	3	48	7, 8	52	4.24	.....	16	13	1	6	W.
Green Sp. Furnace	Washington	500	39 39	77 55	73.2	87.3	59.2	98	3	45	7, 7	53	2.77	.....	20	5	3	9	W.
Hagerstown	Washington	.....	39 39	77 43	73.6	87.2	60.0	98	3, 4	43	7	55	4.50	.....	15	5	10	8	S. E.
Sharpsburg	Washington	.....	39 25	77 45	73.2	85.5	60.9	97	1, 2, 3	50	7, 8	47	3.81	.....	19	5	6	10	S. E. E. W.
NORTHERN-CENTRAL MD.																			
Burkittsville	Frederick	.....	39 25	77 35	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Mt. St. Mary's Col. b.	Frederick	720	39 43	77 20	74.7	83.0	66.4	95	2	50	25	45	4.27	.....	13	7	8	9	N. W.
Frederick	Frederick	280	39 24	77 18	73.4	85.0	61.9	97	1, 3	52	7	45	4.77	.....	14	14	2	8	.....
Woman's College	Frederick	280	39 24	77 18	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Taneytown	Carroll	.....	39 40	77 9	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Bachman's Val. 1*	Carroll	.....	39 37	76 55	75.0	.....	.....	100	3	58	7	42	2.56	.....	19	7	4	6	S. E.
Western Md. Col. Westminister.	Carroll	.....	39 25	77 0	76.2	88.7	63.7	99	2, 6	48	7	51	3.53	.....	18	7	5	8	.....
Glyndon	Baltimore	650	39 27	76 45	73.6	86.9	60.4	98	3	49	8	49	4.76	.....	17	8	5	7	S. W.
Garrison	Baltimore	.....	39 23	76 49	71.6	82.1	61.2	95	3	48	7, 8	47	3.57	.....	18	9	3	9	S. W.
McDonogh School, b	Baltimore	535	39 23	76 44	73.6	82.0	65.1	94	3	52	7	42	.....	.....	.....	.....	.....	.....
Woodstock Col. c.	Baltimore	392	39 20	76 49	73.0	84.0	61.9	98	3	50	7	48	2.53	.....	19	3	5	8	S. E.
Baltimore	Baltimore	179	39 17	76 36	74.2	83.2	65.2	97	4	53	7	44	2.83	.....	13	11	6	10	E.
Johns Hopkins Hos	.....	.....	39 17	76 36	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
St. Charles Coll. nr Ellicott City.	Howard	300	39 16	76 44	74.2	80.1	68.2	91	3	50	8	41	4.11	.....	24	3	1	7	N. W.
Great Falls 1*	Montgomery	.....	39 0	77 14	75.6	.....	.....	95	1	58	7, 8	37	4.79	.....	.....	.....	.....	.....	.....
Fallston School, 1*	Harford	450	39 31	76 24	71.0	.....	.....	94	3	56	7	38	2.50	.....	8	15	7	7	E.
Darlington Acad'y.	Harford	300	39 39	76 14	72.4	82.8	62.0	96	1, 3	52	8	44	5.22	.....	21	5	4	6	S. E.
SOUTHERN MARYLAND.																			
Annapolis	Anne Arund 1	20	39 58	76 30	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Jewell	Anne Arund 1	.....	38 44	76 36	74.1	82.8	65.4	99	.....	51	7	48	4.60	.....	.....	.....	.....	.....	.....
Dist. Res., D. C. 5*	.....	.....	38 52	77 0	75.8	.....	.....	93	1, 2, 3	56	7	37	3.20	.....	19	8	3	8	SE NE
Rec. Res., D. C. 5*	.....	.....	38 52	77 0	75.4	.....	.....	96	1	57	7	39	5.50	.....	.....	.....	.....	.....	.....
Washington, D. C.	.....	112	38 52	77 0	74.6	84.6	64.7	98	3	53	8	45	4.34	.....	16	9	5	12	N. E.
Md. Agricult. Col. College Park.	Pr. George's	.....	38 58	76 56	72.6	84.0	61.3	100	2	48	8	52	5.50	.....	.....	.....	.....	.....	.....
Laurel	Pr. George's	.....	39 5	76 45	73.1	84.1	62.1	97	2, 3	52	8, 17, 18	45	4.66	.....	22	7	1	8	.....
Upper Marlboro	Pr. George's	.....	38 47	76 45	74.0	85.0	63.1	100	3	52	8	48	5.83	.....	16	11	3	10	N. W.
Marshall Hall	Charles	.....	38 42	77 8	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
La Plata	Charles	.....	38 32	77 0	74.9	85.9	62.9	100	4	50	8	50	4.05	.....	.....	.....	.....	.....	.....
Bel Alton	Charles	.....	38 26	77 1	75.5	86.0	65.0	97	2, 3	54	6, 7, 17	43	4.55	.....	.....	.....	.....	.....	.....
Pope's Creek	Charles	.....	38 22	77 1	75.3	87.9	62.8	99	1, 2	52	6, 7	47	4.80	.....	.....	.....	.....	.....	.....
Solomon's	Calvert	20	38 19	76 27	76.0	85.1	67.0	98	1	56	7	43	4.48	.....	11	4	5	11	S. E.
Charlotte Hall Sch 1	St. Mary's	.....	38 28	76 48	75	86.6	63.7	97	2, 3	50	18	47	3.99	.....	15	14	1	8	N. E.
Cherryfields 1*	St. Mary's	.....	38 11	76 24	74.2	.....	.....	85	3	62	7	.....	2.38	.....	10	18	2	7	.....
EASTERN MD. AND DELAWARE.																			
Chestertown	Kent	80	39 13	76 4	72.9	82.7	63.1	93	1, 2, 3	54	7	39	7.86	.....	15	11	4	8	S. W.
Denton	Caroline	42	38 47	75 41	73.8	83.9	63.6	101	.....	50	9	51	6.95	.....	.....	.....	.....	.....	.....
Easton	Talbot	35	38 42	76 6	72.6	82.9	62.3	95	1, 3	51	18	44	4.19	.....	13	8	4	9	W.
Mardela Spr.	Wicomico	25	38 30	75 39	74.0	83.7	64.4	95	2, 3	48	18	47	1.28	.....	12	12	6	7	N. E.
Princess Anne	Somerset	.....	38 10	75 35	74.6	83.8	65.3	96	3	50	18	46	1.12	.....	8	20	2	7	N. W.
Pocomoke City	Worcester	87	38 5	75 34	75.7	85.9	65.5	99	1, 3	49	18	50	2.53	.....	16	9	5	8	S. S.
Wilmington, Del.	Newcastle	115	39 44	75 33	77.2	89.3	65.1	101	3	55	8	46	4.19	.....	9	20	1	9	E.
Newark	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Delaware College Del.	Newcastle	.....	39 40	75 37	72.4	82.8	62.0	95	1	52	7	43	2.38	.....	14	9	7	10	E.
Kirkwood, Del. 1* c.	Newcastle	.....	39 35	75 41	72.6	.....	.....	100	1	59	17	.....	.....	.....	.....	.....	.....	.....	.....
Dover, Del.	Kent	40	39 10	75 30	73.8	82.2	64.6	97	1	54	7	43	3.88	.....	15	10	5	9	E.
Milford, Del.	Kent	.....	38 45	75 25	75.1	85.9	64.3	99	3	51	18	48	2.11	.....	20	4	6	6	N. E.
Seaford, Del.	Sussex	.....	38 40	75 35	72.8	83.4	62.2	95	1, 3	48	18	47	2.67	.....	.....	.....	.....	.....	.....
Millsboro, Del.	Sussex	.....	38 44	75 15	73.2	83.2	63.2	98	1	47	18	51	2.23	.....	18	6	6	9	N. E.
† PENNSYLVANIA.																			
Philadelphia	.....	.....	.....	.....	74.1	83.4	64.8	97	1	54	7	43	3.15	.....	10	10	10	12	N. E.
† VIRGINIA.																			
Norfolk	Richmond	.....	.....	.....	76.3	84.7	67.9	99	3	58	18	41	2.39	.....	21	8	1	15	N. E.
Warsaw	Richmond	.....	.....	.....	76.1	87.1	65.1	98	1, 2, 3	51	18	47	1.72	.....	13	13	4	6	E.
AVERAGES																			
Western Maryland	.....	.....	.....	.....	70.5	83.1	58.7	.....	.....	.....	.....	50.0	4.00	.....	17.2	7.9	4.3	8.4	W.
Northern-Cent'l Md.	.....	.....	.....	.....	73.7	83.8	63.6	.....	.....	.....	.....	44.1	3.79	.....	16.7	8.1	4.5	7.8	S. E.
Southern Maryland	.....	.....	.....	.....	74.7	85.3	63.8	.....	.....	.....	.....	45.3	4.45	.....	15.6	10.1	2.9	8.5	N. E.
East. Md. and Del.	.....	.....	.....	.....	73.9	84.1	63.0	.....	.....	.....	.....	46.2	3.44	.....	13.0	9.8	4.6	7.9	N. E.
Entire territory	.....	.....	.....	.....	73.2	84.1	62.0	.....	.....	.....	.....	46.4	3.92	.....	15.6	9.0	4.1	8.2	N. E.