



CLIMATOLOGICAL DATA

MARYLAND AND DELAWARE

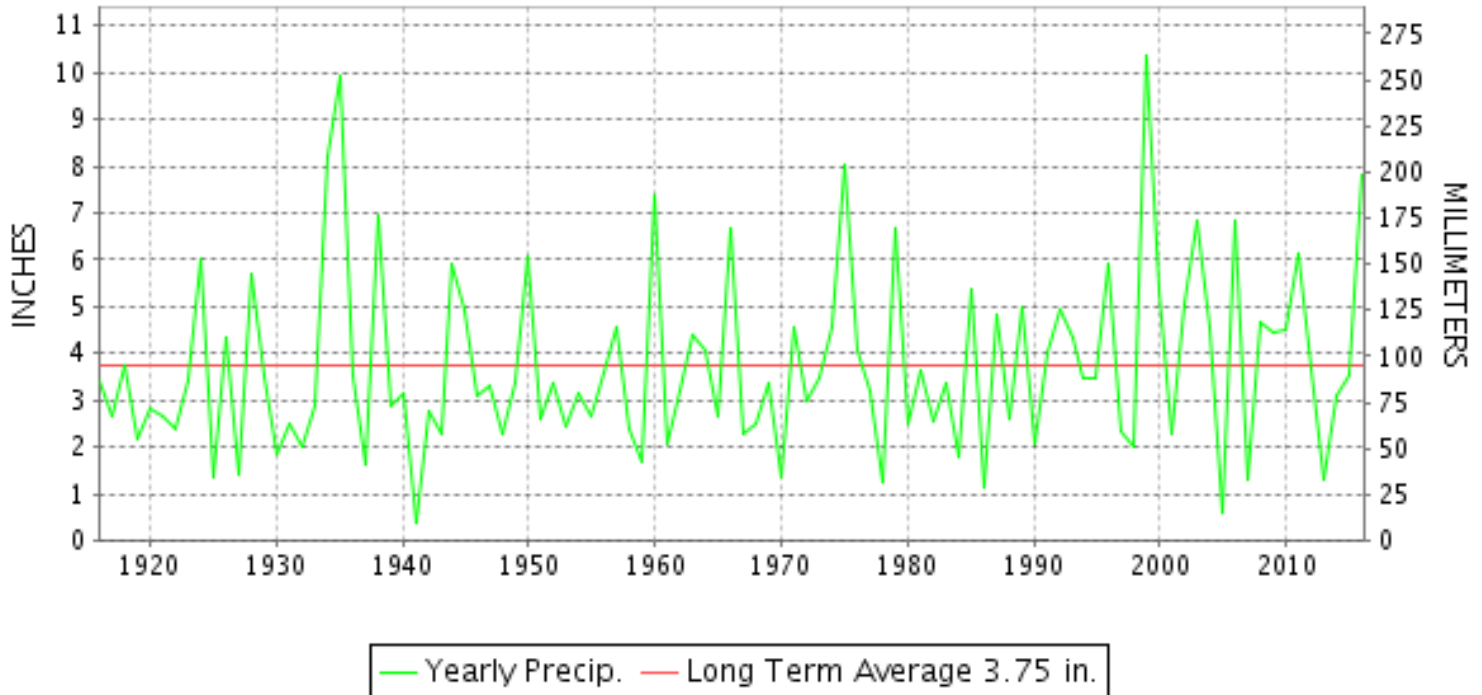
SEPTEMBER 2016

VOLUME 120 NUMBER 09

ISSN 0145-0549

GHCND Ver: 3.22-upd-2017011806

SEPTEMBER PRECIPITATION BY YEAR



TEMPERATURE AND PRECIPITATION EXTREMES

MARYLAND

HIGHEST TEMPERATURE	97	SEPTEMBER 11	CYLBURN
LOWEST TEMPERATURE	37	SEPTEMBER 29	SINES DEEP CREEK
GREATEST TOTAL PRECIPITATION	20.39		SNOW HILL 4 N
LEAST TOTAL PRECIPITATION	2.43		SINES DEEP CREEK
GREATEST 1 DAY PRECIPITATION	9.35	SEPTEMBER 29	PRINCESS ANNE

"I certify that this is an official publication of the National Oceanic and Atmospheric Administration (NOAA) It is compiled using information from weather observing sites supervised by NOAA/National Weather Service and received at the National Centers for Environmental Information(NCEI), Asheville, North Carolina 28801."

Director
National Centers for Environmental Information

noaa

National
Oceanic and
Atmospheric Administration

National
Environmental Satellite, Data
and Information Service

National
Centers for Environmental Information
Asheville, North Carolina

DELAWARE

HIGHEST TEMPERATURE	95	SEPTEMBER 09+	2 STATIONS
LOWEST TEMPERATURE	48	SEPTEMBER 26	WILMINGTON NEW CASTLE CO AP
GREATEST TOTAL PRECIPITATION	10.33		DOVER
LEAST TOTAL PRECIPITATION	4.80		WILMINGTON NEW CASTLE CO AP
GREATEST 1 DAY PRECIPITATION	3.89	SEPTEMBER 29	DOVER

MONTHLY STATION AND DIVISION SUMMARY

STATION	TEMPERATURE (°F)											PRECIPITATION (IN)												
	AVERAGE MAXIMUM	AVERAGE MINIMUM	AVERAGE	DEPARTURE FROM NORMAL	HIGHEST	DATE	LOWEST	DATE	HEATING DEG. DAYS	COOLING DEG. DAYS	NO. OF DAYS				TOTAL	DEPARTURE FROM NORMAL	GREATEST 24 HOURS	DATE	ICE PELLETS, SNOW			NO. OF DAYS		
											MAX		MIN						TOTAL	MAX DEPTH ON GROUND	DATE	.10 OR MORE	.50 OR MORE	1.00 OR MORE
											>=90	<=32	<=32	<=0										
SMITHSBURG 2NW --DIVISIONAL DATA-----> APPALACHIAN MOUNTAIN 07	81.5	58.4	70.0	4.7	92	11	46	26+	19	174	4	0	0	0	3.43	-0.61	1.45	29	0.0	0		5	3	1
CUMBERLAND 2	84.0	57.9	70.9	3.5	95	10	47	28	13	197	10	0	0	0	3.75	0.52	1.83	30	0.0	0		5	3	1
FROSTBURG 2	77.1	55.5	66.3	5.3	87	11	45	28	48	95	0	0	0	0	6.01	2.33	3.35	30	0.0	0		7	3	1
SHARPSBURG 5 S	83.1M	57.4M	70.2M	4.6	94	11	43	26+	18E	183E	7	0	0	0	A 5.08	1.08	3.31	29	0.0	0		5	2	1
WILLIAMSPORT --DIVISIONAL DATA-----> ALLEGHENY PLATEAU 08			69.1	5.0B										4.95	1.46B									
OAKLAND 1 SE	78.6	53.7	66.1	6.1	86	10+	39	28	41	81	0	0	0	0	2.66	-0.79	0.90	30	0.0	0		9	1	0
SAVAGE RIVER DAM	79.0	55.1	67.1	5.1	88	11	42	29+	37	109	0	0	0	0	5.47	2.15	2.96	29	0.0	0		5	3	2
SINES DEEP CREEK --DIVISIONAL DATA----->	M	M	M	6.1B	81	13+	37	29	92E	23E	0	0	0	0	MA 2.43		0.68	30	M	0		4	1	0
DELAWARE NORTHERN 01																								
WILMINGTON NEW CASTLE CO AP	82.1	61.7	71.9	4.1	95	09	48	26	20	235	6	0	0	0	4.80	0.48	1.95	30	0.0	0		6	3	2
WILMINGTON PORTER RSCH --DIVISIONAL DATA-----> SOUTHERN 02	78.8	61.8	70.3	3.1	94	10	50	26+	26	193	3	0	0	0	6.29	1.39	2.86	29	M	0		6	3	2
DOVER --DIVISIONAL DATA----->	81.5	65.4	73.5	3.8	95	10+	50	26	7	266	4	0	0	0	10.33	6.20	3.89	29	0.0	0		6	3	3
			73.5	5.2B											10.33	6.18B								

DAILY PRECIPITATION (INCHES)

STATION	TOTAL	DAY OF MONTH																															
		01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
MARYLAND																																	
SOUTHERN																																	
EASTERN SHORE 01																																	
ASSATEAGUE	M	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
PRINCESS ANNE	M 15.00	0.10		0.67	-														1.91	0.19								0.92		9.35	1.86		
SALISBURY 2N	14.46	0.46	0.01	0.42	0.02					0.06									3.22	0.35	0.05						0.43	0.06	5.30	4.08			
SALISBURY FAA AP	12.86	0.69		0.49	T			0.05										T	1.80	0.34	0.01				T		1.19	0.86	5.09	2.32			
SNOW HILL 4 N	20.39	1.35		0.90	0.01														4.60	0.42	0.54	0.06	T	T	T		0.88	0.21	7.22	4.20			
CENTRAL																																	
EASTERN SHORE 02																																	
ROYAL OAK 2 SSW	5.63	0.14		0.01	0.01					T										2.24	0.02							0.15	0.83	1.66	0.57		
LOWER SOUTHERN 03																																	
MECHANICSVILLE 5 NE	12.42	0.20	0.34		T					0.71									1.62	1.78	T	0.11					0.23	1.45	4.85	1.13			
SOLOMONS	MA 8.45	T	*	*	*	0.00 _a		0.81		*	*	0.00 _a				*	*	3.20 _a	*	*	0.16 _a						0.30	2.23	1.35	0.40	-		
UPPER SOUTHERN 04																																	
BALTIMORE-WASHINGTON INTL AP	4.36	0.09														T			0.64						T		0.01	0.17	0.82	2.11	0.52		
BELTSVILLE	2.99	0.04	0.07							0.01										T	0.27						0.29	T	1.29	1.02			
DALECARLIA RSVR	M 4.40	0.12	0.14							0.92				-							0.44						0.25		2.01	0.52			
MARYLAND SCI CTR	5.26	0.37														0.01				1.78							0.12	0.87	1.70	0.41			
NATL ARBORETUM DC	M 2.78	0.07			0.07					0.03										0.02	0.39						0.31	T	1.30	0.59			
OXON HILL	4.47	T	0.03							0.02										0.73	0.66						0.69	T	1.88	0.46			
NORTHERN																																	
EASTERN SHORE 05																																	
STEVENSVILLE 2SW	4.37	0.62	0.02										0.01							0.29	0.53	T					0.32	0.23	1.99	0.36			
SUDLERSVILLE 1S	6.91	0.50																		1.45							0.42	0.54	2.50	1.50			
NORTHERN CENTRAL 06																																	
ABERDEEN PHILLIPS FLD	6.04	0.37	0.05																	2.66	0.38						0.21		0.90	1.47			
BRIGHTON DAM	M 4.34	-	-							0.52										0.05	0.20		0.02				0.18		2.50	0.87			
CONOWINGO DAM	3.75	0.51	0.15																	0.50	0.63								0.44	1.52			
CYLBURN	A 5.68	*	2.45 _a									*	0.37 _a							*	0.29 _a								1.25	1.32			
DAMASCUS 3 SSW	4.68	1.65	0.02					0.09		0.04										0.09							0.11	0.04	0.86	1.53	0.25		
EMMITSBURG 2 SE	3.87	0.08	0.04							0.16		0.09								1.10	T						0.08		1.85	0.47			
MILLERS 4 NE	6.86	2.53								0.04										T	1.17					0.01	0.02	0.35	1.72	1.02			
SMITHSBURG 2NW	3.43	0.20										0.90								0.20	0.08						0.04		1.45	0.56			
APPALACHIAN																																	
MOUNTAIN 07																																	
CUMBERLAND 2	3.75	0.63						0.05	0.42											T	0.17	0.01					0.07		0.57	1.83			
FROSTBURG 2	6.01	0.71	T					0.18	0.20		0.08									0.08	0.20	T					0.22		0.99	3.35			
SHARPSBURG 5 S	A 5.08	0.18	0.04					*	*	*	*	*	*	*	0.37 _a					T	*	*	*	*	0.20 _a			0.13	0.18	3.31	0.67		
WILLIAMSPORT	M	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
ALLEGHENY PLATEAU 08																																	
OAKLAND 1 SE	2.66	0.30						0.05	0.20		0.10		0.17						0.20	0.20	0.02						0.25	0.01	0.26	0.90			

DAILY PRECIPITATION (INCHES)

STATION	TOTAL	DAY OF MONTH																														
		01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
SAVAGE RIVER DAM	5.47	0.40							0.09		T								T	0.58	0.04											
SINES DEEP CREEK	MA 2.43	0.20	-	*	*	*	*	0.00 _a	0.30		*	*	*	0.55 _a				*	*	0.45 _a	0.05					*	*	0.00 _a	0.10		2.96	1.30
DELAWARE NORTHERN 01																																
WILMINGTON NEW CASTLE CO AP	4.80	0.18							0.04											0.97								0.19	0.14	0.20	1.32	1.95
WILMINGTON PORTER RSCH	6.29	0.17							0.02											0.81									0.15	2.86	2.09	
SOUTHERN 02																																
DOVER	10.33	0.24							0.05											2.37	0.06								0.13	0.26	3.89	3.33

DAILY TEMPERATURES (°F)

STATION	OB. TIME	MAX/MIN	DAY OF MONTH																															AVERAGE	
			01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31		
BRIGHTON DAM	08	MAX	80	79	75	77	78	83	88	88	90	90	89	81	79	84	88		73	77	84	73	78	80	83	86	68	71	67	73	73	72		79.6	
		MIN	70	61	63	59	56	59	67	62	62	62	57	58	62	62	64	61	59	69	65	67	64	58	56	58	52	59	54	61	62		61.0		
CONOWINGO DAM	07	MAX	86	79	78	77	87	82	87	87	92	89	92	81	81	83	88	77	78	79	84	76	79	82	82	83	70	76	70	73	68	65		80.4	
		MIN	64	63	63	61	62	58	64	65	71	73	73	57	58	63	64	56	56	58	66	66	65	60	59	59	51	48	48	55	57	56		60.6	
CYLBURN	08	MAX	88	79	74	74	75	80	85	86	90	90	97	81	78	84	88	73	72	76	84	73	80	80	81	85	69	69	67	73	68	69		78.9	
		MIN	67	62	63	60	59	62	65	68	68	75	77	59	60	61	63	61	62	66	70	70	68	61	60	60	51	52	57	57	60	63		62.9	
DAMASCUS 3 SSW	22	MAX	77	73	74	75	81	86	87	89	88	88	79	78	84	86	73	72	77	83	73	76	78	81	85	69	70	64	74	65	65	60		77.0	
		MIN	66	58	59	58	57	59	64	70	71	69	64	58	61	63	61	61	61	66	67	64	62	59	58	58	48	53	56	58	60	55		60.8	
EMMITSBURG 2 SE	07	MAX	90	81	78	80	81	88	90	94	95	94	95	82	83	89	92	78	76	80	84	76	83	84	85	91	73	71	66	77	68	65		82.3	
		MIN	60	60	60	58	54	51	51	57	70	70	70	54	54	56	59	59	61	61	63	66	62	60	55	54	46	45	45	50	50	55		57.2	
MILLERS 4 NE	18	MAX	82	77	77	78	83	87	89	90	90	91	85	79	84	88	83	74	77	81	78	79	82	83	86	83	71	68	75	72	63	59		79.8	
		MIN	67	58	59	57	55	67	61	70	72	69	72	51	57	60	59	56	57	66	66	65	60	55	56	62	45	49	58	53	59	53		59.8	
SMITHSBURG 2NW	08	MAX	87	81	79	80	83	87	89	90	91	90	92	80	81	86	88	77	73	79	83	75	83	84	86	88	77	74	65	76	77	65		81.5	
		MIN	61	55	54	58	52	57	57	62	71	69	70	56	60	61	60	61	63	64	67	59	58	58	55	54	46	46	54	52	58	55		58.4	
APPALACHIAN MOUNTAIN 07																																			
CUMBERLAND 2	07	MAX	92	84	78	81	85	89	91	92	93	95	94	81	83	94	92	73	72	84	80	81	90	88	87	92	78	77	79	80	69	65		84.0	
		MIN	61	50	50	57	54	55	58	71	72	71	70	54	54	58	58	64	58	60	66	63	58	58	56	56	50	50	51	47	50	57		57.9	
FROSTBURG 2	07	MAX	81	76	72	76	79	82	83	83	84	86	87	74	79	85	84	69	69	74	75	75	81	82	83	84	71	71	75	72	61	59		77.1	
		MIN	59	52	54	55	53	53	61	69	69	66	62	51	50	56	56	57	56	56	63	56	56	57	55	56	46	46	48	45	50	52		55.5	
SHARPSBURG 5 S	07	MAX	88	82	79	81	83	86	91	91	93	93	94	81	82	89	90	76	83							90	78	76	68	80	71	69		83.1	
		MIN	63	53	53	55	53	53	57	67	68	68	69	51	51	61	61		63	65						54	43	43	55	53	61	57		57.4	
ALLEGHENY PLATEAU 08																																			
OAKLAND 1 SE	07	MAX	86	76	76	72	79	84	86	85	85	86	73	71	77	85	85	69	76	82	76	76	80	78	81	85	82	77	84	72	67	66		78.6	
		MIN	60	50	50	56	49	50	50	68	68	64	54	48	49	52	55	58	60	60	64	60	52	52	52	52	48	48	47	39	40	56		53.7	
SAVAGE RIVER DAM	08	MAX	86	79	74	78	81	85	85	87	85	87	88	77	78	86	87	69	72	78	77	77	82	81	82	86	78	72	75	72	63	64		79.0	
		MIN	58	52	51	53	52	49	56	66	68	68	67	50	50	54	55	56	58	58	64	62	54	54	55	51	50	50	42	42	55		55.1		
SINES DEEP CREEK	07	MAX	80						80	80	81						81	79	78	69						74	74	79	79					M	
		MIN	52						50	60	62						47	47	49	51						52	57	50	50	49					M
DELAWARE NORTHERN 01																																			
WILMINGTON NEW CASTLE CO AP	24	MAX	81	84	80	81	87	90	92	94	95	93	86	82	84	93	79	79	81	89	76	81	86	87	89	72	74	72	76	70	67	63		82.1	
		MIN	66	61	62	61	57	65	68	71	79	76	67	55	61	65	62	56	61	67	68	66	64	58	57	53	49	48	59	52	61	57		61.7	
WILMINGTON PORTER RSCH	24	MAX	76	78	78	77	81	85	86	92	93	94	83	80	83	89	75	76	80	86	74	78	81	81	84	72	68	70	72	67	62	62		78.8	
		MIN	68	60	60	60	59	66	68	69	76	73	68	59	59	64	61	56	58	66	67	65	67	62	59	59	50	50	59	56	57	54		61.8	
SOUTHERN 02																																			
DOVER	16	MAX	86	80	77	78	80	88	88	94	95	95	84	84	83	90	89	76	77	89	76	76	80	82	86	87	72	74	71	71	70	67		81.5	
		MIN	71	62	70	66	60	69	67	72	78	77	77	62	61	66	67	60	57	68	70	68	70	64	65	66	52	50	65	56	64	62		65.4	

SNOWFALL AND SNOW ON GROUND (INCHES)

STATION		DAY OF MONTH																														
		01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
MARYLAND SOUTHERN EASTERN SHORE 01 ASSATEAGUE PRINCESS ANNE SALISBURY 2N SALISBURY FAA AP SNOW HILL 4 N	SNOWFALL																															
	SNOWFALL																															
	SNOWFALL																															
	SN ON GND																															
	SNOWFALL																															
DELAWARE NORTHERN 01 WILMINGTON NEW CASTLE CO AP WILMINGTON PORTER RSCH	SNOWFALL																															
	SN ON GND																															
	SNOWFALL																															
	SN ON GND																															

Snowfall: Includes snow and ice. Values for NWS stations (J index note) are Mid-Mid (LST).

Snow on ground: Includes snow, sleet, ice, and hail. Values for NWS stations (J index note) are observed at 12 UTC (GMT).

Water Equivalent: Given for NWS stations (J index note) only, when snow depth is 2 inches or more, and is measured at 18 UTC (GMT)

PAN EVAPORATION AND WIND

STATION		DAY OF MONTH																															TOTAL OR AVERAGE
		01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
MARYLAND UPPER SOUTHERN 04 BELTSVILLE	WIND	43	39	66	48	35	39	63	29	40	41	90	38	26	53	56	35	41	56	43	28	32	28	27	26	30	20	43	24	66	90	1295	
	EVAP	0.19	0.09	0.21	0.15	0.19	0.18	0.23	0.15	0.24	0.24	0.30	0.21	0.20	0.23	0.24	0.17	0.17	0.15	0.14	0.03	0.09	0.12	0.19	0.17	0.09	0.17	0.03	0.13	0.13	0.07	4.90	
	MAX	85	85	85	80	86	88	87	93	95	94	96	84	87	90	92	92	84	85	86	76	80	81	87	89	73	80	65	80	69	69	84.5	
	MIN	65	61	60	62	57	61	65	65	72	72	73	58	58	61	63	62	61	63	70	65	66	62	60	60	52	53	56	59	60	58	62.0	
ALLEGHENY PLATEAU 08 SAVAGE RIVER DAM	WIND	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	M	
	EVAP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	M	
	MAX	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	MIN	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	M	

Evaporation: Is measured in hundreths of inches.

Wind: Is measured in miles.

Max and Min: The maximum and minimum temperatures (Fahrenheit) of the water in the evaporation pan.

STATION INDEX

STATION	INDEX NO.	DIVISION	COUNTY	LATITUDE	LONGITUDE	ELEVATION (IN FEET)	OBSERVATION TIME AND TABLES			
							LOCAL STD TIME			
							TEMP	PRECIP	EVAP	SPECIAL SEE (NOTES)
MARYLAND										
ABERDEEN PHILLIPS FLD	0015	06	HARFORD	39 28	76 10W	57	07	07		CH
ASSATEAGUE	0335	01	WORCESTER	38 4	75 13W	10	VAR	VAR		H
BALTIMORE-WASHINGTON INTL AP R	0465	04	ANNE ARUNDEL	39 10	76 41W	156	24	24		HJ
BELTSVILLE	0700	04	PRINCE GEORGE'S	39 2	76 56W	145	08	08	08	CH
BRIGHTON DAM	1125	06	MONTGOMERY	39 11	77 0W	330	08	08		H
CONOWINGO DAM	2060	06	HARFORD	39 39	76 11W	40	07	07		H
CUMBERLAND 2	2282	07	ALLEGANY	39 39	78 45W	730	07	07		H
CYLBURN	2308	06	BALTIMORE	39 21	76 39W	235	08	08		H
DALECARLIA RSVR	2325	04	DISTRICT OF COLUMBIA	38 56	77 7W	150	08	08		H
DAMASCUS 3 SSW	2336	06	MONTGOMERY	39 16	77 14W	700	22	22		H
EMMITSBURG 2 SE	2906	06	FREDERICK	39 41	77 17W	403	07	07		H
FROSTBURG 2	3415	07	ALLEGANY	39 40	78 56W	2170	07	07		H
MARYLAND SCI CTR R	5718	04	BALTIMORE (CITY)	39 17	76 37W	20	24	24		H
MECHANICSVILLE 5 NE	5865	03	ST. MARY'S	38 28	76 42W	100	07	07		H
MILLERS 4 NE	5934	06	CARROLL	39 43	76 48W	860	18	18		CH
NATL ARBORETUM DC	6350	04	DISTRICT OF COLUMBIA	38 55	76 58W	50	08	08		H
OAKLAND 1 SE	6620	08	GARRETT	39 25	79 24W	2420	07	07		H
OXON HILL	6800	04	PRINCE GEORGE'S	38 47	76 60W	120	07	07		H
PRINCESS ANNE	7330	01	SOMERSET	38 13	75 41W	20	17	17		H
REISTERSTOWN 2 NW	7580	06	BALTIMORE	39 30	76 50W	737	08	08		H
ROYAL OAK 2 SSW	7806	02	TALBOT	38 43	76 11W	10	17	17		H
SALISBURY 2N	8004	01	WICOMICO	38 24	75 36W	20	17	17		H
SALISBURY FAA AP	8005	01	WICOMICO	38 20	75 31W	48	24	24		H
SAVAGE RIVER DAM	8065	08	GARRETT	39 31	79 8W	1495	08	08	08	CH
SHARPSBURG 5 S	8207	07	WASHINGTON	39 24	77 43W	500	07	07		H
SINES DEEP CREEK	8315	08	GARRETT	39 31	79 25W	2040	07	07		H
SMITHSBURG 2NW	8371	06	WASHINGTON	39 40	77 35W	670	08	08		H
SNOW HILL 4 N	8380	01	WORCESTER	38 14	75 23W	30	17	17		H
SOLOMONS	8405	03	CALVERT	38 19	76 27W	12	08	08		H
STEVENSVILLE 2SW	8557	05	QUEEN ANNE'S	38 58	76 20W	10	07	07		H
SUDLERSVILLE 1S	8657	05	QUEEN ANNE'S	39 10	75 51W	100		20		H
WILLIAMSPORT	9570	07	WASHINGTON	39 37	77 51W	360		06		H
DELAWARE										
DOVER	2730	02	KENT	39 9	75 30W	30	16	16		H
WILMINGTON NEW CASTLE CO AP R	9595	01	NEW CASTLE	39 40	75 36W	79	24	24		HJ
WILMINGTON PORTER RSCH	9605	01	NEW CASTLE	39 46	75 32W	270	24	24		H

REFERENCE NOTES

STATION NAMES: Name of the city, town or locality. Figures and letters following the station names indicate the distance in miles and direction from the post office or town community center.

DIVISIONS: Areas within a state of similar climatological characteristics. Division averages are calculated using data from stations that record temperature and/or precipitation. Station Precipitation totals flagged with an 'F' or 'M' are excluded from the Divisional Average calculations of precipitation. Stations with monthly Temperature averages flagged with an 'F' or 'M' are included in the Divisional Average if there are no more than 9 flagged or missing daily values in the month, else they are excluded from the divisional average for temperature.

NORMALS: The average value of the meteorological element over a time period. Effective 1 January 2012, the averaging period for station departures is 1981 to 2010. The normals for National Weather Service localities have been adjusted so as to be representative for the current observation site.

The January 2011 through December 2015 publications incorrectly state the computation of divisional departures. Climate Division departures have been, and continue to be, computed from 1971-2000 Normals, not 1981-2010 as stated. Station departures are accurately described as departures from 1981-2010.

MONTHLY DEGREE DAY TOTALS: One heating (cooling) degree day is accumulated for each whole degree that the daily mean temperature is below (above) 65 degrees Fahrenheit.

PRECIPITATION: Values shown in hundredths of inches are water equivalent totals, i.e., total of liquid and melted frozen precipitation. In the "Monthly Summarized Data" table the total snow and sleet values shown in tenths of inches are unmelted amounts. The max depth on ground values of snow and sleet shown in whole inches are cumulative unmelted amounts. The number of days with .10, .50, 1.00 or more refers to water equivalents.

PRECIPITATION QUALITY CONTROL: The NCEI quality control process may flag precipitation data that are spatially inconsistent, exceed climatological limits, or are inconsistent with prevailing weather patterns.

TEMPERATURE: Original temperature values are given in the "Daily Temperature" table. Summary temperature information (averages, departures, extremes, monthly degree day totals) is based on the values labeled MAX/MIN.

WIND: (As shown in the "Evaporation and Wind" table) the total wind movement in miles over the evaporation pan as determined by an anemometer recorder located 6-8 inches above the pan.

SYMBOLS AND LETTERS USED IN THE STATION INDEX TABLE

C Station is equipped with recording rain gage (R) but values in this bulletin are from a non-recording rain gage unless indicated by an R.
G Observations appear in the "Soil Temperatures" table.
H Observations appear in the "Snowfall and Snow on the Ground" table.
J Station also published as a Local Climatological Data publication.
VAR Observation time varies.
SR / SS Observation time near sunrise / Observation time near sunset, respectively.

SYMBOLS AND LETTERS USED IN THE DATA TABLES

(DAILY DATA ARE FOR THE 24 HOURS IMMEDIATELY PRECEDING OBSERVATION TIME.)

BLANK Entries in the "Monthly Summarized Data" table indicate no record.

BLANK Entries in the "Daily Precipitation" and "Snowfall and Snow on the Ground" tables indicate zero.

BLANK Entries in the "Daily Temperature" table indicate a missing record

- No record. Data not recorded or not received in time for publication.

+ Precipitation or temperature extremes occurred on one or more previous dates during the month.

* Rain gage not read. Precipitation is included in the amount following the asterisks.

Time distribution may not be known. A * preceding the monthly total indicates precipitation amount is being carried forward to next month's total, and may include amounts from the previous month(s).

a As a subscript, indicates accumulated total.

A Amount of precipitation is the total of observer's entries for the current month. It may include precipitation that occurred during the previous month. Refer to earlier bulletin to determine date of last

reading. (Hawaii stations)

B Divisional Departure from normals are computed using 1971-2000 normals.

E Normalized HDD/CDD Calculation. E is appended to the HDD/CDD Calculation when 1-9 individual daily TMAX and/or TMIN values are missing and a Normalized HDD/CDD Calculation is provided. M appears alone if 10 or more daily values are missing.

F Monthly calculation flagged value. F is appended to average and/or total values computed which exclude one or more daily data values that have been flagged by the GHCN-Daily Dataset

M Insufficient or partial data. M is appended to average and/or total values computed with 1-9 daily values missing. M appears alone if 10 or more daily values are missing, (8 or more for wind and evaporation).

N Indicates snow fall or Snowdepth totals are computed with one or more missing days.

R Amounts from recording rain gage.

T Trace. An amount too small to measure.

SEASONAL TABLES: Monthly and seasonal snowfall and heating degree days for the 12 months ending with the June data are published in the July issue of this bulletin. Cooling degree days for the calendar year are published in the "Climatological Data Annual Summary."

Information concerning the history of changes in locations, exposure, etc. of substations is kept on file at the National Centers for Environmental Information. Historical information of regular National Weather Service Offices may be obtained from the "Local Climatological Data" annual publication. The contents of this publication may be reprinted or otherwise used freely, with proper credit to the National Centers For Environmental Information. The data are also available digitally.

Effective with the January 2011 Data-Month, COOP Observer Names are no longer included in the Monthly and Annual Climatological Data Publications. This information is not published to ensure the privacy of personal information pursuant to Section 208 of the E-Government Act of 2002 (44 USC 3601).

As of the 2011 Data-Year, Station and Climate Division Maps are no longer being included in the CD Publications. NCEI's Products Branch provides updated Station Maps for various data networks via the Historical Observing Metadata Repository: <http://www.ncdc.noaa.gov/homr>.

The GHCN-Daily Quality Control Flags shown below are displayed as superscripts with the data. For more information on Global Historical Climatology Network - Daily and flags, see: <http://www.ncdc.noaa.gov/oa/climate/ghcn-daily/> and Comprehensive Automated Quality Assurance of Daily Surface Observations. Durre, Imke, Matthew J. Menne, Byron E. Gleason, Tamara G. Houston, Russell S. Vose, 2010: J. Appl. Meteor. Climatol., 49, 16151633. doi: 10.1175/2010JAMC2375.1

Blank = Passed All checks

D = failed duplicate check

G = failed gap check

I = failed internal consistency check

K = failed streak/frequent-value check

L = failed check on length of multiday period

M = failed megaconsistency check

N = failed naught check

O = failed climatological outlier check

R = failed lagged range check

S = failed spatial consistency check

T = failed temporal consistency check

W = temperature too warm for snow

X = failed bounds check

Z = flagged as a result of an official Datzilla investigation

Beginning with the January 2013 CD Publication, monthly mean temperature calculations have changed to the National Data Stewardship Team standard. Monthly maximum and minimum temperatures are not rounded until after the monthly mean temperature is calculated. This is the most accurate outcome, but may be slightly different from the mean derived from rounded monthly maximum and minimum.

The climate division temperature and precipitation values in this publication are based on simple averages from the current set of NWS-Designated Open and Published COOP and First Order Sites within each division. These values differ from those found in NCEI's nClimDiv product. Beginning in February 2014, the nClimDiv product is used by NCEI's Monitoring Branch and in its monthly climate reports. For more details on nClimDiv, please go to <http://www.ncdc.noaa.gov/monitoring-references/maps/us-climate-divisions.php>.

Effective January 2016, Alaska's Climate Divisions are updated to reflect the 13 climate divisional boundaries established by University of Alaska-Fairbanks, NWS, NCEI, Oregon State University, and University of Nebraska-Lincoln. For more details regarding the updated Alaska Climate Divisions, see: <http://journals.ametsoc.org/doi/pdf/10.1175/JAMC-D-11-0168.1> (Bienek et al., 2012).

NOAA National Centers for Environmental Information
Attn: Customer Engagement Branch
151 Patton Avenue
Asheville, NC 28801-5001

Customer Services Number: (828) 271-4800, option 2
TDD : (828) 271-4010
Fax number: (828) 271-4876

NCEI now offers free online access to the *Climatological Data* publication.
Go to : www.ncdc.noaa.gov and choose Most Popular.