



CLIMATOLOGICAL DATA

MARYLAND AND DELAWARE

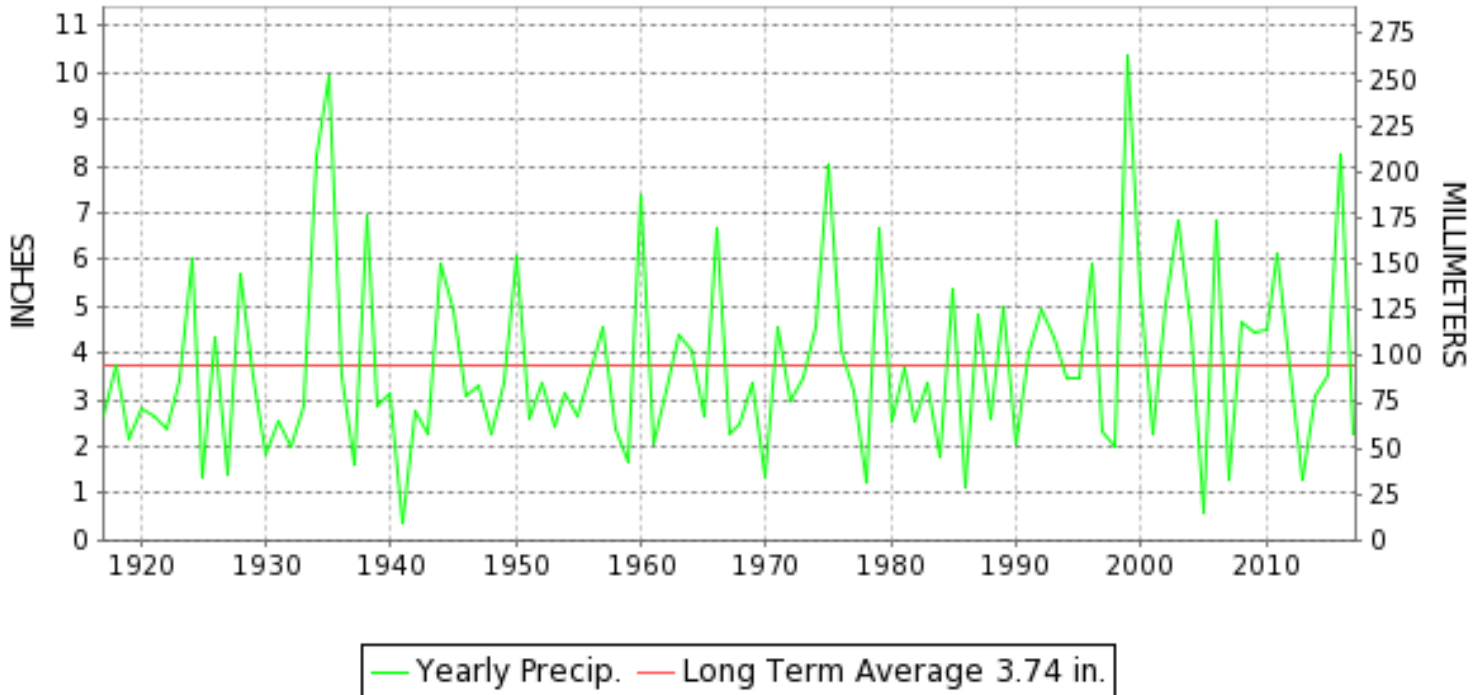
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SEPTEMBER PRECIPITATION BY YEAR



TEMPERATURE AND PRECIPITATION EXTREMES

MARYLAND

HIGHEST TEMPERATURE	92	SEPTEMBER 27+	2 STATIONS
LOWEST TEMPERATURE	33	SEPTEMBER 11	SINES DEEP CREEK
GREATEST TOTAL PRECIPITATION	3.81		DAMASCUS 3 SSW
LEAST TOTAL PRECIPITATION	1.18		MECHANICSVILLE 5 NE
GREATEST 1 DAY PRECIPITATION	1.55	SEPTEMBER 03	SUDLERSVILLE 1S

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DELAWARE

HIGHEST TEMPERATURE	92	SEPTEMBER 24	WILMINGTON NEW CASTLE CO AP
LOWEST TEMPERATURE	48	SEPTEMBER 29	WILMINGTON NEW CASTLE CO AP
GREATEST TOTAL PRECIPITATION	4.07		DOVER
LEAST TOTAL PRECIPITATION	1.12		WILMINGTON NEW CASTLE CO AP
GREATEST 1 DAY PRECIPITATION	2.33	SEPTEMBER 02	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										
REISTERSTOWN 2 NW	76.5M	58.4MF	67.4MF		88	25+	48	29	55E	130E	0	0	0	0	2.51		0.68	06	0.0	0		8	4	0
SMITHSBURG 2NW	76.9	53.0	65.0	-0.3	88	28+	42	30+	80	88	0	0	0	0	1.87	-2.17	0.70	07	0.0	0		4	3	0
--DIVISIONAL DATA-----> APPALACHIAN MOUNTAIN 07			66.8	0.2B										2.44	-1.89B									
HAGERSTOWN 1 E	78.8	56.4	67.6		92	27	44	10	55	141	3	0	0	0	2.17		0.86	06	0.0	0		7	3	0
CUMBERLAND 2	79.0	55.5	67.3	-0.1	92	28+	44	11+	60	134	5	0	0	0	1.20	-2.03	0.67	06	0.0	0		6	3	0
FROSTBURG 2	72.4	52.1	62.3	1.3	84	28+	42	10	126	51	0	0	0	0	1.45	-2.23	0.84	06	0.0	0		7	4	0
SHARPSBURG 5 S	78.1	53.7	65.9	0.3	89	28+	41	10	69	103	0	0	0	0	2.34	-1.66	1.17	06	0.0	0		5	4	1
WILLIAMSPORT															M				M					
--DIVISIONAL DATA-----> ALLEGHENY PLATEAU 08			65.8	1.7B										1.79	-1.70B									
OAKLAND 1 SE	73.0	50.8	61.9	1.9	85	22+	36	10	131	48	0	0	0	0	2.21	-1.24	1.51	06	0.0	0		15	4	1
SAVAGE RIVER DAM	72.9M	52.7	62.8M	0.8	85	28	40	11+	114E	55E	0	0	0	0	1.32	-2.00	0.97	06	0.0	0		4	2	0
SINES DEEP CREEK	M	M	M		82	25	33	11	123E	13E	0	0	0	0	MA 1.67		0.90	06	M	0		5	3	0
--DIVISIONAL DATA-----> DELAWARE NORTHERN 01			62.4	1.9B										1.77	-1.83B									
WILMINGTON NEW CASTLE CO AP	79.7	60.4	70.0	2.2	92	24	48	29	25	183	3	0	0	0	1.12	-3.20	0.52	02	0.0	0		6	3	0
WILMINGTON PORTER RSCH	77.3	60.7	69.0	1.8	88	27+	51	10	26	154	0	0	0	0	1.43	-3.47	0.49	06	0.0	0		6	5	0
--DIVISIONAL DATA-----> SOUTHERN 02			69.5	2.1B										1.28	-3.04B									
DOVER	79.1	62.3	70.7	1.0	90	24	53	29+	16	194	1	0	0	0	4.07	-0.06	2.33	02	0.0	0		6	5	1
--DIVISIONAL DATA----->			70.7	2.4B										4.07	-0.08B									

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																																
PRINCESS ANNE	M 2.90		1.05	-	-		0.40	1.15		-	-					-	-				0.20			-	-			0.10			-	
SALISBURY 2N	2.02		0.11	0.28			0.65	0.71					0.03					0.03	0.14	0.05							0.02					
SALISBURY FAA AP	2.05	T	0.63			0.13	0.81	0.04					0.05	T				0.02	0.26							T	0.11					
SNOW HILL 4 N	1.48		0.16	0.78			0.50																				0.04					
CENTRAL																																
EASTERN SHORE 02																																
ROYAL OAK 2 SSW	1.49		0.75	0.35			0.25	0.10					0.03						T	0.01	T							T				
LOWER SOUTHERN 03																																
MECHANICSVILLE 5 NE	1.18		0.20	0.40	T		0.28	0.27					T	0.03						T												
SOLOMONS	MA 1.66	-	0.82	0.62				0.20														0.02		-	*	0.00 _a					-	
UPPER SOUTHERN 04																																
BALTIMORE-WASHINGTON INTL AP	1.95	T	0.69	0.01		0.64	0.48						0.10	0.01					0.02	T	T										T	
BALTIMORE WASHINGTON INTL CLIM	1.95	T	0.69	0.01		0.64	0.48						0.10	0.01					0.02	T	T										T	
BELTSVILLE	1.84	T	0.16	0.46			0.56	0.58					0.06	0.02																		
DALECARLIA RSVR	2.17		0.25	0.82	0.01		0.30	0.60					0.08	0.08	0.03																	
MARYLAND SCI CTR	1.86		0.65			0.60	0.58						0.02							0.01												
NATL ARBORETUM DC	M 2.19		0.22	0.54	0.30		0.16	0.57		-			T	0.07	0.33					T												
OXON HILL	1.70		0.68	0.26			0.17	0.52				T	0.03	0.04																		
NORTHERN																																
EASTERN SHORE 05																																
STEVENSVILLE 2SW	1.41	0.01	0.11	0.75			0.24	0.20					T	0.07						0.02	0.01											
SUDLERSVILLE 1S	2.35		T	1.55			0.40	0.20						0.10						T	0.10							T				
NORTHERN CENTRAL 06																																
ABERDEEN PHILLIPS FLD	2.03	0.03		0.85			0.49	0.42						0.23						0.01	T											
BRIGHTON DAM	M 2.52		-	0.80			0.98	0.56					0.12	0.06																		-
CONOWINGO DAM	M 2.80	0.12		0.90			0.96	-						0.21					0.61													-
CYLBURN	M	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
DAMASCUS 3 SSW	3.81		0.52	T		1.41	0.86	0.86					0.14	0.02																		
EMMITSBURG 2 SE	2.11		0.01	0.32			0.85	0.86						0.05					0.01	0.01												
MILLERS 4 NE	2.31		0.55	0.08		0.39	1.07	0.11					0.05	0.02					T												0.04	
REISTERSTOWN 2 NW	2.51		0.05	0.66			0.68	0.62					0.02	0.09					0.35	0.04												
SMITHSBURG 2NW	1.87			0.46			0.66	0.70					0.05																			
APPALACHIAN																																
MOUNTAIN 07																																
HAGERSTOWN 1 E	2.17	0.01	0.38	0.03		0.79	0.86						0.06	0.04																T		
CUMBERLAND 2	1.20		0.28	0.13			0.67	0.03						0.08																	0.01	
FROSTBURG 2	1.45		0.17	0.22	0.01		0.84	0.12					T	0.07	0.02																T	
SHARPSBURG 5 S	2.34		T	0.22			1.17	0.81					0.11	0.03																		
WILLIAMSPORT	M			0.43			-	-					0.05	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	

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	
ALLEGHENY PLATEAU 08																																	
OAKLAND 1 SE	2.21	0.02	0.22	0.11	0.04	0.01	1.51	0.05					0.01	0.15	0.01			0.03	0.01		0.02									0.01	0.01		
SAVAGE RIVER DAM	1.32		0.18	0.08			0.97							0.09																			
SINES DEEP CREEK	MA 1.67		*	*	*	0.30 _a	0.90			*	*	0.05 _a		0.20	0.05	*	*	0.00 _a		0.05	0.12	*	*	0.00 _a						-	-		
DELAWARE																																	
NORTHERN 01																																	
WILMINGTON NEW CASTLE CO AP	1.12		0.52	0.03		0.09	0.33	T					0.10	T						0.05										T			
WILMINGTON PORTER RSCH	1.43		0.30	0.37		0.12	0.49						0.13	0.02																			
SOUTHERN 02																																	
DOVER	4.07		2.33				0.91	0.45											0.04	0.22	0.12												

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	
CONOWINGO DAM	07	MAX	82	65	62	73	79	82	65	71	73	78	71	71	77	77	77	80	74	79	82	83	77	81	86	86	82	86	75	69	76.2			
		MIN	57	56	55	55	56	65	54	51	51	51	43	40	60	61	63	64	66	67	64	62	62	62	63	65	65	69	50	50	57.6			
CYLBURN	08	MAX																													M			
		MIN																													M			
DAMASCUS 3 SSW	22	MAX	69	58	73	80	84	65	67	72	66	68	69	73	72	76	79	79	79	75	76	83	80	77	85	85	79	84	74	68	62	74.7		
		MIN	55	54	57	54	64	57	53	50	50	47	47	54	60	62	59	62	62	63	63	61	64	58	61	64	63	65	62	47	52	57.8		
EMMITSBURG 2 SE	07	MAX	83	66	59	74	80	85	65	70	74	68	70	72	73	75	79	83	85	83	76	79	88	85	85	86	88	89	86	88	77	74	78.2	
		MIN	55	53	53	58	56	62	53	51	47	47	46	45	53	59	57	57	59	62	63	59	58	57	61	62	62	65	47	47	55.6			
MILLERS 4 NE	18	MAX	77	59	73	79	83	64	68	70	68	70	72	73	70	77	79	82	80	77	78	83	84	81	84	87	88	84	86	83	71	67	76.6	
		MIN	51	50	57	55	63	57	53	48	47	47	44	53	57	63	58	59	59	62	62	65	59	64	56	59	62	63	64	49	49	56.6		
REISTERSTOWN 2 NW	08	MAX	82	61	59	75	80	84	62	69	73	66	70	72	74		79	81	82	81	73	79	88	83	80	84	88		83	86	76	71	76.5	
		MIN	54	53	54	56	56	62	55	51	52 ¹	49	50	51	56 ¹		62	62	63	63	63	65	65	66	60	60	67		67	66	48	50	58.4	
SMITHSBURG 2NW	08	MAX	81	62	59	73	81	84	61	68	71	67	70	72	72	76	77	78	80	82	80	81	85	82	84	87	88	87	86	88	74	71	76.9	
		MIN	53	51	52	53	53	61	53	50	44	42	42	48	53	60	56	55	57	59	58	56	56	55	51	51	56	60	61	60	43	42	53.0	
APPALACHIAN MOUNTAIN 07																																		
HAGERSTOWN 1 E	24	MAX	67	59	75	83	85	66	69	73	70	71	73	75	76	79	81	83	84	83	84	88	87	85	89	91	91	88	92	77	74	65	78.8	
		MIN	54	53	57	54	63	59	53	49	46	44	46	54	62	62	58	59	62	63	63	59	58	60	54	57	63	64	63	60	47	46	56.4	
CUMBERLAND 2	07	MAX	83	59	56	74	85	73	67	70	72	71	70	71	75	84	80	77	83	82	83	83	89	88	92	89	91	92	90	92	74	76	79.0	
		MIN	57	53	53	55	55	59	55	54	48	44	44	47	53	60	58	58	62	61	61	59	59	60	55	55	58	61	63	63	47	47	55.5	
FROSTBURG 2	07	MAX	75	54	54	67	78	71	60	62	65	64	65	65	69	76	67	73	77	78	79	79	79	80	82	82	84	84	84	68	69	72.4		
		MIN	50	48	47	53	54	54	48	47	45	42	44	44	53	57	55	55	57	57	57	55	56	54	54	57	61	59	57	44	44	52.1		
SHARPSBURG 5 S	07	MAX	82	62	59	76	82	86	62	71	71	70	71	72	76	77	79	82	82	83	80	82	85	85	78	86	89	89	86	89	77	73	78.1	
		MIN	58	54	55	52	52	60	52	46	46	41	42	46	53	60	57	57	58	60	59	56	56	56	56	55	55	60	60	44	44	53.7		
ALLEGHENY PLATEAU 08																																		
OAKLAND 1 SE	07	MAX	75	55	58	67	78	67	64	64	67	67	64	66	68	77	67	70	75	78	80	83	85	85	82	82	81	82	80	84	70	70	73.0	
		MIN	49	48	48	38	41	56	48	50	45	36	47	41	57	60	60	56	56	57	57	56	56	54	54	52	52	57	55	56	40	42	50.8	
SAVAGE RIVER DAM	08	MAX	77	56	56	70	78	67	62	64	68	68	64	64	68		69	73	76	79	77	80	80	75	84	83	84	83	83	85	70	72	72.9	
		MIN	56	49	50	53	53	56	48	48	49	40	40	45	53	58	56	56	58	58	57	57	57	57	55	54	55	59	59	59	43	44	52.7	
SINES DEEP CREEK	07	MAX	68				79	66	70	59		68	68	67	76	64				72	70	72	72	78			82	78	81	80			M	
		MIN	54				47	55	47	43		33	38	53	53	56				42	56	55	55	52			55	55	49	54			M	
DELAWARE NORTHERN 01																																		
WILMINGTON NEW CASTLE CO AP	24	MAX	68	63	75	82	86	69	74	74	72	76	78	80	75	83	83	85	81	81	81	89	89	80	89	92	91	85	90	80	72	67	79.7	
		MIN	56	57	61	57	61	55	53	51	51	50	57	62	66	63	63	69	68	69	67	64	65	61	64	66	65	68	57	48	50	60.4		
WILMINGTON PORTER RSCH	24	MAX	69	69	71	79	84	68	71	71	68	70	73	76	74	80	81	83	78	77	77	84	83	77	83	87	88	83	88	80	80	68	77.3	
		MIN	55	55	59	59	59	59	54	54	52	51	54	59	61	67	64	65	68	66	68	68	68	67	65	65	67	66	70	52	52	52	60.7	
SOUTHERN 02																																		
DOVER	16	MAX	80	65	74	82	85	83	72	73	70	72	74	76	80	82	84	82	79	79	76	84	86	84	85	90	86	82	85	84	75	65	79.1	
		MIN	60	57	62	60	69	62	58	54	54	54	53	59	58	68	64	64	67	68	69	67	66	67	66	62	64	67	70	71	53	57	62.3	

MARYLAND AND DELAWARE
201709

DAILY SOIL TEMPERATURES

STATION	DEPTH	TIME	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		
MARYLAND UPPER SOUTHERN 04 BELTSVILLE (in)																																			

MARYLAND AND DELAWARE
201709

SOILS REFERENCE NOTES

STATION	SOIL TYPE	SOIL COVER	SLOPE	UNITS
BELTSVILLE	UNKNOWN	GRASS	0	F

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 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	58	28	39	36	42	50	28	47	28	51	28	15	15	12	24	15	11	17	47	71	30	35	16	32	17	11	40	49	73	28	993	
	EVAP	0.22	0.09	0.00	0.16	0.18	0.24	0.05	0.20	0.16	0.17	0.15	0.12	0.11	0.05	0.13	0.14	0.11	0.10	0.06	0.18	0.20	0.15	0.11	0.17	0.18	0.17	0.13	0.18	0.26	0.22	4.39	
	MAX	68	68	62	80	79	89	68	78	80	76	78	78	82	80	86	88	86	87	79	87	89	90	84	90	93	94	89	92	83	81	82.8	
	MIN	62	59	59	58	56	66	58	55	56	52	53	56	61	66	66	66	67	68	66	66	65	65	62	61	67	66	66	68	53	58	61.6	
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
BALTIMORE WASHINGTON INTL CLIM	0467	04	ANNE ARUNDEL	39 11	76 39W	101		24		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	GCH
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
HAGERSTOWN 1 E	1790	07	WASHINGTON	39 38	77 42W	532	24	24		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 48	76 60W	186	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 //R	8005	01	WICOMICO	38 20	75 31W	47	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).

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