



CLIMATOLOGICAL DATA

MARYLAND AND DELAWARE

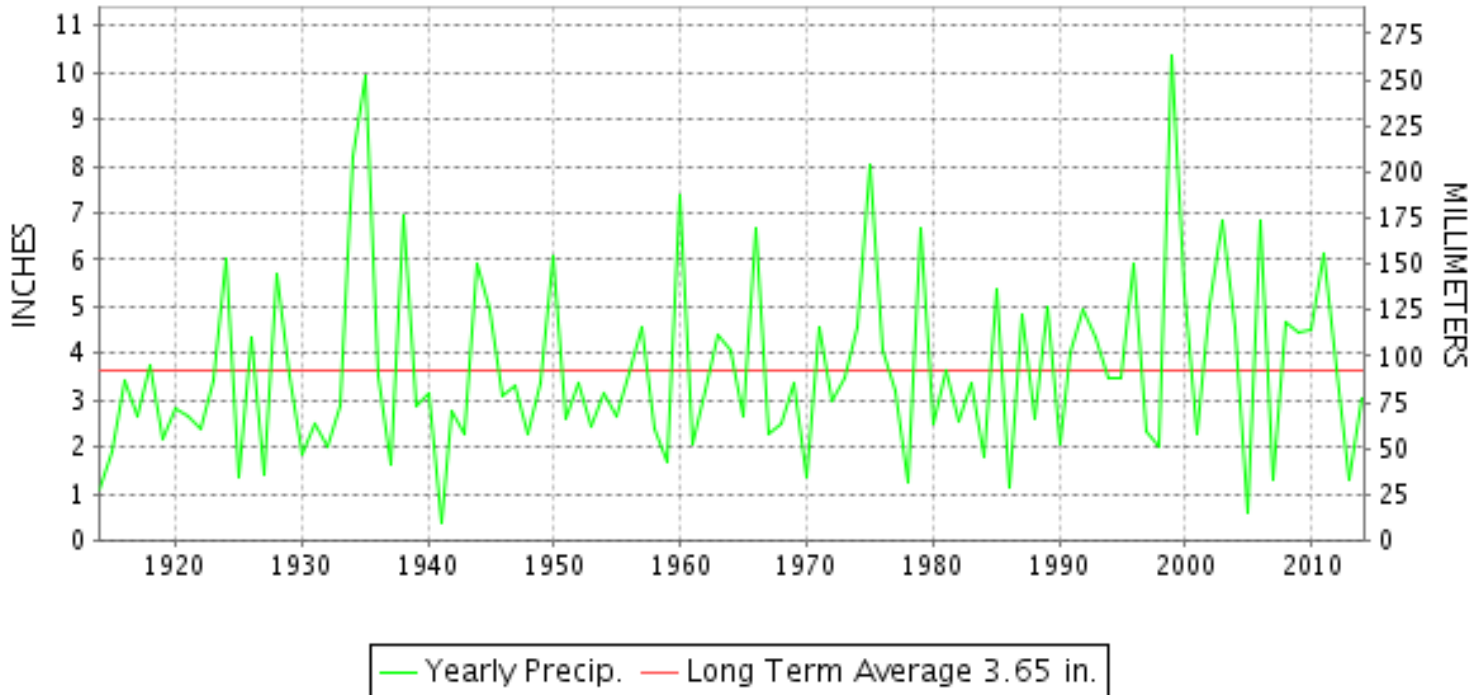
SEPTEMBER 2014

VOLUME 118 NUMBER 09

ISSN 0145-0549

GHCND Ver: 3.20-upd-2014121706

SEPTEMBER PRECIPITATION BY YEAR



TEMPERATURE AND PRECIPITATION EXTREMES

MARYLAND

HIGHEST TEMPERATURE	98	SEPTEMBER 07	NATL ARBORETUM DC
LOWEST TEMPERATURE	34	SEPTEMBER 18	SAVAGE RIVER DAM
GREATEST TOTAL PRECIPITATION	5.84		SNOW HILL 4 N
LEAST TOTAL PRECIPITATION	0.83		CUMBERLAND 2
GREATEST 1 DAY PRECIPITATION	2.36	SEPTEMBER 07+	2 STATIONS

"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 Climatic Data Center(NCDC), Asheville, North Carolina 28801."

Director
National Climatic Data Center

noaa

National
Oceanic and
Atmospheric Administration

National
Environmental Satellite, Data
and Information Service

National
Climatic Data Center
Asheville, North Carolina

DELAWARE

HIGHEST TEMPERATURE	92	SEPTEMBER 06+	2 STATIONS
LOWEST TEMPERATURE	43	SEPTEMBER 23	WILMINGTON NEW CASTLE CO AP
GREATEST TOTAL PRECIPITATION	3.22		WILMINGTON PORTER RES
LEAST TOTAL PRECIPITATION	2.84		WILMINGTON NEW CASTLE CO AP
GREATEST 1 DAY PRECIPITATION	1.84	SEPTEMBER 25	DOVER

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	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SALISBURY 2N	5.19			0.19				2.36	0.21	0.13	0.14		0.09	0.02		0.05									0.04	1.73	0.11						0.12	
SALISBURY FAA AP	4.38	T		0.01		0.02	2.36	0.15	0.06	0.31	T	T	0.12					T						0.52	0.83				T		T			
SNOW HILL 4 N	5.84	T		0.05		0.12		2.20	0.10	0.72	0.17		0.45	T	0.04		0.05							T	1.65	0.19						0.10		
CENTRAL																																		
EASTERN SHORE 02																																		
ROYAL OAK 2 SSW	2.86	0.26		0.45				0.56	0.05					0.32		0.08									0.02	1.04				0.05	0.02			
LOWER SOUTHERN 03																																		
MECHANICSVILLE 5 NE	2.27	0.29	0.45	0.03				0.57	T	0.06	T		0.03		0.07											0.46	0.09					0.04		
SOLOMONS	MA 3.04		0.07	0.01		*		*	0.94 _a	0.07	0.01		0.50	*	*	0.14 _a					*	*	0.02 _a			0.55	0.65	-	-	0.05	0.03			
UPPER SOUTHERN 04																																		
BALTIMORE WASH INTL AP	3.21	0.08	0.06			0.65			T	T		T		0.15						0.01					0.03	1.33				0.01	0.89			
BELTSVILLE	3.19	0.91		0.21				1.14						0.13										0.02		0.60	0.18							
DALECARLIA RSVR	M 3.32	0.42	0.15	0.55		-		0.53						0.15												1.50		0.02						
LAUREL 3 W	3.24	0.08	0.95	0.02			0.87							0.10												1.08				0.01	0.13			
MARYLAND SCIENCE CENTER	2.80		0.71				0.01							0.03						0.01					0.01	1.74					0.29			
NATL ARBORETUM DC	2.54	0.32	0.11	0.22				0.39		T				0.25												1.06	0.16					T		
OXON HILL	1.75	0.62	0.10	0.08				0.06		T				T	0.29											0.56	0.04					T		
UPPER MARLBORO 3 NNW	2.57	1.10	0.13	0.15				0.03						0.27												0.84	0.03					T		
NORTHERN CENTRAL 06																																		
ABERDEEN PHILLIPS FLD	A 3.93	*	0.48 _a	0.29				0.35						0.21		T										1.65	0.87					0.08		
BRIGHTON DAM	2.05	0.41	0.02	0.45				0.18						0.12												0.77	0.10							
CONOWINGO DAM	2.38													0.23											1.55	0.60								
CYLBURN	A 2.43		*	0.67 _a										0.08												1.14	0.54							
DAMASCUS 3 SSW	2.43	0.64	0.45				0.13							0.21											0.01	0.77				T	0.22			
EMMITSBURG 2 SE	1.80	0.40	0.01	0.25				0.17						T	0.09											0.50	0.38							
FREDERICK 2 NNE	M	-	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
MILLERS 4 NE	1.50	0.02	0.10	0.33		0.10	0.02	0.05						0.08							0.01					0.64	T					T		
SMITHSBURG 2NW	M	-	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
APPALACHIAN																																		
MOUNTAIN 07																																		
CUMBERLAND 2	0.83	0.07	0.17	0.13				0.06					0.03	0.27	0.10																			
FROSTBURG 2	1.16	0.10	T	0.46				0.10		T			0.03	0.29	0.14																			
SHARPSBURG 5 S	A 2.27	*	0.23 _a	0.51			0.03	0.77		T	0.01			0.06	0.04																			
WILLIAMSPORT	M 1.45		0.03	0.17		-		0.43						0.13											0.08		0.42	0.18					0.01	
ALLEGHENY PLATEAU 08																																		
OAKLAND 1 SE	2.37	0.26	0.49	0.24				0.63					0.08	0.25	0.25	0.02	0.04																	
SAVAGE RIVER DAM	M 0.92	-	0.08	0.25				0.22						0.20	0.13		T																	

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	
SINES DEEP CREEK	MA 1.55	*	0.50 _a	0.30		0.02	-	*	0.20 _a				0.08	*	*	0.25 _a	0.05					*	*	0.15 _a					-	*	0.00 _a		
DELAWARE NORTHERN 01																																	
WILMINGTON NEW CASTLE CO AP	2.84	T	0.61				0.39							0.46			0.11		T						0.11	1.06				0.09	0.01		
WILMINGTON PORTER RES	3.22	0.45	0.35				0.63							0.49			0.10								T	1.10				0.10			
SOUTHERN 02																																	
DOVER	A 3.13	0.48		0.01		0.03	*	0.42 _a	T					0.26										0.04		1.84	0.02					0.03	

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	89	87	88	82	83	87	89	76	76	73	77	85	72	72	72	74	70	75	75	76	80	68	68	68	64	73	76	77	70		76.5		
		MIN	70	69	68	63	63	70	65	57	57	64	64	60	60	48	48	48	53	51	51	54	55	43	45	49	53	50	53	56	61		56.5		
CONOWINGO DAM	07	MAX	89	88	81	83	86	90	78	72	75	77	85	74	66	65	70	72	69	70	76	74	69	64	70	64	74	78	77	70	75		75.1		
		MIN	69	68	64	64	70	66	61	60	63	63	62	58	53	49	49	51	50	53	54	57	60	44	44	49	55	53	53	55	59	58		57.1	
CYLBURN	08	MAX	78	88	89	79	83	86	90	75	71	72	77	85	71	65	65	71	71	72	70	70	70	75	80	68	67	62	70	76	78	73		74.9	
		MIN	64	71	68	65	67	72	64	59	63	63	63	60	58	50	51	55	51	52	52	52	56	58	60	47	53	54	54	55	58	62		58.6	
DAMASCUS 3 SSW	22	MAX	86	90	81	84	88	88	73	71	71	77	84	72	64	64	71	71	72	73	70	79	83	71	67	66	65	71	78	77	69	73		75.0	
		MIN	70	69	67	65	69	69	60	55	63	63	67	58	55	46	48	56	49	56	49	59	56	52	43	47	56	54	53	54	59	61		57.6	
EMMITSBURG 2 SE	07	MAX	86	87	87	82	85	88	89	75	75	73	78	85	72	67	68	71	74	73	76	72	79	83	68	71	69	67	75	80	78	75		76.9	
		MIN	70	70	67	64	64	68	62	59	54	61	64	56	55	44	44	46	45	44	49	48	52	52	44	42	44	50	50	47	47	56		53.9	
FREDERICK 2 NNE	07	MAX																															M		
		MIN																																M	
MILLERS 4 NE	18	MAX	85	88	81	84	85	89	77	74	74	77	83	80	68	66	71	72	72	73	71	77	82	77	71	69	65	74	80	80	73	76		76.5	
		MIN	69	70	67	61	69	69	60	55	61	62	65	56	53	45	44	53	45	48	47	57	54	55	41	45	55	50	52	52	57	60		55.9	
SMITHSBURG 2NW	08	MAX																																M	
		MIN																																M	
APPALACHIAN MOUNTAIN 07																																			
CUMBERLAND 2	18	MAX	85	90	91	88	90	93	91	79	75	73	84	82	73	71	69	74	74	75	76	72	85	85	68	75	75	71	79	82	78	78		79.4	
		MIN	69	69	66	63	64	68	59	52	52	63	66	57	56	43	44	46	46	46	50	50	56	56	41	41	45	58	49	49	50	53		54.2	
FROSTBURG 2	07	MAX	76	82	84	78	83	85	85	74	70	66	79	73	70	61	61	69	65	67	69	65	78	76	61	68	70	63	73	76	75	74		72.5	
		MIN	65	65	63	59	60	66	53	50	50	57	61	51	51	40	40	42	44	44	46	46	54	49	38	39	44	52	48	48	49	54		50.9	
SHARPSBURG 5 S	07	MAX	88	89	89	83	87	89	89	76	75	72	79	85	73	67	67	73	73	73	75	72	81	84	69	68	67	68	76	79	78	73		77.2	
		MIN	68	67	66	65	65	68	57	51	51	62	66	53	53	42	42	44	45	45	46	46	54	53	38	38	41	56	46	47	48	55		52.6	
WILLIAMSPORT	06	MAX					86																										M		
		MIN					72																											M	
ALLEGHENY PLATEAU 08																																			
OAKLAND 1 SE	07	MAX	78	81	83	81	87	87	83	72	69	70	81	72	68	61	66	70	67	69	69	66	77	77	57	65	65	64	73	72	74	74		72.6	
		MIN	67	67	66	56	57	57	52	49	52	56	58	53	53	39	41	46	40	40	44	45	50	50	35	35	50	52	40	40	43	46		49.3	
SAVAGE RIVER DAM	08	MAX		80	83	81	85	85	85	75	69	69	76	75	73	64	64	68	69	69	71	65	78	80	61	68	68	66	74	74	73	74		73.2	
		MIN		68	66	61	61	61	56	49	49	59	64	58	53	43	44	47	44	34	46	46	53	54	39	39	41	54	45	45	46	52		50.9	
SINES DEEP CREEK	07	MAX		80	80	77	82				81	70	71	77	71		63	67	63	67	66		74	74	74	67	67			72	71	M			
		MIN		61	63	56	56				45	45	55	54	54		39	42	41	40	43		42	36	36	40	48			40	47	M			
DELAWARE NORTHERN 01																																			
WILMINGTON NEW CASTLE CO AP	24	MAX	87	91	85	85	87	91	81	74	76	80	86	76	70	69	73	75	74	72	71	78	80	72	70	73	64	78	83	81	73	77		77.7	
		MIN	73	73	65	63	71	72	64	64	69	64	69	60	55	49	47	56	53	51	54	58	61	50	43	50	57	52	53	56	60	63		59.2	
WILMINGTON PORTER RES	24	MAX	87	91	82	85	88	92	77	77	74	78	84	73	68	66	70	72	72	74	67	78	79	79	68	71	62	73	78	80	80	74		76.6	
		MIN	72	73	67	66	70	71	63	63	66	65	65	60	58	52	51	58	56	55	55	58	62	52	47	53	58	54	54	54	54	62		59.8	
SOUTHERN 02																																			
DOVER	16	MAX	92	92	91	85	89	92	80	73	77	82	87	86	76	70	75	78	77	77	73	78	80	73	71	72	70	74	81	83	74	77		79.5	

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	
		MIN	72	73	72	65	71	70	64	65	67	64	65	64	60	52	48	58	52	50	54	63	68	59	48	52	60	53	54	57	61	60		60.7

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 RES	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	47	28	33	16	38	39	58	46	51	36	42	68	48	36	29	18	43	12	28	35	29	43	69	24	78	62	36	16	16	13	1137	
	EVAP	0.29	0.16	0.21	0.13	0.19	0.21	0.37	0.25	0.08	0.07	0.14	0.22	0.20	0.06	0.13	0.11	0.18	0.10	0.11	0.13	0.16	0.18	0.23	0.11	0.08	0.03	0.14	0.13	0.17	0.02	4.59	
	MAX	93	93	94	88	90	94	92	84	72	76	85	90	84	71	78	82	78	79	81	80	83	82	72	76	68	70	80	82	87	70	81.7	
	MIN	73	73	62	69	69	72	68	65	65	65	68	65	63	54	54	56	75	55	58	57	60	59	49	49	51	58	57	58	65	65	61.9	
UPPER MARLBORO 3 NNW	WIND	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	M		
	EVAP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	M		
	MAX	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	M		
	MIN	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	M		
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 WASH 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	18	18		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
FREDERICK 2 NNE	3353	06	FREDERICK	39 26	77 24W	280	07	07		H
FROSTBURG 2	3415	07	ALLEGANY	39 40	78 56W	2170	07	07		H
LAUREL 3 W	5111	04	PRINCE GEORGE'S	39 5	76 54W	400	24	24		H
MARYLAND SCIENCE CENTER 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	07	07		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	08	08		H
PRINCESS ANNE	7330	01	SOMERSET	38 13	75 41W	20	17	17		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
UPPER MARLBORO 3 NNW	9070	04	PRINCE GEORGE'S	38 51	76 46W	130	08	08	08	H
WILLIAMSPORT	9570	07	WASHINGTON	39 37	77 51W	360	06	06		H
DELAWARE										
DOVER	2730	02	KENT	39 9	75 30W	30	16	16		H
MILTON 1SE	6104	02	SUSSEX	38 46	75 17W	33		07		H
WILMINGTON NEW CASTLE CO AP R	9595	01	NEW CASTLE	39 40	75 36W	79	24	24		HJ
WILMINGTON PORTER RES	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 is 1981 to 2010. The normals for National Weather Service localities have been adjusted so as to be representative for the current observation site.

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 NCDC 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 Observation time near sunrise.
- SS Observation time near sunset.

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.

by NCDC's Climate Prediction Branch and its entries for the report. If on the day in which the precipitation was recorded during the time period, the date of last reading. (Hawaii stations)

- B Divisional Departure from normals are computed using 1981-2010 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 Climatic Data Center. 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 Climatic Data Center. 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. NCDC's Product Development 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 | N = failed naught check |
| D = failed duplicate check | O = failed climatological outlier check |
| G = failed gap check | R = failed lagged range check |
| I = failed internal consistency check | S = failed spatial consistency check |
| K = failed streak/frequent-value check | T = failed temporal consistency check |
| L = failed check on length of multiday period | W = temperature too warm for snow |
| M = failed megaconsistency check | 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.

Processing Updates and Errata: The CD Publications are periodically reproduced to include the addition of late reports and reported corrections. The GHCND data version noted on the cover of the publication provides the generation date.

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 NCDC's nClimDiv product. Beginning in February 2014, the nClimDiv product is used

These and other publications are available from the National Climatic Data Center

Hourly Precipitation Data

This publication contains hourly precipitation amounts obtained from recording rain gages located at National Weather Service, Federal Aviation Administration, and cooperative observer stations. Published data are displayed in inches and tenths or inches and hundredths at local standard time. HPD includes maximum precipitation for nine (9) time periods from 15 minutes to 24 hours, for selected stations.

Climatological Data

Monthly editions contain station daily maximum and minimum temperatures and precipitation. Some Stations provide daily snowfall, snow depth, evaporation, and soil temperature data. Each edition also contains monthly summaries for heating and cooling degree days (65 degree F base). The July issue contains a recap of monthly heating degree days and snow data for the preceding July through June.

The Annual issue contains monthly and annual averages of temperature, precipitation, temperature extremes, freeze data, soil temperatures, evaporation, and a recap of monthly cooling degree days.

Storm Data

Monthly issues contain a chronological listing, by states, of occurrences of storms and unusual weather phenomena. Reports contain information on storm paths, deaths, injuries, and property damage. An "Outstanding storms of the month" section highlights severe weather events with photographs, illustrations, and narratives. The December issue includes annual tornado, lightning, flash flood, and tropical cyclone summaries.

Monthly Climatic Data for the World

This publication contains monthly means for temperature, pressure, precipitation, vapor pressure, and sunshine for approximately 2,000 surface data collection stations worldwide and monthly mean upper air temperatures, dew point depressions, and wind velocities for approximately 500 observing sites.

Local Climatological Data

LCD publications summarize temperature, relative humidity, precipitation, cloudiness, wind speed and direction observations for several hundred cities in the U.S. and its territories. Each monthly publication also contains 3 hourly weather observations for that month and a hourly summary of precipitation. Annual LCD publications contain a summary of the past calendar year as well as historical averages and extremes.

For Information Call:

(828) 271-4800 Option 2

(828) 271-4010 (TDD)

(828) 271-4876 (Fax)

NOAA\National Climatic Data Center
Attn: User Engagement & Services 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

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