



ATLANTIC COAST OBSERVER NETWORK, MD / DE / DC CHAPTER WITH DATA FROM NEARBY AREAS

THUNDERSHOWERS BRING ABOVE NORMAL RAINFALL TO MANY AREAS

July 2003 temperatures averaged slightly below normal. Readings of 95 degrees or higher were infrequent. Frequent showers and scattered thundershowers/storms contributed to the higher humidity. The heaviest precipitation fell in Montgomery, Anne Arundel, Prince Georges Counties eastward into Wicomico County Maryland and Sussex county Delaware. The driest region was New Castle County Delaware and scattered areas westward along the Mason-Dixon line where some observers reported less than three (3) inches.

The remnants of one tropical system affected the region this month. **Tropical storm Bill** made landfall in southeastern Louisiana late on June 30th. It weakened and moved northeast through central Alabama, the Appalachian mountains of Georgia, Tennessee, North Carolina, Virginia and was absorbed by a frontal system over west-central Virginia and then moved off the Atlantic coast. Rains from showers and thunderstorms were the heaviest east of I-95 from Baltimore southwards into Virginia where most stations observed an inch. The lightest rains fell in Washington County where only a few hundreds of an inch fell.

July began on a stormy note around the metropolitan Washington D. C. Around midnight on June 30th thundershowers moved southeast out of Montgomery County through Washington and dissipated in Prince Georges County after midnight on the 1st. The storm dumped over an inch of rain in some areas. The remnants of Tropical Storm Bill brought steady and sometimes heavy rains on the 2nd and 3rd. **Bill Hudelson of South Bowie** recorded the heaviest, 2.41". Other amounts of over 1 1/2" were reported by **Jug Bay Wetlands** (2.13"), **John Zyla of Ridge** (1.77"), **Brian Smith of Oxon Hill** (1.67"), and **Dan Hanson of Millersville 1 SE** (1.58").

The hottest temperatures of the month followed in wake of the remnants of Bill. Maximum temperatures in the upper 80's to lower to mid 90's were common from the 4th through the 9th along with scattered thundershowers. The warmest day of the month at many stations was the 5th. Stations in Garrett County, and portions of Allegany, and Carroll Counties did not reach 90 during the month of July

Showers were common during the first two weeks of the month. **Dave Bryant of St. Margarets** reported at least a "T" on each of the first 14 days. **Rebecca Harvey of Eagle Rock** reported rain on 13 of the first 14 days.

Due to the high dew points minimum temperatures below 60 degrees were not a common occurrence in the eastern portion of the region. The highest monthly minimum temperature of 67 was reported by **Joe Manfre of Baltimore 2 SE** and **John Zyla of Ridge**.

There were some brief periods of lower humidity this month. The lower dew points of the 12th, 13th, and 20th allowed for good radiational cooling which produced the coolest temperatures of the month at many ACON locations. The low humidity of the 12th did not prevent heavy evening thundershowers from moving through the region. The heaviest rains were reported by **Dan Hanson of Millersville 1 SE** (1.35"), **Stan Rossen of Glenmont 1 NNE** (1.19"), and **Jeff Stoudt of Laurel 2 E** (0.91").

Heavy thunderstorms returned on the evenings of the 22nd and 23rd. Over 1 inch fell at many ACON locations in Frederick, Carroll, Montgomery, Baltimore, Anne Arundel, and Harford Counties. The heaviest two day totals reported were: 2.99" by **Herb Close of Manchester 1 SW**, 2.34" by **Bobby**

EXTREMES REPORTED BY

ACON OBSERVERS

MAXIMUM TEMPERATURE

Fallston 1 NW	96
Oxon Hill	96
5 Stations	95

MINIMUM TEMPERATURE

Eagle Rock	50
Frostburg	51
LaVale	53

WARMEST AVG. TEMP.

Baltimore 2 SE	79.3
Ridge	78.3
3 Stations	77.1

COLDEST AVG. TEMP.

Frostburg	68.2
Eagle Rock	68.3
LaVale	71.8

MAXIMUM PRECIPITATION

Forest Glen	8.48
Bethesda	8.06
Laurel 2 E	7.58

MINIMUM PRECIPITATION

Wilmington 4 NNE DE	2.55
Bear 2 SW DE	2.73
LaVale	3.05

Miller of **Millers 4 NE**, 2.34" by **Jeff Stoudt of Laurel 2 E**, and 2.09" by **Tony Scafile of Bethesda**.

MEMBER NEWS

Kevin Shaw came down with a leg infection which generated a bacterial problem in his blood around August 22nd. As of the September 9th he is still undergoing treatment for this condition. Lets all wish him a speedy and complete recovery.

OBSERVER COMMENTS FOR JULY 2003

Gary Gallaher of Bear 2 SW, DE

July record set for the most days with measurable precipitation (17 days - old record 16 days set in 2000) even with the monthly total 35% below normal! A "T" or more fell on 19 days tying the record set in 1967.

Greg Latta of Frostburg

13th -- Hail during the previous 24 hours ending at obs time (7AM)

Nate Mullins of LaVale

12th -- Thunderstorm with brief heavy rain and gusty winds about 4:20 PM .16" fell in 15 minutes. Hail was reported in the extreme western portion of the county.

Dave Bryant of St Margarets

A "T" or more precipitation fell on the first 14 days.

Dan Hanson of Millersville 1 SE

Normal temperatures and slightly above precipitation was the story. There were 10 days of 90 degree or higher temperatures which is less than the 20 year average of 14 days.

Jeff Stoudt of Laurel 2 E

1st -- Predawn thundershower.

22nd -- Intense evening thunderstorm 1.40" in 20 minutes around 2100 EST.

Al Kreinik of Parkton 5 SW

2nd -- Thunder, heavy rain 1:35 PM Visibility 1/4 mile.

7th -- Lightning and thunder, power on and off, heavy rain.

15th -- Dense fog Visibility 1/8 mile.

27th -- Lenticular cloud 1 PM.

Joe Manfre of Baltimore 2SE

22nd -- Partly cloudy, hot, a brief light shower, then late PM thunderstorms.

26th -- Partly cloudy, hot, moderate humidity.

Marty Sharrow of Owings Mills

15th - Dense AM fog.

29th - Partly sunny and somewhat less humid.

Herb Close of Manchester 1 SW

Temperatures averaged about normal and precipitation averaged slightly above normal. Nearly 3" of the months total fell in a 27 hour period from the evening of the 22nd to the evening of the 23rd.

Ralph Hartsock of Westminster 4 SSE

4th -- Sunny, hot - late thunderstorms.

24th -- Sunny & nice for July.

Greg Klein of Westminster 5 SSE

Tenth month in a row with below normal temperatures.

Bobby Miller of Millers 4 NE

A pleasant month with no temperature extremes and excellent growing conditions. Record 4 days with 1" or more precipitation set for July.

18th -- Thunder with vivid lightning north at 9:30 PM.

22nd -- Thunder with heavy rain 6:15-6:30 PM.

23rd -- More moderate to heavy rain with thunder SW moving NE 8-9 PM.

Manuel Farfan of Frederick 4 N

6th -- Partly sunny: hot, humid with a strong thunderstorm

between 8 PM - 10 PM. Heat index today 101.6 F.

18th -- Warm, sunny, DRY, and a little breezy but very comfortable.

31st -- Humid with cloudy conditions most of the day and spotty sprinkles this evening.

Lynn Albright of Fallston 2 NW

6th - Mile long micro burst several miles from station caused only tree damage.

Rich Giannola of Olney 1 S

1st -- TSRA in early AM hours. Frequent thunder and lightning.

12th -- Rainbow 8:35 PM.

Stan Rossen of Glenmont 1 NNE

Stand wettest July behind 7.21" which fell in 1992.

12th -- Hail less than 1/4" 1904-1905 EST.

Kevin Shaw of Gaithersburg 2 WNW

A rather average month, temperature wise. Precipitation was fairly frequent, especially during the first part of the month through the 11th, then tailed off as far as frequency of measurable rainfall days goes.

Joe Terry of Forest Glen

Wettest month since September 1999.

6th -- Strong thunderstorm with damaging winds from downburst. Five minutes of 3/8" hail and 0.48" of rain in 5 minutes occurred around 1840. Many trees damaged or uprooted. Two neighbors cars were crushed by large tree limbs. Little lightning however.

12th -- Deep blue skies and low humidity and still a heavy evening thunderstorm.

22nd -- Evening thunderstorm dumped 1.53" in one hour.

Bill Hudelson of South Bowie

2nd -- Overcast, rain began 1230, heavy during evening.

6th -- Scattered clouds, hazy, hot, broken overcast evening, thunderstorms passing to the north 1915 & 2130.

Brian Smith of Oxon Hill

1st - Series of +TSRA that came roaring SE thru Montgomery County dissipated in western PG county.

Floyd Abell of Hollywood

11th - Fair, breezy at times

John Zyla of Ridge

9 thunderstorm days but 4.06" precipitation this month was below normal.

Greg Keefer of Hagerstown 1 E

4th -- Hot and humid high 90 just before intense thunderstorms moved in 3 PM - 4 PM and quickly dropped 1.01" of rain and wind gusts to 35 MPH also some intense lightning and thunder.

23rd -- A very intense but short n duration downpour began right after midnight 0.25" fell. Intense thunderstorm with heavy downpours and intense lightning mainly between 5 PM - 6 PM.

Jim Vaughn of Smithsburg 2 NE

Precipitation below normal for the third month this year.

21st - Wind gust of 61 ties monthly high gust for July set 7/9/2002.

ACON MD /DE / DC
JULY 2003 SUMMARY

OBSERVER	STATION <i>COUNTY, STATE</i>	TEMPERATURE									PEAK WIND			PRECIPITATION					SNOWFALL				OBS TIME	
		AVG MAX	AVG MIN	MEAN	MAX	DAY	MIN	DAY	MAX >=90	MAX <=32	MIN <=32	GUST	DIR	DAY	TOTAL	MAX DAY	DATE	YEAR	DAYS >=.01"	DAYS >=1"	TOTAL	MAX DAY		DATE
<i>Montgomery, Maryland</i>																								
Cohen, Rob	Potomac 4 N	83.4	68.5	76.0	91	5	62	12+	4	0	0				5.40	0.86	28	37.65	10	0	0.0	0.0	0.0	2100
Giannola, Rich	Olney 1 S	83.1	66.7	74.9	92	5	61	13	2	0	0				5.38	0.92	28	36.60	12	0	0.0	0.0	0.0	2400
Roth, David	Montgomery Village 1SW	86.7	67.9	77.3	95	5	62	12+	9	0	0	20	7		5.26	1.34	22	37.91	13	1	0.0	0.0	0.0	2400
Rossen, Stan	Glenmont 1 NNE	85.2	66.5	75.9	93	21	61	12+	8	0	0	14	21		7.04	1.55	22	38.68	13	2	0.0	0.0	0.0	2400
Scafide, Tony	Bethesda	85.4	65.7	75.6	94	5	59	13	5	0	0	8	S	1	8.06	1.88	22	<u>32.14</u>	15	1			0.0	2400
Shaw, Kevin	Gaithersburg 2 WNW	85.6	65.4	75.5	94	5	59	12+	10	0	0				5.33	1.03	6	35.86	11	1	0.0	0.0	0.0	2400
Terry, Joe	Forest Glen	86.5	66.7	76.6	94	5	60	12+	10	0	0	36	N	6	8.48	1.64	22	42.01	16	1	0.0	0.0	0.0	2400
Wash Gas Light	Rockville 1 NE	<u>85.0</u>	<u>66.2</u>	<u>75.6</u>	93	5	60	20	6	0	0				<u>4.46</u>	0.88	10	<u>31.82</u>	11	0	0.0	0.0	0.0	2400
<i>Prince Georges, Maryland</i>																								
Hudelson, Bill	South Bowie	86.0	68.2	77.1	95	6	62	12+	9	0	0	29	NW	18	7.44	2.01	2	43.68	17	1	0.0	0.0	0.0	2400
Smith, Brian	Oxon Hill	86.2	67.9	77.1	96	5	63	12+	9	0	0				6.58	1.49	1	40.25	15	2	0.0	0.0	0.0	2000
<i>St. Marys, Maryland</i>																								
Abell, Floyd	Hollywood	85.5	69.2	77.4	93	6	63	18	9	0	0	26		22	4.99	0.90	9	34.68	14	0	0.0	0.0	0.0	2400
Van Wie, Michael	Oraville																						2400	
Zyla, John	Ridge	85.6	70.9	78.3	94	5	67	14	10	0	0	24	NW	9	4.06	1.56	2	33.86	12	1	0.0	0.0	0.0	2400
<i>Washington, Maryland</i>																								
Keefer, Greg	Hagerstown 1 E	83.6	64.9	74.3	92	5	55	20	2	0	0	39	SW	27	3.80	1.45	23	34.58	15	2	0.0	0.0	0.0	2400
Vaughn, Jim	Smithsburg 2 NE	86.2	64.5	75.4	94	6	57	20	5	0	0	61	NNW	21	3.44	0.97	23	37.89	10	0	0.0	0.0	0.0	2000
<i>Wicomico, Maryland</i>																								
NWS Salisbury	Wicomico Co. Apt	84.5	66.3	75.4	92	9	56	18	3	0	0	35	WNW	7	6.31	1.50	2	31.66	16	2	0.0	0.0	0.0	2400
<i>York, Pennsylvania</i>																								
Rickell, Robert	Hanover 2 S, PA																	<u>20.80</u>						2100
<i>Arlington, Virginia</i>																								
NWS Washington National	National Airport	85.3	70.1	77.7	94	5	66	1+	8	0	0	41	NNE	1	5.76	1.14	1	35.30	12	2	0.0	0.0	0.0	2400
<i>Loudon, Virginia</i>																								
NWS Washington Dulles	Dulles Airport	84.8	65.9	75.4	93	5	59	20	7	0	0	46	W	9	6.07	1.49	22	37.39	12	3	0.0	0.0	0.0	2400
SECTION AVERAGE		84.5	66.2	75.4											5.23						0.0			

NOTES:

M OR UNDERLINE= MISSING DATA

> = INCLUDED IN NEXT DAYS DATA

National Weather Service station data listed herein is preliminary and may be subject to change. The data has not been certified and cannot be used in legal actions.

Only reports certified by the National Climatic Data Center in Asheville, NC may be used for these purposes.

Accuracy of Data from ACON Observers not guaranteed.

GARY GALLAHER 9/09/03

**ACON MD / DE / DC
JULY 2003 DAILY TEMPERATURES**

STATION	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	AVG	OBS TIME	
WILMINGTON 4NNE CANAVAN	84	83	76	89	91	89	88	84	86	68	84	85	81	77	82	86	82	86	81	85	88	88	80	83	86	89	89	88	83	79	80	83.9	2400 EDT	
BEAR 2 SW, DE GALLAHER	85	82	77	91	95	91	89	89	90	71	86	85	82	78	82	88	83	83	83	85	89	87	82	82	87	89	90	85	84	79	80	84.8	2400 EDT	
WILMINGTON, DE NWS NEW CASTLE CO APT	85	81	78	89	92	90	88	88	88	70	85	84	82	77	80	88	83	85	84	84	90	87	81	81	86	88	90	85	81	79	80	84.2	2400 EST	
U of D DE Climatologist Newark Pearson Hall																																		2400 EDT
GEORGETOWN, DE NWS SUSSEX CO APT	80	81	82	90	91	93	89	89	92	74	87	86	84	75	80	89	86	87	81	84	89	88	80	82	85	87	90	87	77	70	76	84.2	2400 EST	
GEORGETOWN, DE UofD RESEARCH & ED CTR	82	81	82	90	92	93	90	89	93	75	87	87	83	75	82	89	84	88	82	85	90	87	80	83	88	89	91	88	77	72	78	84.8	2400 EST	
HARBESON, DE UofD WARRINGTON FARM	81	81	83	90	92	92	89	89	92	74	87	86	82	74	79	88	85	88	80	84	91	89	79	84	87	89	91	88	76	70	76	84.3	2400 EST	
FROSTBURG LATTA	79	78	74	80	86	82	84	82	83	78	67	74	74	74	76	82	79	80	74	76	80	85	81	73	73	77	80	81	69	77	76	77.9	0700 EDT	
LAVALE MULLINS	83	80	84	91	90	90	90	91	80	71	80	82	78	82	86	80	83	79	80	84	84	88	76	75	85	84	84	73	74	77	74	81.9	2400 EDT	
ST MARGARETS BRYANT	82	76	73	88	91	90	88	87	90	75	84	84	81	81	82	88	85	85	81	84	88	87	81	82	85	87	89	84	81	76	81	83.7	2400 EDT	
MILLERSVILLE 1SE HANSON	83	76	75	92	94	93	92	90	92	76	85	87	84	81	83	90	87	87	83	85	90	88	82	84	88	90	91	82	83	78	80	85.5	2400 EDT	
LOTHIAN JUG BAY	93	83	76	77	91	95	95	93	89	94	78	87	87	85	81	85	M	92	88	84	85	91	90	84	M	87	91	92	88	80	76	86.8	0900 EDT	
BALTIMORE NWS BWI APT	85	77	76	90	92	90	89	87	91	76	86	85	83	79	83	88	85	86	83	85	91	88	81	81	86	88	89	82	81	78	80	84.5	2400 EST	
LAUREL 2 E STOUDT	84	78	76	92	93	92	91	88	92	78	86	86	81	82	85	91	85	87	85	85	90	88	82	83	87	90	90	80	80	80	81	85.4	2359 EST	
PARKTON 5SW KREINIK	87	82	75	88	90	91	90	90	91	70	84	85	81	82	82	88	82	83	84	83	89	87	81	83	84	90	88	81	81	80	80	84.3	2200 EDT	
OWINGS MILLS 2SE SHARROW	88	79	73	91	93	91	90	86	90	74	83	85	84	81	84	87	83	86	82	86	92	86	81	80	86	91	87	80	83	84	79	84.7	2400 EDT	
BALTIMORE 2SE MANFRE	86	81	78	93	95	94	92	91	93	78	86	88	84	82	80	91	86	89	89	87	92	91	85	82	88	92	92	83	82	83	84	87.0	1800 EDT	
BALT INNER HARBOR MD SCIENCE CENTER	85	81	77	93	94	93	92	90	92	75	87	87	84	81	74	90	86	88	88	86	92	90	84	83	88	91	92	82	83	82	82	86.2	2400 EST	
MANCHESTER 1SW CLOSE	85	79	72	89	91	90	86	86	87	69	84	82	78	82	88	84	82	81	83	88	84	81	80	84	85	86	82	80	79	80	82.9	2300 EDT		
WESTMINSTER 4 SSE HARTSOCK	84	76	74	90	92	92	86	89	89	75	87	85	81	83	84	87	86	81	83	86	91	88	83	79	83	88	87	80	82	81	85	84.4	2100 EDT	
WESTMINSTER 5 SSE KLEIN	82	79	71	86	89	88	M	M	M	M	M	M	M	M	80	82	85	78	85	78	82	87	86	79	78	80	85	86	80	79	79	82	81.9	2200 EDT
MILLERS 4NE MILLER	84	82	74	87	89	88	85	85	85	81	83	82	81	81	81	85	83	81	81	82	88	85	81	79	83	85	86	83	81	81	79	82.9	1800 EDT	
FREDERICK 4 N FARFAN	87	79	77	91	94	94	89	90	90	74	87	86	84	82	87	89	89	82	85	87	92	89	84	82	88	90	91	82	82	83	79	85.9	2400 EDT	
EAGLE ROCK HARVEY	79	80	72	80	82	80	82	79	80	76	74	71	70	76	79	80	79	80	72	79	80	82	79	71	72	80	80	79	69	78	76	77.3	0800 EDT	

**ACON MD / DE / DC
JULY 2003 DAILY TEMPERATURES**

STATION	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	AVG	OBS TIME	
FALLSTON 2 NW	88	84	84	94	96	95	92	92	93	73	88	88	88	84	85	91	84	90	83	87	91	92	85	86	88	91	91	87	85	82	84	87.8	2400	
ALBRIGHT	61	62	62	54	68	68	70	71	69	66	68	59	60	62	60	60	59	59	60	56	56	68	68	62	60	61	69	62	59	67	63.1	EDT		
LAUREL JHU / APL	84	76	76	89	91	90	89	86	89	74	85	83	82	80	84	87	83	84	82	84	89	87	81	81	85	88	88	80	82	78	79	83.7	2400	
GIANNOLA	63	64	64	67	72	67	68	72	71	66	68	63	61	65	61	71	62	64	64	59	67	67	66	65	63	66	71	66	64	61	67	65.6	EDT	
POTOMAC 4N	80	73	74	90	91	90	89	85	88	76	84	84	80	80	84	87	84	84	82	84	90	87	80	80	85	88	89	83	78	78	79	83.4	2100	
COHEN	66	67	67	67	71	74	72	72	70	70	70	62	66	69	66	74	66	64	70	63	70	75	70	68	62	66	74	70	67	64	70	68.5	EDT	
OLNEY 1 S	80	73	72	89	92	90	88	86	87	73	83	82	82	81	83	88	84	81	82	85	89	87	>	>	>	>	89	81	79	79	79	83.1	2400	
GIANNOLA	64	66	65	67	70	69	69	71	72	68	69	62	61	67	64	72	64	64	68	62	71	70	>	>	>	>	62	68	65	64	68	66.7	EDT	
MONTGOMERY VILLAGE	85	76	74	94	95	94	93	89	92	76	88	87	86	82	87	91	87	86	86	87	93	90	83	84	88	92	91	84	84	82	81	86.7	2400	
ROTH 1SW	64	67	66	68	71	69	70	73	74	69	69	62	62	68	67	74	66	65	69	63	72	71	69	68	62	66	75	69	67	65	69	67.9	EDT	
GLENMONT 1NNE	82	75	75	91	92	92	90	87	91	76	85	87	82	82	85	89	86	85	83	88	93	89	83	83	86	91	91	79	82	80	81	85.2	2400	
ROSSEN	65	66	67	66	70	71	70	71	72	69	66	61	61	67	63	71	63	62	65	61	70	69	65	61	65	71	68	66	63	68	66.5	EST		
BETHESDA	83	75	76	92	94	92	89	88	91	77	86	85	86	82	85	90	87	86	84	85	89	88	82	83	88	90	90	82	81	80	80	85.4	2400	
SCAFIDE	63	64	64	66	69	69	68	69	68	67	67	60	59	66	64	70	64	62	67	62	69	67	67	66	61	66	71	67	65	64	67	65.7	EDT	
GAITHERSBURG 2WNW	85	76	75	91	94	92	90	87	91	75	86	84	82	82	87	90	86	84	84	87	91	90	83	84	88	91	90	82	83	83	80	85.6	2400	
SHAW	63	66	66	65	70	70	69	68	70	68	66	59	59	65	63	69	62	60	63	59	69	69	67	64	59	63	71	69	66	63	68	65.4	EDT	
FOREST GLEN	85	75	76	92	94	93	91	90	93	78	86	87	85	84	85	90	86	87	86	87	92	89	83	84	88	90	91	84	85	81	83	86.5	2400	
TERRY	65	66	66	66	70	69	69	71	73	69	66	60	60	68	64	72	63	62	66	61	72	69	69	66	61	66	72	68	67	64	68	66.7	EDT	
ROCKVILLE 1NE	84	76	79	91	93	M	88	M	M	72	86	85	84	81	86	88	88	85	M	86	92	90	84	81	88	90	91	M	82	80	80	85.0	2400	
WASH GAS LIGHT	63	65	65	69	65	69	73	M	M	70	68	63	62	68	63	72	63	62	M	60	70	68	68	66	64	67	73	M	63	62	67	66.2	EDT	
SOUTH BOWIE	83	75	76	91	94	95	92	89	93	77	87	86	85	82	84	90	87	88	84	86	90	88	84	84	88	90	90	87	82	76	82	86.0	2400	
HUDELSON	67	67	67	68	71	73	70	72	74	72	70	62	63	68	65	70	65	62	68	63	70	72	70	64	67	72	70	69	66	68	68.2	EDT		
OXON HILL	82	75	75	92	96	94	91	88	93	80	88	86	85	83	86	92	88	85	86	87	91	89	83	84	88	90	90	86	82	77	81	86.2	2000	
SMITH	65	65	66	67	70	72	70	72	72	69	68	63	63	68	66	72	67	64	66	63	71	70	70	68	65	67	72	69	68	67	69	67.9	EDT	
HOLLYWOOD	83	76	80	90	92	93	91	88	93	81	87	87	83	80	85	92	86	88	83	85	90	90	81	83	86	89	90	87	79	71	83	85.5	2359	
ABELL	69	67	68	69	73	71	71	72	72	71	73	65	65	67	66	73	70	63	68	65	73	70	70	68	65	66	74	73	69	68	70	69.2	EDT	
ORAVILLE																																		2400
VAN WIE																																		EDT
RIDGE	82	77	80	91	94	93	91	90	94	82	89	89	82	78	83	91	88	88	81	85	90	91	78	84	85	89	93	86	77	72	82	85.6	2400	
ZYLA	70	68	71	70	78	72	74	73	70	71	73	71	69	67	70	74	68	68	68	69	75	70	71	69	71	68	80	72	69	68	71	70.9	EDT	
HAGERSTOWN 1E	85	77	81	90	92	89	88	87	85	74	84	83	81	82	84	86	85	77	83	84	89	86	81	80	84	88	88	80	81	81	78	83.6	2400	
KEEFER	60	65	67	65	70	70	68	71	67	65	68	61	58	63	62	72	60	62	64	55	66	70	67	64	59	62	71	68	63	60	69	64.9	EDT	
SMITHSBURG 2 NE	90	83	83	91	93	94	89	86	89	77	84	84	86	86	84	86	88	80	85	87	90	87	86	82	87	87	89	82	86	89	83	86.2	2000	
VAUGHN	59	64	66	64	69	67	67	72	68	65	69	62	59	64	64	63	61	60	61	57	66	69	66	64	59	64	74	65	65	60	67	64.5	EDT	
SALISBURY	81	78	83	89	91	91	89	89	92	80	87	87	84	76	83	87	84	88	82	83	88	89	78	82	86	87	89	87	78	70	81	84.5	2400	
NWS WICOMICO CO APT	62	59	71	71	75	75	70	69	67	69	71	62	63	67	65	68	59	56	64	60	68	70	69	65	61	58	70	72	65	66	69	66.3	EST	
HANOVER 2 S, PA																																		2100
RICKELL																																		EDT
WASH NATIONAL	81	74	78	91	94	92	90	87	92	78	87	85	83	82	84	90	85	85	83	85	91	88	82	83	87	88	91	86	83	78	81	85.3	2400	
NWS ASOS	66	68	68	69	73	75	73	75	74	70	70	66	68	69	68	74	69	66	71	66	73	70	71	69	66	70	75	70	70	70	70	70.1	EST	
WASH DULLES	83	73	76	90	93	91	91	88	91	79	86	84	82	82	83	88	85	84	83	84	91	87	83	82	86	89	90	82	81	81	80	84.8	2400	
NWS ASOS	66	66	67	65	70	71	69	71	70	67	63	60	60	66	63	71	65	68	63	59	67	67	68	64	59	63	71	69	65	63	68	65.9	EST	

**ACON MD / DE / DC
JULY 2003 DAILY PRECIPITATION**

STATION	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	TOTAL	OBS TIME	
WILMINGTON 4NNE CANAVAN		0.20	0.64		0.18	0.18	0.33		0.05	0.04	0.10			0.20				0.11				0.13		0.13			0.08				0.18	2.55 0.0	2400 EDT	
BEAR 2 SW, DE GALLAHER		0.14	0.53	T		0.51	0.04		0.30	0.06	0.31	0.21	0.02	0.22				T				0.02	0.06	0.07			0.17	0.05	0.01	0.01	2.73 0.0	2400 EDT		
WILMINGTON, DE NWS NEW CASTLE CO APT		0.12	0.60		0.11	0.51	T		0.26	0.07	0.10	0.07	0.05	0.26				T				0.08	0.10	0.12			0.02	0.04	T	0.27	0.07	2.85 0.0	2400 EST	
U of D DE Climatologist Newark Pearson Hall																																		2400 EDT
GEORGETOWN, DE NWS SUSSEX CO APT		0.85	0.69			0.06	0.01	0.07	0.40	0.05	0.07			3.16				T	T			0.20	0.04	T			T	1.04	0.24	T	T	6.88 -	2400 EST	
GEORGETOWN, DE UofD RESEARCH & ED CTR		0.86	0.61			0.17	0.02		0.93		0.07			1.51						0.01		0.26	0.07	0.01			0.04	1.05	0.02	0.50	0.01	6.14 0.0	2400 EST	
HARBESON, DE UofD WARRINGTON FARM		0.75	1.06			0.25	0.26	0.01	0.76	0.03	0.06			1.78				0.04				0.06	0.11	0.03			0.27	0.28	0.08			5.83 0.0	2400 EST	
FROSTBURG LATTA			0.31		0.02	0.10	0.10	0.38	0.34	0.11	0.46		0.38			0.05			0.09			0.06	0.03	0.45			T	0.23				3.11 0.0	0700 EDT	
LAVALLE MULLINS		0.18		0.03		0.05	0.28	0.37	0.29	0.65	0.01	0.26				0.04		0.01				0.06	0.23	0.01				0.31		0.27		3.05 0.0	2400 EDT	
ST MARGARETS BRYANT	0.13	0.56	1.02	T	T	0.02	0.25	T	1.75	0.11	0.62	0.23	0.42	0.08			0.04						0.13	0.02			T	0.70	0.79	0.04	0.02	6.93 0.0	2100 EDT	
MILLERSVILLE 1SE HANSON	0.16	1.07	0.51			0.27	0.12		0.29	0.18	0.37	1.35	0.06	0.06								0.17	0.02				0.40	0.02				5.05 0.0	2400 EDT	
LOTHIAN JUG BAY	0.46		1.99	0.14	T		0.88	0.65	0.03	0.26	0.13	T	0.02	0.23			M	T	0.03				0.22	0.05	M				1.00	0.04	6.13 0.0	0900 EDT		
BWI NWS ASOS	0.10	1.17	0.67	T		0.45	0.14		0.28	0.23	0.04	0.34	T	T				0.10				1.67	0.02	T			0.05	0.29	0.01	T	T	5.56 0.0	2400 EST	
LAUREL 2 E STOUDT	0.06	1.07	0.18			0.25	0.53		0.79	0.31	0.10	0.91		T				0.01				2.33	0.01				0.18	0.83	0.02		T	7.58 0.0	2359 EST	
PARKTON 5SW KREINK		0.79	0.54		0.36		1.12		T	0.30	0.10	0.32	0.03					T				0.02	1.45	0.75				T	T			5.78 0.0	2200 EDT	
OWINGS MILLS 2SE SHARROW		0.52	0.69			0.47	T		0.13	T	0.16	0.02		0.11				T				0.28	0.40	T			T	0.20			T	2.98 0.0	2400 EDT	
BALTIMORE 2SE MANFRE	0.13	0.94	0.63	0.01		0.33	T	T	0.41	0.10	0.29	0.17		0.93				0.03				1.27	0.04				T	0.21	0.01	0.01			5.51 0.0	1800 EDT
BALT INNER HARBOR MD SCIENCE CENTER	0.18	1.02	0.32			0.35			0.87	0.12	0.38	0.21		0.30				0.02										0.30					4.07 -	2400 EST
MANCHESTER 1SW CLOSE	0.01	0.47	0.34	0.02		0.48	0.01		0.04	0.02	0.01	0.14				0.01		T				1.79	1.20	0.01			T	0.03			T	4.58 0.0	2300 EDT	
WESTMINSTER 4 SSE HARTSOCK		0.33	0.62	0.18			0.38		0.15	0.03	0.03	0.60										0.01	0.94	1.16				0.05			0.07		4.55 0.0	2100 EDT
WESTMINSTER 5 SSE KLEIN		0.36	0.70	0.17					1.19														0.39	1.48	0.31			0.05					4.65 0.0	2200 EDT
MILLERS 4NE MILLER		0.17	0.21	0.02			1.02		T	1.15	0.03		0.01			T		T	T			0.05	1.29	1.05				T	0.02		T	5.02 0.0	1800 EDT	
FREDERICK 4 N FARFAN		0.12	0.16	0.25		0.29	0.08		0.08	0.02		0.38		T				T				1.20	0.68				T	0.08			T	3.34 0.0	2400 EDT	
EAGLE ROCK HARVEY	0.01	0.35	0.05		0.13	1.01	0.30	1.30	0.25	1.72	0.42	0.01	0.35		0.05	0.03			0.07			0.14	0.01	0.14					1.17		T	7.51 0.0	800 EDT	

**ACON MD / DE / DC
JULY 2003 DAILY PRECIPITATION**

STATION	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	TOTAL	OBS TIME
FALLSTON 2 NW ALBRIGHT		0.65	0.87		0.04	0.60			0.20	0.14	0.21	0.29		T				0.02				1.16	0.34	0.01			0.02	0.15	T	0.03	4.73 0.0	2400 EDT	
LAUREL JHU / APL GIANNOLA	0.03	0.60	0.40			0.74	0.07		0.33	0.07	0.66	0.15						0.01				1.06	0.24	0.01			0.08	0.38	0.01	T	4.84 0.0	2400 EDT	
POTOMAC 4N COHEN	0.80	0.45	0.27			T	0.84	0.06	0.20		0.77	0.45						T					0.70				0.86				5.40 0.0	2100 EDT	
OLNEY 1 S GIANNOLA	0.63	>	0.77			0.68	0.12		0.26	>	0.81	0.08						0.03				>	0.79				0.27	0.92	0.02		5.38 0.0	2400 EDT	
MONTGOMERY VILLAGE ROTH 1SW	0.82	0.39	0.22			0.55	0.08		0.31	0.57	0.16	0.02						0.02				1.34	0.12				0.66				5.26 0.0	2400 EDT	
GLENMONT 1NNE ROSSEN	0.34	0.87	0.04			0.03	0.31	T	0.80	0.73	T	1.19		T				0.01				1.55	0.10			0.27	0.80	T		7.04 0.0	2400 EST		
BETHESDA SCAFIDE	0.97	0.68	0.14			0.35	0.57	0.02	0.89	0.79	0.16	0.59										1.88	0.21			0.04	0.76	0.01		8.06	2400 EDT		
GAITHERSBURG 2WNW SHAW	0.68	0.48	0.26			1.03	0.37		0.35	0.28	0.05	T						T				0.88	0.10			T	0.85			5.33 0.0	2400 EDT		
FOREST GLEN TERRY	0.62	0.73	0.40			0.87	0.56	0.02	0.63	0.76	0.40	0.81						0.01				1.64	0.10			0.06	0.86	0.01		8.48 0.0	2400 EDT		
ROCKVILLE 1NE WASH GAS LIGHT	0.75	0.45	0.32			0.20	M	M	M	0.88	0.07	0.21						T	M			0.52	0.07			0.17	0.82		T	4.46 0.0	2400 EDT		
SOUTH BOWIE HUDELSON	0.16	2.01	0.40				0.92	T	0.71	0.40	0.58	0.11		0.14				0.65				0.17	0.10	0.03		0.03	0.95	0.04	0.04	7.44 0.0	2400 EDT		
OXON HILL SMITH	1.49	1.45	0.22			T	0.81		0.23	0.06	0.76	0.15		0.03				0.07				0.32		0.19		T	0.73	0.02	0.05	6.58 0.0	2000 EDT		
HOLLYWOOD ABELL		0.78	0.26			0.21	0.51		0.90	0.75				0.18				0.04				0.19	0.14	0.21			0.31	0.08	0.43	T	4.99 0.0	2359 EDT	
ORAVILLE VAN WIE																																2400 EDT	
RIDGE ZYLA		1.56	0.21				0.40		0.27	0.02				0.34				0.05	0.22			0.25					0.38	0.06	0.30		4.06 0.0	2400 EDT	
HAGERSTOWN 1E KEEFER		0.03	0.02	1.01		0.08			0.18	0.08		0.33				0.02		T				0.18	0.20	1.45	0.01		0.07	0.01	0.13	3.80 0.0	2400 EDT		
SMITHSBURG 2 NE VAUGHN		0.03	T	0.03		0.56		T	0.87	0.05	T	0.11										0.21	0.56	0.97			0.05				3.44 0.0	2000 EDT	
SALISBURY NWS WICOMICO CO APT		1.50	0.05	0.19			0.10		0.14	0.04				T	1.41	0.01		0.74	0.50			0.30	0.14	0.13			0.62	0.03	0.41	T	6.31 0.0	2400 EST	
HANOVER 2 S, PA RICKELL																																2100 EDT	
WASH NATIONAL NWS ASOS	1.14	0.87	0.14			T	0.57	T	0.49	1.06	T	0.03		0.03				T				0.53	T	T			T	0.87	0.02	0.01	T	5.76 0.0	2400 EST
WASH DULLES NWS ASOS	0.02	0.53	0.08		T	0.06	0.28	0.05	1.04	1.41	T	0.26						T				1.49	0.01				0.84	T	T	T	6.07 0.0	2400 EST	