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

HOT MONTH WITH SEVERE THUNDERSTORMS

Temperatures were slightly cooler than July but still averaged above normal for the sixth consecutive month making this one of the warmest summers ever. NWS stations at Washington National Airport, Dulles, and Baltimore BWI each recorded their warmest summer on record. Precipitation varied across the region from less than two inches to over eight inches. Some thunderstorms brought with them damaging winds and torrential downpours.

August began under partly cloudy to cloudy skies with scattered light rain showers and maximum temperatures generally in the 80's. 90's made their first appearance this month on the 4th and 5th along with thunderstorms. The heaviest rains fell on the 5th in Montgomery County where **David Roth** of **Montgomery Village 1 SW** measured 2.16" and **Kevin Shaw** of **Gaithersburg 1.96"**. East of I-95 from Baltimore south mid to upper 90's were common. **John Zyla** of **Ridge** recorded 100°.

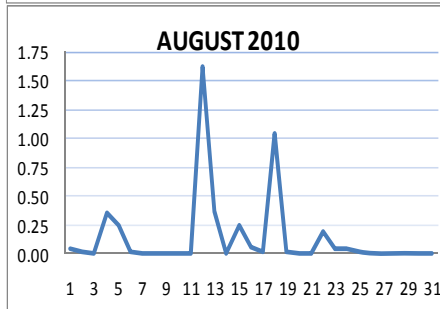
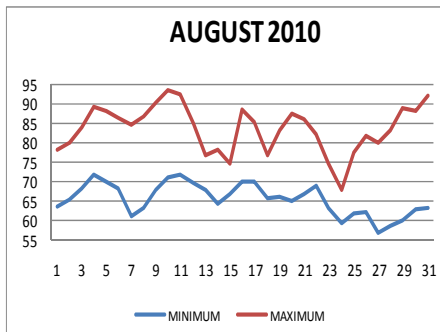
The hottest temperatures at many locations occurred on the 10th in the middle of a three day heat wave. The heat was broken by morning thunderstorms on the 12th. A severe thunderstorm, which moved southeast through Montgomery County into DC, brought with it damaging winds, power outages, and flooding. **Richard Holden** of **Clarksburg 2 ENE** recorded a peak wind gust of 58 MPH. **Kevin Shaw** of **Gaithersburg 2 WNW** recorded 44 MPH at his partly sheltered location. Hail was reported in **Clarksburg** by **Richard Holden** and in **Forest Glen** by **Joe Terry**. Late afternoon thunderstorms brought the daily total to over 3 inches for the following ACON observers: **Joe Terry** of **Forest Glen 3.32"**, **Bobby Miller** of **Millers 4 NE 3.29"**, **Dan Hanson** of **Pasadena 2N 3.16"**, **Tony Scafide** of **Bethesda 3.09"**, **Stan Rossen** of **Glenmont 1 NNE 3.02"** and **Jeff Stoudt** of **Laurel 2 E 3.01"**. More detailed observations concerning this thunderstorm event from fellow ACON observers can be found in the Observer Comment section.

From the 13th to the 26th maxi-

imum temperatures varied from the 70's to the 90's but humid conditions prevailed. Thunderstorms on the 18th dumped over an inch of rain south of Baltimore at many locations. Over 3 inches were reported by the following ACON observers: **Joe Terry** of **Forest Glen 3.48"**, **Rob Cohen** of **Potomac 4 N 3.32"**, and **Tony Scafide** of **Bethesda 3.15"**.

The last rains fell from the 22nd to the 24th. Amounts were generally less than a third of an inch. **Marty Sharrow** of **Owings Mills** recorded 1.00" on the 23rd.

Pleasant cool conditions occurred from the 27th to the 29th when minimum temperatures fell into the 50's. The month ended with hot temperatures and low to moderate humidity. Mid 90's were common from the 29th to the 31st at many locations. Dry conditions intensified in the northern portions of the two state region.



ACON MD/DE Network

Daily average temperatures and precipitation based on observation times, not calendar days.

EXTREMES REPORTED BY

ACON OBSERVERS

MAXIMUM TEMPERATURE

Ridge	100
Forest Glen	99
Jug Bay Wetlands	99
6 Stations	98

MINIMUM TEMPERATURE

Frostburg	49
Davis 3 SE WV	49
Smithsburg 1.5 SW	50
Millers 4 NE	51
Bear 2 SW DE	52

WARMEST AVG. TEMP.

Baltimore 2 SE	81.0
Ridge	79.7
Forest Glen	78.5
Oxon Hill	78.5
Bryans Road 2 ESE	78.5

COLDEST AVG. TEMP.

Davis 3 SE WV	66.2
Frostburg	69.5
Emmitsburg 2 SE	74.4
Harbeson DEOS 8 S DE	75.0

MAXIMUM PRECIPITATION

Jug Bay Wetlands	8.34
Norbeck 1 SE	8.07
Forest Glen	7.94
Potomac 4 N	7.93

MINIMUM PRECIPITATION

LaVale	1.19
Newark DEOS DE	1.52
Middletown 6 N DE	1.68
Hagerstown 1 E	1.78

The date for Herb Close's fall weather party is Saturday November 6 at 2 PM.

OBSERVER COMMENTS FOR AUGUST 2010

Gary Gallaher of Bear 2 SW, DE

Two periods of heat with the hottest one occurring the last three days of the month. Temperatures did not drop below 60 until the 27th. Dry month. Plants showing moisture stress during the last half of the month.

Summer of 2010 was the second hottest (77.1°, hottest 77.7° in 1973) and the 7th driest (7.74") in station history. The cool temperatures from the 24th to 28th prevented it from being the warmest.

Nate Mullins of LaVale

August was the 5th warmest and the 3rd driest. The summer was the warmest on record with an average temperature of 75.6°. Old record was 74.2° set in 1991 and tied in 1995.

Jeff Stoudt of Laurel 2 E

In addition to thunderstorms, there were two episodes of what appeared to be "bay effect" during the 12-13th overnight and also the evening of the 23rd when cooler NE winds blowing the length of the tepid upper Chesapeake spawned locally torrential showers along the west shore which then drifted slowly southwestwards into the Laurel area.

12th - ++TSRA daybreak, 1.49". RA+RA after dusk, 1.52".

Marty Sharrow of Owings Mills

August was another warmer than normal month. There were a few cool intrusions that brought both more pleasant and seasonable temperatures to the area. Rainfall was more plentiful than in the previous summer months.

7th - Brilliantly sunny, very warm, dry.

12th - Very warm, humid, heavy AM storm.

31st - Sunny, hot and more humid.

Joe Manfre of Baltimore 2SE

12th - Cloudy, warm, humid, occasional rain & thunderstorms.

15th - Cloudy, mild, humid, occasional rain.

30th - Sunny, hot, moderate humidity.

Herb Close of Manchester 1S

5th warmest August of 22 years of records here. Warmest is 2002 with 77.0°. Just as in July most of the month's precipitation fell in just one or two days so most of the month was very dry. Hottest summer in 22 years of records with an average temperature of 76.1°. The old record was 75.3° in 2002.

Ralph Hartsock of Westminster 4 SSE

12th - Heavy early thunderstorms, more PM storms.

16th - Hot, humid—big storms late.

24th - Cloudy and cooler.

Bobby Miller of Millers 4 NE

4th - Evening thunderstorms.

12th - AM storm total 2.24" in 2 hours, 5 PM storm total 1.05" in one hour.

16th - Dense fog visibility @ 8 AM 1/4 mile. PM sun with scattered thundershowers.

Eric Glass of Emmitsburg 2 SE

The rains came too late to help my corn—estimated 60% loss, soybeans smaller.

26th — 31st Clear sky, sunny.

30th - Low light ground fog.

Rich Giannola of JHU/APL

12th - Morning +TSRA (1.50") including 1.39" from 7:00 - 7:30 AM.

Ron Berger of Norbeck 1 SE

Wettest August in 16 years of records. Old record was 6.95" set in 1994. 90% of the months total of 7.25" came in just three torrential downpour events (4th, 12th-13th, and the 18th).

Rob Cohen of Potomac 4 N

Precipitation of 7.93" was over twice normal.

12th - Severe thunderstorm 6:40 - 7:30 AM (1.72") and thunderstorm 5:30 PM, much lightning (0.88").

18th - Heavy rain morning, light shower afternoon.

Rich Giannola of Olney 1 S

4th - Pre-dawn +TSRA especially heavy~ 3:30AM (1.18").

12th - +TSRA ~6:30—7:30 AM (1.78"). Late afternoon and early evening TSRAs totaled 0.45" more.

Richard Holden of Clarksburg 2 ENE

12th - Heavy rain, marble size hail, PWG 58 MPH.

Stan Rossen of Glenmont 1 NNE

Third wettest August behind 1990 (8.48") and 1979 (7.88") in 35 years.

12th - TRW++. Light rain began 5:53AM and intensified five minutes later. Fifty minutes after the rain began it ended. The barometer was quite erratic during the storm. 5:43 AM 29.76", 6:03 AM 29.82", 6:10 AM 29.79", 6:19 AM 29.86", 6:48 AM 29.79" where it stabilized. Water backed up a storm drain just outside the basement door and flowed under the door and into the basement. By the special 11 AM observation 2.70" had fallen. (Times EST)

Kevin Shaw of Gaithersburg 2 WNW

Fifth wettest August and the wettest since 2001.

4th - Overnight TS 3:00 - 3:30 AM with max rain rate of 13.71"/hour at 3:10 AM.

12th - 7 AM Severe thunderstorm (1.86") with damaging winds, torrential rains with max rain rate of 14.77"/hour** at 7:05 & 7:10 AM. Late afternoon TS (0.44")

Joe Terry of Forest Glen

Wettest and windiest August in 15 year station history.

12th - Violent thunderstorm just after dawn, most intense in memory with very frequent and close lightning discharges. It became unusually dark as the storm reached its peak. See picture on page 3. Max rain rate 7.1"/hr ** at 0725. 3/8" to 1/2" hail between 0728 and 0733.

18th - Second 3"+ rain day in less than a week. Rain came in three waves during the morning with thunder occurring during the first wave.

Brian Smith of Oxon Hill

5th - Severe TS 1530 - 1615; with widespread damaging winds. Power off 1600 - 2000. NWS said it was a wet microburst.

12th - +TSRA non severe 0745 - 0820 (1.64")

John Zyla of Ridge

12th - Thunderstorm 0915 - 1152 (1.37").

18th - Thunderstorm with intense lightning and thunder 01:55 - 0237 (0.97")

** See page 3 for method for calculating maximum rain rates.

Continued on Page 3

Compiled by Gary Gallaher, MD/DE ACON Data Collector and Report Writer, from data received from dedicated observers. Without your observations each month this report will not be possible.

Max Hutto of Smithsburg 1.5 SW

9th - Mostly sunny, very hot but not so humid. Breezy, extremely dry.

12th - Overnight thunderstorm, partial clearing, very warm, humid, PM thunderstorm, windy. Day total 1.61".

16th - Mostly cloudy, hot, humid. PM thunderstorm, very windy, 38 mph from the south.

Greg Keefer of Hagerstown 1 E

Hottest summer on record with an average temperature of 77.7° which shattered the old record of 76.0° in 1995. It was also the second driest on record with 4.96". Record is 4.49" set in 1966.

Greg Keefer of Hagerstown 1 E (Cont)

Third hottest August. Record hottest is 78.3° set in 1995.

10th - 98° one degree shy of the record set in 1913.

12th - Intense thunderstorm between 5 and 6 AM with frequent intense lightning and heavy downpours (1.19"). Thundershower between 4 and 5 PM (0.23").

Jim Vaughn of Smithsburg 2 NE

76.7° tied 1996 for the 5th hottest summer. Hottest 77.5° set 2005. Third driest summer with 5.50" of rain. Driest is 5.10" set in 1966. Daily record maximum minimum temperatures set on the 4th, 5th, 6th. Daily record maximum temperatures set on the 10th. Daily record minimum temperature set on the 27th.

**Maximum Rain Rate Formulas

Since there are different formulas for calculating maximum rain rate below is the formula used for calculating maximum rain rates noted in Shaw and Terry reports:

Kevin Shaw data is from Davis VP2; Formula is:

3600 seconds/hr ÷ (number of seconds between pulses) X 0.01.

If no rain falls for 20 minutes the rate is reset to 0.

Joe Terry rate is based on a 5 minute amount X 12



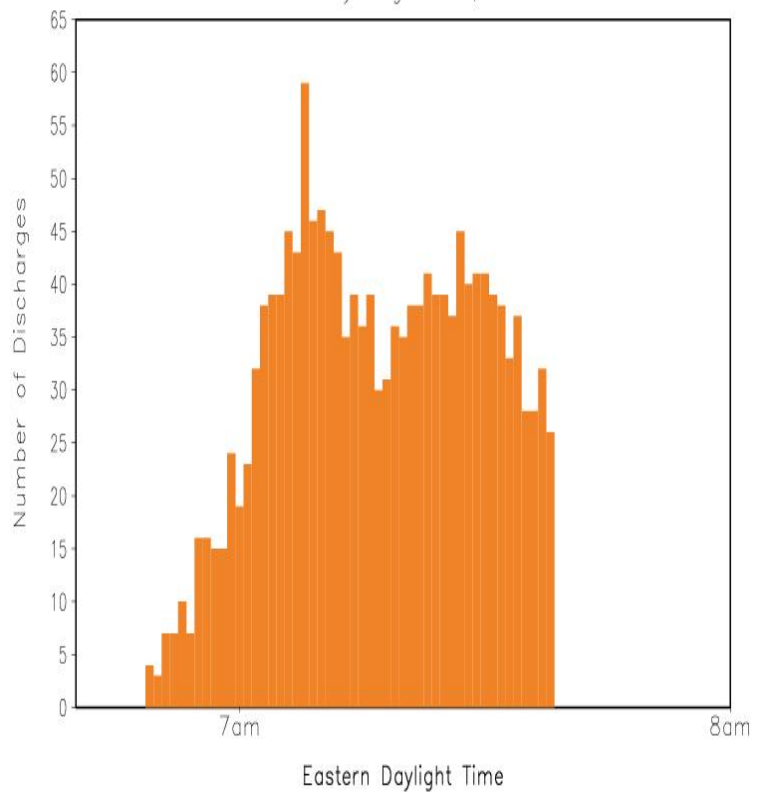
Anthony Castellano/The Gazette

Jose Garcia of Garcia's Tree Experts removes a fallen tree that ripped through the Flower Apartments in the 500 block of South Frederick Avenue during Thursday's storm. The City of Gaithersburg is covering the cost of lodging for all its residents displaced by the storm.

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Damage in Gaithersburg as a result of the severe thunderstorm on the 12th.

Local Cloud-to-Ground Lightning Discharges Per Minute
Thursday August 12, 2010



Histogram of lightning strikes from the severe thunderstorm on the 12th provided by **Joe Terry of Forest Glen, Silver Spring, MD**. What's remarkable is not only the rapid increase in lightning activity but also the number of discharges. In 8 years of lightning data rates rarely get above 30 discharges per minute. Around 7:10 AM there were 60 strikes per minute. Also notice the two humps. The second one peaked at about the time the hail occurred, when the storm seemed most severe. Data was cut off around 7:40 AM due to loss of power.

**ACON MD/DE / DC
AUGUST 2010 SUMMARY**

OBSERVER	STATION COUNTY, STATE	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	
<i>New Castle, Delaware</i>																							
Gallaher, Gary	Bear 2 SW	86.5	66.0	76.3	97	31	52	27	11	0	0	25	NW+	6+	1.65	0.67	12	27.20	7	0	0.0	0.0	2400
Legates, David	Middletown 6 N	86.2	66.7	76.5	96	31	55	28	11	0	0	19		12	1.68	0.41	15	<u>24.25</u>	9	0	0.0	0.0	2400
NWS Wilmington	New Castle Co. Apt.	86.2	67.8	77.0	97	31	55	28	9	0	0	35	NW	6	1.34	0.43	12	27.83	7	0	0.0	0.0	2400
UofDE AG FARM DEOS***	Newark	86.2	66.7	76.5	95	10+	55	27+	11	0	0	18		12	1.52	0.49	12	<u>23.83</u>	5	0			2400
U of D REC DEOS***	Townsend 4 W	84.3	65.7	75.0	94	10	54	27	6	0	0	17		23	3.24	0.95	22	<u>23.85</u>	7	0			2400
<i>Sussex, Delaware</i>																							
NWS Georgetown	Sussex Co. Airport	87.7	68.0	77.9	99	10	58	28	15	0	0	35	SSW	18	2.40	0.92	18	24.55	8	0			2400
U of D REC DEOS***	Georgetown 5 SW	86.0	67.3	76.7	96	10	56	28	9	0	0	33		5	2.03	0.69	18	<u>19.40</u>	7	0			2400
U of D REC DEOS***	Harbeson 8 S	85.9	66.8	76.4	98	5+	56	28	11	0	0	19		5	3.15	1.20	18	<u>23.77</u>	8	2			2400
<i>Allegany, Maryland</i>																							
Latta, Greg	Frostburg	79.9	59.1	69.5	90	30	49	27	1	0	0				1.78	0.47	5	32.56	12	0	0.0	0.0	0700
Mullins, Nate**	LaVale	85.5	64.9	75.2	95	11	54	27+	13	0	0				1.19	0.45	24	25.85	6	0	0.0	0.0	2400
<i>Anne Arundel, Maryland</i>																							
Hanson, Dan	Pasadena 2 N	87.1	67.9	77.5	98	10	60	29	13	0	0	23	ENE	12	6.92	3.16	12	<u>27.85</u>	8	2	0.0	0.0	2400
Jug Bay Wetlands	Lothian	88.2	66.9	77.6	99	6+	57	27	10	0	0				8.34	4.00	13	<u>29.76</u>	15	2	0.0	0.0	0900
NWS Baltimore	BWI Airport	86.8	68.0	77.4	97	10	59	27	11	0	0	30	W	6	4.74	2.36	12	28.26	9	1	0.0	0.0	2400
Stoudt, Jeff	Laurel 2 E	85.5	69.6	77.6	96	10+	61	27	9	0	0				7.66	3.01	12	31.04	10	3	0.0	0.0	2400
<i>Baltimore, Maryland</i>																							
Sharrow, Marty	Owings Mills 2 SE	85.7	66.2	76.0	96	10	56	27	8	0	0				3.53	1.49	12	24.66	7	1	0.0	0.0	2400
<i>Baltimore City, Maryland</i>																							
Manfre, Joe	Baltimore 2 SE	88.4	73.6	81.0	98	10+	66	27	13	0	0				4.44	2.04	12	26.66	10	1	0.0	0.0	2400
Maryland Science Ctr	Baltimore Inner Harbor	87.9	73.4	80.7	98	10	67	24+	13	0	0				4.41	2.15	12	27.11	7	1			2400
<i>Carroll, Maryland</i>																							
Close Jr, Herb	Manchester 1 SW	85.0	65.8	75.4	96	10	58	27	7	0	0				3.64	2.21	12	26.24	14	1	0.0	0.0	2300
Hartsock, Ralph	Westminster 4 SSE	88.5	67.2	77.9	97	10	57	27	13	0	0				3.86	1.20	12	<u>26.61</u>	8	2	0.0	0.0	1900
Miller, Bobby	Millers 4 NE	84.2	63.8	74.0	93	10	51	27	5	0	0	34	N	4	4.93	3.29	12	27.55	10	1	0.0	0.0	1800
Muller, Ray	Westminster City																	<u>15.86</u>					2100
<i>Charles, Maryland</i>																							
Brumback, Marty	Bryans Road 2 ESE	88.3	68.7	78.5	98	10	62	27	15	0	0				3.31	0.90	12	27.88	10	0	0.0	0.0	2400/2000
<i>Frederick, Maryland</i>																							
Glass, Eric	Emmitsburg 2 SE	84.5	64.2	74.4	95	11	53	27+	7	0	0				5.34	3.33	13	<u>28.14</u>	10	2	0.0	0.0	0630
<i>Garrett, Maryland</i>																							
Harvey, Rebecca	Eagle Rock																	<u>4.60</u>					0800

**ACON MD / DE / DC
AUGUST 2010 SUMMARY**

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		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	
<i>Howard, Maryland</i>																							
Giannola, Rich	Laurel JHU / APL	85.3	68.0	76.7	95	10	59	27	9	0	0	30	NW	12	5.87	1.69	12	27.70	10	3	0.0	0.0	2400
<i>Montgomery, Maryland</i>																							
Berger, Ron	Norbeck 1 SE	85.1	67.4	76.3	96	10	58	27	7	0	0				8.07	2.56	12	31.88	9	4	0.0	0.0	2200
Cohen, Rob	Potomac 4 N	85.4	68.4	76.9	94	10	60	27	9	0	0				7.93	3.32	18	30.92	8	3	0.0	0.0	2100
Giannola, Rich	Olney 1 S	85.6	67.7	76.7	94	10+	59	27	8	0	0				7.15	2.23	12	27.90	8	3	0.0	0.0	2400
Holden, Richard	Clarksburg 2 ENE	85.0	67.2	76.1	96	10	56	27	8	0	0	58	NNW	12	4.75	2.09	12	28.97	9	2	0.0	0.0	2400
Roth, David	Montgomery Village 1SW	88.1	65.3	76.7	98	10	58	27	13	0	0				6.81	2.20	12	<u>28.15</u>	8	3			2400
Rossen, Stan	Glenmont 1 NNE	85.1	68.0	76.6	95	10	59	27	9	0	0	18	N	12	7.63	3.02	12	30.45	10	2	0.0	0.0	2400
Scafide, Tony	Bethesda	84.5	68.6	76.6	93	10	61	27	7	0	0	14		5	6.96	3.15	18	<u>22.94</u>	15	2			2400
Shaw, Kevin	Gaithersburg 2 WNW	84.7	67.9	76.3	94	10+	58	27	6	0	0	44	NW	12	6.05	2.29	12	28.60	10	3	0.0	0.0	2400
Terry, Joe	Forest Glen	89.1	67.8	78.5	99	10	59	27	18	0	0	29		12	7.94	3.48	18	32.69	10	2	0.0	0.0	2400
<i>Prince Georges, Maryland</i>																							
Smith, Brian	Oxon Hill	88.1	68.8	78.5	97	10+	61	27	13	0	0				4.39	1.80	12	27.33	11	2	0.0	0.0	2300
<i>St. Marys, Maryland</i>																							
Abell, Floyd	Hollywood	STATION CLOSED APRIL 2010															<u>13.13</u>						2400
Zyla, John	Ridge	87.4	72.0	79.7	100	5	66	25	13	0	0	23	NW	12	4.26	1.79	18	28.08	7	2	0.0	0.0	2400
<i>Washington, Maryland</i>																							
Hutto, Max	Smithsburg 1.5 SW	86.8	64.4	75.6	96	9	50	27	12	0	0	38	S	16	3.07	1.61	12	23.53	11	1	0.0	0.0	2400
Keefer, Greg	Hagerstown 1 E	88.1	66.1	77.1	98	10+	53	27	14	0	0	32	NW	6	1.78	1.42	12	21.43	9	1	0.0	0.0	2400
Vaughn, Jim	Smithsburg 2 NE	86.9	65.7	76.3	98	4+	53	27	11	0	0	45	S	22	2.53	1.92	12	22.27	8	1	0.0	0.0	2400
<i>Wicomico, Maryland</i>																							
NWS Salisbury	Wicomico Co. Apt	87.1	67.0	77.1	97	10+	57	29	12	0	0	32	W	5	5.01	3.08	18	25.92	5	2	0.0	0.0	2400
<i>Arlington, Virginia</i>																							
NWS Washington National	National Airport	88.4	71.9	80.2	98	10	66	25+	13	0	0	59	W	5	2.59	0.98	12	21.36	8	0	0.0	0.0	2400
<i>Loudon, Virginia</i>																							
NWS Washington Dulles	Dulles Airport	86.8	67.2	77.0	97	11	59	7	12	0	0	44	WNW	2	4.42	1.66	12	26.59	8	3	0.0	0.0	2400
Shaffer, Lance	Sterling 4 N	84.6	69.2	76.9	93	10+	60	27	7	0	0				3.03	1.63	18	26.88	9	1	0.0	0.0	2400
<i>Tucker, West Virginia</i>																							
Leshner, Dave	Davis 3 SE WV	75.5	56.8	66.2	83	30+	49	27+	0	0	0				3.60	0.93	6	35.92	13	0	0.0	0.0	0700

SECTION AVERAGE*

85.8 65.8 75.8

4.32

27.06

NOTES:

M OR UNDERLINE= MISSING DATA
> = INCLUDED IN NEXT DAYS DATA
ITALIC = ESTIMATED DATA

*SECTIONAL AVERAGE DOES NOT INCLUDE DATA FROM WEST VIRGINIA.

**OBSERVER FOR LAVALE IS SCOTT LOHR. DATA COMPILED BY NATE MULLINS.

*** DATA FROM DEOS (DELAWARE ENVIROMENTAL OBSERVING SYSTEM) PERMISSION GRANTED FOR USE OF DATA

*** REC= UNIVERSITY OF DELAWARE RESEARCH AND EDUCATION CENTER

+WESTMINSTER CITY MAXIMUMS TEMPERATURES ESTIMATED

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 10/04/10

ACON MD / DE / DC
AUGUST 2010 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	
BEAR 2 SW, DE GALLAHER	83 66	81 62	86 70	89 75	92 73	88 69	87 60	90 64	93 66	96 72	95 72	85 73	79 70	82 67	77 67	90 72	91 72	76 68	86 69	91 65	87 63	84 69	84 68	74 63	77 63	85 60	82 52	86 53	94 57	95 64	97 63	86.5 66.0	2400 EDT	
MIDDLETOWN 6 N LEGATES	83 66	81 63	86 70	89 75	90 73	87 70	87 61	90 66	92 67	95 72	94 73	85 75	79 68	83 66	78 67	90 71	91 72	75 67	87 68	90 68	87 64	84 70	84 68	73 63	77 64	84 62	82 56	86 55	92 69	94 65	96 63	86.2 66.7	2400 EDT	
WILMINGTON , DE NWS NEW CASTLE CO APT	83 70	82 64	85 71	89 76	90 74	86 69	85 62	88 70	89 71	96 74	95 74	86 71	81 70	80 68	78 70	90 73	90 73	76 70	87 66	92 67	86 66	84 70	85 66	72 63	77 65	85 63	82 56	86 55	95 59	94 66	97 69	86.2 67.8	2400 EST	
NEWARK AG FARM, DE U OF DE DEOS	84 67	82 63	89 69	91 74	91 72	86 72	88 61	91 66	94 68	95 73	93 74	81 72	79 68	82 66	77 68	92 72	89 73	76 68	88 67	90 67	87 64	86 69	82 67	73 63	76 65	83 62	81 55	85 55	93 59	93 66	95 66	86.2 66.7	2400 EDT	
TOWNSEND 4 W, DE U of D REC DEOS	81 64	80 61	86 69	88 74	90 73	86 67	85 60	88 68	91 66	94 73	92 73	84 71	76 68	79 62	89 66	88 71	88 66	74 68	87 67	85 62	87 62	85 71	82 68	71 63	76 63	81 61	78 54	83 55	88 65	91 63	93 65	84.3 65.7	2400 EDT	
GEORGETOWN, DE NWS SUSSEX CO APT	84 67	85 67	90 66	92 75	98 75	91 68	88 64	91 65	93 72	99 73	95 75	86 73	81 70	81 63	83 67	95 75	92 76	78 69	86 71	92 70	90 67	86 73	83 69	72 66	77 64	85 63	82 59	83 58	92 59	93 66	95 64	87.7 68.0	2400 EST	
GEORGETOWN, DE U of D REC DEOS	81 66	82 69	88 65	89 74	94 69	89 64	87 66	89 66	92 71	96 73	94 74	85 73	80 70	80 63	81 67	M 73	M 76	77 68	86 70	90 68	89 65	86 73	82 68	71 65	77 63	84 63	81 57	83 56	91 57	93 64	94 62	86.0 67.3	2400 EDT	
HARBESON 8 S, DE U of D REC DEOS	80 67	81 68	87 64	93 75	98 74	91 68	85 62	87 64	90 69	98 73	91 73	84 72	80 70	78 62	82 66	94 76	92 76	76 68	83 70	88 68	84 64	81 72	71 68	76 66	87 62	78 59	81 56	91 56	91 64	89 61	94 61	85.9 66.8	2400 EDT	
FROSTBURG LATTA	80 58	75 58	78 61	76 61	85 64	79 66	77 55	79 55	84 57	89 60	87 65	89 66	84 64	66 62	67 62	85 66	87 58	85 58	69 55	83 60	87 62	87 64	74 59	72 57	65 58	74 49	75 50	78 51	83 56	90 60	88 60	79.9 59.1	0700 EDT	
LAVALE MULLINS**	81 64	83 65	81 65	92 70	86 69	82 71	88 58	88 60	93 62	94 67	95 70	91 73	73 69	74 70	92 71	93 64	73 66	88 61	93 62	92 67	80 70	83 68	72 62	75 62	80 63	82 54	88 54	93 61	92 62	94 62	85.5 64.9	2400 EDT		
PASADENA 2 N HANSON	84 67	81 69	86 72	92 75	95 72	90 70	88 61	91 63	93 71	98 74	95 72	86 70	80 63	82 72	77 73	91 73	91 73	78 67	86 69	91 66	87 66	89 73	83 70	73 67	81 66	85 64	81 61	85 62	91 60	95 65	95 63	87.1 67.9	2400 EDT	
LOTHIAN JUG BAY	87 65	81 68	82 69	88 74	M 71	99 70	91 61	88 62	91 69	94 71	99 71	95 70	87 64	80 70	84 70	85 69	93 70	85 69	91 66	89 66	89 74	M M	M M	M M	89 89	83 88	85 85	85 85	M M	93 93	88.2 66.9	0900 EDT		
BALTIMORE NWS BWI APT	84 69	83 71	87 73	92 75	93 74	89 69	86 60	89 63	93 68	97 75	96 74	85 71	79 70	81 66	77 71	91 73	90 73	80 68	86 69	91 67	87 70	87 72	85 69	74 65	80 62	85 63	82 59	83 62	91 60	94 65	95 64	86.8 68.0	2400 EST	
LAUREL 2 E STOUDT	83 69	81 71	86 72	90 75	90 73	88 72	87 65	90 67	92 74	96 77	96 79	84 72	75 69	78 64	76 72	88 71	89 74	77 68	83 70	89 69	87 71	86 74	82 68	71 64	79 64	83 66	81 61	85 65	91 69	92 67	94 67	85.5 69.6	2400 EST	
OWINGS MILLS 2SE SHARROW	82 66	79 67	86 69	92 73	89 68	88 70	86 61	88 62	92 69	96 73	94 72	85 70	77 68	79 64	90 69	89 70	88 66	89 67	88 65	89 66	86 72	86 66	81 61	71 62	79 62	83 56	82 59	86 60	91 66	94 64	94 64	85.7 66.2	2400 EDT	
BALTIMORE 2SE MANFRE	85 73	84 73	89 76	94 76	94 77	92 76	88 73	91 73	95 76	98 78	97 81	86 74	79 73	83 72	78 72	94 75	92 77	82 69	87 74	92 75	88 76	89 75	86 72	75 67	81 68	86 70	83 66	84 70	94 72	95 76	98 77	88.4 73.6	2400 EDT	
BALT INNER HARBOR MD SCIENCE CENTER	84 72	84 73	88 75	94 75	94 77	91 76	88 73	91 75	94 78	98 82	96 73	86 74	79 71	81 73	78 75	94 77	91 69	82 87	87 73	91 75	88 78	89 75	85 78	74 71	81 67	86 68	83 70	84 67	94 75	94 75	96 75	87.9 73.4	2400 EST	
MANCHESTER 1SW CLOSE	83 65	78 63	86 68	93 72	91 67	86 69	85 61	88 65	93 68	96 72	93 73	85 69	75 66	78 63	74 67	89 70	87 69	76 64	86 65	88 67	87 64	84 65	83 62	72 59	77 60	83 61	81 58	84 60	92 63	89 68	94 69	85.0 65.8	2300 EDT	
WESTMINSTER 4 SSE HARTSOCK	89 68	86 64	93 70	94 73	92 69	87 70	86 63	89 67	93 69	97 74	96 73	85 72	86 69	80 66	96 70	90 72	82 70	87 71	87 66	91 66	93 68	89 73	87 66	76 64	85 63	84 64	81 57	85 60	90 61	88 62	93 64	88.5 67.2	1900 EDT	
MILLERS 4NE MILLER	81 66	78 61	84 67	91 71	90 66	84 70	83 58	86 60	90 67	93 69	91 69	88 68	75 65	78 62	74 65	88 69	86 67	83 67	85 61	86 63	86 64	85 70	82 62	73 59	77 61	80 60	79 51	83 54	89 58	89 63	92 62	84.2 63.8	1800 EDT	
WESTMINSTER CITY MULLER																																		1900 EDT
BRYANS ROAD 2 ESE BRUMBACK	79 67	81 68	87 71	93 75	97 72	92 71	89 66	90 64	93 71	98 73	98 74	90 72	79 72	85 65	79 72	92 73	92 72	79 70	88 69	92 70	90 72	89 68	86 66	74 63	82 63	86 66	83 62	89 63	92 63	95 66	97 64	88.3 68.7	2400 EDT	
EMMITSBURG 2 SE GLASS	84 64	83 63	80 64	85 72	93 71	90 61	85 61	88 62	93 66	95 66	95 70	87 71	76 65	77 65	76 68	89 71	86 68	77 63	83 63	88 64	86 68	83 67	79 63	72 62	77 62	81 53	79 53	82 57	88 59	91 60	84.5 64.2	0630 EDT		

**ACON MD / DE / DC
AUGUST 2010 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	
EAGLE ROCK HARVEY																																		0800 EST
LAUREL JHU / APL GIANNOLA	79	80	85	92	90	87	87	89	93	95	94	84	76	79	76	91	88	76	86	90	88	85	82	71	79	82	81	85	91	90	93	85.3	2400 EDT	
NORBECK 1 SE BERGER	80	81	84	88	91	88	87	89	92	96	95	86	75	78	74	87	87	77	84	88	87	83	82	73	77	82	82	86	92	92	94	85.1	2200 EDT	
POTOMAC 4N COHEN	81	81	84	92	92	88	85	84	92	94	93	88	76	80	76	90	88	78	86	88	87	84	82	72	82	84	79	86	91	91	92	85.4	2100 EDT	
OLNEY 1 S GIANNOLA	79	81	84	90	89	87	86	88	92	94	94	85	75	78	75	90	87	76	84	89	87	>	>	>	86	83	80	84	91	91	93	85.6	2400 EDT	
CLARKSBURG 2ENE HOLDEN	82	82	82	91	89	88	86	88	92	96	95	87	76	78	74	90	87	76	84	88	87	86	80	71	79	82	81	84	90	90	93	85.0	2400 EST	
MONTGOMERY VILLAGE ROTH 1SW	M	82	88	93	94	90	89	88	97	98	97	86	77	80	M	91	90	79	87	90	90	89	M	73	82	86	83	87	93	95	95	88.1	2400 EDT	
GLENMONT 1NNE ROSSEN	79	82	85	91	92	87	86	91	93	95	92	85	76	79	76	89	87	75	82	87	88	86	82	72	77	82	82	86	91	90	92	85.1	2400 EST	
BETHESDA SCAFIDE	79	80	84	90	91	88	85	87	90	93	92	86	76	80	75	88	87	78	84	87	85	86	82	73	80	83	80	83	87	90	90	84.5	2400 EDT	
GAITHERSBURG 2WNW SHAW	80	83	84	90	89	87	86	88	91	94	94	84	76	80	76	89	87	76	84	88	87	85	81	72	79	83	80	84	89	91	92	84.7	2400 EDT	
FOREST GLEN TERRY	84	85	87	94	97	92	90	93	95	99	97	90	79	83	77	93	92	78	90	93	90	90	87	76	83	88	85	88	94	96	97	89.1	2400 EDT	
OXON HILL SMITH	80	82	86	93	96	91	89	91	94	97	97	88	79	84	79	94	92	79	89	92	89	88	86	74	82	86	84	87	92	95	96	88.1	2300 EDT	
HOLLYWOOD ABELL																																		2359 EDT
RIDGE ZYLA	76	83	88	92	100	93	87	90	92	97	94	82	81	84	82	94	89	79	83	92	88	90	84	74	83	88	82	85	92	93	96	87.4	2400 EDT	
SMITHSBURG 1.5 SW HUTTO	85	83	87	94	92	86	88	90	96	95	96	89	77	78	83	93	89	81	85	90	90	83	79	72	79	82	82	86	93	95	94	86.8	2400 EDT	
HAGERSTOWN 1E KEEFER	85	82	87	95	93	88	88	91	97	98	98	90	76	78	85	96	91	82	87	93	90	85	81	71	81	84	85	89	95	94	97	88.1	2400 EDT	
SMITHSBURG 2 NE VAUGHN	83	82	87	98	92	85	85	88	97	98	97	90	74	77	81	98	87	80	89	92	89	84	77	71	79	80	82	87	97	91	97	86.9	2400 EDT	
SALISBURY NWS WICOMICO CO APT	79	82	89	91	96	90	87	89	92	97	97	85	83	82	83	92	92	78	85	91	89	85	85	72	78	85	84	85	90	94	94	87.1	2400 EST	
WASH NATIONAL NWS ASOS	82	83	86	94	96	91	87	91	93	98	97	88	80	84	80	91	93	82	88	92	88	89	86	75	83	87	83	89	92	96	96	88.4	2400 EST	
WASH DULLES NWS ASOS	81	82	84	93	95	90	85	88	92	95	97	90	76	82	79	90	89	80	86	90	88	88	85	73	81	85	82	86	91	94	95	86.8	2400 EST	
STERLING 4 N SHAFFER	80	81	84	90	92	88	84	87	92	93	93	89	76	78	78	88	86	73	82	85	86	86	81	73	79	84	80	84	88	91	91	84.6	2400 EDT	
DAVIS 3 SE WV LESHAR	74	69	76	76	80	72	71	74	78	82	81	80	79	75	74	79	79	78	65	79	81	78	73	66	63	69	71	73	78	83	83	75.5	0700 EDT	

ACON MD / DE / DC
AUGUST 2010 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
BEAR 2 SW, DE GALLAHER				0.04	0.01	T						0.67	0.02		0.30			0.26				0.35		T							1.65	2400	
MIDDLETOWN 6 N LEGATES				0.18	0.01							0.36	0.01		0.41			0.35				0.34	0.01					0.01			1.68	2400	
WILMINGTON, DE NWS NEW CASTLE CO APT	T			0.36		0.07						0.43	T		0.20			0.14			T	0.13	T	0.01							1.34	2400	
NEWARK AG FARM, DE U OF DE DEOS				0.10								0.49			0.32			0.21				0.40									1.52	2400	
TOWNSEND 4 W, DE U of D REC DEOS				0.09								0.72	0.03		0.65			0.79	0.01			0.95									3.24	2400	
GEORGETOWN, DE NWS SUSSEX CO APT	0.09			T	0.09							0.51	0.01		T		0.24	0.92				0.50		0.04							2.40	2400	
GEORGETOWN, DE U of D REC DEOS	0.08				0.36				0.01			0.54						0.69				0.34		0.01							-	2400	
HARBESON 8 S, DE U of D REC DEOS	0.09				0.15							1.06					0.28	1.20				0.34	0.01	0.02							3.15	2400	
FROSTBURG LATTA	0.05			0.05	0.47	0.01							0.02	0.11		0.06			0.03			0.40	0.12	0.37	0.09						1.78	0700	
LAVALE MULLINS**			T	0.22									0.05		0.03			0.02				0.42		0.45							1.19	2400	
PASADENA 2N HANSON		0.01		0.31	0.04							3.16	0.11		0.42			2.83				0.04									6.92	2400	
LOTHIAN JUG BAY	0.01	0.02	0.05	0.01		0.64	0.01					2.15	4.00	>	0.03	0.43	0.01	0.31	0.57			0.01	>	>	0.09	>	>	>	>		8.34	0900	
BWI NWS ASOS	0.01	T		0.59	0.02							2.36	0.13		0.35			0.89			T	0.30	0.09	T							4.74	2400	
LAUREL 2 E STOUDT	0.01	0.02		0.62	0.16							3.01	0.67		0.44			1.70				0.03	1.00	T							7.66	2400	
OWINGS MILLS 2SE SHARROW		T		0.35	T							1.49	0.59		0.47			0.51				0.11		0.01							3.53	2400	
BALTIMORE 2SE MANFRE		0.12	0.01	0.36	0.02							2.04	0.06		0.75			0.90				0.16	0.02								4.44	2400	
BALT INNER HARBOR MD SCIENCE CENTER		0.01		0.28								2.15	0.04		0.77			0.95				0.21									4.41	2400	
MANCHESTER 1SW CLOSE	0.01	0.02		0.59	0.01							2.21	0.14	0.01	0.09	0.18	0.01	0.06				0.29	0.01	0.01							3.64	2300	
WESTMINSTER 4 SSE HARTSOCK		0.02			1.13							1.20	0.31		0.13	0.79		0.10				0.18									3.86	1900	
MILLERS 4NE MILLER	T	0.01		T	0.96							3.29	0.16	T	0.12	0.02	0.19	0.04	T			0.13	T	0.01							4.93	1800	
WESTMINSTER CITY MULLER																																	1900
BRYANS ROAD 2 ESE BRUMBACK	0.20	0.11			0.52							0.90	0.01		0.71			0.60		0.01		0.20	0.05								3.31	2000	
EMMITSBURG 2 SE GLASS			0.02		0.38							1.25	3.33				0.07		0.05			0.13	0.05	0.05	0.01						5.34	0630	
																															0.0	EDT	

ACON MD / DE / DC
AUGUST 2010 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
EAGLE ROCK HARVEY																																0800 EST	
LAUREL JHU / APL GIANNOLA	0.03	T	T	1.04	0.09							1.69	0.97		0.38			1.38				0.12	0.07	0.10							5.87 0.0	2400 EDT	
NORBECK 1 SE BERGER	0.02	T		1.12	0.05							2.56	1.11	T	0.47			2.46				0.13		0.15							8.07 0.0	2200 EDT	
POTOMAC 4N COHEN	0.06			1.10	0.12							2.60	0.08		0.36			3.32				0.29									7.93 0.0	2100 EDT	
OLNEY 1 S GIANNOLA			0.01	1.23	0.60							2.23	0.78		0.43			1.42				>	>	>	0.45						7.15 0.0	2400 EDT	
CLARKSBURG 2ENE HOLDEN	T		T	0.47	0.19					T		2.09	0.36		0.50			1.03			T	0.03	0.01	0.07							4.75 0.0	2400 EST	
MONTGOMERY VILLAGE ROTH 1SW	0.46			1.66	0.50							2.20	0.36					1.30				0.20		0.13							6.81 0.0	2400 EDT	
GLENMONT 1NNE ROSSEN	0.01			0.92	0.03							3.02	0.77		0.39			2.39			T	0.08	0.01	0.01							7.63 0.0	2400 EST	
BETHESDA SCAFIDE	0.08			0.10	0.06	0.01				0.02	0.01	3.09	0.15		0.23	0.01		3.15				0.01	0.01	0.02	0.01						6.96 -	2400 EDT	
GAITHERSBURG 2WNW SHAW	0.02			1.54	0.42					T		2.29	0.06		0.30			1.11				0.18	0.02	0.11							6.05 0.0	2400 EDT	
FOREST GLEN TERRY	0.06	0.01		0.35	0.10					0.03	T	3.32	0.41		0.17			3.48				0.01		T							7.94 0.0	2400 EDT	
OXON HILL SMITH	0.11	0.05		0.01	1.01							1.80	0.10		0.18			0.76			T	0.31	0.03	0.03							4.39 0.0	2300 EDT	
HOLLYWOOD ABELL																																2359 EDT	
RIDGE ZYLA	0.10	0.01		0.26	0.65							1.37				0.08		1.79													4.26 0.0	2400 EDT	
SMITHSBURG 1.5 SW HUTTO				0.38								1.61	0.04		0.05	0.66		0.07	0.01			0.17	0.06	0.01	0.01						3.07 0.0	2400 EDT	
HAGERSTOWN 1E KEEFER		T		0.01								1.42	0.05		0.03	0.02		0.06				0.12	0.06	0.01							1.78 0.0	2400 EDT	
SMITHSBURG 2 NE VAUGHN												1.92	0.38			0.02		0.06	0.01			0.07	0.05	0.02							2.53 0.0	2400 EDT	
SALISBURY NWS WICOMICO CO APT	0.01			T	0.58			T			T	1.22						3.08				0.12	T	T							5.01 0.0	2400 EST	
WASH NATIONAL NWS ASOS	0.05	T		0.08	0.47							0.98	0.18		0.16			0.52			T	0.15	T	T							2.59 0.0	2400 EST	
WASH DULLES NWS ASOS	0.01	0.04	T	T	1.03							1.66	0.07		0.21			1.39				T	0.01	T							4.42 0.0	2400 EST	
STERLING 4 N SHAFFER	0.06	0.01		0.29	0.13							0.62	0.02	T	0.24	T		1.63				0.03									3.03 0.0	2400 EDT	
DAVIS 3 SE WV LESHAR	0.23			0.77	0.21	0.93							0.06		0.31	0.23			0.12			0.13	0.23	0.32	0.02	0.04					3.60 0.0	0700 EDT	