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

FLOODING TROPICAL RAINS IN MARYLAND FROM REMNANTS OF TROPICAL STORM LEE

The following was taken from the report of **Jeff Stoudt of Laurel 2 E**: “*The extreme wetness of August intensified even further as two low pressure systems parked west of the area for stretches of several days each allowing plumes of tropical moisture to overwhelm the area which at times manifested as trains of heavy showers and thunderstorms. The frequent rains and soggy grounds helped to check temperature as late summer heat was absent, though early autumn coolness was limited also*”.

September began with near normal temperatures. The first four days were dry in Delaware and Southern Maryland but showers and thundershowers occurred west of the I-95 corridor. The greatest amounts fell in Western Maryland where **Greg Latta of Frostburg** recorded 1.31” and **Nate Mullins of LaVale** 0.81”.

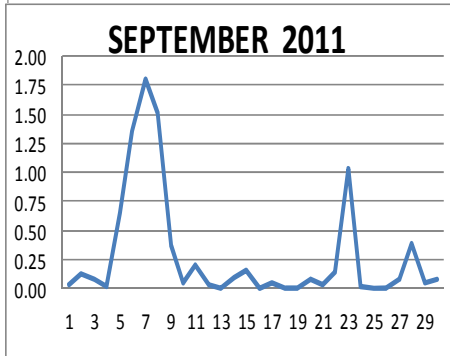
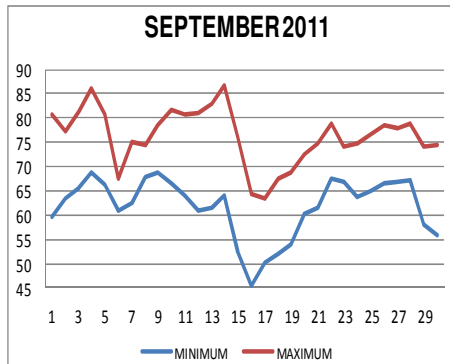
The day before Labor day, the 4th, saw temperatures rise into the mid to upper 80’s making it one of the two warmest days of the month. The other warmest day this month was the 14th.

The first of two extended periods with precipitation occurred from the 5th to the 11th. A cold front stalled in the region on the 5th. Areas of low pressure moved north bringing heavy rains on the 5th and 6th. Tropical Storm Lee very slowly made landfall in Louisiana on the 3rd and 4th and then became a remnant low in southeastern Louisiana on the 5th. The surface remnants slowly moved NNE along the stalled frontal system as the upper level low slowly moved up just west of the Appalachian Mountains. The upper level low reached the Ohio Valley on the 8th and then retrograded westwards to the mid Mississippi Valley by the 10th and dissipated by the 12th.

Prior to the arrival of Lee’s moisture upwards of 3 plus inches of rain fell in portions of Maryland and Delaware. Lee’s moisture reached the region on the

7th and continued on the 8th. The heaviest rains fell on the 7th. The greatest amounts fell in a north-south band west of the Chesapeake Bay northwards into the Susquehanna River Valley in Pennsyl-

Monthly Summary Continued on Page 3



ACON MD/DE Network

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

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EXTREMES REPORTED BY

ACON OBSERVERS

MAXIMUM TEMPERATURE

LaVale	91
Baltimore 2 SE	91
Westminster 4 SSE	91
Glenmont 1 NNE	91
Forest Glen	91
Smithsburg 3 NE	90

MINIMUM TEMPERATURE

Davis 3 SE WV	33
Frostburg	36
LaVale	40
Manchester 1 SW	40
Smithsburg 1.5 SW	40
Smithsburg 3 NE	40

WARMEST AVG. TEMP.

Baltimore 2 SE	74.1
Ridge	72.5
DEOS Rehoboth Beach	70.7
Bryans Road 2 ESE	70.7

COLDEST AVG. TEMP.

Davis 3 SE WV	59.3
Frostburg	62.4
LaVale	65.4
Manchester 1 SW	65.9

MAXIMUM PRECIPITATION

Emmitsburg 2 SE	16.46
Reisterstown	12.53
Manchester 1 SW	12.20
Gaithersburg 2 WNW	12.10

MINIMUM PRECIPITATION

DEOS Rehoboth Beach	1.78
DEOS Harbeson 8 S DE	3.36
Hollywood 3 ENE	3.78
DEOS Georgetown 5 SW	4.46

OBSERVER COMMENTS FOR SEPTEMBER 2011

Gary Gallaher of Bear 2 SW, DE

Cloudy, humid month. Numerous days with rain, thunder, and dense fog. Record number of days (20) with \geq Trace of precipitation. Old record 18 set in 1977.

26.91" of rain the past three months (July - September) broke the old record for any three consecutive months just set month last month (24.45" June - August 2011).

Nate Mullins of LaVale

Second wettest September with 9.35". Wettest is 9.87" set in 1996. Temperatures were quite unremarkable, with little diurnal variations and a lack of extremes due to all of the clouds and rain. It was the 8th consecutive month with above normal temperatures, which were a result, once again, of well above normal minimums.

Jeff Stoudt of Laurel 2 E

During 17 years of not quite continuous records, only four calendar months reached or exceeded 10.00", two of them this August and September. September 11.88" fell very slightly short of the September 1999 mark of 11.97" for the wettest month.

Ray Muller of Reisterstown

Well above normal rainfall brought terrific flooding.

Marty Sharrow of Owings Mills

September featured copious amounts of rainfall. There were 16 days with measurable rainfall. On the 7th, 3.96" of rain fell, followed by another 1.62" on the 8th. Flooding was widespread, especially on area streams. Flooding along the Jones Falls in Stevenson, MD, 3 miles east of my house, resulted in a swift water rescue.

Joe Manfre of Baltimore 2SE

1st - Partly cloudy, warm, humid.

14th - Partly cloudy, hot, humid.

Ralph Hartsock of Westminster 4 SSE

6th to 8th - Heavy rain, widespread flooding, some historic.

16th - Cold morning, sunny.

Bobby Miller of Millers 4 NE

September was the second wettest month (11.64") behind July 2005 (12.69"). First half 10.84" with tropical downpours, second half only 0.80" with a lot of light rain, drizzle, and fog. 22 days with measurable is a new monthly record.

6th to 8th - I don't recall having 3 consecutive days with 1" plus precipitation let alone 3 in a row with 2" plus!

Marty Brumback of Bryans Road 2 ESE

5th to 9th - 9.05" of rain. CoCoRaHs rainfall amounts in Charles County ranged from 9.05" to 13.84" at Waldorf 2.2 E.

Eric Glass of Emmitsburg 2 SE

Seven days with over 1" of rain.

22nd & 23rd - Over 2" of rain each day.

Rich Giannola of Laurel JHU/APL

Maximum barometric pressure: 30.40" on the 17th

Minimum barometric pressure : 29.67" on the 30th

Rob Cohen of Potomac 4 N

18 days with measurable rain is one day short of the record set in May 2003. Mushroom crop is doing just fine.

8th - 4.52" of rain, heavy at times, occasional thunder.

Richard Holden of Clarksburg 2 ENE

Second wettest September (11.98") in 25 years of records. Wettest September is 12.38" set in 1999.

Stan Rossen of Glenmont 1 NNE

5th wettest September (8.43"). Wettest September is 1999 when 12.26" fell.

8th - Periods of heavy rain along with some thunder.

21st - Dense early morning fog visibility 1/8 mile

23rd - Dense early morning fog visibility 1/10 mile

Kevin Shaw of Gaithersburg 2 WNW

Many significant records for this month - an incredible month. It was my wettest September (12.10") in my 33 years of records and second wettest of all time only surpassed by 15.15" which fell in June 2006. Old September record was 11.54" in 1999. Average minimum temperature of 61.8° was the first time that the minimums averaged above 60° in September in 33 years of records.

5th to 9th - 10.22" of rain that fell was amazing.

Joe Terry of Forest Glen

5th to 9th - Frequent periods of rain and rather cool. Rain was generally not that heavy but was very persistent.

16th - 43° daily record low and also the lowest temperature so early in the season in 17 year station history.

21st - Dense AM fog still observed up to 10 AM.

John Zyla of Ridge

13th & 14th - Light AM fog.

25th - Partial clearing and higher humidity in afternoon.

Max Hutto of Smithsburg 1.5 SW

4th - Mostly cloudy, very warm, humid, PM thunderstorm.

30th - Mostly sunny, cooler, windy.

Greg Keefer of Hagerstown 1 E

14th - Line of thunderstorms moves through the area between 6-7 PM produced 0.19" if rain and wind gusts to 33 MPH. Storm splits just as it arrived near my station and one severe area went to NW and N and the other area went to the south.

Jim Vaughn of Smithsburg 2 NE

September was cooler and much wetter than normal although no new monthly records were set.

15th - This weather hobby is getting expensive! The 33 foot pole holding my weather equipment was struck by lightning. I lost my main weather station and both anemometers. Backup weather station was used till the 29th.

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.

MD/DE/DC ACON CHAPTER SEPTEMBER 2011 REPORT

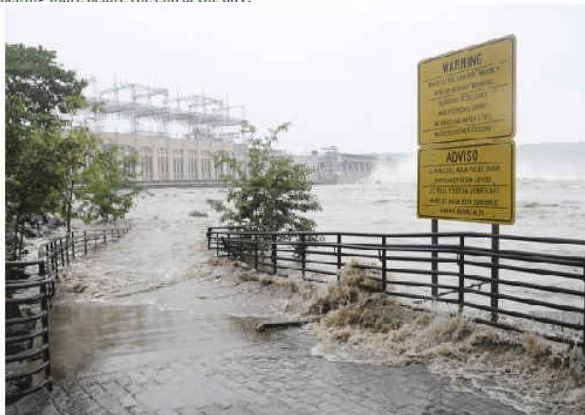


A Baltimore County worker clings to a telephone pole after escaping the disabled dump truck caught in a surge of floodwater. This photo looks south on Stevenson Road, just south of Greenspring Valley Road.
 ©Pikesville Patch, 9/08/2011 Credit Max Wolfthal

Photo above supplied by Marty Sharrow



Susquehanna floods Friday
 (NICOLE MUNCHEL AEGIS STAFF, Patuxent Homestead / September 7, 2011)
 The Conowingo Dam had 43 gates open as of 10:30 a.m. Friday morning and anticipated opening more before the end of the day.



Susquehanna floods Friday
 (NICOLE MUNCHEL AEGIS STAFF, Patuxent Homestead / September 9, 2011)
 Flood waters wash over a walkway at the bottom of the Conowingo Dam Friday morning.

Monthly Summary Continued from Page 1

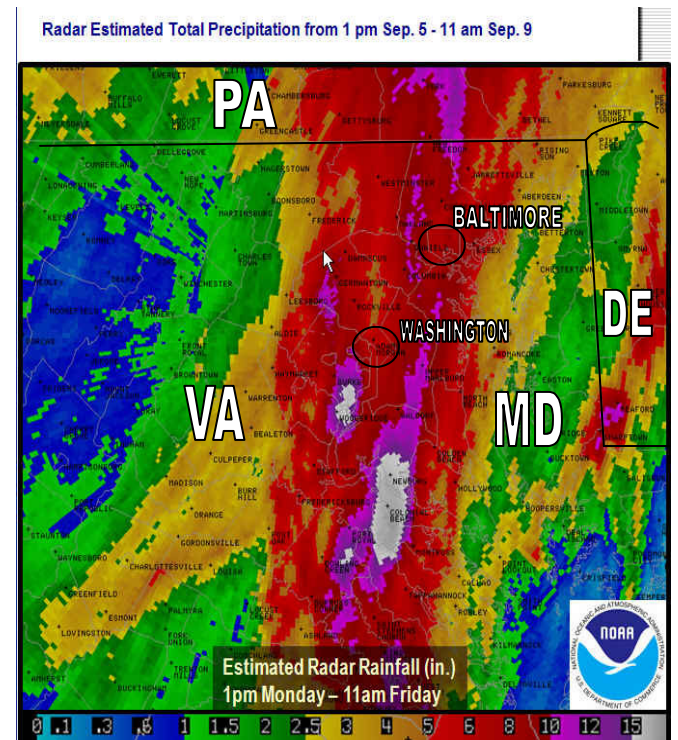
vania. The flooding that occurred rivaled flooding from Tropical Storm Agnes in 1972. Rainfall amounts for the period from the 5th to the 11th are included in the table on page 4.

Hurricane Katia moved northeast (~ 5+ degrees longitude east of the MD/DE coast) on the 8th. Katia had little effect on our weather.

Temperatures rose into the mid 80's to near 90 on the 14th. A strong cold front moved through the region on the 15th ushering in the coolest air of the month. This front ushered in the only minimums in the 40°s, 30°s in the mountains, this month. The last third of the month (20th to 30th) was wet as low pressure stalled west of the region. Heavy rains were not as widespread as it was during the 5th to the 11th. The wettest day was the 23rd when over 1 inch fell in scattered locations around the two state region. **Joe Manfre of Baltimore 2 SE** reported 3.01", **UofD DEOS at Townsend DE** 2.52", **Brian Smith of Oxon Hill** 2.29".

Flooding occurred in Frederick County as a result of the heavy rains of the 22nd and 23rd. **Eric Glass of Emmitsburg** reported 4.40". For rainfall amounts for the period from the 20th to the 30th see the table on page 4.

Doppler Estimated Rainfall map below was supplied by Marty Brumback. Editor added references and state borders.



The two pictures on the left are of the Conowingo Dam. Photo © www.theaegis.com Bel Air, MD newspaper

MD/DE/DC ACON CHAPTER SEPTEMBER 2011 REPORT

The table below summarizes the precipitation that fell during the two extended wet periods, from 5th to the 12th and the 20th to the 30th. An additional column summarizes the precipitation that fell as a result of the remnants of Tropical Storm Lee on the 7th and 8th. The table is sorted on the 5th to 12th amounts. Note totals are for observation days, not calendar days.

<u>OBSERVER</u>	<u>STATION</u>	<u>5th-12th</u>	<u>7th & 8th</u>	<u>20th-30th</u>
MULLER	REISTERSTOWN	10.84	7.95	1.30
SHAW	GAITHERSBURG 2WNW	10.57	6.89	0.80
MILLER	MILLERS 4NE	9.88	6.97	0.75
STOUDT	LAUREL 2 E	9.32	6.68	2.42
NWS ASOS	BWI	9.22	4.84	3.81
HOLDEN	CLARKSBURG 2ENE	9.07	5.01	0.99
BRUMBACK	BRYANS ROAD 2 ESE	9.05	6.15	2.37
CLOSE	MANCHESTER 1SW	8.90	6.38	1.40
COHEN	POTOMAC 4N	8.87	5.90	0.92
GIANNOLA	LAUREL JHU / APL	8.35	5.21	2.29
SHARROW	OWINGS MILLS 2SE	8.34	5.58	1.14
MANFRE	BALTIMORE 2SE	8.12	4.40	3.35
GLASS	EMMITSBURG 2 SE	8.10	3.22	7.40
SMITH	OXON HILL	7.98	4.74	3.10
HANSON	PASADENA 2N	7.56	3.22	2.64
HARTSOCK	WESTMINSTER 4 SSE	7.42	4.58	1.21
NWS MD SCIENCE CTR	BALT INNER HARBOR	7.36	4.40	3.36
NWS ASOS	WASH NATIONAL	6.95	4.21	1.70
NWS ASOS	WASH DULLES	6.70	3.38	1.02
GIANNOLA	OLNEY 1 S	6.52	3.98	1.08
HUTTO	SMITHSBURG 1.5 SW	6.49	1.64	0.83
BERGER	NORBECK 1 SE	6.38	4.17	1.83
SCAFIDE	BETHESDA	6.28	4.66	1.61
MULLINS	LAVALE	6.18	0.79	1.33
ROSSEN	GLENMONT 1NNE	5.56	3.71	2.12
TERRY	FOREST GLEN	5.53	3.93	2.07
LATTA	FROSTBURG	5.10	3.22	0.60
KEEFER	HAGERSTOWN 1E	5.02	1.18	0.66
U OF DE DEOS	NEWARK AG FARM, DE	4.41	0.72	2.31
LESHER	DAVIS 3 SE WV	4.32	2.62	0.87
VAUGHN	SMITHSBURG 3 NE	4.26	1.23	1.46
NWS NEW CASTLE CO APT	WILMINGTON , DE	3.61	0.57	2.30
GALLAHER	BEAR 2 SW, DE	3.58	0.70	2.82
LEGATES	MIDDLETOWN 6 N, DE	3.43	0.54	2.58
U of D REC DEOS	TOWNSEND 4 W, DE	3.10	0.57	3.05
U of D REC DEOS	GEORGETOWN 5 SW, DE	2.97	2.61	1.23
GLEASON	HOLLYWOOD 3 ENE	2.57	0.92	1.19
ZYLA	RIDGE	2.40	0.67	2.26
NWS WICOMICO CO APT	SALISBURY	2.08	1.95	2.23
NWS SUSSEX CO APT	GEORGETOWN, DE	1.82	1.59	1.18
U OF D REC DEOS	HARBESON 8 S, DE	1.21	0.86	1.69
U OF D REC DEOS	REHOBOTH BEACH BWK, DE	0.33	0.06	0.94

MD/DE/DC ACON CHAPTER SEPTEMBER 2011 REPORT

The following article was written by Eric Glass of Emmitsburg. It helps explain the stress his crops endured during the 2011 growing season.

Respiration and Transpiration – As I see it!

By: Eric E. Glass

My father told me a long, long time ago – “boy, we need warm nights to make our crops grow!” Maybe dad never heard of respiration!? Maybe he was thinking of tomatoes – as he once had a field of 9 acres of tomatoes.

I could never tell my dad he was wrong - so this article is for my late father.

Respiration (often mistaken with breathing) is defined as the transport of oxygen from the outside air to the cells within tissues, and the transport of carbon dioxide in the opposite direction.

Respiration does not depend on light, so it occurs at night as well as during the day.

High daytime and night time temperatures can put stress on corn plants that limit the yield. The sugars produced by the corn plant during photosynthesis are used by the plant for cell growth, but they are also consumed by the plant at night. The sugars produced during photosynthesis and subtract the sugars that are consumed during dark respiration; the sugars left over are used for grain filling.

If daytime temp exceed 86 degrees, photosynthesis starts to decline and fewer sugars are produced.

If night time temps are in the mid 70's or warmer, the plant consumes more of the sugars just to maintain cellular activity. This leaves fewer sugars for grain filling.

Bottom line, excessively high temps during the day and again at night can limit the plant's yield potential.

Hot temp with adequate moisture can result in good corn yields.

The worst scenario of course would be if the high day and night temps were accompanied by a lack of moisture.

Normally a day or two above 95 degrees is not a reason for concern as long as soil moisture levels are adequate; but several days above 90 degrees can cause yields to drop 1-% per day. A week or more of this type of weather and yields could decline more rapidly.

Thus, the common belief that high heat and humidity are ideal for corn growth are false. In reality, high temps, especially high night time temps, can reduce yields greatly by increasing respiration.

Recap; temps above 86F during the day reduce the amount of sugar produced. Night time temps above 70 degrees require higher rates of dark respiration. More sugars are consumed leaving less available for cell growth. The net result is less available sugar for building more complex molecules such as starches, which are ultimately stored in the grain.

High temperatures are not good for corn growth, especially during the critical grain fill period. High night time temps are particularly troublesome because the corn plant is using more of the manufactured sugars for cell maintenance and less for dry matter deposition.

This will lead to less than optimum yield and lower test weights.

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Respiration and Transpiration – As I see it! Continued from Page 5

So here we enter the problem with the 2011 growing season.

	Excessive Highs	Excessive Lows	Rain Fall
May	2	0	3.73"
June	6	2	1.08"
July	22	7	3.98"
August	7	4	4.30"
September	<u>0</u>	<u>0</u>	16.46"
	37	13	

May – No problem

June – Even though we had only a few highs and lows-the rainfall was inadequate.

July – 22 highs-(13 consecutive), 7 lows but a fair rainfall.

August – 7 highs, 4 lows, fair rainfall- but the damage was already done.

September – Zero highs and lows-but too much rain!

In summary, the low rainfall in June with the extremely hot days and nights in July did us in.

We have found that any time we have 7 or 8 consecutive highs or lows-our problem of low yields start to manifest.

June-with the low rainfall-also effected transpiration of the corn. Transpiration is the evaporation of water from plants. It occurs chiefly during photosynthesis.

Transpiration is not simply a hazard of plant life – It is the “engine” that pulls water up from the roots to:

- Supply photosynthesis (1%-2% of the total)
 - Bring minerals from the roots for biosynthesis within the leaf
- Cool the leaf

These environmental factors affect the rate of transpiration.

1. Light – plants transpire more rapidly in light than dark
2. Temperature – plants transpire more rapidly at higher temperatures because water evaporates more rapidly.
3. Humidity – when the surrounding air is dry, diffusion of water out of the leaf goes on more rapidly.
4. Wind – with no breeze, the air surrounding a leaf becomes increasingly humid thus reducing the rate of transpiration.
5. Soil water – a plant cannot continue to transpire rapidly if its water loss is not made up by replacement from the soil. Thus-with reduced transpiration-reduced photosynthesis as well.

It has been estimated that over the growing season, one acre of corn plants may transpire 400,000 gallons of water.

As we go to press, our harvest has not started. We sampled some ears of corn–counted the rows of kernels and then the number of kernels. This math gives us an estimate of yield – and this year it's off about 40% from normal.

Eric E. Glass is an Emmitsburg, MD farmer operating under Oakridge Farms, raising Red Angus cattle, Belted Galloway cattle and corn and soybean crops.

Eric is a Master Gardener of Gettysburg, Adams County of Penn State and a Weather Observer for Emmitsburg for NOAA.

**ACON MD / DE / DC
SEPTEMBER 2011 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		DATE
<i>New Castle, Delaware</i>																								
Gallaher, Gary	Bear 2 SW	77.4	61.5	69.5	87	14	43	16	0	0	0	30	NNW	15	6.41	2.46	6	49.21	15	2	0.0	0.0	0.0	2400
Legates, David	Middletown 6 N	77.9	62.0	70.0	88	14	44	16	0	0	0	21		15	6.03	2.10	6	44.48	16	2				2400
NWS Wilmington	New Castle Co. Apt.	77.3	62.2	69.8	86	14	45	16	0	0	0	35	NW	15	5.93	2.18	6	44.96	14	2	0.0	0.0	0.0	2400
UofDE AG FARM DEOS***	Newark	76.9	61.3	69.1	87	14	45	16	0	0	0	21		15	6.76	2.97	6	<u>38.00</u>	15	2				2400
U of D REC DEOS***	Townsend 4 W	76.7	61.2	69.0	87	14	46	16	0	0	0	33		11	6.17	2.52	23	<u>49.52</u>	17	2				2400
<i>Sussex, Delaware</i>																								
NWS Georgetown	Sussex Co. Airport	80.1	64.0	72.1	89	14	50	16	0	0	0	38	SSW	6	3.25	1.41	8	27.74	12	1				2400
U of D REC DEOS***	Georgetown 5 SW	78.4	59.1	68.8	87	14	46	16	0	0	0	27		15	4.46	2.60	8	31.77	12	1				2400
U of D REC DEOS***	Harbeson 8 S	77.8	62.3	70.1	87	14	45	16	0	0	0	21		15	3.36	0.86	8	29.90	13	0				2400
U of D DEOS***	Rehoboth Beach Bwk	75.1	66.3	70.7	84	14	55	17	0	0	0	29		18	<u>1.75</u>	0.75	23	<u>27.76</u>	7	0				2400
<i>Allegany, Maryland</i>																								
Latta, Greg	Frostburg	70.0	54.7	62.4	89	4	36	16	0	0	0				7.78	3.20	7	43.11	17	2	0.0	0.0	0.0	0700
Mullins, Nate**	LaVale	71.8	58.9	65.4	91	3	40	16	1	0	0				9.35	3.52	6	40.48	17	3	0.0	0.0	0.0	2400
<i>Anne Arundel, Maryland</i>																								
Hanson, Dan	Pasadena 2 N	77.3	62.0	69.7	89	14	44	16	0	0	0	27	NNE	15	10.37	2.40	8	46.41	20	3	0.0	0.0	0.0	2400
Jug Bay Wetlands	Lothian	<u>75.3</u>	<u>59.6</u>	<u>67.5</u>	85	1	42	16	0	0	0				<u>3.50</u>	2.81	23	<u>45.85</u>						2400
NWS Baltimore	BWI Airport	77.3	61.3	69.3	88	14	45	16	0	0	0	33	NNW	5	13.32	3.40	7	46.26	16	5	0.0	0.0	0.0	2400
Stoudt, Jeff	Laurel 2 E	74.7	63.0	68.9	85	4+	46	16	0	0	0				11.88	5.06	7	45.22	15	4	0.0	0.0	0.0	2400
<i>Baltimore, Maryland</i>																								
Muller, Ray	Reisterstown	76.4	61.5	69.0	85	4+	44	16	0	0	0				12.53	5.95	7	44.65	18	3	0.0	0.0	0.0	2200
Sharrow, Marty	Owings Mills 2 SE	74.7	60.8	67.8	87	4+	43	16	0	0	0				9.89	3.96	7	44.91	15	3	0.0	0.0	0.0	2400
<i>Baltimore City, Maryland</i>																								
Manfre, Joe	Baltimore 2 SE	80.2	68.0	74.1	91	14	53	16	1	0	0				11.48	3.01	23	44.96	12	5	0.0	0.0	0.0	2400
Maryland Science Ctr	Baltimore Inner Harbor	79.9	67.9	73.9	92	14	53	16	1	0	0				10.73	3.17	7	43.91	13	5				2400
<i>Carroll, Maryland</i>																								
Close Jr, Herb	Manchester 1 SW	74.0	57.8	65.9	86	4+	40	16	0	0	0				12.20	3.24	8	48.30	24	4	0.0	0.0	0.0	2300
Hartsock, Ralph	Westminster 4 SSE	78.5	61.5	70.0	91	4	44	16	1	0	0				9.93	2.76	7	41.39	18	3	0.0	0.0	0.0	1900
Miller, Bobby	Millers 4 NE	75.6	59.7	67.7	85	4+	44	16	0	0	0	46	SW	14	11.64	3.62	7	49.87	22	3	0.0	0.0	0.0	1800
<i>Charles, Maryland</i>																								
Brumback, Marty	Bryans Road 2 ESE	78.1	63.3	70.7	88	4+	47	16	0	0	0				11.44	4.50	7	<u>29.89</u>	13	4	0.0	0.0	0.0	2359
<i>Frederick, Maryland</i>																								
Glass, Eric	Emmitsburg 2 SE	74.1	59.3	66.7	85	5	42	17	0	0	0				16.46	2.22	22	48.29	22	7	0.0	0.0	0.0	0700

**ACON MD / DE / DC
SEPTEMBER 2011 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	DATE
	<u>Howard, Maryland</u>																							
Giannola, Rich	Laurel JHU / APL <u>Montgomery, Maryland</u>	75.5	61.3	68.4	88	14	45	16	0	0	0	35	N	15	10.99	3.62	7	39.05	17	4	0.0	0.0	0.0	2400
Berger, Ron	Norbeck 1 SE	75.0	61.7	68.4	87	4	44	16	0	0	0				8.95	2.67	8	36.74	18	3	0.0	0.0	0.0	2200
Cohen, Rob	Potomac 4 N	75.8	62.5	69.2	88	4	45	16	0	0	0				10.00	4.52	8	40.10	18	3	0.0	0.0	0.0	2100
Giannola, Rich	Olney 1 S	75.3	62.0	68.7	87	4	43	16	0	0	0				8.13	3.98	7-9	34.48	15	2	0.0	0.0	0.0	2400
Holden, Richard	Clarksburg 2 ENE	74.9	60.5	67.7	86	4+	41	16	0	0	0	37	W	14	11.98	3.19	8	47.08	18	3	0.0	0.0	0.0	2400
Roth, David	Montgomery Village 1SW																	<u>12.02</u>						2400
Rossen, Stan	Glenmont 1 NNE	77.0	61.8	69.4	91	14	44	16	2	0	0	13		4	8.43	1.98	8	36.83	16	3	0.0	0.0	0.0	2400
Scafide, Tony	Bethesda	74.6	62.5	68.6	85	4	45	16	0	0	0	13		6	8.18	2.36	7	<u>31.88</u>	13	2				2400
Shaw, Kevin	Gaithersburg 2 WNW	74.8	61.8	68.3	86	4+	44	16	0	0	0	19	NW+	5+	12.10	4.92	8	42.08	19	4	0.0	0.0	0.0	2400
Terry, Joe	Forest Glen	78.6	62.0	70.3	91	14	43	16	2	0	0	19	N+	5+	8.19	2.23	8	38.42	14	4	0.0	0.0	0.0	2400
	<u>Prince Georges, Maryland</u>																							
Smith, Brian	Oxon Hill	77.8	63.0	70.4	88	4+	49	16	0	0	0				11.29	3.39	7	45.26	14	4	0.0	0.0	0.0	2300
	<u>St. Marys, Maryland</u>																							
Gleason, Wes	Hollywood 3 ENE	75.0	64.7	69.9	87	14	54	7+	0	0	0				3.78	1.23	6	43.99	16	1	0.0	0.0	0.0	2400
Zyla, John	Ridge	79.0	66.0	72.5	87	4+	51	14	0	0	0	24	NE	15	4.76	1.54	6	42.05	16	2	0.0	0.0	0.0	2400
	<u>Washington, Maryland</u>																							
Hutto, Max	Smithsburg 1.5 SW	74.8	58.8	66.8	89	4	40	14	0	0	0	24		14+	8.47	1.99	9	44.42	18	4	0.0	0.0	0.0	2400
Keefer, Greg	Hagerstown 1 E	75.0	60.3	67.7	87	4+	42	16	0	0	0	33	W	14	6.61	1.55	9	40.83	15	2	0.0	0.0	0.0	2400
Vaughn, Jim	Smithsburg 3 NE	74.4	57.9	66.2	90	4	40	15	1	0	0	<u>44#</u>	SE	6	7.22	1.01	6	40.29	16	1	0.0	0.0	0.0	2400
	<u>Wicomico, Maryland</u>																							
NWS Salisbury	Wicomico Co. Apt	80.9	64.2	72.6	89	14	50	16	0	0	0	38	W	30	4.76	1.67	8	33.16	14	1	0.0	0.0	0.0	2400
	<u>Arlington, Virginia</u>																							
NWS Washington	National Airport	77.6	64.9	71.3	87	4+	49	16	0	0	0	36	N	15	8.84	2.82	7	36.14	14	3	0.0	0.0	0.0	2400
	<u>Loudon, Virginia</u>																							
NWS Washington	Dulles Airport	76.8	61.3	69.1	88	4+	42	16	0	0	0	37	N	15	7.93	2.27	8	33.29	15	4	0.0	0.0	0.0	2400
Shaffer, Lance	Sterling 4 N																	<u>17.75</u>						2400
	<u>Tucker, West Virginia</u>																							
Lesher, Dave	Davis 3 SE WV	67.1	51.5	59.3	84	4	33	16	0	0	0				6.34	2.62	7	61.95	14	2	0.0	0.0	0.0	0700
SECTION AVERAGE*		76.4	61.9	69.1											8.80			41.95			0.0		0.0	

NOTES:

M OR UNDERLINE = MISSING DATA
 > = INCLUDED IN NEXT DAYS DATA
ITALIC = ESTIMATED DATA
 + = FIRST OF SEVERAL OCCURANCES
 # = NO WIND DATA FOR SMITHSBURG 3 NE 9/15-9/28

WINTER TYPE PRECIPITATION FROM STATIONS WITH
 TIPPING BUCKET RAIN GAUGE MAY SHOW UNDER CATCH.
 ALSO AMOUNTS CAUGHT MAY BE NOTED IN THE FOLLOWING
 DAYS AS IT MELTS.

*SECTIONAL AVERAGE DOES NOT INCLUDE DATA FROM WEST VIRGINIA.

**OBSERVER FOR LAVALLE 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

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 1/27/12 Rev 3

ACON MD / DE / DC
SEPTEMBER 2011 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	AVG	OBS TIME	
BEAR 2 SW, DE GALLAHER	81 59	75 61	82 61	85 67	84 70	73 61	81 65	76 70	81 71	83 68	79 64	81 64	83 60	87 64	77 51	65 43	66 48	68 52	70 47	71 59	76 58	78 69	73 68	75 64	80 64	80 66	81 66	78 66	77 59	76 55	77.4 61.5	2400 EDT	
MIDDLETOWN 6 N, DE LEGATES	82 60	75 61	83 61	86 68	85 71	73 61	83 65	76 62	82 69	83 70	80 69	83 65	84 63	88 61	77 44	65 50	66 53	69 51	71 61	76 58	79 69	73 69	74 65	80 64	81 66	81 66	77 66	77 58	76 54	77.9 62.0	2400 EDT		
WILMINGTON, DE NWS NEW CASTLE CO APT	80 63	74 64	82 64	84 69	83 65	65 60	82 65	75 69	83 70	86 69	80 64	82 61	82 63	86 65	77 49	65 45	67 49	69 52	69 50	71 60	77 58	79 69	74 69	75 65	81 66	80 67	78 69	77 69	77 60	77 56	77.3 62.2	2400 EST	
NEWARK AG FARM, DE U OF DE DEOS	82 60	75 62	81 63	84 67	83 66	66 60	81 64	75 69	82 70	84 68	81 64	82 62	82 62	87 64	76 50	65 45	64 49	68 52	71 48	72 60	75 58	78 68	73 67	75 64	80 64	77 66	81 71	78 58	77 54	76 54	76.9 61.3	2400 EDT	
TOWNSEND 4 W, DE U of D REC DEOS	82 58	74 62	82 60	85 69	83 71	73 60	83 65	76 69	78 69	82 80	80 80	82 81	87 82	76 64	65 46	65 49	67 52	70 48	69 59	75 58	78 68	74 68	73 64	79 69	79 65	79 65	79 65	77 70	75 55	75 55	76.7 61.2	2400 EDT	
GEORGETOWN, DE NWS SUSSEX CO APT	83 58	78 58	84 60	87 68	86 71	77 67	88 72	80 71	79 70	85 70	84 67	85 64	86 63	89 68	85 56	67 50	66 51	66 59	70 54	76 56	76 61	82 70	78 71	75 70	79 69	82 69	83 69	82 71	84 59	82 57	80.1 64.0	2400 EST	
GEORGETOWN, DE U of D REC DEOS	81 55	77 56	83 59	85 66	85 69	75 65	86 70	76 68	77 68	83 64	84 61	84 58	85 62	87 55	85 46	65 49	64 55	65 48	69 54	74 53	76 60	80 61	77 59	73 57	76 58	79 58	81 58	81 61	81 58	80 54	78.4 59.1	2400 EDT	
HARBESON 8 S, DE U of D REC DEOS	80 55	75 56	83 57	85 66	84 70	76 67	85 72	77 70	79 68	84 68	80 64	82 61	84 61	87 66	83 57	65 45	64 48	65 58	67 52	74 53	74 59	81 68	77 70	74 68	76 68	77 68	79 66	80 71	81 59	80 55	77.8 62.3	2400 EDT	
REHOBOTH BEACH BWK U of D DEOS	76 61	72 67	77 64	82 70	81 73	77 67	78 71	74 70	74 69	77 69	76 71	78 66	83 68	84 72	83 59	62 56	65 55	65 62	66 63	75 65	71 64	80 69	73 70	72 69	72 69	71 69	71 69	74 70	83 65	83 58	75.1 66.3	2400 EDT	
FROSTBURG LATTA	80 56	77 59	74 64	89 65	81 62	67 53	55 53	61 55	60 61	72 56	71 74	74 76	75 75	77 58	80 56	57 36	57 38	60 45	62 46	57 55	68 59	70 58	74 54	65 53	67 60	71 63	75 58	72 54	73 50	63 50	70.0 54.7	0700 EDT	
LAVALE MULLINS**	75 62	76 67	91 70	85 69	72 59	59 56	66 58	73 64	71 66	80 65	76 60	78 57	76 58	80 58	60 50	57 40	63 47	66 50	63 50	65 58	74 60	78 64	68 61	73 55	76 61	76 65	74 65	75 64	66 53	62 55	71.8 58.9	2400 EDT	
PASADENA 2 N HANSON	82 58	78 65	84 63	85 70	81 66	66 62	78 65	74 69	78 67	84 65	82 60	83 61	86 65	89 56	78 44	66 51	64 54	69 52	71 61	71 59	76 68	78 69	74 65	74 66	81 77	81 67	79 67	80 67	76 57	77 56	77.3 62.0	2400 EDT	
LOTHIAN JUG BAY	85 57	69 64	M M	M M	M M	M M	M M	M M	M M	M M	M M	M M	M M	M M	M M	65 42	66 50	66 50	67 52	71 60	72 59	77 67	81 68	75 66	74 66	79 66	82 67	80 66	82 65	78 57	77 57	75.3 59.6	2400 EDT
BALTIMORE NWS BWI APT	81 59	77 65	82 67	87 69	81 64	64 62	78 63	75 64	82 66	84 65	81 64	83 60	84 61	88 63	77 49	65 45	64 51	70 53	70 53	73 61	75 57	80 65	72 67	75 64	78 66	80 68	79 68	80 66	77 59	78 54	77.3 61.3	2400 EST	
LAUREL 2 E STOUDT	79 61	75 66	82 68	85 70	81 64	64 61	76 62	73 70	76 68	77 64	79 62	81 63	85 66	74 66	62 46	62 51	67 55	67 63	68 62	69 69	73 69	73 63	74 66	76 67	78 68	76 67	77 67	72 61	73 59	74.7 63.0	2400 EST		
REISTERSTOWN MULLER	80 62	79 60	82 66	85 67	78 68	73 58	75 59	74 66	76 67	82 59	83 66	82 60	81 65	85 64	76 52	64 44	61 50	68 48	69 53	78 61	72 62	80 69	72 68	78 66	80 66	77 66	77 65	80 69	78 66	66 54	76.4 61.5	2200 EDT	
OWINGS MILLS 2SE SHARROW	78 58	76 63	81 67	87 68	78 70	61 58	75 58	72 67	75 68	81 66	79 63	81 58	82 60	87 53	71 43	63 47	60 47	68 50	67 60	73 61	72 67	78 67	72 64	75 63	75 65	75 66	75 65	77 67	72 53	74 53	74.7 60.8	2400 EDT	
BALTIMORE 2SE MANFRE	85 69	79 71	87 72	89 75	87 69	68 65	81 66	77 72	80 73	86 68	83 66	84 69	89 72	91 57	79 53	68 58	66 58	73 61	72 67	76 68	77 63	84 72	76 70	79 72	80 73	80 73	83 73	85 72	80 66	81 67	80.2 68.0	2400 EDT	
BALT INNER HARBOR MD SCIENCE CENTER	84 69	80 71	86 72	89 75	85 69	69 65	80 72	78 73	79 68	86 66	82 69	86 71	88 58	92 53	79 59	68 58	66 58	72 58	71 60	77 67	77 68	83 73	75 72	79 71	81 72	80 73	82 70	83 66	79 63	81 63	79.9 67.9	2400 EST	
MANCHESTER 1SW CLOSE	81 60	75 59	79 63	86 66	77 55	60 56	71 64	69 56	74 66	81 62	79 56	81 62	83 58	86 61	69 40	62 47	59 45	68 50	66 56	75 60	71 64	80 63	71 61	75 60	76 64	78 64	72 64	75 55	72 52	71 52	74.0 57.8	2300 EDT	
WESTMINSTER 4 SSE HARTSOCK	81 58	83 63	85 67	91 69	82 60	64 60	75 60	74 68	82 69	84 66	81 63	80 60	83 60	87 62	76 57	67 44	63 48	72 49	74 52	79 60	77 62	84 68	77 66	81 64	82 64	82 65	79 67	81 69	75 63	73 54	78.5 61.5	1900 EDT	
MILLERS 4NE MILLER	79 56	77 61	81 65	85 68	82 66	73 57	72 67	72 64	74 66	81 66	80 58	80 59	85 60	78 53	63 44	62 45	69 45	66 51	66 58	75 62	73 61	80 74	71 67	75 62	76 66	78 62	75 65	77 67	73 51	70 51	75.6 59.7	1800 EDT	
BRYANS ROAD 2 ESE BRUMBACK	82 58	78 66	83 67	88 71	84 66	66 62	73 63	79 71	84 71	84 65	85 63	84 62	85 64	88 54	80 47	64 54	66 52	67 59	71 63	72 63	77 69	73 68	75 66	79 69	82 69	79 66	81 66	77 59	77 59	78.1 63.3	2359 EDT		
EMMITSBURG 2 SE GLASS	80 51	77 56	76 63	80 68	85 68	76 59	61 59	68 61	69 67	73 64	80 61	78 57	78 58	81 61	84 43	68 42	63 48	61 49	67 52	66 60	72 64	74 67	78 62	73 62	76 65	77 67	78 68	76 65	72 55	74.1 59.3	0700 EDT		

ACON MD / DE / DC
SEPTEMBER 2011 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	AVG	OBS TIME	
LAUREL JHU / APL GIANNOLA	80 58	76 65	81 68	87 69	81 62	62 59	75 60	72 69	77 69	83 69	80 67	82 60	84 62	88 65	74 50	62 45	60 49	68 49	67 53	71 61	73 62	79 68	71 67	74 64	77 65	79 67	75 67	78 65	74 57	74 56	75.5 61.3	2400 EDT	
NORBECK 1 SE BERGER	80 58	77 63	81 66	87 69	79 60	67 60	71 61	72 68	79 70	81 66	80 60	79 60	81 62	86 54	74 44	61 50	60 50	68 56	68 62	72 64	77 62	72 68	73 68	75 64	80 66	76 68	78 60	72 59	71 55	75.0 61.7	2200 EDT		
POTOMAC 4N COHEN	82 59	78 65	81 67	88 70	80 72	75 60	71 60	72 68	78 69	79 65	80 65	80 59	83 60	86 62	72 56	63 45	63 51	67 51	58 58	72 63	64 63	74 69	76 66	73 63	72 67	75 69	79 68	80 67	80 63	74 56	75.8 62.5	2100 EDT	
OLNEY 1 S GIANNOLA	81 61	75 62	81 66	87 70	80 71	62 59	72 60	72 68	77 69	81 65	78 64	79 60	82 61	86 64	73 51	73 43	61 50	67 50	66 56	72 61	73 63	76 68	74 67	74 63	75 66	80 69	76 69	78 67	> >	74 55	75.3 62.0	2400 EDT	
CLARKSBURG 2ENE HOLDEN	79 62	78 61	80 66	86 70	76 59	61 59	70 60	71 67	79 67	81 65	81 61	80 60	82 61	86 63	71 48	62 41	61 49	68 48	57 65	75 61	73 62	78 67	71 65	76 61	75 66	79 67	77 68	78 65	73 57	72 54	74.9 60.5	2400 EST	
MONTGOMERY VILLAGE ROTH 1SW																																	2400 EDT
GLENMONT 1NNE ROSSEN	83 59	77 64	84 67	90 69	81 63	63 61	73 62	73 70	82 70	82 66	83 64	82 60	86 61	91 63	73 49	64 44	63 50	69 49	68 57	73 61	75 63	79 68	73 67	76 65	76 67	81 68	77 68	82 66	76 57	74 56	77.0 61.8	2400 EST	
BETHESDA SCAFIDE	81 61	76 64	79 67	85 70	79 64	64 60	71 62	72 69	78 70	80 66	81 66	79 61	80 62	84 64	74 52	62 45	61 52	67 51	68 58	69 62	74 65	77 69	73 67	74 64	76 67	78 69	77 67	77 66	73 58	73 57	74.6 62.5	2400 EDT	
GAITHERSBURG 2WNW SHAW	79 59	78 65	79 68	86 70	78 62	62 60	70 61	72 68	75 69	79 64	81 64	78 60	81 60	86 63	71 51	63 44	61 50	67 50	68 57	73 63	74 64	78 68	72 67	75 63	75 67	79 69	77 69	78 67	74 57	72 55	74.8 61.8	2400 EDT	
FOREST GLEN TERRY	83 59	79 64	83 68	90 70	81 64	64 61	74 62	74 69	85 70	86 65	85 60	85 61	86 63	91 50	77 43	66 50	65 49	70 58	71 62	72 67	82 73	77 63	78 67	79 64	83 67	79 69	83 68	78 66	78 57	78 56	78.6 62.0	2400 EDT	
OXON HILL SMITH	82 60	77 66	82 66	88 69	83 66	66 62	73 64	80 70	86 68	84 66	85 62	84 62	84 64	88 54	77 49	65 53	64 52	67 58	69 62	71 62	75 69	78 62	80 69	74 67	79 68	81 69	79 66	81 66	77 58	75 57	77.8 63.0	2300 EDT	
HOLLYWOOD 3 ENE GLEASON	81 63	81 67	81 66	86 66	65 66	71 58	72 54	77 58	79 72	76 68	74 67	76 66	84 66	87 69	81 58	66 54	65 58	66 59	70 60	71 66	72 66	77 70	79 69	76 70	74 69	76 70	80 69	78 69	79 67	79 60	75.0 64.7	2400 EDT	
RIDGE ZYLA	83 63	78 67	84 66	87 71	87 73	78 66	82 72	81 71	86 69	82 68	85 67	82 68	84 71	87 59	81 51	66 56	63 59	65 60	73 60	75 63	76 67	79 70	75 71	72 68	75 68	82 70	77 68	80 68	82 64	82 57	79.0 66.0	2400 EDT	
SMITHSBURG 1.5 SW HUTTO	77 57	78 64	81 68	89 66	75 60	61 60	70 60	71 65	76 65	80 63	80 60	78 56	83 57	85 60	65 46	62 40	63 45	68 47	67 53	75 61	76 58	78 64	73 61	77 59	78 65	80 64	80 67	77 64	72 57	69 53	74.8 58.8	2400 EDT	
HAGERSTOWN 1E KEEFER	79 59	78 67	81 69	87 68	75 61	61 59	70 59	73 66	75 68	81 65	81 62	80 58	84 60	87 64	66 48	62 42	63 47	68 49	65 53	76 60	76 61	78 66	72 63	78 60	79 66	79 65	79 68	77 65	72 56	69 55	75.0 60.3	2400 EDT	
SMITHSBURG 3 NE VAUGHN	78 65	79 65	82 68	90 68	75 59	62 56	70 57	71 64	75 65	80 64	80 61	79 58	81 59	87 61	70 40	68 48	66 49	69 60	71 53	77 63	83 66	82 64	81 62	72 51	64 42	63 47	64 52	77 60	71 55	64 56	74.4 57.9	2400 EDT	
SALISBURY NWS WICOMICO CO APT	83 58	79 59	84 60	86 67	87 71	78 67	88 74	86 79	80 83	85 84	86 84	86 83	89 87	88 78	68 56	65 50	67 53	73 57	77 54	83 63	79 70	75 72	78 69	82 70	84 69	82 70	82 69	82 70	82 60	82 57	80.9 64.2	2400 EST	
WASH NATIONAL NWS ASOS	82 66	79 68	82 70	87 73	84 65	67 64	74 64	79 71	83 68	84 67	84 65	83 65	83 68	87 54	78 49	66 56	65 55	68 60	70 64	71 64	76 68	77 68	72 66	76 66	79 69	80 70	78 69	80 68	78 62	76 61	77.6 64.9	2400 EST	
WASH DULLES NWS ASOS	81 59	80 66	80 68	88 68	80 63	63 61	72 61	75 68	84 68	83 64	83 63	83 59	84 58	88 62	74 50	62 42	64 49	69 52	69 58	73 63	77 65	79 67	73 65	76 63	76 66	80 69	79 69	80 64	76 56	73 54	76.8 61.3	2400 EST	
STERLING 4 N SHAFFER																																	2400 EDT
DAVIS 3 SE WV LESHER	74 57	73 59	81 64	84 65	80 58	66 50	52 49	62 52	68 55	69 56	68 49	70 50	69 54	72 56	76 52	54 33	55 34	55 42	59 40	60 40	64 54	68 54	68 57	66 51	64 51	69 57	74 58	72 53	65 50	56 45	67.1 51.5	0700 EDT	

ACON MD / DE / DC
SEPTEMBER 2011 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	TOTAL	OBS TIME
BEAR 2 SW, DE GALLAHER		T			0.10	2.46	0.39	0.31		0.02	0.24	0.06			0.01		T	T		0.03	0.04	0.01	2.20	T			T	0.22	0.24	0.08	6.41 0.0	2400 EDT
MIDDLETOWN 6 N, DE LEGATES					0.04	2.10	0.32	0.22			0.72	0.03				0.01	0.01			0.06	0.11		2.00			0.01	0.04	0.23	0.06	0.07	6.03	2400 EDT
WILMINGTON, DE NWS NEW CASTLE CO APT					0.25	2.18	0.46	0.11		T	0.61	T			0.02					0.04	0.10	0.01	1.65	T	T		0.03	0.13	0.28	0.06	5.93 0.0	2400 EST
NEWARK AG FARM, DE U OF DE DEOS					0.48	2.97	0.52	0.20		0.01	0.21	0.02			0.04					0.04		0.04	1.95		0.01			0.20	0.01	0.06	6.76	2400 EDT
TOWNSEND 4 W, DE U of D REC DEOS					0.03	1.64	0.31	0.26	0.01	0.26	0.59				0.02					0.13	0.01	0.06	2.52		0.01		0.12	0.09	0.08	0.03	6.17	2400 EDT
GEORGETOWN, DE NWS SUSSEX CO APT					T	0.23	0.18	1.41							T		0.23	0.02		T	0.01	0.02	0.38	0.03			0.04	0.01	0.69	3.25	2400 EST	
GEORGETOWN, DE U of D REC DEOS						0.29	0.01	2.60	0.07								0.24	0.02				0.01	0.45	0.03			0.10	0.02	0.62	4.46	2400 EDT	
HARBESON 8 S, DE U of D REC DEOS						0.19		0.86			0.16				0.07		0.32	0.07			0.01	0.22	0.66	0.01			0.09	0.01	0.69	3.36	2400 EDT	
REHOBOTH BEACH BWK U of DE DEOS						0.26		0.06			0.01				0.25		0.26					0.16	0.75				M	M	M	M	1.75	2400 EDT
FROSTBURG LATTA		1.31			0.35	0.91	3.20	0.02	0.35	0.27					0.62	0.13		0.02		0.18	0.08	0.04		0.08	0.02	T		0.15		0.05	7.78 0.0	0700 EDT
LAVALE MULLINS**	0.81			0.25	1.18	3.52	0.74	0.05	0.69					T	0.70		T		0.08	0.03	0.01		0.03	0.03	0.02		1.12	0.06	0.03		9.35 0.0	2400 EDT
PASADENA 2N HANSON	0.01				0.78	2.38	0.82	2.40	0.75	0.04	0.38	0.01		0.01	0.15					0.06	0.02	0.01	1.83	0.01	0.03		0.04	0.63		0.01	10.37 0.0	2400 EDT
LOTHIAN JUG BAY	0.02	0.07	M	M	M	M	M	M	M	M	M	M	M	M	M	0.02				0.27	0.01	0.01	2.81		0.02		0.01	0.23		0.03	3.50	2400 EDT
BWI NWS ASOS	T	0.02	0.14		1.43	1.84	3.40	1.44	0.43		0.68				0.13		T			0.04	0.01	0.01	3.19		0.02	0.02	T	0.52			13.32 0.0	2400 EST
LAUREL 2 E STOUDT		0.07	T	T	0.62	1.52	5.06	1.62	0.44		0.06				0.06		0.01			0.08	T	0.02	1.45	T	0.01	0.01	T	0.85		T	11.88 0.0	2400 EST
REISTERSTOWN MULLER	T	0.10			0.27	1.69	5.95	2.00	0.51	0.02		0.40			0.24		0.05			0.10	0.01	0.06	0.79			0.06	0.13	0.05	0.10	12.53 0.0	2200 EDT	
OWINGS MILLS 2SE SHARROW	T	0.16	0.01		1.10	0.86	3.96	1.62	0.29		0.51			0.21	0.03		T			0.02	0.05	0.02	0.86			T	T	0.19	T		9.89 0.0	2400 EDT
BALTIMORE 2SE MANFRE		0.01	T		1.45	1.79	2.60	1.80	0.34		0.14				T		T			0.05	0.01		3.01			0.03		0.25			11.48 0.0	2400 EDT
BALT INNER HARBOR MD SCIENCE CENTER		0.01			1.20	1.30	3.17	1.23	0.32		0.14									0.05	0.01	0.04	3.02			0.03		0.21			10.73	2400 EST
MANCHESTER 1SW CLOSE	0.02	0.04	0.58	0.01	1.08	1.22	3.14	3.24	0.20	0.01	0.01			0.93	0.21		0.05	0.06		0.15	0.06	0.11	0.57	0.01		0.01	0.06	0.42	0.01		12.20 0.0	2300 EDT
WESTMINSTER 4 SSE HARTSOCK		0.18	0.76		0.15	2.01	2.76	1.82	0.36	0.02	0.05	0.25			0.32		0.04			0.12	T	0.05	0.44			0.05	0.26	0.29			9.93 0.0	1900 EDT
MILLERS 4NE MILLER	0.01	0.09	0.16	0.01	0.12	2.20	3.62	3.35	0.57	0.02	T				0.69	T	0.05			0.06	0.01	0.21	0.20	0.01	0.01	0.01	0.03	0.14	0.07		11.64 0.0	1800 EDT
BRYANS ROAD 2 ESE BRUMBACK					0.93	1.64	4.50	1.65	0.32	0.01					0.02					0.29	0.02		1.45	0.01			0.14	0.46	T	T	11.44 0.0	2359 EDT
EMMITSBURG 2 SE GLASS		0.12		0.02	1.91	0.91	1.61	1.61	1.27	0.75	T	0.04			0.65	0.10	0.01	0.06		0.05		2.22	2.18	0.04		0.02	0.15	2.01	0.70	0.03	16.46 0.0	0630 EDT

ACON MD / DE / DC
SEPTEMBER 2011 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	TOTAL	OBS TIME
LAUREL JHU / APL GIANNOLA	T	0.08	0.26		0.53	0.92	3.62	1.59	0.16		1.52	0.01			0.01					0.07	0.02	0.19	0.74			0.02	0.01	1.24			10.99 0.0	2400 EDT
NORBECK 1 SE BERGER	0.01	0.64			0.22	1.60	1.50	2.67	0.24		0.02	0.13		T	0.08		0.01			0.11	0.02	0.38	0.47		0.02	0.03	T	0.80			8.95 0.0	2200 EDT
POTOMAC 4N COHEN	0.04	0.04	0.02		0.14	2.00	1.38	4.52	0.37		0.25	0.21		0.04	0.07		T			0.19	T	0.14	0.39		0.01		T	0.17	0.02		10.00 0.0	2100 EDT
OLNEY 1 S GIANNOLA	0.01	0.40	0.03		>	2.17	>	>	3.98		0.37			0.03	0.06		T			0.08	0.05	0.13	0.36		0.02	0.02		0.42			8.13 0.0	2400 EDT
CLARKSBURG 2ENE HOLDEN	0.01	0.11	0.85		2.13	0.91	1.82	3.19	0.41		0.61			0.87	0.04		0.04			0.09	0.04	0.01	0.39		T		0.02	0.44	T		11.98 0.0	2400 EST
MONTGOMERY VILLAGE ROTH 1SW																																2400 EDT
GLENMONT 1NNE ROSSEN	0.01	0.63	0.01		0.60	0.88	1.73	1.98	0.25		0.12			T	0.10		T			0.10	0.02	0.19	0.53		T	0.02	T	1.26			8.43 0.0	2400 EST
BETHESDA SCAFIDE		0.28			0.42	0.90	2.36	2.30	0.30						0.01					0.15	0.01	0.25	0.57		0.01			0.62			8.18	2400 EDT
GAITHERSBURG 2WNW SHAW	0.01	0.09	0.25		1.51	1.15	1.97	4.92	0.67		0.33	0.02		0.35	0.03		T			0.11	0.05	0.01	0.30	0.01			T	0.31	0.01		12.10 0.0	2400 EDT
FOREST GLEN TERRY	T	0.54	T		0.36	1.05	1.70	2.23	0.19		T				0.05		T			0.13	0.01	0.02	0.62		0.01	0.01	T	1.27			8.19 0.0	2400 EDT
OXON HILL SMITH		0.12			0.83	1.78	3.39	1.35	0.61		0.02				0.09		T			0.24	0.05		2.29	T	0.02		0.01	0.49			11.29 0.0	2300 EDT
HOLLYWOOD 3 ENE GLEASON					0.04	1.23	0.20	0.72	0.38									0.02		0.01	0.05	0.04	0.60	0.07	0.01	0.01	0.17	0.15		0.08	3.78 0.0	2400 EDT
RIDGE ZYLA						1.54	0.52	0.15	0.09		0.10				0.01		0.08	0.01			0.04	0.04	1.20	0.12	0.02		0.36	0.14		0.34	4.76 0.0	2400 EDT
SMITHSBURG 1.5 SW HUTTO	0.16			0.37	1.10	1.26	1.10	0.54	1.99	0.01	0.11	0.01		0.34	0.65		T			0.06	0.23		0.14				0.20	0.19	0.01		8.47 0.0	2400 EDT
HAGERSTOWN 1E KEEFER	0.13			0.08	0.84	1.35	0.83	0.35	1.55		0.10			0.19	0.53		T			0.07	0.17		0.16				0.19	0.07	T		6.61 0.0	2400 EDT
SMITHSBURG 3 NE VAUGHN	0.10			0.14	0.83	1.01	0.98	0.25	0.45	0.55	0.19			0.74	0.52					0.10	0.22		0.45				0.67	0.02			7.22 0.0	2400 EDT
SALISBURY NWS WICOMICO CO APT						0.13	0.28	1.67			T						0.43	0.02			0.01	0.95	0.58	0.01	0.01		0.03	0.05	0.31	0.28	4.76 0.0	2400 EST
WASH NATIONAL NWS ASOS	T	0.16	T		1.36	0.90	2.82	1.39	0.46		0.02				0.03		T			0.16	0.02	T	0.97		0.07		0.01	0.47			8.84 0.0	2400 EST
WASH DULLES NWS ASOS	T	0.03	0.15		1.99	1.07	1.11	2.27	0.26		T			0.02	0.01		T			0.20	0.09	0.10	0.36		0.11	T	T	0.16	T		7.93 0.0	2400 EST
STERLING 4 N SHAFFER																																2400 EDT
DAVIS 3 SE WV LESHER		0.52			0.64	1.06	2.62			T			T		0.47	0.16				0.23	0.04	0.02		0.29	0.08		0.03	0.13	T	0.05	6.34 0.0	0700 EDT