



**Atlantic Coast Observers Network
MARYLAND / DELAWARE CHAPTER
With Data from Nearby Areas**



FOR MORE INFORMATION
ABOUT ACON CONTACT:

KEVIN SHAW
ACON MD/DE COORDINATOR
E-MAIL ADDRESS
Kevin_D_Shaw@compuserve.com

EXTREME HEAT, DROUGHT SCATTERED THUNDERSTORMS

PRECIPITATION

This month two main stories were the heat and the severe drought. On July 29th Maryland's Governor Glendening declared as statewide drought emergency - the first in Maryland's history. He requested voluntary water conservation measures, some of which may be made mandatory water conservation measures as early as next week. Glendening made the announcements while standing on the banks of the Liberty Reservoir. This reservoir, which supplies water to Baltimore, is located on the Carroll - Baltimore County line. It is down 24 feet and now holds less than half its capacity of 43 billion gallons of water.

A week earlier on July 23, Governor Thomas Carper declared a drought emergency for the entire state of Delaware. He asked for a voluntary 15% drop in water usage. Surface water plays a large part in the water supply for the northern portion of the state.

Record heat and dry conditions lead to both states to call for these measures. Rainfall amounts were a little misleading. Amounts across the region ranged from 0.71" at Glenmont 1 NNE north of Washington DC to 6.44" at Eagle Rock in Western Maryland. A lot of it fell in a short period of time via scattered thunderstorms. Not all areas received these storms. The heaviest of the storms moved southeast from Carroll County to the Lower Eastern Shore of Maryland on the 22nd. Rainfall amounts from this early morning thunderstorm were 3.64" by **Marty Sharrow** of **Owings Mills 2 SE**, 3.57" at the **Baltimore Inner Harbor Maryland Science Center**, 3.36" by **Joe Manfre** of **Baltimore 2 SE**. Other heavy amounts were observed by **Herb Close** of **Manchester 1 S** (2.74"), **Al Kreinik** of **Parkton 5 SW** (1.99"). The storm continued SE and dropped 2.25" at Salisbury, MD.

TEMPERATURE

Many of our ACON observers recorded their warmest July and in some cases their warmest month in station history. **Greg Keefer** of **Hagerstown 1 E**, whose records go

EXTREMES REPORTED BY ACON OBSERVERS

MAXIMUM TEMPERATURE

duPont Circle NW DC	104
Baltimore 2 SE	103
Glenmont 1 NNE	103
Ridge	103

MINIMUM TEMPERATURE

Eagle Rock	46
Hanover 2 S, PA	49
Parkton 5 SW	49

WARMEST AVG. TEMP.

duPont Circle NW DC	85.2
Baltimore 2 SE	83.9
Ridge	82.4
Baltimore 2 SE	83.9

COLDEST AVG. TEMP.

Eagle Rock	72.7
Thurmont, Middle Mt.	74.5
Parkton 5 SW	76.4
Hanover 2 S	76.6

MAXIMUM PRECIPITATION

Eagle Rock	6.44
Manchester 1 S	4.42
Owings Mills 2 SE	4.34

MINIMUM PRECIPITATION

Glenmont 1 NNE	0.71
Bear 2 SW DE	0.76
Forest Glen	0.79

back to 1898, recorded its warmest July with an average temperature of 80.0 degrees. Hagerstown previous record was 79.2 degrees which was set in 1955. The National Weather Service at Wilmington, DE recorded its second warmest July on record (since 1894) with 80.0 degrees. Washington National Airport had its second warmest July, and also for any month, on record with 82.9 degrees. At BWI and Dulles it was the 6th warmest.

Continued on Page 2

Atlantic Coast Observer Network (ACON)

Maryland / Delaware / Washington DC Chapter

Continued from Page 1

The Fourth of July Weekend saw the beginning of the months heat. Along with heat was the most humid conditions of the summer so far. The temperatures peaked out at 100 at many locations. **Brian Papa of duPont Circle NW DC** observed 104 on the 6th, the hottest of the month. Not far behind at 103 were **Joe Manfre of Baltimore 2 SE (5th)** , **John Zyla of Ridge (6th)**, and **Kenny Boggs of Whaleysville (7th)**. This heat wave continued through the 9th, but with temperatures only in the 90's. The only "cool" period of the month occurred from the 11th to the 14th. For a change of pace, **Herb Close of Manchester 1 S** recorded a station (11 years) record low July temperature of 53 on the 11th. The coolest temperature observed east of the mountains was 49 by **Rob Rickell at Hanover 2 S, PA**, just north of Carroll County, MD. **Rebecca Harvey of Eagle Rock** observed 46 degrees, the coolest temperature of the month.

On the 16th a heat wave engulfed the region and lasted through the end of the month and into the first week of August. It was briefly interrupted on the 20th and 21st with temperatures generally in the low to mid 80's. This heat wave climaxed on the 31st when again temperatures rose to and over 100 again. **Stan Rossen of Glenmont 1 NNE** recorded his station (since 1977) record high temperature of 103 degrees. **Gary Gallaher of Bear 2 SW DE** recorded 101, the warmest temperature since July 5, 1966.

For the entire month, 21 out of the 35 stations listed in this report observed at least 20 days with temperatures of 90 or above, while 20 stations observed temperatures of 100 or above. More details can be found in the **Observer Comments** section.

Delayed data received this month will be published with the August issue due to time constraints with the writing of this months report.

100 DEGREE DAYS

<p>BWI NWS ASOS 5th 102 6th 101 Millersville 1 SE 5th 100 Jug Bay Wetlands 6th 102 7th 101 20th 100 Baltimore 2 SE 4th 101 5th 103 6th 102 19th 101 Balt Science Ctr. 5th 101 6th 102 19th 100 Bryans Road 2 SE 4th 100 31st 100 Laurel JHU/APL 31st 101 Olney 5th 100 6th 101 18th 100 31st 102 Glenmont 1 NNE 6th 101 31st 103 Gaithersburg 2 WNW 31st 100 Forest Glen 5th 100 6th 100 18th 100 31st 102</p>	<p>Washington Gas Light Rockville 6th 101 Bear 2 SW, DE 31st 101 Wilmington DE NWS ASOS 19th 100 South Bowie 5th 100 6th 101 31st 100 Ridge 4th 100 5th 102 6th 103 9th 101 25th 100 31st 100 Hagerstown 1 E 6th 100 31st 101 Whaleysville 6th 102 7th 103 Wshington National NWS ASOS 5th 102 6th 103 31st 101 duPont Circle NW DC 4th 100 5th 103 6th 104 9th 100 19th 100 31st 102</p>
---	--

OBSERVER COMMENTS FOR JULY 1999

Al Kreinik of Parkton 5 SW

7th - Clear with lightning on the southern horizon
22nd - Early morning storm. Most rain fell 3:05-3:50 AM (1.75") tapering to showers early morning.
30th - Violent thunderstorm 8:15 PM. Vivid lightning, pea size hail for a short time, some pieces larger. Much larger hail fell 2 miles to east and baseball size hail fell right north of the PA line.

Marty Sharrow of Owings Mills

A very dry month. Precipitation total very deceiving. 83% of monthly total (3.64") fell with one storm in a four hour period.

Joe Manfre of Baltimore 2 SE

A hot month with above normal temperatures with normal precipitation (resulting from mostly one day's very heavy rainfall (July 22)).

Herb Close of Manchester 1 SW

Extreme drought, grass brown. Warmest July.

Some station records set this month:

Warmest July Avg. Max 87.9 Previous 85.7 in 1991
Warmest July Avg. temp 77.6 Previous 76.6 in 1991
Most 90 degree days - 15 Previous 11 Previous 2.47" in 1995

Coldest July temp 53 Previous 54 in 1996

11th - Great visibility! 53 All-time record low for July

22nd - Heavy early morning thunderstorm

24th - Intense thunderstorm pass just to south. Some close, intense thunder and lightning.

28th - Strong gusty winds before thunderstorm.

Ralph Hartsock of Westminster 4 SSE

3rd - 1st heat warning in memory

4th & 5th - Blazing heat

22nd - Overnight heavy storms.

28th - Severe storms 4 - 5 PM, good heavy rain.

Bobby Miller of Millers 4 NE

Some station records set this month:

Warmest month 77.7 - Previous 77.3 in July 1988

Warmest max temp 89.4 - Previous 87.9 in July 1988

18 days 90 or above - Previous was 13 in July 1988

6/22-21st - 0.59" of rainfall

2nd - Rainbow 7:30 PM

5th - Tied warmest average temp of 86 set 7/21/87

9th - More 90+, desert like dryness

Bobby Miller of Millers 4 NE (Continued)

9th - More 90+, desert like dryness

28th - 5 PM thunderstorm passes south strong southwest winds to 51 MPH, many limbs / twigs down.

30th - Thunderstorm NE at 8 PM. Gusty NE winds to 45 MPH, vivid lightning and continuous thunder.

Rebecca Harvey of Eagle Rock

18th - Severe lightning, hail. All 3.22" fell in two hours. The temperature dropped 28 degrees.

Rich Giannola of JHU/APL

Only 6.71" of precipitation the last four (4) months.

Rob Cohen of Potomac 4 N

Record highs were set or tied on 6 days. July was the second warmest month ever.

Rich Giannola of Olney

Only 6.99" of precipitation the last four (4) months

12th - Rain began late in the afternoon, ending early evening.

Stan Rossen of Glenmont 1 NNE

31st - Today's maximum of 103.2 was the hottest temperature ever recorded here easily surpassing the old record of 101 from 7/16/88, 8/15/88, 8/16/97 and 7/6/94. It also marked the first time the century mark has been recorded twice in the same month, only once before had it been achieved in the same year, in 1988. Today was also the 22nd time this month that the temperature reached 90 degrees, a new record for any month. The old record for any month was 18 days in 7/83.

July was the driest July on record with 0.71". The old record was 1.26" in 1983.

Kevin Shaw of Gaithersburg 2 WNW

Some station records set this month:

Average max temp of 91.6 (old 91.3 Aug 1980)

Hottest month ever of 79.4 (old 79.2 Jul 1988)

Some daily temperature records:

100 on the 31st; 99 on the 5th, 6th; 98 on the 19th; 96 on the 25th.

Soil moisture due to the low precipitation became critical well before month's end.

Continued on page 4

Any Weather Pictures, Station Pictures? Forward and I will include if quality is ok and space allows. Let me know if you want them returned.- - Gary.

OBSERVER COMMENTS FOR JULY 1999

Continued from page 3

Joe Terry of Forest Glen

Extremely dry. Fairly evenly spaced rain events but only very small amounts with each event. 24 days with 90 or above.

31st - 102 degrees Hottest in 5 years of records keeping at this station.

Gary Gallaher of Bear 2 SW, DE

Hottest July in station history, 20 days of 90 or above tied record for any month. Second driest July in station history, driest since 1963.

5th - Avg. temp of 89 tied station record set 7/15/95

31st - 101 degrees warmest temp since 7/4/66

31st - 41st consecutive day with less than 1" (0.90") of precipitation.

Bill Hudelson of South Bowie

Quite a dry month, although in 1987 I recorded only 1.00" of rain, and the mean temp was 81.6. This was the third driest July I have recorded since I began in 1976.

3rd - Heavy rain 1500-1530 with t-storm 1525.

Floyd Abell of Hollywood

1st - Heavy AM showers, fair afternoon & evening

24th - Heavy afternoon thunderstorm, 1.02"

Marlene Walchli of California

5th - Hazy sun, light winds, 99 degrees

6th - Hazy sun, a bit of a breeze from 1:00 PM, 99 deg

24th - Thunderstorm 1400 hours, heavy rainfall 1425-1520, 1615 along with winds and lightning. It caused the loss of memory data for max / min temperature, barometric pressure and max wind speeds that had accumulated data since June 19th.

John Zyla of Ridge

Some station records:

25 days of 90 or more

6 days of 100 or more

103 degrees on the 6th.

Highest July minimum of 80 on the 6th.

17 consecutive days 90 or higher 7/16-8/1/99

10th - Big cool down after storm along with clear sky and no haze.

Greg Keefer of Hagerstown 1 E

This is the hottest July or any month on record with an average temperature of 80.0 degrees. This beat the old record of 79.2 in 1955. July also has had the most 90 degree days for any month with 23 days breaking the old record of 20 which happened 4 other times, the most recent in July 1983. July was the 3rd driest ever with 1.16" of rain. The second driest was 0.69 in 1930 and 0.20".

3rd - Hazy, very hot, very humid day. Near record heat. Heat index peaked at 109

4th - Ditto yesterday. Heat index peaked at 110.

5th - Ditto yesterday. Heat index peaked at 111.

6th - High of 100 tied record set in 1977. Heat index peaked at 110.

7th - Hot again, but much lower humidity. Heat index peaked at 95.

24th - Heavy thunderstorm 9:25 AM - 9:50 AM produced 0.36" rain in 20 minutes, wind gusts to 31 MPH and sharp lightning. Hot and humid afternoon.

31st - Hottest temperature yet with a high of 101. Not a record which was 103 in 1954. Thunderstorm passed to the north 6-7 PM, only 0.01" rain fell, wind gusts to 28 MPH.

Kenny Boggs of Whalesville

Hottest month I've ever recorded!

Brian Papa of duPont Circle NW DC

A truly miserable month with unbearable heat nearly every day. 6 days with temps of 100 or higher.

4th 5th, 6th - Temperatures 100 to 104 degrees with nighttime temperatures 80 to 85.

Rob Rickell of Hanover 2 S, PA

9th - 49 degrees, a chilly start

16th - More heat !!! Crops doing poorly, water supplies continue to lower.

22nd - Very beneficial rain (1.33")

28th - Thunderstorm with damaging winds.