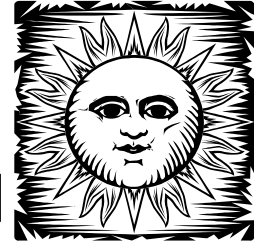


ACON MARYLAND / DELAWARE CHAPTER



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GAMBER TORNADO, TROPICAL STORM BERTHA, WET AND COOL CONDITIONS

July 1996 was not a dull month. The heat of a normal summer was absent this year. In its place a F3 tornado touched down in Carroll County on the 19th, the remnants of a Hurricane Bertha, which made landfall just east of Wilmington, North Carolina, moved rapidly north-northeastly east of the Chesapeake Bay on the 13th, and a persistent upper level trough of low pressure brought cool temperatures and wet conditions.

A line of severe thundertorms moved through area bringing with it a F3 tornado near Gamber in Carrol County and two others weaker ones in Washington and Frederick Countries. According to information provided by Manchester Observer HERB CLOSE the tornado was the strongest ever recorded in Carrol County. It swept through the Four Seasons and Mystic Kane housing developments along MD RT 32. It left a path was 3 miles long. The damage included 67 homes , 28 were left unlivable, and 6 were destroyed. One large barn was also destroyed. The tornado spanned 400 to 500 yards when it touched down near 3:45PM. According to the NWS, "the storm that originated in central Pennsylvania and raced through Maryland during the afternoon hit Fredrick County and widened in Carroll." "Where the tornado widened it developed several concentrated wind funnels, called vortices." "The traveling vortices caused the heaviest damage which explains why some homes had roofs and whole floors torn off while neighbors lost only siding and rain gutters."

urricane Bertha moved on shore just east of Wilmington, North Carolina during the afternoon of the 12th. **H**The storm was downgraded to a tropical storm as it moved north northeast up the Atlantic Coast. It moved through the lower eastern shore of Maryland and southern Delaware. Ahead of its path a steady heavy rain fell from central Maryland eastwards. The heaviest amount of rain (5.45") observered was by KENNY BOGGS of Whaleysville.

JOHN ZYLA of Ridge reported a station 24 hour rainfall record of 4.78". Other heavy rainfall were reported by the following observers:

- MARLENE WALCHLI of California 3 NW 4.93"
- FLOYD ABELL of Hollywood 4.70"
- BILL HUDDERSON on Bowie 3.57"
- MARTY SHARROW of Owings Mills 3.55"
- DAN HANSON of Baltimore 4 SW 3.51"
- PAUL SCHLOSSER of Kingsville 1 S 3.31"
- JOE MANFRE of Baltimore 2 SE 3.20"

AL KREINIK of Parkton 5 SW 3.15"

Winds were not a problem with this storm. The strongest gust of 60 MPH from the east was observed by KENNY BOGGS of Whaleysville. PAUL SCHLOSSER of Kingsville estimated a peak wind gust of 55 MPH from the east. Otherwise the peak winds were in the 30's MPH.

emperatures this month averaged one to **T**hree degrees below normals. The greatest departures was in the average maximum temperatures due to cloud cover and many periods of rain. Many observers noted their coolest July

MONTHLY EXTREMES

MAX TEMPERATURE

- 95 Millersville 1 SE
- 95 Baltimore 4 SW

MIN TEMPERATURE

- 42 Eagle Rock

WARMEST AVG TEMPERATURE

- 78.5 Baltimore 2 SE

COOLEST AVG TEMPERATURE

- 67.4 Eagle Rock

MAXIMUM PRECIPITATION

- 12.47" Eagle Rock

MINIMUM PRECIPITATION

- 3.97" Andrews AFB

in many years - see the observer notes on page 2 for details. To go along with the cool temperatures the rainfall across the two state region was above normal. The heaviest amount was 12.47" observed by REBECCA HARVEY of Eagle Rock. Other amounts over 10" were observed by the following observers:

- 11.34" at Parkton 5SW by AL KREINIK
- 10.31" at California by MARLENE WALCHLI
- 10.18" at Finksburg by RAY MULLER

GREG KEEFER of Hagerstown 1E recorded 9.70" which made it the third wettest ever. So far this year his rainfall total has been an unbelievable 45.69"! Hagerstown wettest year is 1975 when 52.86" fell. Records date back to the 1800's.

NOTICE:

DATA NOW DUE IN THE 15TH OF THE FOLLOWING MONTH. THIS CHANGE IS DUE TO THE CHANGE IN THE DATE DUE FOR THE WWR

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Observer Monthly Highlights

National Weather Service, BWI

The office closed on July 31. All future climate or related information will originate from WSFO, Sterling, VA.

Marty Brumback of Odendon

Cool July. July 1996 was 5 degrees cooler than July 1995. T.S. Bertha visited on the 13th dropping 2.58" of liquid sunshine:)

Dan Hanson of Millersville 1 SE

Coolest July since 1990 and wettest since 1989.

Dan Hanson of Baltimore 4 SW

Fifth consecutive month with above normal precipitation.

Al Kreinik of Parkton 5 SW

Very wet month. Cukes and melon vines showing stem rot - too wet! Tomatoes slow to ripen. Run off from Tropical Storm Bertha pulled newly planted bushes out of the ground. A neighbors tree falls, roots pull out of the saturated soil.

Marty Sharrow of Owings Mills

Troughiness in the east helped keep temperatures relatively cool; also providing for the 2nd rainiest July on record.

Joe Manfre of Baltimore 2 SE

A somewhat cooler and wetter than normal July.

Herb Close of Manchester 1 SW

Below normal temperatures and above normal precipitation. One of the worst tornados in Carrol County history strikes near Gamber with 180 MPH winds (F3). No deaths, 3 injuries.

Bobby Miller of Millers 4 NE

June - July 1996 the wettest 2 months back to back since March - April 1993. Coolest and wettest July in station history (15 years of record).

Paul Schlosser of Kingsville 1 S

Another very wet month. I am thinking of planting rice! Bertha dumped 3.31" of rain. Power out for 4 hours. Winds estimated at 55MPH at 5AM - 13th.

Rob Cohen of Potomac 4 N

Coolest July on record. 14 days with measureable precipitation a July record.

Stan Rossen of Glenmont 1 NNE

July was the second coolest on station record. The coolest is 72.9 set in 1984. This is the first time that July has been cooler than June. July 1996 was the fourth wettest in station history. The wettest is 7.21" set in 1992.

Kevin Shaw of Gaithersburg 2 WNW

July was another amazing month in this amazing year of 1996. I just recorded my coolest July on record, just surpassing 1984 by a few tenths of a degree. Also, I just had my second wettest July on record, only surpassed by the very wet 1994 when 8.61" fell. Year to date rainfall as of July 31 now stands at 39.44", 13.44" above the normal of 26.00". No record highs were set, but several record low maximums were set. Rain fell on 16 days tying the record set back in 1992.

Gary Gallaher of Bear 6 WSW, DE

Wet cool month. Coolest since 1978 and also the third coolest on record. 2.96" of rain fell with the passage of tropical storm Bertha in approx 20 hours. Minimum barometric pressure from Bertha was 29.48". Rains fell every few days keeping the grass green and growing.

Floyd Abell of Hollywood

Pea size hail fell during a thunderstorm on the 8th.

Marlene Walchli of California 3 NW

Much above average precipitation for July. Below average temperatures for this month.

John Zyla of Ridge

Bertha dumps 4.78" of rain, a station record for a 24 hour period.

Greg Keefer of Hagerstown 1 E

19th - Tornados and wind damage were reported just to north and east of here and tornadoes reported in southern Washington county with heavy damage. 1996 precipitation 23.44 inches above the normal of 22.25 inches.

Kenny Boggs of Whaleysville

Tropical Storm Bertha passed directly over me. 50 - 60 MPH winds. 5.45" rain, little damage. A few trees down.