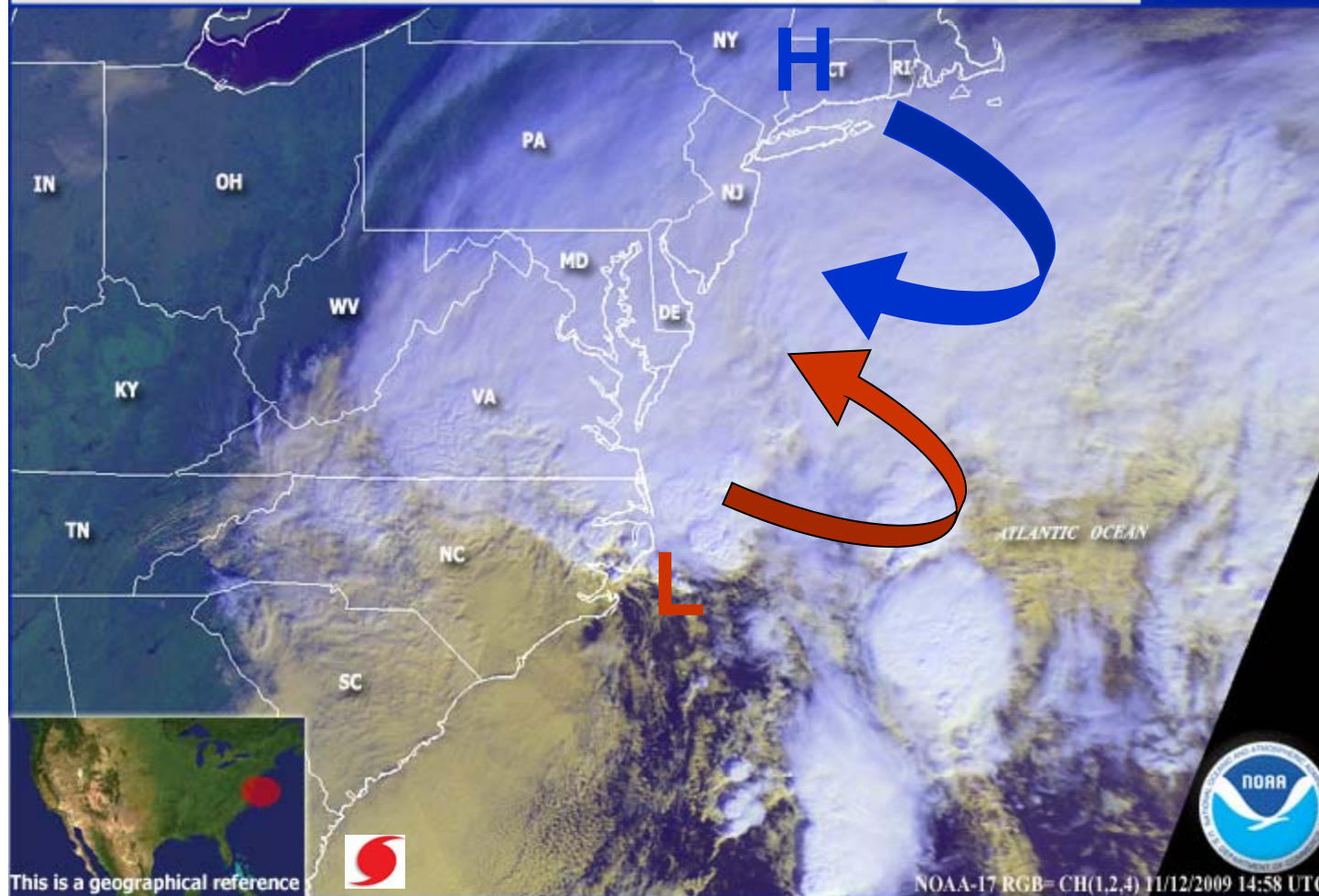


Veterans Day Storm(VDS)

A storm system associated with the remnants of Ida is seen along the mid-Atlantic states bringing strong winds, coastal flooding, and heavy rains. Rainfall totals of 11.92, 9.51, and 7.10 inches were recorded at Chesapeake Virginia, Swansboro North Carolina, and Great Mills Maryland respectively through 7 AM EST on November 13 as reported by the National Hurricane Center.

Credit: NOAA



Ventnor City OEM Coastal Erosion Comparison

October 16, 2009
New Haven Avenue & Beach

November 14, 2009
New Haven Avenue & Beach



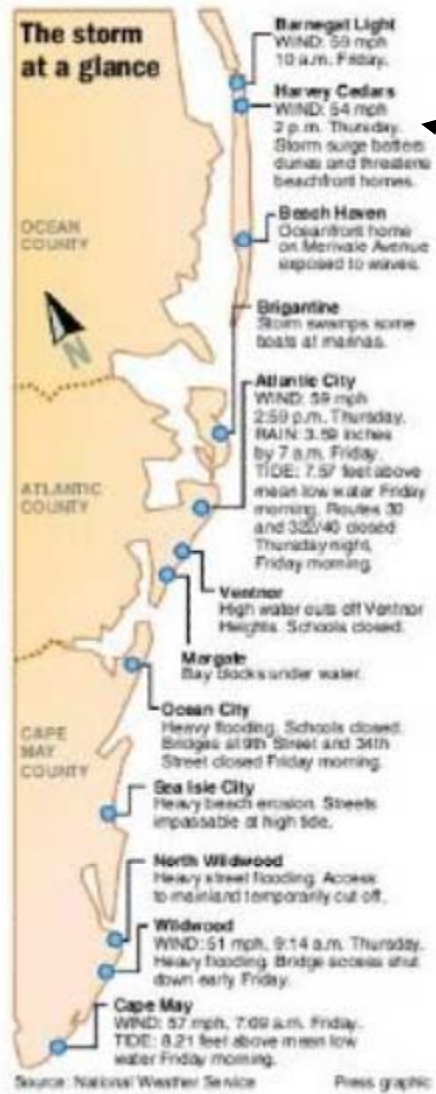


Water washes under homes Friday morning in Indian Beach, south of Dewey Beach. High tides caused beach erosion and flooding.

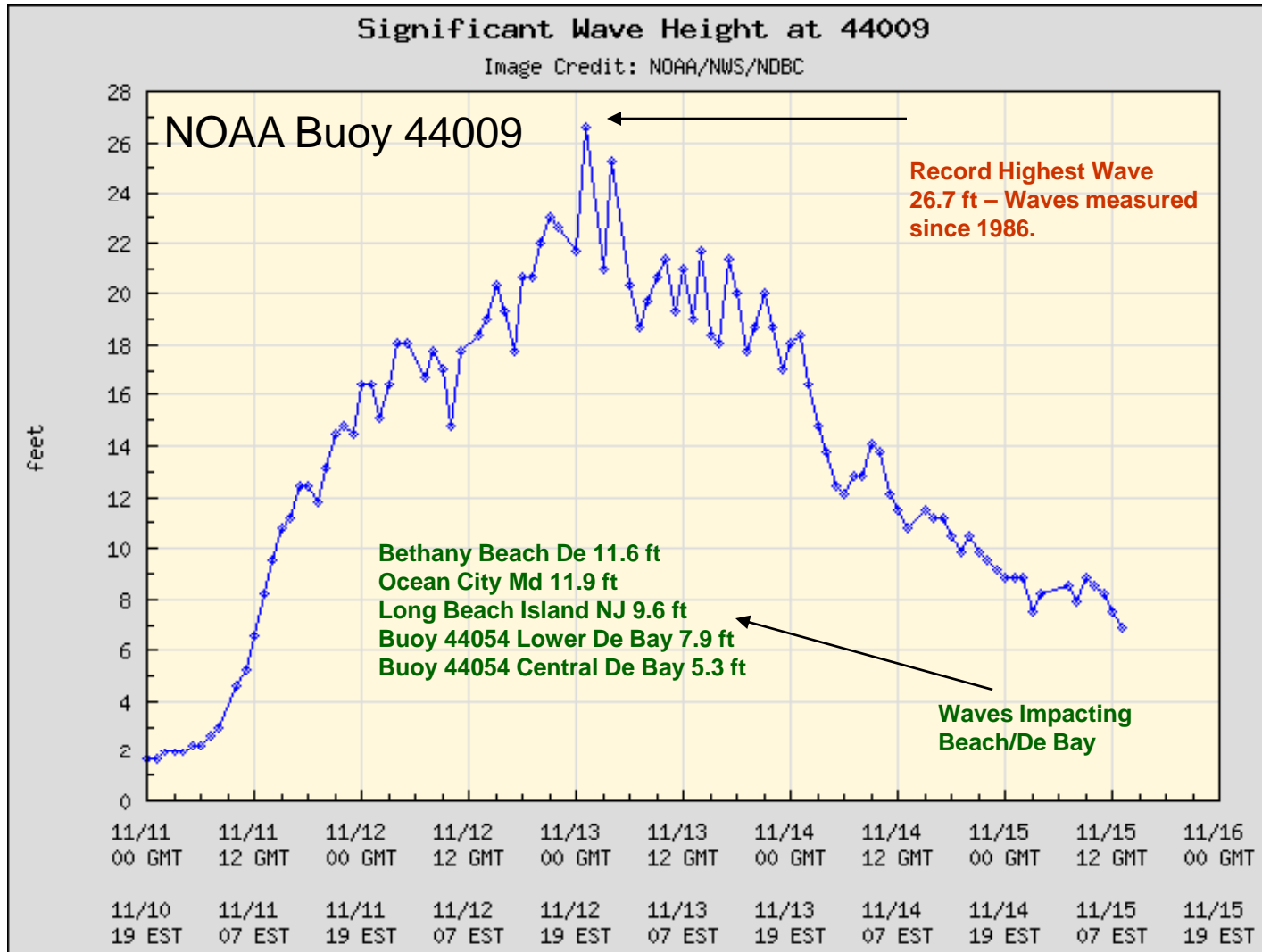


Special to The News Journal/CHUCK SNYDER
 Water washes under homes Friday morning in Indian Beach. Rep. Mike Castle, R-Del., toured beach areas Friday and promised to work in Congress for renewed funding for beach replenishment.

Delaware on Line

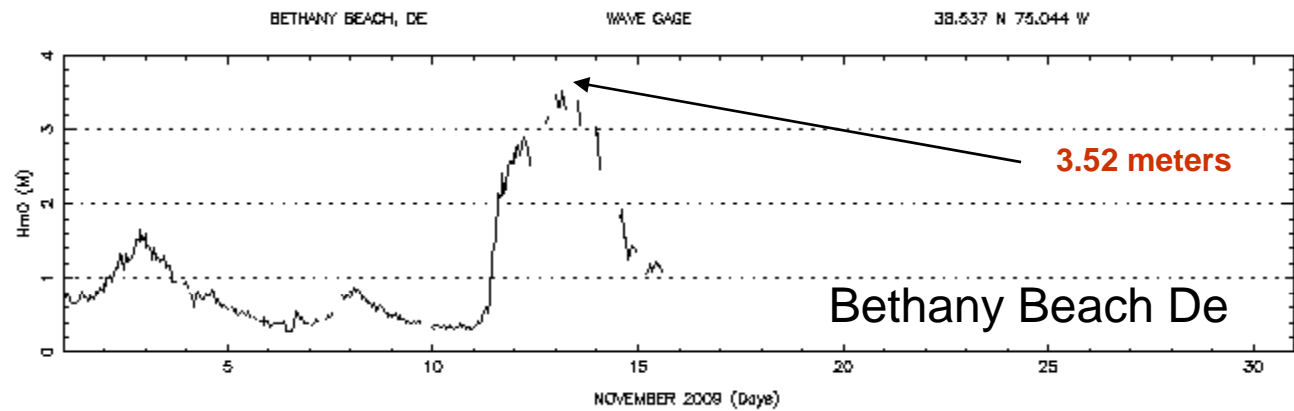
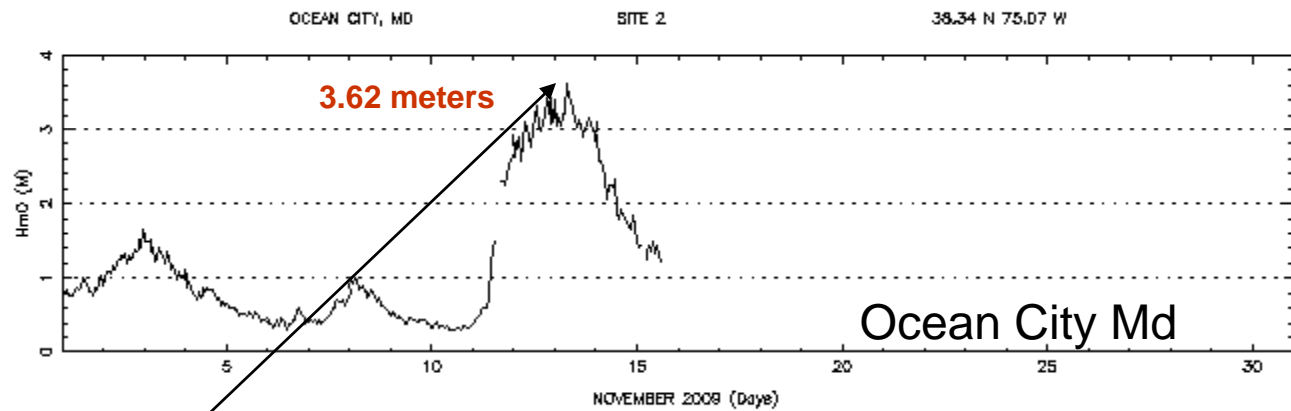


Atlantic City Press Newspaper

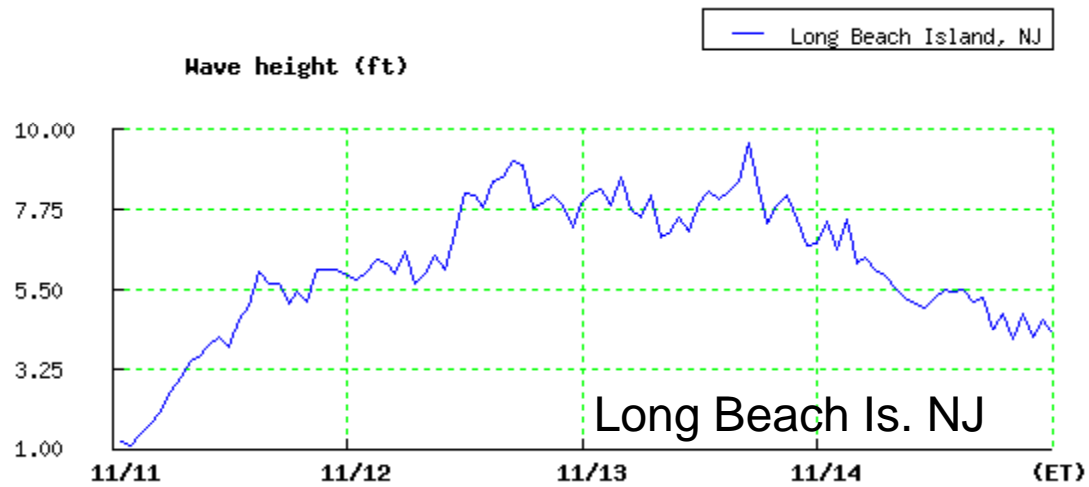


| Ocean City, MD 1993-2003 | |
|--------------------------|-------------------------|
| Return Period (years) | Extreme Wave Height (m) |

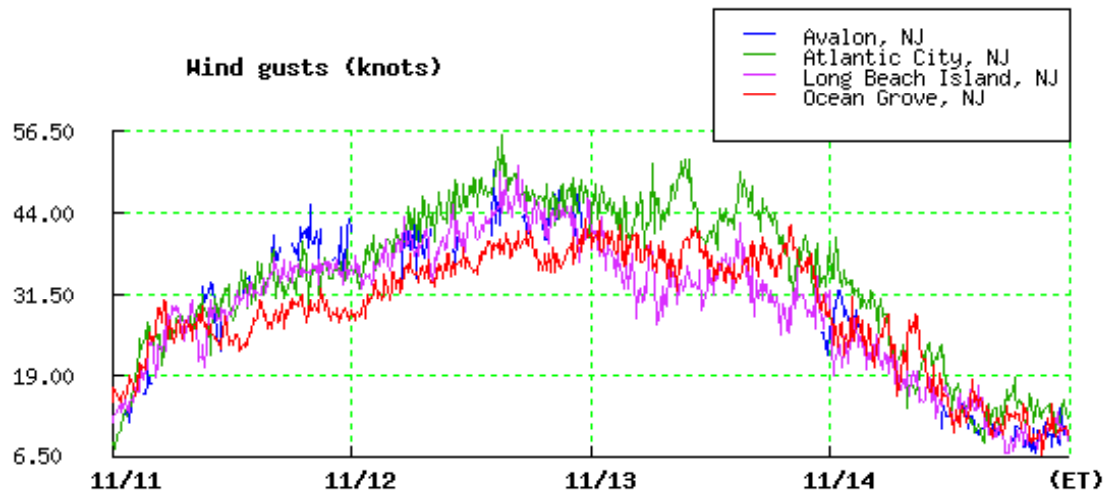
| | |
|-----------|------------|
| 1 | 1.3 |
| 2 | 2.1 |
| 3 | 2.5 |
| 5 | 3.0 |
| 7 | 3.3 |
| 10 | 3.6 |
| 20 | 4.2 |
| 25 | 4.4 |
| 50 | 5.0 |

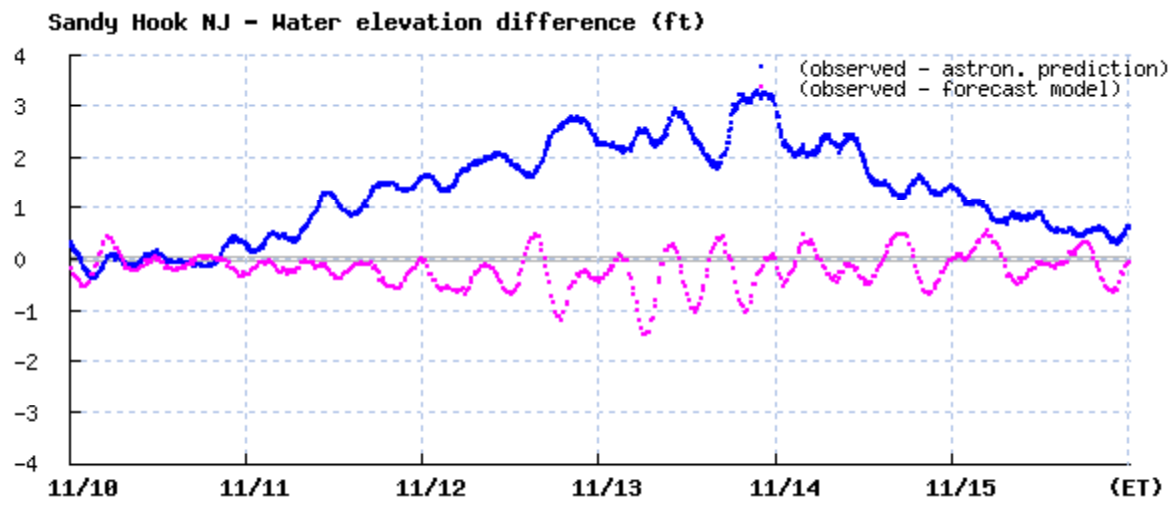
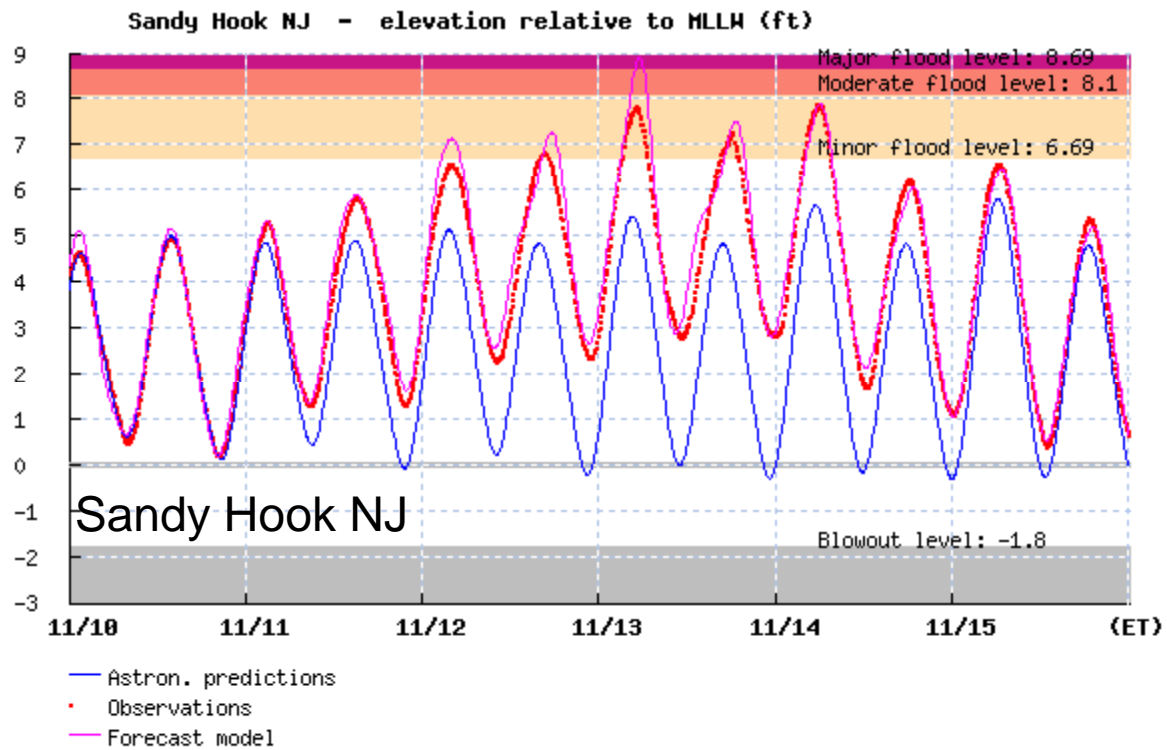


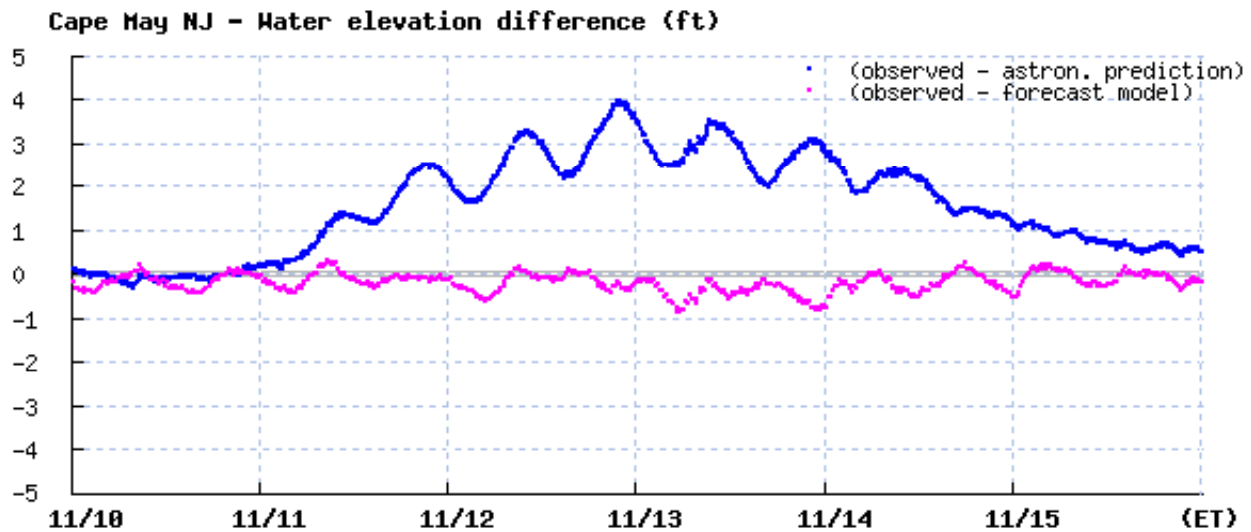
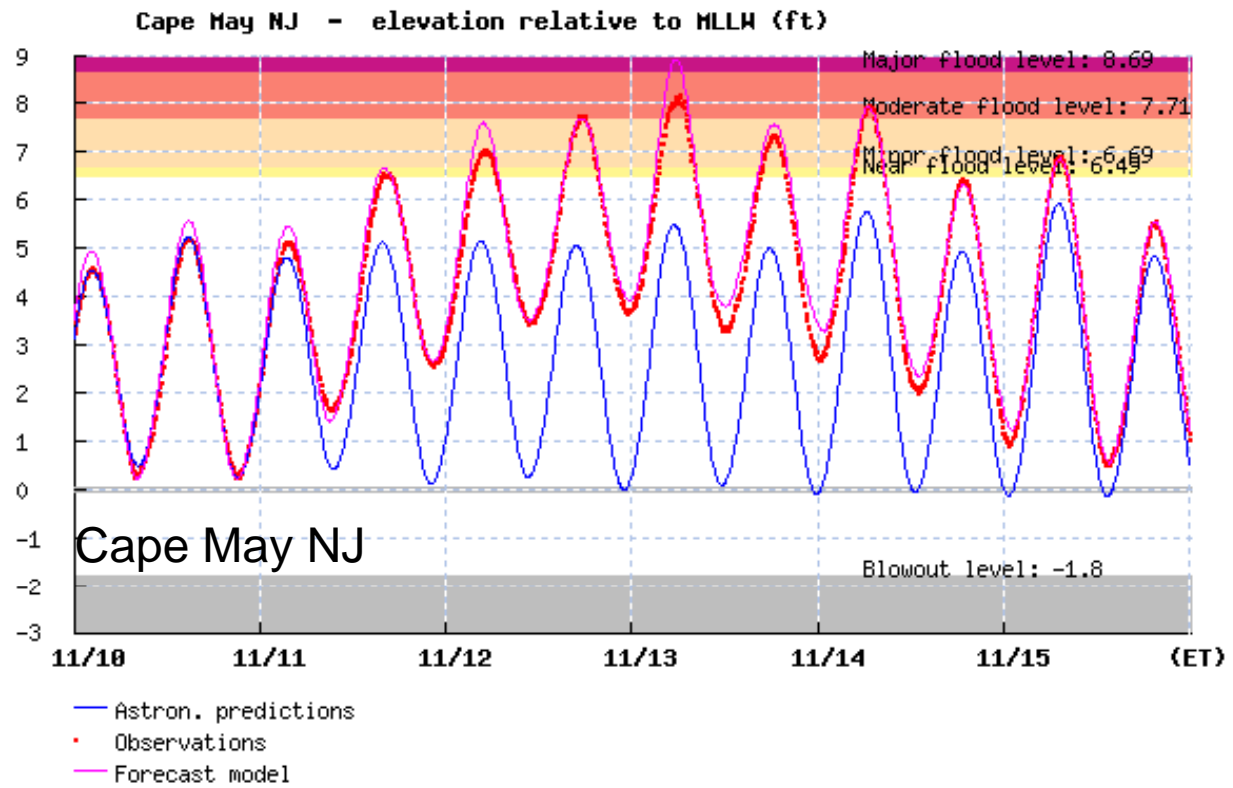
VDS -A Ten Year Storm

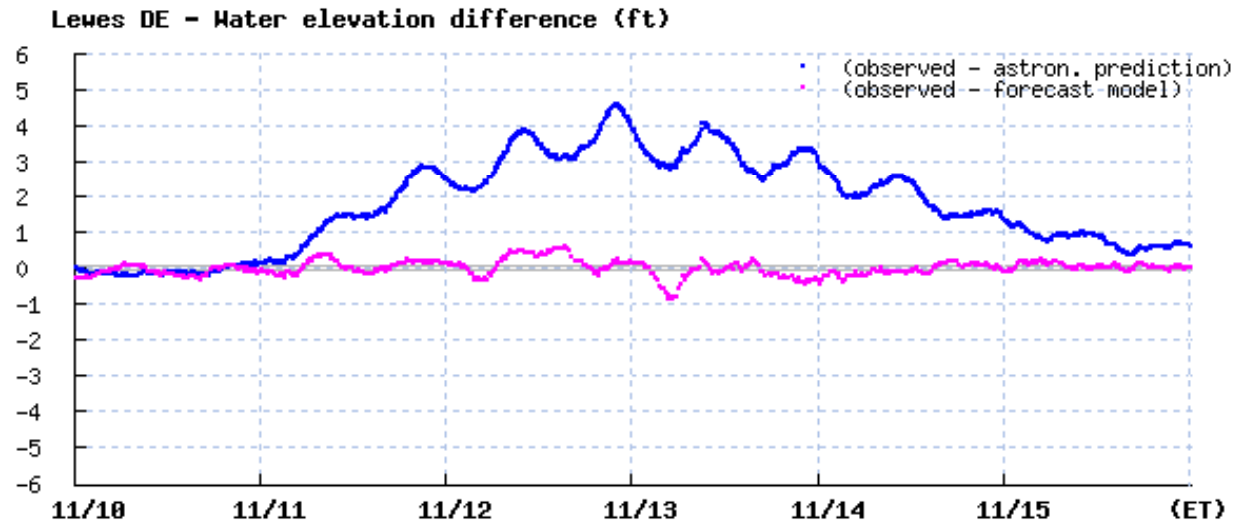
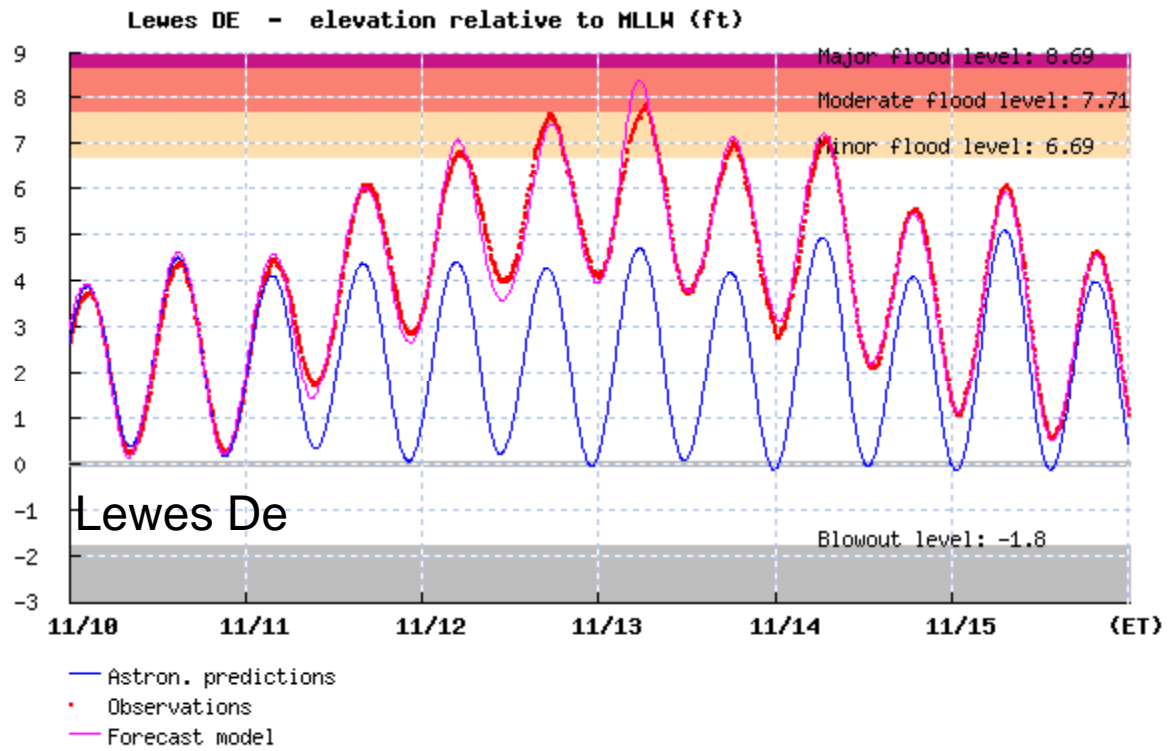


2.9m = 9.6 ft



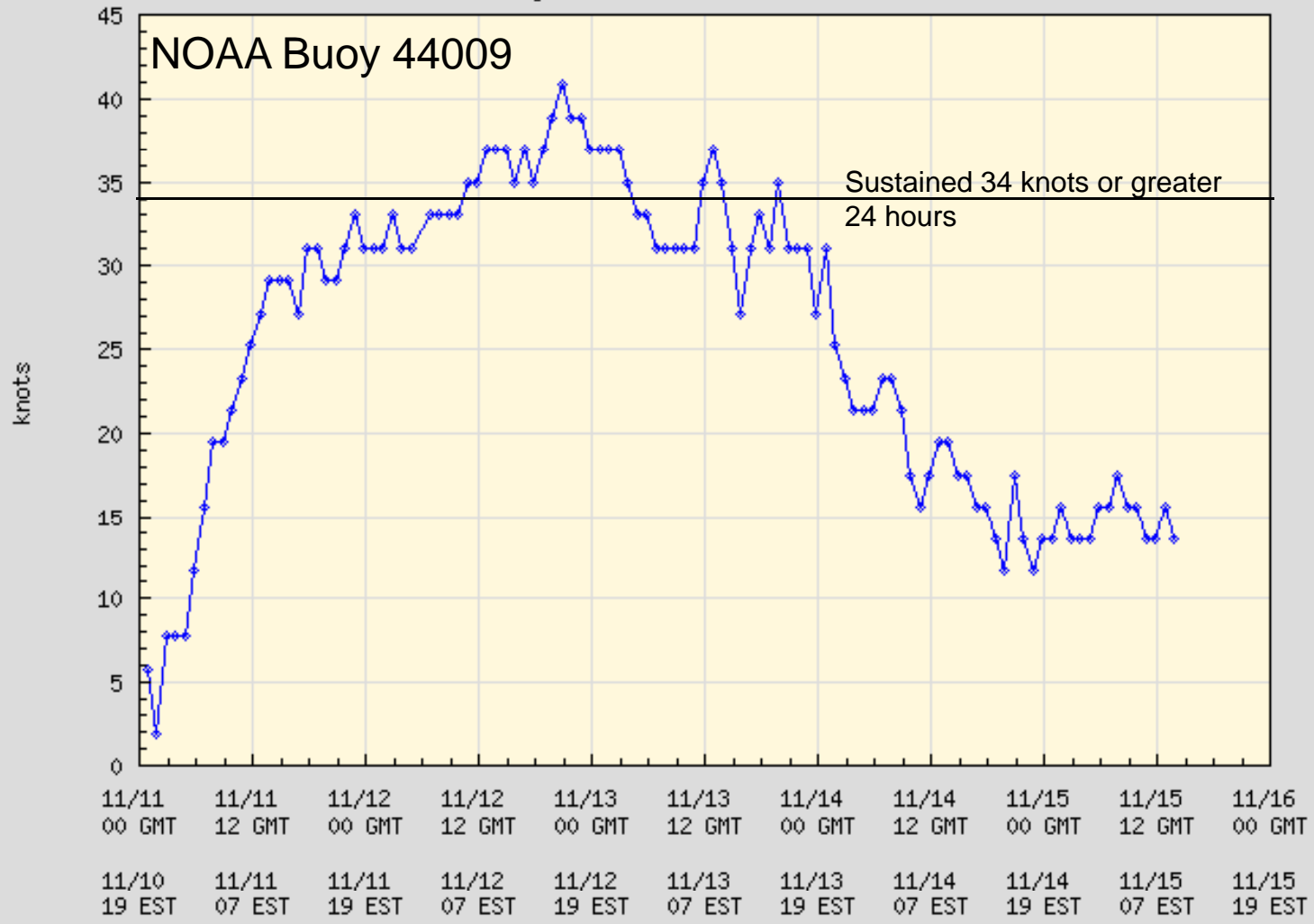






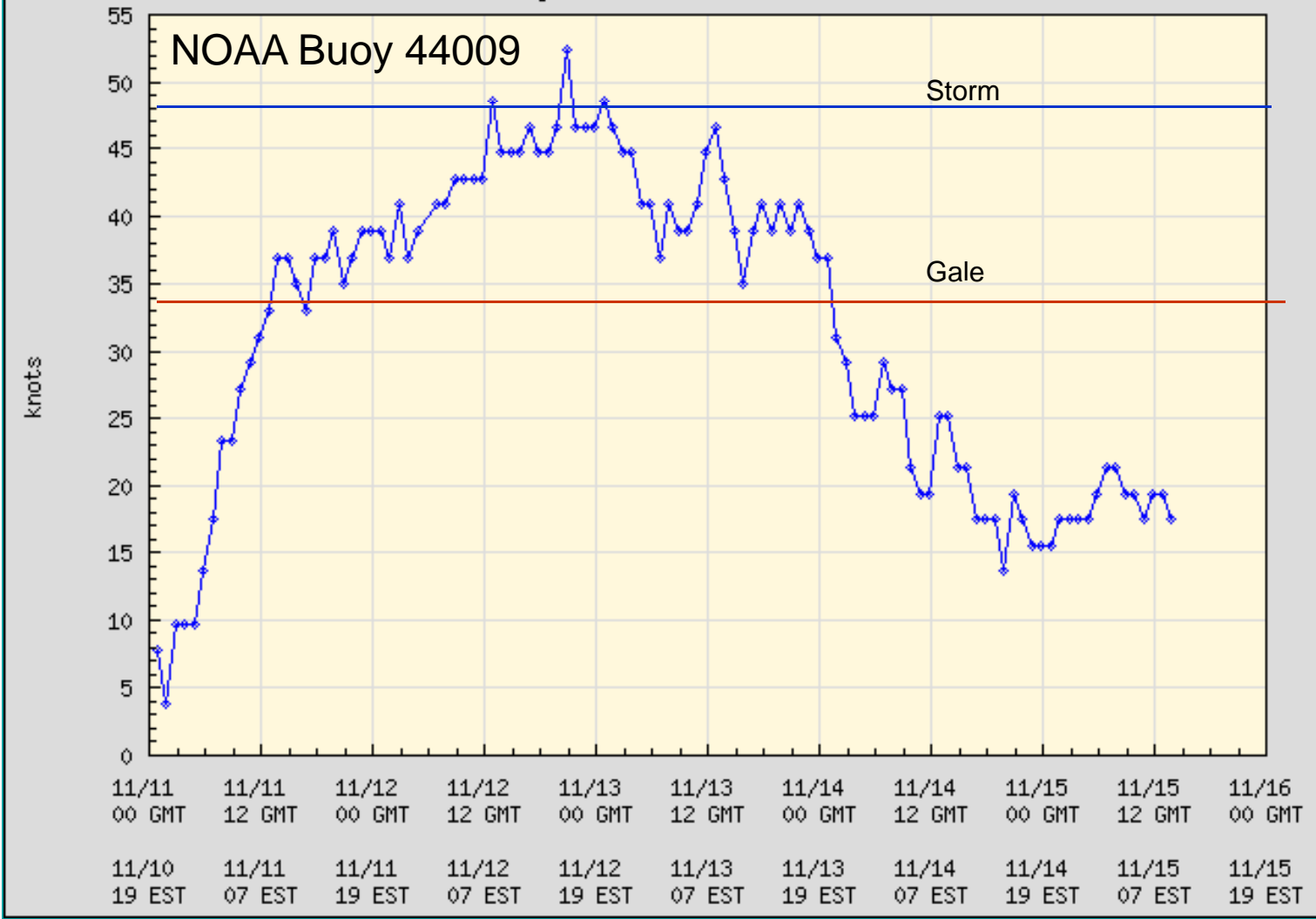
Wind Speed at 44009

Image Credit: NOAA/NWS/NDBC



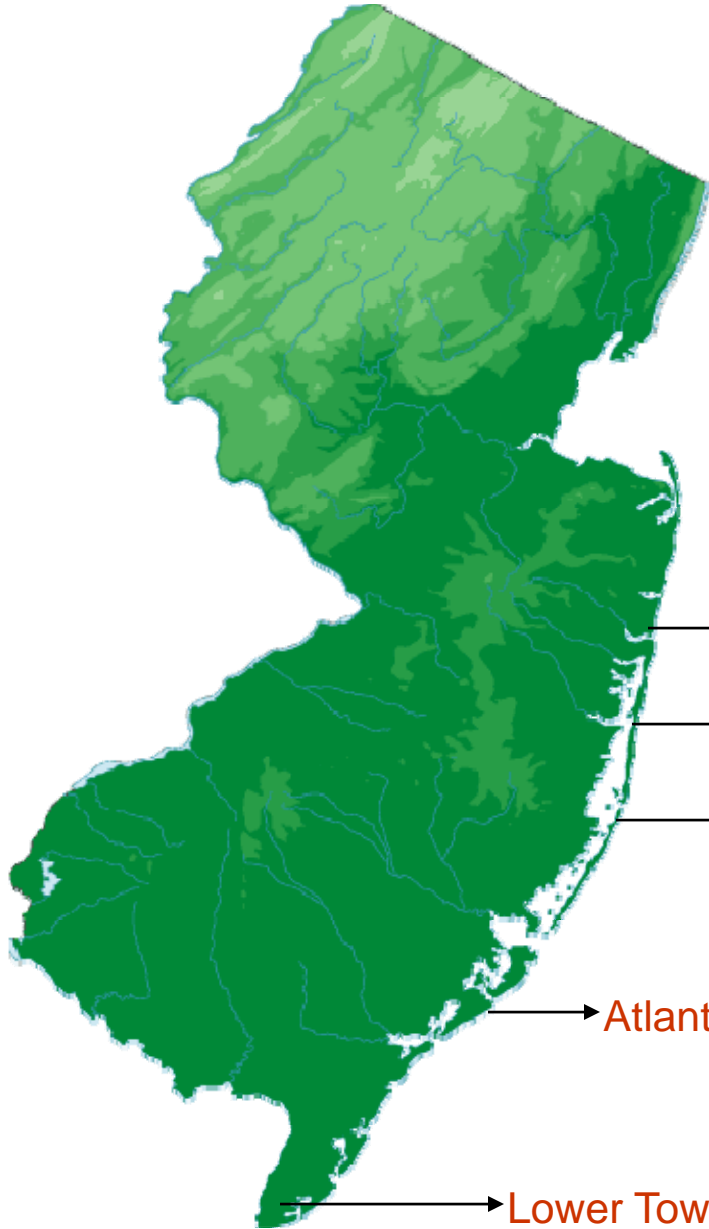
Wind Gust at 44009

Image Credit: NOAA/NWS/NDBC



Consecutive Hours of Sustained wind
=>34 knots and Max Wind Gust

Dave Robinson – NJ State Climatologist



→ Sea Girt – 31 hours – Max Gust 38 knots

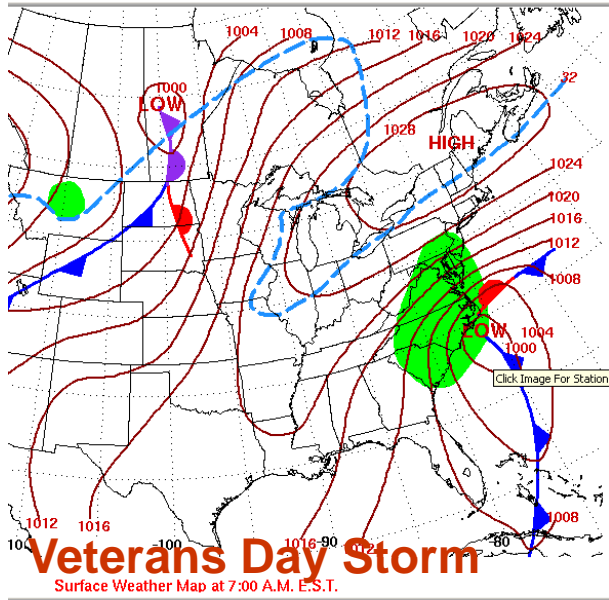
→ Seaside Heights – 20 hours – Max Gust 45 knots

→ Harvey Cedars – 32 Hours – Max Gust 47 knots

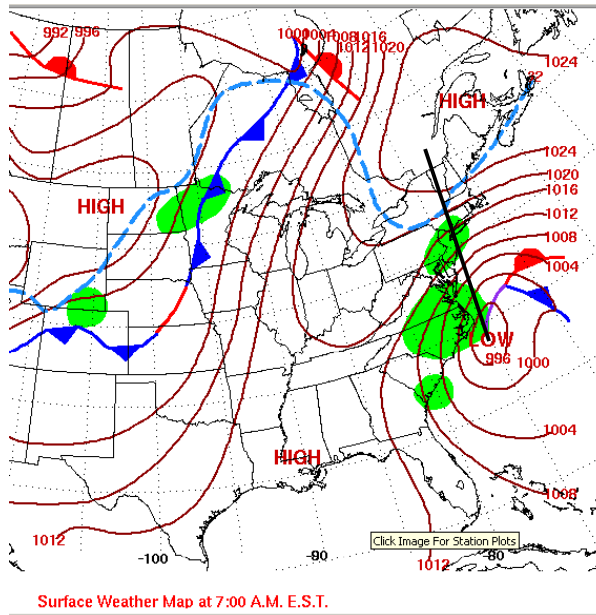
→ Atlantic City – 40 Hours – Max Gust 46 knots

→ Lower Township – 50 Hours – Max Gust 50 knots

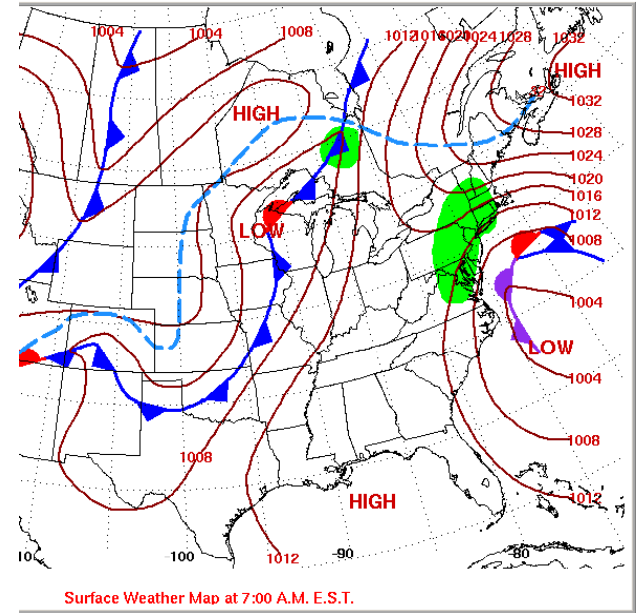
THURSDAY NOVEMBER 12, 2009



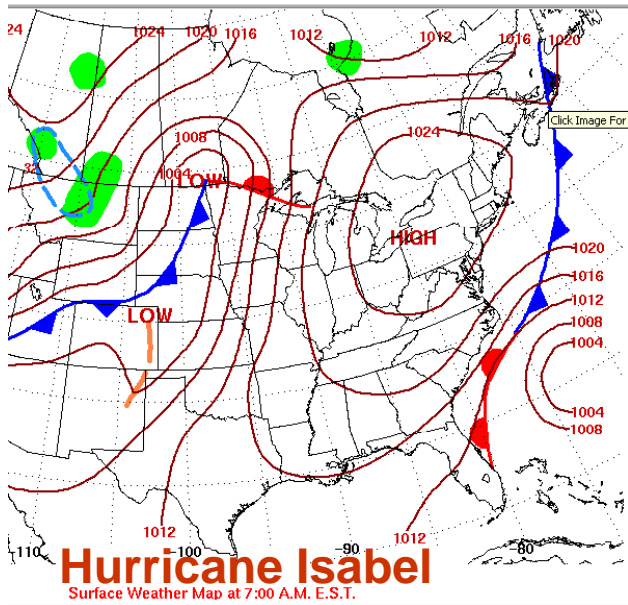
FRIDAY NOVEMBER 13, 2009



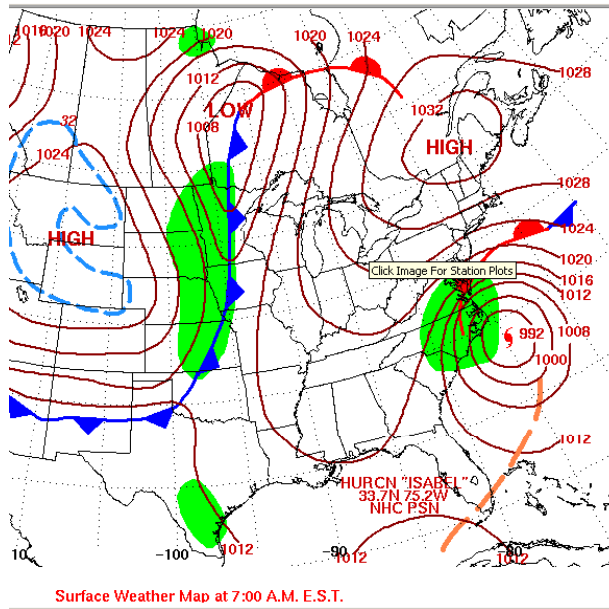
SATURDAY NOVEMBER 14, 2009



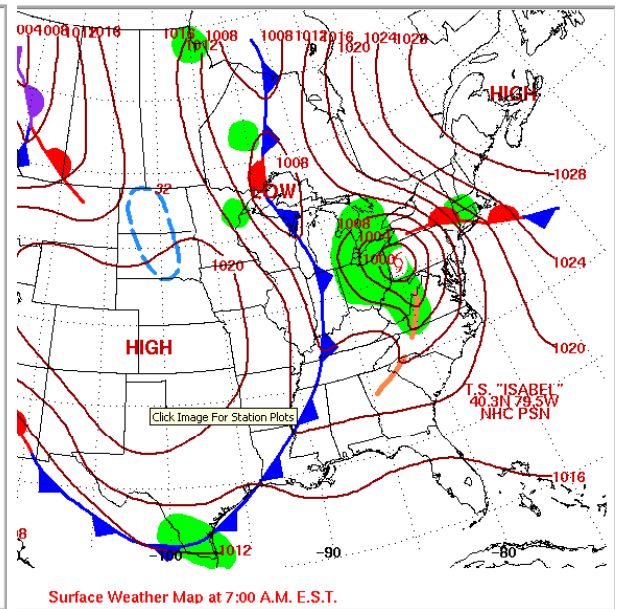
WEDNESDAY SEPTEMBER 17, 2003



THURSDAY SEPTEMBER 18, 2003



FRIDAY SEPTEMBER 19, 2003



Comparison data for the VDS and January 27-28, 1998 storms and with Hurricane Isabel September 18, 2003 NOAA BUOY 44009

| Storm | Lowest Pressure (MBS) | Sustained Winds =>34 kts Number of Hours | Gust =>34 kts Number of Hours | Storm Force Sustained/Gusts =>47 kts Number of Hours |
|-------------|--------------------------|---|----------------------------------|---|
| VDS | 1002.4 MB | 24 | 58 | 9 |
| Isabel | 1006.6 MB | 1 | 16 | 0 |
| 01/27-28/98 | 992.4mb | 14 | 23 | 9 |

The thirty four knots are equivalent to Tropical Storm Force winds and is used in the Hurrevac Program to alert emergency managers that any preparedness action should be curtailed.