Storm Analysis

As of 09/05/2016 00:00 AST, water levels remain elevated from Chesapeake Bay to Massachusetts. Water levels within Chesapeake Bay and from the entrance to Chesapeake Bay to New Jersey generally range between 1.0 and 1.5 feet above tidal predictions. Water levels from New York to Massachusetts range between 0.5 and 1.0 feet above normal tide levels.
Most areas are seeing winds of 10 knots or less, but a few areas along the coast including Chesapeake Bay Bridge Tunnel, VA, Lewes, DE and Nantucket Island, MA are still experiencing 10 to 20 knot winds with higher gusts. Barometric pressure is mostly steady along the Mid-Atlantic and New England coast as the storm is well offshore.

Water Level and Meteorological plots available below are updated automatically. A line denoting Mean Higher High Water (MHHW) is displayed to provide an approximate indication of when flooding inundation may occur.

For additional data, please see the Center for Operational Oceanographic Products & Services website. For more information or archived products and reports, please see the Storm QuickLook Homepage.

Analyst: PFF

------------------------------------------------------------------------------------------------------------

SELECT NATIONAL HURRICANE CENTER ADVISORY INFORMATION:

POST-TROPICAL CYCLONE HERMINE ADVISORY NUMBER 31
NWS NATIONAL HURRICANE CENTER MIAMI FL
1100 PM AST SUN SEP 04 2016

...HERMINE EXPECTED TO MEANDER OFF THE MID-ATLANTIC COAST DURING THE NEXT DAY OR TWO...

SUMMARY OF 1100 PM AST...0300 UTC...INFORMATION

LOCATION...37.2N 68.5W
ABOUT 325 MI...525 KM SE OF THE EASTERN TIP OF LONG ISLAND
MAXIMUM SUSTAINED WINDS...70 MPH...110 KM/H
PRESENT MOVEMENT...NNE OR 20 DEGREES AT 3 MPH...6 KM/H
MINIMUM CENTRAL PRESSURE...997 MB...29.44 INCHES

WATCHES AND WARNINGS

--------------------

CHANGES WITH THIS ADVISORY:

The Tropical Storm Warning has been discontinued west and south of Fire Island Inlet, west of Port Jefferson, and west of New Haven.

SUMMARY OF WATCHES AND WARNINGS IN EFFECT:

A Tropical Storm Warning is in effect for...
* The coast of Long Island from Fire Island Inlet to Port Jefferson Harbor
* New Haven to Sagamore Beach
* Block Island
* Martha's Vineyard
* Nantucket

For storm information specific to your area, including possible inland watches and warnings, please monitor products issued by your local National Weather Service forecast office.
DISCUSSION AND 48-HOUR OUTLOOK
--------------------------------

At 1100 PM AST (0300 UTC), the center of Post-Tropical Cyclone Hermine was located near latitude 37.2 North, longitude 68.5 West. The post-tropical cyclone is moving toward the north-northeast near 3 mph (6 km/h). A turn toward the north with a decrease in forward speed is expected tonight, followed by a slow north-northwestward motion on Monday. A northeastward motion is expected to begin on Tuesday. On the forecast track, the center of Hermine will meander slowly offshore of the mid-Atlantic coast for the next couple of days.

Maximum sustained winds are near 70 mph (110 km/h) with higher gusts. Hermine should remain near hurricane strength through Monday. Gradual weakening is forecast to begin by Monday night.

Tropical-storm-force winds extend outward up to 230 miles (370 km) from the center.

The latest minimum central pressure reported by an Air Force Reserve Hurricane Hunter aircraft is 997 mb (29.44 inches).

HAZARDS AFFECTING LAND
----------------------

WIND: Tropical storm conditions are expected to begin over portions of the warning area on Monday.

STORM SURGE: The combination of a storm surge and the tide will cause normally dry areas near the coast to be flooded by rising waters moving inland from the shoreline. Along the immediate coastline, the surge will be accompanied by large and dangerous waves.

The water could reach the following heights above ground if the peak surge occurs at the time of high tide...

Coast of Long Island from Fire Island Inlet to Port Jefferson Harbor...1 to 2 feet

RAINFALL: Heavy rainfall associated with Hermine will remain mainly offshore through Wednesday. Rainfall totals of 1 to 2 inches are possible across far southeastern Massachusetts, including Cape Cod and the offshore islands.

SURF: Large waves generated by Hermine will affect the U.S. east coast from the mid-Atlantic states and expand northward along the coast of southern New England through Monday night. These waves are likely to cause life-threatening surf and rip current conditions, and significant beach erosion. Please consult products from your local weather office.

NEXT ADVISORY
-------------

Next intermediate advisory at 200 AM AST.
Next complete advisory at 500 AM AST.

Forecaster Brown

For the purpose of timely release, data contained within this QuickLook have undergone a "limited" NOS Quality Assurance/Control; however, the data have not yet undergone final verification. All data subject to NOS verification.
Last Observed Sample: 09/05/2016 00:00 (EDT). Data relative to MHHW

Observed: 1.52 ft. Predicted: -0.23 ft. Residual: 1.75 ft.

Historical Maximum Water Level: Nov 12 2009, 4.66 ft.

Next High Tide: 09/05/2016 11:31 (EDT), 0.09 ft.

Last Observed Sample: 09/05/2016 00:00 (EDT)

Wind Speed: 14 knots  Gusts: 18 knots  Direction: 358° T
NOAA/NOS/CO-OPS 8638863 Chesapeake Bay Bridge Tunnel, VA

Last Observed Sample: 09/05/2016 00:00 (EDT)
Barometric Pressure: 1022.3 mb

NOAA/NOS/CO-OPS 8632200 Kiptopeke, VA

Last Observed Sample: 09/05/2016 00:00 (EDT). Data relative to MHHW
Historical Maximum Water Level: Mar 8 1962, 4.13 ft.
Next High Tide: 09/05/2016 11:55 (EDT), 0.07 ft.
NOAA/NOS/CO-OPS 8632200 Kiptopeke, VA

Last Observed Sample: 09/05/2016 00:00 (EDT)
Wind Speed: 6 knots Gusts: 9 knots Direction: 8° T

NOAA/NOS/CO-OPS 8577330 Solomons Island, MD

Last Observed Sample: 09/05/2016 00:00 (EDT)
Data relative to MHHW
Observed: 0.44 ft. Predicted: -0.95 ft. Residual: 1.39 ft.
Historical Maximum Water Level: Sep 1 2006, 2.93 ft.
Next High Tide: 09/05/2016 05:20 (EDT), 0.15 ft.
Last Observed Sample: 09/05/2016 00:00 (EDT). Data relative to MHHW
Observed: 0.89 ft. Predicted: -0.47 ft. Residual: 1.36 ft.
Historical Maximum Water Level: Sep 19 2003, 5.73 ft.
Next High Tide: 09/05/2016 08:16 (EDT), 0.01 ft.

Last Observed Sample: 09/05/2016 00:00 (EDT). Data relative to MHHW
Observed: 1.08 ft. Predicted: -0.14 ft. Residual: 1.22 ft.
Next High Tide: 09/05/2016 11:11 (EDT), 0.01 ft.
Last Observed Sample: 09/05/2016 00:00 (EDT)

Wind Speed: 8 knots  Gusts: 12 knots  Direction: 33° T

Barometric Pressure: 1022.5 mb
NOAA/NOS/CO-OPS 8557380 Lewes, DE
Last Observed Sample: 09/05/2016 00:00 (EDT). Data relative to MHHW
Historical Maximum Water Level: Mar 6 1962, 4.57 ft.
Next High Tide: 09/05/2016 11:56 (EDT), -0.19 ft.

NOAA/NOS/CO-OPS 8557380 Lewes, DE
Wind Speed / Gusts / Direction

Last Observed Sample: 09/05/2016 00:00 (EDT)
Wind Speed: 12 knots Gusts: 14 knots Direction: 31° T
NOAA/NOS/CO-OPS 8557380 Lewes, DE
Barometric Pressure

Last Observed Sample: 09/05/2016 00:00 (EDT)
Barometric Pressure: 1022.4 mb

NOAA/NOS/CO-OPS 8536110 Cape May, NJ
Preliminary Water Level, relative to Mean Higher High Water(MHHW)

Last Observed Sample: 09/05/2016 00:06 (EDT). Data relative to MHHW
Observed: 1.02 ft. Predicted: -0.43 ft. Residual: 1.45 ft.
Next High Tide: 09/05/2016 11:50 (EDT), -0.24 ft.
Wind Speed: 2 knots  
Gusts: 4 knots  
Direction: 12° T

Barometric Pressure: 1022.1 mb
Last Observed Sample: 09/05/2016 00:00 (EDT). Data relative to MHHW

- Observed: 0.55 ft. Predicted: -0.89 ft. Residual: 1.44 ft.
- Next High Tide: 09/05/2016 10:45 (EDT), -0.19 ft.

Barometric Pressure: 1021.6 mb
Last Observed Sample: 09/05/2016 00:00 (EDT). Data relative to MHHW

Observed: 0.50 ft. Predicted: -0.75 ft. Residual: 1.25 ft.

Historical Maximum Water Level: Sep 12 1960, 4.86 ft.

Next High Tide: 09/05/2016 11:15 (EDT), -0.15 ft.

Last Observed Sample: 09/05/2016 00:00 (EDT)

Wind Speed: 10 knots Gusts: 14 knots Direction: 56° T
NOAA/NOS/CO-OPS 8531680 Sandy Hook, NJ
Last Observed Sample: 09/05/2016 00:00 (EDT)
Barometric Pressure: 1023.3 mb

NOAA/NOS/CO-OPS 8510560 Montauk, NY
Last Observed Sample: 09/05/2016 00:00 (EDT)
Data relative to MHHW
Observed: 0.70 ft. Predicted: -0.20 ft. Residual: 0.90 ft.
Historical Maximum Water Level: Aug 31 1954, 5.91 ft.
Next High Tide: 09/05/2016 00:01 (EDT), -0.20 ft.
NOAA/NOS/CO-OPS 8510560 Montauk, NY

Barometric Pressure

[Graph showing barometric pressure with labels: Last Observed Sample: 09/05/2016 00:00 (EDT), Barometric Pressure: 1022.9 mb]

NOAA/NOS/CO-OPS 8452660 Newport, RI

Preliminary Water Level, relative to Mean Higher High Water (MHHW)

[Graph showing water level with labels: Last Observed Sample: 09/05/2016 00:06 (EDT), Data relative to MHHW, Observed: 0.04 ft. Predicted: -0.72 ft. Residual: 0.76 ft., Historical Maximum Water Level: Sep 21 1938, 9.46 ft., Next High Tide: 09/05/2016 11:12 (EDT), -0.12 ft.]
NOAA/NOS/CO-OPS 8452660 Newport, RI

Wind Speed / Gusts / Direction

Last Observed Sample: 09/05/2016 00:06 (EDT)
Wind Speed: 9 knots Gusts: 13 knots Direction: 28° T

Barometric Pressure

Last Observed Sample: 09/05/2016 00:06 (EDT)
Barometric Pressure: 1022.9 mb
Last Observed Sample: 09/05/2016 00:00 (EDT). Data relative to MHHW

Observed: -1.16 ft. Predicted: -1.90 ft. Residual: 0.74 ft.
Next High Tide: 09/05/2016 03:30 (EDT), -0.38 ft.

Wind Speed: 16 knots Gusts: 22 knots Direction: 37° T
NOAA/NOS/CO-OPS 8449130 Nantucket Island, MA

Barometric Pressure

Barometric Pressure: 1022.5 mb

NOAA/NOS/CO-OPS 8447930 Woods Hole, MA

Last Observed Sample: 09/05/2016 00:00 (EDT)

Data relative to MHHW

Observed: 0.28 ft. Predicted: -0.38 ft. Residual: 0.66 ft.

Historical Maximum Water Level: Sep 21 1938, 8.58 ft.

Next High Tide: 09/05/2016 11:38 (EDT), -0.05 ft.
NOAA/NOS/CO-OPS 8447930 Woods Hole, MA
Barometric Pressure

Last Observed Sample: 09/05/2016 00:00 (EDT)
Barometric Pressure: 1023.0 mb

NOAA/NOS/CO-OPS 8447435 Chatham, MA
Preliminary Water Level, relative to Mean Higher High Water (MHHW)

Last Observed Sample: 09/04/2016 23:24 (EDT). Data relative to MHHW
Historical Maximum Water Level: Feb 26 2010, 2.96 ft.
Next High Tide: 09/05/2016 03:11 (EDT), -0.56 ft.
## Latest Water Level Observations on MHHW

<table>
<thead>
<tr>
<th>Station ID</th>
<th>Station Name</th>
<th>Date/Time</th>
<th>Observed Water Level</th>
<th>Predicted Tide</th>
<th>Residual Water Level</th>
<th>24 Hour Maximum Storm Tide</th>
</tr>
</thead>
<tbody>
<tr>
<td>8638863</td>
<td>Chesapeake Bay Bridge Tunnel, VA</td>
<td>09/05/2016 00:00 (EDT)</td>
<td>1.52 ft</td>
<td>-0.23 ft</td>
<td>1.75 ft</td>
<td>2.24 ft</td>
</tr>
<tr>
<td>8632200</td>
<td>Kiptopeke, VA</td>
<td>09/05/2016 00:00 (EDT)</td>
<td>1.37 ft</td>
<td>-0.14 ft</td>
<td>1.51 ft</td>
<td>1.93 ft</td>
</tr>
<tr>
<td>8577330</td>
<td>Solomons Island, MD</td>
<td>09/05/2016 00:00 (EDT)</td>
<td>0.44 ft</td>
<td>-0.95 ft</td>
<td>1.39 ft</td>
<td>1.58 ft</td>
</tr>
<tr>
<td>8575512</td>
<td>Annapolis, MD</td>
<td>09/05/2016 00:00 (EDT)</td>
<td>0.89 ft</td>
<td>-0.47 ft</td>
<td>1.36 ft</td>
<td>1.34 ft</td>
</tr>
<tr>
<td>8570283</td>
<td>Ocean City Inlet, MD</td>
<td>09/05/2016 00:00 (EDT)</td>
<td>1.08 ft</td>
<td>-0.14 ft</td>
<td>1.22 ft</td>
<td>1.27 ft</td>
</tr>
<tr>
<td>8557380</td>
<td>Lewes, DE</td>
<td>09/05/2016 00:00 (EDT)</td>
<td>1.09 ft</td>
<td>-0.30 ft</td>
<td>1.39 ft</td>
<td>1.25 ft</td>
</tr>
<tr>
<td>8536110</td>
<td>Cape May, NJ</td>
<td>09/05/2016 00:06 (EDT)</td>
<td>1.02 ft</td>
<td>-0.43 ft</td>
<td>1.45 ft</td>
<td>1.09 ft</td>
</tr>
<tr>
<td>8534720</td>
<td>Atlantic City, NJ</td>
<td>09/05/2016 00:00 (EDT)</td>
<td>0.55 ft</td>
<td>-0.89 ft</td>
<td>1.44 ft</td>
<td>1.27 ft</td>
</tr>
<tr>
<td>8531680</td>
<td>Sandy Hook, NJ</td>
<td>09/05/2016 00:00 (EDT)</td>
<td>0.50 ft</td>
<td>-0.75 ft</td>
<td>1.25 ft</td>
<td>0.86 ft</td>
</tr>
<tr>
<td>8510560</td>
<td>Montauk, NY</td>
<td>09/05/2016 00:00 (EDT)</td>
<td>0.70 ft</td>
<td>-0.20 ft</td>
<td>0.90 ft</td>
<td>0.79 ft</td>
</tr>
<tr>
<td>8452660</td>
<td>Newport, RI</td>
<td>09/05/2016 00:06 (EDT)</td>
<td>0.04 ft</td>
<td>-0.72 ft</td>
<td>0.76 ft</td>
<td>0.58 ft</td>
</tr>
<tr>
<td>8449130</td>
<td>Nantucket Island, MA</td>
<td>09/05/2016 00:00 (EDT)</td>
<td>-1.16 ft</td>
<td>-1.90 ft</td>
<td>0.74 ft</td>
<td>0.27 ft</td>
</tr>
<tr>
<td>8447930</td>
<td>Woods Hole, MA</td>
<td>09/05/2016 00:00 (EDT)</td>
<td>0.28 ft</td>
<td>-0.38 ft</td>
<td>0.66 ft</td>
<td>0.44 ft</td>
</tr>
<tr>
<td>8447435</td>
<td>Chatham, MA</td>
<td>09/04/2016 23:24 (EDT)</td>
<td>-3.36 ft</td>
<td>-4.25 ft</td>
<td>0.89 ft</td>
<td>-0.05 ft</td>
</tr>
</tbody>
</table>

Center for Operational Oceanographic Products & Services (CO-OPS) | National Ocean Service (NOS) | National Oceanic and Atmospheric Administration | U.S. Department of Commerce