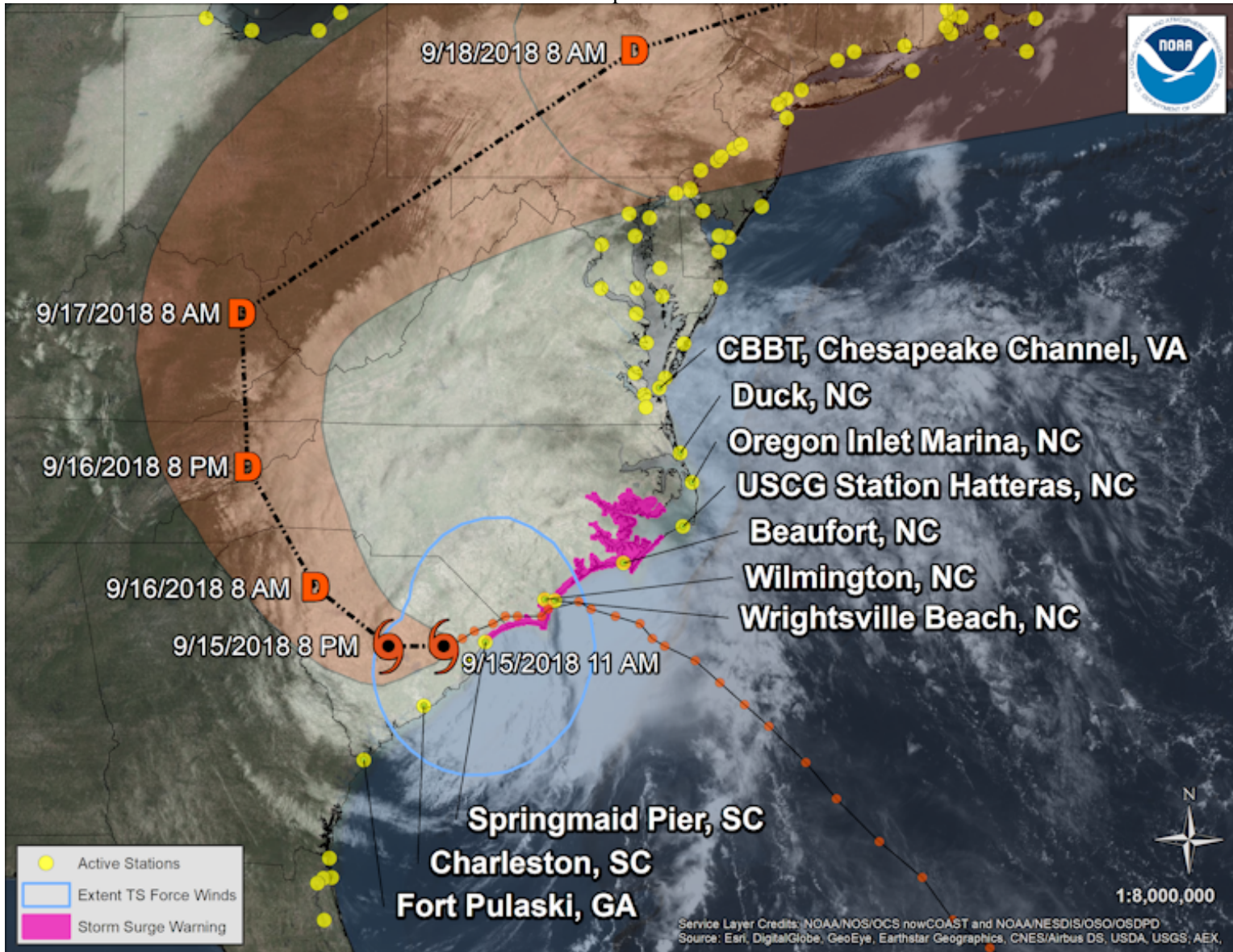




# Tropical Storm Florence QuickLook Posted: 12:00 EDT 09/15/2018

## NOAA and NOAA Partnership Stations Relative to the Storm



## Storm Analysis

As of 09/15/2018 12:00 EDT, water levels along the North and South Carolina coast continue to be impacted by Florence. On the Atlantic coast, water levels from Myrtle Beach, SC to the Chesapeake Bay entrance (including Pamlico Sound) are between 1.1 and 2.8 feet above normal tide levels with the highest values being observed at Wilmington, NC. Water levels from Charleston, SC to Fort Pulaski, GA are running below normal tide levels due to offshore wind in those areas but are beginning to rise.

Winds from Myrtle Beach northward range from 20-40 knots with gusts to near 50 knots. Barometric pressure continues to rise north of Myrtle Beach, SC but continues to drop slightly south of that location.

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 real-time and historical inundation information for select stations affected by this storm, please visit Coastal Inundation Dashboard. For additional data, please see the Center for Operational Oceanographic Products & Services website.

For more information or archived products and reports, please visit the Storm QuickLook Homepage.

Analyst: ADM

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Select National Hurricane Center Advisory:

Tropical Storm Florence Advisory Number 65  
NWS National Hurricane Center Miami FL  
1100 AM EDT Sat Sep 15 2018

...FLORENCE CRAWLING WESTWARD ACROSS EASTERN SOUTH CAROLINA...  
...HEAVY RAINS AND CATASTROPHIC FLOODING CONTINUE ACROSS PORTIONS OF NORTH CAROLINA AND SOUTH CAROLINA...

#### WATCHES AND WARNINGS

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CHANGES WITH THIS ADVISORY:

The Tropical Storm Warning has been discontinued south of South Santee River and north of Cape Lookout.

#### SUMMARY OF WATCHES AND WARNINGS IN EFFECT:

A Storm Surge Warning is in effect for...

- \* Myrtle Beach South Carolina to Ocracoke Inlet North Carolina
- \* Pamlico Sound, including the Neuse and Pamlico Rivers

A Tropical Storm Warning is in effect for...

- \* South Santee River South Carolina to Cape Lookout North Carolina
- \* Pamlico Sound

Interests elsewhere in the southeastern and mid-Atlantic states should monitor the progress of Florence.

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 OUTLOOK

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At 1100 AM EDT, the center of Tropical Storm Florence was located ABOUT 40 MI...65 KM W OF MYRTLE BEACH SOUTH CAROLINA and ABOUT 40 MI S OF FLORENCE SOUTH CAROLINA. Florence is moving slowly toward the west near 2 mph and a slow westward motion is expected to continue through today. A turn toward the west-northwest and northwest is expected on Sunday. Florence is forecast to turn northward through the Ohio Valley by Monday.

Radar data and surface observations indicate that maximum sustained winds have decreased to near 45 mph with higher gusts, mainly to the east of the center in heavy rainbands over water. Gradual weakening is forecast while Florence moves farther inland during the next couple of days, and it is expected to weaken to a tropical depression by tonight.

Tropical-storm-force winds extend outward up to 150 miles from the center. A sustained wind of 38 mph with a gust to 45 mph was recently reported at the Johnny Mercer Pier in Wrightsville Beach, North Carolina. A sustained wind of 38 mph with a gust to 48 mph was recently reported by a NOAA C-MAN station at Cape Lookout, North Carolina.

The estimated minimum central pressure based on nearby surface observations is 995 mb.

#### HAZARDS AFFECTING LAND

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STORM SURGE: The combination of a dangerous storm surge and the tide will cause normally dry areas near the coast to be flooded by rising waters moving inland from the shoreline. The water has the potential to reach the following heights above ground...

The Neuse, Pamlico, Pungo, and Bay Rivers...3-5 ft  
Cape Lookout NC to Cape Fear NC...3-5 ft  
Ocracoke Inlet NC to Cape Lookout NC...2-4 ft  
Cape Fear NC to Myrtle Beach SC...2-4 ft

The deepest water will occur along the immediate coast in areas of onshore winds, where the surge will be accompanied by large and destructive waves. Surge-related flooding can vary greatly over short distances. For information specific to your area, please see products issued by your local National Weather Service forecast office.

RAINFALL: Florence is expected to produce heavy and excessive rainfall in the following areas...

Southern and central portions of North Carolina into far northeast South Carolina...an additional 15 to 20 inches, with storm totals between 30 and 40 inches along the North Carolina coastal areas south of Cape Hatteras. This rainfall will continue to produce catastrophic flash flooding and prolonged significant river flooding.

Remainder of northern South Carolina into western North Carolina and southwest Virginia...5 to 10 inches, isolated 15 inches.

West-central Virginia into far eastern West Virginia, north of Roanoke and west of Charlottesville, 3 to 6 inches, isolated 8 inches. These rainfall amounts will result in life-threatening flash flooding and river flooding, along with an elevated risk for landslides.

A preliminary report from a cooperative observer near Swansboro, North Carolina, indicates that more than 30 inches of rain has fallen so far. In Newport, North Carolina, more than 24 inches of rainfall has been measured.

WIND: Tropical storm conditions will continue today in portions of the warning area along the coast and also over large portions of eastern North Carolina and extreme eastern South Carolina, with tropical-storm-force wind gusts spreading well inland.

TORNADOES: A few tornadoes are possible in southeastern North Carolina northeastern South Carolina today through tonight.

SURF: Swells generated by Florence are affecting Bermuda, portions of the U.S. East Coast, and the northwestern and central Bahamas. These swells are likely to cause life-threatening surf and rip current conditions. Please consult products from your local weather office.

#### NEXT ADVISORY

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Next intermediate advisory at 200 PM EDT.

Next complete advisory at 500 PM EDT.

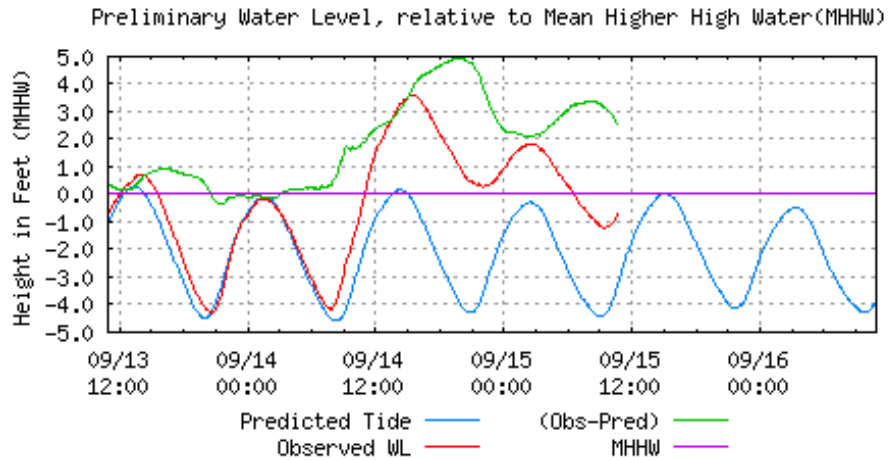
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Forecaster Stewart

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.

Jump to: [Wilmington - Water Level](#), [Wilmington - Barometric](#), [Wrightsville Beach - Water Level](#), [Wrightsville Beach - Winds](#), [Wrightsville Beach - Barometric](#), [Beaufort, Duke Marine Lab - Water Level](#), [Beaufort, Duke Marine Lab - Winds](#), [Beaufort, Duke Marine Lab - Barometric](#), [USCG Station Hatteras - Water Level](#), [USCG Station Hatteras - Winds](#), [USCG Station Hatteras - Barometric](#), [Oregon Inlet Marina - Water Level](#), [Oregon Inlet Marina - Winds](#), [Oregon Inlet Marina - Barometric](#), [Duck - Water Level](#), [Duck - Winds](#), [Duck - Barometric](#), [CBBT, Chesapeake Channel - Water Level](#), [CBBT, Chesapeake Channel - Winds](#), [CBBT, Chesapeake Channel - Barometric](#), [Springmaid Pier - Water Level](#), [Springmaid Pier - Barometric](#), [Charleston, Cooper River Entrance - Water Level](#), [Charleston, Cooper River Entrance - Winds](#), [Charleston, Cooper River Entrance - Barometric](#), [Fort Pulaski - Water Level](#), [Fort Pulaski - Winds](#), [Fort Pulaski - Barometric](#)

NOAA/NOS/CO-OPS 8658120 Wilmington, NC



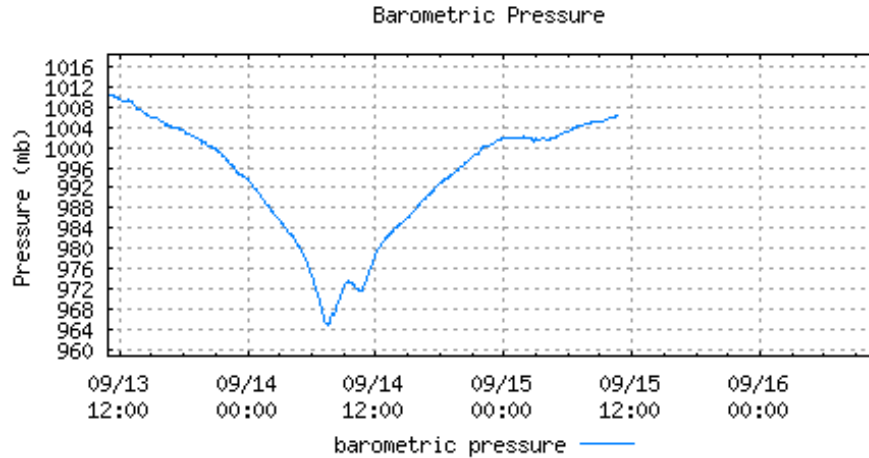
Last Observed Sample: 09/15/2018 10:42 (EDT). Data relative to MHHW

Observed: -0.71 ft. Predicted: -3.28 ft. Residual: 2.57 ft.

Historical Maximum Water Level: Oct 8 2016, 3.48 ft.

Next High Tide: 09/15/2018 15:08 (EDT), 0.04 ft.

NOAA/NOS/CO-OPS 8658120 Wilmington, NC

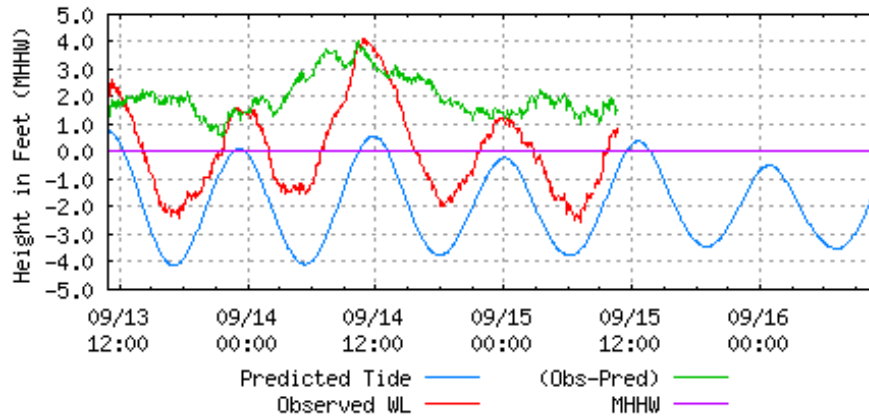


Last Observed Sample: 09/15/2018 10:42 (EDT)

Barometric Pressure: 1006.4 mb

NOAA/NOS/CO-OPS 8658163 Wrightsville Beach, NC

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



Last Observed Sample: 09/15/2018 10:42 (EDT). Data relative to MHHW

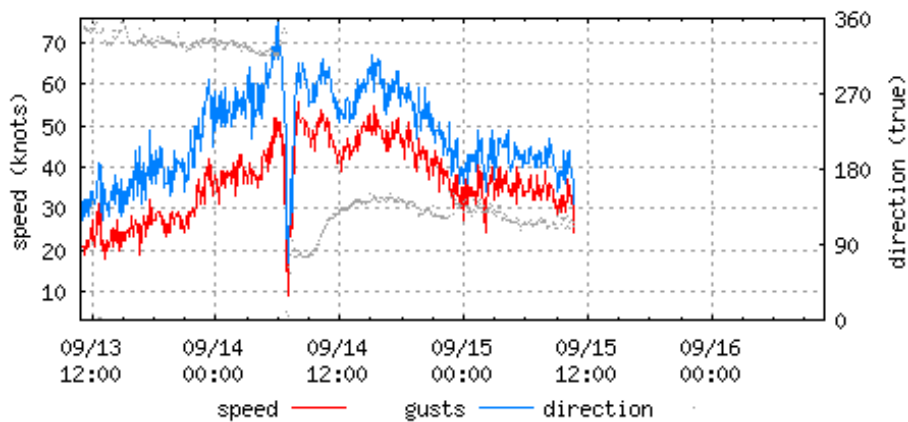
Observed: 0.88 ft. Predicted: -0.61 ft. Residual: 1.49 ft.

Historical Maximum Water Level: Oct 4 2015, 2.97 ft.

Next High Tide: 09/15/2018 12:37 (EDT), 0.39 ft.

NOAA/NOS/CO-OPS 8658163 Wrightsville Beach, NC

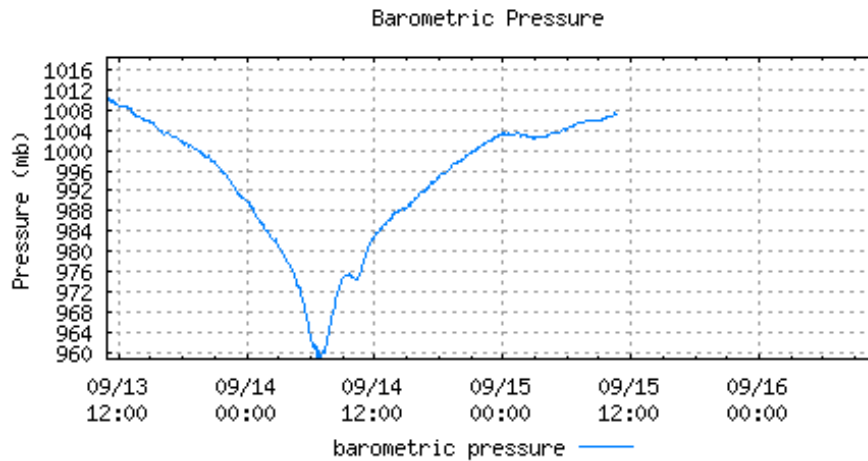
Wind Speed / Gusts / Direction



Last Observed Sample: 09/15/2018 10:42 (EDT)

Wind Speed: 24 knots Gusts: 31 knots Direction: 111° T

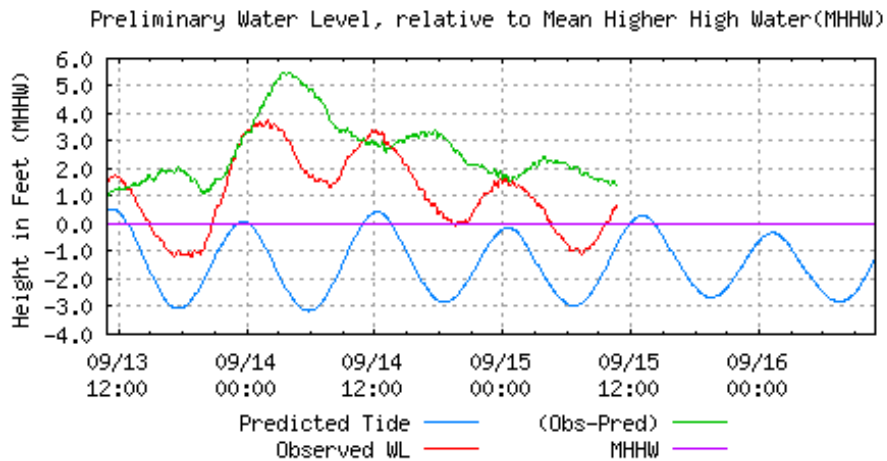
NOAA/NOS/CO-OPS 8658163 Wrightsville Beach, NC



Last Observed Sample: 09/15/2018 10:42 (EDT)

Barometric Pressure: 1007.2 mb

NOAA/NOS/CO-OPS 8656483 Beaufort, Duke Marine Lab, NC



Last Observed Sample: 09/15/2018 10:42 (EDT). Data relative to MHHW

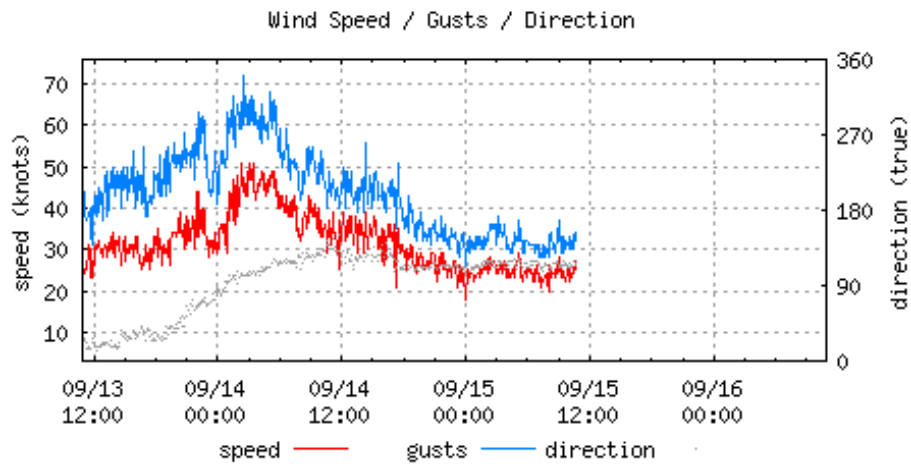
Observed: 0.64 ft. Predicted: -0.75 ft. Residual: 1.39 ft.

Historical Maximum Water Level: Sep 19 1955, 3.39 ft.

Next High Tide: 09/15/2018 13:04 (EDT), 0.31 ft.



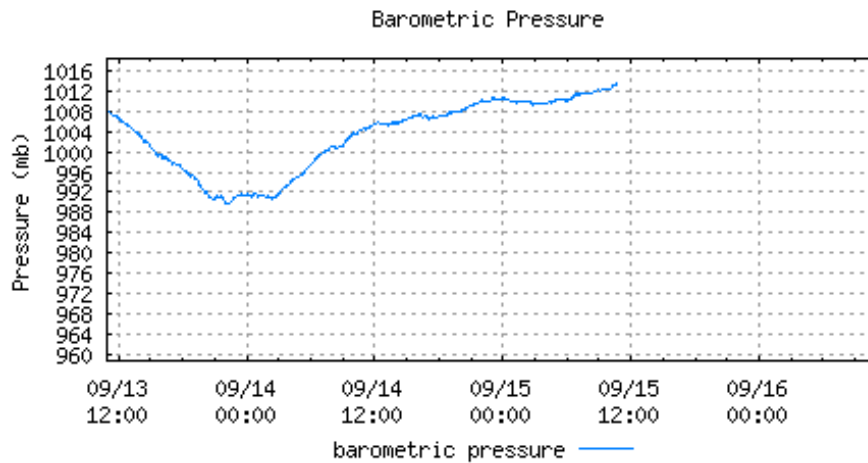
NOAA/NOS/CO-OPS 8656483 Beaufort, Duke Marine Lab, NC



Last Observed Sample: 09/15/2018 10:42 (EDT)

Wind Speed: 25 knots Gusts: 32 knots Direction: 115° T

NOAA/NOS/CO-OPS 8656483 Beaufort, Duke Marine Lab, NC



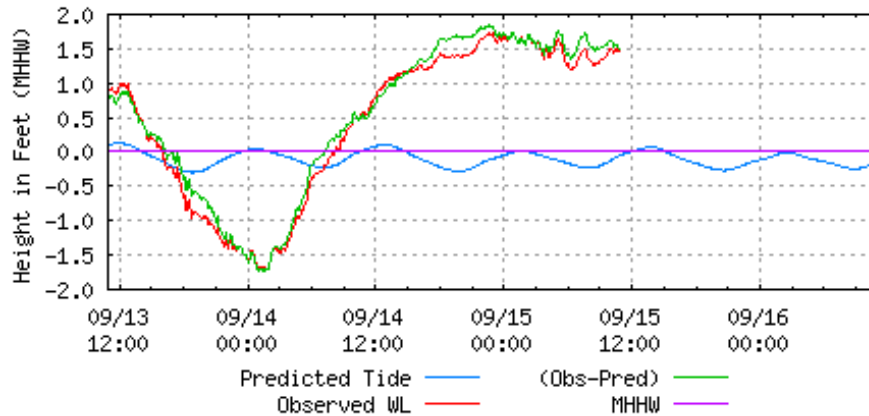
Last Observed Sample: 09/15/2018 10:42 (EDT)

Barometric Pressure: 1013.4 mb



NOAA/NOS/CO-OPS 8654467 USCG Station Hatteras, NC

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



Last Observed Sample: 09/15/2018 10:54 (EDT). Data relative to MHHW

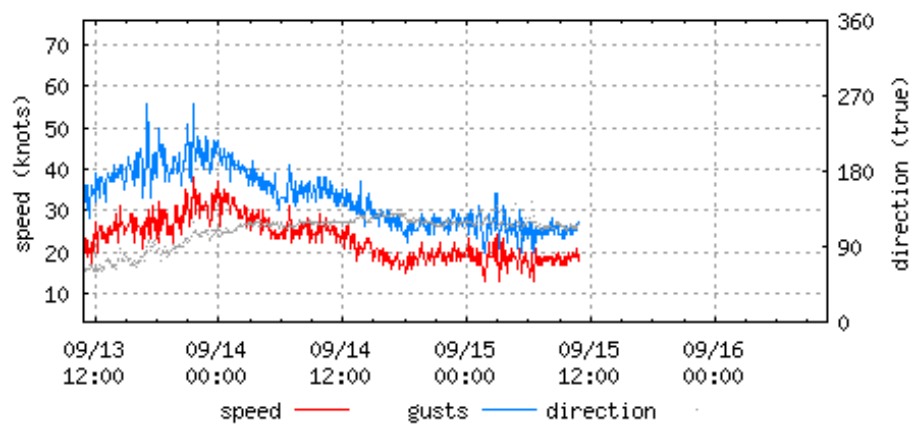
Observed: 1.48 ft. Predicted: -0.05 ft. Residual: 1.53 ft.

Historical Maximum Water Level: Oct 9 2016, 5.76 ft.

Next High Tide: 09/15/2018 13:51 (EDT), 0.07 ft.

NOAA/NOS/CO-OPS 8654467 USCG Station Hatteras, NC

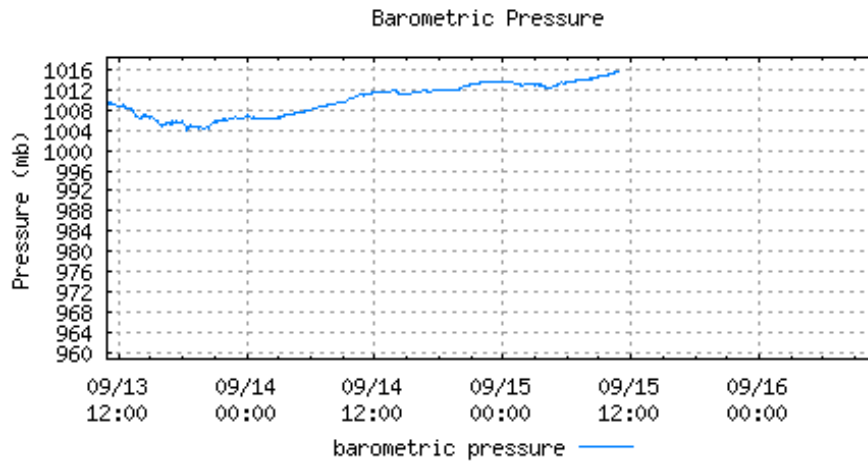
Wind Speed / Gusts / Direction



Last Observed Sample: 09/15/2018 10:54 (EDT)

Wind Speed: 20 knots Gusts: 26 knots Direction: 119° T

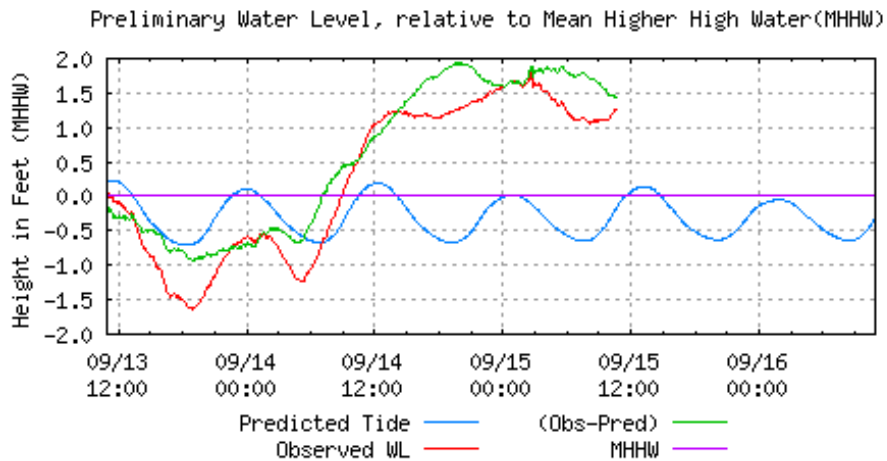
NOAA/NOS/CO-OPS 8654467 USCG Station Hatteras, NC



Last Observed Sample: 09/15/2018 10:54 (EDT)

Barometric Pressure: 1015.5 mb

NOAA/NOS/CO-OPS 8652587 Oregon Inlet Marina, NC



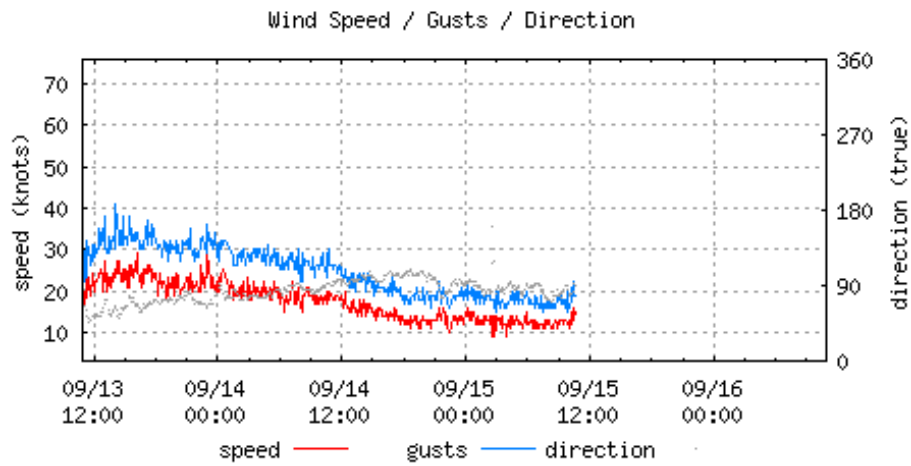
Last Observed Sample: 09/15/2018 10:42 (EDT). Data relative to MHHW

Observed: 1.28 ft. Predicted: -0.15 ft. Residual: 1.43 ft.

Historical Maximum Water Level: Aug 28 2011, 6.31 ft.

Next High Tide: 09/15/2018 13:11 (EDT), 0.13 ft.

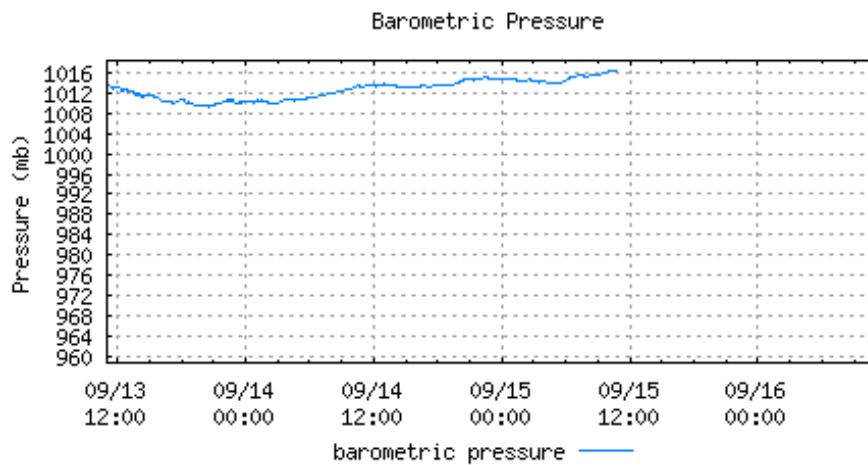
NOAA/NOS/CO-OPS 8652587 Oregon Inlet Marina, NC



Last Observed Sample: 09/15/2018 10:42 (EDT)

Wind Speed: 13 knots Gusts: 18 knots Direction: 88° T

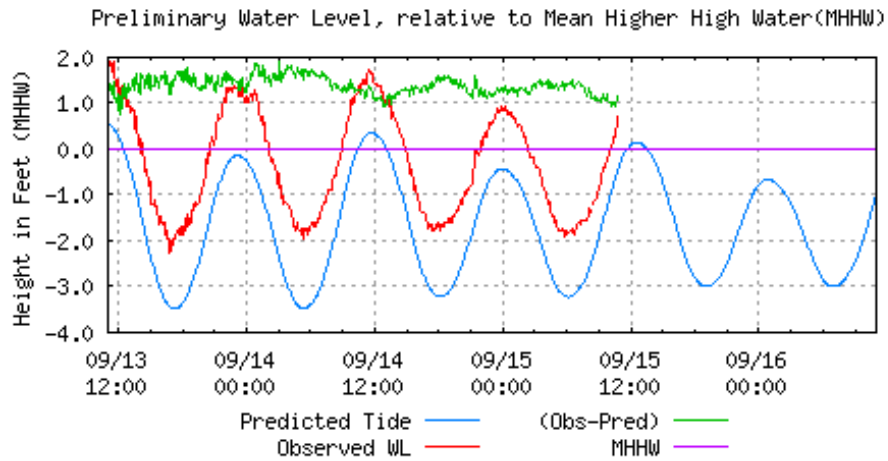
NOAA/NOS/CO-OPS 8652587 Oregon Inlet Marina, NC



Last Observed Sample: 09/15/2018 10:42 (EDT)

Barometric Pressure: 1016.5 mb

NOAA/NOS/CO-OPS 8651370 Duck, NC



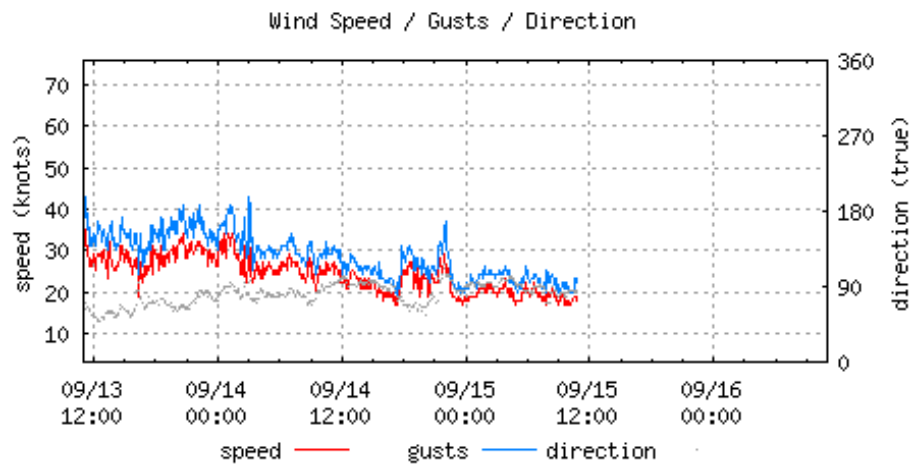
Last Observed Sample: 09/15/2018 10:48 (EDT). Data relative to MHHW

Observed: 0.72 ft. Predicted: -0.45 ft. Residual: 1.17 ft.

Historical Maximum Water Level: Sep 18 2003, 4.13 ft.

Next High Tide: 09/15/2018 12:33 (EDT), 0.15 ft.

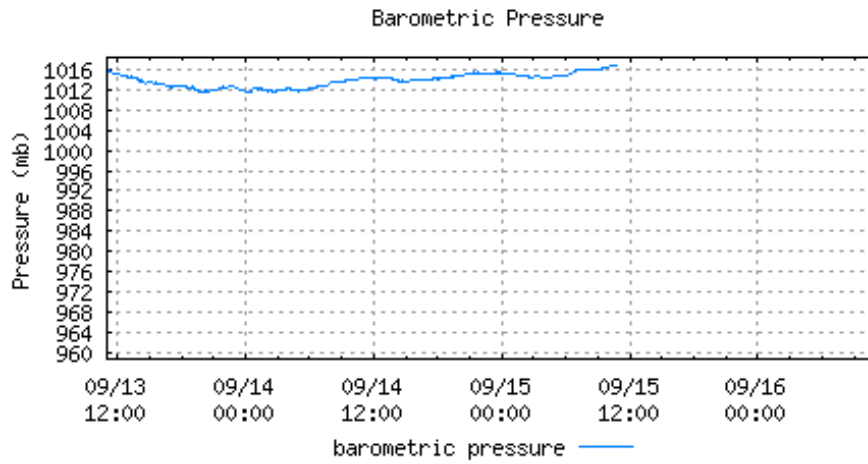
NOAA/NOS/CO-OPS 8651370 Duck, NC



Last Observed Sample: 09/15/2018 10:48 (EDT)

Wind Speed: 18 knots Gusts: 23 knots Direction: 83° T

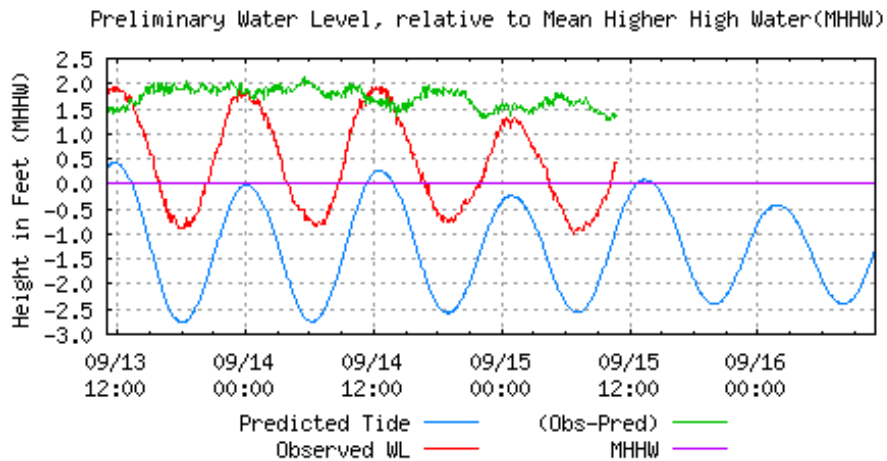
NOAA/NOS/CO-OPS 8651370 Duck, NC



Last Observed Sample: 09/15/2018 10:48 (EDT)

Barometric Pressure: 1016.8 mb

NOAA/NOS/CO-OPS 8638901 CBBT, Chesapeake Channel, VA



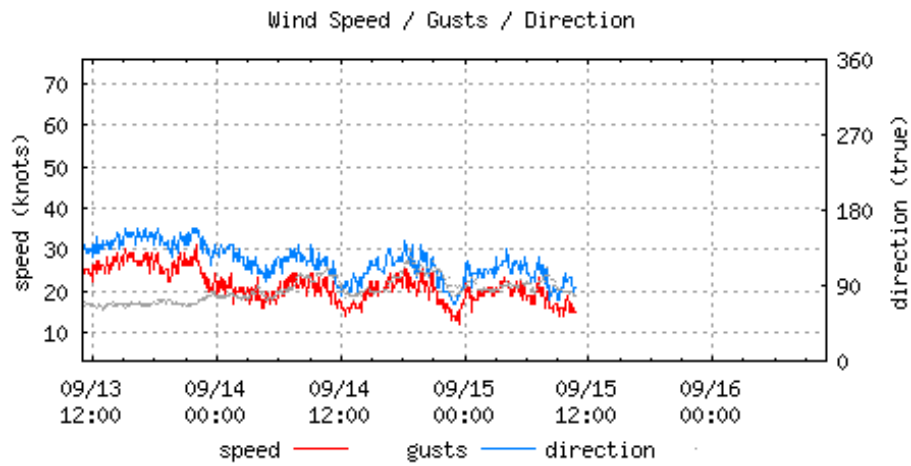
Last Observed Sample: 09/15/2018 10:42 (EDT). Data relative to MHHW

Observed: 0.42 ft. Predicted: -0.93 ft. Residual: 1.35 ft.

Historical Maximum Water Level: n/a

Next High Tide: 09/15/2018 13:25 (EDT), 0.08 ft.

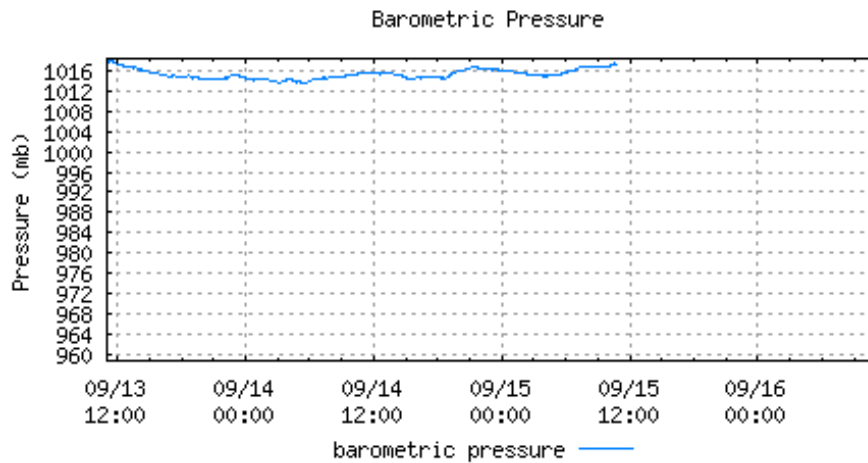
NOAA/NOS/CO-OPS 8638901 CBBT, Chesapeake Channel, VA



Last Observed Sample: 09/15/2018 10:42 (EDT)

Wind Speed: 15 knots Gusts: 21 knots Direction: 79° T

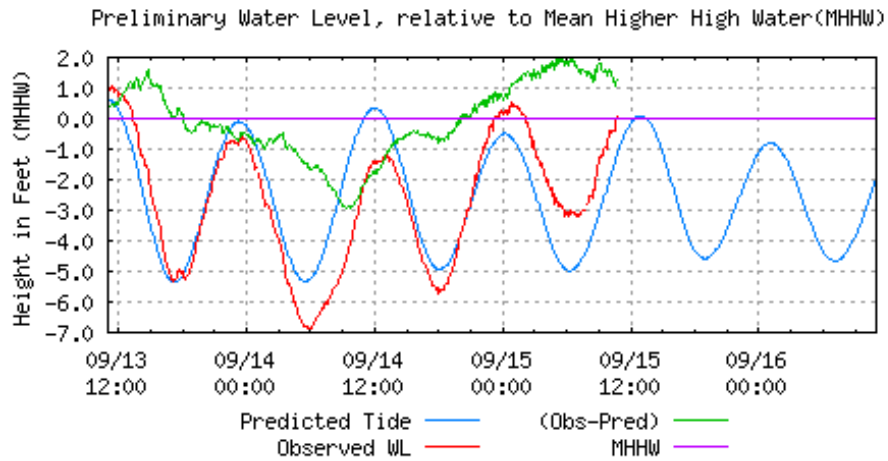
NOAA/NOS/CO-OPS 8638901 CBBT, Chesapeake Channel, VA



Last Observed Sample: 09/15/2018 10:42 (EDT)

Barometric Pressure: 1017.3 mb

NOAA/NOS/CO-OPS 8661070 Springmaid Pier, SC



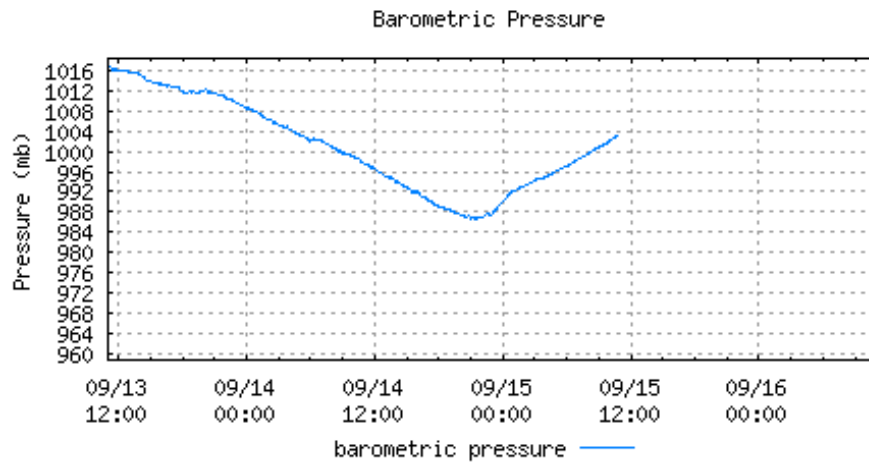
Last Observed Sample: 09/15/2018 10:42 (EDT). Data relative to MHHW

Observed: 0.05 ft. Predicted: -1.23 ft. Residual: 1.28 ft.

Historical Maximum Water Level: Sep 21 1989, 8.77 ft.

Next High Tide: 09/15/2018 12:54 (EDT), 0.09 ft.

NOAA/NOS/CO-OPS 8661070 Springmaid Pier, SC

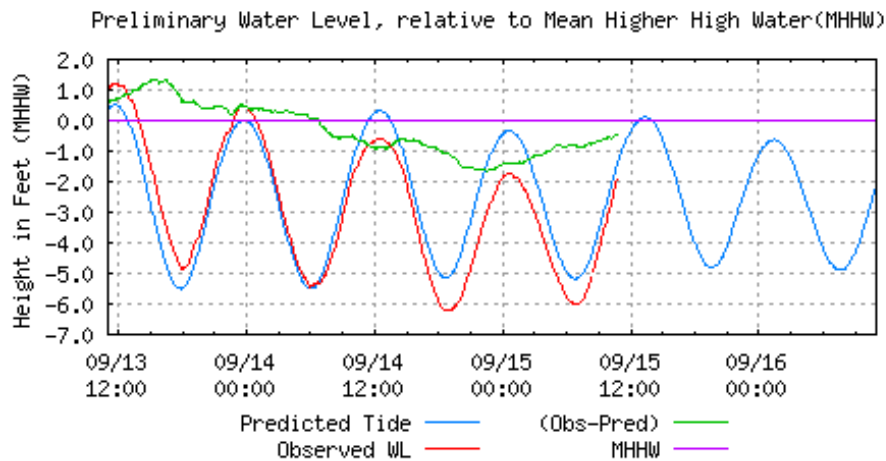


Last Observed Sample: 09/15/2018 10:42 (EDT)

Barometric Pressure: 1003.0 mb



NOAA/NOS/CO-OPS 8665530 Charleston, Cooper River Entrance, SC



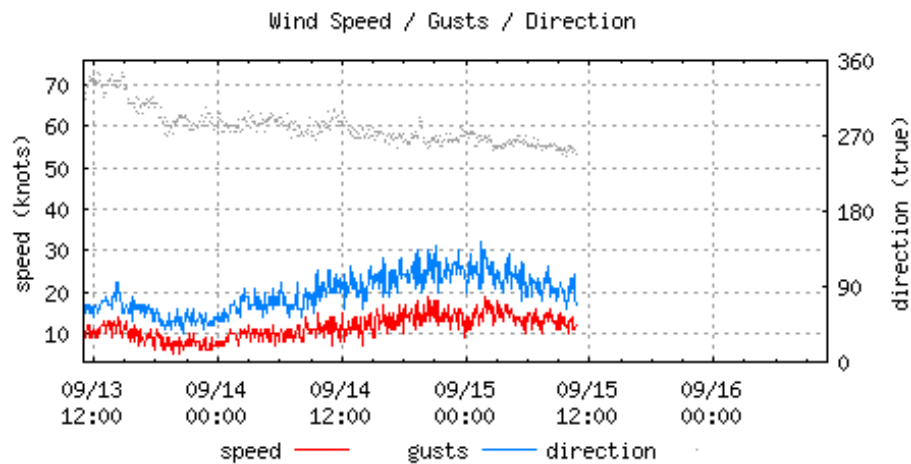
Last Observed Sample: 09/15/2018 10:42 (EDT). Data relative to MHHW

Observed: -1.93 ft. Predicted: -1.49 ft. Residual: -0.44 ft.

Historical Maximum Water Level: Sep 21 1989, 6.76 ft.

Next High Tide: 09/15/2018 13:20 (EDT), 0.11 ft.

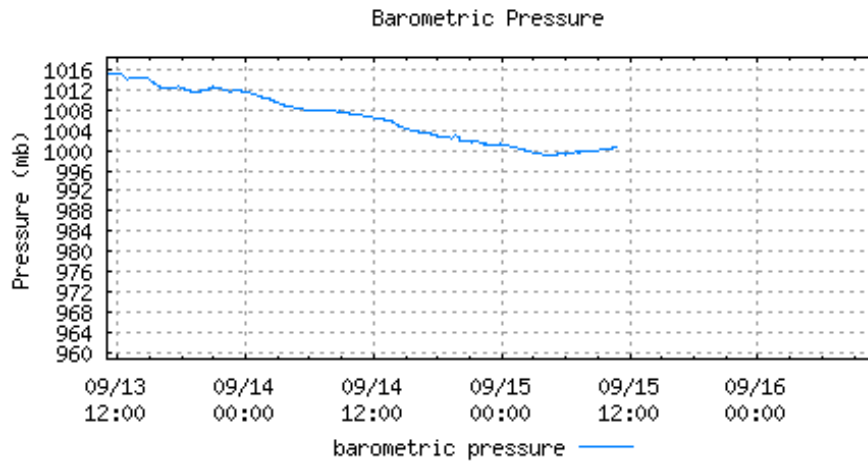
NOAA/NOS/CO-OPS 8665530 Charleston, Cooper River Entrance, SC



Last Observed Sample: 09/15/2018 10:42 (EDT)

Wind Speed: 12 knots Gusts: 17 knots Direction: 249° T

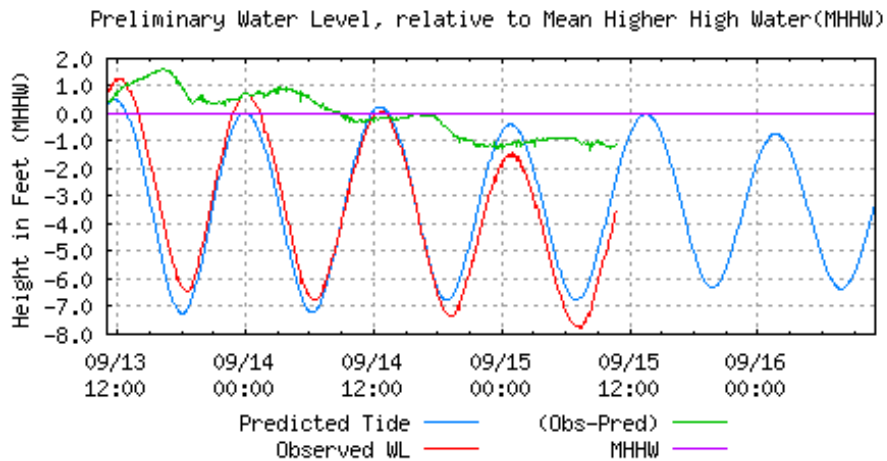
NOAA/NOS/CO-OPS 8665530 Charleston, Cooper River Entrance, SC



Last Observed Sample: 09/15/2018 10:42 (EDT)

Barometric Pressure: 1000.5 mb

NOAA/NOS/CO-OPS 8670870 Fort Pulaski, GA



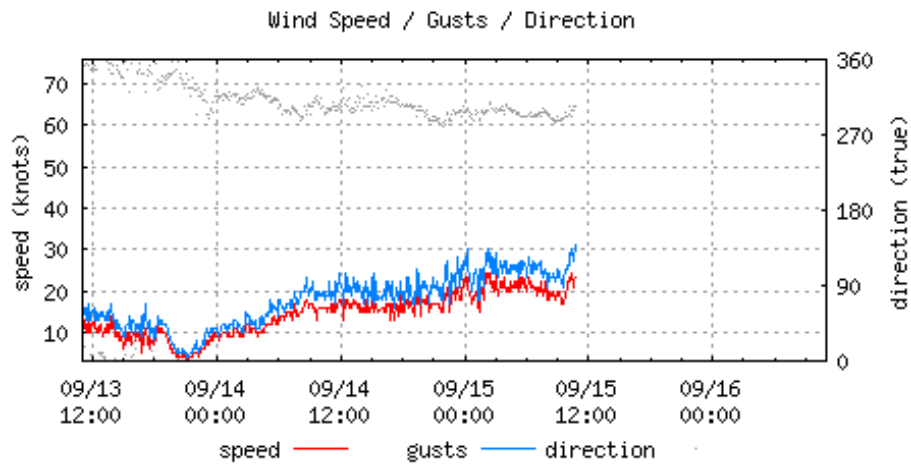
Last Observed Sample: 09/15/2018 10:42 (EDT). Data relative to MHHW

Observed: -3.56 ft. Predicted: -2.42 ft. Residual: -1.14 ft.

Historical Maximum Water Level: Oct 8 2016, 4.94 ft.

Next High Tide: 09/15/2018 13:28 (EDT), -0.01 ft.

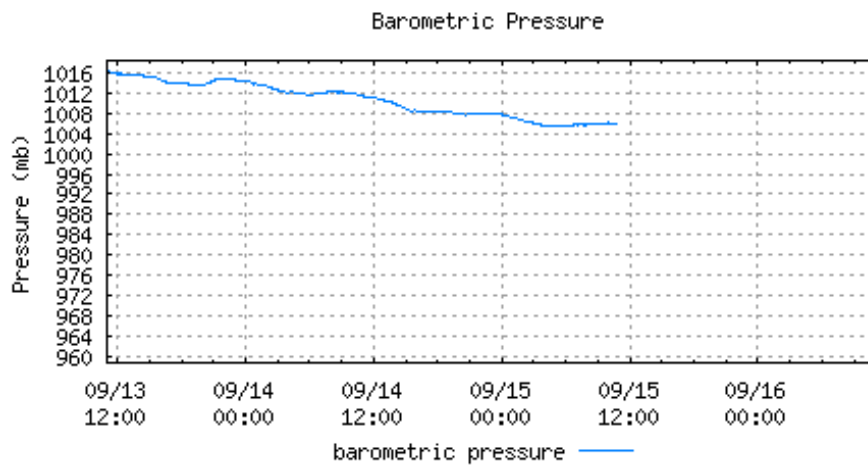
NOAA/NOS/CO-OPS 8670870 Fort Pulaski, GA



Last Observed Sample: 09/15/2018 10:42 (EDT)

Wind Speed: 23 knots Gusts: 31 knots Direction: 305° T

NOAA/NOS/CO-OPS 8670870 Fort Pulaski, GA



Last Observed Sample: 09/15/2018 10:42 (EDT)

Barometric Pressure: 1005.9 mb

Latest Water Level Observations on MHHW

Station ID	Station Name	Date/Time	Observed Water Level	Predicted Tide	Residual Water Level	24 Hour Maximum Storm Tide
8658120	Wilmington, NC	09/15/2018 10:42 (EDT)	-0.71 ft	-3.28 ft	2.57 ft	3.60 ft
8658163	Wrightsville Beach, NC	09/15/2018 10:42 (EDT)	0.88 ft	-0.61 ft	1.49 ft	4.11 ft
8656483	Beaufort, Duke Marine Lab, NC	09/15/2018 10:42 (EDT)	0.64 ft	-0.75 ft	1.39 ft	3.38 ft
8654467	USCG Station Hatteras, NC	09/15/2018 10:54 (EDT)	1.48 ft	-0.05 ft	1.53 ft	1.74 ft
8652587	Oregon Inlet Marina, NC	09/15/2018 10:42 (EDT)	1.28 ft	-0.15 ft	1.43 ft	1.78 ft
8651370	Duck, NC	09/15/2018 10:48 (EDT)	0.72 ft	-0.45 ft	1.17 ft	1.73 ft
8638901	CBBT, Chesapeake Channel, VA	09/15/2018 10:42 (EDT)	0.42 ft	-0.93 ft	1.35 ft	1.93 ft
8661070	Springmaid Pier, SC	09/15/2018 10:42 (EDT)	0.05 ft	-1.23 ft	1.28 ft	0.50 ft
8665530	Charleston, Cooper River Entrance, SC	09/15/2018 10:42 (EDT)	-1.93 ft	-1.49 ft	-0.44 ft	-0.57 ft
8670870	Fort Pulaski, GA	09/15/2018 10:42 (EDT)	-3.56 ft	-2.42 ft	-1.14 ft	0.10 ft

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