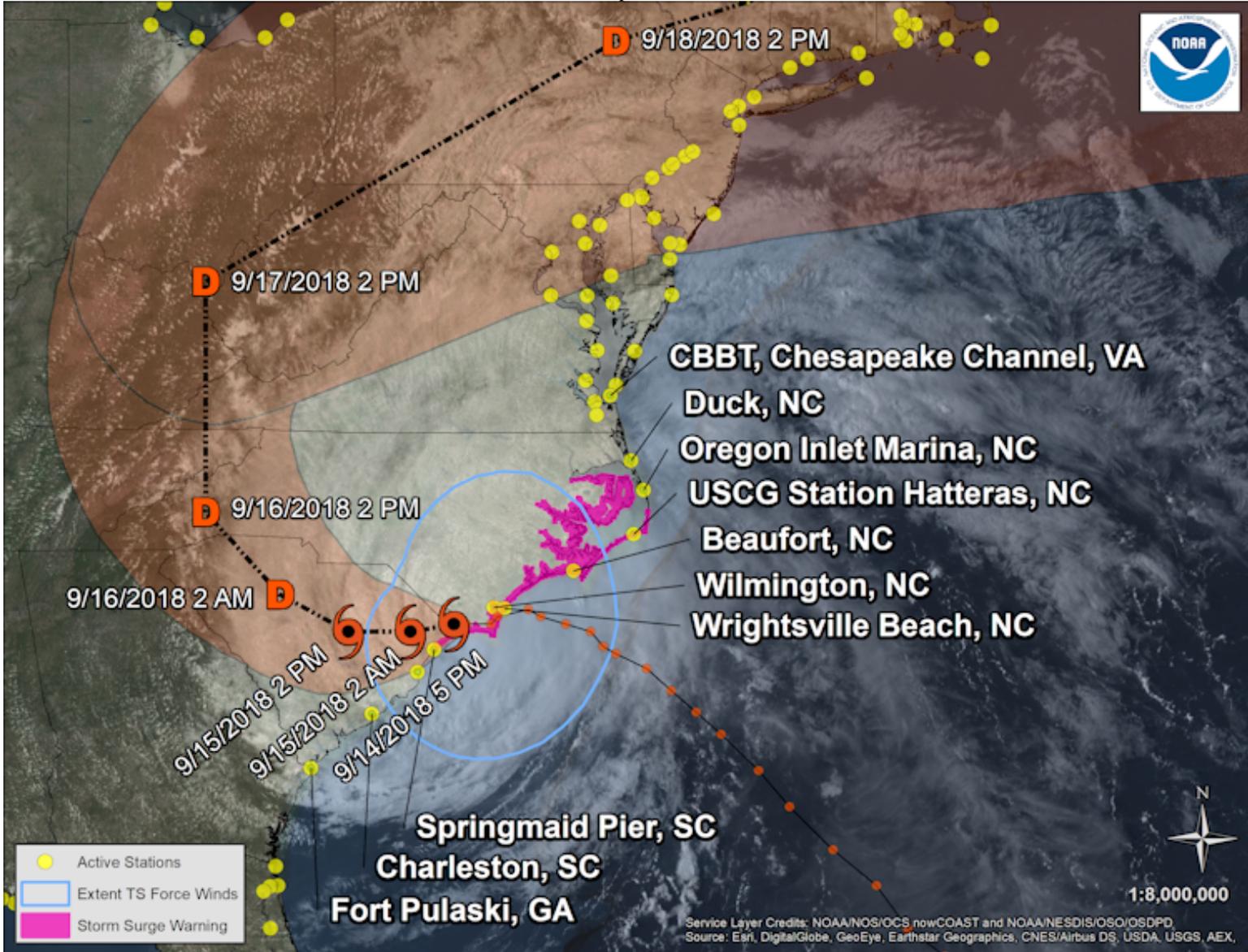




Tropical Storm Florence QuickLook
Posted: 18:00 EDT 09/14/2018

NOAA and NOAA Partnership Stations Relative to the Storm



Storm Analysis

As of 09/14/2018 18:00 EDT, water levels along the North and South Carolina coast continue to be impacted by Hurricane Florence. On the Atlantic coast, water levels from Wilmington, NC to Chesapeake Bay entrance are between 1.5 and 4.4 feet above normal tide levels with the highest values being observed at Wilmington, NC. Within Pamlico Sound, stations at USCG Hatteras, NC and Oregon Inlet Marina, NC are rising and measure about 1.5 feet above normal tide levels. Ahead of the storm, water levels from Springmaid Pier, SC to Fort Pulaski, GA are at

normal tide levels or up to 1 foot below normal tide levels with persistent offshore flow.

Winds from Wrightsville Beach, NC to Chesapeake Bay Entrance range between 20 and 50 knots with the strongest winds at Wrightsville Beach, NC with gusts up to 65 knots have been measured. Barometric pressure has started to rise North of Wilmington, NC but continues to drop 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

Select National Hurricane Center Advisory:

Tropical Storm Florence Advisory Number 62
NWS National Hurricane Center Miami FL
500 PM EDT Fri Sep 14 2018

...FLORENCE NOW PRODUCING TROPICAL-STORM-FORCE WIND GUSTS IN FLORENCE SOUTH CAROLINA...
...LIFE-THREATENING STORM SURGES TO CONTINUE TONIGHT...
...CATASTROPHIC FRESHWATER FLOODING EXPECTED OVER PORTIONS OF NORTH AND SOUTH CAROLINA...

WATCHES AND WARNINGS

----- CHANGES WITH THIS ADVISORY:

The Storm Surge Warning has been discontinued south of Myrtle Beach, South Carolina, and north of Salvo, North Carolina, including Albemarle Sound.

The Storm Surge Watch has been discontinued.

The Hurricane Warning has been replaced with a Tropical Storm Warning from South Santee River, South Carolina to Cape Hatteras, North Carolina.

The Tropical Storm Warning has been discontinued north of Cape Hatteras, including Albemarle Sound.

The Hurricane Watch has been discontinued.

SUMMARY OF WATCHES AND WARNINGS IN EFFECT:

A Storm Surge Warning is in effect for...

* Myrtle Beach South Carolina to Salvo North Carolina

* Pamlico Sound, including the Neuse and Pamlico Rivers

A Tropical Storm Warning is in effect for...

* Edisto Beach South Carolina to Cape Hatteras 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

At 500 PM EDT, the center of Tropical Storm Florence was located ABOUT 50 MI WSW OF WILMINGTON NORTH CAROLINA and ABOUT 25 MI NE OF MYRTLE BEACH SOUTH CAROLINA. Florence is moving toward the west near 3 mph. A slow westward to west-southwestward motion is expected through Saturday. On the forecast track, the center of Florence will move farther inland across extreme southeastern North Carolina this evening, and across extreme eastern South Carolina tonight and Saturday. Florence will then move generally northward across the western Carolinas and the central Appalachian Mountains early next week.

Doppler radar data and surface observations indicate that maximum sustained winds have decreased near 70 mph with higher gusts. Gradual weakening is expected tonight. Significant weakening is forecast over the weekend and into early next week while Florence moves farther inland.

Tropical-storm-force winds extend outward up to 175 miles from the center. A sustained wind of 55 mph and gust to 72 mph was recently reported at the National Ocean Service station at Johnny Mercer Pier in Wrightsville Beach.

The estimated minimum central pressure based on nearby surface observations is 972 mb.

HAZARDS AFFECTING LAND

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...8-12 ft

Cape Fear NC to Salvo NC...3-5 ft

Myrtle Beach SC to Cape Fear NC...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...

Southeastern coastal North Carolina into far northeastern South Carolina...an additional 20 to 25 inches, with isolated storm totals of 30 to 40 inches. This rainfall will produce catastrophic flash flooding and prolonged significant river flooding.

Remainder of South Carolina and North Carolina into southwest Virginia...5 to 10 inches, isolated 15 inches. This rainfall will produce life-threatening flash flooding.

Rainfall totals exceeding 16 inches thus far have been reported at several locations across southeastern North Carolina.

WIND: Tropical storm conditions will continue through Saturday morning 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 eastern North Carolina through tonight, mainly near southeast coastal areas after dark.

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

Next intermediate advisory at 800 PM EDT.

Next complete advisory at 1100 PM EDT.

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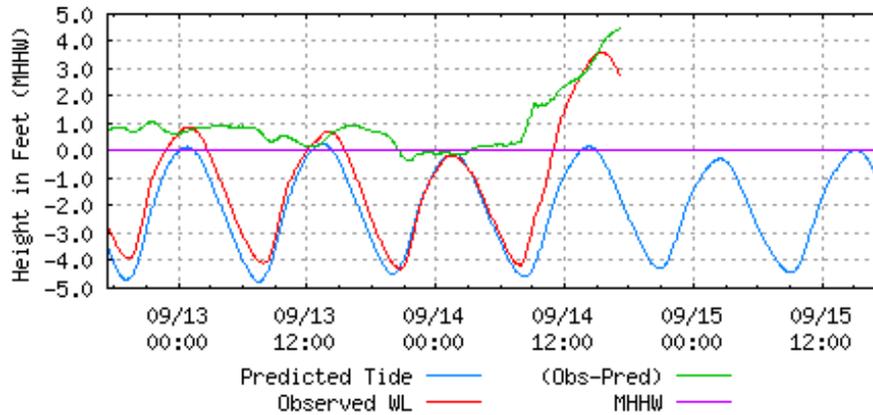
Forecaster Stewart

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

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



Last Observed Sample: 09/14/2018 17:12 (EDT). Data relative to MHHW

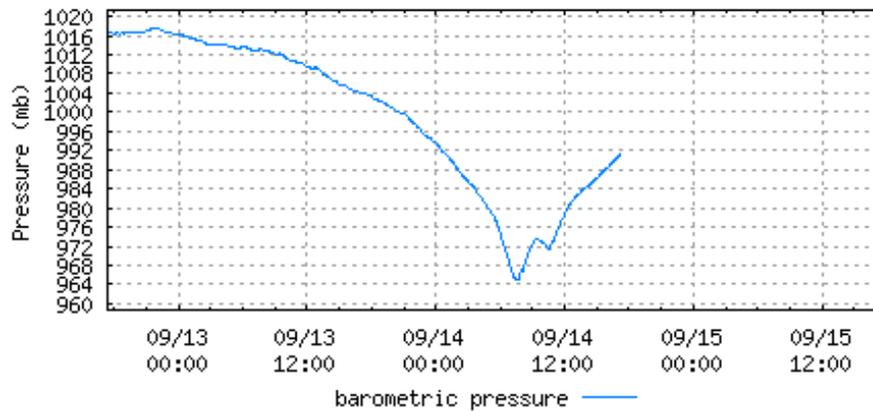
Observed: 2.75 ft. Predicted: -1.73 ft. Residual: 4.48 ft.

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

Next High Tide: 09/15/2018 02:30 (EDT), -0.29 ft.

NOAA/NOS/CO-OPS 8658120 Wilmington, NC

Barometric Pressure

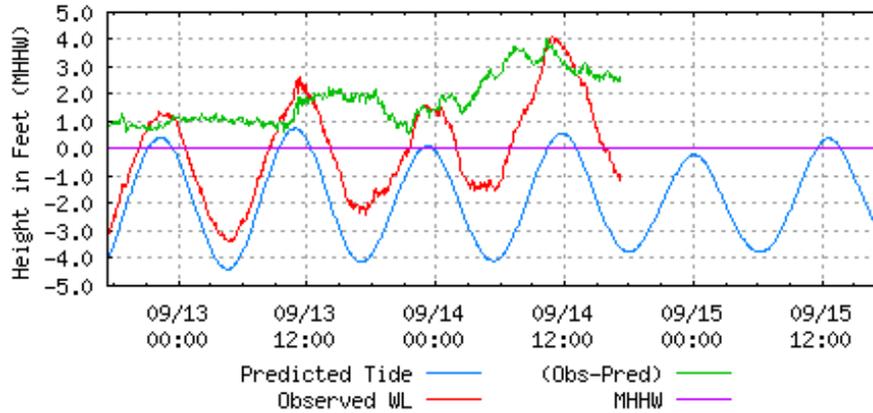


Last Observed Sample: 09/14/2018 17:12 (EDT)

Barometric Pressure: 991.1 mb

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

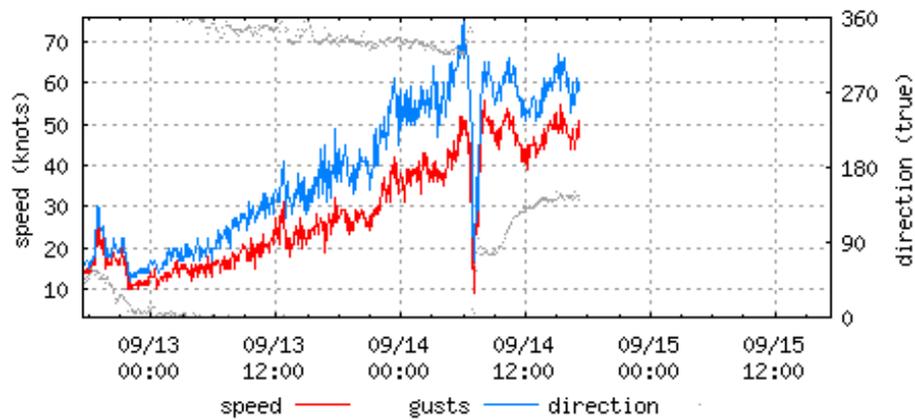
Preliminary Water Level, relative to Mean Higher High Water (MHHW)



Last Observed Sample: 09/14/2018 17:12 (EDT). Data relative to MHHW
Observed: -1.14 ft. Predicted: -3.61 ft. Residual: 2.47 ft.
 Historical Maximum Water Level: Oct 4 2015, 2.97 ft.
 Next High Tide: 09/15/2018 00:03 (EDT), -0.21 ft.

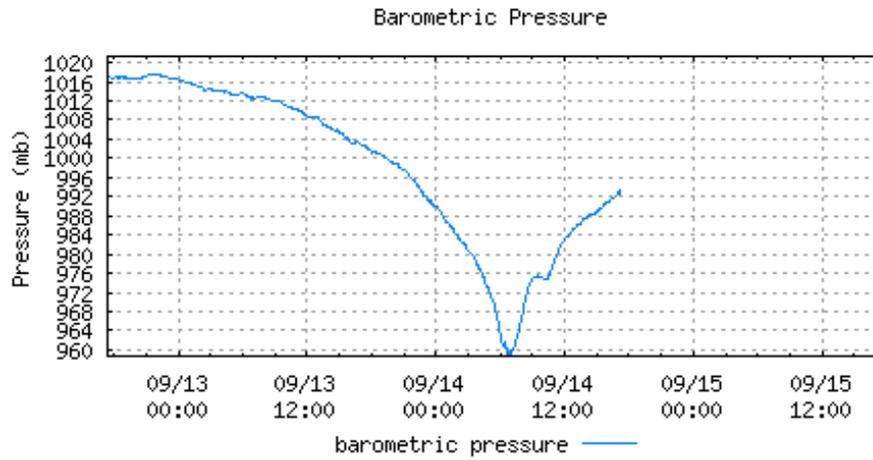
NOAA/NOS/CO-OPS 8658163 Wrightsville Beach, NC

Wind Speed / Gusts / Direction



Last Observed Sample: 09/14/2018 17:12 (EDT)
Wind Speed: 47 knots Gusts: 60 knots Direction: 140° T

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

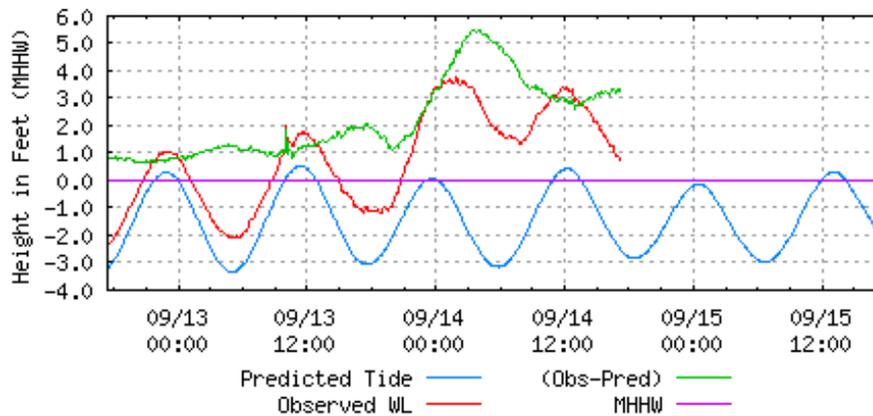


Last Observed Sample: 09/14/2018 17:12 (EDT)

Barometric Pressure: 993.2 mb

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

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



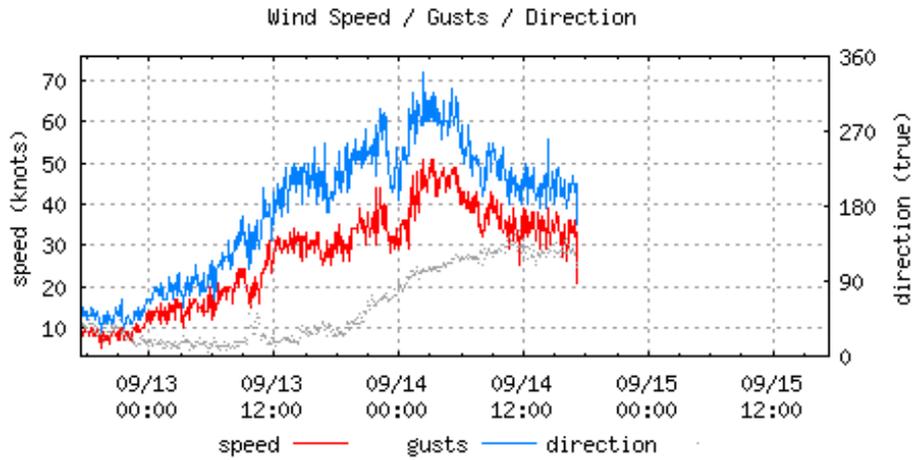
Last Observed Sample: 09/14/2018 17:12 (EDT). Data relative to MHHW

Observed: 0.76 ft. Predicted: -2.51 ft. Residual: 3.27 ft.

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

Next High Tide: 09/15/2018 00:30 (EDT), -0.14 ft.

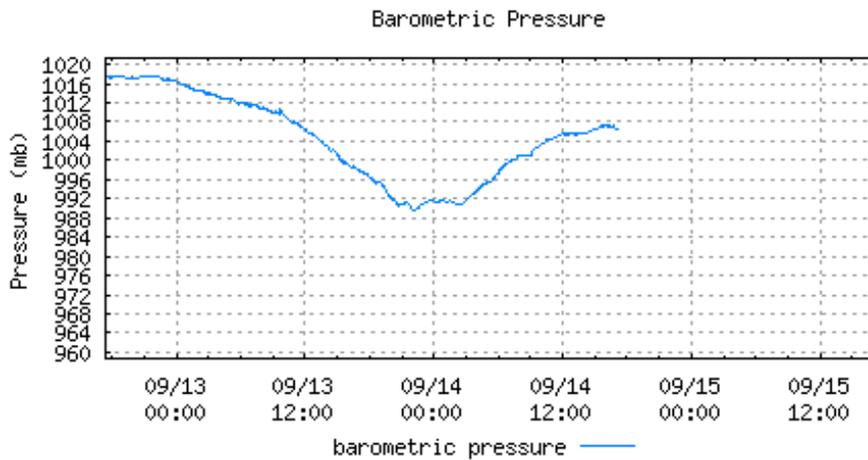
NOAA/NOS/CO-OPS 8656483 Beaufort, Duke Marine Lab, NC



Last Observed Sample: 09/14/2018 17:12 (EDT)

Wind Speed: 21 knots Gusts: 35 knots Direction: 111° T

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

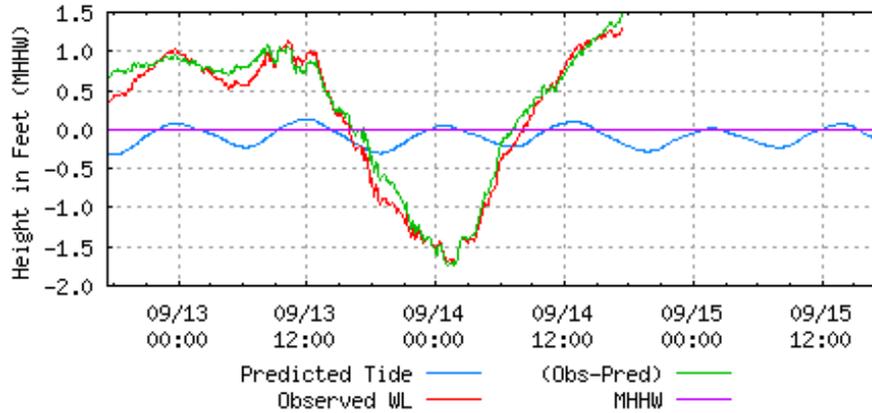


Last Observed Sample: 09/14/2018 17:12 (EDT)

Barometric Pressure: 1006.6 mb

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

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



Last Observed Sample: 09/14/2018 17:24 (EDT). Data relative to MHHW

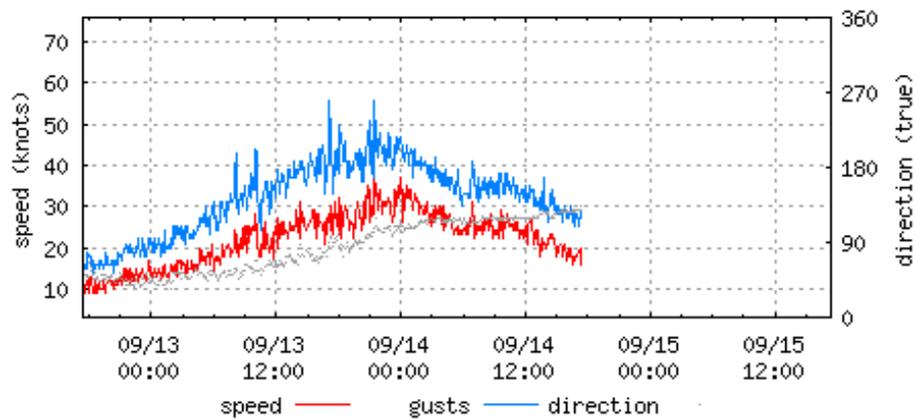
Observed: 1.29 ft. Predicted: -0.18 ft. Residual: 1.47 ft.

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

Next High Tide: 09/15/2018 01:44 (EDT), 0.02 ft.

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

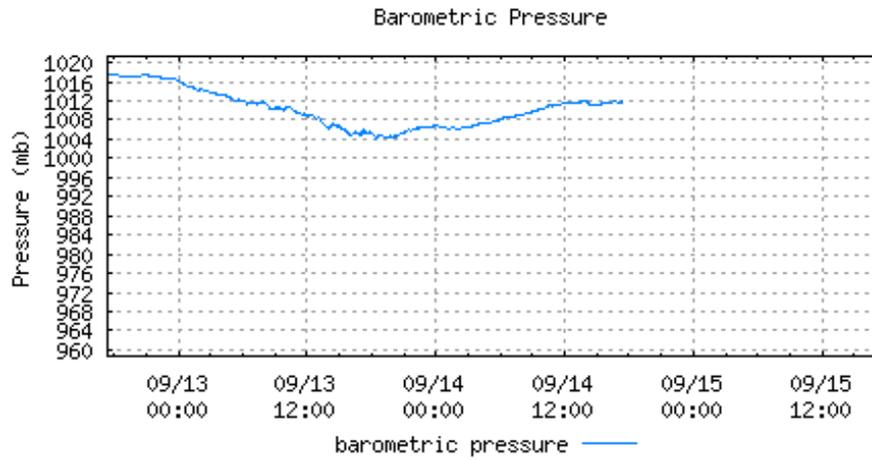
Wind Speed / Gusts / Direction



Last Observed Sample: 09/14/2018 17:24 (EDT)

Wind Speed: 16 knots Gusts: 27 knots Direction: 129° T

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

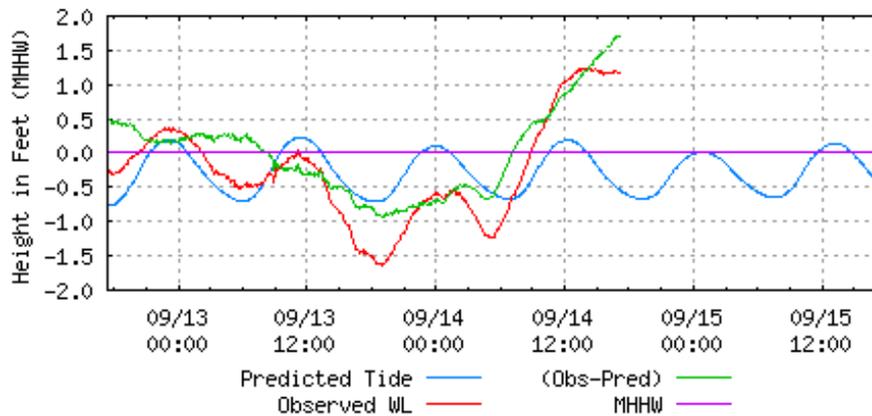


Last Observed Sample: 09/14/2018 17:24 (EDT)

Barometric Pressure: 1011.8 mb

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

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



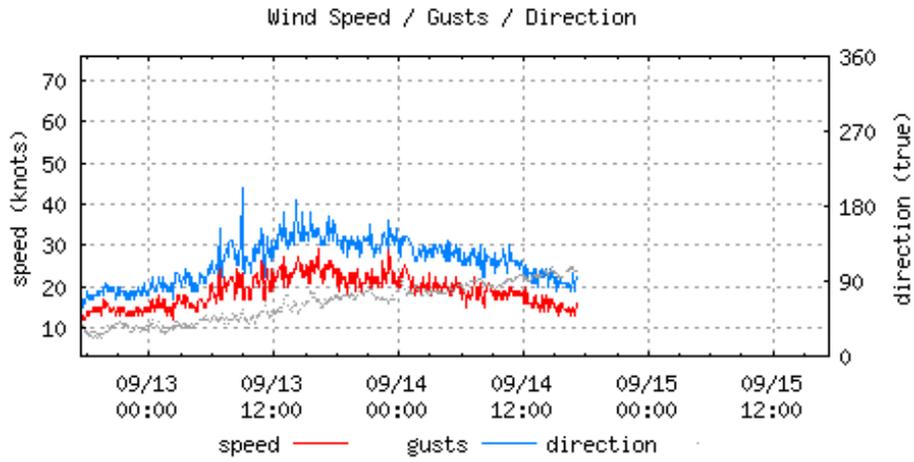
Last Observed Sample: 09/14/2018 17:12 (EDT). Data relative to MHHW

Observed: 1.17 ft. Predicted: -0.55 ft. Residual: 1.72 ft.

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

Next High Tide: 09/15/2018 00:56 (EDT), 0.02 ft.

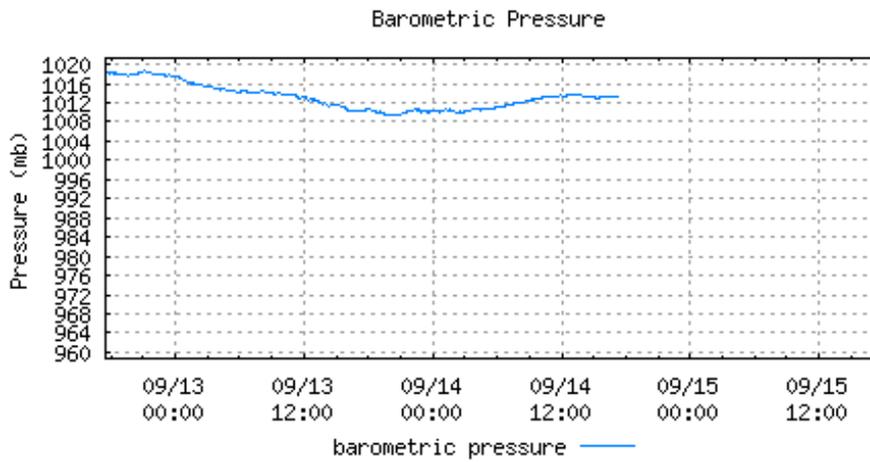
NOAA/NOS/CO-OPS 8652587 Oregon Inlet Marina, NC



Last Observed Sample: 09/14/2018 17:12 (EDT)

Wind Speed: 15 knots Gusts: 20 knots Direction: 104° T

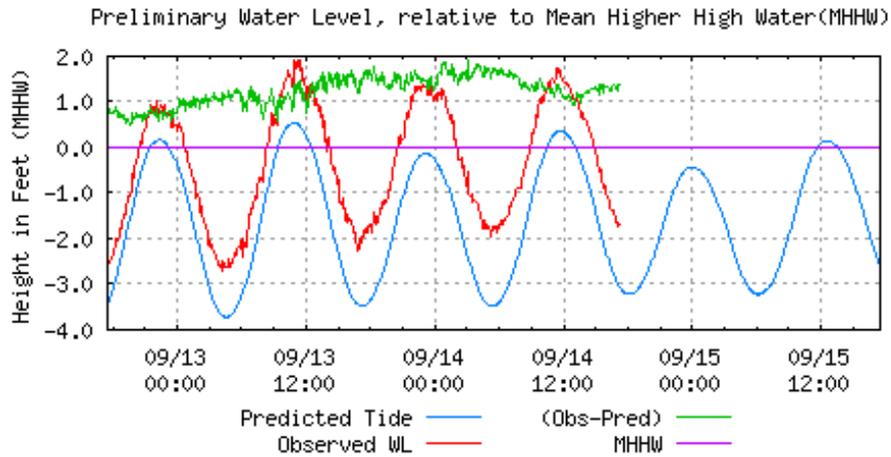
NOAA/NOS/CO-OPS 8652587 Oregon Inlet Marina, NC



Last Observed Sample: 09/14/2018 17:12 (EDT)

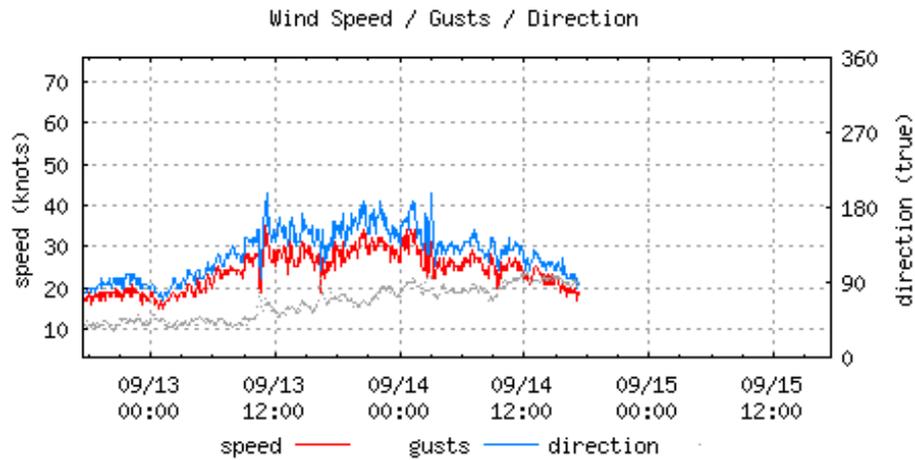
Barometric Pressure: 1013.3 mb

NOAA/NOS/CO-OPS 8651370 Duck, NC



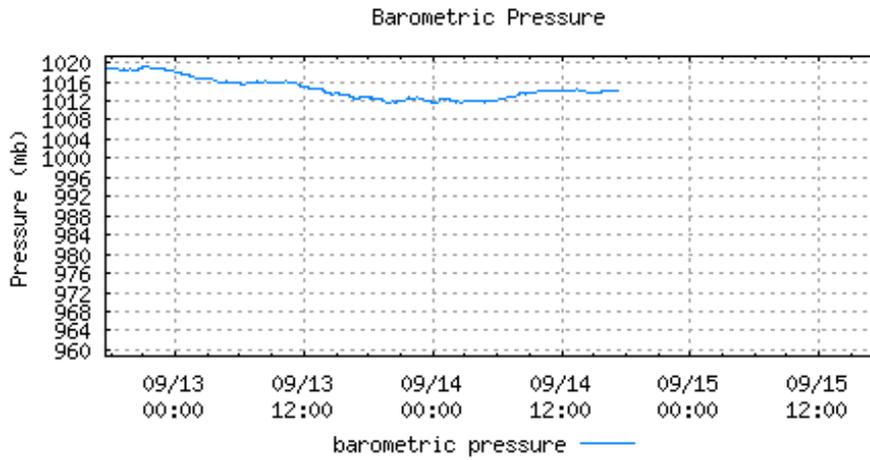
Last Observed Sample: 09/14/2018 17:12 (EDT). Data relative to MHHW
Observed: -1.68 ft. Predicted: -3.06 ft. Residual: 1.38 ft.
 Historical Maximum Water Level: Sep 18 2003, 4.13 ft.
 Next High Tide: 09/14/2018 23:57 (EDT), -0.42 ft.

NOAA/NOS/CO-OPS 8651370 Duck, NC



Last Observed Sample: 09/14/2018 17:18 (EDT)
Wind Speed: 17 knots Gusts: 22 knots Direction: 79° T

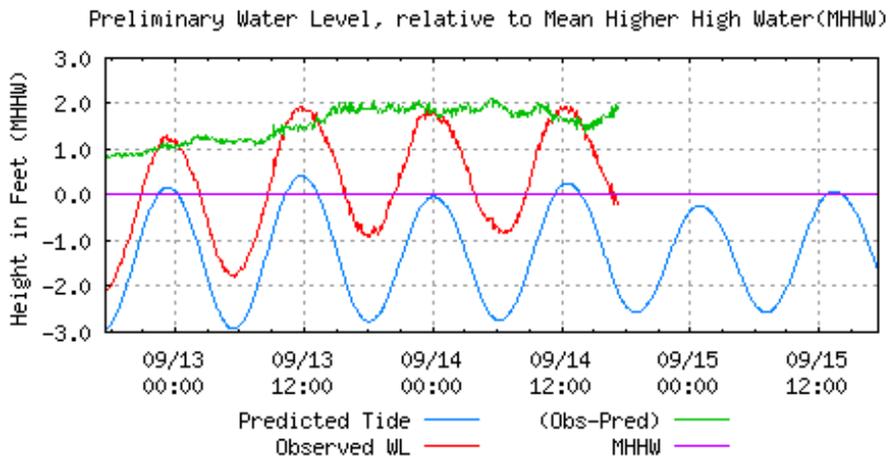
NOAA/NOS/CO-OPS 8651370 Duck, NC



Last Observed Sample: 09/14/2018 17:18 (EDT)

Barometric Pressure: 1014.0 mb

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



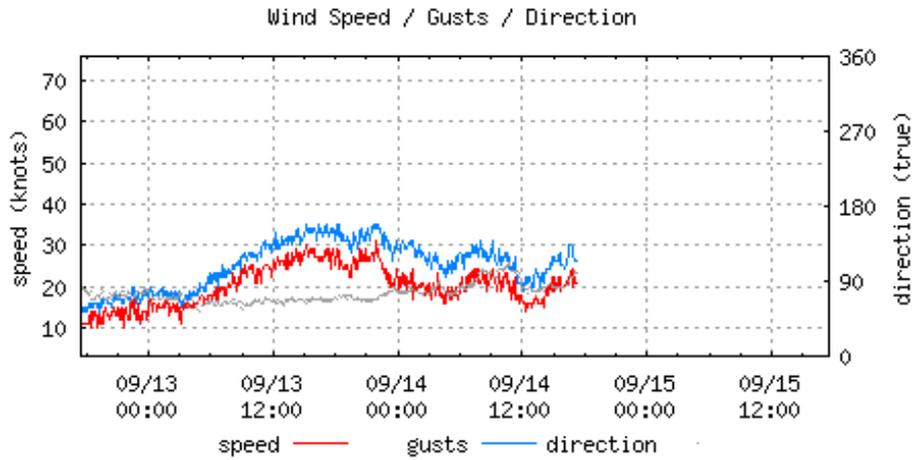
Last Observed Sample: 09/14/2018 17:12 (EDT). Data relative to MHHW

Observed: -0.21 ft. Predicted: -2.08 ft. Residual: 1.87 ft.

Historical Maximum Water Level: n/a

Next High Tide: 09/15/2018 00:53 (EDT), -0.24 ft.

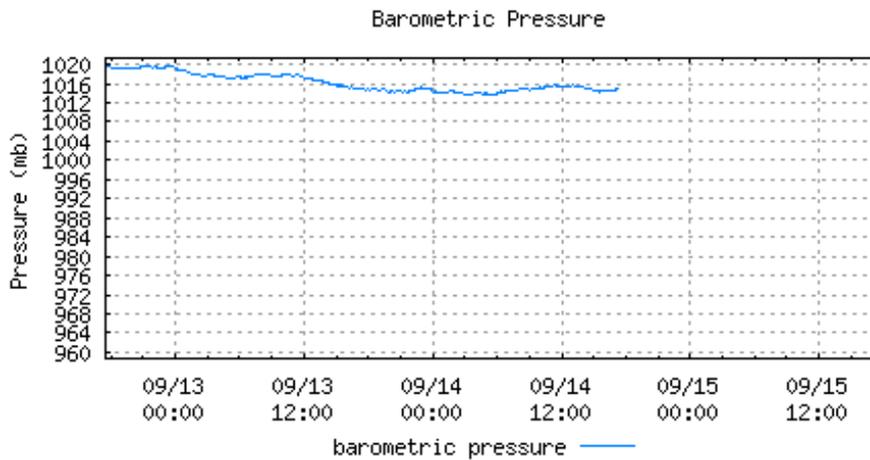
NOAA/NOS/CO-OPS 8638901 CBBT, Chesapeake Channel, VA



Last Observed Sample: 09/14/2018 17:12 (EDT)

Wind Speed: 21 knots Gusts: 26 knots Direction: 99° T

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

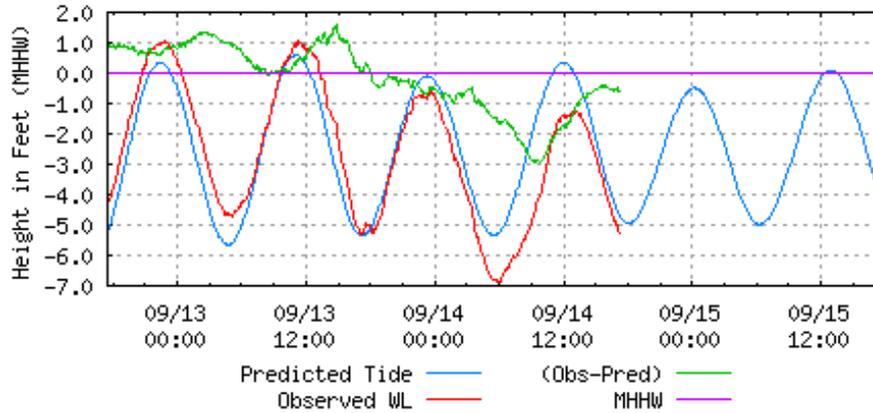


Last Observed Sample: 09/14/2018 17:12 (EDT)

Barometric Pressure: 1014.8 mb

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

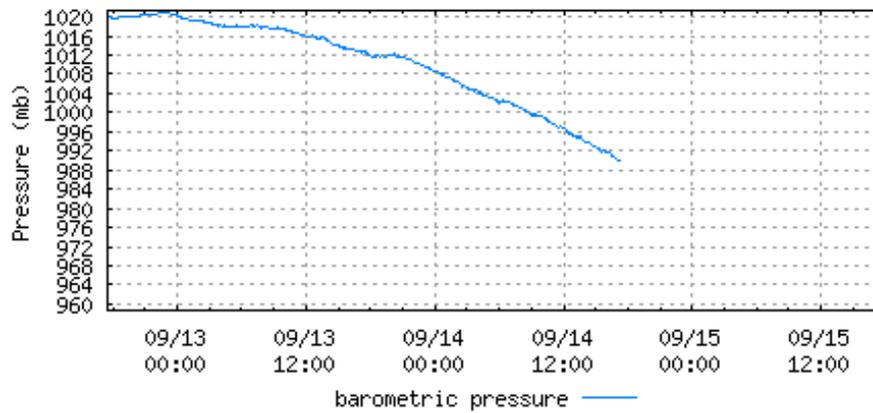
Preliminary Water Level, relative to Mean Higher High Water (MHHW)



Last Observed Sample: 09/14/2018 17:12 (EDT). Data relative to MHHW
Observed: -5.30 ft. Predicted: -4.68 ft. Residual: -0.62 ft.
 Historical Maximum Water Level: Sep 21 1989, 8.77 ft.
 Next High Tide: 09/15/2018 00:11 (EDT), -0.50 ft.

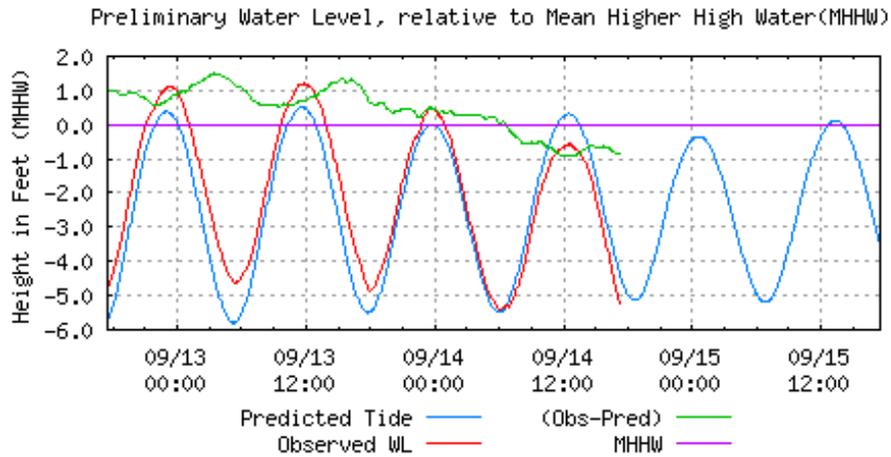
NOAA/NOS/CO-OPS 8661070 Springmaid Pier, SC

Barometric Pressure



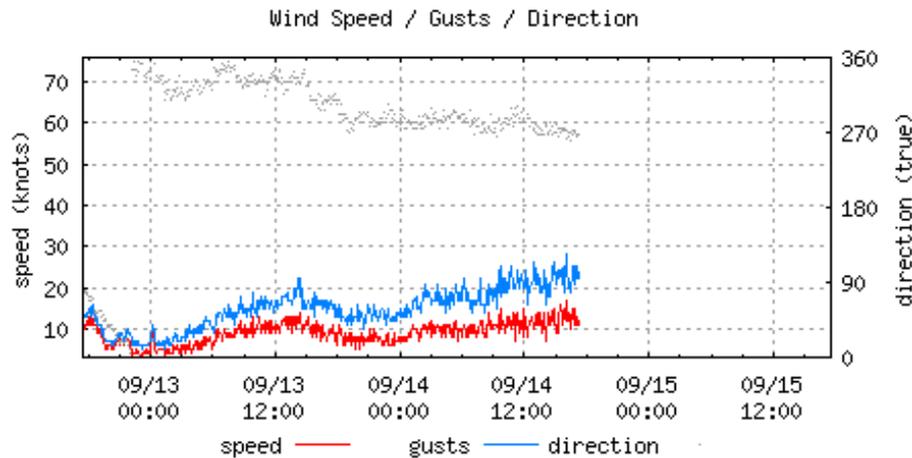
Last Observed Sample: 09/14/2018 17:18 (EDT)
Barometric Pressure: 990.2 mb

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



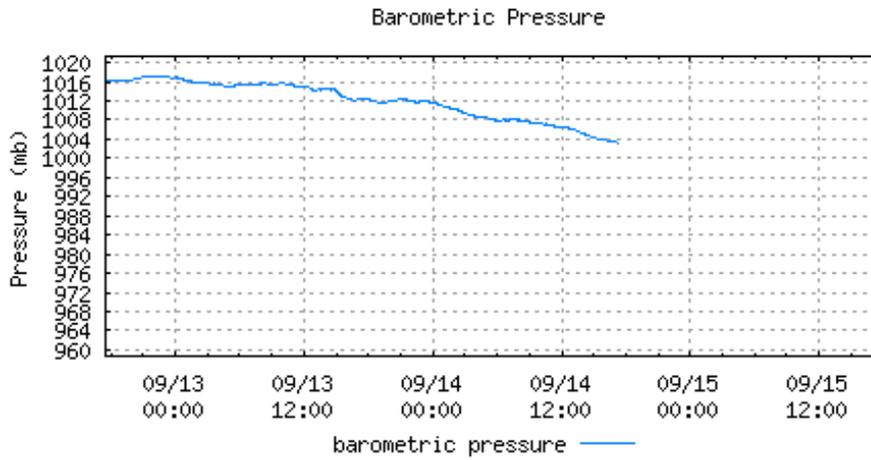
Last Observed Sample: 09/14/2018 17:12 (EDT). Data relative to MHHW
Observed: -5.20 ft. Predicted: -4.34 ft. Residual: -0.86 ft.
 Historical Maximum Water Level: Sep 21 1989, 6.76 ft.
 Next High Tide: 09/15/2018 00:35 (EDT), -0.34 ft.

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



Last Observed Sample: 09/14/2018 17:12 (EDT)
Wind Speed: 11 knots Gusts: 22 knots Direction: 267° T

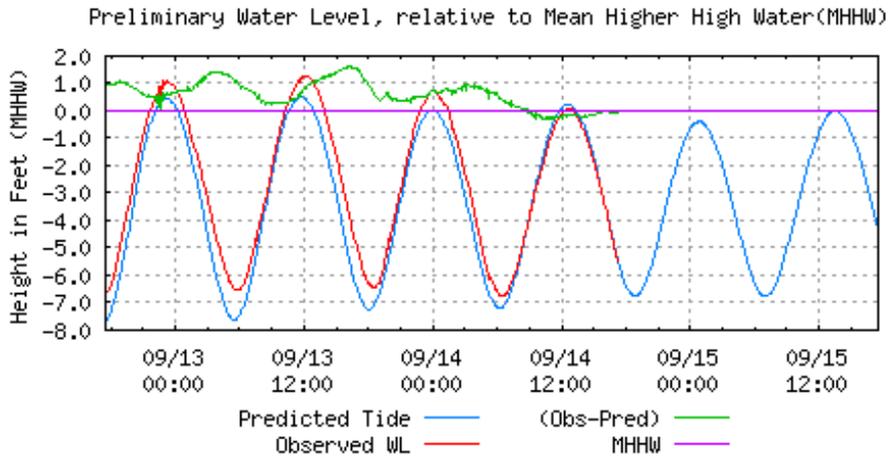
NOAA/NOS/CO-OPS 8665530 Charleston, Cooper River Entrance, SC



Last Observed Sample: 09/14/2018 17:12 (EDT)

Barometric Pressure: 1003.3 mb

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



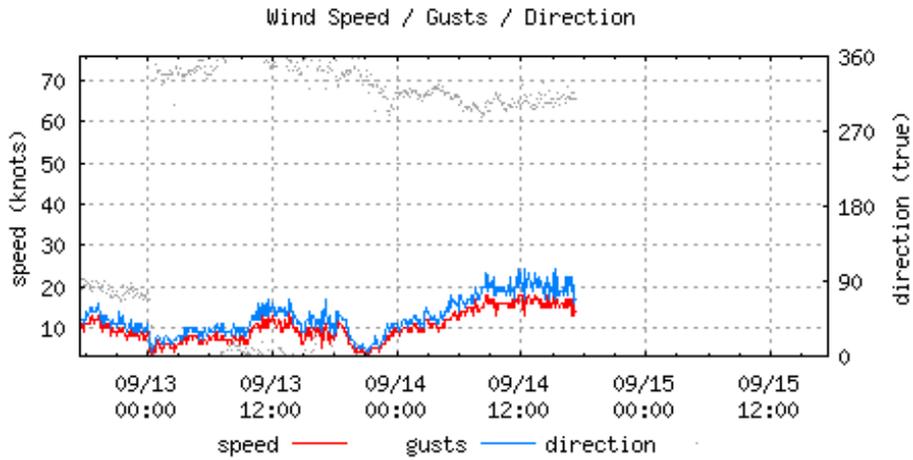
Last Observed Sample: 09/14/2018 17:12 (EDT). Data relative to MHHW

Observed: -5.49 ft. Predicted: -5.39 ft. Residual: -0.10 ft.

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

Next High Tide: 09/15/2018 00:48 (EDT), -0.39 ft.

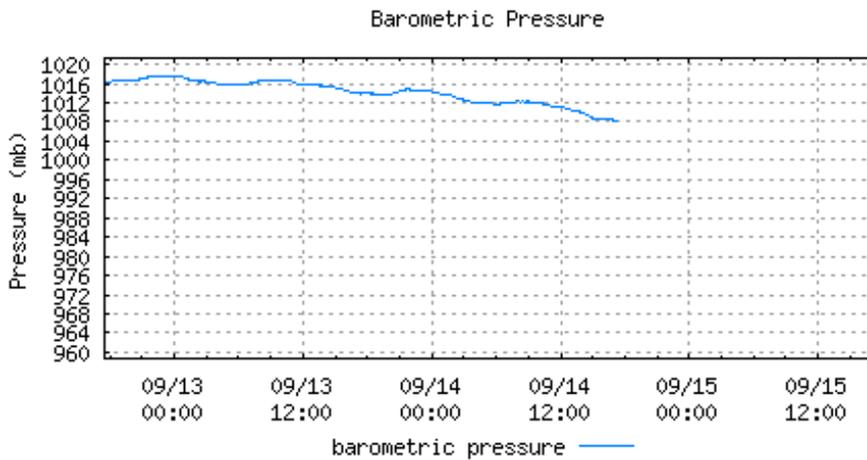
NOAA/NOS/CO-OPS 8670870 Fort Pulaski, GA



Last Observed Sample: 09/14/2018 17:12 (EDT)

Wind Speed: 14 knots Gusts: 17 knots Direction: 308° T

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



Last Observed Sample: 09/14/2018 17:12 (EDT)

Barometric Pressure: 1008.3 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	09/14/2018 17:18 (EDT)	2.68 ft	-1.82 ft	4.50 ft	3.60 ft
8658163	Wrightsville Beach, NC	09/14/2018 17:18 (EDT)	-1.38 ft	-3.64 ft	2.26 ft	4.11 ft
8656483	Beaufort, Duke Marine Lab, NC	09/14/2018 17:12 (EDT)	0.76 ft	-2.51 ft	3.27 ft	3.74 ft
8654467	USCG Station Hatteras, NC	09/14/2018 17:24 (EDT)	1.29 ft	-0.18 ft	1.47 ft	1.29 ft
8652587	Oregon Inlet Marina, NC	09/14/2018 17:12 (EDT)	1.17 ft	-0.55 ft	1.72 ft	1.23 ft
8651370	Duck, NC	09/14/2018 17:18 (EDT)	-1.63 ft	-3.09 ft	1.46 ft	1.73 ft
8638901	CBBT, Chesapeake Channel, VA	09/14/2018 17:12 (EDT)	-0.21 ft	-2.08 ft	1.87 ft	1.94 ft
8661070	Springmaid Pier, SC	09/14/2018 17:18 (EDT)	-5.35 ft	-4.73 ft	-0.62 ft	-0.60 ft
8665530	Charleston, Cooper River Entrance, SC	09/14/2018 17:18 (EDT)	-5.31 ft	-4.43 ft	-0.88 ft	0.51 ft
8670870	Fort Pulaski, GA	09/14/2018 17:12 (EDT)	-5.49 ft	-5.39 ft	-0.10 ft	0.77 ft

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