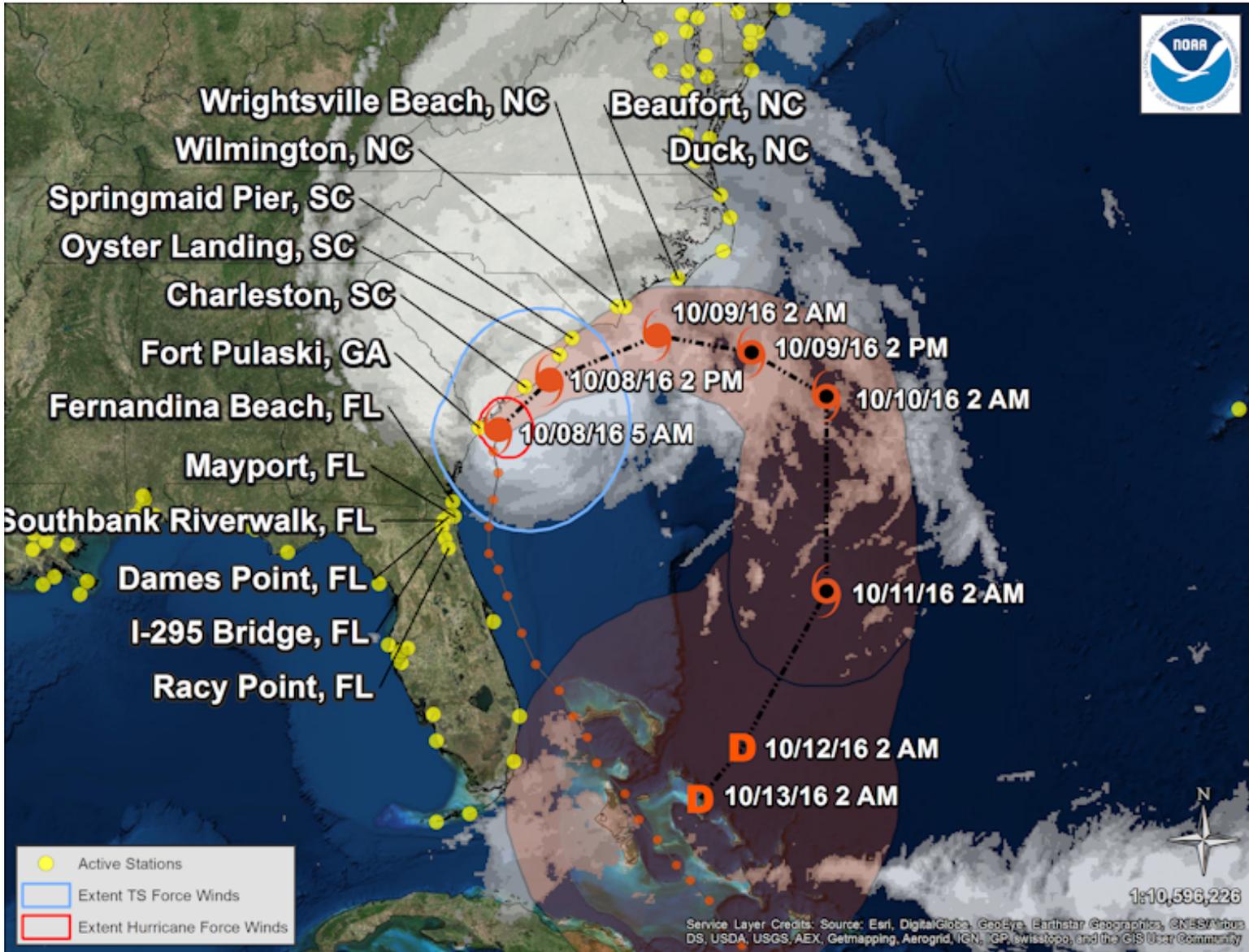




Hurricane MATTHEW QuickLook
Posted: 06:00 EDT 10/08/2016

NOAA and NOAA Partnership Stations Relative to the Storm



Storm Analysis

As of 10/8/2016 06:00 EDT, water levels from northern Florida to North Carolina are rising or remain elevated due to Hurricane Matthew. Water levels from Fort Pulaski, GA to Springmaid Pier, SC generally range from 4.5 to 7.5 above normal tide levels at this time. Along the North Carolina Coast, water levels are measuring about 1 to 2 feet above tidal predictions. Water levels within St. Johns River, FL remain high, especially upriver from Southbank Riverwalk to Racy Point, where water levels range from 2 to 3 feet above normal (tidal) levels. Another high tide will

be occurring across much of the region in the early morning hours which may push water levels even higher.

Along the Atlantic coast, the highest peak water level based on preliminary observations was measured at Fort Pulaski, GA at 7.54 feet above Mean Higher High Water. The NOS station at Red Bay Point within St. Johns River has been removed from this product as the station was likely damaged or destroyed earlier in the day.

Winds from the entrance of St. Johns River at Mayport, FL north to Springmaid Pier, SC presently range from 30 to 40 knots with some gusts over 60 knots measured at Fort Pulaski, GA over the past 6 hours. Barometric pressure is dropping rapidly at Fort Pulaski, GA and Charleston, SC as Matthew approaches and is beginning to rise in Fernandina Beach, FL and through the Jacksonville region.

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: ADM

NATIONAL HURRICANE CENTER PUBLIC ADVISORY:

HURRICANE MATTHEW ADVISORY NUMBER 41
NWS NATIONAL HURRICANE CENTER MIAMI FL
500 AM EDT SAT OCT 08 2016

...NORTHERN EYEWALL OF MATTHEW LASHING HILTON HEAD ISLAND AND PRITCHARDS ISLAND
SOUTH CAROLINA WITH HURRICANE-FORCE WINDS...
...STORM SURGE FLOODING OCCURRING IN GEORGIA AND SOUTH CAROLINA...

WATCHES AND WARNINGS

CHANGES WITH THIS ADVISORY:

All tropical cyclone warnings have been discontinued south of Altamaha Sound, Georgia.

SUMMARY OF WATCHES AND WARNINGS IN EFFECT:

A Hurricane Warning is in effect for...

- * North of Altamaha Sound to Surf City

A Hurricane Watch is in effect for...

- * North of Surf City to Cape Lookout

A Tropical Storm Warning is in effect for...

- * North of Surf City to Duck
- * Pamlico and Albemarle Sounds

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 500 AM EDT, the center of Hurricane Matthew was located by NOAA Doppler weather radars, and Air Force Reserve and NOAA Hurricane Hunter aircraft, ABOUT 20 MI SE OF HILTON HEAD ISLAND SOUTH CAROLINA and ABOUT 60 MI SSW OF CHARLESTON SOUTH CAROLINA. Matthew is moving toward the north-northeast near 12 mph, and this general motion is expected to continue this morning. A turn toward the northeast is expected by this afternoon. On the forecast track, the center of Matthew will move near or over the coast of South Carolina this morning, and be near the coast of southern North Carolina by tonight.

Reports from the reconnaissance aircraft indicate that maximum sustained winds remain near 105 mph with higher gusts. Although weakening is forecast during the next 48 hours, Matthew is expected to remain a hurricane while the center is near the coasts of South Carolina and North Carolina.

Hurricane-force winds extend outward up to 45 miles from the center, and tropical-storm-force winds extend outward up to 185 miles. Hurricane-force wind gusts are now occurring along the coasts of Georgia and South Carolina from Tybee Island, Georgia, to Pritchards Island, South Carolina.

The minimum central pressure recently reported by Air Force Reserve and NOAA reconnaissance aircraft was 955 mb.

HAZARDS AFFECTING LAND

WIND: Hurricane and tropical storm conditions are expected to continue over the warning area in Georgia and South Carolina this morning, and spread northward elsewhere within the warning area through today.

Residents in high-rise buildings should be aware that the winds at the top of a 30-story building will be, on average, about one Saffir-Simpson category higher than the winds near the surface.

Hurricane conditions are possible within the Hurricane Watch and Tropical Storm Warning area in North Carolina by tonight or Sunday morning, with tropical storm conditions expected later this morning.

STORM SURGE: The combination of a dangerous storm surge, the tide, and large and destructive waves will cause normally dry areas near the coast to be flooded by rising waters moving inland from the shoreline. The water could reach the following heights above ground if the peak surge occurs at the time of high tide...

Altamaha Sound, GA, to Edisto Beach, SC...6 to 9 ft

Edisto Beach, SC to Cape Fear, NC...5 to 7 ft

Cape Fear to Duck, NC, including portions of the Pamlico and Albemarle Sounds...2 to 4 ft

The deepest water will occur along the immediate coast in areas of onshore winds. Surge-related flooding depends on the relative timing of the surge and the tidal cycle, and can vary greatly over short distances. Large waves generated by Matthew will cause water rises to occur well in advance of and well away from the track of the center. For information specific to your area, please see products issued by your local National Weather Service forecast office.

There is a danger of life-threatening inundation during the next 36 hours along the coast from Altamaha Sound,

Georgia, to Cape Fear, North Carolina. There is the possibility of life-threatening inundation during the next 48 hours from north of Cape Fear to Duck, North Carolina, including portions of Pamlico and Albemarle Sounds. For a depiction of areas at risk, please see the Prototype National Weather Service Storm Surge Watch/Warning Graphic. For information specific to your area, please see products issued by your local National Weather Service forecast office.

The Prototype Storm Surge Watch/Warning Graphic is a depiction of areas that would qualify for inclusion under a storm surge watch or warning currently under development by the National Weather Service and planned for operational use in 2017. The Prototype Graphic is available at hurricanes.gov.

RAINFALL: Matthew is expected to produce total rain accumulations of 8 to 12 inches near and east of Interstate 95 in South Carolina and North Carolina, with possible isolated maximum amounts of 15 inches. Matthew is expected to produce 2 to 6 inches of rain over central South Carolina, western North Carolina, and southeastern Virginia. Additional rain accumulations of 1 to 2 inches are expected over eastern Georgia. In all of these areas rainfall may result in life-threatening flooding and flash flooding.

TORNADOES: An isolated tornado or two will be possible today along the coast of North Carolina and northern South Carolina.

SURF: Swells generated by Matthew will continue to affect portions of the east coast of Florida during the next few days, and will spread northward along the southeast U.S. coast through the weekend. These swells will likely cause life-threatening surf and rip current conditions. Please consult products from your local weather office.

NEXT ADVISORY

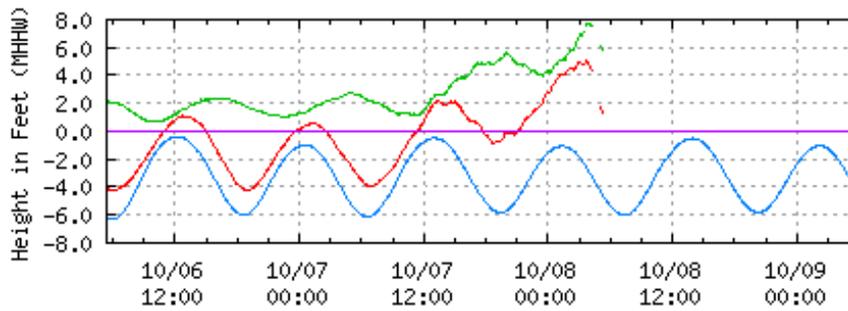
Next intermediate advisory at 800 AM EDT.
Next complete advisory at 1100 AM EDT.

\$\$
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: [Fort Pulaski - Water Level](#), [Fort Pulaski - Winds](#), [Fort Pulaski - Barometric](#), [Charleston - Water Level](#), [Charleston - Winds](#), [Charleston - Barometric](#), [Oyster Landing \(N Inlet Estuary\) - Water Level](#), [Springmaid Pier - Water Level](#), [Springmaid Pier - Winds](#), [Fernandina Beach - Water Level](#), [Fernandina Beach - Winds](#), [Fernandina Beach - Barometric](#), [Mayport \(Bar Pilots Dock\) - Water Level](#), [Mayport \(Bar Pilots Dock\) - Winds](#), [Dames Point - Water Level](#), [Southbank Riverwalk](#), [St Johns River - Water Level](#), [I-295 Bridge, St Johns River - Water Level](#), [I-295 Bridge, St Johns River - Winds](#), [I-295 Bridge, St Johns River - Barometric](#), [Racy Point, St Johns River - Water Level](#), [Wrightsville Beach - Water Level](#), [Wrightsville Beach - Winds](#), [Wrightsville Beach - Barometric](#), [Wilmington - Water Level](#), [Beaufort - Water Level](#), [Beaufort - Winds](#), [Duck - Water Level](#), [Duck - Winds](#)

NOAA/NOS/CO-OPS 8670870 Fort Pulaski, GA
 Preliminary Water Level, relative to Mean Higher High Water (MHHW)



Predicted Tide ——— (Obs-Pred) ———
 Observed WL ——— MHHW ———

Last Observed Sample: 10/08/2016 05:12 (EDT). Data relative to MHHW

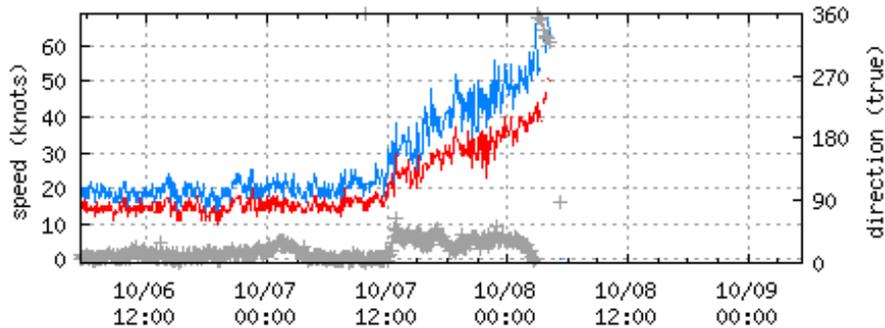
Observed: 1.30 ft. Predicted: -4.50 ft. Residual: 5.80 ft.

Historical Maximum Water Level: Oct 15 1947, 3.40 ft.

Next High Tide: 10/08/2016 13:54 (EDT), -0.51 ft.

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

Wind Speed / Gusts / Direction

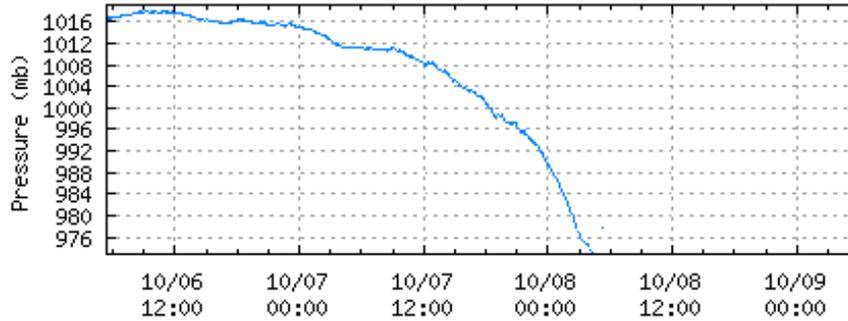


speed — direction +
 gusts —

Last Observed Sample: 10/08/2016 05:12 (EDT)

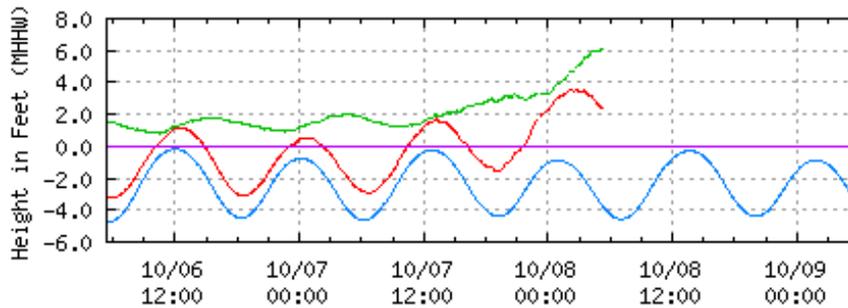
Wind Speed: 0 knots Gusts: 0 knots Direction: 87° T

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



barometric pressure —
Last Observed Sample: 10/08/2016 05:12 (EDT)
Barometric Pressure: 977.6 mb

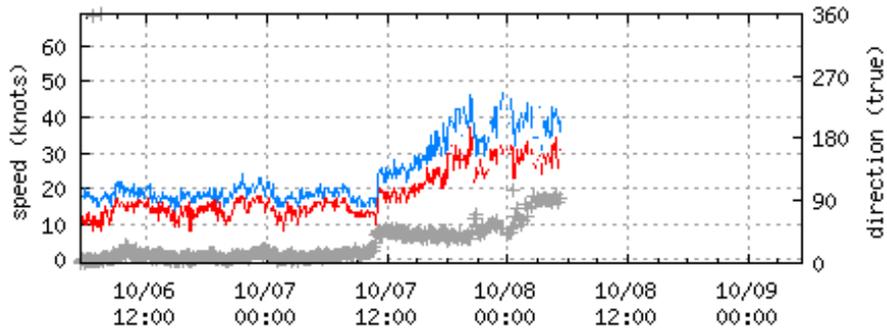
NOAA/NOS/CO-OPS 8665530 Charleston, SC
Preliminary Water Level, relative to Mean Higher High Water (MHHW)



Predicted Tide — (Obs-Pred) —
Observed WL — MHHW —

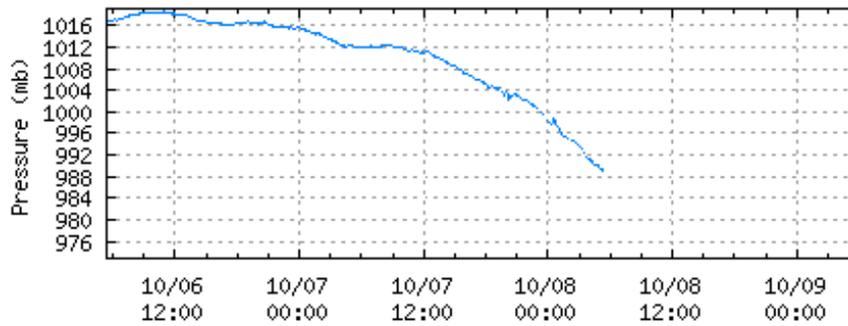
Last Observed Sample: 10/08/2016 05:24 (EDT). Data relative to MHHW
Observed: 2.32 ft. Predicted: -3.87 ft. Residual: 6.19 ft.
Historical Maximum Water Level: Sep 21 1989, 6.76 ft.
Next High Tide: 10/08/2016 13:39 (EDT), -0.29 ft.

NOAA/NOS/CO-OPS 8665530 Charleston, SC
Wind Speed / Gusts / Direction



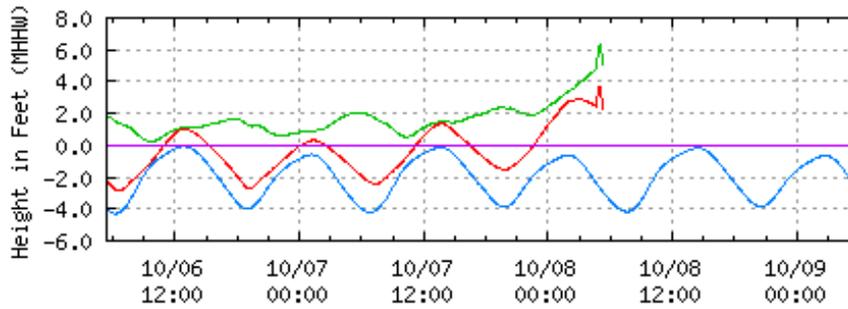
speed — gusts — direction +
Last Observed Sample: 10/08/2016 05:24 (EDT)
Wind Speed: 29 knots Gusts: 38 knots Direction: 82° T

NOAA/NOS/CO-OPS 8665530 Charleston, SC
Barometric Pressure



barometric pressure —
Last Observed Sample: 10/08/2016 05:24 (EDT)
Barometric Pressure: 988.5 mb

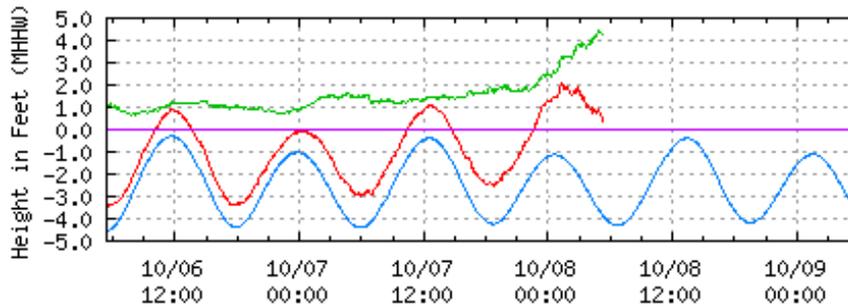
NOAA/NOS/CO-OPS 8662245 Oyster Landing (N Inlet Estuary), SC
 Preliminary Water Level, relative to Mean Higher High Water(MHHW)



Predicted Tide ——— (Obs-Pred) ———
 Observed WL ——— MHHW ———

Last Observed Sample: 10/08/2016 05:12 (EDT). Data relative to MHHW
Observed: 2.24 ft. Predicted: -2.87 ft. Residual: 5.11 ft.
 Historical Maximum Water Level: Aug 26 2011, 2.40 ft.
 Next High Tide: 10/08/2016 14:28 (EDT), -0.16 ft.

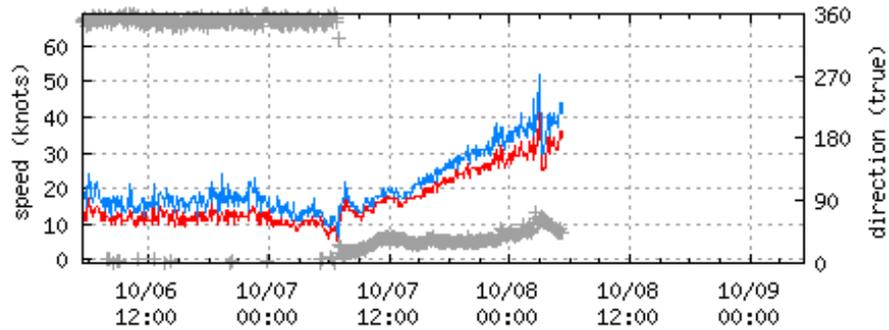
NOAA/NOS/CO-OPS 8661070 Springmaid Pier, SC
 Preliminary Water Level, relative to Mean Higher High Water(MHHW)



Predicted Tide ——— (Obs-Pred) ———
 Observed WL ——— MHHW ———

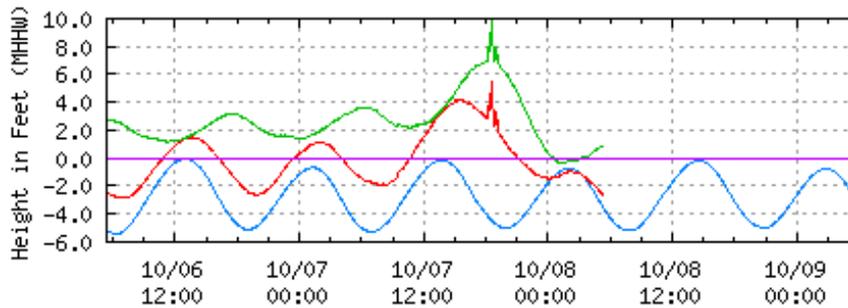
Last Observed Sample: 10/08/2016 05:24 (EDT). Data relative to MHHW
Observed: 0.16 ft. Predicted: -3.92 ft. Residual: 4.08 ft.
 Historical Maximum Water Level: Jan 1 1987, 3.65 ft.
 Next High Tide: 10/08/2016 13:24 (EDT), -0.39 ft.

NOAA/NOS/CO-OPS 8661070 Springmaid Pier, SC
Wind Speed / Gusts / Direction



speed — gusts — direction +
Last Observed Sample: 10/08/2016 05:24 (EDT)
Wind Speed: 34 knots Gusts: 40 knots Direction: 45° T

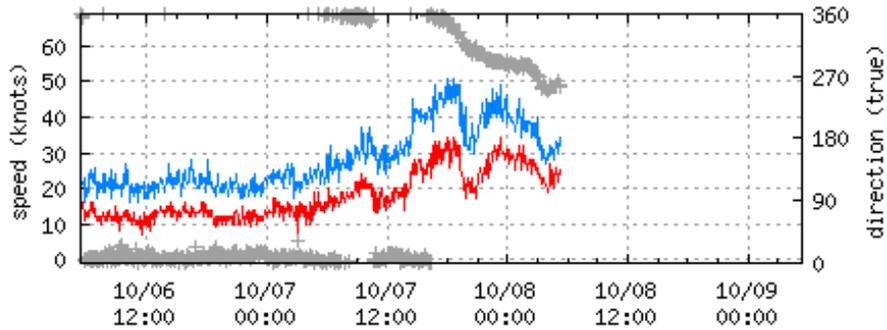
NOAA/NOS/CO-OPS 8720030 Fernandina Beach, FL
Preliminary Water Level, relative to Mean Higher High Water (MHHW)



Predicted Tide — (Obs-Pred) —
Observed WL — MHHW —

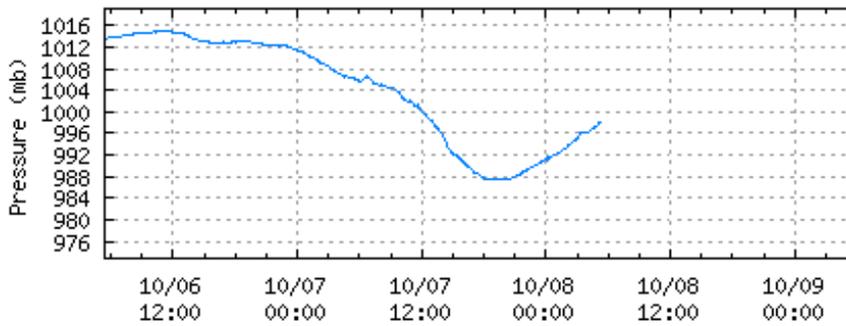
Last Observed Sample: 10/08/2016 05:24 (EDT). Data relative to MHHW
Observed: -2.80 ft. Predicted: -3.65 ft. Residual: 0.85 ft.
Historical Maximum Water Level: Oct 2 1898, 6.94 ft.
Next High Tide: 10/08/2016 14:33 (EDT), -0.19 ft.

NOAA/NOS/CO-OPS 8720030 Fernandina Beach, FL
Wind Speed / Gusts / Direction



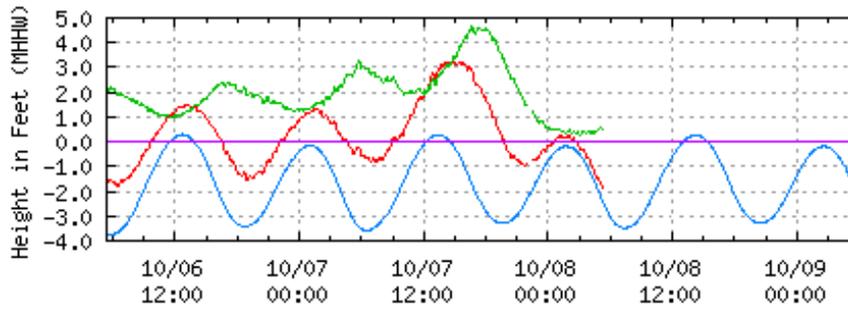
speed — gusts — direction +
Last Observed Sample: 10/08/2016 05:24 (EDT)
Wind Speed: 24 knots Gusts: 34 knots Direction: 258° T

NOAA/NOS/CO-OPS 8720030 Fernandina Beach, FL
Barometric Pressure



barometric pressure —
Last Observed Sample: 10/08/2016 05:24 (EDT)
Barometric Pressure: 998.4 mb

NOAA/NOS/CO-OPS 8720218 Mayport (Bar Pilots Dock), FL
 Preliminary Water Level, relative to Mean Higher High Water(MHHW)



Predicted Tide ——— (Obs-Pred) ———
 Observed WL ——— MHHW ———

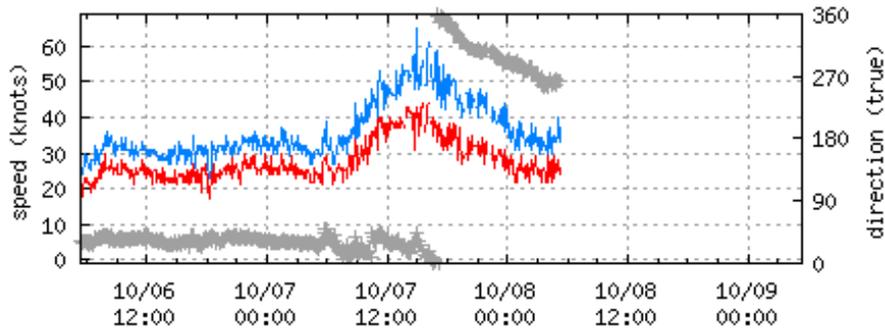
Last Observed Sample: 10/08/2016 05:24 (EDT). Data relative to MHHW

Observed: -1.95 ft. Predicted: -2.54 ft. Residual: 0.59 ft.

Historical Maximum Water Level: Sep 27 2004, 2.47 ft.

Next High Tide: 10/08/2016 14:13 (EDT), 0.26 ft.

NOAA/NOS/CO-OPS 8720218 Mayport (Bar Pilots Dock), FL
 Wind Speed / Gusts / Direction

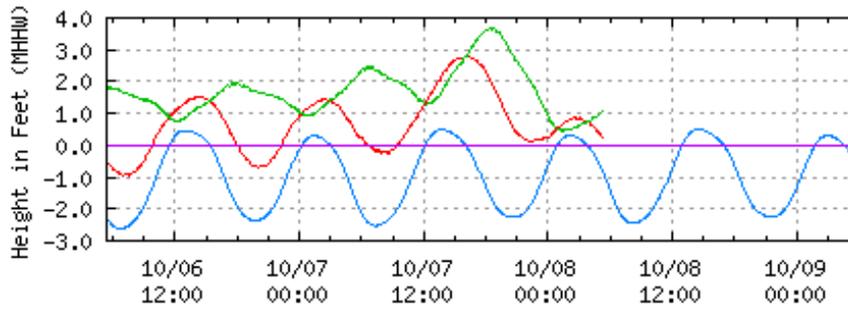


speed ——— gusts ——— direction +

Last Observed Sample: 10/08/2016 05:24 (EDT)

Wind Speed: 24 knots Gusts: 35 knots Direction: 264° T

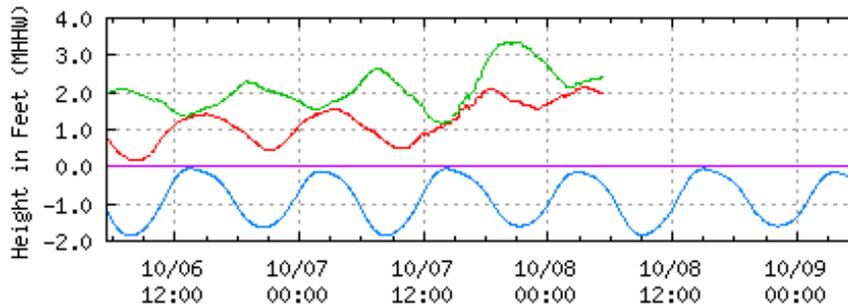
NOAA/NOS/CO-OPS 8720219 Dames Point, FL
Preliminary Water Level, relative to Mean Higher High Water(MHHW)



Predicted Tide ——— (Obs-Pred) ———
Observed WL ——— MHHW ———

Last Observed Sample: 10/08/2016 05:24 (EDT). Data relative to MHHW
Observed: 0.21 ft. Predicted: -0.93 ft. Residual: 1.14 ft.
Historical Maximum Water Level: Sep 17 2001, 2.40 ft.
Next High Tide: 10/08/2016 14:31 (EDT), 0.50 ft.

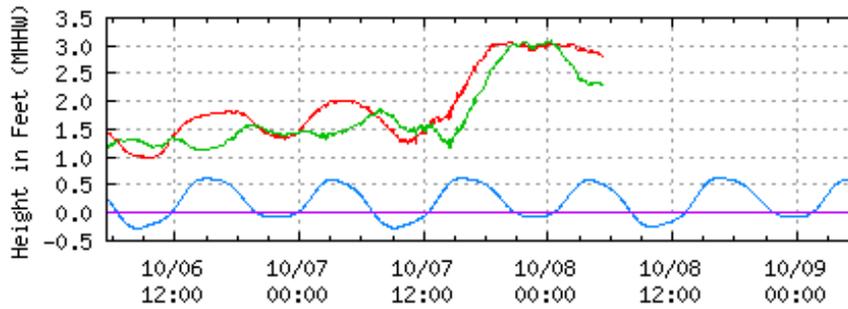
NOAA/NOS/CO-OPS 8720226 Southbank Riverwalk, St Johns River, FL
Preliminary Water Level, relative to Mean Higher High Water(MHHW)



Predicted Tide ——— (Obs-Pred) ———
Observed WL ——— MHHW ———

Last Observed Sample: 10/08/2016 05:18 (EDT). Data relative to MHHW
Observed: 1.96 ft. Predicted: -0.47 ft. Residual: 2.43 ft.
Historical Maximum Water Level: Sep 27 2004, 3.44 ft.
Next High Tide: 10/08/2016 15:00 (EDT), -0.06 ft.

NOAA/NOS/CO-OPS 8720357 I-295 Bridge, St Johns River, FL
 Preliminary Water Level, relative to Mean Higher High Water (MHHW)



Predicted Tide ——— blue ———
 Observed WL ——— red ———
 (Obs-Pred) ——— green ———
 MHHW ——— purple ———

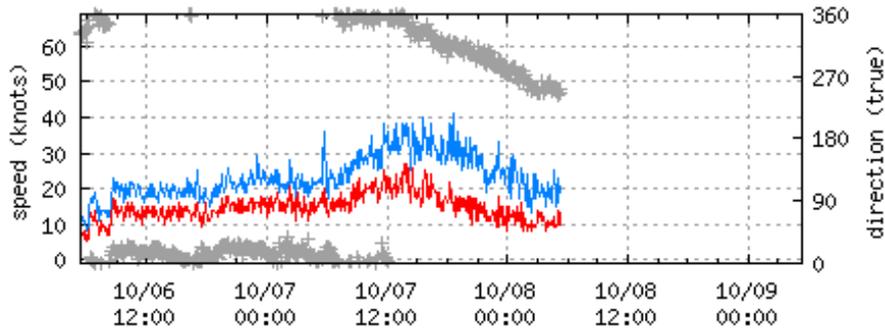
Last Observed Sample: 10/08/2016 05:24 (EDT). Data relative to MHHW

Observed: 2.80 ft. Predicted: 0.50 ft. Residual: 2.30 ft.

Historical Maximum Water Level: Sep 27 2004, 3.46 ft.

Next High Tide: 10/08/2016 16:27 (EDT), 0.62 ft.

NOAA/NOS/CO-OPS 8720357 I-295 Bridge, St Johns River, FL
 Wind Speed / Gusts / Direction

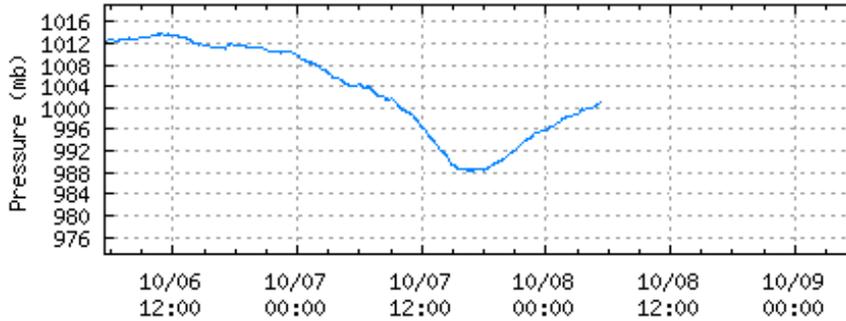


speed ——— red ——— gusts ——— blue ——— direction +

Last Observed Sample: 10/08/2016 05:24 (EDT)

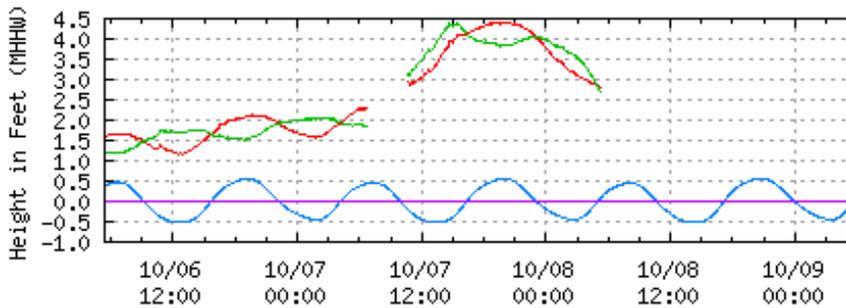
Wind Speed: 8 knots Gusts: 18 knots Direction: 259° T

NOAA/NOS/CO-OPS 8720357 I-295 Bridge, St Johns River, FL
Barometric Pressure



barometric pressure —
Last Observed Sample: 10/08/2016 05:24 (EDT)
Barometric Pressure: 1001.3 mb

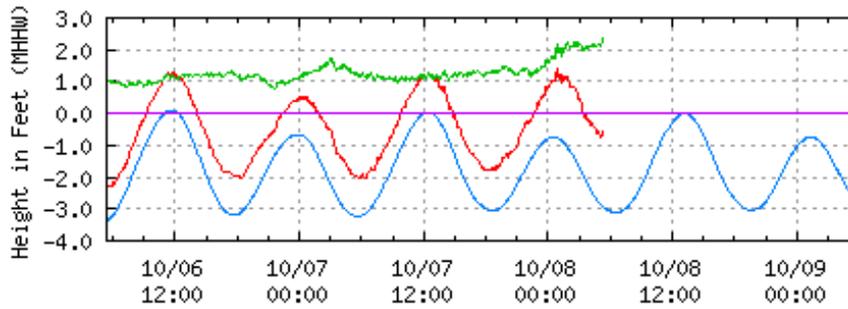
NOAA/NOS/CO-OPS 8720625 Racy Point, St Johns River, FL
Preliminary Water Level, relative to Mean Higher High Water (MHHW)



Predicted Tide — (Obs-Pred) —
Observed WL — MHHW —

Last Observed Sample: 10/08/2016 05:24 (EDT). Data relative to MHHW
Observed: 2.77 ft. Predicted: 0.12 ft. Residual: 2.65 ft.
Historical Maximum Water Level: n/a
Next High Tide: 10/08/2016 08:10 (EDT), 0.45 ft.

NOAA/NOS/CO-OPS 8658163 Wrightsville Beach, NC
 Preliminary Water Level, relative to Mean Higher High Water(MHHW)



Predicted Tide ——— (Obs-Pred) ———
 Observed WL ——— MHHW ———

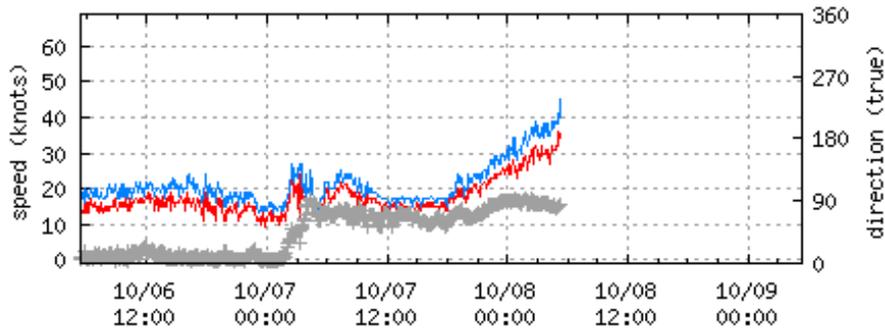
Last Observed Sample: 10/08/2016 05:18 (EDT). Data relative to MHHW

Observed: -0.58 ft. Predicted: -2.93 ft. Residual: 2.35 ft.

Historical Maximum Water Level: Sep 25 2008, 2.81 ft.

Next High Tide: 10/08/2016 13:11 (EDT), -0.00 ft.

NOAA/NOS/CO-OPS 8658163 Wrightsville Beach, NC
 Wind Speed / Gusts / Direction

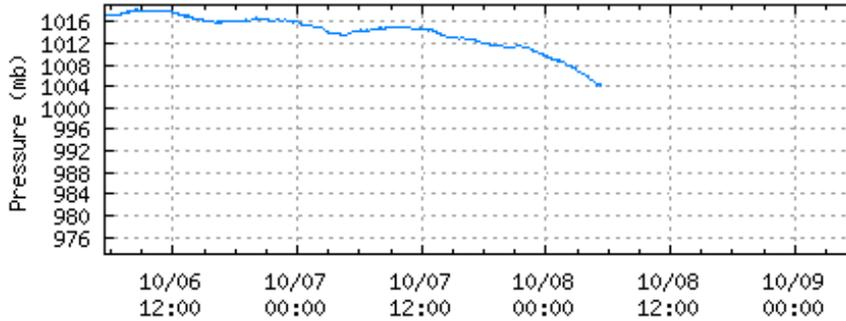


speed ——— gusts ——— direction +

Last Observed Sample: 10/08/2016 05:18 (EDT)

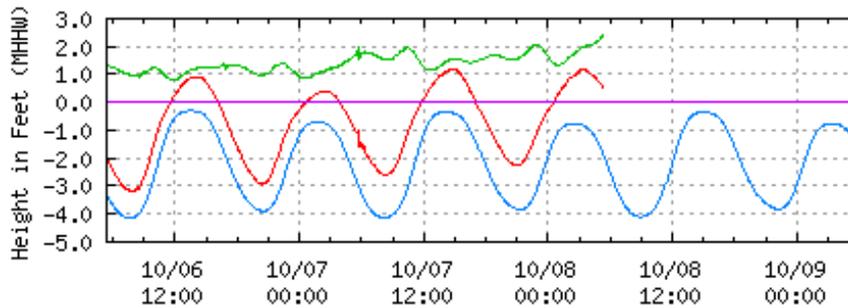
Wind Speed: 34 knots Gusts: 45 knots Direction: 85° T

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



barometric pressure —
Last Observed Sample: 10/08/2016 05:18 (EDT)
Barometric Pressure: 1004.2 mb

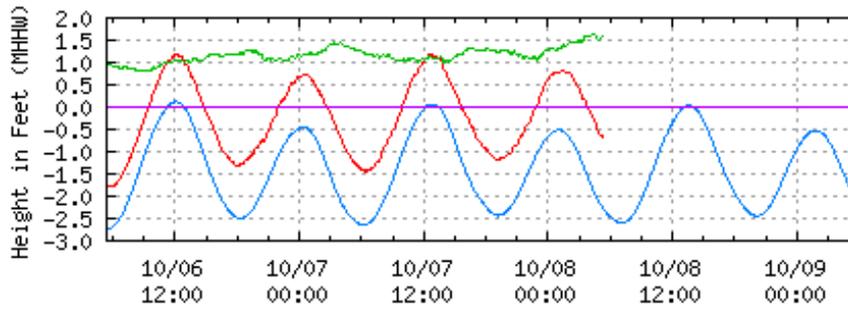
NOAA/NOS/CO-OPS 8658120 Wilmington, NC
Preliminary Water Level, relative to Mean Higher High Water (MHHW)



Predicted Tide — (Obs-Pred) —
Observed WL — MHHW —

Last Observed Sample: 10/08/2016 05:18 (EDT). Data relative to MHHW
Observed: 0.55 ft. Predicted: -1.85 ft. Residual: 2.40 ft.
Historical Maximum Water Level: Oct 15 1954, 3.47 ft.
Next High Tide: 10/08/2016 14:57 (EDT), -0.35 ft.

NOAA/NOS/CO-OPS 8656483 Beaufort, NC
Preliminary Water Level, relative to Mean Higher High Water(MHHW)



Predicted Tide ——— (Obs-Pred) ———
Observed WL ——— MHHW ———

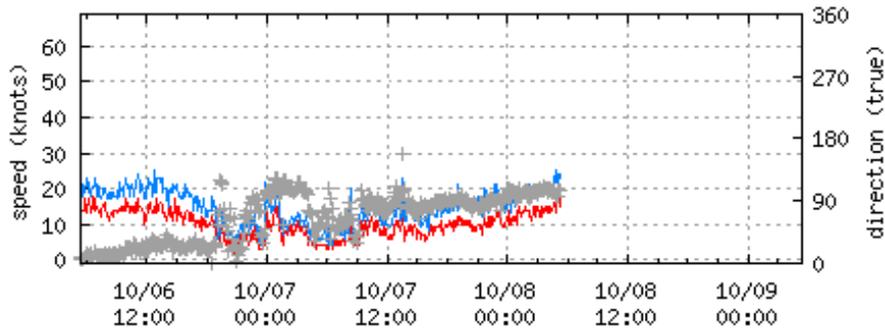
Last Observed Sample: 10/08/2016 05:18 (EDT). Data relative to MHHW

Observed: -0.69 ft. Predicted: -2.27 ft. Residual: 1.58 ft.

Historical Maximum Water Level: Sep 14 2005, 3.01 ft.

Next High Tide: 10/08/2016 13:36 (EDT), 0.03 ft.

NOAA/NOS/CO-OPS 8656483 Beaufort, NC
Wind Speed / Gusts / Direction

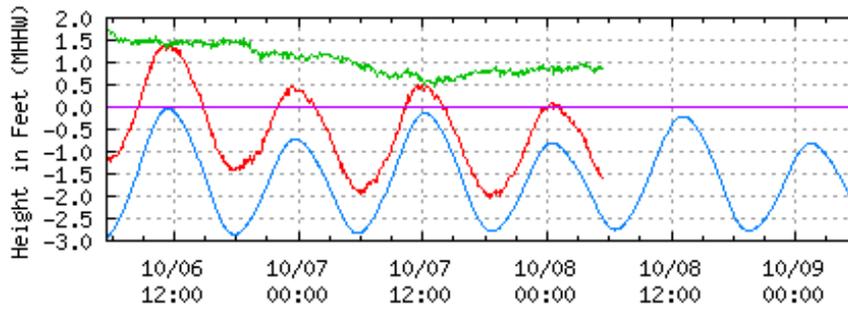


speed ——— gusts ——— direction +

Last Observed Sample: 10/08/2016 05:18 (EDT)

Wind Speed: 15 knots Gusts: 23 knots Direction: 105° T

NOAA/NOS/CO-OPS 8651370 Duck, NC
Preliminary Water Level, relative to Mean Higher High Water(MHHW)



Predicted Tide ——— (Obs-Pred) ———
Observed WL ——— MHHW ———

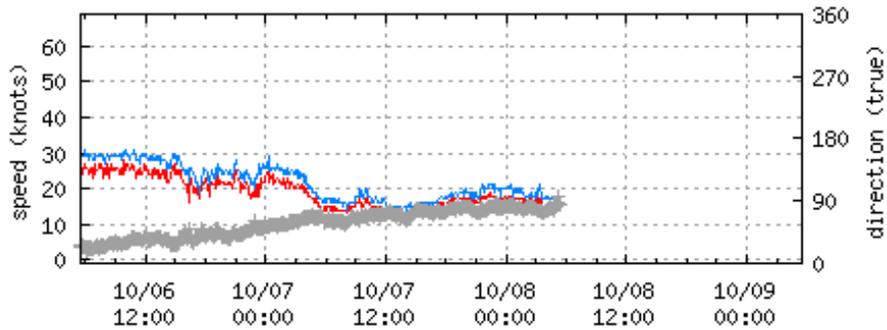
Last Observed Sample: 10/08/2016 05:18 (EDT). Data relative to MHHW

Observed: -1.60 ft. Predicted: -2.47 ft. Residual: 0.87 ft.

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

Next High Tide: 10/08/2016 13:04 (EDT), -0.20 ft.

NOAA/NOS/CO-OPS 8651370 Duck, NC
Wind Speed / Gusts / Direction



speed ——— gusts ——— direction +

Last Observed Sample: 10/08/2016 05:18 (EDT)

Wind Speed: 16 knots Gusts: 18 knots Direction: 86° T

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
8670870	Fort Pulaski, GA	10/08/2016 05:12 (EDT)	1.30 ft	-4.50 ft	5.80 ft	5.06 ft
8665530	Charleston, SC	10/08/2016 05:24 (EDT)	2.32 ft	-3.87 ft	6.19 ft	3.53 ft
8662245	Oyster Landing (N Inlet Estuary), SC	10/08/2016 05:12 (EDT)	2.24 ft	-2.87 ft	5.11 ft	3.68 ft
8661070	Springmaid Pier, SC	10/08/2016 05:24 (EDT)	0.16 ft	-3.92 ft	4.08 ft	2.06 ft
8720030	Fernandina Beach, FL	10/08/2016 05:24 (EDT)	-2.80 ft	-3.65 ft	0.85 ft	5.45 ft
8720218	Mayport (Bar Pilots Dock), FL	10/08/2016 05:24 (EDT)	-1.95 ft	-2.54 ft	0.59 ft	3.28 ft
8720219	Dames Point, FL	10/08/2016 05:24 (EDT)	0.21 ft	-0.93 ft	1.14 ft	2.80 ft
8720226	Southbank Riverwalk, St Johns River, FL	10/08/2016 05:18 (EDT)	1.96 ft	-0.47 ft	2.43 ft	2.13 ft
8720357	I-295 Bridge, St Johns River, FL	10/08/2016 05:24 (EDT)	2.80 ft	0.50 ft	2.30 ft	3.07 ft
8720625	Racy Point, St Johns River, FL	10/08/2016 05:24 (EDT)	2.77 ft	0.12 ft	2.65 ft	4.41 ft
8658163	Wrightsville Beach, NC	10/08/2016 05:18 (EDT)	-0.58 ft	-2.93 ft	2.35 ft	1.40 ft
8658120	Wilmington, NC	10/08/2016 05:18 (EDT)	0.55 ft	-1.85 ft	2.40 ft	1.17 ft
8656483	Beaufort, NC	10/08/2016 05:18 (EDT)	-0.69 ft	-2.27 ft	1.58 ft	1.18 ft
8651370	Duck, NC	10/08/2016 05:18 (EDT)	-1.60 ft	-2.47 ft	0.87 ft	0.49 ft

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