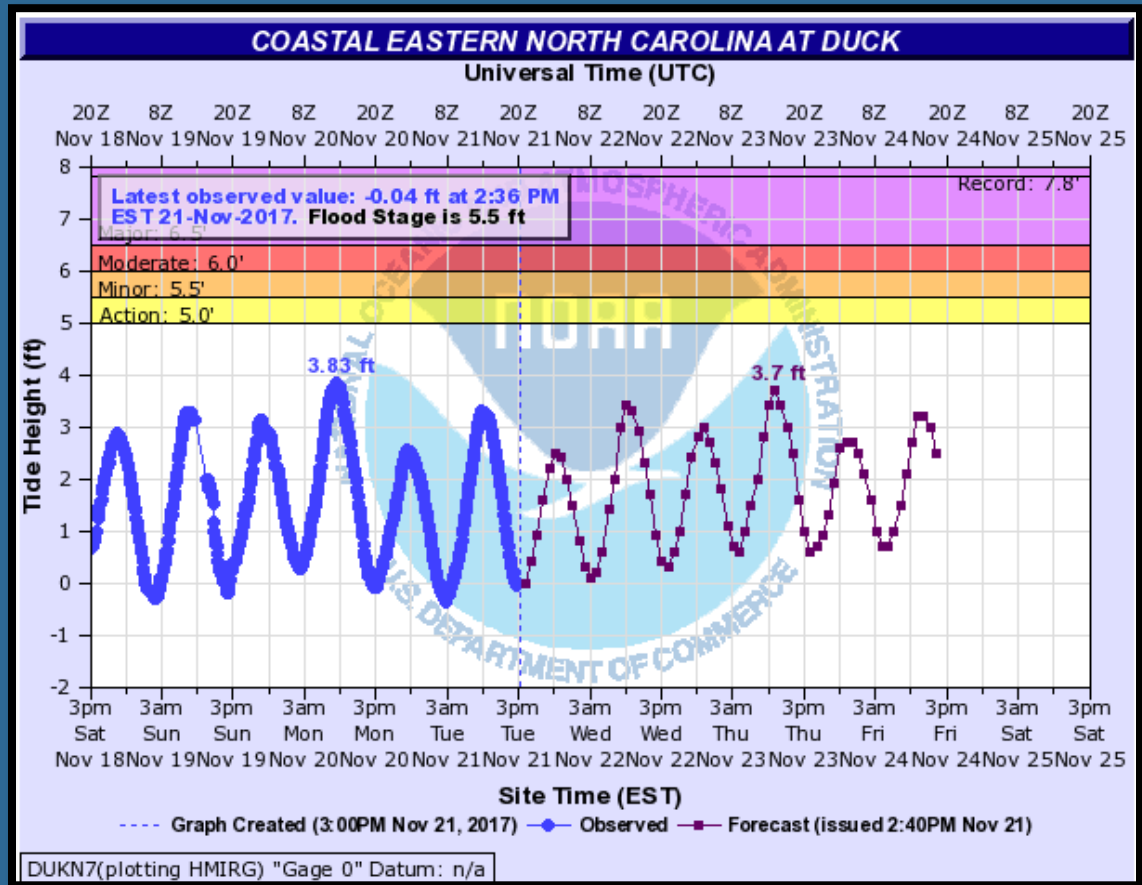
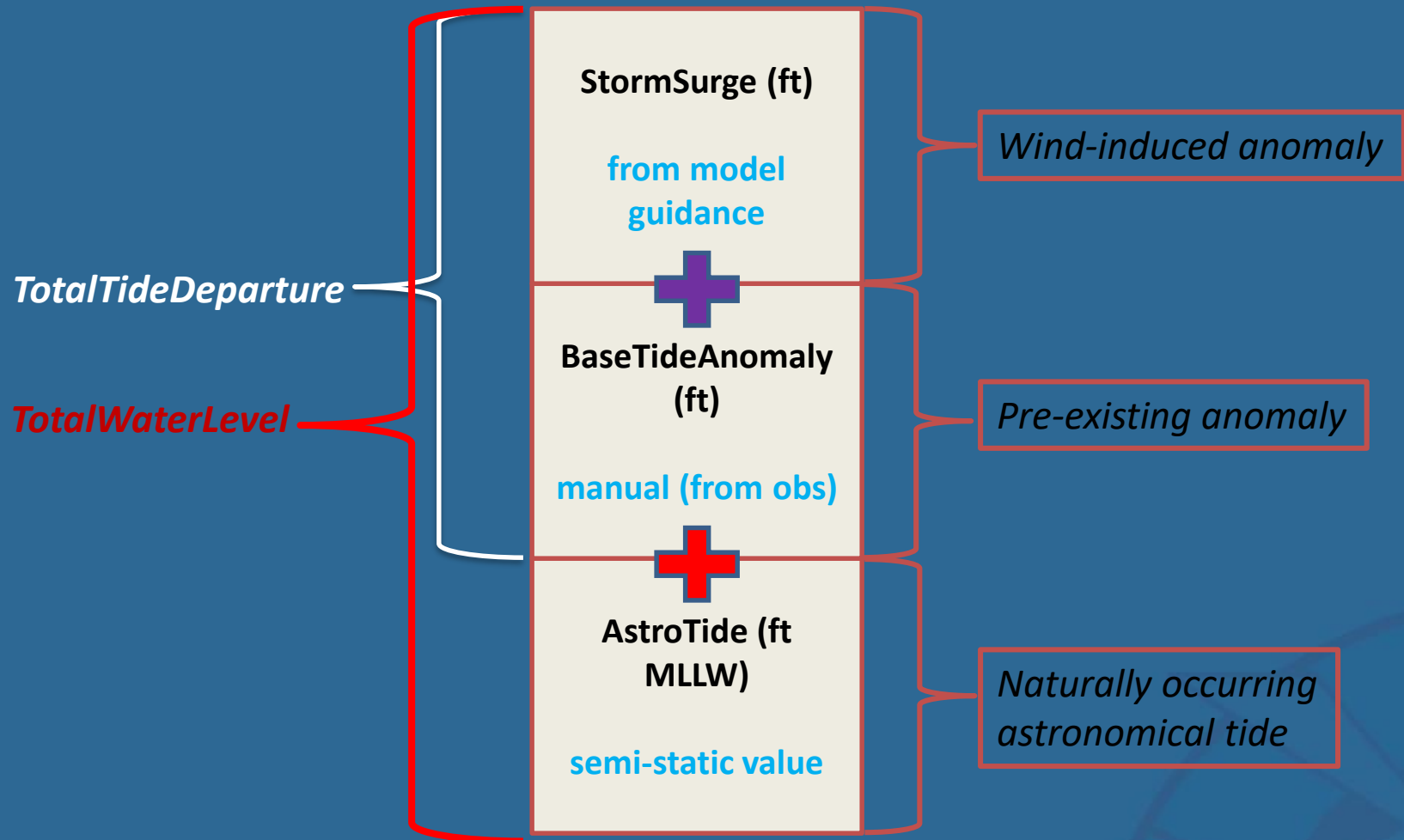


# National Weather Service Newport/Morehead City Total Water Level Forecasts



# What is Total Water Level?

Total Water Level = Storm Surge + Astronomical Tide + Tide Anomaly



# Old vs. New

## ATLANTIC COAST AT DUCK

Universal Time (UTC)

11Z 23Z 11Z 23Z 11Z 23Z 11Z 23Z 11Z 23Z 11Z 23Z 11Z 23Z 11Z  
Oct 2 Oct 2 Oct 3 Oct 3 Oct 4 Oct 4 Oct 5 Oct 5 Oct 6 Oct 6 Oct 7 Oct 7 Oct 8 Oct 8 Oct 9

Latest observed value: 3.94 ft at 6:36 AM EDT  
5-Oct-2015. Flood Stage is 5.5 ft

Record: 7.8'

6.84 ft  
Major: 6.5'  
Moderate: 6.0'  
Minor: 5.5'  
Action: 5.0'

3.66 ft

Site Time (EDT)

--- Graph Created (7:00AM Oct 5, 2015) —●— Observed —■— Forecast (issued 8:00PM Oct 4)

DUKN7(plotting HMIRG) "Gage 0" Datum: n/a

## COASTAL EASTERN NORTH CAROLINA AT DUCK

Universal Time (UTC)

20Z 8Z 20Z 8Z 20Z 8Z 20Z 8Z 20Z 8Z 20Z 8Z 20Z 8Z 20Z  
Nov 18 Nov 19 Nov 19 Nov 20 Nov 20 Nov 21 Nov 21 Nov 22 Nov 22 Nov 23 Nov 23 Nov 24 Nov 24 Nov 25 Nov 25

Latest observed value: -0.04 ft at 2:36 PM  
EST 21-Nov-2017. Flood Stage is 5.5 ft

Record: 7.8'

Moderate: 6.0'  
Minor: 5.5'  
Action: 5.0'

Tide Height (ft)

3.83 ft

3.7 ft

Site Time (EST)

--- Graph Created (3:00PM Nov 21, 2017) —●— Observed —■— Forecast (issued 2:40PM Nov 21)

DUKN7(plotting HMIRG) "Gage 0" Datum: n/a

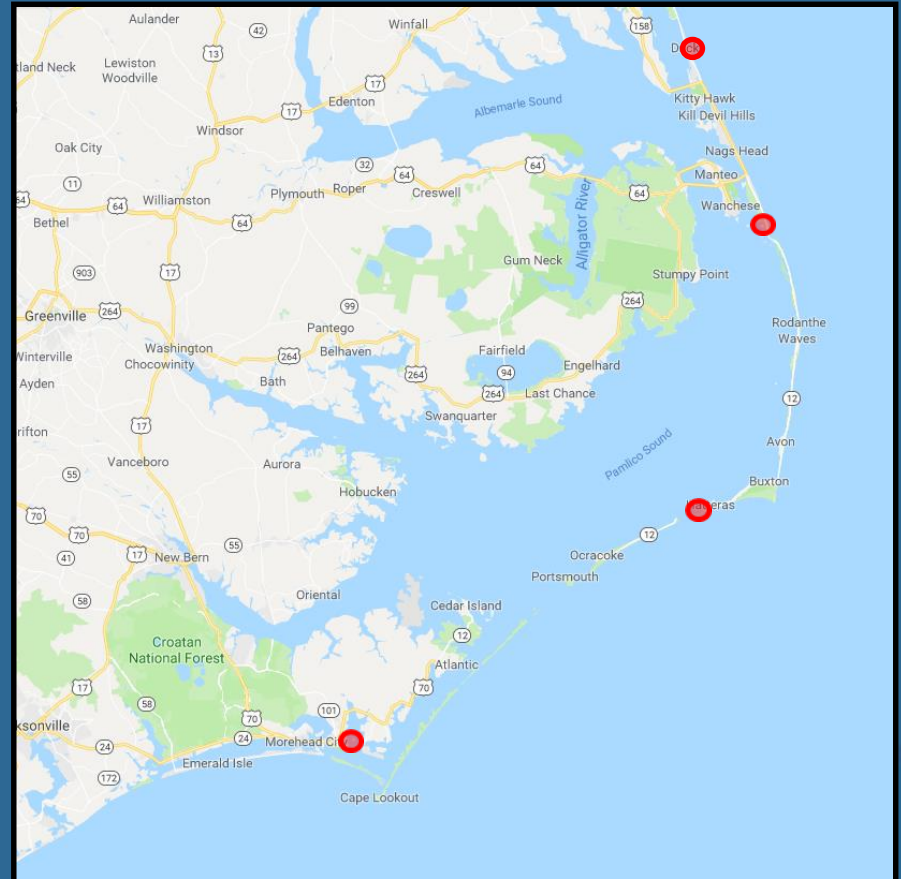
Old (See how terrible the "forecast" was)

New

- The "Old" was pure astronomical tide (not a real forecast).
- The "New" incorporates the surge. So it is now a true forecast and this should be much more accurate.

# Current TWL Forecast Locations

- Duck, NC
- Oregon Inlet, NC
- Cape Hatteras, NC
- Beaufort, NC



# Where to find this data

## MHX AHPS page

**NATIONAL WEATHER SERVICE**  
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION

HOME FORECAST PAST WEATHER SAFETY INFORMATION EDUCATION NEWS SEARCH ABOUT

Local forecast by "City, ST" or ZIP code  
Enter location ... Go  
Location Help

**News Headlines**

- It's Frost/Freeze season again in eastern North Carolina. Check out our Frost/Freeze page for more details!
- Winter SKYWARN (Weather Spotters) Training Schedule
- Here is the Fall 2017 Edition of our Newsletter, Carolina Skywatcher

**NWS Forecast Office Newport/Morehead City, Newport/Morehead City, NC**  
Weather Forecast Office

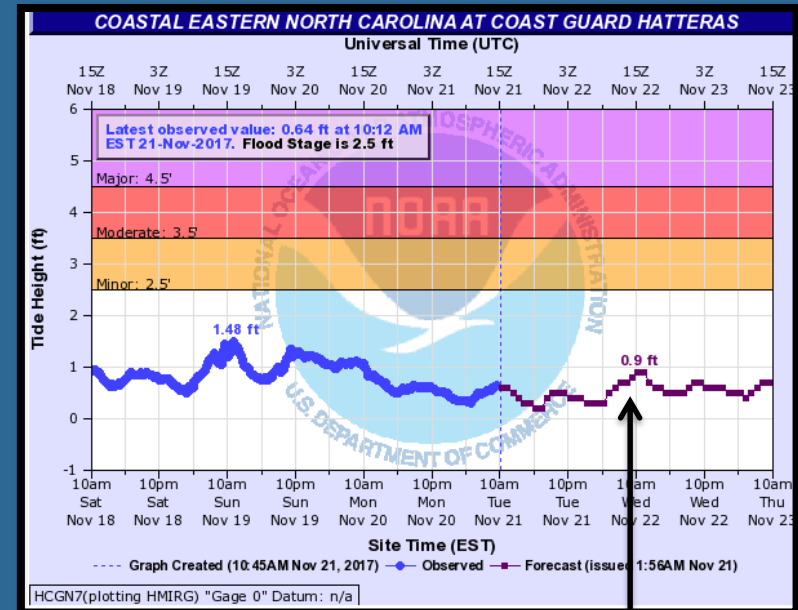
Weather.gov > Newport/Morehead City, NC

Current Hazards Current Conditions Radar Forecast **Rivers and Lakes** Climate and Past Weather Local Programs

Click a location below for detailed forecast.

- River Observations (Map)
- River Forecasts (Map)
- River Forecast Centers
- River Forecasts (Text)
- Ensemble River Guidance
- Current & Past Streamflow
- Additional Links

Last Map Update: Tue, Nov. 21, 2017 at 9:50:20 am EST



Forecast

- We are updating these forecasts at least two times a day.
- It will be incorporated into any Coastal Flood Advisory or Warning product issued.

# Coastal Flood Table/Advisories

## COASTAL HAZARD MESSAGE

NATIONAL WEATHER SERVICE NEWPORT/MOREHEAD CITY NC

400 AM EST WED NOV 8 2017

...MINOR COASTAL FLOODING EXPECTED ALONG THE COAST NORTH OF CAPE HATTERAS THROUGH THURSDAY...

.A SURGE OF NORTH TO NORTHEAST WINDS TODAY, COMBINED WITH ABOVE NORMAL TIDES WILL RESULT IN MINOR COASTAL FLOODING ALONG THE COAST NORTH OF CAPE HATTERAS. MINOR FLOODING COULD CONTINUE INTO THE HIGH TIDE CYCLE THURSDAY AS WELL.

NCZ103-082100-

/O.EXT.KMHX.CF.Y.0014.171108T1200Z-171109T1900Z/

OUTER BANKS DARE-

400 AM EST WED NOV 8 2017

...COASTAL FLOOD ADVISORY NOW IN EFFECT FROM 7 AM THIS MORNING TO 2 PM EST THURSDAY...

\* LOCATIONS...NORTH OF CAPE HATTERAS.

\* TIDAL DEPARTURE...WATER LEVELS 2 TO 3 FEET ABOVE NORMAL OR ABOUT 1 TO 2 FEET ABOVE GROUND.

\* COASTAL FLOOD IMPACTS...BEACH EROSION AND OCEAN OVERWASH ALONG NC HIGHWAY 12 WILL BE POSSIBLE.

PRECAUTIONARY/PREPAREDNESS ACTIONS...

A COASTAL FLOOD ADVISORY INDICATES THAT ONSHORE WINDS AND TIDES WILL COMBINE TO GENERATE FLOODING OF LOW AREAS ALONG THE SHORE.

- Tables will be attached to the bottom of every Coastal Flood Advisory or Warning.
- Tables include forecast water level at high tide, and expected flood impact category.



TIME OF HIGH TOTAL TIDES ARE APPROXIMATE TO THE NEAREST HOUR.

DUCK NC

MLLW CATEGORIES - MINOR 5.5 FT, MODERATE 6.0 FT, MAJOR 6.5 FT

MHHW CATEGORIES - MINOR 1.8 FT, MODERATE 2.3 FT, MAJOR 2.8 FT

DAY/TIME	TOTAL TIDE FT MLLW	TOTAL TIDE FT MHHW	DEPARTURE FROM NORM FT	WAVES FT	FLOOD IMPACT
08/10 AM	6.3	2.6	1.9	4.0	MODERATE
08/11 PM	5.3	1.6	1.9	5.0	NONE
09/11 AM	5.8	2.1	1.7	4.0	MINOR
10/12 AM	4.6	0.9	1.3	3.0	NONE
10/12 PM	5.4	1.7	1.5	4.0	NONE

While these forecasts are currently considered **experimental**, we encourage you to utilize them, and if you have any questions, comments or feedback this winter (and anytime in the future) **please let us know.**

For questions or feedback, please email: [Belkys.Melendez@noaa.gov](mailto:Belkys.Melendez@noaa.gov), [Casey.Dail@noaa.gov](mailto:Casey.Dail@noaa.gov), or [Wxobs.mhx@noaa.gov](mailto:Wxobs.mhx@noaa.gov)



*Photo by Ron Pettit*

Highway 12 just north of Mirlo Beach in north Rodanthe has been seriously damaged by pounding seas from the coastal storm. This photo was taken about 12:30 p.m. today, Nov. 14.