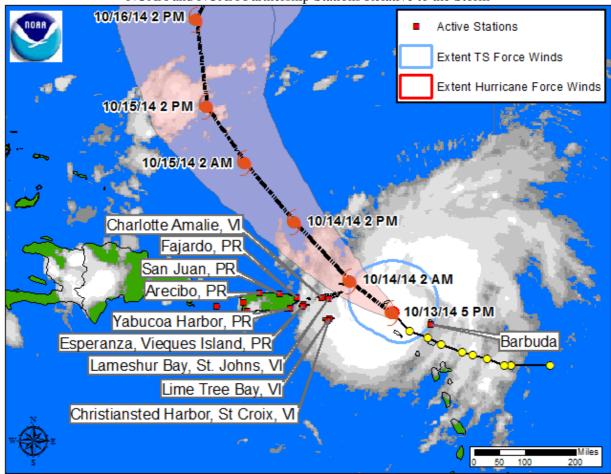


NOAA and NOAA Partnership Stations Relative to the Storm



Storm Analysis

### \*\*GONZALO IS NOW A CATEORY 1 HURRICANE\*\*

As of 10/13/2014 18:00 AST, water levels across Barbuda, the U.S. Virgin Islands and Puerto Rico are elevated between 0.2 and 0.7 feet above predicted tide levels. Water levels are slowly rising across the U.S. Virgin Islands and are decreasing at Barbuda after reaching just over 1 foot above tidal predictions within the past 6 hours.

Winds have begun to diminish at Barbuda, however wind speeds remain at 20-30 knots and peak gusts over 60 knots were measured over the past 6 hours. Winds across the US. Virgin Islands and eastern Puerto Rico are increasing slightly, with a few gusts over 20 knots at some locations. Barometric pressure is decreasing slowly across the region.

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

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

Analyst: PFF

SELECT NATIONAL HURRICANE CENTER ADVISORY INFORMATION:

HURRICANE GONZALO ADVISORY NUMBER 6

NWS NATIONAL HURRICANE CENTER MIAMI FL

500 PM AST MON OCT 13 2014

...GONZALO BECOMES A HURRICANE WHILE MOVING THROUGH THE NORTHERN LEEWARD ISLANDS...

...ADDITIONAL STRENGTHENING LIKELY...

A HURRICANE WATCH IS IN EFFECT FOR...

- \* PUERTO RICO
- \* VIEQUES AND CULEBRA
- \* U.S. VIRGIN ISLANDS

A TROPICAL STORM WARNING IS IN EFFECT FOR...

- \* PUERTO RICO
- \* VIEQUES AND CULEBRA
- \* U.S. VIRGIN ISLANDS

A HURRICANE WARNING MEANS THAT HURRICANE CONDITIONS ARE EXPECTED SOMEWHERE WITHIN THE WARNING AREA...IN THIS CASE WITHIN 12 HOURS. PREPARATIONS TO PROTECT LIFE AND PROPERTY SHOULD BE RUSHED TO COMPLETION.

A HURRICANE WATCH MEANS THAT HURRICANE CONDITIONS ARE POSSIBLE WITHIN THE WATCH AREA...IN THIS CASE IN THE NEXT 12 HOURS.

A TROPICAL STORM WARNING MEANS THAT TROPICAL STORM CONDITIONS ARE EXPECTED SOMEWHERE WITHIN THE WARNING AREA.

FOR STORM INFORMATION SPECIFIC TO YOUR AREA IN THE UNITED STATES...INCLUDING POSSIBLE INLAND WATCHES AND WARNINGS...PLEASE MONITOR PRODUCTS ISSUED BY YOUR LOCAL NATIONAL WEATHER SERVICE FORECAST OFFICE. FOR STORM INFORMATION SPECIFIC TO YOUR AREA OUTSIDE THE UNITED STATES...PLEASE MONITOR PRODUCTS ISSUED BY YOUR NATIONAL METEOROLOGICAL SERVICE.

**DISCUSSION AND 48-HOUR OUTLOOK** 

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AT 500 PM AST...2100 UTC...THE CENTER OF HURRICANE GONZALO WAS LOCATED BY AN AIR FORCE RESERVE RECONNAISSANCE AIRCRAFT AND GUADELOUPE RADAR NEAR LATITUDE 17.9 NORTH...LONGITUDE 62.9 WEST OR ABOUT 140 MI ESE OF ST. THOMAS. GONZALO IS MOVING TOWARD THE NORTHWEST NEAR 12 MPH...19 KM/H...AND THIS GENERAL MOTION IS EXPECTED TO CONTINUE THROUGH TUESDAY. ON THE FORECAST TRACK...THE CENTER OF GONZALO WILL CONTINUE TO MOVE THROUGH THE NORTHERN LEEWARD ISLANDS TONIGHT...BE NEAR OR JUST EAST OF THE VIRGIN ISLANDS TONIGHT AND EARLY TUESDAY...AND EMERGE OVER THE OPEN ATLANTIC OCEAN BY TUESDAY AFTERNOON.

REPORTS FROM THE RECONNAISSANCE AIRCRAFT INDICATE THAT MAXIMUM SUSTAINED WINDS HAVE INCREASED TO NEAR 75 MPH...120 KM/H...WITH HIGHER GUSTS. ADDITIONAL STRENGTHENING IS FORECAST DURING THE NEXT 48 HOURS...AND GONZALO COULD BECOME A MAJOR HURRICANE BY WEDNESDAY WHEN IT IS LOCATED OVER THE OPEN ATLANTIC OCEAN.

HURRICANE-FORCE WINDS EXTEND OUTWARD UP TO 10 MILES...20 KM...FROM THE CENTER...AND TROPICAL-STORM-FORCE WINDS EXTEND OUTWARD UP TO 105 MILES...165 KM.

THE MINIMUM CENTRAL PRESSURE RECENTLY MEASURED BY THE AIRCRAFT WAS 984 MB...29.06 INCHES.

HAZARDS AFFECTING LAND

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WIND...HURRICANE CONDITIONS WILL CONTINUE TO SPREAD THROUGH THE HURRICANE WARNING AREA TONIGHT AND EARLY TUESDAY. HURRICANE CONDITIONS ARE POSSIBLE WITHIN THE HURRICANE WATCH AREA TONIGHT AND EARLY TUESDAY...WITH TROPICAL STORM CONDITIONS EXPECTED BY THIS EVENING. TROPICAL STORM CONDITIONS WILL CONTINUE TO SPREAD OVER PORTIONS OF THE WARNING AREA IN THE LEEWARD ISLANDS TODAY. NOTE THAT WIND SPEEDS ATOP AND ON THE WINDWARD SIDES OF HILLS AND MOUNTAINS ARE OFTEN UP TO 30 PERCENT STRONGER THAN INDICATED IN THIS ADVISORY...AND IN SOME ELEVATED LOCATIONS CAN BE EVEN GREATER.

RAINFALL...GONZALO IS EXPECTED TO PRODUCE TOTAL RAINFALL ACCUMULATIONS OF 4 TO 8 INCHES...WITH ISOLATED MAXIMUM TOTALS OF 12 INCHES POSSIBLE...ACROSS THE LEEWARD ISLANDS...AND THE BRITISH AND U.S. VIRGIN ISLANDS. GONZALO IS EXPECTED TO PRODUCE TOTAL RAINFALL ACCUMULATIONS OF 3 TO 6 INCHES ACROSS PUERTO RICO...WITH ISOLATED MAXIMUM TOTALS OF 10 INCHES POSSIBLE.

STORM SURGE...A DANGEROUS STORM SURGE WILL RAISE WATER LEVELS BY AS MUCH AS 1 TO 3 FEET ABOVE NORMAL TIDE LEVELS IN AREAS OF ONSHORE FLOW IN THE HURRICANE WARNING AREA.

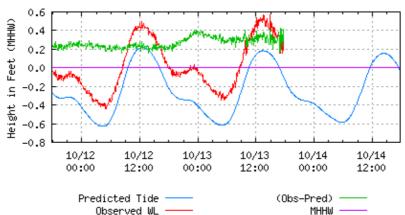
SURF...SWELLS GENERATED BY GONZALO ARE AFFECTING THE LEEWARD ISLANDS FROM DOMINICA NORTHWARD. SWELLS WILL BEGIN AFFECTING THE U.S. AND BRITISH VIRGIN ISLANDS THIS EVENING AND WILL REACH THE NORTHERN COAST OF PUERTO RICO TONIGHT. THESE SWELLS ARE LIKELY TO CAUSE LIFE-THREATENING SURF AND RIP CURRENT CONDITIONS. PLEASE CONSULT PRODUCTS FROM YOUR LOCAL WEATHER OFFICE.

### 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.

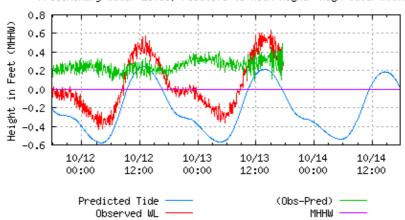
Jump to: Lameshur Bay, St John - Water Level, Charlotte Amalie - Water Level, Charlotte Amalie - Winds, Charlotte Amalie - Barometric, Lime Tree Bay - Water Level, Lime Tree Bay - Winds, Lime Tree Bay - Barometric, Christiansted Harbor, St Croix - Water Level, Christiansted Harbor, St Croix - Winds, Esperanza, Vieques Island - Water Level, Esperanza, Vieques Island - Winds, Esperanza, Vieques Island - Barometric, Fajardo - Water Level, Fajardo - Winds, Yabucoa Harbor - Water Level, Yabucoa Harbor - Winds, San Juan - Water Level, San Juan - Winds, San Juan - Barometric, Arecibo - Water Level, Barbuda - Water Level, Barbuda - Water Level, Barbuda - Water Level, Barbuda - Water Level,

# NOAA/NOS/CO-OPS 9751381 Lameshur Bay, St John, VI Preliminary Water Level, relative to Mean Higher High Water(MHHW)



Last Observed Sample: 10/13/2014 17:42 (AST). Data relative to MHHW Observed: 0.19 ft. Predicted: -0.10 ft. Residual: 0.29 ft. Historical Maximum Water Level: Aug 30 2010, 0.89 ft. Next High Tide: 10/14/2014 14:28 (AST), 0.16 ft.

# NOAA/NOS/CO-OPS <u>9751639 Charlotte Amalie, VI</u> Preliminary Water Level, relative to Mean Higher High Water(MHHW)



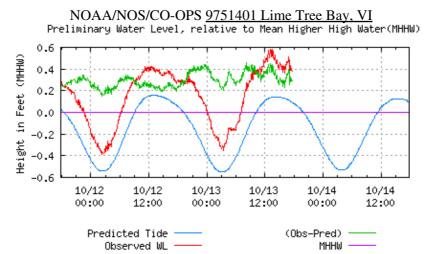
Last Observed Sample: 10/13/2014 17:42 (AST). Data relative to MHHW Observed: 0.32 ft. Predicted: -0.04 ft. Residual: 0.36 ft. Historical Maximum Water Level: Sep 16 1995, 2.93 ft. Next High Tide: 10/14/2014 14:43 (AST), 0.19 ft.

#### NOAA/NOS/CO-OPS 9751639 Charlotte Amalie, VI Wind Speed / Gusts / Direction 360 60 50 270 direction (true) speed (knots) 180 30 20 90 10 0 10/12 10/12 10/13 10/13 10/14 10/14 00:00 12:00 00:00 12:00 00:00 12:00 speed gusts direction

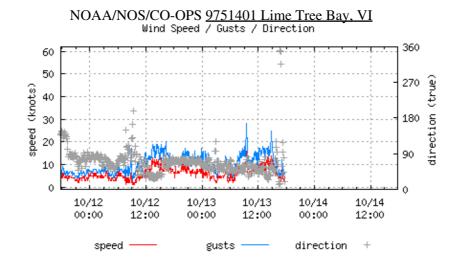
Last Observed Sample: 10/13/2014 17:42 (AST) Wind Speed: 3 knots Gusts: 8 knots Direction: 40° T

#### NOAA/NOS/CO-OPS 9751639 Charlotte Amalie, VI Barometric Pressure 1016 1015 Pressure (mb) 1014 1013 1012 1011 1010 10/12 10/12 10/13 10/13 10/14 10/14 00:00 12:00 00:00 12:00 00:00 12:00 barometric pressure

Last Observed Sample: 10/13/2014 17:42 (AST)
Barometric Pressure: 1011.0 mb

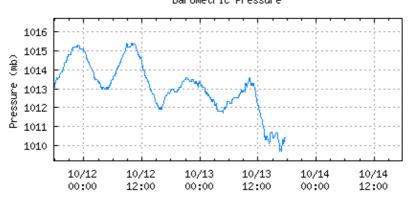


Last Observed Sample: 10/13/2014 17:42 (AST). Data relative to MHHW Observed: 0.38 ft. Predicted: 0.09 ft. Residual: 0.29 ft. Historical Maximum Water Level: Nov 17 1999, 1.88 ft. Next High Tide: 10/14/2014 15:28 (AST), 0.12 ft.



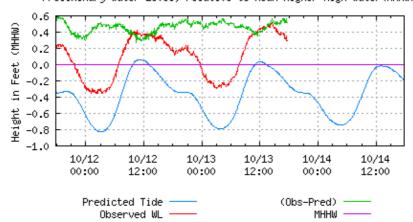
Last Observed Sample: 10/13/2014 17:42 (AST) Wind Speed: 0 knots Gusts: 0 knots Direction: 27° T

# NOAA/NOS/CO-OPS <u>9751401 Lime Tree Bay, VI</u> Barometric Pressure



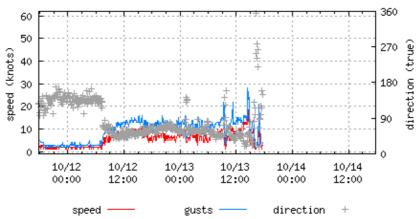
barometric pressure ——
Last Observed Sample: 10/13/2014 17:42 (AST)
Barometric Pressure: 1010.2 mb

NOAA/NOS/CO-OPS <u>9751364 Christiansted Harbor, St Croix, VI</u>
Preliminary Water Level, relative to Mean Higher High Water(MHHW)



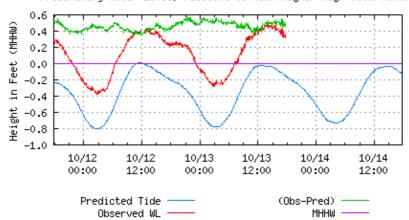
Last Observed Sample: 10/13/2014 17:36 (AST). Data relative to MHHW Observed: 0.29 ft. Predicted: -0.23 ft. Residual: 0.52 ft. Historical Maximum Water Level: Oct 16 2008, 1.17 ft. Next High Tide: 10/14/2014 13:04 (AST), -0.01 ft.

# NOAA/NOS/CO-OPS 9751364 Christiansted Harbor, St Croix, VI Wind Speed / Gusts / Direction



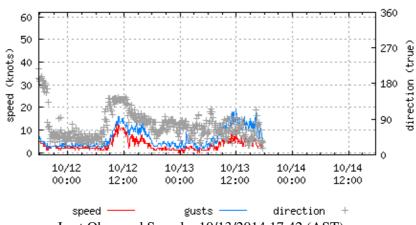
Last Observed Sample: 10/13/2014 17:36 (AST) Wind Speed: 3 knots Gusts: 4 knots Direction: 149° T

# NOAA/NOS/CO-OPS 9752695 Esperanza, Vieques Island, PR Preliminary Water Level, relative to Mean Higher High Water(MHHW)



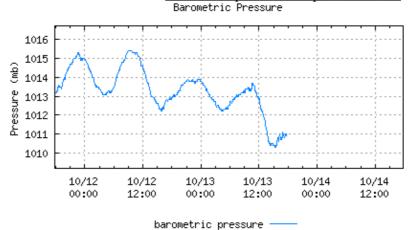
Last Observed Sample: 10/13/2014 17:42 (AST). Data relative to MHHW Observed: 0.36 ft. Predicted: -0.15 ft. Residual: 0.51 ft. Historical Maximum Water Level: Aug 22 2011, 0.99 ft. Next High Tide: 10/14/2014 15:02 (AST), -0.04 ft.

### NOAA/NOS/CO-OPS <u>9752695 Esperanza</u>, <u>Vieques Island</u>, <u>PR</u> Wind <u>Speed</u> / <u>Gusts</u> / <u>Direction</u>



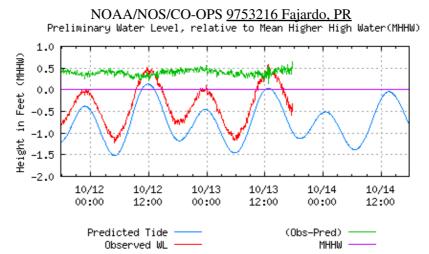
Last Observed Sample: 10/13/2014 17:42 (AST) Wind Speed: 2 knots Gusts: 6 knots Direction: 18° T

## NOAA/NOS/CO-OPS <u>9752695 Esperanza</u>, Vieques Island, PR

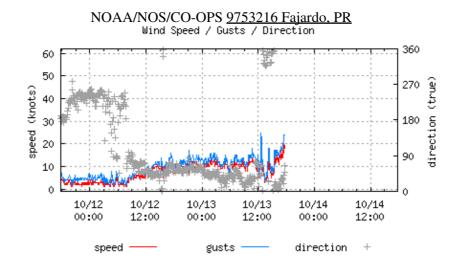


Last Observed Sample: 10/13/2014 17:42 (AST)

Barometric Pressure: 1010.9 mb



Last Observed Sample: 10/13/2014 17:42 (AST). Data relative to MHHW Observed: -0.50 ft. Predicted: -0.99 ft. Residual: 0.49 ft. Historical Maximum Water Level: Aug 30 2010, 0.84 ft. Next High Tide: 10/14/2014 00:30 (AST), -0.51 ft.



Last Observed Sample: 10/13/2014 17:42 (AST) Wind Speed: 18 knots Gusts: 24 knots Direction: 66° T

#### NOAA/NOS/CO-OPS 9754228 Yabucoa Harbor, PR Preliminary Water Level, relative to Mean Higher High Water(MHHW) 0.8 Height in Feet (MHHW) 0.6 0.4 0.2 0.0 -0.2 -0.4 -0.6 -0.8 10/12 10/12 10/13 10/13 10/14 10/14 00:00 12:00 00:00 12:00 00:00 12:00

Last Observed Sample: 10/13/2014 17:42 (AST). Data relative to MHHW Observed: 0.44 ft. Predicted: -0.10 ft. Residual: 0.54 ft.

(Obs-Pred)

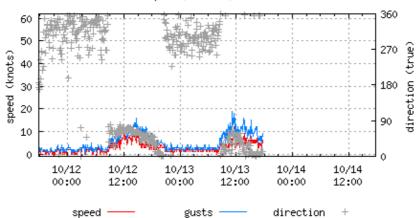
MHHW

Predicted Tide

Observed WL

Historical Maximum Water Level: n/a Next High Tide: 10/14/2014 15:58 (AST), -0.03 ft.

### NOAA/NOS/CO-OPS <u>9754228 Yabucoa Harbor, PR</u> Wind Speed / Gusts / Direction



Last Observed Sample: 10/13/2014 17:42 (AST) Wind Speed: 6 knots Gusts: 9 knots Direction: 12° T

#### NOAA/NOS/CO-OPS 9755371 San Juan, PR Preliminary Water Level, relative to Mean Higher High Water(MHHW) 0.6 0.4 Height in Feet (MHHW) 0.2 0.0 -0.2 -0.4 -0.6 -0.8 -1.0 -1.2 -1.4 -1.6 10/12 10/12 10/13 10/14 10/14 10/13 00:00 12:00 00:00 12:00 00:00 12:00

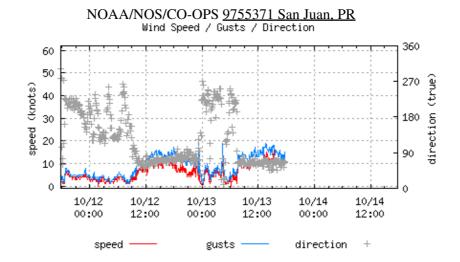
Last Observed Sample: 10/13/2014 17:42 (AST). Data relative to MHHW Observed: -0.35 ft. Predicted: -0.72 ft. Residual: 0.37 ft. Historical Maximum Water Level: Sep 18 1989, 2.77 ft. Next High Tide: 10/14/2014 00:39 (AST), -0.44 ft.

(Obs-Pred)

MHHW

Predicted Tide

Observed WL



Last Observed Sample: 10/13/2014 17:42 (AST) Wind Speed: 9 knots Gusts: 11 knots Direction: 66° T

#### NOAA/NOS/CO-OPS <u>9755371 San Juan, PR</u> Barometric Pressure

1016 1015 Pressure (mb) 1014 1013 1012 1011 1010 10/12 10/12 10/13 10/13 10/14 10/14 00:00 12:00 00:00 12:00 00:00 12:00

> barometric pressure —— Last Observed Sample: 10/13/2014 17:42 (AST)

Barometric Pressure: 1011.6 mb

# NOAA/NOS/CO-OPS <u>9757809 Arecibo, PR</u> Preliminary Water Level, relative to Mean Higher High Water(MHHW)

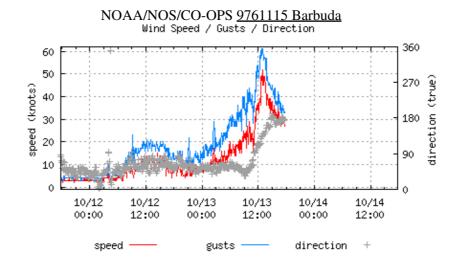
1.0 Height in Feet (MHHW) 0.5 0.0 -0.5 -1.0 -1.5-2.0 10/13 10/14 10/14 10/12 10/12 10/13 00:00 12:00 00:00 12:00 00:00 12:00 Predicted Tide (Obs-Pred) Observed WL MHHW

Last Observed Sample: 10/13/2014 17:42 (AST). Data relative to MHHW Observed: -0.94 ft. Predicted: -1.15 ft. Residual: 0.21 ft. Historical Maximum Water Level: Oct 8 2010, 0.90 ft.

Next High Tide: 10/14/2014 00:15 (AST), -0.60 ft.

#### NOAA/NOS/CO-OPS 9761115 Barbuda Preliminary Water Level, relative to Mean Higher High Water(MHHW) 1.2 Height in Feet (MHHW) 1.0 0.8 0.6 0.4 0.2 0.0 -0.2 -0.4 -0.6 -0.8 10/13 10/14 10/12 10/12 10/13 10/14 00:00 12:00 00:00 12:00 00:00 12:00 Predicted Tide (Obs-Pred) Observed WL MHHW

Last Observed Sample: 10/13/2014 17:36 (AST). Data relative to MHHW Observed: 0.38 ft. Predicted: -0.12 ft. Residual: 0.50 ft. Historical Maximum Water Level: Aug 23 2012, 1.05 ft. Next High Tide: 10/14/2014 13:33 (AST), -0.04 ft.



Last Observed Sample: 10/13/2014 17:36 (AST) Wind Speed: 27 knots Gusts: 33 knots Direction: 176° T

### Latest Water Level Observations on MHHW

| Station<br>ID | Station Name                          | Date/Time                 | Observed<br>Water<br>Level | Predicted<br>Tide | Residual<br>Water<br>Level | 24 Hour<br>Maximum<br>Storm<br>Tide |
|---------------|---------------------------------------|---------------------------|----------------------------|-------------------|----------------------------|-------------------------------------|
| 9751381       | Lameshur Bay, St John, VI             | 10/13/2014 17:42<br>(AST) | 0.19 ft                    | -0.10 ft          | 0.29 ft                    | 0.57 ft                             |
| 9751639       | Charlotte Amalie, VI                  | 10/13/2014 17:42<br>(AST) | 0.32 ft                    | -0.04 ft          | 0.36 ft                    | 0.63 ft                             |
| 9751401       | Lime Tree Bay, VI                     | 10/13/2014 17:42<br>(AST) | 0.38 ft                    | 0.09 ft           | 0.29 ft                    | 0.58 ft                             |
| 9751364       | Christiansted Harbor, St<br>Croix, VI | 10/13/2014 17:36<br>(AST) | 0.29 ft                    | -0.23 ft          | 0.52 ft                    | 0.51 ft                             |
| 9752695       | Esperanza, Vieques Island, PR         | 10/13/2014 17:42<br>(AST) | 0.36 ft                    | -0.15 ft          | 0.51 ft                    | 0.50 ft                             |
| 9753216       | Fajardo, PR                           | 10/13/2014 17:42<br>(AST) | -0.50 ft                   | -0.99 ft          | 0.49 ft                    | 0.57 ft                             |
| 9754228       | Yabucoa Harbor, PR                    | 10/13/2014 17:42<br>(AST) | 0.44 ft                    | -0.10 ft          | 0.54 ft                    | 0.72 ft                             |
| 9755371       | San Juan, PR                          | 10/13/2014 17:42<br>(AST) | -0.35 ft                   | -0.72 ft          | 0.37 ft                    | 0.44 ft                             |
| 9757809       | Arecibo, PR                           | 10/13/2014 17:42<br>(AST) | -0.94 ft                   | -1.15 ft          | 0.21 ft                    | 0.54 ft                             |
| 9761115       | Barbuda                               | 10/13/2014 17:36<br>(AST) | 0.38 ft                    | -0.12 ft          | 0.50 ft                    | 1.02 ft                             |

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