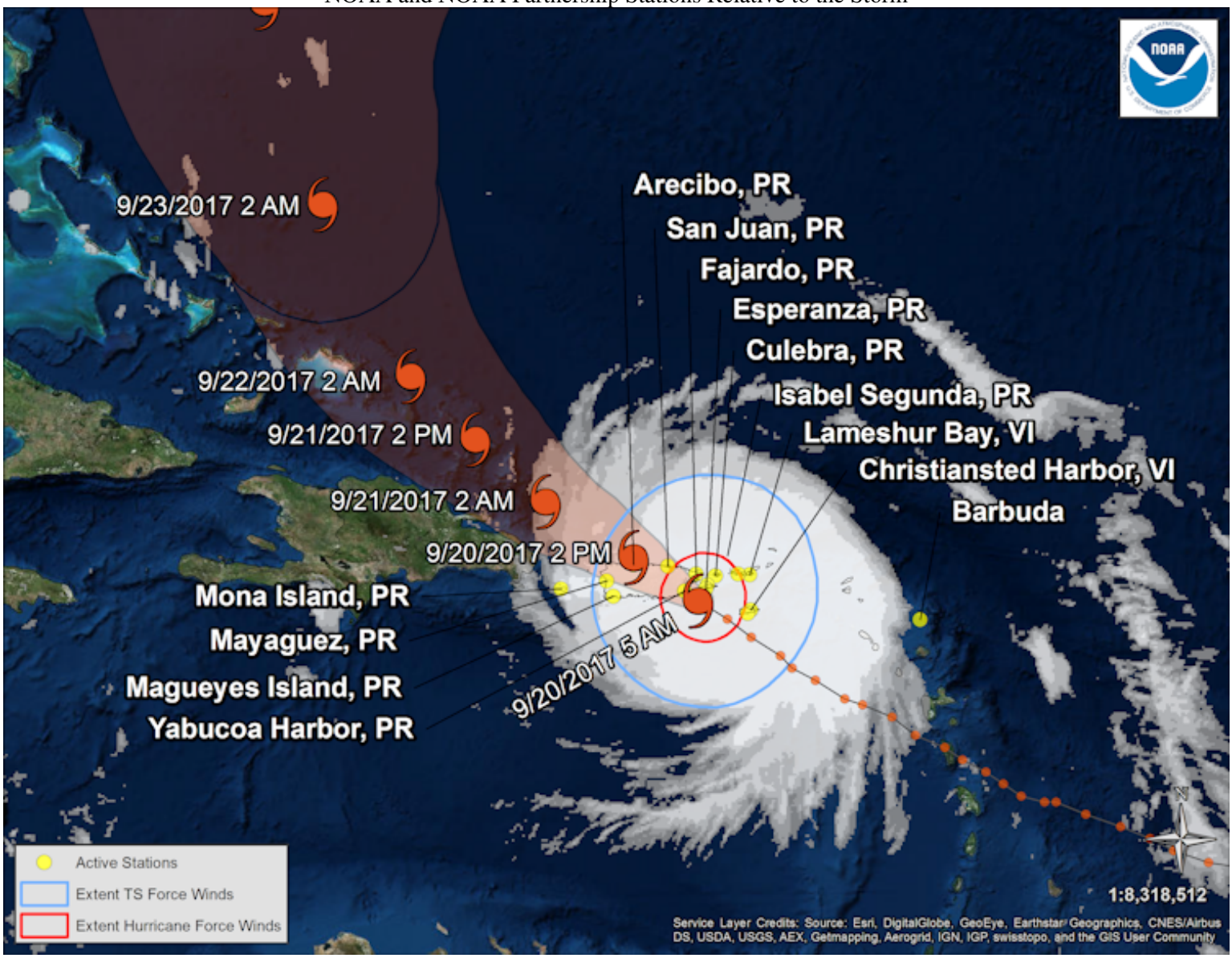
Hurricane MARIA QuickLook
Posted: 06:00 AST 09/20/2017

NOAA and NOAA Partnership Stations Relative to the Storm



Storm Analysis

As of 9/20/2017 06:00 AST, water levels surrounding the U.S. Virgin Islands and Puerto Rico are measuring between 1.0 and 2.4 feet above normal tide levels and are quickly rising. Winds over 40 knots, and gusts as high as 90 knots, are being observed at Christiansted Harbor and Isabel Segunda. Winds on Western Puerto Rico generally range between 10 and 25 knots with slightly higher gusts. Barometric pressure is decreasing across the region as Maria approaches from the southeast.

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

SELECT NATIONAL HURRICANE CENTER ADVISORY INFORMATION:

Hurricane Maria Advisory Number 17
NWS National Hurricane Center Miami FL
500 AM AST Wed Sep 20 2017

...CORE OF EXTREMELY DANGEROUS HURRICANE MARIA NEARING PUERTO RICO...

WATCHES AND WARNINGS

CHANGES WITH THIS ADVISORY:

The government of France has discontinued the Tropical Storm Warning for Guadeloupe.

The government of the Bahamas has issued a Hurricane Warning for the Turks and Caicos Islands and the Southeastern Bahamas.

The government of the Netherlands has discontinued the Hurricane Watch for Saba and St. Eustatius.

SUMMARY OF WATCHES AND WARNINGS IN EFFECT:

A Hurricane Warning is in effect for...
* U.S. Virgin Islands
* British Virgin Islands
* Puerto Rico, Culebra, and Vieques
* Dominican Republic from Cabo Engano to Puerto Plata
* Turks and Caicos Islands and the Southeastern Bahamas

A Tropical Storm Warning is in effect for...
* Saba
* St. Maarten
* Dominican Republic west of Puerto Plata to the northern border of the Dominican Republic and Haiti
* Dominican Republic west of Cabo Engano to Punta Palenque

A Hurricane Watch is in effect for...
* St. Maarten
* St. Martin and St. Barthelemy
* Dominican Republic from Isla Saona to Cabo Engano

A Hurricane Warning means that hurricane conditions are expected somewhere within the warning area.

Preparations to protect life and property should be rushed to completion.

A Tropical Storm Warning means that tropical storm conditions are expected somewhere within the warning area.

A Hurricane Watch means that hurricane conditions are possible within the watch area. A watch is typically issued 48 hours before the anticipated first occurrence of tropical-storm-force winds, conditions that make outside preparations difficult or dangerous.

Interests elsewhere in Hispaniola and the Bahamas should monitor the progress of Maria.

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

At 500 AM AST, the center of Hurricane Maria was located ABOUT 15 MI SSW OF VIEQUES and ABOUT 50 MI SE OF SAN JUAN PUERTO RICO. Maria is moving toward the northwest near 10 mph. A west-northwest to northwest motion is expected to continue through today, followed by a northwestward motion on Thursday. On the forecast track the eye of Maria will make landfall in Puerto Rico in a couple of hours, cross Puerto Rico today, and pass just north of the northeast coast of the Dominican Republic tonight and Thursday.

Maximum sustained winds are near 155 mph with higher gusts. Maria is an extremely dangerous category 4 hurricane on the Saffir-Simpson Hurricane Wind Scale, and it should maintain this intensity until landfall.

Hurricane-force winds extend outward up to 60 miles from the center and tropical-storm-force winds extend outward up to 150 miles. Fajardo recently reported sustained winds of 79 mph with a gust to 100 mph.

The minimum central pressure recently reported by an Air Force Hurricane Hunter aircraft is 917 mb.

HAZARDS AFFECTING LAND

WIND: Tropical storm and hurricane conditions are occurring over the Virgin Islands and are spreading over Puerto Rico. Hurricane conditions are expected within the Hurricane Warning area in the Dominican Republic tonight, with tropical storm conditions expected by later today. Tropical storm conditions are expected in the Tropical Storm Warning areas in the Dominican Republic later today. Hurricane conditions are expected within the Hurricane Warning area by late Thursday in the Turks and Caicos Islands and the southeastern Bahamas, with tropical storm conditions in this area by early Thursday.

Wind speeds atop and on the windward sides of hills and mountains and on high-rise buildings could be much stronger than the near-surface winds indicated in this advisory.

STORM SURGE: A dangerous storm surge accompanied by large and destructive waves will raise water levels by as much as 4 to 6 feet above normal tide levels in the hurricane warning area in the Dominican Republic, and 1 to 3 ft elsewhere along the northern coasts of the Dominican Republic and Haiti.

A dangerous storm surge accompanied by large and destructive waves will raise water levels by as much as 10 to 15 feet above normal tide levels in the Hurricane Warning area near and to the north of the center of Maria for both the

Southeastern Bahamas and the Turks and Caicos Islands.

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 is expected to reach the following heights above ground if the peak surge occurs at the time of high tide...

Puerto Rico and the U.S. Virgin Islands...6 to 9 ft

The deepest water will occur along the immediate coast near and to the north and east of the landfall location, where the surge will be accompanied by large and destructive waves. Surge-related flooding depends on the relative timing of the surge and the tidal cycle, and 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: Maria is expected to produce the following rain accumulations through Friday:

Central Leeward Islands...additional 1 to 2 inches.
Northern Leeward Islands from Barbuda to Anguilla...additional 2 to 5 inches.
U.S. and British Virgin Islands...additional 8 to 12 inches, isolated 16 inches.
Puerto Rico...12 to 18 inches, isolated 25 inches.
Northern and eastern Dominican Republic and Turks and Caicos...4 to 8 inches, isolated 12 inches.
Northern Haiti and southeastern Bahamas...2 to 4 inches.

Rainfall on these islands will cause life-threatening flash floods and mudslides.

TORNADOES: Several tornadoes are possible over Puerto Rico and the U.S. Virgin Islands today.

THE EYE: Do not venture outside when the calm eye of the hurricane passes over, as dangerous winds will return very quickly when the eye moves away.

SURF: Swells generated by Maria are affecting the Leeward Islands, Puerto Rico, and the Virgin Islands. These swells will begin affecting the northern coast of Hispaniola, the Turks and Caicos Islands, and the Southeastern Bahamas during the next day or two. 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 AM AST.
Next complete advisory at 1100 AM AST.

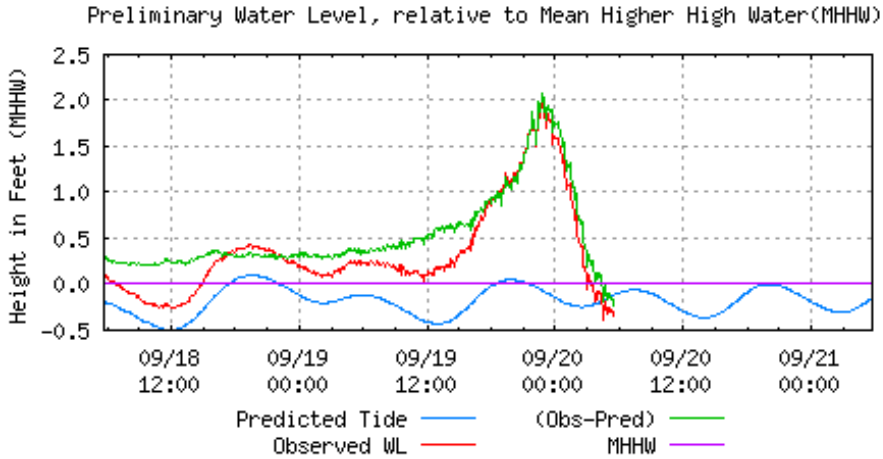
$$
Forecaster Pasch

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: Christiansted Harbor, St Croix - Water Level, Christiansted Harbor, St Croix - Winds, Christiansted Harbor, St Croix - Barometric, Lameshur Bay, St John - Water Level, Lameshur Bay, St John - Barometric, Culebra - Water Level, Culebra - Barometric, Esperanza, Vieques Island - Water Level, Esperanza, Vieques Island - Winds,

Esperanza, Vieques Island - Barometric, Isabel Segunda, Vieques Island - Water Level, Isabel Segunda, Vieques Island - Winds, Fajardo - Water Level, Fajardo - Winds, Yabucoa Harbor - Water Level, Yabucoa Harbor - Winds, San Juan, La Puntilla, San Juan Bay - Water Level, San Juan, La Puntilla, San Juan Bay - Winds, San Juan, La Puntilla, San Juan Bay - Barometric, Arecibo - Water Level, Arecibo - Winds, Arecibo - Barometric, Magueyes Island - Water Level, Magueyes Island - Winds, Magueyes Island - Barometric, Mayaguez - Water Level, Mayaguez - Winds, Mayaguez - Barometric, Mona Island - Water Level, Mona Island - Barometric, Barbuda - Water Level, Barbuda - Barometric

NOAA/NOS/CO-OPS 9751364 Christiansted Harbor, St Croix, VI



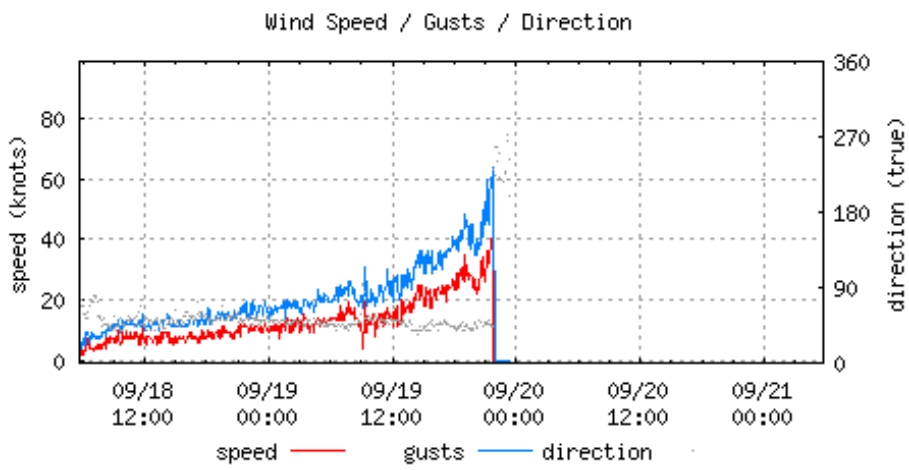
Last Observed Sample: 09/20/2017 05:36 (AST). Data relative to MHHW

Observed: -0.32 ft. Predicted: -0.11 ft. Residual: -0.21 ft.

Historical Maximum Water Level: Oct 16 2008, 1.17 ft.

Next High Tide: 09/20/2017 07:24 (AST), -0.06 ft.

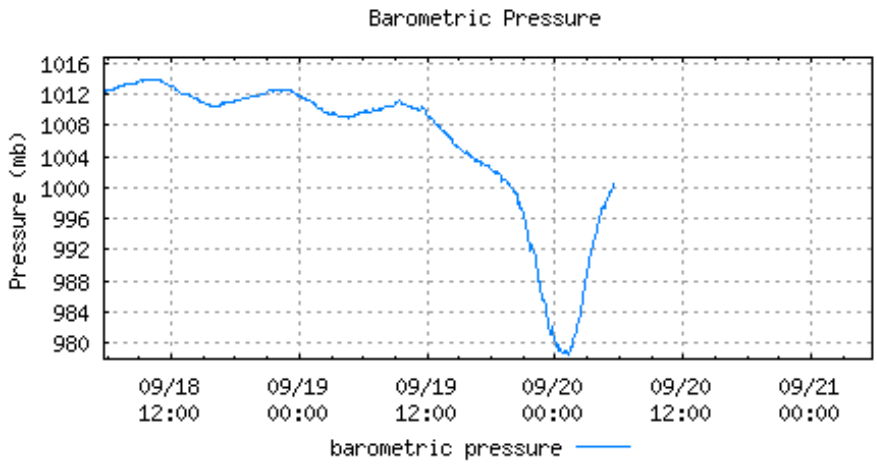
NOAA/NOS/CO-OPS 9751364 Christiansted Harbor, St Croix, VI



Last Observed Sample: 09/20/2017 05:36 (AST)

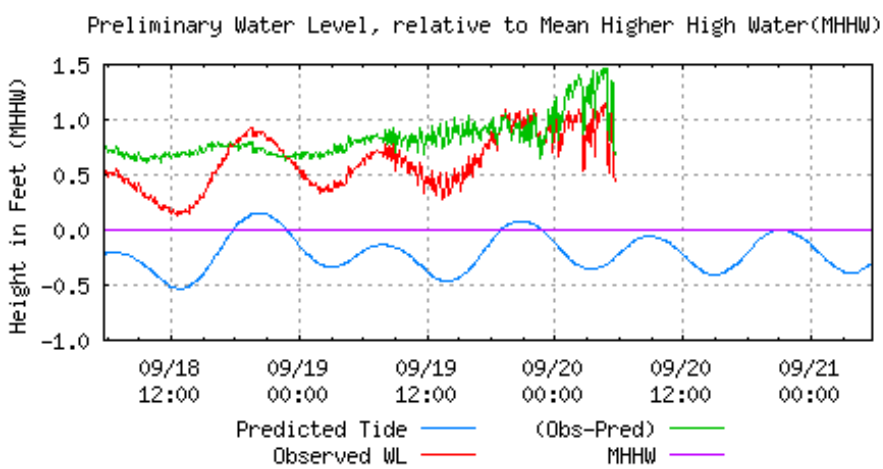
Wind Speed: 0 knots Gusts: 0 knots Direction: 199° T

NOAA/NOS/CO-OPS 9751364 Christiansted Harbor, St Croix, VI



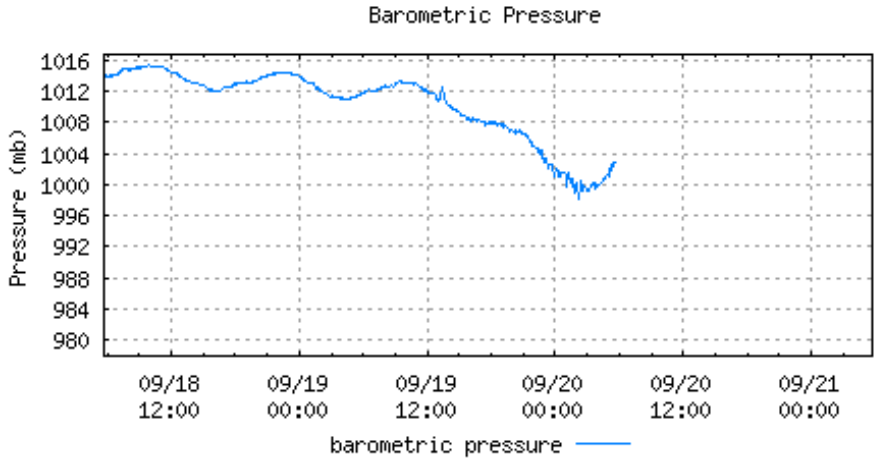
Last Observed Sample: 09/20/2017 05:36 (AST)
Barometric Pressure: 1000.9 mb

NOAA/NOS/CO-OPS 9751381 Lameshur Bay, St John, VI



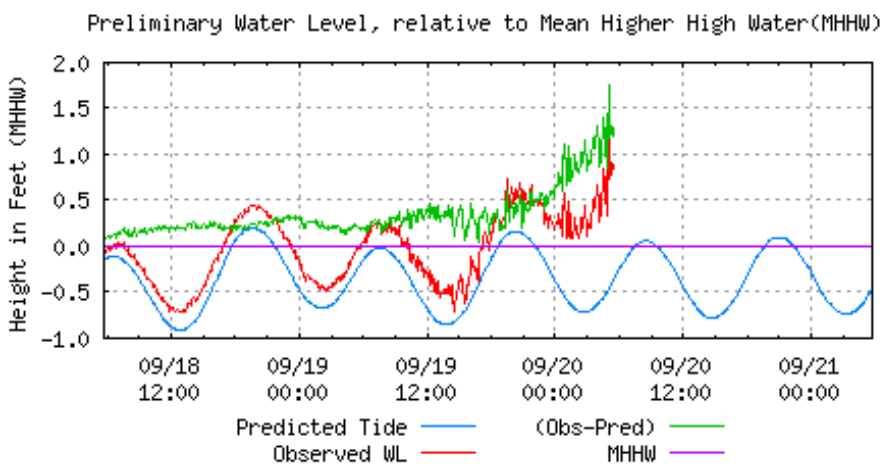
Last Observed Sample: 09/20/2017 05:42 (AST). Data relative to MHHW
Observed: 0.69 ft. Predicted: -0.24 ft. Residual: 0.93 ft.
Historical Maximum Water Level: Aug 30 2010, 0.89 ft.
Next High Tide: 09/20/2017 08:47 (AST), -0.06 ft.

NOAA/NOS/CO-OPS 9751381 Lameshur Bay, St John, VI



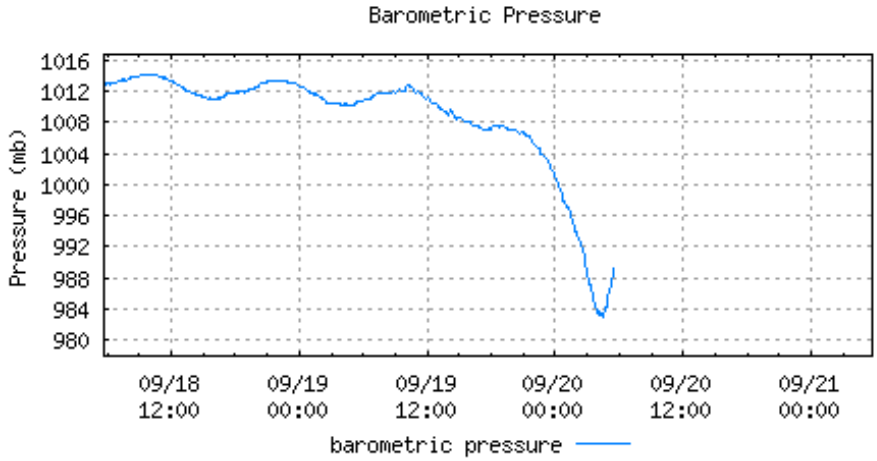
Last Observed Sample: 09/20/2017 05:42 (AST)
Barometric Pressure: 1003.5 mb

NOAA/NOS/CO-OPS 9752235 Culebra, PR



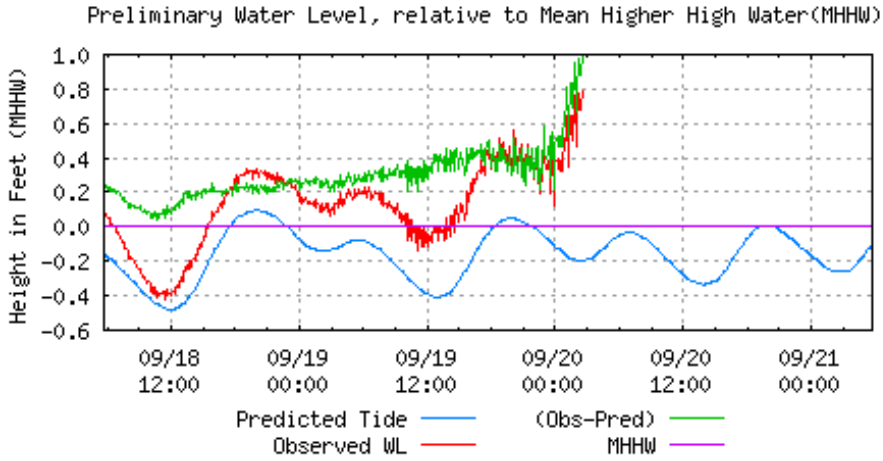
Last Observed Sample: 09/20/2017 05:36 (AST). Data relative to MHHW
Observed: 0.82 ft. Predicted: -0.34 ft. Residual: 1.16 ft.
Historical Maximum Water Level: Nov 6 2006, 0.84 ft.
Next High Tide: 09/20/2017 08:29 (AST), 0.06 ft.

NOAA/NOS/CO-OPS 9752235 Culebra, PR



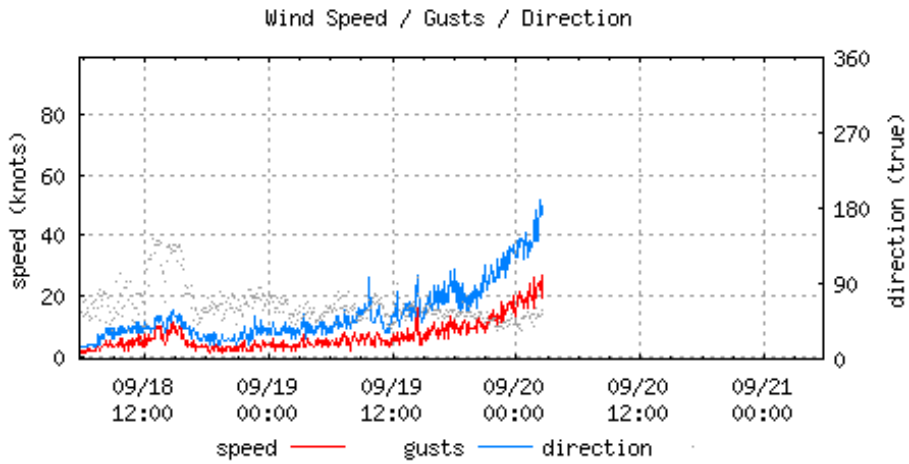
Last Observed Sample: 09/20/2017 05:36 (AST)
Barometric Pressure: 989.5 mb

NOAA/NOS/CO-OPS 9752695 Esperanza, Vieques Island, PR



Last Observed Sample: 09/20/2017 02:30 (AST). Data relative to MHHW
Observed: 0.79 ft. Predicted: -0.20 ft. Residual: 0.99 ft.
Historical Maximum Water Level: Aug 22 2011, 0.99 ft.
Next High Tide: 09/20/2017 06:57 (AST), -0.03 ft.

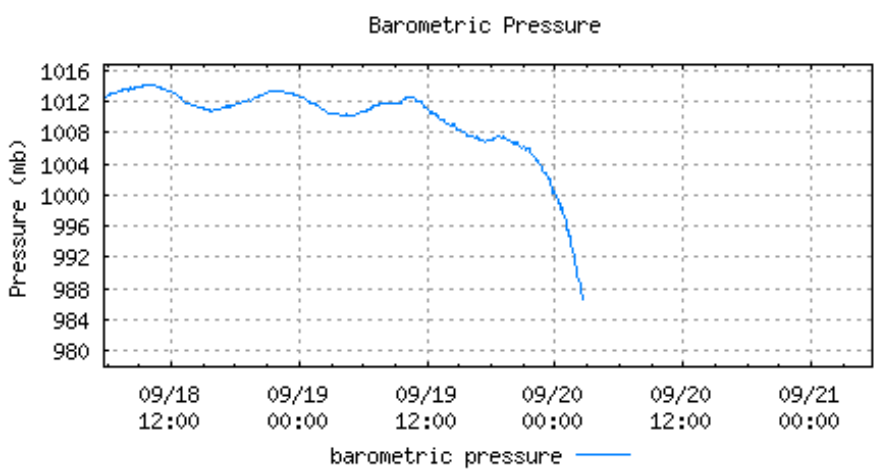
NOAA/NOS/CO-OPS 9752695 Esperanza, Vieques Island, PR



Last Observed Sample: 09/20/2017 02:30 (AST)

Wind Speed: 27 knots Gusts: 50 knots Direction: 59° T

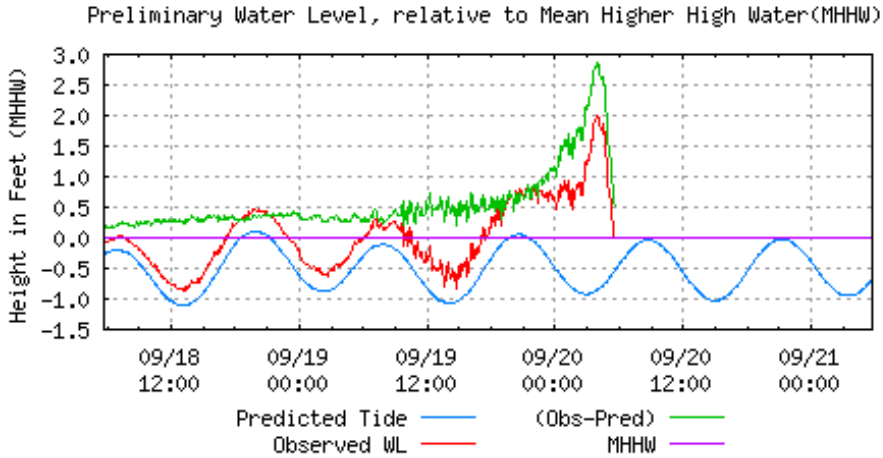
NOAA/NOS/CO-OPS 9752695 Esperanza, Vieques Island, PR



Last Observed Sample: 09/20/2017 02:30 (AST)

Barometric Pressure: 986.5 mb

NOAA/NOS/CO-OPS 9752619 Isabel Segunda, Vieques Island, PR



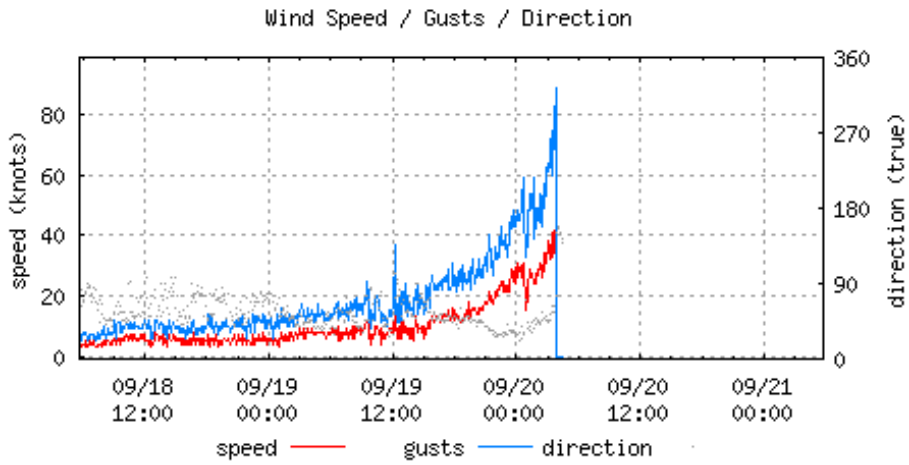
Last Observed Sample: 09/20/2017 05:42 (AST). Data relative to MHHW

Observed: 0.36 ft. Predicted: -0.51 ft. Residual: 0.87 ft.

Historical Maximum Water Level: n/a

Next High Tide: 09/20/2017 08:42 (AST), -0.04 ft.

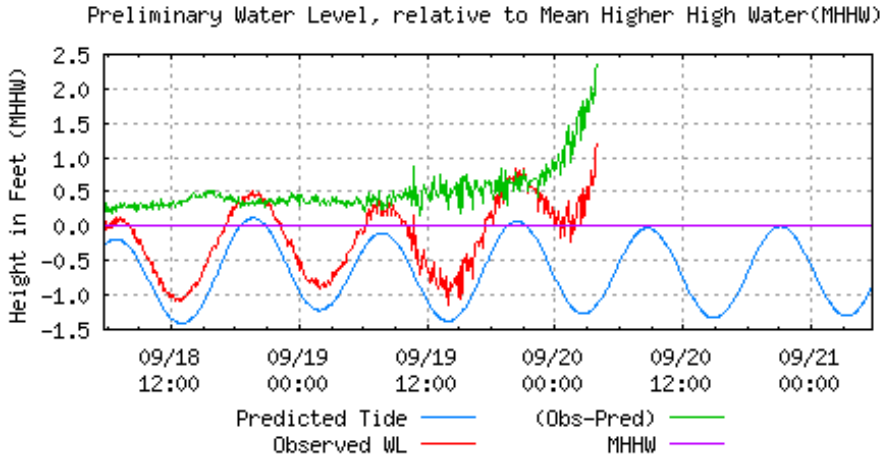
NOAA/NOS/CO-OPS 9752619 Isabel Segunda, Vieques Island, PR



Last Observed Sample: 09/20/2017 05:42 (AST)

Wind Speed: 0 knots Gusts: 0 knots Direction: 139° T

NOAA/NOS/CO-OPS 9753216 Fajardo, PR



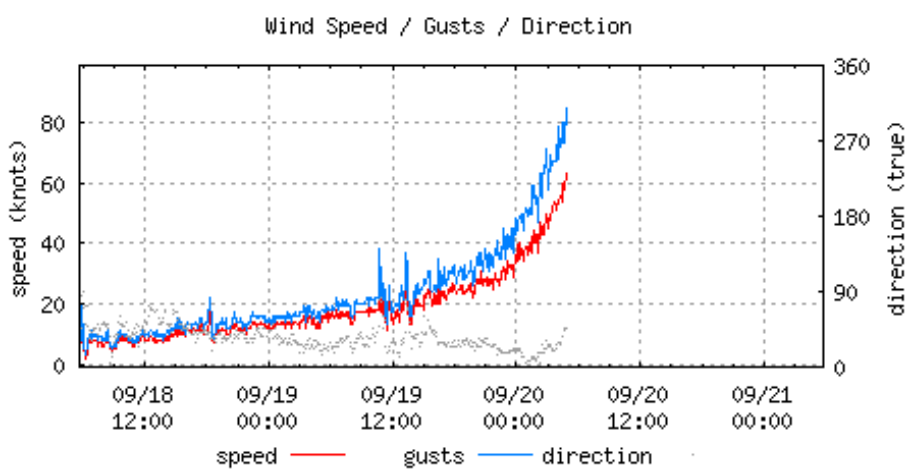
Last Observed Sample: 09/20/2017 04:48 (AST). Data relative to MHHW

Observed: 1.20 ft. Predicted: -1.15 ft. Residual: 2.35 ft.

Historical Maximum Water Level: Aug 30 2010, 0.84 ft.

Next High Tide: 09/20/2017 08:37 (AST), -0.02 ft.

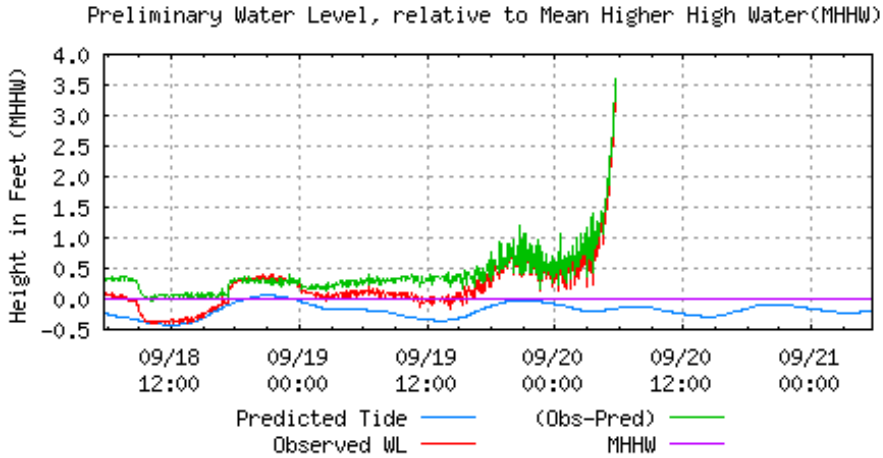
NOAA/NOS/CO-OPS 9753216 Fajardo, PR



Last Observed Sample: 09/20/2017 04:48 (AST)

Wind Speed: 63 knots Gusts: 85 knots Direction: 47° T

NOAA/NOS/CO-OPS 9754228 Yabucoa Harbor, PR



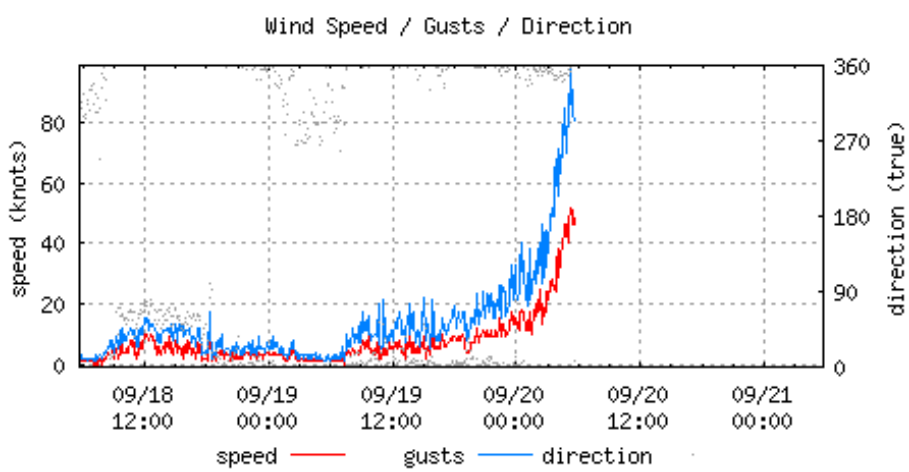
Last Observed Sample: 09/20/2017 05:42 (AST). Data relative to MHHW

Observed: 3.21 ft. Predicted: -0.16 ft. Residual: 3.37 ft.

Historical Maximum Water Level: n/a

Next High Tide: 09/20/2017 07:44 (AST), -0.13 ft.

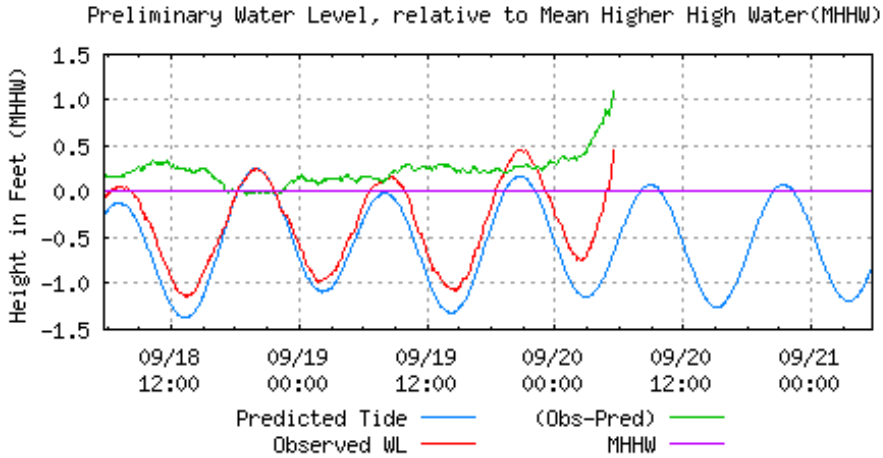
NOAA/NOS/CO-OPS 9754228 Yabucoa Harbor, PR



Last Observed Sample: 09/20/2017 05:42 (AST)

Wind Speed: 44 knots Gusts: 80 knots Direction: 7° T

NOAA/NOS/CO-OPS 9755371 San Juan, La Puntilla, San Juan Bay, PR



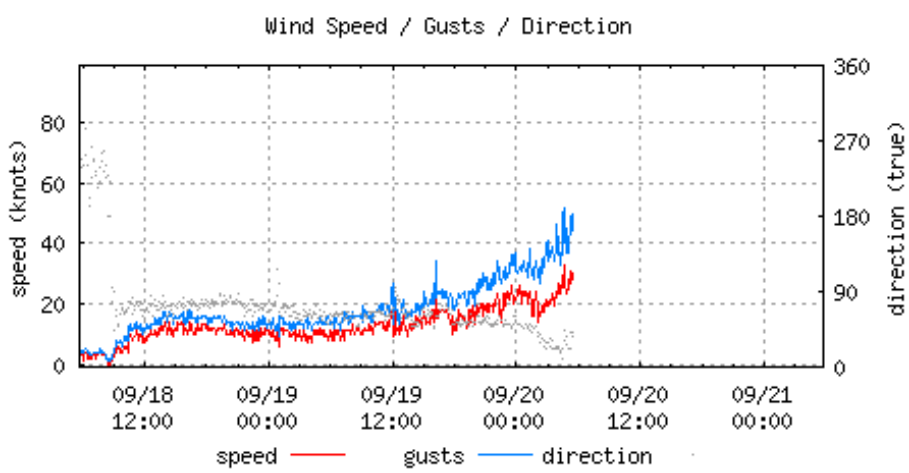
Last Observed Sample: 09/20/2017 05:36 (AST). Data relative to MHHW

Observed: 0.54 ft. Predicted: -0.62 ft. Residual: 1.16 ft.

Historical Maximum Water Level: Sep 18 1989, 2.77 ft.

Next High Tide: 09/20/2017 08:55 (AST), 0.08 ft.

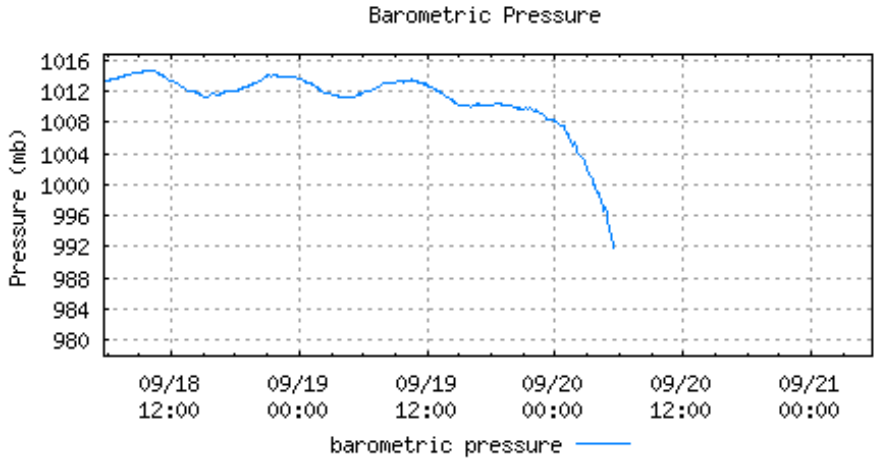
NOAA/NOS/CO-OPS 9755371 San Juan, La Puntilla, San Juan Bay, PR



Last Observed Sample: 09/20/2017 05:36 (AST)

Wind Speed: 39 knots Gusts: 56 knots Direction: 45° T

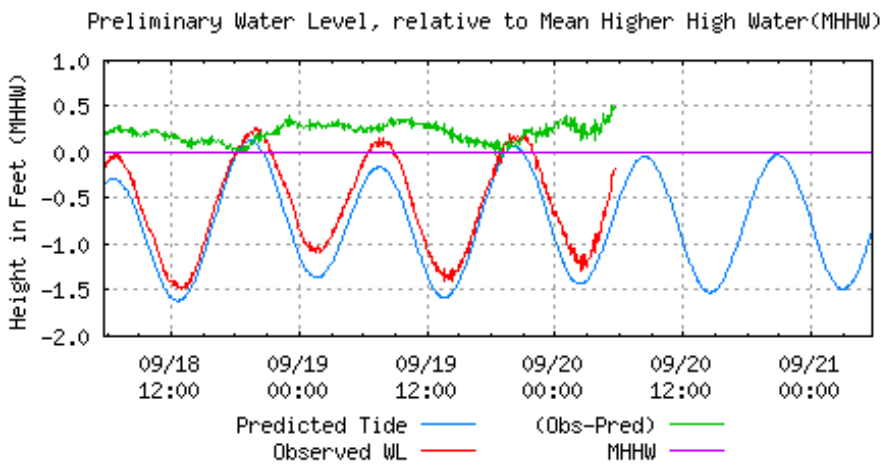
NOAA/NOS/CO-OPS 9755371 San Juan, La Puntilla, San Juan Bay, PR



Last Observed Sample: 09/20/2017 05:36 (AST)

Barometric Pressure: 990.8 mb

NOAA/NOS/CO-OPS 9757809 Arecibo, PR



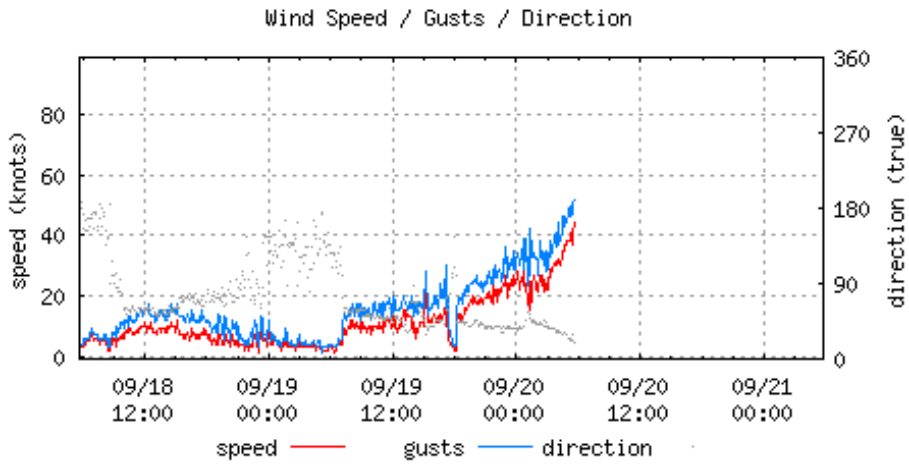
Last Observed Sample: 09/20/2017 05:42 (AST). Data relative to MHHW

Observed: -0.11 ft. Predicted: -0.62 ft. Residual: 0.51 ft.

Historical Maximum Water Level: Oct 8 2010, 0.90 ft.

Next High Tide: 09/20/2017 08:22 (AST), -0.04 ft.

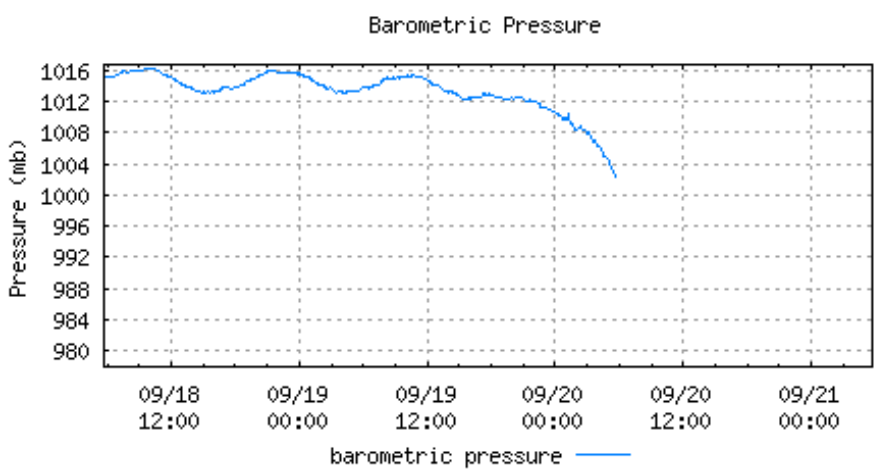
NOAA/NOS/CO-OPS 9757809 Arecibo, PR



Last Observed Sample: 09/20/2017 05:42 (AST)

Wind Speed: 45 knots Gusts: 60 knots Direction: 18° T

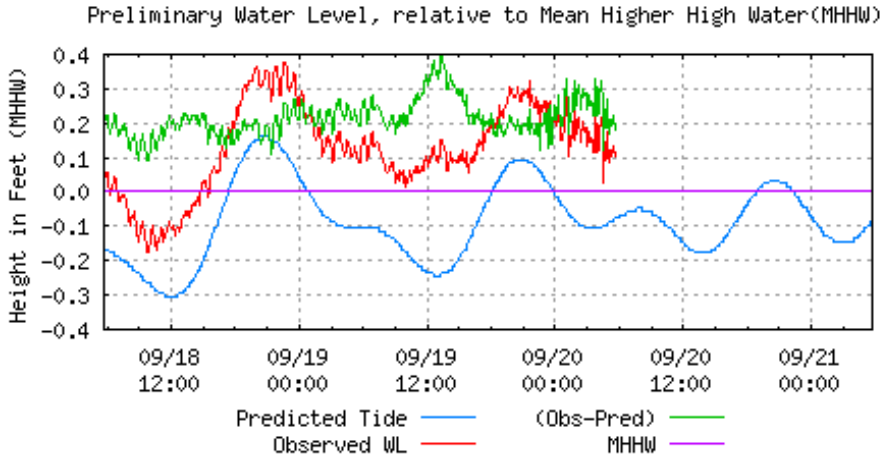
NOAA/NOS/CO-OPS 9757809 Arecibo, PR



Last Observed Sample: 09/20/2017 05:42 (AST)

Barometric Pressure: 1002.0 mb

NOAA/NOS/CO-OPS 9759110 Magueyes Island, PR



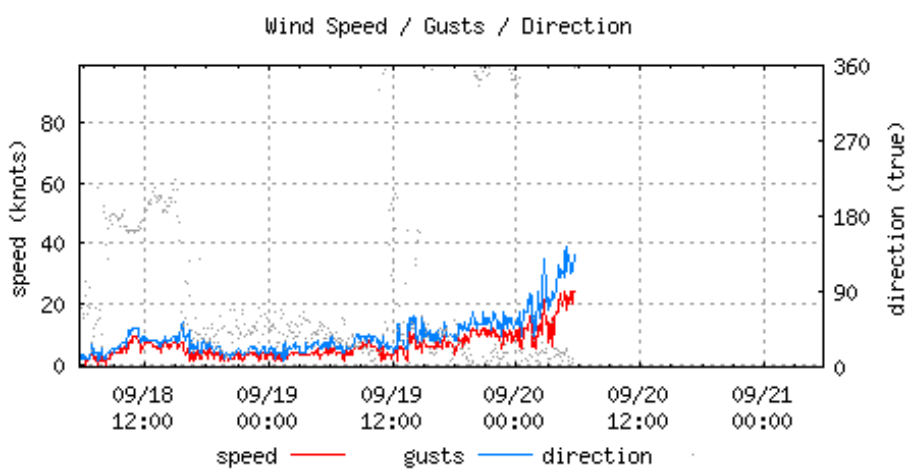
Last Observed Sample: 09/20/2017 05:36 (AST). Data relative to MHHW

Observed: 0.10 ft. Predicted: -0.08 ft. Residual: 0.18 ft.

Historical Maximum Water Level: Aug 31 1979, 1.96 ft.

Next High Tide: 09/20/2017 07:51 (AST), -0.05 ft.

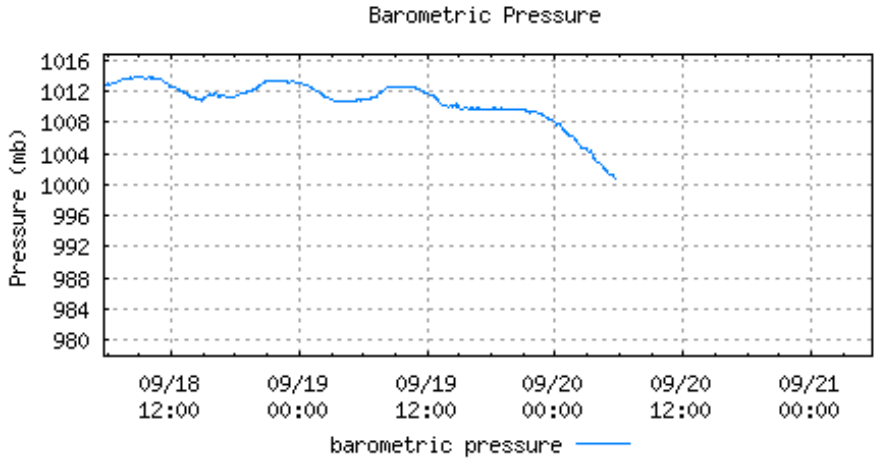
NOAA/NOS/CO-OPS 9759110 Magueyes Island, PR



Last Observed Sample: 09/20/2017 05:36 (AST)

Wind Speed: 24 knots Gusts: 36 knots Direction: 357° T

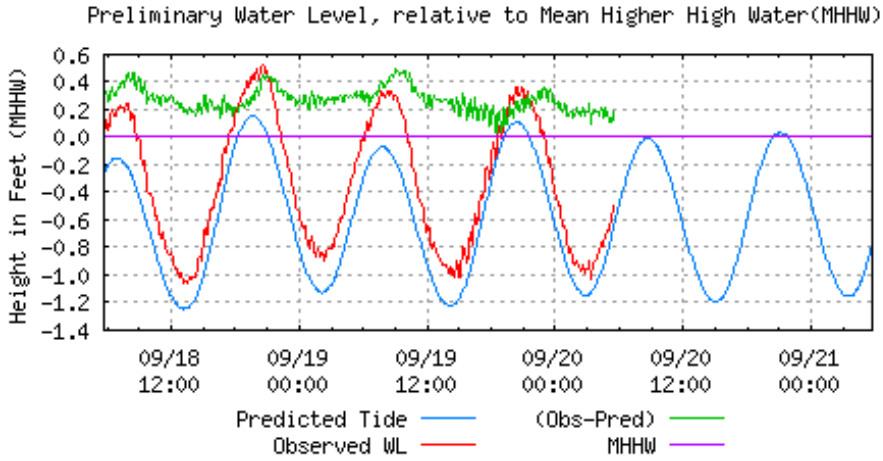
NOAA/NOS/CO-OPS 9759110 Magueyes Island, PR



Last Observed Sample: 09/20/2017 05:36 (AST)

Barometric Pressure: 1000.7 mb

NOAA/NOS/CO-OPS 9759394 Mayaguez, PR



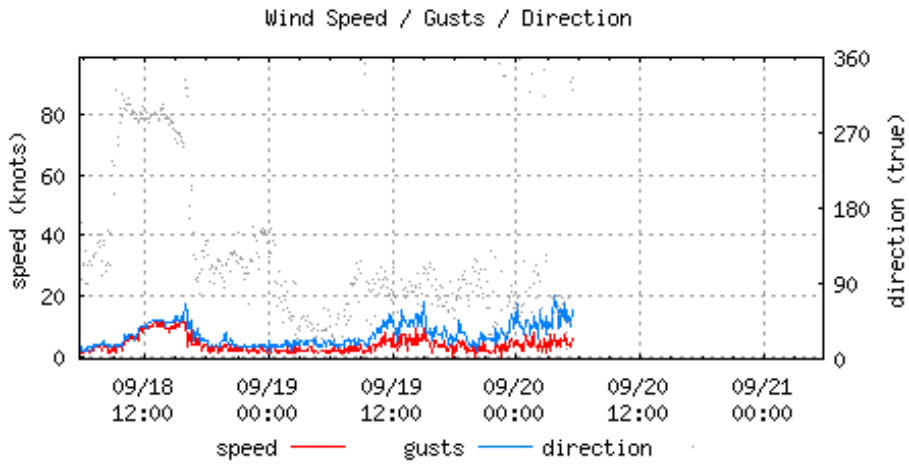
Last Observed Sample: 09/20/2017 05:36 (AST). Data relative to MHHW

Observed: -0.51 ft. Predicted: -0.61 ft. Residual: 0.10 ft.

Historical Maximum Water Level: Oct 1 2015, 0.99 ft.

Next High Tide: 09/20/2017 08:39 (AST), -0.01 ft.

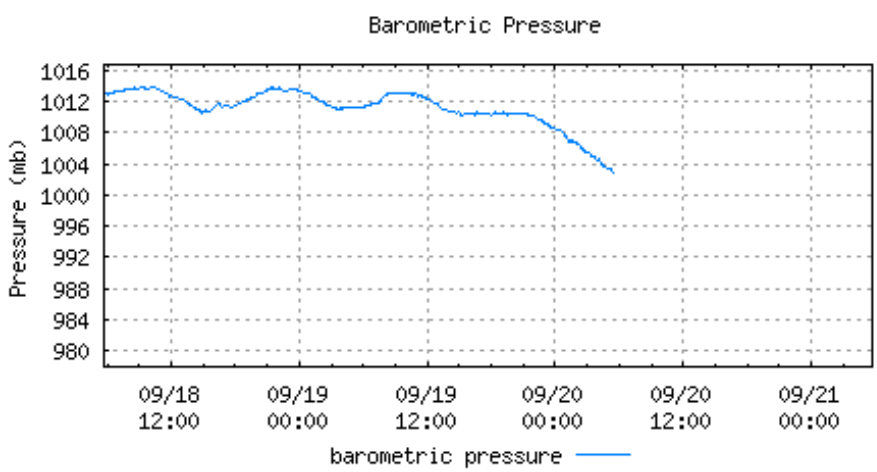
NOAA/NOS/CO-OPS 9759394 Mayaguez, PR



Last Observed Sample: 09/20/2017 05:36 (AST)

Wind Speed: 5 knots Gusts: 15 knots Direction: 90° T

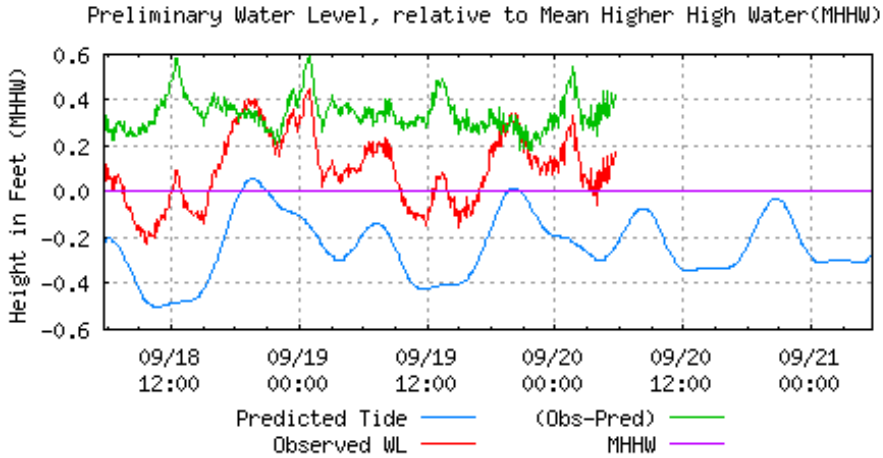
NOAA/NOS/CO-OPS 9759394 Mayaguez, PR



Last Observed Sample: 09/20/2017 05:36 (AST)

Barometric Pressure: 1002.7 mb

NOAA/NOS/CO-OPS 9759938 Mona Island, PR



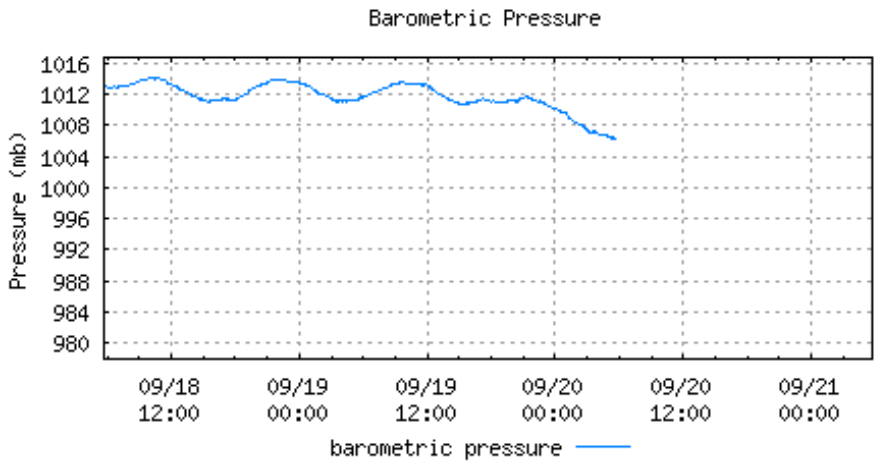
Last Observed Sample: 09/20/2017 05:42 (AST). Data relative to MHHW

Observed: 0.20 ft. Predicted: -0.23 ft. Residual: 0.43 ft.

Historical Maximum Water Level: Dec 23 2010, 1.24 ft.

Next High Tide: 09/20/2017 08:14 (AST), -0.07 ft.

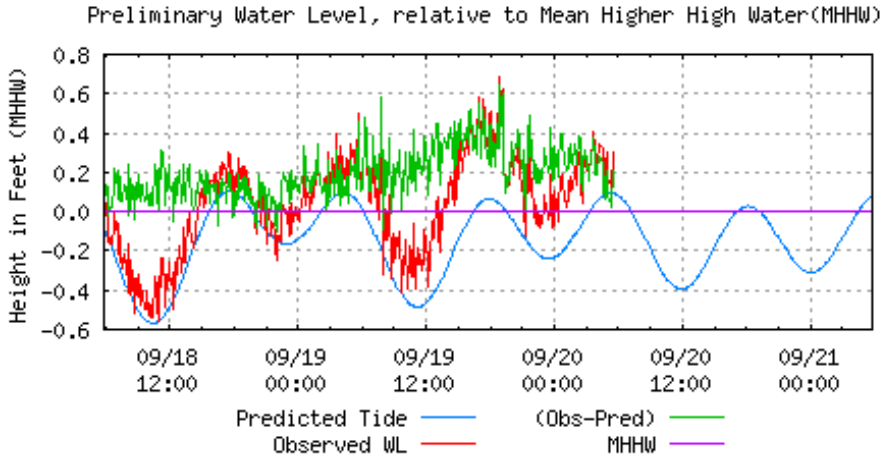
NOAA/NOS/CO-OPS 9759938 Mona Island, PR



Last Observed Sample: 09/20/2017 05:42 (AST)

Barometric Pressure: 1006.3 mb

NOAA/NOS/CO-OPS 9761115 Barbuda



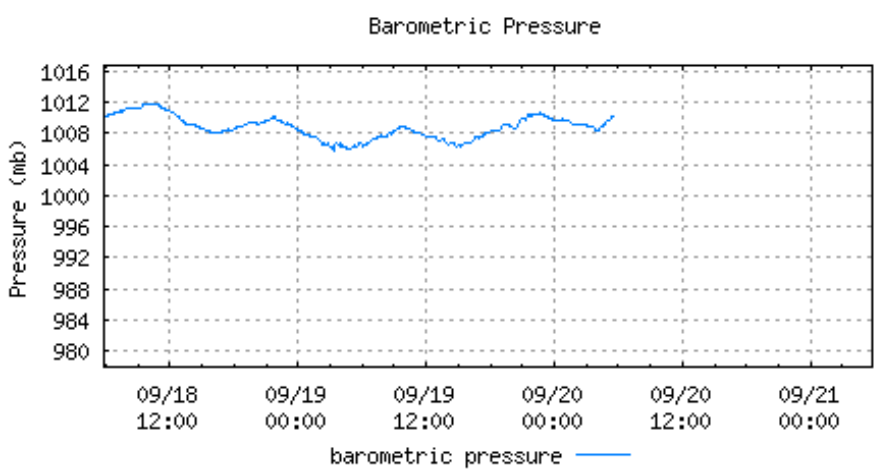
Last Observed Sample: 09/20/2017 05:36 (AST). Data relative to MHHW

Observed: 0.25 ft. Predicted: 0.09 ft. Residual: 0.16 ft.

Historical Maximum Water Level: Aug 23 2012, 1.05 ft.

Next High Tide: 09/20/2017 18:11 (AST), 0.03 ft.

NOAA/NOS/CO-OPS 9761115 Barbuda



Last Observed Sample: 09/20/2017 05:36 (AST)

Barometric Pressure: 1010.3 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
9751364	Christiansted Harbor, St Croix, VI	09/20/2017 05:36 (AST)	-0.32 ft	-0.11 ft	-0.21 ft	2.00 ft
9751381	Lameshur Bay, St John, VI	09/20/2017 05:42 (AST)	0.69 ft	-0.24 ft	0.93 ft	1.16 ft
9752235	Culebra, PR	09/20/2017 05:36 (AST)	0.82 ft	-0.34 ft	1.16 ft	1.29 ft
9752695	Esperanza, Vieques Island, PR	09/20/2017 02:30 (AST)	0.79 ft	-0.20 ft	0.99 ft	0.79 ft
9752619	Isabel Segunda, Vieques Island, PR	09/20/2017 05:42 (AST)	0.36 ft	-0.51 ft	0.87 ft	2.01 ft
9753216	Fajardo, PR	09/20/2017 04:48 (AST)	1.20 ft	-1.15 ft	2.35 ft	1.20 ft
9754228	Yabucoa Harbor, PR	09/20/2017 05:42 (AST)	3.21 ft	-0.16 ft	3.37 ft	3.44 ft
9755371	San Juan, La Puntilla, San Juan Bay, PR	09/20/2017 05:36 (AST)	0.54 ft	-0.62 ft	1.16 ft	0.54 ft
9757809	Arecibo, PR	09/20/2017 05:42 (AST)	-0.11 ft	-0.62 ft	0.51 ft	0.24 ft
9759110	Magueyes Island, PR	09/20/2017 05:36 (AST)	0.10 ft	-0.08 ft	0.18 ft	0.32 ft
9759394	Mayaguez, PR	09/20/2017 05:36 (AST)	-0.51 ft	-0.61 ft	0.10 ft	0.37 ft
9759938	Mona Island, PR	09/20/2017 05:42 (AST)	0.20 ft	-0.23 ft	0.43 ft	0.35 ft
9761115	Barbuda	09/20/2017 05:36 (AST)	0.25 ft	0.09 ft	0.16 ft	0.68 ft

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