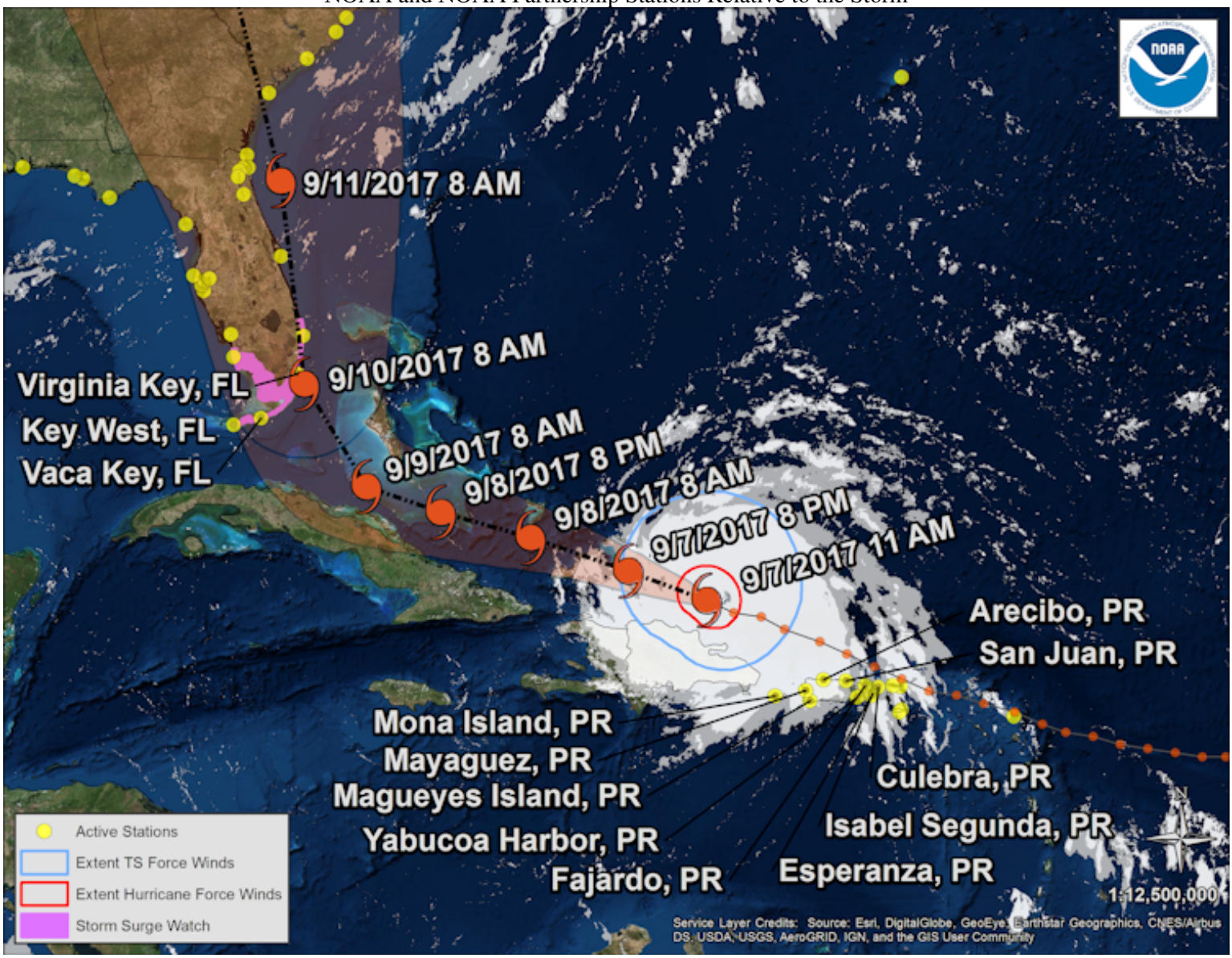
Hurricane IRMA QuickLook
Posted: 12:00 AST 09/07/2017

NOAA and NOAA Partnership Stations Relative to the Storm



Storm Analysis

As of 09/07/2017 12:00 AST, water levels across Puerto Rico are measuring between 0.02 and 0.81 feet above normal tide levels as Irma continues to move away from the Island. Florida water levels are only slightly higher than predicted levels at this time.

Winds around Puerto Rico continue to decrease in the past few hours with peak gusts reaching approximately 25 knots. Barometric Pressure is continuing to increase at stations in Puerto Rico and the U.S. Virgin Islands. Wind gusts in Florida remain below 10 knots.

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: KAK

Hurricane Irma Advisory Number 34
NWS National Hurricane Center Miami FL AL112017
1100 AM AST Thu Sep 07 2017

...EXTREMELY DANGEROUS HURRICANE IRMA HEADING FOR THE TURKS AND CAICOS ISLANDS...
...HURRICANE AND STORM SURGE WATCH ARE IN EFFECT FOR PORTIONS OF SOUTH FLORIDA AND THE FLORIDA KEYS...

SUMMARY OF 1100 AM AST...1500 UTC...INFORMATION

LOCATION...20.4N 69.7W
ABOUT 75 MI...125 KM ENE OF PUERTO PLATA DOMINICAN REPUBLIC
ABOUT 120 MI...190 KM SE OF GRAND TURK ISLAND
MAXIMUM SUSTAINED WINDS...175 MPH...280 KM/H
PRESENT MOVEMENT...WNW OR 290 DEGREES AT 16 MPH...26 KM/H
MINIMUM CENTRAL PRESSURE...921 MB...27.20 INCHES

WATCHES AND WARNINGS

CHANGES WITH THIS ADVISORY:

A Storm Surge Watch has been issued for the Florida peninsula from Jupiter Inlet southward and around the peninsula to Bonita Beach, including the Florida Keys.

A Hurricane Watch has been issued for the Florida peninsula from Jupiter Inlet southward and around the peninsula to Bonita Beach, including the Florida Keys, Lake Okeechobee, and Florida Bay.

The government of Cuba has extended the Tropical Storm Warning to Villa Clara province.

SUMMARY OF WATCHES AND WARNINGS IN EFFECT:

A Storm Surge Watch is in effect for...
* Jupiter Inlet southward around the Florida peninsula to Bonita Beach
* Florida Keys

A Hurricane Warning is in effect for...
* Dominican Republic from Cabo Engano to the northern border with Haiti
* Haiti from the northern border with the Dominican Republic to Le Mole St. Nicholas
* Southeastern Bahamas and the Turks and Caicos Islands
* Central Bahamas
* Northwestern Bahamas

A Hurricane Watch is in effect for...
* Jupiter Inlet southward around the Florida peninsula to Bonita Beach
* Florida Keys
* Lake Okeechobee
* Florida Bay
* Cuba from Matanzas province eastward to Guantanamo province

A Tropical Storm Warning is in effect for...
* Dominican Republic from south of Cabo Engano westward to the southern border with Haiti
* Haiti from south of Le Mole St. Nicholas to Port-Au-Prince
* Cuba provinces of Guantanamo, Holguin, Las Tunas, Camaguey, Ciego de Avila, Sancti Spiritus and Villa Clara.

A Storm Surge Watch means there is a possibility of life-threatening inundation, from rising water moving inland from the coastline, in the indicated locations during the next 48 hours. For a depiction of areas at risk, please see the National Weather Service Storm Surge Watch/Warning Graphic, available at hurricanes.gov.

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 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.

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

Interests elsewhere in the Dominican Republic and Haiti, as well as Cuba and Florida should monitor the progress of Irma.

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 1100 AM AST (1500 UTC), the distinct eye of Hurricane Irma was located near latitude 20.4 North, longitude 69.7 West. Irma is moving toward the west-northwest near 16 mph (26 km/h), and this general motion is expected to continue with some decrease in forward speed for the next couple of days. On the forecast track, the eye of Irma should continue to move just north of the coast of Hispaniola today, be near the Turks and Caicos and southeastern Bahamas by this evening, and then be near the central Bahamas by Friday.

Maximum sustained winds are near 175 mph (280 km/h) with higher gusts. Irma is a category 5 hurricane on the Saffir-Simpson Hurricane Wind Scale. Some fluctuations in intensity are likely during the next day or two, but Irma is forecast to remain a powerful category 4 or 5 hurricane during the next couple of days.

Hurricane-force winds extend outward up to 60 miles (95 km) from the center and tropical-storm-force winds extend outward up to 185 miles (295 km).

The minimum central pressure reported by an Air Force plane was 921 mb (27.20 inches).

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 is expected to reach the following HEIGHTS ABOVE GROUND if the peak surge occurs at the time of high tide...

Jupiter Inlet to Bonita Beach, including Florida Keys...5 to 10 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 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.

The combination of a life-threatening storm surge and large breaking waves will raise water levels ABOVE NORMAL TIDE LEVELS by the following amounts within the hurricane warning area near and to the north of the center of Irma. Near the coast, the surge will be accompanied by large and destructive waves.

Turks and Caicos Islands...15 to 20 ft
Southeastern and central Bahamas...15 to 20 ft
Northwestern Bahamas...5 to 10 ft
Northern coast of the Dominican Republic...3 to 5 ft
Northern coast of Haiti and the Gulf of Gonave...1 to 3 ft
Northern coast of Cuba in the warning area...5 to 10 ft

Water levels around Puerto Rico should subside today.

WIND: Hurricane conditions are expected to begin within the hurricane warning area in the Dominican Republic and Haiti today. Hurricane conditions are expected to begin in the southeastern Bahamas and the Turks and Caicos Islands later today with tropical storm conditions expected within the next several hours. These conditions will spread into the central Bahamas by tonight or early Friday.

Hurricane and tropical storm conditions are possible within the watch area in Cuba by Friday. Tropical storm conditions are expected to begin within the warning area in Cuba tonight. Hurricane conditions are expected in the northwestern Bahamas Friday night and Saturday.

RAINFALL: Irma is expected to produce the following rain accumulations through Saturday evening:

Northeast Puerto Rico and the British and U.S. Virgin Islands...additional 2 to 4 inches, isolated 6 inches
Much of the Bahamas and Turks and Caicos...8 to 12 inches, isolated 20 inches
Andros Island and Bimini, Bahamas...12 to 16 inches, isolated 25 inches
Northern Dominican Republic and northern Haiti...4 to 10 inches, isolated 15 inches
Southern Dominican Republic and southern Haiti...2 to 5 inches
Eastern and central Cuba...4 to 10 inches, isolated 15 inches
Southeast Florida and the upper Florida Keys...8 to 12 inches, isolated 20 inches
Lower Florida Keys...2 to 5 inches

In all areas this rainfall may cause life-threatening flash floods and mudslides.

SURF: Swells generated by Irma are affecting the northern Leeward Islands, Puerto Rico, the Virgin Islands, the southeastern Bahamas, the Turks and Caicos Islands, the northern coast of the Dominican Republic, and should start affecting portions of the southeast coast of the United States later today and tonight. These swells are likely to cause life-threatening surf and rip current conditions. Please consult products from your local weather office.

NEXT ADVISORY

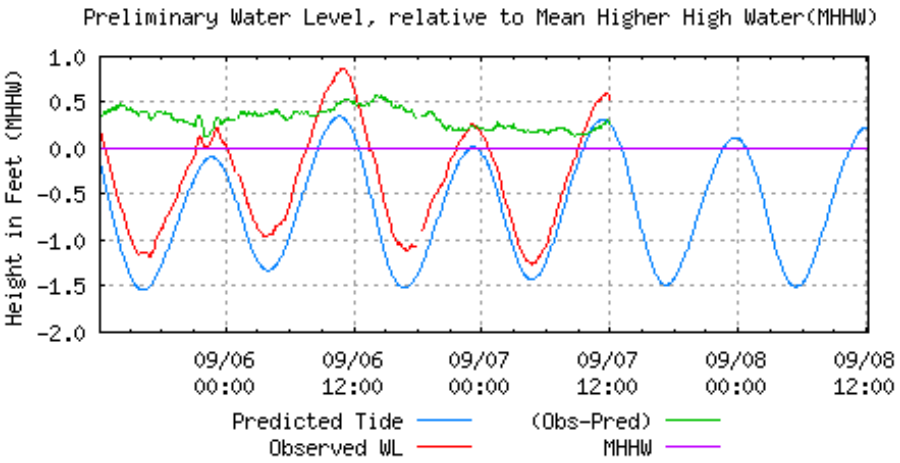
Next intermediate advisory at 200 PM AST.
Next complete advisory at 500 PM AST.

Forecaster Avil

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.

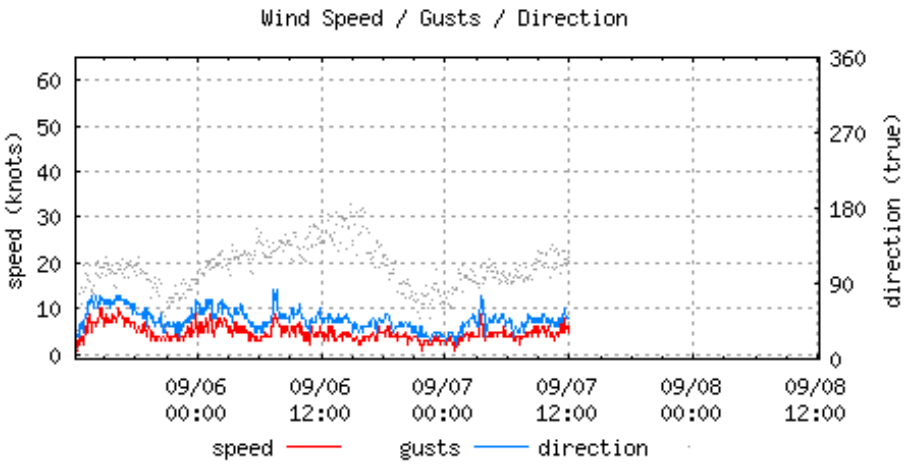
Jump to: Key West - Water Level, Key West - Winds, Vaca Key - Water Level, Vaca Key - Winds, Virginia Key - Water Level, Virginia Key - Winds, Mona Island - Water Level, Mona Island - Barometric, Mayaguez - Water Level, Mayaguez - Winds, Mayaguez - Barometric, Magueyes Island - Water Level, Magueyes Island - Winds, Magueyes Island - Barometric, 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, Yabucoa Harbor - Water Level, Yabucoa Harbor - Winds, Fajardo - Water Level, Fajardo - Winds, Esperanza, Vieques Island - Water Level, Esperanza, Vieques Island - Winds, Esperanza, Vieques Island - Barometric, Isabel Segunda, Vieques Island - Water Level, Isabel Segunda, Vieques Island - Winds, Culebra - Water Level, Culebra - Barometric, Arecibo - Water Level, Arecibo - Winds

NOAA/NOS/CO-OPS 8724580 Key West, FL



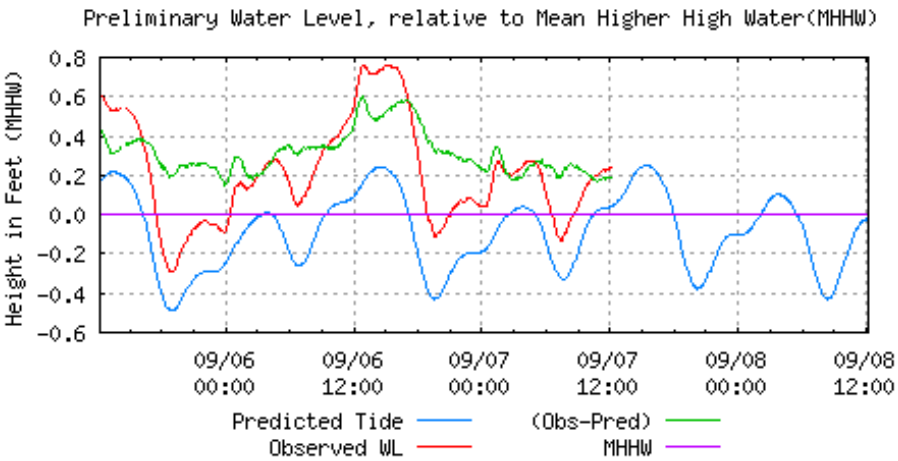
Last Observed Sample: 09/07/2017 12:12 (EDT). Data relative to MHHW
Observed: 0.51 ft. Predicted: 0.25 ft. Residual: 0.26 ft.
Historical Maximum Water Level: Oct 24 2005, 3.14 ft.
Next High Tide: 09/07/2017 23:44 (EDT), 0.11 ft.

NOAA/NOS/CO-OPS 8724580 Key West, FL



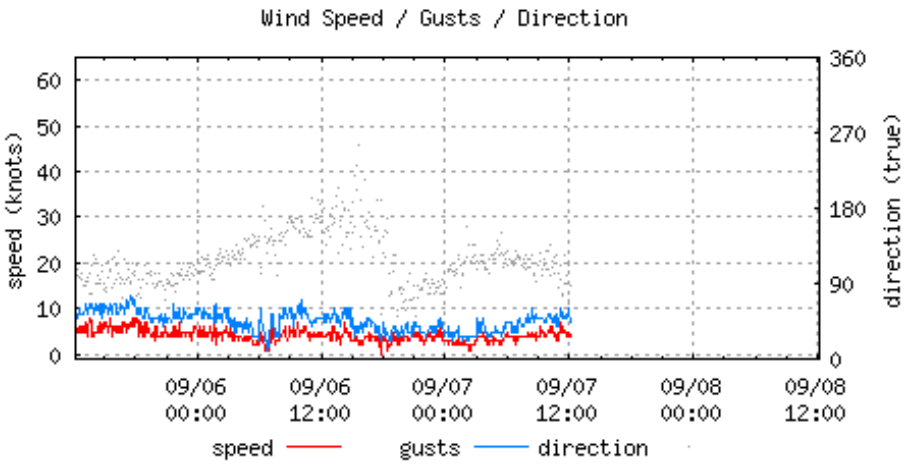
Last Observed Sample: 09/07/2017 12:12 (EDT)
Wind Speed: 6 knots Gusts: 7 knots Direction: 118° T

NOAA/NOS/CO-OPS 8723970 Vaca Key, FL



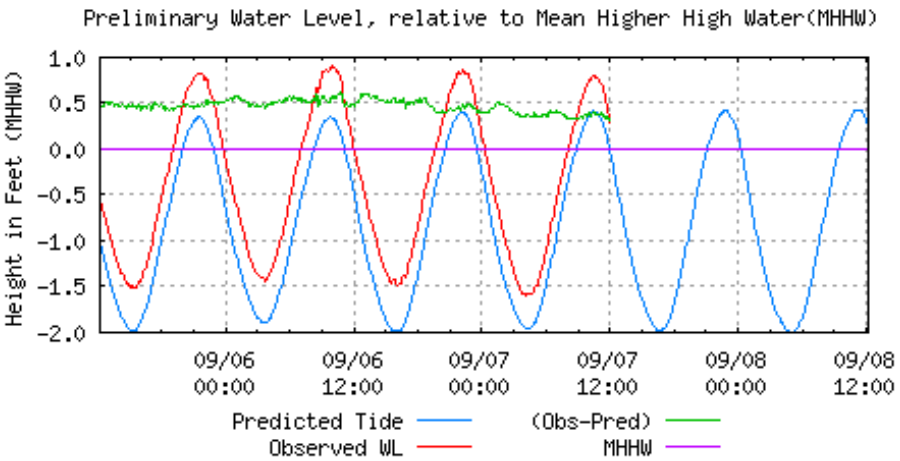
Last Observed Sample: 09/07/2017 12:06 (EDT). Data relative to MHHW
Observed: 0.24 ft. Predicted: 0.05 ft. Residual: 0.19 ft.
Historical Maximum Water Level: Oct 24 2005, 5.80 ft.
Next High Tide: 09/07/2017 15:22 (EDT), 0.24 ft.

NOAA/NOS/CO-OPS 8723970 Vaca Key, FL



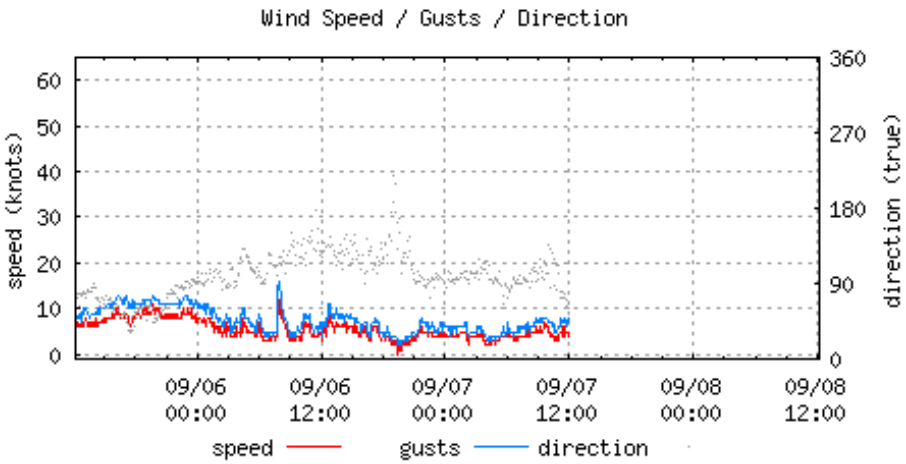
Last Observed Sample: 09/07/2017 12:06 (EDT)
Wind Speed: 4 knots Gusts: 7 knots Direction: 88° T

NOAA/NOS/CO-OPS 8723214 Virginia Key, FL



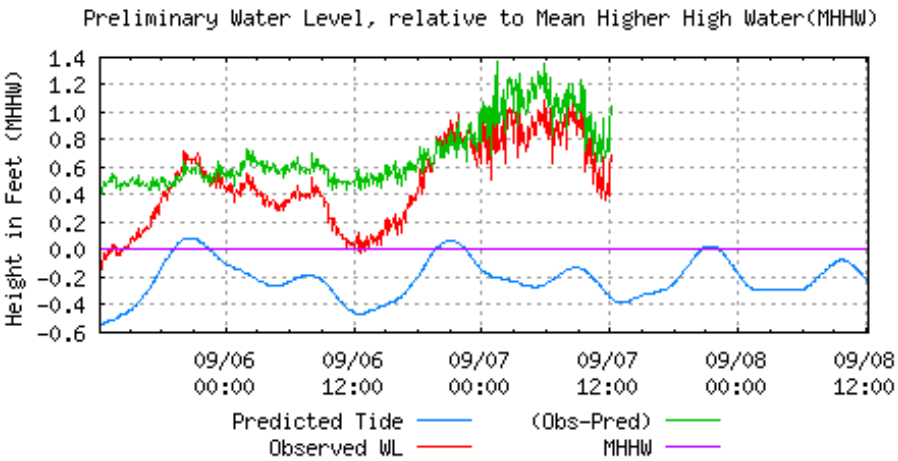
Last Observed Sample: 09/07/2017 12:06 (EDT). Data relative to MHHW
Observed: 0.23 ft. Predicted: -0.08 ft. Residual: 0.31 ft.
Historical Maximum Water Level: Oct 24 2005, 2.58 ft.
Next High Tide: 09/07/2017 22:48 (EDT), 0.41 ft.

NOAA/NOS/CO-OPS 8723214 Virginia Key, FL



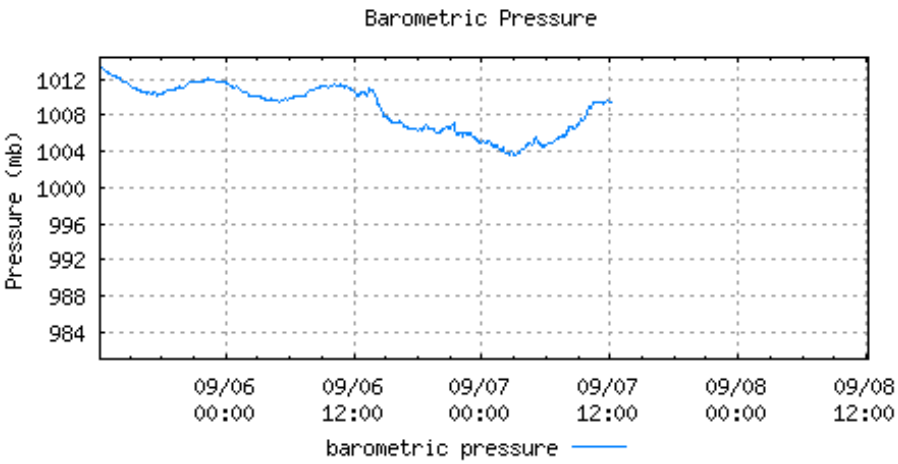
Last Observed Sample: 09/07/2017 12:06 (EDT)
Wind Speed: 4 knots Gusts: 6 knots Direction: 73° T

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



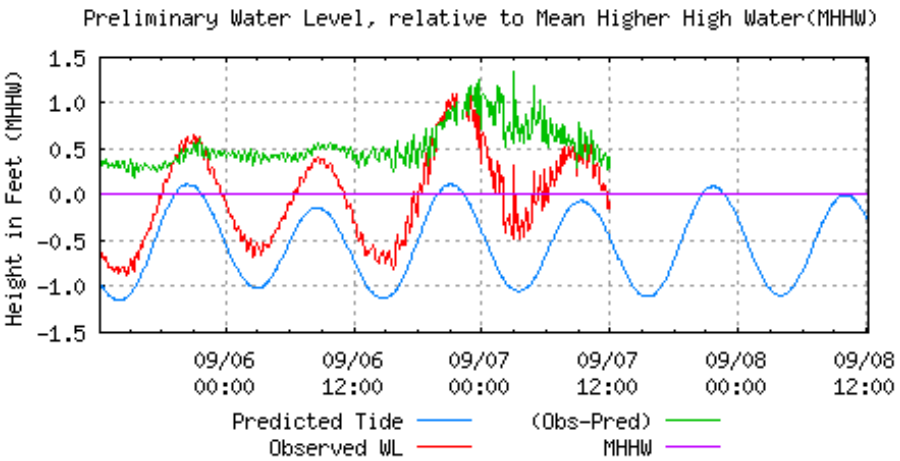
Last Observed Sample: 09/07/2017 12:12 (AST). Data relative to MHHW
Observed: 0.36 ft. Predicted: -0.35 ft. Residual: 0.71 ft.
Historical Maximum Water Level: Dec 23 2010, 1.24 ft.
Next High Tide: 09/07/2017 21:27 (AST), 0.03 ft.

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



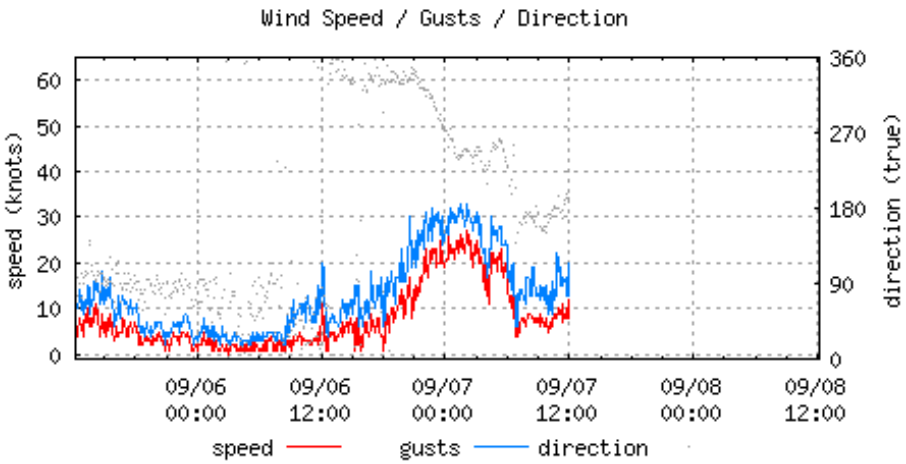
Last Observed Sample: 09/07/2017 12:12 (AST)
Barometric Pressure: 1009.6 mb

NOAA/NOS/CO-OPS 9759394 Mayaguez, PR



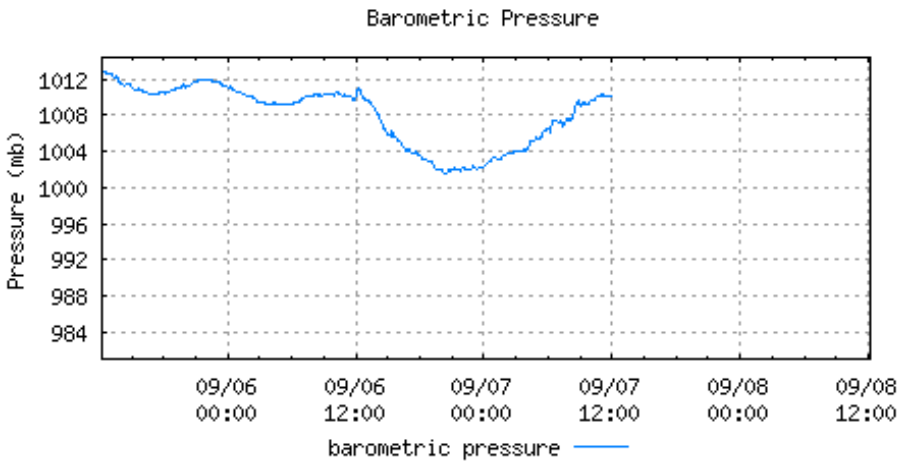
Last Observed Sample: 09/07/2017 12:06 (AST). Data relative to MHHW
Observed: -0.08 ft. Predicted: -0.50 ft. Residual: 0.42 ft.
Historical Maximum Water Level: Oct 1 2015, 0.99 ft.
Next High Tide: 09/07/2017 21:39 (AST), 0.09 ft.

NOAA/NOS/CO-OPS 9759394 Mayaguez, PR



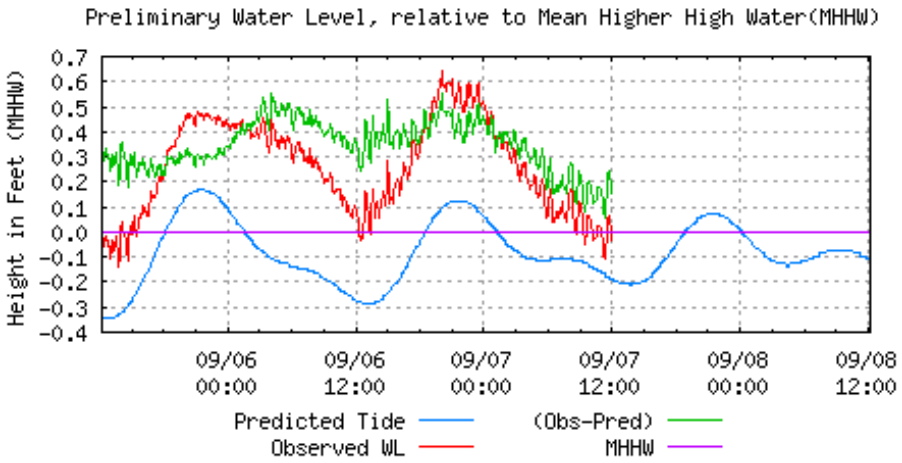
Last Observed Sample: 09/07/2017 12:06 (AST)
Wind Speed: 9 knots Gusts: 16 knots Direction: 174° T

NOAA/NOS/CO-OPS 9759394 Mayaguez, PR



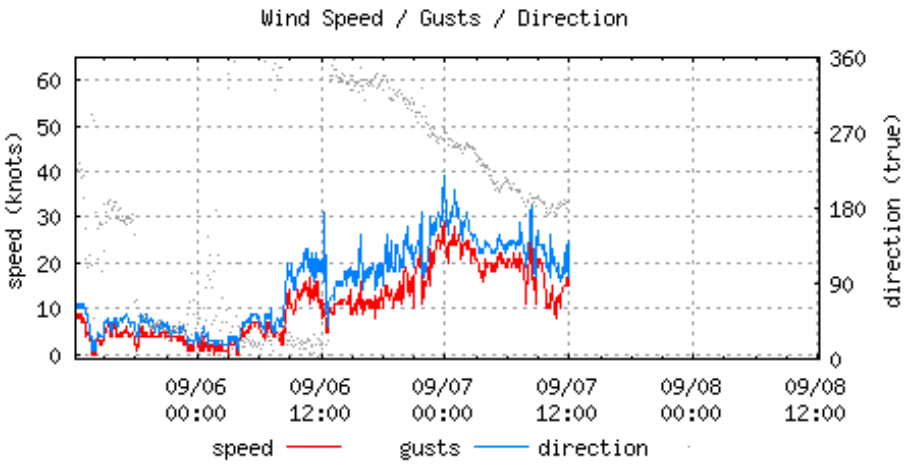
Last Observed Sample: 09/07/2017 12:06 (AST)
Barometric Pressure: 1010.1 mb

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



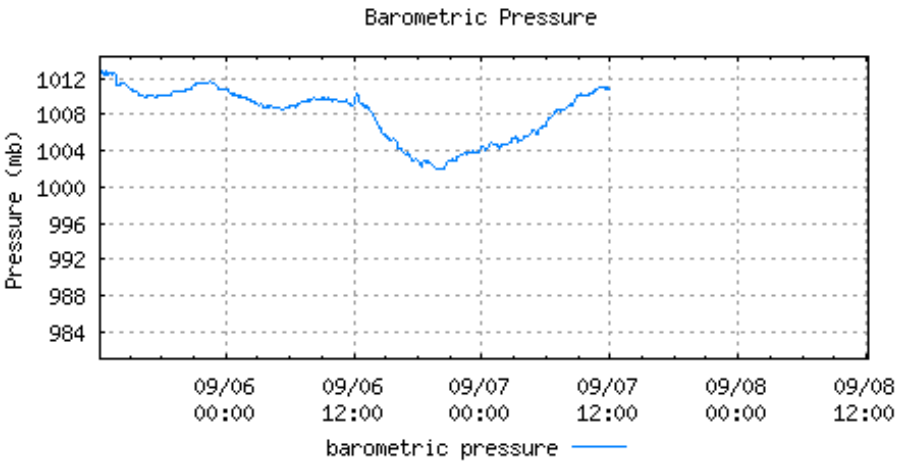
Last Observed Sample: 09/07/2017 12:06 (AST). Data relative to MHHW
Observed: -0.09 ft. Predicted: -0.19 ft. Residual: 0.10 ft.
Historical Maximum Water Level: Sep 22 1998, 1.60 ft.
Next High Tide: 09/07/2017 21:26 (AST), 0.07 ft.

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



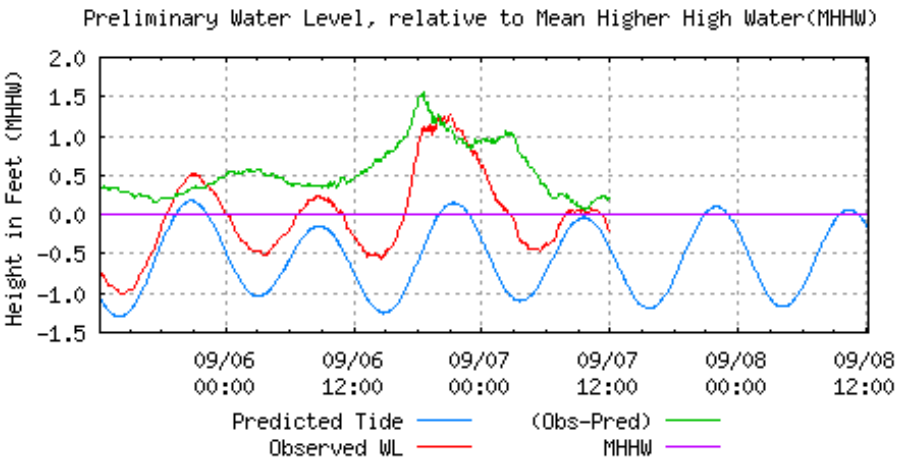
Last Observed Sample: 09/07/2017 12:06 (AST)
Wind Speed: 13 knots Gusts: 22 knots Direction: 186° T

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



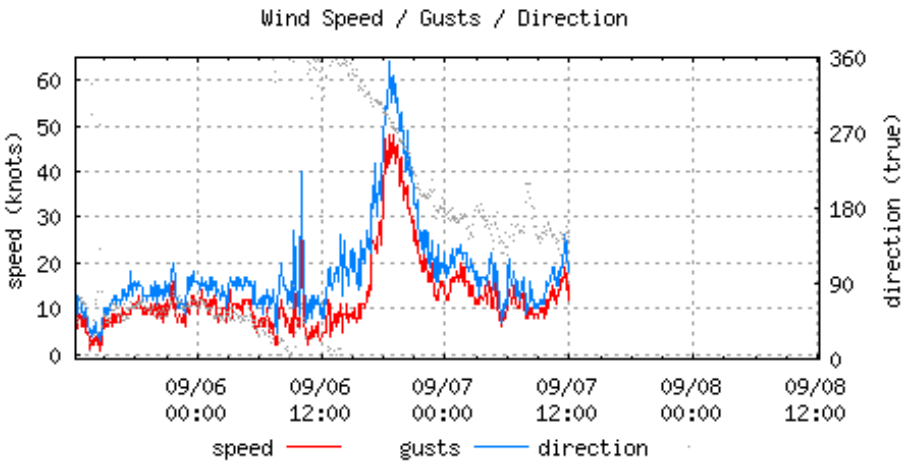
Last Observed Sample: 09/07/2017 12:06 (AST)
Barometric Pressure: 1010.7 mb

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



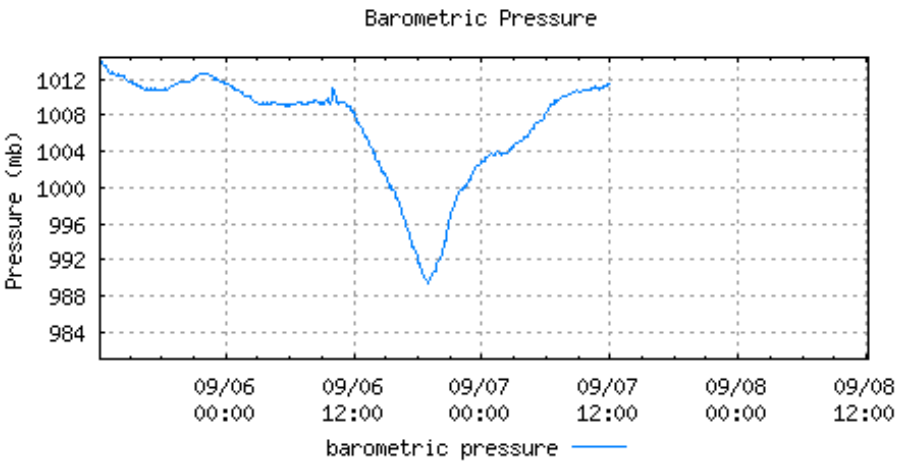
Last Observed Sample: 09/07/2017 12:06 (AST). Data relative to MHHW
Observed: -0.23 ft. Predicted: -0.46 ft. Residual: 0.23 ft.
Historical Maximum Water Level: Sep 18 1989, 2.77 ft.
Next High Tide: 09/07/2017 21:58 (AST), 0.10 ft.

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



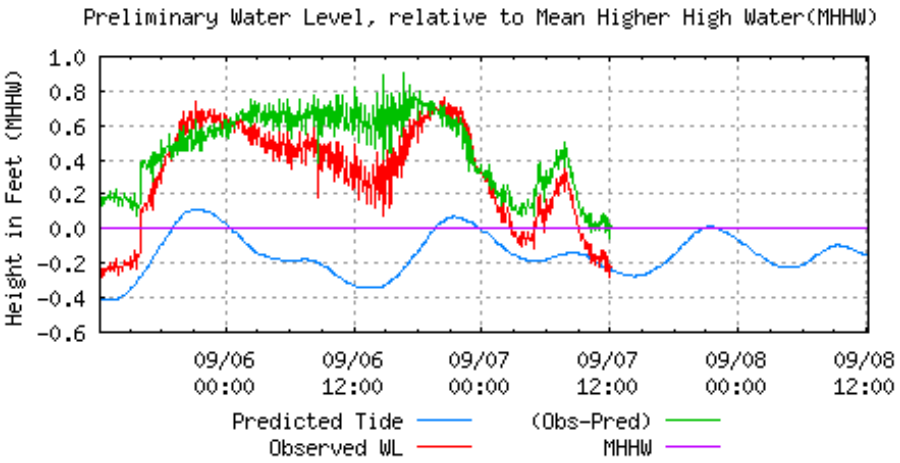
Last Observed Sample: 09/07/2017 12:06 (AST)
Wind Speed: 13 knots Gusts: 17 knots Direction: 139° T

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



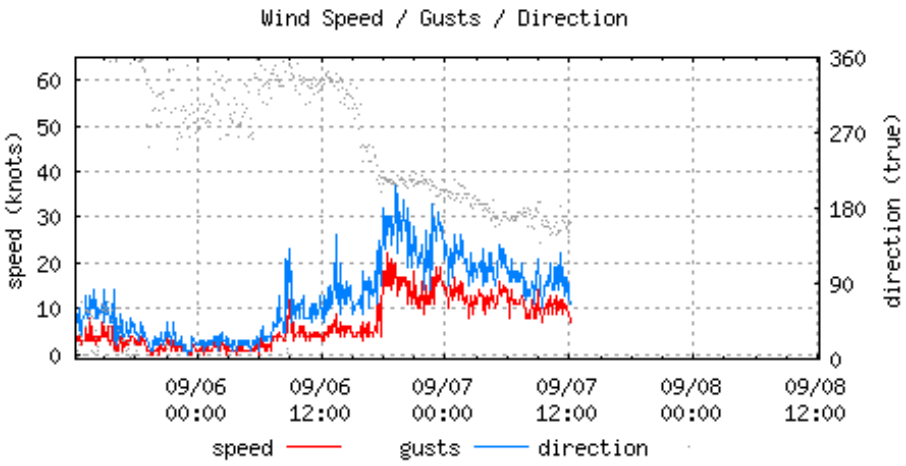
Last Observed Sample: 09/07/2017 12:06 (AST)
Barometric Pressure: 1011.4 mb

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



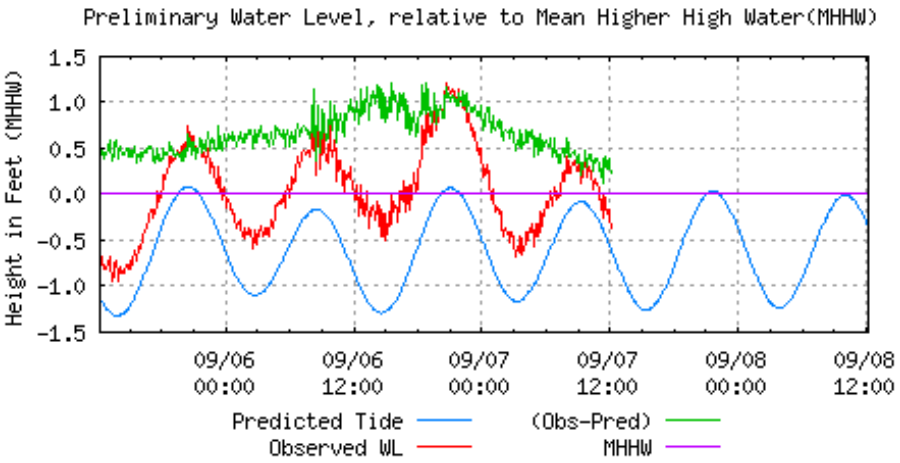
Last Observed Sample: 09/07/2017 12:12 (AST). Data relative to MHHW
Observed: -0.29 ft. Predicted: -0.25 ft. Residual: -0.04 ft.
Historical Maximum Water Level: n/a
Next High Tide: 09/07/2017 21:20 (AST), 0.01 ft.

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



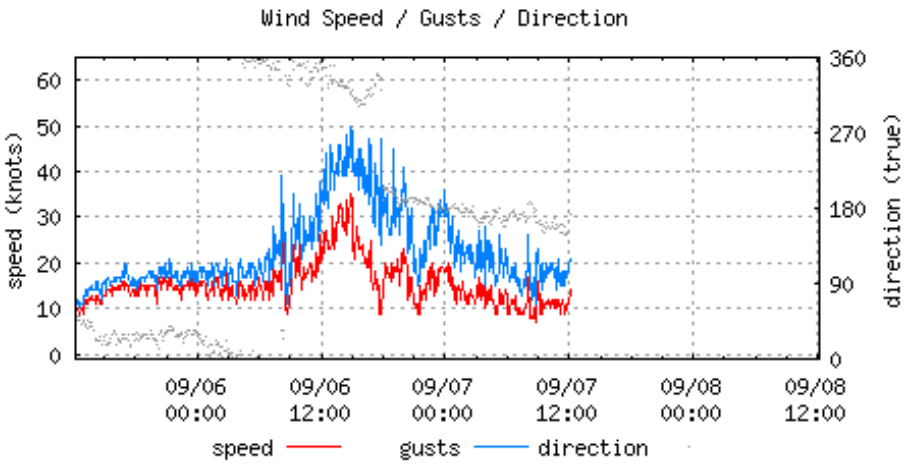
Last Observed Sample: 09/07/2017 12:12 (AST)
Wind Speed: 9 knots Gusts: 13 knots Direction: 166° T

NOAA/NOS/CO-OPS 9753216 Fajardo, PR



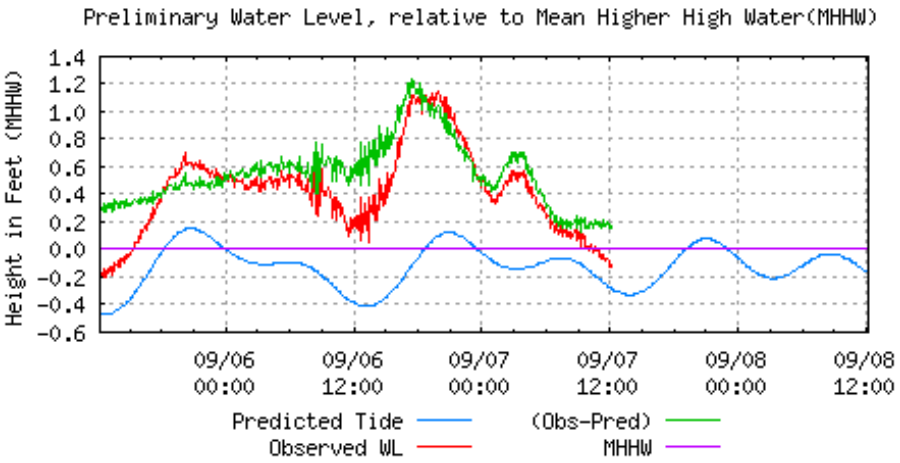
Last Observed Sample: 09/07/2017 12:12 (AST). Data relative to MHHW
Observed: -0.33 ft. Predicted: -0.63 ft. Residual: 0.30 ft.
Historical Maximum Water Level: Aug 30 2010, 0.84 ft.
Next High Tide: 09/07/2017 21:38 (AST), 0.03 ft.

NOAA/NOS/CO-OPS 9753216 Fajardo, PR



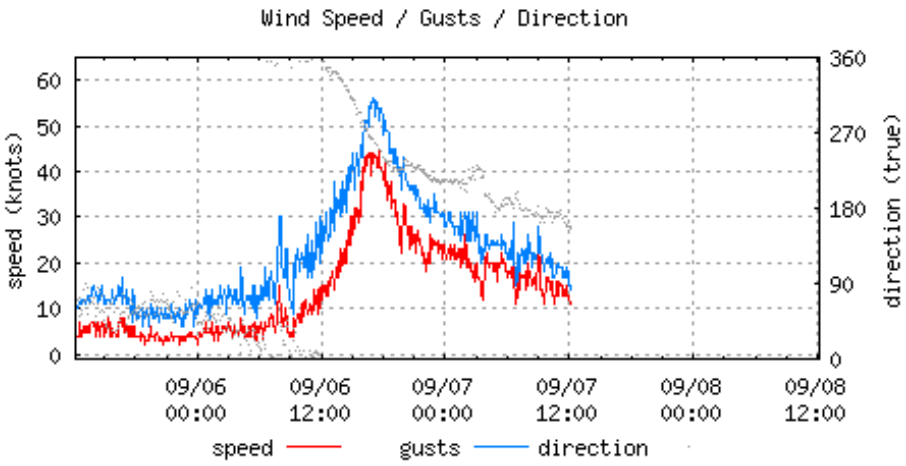
Last Observed Sample: 09/07/2017 12:12 (AST)
Wind Speed: 10 knots Gusts: 16 knots Direction: 178° T

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



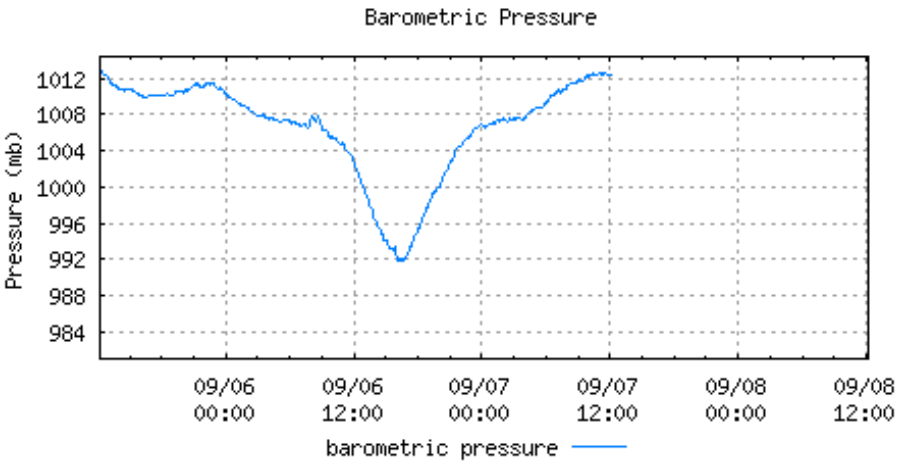
Last Observed Sample: 09/07/2017 12:12 (AST). Data relative to MHHW
Observed: -0.13 ft. Predicted: -0.29 ft. Residual: 0.16 ft.
Historical Maximum Water Level: Aug 22 2011, 0.99 ft.
Next High Tide: 09/07/2017 21:01 (AST), 0.08 ft.

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



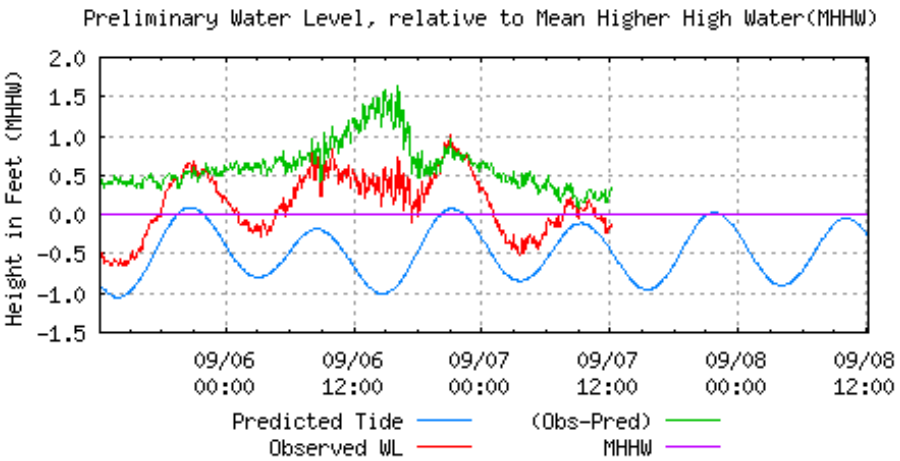
Last Observed Sample: 09/07/2017 12:12 (AST)
Wind Speed: 11 knots Gusts: 14 knots Direction: 158° T

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



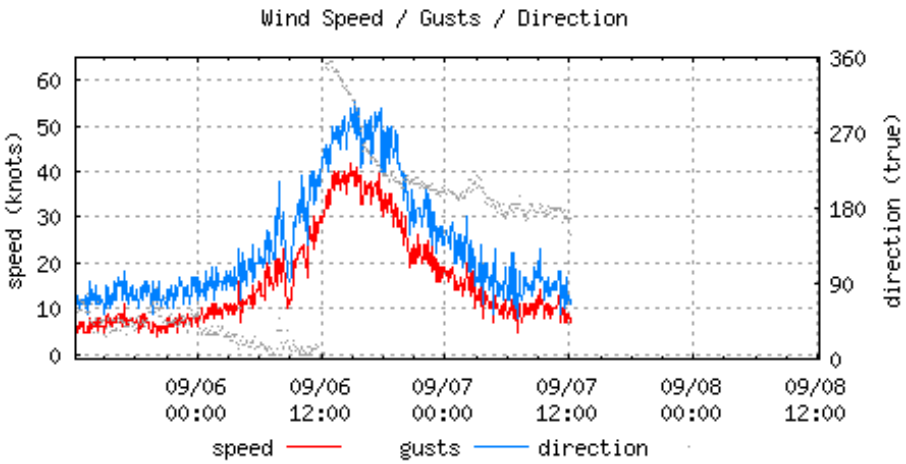
Last Observed Sample: 09/07/2017 12:12 (AST)
Barometric Pressure: 1012.3 mb

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



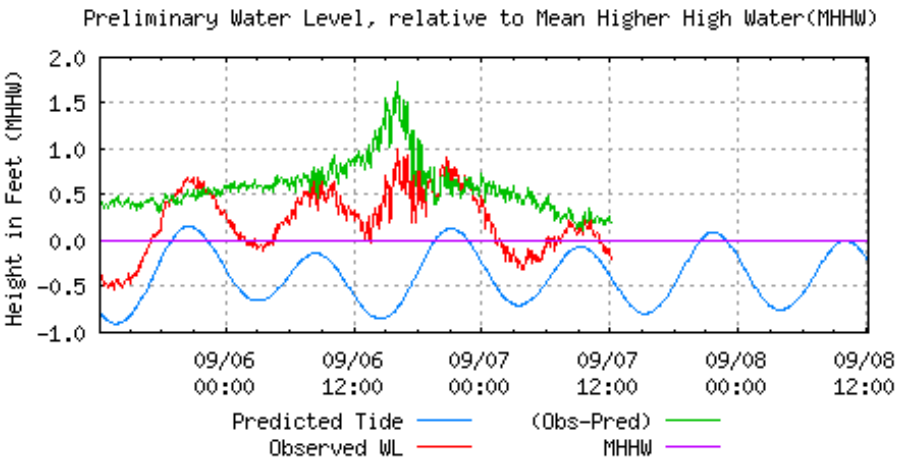
Last Observed Sample: 09/07/2017 12:12 (AST). Data relative to MHHW
Observed: -0.15 ft. Predicted: -0.48 ft. Residual: 0.33 ft.
Historical Maximum Water Level: n/a
Next High Tide: 09/07/2017 21:45 (AST), 0.03 ft.

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



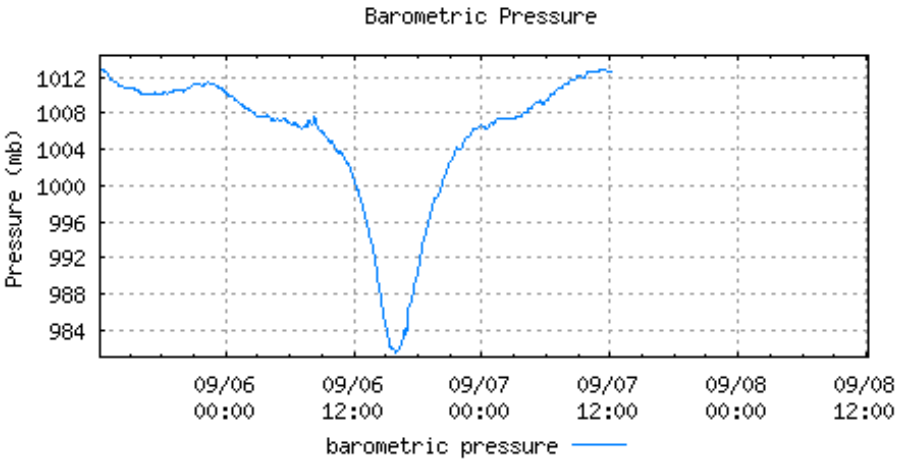
Last Observed Sample: 09/07/2017 12:12 (AST)
Wind Speed: 8 knots Gusts: 12 knots Direction: 169° T

NOAA/NOS/CO-OPS 9752235 Culebra, PR



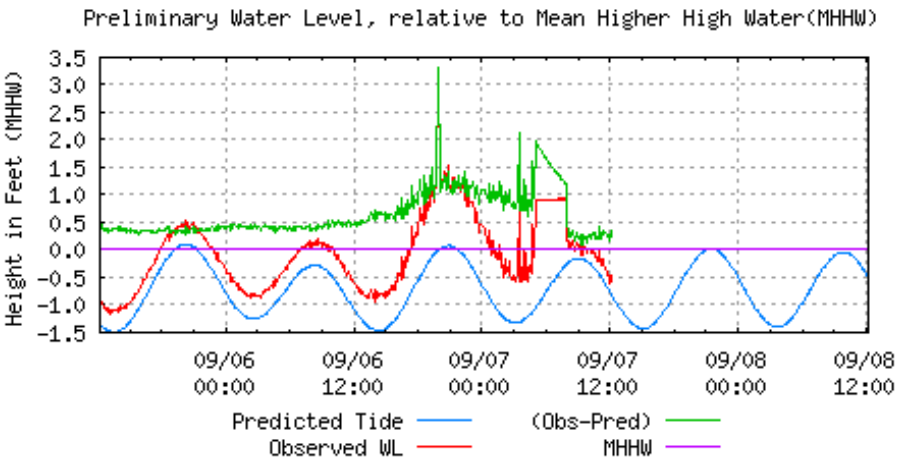
Last Observed Sample: 09/07/2017 12:06 (AST). Data relative to MHHW
Observed: -0.20 ft. Predicted: -0.40 ft. Residual: 0.20 ft.
Historical Maximum Water Level: Nov 6 2006, 0.84 ft.
Next High Tide: 09/07/2017 21:39 (AST), 0.09 ft.

NOAA/NOS/CO-OPS 9752235 Culebra, PR



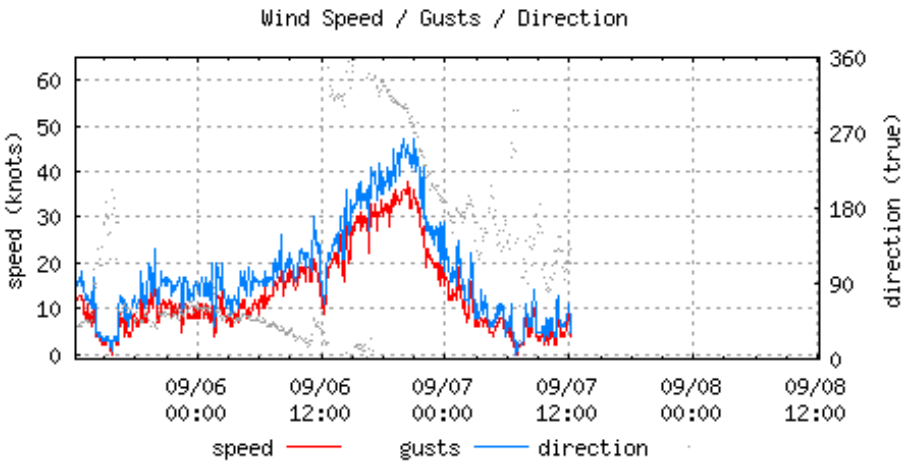
Last Observed Sample: 09/07/2017 12:06 (AST)
Barometric Pressure: 1012.5 mb

NOAA/NOS/CO-OPS 9757809 Arecibo, PR



Last Observed Sample: 09/07/2017 12:12 (AST). Data relative to MHHW
Observed: -0.46 ft. Predicted: -0.83 ft. Residual: 0.37 ft.
Historical Maximum Water Level: Oct 8 2010, 0.90 ft.
Next High Tide: 09/07/2017 21:29 (AST), 0.01 ft.

NOAA/NOS/CO-OPS 9757809 Arecibo, PR



Last Observed Sample: 09/07/2017 12:12 (AST)
Wind Speed: 4 knots Gusts: 5 knots Direction: 114° 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
8724580	Key West, FL	09/07/2017 12:12 (EDT)	0.51 ft	0.25 ft	0.26 ft	0.76 ft
8723970	Vaca Key, FL	09/07/2017 12:06 (EDT)	0.24 ft	0.05 ft	0.19 ft	0.76 ft
8723214	Virginia Key, FL	09/07/2017 12:06 (EDT)	0.23 ft	-0.08 ft	0.31 ft	0.87 ft
9759938	Mona Island, PR	09/07/2017 12:12 (AST)	0.36 ft	-0.35 ft	0.71 ft	1.17 ft
9759394	Mayaguez, PR	09/07/2017 12:06 (AST)	-0.08 ft	-0.50 ft	0.42 ft	1.11 ft
9759110	Magueyes Island, PR	09/07/2017 12:06 (AST)	-0.09 ft	-0.19 ft	0.10 ft	0.64 ft
9755371	San Juan, La Puntilla, San Juan Bay, PR	09/07/2017 12:06 (AST)	-0.23 ft	-0.46 ft	0.23 ft	1.27 ft
9754228	Yabucoa Harbor, PR	09/07/2017 12:12 (AST)	-0.29 ft	-0.25 ft	-0.04 ft	0.76 ft
9753216	Fajardo, PR	09/07/2017 12:12 (AST)	-0.33 ft	-0.63 ft	0.30 ft	1.21 ft
9752695	Esperanza, Vieques Island, PR	09/07/2017 12:12 (AST)	-0.13 ft	-0.29 ft	0.16 ft	1.17 ft
9752619	Isabel Segunda, Vieques Island, PR	09/07/2017 12:12 (AST)	-0.15 ft	-0.48 ft	0.33 ft	1.02 ft
9752235	Culebra, PR	09/07/2017 12:06 (AST)	-0.20 ft	-0.40 ft	0.20 ft	1.00 ft
9757809	Arecibo, PR	09/07/2017 12:12 (AST)	-0.46 ft	-0.83 ft	0.37 ft	3.30 ft

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