Storm Analysis

As of 08/01/2014 18:00 AST, water levels across the U.S. Virgin Islands and Puerto Rico are slightly elevated. Levels across the Virgin Islands and the east coast of Puerto Rico range between 0.1 and 0.3 feet above tidal predictions. Water levels at Yabucoa Harbor and Mona Island, PR are slightly higher and are measuring about 0.5 feet above tidal predictions. Wind speeds are increasing slightly across the U.S. Virgin Islands and the eastern coast of Puerto Rico with speeds measuring 10-20 kts with slightly higher gusts. Wind gusts up to 25 kts were recorded in San Juan, PR. Barometric pressure has begun to decrease across the 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.
SELECT NATIONAL HurRICANE CENTER ADVISORY INFORMATION:

TROPICAL STORM BERTHA ADVISORY NUMBER  4
500 PM AST FRI AUG 01 2014

...CENTER OF BERTHA PASSING NEAR THE NORTHERN END OF MARTINIQUE...
...TROPICAL STORM WATCH ISSUED FOR THE SOUTHEASTERN BAHAMAS AND THE TURKS AND CAICOS ISLANDS...

WATCHES AND WARNINGS
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CHANGES WITH THIS ADVISORY...

THE GOVERNMENT OF THE BAHAMAS HAS ISSUED A TROPICAL STORM WATCH FOR THE SOUTHEASTERN BAHAMAS...INCLUDING THE ACKLINS...CROOKED ISLAND...LONG CAY...THE INAGUAS...MAYAGUANA...AND THE RAGGED ISLANDS...AS WELL AS FOR THE TURKS AND CAICOS ISLANDS.

SUMMARY OF WATCHES AND WARNINGS IN EFFECT...

A TROPICAL STORM WARNING IS IN EFFECT FOR...
* DOMINICA
* MARTINIQUE
* PUERTO RICO
* VIEQUES
* CULEBRA
* U.S. VIRGIN ISLANDS
* BRITISH VIRGIN ISLANDS

A TROPICAL STORM WATCH IS IN EFFECT FOR...
* THE EASTERN DOMINICAN REPUBLIC FROM CABO FRANCES VIEJO TO ISLA SAONA
* THE SOUTHEASTERN BAHAMAS...INCLUDING THE ACKLINS...CROOKED ISLAND...LONG CAY...THE INAGUAS...MAYAGUANA...AND THE RAGGED ISLANDS
* THE TURKS AND CAICOS ISLANDS

A TROPICAL STORM WARNING MEANS THAT TROPICAL STORM CONDITIONS ARE EXPECTED SOMEWHERE WITHIN THE WARNING AREA...IN THIS CASE WITHIN THE NEXT 24 HOURS.

A TROPICAL STORM WATCH MEANS THAT TROPICAL STORM CONDITIONS ARE POSSIBLE WITHIN THE WATCH AREA...GENERALLY WITHIN 48 HOURS.

INTERESTS ELSEWHERE ACROSS THE NORTHEASTERN CARIBBEAN SEA AND HISPANIOLA SHOULD MONITOR THE PROGRESS OF THIS SYSTEM.
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...THE CENTER OF TROPICAL STORM BERTHA WAS LOCATED NEAR LATITUDE 14.9 NORTH...LONGITUDE 61.2 WEST. BERTHA IS MOVING TOWARD THE WEST-NORTHWEST NEAR 24 MPH...AND THIS GENERAL MOTION IS EXPECTED TO CONTINUE FOR THE NEXT COUPLE OF DAYS. ON THE FORECAST TRACK...BERTHA IS EXPECTED TO MOVE AWAY FROM MARTINIQUE INTO THE NORTHEASTERN CARIBBEAN SEA DURING THE NEXT SEVERAL HOURS...PASS NEAR PUERTO RICO AND THE VIRGIN ISLANDS ON SATURDAY...PASS NEAR OR OVER THE EASTERN DOMINICAN REPUBLIC SATURDAY NIGHT...AND APPROACH THE SOUTHEASTERN BAHAMAS AND THE TURKS AND CAICOS ISLANDS ON SUNDAY.

MAXIMUM SUSTAINED WINDS ARE NEAR 50 MPH...WITH HIGHER GUSTS. BERTHA REMAINS IN AN ENVIRONMENT THAT IS NOT FAVORABLE FOR STRENGTHENING...AND LITTLE CHANGE IN STRENGTH IS FORECAST DURING THE NEXT 48 HOURS.

TROPICAL STORM FORCE WINDS EXTEND OUTWARD UP TO 115 MILES...MAINLY TO THE NORTHEAST OF THE CENTER. A FRENCH WEATHER STATION ON LA DESIRADE ISLAND NEAR GUADELOUPE RECENTLY REPORTED SUSTAINED WINDS OF 35 MPH...AND A WIND GUST OF 52 MPH.

THE ESTIMATED MINIMUM CENTRAL PRESSURE IS 1007 MB.

HAZARDS AFFECTING LAND
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WIND...TROPICAL STORM CONDITIONS ARE SPREADING ACROSS PORTIONS OF THE SOUTHERN LEEWARD ISLANDS IN THE WARNING AREA...MAKING OUTSIDE PREPARATIONS DIFFICULT OR DANGEROUS. TROPICAL STORM CONDITIONS ARE POSSIBLE ON GUADELOUPE DURING THE NEXT SEVERAL HOURS. TROPICAL STORM CONDITIONS ARE EXPECTED IN PUERTO RICO AND THE VIRGIN ISLANDS ON SATURDAY. WIND GUSTS TO TROPICAL STORM FORCE COULD OCCUR IN SQUALLS OVER THE REMAINDER OF THE LEEWARD ISLANDS.

RAINFALL...BERTHA IS EXPECTED TO PRODUCE RAINFALL AMOUNTS OF 1 TO 3 INCHES WITH ISOLATED AMOUNTS UP TO 6 INCHES ACROSS PORTIONS OF THE LEEWARD ISLANDS...AS WELL AS THE U. S. AND BRITISH VIRGIN ISLANDS. RAINFALL TOTALS OF 3 TO 6 INCHES WITH ISOLATED MAXIMUM TOTALS OF 10 INCHES ARE POSSIBLE ACROSS PUERTO RICO...WITH THE HEAVIEST TOTALS ACROSS THE SOUTHERN PORTION OF THE ISLAND.
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.

Last Observed Sample: 08/01/2014 17:42 (AST). Data relative to MHHW
Observed: 0.06 ft. Predicted: -0.22 ft. Residual: 0.28 ft.
Historical Maximum Water Level: Nov 17 1999, 1.88 ft.
Next High Tide: 08/01/2014 21:55 (AST), -0.10 ft.

LastObserved Sample: 08/01/2014 17:42 (AST)
Wind Speed: 9 knots Gusts: 15 knots Direction: 103° T
NOAA/NOS/CO-OPS 9751401 Lime Tree Bay, VI

Barometric Pressure

Barometric Pressure: 1013.5 mb

Last Observed Sample: 08/01/2014 17:42 (AST)

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

Preliminary Water Level, relative to Mean Higher High Water (MHHW)

Last Observed Sample: 08/01/2014 17:48 (AST). Data relative to MHHW

Observed: -0.18 ft. Predicted: -0.38 ft. Residual: 0.20 ft.

Historical Maximum Water Level: Aug 30 2010, 0.89 ft.

Next High Tide: 08/01/2014 23:42 (AST), -0.18 ft.
Tropical Storm BERTHA QuickLook, POSTED 18:00 AST 08/01/2014

NOAA/NOS/CO-OPS 9751381 Lameshur Bay, St John, VI
Last Observed Sample: 08/01/2014 17:48 (AST)
Barometric Pressure: 1014.2 mb

NOAA/NOS/CO-OPS 9751639 Charlotte Amalie, VI
Last Observed Sample: 08/01/2014 17:42 (AST).
Data relative to MHHW Observed: -0.22 ft. Predicted: -0.34 ft. Residual: 0.12 ft.
Historical Maximum Water Level: Sep 16 1995, 2.93 ft.
Next High Tide: 08/01/2014 23:39 (AST), -0.16 ft.
NOAA/NOS/CO-OPS 9751639 Charlotte Amalie, VI

Wind Speed / Gusts / Direction

Last Observed Sample: 08/01/2014 17:42 (AST)
Wind Speed: 5 knots Gusts: 9 knots Direction: 76° T

NOAA/NOS/CO-OPS 9751639 Charlotte Amalie, VI

Barometric Pressure

Last Observed Sample: 08/01/2014 17:42 (AST)
Barometric Pressure: 1014.4 mb
Last Observed Sample: 08/01/2014 17:54 (AST). Data relative to MHHW

- Observed: -0.10 ft.
- Predicted: -0.37 ft.
- Residual: 0.27 ft.

Historical Maximum Water Level: Aug 22 2011, 0.99 ft.
Next High Tide: 08/01/2014 22:27 (AST), -0.16 ft.

Last Observed Sample: 08/01/2014 17:54 (AST)

Wind Speed: 8 knots  Gusts: 13 knots  Direction: 118° T
NOAA/NOS/CO-OPS 9752695 Esperanza, Vieques Island, PR

Last Observed Sample: 08/01/2014 17:54 (AST)
Barometric Pressure: 1013.6 mb

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

Last Observed Sample: 08/01/2014 17:48 (AST). Data relative to MHHW
Observed: 0.13 ft. Predicted: -0.41 ft. Residual: 0.54 ft.
Historical Maximum Water Level: n/a
Next High Tide: 08/01/2014 21:43 (AST), -0.32 ft.
NOAA/NOS/CO-OPS 9754228 Yabucoa Harbor, PR

Wind Speed / Gusts / Direction

Speed (knots)

-25 -20 -15 -10 -5 0 5 10 15 20 25 30 35 40

Direction (true)

-360 -270 -180 -90 0 90 180 270 360

Last Observed Sample: 08/01/2014 17:48 (AST)
Wind Speed: 9 knots Gusts: 14 knots Direction: 70° T

NOAA/NOS/CO-OPS 9755371 San Juan, PR

Last Observed Sample: 08/01/2014 17:48 (AST)
Data relative to MHHW
Observed: -0.89 ft. Predicted: -1.01 ft. Residual: 0.12 ft.
Historical Maximum Water Level: Sep 18 1989, 2.77 ft.
Next High Tide: 08/02/2014 00:26 (AST), -0.30 ft.
Tropical Storm BERTHA QuickLook, POSTED 18:00 AST 08/01/2014

NOAA/NOS/CO-OPS 9755371 San Juan, PR
Wind Speed / Gusts / Direction

Last Observed Sample: 08/01/2014 17:48 (AST)
Wind Speed: 17 knots  Gusts: 24 knots  Direction: 84° T

Barometric Pressure

Last Observed Sample: 08/01/2014 17:48 (AST)
Barometric Pressure: 1013.0 mb
Last Observed Sample: 08/01/2014 17:48 (AST). Data relative to MHHW
Observed: -0.77 ft.  Predicted: -0.93 ft.  Residual: 0.16 ft.
Historical Maximum Water Level: Jul 13 2010, 0.85 ft.
Next High Tide: 08/02/2014 00:17 (AST), -0.20 ft.

Last Observed Sample: 08/01/2014 17:48 (AST)
Wind Speed: 2 knots  Gusts: 5 knots  Direction: 260° T
Last Observed Sample: 08/01/2014 17:48 (AST). Data relative to MHHW

- Observed: 0.21 ft
- Predicted: -0.30 ft
- Residual: 0.51 ft

Historical Maximum Water Level: Dec 23 2010, 1.26 ft

Next High Tide: 08/01/2014 23:37 (AST), -0.20 ft

Barometric Pressure: 1013.1 mb
### Latest Water Level Observations on MHHW

<table>
<thead>
<tr>
<th>Station ID</th>
<th>Station Name</th>
<th>Date/Time</th>
<th>Observed Water Level</th>
<th>Predicted Tide</th>
<th>Residual Water Level</th>
<th>24 Hour Maximum Storm Tide</th>
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<tbody>
<tr>
<td>9751401</td>
<td>Lime Tree Bay, VI</td>
<td>08/01/2014 17:42 (AST)</td>
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<td>9751639</td>
<td>Charlotte Amalie, VI</td>
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<td>0.18 ft</td>
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<td>Esperanza, Vieques Island, PR</td>
<td>08/01/2014 17:54 (AST)</td>
<td>-0.10 ft</td>
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<td>0.51 ft</td>
<td>0.39 ft</td>
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