Storm Analysis
As of 08/21/2011 06:00 AST, water levels in the U.S. Virgin Islands and Puerto Rico are slightly elevated at some stations, with Mayaguez, PR showing the most at .5m above predicted. Winds are gradually increasing in the region, with gusts up to 22 knots at Lime Tree Bay, VI. Barometric has begun falling across the region.

Water Level and Meteorological plots available below are updated automatically. Water level predictions relative to Mean Lower Low Water are:

Lime Tree Bay, VI: Next predicted high tides are 0.76 ft (0.23 m) at 08/21/2011 19:55 AST and 0.82 ft (0.25 m) at 08/22/2011 20:20 AST.

Lameshur Bay, St. John, VI: Next predicted high tides are 0.7 ft (0.22 m) at 08/21/2011 16:49 AST and 0.8 ft (0.24 m) at 08/22/2011 17:48 AST.
Charlotte Amalie, VI Next predicted high tides are 0.81 ft (0.25 m) at 08/21/2011 17:25 AST and 0.87 ft (0.27 m) at 08/22/2011 18:18 AST.

Esperanza, PR Next predicted high tides are 0.63 ft (0.19 m) at 08/21/2011 18:27 AST and 0.70 ft (0.21 m) at 08/22/2011 19:12 AST.

Magueyes Island, PR Next predicted high tides are 0.76 ft (0.23 m) at 08/21/2011 19:48 AST and 0.82 ft (0.25 m) at 08/22/2011 20:14 AST.

Mayaguez, PR: Next predicted high tides are 0.8 ft (0.24 m) at 08/21/2011 15:26 AST and 0.5 ft (0.17 m) at 08/22/2011 02:59 AST.

Mona Island, PR Next predicted high tides are 0.80 ft (0.24 m) at 08/21/2011 20:40 AST and 0.85 ft (0.26 m) at 08/22/2011 21:23 AST.

For additional data, please see the Center for Operational Oceanographic Products & Services website. For information on Highest Astronomical Tide (HAT), NAVD88 and other datums, please see Tidal Datums. For more information or archived products and reports, please see the Storm QuickLook Homepage.

Analyst: WFR

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SELECT NATIONAL HURRICANE CENTER ADVISORY INFORMATION:

TROPICAL STORM IRENE ADVISORY NUMBER 3
500 AM AST SUN AUG 21 2011

...IRENE LASHING THE NORTHERN LEEWARD ISLANDS WITH SQUALLS AND HEAVY RAINS...

WATCHES AND WARNINGS

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A HURRICANE WATCH IS IN EFFECT FOR...
* PUERTO RICO...VIEQUES...AND CULEBRA

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

HURRICANE CONDITIONS COULD OCCUR ON PUERTO RICO...VIEQUES...AND CULEBRA TONIGHT AND MONDAY MORNING.

A TROPICAL STORM WARNING MEANS THAT TROPICAL STORM CONDITIONS ARE EXPECTED SOMEWHERE WITHIN THE WARNING AREA...IN THIS CASE WITHIN 24 TO 36 HOURS.

A TROPICAL STORM WATCH MEANS THAT TROPICAL STORM CONDITIONS ARE POSSIBLE WITHIN THE WATCH AREA...IN THIS CASE WITHIN 36 TO 48 HOURS.

FOR STORM INFORMATION SPECIFIC TO YOUR AREA IN THE UNITED STATES... INCLUDING POSSIBLE INLAND WATCHES AND WARNINGS...PLEASE MONITOR PRODUCTS ISSUED BY
DISCUSSION AND 48-HOUR OUTLOOK

AT 500 AM AST THE CENTER OF TROPICAL STORM IRENE WAS LOCATED NEAR LATITUDE 16.4 NORTH...LONGITUDE 61.3 WEST. IRENE IS MOVING TOWARD THE WEST NEAR 21 MPH AND A MOTION TOWARD THE WEST OR WEST-NORTHWEST AT A SLOWER RATE OF SPEED IS EXPECTED DURING THE NEXT 48 HOURS. ON THE FORECAST TRACK...IRENE WILL PASS THROUGH THE LEEWARD ISLANDS THIS MORNING...AND MOVE INTO THE NORTHEASTERN CARIBBEAN SEA THIS AFTERNOON. IRENE COULD APPROACH PUERTO RICO ON MONDAY.

MAXIMUM SUSTAINED WINDS ARE NEAR 50 MPH WITH HIGHER GUSTS. SOME STRENGTHENING IS FORECAST DURING THE NEXT 48 HOURS...AND IRENE COULD BECOME A HURRICANE BY MONDAY.

TROPICAL-STORM-FORCE WINDS EXTEND OUTWARD UP TO 150 MILES MAINLY TO THE NORTH AND EAST OF THE CENTER.

ESTIMATED MINIMUM CENTRAL PRESSURE IS 1006 MB

HAZARDS AFFECTING LAND

WIND...TROPICAL STORM CONDITIONS ARE EXPECTED IN THE LEEWARD ISLANDS LATER TODAY. TROPICAL STORM CONDITIONS ARE EXPECTED TO BEGIN THIS AFTERNOON IN THE VIRGIN ISLANDS AND PUERTO RICO. HURRICANE CONDITIONS ARE POSSIBLE OVER PUERTO RICO TONIGHT.

RAINFALL...IRENE IS EXPECTED TO PRODUCE TOTAL RAINFALL ACCUMULATIONS OF 4 TO 7 INCHES IN THE LEEWARD ISLANDS...PUERTO RICO AND THE VIRGIN ISLANDS...WITH ISOLATED MAXIMUM AMOUNTS OF UP TO 10 INCHES. THESE RAINS COULD CAUSE LIFE-THREATENING FLASH FLOODS AND MUDSLIDES IN AREAS OF STEEP TERRAIN.

STORM SURGE...A STORM SURGE WILL RAISE WATER LEVELS BY AS MUCH AS 3 TO 5 FEET ABOVE NORMAL TIDE LEVELS ALONG THE SOUTHERN COAST OF THE DOMINICAN REPUBLIC. A STORM SURGE OF 1 TO 3 FEET ABOVE NORMAL TIDE LEVELS IS EXPECTED ALONG THE IMMEDIATE COAST IN THE TROPICAL STORM WARNING AREA. NEAR THE COAST...THE SURGE WILL BE ACCOMPANIED BY LARGE AND DANGEROUS WAVES.

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.
Lime Tree Bay, VI - Return to List

NOAA/NOS/C0-CPS
Preliminary 6 min. Water Level vs. Predicted Plot
9/5/14 4:1 Lime Tree Bay, VI
from 08/19/2011 06:24 - 08/22/2011 06:24

Last Observed Sample: 08/21/2011 06:18 (AST)
Relative to MLLW: Observed: 0.31 ft. Predicted: 0.10 ft. Residual: 0.21 ft.
Historical Maximum Water Level: Nov 17 1999, 1.88 ft. above MHHW

Lime Tree Bay, VI - Return to List

NOAA/NOS/C0-CPS
Wind Speed/Gusts/Dir
9/5/14 4:1 Lime Tree Bay, VI
from 08/19/2011 06:24 - 08/22/2011 06:24

Last Observed Sample: 08/21/2011 06:18 (AST)
Wind Speed: 9 knots Gusts: 15 knots Direction: 59° T
Barometric Pressure Plot
9/51401 Lime Tree Bay, VI
From 08/19/2011 06:24 - 08/22/2011 06:24

Last Observed Sample: 08/21/2011 06:18 (AST)
Barometric Pressure: 1011.2 mb

Air/Water Temperature Plot
9/51401 Lime Tree Bay, VI
From 08/19/2011 06:24 - 08/22/2011 06:24

Last Observed Sample: 08/21/2011 06:18 (AST)
Water Temperature: 84.9° F Air Temperature: 81.7° F
Lameshur Bay, St. John, VI - Return to List

NOAA/NOS/C0-CPS
Preliminary 6 min. Water Level vs. Predicted Plot
9751381 Lameshur Bay, St. John, VI
from 08/19/2011 06:24 - 08/22/2011 06:24

Relative to MLLW: Observed: 0.30 ft. Predicted: 0.05 ft. Residual: 0.25 ft.
Historical Maximum Water Level: Aug 30 2010, 0.9 ft. above MHHW

Lameshur Bay, St. John, VI - Return to List

NOAA/NOS/C0-CPS
Barometric Pressure Plot
9751381 Lameshur Bay, St. John, VI
from 08/19/2011 06:24 - 08/22/2011 06:24

Barometric Pressure: 1011.8 mb
Lameshur Bay, St. John, VI - Return to List

NOAA/NOS/C0-CPS
Air/Water Temperature Plot
9751381 Lameshur Bay, St. John, VI
From 08/19/2011 06:24 - 08/22/2011 06:24

Last Observed Sample: 08/21/2011 06:18 (AST)
Water Temperature: 84.7° F Air Temperature: 80.6° F

Charlotte Amalie, VI - Return to List

NOAA/NOS/C0-CPS
Preliminary 6 min. Water Level vs. Predicted Plot
9756539 Charlotte Amalie, VI
From 08/19/2011 06:24 - 08/22/2011 06:24

Last Observed Sample: 08/21/2011 06:18 (AST)
Relative to MLLW: Observed: 0.44 ft. Predicted: 0.15 ft. Residual: 0.29 ft.
Historical Maximum Water Level: Sep 16 1995, 2.93 ft. above MHHW
Tropical Storm IRENE QuickLook, POSTED 06:00 AST 08/21/2011

Charlotte Amalie, VI - Return to List

NOAA/NOS/C0-CPS
Barometric Pressure Plot
9751639 Charlotte Amalie, VI
From 08/19/2011 06:24 - 08/22/2011 06:24

Last Observed Sample: 08/21/2011 06:18 (AST)
Barometric Pressure: 1010.9 mb

Charlotte Amalie, VI - Return to List

NOAA/NOS/C0-CPS
Air/Water Temperature Plot
9751639 Charlotte Amalie, VI
From 08/19/2011 06:24 - 08/22/2011 06:24

Last Observed Sample: 08/21/2011 06:18 (AST)
Water Temperature: 85.9° F Air Temperature: 81.5° F
Magueyes Island, PR

Last Observed Sample: 08/21/2011 06:18 (AST)

Relative to MLLW:
- Observed: 0.38 ft.
- Predicted: 0.15 ft.
- Residual: 0.23 ft.

Historical Maximum Water Level: Sep 22 1998, 1.6 ft. above MHHW

Magueyes Island, PR

Wind Speed: 7 knots
Gusts: 9 knots
Direction: 4° T
Magueyes Island, PR - Return to List

NOAA/NOS/CO-OPS

This data type is not currently available from this station.

Last Observed Sample: 08/21/2011 06:18 (AST)
Barometric Pressure: 1011.7 mb

Magueyes Island, PR - Return to List

NOAA/NOS/CO-OPS
Air/Water Temperature Plot
9759110 Magueyes Island, PR
from 08/19/2011 06:24 - 08/22/2011 06:24

Last Observed Sample: 08/21/2011 06:18 (AST)
Water Temperature: 85.3°F Air Temperature: 80.8°F
Tropical Storm IRENE QuickLook, POSTED 06:00 AST 08/21/2011

Mayaguez, PR - Return to List

NOAA/NOS/CO-OPS
Preliminary 6 min. Water Level vs. Predicted Plot
5759394 Mayaguez, PR
from 08/19/2011 06:24 to 08/22/2011 06:24

Relative to MLLW: Observed: 0.41 ft. Predicted: -0.12 ft. Residual: 0.53 ft.
Historical Maximum Water Level: 0 ft. above MHHW

Mayaguez, PR - Return to List

NOAA/NOS/CO-OPS

This data type is not currently available from this station.

Last Observed Sample: 08/21/2011 06:18 (AST)
Wind Speed: 2 knots Gusts: 3 knots Direction: 89° T
Mayaguez, PR - Return to List

NOAA/NOS/COOPS
Barometric Pressure Plot
5759394 Mayaguez, PR
From 08/19/2011 06:24 - 08/22/2011 06:24

Last Observed Sample: 08/21/2011 06:18 (AST)
Barometric Pressure: 1015.6 mb

Mayaguez, PR - Return to List

NOAA/NOS/COOPS
Air/Water Temperature Plot
5759394 Mayaguez, PR
From 08/19/2011 06:24 - 08/22/2011 06:24

Last Observed Sample: 08/21/2011 06:18 (AST)
Water Temperature: 86.7° F Air Temperature: 77.5° F
Mona Island, PR - Return to List

Tropical Storm IRENE QuickLook, POSTED 06:00 AST 08/21/2011

Last Observed Sample: 08/21/2011 05:54 (AST)
Relative to MLLW: Observed: 0.35 ft. Predicted: 0.07 ft. Residual: 0.28 ft.
Historical Maximum Water Level: Dec 23 2010, 1.26 ft. above MHHW

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