Tropical Storm ARTHUR QuickLook
Posted: 18:00 EDT 07/02/2014

NOAA and NOAA Partnership Stations Relative to the Storm

Storm Analysis
As of 07/02/2014 18:00 EDT, water levels along Florida's eastern coast remain elevated between 0.78-0.94 feet above predicted tide levels. Water levels from South Carolina to North Carolina are currently ranging from 0.19 to 1.0 feet above tidal predictions. Wind speeds are slowly increasing and range from 5 to 20 knots along the Carolinas, and barometric pressure continues to fall 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.

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: AJH
SELECT NATIONAL HURRICANE CENTER ADVISORY INFORMATION:

TROPICAL STORM ARTHUR ADVISORY NUMBER 8

500 PM EDT WED JUL 02 2014

...ARTHUR ALMOST A HURRICANE...

...HURRICANE WARNINGS ISSUED...

WATCHES AND WARNINGS

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CHANGES WITH THIS ADVISORY...

A HURRICANE WARNING HAS BEEN ISSUED FOR THE NORTH CAROLINA COAST FROM SURF CITY NORTHWARD TO DUCK...INCLUDING THE PAMLICO AND EASTERN ALBEMARLE SOUNDS.

A TROPICAL STORM WARNING HAS BEEN ISSUED FROM SOUTH SANTEE RIVER SOUTH CAROLINA TO SOUTH OF SURF CITY...FROM NORTH OF DUCK TO CAPE CHARLES LIGHT VIRGINIA...NOT INCLUDING CHEASEPEAKE BAY...AND FOR THE WESTERN ALBEMARLE SOUND.

A HURRICANE WATCH HAS BEEN ISSUED FROM LITTLE RIVER INLET TO SOUTH OF SURF CITY.

SUMMARY OF WATCHES AND WARNINGS IN EFFECT...

A HURRICANE WARNING IS IN EFFECT FOR...

* SURF CITY NORTHWARD TO DUCK

* PAMLICO SOUND
A HURRICANE WATCH IS IN EFFECT FOR...

* LITTLE RIVER INLET TO SOUTH OF SURF CITY

A TROPICAL STORM WARNING IS IN EFFECT FOR...

* SOUTH SANTEE RIVER SOUTH CAROLINA TO SOUTH OF SURF CITY

* NORTH OF DUCK TO CAPE CHARLES LIGHT VIRGINIA...NOT INCLUDING CHEASEPEAKE BAY

* WESTERN ALBEMARLE SOUND

A HURRICANE WARNING MEANS THAT HURRICANE CONDITIONS ARE EXPECTED SOMEWHERE WITHIN THE WARNING AREA. A WARNING IS TYPICALLY ISSUED 36 HOURS BEFORE THE ANTICIPATED FIRST OCCURRENCE OF TROPICAL-STORM-FORCE WINDS...CONDITIONS THAT MAKE OUTSIDE PREPARATIONS DIFFICULT OR DANGEROUS. 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 WITHIN THE NEXT 36 HOURS. ANY DEVIATION OF THE FORECAST TRACK TO THE LEFT...OR AN INCREASE IN THE FORECAST SIZE OF ARTHUR WOULD LIKELY REQUIRE THE ISSUANCE OF HURRICANE WARNINGS FOR ALL OR PART OF THE HURRICANE WATCH AREA.

A TROPICAL STORM WARNING MEANS THAT TROPICAL STORM CONDITIONS ARE EXPECTED SOMEWHERE WITHIN THE WARNING AREA WITHIN 36 HOURS.

INTERESTS ALONG THE UNITED STATES EAST COAST NORTH OF THE WARNING AREA...PRIMARILY IN SOUTHEASTERN NEW ENGLAND...SHOULD MONITOR THE PROGRESS OF TROPICAL STORM ARTHUR.
DISCUSSION AND 48-HOUR OUTLOOK

AT 500 PM EDT THE CENTER OF TROPICAL STORM ARTHUR WAS LOCATED ABOUT 435 MI SSW OF CAPE HATTERAS NORTH CAROLINA AND 220 MI SSE OF CHARLESTON SOUTH CAROLINA. ARTHUR IS MOVING TOWARD THE NORTH NEAR 7 MPH. A TURN TOWARD THE NORTH-NORTHEAST IS EXPECTED TONIGHT...FOLLOWED BY A TURN TOWARD THE NORTHEAST WITH AN INCREASE IN FORWARD SPEED ON THURSDAY. THE CORE OF ARTHUR IS EXPECTED TO SLOWLY APPROACH THE COASTS OF SOUTH AND NORTH CAROLINA DURING THE NEXT 24 TO 36 HOURS.

MAXIMUM SUSTAINED WINDS HAVE INCREASED TO NEAR 70 MPH WITH HIGHER GUSTS. ARTHUR IS EXPECTED TO BECOME A HURRICANE TONIGHT OR THURSDAY.

TROPICAL STORM FORCE WINDS EXTEND OUTWARD UP TO 80 MILES FROM THE CENTER.

THE MINIMUM CENTRAL PRESSURE REPORTED BY BOTH NOAA AND AIR FORCE RECONNAISSANCE AIRCRAFT WAS 992 MB.

HAZARDS AFFECTING LAND

WIND...TROPICAL STORM CONDITIONS ARE POSSIBLE WITHIN THE TROPICAL STORM WATCH AREA BY THURSDAY AFTERNOON...AND ARE EXPECTED WITHIN THE TROPICAL STORM WARNING AREA BY THURSDAY EVENING. HURRICANE CONDITIONS ARE EXPECTED WITHIN THE HURRICANE WARNING AREA BY THURSDAY NIGHT.

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. THE WATER COULD REACH THE FOLLOWING HEIGHTS ABOVE GROUND IF THE PEAK SURGE OCCURS AT THE TIME OF HIGH TIDE...

NORTH CAROLINA OUTER BANKS...2 TO 4 FT
PAMLICO AND ALBEMARLE SOUNDS...2 TO 4 FT
SOUTHERN NORTH CAROLINA AND NORTHEASTERN SOUTH CAROLINA...1 TO 3 FT
EXTREME SOUTHEASTERN VIRGINIA...1 TO 2 FT

THE HIGHEST WATER WILL OCCUR ALONG THE IMMEDIATE COAST IN AREAS OF ONSHORE FLOW. THE SURGE WILL BE ACCOMPANIED BY LARGE AND DAMAGING 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 OFFICE AND THE NEW EXPERIMENTAL POTENTIAL STORM SURGE FLOODING MAP FOR MORE DETAILS.

RAINFALL...ARTHUR IS EXPECTED TO PRODUCE TOTAL RAINFALL ACCUMULATIONS OF 1 TO 2 INCHES ACROSS THE EASTERN FLORIDA PENINSULA. RAINFALL ACCUMULATIONS OF 2 TO 4 INCHES...WITH ISOLATED MAXIMUM AMOUNTS OF 6 INCHES...ARE EXPECTED OVER COASTAL AREAS OF NORTH CAROLINA THROUGH FRIDAY. RAINS ASSOCIATED WITH ARTHUR ARE EXPECTED TO DIMINISH ACROSS THE NORTHWESTERN BAHAMAS TODAY.

SURF...SWELLS GENERATED BY ARTHUR ARE AFFECTING PORTIONS OF THE EAST-CENTRAL COAST OF FLORIDA. THESE SWELLS ARE LIKELY TO CAUSE LIFE-THREATENING SURF AND RIP CURRENTS. THESE HAZARDOUS CONDITIONS WILL GRADUALLY SPREAD NORTHWARD ALONG THE COASTS OF NORTHEAST FLORIDA...GEORGIA...AND SOUTH CAROLINA TODAY. FOR MORE INFORMATION...PLEASE MONITOR PRODUCTS ISSUED BY YOUR LOCAL NATIONAL WEATHER SERVICE FORECAST OFFICE.

NEXT ADVISORY

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NEXT INTERMEDIATE ADVISORY...800 PM EDT.
NEXT COMPLETE ADVISORY...1100 PM EDT.

FORECASTER AVILA

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: Virginia Key - Water Level, Lake Worth Pier - Water Level, Trident Pier - Water Level, Fernandina Beach - Water Level, Fernandina Beach - Winds, Fernandina Beach - Barometric, Charleston - Water Level, Charleston - Winds, Charleston - Barometric, Springmaid Pier - Water Level, Springmaid Pier - Winds, Springmaid Pier - Barometric, Wrightsville Beach - Water Level, Wrightsville Beach - Winds, Wrightsville Beach - Barometric, USCG Station Hatteras - Water Level, USCG Station Hatteras - Winds, USCG Station Hatteras - Barometric, Oregon Inlet Marina - Water Level, Oregon Inlet Marina - Winds, Oregon Inlet Marina - Barometric
Tropical Storm ARTHUR QuickLook, POSTED 18:00 EDT 07/02/2014

NOAA/NOS/CO-OPS 8723214 Virginia Key, FL
Preliminary Water Level, relative to Mean Higher High Water (MHHW)

Last Observed Sample: 07/02/2014 16:48 (EDT). Data relative to MHHW
Observed: -0.82 ft. Predicted: -1.60 ft. Residual: 0.78 ft.
Next High Tide: 07/03/2014 01:33 (EDT), -0.29 ft.

NOAA/NOS/CO-OPS 8722670 Lake Worth Pier, FL
Preliminary Water Level, relative to Mean Higher High Water (MHHW)

Last Observed Sample: 07/02/2014 17:54 (EDT). Data relative to MHHW
Observed: -1.74 ft. Predicted: -2.68 ft. Residual: 0.94 ft.
Historical Maximum Water Level: Nov 23 1984, 1.88 ft.
Next High Tide: 07/03/2014 00:27 (EDT), -0.44 ft.
NOAA/NOS/CO-OPS 8721604 Trident Pier, FL

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

Last Observed Sample: 07/02/2014 17:54 (EDT). Data relative to MHHW

Observed: -2.54 ft. Predicted: -3.52 ft. Residual: 0.98 ft.

Historical Maximum Water Level: Sep 26 2004, 4.01 ft.

Next High Tide: 07/03/2014 00:09 (EDT), -0.64 ft.

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NOAA/NOS/CO-OPS 8720030 Fernandina Beach, FL

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

Last Observed Sample: 07/02/2014 17:54 (EDT). Data relative to MHHW

Observed: -4.75 ft. Predicted: -5.53 ft. Residual: 0.78 ft.

Historical Maximum Water Level: Oct 2 1898, 6.94 ft.

Next High Tide: 07/03/2014 01:12 (EDT), -0.83 ft.
Last Observed Sample: 07/02/2014 17:54 (EDT)
Wind Speed: 6 knots  Gusts: 13 knots  Direction: 10° T

Barometric Pressure: 1011.9 mb
Last Observed Sample: 07/02/2014 17:54 (EDT). Data relative to MHHW


Historical Maximum Water Level: Sep 21 1989, 6.76 ft.

Next High Tide: 07/03/2014 00:08 (EDT), -0.62 ft.

Last Observed Sample: 07/02/2014 17:54 (EDT)

Wind Speed: 8 knots Gusts: 9 knots Direction: 109° T
NOAA/NOS/CO-OPS 8665530 Charleston, SC

Barometric Pressure

Last Observed Sample: 07/02/2014 17:54 (EDT)
Barometric Pressure: 1014.9 mb

NOAA/NOS/CO-OPS 8661070 Springmaid Pier, SC

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

Last Observed Sample: 07/02/2014 17:54 (EDT). Data relative to MHHW
Observed: -4.74 ft. Predicted: -4.90 ft. Residual: 0.16 ft.
Historical Maximum Water Level: Jan 1 1987, 3.65 ft.
Next High Tide: 07/02/2014 23:45 (EDT), -0.81 ft.
NOAA/NOS/CO-OPS 8661070 Springmaid Pier, SC

Wind Speed / Gusts / Direction

Last Observed Sample: 07/02/2014 17:54 (EDT)
Wind Speed: 5 knots  Gusts: 6 knots  Direction: 153° T

Barometric Pressure

Last Observed Sample: 07/02/2014 17:54 (EDT)
Barometric Pressure: 1015.0 mb
NOAA/NOS/CO-OPS 8658163 Wrightsville Beach, NC

Last Observed Sample: 07/02/2014 17:54 (EDT). Data relative to MHHW


Historical Maximum Water Level: Sep 25 2008, 2.81 ft.

Next High Tide: 07/02/2014 23:47 (EDT), -0.50 ft.

NOAA/NOS/CO-OPS 8658163 Wrightsville Beach, NC

Wind Speed / Gusts / Direction

Last Observed Sample: 07/02/2014 17:54 (EDT)

Wind Speed: 10 knots Gusts: 11 knots Direction: 176° T
Last Observed Sample: 07/02/2014 17:54 (EDT)
Barometric Pressure: 1014.8 mb

Last Observed Sample: 07/02/2014 17:54 (EDT). Data relative to MHHW
Observed: -0.21 ft. Predicted: -0.74 ft. Residual: 0.53 ft.
Historical Maximum Water Level: Oct 29 2012, 4.15 ft.
Next High Tide: 07/03/2014 02:00 (EDT), -0.44 ft.
Tropical Storm ARTHUR QuickLook, POSTED 18:00 EDT 07/02/2014

NOAA/NOS/CO-OPS 8654467 USCG Station Hatteras, NC

Wind Speed / Gusts / Direction

Last Observed Sample: 07/02/2014 17:54 (EDT)

Wind Speed: 12 knots  
Gusts: 16 knots  
Direction: 202° T

Barometric Pressure

Last Observed Sample: 07/02/2014 17:54 (EDT)

Barometric Pressure: 1016.1 mb
NOAA/NOS/CO-OPS 8652587 Oregon Inlet Marina, NC

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

Last Observed Sample: 07/02/2014 18:00 (EDT). Data relative to MHHW
- Observed: -0.00 ft. Predicted: -1.00 ft. Residual: 1.00 ft.
- Next High Tide: 07/02/2014 23:59 (EDT), -0.17 ft.

NOAA/NOS/CO-OPS 8652587 Oregon Inlet Marina, NC

Wind Speed / Gusts / Direction

Last Observed Sample: 07/02/2014 18:00 (EDT)
- Wind Speed: 22 knots
- Gusts: 25 knots
- Direction: 190° T
Tropical Storm ARTHUR QuickLook, POSTED 18:00 EDT 07/02/2014

NOAA/NOS/CO-OPS 8652587 Oregon Inlet Marina, NC

Barometric Pressure

Pressure (mb)

Last Observed Sample: 07/02/2014 18:00 (EDT)

Barometric Pressure: 1014.6 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>8723214</td>
<td>Virginia Key, FL</td>
<td>07/02/2014 16:48 (EDT)</td>
<td>-0.82 ft</td>
<td>-1.60 ft</td>
<td>0.78 ft</td>
<td>0.52 ft</td>
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<tr>
<td>8722670</td>
<td>Lake Worth Pier, FL</td>
<td>07/02/2014 17:54 (EDT)</td>
<td>-1.74 ft</td>
<td>-2.68 ft</td>
<td>0.94 ft</td>
<td>0.89 ft</td>
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<td>8721604</td>
<td>Trident Pier, FL</td>
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<td>-2.54 ft</td>
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<td>Fernandina Beach, FL</td>
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<td>-4.75 ft</td>
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<tr>
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<td>Charleston, SC</td>
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<td>-4.57 ft</td>
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<tr>
<td>8661070</td>
<td>Springmaid Pier, SC</td>
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<td>-4.74 ft</td>
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<td>Wrightsville Beach, NC</td>
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<td>-3.71 ft</td>
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<td>8654467</td>
<td>USCG Station Hatteras, NC</td>
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<td>-0.21 ft</td>
<td>-0.74 ft</td>
<td>0.53 ft</td>
<td>0.17 ft</td>
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<tr>
<td>8652587</td>
<td>Oregon Inlet Marina, NC</td>
<td>07/02/2014 18:00 (EDT)</td>
<td>-0.00 ft</td>
<td>-1.00 ft</td>
<td>1.00 ft</td>
<td>0.39 ft</td>
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