

Prepared in cooperation with the Federal Emergency Management Agency

Monitoring Storm Tide and Flooding From Hurricane Matthew Along the Atlantic Coast of the United States, October 2016



Open-File Report 2017–1122

Cover photographs.

Left: Boat and docks damaged by Hurricane Matthew. (Tim Pojunas, USGS)

Top middle: Boat displaced by Hurricane Matthew. (J. Curtis Weaver, USGS)

Top right: USGS wave-height sensor deployed on pier in Avon, North Carolina. (J. Curtis Weaver, USGS)

Bottom middle: USGS wave-height sensor deployed on concrete jetty on Sea Island, Georgia (Skylar McHenry, USGS)

Bottom right: USGS hydrologic technician Robert Forde flagging a high-water mark at a USGS groundwater monitoring station. (O. Gary Holloway, USGS)

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By Eric R. Frantz, Michael L. Byrne, Sr., Andral W. Caldwell, Stephen L. Harden

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U.S. Department of the Interior
U.S. Geological Survey

U.S. Department of the Interior

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U.S. Geological Survey

William H. Werkheiser, Acting Director

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The data in this report are the result of the long hours and effort by numerous USGS personnel from 15 different States. The authors particularly highlight the leadership and dedication of USGS personnel in the Wisconsin Water Science Center who assisted with the Flood Event Viewer to deliver these valuable data to numerous stakeholders in a very timely and accurate manner.

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Conversion Factors

U.S. customary units to International System of Units

Multiply	By	To obtain
Length		
foot (ft)	0.3048	meter (m)
mile (mi)	1.609	kilometer (km)
Pressure		
inch of mercury at 60°F (in Hg)	3.377	kilopascal (kPa)
pound per square inch (lb/in²)	6.895	kilopascal (kPa)

Datum

Vertical coordinate information is referenced to the North American Vertical Datum of 1988 (NAVD 88) unless otherwise noted.

Horizontal coordinate information is referenced to the North American Datum of 1983 (NAD 83) unless otherwise noted.

Abbreviations

ASCII	American Standard Code for Information Interchange
HWM	high-water mark
NetCDF	Network Common Data Form
RDG	rapid-deployment gage
USGS	U.S. Geological Survey

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Introduction

Hurricane Matthew moved adjacent to the coasts of Florida, Georgia, South Carolina, and North Carolina. The hurricane made landfall once near McClellanville, South Carolina, on October 8, 2016, as a Category 1 hurricane on the Saffir-Simpson Hurricane Wind Scale (National Hurricane Center, 2012). The U.S. Geological Survey (USGS) deployed a temporary monitoring network of storm-tide sensors at 284 sites along the Atlantic coast from Florida to North Carolina to record the timing, areal extent, and magnitude of hurricane storm tide and coastal flooding generated by Hurricane Matthew (fig. 1). Storm tide, as defined by the National Oceanic and Atmospheric Administration (National Oceanic and Atmospheric Administration, 2013), is the water-level rise generated by a combination of storm surge and astronomical tide during a coastal storm.

The deployment for Hurricane Matthew was the largest deployment of storm-tide sensors in USGS history and was completed as part of a coordinated Federal emergency response as outlined by the Stafford Act (Public Law 92–288, 42 U.S.C. 5121–5207) under a directed mission assignment by the Federal Emergency Management Agency. In total, 543 high-water marks (HWMs) also were collected after Hurricane Matthew, and this was the second largest HWM recovery effort in USGS history after Hurricane Sandy in 2012 (McCallum and others, 2013).

During the hurricane, real-time water-level data collected at temporary rapid deployment gages (RDGs) and long-term USGS streamgage stations were relayed immediately for display on the USGS Flood Event Viewer (<https://stn.wim.usgs.gov/FEV/#MatthewOctober2016>). These data provided emergency managers and responders with critical information for tracking flood-affected areas and directing assistance to affected communities. Data collected from this hurricane can be used to calibrate and evaluate the performance of storm-tide models for maximum and incremental water level and flood extent, and the site-specific effects of storm tide on natural and anthropogenic features of the environment.

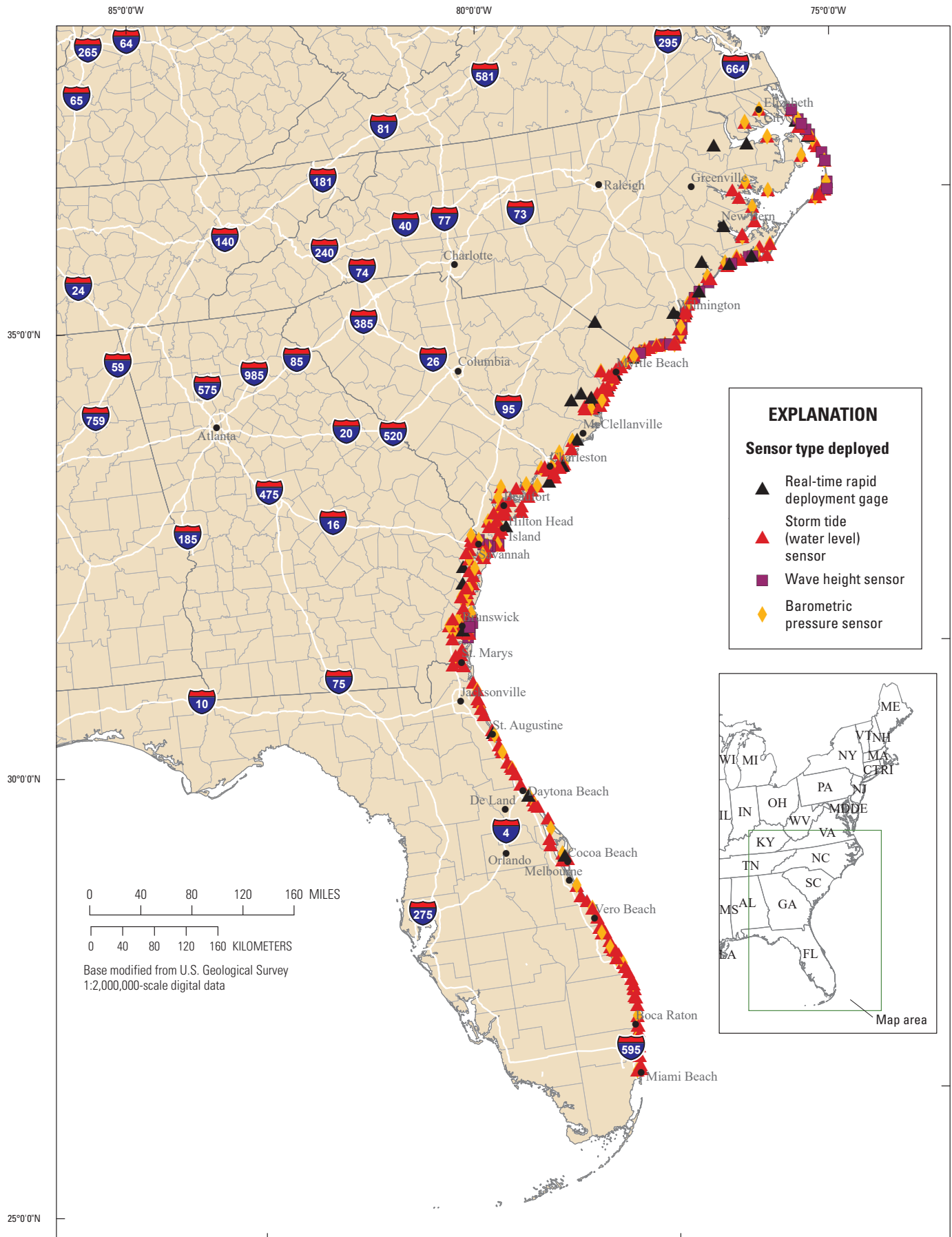
Hurricane Matthew Storm-Tide Monitoring

The sites for the water-level sensors were selected to augment existing tide-gage networks and to ensure adequate monitoring in areas forecasted to have substantial storm tide. A total of 223 water-level sensors, 34 wave-height sensors, 27 real-time RDGs, and 89 barometric pressure sensors were deployed at 284 sites during October 5–8 before landfall (fig. 1; table 1). Of the 284 sites monitored, 16 water-level sensors were either lost or malfunctioned during the hurricane, and 36 sensors did not record storm tide because of a lack of water level. A typical sensor installation is shown in figure 2.

The water-level and wave-height sensors deployed at the 284 monitoring sites recorded water-level elevations, in feet above the North American Vertical Datum of 1988 (NAVD 88), at either 0.25- or 30-second intervals. The 89 barometric pressure monitoring sites recorded barometric pressure, in pounds per square inch, at 30-second intervals. Water-level elevation and barometric pressure were recorded over time by the sensors during the hurricane, as shown in the example in figure 3. The 27 RDGs recorded real-time water-level elevations during the hurricane and updated every 15 minutes or less to USGS web pages. A typical RDG installation is shown in figure 4.

In the days immediately after Hurricane Matthew, storm-tide data collected with water-level and wave-height sensors were retrieved and processed for subsequent dissemination on the Flood Event Viewer. Data were collected and processed following protocols established by McGee and others (2006) and expanded upon by McCallum and others (2012), which included correcting water pressure for changes in barometric pressure and salinity for the unfiltered storm-tide peak. The filtered storm-tide peak, as shown in figure 3, was calculated using the following method. The water-level sensor pressure is subtracted by the barometric pressure sensor, and the mean of the resulting data is then subtracted. The data is filtered through a low-pass filter, and the resulting data uses

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a 4th-order Butterworth filter with a cutoff of 1 minute. This data is filtered backwards with the same filter to reduce phase errors. The mean is added back into the time series, and the hydrostatic assumption is used to convert the pressure to water surface height above the sensor orifice. The final filtered water-level elevation is obtained by adding the surveyed-to-datum sensor orifice height. Quality-control checks were made by comparing water levels computed from recorded pressure data to water levels recorded at nearby USGS streamgages and National Oceanic and Atmospheric Administration tidal stations, and to independent high-water marks where possible. In the aftermath of the hurricane, 543 independent HWMs were flagged and surveyed relative to the NAVD 88 along the Atlantic coast, with particular emphasis in North Carolina and South Carolina where the initial effects of the hurricane were the most pronounced.

Table 1. Number of sites equipped to monitor Hurricane Matthew storm tide, Florida, Georgia, and North and South Carolina, October 2016.

State	Type and number of sensors deployed			
	Storm tide	Wave height	Real-time rapid deployment gages	Barometric pressure
Florida	62	0	5	17
Georgia	47	10	4	22
North Carolina	51	24	10	30
South Carolina	63	0	8	20
Total	223	34	27	89



Figure 2. U.S. Geological Survey (USGS) scientist Ryan Rasmussen deploying a storm-tide sensor near Rodanthe, North Carolina, October 2016 (photograph credit: J. Curtis Weaver, USGS).

Figure 1 (facing page). Location of storm-tide sensors for monitoring time, areal extent, and magnitude of storm tide and coastal flooding generated by Hurricane Matthew, October 2016.

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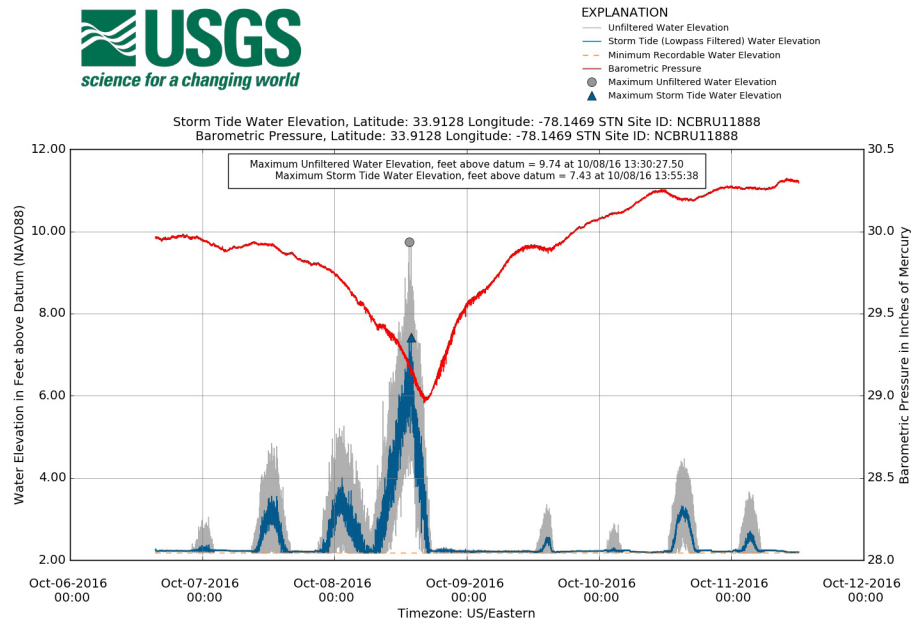


Figure 3. Example of a hydrograph displaying storm-tide elevation and barometric pressure data recorded during Hurricane Matthew at the Ocean Crest pier in Brunswick County, North Carolina, October 2016.



Figure 4. U.S. Geological Survey (USGS) rapid-deployment gage collecting real-time water-level and meteorological data at the Salisbury Street bridge leading to Wrightsville Beach, North Carolina, October 2016 (photograph credit: Shawn Spivey, USGS).

Elevation Surveys

Vertical control was established on permanent objects near the water-level sensors to relate the recorded water-surface elevation to the NAVD 88. Graduated steel tapes were used to relate the elevation of the reference points to the water-level sensors. Survey-grade Global Navigation Satellite Systems equipment (fig. 5) were used to determine the elevation above the NAVD 88 of the reference points and HWMs per USGS technical guidance in Rydland and Densmore (2012). Global Navigation Satellite Systems equipment rely on GEOID models to determine elevations above the NAVD 88. The GEOID12A model was used for consistency within the deployment area, and all elevations in this report were derived using the GEOID12A model. National Geodetic Survey benchmarks throughout the study area were surveyed for vertical control.

Data Presentation

The data from the Hurricane Matthew storm-tide network constitute an extensive collection of continuous water-level records documenting a single landfall hurricane. The data are available in tab-delimited, American Standard Code for Information Interchange (ASCII) format, and Network Common Data Form (NetCDF) format by site for each sensor by using the USGS Flood Event Viewer at <https://stn.wim.usgs.gov/FEV/#MatthewOctober2016>. Digital photographs for selected

sites are available on the viewer. Data for each sensor include location, date, time, water level, and barometric pressure. Data for HWMs include location, description and quality of the mark, and elevation.

A list of the 284 storm-tide sensors and the unfiltered peak storm tide recorded at each are listed in table 2 (at the back of the report). Sites were categorized as storm tide or wave height because of data-collection intervals and proximity to the ocean. The survey uncertainty of the recorded peak storm tide also is included in table 2. The survey uncertainty was calculated using the methods described in Rydland and Densmore (2012). These temporary sensors were deployed to augment long-term monitoring networks operated by the USGS. The recorded peak storm tide at the long-term USGS streamgage stations along the coast of Georgia, South Carolina, and North Carolina is provided in table 3 (at the back of the report). In addition to the storm-tide data collected by the USGS, peak storm-tide elevations also were compiled for real-time monitoring stations operated by other State and Federal agencies (table 4; at the back of the report). The North Carolina Division of Emergency Management provided data for seven of their monitoring stations (David Herlong, North Carolina Division of Emergency Management, written commun., November 2016). Peak storm-tide data also were compiled for National Oceanic and Atmospheric Administration tide gages (National Oceanic Atmospheric Administration, 2016) in each State (table 4). All HWM data collected by the USGS immediately after Hurricane Matthew are listed in table 5 (at the back of the report). The reference points and HWM survey uncertainty are listed in the tables for each site.



Figure 5. U.S. Geological Survey (USGS) scientist Jonathan Graham using a global positioning system to survey storm-tide elevation for Hurricane Matthew on Wilmington Island, Georgia, October 2016 (photograph credit: Arthur Day, USGS).

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Tables 2–5

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Table 2. Hurricane Matthew peak storm-tide and wave-height data for 284 temporarily deployed sites in Florida, Georgia, and North and South Carolina, October 2016.

[ft, foot; NAVD 88, North American Vertical Datum of 1988; UTC, Coordinated Universal Time; ±, plus or minus; Fla., Florida; na, not applicable; RDG, rapid deployment gage; Ga., Georgia; N.C., North Carolina; S.C., South Carolina]

Site identification	State	County	Latitude	Longitude	Sensor deployment type	Type of data collected	Peak storm- tide elevation (ft above NAVD 88)	Peak storm- tide elevation date and time (UTC)	Surveyed sensor elevation uncertainty (±ft)
			Decimal degrees						
FLBRE03152	Fla.	Brevard	28.35849	-80.67858	Water level	Storm tide	0.68	10/07/2016 16:41:00	0.00
FLBRE03159	Fla.	Brevard	28.04777	-80.54750	Water level	Storm tide	None	No surge recorded	na
FLBRE03160	Fla.	Brevard	27.92150	-80.51941	Water level	Storm tide	2.62	10/07/2016 10:29:30	0.00
FLBRE03161	Fla.	Brevard	28.55336	-80.79503	Water level	Storm tide	1.22	10/07/2016 08:00:00	0.00
FLBRE03165	Fla.	Brevard	28.62375	-80.79580	Water level	Storm tide	None	No surge recorded	na
FLBRE03167	Fla.	Brevard	28.36792	-80.60198	Water level	Storm tide	None	No surge recorded	na
FLBRE03169	Fla.	Brevard	28.43646	-80.65951	Water level	Storm tide	None	No surge recorded	na
FLBRE17649	Fla.	Brevard	28.40972	-80.63194	Real-time RDG	Storm tide	3.26	10/07/2016 01:36:00	0.00
FLBRO03422	Fla.	Broward	26.00368	-80.11610	Water level	Storm tide	None	No surge recorded	na
FLBRO03522	Fla.	Broward	26.29088	-80.07988	Water level	Storm tide	1.90	10/07/2016 04:35:30	0.04
FLBRO03526	Fla.	Broward	26.22287	-80.08998	Water level	Storm tide	None	No surge recorded	na
FLBRO03530	Fla.	Broward	26.11414	-80.10607	Water level	Storm tide	None	No surge recorded	na
FLBRO03525	Fla.	Broward	26.22187	-80.10396	Water level	Storm tide	1.88	10/07/2016 05:04:00	0.00
FLDUV03108	Fla.	Duval	30.51050	-81.46080	Water level	Storm tide	7.21	10/07/2016 19:18:30	0.00
FLDUV03110	Fla.	Duval	30.42075	-81.42083	Water level	Storm tide	7.09	10/07/2016 22:23:30	0.00
FLDUV03114	Fla.	Duval	30.28758	-81.42072	Water level	Storm tide	5.07	10/07/2016 21:35:30	-0.02
FLDUV17794	Fla.	Duval	30.32415	-81.43500	Water level	Storm tide	5.19	10/07/2016 20:49:30	0.00
FLFLA03131	Fla.	Flagler	29.55939	-81.17553	Water level	Storm tide	4.85	10/07/2016 20:59:30	0.00
FLFLA03133	Fla.	Flagler	29.50744	-81.13997	Water level	Storm tide	None	No surge recorded	na
FLFLA03134	Fla.	Flagler	29.47994	-81.12603	Water level	Storm tide	7.05	10/07/2016 16:13:00	-0.05
FLIND03149	Fla.	Indian River	27.85518	-80.45213	Water level	Storm tide	3.14	10/07/2016 08:50:00	0.00
FLIND03750	Fla.	Indian River	27.64994	-80.35431	Water level	Storm tide	None	No surge recorded	na
FLIND03751	Fla.	Indian River	27.76349	-80.39688	Water level	Storm tide	None	No surge recorded	na

Table 2. Hurricane Matthew peak storm-tide and wave-height data for 284 temporarily deployed sites in Florida, Georgia, and North and South Carolina, October 2016.—Continued

[ft, foot; NAVD 88, North American Vertical Datum of 1988; UTC, Coordinated Universal Time; ±, plus or minus; Fla., Florida; na, not applicable; RDG, rapid deployment gage; Ga., Georgia; N.C., North Carolina; S.C., South Carolina]

Site identification	State	County	Latitude	Longitude	Sensor deployment type	Type of data collected	Peak storm- tide elevation (ft above NAVD 88)	Peak storm- tide elevation date and time (UTC)	Surveyed sensor elevation uncertainty (±ft)
			Decimal degrees						
FLMAR00009	Fla.	Martin	27.25269	-80.22211	Water level	Storm tide	2.84	10/07/2016 00:36:30	0.00
FLMAR03735	Fla.	Martin	27.19967	-80.16597	Water level	Storm tide	2.73	10/07/2016 05:17:00	0.02
FLMAR03739	Fla.	Martin	27.08929	-80.12681	Water level	Storm tide	None	No surge recorded	na
FLMAR03740	Fla.	Martin	27.03762	-80.11131	Water level	Storm tide	1.22	10/07/2016 06:29:00	-0.03
FLMAR03742	Fla.	Martin	27.15384	-80.20056	Water level	Storm tide	2.75	10/07/2016 04:41:00	0.02
FLMAR17775	Fla.	Martin	26.97878	-80.08281	Water level	Storm tide	None	No surge recorded	na
FLMAR17784	Fla.	Martin	27.24488	-80.19211	Water level	Storm tide	2.92	10/07/2016 06:29:30	0.02
FLMIA03208	Fla.	Miami-Dade	25.85778	-80.12115	Water level	Storm tide	None	No surge recorded	na
FLMIA03229	Fla.	Miami-Dade	25.66670	80.15611	Real-time RDG	Storm tide	None	Equipment error	na
FLMIA03335	Fla.	Miami-Dade	25.72611	80.23556	Real-time RDG	Storm tide	None	Equipment error	na
FLMIA03341	Fla.	Miami-Dade	25.84769	-80.17326	Water level	Storm tide	1.53	10/06/2016 12:53:00	0.04
FLMIA03476	Fla.	Miami-Dade	25.90081	-80.12373	Water level	Storm tide	None	No surge recorded	na
FLPAL03554	Fla.	Palm Beach	26.34976	-80.07572	Water level	Storm tide	2.02	10/07/2016 00:50:00	0.02
FLPAL03560	Fla.	Palm Beach	26.46450	-80.05771	Water level	Storm tide	None	No surge recorded	na
FLPAL03577	Fla.	Palm Beach	26.58454	-80.03770	Water level	Storm tide	None	No surge recorded	na
FLPAL03579	Fla.	Palm Beach	26.67584	-80.03974	Water level	Storm tide	None	No surge recorded	na
FLPAL03581	Fla.	Palm Beach	26.77117	-80.03913	Water level	Storm tide	1.91	10/07/2016 04:18:00	0.00
FLPAL03582	Fla.	Palm Beach	26.34980	-80.06950	Water level	Storm tide	None	No surge recorded	na
FLPAL03586	Fla.	Palm Beach	26.78287	-80.04795	Water level	Storm tide	None	No surge recorded	na
FLPAL03587	Fla.	Palm Beach	26.82495	-80.04259	Water level	Storm tide	2.02	10/07/2016 05:01:00	-0.03
FLPAL03591	Fla.	Palm Beach	26.89318	-80.05648	Water level	Storm tide	None	No surge recorded	na
FLPAL17786	Fla.	Palm Beach	26.69225	-80.04937	Water level	Storm tide	1.93	10/07/2016 04:32:00	0.00
FLSTJ03115	Fla.	St. Johns	30.21064	-81.41042	Water level	Storm tide	5.30	10/07/2016 22:03:00	0.00

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Table 2. Hurricane Matthew peak storm-tide and wave-height data for 284 temporarily deployed sites in Florida, Georgia, and North and South Carolina, October 2016.—Continued

[ft, foot; NAVD 88, North American Vertical Datum of 1988; UTC, Coordinated Universal Time; ±, plus or minus; Fla., Florida; na, not applicable; RDG, rapid deployment gage; Ga., Georgia; N.C., North Carolina; S.C., South Carolina]

Site identification	State	County	Latitude	Longitude	Sensor deployment type	Type of data collected	Peak storm- tide elevation (ft above NAVD 88)	Peak storm- tide elevation date and time (UTC)	Surveyed sensor elevation uncertainty (±ft)
			Decimal degrees						
FLSTJ03117	Fla.	St. Johns	30.13270	-81.38494	Water level	Storm tide	None	No surge recorded	na
FLSTJ03118	Fla.	St. Johns	29.94931	-81.31039	Water level	Storm tide	6.70	10/07/2016 18:12:00	-0.05
FLSTJ03125	Fla.	St. Johns	29.76244	-81.25389	Water level	Storm tide	7.75	10/07/2016 18:37:00	0.00
FLSTJ03126	Fla.	St. Johns	29.71819	-81.23083	Water level	Storm tide	8.39	10/07/2016 16:46:30	0.00
FLSTJ03129	Fla.	St. Johns	29.68003	-81.22106	Water level	Storm tide	7.30	10/07/2016 18:15:00	0.00
FLSTJ17778	Fla.	St. Johns	29.91667	-81.30000	Real-time RDG	Storm tide	7.10	10/07/2016 13:54:00	0.00
FLSTJ17848	Fla.	St. Johns	29.88579	-81.28586	Water level	Storm tide	7.47	10/07/2016 17:49:00	-0.05
FLSTL03726	Fla.	St. Lucie	27.53841	-80.31591	Water level	Storm tide	None	No surge recorded	na
FLSTL03727	Fla.	St. Lucie	27.47076	-80.28981	Water level	Storm tide	3.15	10/07/2016 04:48:00	0.00
FLSTL03729	Fla.	St. Lucie	27.36310	-80.24884	Water level	Storm tide	1.99	10/07/2016 02:40:00	0.00
FLSTL03731	Fla.	St. Lucie	27.52748	-80.34793	Water level	Storm tide	2.52	10/07/2016 07:34:00	-0.03
FLSTL03732	Fla.	St. Lucie	27.46651	-80.32996	Water level	Storm tide	1.90	10/07/2016 05:01:30	0.00
FLSTL17773	Fla.	St. Lucie	27.29273	-80.25069	Water level	Storm tide	2.01	10/07/2016 01:41:00	0.00
FLVOL03136	Fla.	Volusia	29.41078	-81.09481	Water level	Storm tide	None	No surge recorded	na
FLVOL03138	Fla.	Volusia	29.28667	-81.05464	Water level	Storm tide	None	No surge recorded	na
FLVOL03141	Fla.	Volusia	29.14647	-80.96497	Water level	Storm tide	7.00	10/07/2016 15:06:30	0.00
FLVOL03143	Fla.	Volusia	29.08497	-80.92444	Water level	Storm tide	6.62	10/07/2016 14:41:30	0.01
FLVOL03145	Fla.	Volusia	29.03143	-80.91590	Water level	Storm tide	0.52	10/07/2016 14:31:30	0.00
FLVOL03146	Fla.	Volusia	29.00950	-80.87753	Water level	Storm tide	5.62	10/07/2016 13:46:30	0.01
FLVOL03147	Fla.	Volusia	28.85843	-80.77527	Water level	Storm tide	None	No surge recorded	na
FLVOL17777	Fla.	Volusia	29.14861	-80.97417	Real-time RDG	Storm tide	None	Lost	na
GABRY17878	Ga.	Bryan	31.90467	-81.26029	Water level	Storm tide	None	Lost	na
GABRY17883	Ga.	Bryan	31.79129	-81.20207	Water level	Storm tide	6.67	10/08/2016 06:20:30	0.05
GABRY17888	Ga.	Bryan	31.97893	-81.28839	Water level	Storm tide	5.09	10/08/2016 08:48:00	0.05

Table 2. Hurricane Matthew peak storm-tide and wave-height data for 284 temporarily deployed sites in Florida, Georgia, and North and South Carolina, October 2016.—Continued

[ft, foot; NAVD 88, North American Vertical Datum of 1988; UTC, Coordinated Universal Time; ±, plus or minus; Fla., Florida; na, not applicable; RDG, rapid deployment gage; Ga., Georgia; N.C., North Carolina; S.C., South Carolina]

Site identification	State	County	Latitude	Longitude	Sensor deployment type	Type of data collected	Peak storm- tide elevation (ft above NAVD 88)	Peak storm- tide elevation date and time (UTC)	Surveyed sensor elevation uncertainty (±ft)
			Decimal degrees						
GACAM17822	Ga.	Camden	31.11361	-81.61389	Water level	Storm tide	6.34	10/07/2016 01:23:30	0.18
GACAM17823	Ga.	Camden	30.72000	-81.54944	Water level	Storm tide	7.16	10/07/2016 19:47:00	0.20
GACAM17829	Ga.	Camden	30.78639	-81.64694	Water level	Storm tide	None	No surge recorded	na
GACAM17830	Ga.	Camden	30.74194	-81.68778	Water level	Storm tide	4.75	10/08/2016 04:22:00	0.20
GACAM17833	Ga.	Camden	30.84917	-81.63500	Water level	Storm tide	7.01	10/08/2016 03:02:30	0.07
GACAM17835	Ga.	Camden	31.12167	-81.48306	Real-time RDG	Storm tide	6.59	10/07/2016 19:15:00	na
GACAM17839	Ga.	Camden	30.90278	-81.53889	Water level	Storm tide	None	No surge recorded	na
GACAM17840	Ga.	Camden	30.84500	-81.56000	Water level	Storm tide	None	No surge recorded	na
GACAM17842	Ga.	Camden	30.77056	-81.58139	Water level	Storm tide	None	No surge recorded	na
GACAM17853	Ga.	Camden	31.03472	-81.64000	Water level	Storm tide	6.43	10/07/2016 08:14:30	0.18
GACHA17815	Ga.	Chatham	31.99255	-80.84672	Wave height	Wave height	9.87	10/08/2016 04:46:28	0.02
GACHA17816	Ga.	Chatham	32.00605	-80.84193	Wave height	Wave height	11.00	10/08/2016 06:32:11	0.02
GACHA17817	Ga.	Chatham	32.00826	-80.84940	Water level	Storm tide	6.92	10/08/2016 06:52:00	0.15
GACHA17818	Ga.	Chatham	32.00842	-80.85246	Water level	Storm tide	7.08	10/08/2016 06:57:00	0.15
GACHA17820	Ga.	Chatham	32.01816	-80.85073	Water level	Storm tide	6.99	10/08/2016 06:09:00	0.02
GACHA17824	Ga.	Chatham	32.02066	-80.89900	Water level	Storm tide	9.12	10/08/2016 06:57:00	0.02
GACHA17838	Ga.	Chatham	32.00365	-80.96099	Wave height	Wave height	5.39	10/08/2016 08:13:52	0.15
GACHA17841	Ga.	Chatham	32.02012	-80.99244	Wave height	Wave height	None	Equipment error	na
GACHA17845	Ga.	Chatham	32.03515	-81.04504	Wave height	Wave height	8.14	10/08/2016 06:42:59	0.15
GACHA17849	Ga.	Chatham	32.07242	-81.06785	Water level	Storm tide	None	Equipment error	na
GACHA17850	Ga.	Chatham	32.09791	-81.09202	Wave height	Wave height	8.55	10/08/2016 08:25:45	0.11
GACHA17851	Ga.	Chatham	32.08365	-81.15752	Water level	Storm tide	None	No surge recorded	na
GACHA17852	Ga.	Chatham	32.00773	-81.23827	Water level	Storm tide	None	No surge recorded	na

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Table 2. Hurricane Matthew peak storm-tide and wave-height data for 284 temporarily deployed sites in Florida, Georgia, and North and South Carolina, October 2016.—Continued

[ft, foot; NAVD 88, North American Vertical Datum of 1988; UTC, Coordinated Universal Time; ±, plus or minus; Fla., Florida; na, not applicable; RDG, rapid deployment gage; Ga., Georgia; N.C., North Carolina; S.C., South Carolina]

Site identification	State	County	Latitude	Longitude	Sensor deployment type	Type of data collected	Peak storm- tide elevation (ft above NAVD 88)	Peak storm- tide elevation date and time (UTC)	Surveyed sensor elevation uncertainty (±ft)
			Decimal degrees						
GACHA17858	Ga.	Chatham	32.10583	-81.19583	Water level	Storm tide	None	No surge recorded	na
GACHA17860	Ga.	Chatham	32.16083	-81.18278	Water level	Storm tide	7.58	10/07/2016 12:38:00	0.11
GACHA17861	Ga.	Chatham	31.95769	-81.01062	Water level	Storm tide	8.74	10/08/2016 06:35:30	0.05
GACHA17863	Ga.	Chatham	31.94677	-81.06678	Water level	Storm tide	7.10	10/08/2016 06:45:30	0.05
GACHA17866	Ga.	Chatham	31.88971	-81.06161	Water level	Storm tide	7.12	10/08/2016 06:03:30	0.05
GACHA17870	Ga.	Chatham	31.92868	-81.07017	Water level	Storm tide	7.25	10/08/2016 06:39:30	0.05
GAGLY17783	Ga.	Glynn	31.08840	-81.47951	Water level	Storm tide	12.06	10/08/2016 03:52:30	0.11
GAGLY17790	Ga.	Glynn	31.02102	-81.43479	Wave height	Wave height	7.07	10/07/2016 22:39:16	0.11
GAGLY17791	Ga.	Glynn	31.32806	-81.44778	Real-time RDG	Storm tide	5.49	10/07/2016 20:30:00	na
GAGLY17795	Ga.	Glynn	31.06315	-81.40454	Wave height	Wave height	10.66	10/07/2016 17:58:57	0.06
GAGLY17797	Ga.	Glynn	31.25348	-81.46430	Water level	Storm tide	17.89	10/08/2016 00:12:00	0.07
GAGLY17802	Ga.	Glynn	31.06774	-81.41337	Water level	Storm tide	5.80	10/07/2016 23:37:30	0.11
GAGLY17807	Ga.	Glynn	31.06737	-81.42580	Water level	Storm tide	6.66	10/07/2016 19:05:00	0.11
GAGLY17810	Ga.	Glynn	31.17064	-81.42840	Water level	Storm tide	6.57	10/07/2016 19:09:30	0.07
GAGLY17811	Ga.	Glynn	31.18544	-81.53303	Water level	Storm tide	7.33	10/07/2016 19:51:00	0.10
GAGLY17813	Ga.	Glynn	31.24193	-81.53513	Water level	Storm tide	7.32	10/07/2016 20:26:00	0.10
GAGLY17819	Ga.	Glynn	31.16167	-81.50028	Water level	Storm tide	6.53	10/07/2016 23:25:00	0.18
GAGLY17821	Ga.	Glynn	31.14806	-81.49806	Water level	Storm tide	6.35	10/07/2016 19:22:00	0.18
GAGLY17854	Ga.	Glynn	31.19111	-81.65889	Water level	Storm tide	None	No surge recorded	na
GAGLY17855	Ga.	Glynn	31.25639	-81.60222	Water level	Storm tide	7.95	10/07/2016 22:33:00	0.12
GAGLY17879	Ga.	Glynn	31.29528	-81.34388	Water level	Storm tide	6.02	10/07/2016 19:26:44	0.14
GAGLY17881	Ga.	Glynn	31.22108	-81.39318	Water level	Storm tide	None	Equipment error	na
GAGLY17903	Ga.	Glynn	31.17493	-81.35000	Wave height	Wave height	None	Equipment error	na

Table 2. Hurricane Matthew peak storm-tide and wave-height data for 284 temporarily deployed sites in Florida, Georgia, and North and South Carolina, October 2016.—Continued

[ft, foot; NAVD 88, North American Vertical Datum of 1988; UTC, Coordinated Universal Time; ±, plus or minus; Fla., Florida; na, not applicable; RDG, rapid deployment gage; Ga., Georgia; N.C., North Carolina; S.C., South Carolina]

Site identification	State	County	Latitude	Longitude	Sensor deployment type	Type of data collected	Peak storm- tide elevation (ft above NAVD 88)	Peak storm- tide elevation date and time (UTC)	Surveyed sensor elevation uncertainty (±ft)
			Decimal degrees						
GAGLY18414	Ga.	Glynn	31.13415	-81.39657	Wave height	Wave height	11.89	10/07/2016 19:21:45	0.01
GALIB17843	Ga.	Liberty	31.64389	-81.39361	Real-time RDG	Storm tide	None	Peak not recorded	na
GALIB17844	Ga.	Liberty	31.82944	-81.35500	Real-time RDG	Storm tide	5.34	10/07/2016 21:15:00	na
GALIB17856	Ga.	Liberty	31.70972	-81.23944	Water level	Storm tide	None	Equipment error	na
GALIB17857	Ga.	Liberty	31.77000	-81.27806	Water level	Storm tide	6.44	10/07/2016 23:28:00	0.12
GAMCI17825	Ga.	Mcintosh	31.62139	-81.26278	Water level	Storm tide	None	Equipment error	na
GAMCI17827	Ga.	Mcintosh	31.56859	-81.32207	Water level	Storm tide	6.63	10/07/2016 19:25:30	0.06
GAMCI17828	Ga.	Mcintosh	31.45385	-81.36285	Water level	Storm tide	7.02	10/07/2016 19:20:30	0.06
GAMCI17834	Ga.	Mcintosh	31.48817	-81.44480	Water level	Storm tide	12.98	10/08/2016 14:04:00	0.06
GAMCI17837	Ga.	Mcintosh	31.53108	-81.35889	Water level	Storm tide	6.71	10/07/2016 20:32:00	0.06
GAMCI17884	Ga.	Mcintosh	31.36822	-81.43708	Water level	Storm tide	5.81	10/07/2016 20:35:17	0.07
GAMCI17891	Ga.	Mcintosh	31.58185	-81.35903	Water level	Storm tide	6.13	10/07/2016 20:32:30	0.11
NCBEA11728	N.C.	Beaufort	35.37709	-76.74821	Water level	Storm tide	4.71	10/08/2016 22:21:01	0.07
NCBEA11768	N.C.	Beaufort	35.47718	-76.81563	Water level	Storm tide	3.83	10/08/2016 22:51:33	0.01
NCBEA13648	N.C.	Beaufort	35.53285	-76.61469	Water level	Storm tide	3.44	10/08/2016 23:39:57	0.07
NCBRU00012	N.C.	Brunswick	33.88666	-78.43598	Wave height	Wave height	9.91	10/08/2016 17:20:18	0.06
NCBRU00014	N.C.	Brunswick	33.89511	-78.43937	Water level	Storm tide	6.95	10/08/2016 17:56:22	0.16
NCBRU11868	N.C.	Brunswick	33.91083	-78.29722	Wave height	Wave height	10.38	10/08/2016 17:09:40	0.18
NCBRU11888	N.C.	Brunswick	33.91275	-78.14695	Wave height	Wave height	9.74	10/08/2016 17:30:27	0.03
NCBRU11890	N.C.	Brunswick	33.92576	-78.14464	Water level	Storm tide	6.07	10/08/2016 18:22:02	0.02
NCBRU11891	N.C.	Brunswick	33.90358	-78.08212	Wave height	Wave height	9.07	10/08/2016 16:58:55	0.16
NCBRU11893	N.C.	Brunswick	33.88212	-78.51110	Water level	Storm tide	7.01	10/08/2016 17:46:02	0.09
NCBRU11908	N.C.	Brunswick	33.91398	-78.37380	Water level	Storm tide	7.04	10/08/2016 17:57:22	0.01

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Table 2. Hurricane Matthew peak storm-tide and wave-height data for 284 temporarily deployed sites in Florida, Georgia, and North and South Carolina, October 2016.—Continued

[ft, foot; NAVD 88, North American Vertical Datum of 1988; UTC, Coordinated Universal Time; ±, plus or minus; Fla., Florida; na, not applicable; RDG, rapid deployment gage; Ga., Georgia; N.C., North Carolina; S.C., South Carolina]

Site identification	State	County	Latitude	Longitude	Sensor deployment type	Type of data collected	Peak storm- tide elevation (ft above NAVD 88)	Peak storm- tide elevation date and time (UTC)	Surveyed sensor elevation uncertainty (±ft)
			Decimal degrees						
NCBRU11909	N.C.	Brunswick	33.92175	-78.23783	Water level	Storm tide	7.32	10/08/2016 17:49:03	0.03
NCBRU12008	N.C.	Brunswick	33.91735	-78.26750	Water level	Storm tide	6.51	10/08/2016 17:54:52	0.03
NCBRU12048	N.C.	Brunswick	33.89547	-78.01882	Water level	Storm tide	5.83	10/08/2016 18:07:13	0.02
NCBRU12068	N.C.	Brunswick	33.91696	-78.01791	Water level	Storm tide	7.35	10/08/2016 17:26:04	0.01
NCBRU13608	N.C.	Brunswick	33.86692	-78.50635	Wave height	Wave height	11.08	10/08/2016 18:00:06	0.14
NCCAR00001	N.C.	Carteret	34.68481	-76.52602	Water level	Storm tide	3.10	10/08/2016 18:59:51	0.01
NCCAR00005	N.C.	Carteret	34.64808	-77.09567	Water level	Storm tide	4.27	10/08/2016 18:48:13	0.07
NCCAR00006	N.C.	Carteret	34.69676	-76.78119	Wave height	Wave height	8.13	10/08/2016 17:48:05	0.10
NCCAR00007	N.C.	Carteret	34.69886	-76.68149	Water level	Storm tide	6.15	10/09/2016 04:48:53	0.14
NCCAR00012	N.C.	Carteret	34.78924	-76.60853	Water level	Storm tide	4.32	10/08/2016 21:31:31	0.01
NCCAR12128	N.C.	Carteret	34.79692	-76.45610	Water level	Storm tide	3.26	10/08/2016 21:20:38	0.10
NCCAR12248	N.C.	Carteret	34.71734	-76.67089	Water level	Storm tide	3.86	10/08/2016 18:00:55	0.06
NCCAR12328	N.C.	Carteret	34.69675	-76.72698	Wave height	Wave height	7.51	10/08/2016 18:07:49	0.14
NCCAR12388	N.C.	Carteret	34.71135	-76.73683	Real-time RDG	Storm tide	3.38	10/08/2016 18:30:00	0.05
NCCAR12409	N.C.	Carteret	34.69023	-76.89569	Water level	Storm tide	4.08	10/08/2016 20:39:31	0.07
NCCAR12410	N.C.	Carteret	34.72260	-76.94621	Water level	Storm tide	4.14	10/08/2016 20:51:29	0.05
NCCAR12412	N.C.	Carteret	34.66045	-77.03399	Wave height	Wave height	7.62	10/08/2016 16:38:43	0.07
NCCAR12413	N.C.	Carteret	34.66773	-77.06335	Real-time RDG	Storm tide	3.96	10/08/2016 19:06:00	0.01
NCCRA12488	N.C.	Craven	35.10265	-77.03667	Real-time RDG	Storm tide	3.31	10/08/2016 18:42:00	0.04
NCCRV00003	N.C.	Craven	34.93583	-76.81074	Water level	Storm tide	3.89	10/09/2016 06:00:17	0.05
NCDAR00001	N.C.	Dare	35.20791	-75.70284	Water level	Storm tide	7.07	10/09/2016 10:00:54	0.05
NCDAR00002	N.C.	Dare	35.26652	-75.55763	Water level	Storm tide	9.33	10/09/2016 09:39:43	0.12
NCDAR00003	N.C.	Dare	35.34729	-75.50095	Wave height	Wave height	8.77	10/09/2016 17:28:35	0.15

Table 2. Hurricane Matthew peak storm-tide and wave-height data for 284 temporarily deployed sites in Florida, Georgia, and North and South Carolina, October 2016.—Continued

[ft, foot; NAVD 88, North American Vertical Datum of 1988; UTC, Coordinated Universal Time; ±, plus or minus; Fla., Florida; na, not applicable; RDG, rapid deployment gage; Ga., Georgia; N.C., North Carolina; S.C., South Carolina]

Site identification	State	County	Latitude	Longitude	Sensor deployment type	Type of data collected	Peak storm- tide elevation (ft above NAVD 88)	Peak storm- tide elevation date and time (UTC)	Surveyed sensor elevation uncertainty (±ft)
			Decimal degrees						
NCDAR00004	N.C.	Dare	35.35015	-75.51197	Water level	Storm tide	4.96	10/09/2016 10:11:00	0.12
NCDAR00005	N.C.	Dare	35.79660	-75.54920	Water level	Storm tide	2.66	10/09/2016 05:51:52	0.04
NCDAR00008	N.C.	Dare	36.22168	-75.77185	Water level	Storm tide	2.86	10/09/2016 06:17:45	0.01
NCDAR00009	N.C.	Dare	35.90997	-75.59582	Wave height	Wave height	na	Peak not recorded	na
NCDAR00010	N.C.	Dare	35.69831	-75.77044	Water level	Storm tide	2.97	10/09/2016 05:15:53	0.05
NCDAR12588	N.C.	Dare	36.09311	-75.74306	Real-time RDG	Storm tide	3.16	10/09/2016 07:06:00	0.15
NCDAR12629	N.C.	Dare	35.89644	-75.62209	Real-time RDG	Storm tide	3.01	10/09/2016 08:30:00	0.04
NCDAR12631	N.C.	Dare	35.90963	-75.60209	Water level	Storm tide	4.43	10/09/2016 08:56:37	0.15
NCDAR12633	N.C.	Dare	35.97308	-75.63148	Wave height	Wave height	9.79	10/09/2016 14:45:43	0.04
NCDAR12668	N.C.	Dare	36.01794	-75.72683	Water level	Storm tide	4.50	10/09/2016 07:44:05	0.04
NCDAR12669	N.C.	Dare	36.10126	-75.71108	Wave height	Wave height	8.63	10/09/2016 19:06:50	0.15
NCDAR12688	N.C.	Dare	35.76755	-75.52592	Water level	Storm tide	4.23	10/09/2016 19:04:39	0.04
NCDAR12689	N.C.	Dare	35.68470	-75.48386	Wave height	Wave height	na	Peak not recorded	na
NCDAR12709	N.C.	Dare	35.58330	-75.46863	Water level	Storm tide	4.11	10/09/2016 09:03:01	0.05
NCDAR12729	N.C.	Dare	35.22422	-75.64322	Wave height	Wave height	na	Peak not recorded	na
NCDAR12748	N.C.	Dare	35.22946	-75.63530	Water level	Storm tide	7.31 ^a	10/09/2016 09:45:36	0.05
NCDAR12768	N.C.	Dare	36.22444	-75.77011	Wave height	Wave height	na	Peak not recorded	na
NCDAR12788	N.C.	Dare	35.58507	-75.46141	Wave height	Wave height	7.68	10/09/2016 19:15:13	0.05
NCDAR12790	N.C.	Dare	35.26621	-75.51936	Wave height	Wave height	7.43	10/09/2016 10:04:00	0.12
NCDAR13668	N.C.	Dare	36.04432	-75.67441	Wave height	Wave height	10.38	10/09/2016 18:39:14	0.03
NCDAR18739	N.C.	Dare	35.22470	-75.64360	Water level	Storm tide	7.20	10/09/2016 10:02:54	0.05
NCHYD00001	N.C.	Hyde	35.39354	-76.32849	Water level	Storm tide	2.94	10/08/2016 23:42:47	0.08
NCNEW00002	N.C.	New Hanover	33.96128	-77.93975	Water level	Storm tide	5.55	10/08/2016 18:48:32	0.09

Table 2. Hurricane Matthew peak storm-tide and wave-height data for 284 temporarily deployed sites in Florida, Georgia, and North and South Carolina, October 2016.—Continued

[ft, foot; NAVD 88, North American Vertical Datum of 1988; UTC, Coordinated Universal Time; ±, plus or minus; Fla., Florida; na, not applicable; RDG, rapid deployment gage; Ga., Georgia; N.C., North Carolina; S.C., South Carolina]

Site identification	State	County	Latitude	Longitude	Sensor deployment type	Type of data collected	Peak storm- tide elevation (ft above NAVD 88)	Peak storm- tide elevation date and time (UTC)	Surveyed sensor elevation uncertainty (±ft)
			Decimal degrees						
NCNEW00003	N.C.	New Hanover	33.99787	-77.90542	Wave height	Wave height	8.11	10/08/2016 16:38:39	0.05
NCNEW00004	N.C.	New Hanover	34.05701	-77.88131	Wave height	Wave height	7.60	10/08/2016 17:44:24	0.09
NCNEW00005	N.C.	New Hanover	34.18918	-77.81284	Water level	Storm tide	5.08	10/08/2016 17:33:35	0.06
NCNEW00006	N.C.	New Hanover	34.21424	-77.78839	Wave height	Wave height	10.01	10/08/2016 14:34:16	0.06
NCNEW12888	N.C.	New Hanover	34.05847	-77.88868	Water level	Storm tide	5.18	10/08/2016 18:13:04	0.09
NCNEW12908	N.C.	New Hanover	34.05068	-77.91902	Water level	Storm tide	5.48	10/08/2016 18:55:30	0.09
NCNEW12928	N.C.	New Hanover	34.07788	-77.88745	Water level	Storm tide	5.18	10/08/2016 17:47:04	0.06
NCNEW12988	N.C.	New Hanover	34.21636	-77.79358	Real-time RDG	Storm tide	4.89	10/08/2016 17:18:00	0.09
NCNEW13008	N.C.	New Hanover	34.21835	-77.81145	Water level	Storm tide	5.22	10/08/2016 17:17:26	0.01
NCNEW13028	N.C.	New Hanover	34.25183	-77.95013	Real-time RDG	Storm tide	5.56	10/08/2016 20:00:00	0.04
NCNEW13629	N.C.	New Hanover	34.23531	-77.77670	Water level	Storm tide	5.26	10/08/2016 17:45:41	0.14
NCONS00001	N.C.	Onslow	34.68753	-77.11688	Water level	Storm tide	4.21	10/08/2016 20:26:14	0.07
NCONS00002	N.C.	Onslow	34.50286	-77.39649	Wave height	Wave height	6.61	10/08/2016 18:07:52	0.08
NCONS13068	N.C.	Onslow	34.75118	-77.43425	Real-time RDG	Storm tide	3.03	10/08/2016 23:00:00	0.06
NCONS13128	N.C.	Onslow	34.57625	-77.39544	Water level	Storm tide	3.36	10/08/2016 21:15:18	0.06
NCONS13168	N.C.	Onslow	34.54367	-77.36082	Water level	Storm tide	3.15	10/08/2016 19:22:34	0.05
NCPAM13230	N.C.	Pamlico	34.96749	-76.80711	Water level	Storm tide	4.65	10/09/2016 12:44:03	0.04
NCPAM13248	N.C.	Pamlico	35.08274	-76.60077	Water level	Storm tide	3.15	10/09/2016 12:49:46	0.04
NCPAM13270	N.C.	Pamlico	35.24493	-76.59166	Water level	Storm tide	3.15	10/08/2016 23:00:25	0.05
NCPAS13288	N.C.	Pasquotank	36.30310	-76.21638	Water level	Storm tide	0.86	10/09/2016 03:43:30	0.01
NCPEN00001	N.C.	Pender	34.31128	-77.73298	Water level	Storm tide	5.36	10/08/2016 17:06:51	0.06
NCPEN00003	N.C.	Pender	34.36542	-77.62815	Wave height	Wave height	8.45	10/08/2016 17:59:40	0.09
NCPEN13368	N.C.	Pender	34.42478	-77.54535	Wave height	Wave height	10.28	10/08/2016 16:24:54	0.16

Table 2. Hurricane Matthew peak storm-tide and wave-height data for 284 temporarily deployed sites in Florida, Georgia, and North and South Carolina, October 2016.—Continued

[ft, foot; NAVD 88, North American Vertical Datum of 1988; UTC, Coordinated Universal Time; ±, plus or minus; Fla., Florida; na, not applicable; RDG, rapid deployment gage; Ga., Georgia; N.C., North Carolina; S.C., South Carolina]

Site identification	State	County	Latitude	Longitude	Sensor deployment type	Type of data collected	Peak storm- tide elevation (ft above NAVD 88)	Peak storm- tide elevation date and time (UTC)	Surveyed sensor elevation uncertainty (±ft)
			Decimal degrees						
NCPEN13408	N.C.	Pender	34.36652	-77.66425	Water level	Storm tide	5.17	10/08/2016 17:39:25	0.06
NCPEN13448	N.C.	Pender	34.43075	-77.54927	Real-time RDG	Storm tide	3.88	10/08/2016 20:24:00	0.10
NCPER00001	N.C.	Perquimans	36.19306	-76.45437	Water level	Storm tide	3.06	10/09/2016 02:40:03	0.04
NCTYR13548	N.C.	Tyrrell	35.98782	-76.18460	Water level	Storm tide	6.32	10/09/2016 07:53:52	0.15
NCWAS13588	N.C.	Washington	35.96040	-76.48994	Real-time RDG	Storm tide	3.87	10/09/2016 02:30:00	0.10
SCBEA14138	S.C.	Beaufort	32.43000	-80.66972	Water level	Storm tide	7.71	10/08/2016 06:00:00	0.01
SCBEA14139	S.C.	Beaufort	32.28944	-80.93056	Water level	Storm tide	8.51	10/08/2016 06:56:00	0.04
SCBEA14148	S.C.	Beaufort	32.23167	-80.92889	Water level	Storm tide	8.27	10/08/2016 06:21:00	0.04
SCBEA14277	S.C.	Beaufort	32.40306	-80.44972	Water level	Storm tide	8.43	10/08/2016 07:37:00	0.00
SCBEA14278	S.C.	Beaufort	32.65222	-80.68361	Water level	Storm tide	None	No surge recorded	na
SCBEA14279	S.C.	Beaufort	32.54167	-80.74472	Water level	Storm tide	7.85	10/08/2016 06:50:00	0.05
SCBEA14280	S.C.	Beaufort	32.23111	-80.79389	Water level	Storm tide	8.46	10/08/2016 06:23:00	0.10
SCBEA14281	S.C.	Beaufort	32.39000	-80.77500	Water level	Storm tide	None	No surge recorded	na
SCBEA14282	S.C.	Beaufort	32.48361	-80.59972	Water level	Storm tide	8.09	10/08/2016 08:16:00	0.04
SCBEA14283	S.C.	Beaufort	32.37611	-80.71667	Water level	Storm tide	8.10	10/08/2016 07:09:00	0.10
SCBEA14284	S.C.	Beaufort	32.23111	-80.86333	Water level	Storm tide	8.73	10/08/2016 05:56:00	0.10
SCBEA14285	S.C.	Beaufort	32.28694	-80.81389	Water level	Storm tide	8.68	10/08/2016 07:19:00	0.10
SCBEA14286	S.C.	Beaufort	32.34250	-80.46306	Water level	Storm tide	7.81	10/08/2016 06:09:00	0.01
SCBEA14287	S.C.	Beaufort	32.13972	-80.80861	Water level	Storm tide	8.05	10/08/2016 07:02:00	0.10
SCBEA14288	S.C.	Beaufort	32.20333	-80.7000	Real-time RDG	Storm tide	6.22	10/08/2016 03:45:00	na
SCBEA14289	S.C.	Beaufort	32.35194	-80.70139	Water level	Storm tide	7.33	10/08/2016 07:12:00	0.14
SCBEA14290	S.C.	Beaufort	32.33472	-80.67167	Water level	Storm tide	7.65	10/08/2016 07:02:00	0.14
SCBEA14291	S.C.	Beaufort	32.45278	-80.70222	Water level	Storm tide	8.00	10/08/2016 06:41:00	0.14

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Table 2. Hurricane Matthew peak storm-tide and wave-height data for 284 temporarily deployed sites in Florida, Georgia, and North and South Carolina, October 2016.—Continued

[ft, foot; NAVD 88, North American Vertical Datum of 1988; UTC, Coordinated Universal Time; ±, plus or minus; Fla., Florida; na, not applicable; RDG, rapid deployment gage; Ga., Georgia; N.C., North Carolina; S.C., South Carolina]

Site identification	State	County	Latitude	Longitude	Sensor deployment type	Type of data collected	Peak storm- tide elevation (ft above NAVD 88)	Peak storm- tide elevation date and time (UTC)	Surveyed sensor elevation uncertainty (±ft)
			Decimal degrees						
SCBEA14292	S.C.	Beaufort	32.37389	-80.83694	Water level	Storm tide	8.17	10/08/2016 06:50:00	0.03
SCBEA14293	S.C.	Beaufort	32.17667	-80.76972	Water level	Storm tide	7.88	10/08/2016 07:00:00	0.03
SCBER14294	S.C.	Berkeley	32.92250	-79.82722	Water level	Storm tide	None	No surge recorded	na
SCCHA14228	S.C.	Charleston	32.78444	-80.10694	Water level	Storm tide	6.37	10/08/2016 07:30:00	0.13
SCCHA14229	S.C.	Charleston	32.81194	-79.85444	Water level	Storm tide	5.99	10/08/2016 06:06:00	0.06
SCCHA14248	S.C.	Charleston	32.79333	-80.05667	Water level	Storm tide	5.52	10/08/2016 13:10:00	0.18
SCCHA14295	S.C.	Charleston	32.78444	-79.95861	Water level	Storm tide	6.16	10/08/2016 05:56:00	0.01
SCCHA14296	S.C.	Charleston	33.03028	-79.62528	Water level	Storm tide	7.46	10/09/2016 15:11:00	0.02
SCCHA14297	S.C.	Charleston	32.66250	-79.94389	Water level	Storm tide	6.30	10/08/2016 05:11:00	0.18
SCCHA14298	S.C.	Charleston	32.76694	-79.97389	Water level	Storm tide	5.89	10/08/2016 06:12:00	0.08
SCCHA14299	S.C.	Charleston	32.55861	-80.27944	Water level	Storm tide	6.52	10/08/2016 06:28:00	0.20
SCCHA14300	S.C.	Charleston	32.63556	-80.34139	Water level	Storm tide	6.98	10/08/2016 07:46:00	0.13
SCCHA14301	S.C.	Charleston	32.78972	-79.78833	Water level	Storm tide	6.12	10/08/2016 05:13:00	0.15
SCCHA14302	S.C.	Charleston	32.81556	-79.80889	Water level	Storm tide	9.12	10/08/2016 12:24:00	0.07
SCCHA14304	S.C.	Charleston	32.75278	-80.01361	Water level	Storm tide	6.29	10/08/2016 07:19:00	0.13
SCCHA14305	S.C.	Charleston	32.77167	-79.84167	Water level	Storm tide	6.16	10/08/2016 05:28:00	0.01
SCCHA14306	S.C.	Charleston	32.77667	-79.81083	Real-time RDG	Storm tide	2.06	10/08/2016 01:05:00	na
SCCHA14307	S.C.	Charleston	33.03833	-79.56111	Real-time RDG	Storm tide	6.30	10/08/2016 01:15:00	na
SCCHA14308	S.C.	Charleston	32.94000	-79.65722	Water level	Storm tide	6.61	10/08/2016 05:40:00	0.01
SCCHA14309	S.C.	Charleston	32.76222	-79.85667	Water level	Storm tide	5.89	10/08/2016 05:29:00	0.00
SCCHA14310	S.C.	Charleston	32.59750	-80.19639	Water level	Storm tide	6.59	10/08/2016 06:48:00	0.00
SCCHA14311	S.C.	Charleston	32.62750	-80.02861	Real-time RDG	Storm tide	6.49	10/08/2016 01:10:00	na
SCCHA14312	S.C.	Charleston	32.70611	-79.94889	Water level	Storm tide	6.45	10/08/2016 05:53:00	0.18

Table 2. Hurricane Matthew peak storm-tide and wave-height data for 284 temporarily deployed sites in Florida, Georgia, and North and South Carolina, October 2016.—Continued

[ft, foot; NAVD 88, North American Vertical Datum of 1988; UTC, Coordinated Universal Time; ±, plus or minus; Fla., Florida; na, not applicable; RDG, rapid deployment gage; Ga., Georgia; N.C., North Carolina; S.C., South Carolina]

Site identification	State	County	Latitude	Longitude	Sensor deployment type	Type of data collected	Peak storm-tide elevation (ft above NAVD 88)	Peak storm-tide elevation date and time (UTC)	Surveyed sensor elevation uncertainty (±ft)
			Decimal degrees						
SCCOL14313	S.C.	Colleton	32.49361	-80.33917	Water level	Storm tide	6.59	10/08/2016 05:44:00	0.20
SCCOL14314	S.C.	Colleton	32.61278	-80.48111	Water level	Storm tide	7.06	10/08/2016 10:49:00	0.00
SCGEO14168	S.C.	Georgetown	33.39333	-79.38083	Water level	Storm tide	6.96	10/08/2016 17:06:00	0.19
SCGEO14169	S.C.	Georgetown	33.46917	-79.27944	Water level	Storm tide	3.04	10/08/2016 17:10:00	0.01
SCGEO14315	S.C.	Georgetown	33.36694	-79.26778	Real-time RDG	Storm tide	5.49	10/08/2016 11:15:00	na
SCGEO14316	S.C.	Georgetown	33.43500	-79.12306	Water level	Storm tide	7.65	10/08/2016 15:28:00	0.13
SCGEO14317	S.C.	Georgetown	33.51306	-79.18083	Water level	Storm tide	5.18	10/08/2016 17:55:00	0.23
SCGEO14318	S.C.	Georgetown	33.47083	-79.10111	Water level	Storm tide	7.06	10/09/2016 03:35:00	0.14
SCGEO14319	S.C.	Georgetown	33.35694	-79.29444	Water level	Storm tide	5.75	10/08/2016 15:03:00	0.13
SCGEO14320	S.C.	Georgetown	33.55472	-79.03417	Real-time RDG	Storm tide	None	Damaged	na
SCGEO14321	S.C.	Georgetown	33.52667	-79.03139	Water level	Storm tide	10.23	10/08/2016 15:46:00	0.07
SCGEO14322	S.C.	Georgetown	33.36194	-79.38306	Water level	Storm tide	6.00	10/08/2016 15:53:00	0.13
SCGEO14323	S.C.	Georgetown	33.36750	-79.16917	Water level	Storm tide	7.00	10/08/2016 15:18:00	0.19
SCGEO14324	S.C.	Georgetown	33.42528	-79.13056	Water level	Storm tide	7.68	10/09/2016 15:23:00	0.10
SCGEO14325	S.C.	Georgetown	33.56194	-79.08556	Water level	Storm tide	7.87	10/08/2016 17:38:00	0.00
SCHOR00003	S.C.	Horry	33.68111	-78.89167	Real-time RDG	Storm tide	7.71	10/08/2016 11:30:00	na
SCHOR14188	S.C.	Horry	33.75000	-79.07750	Water level	Storm tide	6.49	10/08/2016 17:31:00	0.01
SCHOR14326	S.C.	Horry	33.88833	-78.59278	Water level	Storm tide	7.42	10/08/2016 16:49:00	0.07
SCHOR14327	S.C.	Horry	33.57972	-79.00333	Water level	Storm tide	7.31	10/08/2016 15:55:00	0.02
SCHOR14328	S.C.	Horry	33.60250	-78.97389	Water level	Storm tide	9.52	10/08/2016 16:02:00	0.09
SCHOR14329	S.C.	Horry	33.84056	-78.61667	Real-time RDG	Storm tide	7.05	10/08/2016 12:15:00	na
SCHOR14330	S.C.	Horry	33.68583	-78.98139	Water level	Storm tide	10.01	10/08/2016 18:27:00	0.07
SCHOR14331	S.C.	Horry	33.74056	-78.86694	Water level	Storm tide	7.21	10/08/2016 18:28:00	0.09

Table 2. Hurricane Matthew peak storm-tide and wave-height data for 284 temporarily deployed sites in Florida, Georgia, and North and South Carolina, October 2016.—Continued

[ft, foot; NAVD 88, North American Vertical Datum of 1988; UTC, Coordinated Universal Time; ±, plus or minus; Fla., Florida; na, not applicable; RDG, rapid deployment gage; Ga., Georgia; N.C., North Carolina; S.C., South Carolina]

Site identification	State	County	Latitude	Longitude	Sensor deployment type	Type of data collected	Peak storm- tide elevation (ft above NAVD 88)	Peak storm- tide elevation date and time (UTC)	Surveyed sensor elevation uncertainty (±ft)
			Decimal degrees						
SCHOR14332	S.C.	Horry	33.76472	-78.81667	Water level	Storm tide	7.38	10/08/2016 18:27:00	0.07
SCHOR14333	S.C.	Horry	33.79278	-78.73639	Water level	Storm tide	7.29	10/08/2016 16:20:00	0.07
SCHOR14335	S.C.	Horry	33.64139	-78.94778	Water level	Storm tide	7.75	10/08/2016 16:39:00	0.07
SCHOR17779	S.C.	Horry	33.65944	-78.91750	Water level	Storm tide	8.57	10/08/2016 15:28:00	0.07
SCHOR17780	S.C.	Horry	33.75861	-78.79278	Water level	Storm tide	7.61	10/08/2016 15:50:00	0.09
SCHOR17781	S.C.	Horry	33.69972	-78.93694	Water level	Storm tide	7.07	10/08/2016 18:54:00	0.07
SCHOR17782	S.C.	Horry	33.85278	-78.59389	Water level	Storm tide	7.15	10/08/2016 16:20:00	0.07

^aThe peak water elevation for this site is considered estimated.

Table 3. Hurricane Matthew peak storm-tide data recorded at U.S. Geological Survey long-term monitoring stations in Florida, Georgia, and North and South Carolina, October 2016.

[ft, foot; NAVD 88, North American Vertical Datum of 1988; UTC, Coordinated Universal Time; Fla., Florida; Ga., Georgia; N.C., North Carolina; S.C., South Carolina]

Site identification	State	County	Latitude	Longitude	Site type	Type of data collected	Peak storm- tide elevation (ft above NAVD 88)	Peak storm- tide date and time (UTC)
			Decimal degrees					
02231291	Fla.	Duval	30.44567	-91.19156	Real-time streamgage	None	None	Damaged
02244040	Fla.	Putnam	29.59636	-81.68314	Real-time streamgage	Storm tide	14.73 ^a	10/07/2016 23:00
02244440	Fla.	Duval	29.57775	-81.06262	Real-time streamgage	Storm tide	4.21	10/07/2016 16:15
02245260	Fla.	St. Johns	29.72969	-81.48674	Real-time streamgage	Storm tide	6.71	10/08/2016 00:00
02246000	Fla.	Clay	30.11330	-81.90650	Real-time streamgage	Storm tide	11.04	10/09/2016 05:45
02246010	Fla.	Clay	30.07607	-81.86371	Real-time streamgage	Storm tide	16.15	10/07/2016 23:00
02246160	Fla.	Duval	30.14333	-81.55590	Real-time streamgage	Storm tide	4.61	10/08/2016 04:00
02246200	Fla.	St. Johns	30.09941	-81.52592	Real-time tidegage	Storm tide	4.68	10/08/2016 05:15
02246459	Fla.	Duval	30.28218	-81.74038	Real-time streamgage	Storm tide	14.76	10/08/2016 03:15
02246500	Fla.	Duval	30.32246	-81.66537	Real-time streamgage	Storm tide	14.02	10/08/2016 03:15
02246515	Fla.	Duval	30.26413	-81.59009	Real-time streamgage	Storm tide	26.37	10/07/2016 19:15
02246518	Fla.	Duval	30.28697	-81.57000	Real-time tidegage	Storm tide	5.15	10/07/2016 18:45
02246621	Fla.	Duval	30.41746	-81.69649	Real-time streamgage	Storm tide	3.52	10/07/2016 16:15
02246621	Fla.	Duval	30.41746	-81.69649	Real-time streamgage	Storm tide	3.52	10/07/2016 16:15
02246751	Fla.	Duval	30.44334	-81.66820	Real-time streamgage	Storm tide	4.47	10/07/2016 19:00
02246825	Fla.	Duval	30.44838	-81.51826	Real-time streamgage	Storm tide	4.36	10/07/2016 15:30
02248350	Fla.	Volusia	28.82107	-80.85979	Real-time streamgage	Storm tide	1.03	10/08/2016 01:00
02248380	Fla.	Brevard	28.73638	-80.45477	Real-time streamgage	Storm tide	2.38	10/08/2016 01:15
02250030	Fla.	Brevard	28.01724	-80.59589	Real-time streamgage	Storm tide	9.82	10/07/2016 10:30
02251000	Fla.	Indian River	27.76947	-80.50589	Real-time streamgage	Storm tide	18.44	10/07/2016 15:30
02251767	Fla.	Brevard	27.83058	-80.53422	Real-time streamgage	Storm tide	4.23	10/07/2016 19:30
02251800	Fla.	Indian River	27.75447	-80.42755	Real-time streamgage	None	None	Damaged
02253500	Fla.	Indian River	27.60450	-80.38658	Real-time streamgage	Storm tide	9.10	10/07/2016 10:00
02276877	Fla.	Martin	26.98578	-80.61539	Real-time streamgage	None	None	Damaged
02277100	Fla.	Martin	27.20227	-80.25865	Real-time tidegage	Storm tide	4.36	10/07/2016 01:30

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Table 3. Hurricane Matthew peak storm-tide data recorded at U.S. Geological Survey long-term monitoring stations in Florida, Georgia, and North and South Carolina, October 2016.—Continued

[ft, foot; NAVD 88, North American Vertical Datum of 1988; UTC, Coordinated Universal Time; Fla., Florida; Ga., Georgia; N.C., North Carolina; S.C., South Carolina]

Site identification	State	County	Latitude	Longitude	Site type	Type of data collected	Peak storm-tide elevation (ft above NAVD 88)	Peak storm-tide date and time (UTC)
02277110	Fla.	Martin	27.19977	-80.20671	Real-time tidegage	Storm tide	4.07	10/07/2016 01:30
02280500	Fla.	Palm Beach	26.70034	-80.71228	Real-time tidegage	Storm tide	10.77	10/07/2016 21:45
02283500	Fla.	Palm Beach	26.69757	-80.71370	Real-time streamgage	Storm tide	10.78 ^a	10/07/2016 21:45
02286400	Fla.	Palm Beach	26.69534	-80.80673	Real-time streamgage	Storm tide	11.58 ^a	10/07/2016 17:30
022907085	Fla.	Miami-Dade	25.57091	-80.37875	Real-time streamgage	Storm tide	1.21	10/06/2016 16:00
02290709	Fla.	Miami-Dade	25.55986	-80.35956	Real-time streamgage	Storm tide	1.22	10/06/2016 15:45
251003080435500	Fla.	Miami-Dade	25.13560	-80.73338	Real-time streamgage	Storm tide	0.26	10/07/2016 16:45
251032080473400	Fla.	Miami-Dade	25.17555	-80.79278	Real-time streamgage	Storm tide	0.38	10/07/2016 11:30
251115081075800	Fla.	Monroe	25.18765	-81.13278	Real-time streamgage	Storm tide	0.49	10/07/2016 07:15
251209080350100	Fla.	Miami-Dade	25.20370	-80.58389	Real-time streamgage	Storm tide	0.47	10/07/2016 18:00
251433080265000	Fla.	Miami-Dade	25.24210	-80.47757	Real-time streamgage	Storm tide	0.28	10/06/2016 22:30
02198820	Ga.	Effingham	32.24917	-81.15361	Real-time streamgage	Storm tide	6.87	10/08/2016 09:30
02198840	Ga.	Effingham	32.23556	-81.15139	Real-time streamgage	Storm tide	6.91	10/08/2016 09:30
02198920	Ga.	Chatham	32.16583	-81.15389	Real-time streamgage	None	None	Damaged
02198950	Ga.	Chatham	32.16556	-81.13833	Real-time streamgage	Storm tide	7.83	10/08/2016 08:15
02198955	Ga.	Chatham	32.14278	-81.13528	Real-time streamgage	None	None	Damaged
021989715	Ga.	Chatham	32.11556	-81.12944	Real-time streamgage	Storm tide	8.26	10/08/2016 07:45
021989773	Ga.	Chatham	32.08083	-81.08139	Real-time streamgage	Storm tide	8.13	10/08/2016 07:30
021989792	Ga.	Chatham	32.16583	-81.13000	Real-time streamgage	Storm tide	7.18	10/08/2016 08:00
02198980	Ga.	Chatham	32.03389	-80.90333	Real-time streamgage	None	None	Damaged
02199000	Ga.	Chatham	32.08250	-81.00250	Real-time streamgage	Storm tide	7.76	10/08/2016 07:15
02203536	Ga.	Bryan	31.97778	-81.28972	Real-time streamgage	Storm tide	5.54	10/08/2016 09:00
022035975	Ga.	McIntosh	31.45333	-81.36278	Real-time streamgage	Storm tide	5.99	10/07/2016 19:30
02226160	Ga.	Glynn	31.42694	-81.60556	Real-time streamgage	Storm tide	4.87	10/08/2016 00:15
02226180	Ga.	Glynn	31.13333	-81.39667	Real-time streamgage	Storm tide	6.15	10/07/2016 19:00

Table 3. Hurricane Matthew peak storm-tide data recorded at U.S. Geological Survey long-term monitoring stations in Florida, Georgia, and North and South Carolina, October 2016.—Continued

[ft, foot; NAVD 88, North American Vertical Datum of 1988; UTC, Coordinated Universal Time; Fla., Florida; Ga., Georgia; N.C., North Carolina; S.C., South Carolina]

Site identification	State	County	Latitude	Longitude	Site type	Type of data collected	Peak storm- tide elevation (ft above NAVD 88)	Peak storm- tide date and time (UTC)
			Decimal degrees					
02228070	Ga.	Camden	30.97444	-81.72583	Real-time streamgage	Storm tide	5.31	10/07/2016 21:30
02228295	Ga.	Camden	30.76433	81.47136	Real-time streamgage	Storm tide	6.83	10/07/2016 19:30
02231254	Ga.	Camden	30.74389	-81.65444	Real-time streamgage	Storm tide	5.26	10/07/2016 22:30
02043433	N.C.	Currituck	36.37444	-75.83444	Real-time streamgage	Storm tide	2.25	10/09/2016 04:15
0208114150	N.C.	Washington	35.91500	-76.72278	Real-time streamgage	Storm tide	4.97 ^a	10/09/2016 02:00
02084472	N.C.	Beaufort	35.54333	-77.06194	Real-time streamgage	Storm tide	5.18	10/08/2016 23:45
02110725	S.C.	Charleston	33.68712	-79.00476	Real-time streamgage	Storm tide	6.16	10/08/2016 15:45
02110777	S.C.	Charleston	33.85156	-78.65585	Real-time streamgage	Storm tide	7.56 ^a	10/08/2016 14:00
02110802	S.C.	Charleston	33.64906	-79.09421	Real-time streamgage	Storm tide	5.92 ^a	10/08/2016 15:00
021108125	S.C.	Charleston	33.50656	-79.12699	Real-time streamgage	Storm tide	5.14	10/08/2016 13:00
02110815	S.C.	Charleston	33.44461	-79.17393	Real-time streamgage	Storm tide	6.72 ^a	10/08/2016 12:30
02171800	S.C.	Charleston	33.20850	-79.38256	Real-time streamgage	Storm tide	6.13 ^a	10/08/2016 11:30
02171850	S.C.	Charleston	33.18406	-79.40589	Real-time streamgage	Storm tide	6.24 ^a	10/08/2016 10:45
02171905	S.C.	Charleston	33.15433	-79.35422	Real-time streamgage	None	None	Damaged
021720677	S.C.	Charleston	32.89045	-79.96286	Real-time streamgage	Storm tide	5.51	10/08/2016 01:00
021720698	S.C.	Charleston	32.85906	-79.89620	Real-time streamgage	Storm tide	6.76	10/08/2016 01:45
021720709	S.C.	Charleston	32.80240	-79.91009	Real-time streamgage	Storm tide	6.06	10/08/2016 01:45
021720711	S.C.	Charleston	32.78045	-79.92370	Real-time streamgage	Storm tide	7.35 ^a	10/08/2016 01:30
021720869	S.C.	Charleston	32.83462	-80.02370	Real-time streamgage	Storm tide	7.57 ^a	10/08/2016 02:15
0219897993	S.C.	Jasper	32.10306	81.00694	Real-time streamgage	Storm tide	8.07	10/08/2016 07:15

^aThe peak water elevation for this site is referenced to the National Geodetic Vertical Datum of 1929.

Table 4. Hurricane Matthew peak storm-tide data recorded at other State and Federal agency monitoring stations in Florida, Georgia, and North and South Carolina, October 2016.

[ft, foot; NAVD 88, North American Vertical Datum of 1988; UTC, Coordinated Universal Time; NOAA, National Oceanic and Atmospheric Administration; Fla., Florida; Ga., Georgia; N.C., North Carolina; NCDEM, North Carolina Division of Emergency Management; S.C., South Carolina]

Site identification	Agency	State	County	Latitude	Longitude	Site type	Type of data collected	Peak storm-tide elevation (ft above NAVD 88)	Peak storm-tide date and time (UTC)
				Decimal degrees					
8720030	NOAA	Fla.	Nassau	30.67167	-81.46500	Real-time tidegage	Storm tide	6.91	10/07/2016 19:30
8720218	NOAA	Fla.	Duval	30.39833	-81.42833	Real-time tidegage	Storm tide	5.22	10/07/2016 18:54
8720219	NOAA	Fla.	Duval	30.38667	-81.55833	Real-time tidegage	Storm tide	4.15	10/07/2016 19:24
8721604	NOAA	Fla.	Brevard	28.41500	-80.59333	Real-time tidegage	Storm tide	2.83	10/07/2016 05:48
8723214	NOAA	Fla.	Miami-Dade	25.73167	-80.16167	Real-time tidegage	Storm tide	1.30	10/06/2016 17:48
8670870	NOAA	Ga.	Chatham	32.03488	-80.90659	Real-time tidegage	Storm tide	8.50	10/08/2016 07:42
8651370	NOAA	N.C.	Dare	36.18330	-75.74660	Real-time tidegage	Storm tide	3.32	10/09/2016 18:36
8652587	NOAA	N.C.	Dare	35.79583	-75.54806	Real-time tidegage	Storm tide	2.87	10/09/2016 05:54
8654467	NOAA	N.C.	Dare	35.20863	-75.70418	Real-time tidegage	Storm tide	5.97	10/09/2016 10:00
8656483	NOAA	N.C.	Carteret	34.71731	-76.67066	Real-time tidegage	Storm tide	3.56	10/08/2016 18:00
8658120	NOAA	N.C.	Brunswick	34.22667	-77.95333	Real-time tidegage	Storm tide	5.77 ^a	10/08/2016 19:54
8658163	NOAA	N.C.	New Hanover	34.21330	-77.78660	Real-time tidegage	Storm tide	4.40	10/08/2016 16:42
BLHN7	NCDEM	N.C.	Beaufort	35.53729	-76.62281	Real-time tidegage	Storm tide	3.36	10/08/2016 23:45
COLN7	NCDEM	N.C.	Tyrrell	35.91750	-76.25436	Real-time tidegage	Storm tide	3.79	10/09/2016 08:20
EMWN7	NCDEM	N.C.	Pasquotank	36.29852	-76.21856	Real-time tidegage	Storm tide	1.83	10/09/2016 03:40
EWPN7	NCDEM	N.C.	Chowan	36.05651	-76.61139	Real-time tidegage	Storm tide	2.84	10/09/2016 02:50
GRMN7	NCDEM	N.C.	Pitt	35.57390	-77.17580	Real-time streamgage	Storm tide	4.25	10/09/2016 01:05
OCAN7	NCDEM	N.C.	Hyde	35.11537	-75.98735	Real-time tidegage	Storm tide	4.73	10/09/2016 09:45
ORLN7	NCDEM	N.C.	Pamlico	35.02443	-76.69194	Real-time tidegage	Storm tide	3.12	10/09/2016 12:55
8661070	NOAA	S.C.	Horry	33.65534	-78.91623	Real-time tidegage	None	None	Damaged
8662245	NOAA	S.C.	Georgetown	33.34940	-79.18892	Real-time tidegage	Storm tide	7.11	10/08/2016 16:00
8665530	NOAA	S.C.	Charleston	32.77990	-79.92374	Real-time tidegage	Storm tide	6.15	10/08/2016 06:48

^aThe peak water elevation for this NOAA tidegage site is referenced to mean sea level

Table 5. Hurricane Matthew peak storm-tide high-water mark data recorded by the U.S. Geological Survey in Florida, Georgia, and North and South Carolina, October 2016.—

[HWM, high water mark; ft, foot; NAVD 88, North American Vertical Datum of 1988; UTC, Coordinated Universal Time; ±, plus or minus; Fla., Florida; Ga., Georgia; N.C., North Carolina; na, not applicable; S.C., South Carolina]

Site identification	State	County	Latitude	Longitude	HWM surveyed elevation (ft above NAVD 88)	Peak storm-tide estimated date (UTC)	HWM survey uncertainty (± ft)
			Decimal degrees				
FLNAS18572	Fla.	Nassau	30.53131	-81.45218	6.9	10/07/2016	0.05
FLBRE03160	Fla.	Brevard	27.92150	-80.51941	2.5	10/07/2016	0.01
FLDUV03108	Fla.	Duval	30.51053	-81.46083	6.8	10/07/2016	0.01
FLDUV03114	Fla.	Duval	30.28758	-81.42072	5.4	10/07/2016	0.10
FLDUV18393	Fla.	Duval	30.26060	-81.38260	11.9	10/07/2016	0.18
FLDUV18521	Fla.	Duval	30.27326	-81.38679	7.7	10/07/2016	0.18
FLDUV18523	Fla.	Duval	30.27743	-81.38758	8.7	10/07/2016	0.18
FLDUV18527	Fla.	Duval	30.32455	-81.39488	11.4	10/07/2016	0.18
FLDUV18530	Fla.	Duval	30.31559	-81.42078	5.1	10/07/2016	0.18
FLDUV18533	Fla.	Duval	30.30710	-81.41925	5.3	10/07/2016	0.18
FLDUV18534	Fla.	Duval	30.29152	-81.41953	5.5	10/07/2016	0.18
FLDUV18580	Fla.	Duval	30.44421	-81.46181	5.9	10/07/2016	0.13
FLDUV18581	Fla.	Duval	30.33190	-81.39607	15.7	10/07/2016	0.17
FLDUV18583	Fla.	Duval	30.34005	-81.39643	13.5	10/07/2016	0.17
FLDUV18591	Fla.	Duval	30.34950	-81.39722	10.1	10/07/2016	0.17
FLDUV18603	Fla.	Duval	30.36987	-81.39825	11.5	10/07/2016	0.17
FLDUV18605	Fla.	Duval	30.36320	-81.39801	8.8	10/07/2016	0.17
FLDUV18607	Fla.	Duval	30.32582	-81.44794	5.4	10/07/2016	0.18
FLDUV18608	Fla.	Duval	30.35211	-81.44375	5.2	10/07/2016	0.18
FLDUV18608	Fla.	Duval	30.30670	-81.43526	5.3	10/07/2016	0.18
FLDUV18615	Fla.	Duval	30.32500	-81.42389	5.4	10/07/2016	0.18
FLDUV18621	Fla.	Duval	30.34905	-81.42427	5.0	10/07/2016	0.18
FLDUV18639	Fla.	Duval	30.36694	-81.42167	5.2	10/07/2016	0.17
FLDUV18641	Fla.	Duval	30.39444	-81.43028	5.4	10/07/2016	0.01
FLDUV18642	Fla.	Duval	30.25949	-81.40595	5.4	10/07/2016	0.18
FLDUV18643	Fla.	Duval	30.36056	-81.46778	5.6	10/07/2016	0.18
FLDUV18644	Fla.	Duval	30.41806	-81.53389	4.5	10/07/2016	0.13
FLDUV18645	Fla.	Duval	30.27177	-81.40695	5.5	10/07/2016	0.18
FLDUV18646	Fla.	Duval	30.46139	-81.42750	6.6	10/07/2016	0.01
FLDUV18649	Fla.	Duval	30.28000	-81.40920	5.2	10/07/2016	0.18
FLDUV18654	Fla.	Duval	30.26637	-81.43622	5.3	10/07/2016	0.18
FLDUV18661	Fla.	Duval	30.28930	-81.42978	5.0	10/07/2016	0.13
FLDUV18683	Fla.	Duval	30.30621	-81.44303	5.3	10/07/2016	0.13
FLDUV18686	Fla.	Duval	30.32175	-81.44026	5.0	10/07/2016	0.13
FLDUV18694	Fla.	Duval	30.32705	-81.42462	3.1	10/07/2016	0.13
FLDUV18696	Fla.	Duval	30.35616	-81.42851	5.2	10/07/2016	0.13
FLFLA18215	Fla.	Flagler	29.60777	-81.18678	13.8	10/07/2016	0.07
FLFLA18220	Fla.	Flagler	29.59819	-81.19895	6.0	10/07/2016	0.07
FLFLA18229	Fla.	Flagler	29.60970	-81.18767	11.8	10/07/2016	0.07
FLFLA18230	Fla.	Flagler	29.61632	-81.19720	8.2	10/07/2016	0.08
FLFLA18237	Fla.	Flagler	29.62024	-81.20140	7.9	10/07/2016	0.08
FLFLA18240	Fla.	Flagler	29.61275	-81.19188	8.2	10/07/2016	0.08

Table 5. Hurricane Matthew peak storm-tide high-water mark data recorded by the U.S. Geological Survey in Florida, Georgia, and North and South Carolina, October 2016.—Continued

[HWM, high water mark; ft, foot; NAVD 88, North American Vertical Datum of 1988; UTC, Coordinated Universal Time; ±, plus or minus; Fla., Florida; Ga., Georgia; N.C., North Carolina; na, not applicable; S.C., South Carolina]

Site identification	State	County	Latitude	Longitude	HWM surveyed elevation	Peak storm-tide estimated date	HWM survey uncertainty
			Decimal degrees		(ft above NAVD 88)	(UTC)	(± ft)
FLFLA18242	Fla.	Flagler	29.61559	-81.20382	6.5	10/07/2016	0.01
FLFLA18243	Fla.	Flagler	29.64693	-81.20532	7.9	10/07/2016	0.08
FLFLA18248	Fla.	Flagler	29.63108	-81.20451	7.5	10/07/2016	0.01
FLFLA18252	Fla.	Flagler	29.63040	-81.20932	6.6	10/07/2016	0.01
FLMAR03740	Fla.	Martin	27.03768	-80.11147	1.0	10/07/2016	0.18
FLNAS18570	Fla.	Nassau	30.58853	-81.44384	10.2	10/07/2016	0.06
FLNAS18571	Fla.	Nassau	30.57412	-81.44446	9.2	10/07/2016	0.06
FLNAS18576	Fla.	Nassau	30.57404	-81.45861	7.1	10/07/2016	0.06
FLNAS18577	Fla.	Nassau	30.58553	-81.46187	5.5	10/07/2016	0.06
FLNAS18578	Fla.	Duval	30.53154	-81.48059	7.9	10/07/2016	0.06
FLNAS18652	Fla.	Nassau	30.70361	-81.45250	6.4	10/07/2016	0.07
FLNAS18655	Fla.	Nassau	30.70003	-81.43083	9.9	10/07/2016	0.07
FLNAS18657	Fla.	Nassau	30.69667	-81.45972	5.3	10/07/2016	0.07
FLNAS18659	Fla.	Nassau	30.69285	-81.45894	6.7	10/07/2016	0.07
FLNAS18662	Fla.	Nassau	30.69111	-81.45250	6.7	10/07/2016	0.07
FLNAS18663	Fla.	Nassau	30.68833	-81.45056	6.9	10/07/2016	0.07
FLNAS18678	Fla.	Nassau	30.67333	-81.46444	6.9	10/07/2016	0.07
FLNAS18680	Fla.	Nassau	30.66972	-81.46528	6.6	10/07/2016	0.01
FLNAS18682	Fla.	Nassau	30.65448	-81.46588	6.8	10/07/2016	0.07
FLNAS18684	Fla.	Nassau	30.64541	-81.46526	7.2	10/07/2016	0.07
FLNAS18687	Fla.	Nassau	30.62473	-81.47229	6.2	10/07/2016	0.07
FLNAS18807	Fla.	Nassau	30.70430	-81.45574	6.3	10/07/2016	0.07
FLSTJ03115	Fla.	St. Johns	30.21064	-81.41042	5.4	10/07/2016	0.10
FLSTJ03125	Fla.	St. Johns	29.76244	-81.25389	7.8	10/07/2016	0.09
FLSTJ18249	Fla.	St. Johns	29.65062	-81.20660	8.5	10/07/2016	0.08
FLSTJ18256	Fla.	St. Johns	29.65800	-81.20840	10.6	10/07/2016	0.08
FLSTJ18260	Fla.	St. Johns	29.66921	-81.21410	7.3	10/07/2016	0.08
FLSTJ18264	Fla.	St. Johns	29.67790	-81.21944	6.6	10/07/2016	0.01
FLSTJ18267	Fla.	St. Johns	29.68169	-81.22162	8.5	10/07/2016	0.01
FLSTJ18269	Fla.	St. Johns	29.76272	-81.25280	7.5	10/07/2016	0.18
FLSTJ18344	Fla.	St. Johns	29.76921	-81.25404	7.9	10/07/2016	0.18
FLSTJ18347	Fla.	St. Johns	29.77348	-81.25693	7.9	10/07/2016	0.18
FLSTJ18349	Fla.	St. Johns	29.79239	-81.26241	7.7	10/07/2016	0.21
FLSTJ18354	Fla.	St. Johns	29.69368	-81.22673	7.0	10/07/2016	0.01
FLSTJ18355	Fla.	St. Johns	29.79895	-81.27039	6.3	10/07/2016	0.23
FLSTJ18361	Fla.	St Johns	29.70094	-81.22874	8.0	10/07/2016	0.01
FLSTJ18373	Fla.	St. Johns	29.71951	-81.23590	7.7	10/07/2016	0.18
FLSTJ18382	Fla.	St. Johns	29.80911	-81.27171	6.5	10/07/2016	0.23
FLSTJ18387	Fla.	St. Johns	29.85519	-81.26910	6.9	10/07/2016	0.28
FLSTJ18391	Fla.	St. Johns	29.77770	-81.25640	7.9	10/07/2016	0.18
FLSTJ18399	Fla.	St. Johns	30.14136	-81.38933	5.1	10/07/2016	0.18
FLSTJ18404	Fla.	St. Johns	30.22029	-81.41230	5.5	10/07/2016	0.07

Table 5. Hurricane Matthew peak storm-tide high-water mark data recorded by the U.S. Geological Survey in Florida, Georgia, and North and South Carolina, October 2016.—Continued

[HWM, high water mark; ft, foot; NAVD 88, North American Vertical Datum of 1988; UTC, Coordinated Universal Time; ±, plus or minus; Fla., Florida; Ga., Georgia; N.C., North Carolina; na, not applicable; S.C., South Carolina]

Site identification	State	County	Latitude	Longitude	HWM surveyed elevation (ft above NAVD 88)	Peak storm-tide estimated date (UTC)	HWM survey uncertainty (± ft)
			Decimal degrees				
FLSTJ18407	Fla.	St. Johns	29.72927	-81.23845	7.5	10/07/2016	0.18
FLSTJ18408	Fla.	St. Johns	30.22009	-81.41260	5.4	10/07/2016	0.07
FLSTJ18410	Fla.	St. Johns	29.73818	-81.24151	7.9	10/07/2016	0.18
FLSTJ18411	Fla.	St. Johns	30.21850	-81.41170	5.3	10/07/2016	0.07
FLSTJ18416	Fla.	St. Johns	30.17676	-81.39982	5.3	10/07/2016	0.07
FLSTJ18417	Fla.	St. Johns	29.74732	-81.24563	6.1	10/07/2016	0.18
FLSTJ18422	Fla.	St. Johns	29.89558	-81.30478	7.3	10/07/2016	0.29
FLSTJ18430	Fla.	St. Johns	29.75400	-81.24880	7.8	10/07/2016	0.18
FLSTJ18442	Fla.	St. Johns	29.77652	-81.25592	7.9	10/07/2016	0.18
FLSTJ18451	Fla.	St. Johns	29.78122	-81.26254	7.3	10/07/2016	0.23
FLSTJ18454	Fla.	St. Johns	29.78841	-81.26042	6.7	10/07/2016	0.23
FLSTJ18456	Fla.	St. Johns	29.79343	-81.26809	6.8	10/07/2016	0.23
FLSTJ18457	Fla.	St. Johns	29.80565	-81.26816	7.0	10/07/2016	0.23
FLSTJ18458	Fla.	St. Johns	29.81590	-81.27371	7.6	10/07/2016	0.23
FLSTJ18459	Fla.	St. Johns	29.82688	-81.27631	7.6	10/07/2016	0.23
FLSTJ18462	Fla.	St. Johns	29.85870	-81.27106	6.9	10/07/2016	0.28
FLSTJ18482	Fla.	St. Johns	29.88513	-81.29700	7.5	10/07/2016	0.28
FLSTJ18483	Fla.	St. Johns	29.82583	-81.30438	8.2	10/07/2016	0.29
FLSTJ18484	Fla.	St. Johns	29.81125	-81.29536	7.6	10/07/2016	0.28
FLSTJ18485	Fla.	St. Johns	29.88644	-81.32285	7.1	10/07/2016	0.29
FLSTJ18489	Fla.	St. Johns	29.89127	-81.32160	7.1	10/07/2016	0.30
FLSTJ18490	Fla.	St. Johns	29.91734	-81.29820	7.3	10/07/2016	0.32
FLSTJ18491	Fla.	St. Johns	29.88651	-81.32587	6.8	10/07/2016	0.29
FLSTJ18492	Fla.	St. Johns	29.88370	-81.31567	7.2	10/07/2016	0.29
FLSTJ18493	Fla.	St. Johns	30.02988	-81.32503	13.1	10/07/2016	0.01
FLSTJ18495	Fla.	St. Johns	29.91495	-81.29687	7.0	10/07/2016	0.32
FLSTJ18497	Fla.	St. Johns	29.95459	-81.31112	6.7	10/07/2016	0.32
FLSTJ18499	Fla.	St. Johns	29.91184	-81.29394	7.0	10/07/2016	0.32
FLSTJ18504	Fla.	St. Johns	29.95527	-81.31259	6.7	10/07/2016	0.32
FLSTJ18505	Fla.	St. Johns	29.94995	-81.30860	6.5	10/07/2016	0.32
FLSTJ18507	Fla.	St. Johns	29.94965	-81.30606	6.7	10/07/2016	0.32
FLSTJ18509	Fla.	St. Johns	29.91352	-81.29129	8.3	10/07/2016	0.32
FLSTJ18510	Fla.	St. Johns	29.94661	-81.30777	6.7	10/07/2016	0.32
FLSTJ18512	Fla.	St. Johns	29.91405	-81.28961	9.1	10/07/2016	0.32
FLSTJ18513	Fla.	St. Johns	29.94553	-81.30396	6.7	10/07/2016	0.21
FLSTJ18516	Fla.	St. Johns	29.94335	-81.30703	6.6	10/07/2016	0.32
FLSTJ18517	Fla.	St. Johns	29.95524	-81.30891	5.9	10/07/2016	0.32
FLSTJ18520	Fla.	St. Johns	29.91539	-81.29057	6.6	10/07/2016	0.32
FLSTJ18524	Fla.	St. Johns	29.91859	-81.29404	7.2	10/07/2016	0.01
FLSTJ18525	Fla.	St. Johns	29.91998	-81.29573	7.1	10/07/2016	0.06
FLSTJ18529	Fla.	St. Johns	29.92210	-81.29843	7.1	10/07/2016	0.06
FLSTJ18532	Fla.	St. Johns	29.92294	-81.30014	7.2	10/07/2016	0.06

Table 5. Hurricane Matthew peak storm-tide high-water mark data recorded by the U.S. Geological Survey in Florida, Georgia, and North and South Carolina, October 2016.—Continued

[HWM, high water mark; ft, foot; NAVD 88, North American Vertical Datum of 1988; UTC, Coordinated Universal Time; ±, plus or minus; Fla., Florida; Ga., Georgia; N.C., North Carolina; na, not applicable; S.C., South Carolina]

Site identification	State	County	Latitude	Longitude	HWM surveyed elevation	Peak storm-tide estimated date	HWM survey uncertainty
			Decimal degrees		(ft above NAVD 88)	(UTC)	(± ft)
FLSTJ18535	Fla.	St. Johns	29.92415	-81.29867	7.1	10/07/2016	0.06
FLSTJ18536	Fla.	St. Johns	29.92435	-81.29654	7.1	10/07/2016	0.06
FLSTJ18537	Fla.	St. Johns	29.92545	-81.29609	7.1	10/07/2016	0.06
FLSTJ18539	Fla.	St. Johns	29.94018	-81.30274	6.9	10/07/2016	0.06
FLSTJ18540	Fla.	St. Johns	29.94248	-81.30724	6.9	10/07/2016	0.07
FLSTJ18541	Fla.	St. Johns	29.94383	-81.30216	6.8	10/07/2016	0.07
FLSTJ18542	Fla.	St. Johns	29.94004	-81.30524	7.0	10/07/2016	0.06
FLSTJ18579	Fla.	St. Johns	29.88115	-81.28260	7.8	10/07/2016	0.28
FLSTJ18582	Fla.	St. Johns	29.90013	-81.30034	7.5	10/07/2016	0.29
FLSTJ18584	Fla.	St. Johns	29.87958	-81.29290	7.4	10/07/2016	0.28
FLSTJ18585	Fla.	St. Johns	29.89988	-81.31625	6.4	10/07/2016	0.29
FLSTJ18587	Fla.	St. Johns	29.90512	-81.31633	7.6	10/07/2016	0.29
FLSTJ18588	Fla.	St. Johns	29.89375	-81.31535	7.1	10/07/2016	0.01
FLSTJ18590	Fla.	St. Johns	29.89226	-81.29831	7.6	10/07/2016	0.28
FLSTJ18592	Fla.	St. Johns	29.89267	-81.31440	7.1	10/07/2016	0.29
FLSTJ18594	Fla.	St. Johns	29.88185	-81.31423	7.2	10/07/2016	0.29
FLSTJ18595	Fla.	St. Johns	29.88210	-81.30842	7.2	10/07/2016	0.29
FLSTJ18597	Fla.	St. Johns	29.88423	-81.30963	7.1	10/07/2016	0.29
FLSTJ18598	Fla.	St. Johns	29.89605	-81.31875	7.0	10/07/2016	0.29
FLSTJ18599	Fla.	St. Johns	29.91869	-81.31583	7.0	10/07/2016	0.29
FLSTJ18600	Fla.	St. Johns	29.91195	-81.31928	6.0	10/07/2016	0.29
FLSTJ18601	Fla.	St. Johns	29.91472	-81.31707	6.9	10/07/2016	0.29
FLSTJ18602	Fla.	St. Johns	29.91517	-81.31178	7.3	10/07/2016	0.29
FLSTJ18610	Fla.	St. Johns	29.86313	-81.31403	7.6	10/07/2016	0.28
FLSTJ18616	Fla.	St. Johns	29.85370	-81.31334	7.4	10/07/2016	0.29
FLSTJ18630	Fla.	St. Johns	29.85609	-81.33070	7.6	10/07/2016	0.28
FLSTJ18633	Fla.	St. Johns	29.89905	-81.32799	6.9	10/07/2016	0.19
FLSTJ18636	Fla.	St. Johns	29.91471	-81.33329	6.6	10/07/2016	0.32
FLSTJ18809	Fla.	St. Johns	29.91684	-81.29799	7.1	10/07/2016	0.32
FLVOL03145	Fla.	Volusia	29.03143	-81.91590	0.4	10/07/2016	0.01
GABRY17927	Ga.	Bryan	31.88667	-81.19125	6.9	10/08/2016	0.14
GABRY17935	Ga.	Bryan	31.88094	-81.17806	6.4	10/08/2016	0.14
GABRY17945	Ga.	Bryan	31.90644	-81.25239	8.5	10/08/2016	0.14
GACAM17823	Ga.	Camden	30.72000	-81.54944	7.6	10/07/2016	0.20
GACAM17987	Ga.	Camden	30.72106	-81.54570	6.6	10/07/2016	0.20
GACAM18008	Ga.	Camden	30.73123	-81.54187	6.7	10/07/2016	0.20
GACAM18028	Ga.	Camden	30.72282	-81.55974	6.5	10/07/2016	0.20
GACAM18034	Ga.	Camden	30.88949	-81.55843	5.8	10/07/2016	0.07
GACAM18042	Ga.	Camden	31.09246	-81.57200	6.7	10/07/2016	0.04
GACAM18044	Ga.	Camden	30.74061	-81.56929	6.3	10/07/2016	0.07
GACAM18056	Ga.	Camden	30.74120	-81.59854	6.6	10/07/2016	0.07
GACAM18063	Ga.	Camden	31.02918	-81.53010	7.3	10/07/2016	0.04

Table 5. Hurricane Matthew peak storm-tide high-water mark data recorded by the U.S. Geological Survey in Florida, Georgia, and North and South Carolina, October 2016.—Continued

[HWM, high water mark; ft, foot; NAVD 88, North American Vertical Datum of 1988; UTC, Coordinated Universal Time; ±, plus or minus; Fla., Florida; Ga., Georgia; N.C., North Carolina; na, not applicable; S.C., South Carolina]

Site identification	State	County	Latitude	Longitude	HWM surveyed elevation (ft above NAVD 88)	Peak storm-tide estimated date (UTC)	HWM survey uncertainty (± ft)
			Decimal degrees				
GACAM18075	Ga.	Camden	30.75278	-81.65812	5.0	10/07/2016	0.07
GACAM18222	Ga.	Camden	30.81528	-81.57694	6.4	10/07/2016	0.07
GACHA17838	Ga.	Chatham	32.00365	-80.96099	7.3	10/08/2016	0.10
GACHA17904	Ga.	Chatham	31.95826	-81.01139	8.1	10/08/2016	0.01
GACHA17905	Ga.	Chatham	31.93970	-81.02504	7.0	10/08/2016	0.04
GACHA17906	Ga.	Chatham	31.97600	-81.00100	10.9	10/08/2016	0.02
GACHA17907	Ga.	Chatham	31.97278	-81.00003	7.5	10/08/2016	0.02
GACHA17908	Ga.	Chatham	31.89087	-81.06056	7.1	10/08/2016	0.31
GACHA17909	Ga.	Chatham	31.95841	-81.01239	8.6	10/08/2016	0.04
GACHA17910	Ga.	Chatham	31.91015	-81.07119	7.9	10/08/2016	0.04
GACHA17911	Ga.	Chatham	31.98947	-81.02159	8.0	10/08/2016	0.31
GACHA17912	Ga.	Chatham	31.97904	-80.99432	8.9	10/08/2016	0.02
GACHA17913	Ga.	Chatham	32.00764	-80.99047	7.9	10/08/2016	0.35
GACHA17914	Ga.	Chatham	31.92339	-81.07031	10.5	10/08/2016	0.31
GACHA17915	Ga.	Chatham	31.99215	-80.98011	7.7	10/08/2016	0.35
GACHA17916	Ga.	Chatham	31.94709	-81.02077	8.2	10/08/2016	0.04
GACHA17917	Ga.	Chatham	32.03375	-80.90287	8.5	10/08/2016	0.17
GACHA17918	Ga.	Chatham	31.96485	-81.04361	6.7	10/08/2016	0.31
GACHA17919	Ga.	Chatham	32.03997	-80.97077	7.8	10/08/2016	0.14
GACHA17920	Ga.	Chatham	32.03099	-80.90149	8.6	10/08/2016	0.17
GACHA17924	Ga.	Chatham	32.01449	-80.88276	8.0	10/08/2016	0.14
GACHA17926	Ga.	Chatham	32.00137	-80.86307	7.9	10/08/2016	0.20
GACHA17932	Ga.	Chatham	32.02087	-80.85939	8.8	10/08/2016	0.05
GACHA17937	Ga.	Chatham	32.01988	-80.86129	9.0	10/08/2016	0.17
GACHA17939	Ga.	Chatham	32.00210	-80.84852	7.3	10/08/2016	0.05
GACHA17944	Ga.	Chatham	31.99738	-80.85448	7.5	10/08/2016	0.05
GACHA17950	Ga.	Chatham	32.01102	-80.84124	9.5	10/08/2016	0.17
GACHA17983	Ga.	Chatham	32.00757	-80.84169	9.9	10/08/2016	0.05
GAGLY17929	Ga.	Glynn	31.15653	-81.49898	4.4	10/07/2016	0.04
GAGLY17930	Ga.	Glynn	31.14293	-81.41391	6.6	10/07/2016	0.10
GAGLY17933	Ga.	Glynn	31.13514	-81.47851	6.2	10/07/2016	0.04
GAGLY17936	Ga.	Glynn	31.13384	-81.39460	9.4	10/07/2016	0.10
GAGLY17938	Ga.	Glynn	31.15282	-81.47786	6.6	10/07/2016	0.04
GAGLY17940	Ga.	Glynn	31.13789	-81.38058	7.3	10/07/2016	0.13
GAGLY17943	Ga.	Glynn	31.11390	-81.41545	6.8	10/07/2016	0.06
GAGLY17946	Ga.	Glynn	31.13398	-81.39517	7.6	10/07/2016	0.13
GAGLY17949	Ga.	Glynn	31.14353	-81.37250	7.7	10/07/2016	0.13
GAGLY17953	Ga.	Glynn	31.17183	-81.36986	6.7	10/07/2016	0.13
GAGLY17958	Ga.	Glynn	31.02250	-81.43437	7.0	10/07/2016	0.06
GAGLY17958	Ga.	Glynn	31.02288	-81.43415	7.6	10/07/2016	0.06
GAGLY17973	Ga.	Glynn	31.18984	-81.33796	9.5	10/07/2016	0.13
GAGLY17975	Ga.	Glynn	31.22359	-81.32139	6.4	10/07/2016	0.13

Table 5. Hurricane Matthew peak storm-tide high-water mark data recorded by the U.S. Geological Survey in Florida, Georgia, and North and South Carolina, October 2016.—Continued

[HWM, high water mark; ft, foot; NAVD 88, North American Vertical Datum of 1988; UTC, Coordinated Universal Time; ±, plus or minus; Fla., Florida; Ga., Georgia; N.C., North Carolina; na, not applicable; S.C., South Carolina]

Site identification	State	County	Latitude	Longitude	HWM surveyed elevation	Peak storm-tide estimated date	HWM survey uncertainty
			Decimal degrees		(ft above NAVD 88)	(UTC)	(± ft)
GAGLY18010	Ga.	Glynn	31.10959	-81.41345	6.7	10/07/2016	0.06
GAGLY18015	Ga.	Glynn	31.05223	-81.42128	6.7	10/07/2016	0.06
GAGLY18018	Ga.	Glynn	31.16961	-81.53375	6.8	10/07/2016	0.04
GAGLY18030	Ga.	Glynn	31.15244	-81.54701	6.9	10/07/2016	0.04
GAGLY18061	Ga.	Glynn	31.05055	-81.44594	6.6	10/07/2016	0.06
GAGLY18083	Ga.	Glynn	31.17041	-81.40872	6.5	10/07/2016	0.13
GALIB17974	Ga.	Liberty	31.69501	-81.27148	6.7	10/08/2016	0.12
GALIB17976	Ga.	Liberty	31.71202	-81.28653	7.1	10/08/2016	0.12
GALIB17978	Ga.	Liberty	31.64410	-81.39302	5.2	10/08/2016	0.12
GALIB18059	Ga.	Liberty	31.76442	-81.28000	6.6	10/08/2016	0.12
GALIB18066	Ga.	Liberty	31.73425	-81.23864	7.0	10/08/2016	0.12
GAMCII7980	Ga.	Mcintosh	31.63615	-81.33689	6.4	10/08/2016	0.12
GAMCII7991	Ga.	Mcintosh	31.49505	-81.35787	10.0	10/08/2016	0.12
GAMCII8050	Ga.	Mcintosh	31.61864	-81.26508	6.3	10/08/2016	0.12
NCBEA11768	N.C.	Beaufort	35.47718	-76.81563	3.8	10/08/2016	0.01
NCBEA13648	N.C.	Beaufort	35.53285	-76.61469	3.2	10/08/2016	0.07
NCBRU12068	N.C.	Brunswick	33.91696	-78.01791	6.0	10/08/2016	0.12
NCBRU17982	N.C.	Brunswick	33.91972	-78.18972	5.8	10/08/2016	0.12
NCBRU18039	N.C.	Brunswick	33.86578	-78.51686	6.0	10/08/2016	0.12
NCBRU18045	N.C.	Brunswick	33.86961	-78.51937	6.8	10/08/2016	0.12
NCBRU18052	N.C.	Brunswick	33.91831	-78.02818	5.6	10/08/2016	0.12
NCBRU18067	N.C.	Brunswick	33.91612	-78.02287	5.2	10/08/2016	0.12
NCBRU18112	N.C.	Brunswick	33.87333	-78.49528	7.1	10/08/2016	0.06
NCBRU18130	N.C.	Brunswick	33.91341	-78.14641	7.8	10/08/2016	0.12
NCBRU18139	N.C.	Brunswick	33.87333	-78.49528	7.0	10/08/2016	0.02
NCBRU18153	N.C.	Brunswick	33.87361	-78.54861	7.3	10/08/2016	0.00
NCBRU18181	N.C.	Brunswick	33.89028	-78.43361	6.8	10/08/2016	0.00
NCBRU18190	N.C.	Brunswick	33.92278	-78.21281	6.2	10/08/2016	0.12
NCBRU18201	N.C.	Brunswick	33.87778	-78.47194	6.8	10/08/2016	0.00
NCBRU18219	N.C.	Brunswick	33.92616	-78.12595	5.4	10/08/2016	0.12
NCBRU18236	N.C.	Brunswick	33.89778	-78.39583	8.3	10/08/2016	0.00
NCBRU18241	N.C.	Brunswick	33.90194	-78.39222	6.8	10/08/2016	0.00
NCBRU18297	N.C.	Brunswick	33.92306	-78.40917	7.1	10/08/2016	0.12
NCBRU18320	N.C.	Brunswick	34.03848	-77.94429	5.4	10/08/2016	0.12
NCBRU18325	N.C.	Brunswick	33.91583	-78.39472	6.9	10/08/2016	0.12
NCBRU18358	N.C.	Brunswick	33.93015	-78.22126	6.0	10/08/2016	0.12
NCBRU18394	N.C.	Brunswick	33.91720	-78.26875	6.4	10/08/2016	0.12
NCBRU18405	N.C.	Brunswick	33.91060	-78.36247	6.4	10/08/2016	0.12
NCBRU18586	N.C.	Brunswick	33.90236	-78.39222	6.8	10/08/2016	0.00
NCCAR06848	N.C.	Carteret	34.68673	-77.04570	2.3	10/08/2016	0.05
NCCAR06850	N.C.	Carteret	34.69450	-77.00800	4.2	10/08/2016	0.05
NCCAR06854	N.C.	Carteret	34.70273	-77.01162	4.2	10/08/2016	0.05

Table 5. Hurricane Matthew peak storm-tide high-water mark data recorded by the U.S. Geological Survey in Florida, Georgia, and North and South Carolina, October 2016.—Continued

[HWM, high water mark; ft, foot; NAVD 88, North American Vertical Datum of 1988; UTC, Coordinated Universal Time; ±, plus or minus; Fla., Florida; Ga., Georgia; N.C., North Carolina; na, not applicable; S.C., South Carolina]

Site identification	State	County	Latitude	Longitude	HWM surveyed elevation (ft above NAVD 88)	Peak storm-tide estimated date (UTC)	HWM survey uncertainty (± ft)
			Decimal degrees				
NCCAR18053	N.C.	Carteret	34.67803	-77.10895	2.4	10/08/2016	0.23
NCCAR18183	N.C.	Carteret	34.64500	-77.09154	6.6	10/08/2016	0.23
NCCAR18186	N.C.	Carteret	34.64446	-77.09524	6.5	10/08/2016	0.23
NCCAR18211	N.C.	Carteret	34.66487	-77.05801	4.7	10/08/2016	0.05
NCCAR18214	N.C.	Carteret	34.66751	-77.04883	4.1	10/08/2016	0.05
NCCAR18225	N.C.	Carteret	34.67152	-77.03256	3.1	10/08/2016	0.05
NCCAR18247	N.C.	Carteret	34.66907	-77.02471	3.9	10/08/2016	0.05
NCCAR18259	N.C.	Carteret	34.67115	-77.00665	2.8	10/08/2016	0.05
NCCAR18276	N.C.	Carteret	34.67308	-76.99565	3.8	10/08/2016	0.05
NCCAR18285	N.C.	Carteret	34.67415	-76.98737	2.1	10/08/2016	0.05
NCCAR18353	N.C.	Carteret	34.68063	-77.06515	2.5	10/08/2016	0.23
NCCAR18364	N.C.	Carteret	34.66561	-77.06319	2.6	10/08/2016	0.23
NCCAR18380	N.C.	Carteret	34.64680	-77.09841	3.9	10/08/2016	0.23
NCCAR18395	N.C.	Carteret	34.66166	-77.07174	3.9	10/08/2016	0.23
NCCAR18400	N.C.	Carteret	34.67470	-76.98325	2.5	10/08/2016	0.05
NCCAR18433	N.C.	Carteret	34.71908	-76.71592	4.1	10/08/2016	0.16
NCCAR18446	N.C.	Carteret	34.72256	-76.75031	3.8	10/08/2016	0.16
NCDAR00001	N.C.	Dare	35.20791	-75.70284	6.0	10/09/2016	0.05
NCDAR00002	N.C.	Dare	35.26652	-75.55763	6.4	10/09/2016	0.12
NCDAR00004	N.C.	Dare	35.35015	-75.51197	4.8	10/09/2016	0.12
NCDAR00005	N.C.	Dare	35.79660	-75.54920	2.7	10/09/2016	0.04
NCDAR00010	N.C.	Dare	35.69831	-75.77044	2.7	10/09/2016	0.05
NCDAR12631	N.C.	Dare	35.90963	-75.60209	4.3	10/09/2016	0.15
NCDAR12790	N.C.	Dare	35.26621	-75.51936	7.6	10/09/2016	0.12
NCDAR17981	N.C.	Dare	36.01389	-75.68028	3.4	10/09/2016	0.06
NCDAR17999	N.C.	Dare	36.01528	-75.68417	3.3	10/09/2016	0.06
NCDAR18011	N.C.	Dare	36.01361	-75.68639	3.2	10/09/2016	0.06
NCDAR18013	N.C.	Dare	36.01417	-75.69028	2.6	10/09/2016	0.06
NCDAR18040	N.C.	Dare	36.00275	-75.68986	2.3	10/09/2016	0.06
NCDAR18057	N.C.	Dare	36.00944	-75.69861	3.5	10/09/2016	0.06
NCDAR18064	N.C.	Dare	36.00917	-75.70389	3.4	10/09/2016	0.01
NCDAR18072	N.C.	Dare	36.01417	-75.71111	3.9	10/09/2016	0.06
NCDAR18080	N.C.	Dare	36.02111	-75.71111	3.1	10/09/2016	0.06
NCDAR18092	N.C.	Dare	36.02222	-75.72667	5.0	10/09/2016	0.06
NCDAR18103	N.C.	Dare	36.00860	-75.72790	3.3	10/09/2016	0.06
NCDAR18109	N.C.	Dare	36.00472	-75.72583	5.0	10/09/2016	0.06
NCDAR18171	N.C.	Dare	35.99611	-75.70139	3.2	10/09/2016	0.06
NCDAR18175	N.C.	Dare	35.95139	-75.63194	3.9	10/09/2016	0.06
NCDAR18180	N.C.	Dare	35.94556	-75.62806	4.2	10/09/2016	0.06
NCDAR18185	N.C.	Dare	35.93680	-75.62180	4.3	10/09/2016	0.06
NCDAR18195	N.C.	Dare	35.92999	-75.61751	4.0	10/09/2016	0.06
NCDAR18203	N.C.	Dare	35.92317	-75.61202	3.7	10/09/2016	0.06

Table 5. Hurricane Matthew peak storm-tide high-water mark data recorded by the U.S. Geological Survey in Florida, Georgia, and North and South Carolina, October 2016.—Continued

[HWM, high water mark; ft, foot; NAVD 88, North American Vertical Datum of 1988; UTC, Coordinated Universal Time; ±, plus or minus; Fla., Florida; Ga., Georgia; N.C., North Carolina; na, not applicable; S.C., South Carolina]

Site identification	State	County	Latitude	Longitude	HWM surveyed elevation	Peak storm-tide estimated date	HWM survey uncertainty
			Decimal degrees		(ft above NAVD 88)	(UTC)	(± ft)
NCDAR18205	N.C.	Dare	35.26484	-75.52645	5.8	10/09/2016	0.04
NCDAR18239	N.C.	Dare	35.91495	-75.60471	4.1	10/09/2016	0.06
NCDAR18257	N.C.	Dare	35.89304	-75.64457	4.2	10/09/2016	0.06
NCDAR18293	N.C.	Dare	35.88640	-75.58570	2.4	10/09/2016	0.06
NCDAR18303	N.C.	Dare	35.88480	-75.58890	2.4	10/09/2016	0.06
NCDAR18318	N.C.	Dare	35.21012	-75.69976	3.8	10/09/2016	0.06
NCDAR18319	N.C.	Dare	35.24696	-75.61299	6.3	10/09/2016	0.04
NCDAR18321	N.C.	Dare	35.22902	-75.63368	6.8	10/09/2016	0.04
NCDAR18323	N.C.	Dare	35.20861	-75.69806	6.2	10/09/2016	0.06
NCDAR18324	N.C.	Dare	35.21362	-75.69553	6.3	10/09/2016	0.06
NCDAR18326	N.C.	Dare	35.22009	-75.69058	6.3	10/09/2016	0.06
NCDAR18327	N.C.	Dare	35.22015	-75.69028	6.5	10/09/2016	0.04
NCDAR18329	N.C.	Dare	35.22486	-75.68259	6.0	10/09/2016	0.04
NCDAR18330	N.C.	Dare	35.21849	-75.69540	6.4	10/09/2016	0.06
NCDAR18331	N.C.	Dare	35.21470	-75.69153	6.3	10/09/2016	0.06
NCDAR18332	N.C.	Dare	35.21078	-75.69399	6.0	10/09/2016	0.04
NCDAR18342	N.C.	Dare	35.90374	-75.66976	4.2	10/09/2016	0.06
NCDAR18350	N.C.	Dare	35.92312	-75.66630	3.5	10/09/2016	0.02
NCDAR18366	N.C.	Dare	35.93309	-75.72611	4.2	10/09/2016	0.02
NCDAR18379	N.C.	Dare	35.92191	-75.71386	3.1	10/09/2016	0.02
NCDAR18383	N.C.	Dare	35.90699	-75.69572	2.9	10/09/2016	0.02
NCDAR18409	N.C.	Dare	35.21783	-75.67456	7.2	10/09/2016	0.01
NCDAR18413	N.C.	Dare	35.21440	-75.68476	6.6	10/09/2016	0.04
NCDAR18419	N.C.	Dare	35.22103	-75.65643	7.6	10/09/2016	0.04
NCDAR18421	N.C.	Dare	35.21742	-75.66913	7.8	10/09/2016	0.01
NCDAR18425	N.C.	Dare	35.26438	-75.59025	6.1	10/09/2016	0.04
NCHYD18476	N.C.	Hyde	35.11057	-75.97057	5.2	10/09/2016	0.00
NCHYD18478	N.C.	Hyde	35.11692	-75.98453	4.2	10/09/2016	0.00
NCHYD18479	N.C.	Hyde	35.11186	-75.97998	4.7	10/09/2016	0.00
NCHYD18480	N.C.	Hyde	35.10893	-75.98603	3.5	10/09/2016	0.00
NCHYD18481	N.C.	Hyde	35.12616	-75.92184	5.6	10/09/2016	0.00
NCNEW17955	N.C.	New Hanover	34.21808	-77.81372	5.4	10/08/2016	0.09
NCNEW17956	N.C.	New Hanover	34.22638	-77.78077	9.7	10/08/2016	0.04
NCNEW17971	N.C.	New Hanover	34.21480	-77.81733	4.8	10/08/2016	0.09
NCNEW17972	N.C.	New Hanover	34.21975	-77.78507	9.0	10/08/2016	0.04
NCNEW18014	N.C.	New Hanover	34.20119	-77.79911	11.0	10/08/2016	0.04
NCNEW18020	N.C.	New Hanover	34.19239	-77.80564	10.4	10/08/2016	0.04
NCNEW18024	N.C.	New Hanover	34.18719	-77.80978	8.5	10/08/2016	0.04
NCNEW18104	N.C.	New Hanover	34.21792	-77.79758	5.1	10/08/2016	0.09
NCNEW18106	N.C.	New Hanover	34.21781	-77.81200	5.4	10/08/2016	0.09
NCNEW18107	N.C.	New Hanover	34.19978	-77.82658	3.2	10/08/2016	0.09
NCNEW18107	N.C.	New Hanover	34.19978	-77.82658	3.2	10/08/2016	0.09

Table 5. Hurricane Matthew peak storm-tide high-water mark data recorded by the U.S. Geological Survey in Florida, Georgia, and North and South Carolina, October 2016.—Continued

[HWM, high water mark; ft, foot; NAVD 88, North American Vertical Datum of 1988; UTC, Coordinated Universal Time; ±, plus or minus; Fla., Florida; Ga., Georgia; N.C., North Carolina; na, not applicable; S.C., South Carolina]

Site identification	State	County	Latitude	Longitude	HWM surveyed elevation (ft above NAVD 88)	Peak storm-tide estimated date (UTC)	HWM survey uncertainty (± ft)
			Decimal degrees				
NCNEW18192	N.C.	New Hanover	34.19767	-77.86331	5.5	10/08/2016	0.09
NCNEW18193	N.C.	New Hanover	34.19217	-77.85431	5.2	10/08/2016	0.09
NCNEW18197	N.C.	New Hanover	34.18636	-77.83458	5.7	10/08/2016	0.09
NCNEW18333	N.C.	New Hanover	34.04028	-77.88867	12.0	10/08/2016	na
NCNEW18334	N.C.	New Hanover	34.07519	-77.88686	4.9	10/08/2016	0.17
NCNEW18336	N.C.	New Hanover	34.07678	-77.87842	5.6	10/08/2016	0.17
NCNEW18337	N.C.	New Hanover	34.07625	-77.87875	4.6	10/08/2016	0.17
NCNEW18338	N.C.	New Hanover	34.05331	-77.88292	8.2	10/08/2016	0.17
NCNEW18339	N.C.	New Hanover	34.04672	-77.88589	13.7	10/08/2016	na
NCNEW18434	N.C.	New Hanover	34.07794	-77.92394	6.6	10/08/2016	0.17
NCNEW18436	N.C.	New Hanover	34.11369	-77.92536	5.6	10/08/2016	0.17
NCNEW18439	N.C.	New Hanover	34.07264	-77.92061	4.9	10/08/2016	0.17
NCONS18007	N.C.	Onslow	34.68650	-77.12008	4.1	10/08/2016	0.23
NCONS18016	N.C.	Onslow	34.68615	-77.12453	3.2	10/08/2016	0.23
NCONS18031	N.C.	Onslow	34.68356	-77.12902	4.4	10/08/2016	0.23
NCONS18071	N.C.	Onslow	34.68400	-77.11415	3.7	10/08/2016	0.23
NCONS18078	N.C.	Onslow	34.68532	-77.11543	4.1	10/08/2016	0.23
NCONS18238	N.C.	Onslow	34.57219	-77.39389	3.6	10/08/2016	0.11
NCONS18255	N.C.	Onslow	34.56650	-77.39391	2.1	10/08/2016	0.11
NCONS18281	N.C.	Onslow	34.56807	-77.38570	1.9	10/08/2016	0.11
NCONS18288	N.C.	Onslow	34.56323	-77.38108	1.8	10/08/2016	0.11
NCONS18298	N.C.	Onslow	34.56061	-77.37228	3.4	10/08/2016	0.11
NCONS18346	N.C.	Onslow	34.55250	-77.36600	3.3	10/08/2016	0.11
NCONS18368	N.C.	Onslow	34.50436	-77.39414	7.0	10/08/2016	0.11
NCONS18370	N.C.	Onslow	34.50632	-77.39115	3.2	10/08/2016	0.11
NCONS18375	N.C.	Onslow	34.51484	-77.37291	3.2	10/08/2016	0.11
NCPEN18548	N.C.	Pender	34.36499	-77.62862	9.4	10/08/2016	0.11
SCBEA17963	S.C.	Beaufort	32.13833	-80.81085	8.0	10/08/2016	0.06
SCBEA17964	S.C.	Beaufort	32.13375	-80.81323	8.0	10/08/2016	0.06
SCBEA17965	S.C.	Beaufort	32.13381	-80.81318	8.0	10/08/2016	0.06
SCBEA17968	S.C.	Beaufort	32.12338	-80.78909	10.2	10/08/2016	0.10
SCBEA17969	S.C.	Beaufort	32.14055	-80.75175	10.9	10/08/2016	0.10
SCBEA17970	S.C.	Beaufort	32.10951	-80.82182	7.9	10/08/2016	0.27
SCBEA18155	S.C.	Beaufort	32.20013	-80.68959	8.1	10/08/2016	0.10
SCBEA18156	S.C.	Beaufort	32.23099	-80.68798	7.6	10/08/2016	0.06
SCBEA18157	S.C.	Beaufort	32.24618	-80.74522	8.4	10/08/2016	0.06
SCBEA18159	S.C.	Beaufort	32.19875	-80.71910	7.2	10/08/2016	0.10
SCBEA18162	S.C.	Beaufort	32.16241	-80.78709	7.8	10/08/2016	0.06
SCBEA18163	S.C.	Beaufort	32.22653	-80.75534	9.3	10/08/2016	0.06
SCBEA18164	S.C.	Beaufort	32.25446	-80.80089	8.1	10/08/2016	0.27
SCBEA18165	S.C.	Beaufort	32.28459	-80.83587	8.6	10/08/2016	0.08
SCBEA18166	S.C.	Beaufort	32.29201	-80.85943	9.3	10/08/2016	0.08

Table 5. Hurricane Matthew peak storm-tide high-water mark data recorded by the U.S. Geological Survey in Florida, Georgia, and North and South Carolina, October 2016.—Continued

[HWM, high water mark; ft, foot; NAVD 88, North American Vertical Datum of 1988; UTC, Coordinated Universal Time; ±, plus or minus; Fla., Florida; Ga., Georgia; N.C., North Carolina; na, not applicable; S.C., South Carolina]

Site identification	State	County	Latitude	Longitude	HWM surveyed elevation	Peak storm-tide estimated date	HWM survey uncertainty
			Decimal degrees		(ft above NAVD 88)	(UTC)	(± ft)
SCBEA18200	S.C.	Beaufort	32.30736	-80.50075	8.1	10/08/2016	0.11
SCBEA18235	S.C.	Beaufort	32.30906	-80.49300	8.4	10/08/2016	0.11
SCBEA18244	S.C.	Beaufort	32.31454	-80.48090	7.5	10/08/2016	0.11
SCBEA18519	S.C.	Beaufort	32.33820	-80.85745	9.3	10/08/2016	0.18
SCBEA18531	S.C.	Beaufort	32.31961	-80.85699	8.0	10/08/2016	0.18
SCBEA18538	S.C.	Beaufort	32.34234	-80.84061	9.4	10/08/2016	0.18
SCBEA18543	S.C.	Beaufort	32.33041	-80.81367	7.5	10/08/2016	0.18
SCBEA18550	S.C.	Beaufort	32.37318	-80.71624	7.4	10/08/2016	0.11
SCBEA18551	S.C.	Beaufort	32.35078	-80.69949	6.0	10/08/2016	0.11
SCBEA18552	S.C.	Beaufort	32.32914	-80.71118	8.8	10/08/2016	0.11
SCBEA18553	S.C.	Beaufort	32.30663	-80.67593	7.6	10/08/2016	0.11
SCBEA18554	S.C.	Beaufort	32.35153	-80.67038	8.7	10/08/2016	0.11
SCBEA18555	S.C.	Beaufort	32.37058	-80.68704	5.5	10/08/2016	0.11
SCBEA18556	S.C.	Beaufort	32.38733	-80.67923	7.7	10/08/2016	0.11
SCBEA18557	S.C.	Beaufort	32.37132	-80.72931	7.3	10/08/2016	0.11
SCBEA18565	S.C.	Beaufort	32.34308	-80.46270	7.8	10/08/2016	0.12
SCBEA18566	S.C.	Beaufort	32.40460	-80.43369	7.5	10/08/2016	0.12
SCBEA18567	S.C.	Beaufort	32.41115	-80.43529	8.0	10/08/2016	0.12
SCBEA18569	S.C.	Beaufort	32.44738	-80.65794	7.2	10/08/2016	0.08
SCBEA18575	S.C.	Beaufort	32.50080	-80.67840	8.1	10/08/2016	0.08
SCBEA18589	S.C.	Beaufort	32.32598	-80.46957	5.9	10/08/2016	0.11
SCBEA18593	S.C.	Beaufort	32.31871	-80.46817	8.4	10/08/2016	0.11
SCCHA18114	S.C.	Charleston	32.79014	-79.92536	7.5	10/08/2016	0.00
SCCHA18116	S.C.	Charleston	32.77532	-79.92591	6.4	10/08/2016	0.02
SCCHA18118	S.C.	Charleston	32.79028	-79.92544	7.2	10/08/2016	0.00
SCCHA18119	S.C.	Charleston	32.76972	-79.93000	5.6	10/08/2016	0.02
SCCHA18121	S.C.	Charleston	32.56234	-80.18030	7.2	10/08/2016	0.20
SCCHA18123	S.C.	Charleston	32.55975	-80.17295	12.4	10/08/2016	0.20
SCCHA18124	S.C.	Charleston	32.55984	-80.17262	12.0	10/08/2016	0.20
SCCHA18127	S.C.	Charleston	32.55984	-80.17246	11.0	10/08/2016	0.20
SCCHA18129	S.C.	Charleston	32.56039	-80.16627	7.1	10/08/2016	0.20
SCCHA18131	S.C.	Charleston	32.58901	-80.12449	10.5	10/08/2016	0.02
SCCHA18132	S.C.	Charleston	32.56019	-80.16643	10.5	10/08/2016	0.20
SCCHA18133	S.C.	Charleston	32.59389	-80.11303	13.3	10/08/2016	0.02
SCCHA18134	S.C.	Charleston	32.56884	-80.16371	7.1	10/08/2016	0.20
SCCHA18138	S.C.	Charleston	32.57213	-80.16340	7.4	10/08/2016	0.20
SCCHA18140	S.C.	Charleston	32.58090	-80.15916	7.3	10/08/2016	0.20
SCCHA18143	S.C.	Charleston	32.64843	-79.95357	9.8	10/08/2016	0.03
SCCHA18144	S.C.	Charleston	32.68111	-79.89182	8.1	10/08/2016	na
SCCHA18145	S.C.	Charleston	32.65294	-79.94418	10.0	10/08/2016	0.03
SCCHA18146	S.C.	Charleston	32.65730	-79.93343	9.7	10/08/2016	0.03
SCCHA18150	S.C.	Charleston	32.66243	-79.92200	10.0	10/08/2016	0.03

Table 5. Hurricane Matthew peak storm-tide high-water mark data recorded by the U.S. Geological Survey in Florida, Georgia, and North and South Carolina, October 2016.—Continued

[HWM, high water mark; ft, foot; NAVD 88, North American Vertical Datum of 1988; UTC, Coordinated Universal Time; ±, plus or minus; Fla., Florida; Ga., Georgia; N.C., North Carolina; na, not applicable; S.C., South Carolina]

Site identification	State	County	Latitude	Longitude	HWM surveyed elevation (ft above NAVD 88)	Peak storm-tide estimated date (UTC)	HWM survey uncertainty (± ft)
			Decimal degrees				
SCCHA18151	S.C.	Charleston	32.66581	-79.91491	7.6	10/08/2016	0.03
SCCHA18152	S.C.	Charleston	32.56929	-80.18489	6.3	10/08/2016	0.20
SCCHA18168	S.C.	Charleston	32.81904	-79.98168	6.2	10/08/2016	0.03
SCCHA18169	S.C.	Charleston	32.82253	-80.01105	6.4	10/08/2016	0.03
SCCHA18170	S.C.	Charleston	32.80249	-79.93252	6.3	10/08/2016	0.00
SCCHA18173	S.C.	Charleston	32.75247	-79.91585	5.0	10/08/2016	0.06
SCCHA18177	S.C.	Charleston	32.77644	-79.96342	6.3	10/08/2016	0.03
SCCHA18182	S.C.	Charleston	32.83326	-79.93830	6.1	10/08/2016	0.00
SCCHA18209	S.C.	Charleston	32.87029	-79.96685	6.1	10/08/2016	0.00
SCCHA18254	S.C.	Charleston	32.95230	-79.64658	6.5	10/08/2016	0.00
SCCHA18271	S.C.	Charleston	32.96174	-79.64136	7.0	10/08/2016	0.00
SCCHA18290	S.C.	Charleston	32.98112	-79.62443	6.2	10/08/2016	0.00
SCCHA18301	S.C.	Charleston	33.00480	-79.59903	7.1	10/08/2016	0.00
SCCHA18305	S.C.	Charleston	32.81322	-79.72039	6.5	10/08/2016	0.12
SCCHA18306	S.C.	Charleston	32.80561	-79.76093	4.6	10/08/2016	0.12
SCCHA18308	S.C.	Charleston	32.79857	-79.74988	7.9	10/08/2016	0.12
SCCHA18309	S.C.	Charleston	32.81067	-79.73749	5.9	10/08/2016	0.12
SCCHA18310	S.C.	Charleston	32.66613	-79.91438	9.7	10/08/2016	0.03
SCCHA18311	S.C.	Charleston	32.78565	-79.78556	8.6	10/08/2016	0.19
SCCHA18312	S.C.	Charleston	32.78322	-79.79812	3.6	10/08/2016	0.19
SCCHA18313	S.C.	Charleston	32.77162	-79.81486	8.4	10/08/2016	0.19
SCCHA18315	S.C.	Charleston	32.76485	-79.86261	5.7	10/08/2016	0.19
SCCHA18316	S.C.	Charleston	32.75652	-79.84208	6.4	10/08/2016	0.19
SCCHA18464	S.C.	Charleston	32.77330	-79.86280	6.1	10/08/2016	0.19
SCCHA18465	S.C.	Charleston	32.77344	-79.86294	5.0	10/08/2016	0.19
SCCHA18467	S.C.	Charleston	32.78593	-79.90679	6.2	10/08/2016	0.24
SCCOL17959	S.C.	Colleton	32.51338	-80.29149	7.8	10/08/2016	0.07
SCCOL17960	S.C.	Colleton	32.51510	-80.28789	8.0	10/08/2016	0.07
SCCOL17993	S.C.	Colleton	32.49549	-80.34517	6.8	10/08/2016	0.13
SCCOL18001	S.C.	Colleton	32.48280	-80.33997	7.6	10/08/2016	0.13
SCCOL18002	S.C.	Colleton	32.47959	-80.33358	7.8	10/08/2016	0.13
SCCOL18003	S.C.	Colleton	32.48420	-80.32555	8.0	10/08/2016	0.13
SCCOL18006	S.C.	Colleton	32.48842	-80.31854	8.1	10/08/2016	0.13
SCCOL18012	S.C.	Colleton	32.49425	-80.31028	8.1	10/08/2016	0.13
SCCOL18017	S.C.	Colleton	32.49966	-80.30216	9.2	10/08/2016	0.13
SCCOL18021	S.C.	Colleton	32.49912	-80.30293	9.4	10/08/2016	0.13
SCCOL18023	S.C.	Colleton	32.50239	-80.29849	8.2	10/08/2016	0.13
SCCOL18026	S.C.	Colleton	32.50426	-80.29768	6.8	10/08/2016	0.13
SCCOL18544	S.C.	Colleton	32.47914	-80.33070	10.2	10/08/2016	0.07
SCCOL18545	S.C.	Colleton	32.48859	-80.31727	9.0	10/08/2016	0.07
SCCOL18546	S.C.	Colleton	32.49997	-80.30113	9.3	10/08/2016	0.07
SCCOL18547	S.C.	Colleton	32.50837	-80.28982	8.1	10/08/2016	0.07

Table 5. Hurricane Matthew peak storm-tide high-water mark data recorded by the U.S. Geological Survey in Florida, Georgia, and North and South Carolina, October 2016.—Continued

[HWM, high water mark; ft, foot; NAVD 88, North American Vertical Datum of 1988; UTC, Coordinated Universal Time; ±, plus or minus; Fla., Florida; Ga., Georgia; N.C., North Carolina; na, not applicable; S.C., South Carolina]

Site identification	State	County	Latitude	Longitude	HWM surveyed elevation	Peak storm-tide estimated date	HWM survey uncertainty
			Decimal degrees		(ft above NAVD 88)	(UTC)	(± ft)
SCGEO17921	S.C.	Georgetown	33.53133	-79.05689	7.6	10/08/2016	0.03
SCGEO17922	S.C.	Georgetown	33.53386	-79.05419	7.7	10/08/2016	0.14
SCGEO17923	S.C.	Georgetown	33.53619	-79.05350	7.9	10/08/2016	0.14
SCGEO17925	S.C.	Georgetown	33.53828	-79.05133	6.9	10/08/2016	0.14
SCGEO17931	S.C.	Georgetown	33.57135	-79.00501	7.4	10/08/2016	0.24
SCGEO17934	S.C.	Georgetown	33.54350	-79.04725	6.7	10/08/2016	0.14
SCGEO17941	S.C.	Georgetown	33.54692	-79.04361	7.2	10/08/2016	0.14
SCGEO17942	S.C.	Georgetown	33.53469	-79.03074	7.2	10/08/2016	0.24
SCGEO17947	S.C.	Georgetown	33.56064	-79.02881	7.4	10/08/2016	0.04
SCGEO17948	S.C.	Georgetown	33.54230	-79.02355	9.2	10/08/2016	0.24
SCGEO17948	S.C.	Georgetown	33.54230	-79.02355	9.3	10/08/2016	0.24
SCGEO18037	S.C.	Georgetown	33.56572	-79.02417	7.5	10/08/2016	0.05
SCGEO18041	S.C.	Georgetown	33.56964	-79.02406	7.6	10/08/2016	0.05
SCGEO18046	S.C.	Georgetown	33.57117	-79.01733	6.8	10/08/2016	0.04
SCGEO18428	S.C.	Georgetown	33.30446	-79.29340	7.1	10/08/2016	0.07
SCGEO18431	S.C.	Georgetown	33.30623	-79.29369	5.7	10/08/2016	0.07
SCGEO18452	S.C.	Georgetown	33.35764	-79.15313	7.6	10/08/2016	0.14
SCGEO18468	S.C.	Georgetown	33.44426	-79.11353	6.4	10/08/2016	0.17
SCGEO18469	S.C.	Georgetown	33.43836	-79.11722	7.5	10/08/2016	0.17
SCGEO18470	S.C.	Georgetown	33.43414	-79.12035	8.1	10/08/2016	0.17
SCGEO18471	S.C.	Georgetown	33.42766	-79.12290	7.6	10/08/2016	0.17
SCGEO18472	S.C.	Georgetown	33.41859	-79.12838	7.4	10/08/2016	0.17
SCGEO18473	S.C.	Georgetown	33.41298	-79.13188	7.4	10/08/2016	0.17
SCGEO18475	S.C.	Georgetown	33.40170	-79.13778	8.3	10/08/2016	0.17
SCGEO18477	S.C.	Georgetown	33.44929	-79.11743	7.8	10/08/2016	0.05
SCGEO18488	S.C.	Georgetown	33.46826	-79.09683	9.7	10/08/2016	0.05
SCGEO18506	S.C.	Georgetown	33.49341	-79.07487	10.1	10/08/2016	0.05
SCGEO18526	S.C.	Georgetown	33.51603	-79.05048	7.7	10/08/2016	0.05
SCGEO18528	S.C.	Georgetown	33.51597	-79.05104	7.7	10/08/2016	0.05
SCHOR18029	S.C.	Horry	33.57734	-78.99934	6.9	10/08/2016	0.09
SCHOR18029	S.C.	Horry	33.57724	-78.99897	6.9	10/08/2016	0.09
SCHOR18048	S.C.	Horry	33.57533	-79.01186	6.7	10/08/2016	0.09
SCHOR18051	S.C.	Horry	33.57831	-79.00683	7.5	10/08/2016	0.09
SCHOR18055	S.C.	Horry	33.57681	-79.00056	7.2	10/08/2016	0.09
SCHOR18062	S.C.	Horry	33.57286	-79.00383	7.2	10/08/2016	0.09
SCHOR18074	S.C.	Horry	33.71340	-78.85369	10.1	10/08/2016	0.03
SCHOR18076	S.C.	Horry	33.58153	-78.99658	7.0	10/08/2016	0.03
SCHOR18084	S.C.	Horry	33.58739	-78.99283	7.0	10/08/2016	0.03
SCHOR18101	S.C.	Horry	33.58872	-78.98836	8.3	10/08/2016	0.04
SCHOR18108	S.C.	Horry	33.72400	-78.84037	9.2	10/08/2016	0.03
SCHOR18204	S.C.	Horry	33.84104	-78.60469	7.5	10/08/2016	0.09
SCHOR18212	S.C.	Horry	33.76990	-78.77247	10.8	10/08/2016	0.10

Table 5. Hurricane Matthew peak storm-tide high-water mark data recorded by the U.S. Geological Survey in Florida, Georgia, and North and South Carolina, October 2016.—Continued

[HWM, high water mark; ft, foot; NAVD 88, North American Vertical Datum of 1988; UTC, Coordinated Universal Time; ±, plus or minus; Fla., Florida; Ga., Georgia; N.C., North Carolina; na, not applicable; S.C., South Carolina]

Site identification	State	County	Latitude	Longitude	HWM surveyed elevation (ft above NAVD 88)	Peak storm-tide estimated date (UTC)	HWM survey uncertainty (± ft)
			Decimal degrees				
SCHOR18213	S.C.	Horry	33.83741	-78.62368	7.6	10/08/2016	0.09
SCHOR18218	S.C.	Horry	33.83369	-78.63661	7.6	10/08/2016	0.09
SCHOR18218	S.C.	Horry	33.83369	-78.63661	7.6	10/08/2016	0.09
SCHOR18228	S.C.	Horry	33.78890	-78.74073	8.0	10/08/2016	0.10
SCHOR18258	S.C.	Horry	33.83162	-78.64418	7.2	10/08/2016	0.09
SCHOR18266	S.C.	Horry	33.59414	-78.98275	9.5	10/08/2016	0.04
SCHOR18270	S.C.	Horry	33.83757	-78.64270	7.9	10/08/2016	0.07
SCHOR18275	S.C.	Horry	33.59819	-78.97908	9.4	10/08/2016	0.07
SCHOR18278	S.C.	Horry	33.79816	-78.71972	10.2	10/08/2016	0.07
SCHOR18279	S.C.	Horry	33.60161	-78.97542	8.2	10/08/2016	0.03
SCHOR18283	S.C.	Horry	33.60533	-78.97194	8.6	10/08/2016	0.03
SCHOR18289	S.C.	Horry	33.61375	-78.96461	7.9	10/08/2016	0.03
SCHOR18294	S.C.	Horry	33.63897	-78.94700	7.9	10/08/2016	0.06
SCHOR18299	S.C.	Horry	33.64325	-78.93753	7.6	10/08/2016	0.06
SCHOR18340	S.C.	Horry	33.80941	-78.69494	10.1	10/08/2016	0.07
SCHOR18359	S.C.	Horry	33.81698	-78.67542	10.0	10/08/2016	0.07
SCHOR18385	S.C.	Horry	33.68459	-78.88617	9.6	10/08/2016	0.03
SCHOR18390	S.C.	Horry	33.69060	-78.88033	11.2	10/08/2016	0.03
SCHOR18392	S.C.	Horry	33.69673	-78.87376	10.6	10/08/2016	0.03
SCHOR18445	S.C.	Horry	33.70261	-78.86727	9.8	10/08/2016	0.03
SCHOR18448	S.C.	Horry	33.82398	-78.65460	11.4	10/08/2016	0.07
SCHOR18448	S.C.	Horry	33.82398	-78.65460	11.4	10/08/2016	0.07
SCHOR18453	S.C.	Horry	33.80175	-78.71220	10.2	10/08/2016	0.07
SCHOR18460	S.C.	Horry	33.70864	-78.85986	9.3	10/08/2016	0.03
SCHOR18461	S.C.	Horry	33.80615	-78.70174	12.6	10/08/2016	0.07
SCHOR18463	S.C.	Horry	33.72965	-78.83259	9.2	10/08/2016	0.10
SCHOR18494	S.C.	Horry	33.73769	-78.82161	9.9	10/08/2016	0.10
SCHOR18494	S.C.	Horry	33.73769	-78.82161	9.5	10/08/2016	0.10
SCHOR18494	S.C.	Horry	33.73769	-78.82161	8.8	10/08/2016	0.10
SCHOR18496	S.C.	Horry	33.61536	-78.96220	11.5	10/08/2016	0.03
SCHOR18498	S.C.	Horry	33.61744	-78.96049	8.5	10/08/2016	0.07
SCHOR18502	S.C.	Horry	33.74632	-78.80930	11.6	10/08/2016	0.10
SCHOR18502	S.C.	Horry	33.74632	-78.80930	10.9	10/08/2016	0.10
SCHOR18503	S.C.	Horry	33.62134	-78.95776	8.9	10/08/2016	0.07
SCHOR18508	S.C.	Horry	33.65418	-78.92102	10.5	10/08/2016	0.06
SCHOR18511	S.C.	Horry	33.66201	-78.91402	8.5	10/08/2016	0.06
SCHOR18514	S.C.	Horry	33.67808	-78.89435	9.3	10/08/2016	0.06
SCHOR18515	S.C.	Horry	33.62828	-78.95023	10.3	10/08/2016	0.06
SCHOR18518	S.C.	Horry	33.68058	-78.89115	8.8	10/08/2016	0.06

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