



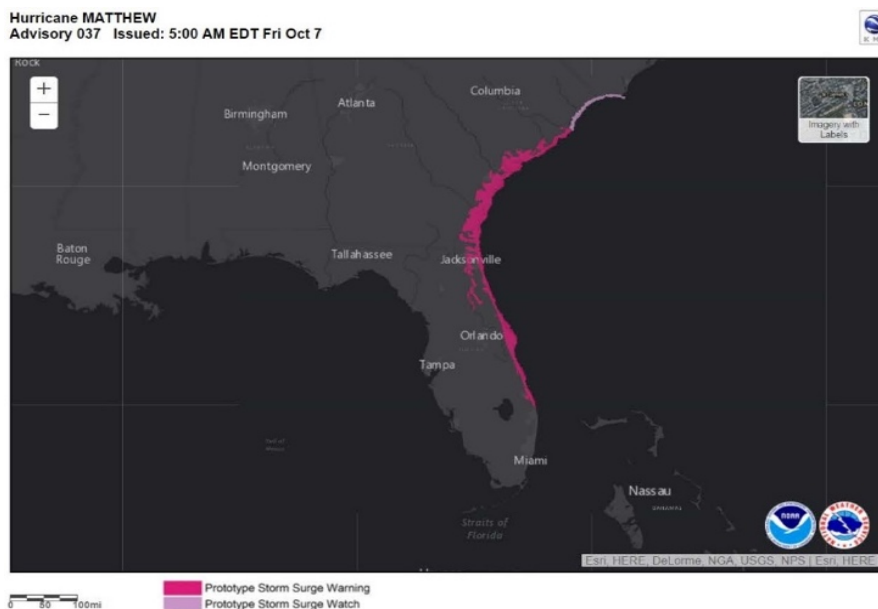
## Storm surge watch & warning to become operational in 2017

*Will be tailored to the specific locations at risk for life-threatening storm surge flooding*

Beginning with the 2017 hurricane season, the National Weather Service (NWS) will issue storm surge watches and warnings to highlight areas along the Gulf and Atlantic coasts of the continental United States that have a significant risk of life-threatening inundation from an ongoing or potential tropical cyclone, a subtropical cyclone, or a post-tropical cyclone.

Storm surge is often the greatest threat to life and property from a tropical cyclone, and it can occur at different times and at different locations from a storm's hazardous winds. In addition, while most coastal residents can remain in their homes and be safe from a tropical cyclone's winds, evacuations are generally needed to keep people safe from storm surge. Having separate warnings for these two hazards should provide emergency managers, the media, and the general public better guidance on the hazards they face when tropical cyclones threaten.

The storm surge watch/warning areas are determined by a collaborative process between the National Hurricane Center (NHC) and local NWS Weather Forecast Offices (WFOs). The primary objective guidance will be P-Surge, an ensemble-based probabilistic system driven by the SLOSH model, the latest NHC official tropical cyclone forecast, and the typical historical errors associated with NHC forecasts. Forecaster confidence, continuity from advisory to advisory, and other subjective factors will also help determine the areas placed under a watch or warning. A graphic depicting the watch and warning areas will be available on the NHC website ([www.hurricanes.gov](http://www.hurricanes.gov)) whenever these watches/warnings are in effect. Below is an example of the graphic:



In addition to the graphic, the watch and warning areas will be included in Hurricane Local Statements issued by NWS Forecast Offices, and in the NHC Public Advisory.

The definitions of the new storm surge watch and warning are:

*Storm Surge Watch:* The possibility of life-threatening inundation from rising water moving inland from the shoreline somewhere within the specified area, generally within 48 hours, in association with an ongoing or potential tropical cyclone, a subtropical cyclone, or a post-tropical cyclone. The watch may be issued earlier when other conditions, such as the onset of tropical storm-force winds, are expected to limit the time available to take protective actions for surge (e.g., evacuations). The watch may also be issued for locations not expected to receive life-threatening inundation, but which could potentially be isolated by inundation in adjacent areas.

*Storm Surge Warning:* The danger of life-threatening inundation from rising water moving inland from the shoreline somewhere within the specified area, generally within 36 hours, in association with an ongoing or potential tropical cyclone, a subtropical cyclone, or a post-tropical cyclone. The warning may be issued earlier when other conditions, such as the onset of tropical storm-force winds, are expected to limit the time available to take protective actions for surge (e.g., evacuations). The warning may also be issued for locations not expected to receive life-threatening inundation, but which could potentially be isolated by inundation in adjacent areas.

The Potential Storm Surge Flooding Map, which became operational in 2016, will continue to be issued in 2017. This product provides quantitative information on the storm surge hazard associated with tropical cyclones, highlighting geographical areas where inundation from storm surge could occur and the height above ground that the water could reach. The map depicts inundation levels that have a 10 percent chance of being exceeded, which can be thought of as representing a reasonable worst-case scenario for any individual location. The first map is usually issued at the same time as the initial hurricane watch, although in some cases it will be issued with the initial tropical storm watch. The map is based on the latest forecast track and intensity for the tropical cyclone, and takes in to account likely forecast errors. The map is subject to change every six hours in association with each new NHC full advisory package, and is generally available about 60 to 90 minutes following the advisory release.

Storm surge watches and warnings will only be issued for the Atlantic and Gulf Coasts of the continental United States, and only during ongoing or potential tropical cyclone, subtropical cyclone, or post-tropical cyclone events for areas that have the potential for life-threatening coastal inundation. Coastal flood watches, warnings, and advisories are used for alerting the public for all other coastal flooding threats. For example, coastal flood watches and/or warnings may be issued for unusually high tides, or when there are persistent onshore winds that have pushed water into places it does not normally go. Coastal flood advisories are issued for coastal flooding that is not expected to be life-threatening and can be issued in areas adjacent to a storm surge watch or warning.

Note that the NHC Public Advisory also contains quantitative estimates of inundation, but these will differ from the values shown the Potential Storm Surge Flooding Map. The NHC Public Advisory is not point-specific, but instead attempts to estimate the highest expected inundation that will occur anywhere within fairly long stretches of coastline, while the Potential Storm Surge Flooding Map describes a reasonable worst-case scenario for specific locations.

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