



NWS Storm Surge Watch/Warning Tips for Media Professionals



Beginning with the 2017 hurricane season, NOAA's 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.

Why the emphasis on the storm surge hazard?

Storm surge is often the greatest threat to life and property from a tropical cyclone, and it doesn't always occur at the same times or locations as a storm's hazardous winds. In addition, while in most cases coastal residents can remain in their homes (or in a secure structure nearby) 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 will save lives by better identifying the specific tropical cyclone hazards communities face.

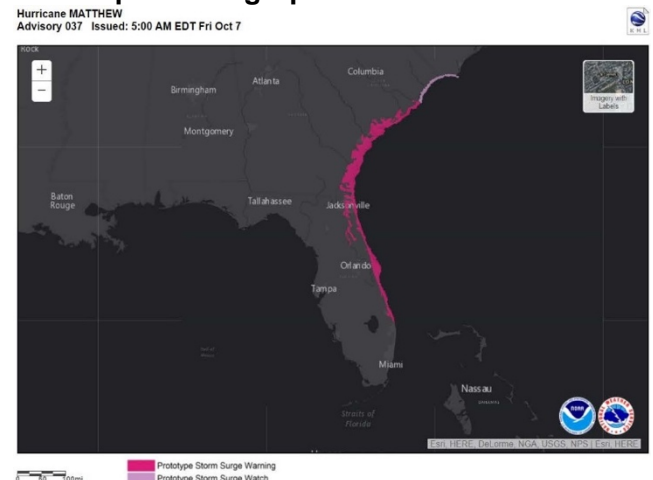
The Storm Surge Watch/Warning will be the first NWS grid-based warning

The storm surge watch/warning will be the first grid-based watch/warning from the NWS. The areas placed under a watch or warning will be tailored to the specific locations at risk, rather than be issued for entire counties or NWS zones. Some dissemination systems, such as wireless emergency alerts received by cell phone, will require future enhancements to enable them to alert for the customized areas. Users who rely on VTEC (Valid Time Event Code) to depict NWS watches/warnings are highly encouraged to instead use the KML files provided with the storm surge watch/warning graphic on the National Hurricane Center (NHC) website (www.hurricanes.gov), because the VTEC will show an alert for an entire NWS zone. This zone will generally be a larger area than the intended grid-based watch/warning area.

How will the NWS determine the areas placed under a storm surge watch or warning?

The storm surge watch/warning areas are determined by a collaborative process between the 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) whenever these watches/warnings are in effect.

Figure 1. Example of the Storm Surge Watch/Warning Graphic. Note the link in the top right corner to the KML file that also depicts the graphic.



Where else can I find information about these watches and warnings during a storm?

Real-time information about active storm surge watches and warnings can be found in the Hurricane Local Statement (HLS) and Hurricane Local Watch/Warning (TCV) products from NWS WFOs, the NHC Public Advisory, and the storm surge watch/warning graphic available on the NHC website. The NWS will also be revamping its National Tropical Cyclone Watch/Warning (National TCV) text product for the Atlantic basin in 2017. This VTEC product will now consolidate coastal and inland tropical cyclone watch and warning information from all NWS offices into a single message.

What are the NWS Storm Surge Watch/Warning Definitions?

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.*

Will the Potential Storm Surge Flooding Map still be available?

The Potential Storm Surge Flooding Map became operational in 2016 and will continue to be available on the NHC website. This product provides objective, quantitative information on the tropical cyclone storm surge hazard, highlighting 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.

What's the difference between Coastal Flood Watches/Warnings and Storm Surge Watches/Warnings?

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.