

National Weather Service Product Description Document (PDD)

Experimental Rip Current Risk Graphic

March 2017

Part 1 – Mission Connection

1. Product / Service Description:

Rip Current fatalities and rescues are a consistent and significant problem along the beaches served by National Weather Service (NWS) offices. The U.S. Lifesaving Association estimates there are over 100 rip current related fatalities and nearly 30,000 rip current related rescues per year in the U.S.

Most NWS coastal offices issue a Surf Zone Forecast (SRF) for the beaches/recreational coastlines in their forecast area. The SRF provides valuable information (via text) for recreational beachgoers such as weather, tides, UV Index and any surf zone hazards expected. One important part of the SRF is the rip current risk which is a forecast of expected rip current conditions for particular beaches using descriptors of low, moderate and high risk.

The rip current risk is only available in text format at this time. Rip currents can vary greatly on short time scales and small space scales and it can be difficult to describe a targeted area and time of threat only using text. The NWS has identified a need for a graphical version of the rip current risk.

The Experimental Rip Current Risk Graphic uses color coding to represent a low, moderate or high risk of rip currents occurring at particular beach areas in a Weather Forecast Office's (WFO's) forecast area. It is generated from a WFO's SRF and updated each time the SRF is issued. The graphic will be displayed on the Experimental Beach Forecast Webpage for each participating WFO.

A national map linking all of the Experimental Beach Forecast Webpages is located at: <http://www.weather.gov/beach>

2. Purpose/Intended Use:

The Experimental Rip Current Risk Graphic provides a simple and quick way of identifying targeted areas where rip currents are expected to be a hazard.

3. Audience:

This risk graphic is designed for a wide audience, ranging from the general public (especially recreational beach goers) to NWS core customers and partners.

4. Presentation Format:

The rip current risk graphic will be displayed via an Experimental Beach Forecast Webpage which is being tested at WFOs that produce the SRF.

An example can be seen at <http://www.weather.gov/beach/mob>

5. Feedback Method:

Web-based feedback from the broader community will be sought via an NWS Survey link (listed below) and posted on the Experimental Beach Forecast web sites through March 30, 2018.

www.nws.noaa.gov/survey/nws-survey.php?code=RIPCURRENTRISK

After the evaluation period, a decision to proceed with testing, revise the test, expand the test, or to continue on the path to operational implementation and expansion to other offices will be made.

Direct questions, comments, or suggestions about website to:

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Part 2 – Technical

1. Format and Science Basis:

The rip current risk information is displayed on a map via color-coded polygons. These polygons are provided by a Keyhole Markup Language file that is created at the local office by a script that is triggered by the creation of the office's SRF. The SRF is a text product generated by a forecaster in most cases, however, some NWS coastal offices automate the generation of their SRF.

An example of a rip current risk graphic is on the next page.



<p>Low (No Shading)</p>	<p>Life threatening rip currents often occur in the vicinity of inlets, groins, jetties, and piers. Always supervise those who cannot swim and remember to heed the advice of the local beach patrol and flag warning systems.</p>	<p>Select a shaded area on the map to view details.</p>
<p>Moderate</p>	<p>Swim near a lifeguard. Remember to heed the advice of the local beach patrol and flag warning systems.</p>	
<p>High</p>	<p>The surf is dangerous for all levels of swimmers. Remember to heed the advice of the local beach patrol and flag warning systems.</p>	

A webpage displaying a current rip current risk graphic can be

viewed here: <http://www.weather.gov/beach/mob>

2. Availability:

The rip current risk graphic is generated and updated when a SRF is issued by the WFO. The WFOs currently producing the experimental rip current risk graphic are...

WFO Boston, MA	WFO Mobile, AL
WFO Brownsville, TX	WFO Morehead City/Newport, NC,
WFO Charleston, SC	WFO Northern Indiana, IN
WFO Cleveland, OH	WFO Upton, NY
WFO Corpus Christi	WFO Los Angeles, CA
WFO Gray, ME	WFO San Diego, CA
WFO Jacksonville, FL	WFO Tallahassee, FL
WFO Melbourne, FL	WFO Wakefield, VA
WFO Miami, FL	WFO Wilmington, NC
WFO Mount Holly, NJ	

Links to all participating WFO's experimental beach forecast webpages can be seen here...

<http://www.weather.gov/beach>

Additional offices may begin providing the rip current risk graphic at some time during the comment period. An amended Public Information Statement will be issued at that time.

3. Additional Information: