

# New Point Forecast Icons Product Description Document (PDD) April 20, 2015

## Part 1 - Mission Connection

a. Product Description - Currently, icons used to depict forecast weather conditions on NWS' Point Forecast Pages are matched to the Zone Forecast Product based on a "*most hazardous* weather" philosophy. As a result, the weather conditions depicted via these icons are not always representative of the most current conditions. In addition, the icons do not currently depict existing weather hazards.

As a means to address this fact, and to enhance the clarity of the icons, the following enhancements are proposed to identify and display changing weather conditions during individual 6-hour periods out to Day 4:

- Implement a new set of icon images designed to be more visually discernable and specific. These new icons are depicted side-by-side with the current icons at: <http://innovation.srh.noaa.gov/newicons/icons.html>
- Currently we show only one icon to cover each of nine, 12-hour periods out to 4.5 days. Under the new approach, icons will cover either 12-hour periods or dual, 6-hour periods when there are rapid changes in the weather. Examples of such rapid changes during 12-hour periods may include cases when morning rain gives way to afternoon sunshine, or when precipitation changes from rain to snow overnight. The four, 6-hour periods for possible use will start at 6 am, noon, 6 pm and midnight, all adjusted to local time. When dual icons are used within any given 12-hour period, the transition between them will be indicated by a vertical line.
- When used, the dual icons will also feature new text phrases beneath them to concisely describe expected changes in the weather. To support this change, we will also adjust some of the phrases used beneath all 12-hour and dual icons. The link below provides a table depicting current phrases side-by-side with the new phrasing: <http://www.weather.gov/eax/pointforecasttextphrase>

The link below offers examples of how the new dual icons, new text phrases and vertical lines will appear: <http://www.weather.gov/eax/pointforecastdualimage>

- When Watches, Warnings and Advisories (WWA), respectively, are in effect, we will add color blocks around the icons to depict how long they will be in effect. Specifically, we will add yellow blocks for "Watches", red blocks for "Warnings" and orange blocks for "Advisories". These color blocks will be applied in two different ways according to the situation, as follows:
  - a) When one or more WWAs are in effect "NOW" (i.e., at the time the user clicks), we will add a new color block as the left-most icon. In these cases, we will also

drop the right-most icon for 4.5 days in advance, and the icon for the period already underway will be moved to the right one position, becoming the second icon.

- b) We will also use color blocks to indicate the full temporal extent of WWAs in effect out to 4.5 days (4 days if a “NOW” box is used). The length of the color blocks will match the length of time the associated WWA(s) is (are) in effect.

In both a) and b), we will add a new capability to allow users to identify the fully identify the WWAs in effect, as well as its (their) duration. For the “NOW” block, users may click anywhere within the block to view this information. For all WWAs in effect “beyond NOW”, users may click on the grey information icon (indicated by a circled, lower case “i”) provided above the left-most icons.

Details on the methodology used for drawing the color blocks are provided at:

<http://www.weather.gov/eax/pointforecastheadlines>

- When the forecast probability of precipitation changes by at least 30 percent during any 12-hour period, we will use dual icons and will display an arrow between the 6-hour icons depicting the change in probability.

An example of how the arrows will be depicted is provided at:

<http://www.weather.gov/eax/pointforecastvaryingpop>

We are making these changes based on our analysis of 6,700 comments collected following issuance of a [Public Information Notice](#) on February 27, 2014. Also, many of these changes are based on the results of a research project led by the National Center for Atmospheric Research ([Demuth, Lazo, & Morss, 2012](#); [Demuth, Morss, Lazo, & Hilderbrand, 2013](#)).

- b. Purpose** - The new icons are intended to enhance communication of rapidly changing weather conditions, while also highlighting current weather hazards.
- c. Audience** - The audience includes NWS partners, the public, emergency managers, the media, academia, and other users who view NWS’ Point Forecast Pages to view the latest forecasts.
- d. Presentation Format** - The icons will be split for each 12-h period when weather conditions warrant a significant change. Yellow, red and orange blocks around the icons will appear to indicate when Watches, Warnings and Advisories, respectively, are in effect.
- e. Feedback Method** - A Public Information Statement (PNS) was issued on February 27, 2014 for 30 days linking to a static web link and providing examples of the changes proposed. About 6,700 comments were received. The feedback was generally positive and supportive of the proposed changes. A small group of users believed the current icons were acceptable and did not recommend any changes. Additionally, some users did not support the “flag icon” for wind. We have listened to this feedback and created a

wind sock to display breezy and windy forecasts. A Service Change Notice will be issued on April 20, 2015 providing a 75-day notification period for implementation, scheduled on July 7, 2015. During this period, to view how these changes will appear, partners and users may preview the new icons by clicking on the banner at the top of any Point Forecast page that reads: "Preview NWS' New Point Forecast Icons" and following the instructions provided.

The NWS continually looks for ways to improve its products and services. Partners and users are encouraged to provide comments regarding the new weather forecast icons which will become effective on July 7, 2015.

## **Part II – Technical Description**

### **a. Format and Science:**

- The proposed new icons can be accessed at this link:

<http://innovation.srh.noaa.gov/newicons/icons.html>

- Details on the methodology used to create dual icons, color blocks, and varying POP arrows can be accessed at the following links, respectively:

<http://www.weather.gov/eax/pointforecastdualimage>

<http://www.weather.gov/eax/pointforecastheadlines>

<http://www.weather.gov/eax/pointforecastvaryingpop>

- Sample “current” and “proposed new” icons may be previewed by clicking on the banner that reads "Preview NWS' New Point Forecast Icons" from any Point Forecast page and following the instructions provided.

**b. Product Availability** – The current icons (and any revisions to them based on the comments received) can be accessed for each NWS Forecast Office via the NWS’ Point Forecast Page.

### **c. Additional Information** - Please contact:

Eli Jacks  
National Weather Service  
Analyze, Forecast and Support Office  
Silver Spring, Maryland 20910  
icons@noaa.gov