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PNSWSH

Service Change Notice 14-11
National Weather Service Headquarters Washington DC
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From: Mark Tew
Chief, Marine and Coastal Weather Services Branch

Subject: Changes to text Tropical Cyclone Wind Speed Probability
Product Effective May 15, 2014

Effective May 15, 2014 the following changes will take place with the text Tropical Cyclone Wind Speed Probability (PWS) product issued by the National Hurricane Center and Central Pacific Hurricane Center:

1. Removal of Maximum Wind Speed (Intensity) Probability Table (Table I) This table gives the likelihood that a tropical cyclone will be at any of several different intensity categories (e.g., depression, storm, category 1 hurricane, etc.) at fixed points in time (e.g., 12 hours, 24 hours, 36 hours, etc.). These probabilities are estimated by creating a large number of potential track and intensity scenarios based on the latest official forecast and a climatological error distribution. NHC has learned that many users consult this table to estimate the chances that a tropical cyclone will make landfall at one or more of the various intensity categories. Unfortunately, the current methodology provides a highly misleading estimate of landfall intensity.

The problem can be seen by considering a storm that is forecast to be just offshore at 72 hours. A sizable fraction of the potential scenarios have already encountered land by that time, and for these over-land scenarios the expected intensity at 72 hours will be much lower than what would be expected for a storm that was still over water and about to make landfall. Even though the table accurately assesses what the intensity is likely to be at 72 hours, it grossly underestimates the likely intensity for when the storm comes ashore.

The table was originally intended to help users assess the risk of different categories of storms at particular times, and for storms well away from land the product serves that

function well; however, because of the high likelihood of misuse for land-threatening storms, and the consequences of that misuse for the general public, NHC and CPHC are discontinuing this table until a better procedure to estimate intensity risk can be developed.

2. Wind Speed Probability Table for Specific Locations (Table II) - The name of one of the parameters in this table will change from Individual Probability (IP) to Onset Probability (OP). This parameter is defined as the probability of the event beginning during an individual time period (e.g., between 24 and 36 hours). The name Onset probability better highlights the difference between this parameter, which provides information on when the event is likely to begin, and the Cumulative Probability, which describes the likelihood that the event will occur at all.

The PWS can be found online at:

Atlantic and east Pacific basin: <http://www.nhc.noaa.gov/>

Central Pacific basin: <http://www.prh.noaa.gov/cphc>

The WMO headers and AWIPS Identifiers (AI) for the PWS are:

| Basin | WMO Header | AI |
|-----------------|------------------|---------------|
| Atlantic | FONT/11-15/ KNHC | MIAPWSAT/1-5/ |
| East Pacific | FOPZ/11-15/ KNHC | MIAPWSEP/1-5/ |
| Central Pacific | FOPA/11-15/ PHFO | HFOPWSCP/1-5/ |

An example of the changes can be found at:

www.nhc.noaa.gov/news/20140228_hsu_windProbsTextChanges.php

In addition, NWS will no longer provide the stand-alone Intensity (Maximum Wind Speed) Probability graphic. This graphic contained the identical information to Table I of the PWS product, which is being discontinued.

If you have comments or questions please contact:

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National Public Information Statements are online at:

<http://www.nws.noaa.gov/om/notif.htm>

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