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Public Information Statement
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From: Mark Tew
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Subject: Minor Modification of Saffir-Simpson Hurricane Wind
Scale Thresholds Effective May 15, 2012

Effective May 15, 2012, the Saffir-Simpson Hurricane Wind Scale (SSHWS) will be adjusted slightly to resolve issues associated with the conversion of units used for wind speed. This change follows a public comment period conducted in 2011.

The National Hurricane Center (NHC) and Central Pacific Hurricane (CPHC) assign intensities of hurricanes in 5-knot (kt) increments. For advisory products, these intensities are converted to miles per hour (mph) and kilometers per hour (km/h), and then rounded to the nearest 5-mph or 5-km/h increments. Challenges occur when the current Category 4 intensity is 115 kt (132.3 mph). Although 115 kt is within the Category 4 range, the equivalent rounded wind speed in mph is 130 mph, which is in the Category 3 range. To classify the hurricane as a Category 4 in both sets of units (kt and mph), NHC and CPHC must incorrectly convert 115 kt to 135 mph in the advisory products. A similar issue occurs when the current Category 4 intensity of 135 kt is converted to km/h.

Effective May 15, 2012, to resolve these rounding issues, Category 4 on the SSHWS will be broadened by one mph at each end of the range, yielding a new range of 130-156 mph. This will also result in a minor modification of the Category 3 and 5 wind speed thresholds. The SSHWS will change as follows:

From:

Category 3: 111-130 mph (96-113 kt, 178-209 km/h)
Category 4: 131-155 mph (114-135 kt, 210-249 km/h)
Category 5: 156 mph or higher (136 kt or higher, 250 km/h or higher)

To:

Category 3: 111-129 mph (96-112 kt, 178-208 km/h)
Category 4: 130-156 mph (113-136 kt, 209-251 km/h)
Category 5: 157 mph or higher (137 kt or higher, 252 km/h or higher)

There will be no change to the wind speeds currently assigned to Categories 1 and 2.

With this change, a 115-kt Category 4 hurricane will have its intensity properly converted to mph and rounded to the nearest 5 mph (130 mph) and remain within the Category 4 mph range.

Important note: Since intensities are assigned using 5-kt increments, neither storms in the historical record nor any future storms will have their SSHWS category changed as a result of this modification to the scale.

The NWS wishes to remind media, partners, and the public the Saffir-Simpson Hurricane Wind Scale provides information on wind impacts only. The scale does not provide commentary or information on other impacts or characteristics of tropical cyclones.

Additional information on this change can be found at:

<http://www.nhc.noaa.gov/aboutsshws.php>

If you have any questions, please contact

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National Public Information Notices are online at:

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

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