

Tropical Cyclone Surface Wind Speed Probabilities - Graphical

PRODUCT DESCRIPTION DOCUMENT (PDD)

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Part I - Mission Connection

- a. Product Description - The Tropical Cyclone Surface Wind Speed Probabilities product displays probabilities in percent of sustained wind speeds equal to or exceeding 34-, 50-, and 64-knot wind speed thresholds. These wind speed probabilities are based on the track, intensity, and wind structure uncertainties in the official forecasts from the National Hurricane Center, Central Pacific Hurricane Center, and the Joint Typhoon Warning Center.
- b. Purpose – Customers have requested additional tropical cyclone probabilistic information and the National Research Council’s Fair Weather Report encourages probabilistic products.
- c. Audience - The general public is the primary target audience. However, this product will be widely used by federal, state, and local government agencies; state and local emergency managers; nations in the Americas and Caribbean, Pacific, media and maritime interests.
- d. Presentation Format – Graphical products will be displayed on the Internet.
- e. Feedback Method - Continuous feedback is welcomed via existing NWS feedback mechanisms, such as an e-mail via the webmasters at the National Hurricane Center, Central Pacific Hurricane Center, or WFO Guam.

Technical or policy questions about this product may be directed to:

National Weather Service
Attn: Scott Kiser, OS21
1325 East-West Highway, Room 13126
Silver Spring, MD 20910

or e-mail questions and comments to: Scott.Kiser@noaa.gov

Part II – Technical Description

- a. Format & Science Basis - The products are statistically produced and are based upon the track, intensity, and wind structure uncertainties in the official tropical cyclone forecasts produced by the respective tropical cyclone centers. Probabilities will be produced for three wind speed thresholds (34-, 50- and 64- knots) at 12 hour intervals from 0 through 120 hours. These products will provide cumulative probabilities through each 12 hour interval (e.g. 0 -12 hours, 0- 24 hours, etc.). These products will be available in static and animated formats. These cumulative probabilities indicate the overall chance that the particular wind speed will occur at each location during the period between hour 0 and the forecast hour.

b. Product Availability - These products will be available no earlier than 15 minutes following the issuance deadlines for routine advisories (03, 09, 15, and 21 Coordinated Universal Time – UTC) and after special advisories for all tropical and/or subtropical cyclones. Since the probabilities for all active tropical cyclones are computed over a single domain, the product cannot be issued until after the advisory issuance deadlines, to ensure all active systems are included in the probability calculations.

c. Product Examples – The products will be posted on the NHC, CPHC, and WFO Guam web pages when there are tropical cyclones in their respective areas of responsibility. A static example is posted on line at:

<http://www.nhc.noaa.gov/aboutnhcgraphics.shtml>

d. Additional Information – A full description of this and other NWS Tropical Cyclone Services Program Products is provided in NWSI 10-601, which is available on line at:

http://www.nws.noaa.gov/directives/010/operation_services.htm