

# **PRODUCT DESCRIPTION DOCUMENT**

## **The Global Tropics Hazards / Benefits Assessment Effective December 22, 2008**

**APPROVED**   signed NWSI 10-1001      **Date: November 14, 2008**  
David B. Caldwell  
Director, Office of Climate, Water and Weather Services

**The Global Tropics/Hazards Benefits Assessment  
NWS Product Definition Document (PDD)  
Effective December 22, 2008**

**Part 1 - Mission Connection**

- a. Product Description: The Global Tropics Hazards / Benefits Assessment, issued by the Climate Prediction Center (CPC), provides an outlook for the upcoming week 1 and week 2 time periods for areas expecting extensive and persistent enhanced / suppressed rainfall and regions where conditions are especially favorable / unfavorable for tropical cyclogenesis.
- b. Purpose: The product supports the NOAA mission in three primary ways: (1) assess and forecast important changes in the distribution of tropical convection that can lead to modification of the extratropical circulation across the US and communicate this information to National Weather Service (NWS) forecasters, (2) provide advance notice of potential hazards related to climate, weather and hydrological events across the global tropics (including tropical cyclone risks for several NWS regions), and (3) provide an additional resource to aid various sectors of the US economy (finance, energy, agriculture, water resource management) that have foreign interests.
- c. Audience: The audience includes NWS forecasters and staff at other US government agencies, US emergency managers and regional planners and the public with interests across the global tropics.
- d. Presentation Format: The product is presented on the CPC web site located at <http://www.cpc.ncep.noaa.gov/products/precip/CWlink/ghazards/ghaz.shtml> and includes outlook images (thumbnail and full versions) in addition to the complete product in PDF format.
- e. Feedback Method: Comments and feedback will be accepted at: <http://www.cpc.ncep.noaa.gov/products/precip/CWlink/ghazards/NWS-feedback-form.html>

**Part II - Technical Description**

- a. Science and Format: The Global Tropics Hazards / Benefits Assessment synthesizes information and expert analysis from a number of CPC assessment activities as well as other operational and routine monitoring products. The physical basis for the outlooks include the El Nino-Southern Oscillation (ENSO) cycle, the Madden-Julian Oscillation (MJO), other coherent subseasonal tropical variability and interactions with the extratropical circulation. The product is generated with input from other NOAA centers including the Earth System Research Laboratory (ESRL), the National Hurricane Center (NHC), and select NWS Weather Forecast Offices among other collaborators.

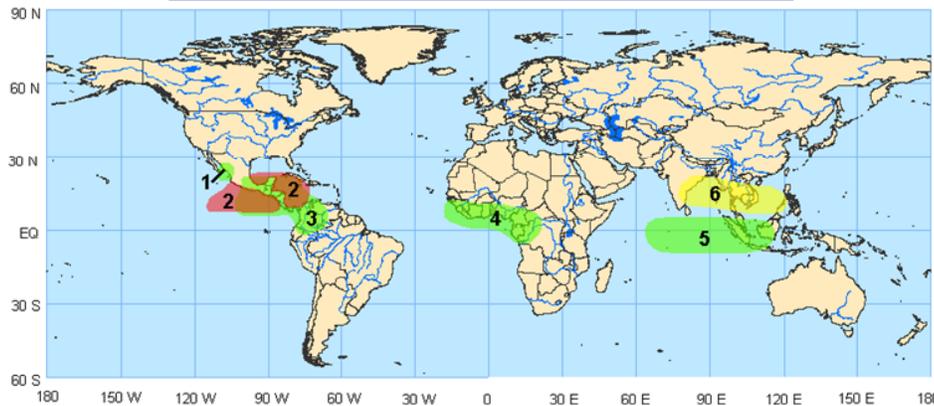
Numbered tropical benefits and hazards will appear on two images (week 1 and week 2 respectively) and include a text description below the map explaining the nature and rationale for the highlighted region. Images can be made larger by clicking on the heading labels. An example graphic for week 1 follows:



Product issued once per week with no updates. Conditions are subject to change after issuance time and before next outlook.

Product targets broad scale conditions integrated over a 7 day period for US interests only. Please also consult your local responsible forecast agency.

**Week 1 Outlook – Valid: October 7 - 13, 2008**



1. **An increased chance for above-average rainfall for parts of Baja California and northwest Mexico.** Tropical Storm Norbert is expected to approach and impact this region later during the period with areas of heavy rainfall. **Confidence: Moderate**

2. **An increased chance for tropical cyclogenesis for the eastern Pacific, southern Gulf of Mexico and western Caribbean.** The enhanced phase of the MJO continues to increase the threat for tropical development and model guidance supports development in this region. **Confidence: Moderate**

3. **An increased chance for above-average rainfall for parts of the eastern Pacific, Mexico, Central America, and South America.** The enhanced phase of the MJO and current and potential tropical cyclone activity is expected to result in wet conditions. **Confidence: High**

4. **An increased chance for above-average rainfall for the Gulf of Guinea and western Congo Basin areas of Africa.** The enhanced phase of the MJO and favorable low-level winds are expected to result in wet conditions in this region. **Confidence: Moderate**

5. **An increased chance for above-average rainfall for the equatorial Indian Ocean.** The enhanced phase of the MJO along with warmer than normal SSTs are expected to result in wet conditions in this region. **Confidence: High**

6. **An increased chance for below-average rainfall stretching from eastern India to the South China Sea.** The exiting suppressed phase of the MJO and continuation of activity associated with the boreal intraseasonal oscillation (BISO) are expected to result in dry conditions in this region. **Confidence: Moderate**

**\*\* ACTIVE TROPICAL CYCLONES:**

Eastern Pacific: Tropical Storm Norbert (14.3N, 104.7W) → Consult updates from the US National Hurricane Center

Gulf of Mexico: Tropical Depression 13 (19.2N, 94.4W) → Consult updates from the US National Hurricane Center

**Please note:** Confidence estimates are subjective in nature and are not based on an objective scheme. The estimates are given to provide additional information to the user.

**Figure.** Sample for week 1 portion of the Global Tropics Hazards / Benefits Assessment

- b. Product Availability: CPC issues the product once a week on Monday by 4:00 PM Eastern local time.
- c. Additional Information:

Detailed description of this product is available on the CPC web site. See:  
<http://www.cpc.ncep.noaa.gov/products/precip/CWlink/ghazards/ghaz.shtml>

Various information and forecast tools used in developing the global tropics Hazards / Benefits assessment are available at the following CPC web site. See:  
<http://www.cpc.ncep.noaa.gov/products/precip/CWlink/MJO/index.primjo.html>