NATIONAL WEATHER SERVICE
PRODUCT/SERVICE DESCRIPTION DOCUMENT (PDD)
TYPE: Official Product
DATE: June 20, 2003

FLASH FLOOD POTENTIAL INDEX

Part 1 - Mission Connection

1. **Product/Service Description:**
   The Flash Flood Potential Index (FFPI) is a text product produced by forecasters at the WFO SGX and WFO LOX using objective forecasts techniques based upon model data. Ratings of flash flood potential (numbers 0 through 4) for the next two days (today and tomorrow or tomorrow and the next day - depending on the issuance time) are calculated using precipitable water, winds aloft (700 mb), and forecaster knowledge of other atmospheric factors such as stability and atmospheric capping. The FFPI is issued during flash flood season from June 1^{st} through September 30^{th}.

2. **Purpose/Intented Use:**
   The FFPI gives emergency managers, the U.S. Forest Service, National Park and other outdoor recreation officials, the media, and the general public a quick two day forecast of the flash flood potential in their area (southern California). The FFPI is used for planing purposes as well as conveying the current and future risk to individuals hiking into steep sloped canyons and other areas susceptible to flash flooding areas. Ultimately the purpose of the FFPI is to save lives.

3. **Audience:**
   The main audience is emergency management officials and outdoor recreation officials such as park rangers. However, a greater audience also has the FFPI available through the Internet, NWR, and commercial radio and television.

4. **Presentation Format:**
   Currently there is one format available for the FFPI and that is the text product. The text format provides a one word (None, Low, Moderate, or High) forecast for each day for mountains and deserts of southern California specifically within the County Warning Areas of WFO San Diego and WFO Oxnard. The text product is displayed on the internet, sent through NWS dissemination systems and also formatted and sent for broadcast on NWR. Description of the FFPI categories (None, Low, Moderate, and High) are available with the text product.

5. **Feedback Method:**
   Most feedback comes from our emergency management and park service partners in direct discussions with WFO personnel. Feedback may also be provided by mail:

   Ed Clark National Weather Service
   WFO San Diego
   11440 W. Bernardo Ct., Suite 230
   San Diego, CA 92127

Phone 858-675-8700

Tim McClung
National Weather Service
WFO Los Angeles
520 N. Elevar St.
Oxnard, CA 93030
805-988-6615

E-mail comments or questions can be sent to Edwin.Clark@noaa.gov or Tim.McClung@noaa.gov.

Part 2 - Technical

1. **Format and Science Basis:**
   This product was developed because of the lack of usable flash flood information in the 12 to 48 hour time frame. The FFPI attempts to address that void. The product does not attempt take into consideration specific terrain features or location to determine the rating. So, the FFPI is more on the order of guidance information that can be used to determine flash flood risk in any given area using local knowledge of terrain, etc. The FFPI is calculated using precipitable water, winds aloft (700 mb), and forecaster knowledge of other atmospheric factors such as stability and atmospheric capping. The FFPI is generally produced using either the ETA, NGM or AVN model output.

2. **Availability:**
   The FFPI is produced twice each day, about 4 AM and 4 PM along with the main public forecast packages and is only produced in the flash flood season. The product may be updated as the forecaster sees fit. The product header LAXESFSGX or LAXESFLOX is used to disseminate the text product.

3. **Additional Information:**
   Decoding the text product for use on NWR is done by a CAF type formatter. WFO SGX has been producing the FFPI for southern California since the summer of 2001 and WFO LOX started in the summer of 2002. The FFPI was developed by a collaboration of the forecasters at WFOs SGX and LOX and the WCMs.