

***NATIONAL WEATHER SERVICE
PRODUCT/SERVICE DESCRIPTION DOCUMENT (PDD)
TYPE: Official Product
DATE: May 08, 2003***

FLASH FLOOD POTENTIAL RATING

Part 1 - Mission Connection

1. Product/Service Description:

The Flash Flood Potential Rating (FFPR) is both a text and graphical product produced by forecasters at the WFO SLC using GFE/IFPS. Ratings of flash flood potential (numbers 1 through 6) 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 (500 mb), and forecaster knowledge of other atmospheric factors such as stability and atmospheric capping. The FFPR is issued during flash flood season - generally mid June through mid September.

2. Purpose/Intended Use:

The FFPR gives emergency managers, 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 Utah). The FFPR is used for planing purposes as well as conveying the current and future risk to individuals hiking into slot canyons and other areas susceptible to flash flooding areas. Ultimately the purpose of the FFPR 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 FFPR available through the Internet, NWR, and commercial radio and television.

4. Presentation Format:

There are two formats available for the FFPR. The first is a graphical representation (created by GFE/IFPS) of the FFPR on the Internet that shows areas of Low, Moderate, High, and Very High risk of flash flooding as well as numbers 1 through 6. The second is a text format that provides a one word (Low, Moderate, High, or Very High) forecast for each day for two areas of the state, southwest Utah and southeast Utah. Also, included in the text product is an explanation of what those two areas include. 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 FFPR categories (Low, Moderate, High, and Very High) are available with both the text and graphical versions of the 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:

David Toronto
National Weather Service
WFO Salt Lake City

2242 W. North Temple
Salt Lake City, Utah 84116
Phone 801-524-5133

E-mail comments or questions can be sent to dave.toronto@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 FFPR attempts to address that void. The product does not attempt take into consideration specific terrain features or location to determine the rating. So, the FFPR 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 FFPR is calculated using precipitable water, winds aloft (500 mb), and forecaster knowledge of other atmospheric factors such as stability and atmospheric capping. The FFPR is generally produced using the ETA model to populate GFE/IFPS but any of the available models could be used.

2. **Availability:**

The FFPR is produced twice each day, about 5 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 SLCESFSLC is used to disseminate the text product.

3. **Additional Information:**

Decoding the text product for use on NWR is done by a CAFÉ type formatter. The WFO SLC has been producing the FFPR for southern Utah since the summer of 1998. The FFPR was developed by a collaboration of the forecasters at the WFO SLC with David Toronto as the focal point.