

**NATIONAL WEATHER SERVICE  
PRODUCT/SERVICE DESCRIPTION DOCUMENT (PDD)**

**TYPE:** *Experimental Product*

**DATE:** *August 20, 2004*

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**ABRFC Recreational Forecast Graphics**

**Part 1 – Mission Connection**

- 1. Product Description:** The National Weather Service (NWS) is the agency responsible for issuing river forecasts and flood warnings for the United States. This information is provided in order to protect life and property as well as to enhance the national economy. In cooperation with national, state and local agencies, as well as private organizations and the public, the NWS determines the river levels which correspond to the beginning of significant damage from high water. This level of water at a given river location is termed flood stage. The NWS issues special river forecasts and flood warnings when levels are expected to equal or exceed flood stage. In addition to problems caused by flooding, various users have danger and incur risk due to river fluctuations and river levels lower than flood stage. Examples of these types of users of river forecast information include navigation interests or the general public who use the river and river banks for recreational purposes. The experimental Recreational Forecast graphics are Internet web pages that depict the expected river levels for the Illinois River of Oklahoma, a very popular canoe and raft float stream. These expected stream flow levels are translated to a river floatability index based on guidelines provided by the Illinois River Association and the State of Oklahoma Scenic Rivers Commission. Recreational interests can use the information to better insure a safe experience on and near the river.
- 2. Purpose/Intended Use:** Arkansas-Red Basin River Forecast Center (ABRFC) Recreational Forecast graphics provide information concerning the expected river levels for the next two days. This information is not available from any other source. This information can be used by the general public, the river livery operators and the government river management agency to make the recreational use of the river safer.
- 3. Audience:** The target audience for these graphics products is wide ranging. The State of Oklahoma Scenic River Commission manages the recreational use of several streams in eastern Oklahoma. One of the duties of the Commission is to stop the rental of canoes and rafts when river levels are not safe. The Commission also attempts to warn campers of dangers of high water. The Oklahoma Scenic River Commission can use this product to better accomplish their mission.

The graphics also are helpful to the livery operators in order to monitor current and forecast conditions without requirement of communicating directly with the NWS or the Oklahoma Scenic River Commission. This will allow them to better manage their operation and therefore enhance the economy.

The general public will also be able to check river conditions via the Internet. Thus they will be able to plan activities at their leisure without requiring numerous contacts with the livery operators.

It is also anticipated that several newspapers may carry this information in printed form. A regular weekly feature in the newspaper on a Thursday or Friday would increase the exposure of the information, thus increasing safety and preventing unnecessary trips to the public's favorite Illinois River destination.

4. **Presentation Format:** The Recreational Forecast graphics are web-based graphics. No text presentations are planned at this time. However, text products may be appropriate and will be considered in the future based on feedback to the experimental graphic product.
5. **Feedback Method:** We are always seeking to improve our services based on user feedback. Comments regarding the Recreational Forecast graphics should be sent to the feedback email address on the webpage containing the product. Comments may also be provided to:

Arkansas-Red Basin River Forecast Center  
10159 East 11th Street, Suite 300  
Tulsa, OK 74128  
Attn: Billy Olsen  
[billy.olsen@noaa.gov](mailto:billy.olsen@noaa.gov)

Experimental Feedback Period: August 9, 2004 through July 31, 2005

## Part 2 – Technical

1. **Format and Science Basis:** River forecasts are produced on a daily basis for the forecast point on the Illinois River at Tahlequah, Oklahoma. These forecasts are in the form of a time series of river levels provided for five days in the future at six-hour increments. During periods of high river levels, forecasts may be updated as often as every six hours. These forecasts at Tahlequah are produced using typical NWS RFC procedures that utilize the NWS River Forecast System (NWSRFS), a suite of tools that includes a conceptual hydrologic river forecast computer model. The Recreational Forecast graphics only utilize the forecast for two days in the future. The maximum forecast level for the next two days is obtained from the Tahlequah forecast. That level is then used to color-code the graphical depiction of the floatability index on a map based on a conversion table supplied by the Illinois River Association. The conversion table provides for a floatability index for both the upper and lower reaches of the Illinois River as divided at the location of the Diamondhead Resort. Information content of the graphics consist of the color-coded map of the river, the numerical depiction of the latest river level, the maximum forecast river level for the next two days and a legend in the form of a table that describes floatability information based on the color code.
2. **Availability:** The Recreational Forecast graphics are always available and are updated a minimum of once per day. On an infrequent basis, the product may be updated up to four times per day. Graphics are available at <http://www.srh.weather.gov/abrfc/recfcst/>
3. **Additional Information:** Additional information may be obtained by contacting the ABRFC at the address shown in Part I, item e above.