

EFFECTIVE COMMUNICATION OF CRITICAL HYDROMETEOROLOGICAL INFORMATION TO KEY DECISION MAKERS

Panel Discussion

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Summary. The National Weather Service's Southeast River Forecast Center (SERFC) is responsible for hydrometeorological analysis, monitoring, and prediction for the southeast United States and the island of Puerto Rico. Almost seven out of every ten inland-moving tropical storms or hurricanes move into the SERFC's area. Communication of critical hydrometeorological warning information, in formats customers can use and delivered when needed, are top priorities of the SERFC.

The necessity to communicate accurate and timely hydrometeorological information was clearly demonstrated during the inland movement of Hurricane Floyd during September 1999.

The Southeast River Forecast Center (SERFC) responded aggressively to the inland flood threat from Hurricane Floyd. Many of the actions initiated by the SERFC, as much as a full week ahead of the eventual crests, were unprecedented for an NWS River Forecast Center. Based upon NWS quantitative precipitation forecasts, record floods were predicted from three to

more than seven days in advance of the ultimate crests, at a time when Hurricane Floyd was still hundreds of miles away from landfall. Numerous forecasts within the hardest hit areas verified within one foot of crest with a 72-hour lead time. Several locations amazingly verified within ½ foot with a 72-hour lead time!

The SERFC took innovative actions to communicate the seriousness of the situation. Up to 50 Geographic Information Systems (GIS) graphics were disseminated, via a special SERFC Hurricane Floyd Web Site that pinpointed the flood threat. FEMA (and others) disseminated these graphics to a wide variety of users from state emergency management officials to the media. It must be emphasized that one of the very first such GIS hazard graphics clearly and accurately highlighted the risk for "widespread and major flooding" and "floods of record" over the exact areas that subsequently were hardest hit -- days in advance of rainfall!

Furthermore, to help communicate flood information, the SERFC activated a special Hurricane Floyd

Hydrologic Impact Web Site. River forecasts were made available via "hydrograph" format at this location. By communicating forecasts in hydrograph format (in addition to regular text format), flood information was most effectively communicated to customers.

The need to effectively and efficiently communicate flood threat information to decision makers such as emergency managers is critical in warning communities impacted by a flood threat. In this session, a panel will review existing NWS products, programs, and technologies involved in communicating vital information, and also discuss future inroads expected over coming years.

The panel discussion will solicit participant and audience input into current and future capability and requirements for communication of flood information, primarily to partners such as the emergency management community and the media.

Some topics to be discussed include:

- **NWS Advanced Hydrologic Prediction Services (AHPS)**

AHPS provides a variety of advanced hydrologic services, including improved dissemination of river forecasts and long-range ensemble streamflow prediction. Discussion will involve the identification of ways to best utilize AHPS capabilities within at-risk communities. The NWS is currently conducting an AHPS demonstration at Albany, Georgia, and will expand the demonstration to the Tar River Basin in North Carolina in 2001. The SERFC produces 90-day ensemble streamflow projections for numerous forecast points across the southeast U.S.

- **Graphical Dissemination of Information**

Dissemination of critical information using Geographic Information Systems (GIS) graphical products will be discussed, leading towards identification of customer and partner graphical flood outlook product requirements.

- **Flood Fast Response and Survey Team (FFRST)**

The SERFC plans to deploy an FFRST prior to the 2001 hurricane season. Plans for the SERFC FFRST will be presented. The FFRST is expected to have the capability to transmit digital information directly from a flood area.

- **Inundation Mapping Techniques**