Why We Did This Review

River forecast centers are responsible for issuing hydrometeorological forecasts and guidance to weather forecast offices (WFOs) and water management organizations to assist with their water resource responsibilities. The Northeast River Forecast Center (NERFC) covers Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont, and most of New York. We sought to assess the adequacy of NERFC’s programmatic and administrative operations, determine management effectiveness, and assess how the NERFC coordinates its activities with federal, state, and local government agencies and other water management organizations.

Background

The National Weather Service (NWS) estimates that 90 percent of all natural disasters in the United States involve flooding. On average, over the past 20 years, flooding has annually claimed more than 90 lives and caused damages in excess of $4.25 billion.

NERFC is one of 13 NWS centers located throughout the United States responsible for conducting continuous hydrologic modeling of river basins.


National Oceanic and Atmospheric Administration

The Northeast River Forecast Center Is Well Managed, But Some Improvements Are Needed (IPE-17259)

What We Found

Overall, we found NERFC to be a well-functioning office. Our findings included:

Management and oversight of NERFC are adequate. Although relatively new, the hydrologist-in-charge addresses problems or issues that arise and the office works well as a team to issue the best possible river forecasts.

The use of Geographic Information System (GIS) should be expanded. The NERFC is not taking full advantage of new GIS software that could make its products more useful to the public, WFOs, state and local agencies, and other water managers.

NWS should be prepared to meet increased hydrology product demands and better document its plan for improving river forecast verification. The Advanced Hydrologic Prediction Services (AHPS) will enable NERFC and other RFCs to provide both more information and increasingly complex hydrologic information to its users. This is expected to increase the demand for more hydrology products and services and bring in new customers and partners—some with an understanding of hydrology, some without.

External partners are mostly satisfied, but some additional WFO and RFC coordination would be beneficial. NERFC regularly meets its deadlines for daily and weekly products transmitted to the WFOs, although more coordination between some WFO forecasters and NERFC may be needed during flood events.

What We Recommended

We made eight recommendations to the assistant administrator for weather services to improve operations at the river forecast center, including:

- Assign responsibilities, document the steps that need to be taken, and develop a time-line to implement a strong GIS capability.
- Develop, document, and implement a timeline and action plan for completing the comprehensive river forecast verification system as soon as practicable.
- Ensure that the Eastern Region Headquarters takes action to maintain proper WFO coordination with the NERFC, as required in NWS Directive 10-921, including adequate coordination on the deadline for receiving updated RFC guidance products during a flood event.