

# Fact Sheet

## CRREL REMOTE SENSING/GIS CENTER SUPPORT FOR HURRICANES FRAN AND HORTENSE

### PROBLEM

Emergency preparedness and response have multiple requirements related to minimizing the impact of natural disasters and providing assistance to affected individuals, communities, states, commonwealths, and territories rapidly and cost-effectively.

### SOLUTION

The Remote Sensing/GIS Center (RSGISC), the U.S. Army Corps of Engineers Civil Works Center of Expertise for remote sensing and geographic information systems (GIS), located at CRREL, provides technical support to the Corps for the use of these technologies through its Remote Sensing and GIS Emergency Management Support Program. Drawing upon the resources of Corps laboratories, districts and divisions, as well as other government agencies, universities, and the private sector, the remote sensing and GIS technologies are added to the set of tools provided by the Center's staff of experts to emergency managers to help them perform their missions. Aerial and satellite photography and imagery, as well as digital spatial data, are acquired, analyzed, and provided to assist in the decision-making process.

### RESULTS

Once the area of landfall was known, imagery of pre-impact conditions, maps of political units, the road network, and locations of critical facilities were collected. Prior to the availability of on-the-ground reports, modeled results of hurricane wind damage and damage assessments obtained by interpretation of remotely sensed images were obtained from the Federal Emergency Management Agency (FEMA). As required, new maps were developed, including maps of the counties and cities declared as disaster areas, and maps of schools and hospitals in the Wilmington, North Carolina, area. Similarly, maps of the U.S. Virgin Islands and Puerto Rico were generated. Other essential information also was located and made available.

Customized maps created by using the GIS capabilities existing within the Corps, as well as maps developed by others, were electronically posted for viewing by all who require them. Present computer technology and the information exchange fostered by the information superhighway permitted the rapid dissemination of the information necessary to speed emergency responders to meet the needs of those in areas affected by natural disasters. These maps also provide the means to visually track response and recovery activities.

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September 1996



**US Army Corps  
of Engineers**

Cold Regions Research &  
Engineering Laboratory