Abstract

Three-Dimensional Visualization of National Weather Service Flood Forecasts using ArcGIS
Track: Water Resources
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As a demonstration project, the National Oceanic and Atmospheric Administration (NOAA) Coastal Services Center, through a partnership with the National Weather Service, has created time series inundation maps for select locations along the Tar River in North Carolina using ArcGIS and the ArcGIS 3D Analyst extension. The project used river gauge data collected and provided by the U.S. Geological Survey during the intense rainfall associated with Hurricane Floyd in September 1999. These time series maps allowed for two- and three-dimensional (2D and 3D) visualizations of flood events that were previously only represented in tabular format. This paper seeks to detail the methodologies involved in data collection and processing, creation of geographic data layers, and processes used to export to 2D and 3D media.

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