

GeoSpatial Advisor™

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In This Issue

- The Role of GIS in Emergency Management
- Tips and Tricks – Package Maps and Data
- Miscellaneous – Google Earth™ and Katrina

Calendar of Events: October 2005

October 6-7, South Florida
2005 GIS Expo, Palm
Beach, FL

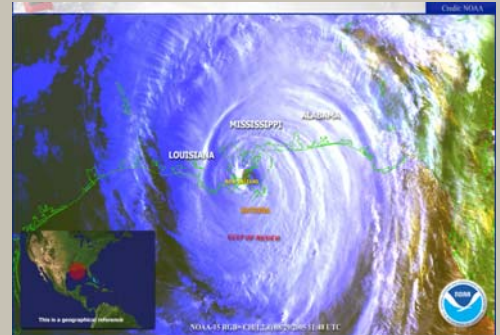
October 9-12, Urban and
Regional Information
Systems Association
(URISA) 43rd Annual
Conference, Kansas City,
MO

October 26-28, Arizona
Geographic Information
Council GIS Conference,
Prescott, AZ

The Role of GIS in Emergency Management

In the few weeks that have passed since the landfall of Hurricane Katrina, many articles have been written about the death, destruction and failure that occurred in the days following the storm. On the bright side, it is interesting to note the significant role that GIS professionals played in the rescue and recovery efforts along the Alabama, Mississippi and Louisiana coastlines in Katrina's aftermath. In an article written by Talbot J. Brooks, of Delta State University's Center for Interdisciplinary Geospatial Information Technologies, GIS Communities (click [here](#) for reference); efforts were outlined in the days immediately following the storm.

Working with volunteers from the GISCorps (www.giscorps.org) at the Emergency Operations Center (EOC) in Jackson, Mississippi, Talbot and his army of GIS volunteers began aiding search and rescue operations. The group translated more than 100 addresses and locales into GPS coordinates for the United States Coast Guard. Meanwhile they developed a missing persons website and database using the affected citizens' last known position or address. The volunteers under Talbot's direction were also responsible for developing the early indexed search maps for the first responders. Further, the group was responsible for the initial HAZUS model runs – a powerful risk assessment software program for analyzing potential losses from floods, hurricane winds and earthquakes released by FEMA – which proved to be disappointingly accurate. Other products created by the volunteers included energy-outage maps, cell phone coverage maps, hazard location maps and other public works information such as location and status of water wells, electric substations and critical infrastructure.



Source: National Oceanographic & Atmospheric Administration

It is imperative that EOC directors include a GIS in their response plans. From aiding search and rescue operations and generating support maps to detailed modeling efforts, the benefits of having a GIS system in place prior to a disaster help officials more easily assess incoming information about the affected area. GIS staff can provide support in the form of obtaining, organizing and displaying data and analysis to EOC managers and decision makers. For instance, building a database of assets (e.g., utility trucks, debris removal equipment) and coupling it with a map of

Category of Links

Post Katrina Imagery
http://arcweb.esri.com/sc/hurricane_viewer/index.html

<http://ngs.woc.noaa.gov/katrina/KATRINA0000.HTM>

<http://www.gisuser.com/content/view/6785/28/>

<http://www.globexplorer.com/disasterimages/index.shtml>

<http://www.flickr.com/photos/gisuser/>

YOUR INPUT

Interested in submitting an article or letter to be included in the GeoSpatial Advisor? Email your piece to Alex Wood at awood@adgeo.net and we will be happy to consider it.

(AGI reserves the right to excerpt, condense and/or grammatically edit your document to fit our newsletter format.)

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heavily impacted zones can help ensure areas in greatest need receive priority assistance. Another beneficial GIS database might include information on shelters such as data about location, capacity and volume of people housed in each shelter. With this information, resources can be quickly directed to shelters that are in need; alternatively, evacuees can be directed away from shelters nearing capacity to other shelters nearby.

Tips and Tricks - Package Maps and Data

If you've ever needed to produce maps and data for distribution to users or clients that are outside of your network then you know how frustrating setting up the projects can be: particularly, if your project was not initially set up to be portable. Working projects can reference data from different file locations and types such as shapefiles, SDE layers, personal geodatabases, and raster data.

With ESRI's Publisher extension, a project can be processed by grabbing all of the referenced data, regardless of type and file location, and placing it into an output directory. This directory can then be transferred to disk or other media (e.g., CD or DVD). Additionally, clients and end users of the project who have ArcGIS 9.x and who require map editing capabilities will be able to do so.

By selecting the 'Package Data' option in the Publisher control you can create a new ArcReader document (*.pmf), which is not an ArcMap project (*.mxd). However, by checking the option that allows access to all objects in the *.pmf, one can open it with ArcMap and then alternatively save it as an *.mxd. This moves all of the data and symbology associated with the project.

Miscellaneous - Google Earth and Katrina

A few months ago, Google launched their 3D Earth viewer (<http://earth.google.com/>) Google Earth, which is free for personal use, allows one to view available imagery and 3D data for the globe and also complete local searches and obtain driving directions. As mentioned in the *GeoSpatial Advisor™* Vol. 1, No. 5 (Miscellaneous Article), there are many applications that take advantage of the Google Earth application. Since that issue was released, recent events such as hurricanes Katrina and Rita have prompted many users to begin creation of custom applications that work with the Google Earth interface. One very unique Google Earth example displaying post-Hurricane Katrina images can be downloaded by clicking [here](#), which allows access to multiple links that have a "*.kmz" extension. After downloading one of these files, navigate to the file location on your computer and double click it. The extension will automatically open Google Earth (if it is loaded on your PC already) and the relevant data. An additional link to the Google Earth Community which includes a listing of current events around the globe is provided [here](#).

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