

# Depiction Emergency Management Software

By David Friedman, KE7GOY,  
20508 Ben Howard Rd, Monroe,  
WA 98272-8911, dfnow@verizon.net

In the winter of 2008, the Snohomish County (Western Washington) Department of Emergency Management declared a widespread flood emergency. The organization I am involved with, MuttShack Animal Rescue and Response, was activated and I became its Disaster Response Director. There was a problem, though: I was in New Orleans on vacation, more than a thousand miles away. Despite the distance, I was still able to fulfill my role thanks to Amateur Radio, the Internet and a software application for Windows named *Depiction*.

### Answering the “What If?” Questions

*Depiction* is designed with emergency management and planning in mind. It allows everyday users to build interactive and simulated scenarios by integrating freely-available data with their own custom input. By incorporating information about personnel, resources, and other assets in-place, *Depiction* gives you the ability to modify reality, so to speak, by altering rules and behaviors and seeing the results. “What if the water changes direction or my mobile communications van needs a new route? If I need to move radio operators to locations and still know their assets? If this arterial were blocked, how would I get my team to the hospital?”

*Depiction* let me plot all of my resources on a dynamic map to get an instant perspective on events. This data can come in a variety of formats, such as publicly available data on repeater locations, JPEG images and area maps, or user-generated text or *Excel* files that contain lists and locations of Amateur Radio operators, ARES/RACES volunteers, SKYWARN observers and other critical volunteers (including a summary of their operating capabilities). *Depiction* placed me on the scene, at least in a virtual sense.

While an Internet connection is needed to download

certain data, *Depiction* also works offline with saved data. *Depiction* can download and integrate maps, elevation plots, weather data, “fly over” imagery, situation reports, damage assessments and volunteer movement (from the Automatic Packet/Position Reporting System [APRS]). Then, once critical data has been uploaded, you can take your computer offline and use it in the field as a replacement for unwieldy binders. Best of all, unlike a static paper map, you can position or move resources or objects anywhere within *Depiction* to provide increased situational awareness.

### Depiction in Action

Soon after MuttShack was activated for the flooding event, I was able to create a “depiction” of the activity centered on the specific locations. The software quickly aggregated data from the MuttShack volunteer database, ARES/RACES lists, shelters, hospitals, EOC/IC locations and more. Instead of being pushpins on a single image, the volunteers appeared as “elements” in the graphic depiction. The volunteer elements, for instance, have properties that distinguish them on the basis of not only their locations, but also skill sets, credentials, training and equipment – information that is crucial in decision-making related to their deployment. *Depiction* also allowed integration of information from the field via text e-mails that I received from a variety of sources.

Information from the incident command came in via phone and radio relay. This, in

conjunction with updated maps from the County DEM, helped me observe the current extent of the event. Talking to my liaison, I was able to locate potential options for staging areas for personnel and animals, as well as shelters. *Depiction*’s controls allowed me to zoom in and out of the emergency areas, view multiple layers of information in separate windows, visually distinguish the volunteers based on their skill sets using color-coded mapping and get an overview of the surrounding terrains and crucial evacuation routes.

As I received updates on the resources from the scene, I made recommendations to the Animal Rescue Liaison on the assignment of specific tasks to the volunteers based on their proximity to resources. Based on the reports from the field, I was able to continually update the locations of the volunteers as well as the locations and status of resources. In addition, I was able to respond to emerging conditions on the ground by using the simulation elements of *Depiction* to introduce road barriers and determine alternate transportation routes, and convey them to the teams.

### Evolving Software

The makers of *Depiction* are increasingly aware of its potential for use in the Amateur Radio community. They have recently released an add-on that lets users view APRS data and are actively soliciting feedback for further customizations. Trial versions of *Depiction* can be downloaded from their Web site and the full product can be purchased for less than \$200.

*Manufacturer: Depiction, Inc, tel 425-297-1950; www.depiction.com. \$199. APRS Add-On: \$19.95. Community volunteer discounts. Minimum system requirements: Microsoft Windows XP with Service Pack 2 (SP2) or Windows Vista; 400 MHz Pentium Processor (1 GHz recommended); 512 MB RAM, or 1 GB when running on Vista (1 GB recommended); up to 570 MB hard drive space (includes up to 500 MB for .NET frameworks); minimum display setting of 800 × 600, 16-bit high color (32-bit true color recommended).* 



**Depiction displaying information during the winter 2008 storms and flooding in Western Washington. Note how it indicates Red Cross shelters, Amateur Radio operator resources, NOAA weather radar and more.**