

Abstract

The Douglas County Fire Department acts as a test bed for the Georgia Tech Research Institute's emergency response technologies. This partnership has resulted in a geographical information system (GIS) incorporating pre-plans and building diagrams as well as hazmat decision aids.

Geographical Information systems

Fire officers are continuously collecting data from a wide variety of sources in order to better perform their jobs. This data may come in many incompatible forms. By utilizing geographical information systems (GIS), the fire officer can have this information at hand in a usable format which will allow for decisions to be made quickly and efficiently. Data can be displayed in different arrangements to allow for patterns and trends to emerge. Fast access to needed data can save time, money, and in some cases, lives, during critical events.

Douglas County, Georgia is in the process of developing an ArcIMS based system for use within multiple county and city emergency response related agencies (fire department, sheriff's office, police department, 911 center, emergency management agency, public health department, and GIS department). This system is focusing on issues such as water supply and distribution, severe storm history, critical facilities, population distribution, response zones, and others.

This segment of the presentation will show how departments can coordinate efforts with other agencies to enhance overall response.

Decision Aids

The chemical decision aid was developed by the Georgia Tech Research Institute for the US Marine Corps. This system uses observable medical symptoms to determine the causative agent (chemical warfare agents and toxic industrial chemicals included). The system also links to suggested methods for decontamination, air monitoring, and triage.

The decision aid runs on a Windows-CE platform (pocket PC). Current work is focusing on adding additional operational platforms (such as Palm OS). The program is menu driven with large buttons to allow for ease of use (designed for Level A operations).

Multiple copies of the Decision Aid will be available for participants to gain hands-on experience. This software will be "free-ware" and demo versions are currently available.

Digital Pre-Plans

The "Building Viewer" program was developed as a pre-planning and situation awareness software for hazmat entries. Building diagrams are obtained from the county and then incorporated into a PocketPC. The Building Viewer program allows information to be added directly to pictures or diagrams for future use. For example, chemical storage areas can be added as a permanent feature to a building diagram. This information can be both resident in the hand held computer as well as linked to the GIS system described in part one of the presentation.