Value of Geographic Information System (GIS) in an Emergency Situation

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"Sgt. Jonathan Green, a spokesman for the Maryland Transportation Authority Police, said a school bus owned by Durham School Services occupied by a driver and an assistant caught fire about 4:30 p.m. in the left northbound bore of the four-bore tunnel."

Tabletop Exercise

Incident

Goal

- Basic understanding of Emergency Response Procedures
- Recognize the Tools and Resources Available
- Encourage wide-ranging thought processes
- Integrate GIS Technology into Emergency preparedness
- Facilitate an open dialogue among end users

Scenario

- A tanker truck traveling southbound on the Bear Creek Causeway swerved to avoid debris and overturned into the northbound lanes where it collided with two passenger vehicles.
- The drivers and passengers of each vehicle were trapped inside and the truck driver suffered a broken leg.
- Motorist stopped and unsuccessfully attempted to rescue trapped victims.
- The truck was fully loaded with an unknown liquid that was spilling onto the roadway.
- 16 bystanders complained of burning eyes, runny noses and sore throats.

Concerns

- Safety/Protection of Life
- Incident Mitigation
- Traffic control/Management
- Inspection/Assessment
- Repair - Reopening
- Continuity of Operation

Participants

- Police/Fire
- Administration
- AOC
- Maintenance / VRT
- Risk Management
- Engineering
- Information Technology (GIS)
- Media

Timeline of the Results

- **Police** – Personnel followed emergency procedures. Once the call was received by the duty officer the commander was notified. The commander made proper notifications including the facility administrator. The commander responded the scene and established K-1 as the command post. The Commercial Vehicle Safety Unit and Crash Reconstruction Unit responded and initiated inspections and crash investigations. The EOC was activated to keep the MCV out of harms way and keep plaza area open for a triage area.

Courtesy : Lieutenant Victoria Davis

Timeline of the Results

- **Operations** – Assisted police setting up detours, and triage areas, and notified the toll staff of the incident. Per procedure maintenance workers responded to the FSK maintenance facility where they were deployed by maintenance supervision.

Courtesy : Lieutenant Victoria Davis

Timeline of the Results

- The facility administrator contacted engineering. **Engineering** inspected the roadway for damages before traffic was released.

Courtesy : Lieutenant Victoria Davis

GIS Layers in Emergency response

- Real Time
  - CHART, RITIS and Google
- Police
  - Police jurisdiction
- Operations
  - FITM plans, Evacuation and Snow Emergency routes, Deicing chemical
- Engineering
  - Structures (Bridges, Tunnel and Culvert)
  - Utilities
  - Environment (Storm water BMP, Drainage system, Underground Storage tanks)
  - Mile Markers
- Others…….

Questions and Answers