Managing Emergency Incidents on the Roadway

Objectives of the Program
- Introduce you to Traffic Incident Management (TIM)
- Provide tools needed to advocate for a TIM program in your area
- Implement emergency responder training for roadway operations

Responder Safety
- Traffic speeds and congestion are continually increasing
- An increase in responder struck-bys
- Strategies to improve responder safety and the quick clearance of roadway incidents
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How do we prevent this?

Lessons Learned

Midwest City, OK

Lessons Learned

Apparatus Struck-bys on Highway
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Lessons Learned

Cars make very poor blocking vehicles

Lessons Learned

I-4 Polk County Florida

National Unified Goal

- A unified national policy developed by major organizations representing traffic incident responders (NUG)
- Under the leadership of the National Traffic Incident Management Coalition (NTIMC)
- The NUG encourages state and local agencies to adopt unified, multi-disciplinary policies, procedures and practices to improve the way traffic incidents are managed on U.S. roadways
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National Unified Goal

- The National Unified Goal for Traffic Incident Management is:
  - Responder Safety
  - Safe, Quick Clearance
  - Prompt, Reliable, Interoperable Communications
- 18 strategies for implementation

National Unified Goal

Crosscutting Strategies

- TIM Partnerships and Programs
- Multidisciplinary NIMS and TIM Training
- Goals for Performance and Progress
- TIM Technology
- Effective TIM Policies
- Awareness and Education Partnerships

National Unified Goal

Objective 1: Responder Safety

- Recommended Practices for Responder Safety
- Move over/Slow down laws
- Driver Training and Awareness
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National Unified Goal

Objective 2: Safe, Quick Clearance
- Multidisciplinary TIM Procedures
- Response and Clearance Time Goals
- 24/7 Availability of Resources

Objective 3: Prompt, Reliable Incident Communications
- Multidisciplinary Communications Practices and Procedures
- Prompt, Reliable Responder Notification
- Interoperable Voice and Data Networks
- Broadband Emergency Communications Systems

Objective 3: Prompt, Reliable Incident Communications Cont.
- Prompt, Reliable Traveler Information
- Partnerships with News Media and Information Providers
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National Initiatives and Standards

The CVVFA Emergency Responder Safety Institute

WWW.ResponderSafety.com
The resource for responder safety training and information

National Initiatives and Standards

Manual on Uniform Traffic Control Devices – MUTCD

- Defines the standards used by road managers nationwide to install and maintain traffic control devices on all streets and highways
- Part 6I – Temporary Traffic Control

National Initiatives and Standards

NFPA 1500, 2007 Edition
Section 8.7 – Traffic Incidents
Requires
- Establishing and implementing polices and procedures
- Blocking apparatus to protect responders
- Use of temporary traffic control devices
- Use of high visibility garments
- Training
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National Initiatives and Standards
Federal Highway Administration 23 CFR Part 634
- Mandates use high-visibility safety apparel
- To decrease the likelihood of worker fatalities and injuries
- Effective November 24, 2008

23 CFR Part 634.3 Rule
All workers within the right-of-way of a Federal-aid highway who are exposed either to traffic (vehicles using the highway for purposes of travel) or to construction equipment within the work area shall wear high-visibility safety apparel.

Impact of Roadway Incidents
- Congestion
- Clearance time
- Secondary events
- Responder struck-bys
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The Anatomy of a Traffic Incident

Response Phases
• Detection
• Notification and verification
• Operations
  • Incident mitigation
  • Roadway clearance
• Recovery

Open Roads Philosophy

Responders must recognize the importance of restoring traffic flow as quickly as possible

Open Roads Philosophy

• Safety always comes first
• Incident investigation is not compromised
• When these conditions are satisfied then:
  • Clear the roadway of victims, vehicles, and debris
  • Allow traffic to resume at maximum capacity given the circumstances/conditions
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The Anatomy of a Traffic Incident

Incidents that require significant time to clear
- Fatalities
- HAZMAT
- Commercial vehicles with spilled cargo

These incidents require additional resources, take more time to clear and an expanded incident management structure.

Who will be involved?

- Law enforcement
- Fire/Rescue
- EMS
- DOT/Public Works
- HAZMAT (Public/Private)
- Towing & Recovery
- Medical Examiner
- Media

Traffic Incident Management (TIM)
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TIM

When properly implemented TIM:
- Promotes quick clearance
- Provides for responder safety
- Allows agencies to conduct assigned tasks/operations

Firefighters responding to calls, need to operate “as if someone is trying to run them over.”
James Joyce, Commissioner
Chicago Fire Department

Keeping Responders Safe
- Develop and use SOP's
- Train all personnel
- Provide appropriate PPE
- Apparatus/Equipment marking
- Safety at roadway incidents
- TIM
- ICS
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Policies and Procedures

- Follow Agency guidelines to establish Policies and Procedures
- Components of a Policy
  - Terminology
  - Incident Command
  - Safety
  - Apparatus Placement
  - Operations
    • Roadways
    • High-speed (limited-access freeways)

Personnel Training

- Establish Policies and Procedures
- Initial Training
- Review Policies and Procedures
- Annual Refresher
- Table-top Exercises or Online Simulations

PPE

Photo Credit: Becky Campbell, Johnson City Press

The challenge to be visible
Personal Protective Equipment (PPE)

Appropriate PPE including ANSI compliant high-visibility vest
- Recommended minimum:
  - Helmet/hardhat
  - Turnout gear as appropriate
  - ANSI high-visibility vest

ANSI high visibility vests
- High Visibility = Fluorescent + Retroreflective
- FHA requirements for use of high visibility garments on federal roadways in 2008
- ANSI 107-2004 vests
- ANSI 207-2006 vests are an option

Apparatus Marking

- Apparatus marking and lighting are important factors in responder safety
- Applicable Standards
  - NFPA 1901
  - Federal and state requirements
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Apparatus Marking

Apparatus should be marked so that it is easily recognized as an emergency vehicle

- Chevrons or a "Vertical Panel" on rear of vehicle
- Effective emergency lighting

Safety Considerations

Like atomic exposure Time, Distance, and Shielding will protect responders

- Time - The more efficiently an incident can be safely resolved the less exposure responders will have to the hazards of traffic
- Distance - The farther away from moving traffic responders can operate the safer they will be
- Shielding - Blocking is essential to protect responders from vehicles that do not or cannot conform to the altered flow of traffic due to the incident
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Safety Considerations

Warning lights activated
Operator facing traffic and wearing PPE
“Safety cone” deployed

Driver/Operator issues

- The Driver may have to disembark to the traffic side, use caution and possibly a spotter
- In Block Left position the operator will be between traffic and the apparatus, consider Block Right or an additional blocking apparatus if hose line is needed

Blocking Considerations

- Positioning of apparatus
- Positioning of ambulances
- Buffer zone provided by the blocking units
- Will they provide enough protection?
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Temporary Traffic Control (TTC)

- Traffic cones
- Warning signs
- Flares
- Paddles
- Flags
- Flashlights
- Arrow and Variable Message Signs

Example of cones and signs as traffic control at a roadway incident.
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Traffic Control
- Who is responsible for traffic control?
- Create a traffic control unit?

Incident Command
- Command
  - For large scale operations on a roadway a unified command with Fire, Police, and DPW is recommended
- Operations
  - Traffic Control Group for temporary traffic control

Incident Command
- Safety Officer
  - Spotter/Flagger is an Assistant Safety Officer
- Staging
  - Staging off the roadway to prevent unnecessary exposure to traffic hazards
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Sample Command Structure

Multi-Agency Response
Establish Partnerships:
- Agencies and Services
- Capabilities
- Resources
- Common Practices

Multi-Agency Response
The Three C’s
- Communication
  - Prior to, during, and following the incident
- Cooperation
  - Cooperation vs. Competition
- Collaboration/Coordination
  - Collaboration before the incident
  - Coordination during the incident

Every agency has a role to play in safety and incident stabilization.
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TIM Committees

- At every level TIM committees are key to achieving the National Unified Goal for traffic incident management
- A means of communication between agencies before the incident
- Build working relationships that enhance preparedness for managing roadway incidents

Impact

TIM Programs facilitate

- Improved TIM procedures
- Interagency planning
- Interagency training
- Interagency cooperation at incidents

Best Practices

- Metro Atlanta TIME Taskforce
- GDOT HEROs program
- Maryland CHART Program
- Pennsylvania Turnpike Commission
- Florida Open Roads Program
  - FDOT Road Rangers
- Wisconsin TIME Program
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Responder Training
Train Responders for roadway operations
- The Hazards Present on the Roadway
- Terminology
- Tactics for Survival
- PPE Use
- Basic Strategy and Tactics

Strategies and tactics for roadway operations

Strategy and Tactics
Windshield Size-up
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Strategy and Tactics
Never trust approaching traffic
Avoid turning your back to approaching traffic

Strategy and Tactics
Establish an initial block with the first arriving emergency vehicle or fire apparatus

Strategy and Tactics
Wear appropriate PPE including high visibility vests as required by department policy
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Strategy and Tactics
At nighttime incidents turn off all sources of vision impairment to approaching vehicles including vehicle headlights and spotlights

Strategy and Tactics
Use fire apparatus and police vehicles to initially redirect the flow of moving traffic

Strategy and Tactics
Establish advance warning and adequate transition area traffic control measures upstream of incident to reduce travel speeds of approaching motorists
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Strategy and Tactics

Use signs and traffic cones and/or cones illuminated by flares for sustained highway incident traffic control and direction.

Strategy and Tactics

Assign personnel to monitor approaching traffic and activate an emergency signal if the actions of a motorist put responders at risk.

Tabletop Exercises
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Why conduct table top exercises?

• To train and familiarize responders with their roles and responsibilities at incidents or planned special events
• To test procedures or plans before the incident or event
• To determine how responders will react to unexpected conditions and events

Tabletop Exercises

• Equipment Needed
• Group Size
• Facilitation

Custom Table Top Scenarios

• Develop local scenarios
• Use previous incidents to look at improvements to TIM
• Use resources that would be typical to the area
• Start easy and increase complexity
• Invite other agencies to participate
• Identify and address issues noted during the exercise
• Learn before the actual incident

Google Earth could be a source for your table top layout
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Where do we go from here?

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