Managing Emergency Incidents on the Roadway

Instructor Manual

February 2008

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These Materials were developed by the CVVFA/ERSI as part of a DHS/FEMA Fire Prevention and Safety Grant

EMW-2006-FP-02022

Introduction to Instructor

This program was developed to provide emergency services leaders and instructors with information and tools on traffic incident management that they can use to train other emergency responders in there departments or agencies. The program is designed to be a mix of classroom and hands on training using Table Top exercises. One of the primary objectives of the instructor should be to *stimulate class discussion during the program.* It is up to you not only to teach the material in this class but to motivate the students that take this course to become activists in promoting highway safety in their organizations and local jurisdictions.

This program is not intended to be an operations level course. The workshop is designed and directed at leadership level personnel who have a basic understanding of good practice during roadway operations. However, there is a good chance that this may be the first time that many of the participants hear about the best practices that ERSI advocates for roadway operations. Where participants do not have a basic understanding of safety during roadway operations, some time may need to be allocated to introduce them to the concepts as part of the workshop. The instructor should NOT make practical operations the focus of the program, that is the purpose of the *Watch out behind you: Responder Safety on the Roadway* program that is provided to the students.

What ever the level of understanding of the group, your primary goal is to introduce the concept of Traffic Incident Management and the importance of working together with other agencies to achieve the NUG goals of *Responder Safety*, *Safe, Quick Clearance*, and *Prompt, Reliable, Interoperable Communications*. Additionally, the instructor should stress the importance of providing operations level training to responders at the local level. The tools and materials provided as part of this program should make that task significantly easier to accomplish.

This program was funded by a DHS/FEMA Fire Prevention and Safety grant and is just one of the ERSI's efforts to ensure that "Everybody goes home."

Program Objectives

This grant funded program is designed to provide Fire Department and EMS leaders with the tools necessary to advocate for interagency traffic incident management at roadway incidents and provide operations level training to emergency responders. At the completion of the program the participant should be able to:

1. Correlate the strategies of the National Unified Goal for Traffic Incident Management with actions that will improve responder safety on the roadway.
2. Understand the importance of pre-incident coordination between agencies using the TIM committee concept.
3. Develop an incident action plan for roadway incidents that involve a multi-agency response.
4. Facilitate the implementation of best practices training for roadway incidents within the participants' agency or jurisdiction.
5. Facilitate a multi-agency table top exercise for training or to test a traffic management plan for a planned special event.

Suggested Class Size

This program is intended to be a hands on train-the-trainer workshop. The optimal class size is 40 or less, with a suggested maximum of 50. It is recommended that there should be one Instructor/Assistant available for each Table Top team of 10 to 15 students.

Program Materials

One of the primary purposes of this workshop is to provide the participants with materials that can be used to train emergency responders at the local level. Attendees will be provided with CD/DVD disks that contain a wealth of information and materials. Electronic files included in the student package are:

- ✓ *Managing Emergency Incidents on the Roadway* – Support materials for the program include information on developing table top scenarios, NIOSH firefighter fatality reports for roadway incidents, NTIMC documents regarding the NUG and Traffic incident Management, related documents from the Department of Transportations Federal Highway Administration, and the Seattle wave video clip.
- ✓ *Watch out behind you: Responder Safety on the Roadway* – This program is designed to provide operational level training for personnel who respond to, and work at, roadway incidents.
- ✓ *Ten Cones of Highway Safety* – An awareness level DVD produced by VFIS
- ✓ *Sarah's Story* – The first public education DVD produced to inform the motoring public about the dangers associated with traveling through a highway incident scene.

In addition to the electronic files, the instructor should make sure that the host organization or ERSI provides sufficient copies of the student workshop materials or each student in attendance. The student package should include:

- ✓ Student information sheet
- ✓ Workshop note pages*
- ✓ ERSI Reference list*
- ✓ The Safe Parking Cue Card
- ✓ Part 634 regulations
- ✓ Participant instructions and worksheets for selected Table Top Scenarios
- ✓ Workshop evaluation (To be completed at the completion of the program)

* Also included on program CD

Preprogram Instructor Checklist

Prior to the program the instructor should verify the following:

- ☐ Course materials – PowerPoint presentation
- ☐ Student Handouts available for all participants
  a. Presentation note pages
  b. Student information sheet
  c. Reference material list
  d. Roadway Incident Cue Card
  e. Section 6I of MUTCD
  f. Part 634 Worker Visibility Rule
  g. Program evaluation sheets
  h. CD/DVD's – Program Resources, Watch Out Behind You, Ten Cones, Hats of Highway Safety, Sarah's Story
- ☐ Laptop computer with speakers or a connection to a sound system
- ☐ Computer projector compatible with computer
- ☐ A projection screen – The instructor should avoid using a wall or other surface not designed for projection
- ☐ Extension cords and power strips for equipment
- ☐ An easel chart and markers
- ☐ High Visibility Vests – 5 point breakaway ANSI Public Safety or Class 2

Materials for Tabletop Exercise

- ☐ ERSI Table Top Kits (Boards and vehicles) – 1 kit per 20 to 30 students
- ☐ Role Player Badges – One set for each table top team
- ☐ Scenario Sheets – Facilitator and Role Player
- ☐ Roll of masking tape
- ☐ Dry Erase markers

Timing Suggestions

This course is designed to be presented as a one-day intensive workshop. The workshop will require approximately 8 hours of classroom time including the tabletop exercise and follow up discussion. There is a great deal of material included within the course. Although “war” stories, when pertinent, are a good educational tool, they should be kept to a minimum. It is critical to pace the classroom/lecture portion of the program so that there are three to four hours available for the table top exercises and implementation discussion with the students. To accomplish this goal the class should start on time and morning breaks should be strictly held to 10 minutes. The after lunch session should be devoted to the Table Tops beginning with the Introduction and Operations Review Scenario and discussion regarding implementation strategies. Where the class is well versed in the basics, the Introduction scenario may be skipped and the time allocated to the more advanced scenarios.

Classroom Set Up

The room used to present this program should be large enough to comfortably seat the participants and allow for note taking and materials review. The ideal arrangement would be 3 people per 8 foot table. As with any classroom, it should have good lighting and ventilation. The room should be provided with a projection screen large enough so that all participants can view the materials bring projected. A sound system should be available so that the CD’s and audio clips in the program can be heard by all.

Additionally, there should be sufficient space to conduct the table top activity. At a minimum, this will require two 8 foot tables (pushed together) with access from all sides for each team of 10 to 15 participants. Note that the majority of the scenarios provided as part of this program will require at least two of the cut boards or one full 4 x 8 board to properly complete. This space could be part of the classroom or a separate space that the class moves to for the activity.

Prior to the class the instructor should take a look at the space intended for the presentation and verify that it is properly set up, the required equipment is available and there is sufficient power available to operate it.

Appendix 1: Speaker Notes

Managing Emergency Incidents on the Roadway

WWW.ResponderSafety.com On the Highway We've Got Your Back

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

Discuss why we are here and that this program is Grant Funded by a DHS/FEMA Fire Prevention and safety Grant.

The instructor should then ask each participant to briefly introduce themselves to the group and identify what they want from the class. Consider recording these on a flip chart that can be referred to later in the program.

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

It is important to drive home the fact that every time a responder steps out of the apparatus onto a roadway they are at risk. Following an appropriate procedure and being keenly aware of one's surroundings can significantly increase the safety of all responders. Statistics have not been included in this presentation. The instructor may add current and accurate statistics if desired. These statistics could be obtained through safety resources such as NIOSH, IAFF, from specific state and local agencies.

How do we prevent this?

View and discuss the video provided.

Lessons Learned

Midwest City, OK

Midwest City OK

See NIOSH Report 99F-27 for additional information.

Have the students identify some of the lessons learned as you discuss this incident and those on the next three slides – List on flip chart and refer back during discussion.

Lessons Learned

Apparatus Struck-bys on Highway

Examples of what occurs when tractor trailers hit fire apparatus on the highway.

The Incident on the left occurred in Beavercreek, OH. The engine responded to a medical call on the northbound side of the highway and was parked in the highway's shoulder when the accident occurred. The truck was traveling in the right-hand lane when it struck the engine's rear. The force of the impact pushed the engine forward, narrowly missing a police cruiser and attending emergency personnel. The ejected debris rained down on and damaged a medic unit parked 100-feet in front of the incident.

The incident on the right occurred on the Florida Turnpike. Emergency were personnel operating at the scene of a 4 vehicle crash on the Florida Turnpike. The no injury accident involved the right lane and shoulder of the highway. A County Sheriffs vehicle was the first one behind the scene of the first crash. An engine company was positioned behind the sheriffs vehicle to protect the scene and pedestrians from the earlier crash. Three people died and the Sheriffs deputy was seriously injured when several additional vehicles crashed into the scene 22 and 25 minutes after the initial incident.

Lessons Learned

Cars make very poor blocking vehicles

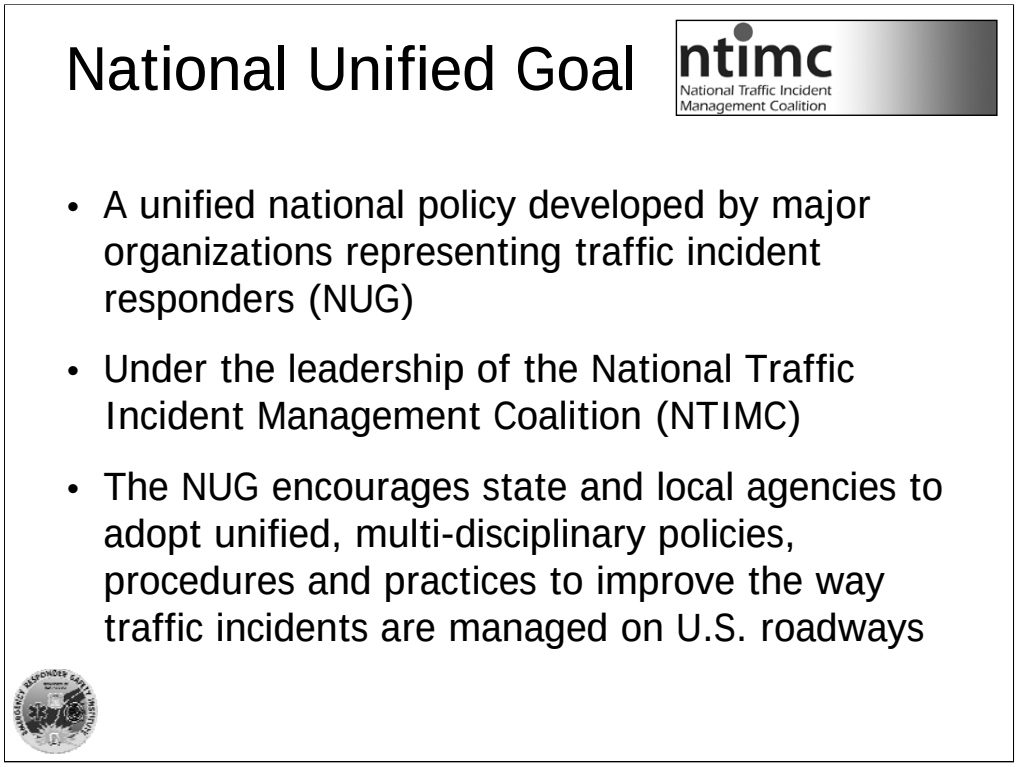
A state police car struck by a semi-truck. Light vehicles such as police cars do not make good blocking vehicles.

Lessons Learned

I-4 Polk County Florida

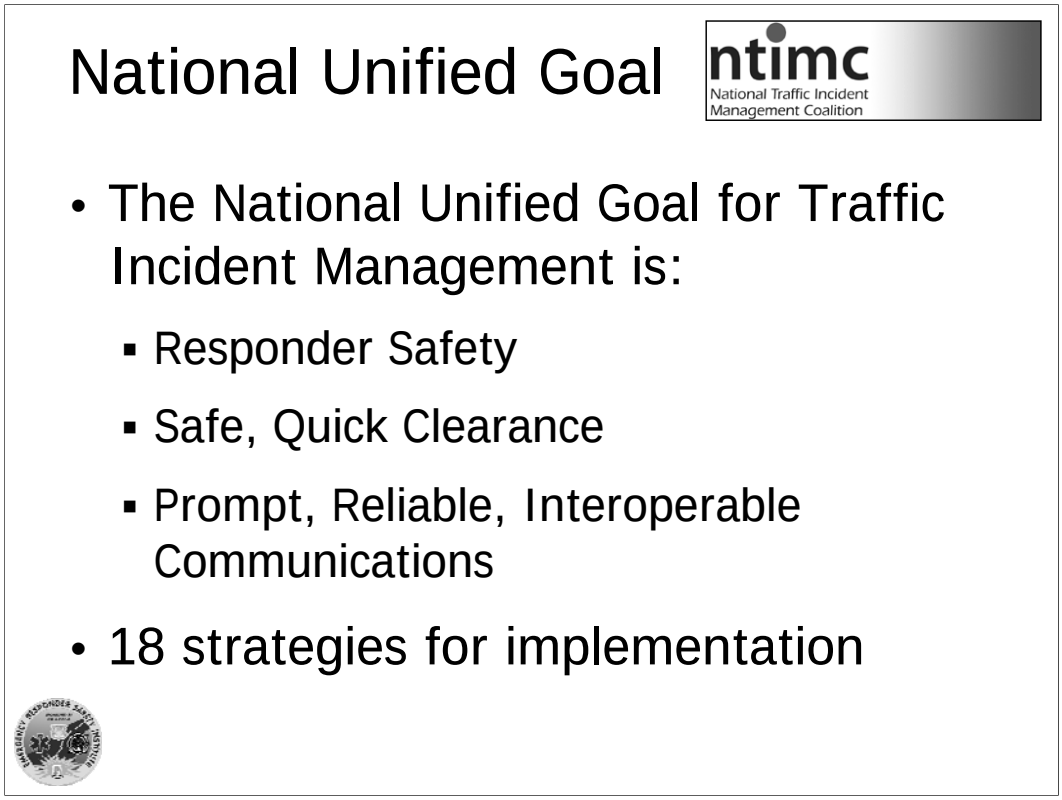
I-4 Florida incident January 9, 2008. 70 vehicles collided in 10 separate crashes along about at two-mile stretch of the interstate. Three people were found dead or died at the scene Wednesday morning, and a a fourth victim was found dead in a car as emergency workers went through the burned wreckage. A fifth victim died several days later in the hospital. One deputy, Carlton Turner, 26, was involved in the early morning crashes. At 4:54 a.m., Turner got a call about an accident in the eastbound lane of I-4, Judd said. He drove into a "wall of smoke and fog," and his car was struck three times by others before he got it off the roadway. He then tried to help people in other cars and found "a great deal of fire. People died in that fire."

Have the students identify some of the lessons learned from the incidents discussed using this and the previous 3 slides – List on flip chart and refer back during discussion.



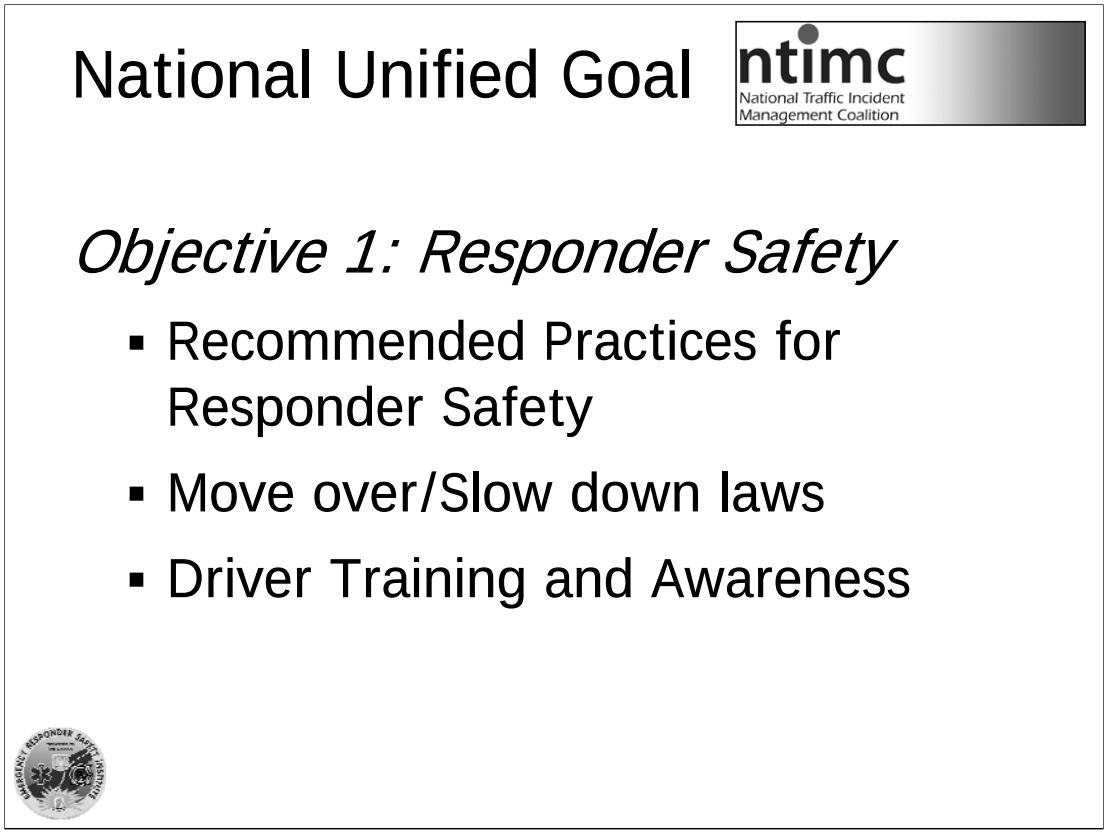
OVERVIEW SLIDE: This slide begins an overview of the NUG – Discuss each slide BRIEFLY and point out where the students can obtain additional information. The resource list provides the students with web sites where a variety of information on the NUG is available including PowerPoint slides and talking points.

The NUG is a national effort that is critical for responders to understand and support at the local level.



The Key objectives for this program are 2, 7, 9, 10 and 18. They are highlighted on the following slides. Other objectives will automatically dim after about 30 seconds.

Briefly discuss what a "crosscutting" strategy is. These are the components of the NUG that apply to all agencies/resources that respond to roadway incidents.



Refer students to www.ResponderSafety.com for an up to date compilation of state move over laws from AAA.

National Unified Goal

ntimc
National Traffic Incident Management Coalition

Objective 2: Safe, Quick Clearance

- Multidisciplinary TIM Procedures
- Response and Clearance Time Goals
- 24/7 Availability of Resources

National Unified Goal

ntimc
National Traffic Incident Management Coalition

Objective 3: Prompt, Reliable Incident Communications

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

National Unified Goal

ntimc
National Traffic Incident Management Coalition

Objective 3: Prompt, Reliable Incident Communications Cont.

- Prompt, Reliable Traveler Information
- Partnerships with News Media and Information Providers

National Initiatives and Standards

The CVVFA Emergency Responder Safety Institute

WWW.ResponderSafety.com

The resource for responder safety training and information

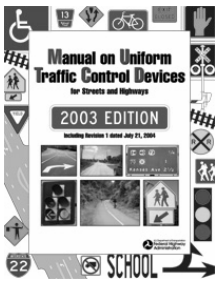
About the CVVFA Emergency Responder Safety Institute

Created as a Committee of the Cumberland Valley Volunteer Firemen's Association, the Institute serves as an informal advisory panel of public safety leaders committed to reducing deaths and injuries to America's Emergency Responders. Members of the Institute, all highly influential and expert in their fields, are personally dedicated to the safety of the men and women who respond to emergencies on or along our nation's streets, roads and highways. Members of the Institute include current members of the Fire Service, EMS, and Law Enforcement as well as trainers, writers, managers, government officials, technical experts and leaders who through their individual efforts and collective influence in the public safety world can bring meaningful change.

See the CVVFA web site for more 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

The MUTCD is an important reference. While cumbersome to implement fully at the average scene, Part 6I of the MUTCD may be very valuable for extended incidents. The MUTCD is available online and Part 6I can be found in the Instructor Resource Guide for this program.

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

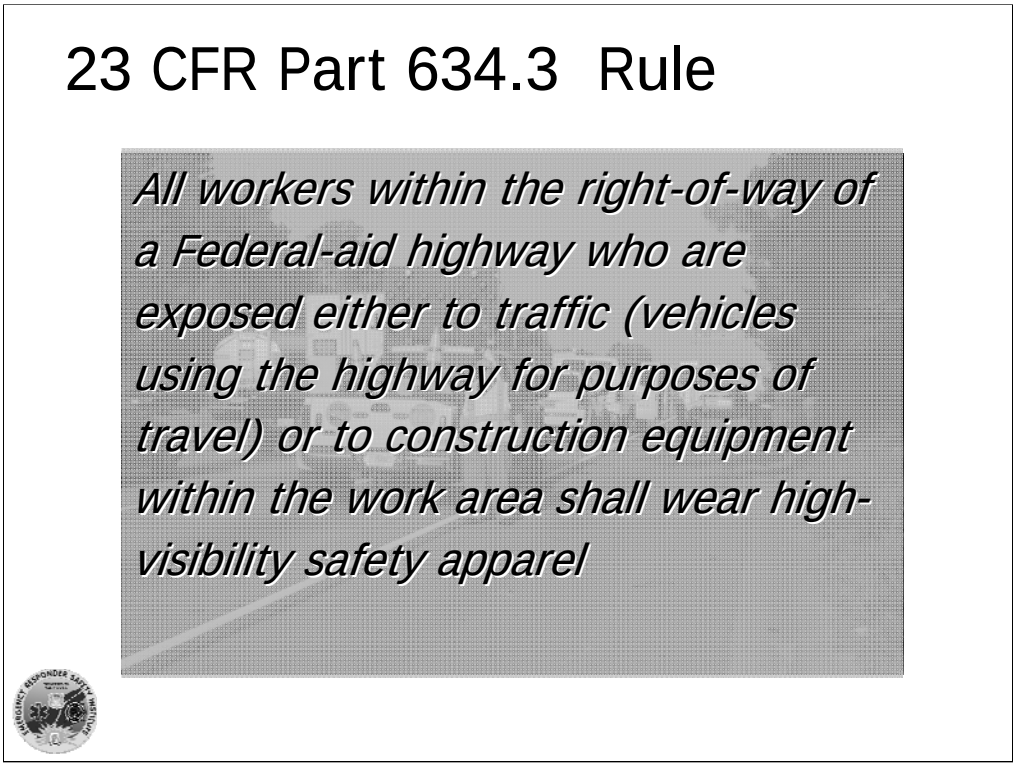
NFPA 1500 is the National Fire Protection Association's Standard on Fire Department Occupational Safety and Health Program. This document establishes minimum safety and health requirements for firefighters. Section 8.7 refers to traffic incidents.

National Initiatives and Standards

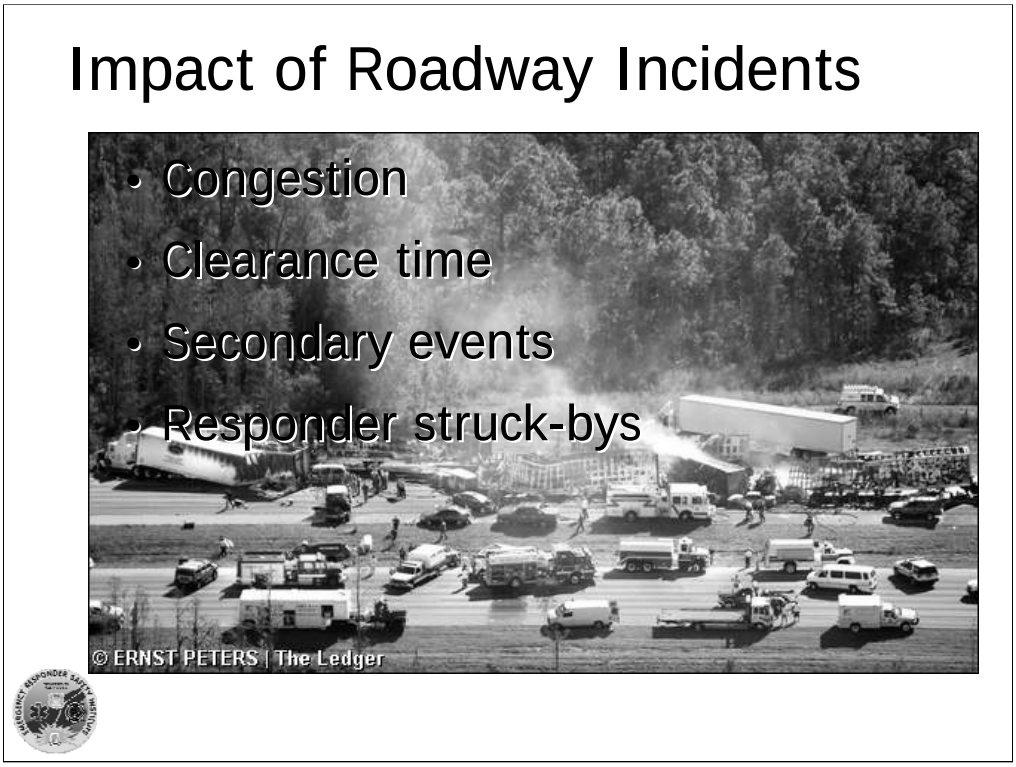
Federal Highway Administration 23 CFR Part 634

- Mandates use high-visibility safety apparel
- To decrease the likelihood of worker fatalities and injuries
- Effective November 24, 2008

The rule should be provided as part of the handout – Speak briefly about the impact on emergency responders.



Brief discussion on who this impacts and the fact that the State DOT's become the AHJ's – If they don't enforce the rule they stand to loose funding.



Transition Slide: With this slide we begin to get into the major issues that this program is designed to teach. Review these points with the group.

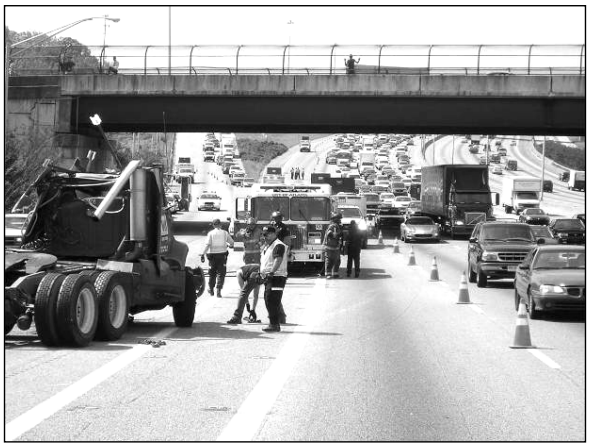
- Traffic incidents account for one-quarter of all congestion on U.S. roadways
- Every minute a freeway lane is blocked during peak travel, takes four minutes to clear
- Secondary events in the traffic queue are frequent and case additional congestion, injuries and deaths
- Responder struck-bys at these incidents are increasing

Source: NTIMC "Traffic Incident Facts"

The Anatomy of a Traffic Incident

Response Phases

- Detection
- Notification and verification
- Operations
  - Incident mitigation
  - Roadway clearance
- Recovery



Traffic incident response involves sequential phases of response action.

Delays, misinformation, lack of resources and coordination during any phase will affect total incident duration.

The typical sequence of events in serious incidents is:

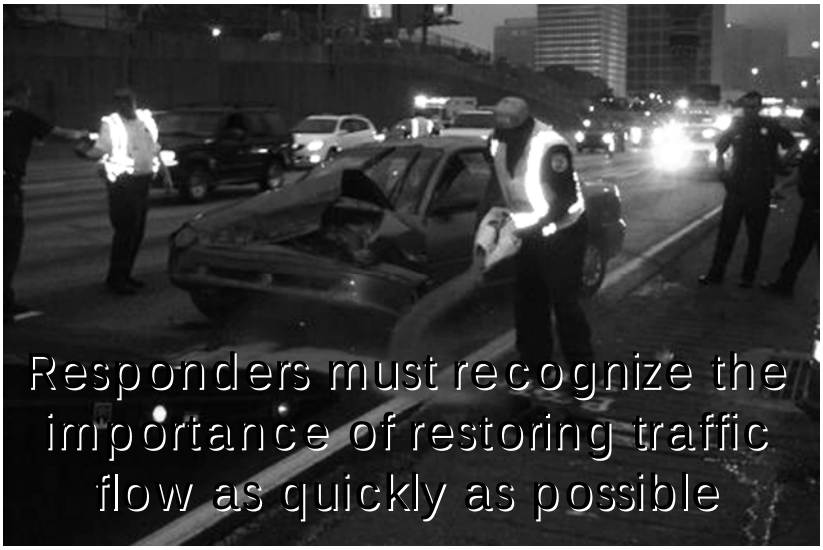
1. Detection that an incident has occurred
2. Notification and Verification that the incident has occurred
   a. Determine incident location
   b. Sufficient information to enable appropriate response
3. Responder Dispatch
4. Roadway Clearance
5. Recovery of normal traffic flow

Prompt incident detection, notification, verification, and responder dispatch reduce incident duration.

Improved communication and coordination among traffic incident responders also reduces incident duration.

Source: NTIMC "Anatomy of a Traffic Incident"

Open Roads Philosophy



The Open Roads philosophy means that al responders from all agencies recognize the importance of restoring traffic flow as quickly as possible under the circumstances.

The next slide provides some explanation of this philosophy.

Source: NTIMC “Anatomy of a Traffic Incident”

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

Key points for the instructor to address on this slide:

Safety = The safety of responders of responders, the safety and security of incident victims, and the general public.

After safety and the accurate investigation of the incident are dealt with the top priority is to open the roadway by clearing vehicles, victims and debris from the travel lanes to allow traffic to resume at the maximum possible capacity under the circumstances.

Source: NTIMC “Anatomy of a Traffic Incident”

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

Incidents involving fatalities generally take longer to resolve because of the need for crash investigation and for the involvement of the medical examiner.

In some localities, TIM partners have worked together to streamline the process of fatal incident investigation so that roadways can be reopened more quickly.

Incidents involving hazardous materials generally take longer to resolve because HAZMAT cleanup takes time. Procedures for prompt notification of HAZMAT crews can reduce the overall incident duration.

Incidents involving commercial vehicles, particularly when spilled cargo is involved, often take longer to resolve. Procedures for prompt notification of towing and recovery responders can reduce overall incident duration. Towers need to know the exact type and class of the crashed vehicle in order to arrive on scene quickly with the correct equipment. Procedures and policies that balance the need for restoring traffic flow with the property rights of the commercial vehicle owners also help to resolve incidents that involved spilled cargo more quickly.

Source: NTIMC “Anatomy of a Traffic Incident”

Who will be involved?

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

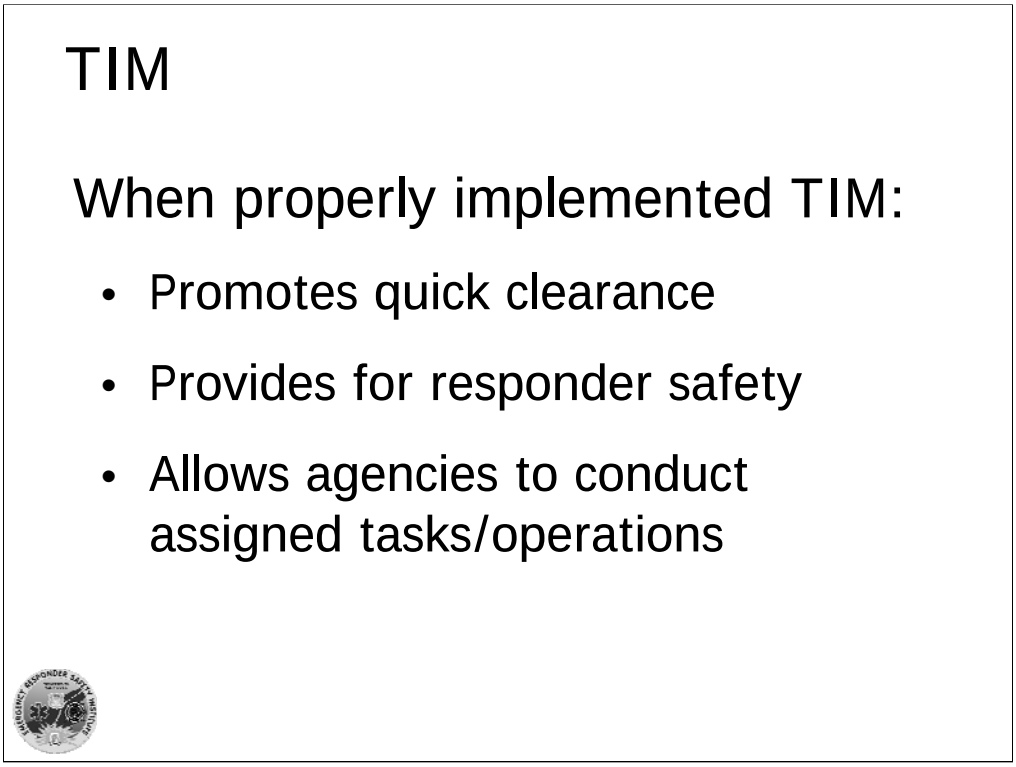
Suggested Activity: This is an excellent place for the instructor to introduce the roles and responsibilities of the various roadway incident responders . Take a few minutes and **BRAINSTORM** the primary missions and objectives of the responders listed on the slide. List the input from the group for each agency and save for the discussion of the table top exercise a bit later in the program.

Background information is found in the table on the first page of the NTIMC "Anatomy of a Traffic Incident" document and in the Roles and Responsibilities section of facilitator notes for the Table Top exercise for this workshop.

Instructor: Click on picture to show the Seattle traffic incident video

This video is an example of the impact of an incident on traffic.

Discuss the video with the group when it is finished. Relate it back to the anatomy of an incident and the impact that responders can have by their actions – Positioning of equipment, clearance of resources that are not required, emergency warning light management



What is a TIM program? TIM is a catch-all phrase. Examples of the broad scope of programs and program elements that may fall under the general rubric of "TIM" include development of unified policies, procedures, operations and/or communication systems among TIM responders; the application of Intelligent Transportation System (ITS) technologies to traffic incidents; freeway service patrols; interdisciplinary training in traffic control, unified command and NIMS; improved towing industry procedures and practices, and traveler information.

For additional information see NTIMC "Example Strategies for Building Stronger State Traffic Incident Management Programs"

Managing Emergency Incidents on the Roadway

Firefighters responding to calls, need to operate "as if someone is trying to run them over."

James Joyce, Commissioner
Chicago Fire Department

Transition Slide: This slide is the beginning of a general discussion on keeping the responder safe.

The quote from Commissioner Joyce came after three Chicago Fire Department personnel were struck by vehicles in a single week.

Keeping Responders Safe

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

Instructor: This is an overview slide – Each point should discussed using the slides that follow.

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)

The development of Policies and Procedures is a very important part of firefighter safety.

Each department should have an established format and system for establishing such polices and procedures.

The following three slides will help to begin this process for responder safety at roadway incidents. A sample policy is available for download on WWW.ResponderSafety.com.

Personnel Training

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

The steps included in this slide are recommendations for agencies to implement training programs for responder safety. Department policy should established and followed during this process.

The two slide that follow should lead into a discussion of PPE for the various responders. The photo on this slide was taken at the scene of an officer struck-by as the injured police officer was packaged for transport. It shows the various levels of PPE that our responders wear at roadway incidents.

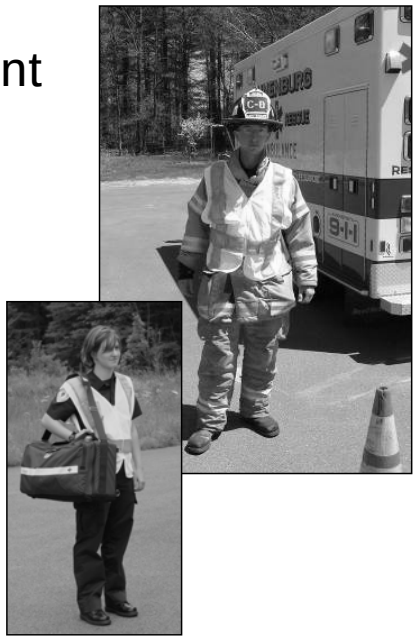
Ask the group about PPE use and policies within their organizations. Are they using vests? If not why not. Either her or on the next slide discuss the use of structural fire fighting gear – Does it provide sufficient protection when working on the roadway?

Structural gear alone is appropriate when directly involved in firefighting, extrication or other emergency operation at the incident. (In the Hot Zone) Personnel not is the shadow zone or serving in support roles should wear vests and head protection.

Personal Protective Equipment (PPE)

Personal Protective Equipment

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



PPE considerations for department policy

Hazards

Traffic

Fire potential

Glass/sharp objects

Electrical hazards

Falls and slips

Temperature and weather

Will inclement weather effect PPE use?

Is high temperature enough of a reason to modify the use of full structural gear?

Equipment/PPE available to responders

EMS and Police often have much less PPE available for use.

Current Department Policy

Personal Protective Equipment (PPE)

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

It is important to find a vest that meets the needs of a particular department. Size, coloring, identification, and other design features can be a large part of encouraging the use of these vests. The personnel that will be the end users should have input into the design.

Demonstrate the 5 point breakaway feature advocated by ERSI and allowed by the standards.

Discuss the differences in the garments manufactured to the two ANSI standards and why ESRI was an active advocate of ANSI/ISEA 207 for Public Safety Vests.

Apparatus Marking

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

Instructor Note: The information on the following slides in for information only discuss it briefly and move on.

Apparatus marking and lighting should be considered for both new and existing apparatus. While pending changes to NFPA 1901 and other standards would not apply to existing vehicles, changes could be made to drastically improve the safety of these vehicles at roadway incidents.

Apparatus Marking

Montgomery County MD apparatus. Vehicles have LED lights on the side for warning when they are in a blocking position.

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

Coloring of markings especially chevrons – Color and orientation DO make a difference.

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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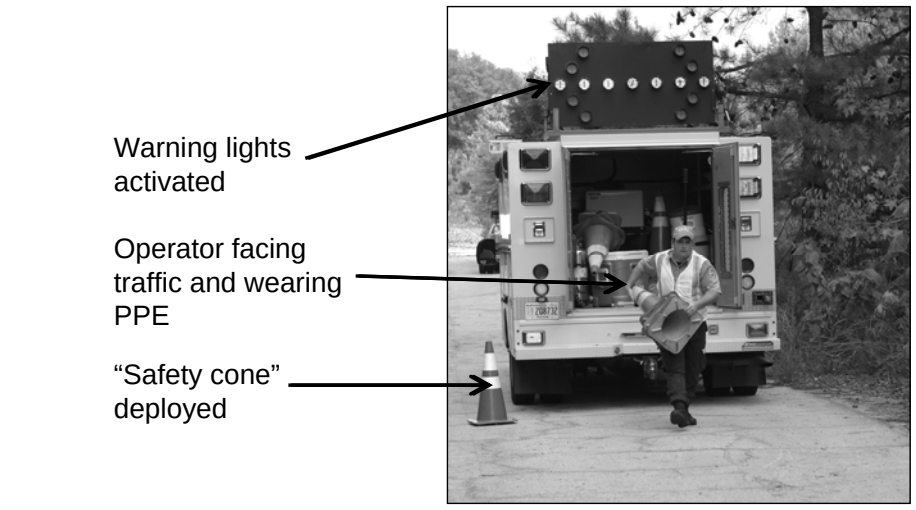
Safety Considerations



The appropriate level of warning lights should be activated on the vehicle. Consider reducing the amount of lights or the use of blinding lights especially white flashing lights that can disorient traffic.

The operator should face traffic at all times if possible, so that they may observe oncoming traffic.

The use of a "Safety Cone" or a cone placed just behind and to the traffic side of the vehicle should be considered. This provides a reference to oncoming traffic to avoid the operator as other traffic control measures are being deployed.

Safety Considerations

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

These issues should be considered prior to arrival and as the apparatus arrives on scene. If a hoseline is needed consider the Block Right position.

Blocking will be addressed during the introduction to the Table Top exercises.

Blocking

Considerations

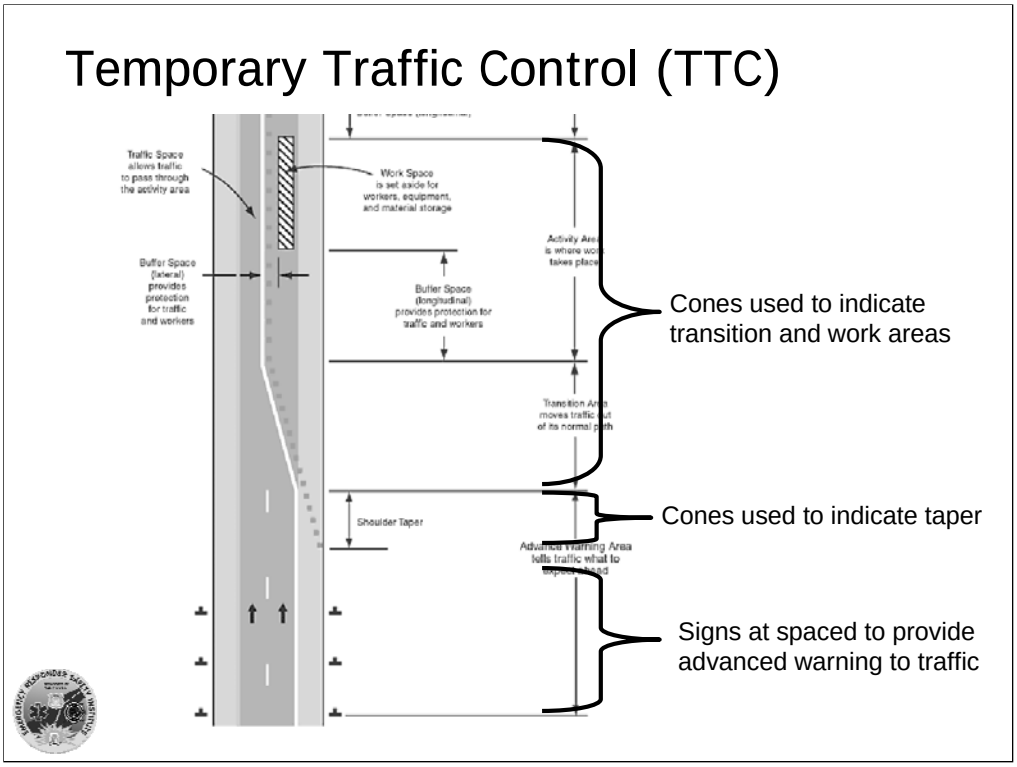
- Positioning of apparatus
- Positioning of ambulances
- Buffer zone provided by the blocking units
- Will they provide enough protection?

Point out the position of the EMS vehicle in this photo – If possible they should be positioned to provide maximum protection for personnel as they operate and load patients.

The rule of thumb for blocking vehicles should be the “bigger the better” consider using truck companies or tankers.

Discuss the dangers of rear mounted pumps. The operator is pretty much exposed at the rear of the apparatus no matter how the unit is positioned.

Managing Emergency Incidents on the Roadway



This slide depicts the component parts of a temporary traffic control zone. The graphic is from MUTCD Section 6 and shows the components of a traffic diversion.

Temporary Traffic Control (TTC)

Temporary traffic control

- 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.

This sequence of slides provides guidance on the type and use of devices used for temporary traffic control at emergency incidents.

Note that the signs in this slide are positioned very close to the incident location. Best practice would position signs away from the immediate incident to provide maximum advanced warning to oncoming traffic. In this incident signage would be appropriate on both sides of the incident due to the closure of one travel lane on a two lane road.

Temporary Traffic Control

Traffic Control

- Who is responsible for traffic control?
- Create a traffic control unit?

Suggested Activity: This is an excellent place for the instructor to ask the group to **BRAINSTORM** just who is responsible for traffic control in their jurisdiction. How are they equipped?

Discuss the role and function of Fire Police and other similar type units used in various parts of the country. This slide is of the Goshen Fire Company (West Chester PA) Fire Police Unit. An other example could be the HEROs units around Atlanta.

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

Unified Command is essential for large scale incidents involving multiple agencies. In smaller scale incidents it may not be necessary. However, considerations should be made by the commander to the different roles, responsibilities, and uses of the responding agencies.

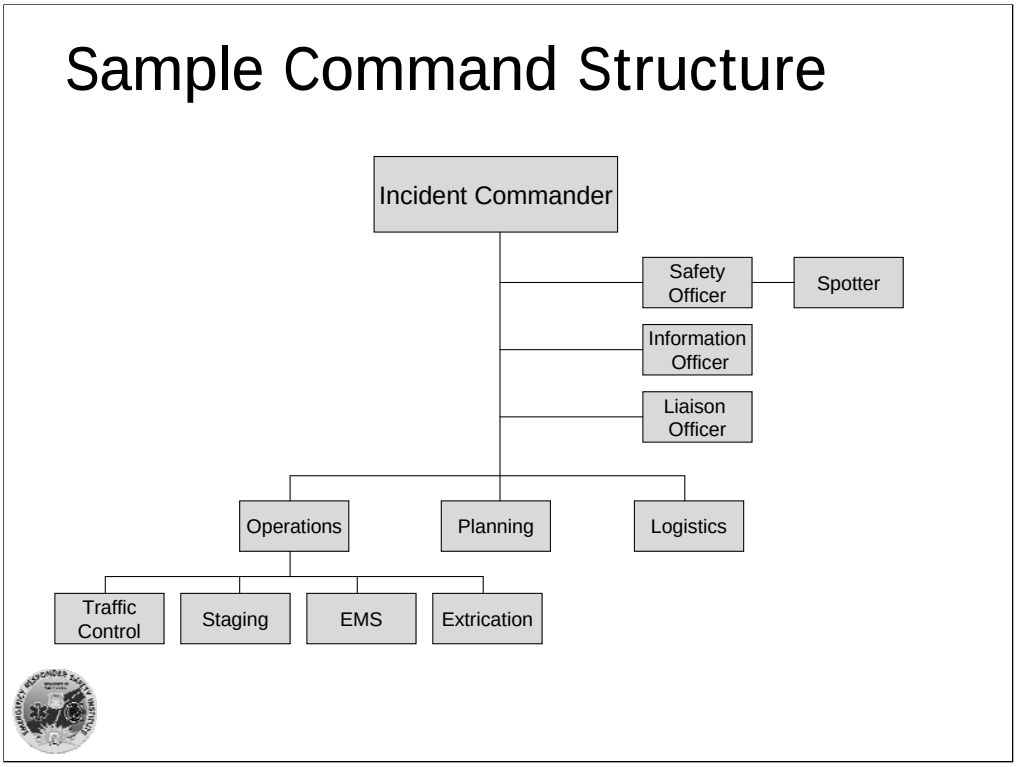
In the Operations Section a Traffic Control Group should be utilized to deploy TTC devices and perform any manual traffic control.

Incident Command

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

A spotter should be assigned as an assistant Safety Officer. This position has the responsibility to warn responders of incoming vehicles that do not comply with temporary traffic controls. They can also perform manual traffic control.

Staging areas should be off the roadway if at all possible. This removes the responders from the hazards of the roadway and limits distraction and congestion on the roadway.



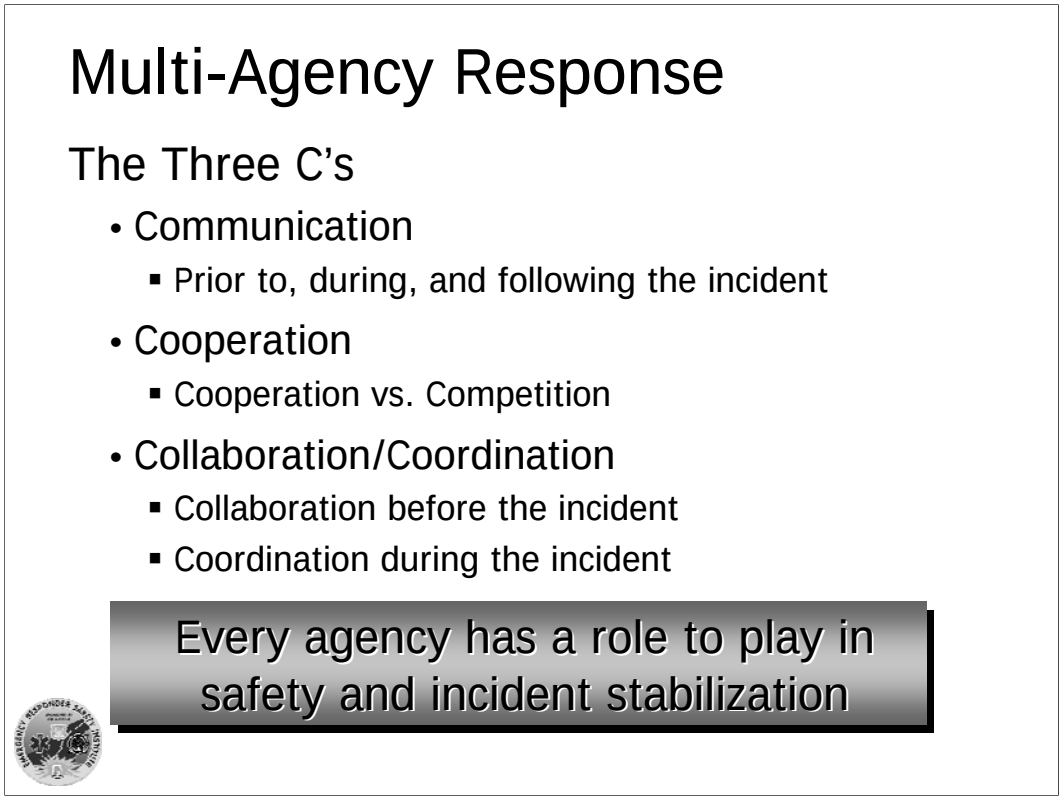
This diagram shows a sample Incident Command Structure for a roadway incident. This structure may vary depending on the incident or the Policies and Procedures of the department.

Each incident on the roadway could require a response of multiple agencies and private services.

- Prior to an incident determine the capabilities and resources of agencies and services likely to respond.

- Establish common practices for response and safety between agencies.

In addition it may be useful to create a resource guide or list for commanders and dispatchers. This list could provide contact information for resources that may be needed but are not commonly used, such as: Environmental Agencies and clean up companies, Biohazard/scene clean up crews, Heavy tow, lift, and recovery equipment, lumber suppliers, or special rescue resources. Determining these resources prior to an incident and having that information available to those who will be required to call for such assistance can drastically reduce the amount of time required to get the resources on scene.



Multiple agencies will respond to most roadway incidents. It is important to establish roles and responsibilities prior to an incident. This will avoid unnecessary confusion and conflict during an incident. TIM Committees are an excellent tool to use for coordination of resources prior to the incident.

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

These agencies are listed as examples of how traffic incident management can be accomplished.

See NTIMC *Example Strategies for Building Stronger State Traffic Incident Management Programs* for more information.

Responder Training

Train Responders for roadway operations

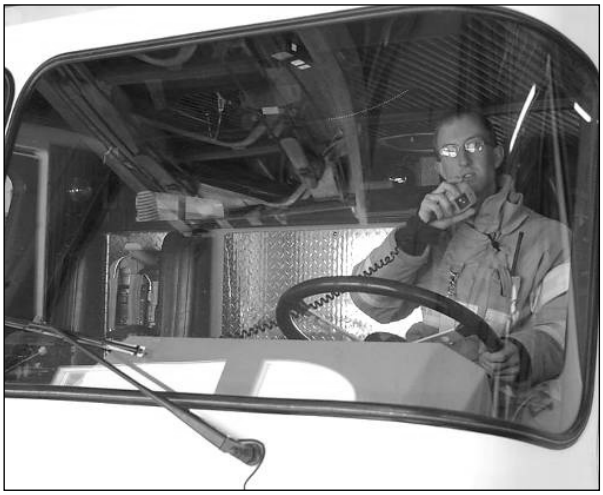
- The Hazards Present on the Roadway
- Terminology
- Tactics for Survival
- PPE Use
- Basic Strategy and Tactics

Don't let this be your department!

Transition Slide: The 9 slides that follow are provided as a refresher for the students in the group. They may be omitted or quickly reviewed depending on the experience level of the students of the workshop.

Strategy and Tactics

Windshield Size-up



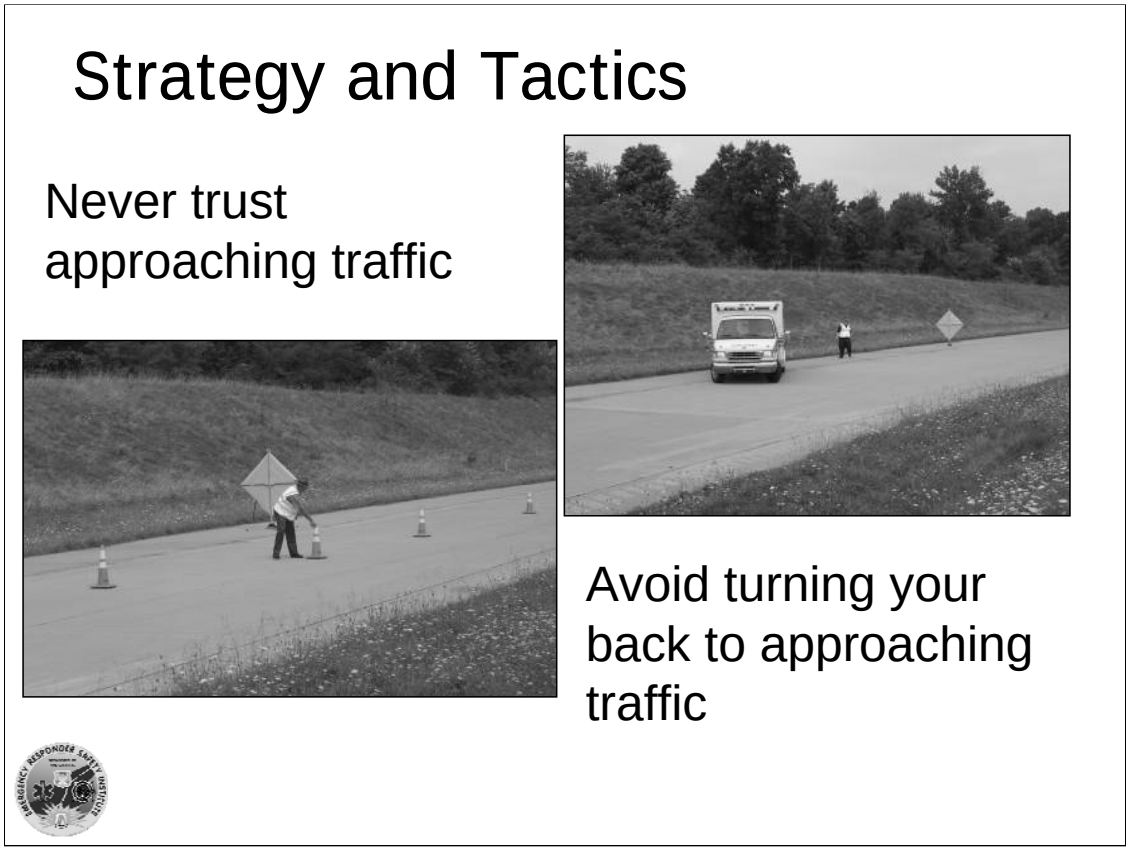
The Safety Benchmarks in this presentation are adapted from the University of Extrication "Safe Parking" SOP by Ron Moore.

Windshield Size-up:

While information gathered from the reporting party is valuable it is often incomplete or inaccurate. The exact layout of a scene cannot be known until arrival.

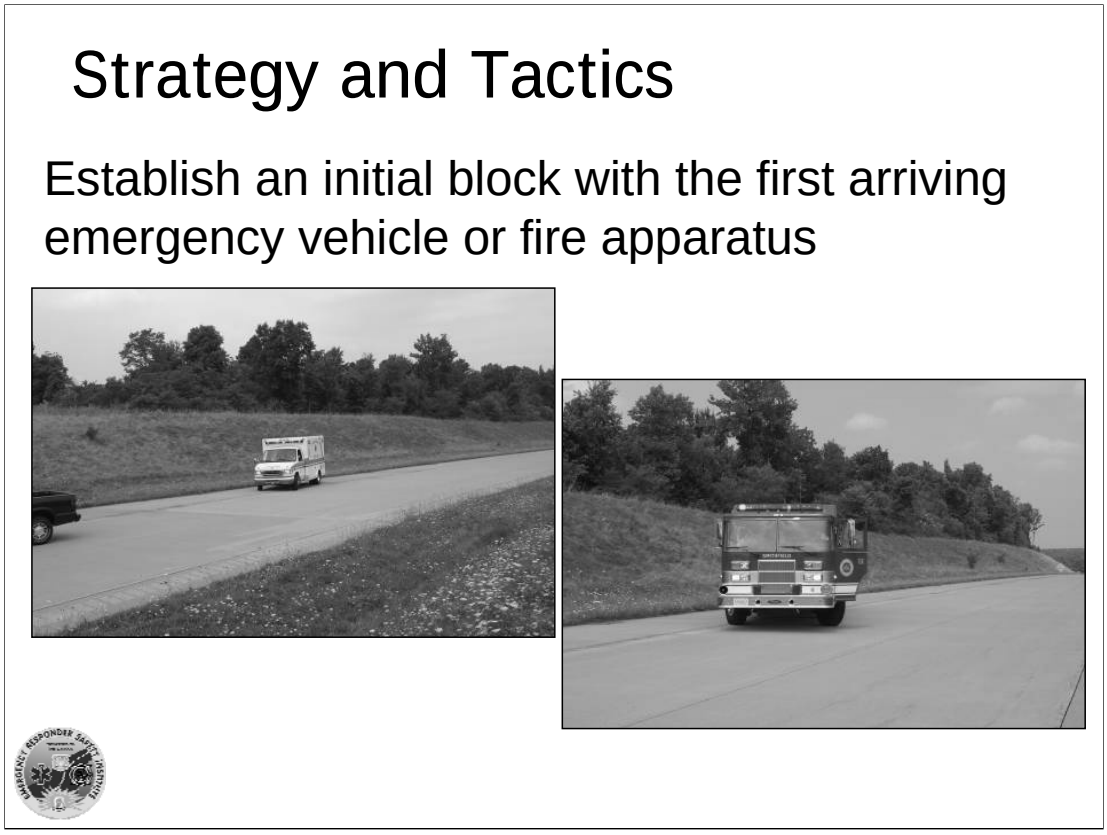
Therefore the first arriving responders and even following responders must make a size-up of the scene through the windshield as they arrive to determine:

- Safety considerations
- Blocking positions
- Emergency warning light management
- Additional resources that might be required



2. Never trust approaching traffic – It is important not to assume that approaching traffic is aware of the situation ahead (i.e. not paying attention or distracted) or that they do not understand what the traffic control devices are telling them to do. Therefore responders cannot trust traffic to do as expected.

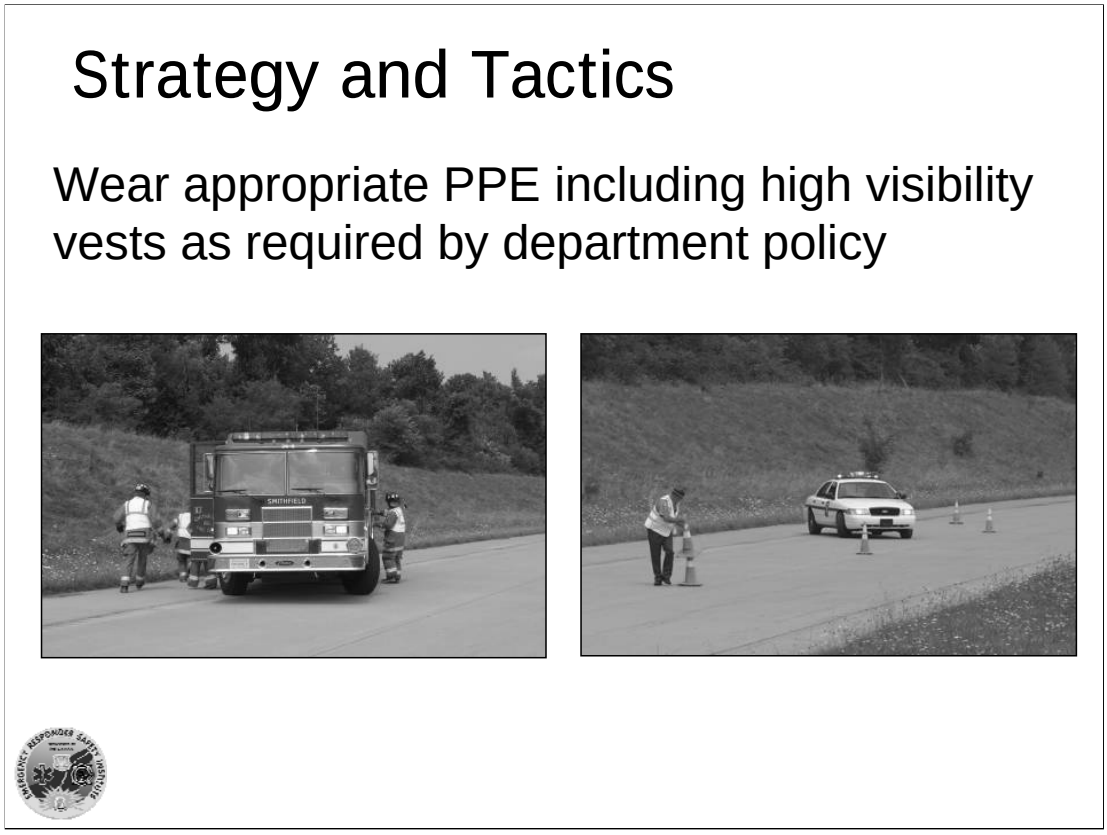
3. Avoid turning your back to approaching traffic – See rule two, because traffic cannot be expected to do as desired, responders should avoid turning their backs to approaching traffic. This means positioning yourself so you can see approaching traffic as you work, alternating looking to traffic and ahead as you walk, and or having a spotter when in a position to monitor approaching traffic when you cannot monitor traffic yourself.



4. Establish an initial block with the first arriving emergency vehicle or fire apparatus.

   A *Block* is defined as positioning of fire apparatus (or emergency vehicles) on an angle to the lanes of traffic creating a physical barrier between upstream traffic and the work area.

   Note: While blocking provides some protection keep in mind that emergency vehicles are not designed as attenuators. Depending on the size and application of the vehicle it will provide varying protection from a vehicle strike. Obviously a police cruiser will provide considerably less protection than a fire engine carrying 500-1000 gallons of water. Another important consideration is that the blocking vehicle not only physically blocks traffic from the work area but it blocks the view of responders in the work area to monitor traffic.



5. Wear appropriate PPE including ANSI high visibility reflective vests as required by department policy.

   At the time this presentation was created the new ANSI emergency responder compliant vests were not readily available. However, this will be the standard for reflective clothing to be worn by emergency responders. The standard was created because the Class III requirements necessitated sleeves on the vest which are not practical for responders.

   It is important for organizations to have department policy that stipulates what level of PPE is required at roadway incidents. Consideration should be given to the to wearing full structural fire fighting gear (bunker gear) including helmets. Police and EMS departments may have less to consider.

Strategy and Tactics

At nighttime incidents turn off all sources of vision impairment to approaching vehicles including vehicle headlights and spotlights

6. At nighttime incidents turn off all sources of vision impairment to approaching vehicles including vehicle headlights and spotlights.

   Consider the effect on approaching traffic of all emergency lighting. The high intensity lights that are so effective for emergency warning can also be blinding and confusing to approaching traffic in darkness, especially white light.

Strategy and Tactics

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

7. Use fire apparatus and police vehicles to initially redirect the flow of moving traffic.

   Early on in a roadway incident it may not be possible to deploy traffic control devices in an effective manner. However response cannot be delayed until these devices are completely set up. Therefore, vehicles can be used, similarly to blocking position, to redirect the flow of traffic.

Strategy and Tactics

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

Benchmark 8 Notes Continued

Advance warning is defined as notification procedures that advise approaching motorists to transition from normal driving status to that required by the temporary emergency traffic control measures ahead of them.

Section 6I-1 Warning and guide signs used for TTC traffic incident management situations may have a black legend and border on a fluorescent pink background (see Figure 6I-1).

Section 6F.16 Position of Advance Warning Signs Guidance: Where highway conditions permit, warning signs should be placed in advance of the TTC zone at varying distances depending on roadway type, condition, and posted speed. Table 6C-1 contains information regarding the spacing of advance warning signs. Where a series of two or more advance warning signs is used, the closest sign to the TTC zone should be placed approximately 30 m (100 ft) for low-speed urban streets to 300 m (1,000 ft) or more for freeways and expressways. Support: Various conditions, such as limited sight distance or obstructions that might require a driver to reduce speed or stop, might require additional advance warning signs. Option: As an alternative to a specific distance on advance warning signs, the word AHEAD may be used. Support: At TTC zones on lightly-traveled roads, all of the advance warning signs prescribed for major construction might not be needed. Option: Utility work, maintenance, or minor construction can occur within the TTC zone limits of a major construction project, and additional warning signs may be needed. Guidance: Utility, maintenance, and minor construction signing and TTC should be coordinated with appropriate authorities so that road users are not confused or misled by the additional TTC devices.

Strategy and Tactics

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

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

   As a roadway incident progresses more traffic control devices can be set up and may be required to maintain traffic flow. This includes traffic cones and other control devices such as emergency signage, arrow boards, and attenuators.

Strategy and Tactics

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

10. Assign personnel to monitor approaching traffic and activate an emergency signal if the actions of a motorist do not conform to established traffic control measures in place at the highway scene.

    Due to the fact that approaching traffic cannot be trusted to conform to the traffic control measures established at a scene it is recommended that one or more responders be assigned to monitor traffic. All responders are responsible for monitoring traffic, however due to blocking vehicles and responsibilities on scene this may not always be easily accomplished. A dedicated monitor of approaching traffic can warn all other responders of a threat and possibly take action to alert the motorist of the problem.

    * Note – If manual traffic control is needed it should be provided by qualified flaggers or uniformed law enforcement officers. If flaggers are used to provide traffic control for an incident management situation, the flaggers may use appropriate traffic control devices that are readily available or that can be brought to the traffic incident scene on short notice. (MUTCD 6I.03)

Tabletop Exercises

Transition to hands on portion of the program. Instructions and suggested scenarios for the tabletop exercise are included in the instructors manual that accompanies this program.

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

The table top exercise conducted as part of this workshop is designed to serve two objectives.

The first is to provide the participants with hands on experience in the management of roadway incidents using TIM concepts that take into account the roles and responsibilities of the various responding agencies.

The second is to provide the participants with an understanding of how to plan, set up and run a table top for their personnel.

Tabletop Exercises

- Equipment Needed
- Group Size
- Facilitation

Custom Table Top Scenarios

- Develop local scenarios
- Use pervious 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

Activity: At the completion of the Table Top exercise have the students take a few minutes to reflect how they will use the information and materials they received as part of this workshop with their department of agency.

The instructor should go around the room as time permits and ask the students to share their thoughts with the group.

When this activity is completed the instructors and staff should address any final questions from the group.

Managing Emergency Incidents on the Roadway

This program was developed by the Emergency Responder Safety Institute with funds provided by a Fire Prevention and Safety Grant from DHS/FEMA

EMW-2006-FP-02022

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Appendix 2: Instructor Materials for Table Top Exercise

Managing Emergency Incidents on the Roadway

Instructor Notes for Table Top Exercise

Goals

There are five goals for the table top exercises conducted as part of the Managing Emergency Incidents on the Roadway workshop.

1. To provide a brief review of the basic concepts of traffic incident management in a practical small group setting.
2. To provide participants with a better understanding of the roles, responsibilities, and motivations of the various agencies and service providers who typically respond to roadway incidents.
3. To demonstrate the value of Traffic Incident Management committees for coordination of resources and response to roadway incidents at the local level.
4. To provide the participants with hands on experience in the management of roadway incidents that require a multi-agency response.
5. To provide the participants with a basic understanding of how table tops can be set up and run for training sessions with their departments or assigned personnel.

Instructor Materials

The tools that the instructor is provided with for the Table Tops include:

- Table top boards and vehicle kits. Rural and urban street layouts and vehicles for each team of 10 to 15 students.
- Scenario sheets with community descriptions, incident information, background information, and specific inputs regarding the incident as it progresses. Optional conditions or inputs are provided to add complexity to the incident should the instructor feel that the team is ready for more challenging issues.
- A TIM Committee meeting outline and meeting objectives.
- Role cards for each of the key roles of the exercise. Blank cards are provided if additional roles are required. Cards should be issued to the role players as their roll is assigned. They should be worn to identify the participants during the exercise.

Sequence and Timing

The table top exercise is a key element of the learning experience for the participants of this workshop. Sufficient time must be provided to allow teams to conduct TIM Committee meetings, set up the scenarios and then conduct, debrief, and critique each exercise.

The Table Top activity is designed to allow the students the opportunity to participate in a pre-incident planning session and then to analyze an incident and implement an action plan for the incident using the resources identified during the TIM planning process. Participants will be assigned to represent the roles of the various responders to the incident. Each team is expected to establish an incident management plan and to deal with safe, quick clearance issues for the assigned incident.

The teams should have sufficient time to work through the introductory scenario and at least two of the TIM scenarios provided. As an option, advanced groups might be encouraged to develop and role play a scenario that applies to the local area such as a recent incident that required significant resources and had a major impact on traffic.

The introductory scenario is designed to provide a brief review of basic operational issues such as vehicle positioning, placement of temporary traffic control devices (cones, flares, barrels and signs, etc.) terminology and operational safety at a roadway incident. Additionally, the exercise will allow the students to become familiar with the setup and lay out of the Table Top boards and equipment. This scenario would be instructor led with input from the team. There is no TIM meeting for this scenario and each of the teams should walk through the same exercise.

The remaining time would be used to conduct at least two full Table Tops exercises. All of the teams do not necessarily have to work on the same scenario. In fact, it would be beneficial to provide different situations to the teams so that the debriefing process would be unique and a group could not say "…we did it like the last team." A variety of scenarios are provided so that the instructor can select the most appropriate for the group. Advanced groups may want to develop and run their own scenario that is based on a local incident or condition.

Suggested Timing for Assigned Scenarios

TIM Meeting – 20 Minutes

- Assemble teams
- Select a facilitator and scribe for the exercise
- Conduct a TIM committee meeting and develop the resource list

Exercise – 30 minutes

Debriefing and Report – 40 minutes

- Team discussion and report development – 10 minutes
- Team reports and questions from the other members of the class

Introduction and Operations Review Scenario

Purpose

This scenario is designed to serve as an introduction to the Table Top exercises and to provide a review of basic traffic control measures with the workshop participants. The scenario should be conducted as a walk through with the facilitator/instructor leading the activity.

Time Allotted: 30 Minutes

Instructor: This exercise should be instructor led to serve as an introduction to the Table Top exercises and a review of the basics of temporary traffic control. This exercise may not be necessary for groups with significant experience and training.

Community Information

This incident occurs in a community that has a population of 30,000 people with a mix of residential, and commercial properties. This is a "bedroom" community for a large metro area about 10 miles away.

Instructor: Provide the team with this information and the following resource information:

- Police – Three patrols and a supervisor assigned to each shift. State police approximately 15 to 30 minutes out if additional resources are required.
- Fire – 2 engine companies and a ladder company staffed with 3 to 4 firefighters assigned to each shift under the direction of a Shift Captain in a command vehicle. Emergency HAZMAT services are provided by the Metro Fire Department. Private clean up crews are also located there.
- EMS – 2 emergency BLS transport units provided by a third service EMS provider. ALS is provided using a non-transport response vehicle staffed with two paramedics who respond from the regional hospital in the community. Additional BLS transport units are called from the surrounding volunteer fire departments. There are 3 units within a 20 minute response time. The Trauma Center in the Metro area provides a med evac helicopter for critical transports. All major trauma is directed to this location either by ground or air evac.
- DOT/Public Works – Local public works has a single shift with 10 personnel. They have a supply of 100 traffic cones and a limited supply of barrels and wooden horses. They have one variable message sign that is trailer mounted. The state DOT depot is located approximately 15 miles outside of the city. There are 6 personnel including the area supervisor at this location. They are not available on a 24 hour basis.
- Medical Examiner – Offices located in Metro area. 24 hour on call availability – Typically a 1 to 2 hour response time to the community.

Incident Information

At approximately 1315 on a weekday afternoon the local public safety dispatch center receives a report of a two car accident at the entrance to a local strip mall. The caller

indicates air bags have deployed in both cars. A sector patrol is dispatched. On the second call reporting injuries an engine, BLS Transport unit and ALS units are dispatched. (Approximately 1 minute after PD is dispatched)

Background: The accident occurs on a heavily traveled four lane undivided roadway with a center turn lane. A four lane undivided roadway that intersects with the main roadway approximately ¼ from the incident and is controlled by a stop sign. A two lane roadway that runs parallel to the main roadway and has and outlet approximately ½ mile West that allows access back on to the road where the incident occurs.

Weather: Heavy rain. Temperature 45°F

Instructor: Position two civilian vehicles on the board at the intersection selected for the incident. Have the team position assigned vehicles and apparatus on the board.

1. At this point review the positioning of the responding vehicles. Review proper EMS unit positioning, where are the PD and Fire units positioned.
    a. The position of the PD car.
    b. Discuss blocking with apparatus and the positioning of the ambulance and ALS unit.
        ✓ In-line with incident
        ✓ Block left
        ✓ Block Right
    c. The location of the safe zone for responders to operate in and the amount of space required to provide them with sufficient protection.
    d. Review the terminology found in the definitions section that follows this scenario. Where appropriate, demonstrate each on the board using appropriate vehicles.
    e. Discuss how the incident would be expanded should the situation warrant, including positioning of traffic cones and other temporary traffic control devices if additional time is required for clearance. (Minor, intermediate and major incidents from definitions)
2. Ask group if there are additional questions and address them using the board and vehicles as appropriate.
3. When you are done you should have the set up for an intermediate incident on the board with cones and signs deployed for TTC and apparatus positioned to provide maximum safety for responders.

Traffic Incident Management Definitions

Advanced Warning – Notification procedures that advise approaching motorists to transition from normal driving status to that required by the temporary emergency traffic control measures ahead of them (Defined by MUTCD)

Block – Positioning of emergency vehicles on an angle to the lanes of traffic creating a physical barrier between upstream traffic and the work area. Includes: upstream, downstream, block to the left, and block to the right.

Downstream – Downstream blocking protects the work area from traffic approaching from the same direction.

Upstream – Upstream blocking protects the work area from traffic approaching from the opposite direction.

Block Right – Block to the right places the vehicle angled to the right with the rear of the vehicle closest to the roadway.

Block Left – Block to the left places the vehicle angled to the left with the rear of the vehicle farthest from the roadway.

Highway – A limited access, divided roadway with high speed traffic.

Minor Incident – Any incident that will be cleared in 30 minutes or less. (Defined by MUTCD)

Intermediate Incident – Any incident that will be cleared within 30 minutes to 2 hours. (Defined by MUTCD)

Major Incident – Any incident that will be cleared in 2 hours or more. (Defined by MUTCD)

Roadway – Any place on which a vehicle-related incident could occur, including but not limited to, highways, secondary roads, dirt roads, driveways, and parking lots.

Shadow – The protected work area at a vehicle-related roadway incident that is shielded by the block from emergency vehicles. Also known as Safe Zone or Work Zone.

Taper – The action of merging several lanes of moving traffic into fewer moving lanes.

Temporary Traffic Control (TTC) – Equipment and apparatus placed on the roadway to temporarily alter the flow of traffic to make a scene safe. This may include but is not limited to: signs, cones, flares, and attenuator vehicles.

Traffic Incident Management (TIM) – Equipment and apparatus placed on the roadway to temporarily alter the flow of traffic to make a scene safe. This may include but is not limited to: signs, cones, flares, and attenuator vehicles.

Responsibilities – Table Top Exercises

Facilitator

- Set up the initial incident on the board.
- Act as dispatcher for all agencies and resources to include providing ETA's for those resources.
- In scenarios where one agency or resource handles multiple responsibilities then simply combine motivations.
- Keep scenario within reasonable and realistic limits.
- Provide information to the role players to better depict and describe the scene.
- Lead the group through the after action report to ensure that the scenario was educational.

Scribe/Time Keeper

- Keep an incident log to include:
  - ✓ What resources were requested and at what time and by whom?
  - ✓ What was the Incident management structure established for the incident?
  - ✓ Times of arrival based on the scenario or the facilitators ETA.

Stake Holders and Motivations

Police

Your jurisdiction is within the city limits. Your primary concerns are the investigation of the accident and the quick clearance of vehicles to return the roadway to normal traffic patterns. To achieve this you may request that other agencies or resources make less of an impact on traffic patterns or that they expedite the return the roadway to normal.

State Police/Highway Patrol/Sheriff

Your jurisdiction is on county and state roads and to assist local PD when requested. Your primary concerns are the investigation of the accident and the quick clearance of vehicles to return the roadway to normal traffic patterns. To achieve this you may request that other agencies or resources make less of an impact on traffic patterns or that they expedite to return the roadway to normal.

Fire/Rescue

Your primary concerns are extrication of patients and controlling hazards at the scene. You may determine that additional apparatus is required or that using apparatus for blocking multiple lanes is required to achieve this at the cost of higher traffic impact.

EMS

Your primary concern is the care and safety of all patients at the scene. You may position equipment or apparatus to achieve this goal and you may remain on scene to stabilize a patient even after extrication.

Tow/Recovery

Your primary concern is removing vehicles and debris from the roadway. You may need to position your vehicle(s) in or across multiple lanes or request additional equipment to the scene to accomplish this goal.

DOT/Public Works

Your primary concerns are assessing and repairing damage to the roadway, providing traffic control when requested and returning the roadway to normal traffic patterns. You may need to call in off-duty personnel if the event occurs during non-working hours.

Medical Examiner

Your primary concern is the removal of any fatalities from the scene and determining their cause of death.

Hazmat/Cleanup

Your primary concern is the mitigation and cleanup of any hazardous materials that may be released or potentially released due to the incident.

Media

Your primary concern is getting the story and photos/video and meeting your Editor/producers deadline for the information.

Incident Command

This role is assigned as the scenario is played out – Several of the role players at the incident may serve in this function as the scenario progresses. The card should be formally passed from role player to role player as the responsibility is reassigned during the incident.

Table Top Instructions

a. Assign a Facilitator and Scribe/Timekeeper to each team. The facilitator will make role playing assignments, set up the initial incident on the board and act as the dispatch point for all resources during the exercise.

b. The facilitator assigns roles to each member of the team using the roles identified on the Responsibility/Motivations sheet.

c. Introduce the community information section of the assigned scenario.

d. The team should then meet as a Traffic Incident Management Committee to discuss roles and responsibilities at traffic incidents in the community. The committee should determine the role of each agency at incidents and number of resources that would be available for traffic incidents within a reasonable response time. The committee should develop a resource list for the facilitator to use when requests are made during the exercise. The committee should complete the resources worksheet as part of the meeting. (Time allotted: 15 minutes)

e. The facilitator should provide the incident information to the team in the form of a briefing. (Time allotted: 30 to 40 minutes)

f. Facilitator dispatches each agency/resource as it is requested and provides them with any specific role information.

g. Have the role players position their respective apparatus/equipment on the board in the order of arrival.

h. Team members should establish a realistic incident command system that will be documented by the Team Scribe.

i. Based on the information available as the scenario progresses each agency/resource should identify the objectives that must be addressed both for the overall incident and the agency/resource they represent.

j. Have appropriate role players position temporary traffic control measures on the board as the incident progresses.

k. Team members should update incident plans and identify additional resources (if any) that are required.

l. Make adjustments to the board based on these decisions and the projected arrival time of the resource.

m. As the incident progresses develop and implement plans for clearance and returning the roadway to normal traffic patterns. (remove apparatus, TTC vehicles involved, etc. based on a projected time table)

Debriefing/After Action Report

Time allotted: 10 minutes for debriefing. Selected teams should also present their operation and findings of the debriefing to the entire group and address questions.

The debriefing and team reports should be conducted after each table top exercise is completed. The instructor should facilitate a discussion after each team gives it's report on the incident.

Facilitator should have the team reset the board showing the most complex arrangement of vehicles and resources. When this is completed review the incident log to assess if the group was reasonable and realistic in their plan. Lead the group through a discussion of how the incident was managed. Address the following during the discussion:

- What was the effect of the incident on existing traffic patterns?
- How was the safety of personnel operating at the scene addressed?
- What Temporary Traffic Control measures were established and were they effective? Were there better alternatives?
- What steps were taken to manage the traffic around the incident efficiently and to achieve Safe, Quick Clearance?
- Could anything have been done to better streamline the plan and ensure safe, quick clearance?
- Explain how the incident was managed in a realistic manner. Challenge "assumptions" and charge the team with defending their actions.
- Was the scene "safe" from the arrival of the initial unit through final clearance?
- List the Lessons learned from this specific scenario.
- What would they do differently the next time?

Scenario 1

Time Allotted: 60 Minutes

Community Information

This incident occurs in a community that has a population of 55,000 people with a mix of residential, commercial and industrial properties. Many of the employees of the businesses commute to and from work from the rural areas that surround the community.

Incident Information

At approximately 1630 on a Friday afternoon the local public safety dispatch center receives a report of a two car accident at an intersection on a main artery in the community. The reporting party can not provide info regarding the number of people involved or injuries. There are multiple calls to dispatch reporting the incident.

Background: The main artery where this incident occurs is a heavily traveled four lane undivided roadway with a center turn lane. A four lane undivided roadway that intersects with the main artery and is controlled by a stop sign. A two lane roadway that runs parallel to artery and has and outlet approximately ½ mile that allows traffic access to the artery.

Weather: Rain with intermittent fog. Temperature 45°F

Information Updates:

ACTION: A police patrol is dispatched at 1631. The police role player should be activated as soon as the exercise is started.

At 1633 the police patrol arrives and reports at least four injuries with possible entrapment.

ACTION: Dispatch an appropriate Fire/EMS response from resources list developed by the group.

First Fire/EMS unit on scene at 1637.

At 1639, Extrication Group reports that there are two patients entrapped and estimate that extrication will require a minimum of 30 minutes.

At 1650, EMS Group advises that two patients have been packaged and are ready for transport to the hospital.

At 1714, Extrication Group advises that the last two patients have been extricated and packaged for transport.

OPTIONAL INPUT – IC reports that one of the involved vehicles in on fire with a victim still entrapped.

Scenario 2

Time Allotted: 60 Minutes

Community Information

This incident occurs just outside of a primarily residential community with a population of 25,000 people. There are several small farm communities nearby. The major city is approximately 20 miles away on the interstate highway.

Incident Information

At approximately 0915 on a Sunday morning the state police dispatch center receives a report of an accident involving a truck and a school bus. The reporting party indicates the accident is in a traveled lane of the intestate just prior to an exit. The reporting party can not provide info regarding the number of people involved or injuries but indicates that the interstate is partially blocked with debris from the accident. The state police receive several additional calls on the accident.

Background: The interstate highway where this incidents occurs runs through a rural area. The road is a four lane highway divided with a concrete barrier. In the area of the incident there is a narrow breakdown lane with a grass median adjacent to the road surface. The local road crosses the interstate with an overpass bridge. There is access to both the east and west bound lanes of the interstate from the interchange.

Weather: Clear. Temperature 55°F

Scenario 2: Information Updates:

ACTION: The state police patrol assigned to this sector is dispatched at 0916. The police role player should be dispatched as soon as the exercise is started.

At 0916 the state police sector patrol advises that he is approximately 20 minutes west of the scene.

ACTION: Dispatch an appropriate local law enforcement and Fire/EMS response from resources list developed by the group.

County Sheriffs unit arrives at 0927.

First Fire/EMS unit on scene at 0928.

At 0929 the Captain on the first arriving engine company reports that the truck driver and at least 6 of the 15 passengers on the bus will require transport to the hospital. All occupants are out of the vehicles.

NOTE: The bus is being used to transport a group of 12 to 14 year olds to a church summer camp.

ACTION: Dispatch additional EMS transport units from resources list developed by the group.

EMS transport units requested arrive on the scene between 0935 and 0955.

The state police sector patrol arrives on the scene at 0949.

At 0955 the state police patrol officer advises that the incident involves a 40 foot tractor trailer unit that is on its side blocking the left lane of the highway. The trailer has come apart and the contents – cartons of paper goods – are spread over a 100 yard section of the interstate in both lanes and on the median.

ACTION: Dispatch requested units from resources list developed by the group.

At 0958 – if requested by the IC – the DOT area supervisor estimates that she will be on scene in 20 minutes.

At 0958 the heavy tow/clean up operator reports a 45 minute response time.

EMS Group advises all patients are en route to hospitals.

If the resource was requested report that the DOT supervisor is on scene at 1015.

The heavy tow/clean up units requested arrive on the scene at 1105.

At 1120 The recovery/Cleanup Group advises the IC that the recovery operation will require several hours and that the removal of the vehicles will require that the east bound lanes be closed for approximately 20 to 30 minutes.

OPTIONAL INPUT – EMS Group advises IC that one of the entrapped victims has severe chest trauma and requires air transport to trauma Center in the next city.

Scenario 3

Time Allotted: 60 Minutes

Community Information

This incident occurs in a community that has a population of 55,000 people with a mix of residential, commercial and industrial properties. Many of the employees of the businesses commute to and from work from the rural areas that surround the community.

Incident Information

At approximately 1130 on a weekday morning the local public safety dispatch center receives a report of an accident involving a tractor trailer truck on an exit ramp from the interstate highway leading into the city. The reporting party can not provide info regarding the number of people involved or injuries. There are multiple calls to dispatch reporting the incident.

Background: This incident occurs on a heavily traveled ramp from a four lane interstate highway. Traffic on the interstate is moderately heavy at this time. The ramp leads to the main feeder road to the city. The road passes over the highway on an overpass. The city center is approximately 1 mile from the highway on the main artery.

Weather: Clear with light wind. Temperature 65°F

Scenario 3: Information Updates:

ACTION: State and local police are dispatched at 1131. The police role player should be activated as soon as the exercise is started.

At 1134 the local police unit arrives and reports that a tractor trailer unit has rolled on to it's side blocking the ramp. There are no injuries but a liquid is leaking from the tractor and boxes and bags of cargo from the trailer are all over the road.

ACTION: Dispatch an appropriate Fire response from resources list developed by the group.

First Fire unit on scene at 1140.

At 1141, The officer on the engine company reports that both saddle tanks on the tractor are breached and there is a significant diesel spill that is flowing into adjacent wetlands.

At 1143, The officer on the engine company reports that the trailer is placarded with a Flammable and UN1294 signs. The driver is attempting to locate the shipping documents in the truck cab.

At 1147, IC reports that the shipping documents indicate that there are 10 - 55 gallon containers of Toluene in the overturned trailer .

OPTIONAL INPUT – IC reports that several of the Toluene drums are leaking in the overturned trailer.

Scenario 3: 2004 ERG Guide 130 for UN1294 – Provide only if requested by Team

POTENTIAL HAZARDS

FIRE OR EXPLOSION

- **HIGHLY FLAMMABLE: Will be easily ignited by heat, sparks or flames.**
- Vapors may form explosive mixtures with air.
- Vapors may travel to source of ignition and flash back.
- Most vapors are heavier than air. They will spread along ground and collect in low or confined areas (sewers, basements, tanks).
- Vapor explosion hazard indoors, outdoors or in sewers.
- Those substances designated with a **"P"** may polymerize explosively when heated or involved in a fire.
- Runoff to sewer may create fire or explosion hazard.
- Containers may explode when heated.
- Many liquids are lighter than water.

HEALTH

- May cause toxic effects if inhaled or absorbed through skin.
- Inhalation or contact with material may irritate or burn skin and eyes.
- Fire will produce irritating, corrosive and/or toxic gases.
- Vapors may cause dizziness or suffocation.
- Runoff from fire control or dilution water may cause pollution.

PUBLIC SAFETY

- **CALL Emergency Response Telephone Number on Shipping Paper first. If Shipping Paper not available or no answer, refer to appropriate telephone number listed on the inside back cover.**
- As an immediate precautionary measure, isolate spill or leak area for at least 50 meters (150 feet) in all directions.
- Keep unauthorized personnel away.
- Stay upwind.
- Keep out of low areas.
- Ventilate closed spaces before entering.

PROTECTIVE CLOTHING

- Wear positive pressure self-contained breathing apparatus (SCBA).
- Structural firefighters' protective clothing will only provide limited protection.

EVACUATION

Large Spill

- Consider initial downwind evacuation for at least 300 meters (1000 feet).

Fire

- If tank, rail car or tank truck is involved in a fire, ISOLATE for 800 meters (1/2 mile) in all directions; also, consider initial evacuation for 800 meters (1/2 mile) in all directions.

EMERGENCY RESPONSE

FIRE

CAUTION: All these products have a very low flash point: Use of water spray when fighting fire may be inefficient.

Small Fires

- Dry chemical, CO_2, water spray or regular foam.

Large Fires

- Water spray, fog or regular foam.
- **Do not use straight streams.**
- Move containers from fire area if you can do it without risk.

Fire involving Tanks or Car/Trailer Loads

- Fight fire from maximum distance or use unmanned hose holders or monitor nozzles.
- Cool containers with flooding quantities of water until well after fire is out.
- Withdraw immediately in case of rising sound from venting safety devices or discoloration of tank.
- ALWAYS stay away from tanks engulfed in fire.
- For massive fire, use unmanned hose holders or monitor nozzles; if this is impossible, withdraw from area and let fire burn.

SPILL OR LEAK

- ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area).
- All equipment used when handling the product must be grounded.
- Do not touch or walk through spilled material.
- Stop leak if you can do it without risk.
- Prevent entry into waterways, sewers, basements or confined areas.
- A vapor suppressing foam may be used to reduce vapors.
- Absorb or cover with dry earth, sand or other non-combustible material and transfer to containers.
- Use clean non-sparking tools to collect absorbed material.

Large Spills • Dike far ahead of liquid spill for later disposal.

- Water spray may reduce vapor; but may not prevent ignition in closed spaces.

FIRST AID

- Move victim to fresh air. • Call 911 or emergency medical service.
- Give artificial respiration if victim is not breathing.
- Administer oxygen if breathing is difficult.
- Remove and isolate contaminated clothing and shoes.
- In case of contact with substance, immediately flush skin or eyes with running water for at least 20 minutes.
- Wash skin with soap and water. • Keep victim warm and quiet.
- In case of burns, immediately cool affected skin for as long as possible with cold water. Do not remove clothing if adhering to skin
- Effects of exposure (inhalation, ingestion or skin contact) to substance may be delayed.
- Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves.

Scenario 4

Time Allotted: 60 Minutes

Community Information

This incident occurs just outside of a primarily residential community with a population of 25,000 people. There are several small farm communities nearby. The major city is approximately 20 miles away on the interstate highway.

Incident Information

At approximately 0630 on a weekday morning the fire department is dispatched to a working structure fire in a rural portion of the community. On arrival, they find a heavily involved barn that is exposing several nearby structures. At approximately 0636 the IC requests mutual aid tankers for a tanker shuttle operation for water supply at the fire.

Background: The drafting point is located on a two lane road as it passes over a small river. The fire location is approximately ¾ mile from the drafting point. An engine is set up to draft and there are six tanker/tenders assigned to the shuttle. A moderate volume of traffic uses the road during the morning commute.

Weather: Cloudy. Temperature 40°F

Scenario 4: Information Updates:

At 0645 the IC reports that the fire is not yet under control and estimates a minimum of 90 minutes plus overhaul.

0647 the engine is set up and the first tender is filled. There are three additional units at the fire scene that will be dumping water and responding to the fill location in the next few minutes.

OPTIONAL INPUT – One of the tenders is struck while waiting at the drafting site. Instructor – drop this situation if in your opinion sufficient TTC measures are not taken during the scenario role play.

Scenario 5

Time Allotted: 60 Minutes

Community Information

This incident occurs just outside of a community with a population of 60,000 people. There are several large chemical processing plants located in or near the city limits. There are several small residential communities near-by. A major metro area is approximately 30 miles away on the interstate highway.

Incident Information

At approximately 2015 on a weekday evening the fire department dispatch center receives a report of an accident involving a tank truck on the interstate. The reporting party indicates the accident is in a traveled lane of the intestate under an overpass. The reporting party can not provide info regarding the number of people involved or injuries but indicates that the interstate is partially blocked with debris from the accident. The dispatch center receives multiple calls from passers-by and residents adjacent to the highway overpass. All indicate that there is a major fire on the interstate.

Background: The interstate highway where this incidents occurs runs through a moderate income residential area. The road is a four lane highway divided with a concrete barrier. In the area of the incident there is a narrow breakdown lane with a grass median adjacent to the road surface. The local road crosses the interstate with an overpass bridge. There is access to both the east and west bound lanes of the interstate from the interchange.

Weather: Clear. Temperature 75°F. Winds are blowing toward the residential area at 15 to 20 mph.

Scenario 5: Information Updates:

ACTION: City fire/rescue and an EMS unit is dispatched at 2017. State and local police are notified of the incident. The appropriate role players should be dispatched as soon as the exercise is started.

At 2021 the officer on the first arriving engine company reports heavy fire under the overpass involving an overturned tank truck and at least two passenger cars. The officer request an additional alarm and 2 additional EMS units.

ACTION: Dispatch an appropriate law enforcement, Fire/Rescue and EMS response from resources list developed by the group.

The first local police units arrive at 2021.

On-duty Deputy Fire Chief on scene at 2025.

2nd alarm Fire/Rescue companies and EMS units start to arrive at 2027.

At 2029 the IC reports that they have what appears to be an 8000 gal tanker of gasoline overturned and burning under an overpass. There are 2 injuries and there are several fatalities. He requests two more alarms (4 additional engines with foam and two ladder companies for elevated master stream operations) The IC also reports that the liquid is flowing into storm drains adjacent to the roadway.

Additional incident updates will be provided to the facilitator by instructor.

Scenario 6

Time Allotted: 60 Minutes

Community Information

This incident occurs on an interstate highway that passes through a heavily populated county. The interstate highway connects two major metro areas. The first is approximately 15 miles from the incident location and the second is approximately 65 miles away. There are several primarily residential communities with populations in the 30,000 to 50,000 range within 5 to 7 miles of the incident.

Incident Information

At approximately 0620 on a weekday morning a DOT Highway service unit assisting a motorist with a flat tire in the breakdown lane on the interstate hears multiple crashes to his rear. He reports this to the traffic control center for the district.

Background: The interstate highway where this incidents occurs runs through moderately populated residential area with a wide tree lined buffer zone between the residential structures and the highway. The road is a four lane divided highway with a grass median between the east and west bound lanes. In the area of the incident there is a narrow breakdown lane with a grass median adjacent to the road surface. Irvine Road is a two lane rural road that crosses the interstate with an overpass bridge. There is access to both the east and west bound lanes of the interstate from the Exit 11 interchange.

Weather: Clear. Temperature 45°F, very poor visibility with rain and fog.

Scenario 6: Information Updates:

ACTION: The traffic control center notifies the Highway Patrol dispatch. The sector patrol is dispatched at 0622. The DOT and police role players should be dispatched as soon as the exercise is started.

At 0622 the DOT Operator advises that that he is on the scene of a multi-vehicle accident with injuries and at least two tractor trailer units burning under an overpass. He also advises that there have been several additional crashes. Visibility is near zero.

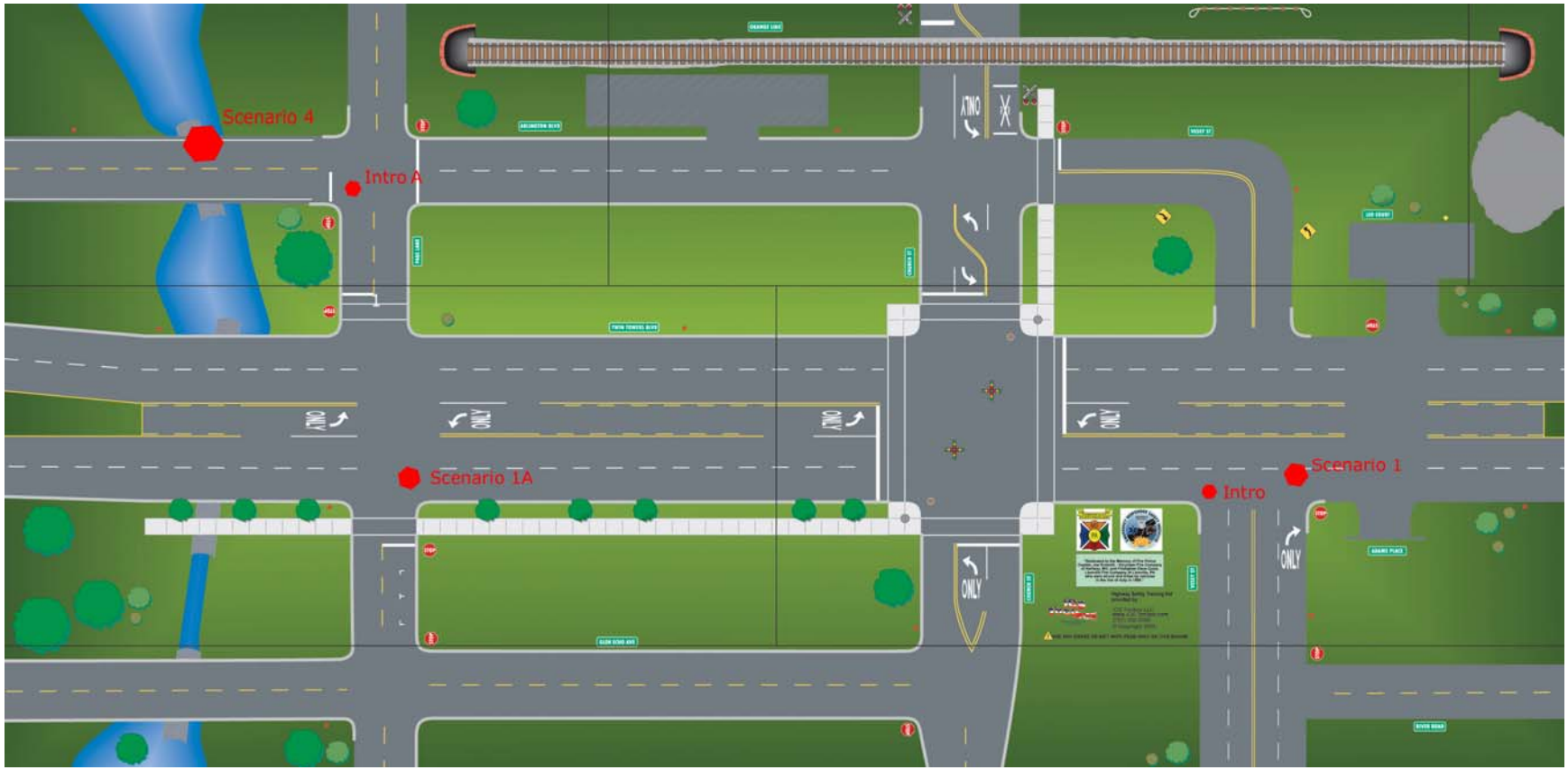
ACTION: Dispatch an appropriate local law enforcement and Fire/EMS response from resources list developed by the group.

First Fire/EMS units on scene at 0635.

Highway Patrol unit arrives at 0638.

Additional incident updates will be provided to the facilitator by instructor.

Urban Table Top Board with suggested locations for Scenarios



Rural Table Top Board with suggested locations for Scenarios