Traffic Incident Management and the Role of Transportation/Public Works Agencies

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What Is a “Traffic Incident”?

• Any *unplanned* event that disrupts the normal flow of traffic
• Duration usually short-term but major incidents longer
• Causes:
  • accidents
  • breakdowns and vehicle fires
  • medical emergencies
  • debris or animals in roadway
  • severe weather
  • infrastructure damage
  • law enforcement activities
Traffic Incident Management

“A planned and coordinated multi-disciplinary process to detect, respond to, and clear traffic incidents so that traffic flow may be restored as safely and quickly as possible.”

FHWA Traffic Incident Management Website
Levels of Incidents per MUTCD

- Chapter 6-I, Control of Traffic Through Traffic Incident Management Areas, defines traffic incidents as:
  - minor --------- up to 30 minutes duration
  - intermediate --- 30 minutes to 2 hours
  - major ---------- 2-24 hours

- Different factors influence these determinations
- Level can change upon a particular discipline’s involvement

Figure 6I-1. Examples of Traffic Incident Management Area Signs

- BE PREPARED TO STOP (W3-4)
- CENTER LANE CLOSED AHEAD (W9-3)
- EXIT CLOSED (E5-2a)
- END DETOUR (M4-8a)
- DETOUR (M4-9, M4-10)

c. Monte Vista Associates, LLC; TRB M&O Conf. 2015 FINAL
Effects of Traffic Incidents

- High risk for responders
- Secondary crashes affect public
- Delays cost millions of dollars in lost productivity
- Hundreds of thousands of personal injuries, fatalities
- Billions of dollars in vehicle, freight and property losses
Challenges with Traffic Incidents

- Responders have different command structures, SOPs
- Lack of cooperation among disciplines
- Lack of communication between agencies
- Poor coordination of activities and tasks
- Insufficient training in temporary traffic control
- Inadequate TTC devices
- Media and public not well informed

“Effective TIM reduces the duration and impacts of traffic incidents and improves the safety of motorists, crash victims, and responders”

( FHWA website)
Working Together for Progress

National Traffic Incident Management Coalition (2004-2013)

• Stakeholders from many disciplines and interests
• Proposed changes to MUTCD; recommended new state laws; promoted better collaboration among disciplines; introduced new concepts and best practices.

Executive Leadership Group (since 2014)

• Major responder discipline associations including AASHTO and APWA
• Work with FHWA to guide new directions, initiatives.
Training Together to Work Together

Free TIM Training conducted by FHWA

- Train-the-Trainer (8-12 hour class)
- Responder course (4-8 hour class)
- Both courses open to all disciplines
- Public Works/Transportation needed
- Available through State offices
- FHWA funding training through APWA, IMSA
- Responder course by web through NHII
TIM Training by Discipline as of 6/29/2015

- **Fire/Rescue**: 41,203 Total Trained, 419,549 Total To Be Trained
- **Law Enforcement**: 40,822 Total Trained, 417,215 Total To Be Trained
- **EMS**: 5,244 Total Trained, 239,093 Total To Be Trained
- **DOT/Transportation**: 16,467 Total Trained, 85,714 Total To Be Trained
- **Towing and Recovery**: 8,002 Total Trained, 80,196 Total To Be Trained
- **Other Disciplines***: 6,089 Total Trained, 43,989 Total To Be Trained
# In-Person TIM Training as of 6/29/2015

<table>
<thead>
<tr>
<th>Discipline</th>
<th>Train-the-Trainer</th>
<th>Responder Training</th>
<th>Total</th>
<th>Percentage</th>
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</thead>
<tbody>
<tr>
<td>Law Enforcement</td>
<td>2,016</td>
<td>38,806</td>
<td>40,822</td>
<td>34.8%</td>
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<td>Fire/ Rescue</td>
<td>2,098</td>
<td>39,105</td>
<td>41,203</td>
<td>35.1%</td>
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<tr>
<td>Towing and Recovery</td>
<td>426</td>
<td>7,576</td>
<td>8,002</td>
<td>6.8%</td>
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<tr>
<td>EMS</td>
<td>295</td>
<td>4,949</td>
<td>5,244</td>
<td>4.5%</td>
</tr>
<tr>
<td>DOT/ Transportation</td>
<td>1,250</td>
<td>15,217</td>
<td>16,467</td>
<td>14.0%</td>
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<tr>
<td>Other Disciplines</td>
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<td>5,083</td>
<td>5,554</td>
<td>4.7%</td>
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<tr>
<td><strong>Total Trained</strong></td>
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<td><strong>110,736</strong></td>
<td><strong>117,292</strong></td>
<td><strong>100.0%</strong></td>
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<tr>
<td><strong>Number of Sessions</strong></td>
<td><strong>170</strong></td>
<td><strong>4,359</strong></td>
<td><strong>--</strong></td>
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</tr>
</tbody>
</table>
Public Works/DOT Capabilities

- Trained and equipped for temporary traffic control
- Experienced with various situations and incidents
  - temporary traffic control
  - clearing debris from roadway
  - repairs to damaged infrastructure
Role of Traffic Management Centers

Traffic Incidents

- Crash detection and notification
- remote monitoring
- communications
- determining closures and detours
- adjusting traffic signals
- information to media and public

- IMSA and FHWA collaborating on new course for TMC Operators
More Than Just Responder Training

- Obtain training in NIMS and Incident Command System
  - IS-100pw, Intro to ICS for Public Works,
  - IS-200, ICS for Initial Incident and Single Resource
  - IS-700, Intro to National Incident Management System
  - ICS-300 Intermediate, ICS-400, Advanced Incident Command System
  - IS 15-Special Events Contingency Planning

- Discussions with other responders
  - Describe resources of Public Works /DOTs
  - Explain response capabilities and limitations

- Develop agency plans, policies and procedures
- Ensure adequate, available inventory of TTC devices
TIM Prepares for Other Emergencies

The protocols, policies, procedures and methods for Traffic Incident Management are the basis for better communication, coordination, cooperation and capability in other emergencies and events.
Public Works and Emergency Management

Emergency Service Sector: Public Works Role

- flood control
- debris clearance and removal
- emergency traffic operations
- repair damage to roads, bridges, tunnels
- assess damage to public structures

Source: FEMA Critical Infrastructure Resource Center
For More Information…

FHWA, Emergency Transportations Operations  fhwa.dot.gov/etotim

For Responder or Train-the-Trainer courses:
James G. Austrich, Responder Training Manager  james.austrich@dot.gov

Publications

• Guide to the Incident Command System for Transportation Professionals
• Traffic Control Concepts for Incident Clearance Primer
• Traffic Incident Management in Construction/ Maintenance Work Zones
• Best Practices in Traffic Incident Management
• 2010 Traffic Incident Management Handbook
• Alternate Route Handbook

• USFA/FEMA  Traffic Incident Management Systems
Other TIM Training Sources

Virtual training:

Emergency Responder Safety Institute
respondersafety.com

I-95 Corridor Coalition
i95coalition.org/i95/Training

• National Highway Institute
  nhi.fhwa.dot.gov/training/course
  • TIM Responder
  • Managing Travel for Planned Special Events
  • Using the Incident Command System at Highway Incidents
  • Work Zone Traffic Control for Maintenance Operations

• Tim network
  http://timnetwork.org
Questions?

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