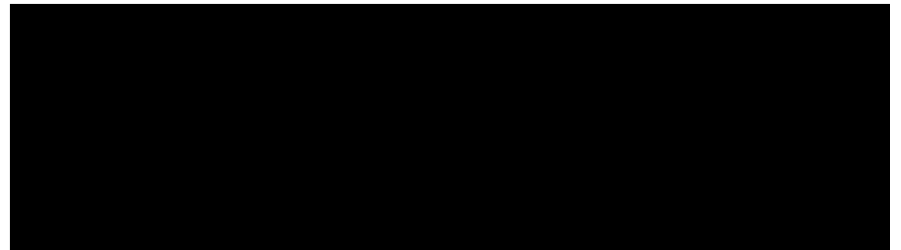


Tulsa TMA Traffic Incident Management Guide



Traffic Incident Management

The primary goals of Traffic Incident Management are:

- Move road users safely and expeditiously past or around the traffic incident
- To reduce the likelihood of secondary crashes and
- Properly control road users through the incident area in order to protect responders.
- Performance goals with respect to clearance time

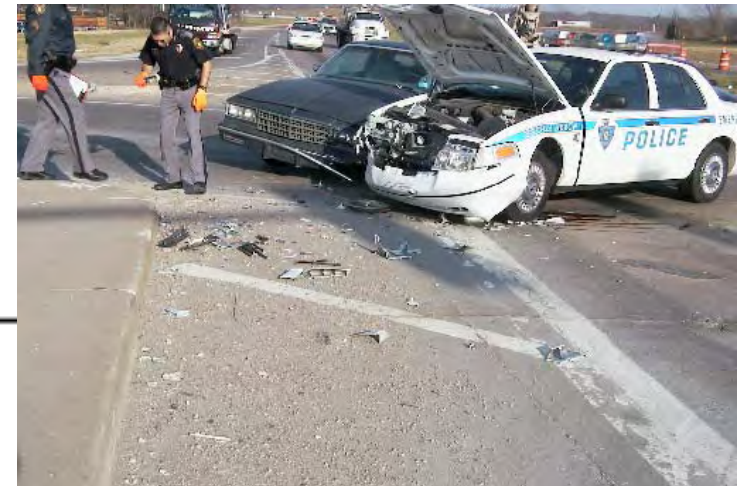
Why Do We Need Traffic Incident Management?

- It is the Leading Cause of Police Line of Duty Deaths
- It is the Second Leading Cause of Fire and EMS Deaths
- Secondary Crashes Kill or Injure Hundreds
- Congestion From Incidents Has Significant Economic and Liability Costs, and It Decreases Regional Air Quality



No. 1 Issue: Responder Safety

- **15,000 Responder Vehicles Struck Nationwide Every Year**
- **More Than 10,000 Responder Injuries Annually**
- **More Than 50% of Officer Deaths are Related to Traffic**
- **Firefighter, DOT, and Towing Injuries and Fatalities Are Too Common**
- **Evaluation of Response Training to Increase Safety is Critical**



It Can Happen to Any of Us...









If this is how your department currently operates while working in or near moving traffic, you are prime candidates to be victims of the next "struck-by" incident.



Effective
Incident
Management

Stakeholder Roles And Responsibilities

- Law Enforcement
- Fire and Rescue
- Emergency Medical Services (EMS)
- Transportation Agencies (ODOT & Public Works)
- Towing and Recovery
- Media
- Information Service Providers
- Coroners and Medical Examiners
- Hazardous Materials & Remediation Companies

Recommendations

- On going training and Periodic Review
 - Multi-agency and cross-jurisdictional
- Properly equipping response vehicles
- Establish a heavy duty tow policy
 - Consistency in policies
- Streamline DMS operations
- Reduce investigation time
- Courtesy Patrols

Educating Motorists

- Safety In and Around Traffic Incidents
- Reducing Secondary Crashes
- Quick Clearance & Move Over laws
- Consistent TIM Strategies
- Public Information & Education Programs
- Media Releases



Quick Clearance Protocol



- Dispatch will advise parties to move from the road if possible
- Immediate Wrecker Response
- Radio Communications with wrecker service
- Push Bars for roadway clearance

To Facilitate Quick Clearance...

- Mark It
- Move It
- Measure It *after* the Congestion has Cleared



Whenever Possible!

*Lane Closure Times
Reduced by OVER 50%!*

A photograph of two police officers standing on a road. The officer on the left is a man wearing sunglasses and a high-visibility yellow and black jacket, holding a long-handled orange wheel. The officer on the right is a woman wearing sunglasses and a similar high-visibility jacket, holding an orange traffic cone. In the background, a white police car with "POLICE" and "0351" on the back is parked. The scene is outdoors on a road with some snow on the shoulders.

...Through High Visibility Clothing

***ANSI Level II & Level III High Visibility
wear adopted for Officers!***

**OSHA Requirements include ANSI Class II or Class III
High Visibility Clothing for Emergency Responders!**



Advanced Warning Signs



***Snap-on Overlays
Allow the Message
to be Changed***

**“Coral” is the Color Established by MUTCD for
Emergency Responders To Use for Traffic Control Devices**



Give Them Time To React...



**...By Changing their
Behavior Upstream!**

WARNING TRAFFIC BEFORE THE QUEUE

1. USE HAND SIGNALS
2. USE FLARES ON BOTH SHOULDERS
3. USE HAND-HELD PLACARD OR FLAG
4. NOTIFY DOT & OHP FOR VMS
5. ISSUE TRAFFIC ADVISORY

One mile upstream from the incident



Cone Mounted Signs for All Traffic Cars





Electronic Lighting Devices can be used
for long term night time scenes.

Additional Recommendations

- Identify high crash rate locations
- Continue ITS Deployment
- Enhanced wireless 911 system
- Install mile markers and overpass names
- 'Slick Streets' public information campaign
- Incident Command MOU
- Adopt 15 minute rule

Additional Recommendations

- Use DMS to warn drivers
- MUTCD compliant temporary traffic control
- Alternate routing for major incidents
- Review and revise Emergency lighting policies
- Form a major collision response team
- Off-peak investigation
- Review & Develop new HAZMAT policy
- Clearance Training exercise

FEDERAL SIGNAL

**THIS IS WHAT MOST EMERGENCY
SCENES LOOK LIKE!**

SETTING UP THE “CIRCUS”



Use Supplemental Scene Lighting When Possible

**To Improve Ambient Lighting for Responders
And Enhance Visibility for Drivers**



← Stationary Web cams

← Pan/Tilt/Zoom

Part of the Tulsa
Intelligent Transportation System
Project

VARIABLE MESSAGE SIGNS
& CAMERAS
OPERATED BY ODOT

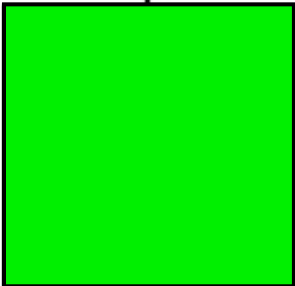




Effective
Incident
Management

THE BEST WAY TO REDUCE YOUR RISK OF LIABILITY IS TO:

Continuously look for opportunities to upgrade the scene traffic controls toward the MUTCD Standards



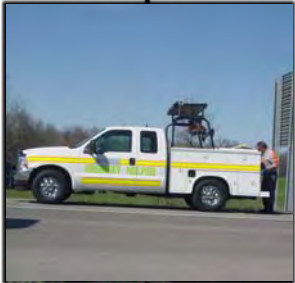
USE THE "15 MINUTE RULE"

Proper Use of Traffic Control Devices

- What is the Transition Zone?

The area of roadway where drivers will react to the incident, and either slow or stop.

- Effective Use of Flares & Cones
- Applying the Principles of the MUTCD to Emergencies



Agency Clearance Objectives:

“Officers should attempt to reach specific goals related to clearing our roads in an effort to ensure standardized performance. Average clearance times from the moment the first officer arrives till you are back in service should be:”

- **15 minutes for a stalled or disabled vehicle,**
- **30 minutes for a lane-blocking non-injury crash,**
- **45 minutes for a lane-blocking injury collision or spilled cargo,**
- **60 minutes for a lane-blocking major injury crash,**
- **90 minutes for a lane-blocking fatality or criminal investigation.**

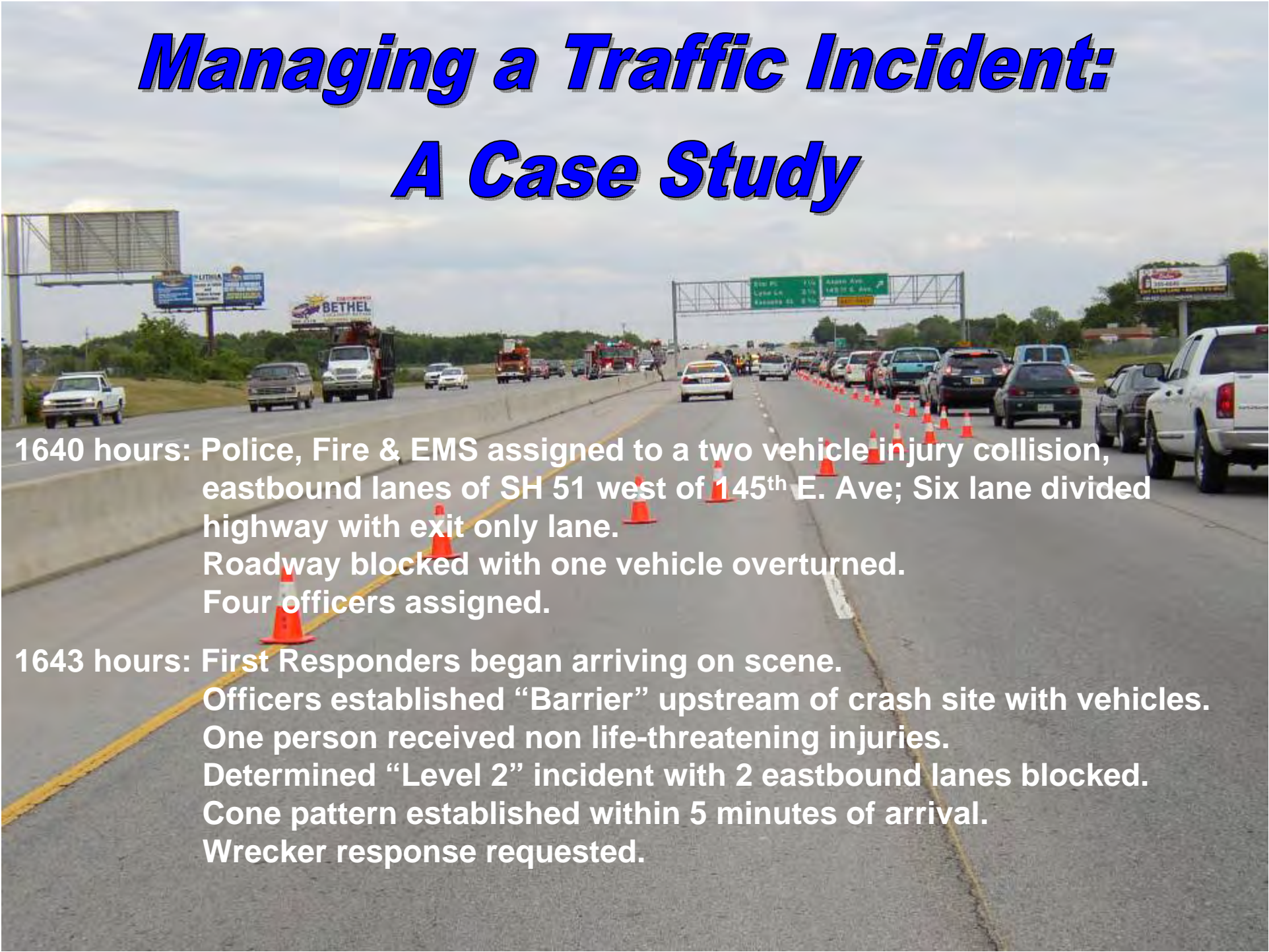


Close as much of the roadway
as you need.

OR

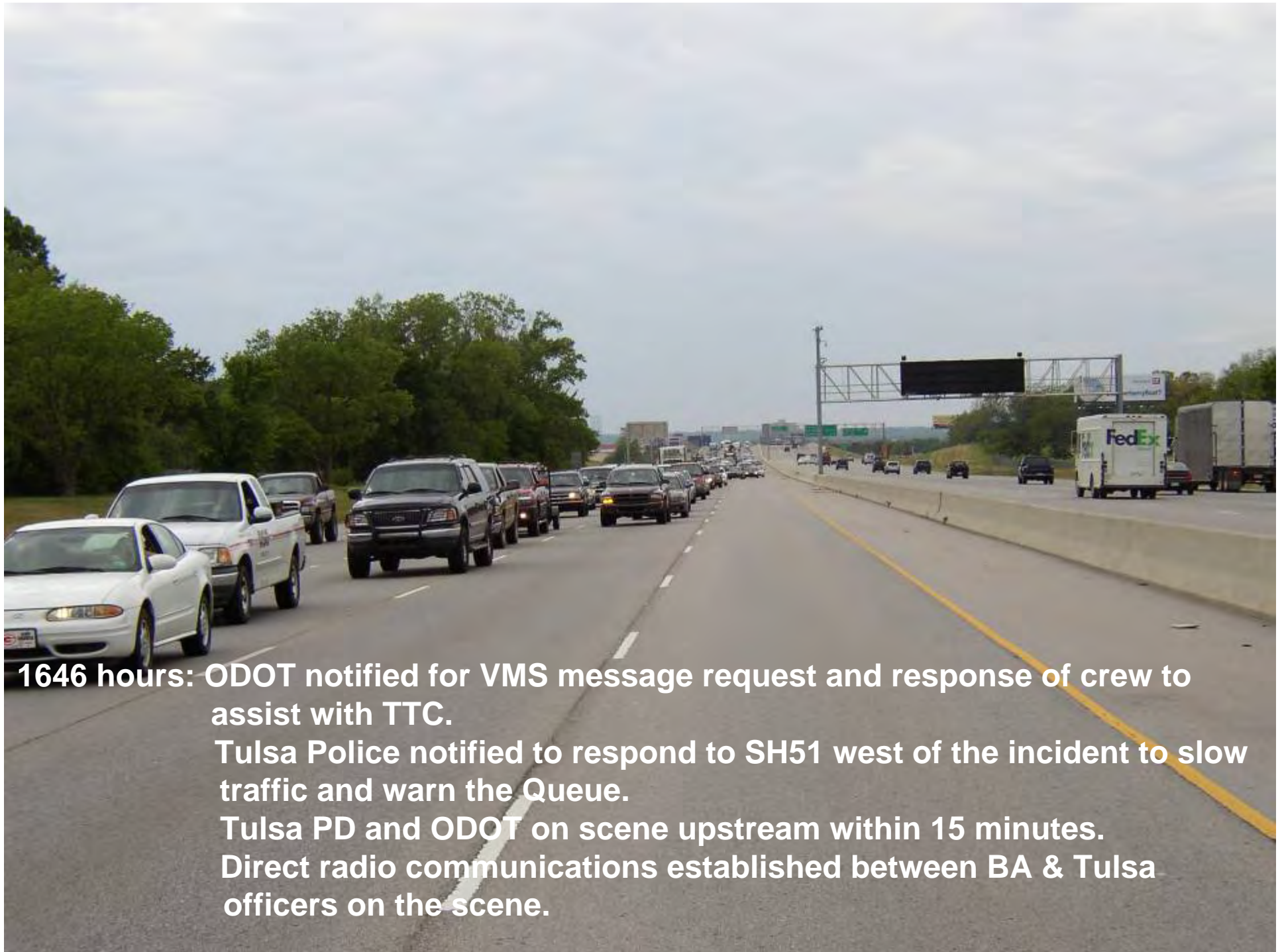
Close the entire roadway,
but only as a last resort

Managing a Traffic Incident: A Case Study



1640 hours: Police, Fire & EMS assigned to a two vehicle injury collision, eastbound lanes of SH 51 west of 145th E. Ave; Six lane divided highway with exit only lane. Roadway blocked with one vehicle overturned. Four officers assigned.

1643 hours: First Responders began arriving on scene. Officers established “Barrier” upstream of crash site with vehicles. One person received non life-threatening injuries. Determined “Level 2” incident with 2 eastbound lanes blocked. Cone pattern established within 5 minutes of arrival. Wrecker response requested.



1646 hours: ODOT notified for VMS message request and response of crew to assist with TTC.

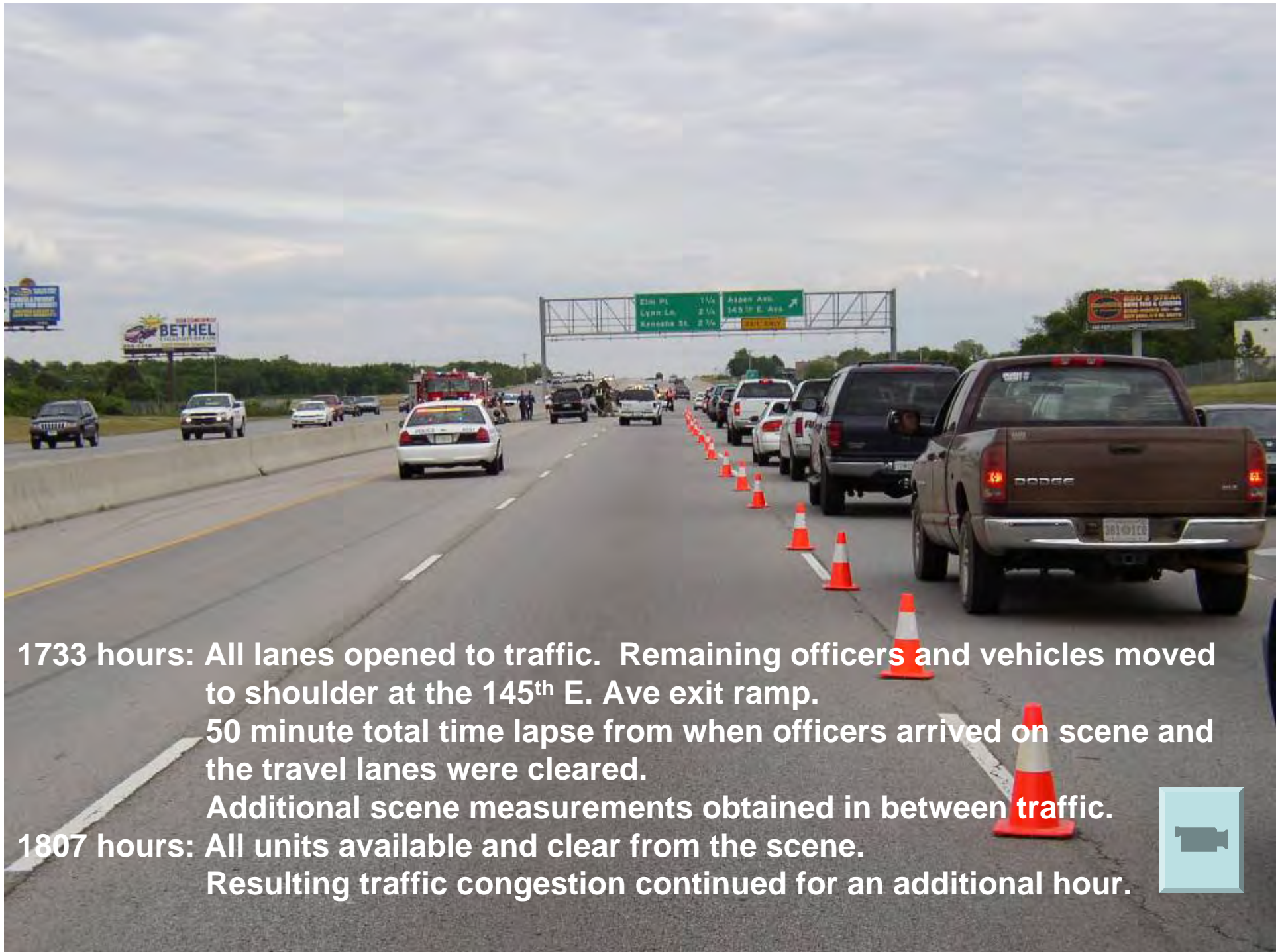
Tulsa Police notified to respond to SH51 west of the incident to slow traffic and warn the Queue.

Tulsa PD and ODOT on scene upstream within 15 minutes.

Direct radio communications established between BA & Tulsa officers on the scene.



1710 hours: Wreckers arrive and begin removal of vehicles & debris.



1733 hours: All lanes opened to traffic. Remaining officers and vehicles moved to shoulder at the 145th E. Ave exit ramp.

50 minute total time lapse from when officers arrived on scene and the travel lanes were cleared.

Additional scene measurements obtained in between traffic.

1807 hours: All units available and clear from the scene.

Resulting traffic congestion continued for an additional hour.





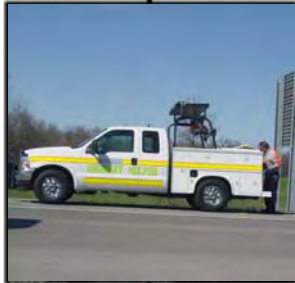
PROBLEMS ENCOUNTERED:

- Unable to deploy A/W signs; “Too Late”.
- Westbound lane blocked by FD required two additional officers.
- Miscommunication between BA & Tulsa Dispatch.
- No immediate wrecker response.
- Wrecker, ODOT & TPD response delayed by traffic congestion.
- Large amount of debris, primarily glass, took extensive amount of time to clear from roadway & shoulder.
- No direct communication with ODOT.

Clearance

Quick Crash Investigation But Slow Response to The Scene

- Preliminary Tasks Should Be Completed by First Officers
- Steps Should Be Taken to Ensure Timely Response of Investigators
- Mark and Clear Techniques Are Effective



Clearance

Push Bumpers

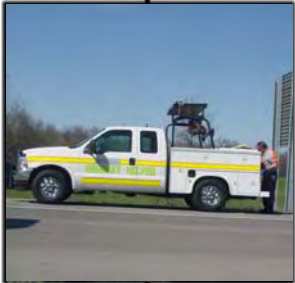
- Should Be Used on All Patrol Vehicles
- Users Should Be Properly Trained
- Encouraged for Removal of Blocking Vehicles
- Liability Not a Problem When Used Properly
- Provide the Driver With Proper Instructions
- Check Before and After the Move for Damage



Clearance

Abandoned Vehicle Policies

- 2 to 4 Hours Maximum on Congested Roadways
- Shoulder Incidents Add to Congestion When Traffic Is Heavy; may lead to liability issues for police if vehicles are left on the side of the road for long periods of time
- Inclement Weather Issues – may impede snow removal



Clearance

Electronic or Computer-Based Measurement Systems

- Total Stations
- Lasers
- Geographic Information Systems
- Photogrammetry



- Less Time to Process
- Less Exposure to Traffic
- Reduced Time for Road Closures
- More Accurate



Clearance

Conduct Investigations In Off-Peak Hours

- Mark and Clear Scenes When Congestion or Inclement Weather Is Present
- Plan Recovery Operations During Off-Peak Hours
- Delay Wrecker Removal if it will Impede Peak Travel Periods
- Return for Measurements When It Is Safe and Traffic Conditions Are Improved
- Allows for Better Traffic Control That Meets MUTCD Standards

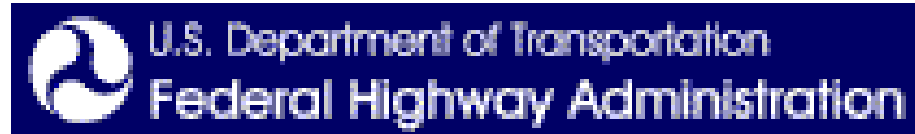
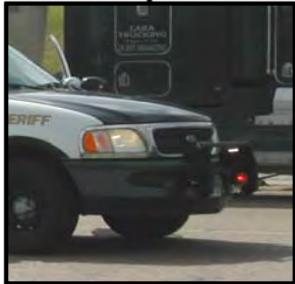
YOU Dictate when Recovery will be done if it will Affect Other Traffic!



Conclusion

Model TIM Program:

- The TIM Program developed by the Broken Arrow Police Department for the Tulsa Region has been featured as a “Model TIM Program” for Emergency Responders.



TRB 85th Annual Meeting

JANUARY 22-26, 2006 WASHINGTON D.C.