



# Strategic Highway Research Program 2 (SHRP 2)

- The first Strategic Highway Research Program (1988 to 1993) improved winter highway maintenance practices and revolutionized asphalt pavement design
- The second Strategic Highway Research Program (SHRP 2) was authorized by Congress to address some of the most pressing needs related to the nation's highway system, Congress authorized SHRP 2 in 2005 to investigate the underlying causes of highway crashes and congestion in a short-term program of focused research
- The National TIM Responder Training Program is the first reliability product being rolled out under SHRP 2

# SHRP 2

SHRP 2 Research	
Area	Focus
Safety	Prevent or reduce the severity of highway crashes by understanding driver behavior
Renewal	Address the aging infrastructure through rapid design and construction methods that cause minimal disruption and produce long-lived facilities
Reliability	Reduce congestion through incident reduction, management, response, and mitigation
Capacity	Integrate mobility, economic, environmental, and community needs in the planning and designing of transportation capacity

# TIM Defined

- TIM consists of a planned and coordinated multidisciplinary process to detect, respond to, and clear traffic incidents so that traffic flow may be restored as safely and quickly as possible
- Effective TIM reduces the duration and impacts of traffic incidents and improves the safety of motorists, crash victims, and emergency responders

# Annual Effects of Congestion

The Annual Effects of Congestion						
City Size	City Size Congestion Stats per City		Congestion Stats per Traveler			
	Average Cost (\$)	Average Delay (Hours)	Average Fuel (Gallons)	Average Cost (\$)	Average Delay (Hours)	Average Fuel (Gallons)
Large	\$930,000,000	55,500,000	34,500,000	\$620	37	23 \$3.30 = \$75.90
Medium	\$313,500,000	18,750,000	11,250,000	\$418	25	15 \$3.30 = \$82.50
Small	\$88,800,000	5,200,000	3,200,000	\$222	13	8 \$3.30 = \$26.40

# Incident Costs

### Increases risk of crashes

- One of the leading causes of injuries to highway responders
- In 2010, there were 275 Ohio police officers injured and one fatality during traffic related incidents

 Secondary crashes are estimated to cause nearly 20% of all highway crashes, or nearly 60,000 crashes in Ohio annually

### Waste time & money

- On average, drivers sit in traffic for more than a week each year
- In 2010, congestion cost \$100 billion annually
- Cost of congestion to the trucking industry was \$23 billion in 2010

### Wastes fuel

Each driver wastes more than 500 miles worth of fuel annually due to congestion and delay

### Stats

### Stats

- 1 minute of lane blockage results in 4 minutes of delay
- 4.2 billion hours per year in delays
- Incidents cost the national economy about \$300 billion dollars per year

# The 3 C's Communication, Coordination, Cooperation

# Communication, Coordination, Cooperation

### Communication

- First responders to notify appropriate personnel
   <u>immediately</u> including Law Enforcement, Fire, EMS,

   TMC staff, communications staff, FSP and towing and recovery companies
- Establish traffic control plan using OMUCTD and timeline for opening lane closures
- Provide <u>timely</u> updates to all personnel

# Communication, Coordination, Cooperation

### Coordination

- Carry out on-scene tasks <u>concurrently</u> and with sense of urgency
- Follow all principles of Incident Command
- Implement "Steer It & Clear It" principles
- Establish after action review for major incidents

# Communication, Coordination, Cooperation

# Cooperation

- Ensure all personnel follow safety guidelines while on scene
- Reassess scene every <u>15 minutes</u> and make unified decisions
- Work as one team, not as separate entities
- Establish post-incident briefing to improve practices

PROPOSED

### **National Unified Goal**

for Traffic Incident Management

Working Together for Improved Safety, Clearance and Communications



#### WHAT IS THE NATIONAL UNIFIED GOAL?

The Traffic Incident Management National Unified Goal is:

- · Responder safety;
- . Safe, quick clearance; and
- · Prompt, reliable, interoperable communications.

#### **COMMITMENT STATEMENT**

The NTIMC is committed to working together to promote, develop, and sustain multidisciplinary, multijurisdictional Traffic Incident Management (TIM) programs to achieve enhanced responder safety; safe, quick traffic incident clearance; and more prompt, reliable, interoperable communications.

#### **HOW WILL THE GOAL BE ACHIEVED?**

NTIMC will achieve the three major objectives of the National Unified Goal through 18 strategies. Key strategies include recommended practices for multidisciplinary TIM operations and communications; multidisciplinary TIM training; goals for performance and progress; promotion of beneficial technologies; and partnerships to promote driver awareness.

#### **CROSS-CUTTING STRATEGIES**

Strategy 1. TIM Partnerships and Programs. Traffic Incident Management partners at the national, state, regional and local levels should work together to promote, develop and sustain effective Traffic Incident Management Programs.

- Strategy 2. Multidisciplinary NIMS and TIM Training. Traffic Incident Management responders should receive multidisciplinary National Incident Management System (NIMS) and Traffic Incident Management (TIM) training.
- Strategy 3. Goals for Performance and Progress. Traffic Incident Management partners should work together to establish and implement performance goals at the state, regional and local levels for increasing the effectiveness of Traffic Incident Management, including methods for measuring and monitoring progress.
- Strategy 4. TIM Technology. Traffic Incident Management partners at the national, state, regional and local levels should work together for rapid and coordinated implementation of beneficial new technologies for Traffic Incident Management.
- Strategy 5. Effective TIM Policies. Traffic Incident Management partners at the national, state, regional and local levels should join together to raise awareness regarding proposed policies and legislation that affect achievement of the National Unified Goal objectives of Responder Safety; Safe, Quick Clearance; and Prompt, Reliable Traffic Incident Communications.
- Strategy 6. Awareness and Education Partnerships. Broad partnerships should be

developed to promote public awareness and education regarding the public's role in safe, efficient resolution of incidents on the roadways.

#### **OBJECTIVE 1: RESPONDER SAFETY**

- Strategy 7. Recommended Practices for Responder Safety. Recommended practices for responder safety and for traffic control at incident scenes should be developed, and widely published, distributed and adopted.
- Strategy 8. Move Over/Slow Down Laws. Drivers should be required to Move Over/Slow Down when approaching traffic incident response vehicles and traffic incident responders on the roadway.
- Strategy 9. Driver Training and Awareness. Driver training and awareness programs should teach drivers how to react to emergencies on the roadway in order to prevent secondary incidents, including traffic incident responder injuries and deaths.

#### **OBJECTIVE 2: SAFE, QUICK CLEARANCE**

- Strategy 10. Multidisciplinary TIM Procedures. Traffic Incident Management partners at the state, regional and local levels should develop and adopt multidisciplinary procedures for coordination of Traffic Incident Management operations, based on national recommended practices and procedures.
- Strategy 11. Response and Clearance Time Goals. Traffic Incident Management partners at the state, regional and local levels should commit to achievement of goals for traffic incident response and clearance times (as a component of broader goals for more effective Traffic Incident Management—see Strategy 3).
- Strategy 12. 24/7 Availability. Traffic Incident Management responders and resources should be available 24/7.

#### OBJECTIVE 3: PROMPT, RELIABLE INCIDENT COMMUNICATIONS

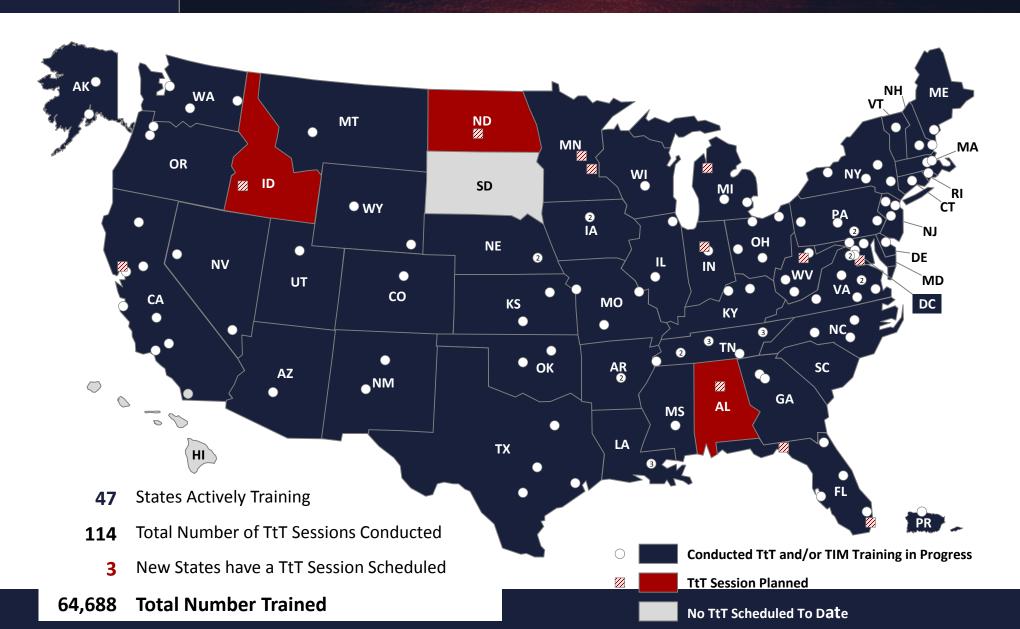
- Strategy 13. Multidisciplinary Communications Practices and Procedures. Traffic incident responders should develop and implement standardized multidisciplinary traffic incident communications practices and procedures.
- Strategy 14. Prompt, Reliable Responder Notification. All traffic incident responders should receive prompt, reliable notification of incidents to which they are expected to respond.
- Strategy 15. Interoperable Voice and Data Networks. State, regional and local Traffic Incident Management stakeholders should work together to develop interoperable voice and data networks.
- Strategy 16. Broadband Emergency Communications Systems. National Traffic Incident Management stakeholders (working through the National Traffic Incident Management Coalition) should work together to reduce the barriers to integrated broadband emergency communications systems development and integration (both wired and wireless).
- Strategy 17. Prompt, Reliable Traveler Information Systems. Traffic Incident Management partners should encourage development of more prompt and reliable traveler information systems that will enable drivers to make travel decisions to reduce the impacts of emergency incidents on traffic flow.
- Strategy 18. Partnerships with News Media and Information Providers. Traffic Incident Management partners should actively partner with news media and information service providers to provide prompt, reliable incident information to the public.

# National TIM Responder Training

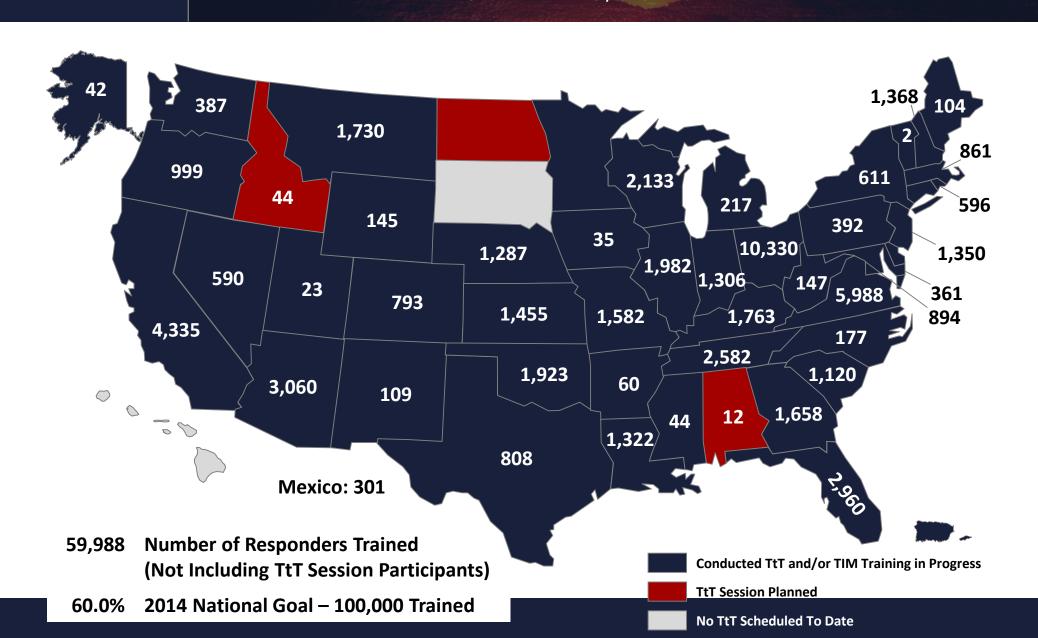
- Designed to establish the foundation for and promote consistent training of all responders to achieve the three objectives of the TIM National Unified Goal (NUG):
  - Responder Safety
  - Safe, Quick Clearance
  - Prompt, Reliable,
     Interoperable
     Communications



# National TIM Responder Training Program Implementation Progress - As of October 6, 2014



# National TIM Responder Training Program Implementation Progress - As of October 6, 2014



# Training Status Report

# National Traffic Incident Management Responder Training Program Training Status Report - As of October 6, 2014

### **Training Totals**

Discipline	Train-the-Trainer	Responder Training	Total	Percentage
Law Enforcement	1,486	22,723	24,209	37.4%
Fire/Rescue	1,360	19,834	21,194	32.8%
Towing and Recovery	322	3,098	3,420	5.3%
EMS	198	2,285	2,483	3.8%
DOT/Transportation	965	9,161	10,126	15.7%
Other Disciplines	369	2,887	3,256	5.0%
Total Trained	4,700	59,988	64,688	100.0%
Number of Sessions	114	2,428		

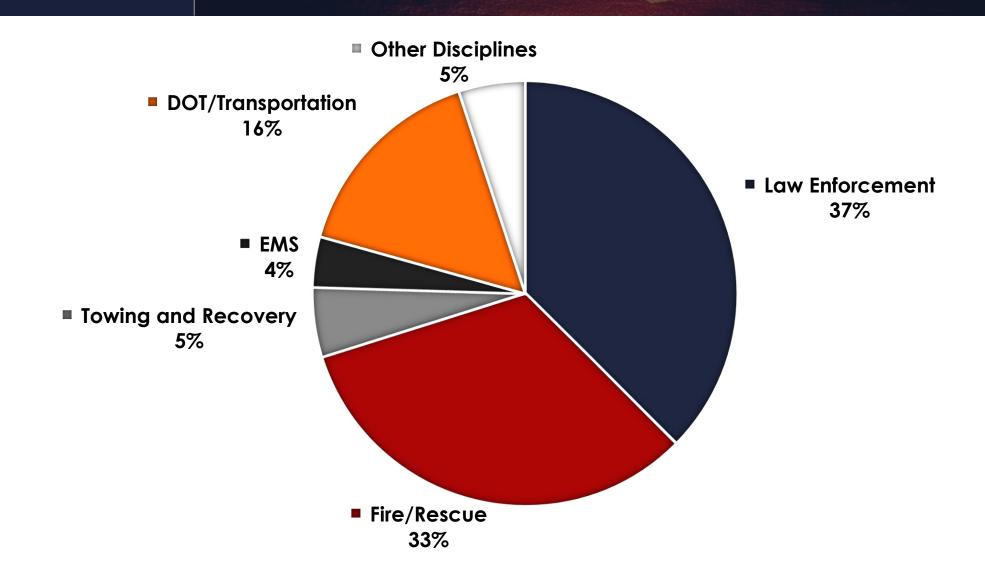
# Progress

# **Progress Since Last Report**

	Train-the-Trainer	Responder Training	Total
Totals as of 10/06/14	4,700	59,988	64,688
Totals as of 09/22/14	4,422	57,425	61,847
Difference	278	2,563	2,841
Percent Increase	6%	4%	5%

# **National Training Goal**

	Date	Responders Trained	onders Trained	
National Goal	12/31/14	100,000		
Target	10/01/14	75,100 75.	1%	
Actual	10/06/14	59,988 60.	.0%	
Percent Difference		-20.1% -20.	1%	





# Total as of 9/30/2014

Region	Law Enforcement	Fire/EMS	Towing	Transportation	<b>Other Disciplines</b>	<b>Region Total</b>
01	111	142	4	222	19	498
02	124	398	53	199	20	794
03	327	394	38	152	1	912
04	488	844	78	264	66	1,740
05	30	103	124	86	10	353
06	330	145	156	273	408	1,312
07	126	277	19	264	52	738
08	229	290	4	237	186	946
09	129	206	31	247	4	617
10	71	170	9	224	1	475
11	35	133	77	180	5	430
12	585	376	37	198	319	1,515
<b>Discipline Total</b>	2,585	3,478	630	2,546	1,091	10,330

# Training

# Training

# Injury Crashes

# That's potentially 27 responders rolling out to a new injury crash every minute of every hour, 24/7/365



# "D" Drivers

"D" Drivers are killing us...

- ✓ Drunk,
- ✓ Drugged,
- ✓ Drowsy,
- ✓ Distracted, or
- ✓ Just plain...

  Dumb

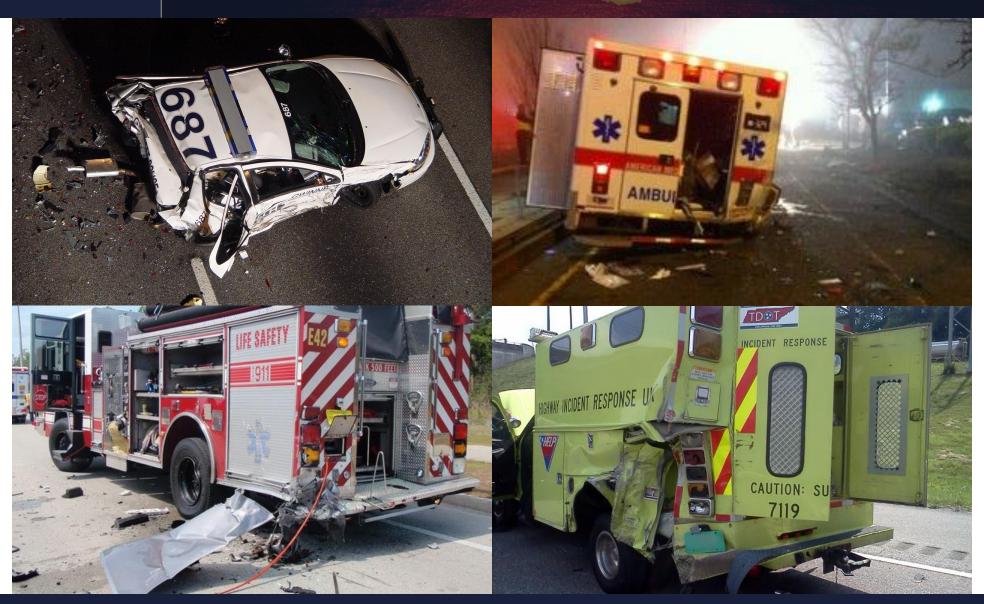


# Responder Struck-By Fatalities

# In a typical year, the following number of responders are struck and killed:

- ⊕ 12 Law Enforcement Officers
- ◆ 5 Fire and Rescue Personnel
- 60 Towing and Recovery Professionals
- Several transportation professionals from DOTs, Public Works, and Safety Service Patrol Programs

# Responder Struck-By Crashes



# A "Routine" Incident

- March 9, 1998 at 2:10 p.m. Raining, wet roadways
- Vehicle on PA Turnpike lost control and slid into a drainage ditch... 911 is called



# A "Routine" Incident – Aftermath

- Eight firefighters and two EMTs were struck by the 18-wheeler as it slid into the incident scene
  - One firefighter killed
  - Nine other responders seriously injured



# Struck-By

**Trooper** 



**EMT** 



**Firefighter** 



**Firefighting** A firefighter from Raritan Township was struck by a vehicle and killed in Clinton Township

**Tow Truck** Operator



**Transportation** Worker



**Conducting a Traffic** Stop

Trooper Kyle Deatherage, 32, died after being struck by a semi on I-55 near Litchfield, IL on November 26, 2012

**Setting Out Flares** 

EMT Esteban Bahena, 24, died after being struck by a vehicle on State Route 163 in Hillcrest, CA on April 1, 2010

Loading a Vehicle

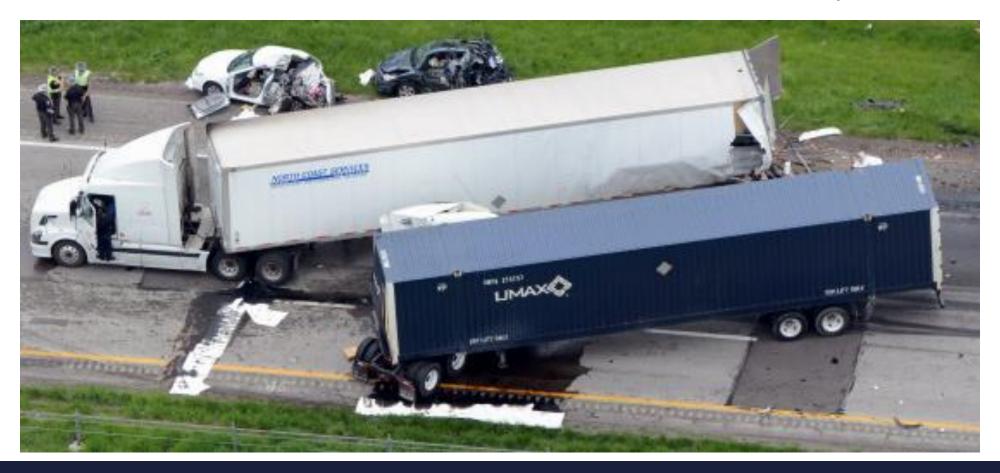
Tow truck operator Blake Gresham, 18, died after being struck by a box truck on I-35 in Kansas City, MO on August 27, 2012

**Providing Traffic Control** Motorist Assist Operator

Clifton J. Scott, 50, died after being struck by a drunk driver on I-70 in Independence, MO on September 21, 2012

# Secondary Crashes

"Fatal crash on I-70 underscores backup risks" – The Columbus Dispatch



# NASCAR Pit Stop – TIM Team Analogy

- NASCAR: quicker pit stops = the difference between winning and losing
  - 1960: 45 seconds (4-prong lug wrench)
  - 1963: 25 seconds (air/impact wrench)
  - 1990s/Today: 12 seconds
    - Result of <u>training</u>, practice, and technology

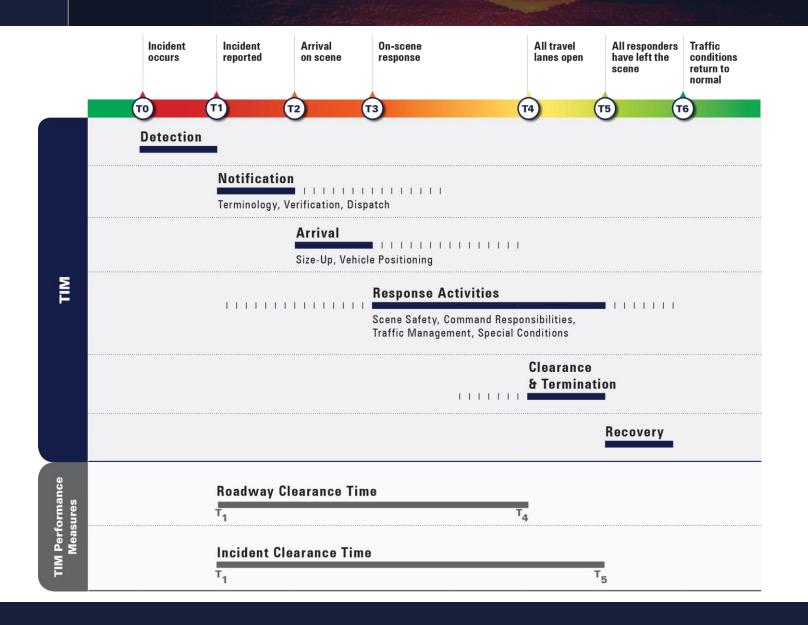
Has TIM gotten stuck at "25 seconds"?

### Driver Removal Laws

- Also referred to as:
  - Fender Bender
  - Move It
  - Steer It, Clear It
- Require motorists involved in minor crashes (where there are no serious injuries and the vehicle can be driven) to move their vehicles out of the travel lanes to the shoulder or other safe area



# TIM Timeline





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# **Statewide Steering Committee**



Ohio State
Fire Marshalls
Office



Ohio Fire Academy



Ohio Association of Broadcasters



Ohio Environmental Protection Agency



Buckeye State Sheriff's Association



Ohio State Coroners Association



Ohio State Highway Patrol



Ohio Fire Chiefs
Association



AAA Auto Group



Towing & Recovery Association of Ohio



Ohio Trucking Association



Ohio Emergency Medical Services



Ohio Association of Chiefs of Police



Ohio
Department of
Transportation



Ohio Department
Of Public Safety





Keys to Successful Quick Clear

Support of Senior Leadership

 Gives Authority to Organizational Level to run the Program



Keys to Successful Quick Clear

**Program Leaders Must be Credible** 

Steering Committee Chair

Carl Merckle

Emergency Management Coordinator
Ohio Department of Transportation
16 Yrs Transportation & Fire Service

Steering Committee Chair

<u>Staff Lieutent William Weirtz</u>

Ohio Highway State Patrol

24 Yrs Law Enforcement

Steering Committee Chair

Firechief Matt Noble

Orange County Fire Dept.

Fire Service

Steering Committee Chair

<u>Ron Myers</u>

Pine tree towing



Keys to Successful Quick Clear

Consistent & Regular Guidance

- Set Training Structure to match the audience
  - Keep Program Simple but Flexible
    - Simple Reporting System
  - Power point & Materials user Friendly
    - Ease of Modification



**Keys to Successful Quick Clear** 

**Set Goals and Performance Standards** 

- Quarterly Steering Committee Meetings
- Monthly Webinar with Coordinators and Regional Staff

