



# The Advanced Traffic Incident Management System (TIMS)

Stepping up our game

# Traffic Incident Management



The basics  
building blocks.

Traffic Incident Management\* is a **planned** and **coordinated** program process to detect, respond to, and remove traffic incidents and restore traffic capacity as safely and quickly as possible. This coordinated process involves a number of public and private sector partners.

These include:

- Law Enforcement
- Fire and Rescue
- Emergency Medical Services
- Transportation
- Public Safety Communications
- Emergency Management
- Towing and Recovery
- Hazardous Materials Contractors
- Traffic Information Media

\* [https://ops.fhwa.dot.gov/eto\\_tim\\_pse/about/tim.htm#le](https://ops.fhwa.dot.gov/eto_tim_pse/about/tim.htm#le)

## Humble Beginnings: In Tennessee:

HELP Started 1999 in Metro-Nashville and Knoxville. Expansion took the program to Chattanooga and Memphis then to 24/7/365 coverage.

TMC's opening in Metro-Nashville in 2002. Knoxville in 2005, Memphis in 2008 and Chattanooga in 2011.





Open Roads Policy  
Signed by TBO and the  
Tennessee Department of  
Safety and Homeland  
Security. 10/12

Extends to Tennessee Cities  
and Counties who then must  
attend TIMS training, and  
promote Quick Clearance  
Principles to all traffic  
impacting incidents.

Currently all 95 counties  
and over 200 local agencies  
have signed the Open Roads  
Agreement.

State of Tennessee

**"OPEN ROADS POLICY"**

*Quick Clearance for Safety and Mobility*

*Between the Tennessee Department of Transportation,*

*Tennessee Department of Safety and Homeland Security, and*

*Tennessee Counties and Cities*

This Memorandum of Understanding (MOU) by and between the Tennessee Department of Transportation (TDOT), the Tennessee Department of Safety and Homeland Security (TDOSHS), County/City Law Enforcement and Fire and Rescue Agencies (City/County Agencies), establishes a policy for the Tennessee Highway Patrol (THP), TDOT, City/County Agencies to expedite the removal of vehicles, cargo, and debris from roadways on the State Highway System (roadways) to restore, in an URGENT MANNER the safe and orderly flow of traffic following a motor vehicle crash or incident on Tennessee's roadways. This MOU is intend to complement the existing Memorandum of Understanding between TDOT and TDOSHS entered into on February 16, 2012, and does not supersede or circumvent any of the components of that document between the two State departments.

*Whereas:* Public safety is the highest priority and must be maintained especially when injuries or hazardous materials are involved. The quality of life in the State of Tennessee is heavily dependent upon the free movement of people, vehicles, and commerce. THP, TDOT, and City/County Agencies share the responsibility for achieving and maintaining the degree of order necessary to make this free movement possible. THP, TDOT, and City/County Agencies have the responsibility to do whatever is reasonable to reduce the risk to responders, secondary crashes, and delays associated with incidents, crashes, roadway maintenance, construction, and enforcement activities.

The following operating standards are based on the philosophy that the State Highway System will not be closed or restricted any longer than is absolutely necessary.

*Be it resolved:* Roadways will be cleared of damaged vehicles, spilled cargo, and debris as soon as it is safe to do so. It is understood that damage to vehicles or cargo may occur as a result of clearing the roadway on an urgent basis. While reasonable attempts to avoid such damage shall be taken, the highest priority is restoring traffic to normal conditions. Incident caused congestion has an enormous cost to society. This cost is significantly greater than the salvage value of an already damaged vehicle and its cargo.

# TIMS 4-Hour Training

## The 4-Hour TIMS Session:

1. Introduction
2. TIM Fundamentals and Terminology
3. Notification and Scene Size-Up
4. Safe Vehicle Positioning
5. Scene Safety
6. Command Responsibilities
7. Traffic Management
8. Special Circumstances
9. Clearance and Termination





# TIM 10-Hour Course



**The 10-Hour TIM Session:**

**All of the TDOT HELP Service Patrols are required to have this.**

**Certified in an Emergency First Responder Primary Care (CPR) Course.**

**Also Trained in the use of an Automated External Defibrillator (AED)**

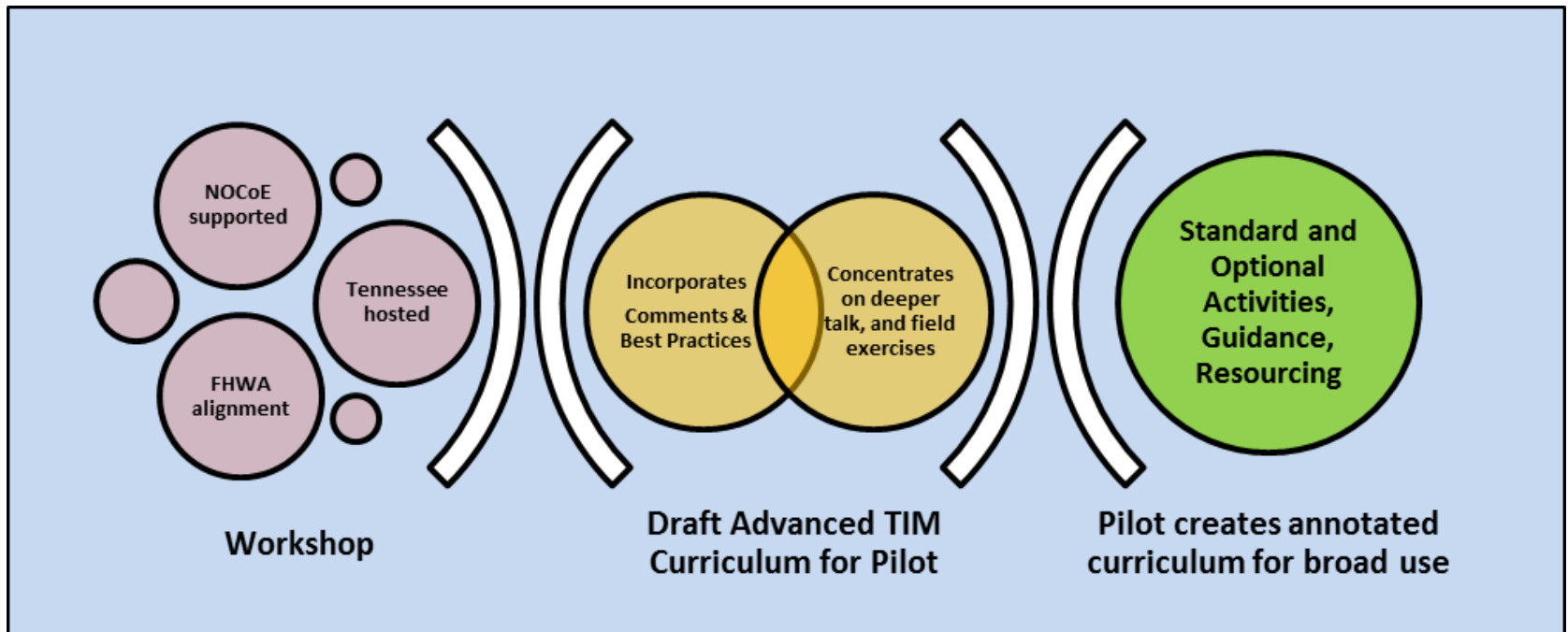
# Advanced TIM Training Curriculum Workshop



## Who-When-Where-Why

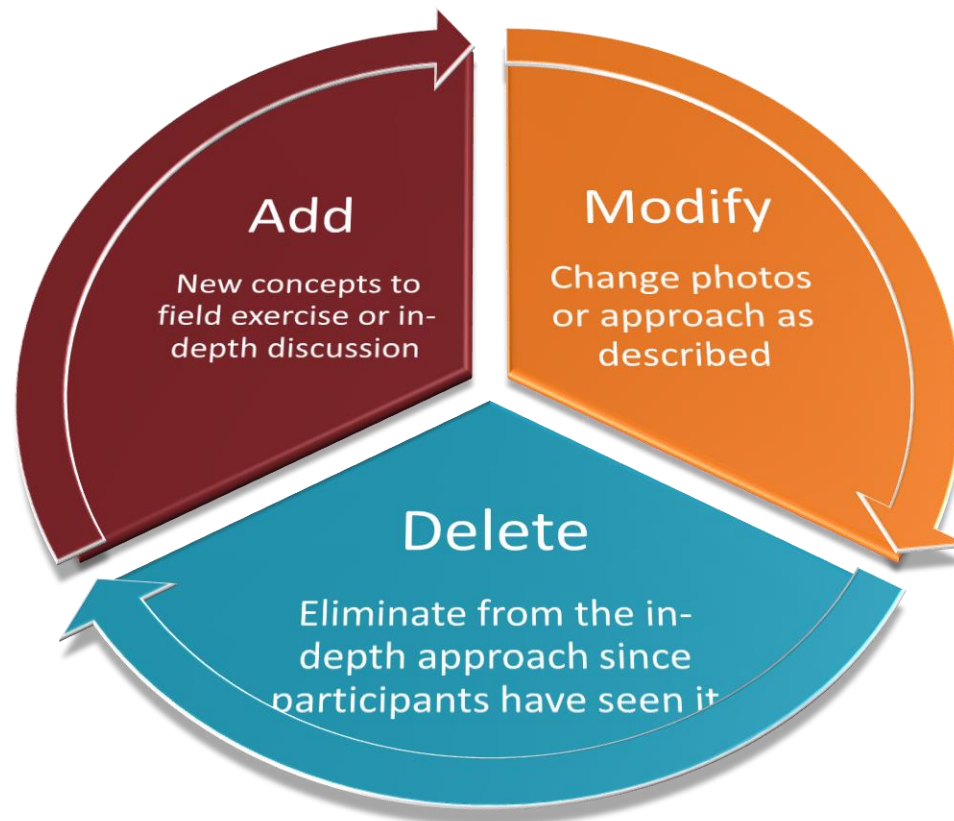
- More than 50 Traffic Incident Management planners, practitioners and leaders.
- July of 2015 in Nashville, TN
- Sponsored by the Nation Operations Center of Excellence (NOCoe), TDOT and FHWA.
- Facilitated by a consultant; Gannett Fleming Inc.
- FHWA Strategic Highway Research Project (SHRP 2) National Traffic Incident Management Responder Training Products L12 & L32

# The “What” of Advanced TIMS





# Simple Rules



# De-construction of the existing TIM program

- The participants were divided into 4 separate groups
- Each group was assigned 2 subject areas
- The subject areas are the same as the 4-hour and 10-hour sessions, excluding the Introduction section.

Team Volunteers	Team Commodores	Team Tigers	Team Blue Raiders
<ul style="list-style-type: none"><li>• <b>LESSON 2: TIM Fundamentals and Terminology</b><ul style="list-style-type: none"><li>• Define safe, quick clearance</li><li>• List the principal laws that relate to responder safety and safe, quick clearance</li><li>• Describe how the Manual on Uniform Traffic Control Devices (MUTCD) relates to TIM</li><li>• Recall common response terminology, lane designations, and incident scene terminology</li></ul></li><li>• <b>LESSON 3: Notification and Scene Size-Up</b><ul style="list-style-type: none"><li>• Recognize the important role public safety communications centers play in incident response</li><li>• Describe the notification and verification process</li><li>• Recall the typical responsibilities of a Transportation Management Center (TMC)</li><li>• List the key information that should be included in a scene size-up report</li></ul></li></ul>	<ul style="list-style-type: none"><li>• <b>LESSON 4: Safe Vehicle Positioning</b><ul style="list-style-type: none"><li>• Differentiate between Move It and Work It incidents</li><li>• State the MUTCD definition of safe-positioned and describe blocking</li><li>• Define Lane +1 blocking and describe the need for it</li><li>• Describe safe practices for working around or avoiding the zero buffer</li></ul></li><li>• <b>LESSON 5: Scene Safety</b><ul style="list-style-type: none"><li>• Describe how emergency vehicle markings can improve scene safety</li><li>• Describe recommendations for emergency vehicle lighting as set forth in the MUTCD</li><li>• Describe high-visibility safety apparel requirements for incident responders</li></ul></li></ul>	<ul style="list-style-type: none"><li>• <b>LESSON 6: Command Responsibilities</b><ul style="list-style-type: none"><li>• Describe both the need and the requirements for establishing and participating in the Incident Command System (ICS)</li><li>• Describe when it is appropriate to implement Unified Command</li><li>• Identify the need for and use of Staging Areas</li></ul></li><li>• <b>LESSON 7: Traffic Management</b><ul style="list-style-type: none"><li>• Describe the four main components of a Traffic Incident Management Area</li><li>• Identify conditions at an incident scene that would require the Advance Warning Area be extended</li><li>• Describe the need for, and how to set up, a taper</li><li>• Identify and describe the two types of buffers that may be established at an incident scene</li></ul></li></ul>	<ul style="list-style-type: none"><li>• <b>LESSON 8: Special Circumstances</b><ul style="list-style-type: none"><li>• Identify the safety concerns related to responding to an incident involving a vehicle fire</li><li>• Describe how to identify what hazardous material is being transported</li><li>• Recount good practices for responding to an incident involving a vehicle fluid spill</li><li>• Describe the primary goal of a crash investigation and the importance of preserving short-lived evidence</li><li>• Describe the importance of performing response tasks concurrently as it relates to safe, quick clearance</li></ul></li><li>• <b>LESSON 9: Clearance and Termination</b><ul style="list-style-type: none"><li>• Describe quick clearance strategies for both minor incidents and incidents that involve tractor trailers and/or spilled cargo</li><li>• List the type of information that needs to be provided to towing and recovery to facilitate their response</li><li>• Describe the major activities that take place during termination and identify safety related considerations for scene breakdown</li></ul></li></ul>

# Tennessee's Advanced TIM Program

## STATE OF TENNESSEE ADVANCED RESPONDER TRAINING PROGRAM



LAW ENFORCEMENT | FIRE | EMS | TRANSPORTATION  
TOWING & RECOVERY | COMMUNICATIONS



# Course Organization

The course is divided into 4 Blocks containing 2 units each.

## ➤ **Block A**

- Unit 1 – Philosophy of TIM
- Unit 2 – Notification and Size Up

## ➤ **Block B**

- Unit 3 – Parking and Blocking
- Unit 4 – Quick Clearance

## ➤ **Block C**

- Unit 5 – Traffic Management
- Unit 6 – Visibility Issues

## ➤ **Block D**

- Unit 7 – Command Responsibilities
- Unit 8 – Special Circumstances

# Unit 1- TDOT's TIM Philosophy





# Unit 1 - TDOT's Focus on TIM

## Interstate Layout

- Over 850' of Interstate designed to current standards.
- Course ranges from 2 to 6 lanes.
- 120' - 2 Lane Interchange
- 100' Guardrail
- 100' of Portable Barrier Rail
- Full Pavement Marking





# Unit 1 - TDOT's Focus on TIM

## Highway Layout

- 700' of Highway designed to current standards
- Course contains:
  - 600' of 2 lane section
  - 100' of 4 lane section
- Intersection
- 300' of Cable Barrier Rail
- Full Pavement Marking



# Unit 1 - TDOT's Focus on TIM



# The “Track” in Action



The Track allows for real world experiences.  
Daylight, Night, and under inclement weather  
Conditions.





# Unit 2 - Notification and Size Up

- Minor/Intermediate/Major
- TN Clearance Goal is >90 minutes. It's a TDOT Performance Measure Achieved 94% of the time
- Utilize resources such as CCTV, CAD, 511, DMS, etc.



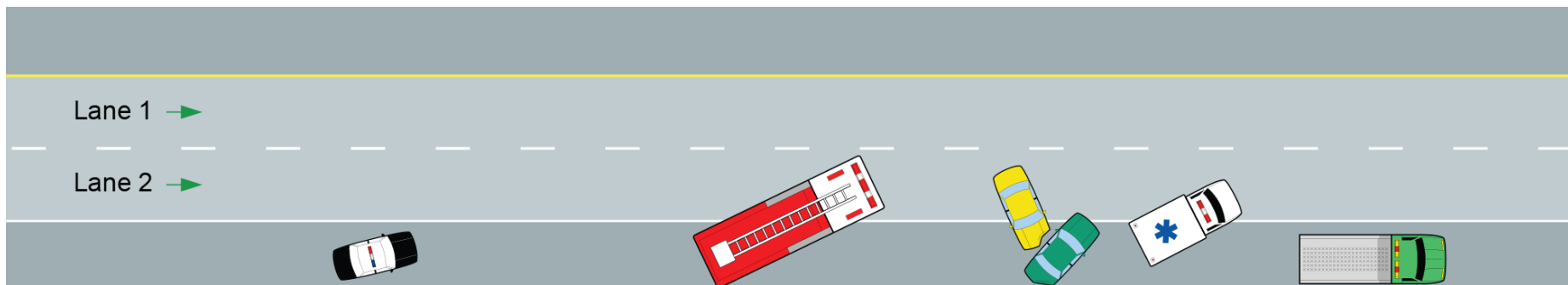
# Unit 3 - Parking and Blocking

**Incident Site Safety is the primary goal.**

- Consider Placement options
- Steer It - Clear It
- Lane + 1 Blocking
- Avoidance of Zero Buffer Space
- Situational Awareness

## **Future Technologies Considered**

- Response, Emergency Staging and Communications, Uniform Management and Evacuation (RESCUME)



# Unit 4 - Quick Clearance

- Utilize Unified Command
- Complete task concurrently when possible
- Regularly assess Traffic Control
- Think outside the box





# Unit 5 - Traffic Management: Every Time

The appropriate use of traffic control devices to establish a Traffic Incident Management Area reduces the likelihood of secondary crashes.

- DOT Regional Operations and Incident Management Personnel shall perform queue protection activities as instructed by incident management personnel at the incident scene and in cooperation with other emergency response agency officials.
- TDOT Personnel shall provide communication with TDOT TMC Dispatchers for the purpose of scene status, queue protection issues, requesting additional resources and providing estimate times of durations and length of traffic queues.
- First TDOT personnel on the scene will assess the need for appropriate resources and make contact through TDOT channels for establishment of proper traffic control.



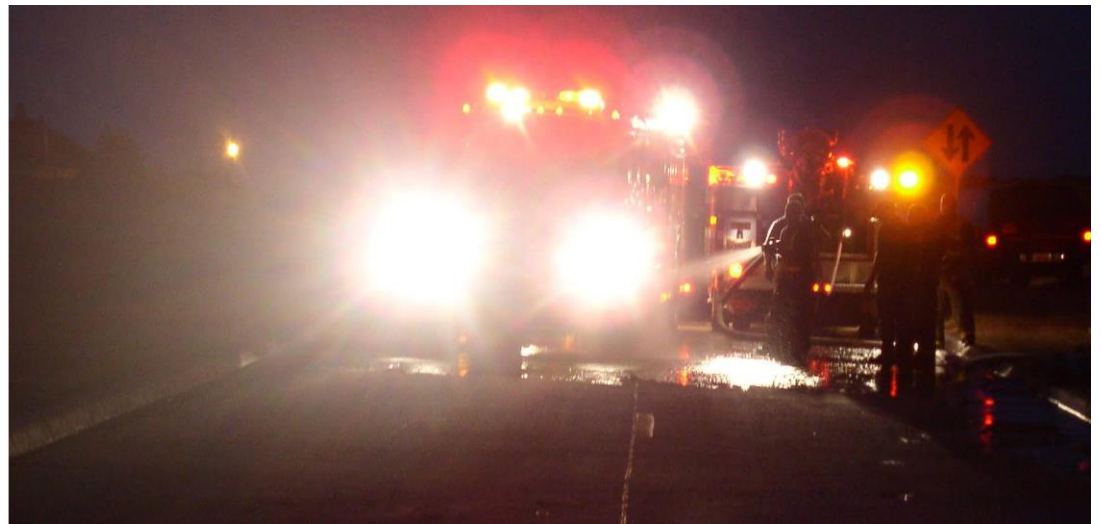
# Unit 5 - Traffic Management: Establishing Your TIM Area



# Unit 6 - Visibility: the Key to Safety

Things to consider:

- Use of your Personal Protective Gear.
- Proper signage
- MUTCD guidance on light use.



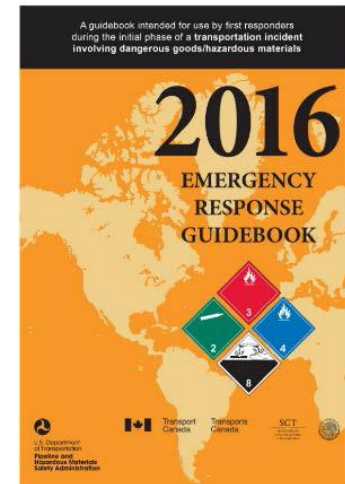
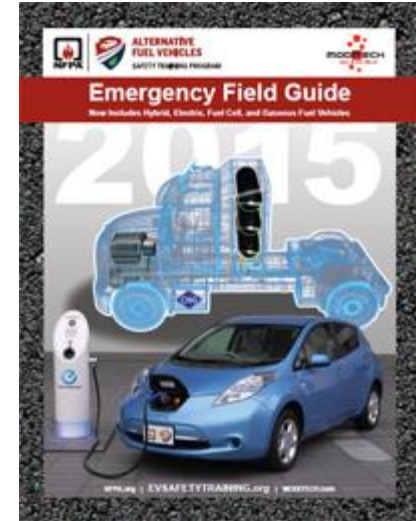
## INCIDENT COMMAND SYSTEM (ICS)

- Single Command
- Unified Command
- Should be easily understood by all...
- <https://training.fema.gov/nims/>

# Unit 8 - Special Circumstances

Life in today's world brings on new challenges:

- Hybrid/Electric vehicle dangers.
- Hazardous Material concerns and run-off into water supplies, or the aerial discharge of various gases.
- The chance of fire in combination with other issues on scene.

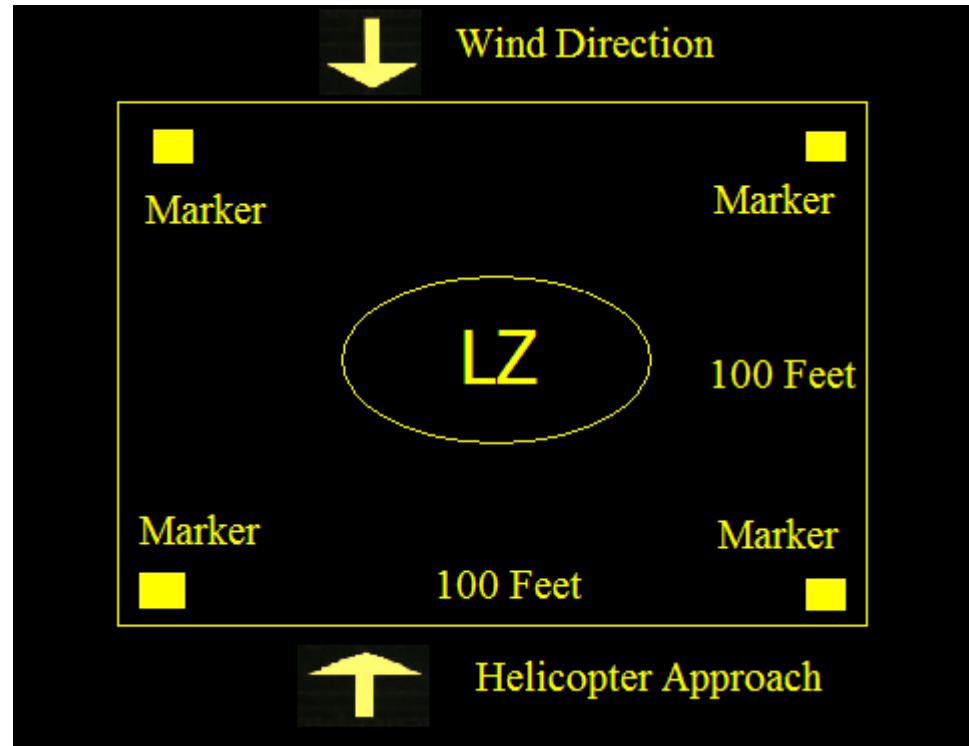




# Unit 8 - Special Circumstances - Medevac Helicopters

Establishment of a Landing Zone for a Medevac Helicopter Requires special considerations.

- Think 3-dimensional. OH wires, Trees, Towers.
- No flares, cones.
- No loose objects.
- Nothing inside LZ.
- No smoking.





# Final Notes

- **TDOT held its first Advanced TIM Training in March of 2016.**
- **In August of 2016 the current draft of the program was completed and passed TDOT review.**
- **There are 2 “live” sessions scheduled.**
  - April 25th and 26th, 2017
  - August 9th and 10th, 2017

## Contact:

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Tennessee  
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