



Traffic Incident Management 'Show Me' 30yrs of Progress

(TEAM 2023)



Owen Hasson
MoDOT
Traffic Incident
Manager

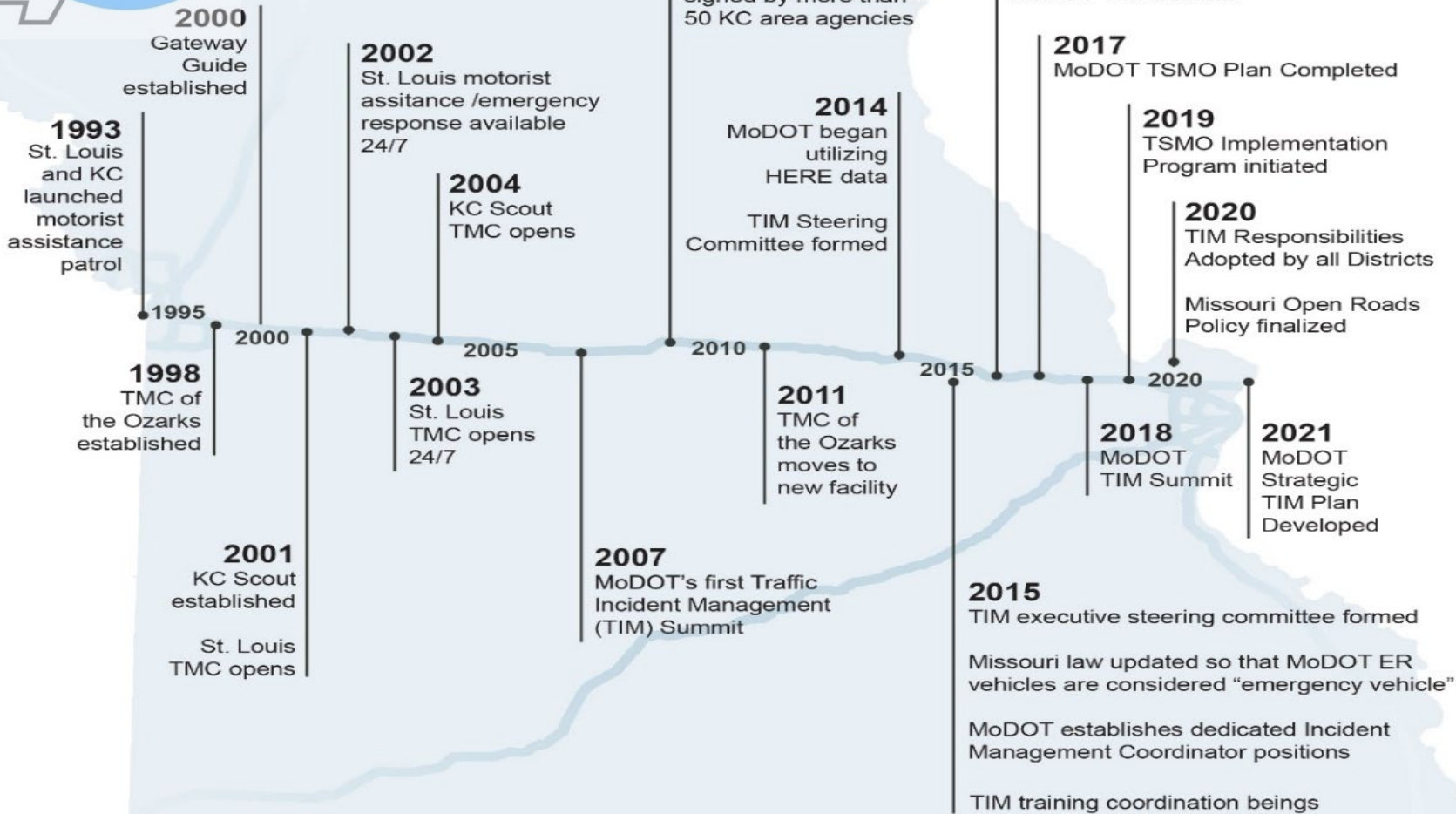
1993 - 2023



How far have we advanced?



Traffic problems have evolved through the years, but so has the way we approach them.



1990's

- 1993 MoDOT launches Motorist Assistance programs:
- 1998 Missouri's first TMC was established:

- Traffic Incident Management takes root

1990's



Motorist Assist vehicles patrol the Kansas City metropolitan area to keep the roadway clear of stalled vehicles.

Motorist Assist 1992 STL-4
by McDONALD

- Traffic Studies
- Intelligent Transportation Systems (ITS)
- Motorist Assistance programs :
- CCTV integration



© 2009 MW 013

1993

Motorist Assistance programs officially begin



Assist 1992 STL-5

- Motorist Assistance programs begin STL & KC
- Red pickup trucks with decal and top lights
- Red jumpsuits with reflective tape
- Focus on roadside; stalled & disabled vehicle assistance

An incident on the shoulder of a three-lane roadway reduce capacity by 17%



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ER trucks through the 1990's . . .

- Focus on a 'roadside' assist program
- 1/2 & 3/4 Ton pickup trucks
- Compressed Natural Gas (CNG) for air quality some CMAQ funding

Red trucks with decal and rotating light bar



Strobe light bar additional outside speakers



White trucks additional reflective tape and arrow stick

- Visual enhancements increased as the programs evolved.

1998

Missouri's first TMC was established



1998 Missouri's FIRST TMC

City of Springfield and MoDOT

'Discovery Center'
in Springfield, MO

Located inside the Discovery Center in Springfield, MO

2000's

- 2000 Gateway Guide established
 - 2001 KC Scout established
 - 2001 STL Transportation Management Center (TMC) Opens
 - 2002 St. Louis MoDOT Motorist Assistance / Emergency Response available 24/7
 - 2003 STL (TMC) Opens 24/7
 - 2004 KC Scout Transportation Management Center (TMC) Opens
 - 2007 MoDOT's first Traffic Incident Management (TIM) Summit
 - 2007 Springfield area MoDOT Starts Emergency Response Program
 - 2009 KC Metro Area incident management cooperative accord signed by more than 50 KC area agencies
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- Dynamic Message Boards (DMS)
 - Expansion of CCTV Camera Systems
 - Expansion of Motorist Assistance programs
 - Advanced Traffic Management Systems (ATMS)

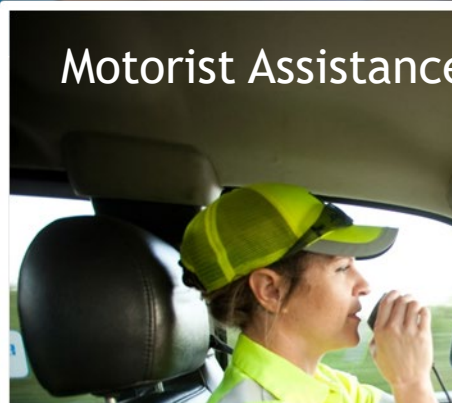
2000's



TMC's

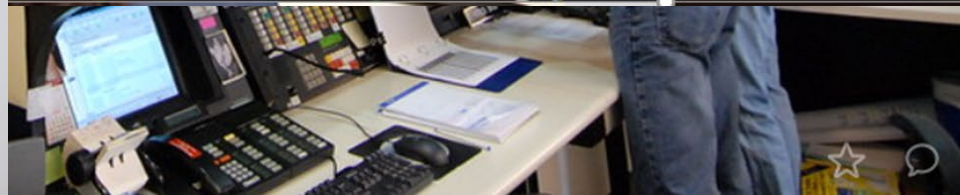


Motorist Assistance



ATMS

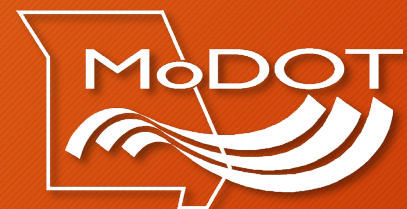
DMS Boards



2010's

- 2011 TMC of the Ozarks moves to newly constructed facility in the City of Springfield complex using joint and federal funds
- 2014 MoDOT Begins Utilizing HERE Data
- 2014 TIM Committee Formed
- 2015 TIM Executive Steering Committee Formed
- 2015 Missouri law amended to include MoDOT Emergency Response vehicles as “Emergency Vehicles” in Missouri law MRS 304.022
- 2015 MoDOT Establishes Dedicated Incident Management Coordinator Positions
- 2015 TIM training Coordination Begins
- 2016 MoDOT TRACKER expanded to include TIM related performance measures
- 2016 MoDOT TIM Summit
- 2017 MoDOT TSMO Plan Completed
- 2018 MoDOT TIM Summit
- 2019 TSMO implementation Program initiated

- ER Trucks Implementing Vehicle Mounted Changeable Message Signs (VCMS)
- Debris Removal Systems Developed JAWS/SWIPER

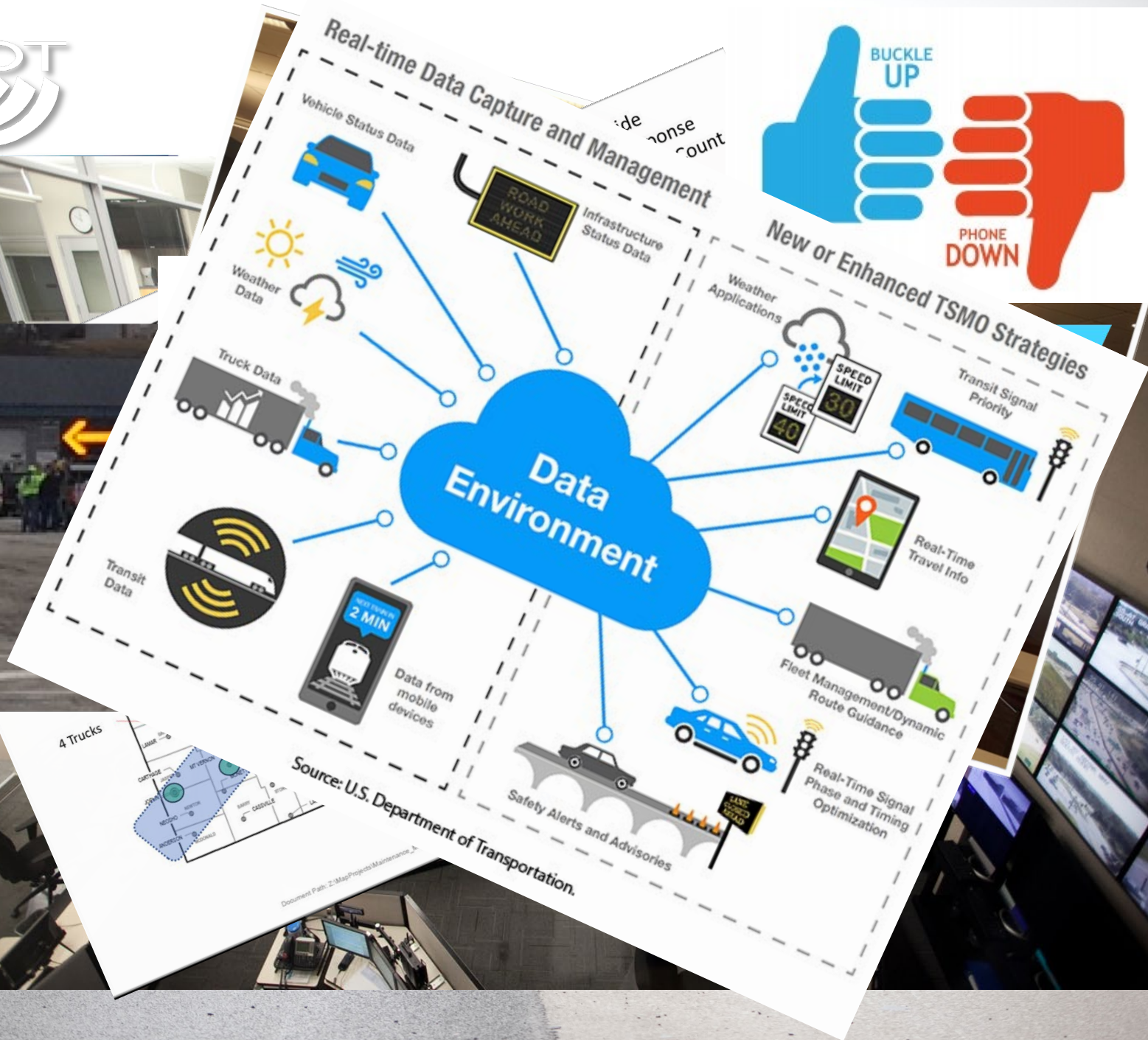


The 2010's a TIM Explosion?



Source: U.S. Department of Transportation.

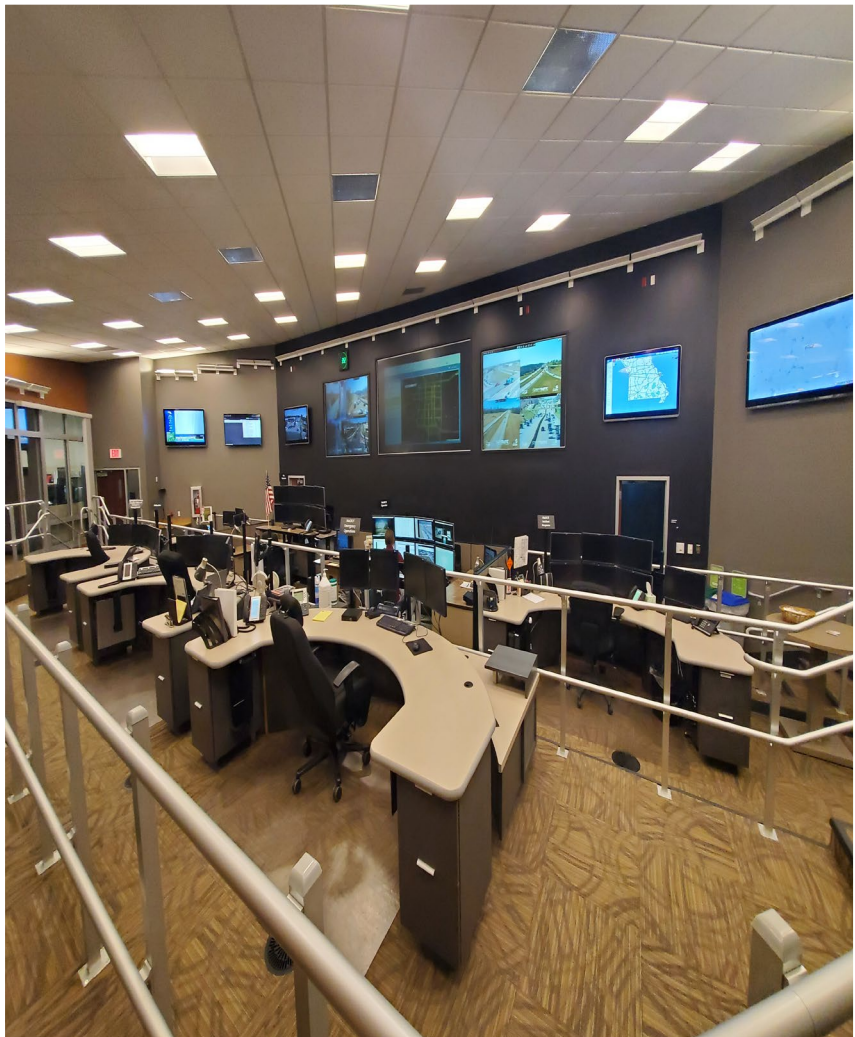
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2011

TMC of the Ozarks moves to newly constructed facility in the City of Springfield

2011 TMC of the Ozarks Moves



2010's

Statewide
Continuous Operation Routes



TMC

TMC

TMC

MoDOT fully integrated 3 TMC's, located in: Kansas City, St. Louis, & Springfield



MoDOT
TMC's



2010's

- Motorist Assistance Transitions to Emergency Response
- Shifting Focus To Incident Management & Safe, Quick Clearance

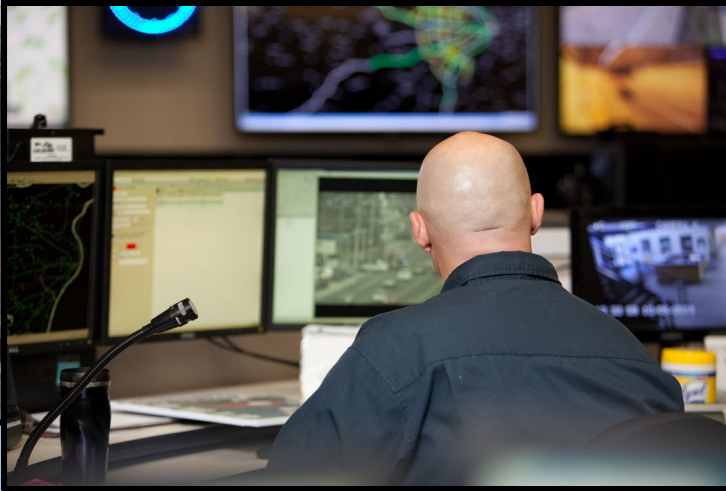
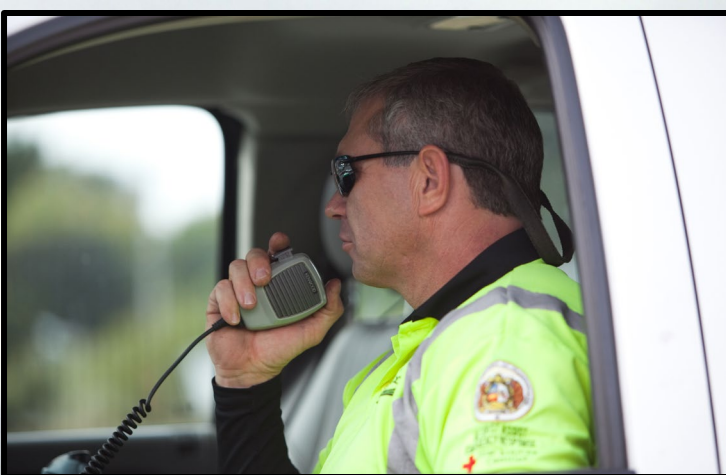




Concentrating on traffic management: Safely diverting drivers around the incident.



Safe, Quick
Relocation Of
Vehicles Out Of The
Traffic Lanes



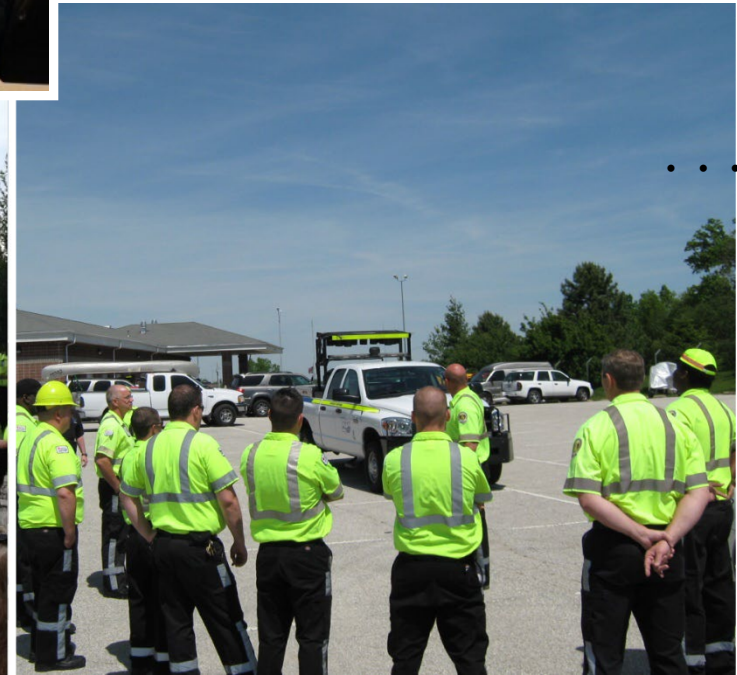
TMC's are updated and information is passed on to motorists via DMS messaging, traveler updates, and social media releases.



Dynamic traffic management; lane adjustments to response activities.

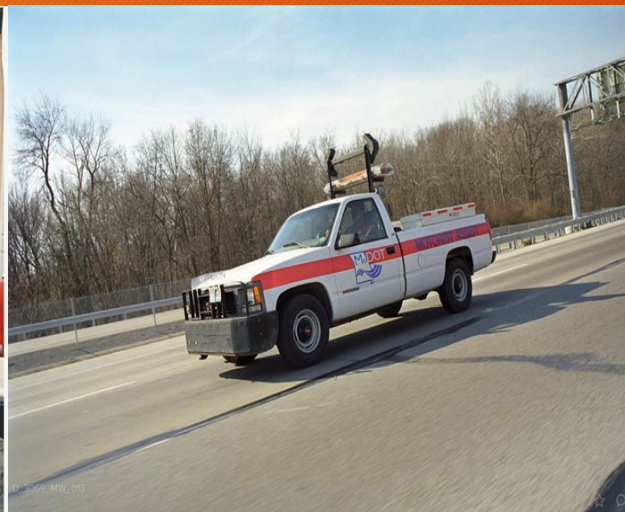
2010's

Planning . . .



. . . And Training.

Equipment and tactic updates: ER trucks through the years ...



The 2010's

➤ TMC's Keep Evolving



2020's

- 2020 TIM Responsibilities Adopted By All Districts
- 2020 MoDOT starts using MO Statewide Interoperable Network (MOSWIN)
- 2020 Missouri 'Open Roads' Policy Finalized
- 2021 MoDOT Strategic TIM Plan developed
- 2021 Missouri 'Open Roads' Policy Signed By Multiple Agencies
- 2022 Missouri forming new TIM Coalitions
- 2023 . . .

- **MoDOT Joins MOSWIN Radio System**

Missouri "Open Roads" Signed

- Finalized in 2020
- Signed November 2021

- Department of Transportation
- State Highway Patrol
- Department of Natural Resources
- Division of Fire Safety
- Department of Health & Senior Services
- Tow Truck Association

MISSOURI OPEN ROADS AGREEMENT
Quick Clearance for Safety and Mobility
Between the Missouri Department of Transportation, Missouri State Highway Patrol,
responding Missouri agencies, public and private responders.
Relative to
**MISSOURI'S URGENT CLEARANCE OF HIGHWAY INCIDENTS AND
SAFETY AT INCIDENT SCENES**

Memorandum of Understanding (MOU) for Traffic Incident Management on Missouri's roadways by and between the Federal, State, County, City, Local, Private and other Emergency Response partners, associates and other affiliates listed or attached to this MOU.

This memorandum of understanding by and between the participating parties named below is to provide guidance for personnel representing the responding disciplines relative to incidents including but not limited to Missouri interstates, highways, major and minor routes. This includes but is not limited to crashes, lane closures, (spilled cargo, debris, etc.) to ensure public and responder safety and promote the safe, orderly flow of traffic. The MOU specifically focuses on the safety of emergency responders, the public and restoring roadways to full capacity as soon as possible following an incident using clear communication between responding parties, utilizing strategies and tactics that support the National Unified Goal (NUG).

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 Missouri is heavily dependent upon the free movement of people, vehicles, and commerce. State and City/County Agencies share the responsibility for achieving and maintaining the degree of order necessary to make this free movement possible. State 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.

WHEREAS: Traffic congestion is a growing problem in Missouri, especially on the controlled access highways which carry the highest traffic volumes.

WHEREAS: When congestion increases, so do the costs—in wasted time, fuel and money, missed schedules and late deliveries, increased air pollution and road rage.

WHEREAS: National studies have shown that approximately 60% of all congestion is related to incidents (e.g., crashes, stalled vehicles, debris, special events, road work) rather than inadequate roadway capacity.

WHEREAS: National studies have shown that up to 20% of all collisions on controlled-access highways are "secondary," attributable to an earlier incident that has not been fully cleared.

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This Memorandum of Understanding is not an enforceable agreement among the parties but is a statement of cooperative intent. In no matter, whether directly or indirectly, does this MOU establish a standard of care or in any way create third party beneficiary rights.

AGREED AND EXECUTED BY:

MODOT DEPUTY DIRECTOR *[Signature]* Date: 11/8/21
(Agency) (Title) (Signature)

MSHP SUPERINTENDENT *[Signature]* Date: 11-8-21
(Agency) (Title) (Signature)

MOE/DNR DEPT. Deputy Director *[Signature]* Date: 11/8/21
(Agency) (Title) (Signature)

Mo. Dept. of Fire Safety ASSISTANT SUPERINTENDENT *[Signature]* Date: 11/8/21
(Agency) (Title) (Signature)

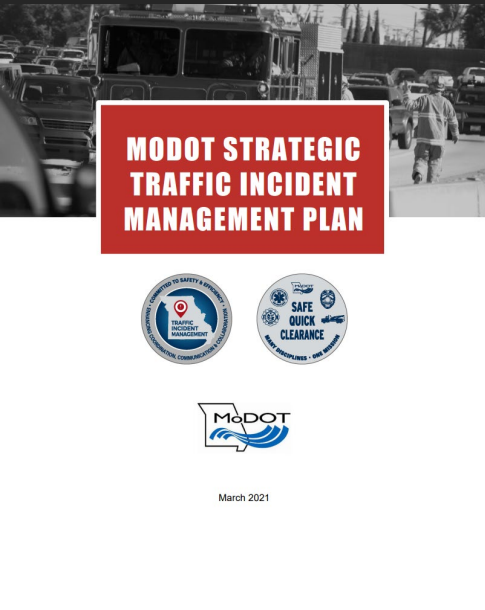
DHSS CHIEF DIVISION DIRECTOR *[Signature]* Date: 11/8/2021
(Agency) (Title) (Signature)

MTA Board member *[Signature]* 11/8/2021

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2020's

MoDOT TIM Strategic Plan 2021



MoDOT Strategic TIM Plan
Project No. 020-1048
Missouri Department of Transportation
March 2021

1.2. Vision, Goals, and Objectives
TSMO and TIM are integral to support MoDOT's overall mission and strategic initiatives. MoDOT's TIM vision is to enhance the safety and efficiency of Missouri's transportation system for travelers and incident responders. Broken down further, there are five goals to achieve this vision in Missouri, each with specific objectives:

Goal #1	Enhance safety of traveling public <ul style="list-style-type: none">Objective 1.1: Reduce number and severity of secondary crashesObjective 1.2: Record and track secondary crashes
Goal #2	Enhance safety of incident responders <ul style="list-style-type: none">Objective 2.1: Reduce number and severity of responders struckObjective 2.2: Record and track crashes involving incident responders
Goal #3	Enhance reliability and efficiency of Missouri's transportation system <ul style="list-style-type: none">Objective 3.1: Respond to incidents quicklyObjective 3.2: Clear incidents quickly
Goal #4	Strengthen coordination, communication, and collaboration between MoDOT and TIM partners <ul style="list-style-type: none">Objective 4.1: Formalize and implement coordination agreements with TIM partnersObjective 4.2: Regularly meet with TIM partners at state, regional, and local levels
Goal #5	Establish TIM as a core TSMO program at MoDOT <ul style="list-style-type: none">Objective 5.1: Establish TIM policies, procedures, and protocols within MoDOTObjective 5.2: Fill MoDOT TIM coordinator positions

1. Enhance safety of traveling public
2. Enhance safety of incident responders
3. Enhance reliability and efficiency of Missouri's transportation system
4. Strengthen coordination, communication, and collaboration
5. between MoDOT and TIM partners
6. Establish TIM as a core TSMO program at MoDOT

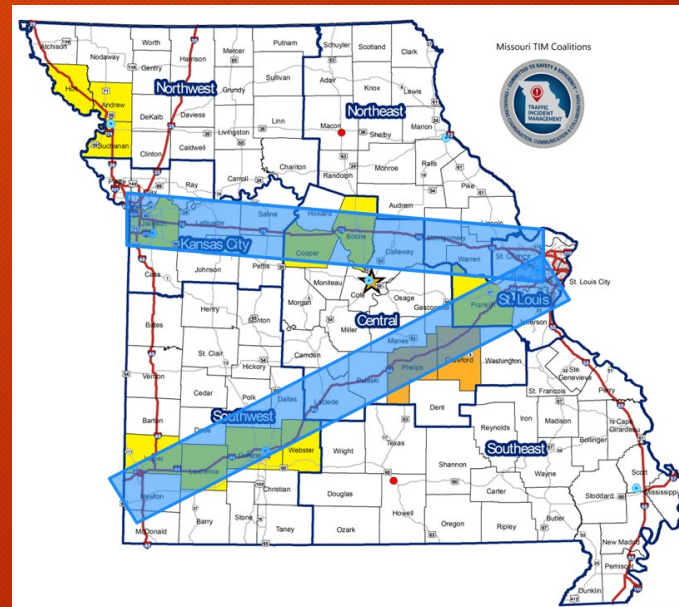
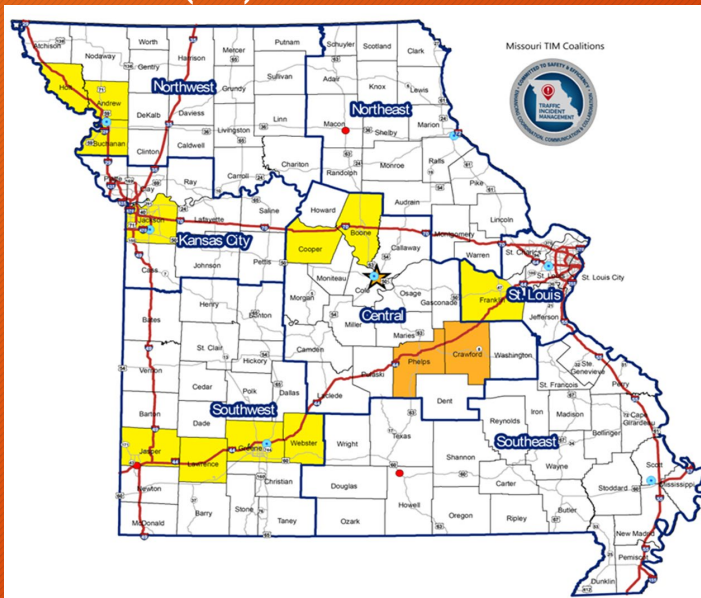
2020's

TIM Coalitions . . . 2022

MSHP (Troop)	MoDOT (Dist.)	County			Interstate (if any) covered	Coalition Name
H	Northwest	Holt	Andrew	Buchanan	I-29 / I-229	Troop H Coalition
A	Kansas City	Jackson			I-70	
F	Central	Boone	Cooper		I-70	Boone/Cooper Co TIM Group (??)
C	St. Louis	Franklin			I-44	
D	Southwest	Jasper			I-44 Corridor to County Line	Joplin/Jasco TIM Group
D	Southwest	Lawrence			I-44 Corridor to County Line	Lawrence Co TIM Group
D	Southwest	Greene			I-44 Corridor / US 60 / US 65	OTO (Ozarks Transportation Organization) TIM Group
D	Southwest	Webster			I-44	Webster Co TIM Group

Currently we have eight (8) TIM coalitions in the state, covering eleven (11) counties

Closing the gap on I-44 & I-70



2022 After Action Reviews (AAR)

Standardizing & Reviewing Incidents



AFTER ACTION REVIEW & REPORT TEMPLATE

INSTRUCTIONAL AND INFORMATIONAL MEMORANDUM

Standardized template for conducting, and documenting After Action Reviews & Reports

Purpose

The purpose of this IIM is to standardize operating procedures for documenting and conducting After Action Reviews (AARs) and Reports.

Background

The Missouri Open Roads Agreement provides guidance in shared responsibilities to conduct an After Action Review following incidents with special or unique dynamics that result in uncommon closures of an interstate or other roadway. A standardized process for agencies conducting AARs for these incidents was recommended. The process is designed for public safety agencies and MoDOT to come together to identify root causes and develop a plan of action for corrective measures, if required, after an incident.

Incident Commander or MoDOT Field Commander Input Form

This report should be completed only by the individual who served in the role of Incident Commander or MoDOT Field Commander. In some cases, an incident will have multiple Incident Commanders as the incident escalates. If you served in this role and were relieved, please complete this form only for the period of time during which you served as the Incident Commander or MoDOT Field Commander.

Incident Date

Name

Agency

Notification time

Describe your initial scene assessment upon arrival.

Describe your initial Incident Action Plan.

Describe the assignments given to achieve strategic goals and tactical objectives for your Incident Action Plan.

Describe your plan to manage the safety of resources and personnel at the scene.

Identify any problems encountered and provide recommendations to resolve them.

Identify any Incident Command System problems that you encountered at the scene.

Provide any recommendations that will improve operational or administrative effectiveness.



Coordination, Cooperation, and Communication with all partners to keep traffic moving.

2020's

2023 and Beyond

Learn From The Past And
Build On the Future . . .



TIM Tactics On The Horizon

- UAS for TIM
- EV Incident TIM Response
- TSMO TIM EDC-7
- TIM Corridor Coalitions
- New Technologies & Tactics

Questions?

