



TDOT

Department of
Transportation

Protect The Queue
2018 CMV Conference

2015

6.3 MILLION Traffic Crashes Per Year!!



2015 – 2.44 MILLION Injured

2015 Roadway Fatalities

35,092

2013



2016



**Fatalities Increased
to 37,461 in 2016**

Fatalities Increased 4,742

The largest percentage increase in nearly 50 years!

Bonnaroo



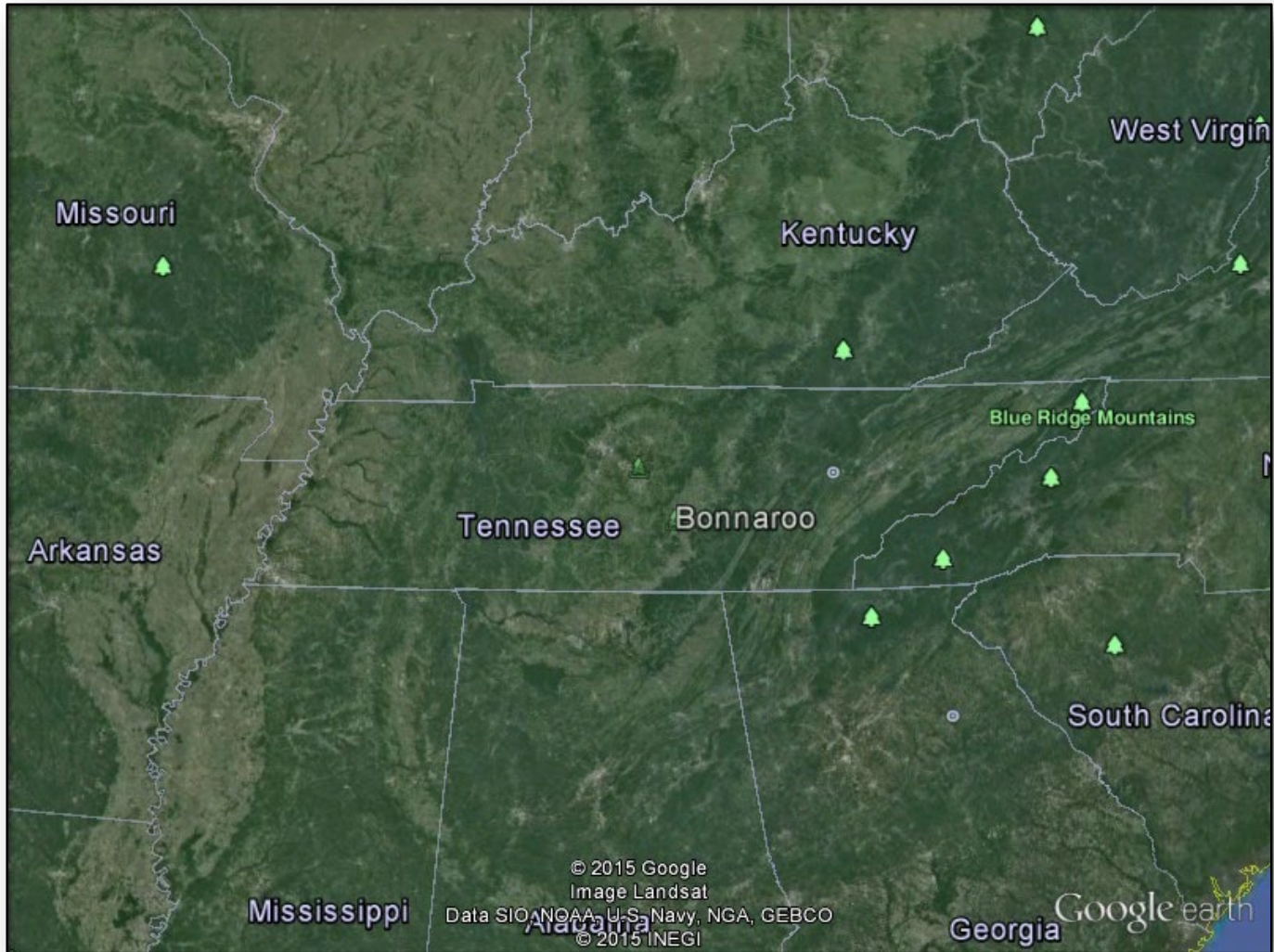
Yearly Music Festival in Manchester, TN

Population of Manchester – 10,261 (2010)

Population of Manchester During Bonnaroo

110,261

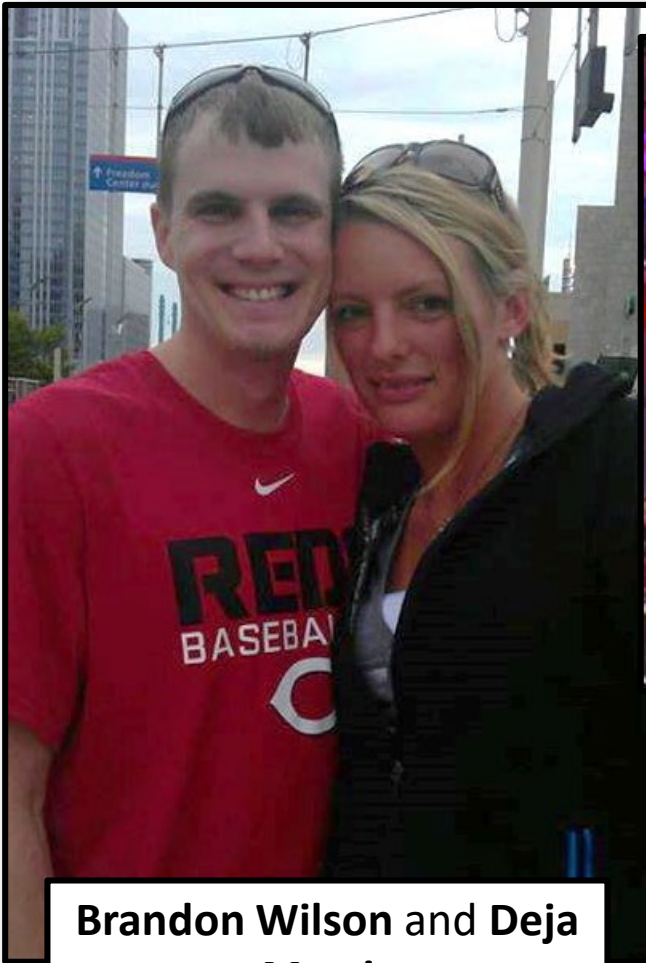
Bonnaroo



Bonnaroo



Bonnaroo



**Brandon Wilson and Deja
Morris**



Both were killed when a tractor trailer driver hit their vehicle on Interstate 24 in Murfreesboro during the early morning hours of June 13, 2013.

End of Queue Crashes



End of Queue Crashes



Secondary Crashes





MISSION: To eliminate all secondary accidents.

Communication with TMC - Queue Card



- **CALL – (SEE BACK FOR #)**
 - AT ARRIVAL
 - 30 MINUTE INTERVALS
 - SIGNIFICANT CHANGES
- **CHECK YOUR LIGHTS**
 - REAR FACING - **MAXIMIZE**
 - WARNING - **MAXIMIZE**
 - FRONT FACING - **MINIMIZE**
- **KEEP TO THE SHOULDER**
- **CREATE & MAINTAIN**
 - CREATE BUFFER ZONE
 - MAINTAIN ¼ MILE
UPSTREAM FROM END
- **WEAR ALL PPE**
(PERSONAL PROTECTION EQUIPMENT)



BY KNOWING YOUR L-D-C

LOCATION – Know where YOU are!

- Highway & Cross Street / Interstate & Mile Marker

DIRECTION – What direction is the QUEUE traveling?

- North, South, East, or West

CALL – The LOCAL TMC to report: (SEE BACK FOR #)

REGION 1

(KNOXVILLE)

865-594-3981

REGION 2

(CHATTANOOGA)

423-510-1168

REGION 3

(NASHVILLE)

615-350-4540

REGION 4

(MEMPHIS)

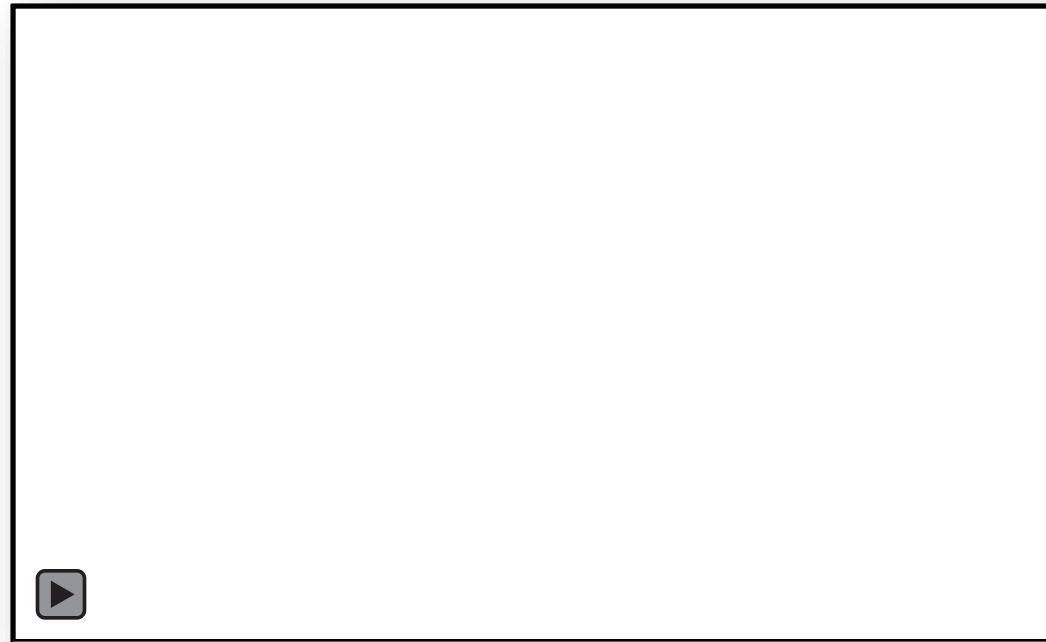
901-537-2988

Standard Operating Guideline

SOG 6303-01

Protect the Queue

- Purpose
- Description
- General
- Personnel
- Training
- Equipment
- Reporting
- Recommended Guidance
- Safety Requirements



Purpose of PTQ Training

Making a difference and saving lives!

- 28% reduction in secondary crashes
- Terminology:
Working the Queue/vehicle positioning/
line of sight
- Minimize your risk
- Communication with TMC



Protecting the Queue



Protecting the Queue



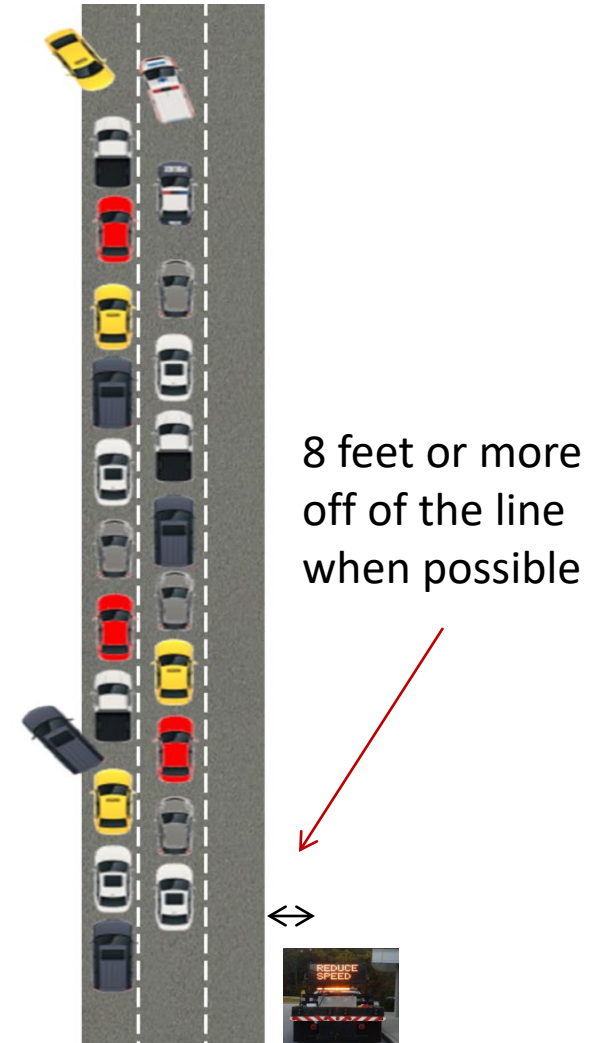
Vehicle Positioning



Vehicle Positioning

SOG 6303-01 [Safety Requirements]

- Lateral Vehicle Position.
- Conducted on the shoulder or closed travel lane.
 - Do not hug the line.
- Maintain a warning area of approximately **0.5 to 0.75 miles** upstream from the end if possible.
- Consider roadway hills and curves as well as sight distance.
- PTQ trucks **SHALL** never be staged in an active travel lane.
- Only reposition a PTQ truck by backing up when there is both a clear sight distance and suitable shoulder width to avoid travel lane encroachment.
- During major incidents, as many PTQ trucks as necessary should be made available. If the queue extends to the first upstream vehicle, that vehicle should proceed to relocate as the second vehicle remains in place to warn on-coming traffic (leap frogging).



Line of Sight



Line of Sight

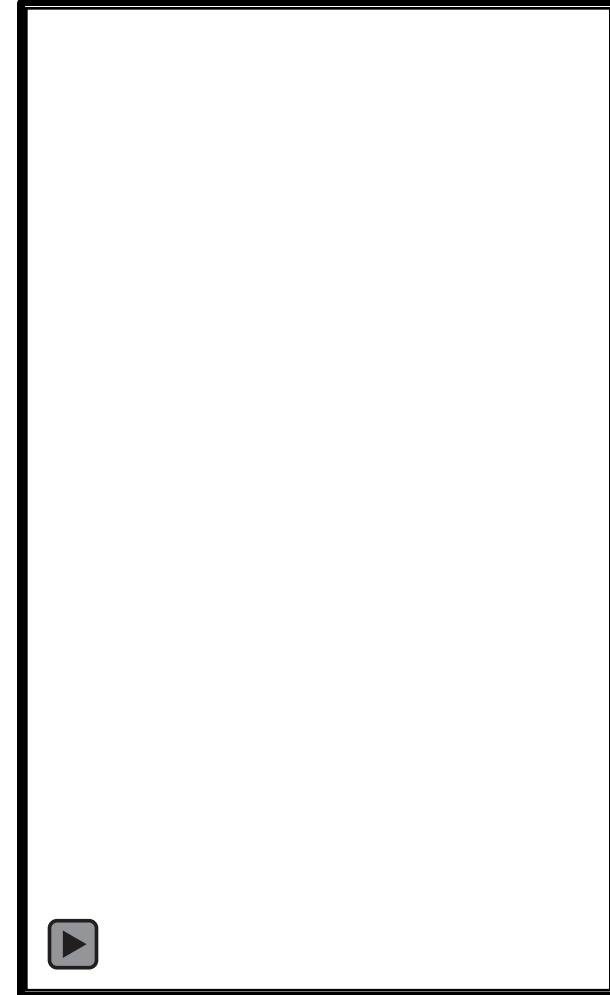


Pre-Trip Inspection

SOG 6303-01 [Safety Requirements]

Each PTQ truck operator is to complete a daily pre-trip vehicle inspection at the beginning of their shift.

- Overall vehicle condition/readiness
- Emergency Lights
- Message Boards
- Communications
- How is the queue truck equipped?



Message Boards

Standard Messages

- Be Prepared to Stop
- Slow Traffic Ahead
- Reduce Speed

Detailed Information

- Crash Ahead
- Detour
- Seek Alternate Route

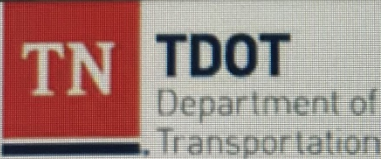
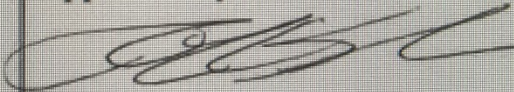


Personal Protective Equipment

SOG 6303-01 [Safety Requirements]

- PPE shall be worn in accordance with TDOT Policy 305-01
- High Visibility Safety Apparel
 - Time of Day?



 DEPARTMENTAL POLICY State of Tennessee Department of Transportation	Policy Number: 305-01
	Effective Date: June 1, 2018
Approved By: 	Supersedes: Policy No. 101-03, March 1, 2012
SUBJECT: Personal Protective Equipment	

Night or Twilight Visibility Issues

- **Vehicle lighting**
- **Light Discipline**
- **PPE**



Minimize your

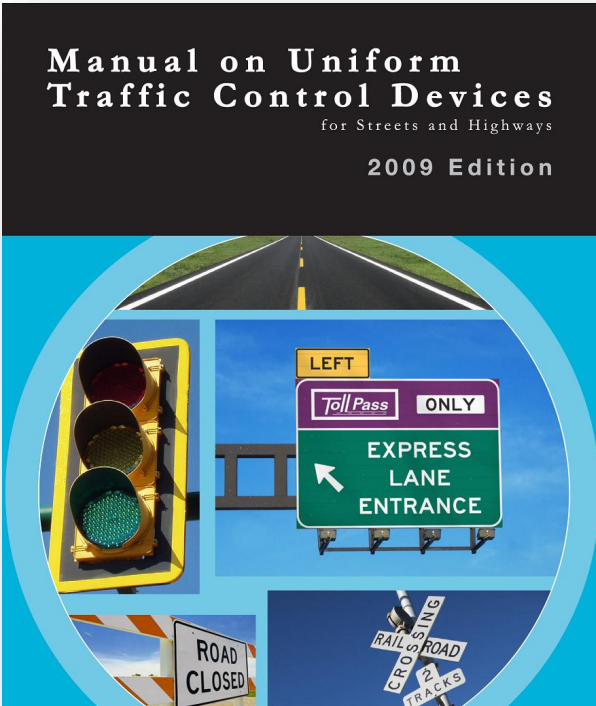


How?

- PPE.
- Watch your mirrors.
- Vehicle in gear or in park?
- Leave yourself an escape route.
- Know your equipment.
- Vehicle Positioning.
- Know the geography of your location.



Seconds Count...



55 MPH = 80 Feet in 1 second

65 MPH = 95 Feet in 1 second

75 MPH = 110 Feet in 1 second

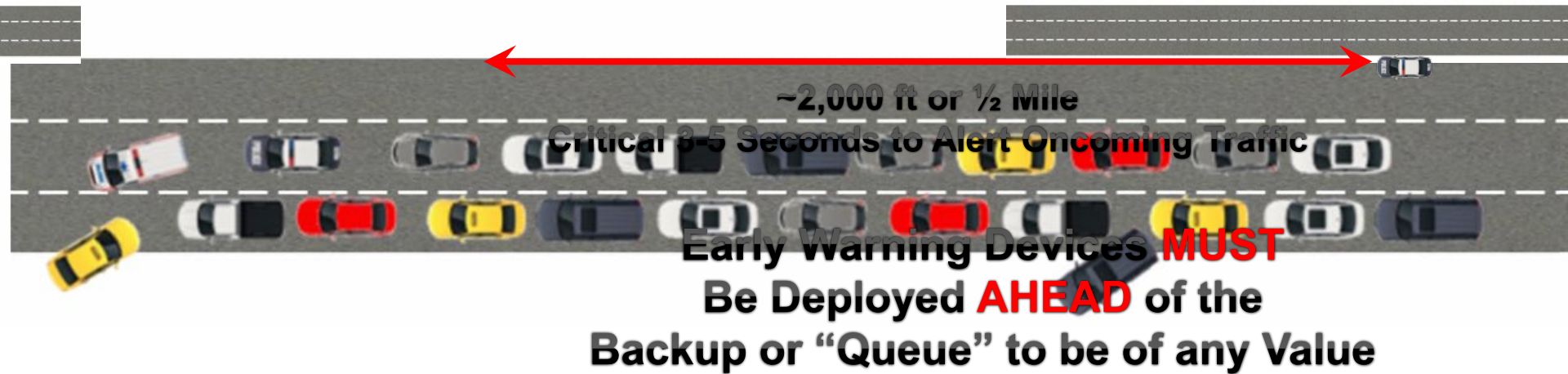
Table 6C-2. Stopping Sight Distance as a Function of Speed

Speed*	Distance
20 mph	115 feet
25 mph	155 feet
30 mph	200 feet
35 mph	250 feet
40 mph	305 feet
45 mph	360 feet
50 mph	425 feet
55 mph	495 feet
60 mph	570 feet
65 mph	645 feet
70 mph	730 feet
75 mph	820 feet

* Posted speed, off-peak 85th-percentile speed prior to work starting, or the anticipated operating speed

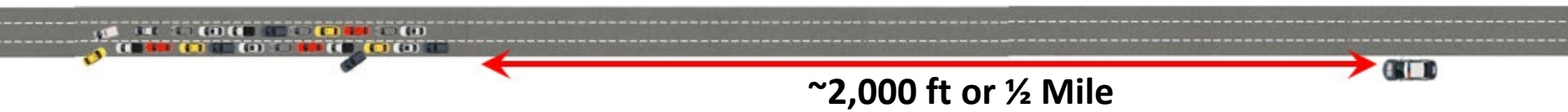
Seconds Count...

To Effectively Protect the Queue,
We have to Provide Warning
BEFORE the Traffic Backup



Seconds Count...

Does ~2,000 ft or ½ Mile Work in
EVERY Instance???



Be Sure to Consider:

BLIND CURVES

HILLS

ROADWAY CONDITIONS

OTHER VISUAL OBSTRUCTIONS

Change of Focus

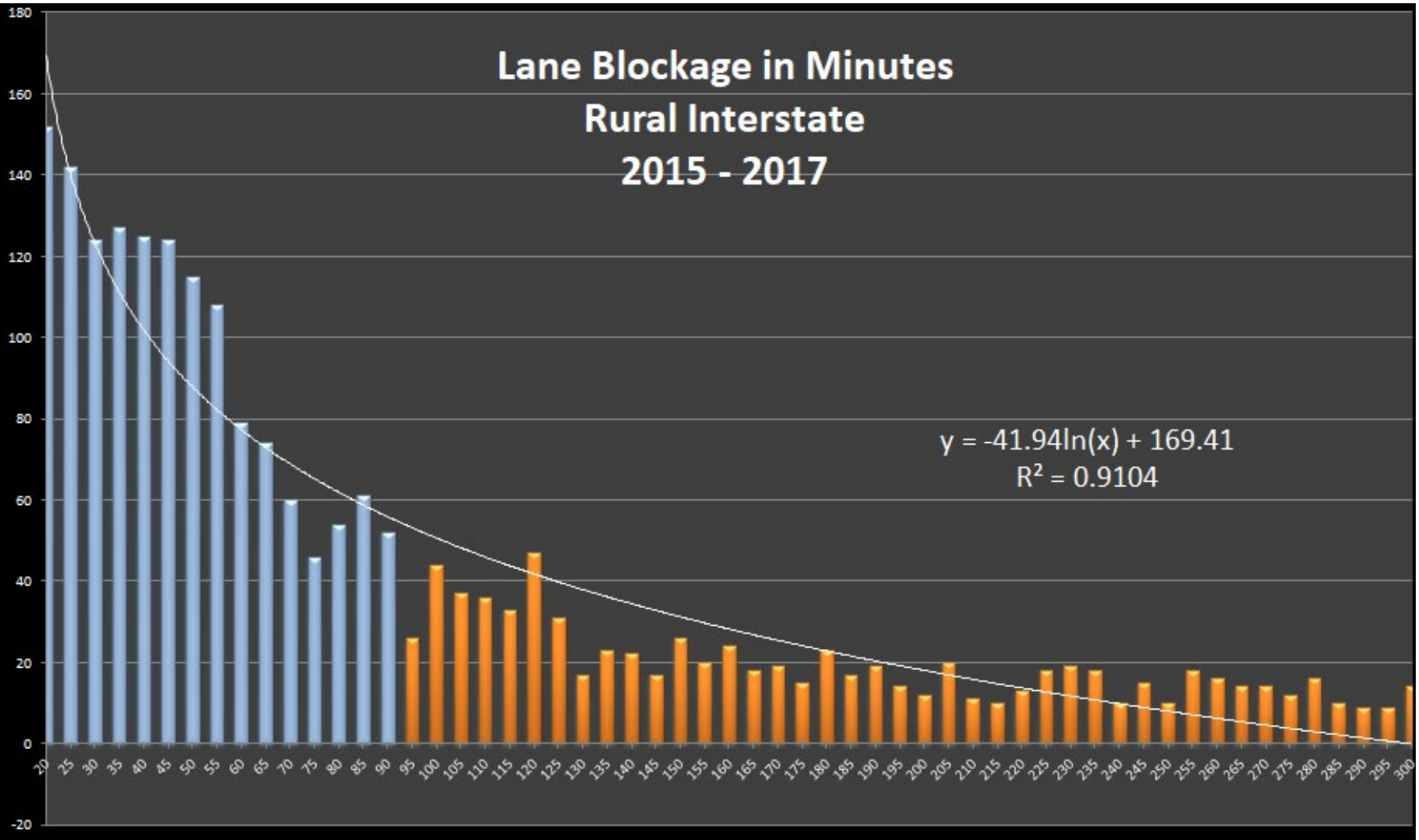


Change of Focus



Lane Blockage

Lane Blockage in Minutes
Rural Interstate
2015 - 2017



Reporting

SOG 6303-01 [Reporting]

During Incident:

- Queue protection activities shall be reported to either the on-site Supervisor or designee during active queue operations at these intervals:
 - At arrival
 - At 30 minute intervals
 - At significant changes
 - At conclusion of protection assignment



Communication with TMC - Common Questions

- **When the incident started, when TDOT was notified and by whom:** Time, Person and Agency.
- **What is the incident/event:** (Overturned TT/Vehicle, Jack-Knifed TT, Vehicle/Cargo Fire, Multivehicle Crash, Single Vehicle Crash, Debris, Traffic Diversion, Disabled Vehicle, Spilled Load, etc)
- **Where is the incident/event:** County, Roadway, Mile Marker, direction of travel, cross road, lane blockage, effect on opposite direction of travel and diversion routes.
- **When the lanes are expected to be cleared:** All travel lanes are open.
- **When the incident is expected to be cleared:** All travel lanes and all shoulders are open.
- **Who is on scene:** EMS, FD, Local PD, THP, CIRT Team, Q-Truck, TDOT Maintenance, Local emergency Services, Air Ambulance, Hazmat, Cleanup Crew, Wrecker Service, etc.

Communication with TMC - Common Questions

- **Lane Blockage:** Call the TMC anytime a lane is opened back up or closed.
- **Queue Information:** Call the TMC anytime the queue changes. The TMC needs to be called and updated with queue information at least every 30 minutes, even if there are no changes.
- **Scene Update:** Agencies arriving or leaving, equipment requested, name of wrecker company, any special agencies responding, when recovery begins, if the incident involves a fatality, changes in the detour routes, any state property damage (if state property damaged, we need the PD/THP report number)
- **When TDOT was en route and when TDOT arrived on scene:**
- **Who is in charge of the scene:** Name, title and agency.
- **Vehicle Information:** Make, Model, tag number, state. If a tractor-trailer is involved, get the tag info for the tractor and the trailer as well as the company info, the OS DOT number and the cargo info.
- **Clean Up/Removal plans:** If clean up or vehicle removal is scheduled to resume at a future time or date, notify the TMC of these plans. Be sure that the company completing the clearance has the TMC phone number and knows to call the TMC before resuming clean up. When notifying the TMC, please provide the staff with a contact person and contact number for the cleanup crew who will be finalizing the clearance of the incident.

Queue Truck



Queue Truck



Queue Truck



Queue Truck



SP 712 PTQ

- **Construction contract Special Provision** that requires contractors on projects likely to develop queues to:
- **Provide 2 specially equipped Queue Vehicles**
- **Provide the drivers with the 4 hour SHRP2 Traffic Incident Management training**
- **Deploy the vehicles as directed or needed in advance of queues.**
- **The pay item is per hour per truck.**

Troopers and Uniformed Officers



THANKS

A special thank you to Duane Manning, Region 1 Safety Manager, and Lacy Word, Region 2 TMC Manager, for their support and guidance in Protect the Queue Program!

Duane Manning | TDOT Safety Manager
Region 1 Operations - Safety & Training
7345 Region Lane, Knoxville, TN 37914
p. 865-712-8248
Duane.Manning@tn.gov
https://smartway.tn.gov/traffic

Lacy Word | TMC Manager 2
Region 2 Operations – TMC
7500 Volkswagen Drive, Chattanooga, TN 37416
p. 423-510-6910
Lacy.Word@tn.gov
https://smartway.tn.gov/traffic



Questions



Gary Ogletree, PE

Incident Management Coordinator
Transportation Management Office
James K. Polk Building
505 Deaderick Street, Suite 1800
Nashville ,TN 37243

Phone 615-405-7514

Gary.Ogletree@tn.gov





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