



NOCoE Sponsored Virtual Peer Exchange- TMC Staffing

AASHTO TSMO Subcommittee
Meeting September 2017



NOCoE Sponsored Virtual Peer Exchange

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Background

- TxDOT Administrative Support
- Chief Engineer's memos to District Engineers-
 - July 1, 2016- Traffic Management Systems in Construction Projects
 - Direction to ensure that fiber optic cable is included in all roadway construction projects, and was not cut to reduce project cost
 - April 7, 2017- Statewide Traffic Management System Procedures
 - A strategic statewide traffic TMS that includes strong Intelligent Transportation System practices and traffic signal operations provides the most cost effective means to address safety, connectivity, maintenance and emergency response available.

Chief Engineer's Memo 4/7/2017

- Each District will be expected to ensure-
 - TMS is included in each projects planning, development, design, construction, maintenance and operation
 - Provide specific TMS projects where gaps exist
- Set performance goals for TMS equipment including areas under construction
- Implement consistent asset and network management
- Project funding to be included as an element of each project in the UTP
- TSMO
 - Developed Statewide Strategic Plan and Implementation Guidelines
 - All Metro districts developing regional TSMO plans

TxDOT Metro District TMC Staffing

- Current TMC Staffing Levels

TxDOT Metro TMC Staffing Levels		
TMC	Hours	Staff Level
Austin	24/7	8
Dallas	24/7	9
El Paso	7 AM-7 PM	3
Fort Worth	24/7	8
Houston	24/7	17
San Antonio	24/7	10

Requested Assistance of NOCoE

- TxDOT Administration is directing significant increase in investment in TMS
- At current levels, TMC staff struggle to manage current workload
- Limited staffing levels will reduce return on investment in TMS
- Need to create business case to justify increasing TMC Staffing Levels
- Funding
 - TxDOT is decentralized in terms of funding
 - Funding is managed at the district level, working with MPOs/COGs
 - Additional TMC staff FTEs are not an option
 - Districts need to make case for funding of private sector staffing

NOCoE Facilitated Virtual Peer Exchange- TMC Staffing

- Four DOTs Provided Presentations
 - Minnesota DOT
 - Missouri DOT
 - Florida DOT
 - Virginia DOT
- Presentations available through NOCoE

•Minnesota DOT Presentation

- Minnesota DOT
 - Fully DOT FTE staffed
 - Consolidated 9 centers to 2 centers in 2000
 - Do not operate 24/7 Issues with additional DMS, additional cameras, expanded 511
 - RTMC Staffing
 - 6 full-time dispatchers and 1 supervisor
 - 3 part-time student workers
 - MnDOT Metro Freeway Operations (RTMC)
 - Monday – Friday, 4:30 AM to 10:00 PM
 - Saturday 11-7 and Sunday 10-6
 - Do not currently collect metrics for determining staffing
 - Overall, similar to TxDOT

Missouri DOT Presentation

- TMCs operations staffing is outsourced
 - KC Scout has 14 operators/supervisors
 - Gateway Guide has 27 staff, not just operations
 - Ozarks Traffic has 2
- Resolicit contract every 3 years, which might be a total turnaround of staff
- Incidents are typically found how?
 - Use TrafficVision's video analytics and find it very helpful (20-25% of incidents located this way)
 - Operators find another 20-25%
 - The rest, the majority are called in by their motorist assist program and CAD system
- Use HERE data in rural areas to automate messages on DMSs
- Not collecting any metrics for determining staffing numbers

Virginia DOT Presentation

- VDOT discussed outsourcing of operations
 - Operations have been outsourced for almost 25 years
 - Performance measures in place with incentives and disincentives
 - Five regional TMCs, contracted staffing numbers vary from 6-12
 - Need better interoperability between the TMCs
 - Responsible also for tunnels, moveable bridges, and ferries
- How were the numbers of staff determined?
 - Was not in the contract as required staff, just an estimate
 - Based the numbers on past experience, plus working time, holidays, vacation, etc.

Florida DOT Presentation

- FDOT TMCS are individually contracted out for operations
 - 10 TMCs
 - District 4 (presenting) has 33 operators for 5 counties
 - 8 operators solely for express lanes
 - Separate operators for arterial management
- Contracts are performance measure based
 - Roadway and incident clearance
 - Open roads duration

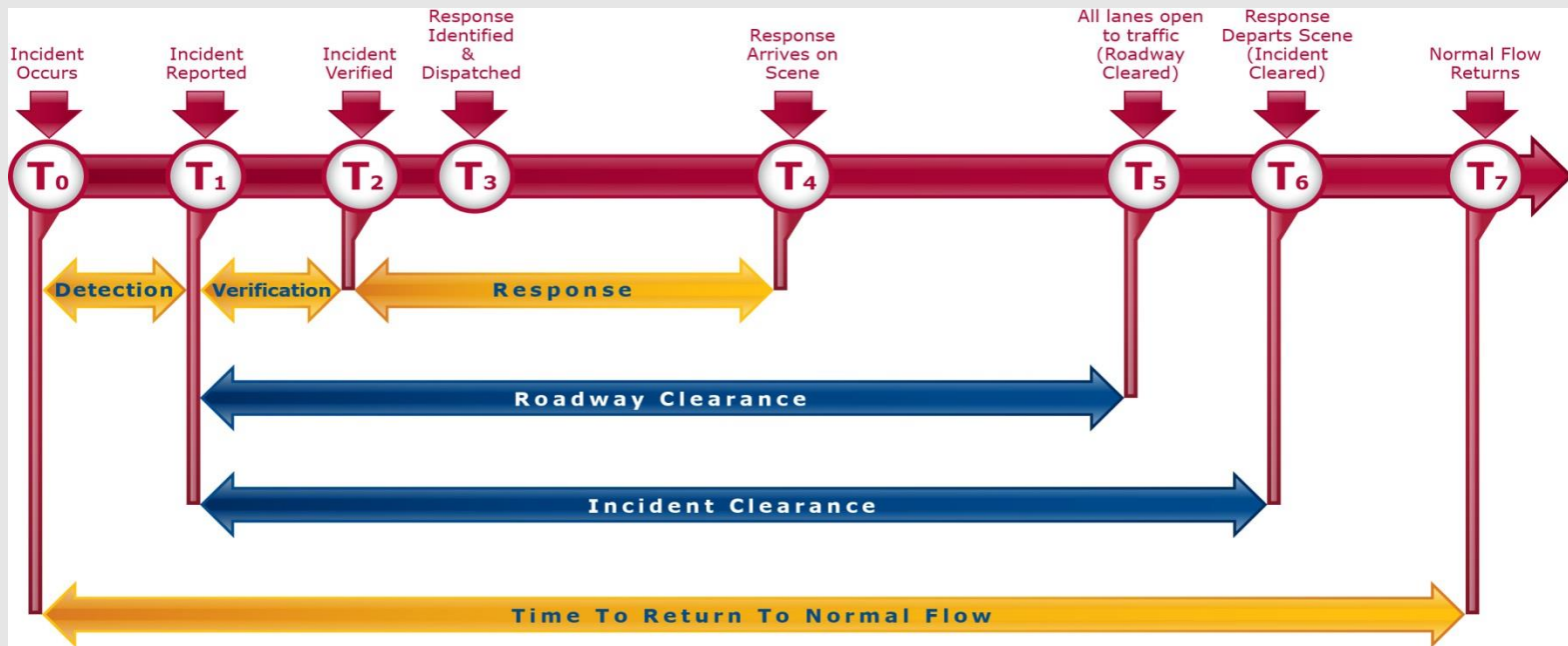
FMS Performance Measures

- Roadway Clearance ----- **37.6 minutes**
- Incident Clearance ----- **58.5 minutes**
- Open Road Duration ----- **31.7 minutes**
- Road Ranger Assists ----- **859 assists**

*** Statistics are based on October Performance Measures ***

Outcomes

- TxDOT/SwRI completed Traffic Management Center Staffing Analysis Document, distributed to TMC managers
- TxDOT implemented TMC performance measures, tracking per incident management timeline



Outcomes

- The Austin District Outsourced its TMC operations
 - Had 8 TxDOT FTE Operators
 - Contract will provide staff level of 12 contracted FTEs
 - Annual cost is \$1.8 million
 - Approx. \$150,000/operator/year
 - Contract kicking off this month
 - Contract includes Performance Measures/SLAs/KPIs
- Augmentation of TxDOT staff with contracted operators
 - San Antonio and Fort Worth have each added 2 contracted operators through Statewide Contract (SwRI)
 - Cost is approx. \$75,000/operator/year
 - Contracted operators not in management positions

Outcomes

- Decision to privatize or augment staff will be made at the district level
- Benefit of Austin district privatization will be tracked and shared with other TMC managers
- Additional districts have requested contract operators for staff augmentation



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