Mobile Vehicle Surveillance Systems within Service Patrol Programs

Todd Menzel
COO, Menzel Enterprises

Randy Hoyt, PE
FST Program Manager

ITS Wisconsin Transportation Conference
Madison, WI
October 23, 2018
SERVICE PATROLS

- According to the Federal Highway Administration (FHWA), service patrols are universally accepted as the most effective tool for Traffic Incident Management (TIM).

- Effective incident clearance relies on effective equipment utilization (towing and recovery vehicles, push bumpers) and an awareness of legal authority to speed clearance.
SERVICE PATROLS

- Service patrol benefits:
  - Reduction in overall incident duration
  - Reduction in secondary incidents
  - Reduction in delay

(Source: Best Practices in Traffic Incident Management, FHWA, September 2010)
**Freeway Service Team Background**

- “Gateway” service patrol piloted in Racine and Kenosha Counties (1998)
Freeway Service Team Background

- Law enforcement model: Milwaukee and Dane Counties
**Freeway Service Team Background**

- New name (FST) and new focus: Work zones (2008 to Present)
  - Purpose: mitigate traffic incident impacts in construction areas/work zones.
**Freeway Service Team Background**

- Sponsorship
  - Began July 2017
  - Known as the Wisconsin DOT State Farm© Safety Patrol
FST EMERGING TECHNOLOGIES

• Will be piloting Mobile Architecture for Communications Handling (MACH) in trucks

• State Patrol & dispatch can see location of FST trucks
• Drivers will be able to enter events
• Allow for more efficient reporting
• Sponsorship funds will be used to purchase ToughPads
FST Emerging Technologies

• Waycare
  ▪ Predictive crash analytics which can be used to pre-position law enforcement and FST
    • Uses historical DOT count information in combination with probe data
    • Uses machine learning and AI to predict high probability of a crash using real time probe, DOT traffic detector, 3rd party data
      ▪ Continually refines algorithms to increase precision
  ▪ Nevada DOT has been using Waycare for >one year
    • 9-14 minute reduction in incident clearance time