

California Department of Transportation



Session 3: Emerging Technologies in TSMO and TIMS
Transportation Operations role and potential

Engagement with public safety

- Caltrans provides statewide training for all emergency responders
 - State Police
 - Local Police
 - DOT maintenance
 - Fire/Rescue dept
 - Tow Services
 - Emergency medical services
 - Utilities

Engagement with public safety (continued)



Train-the-Trainer Sessions

- **253** sessions with **8,405** participants



In-Person Responder Training

- **8,019** sessions with **190,081** participants



Web-Based Training (WBT)

- **12,017** participants



Total Trained: 210,503

Engagement with public safety (continued)

- Web-based training

Lesson 3 Progress Reports

- A detailed scene size-up should be provided within 15 minutes
- Additional progress reports should be provided at regular intervals

Lesson 5 CA MUTCD Section 61.05 – Use of Emergency-Vehicle Lighting

- Though essential for safety, use of too many lights at an incident scene can be distracting and can create confusion for approaching road users

Initial/In-Scene Report → 15-Minute Detailed Size-Up Report → Regular Progress Reports

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Engagement with public safety (continued)

- Bay area TIM coalition – a model for TIM coordination
 - Championed by Bay Area MPO (MTC)
 - Monthly meetings and various conferences
 - Participating by Caltrans, MTC, CHP, Local PD, Coroner's office, Utilities

Incident and emergency response technologies

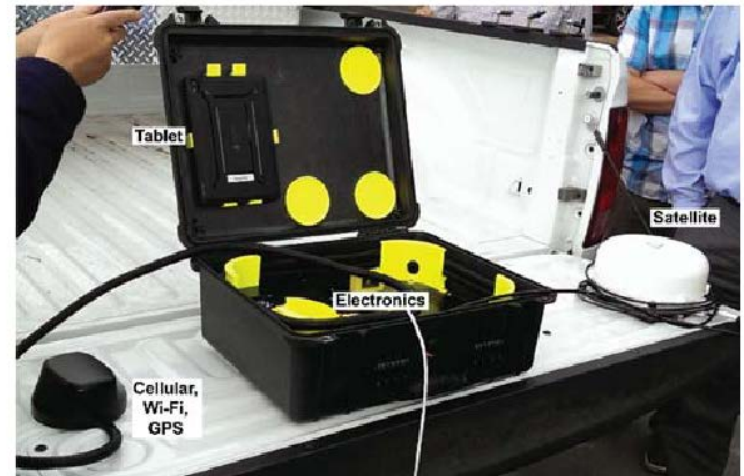
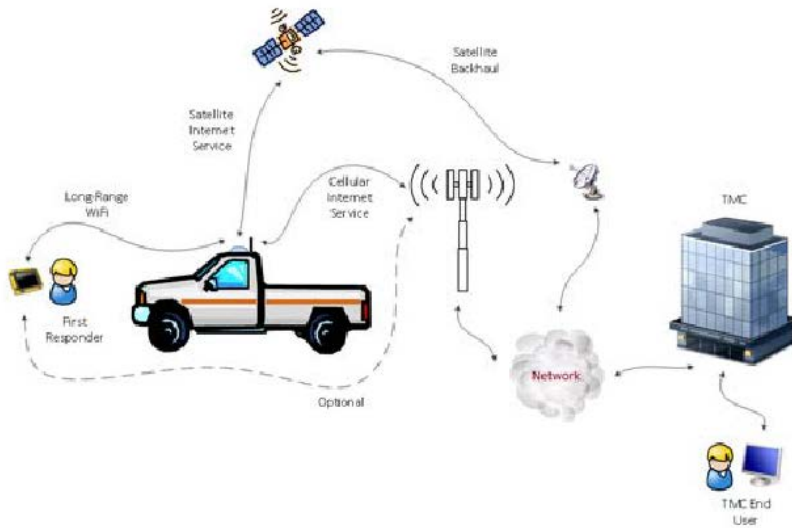
- Incident detection and verification
 - 911 and integration with State Police in TMC's
 - CCTV's with pan/tilt/zoom help confirm incidents
 - Detection systems confirm extent of congestion
- State Police – Laser imaging of accident scene
 - 20% of the time of traditional investigations
- Information sharing
 - Computer Aided Dispatch (CAD) information shared between CHP and Caltrans



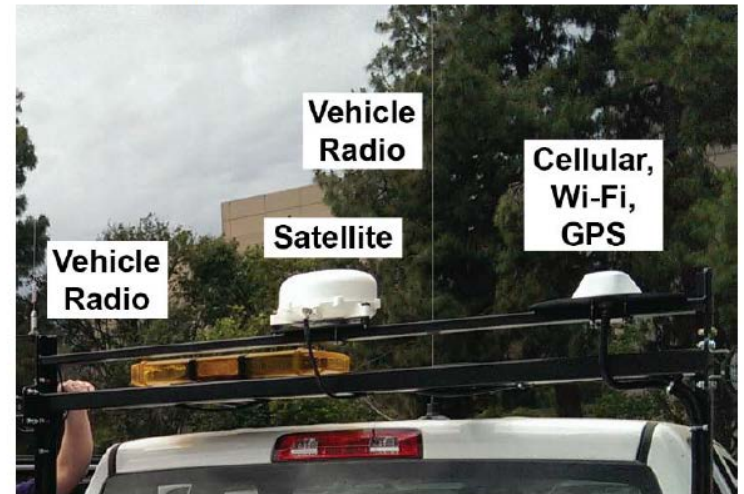
Incident and emergency response technologies (continued)

- Rural area responder vehicles
 - Hardware: \$15.5k add-on
 - \$40/mo for cellular service
 - \$35/event for satellite service

Responder Architecture



Portable unit deployed



Vehicle-based unit system antennas

Incident and emergency response technologies (continued)

- Public Information
 - Use CMS's to inform public of incidents
 - Highway Advisory Radio when available
 - Media through PIO or State Police
 - Public CCTV feeds
- Future technology – In evaluation stage
 - WAZE incident data – picks up non-911 events (stalled vehicles)
 - Probe data for incidents in rural areas

First responder support

- State Police lead on-site incident management, Caltrans provides incident support
- Urban TMC's provide 24/7 support
- Some facilities co-located with CHP staff and 911 responders

24/7 Co-located w/CHP Call Centers

D-3 Sacramento

D-7 Los Angeles

D-11 San Diego

D-12 Orange County

D-8 San Bernardino

24/7

D-4 Oakland

D-6 Fresno

D-10 Stockton

Kingvale – (Seasonal)

Weekday

D-1 Eureka

D-2 Redding

D-5 San Luis Obispo

D-9 Bishop

Incident Response

- Caltrans has a variety of incident response services
 - Provide lane closures as needed
 - Maintenance crews to repair damaged infrastructure
 - Caltrans coordinates tow services when needed
 - Caltrans has hazmat coordinator, will contract out various hazmat services
 - Public information via multiple outputs
- Traffic Management Team (TMT) to reduce additional accidents as a result of congestion

