FMCSA's Advanced Technology Division Update

TRB Truck and Bus Technology Subcommittee

Jeff Loftus, Chief, Advanced Technology Division

U.S. Department of Transportation

Federal Motor Carrier Safety Administration

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FMCSA's Advanced Technology Division

- **Purpose:**
  - to identify, develop, test, and support deployment of innovative solutions to reduce large truck and bus crashes.

- **Priority Areas:**
  - Advanced Driver Assistance Systems (ADAS) Research
  - Automated Driving Systems (ADS) Research
  - Roadside Safety Enforcement Technology Research
  - Innovative Technology Deployment (ITD) Grants

ADAS Research

- ADAS Crash Analysis via Onboard Safety Monitoring (OBSM) Report – *Coming soon!*
- Heavy Duty Truck ADAS Testing
- TechCelerate Now
  - Phase I Report – *Coming soon!*
  - Phase II Launch

OBSM interface with multiple camera views and data channels

Truck AEB testing with reusable “soft car” global vehicle target

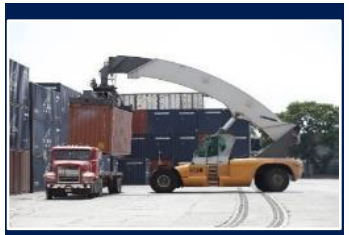
ADS Research

FMCSA Automated CMV Evaluation (ACE) Program

How will public entities interact with ADS-equipped commercial motor vehicles (CMVs)?

- Test various use cases
- Refine best practices
- Support standards development
- Inform regulatory activities

Roadside Inspection / Enforcement



Port Drayage

Work Zones

Emergency Response

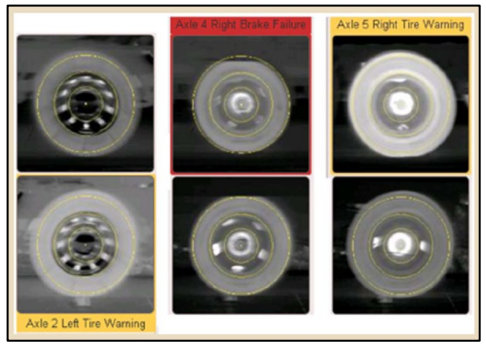
Smart Trailers

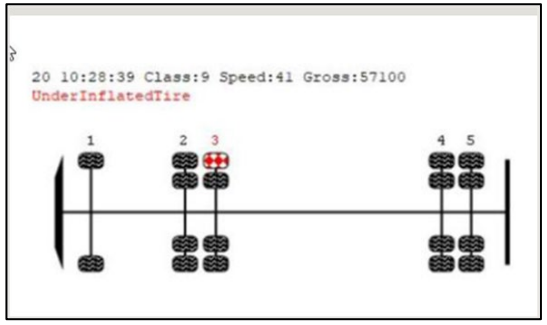
Vulnerable Road Users

2020 — 2024

Roadside Safety Enforcement Technology Research

- **Level VIII Electronic In-Motion Truck Inspections Field Test**
- **Tire and Wheel Safety Screening Systems**
- **Safety Belt Compliance Systems**





Tire, wheel, and brake anomaly detection systems

Safety belt compliance systems

ITD Grant Program Funds Innovative Safety Solutions

INNOVATIVE TECHNOLOGY DEPLOYMENT

ITD empowers States to apply cutting-edge technology to the challenge of improving highway safety and efficiency

The ITD Grant Details

$43 Million Dollars Annually

- No State funding match required
- Applications due in April
- https://www.fmcsa.dot.gov/itd

2023 PRIORITIES

1) Core Compliance
   - Safety Information Exchange
   - E-credentialling
   - E-screening
2) Work Zone Notification
3) Federal Out of Service Detection
4) Vehicle Out of Service Order Detection
5) Truck Parking
6) Improve Data Quality
7) Electronic Inspection
8) Enhanced Data Sharing

Thank you!

Jeff Loftus
Chief, Advanced Technology Division
Federal Motor Carrier Safety Administration
202-385-2363
Jeff.loftus@dot.gov