

Federal Motor Carrier Safety Administration

MAASTO CAV Summit

Nicole Michel October 18, 2019



FMCSA'S ROLE IN AUTOMATED COMMERCIAL MOTOR VEHICLES

FMCSA's Automated CMV Evaluation (ACE) Program will:

- Conduct research to inform safety equivalency decisions for waivers, exemptions, and pilot programs
- Identify best practices for industry's use of automated CMVs
- Remove regulatory barriers to the operation of automated CMVs
- Promote safe operation of automated CMVs

ACE PROGRAM FOCUS AREAS

- Roadside Inspections of Automated Driving System (ADS)-equipped CMVs
- Automated CMV Technologies and Capabilities (e.g., Platooning, Advanced Driver Assistance)
- In-service training with FMCSA field staff
- CMV Driver Readiness for Advanced Technologies
- CMV Cybersecurity





ACE PROGRAM RESOURCES

- Four tractor-trailers equipped with hardware to enable Level 2/3 automation
- Autoware & CARMA software to enable automation
- To be used as research vehicles in FMCSA's automated CMV evaluation program



USDOT COOPERATIVE AUTOMATION SOLUTION

Advancing Cooperative ADS research with FHWA and FMCSA fleet and partnerships

CARMA



- Expand cooperative automation capabilities.
- Develop proofs of concept to support TSMO use cases.
- Collaborate with Infrastructure Owner-Operator (IOO)/Original Equipment Manufacturer (OEM) community.

COOPERATIVE

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- Leverage Autoware open-source software (OSS) development.
- Enable ADS level 2–3 capabilities.
- Engage ADS community.

AUTOMATION

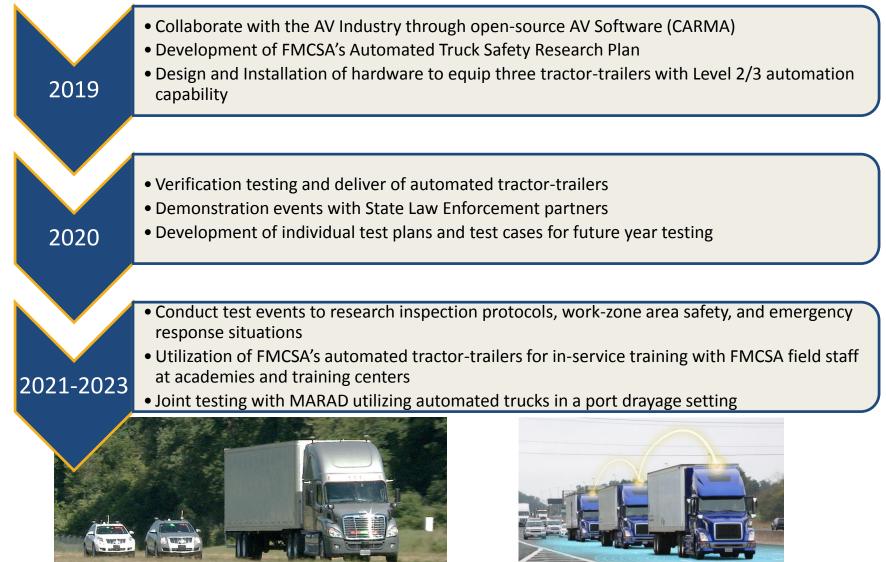
FMCSA PLATOONING RESEARCH

FMCSA views platooning as one application of cooperative automation capability.

Specific areas of interest include:

- Brake variability and performance;
- Trailer load considerations;
- Platoon size considerations;
- Platoon interactions with law enforcement;
- Platoon dissolution; and
- Identification of potential regulatory barriers to platooning.

FIVE-YEAR RESEARCH, TESTING, AND EVALUATION TIMELINE



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