Agenda

- Bi-Partisan Infrastructure Law (BIL)
  - Vehicle Safety
  - Crash Data
- Vehicle Safety Research
- Regulatory Activities
- International Activities
- Standing General Order
- Other ADS Activities
- Voluntary Information/Data Efforts
- Recent Publications
Bipartisan Infrastructure Law

Provides the Department of Transportation $660 billion over five years between FY 2022 through FY 2026.

Provides NHTSA a substantial increase over the next 5-years.

- Increases by $517 million in FY 2022, 53% more than the FY 2021 enacted level
Vehicle Safety

Rulemakings
- At least 12 additional vehicle safety rulemaking mandates

New Car Assessment Program (NCAP)
- Request For Comment
- Roadmap Requirement

Supplemental Appropriations for Vehicle Safety Research
- Expanded research on emerging light- and heavy-vehicle ADAS technologies to support policy and NCAP roadmap decisions
- Advanced frontal and side impact female crash dummies
Crash Data

• Provides an additional $750 million over 5 years to expand reporting of roadway crash data through new State Electronic Data Transfer grants and enhancements to NHTSA’s Crash Investigation Sampling System
NHTSA Automated Driving System Research

System Safety Performance
- Test track, simulation, & on-road tools development;
  Testable cases; safety metrics and measures

Subsystems Testing and Functional Safety
- Sensor capabilities/limitations, fusion, redundancies;
  Perception, maneuvers & execution

Crashworthiness
- Alternative seating configurations, advanced test dummies; Unoccupied vehicle compatibility

Human Factors
- Human-Machine Interface; Driver Monitoring Systems;
  Communication of intent; accessibility; teleoperations
NHTSA ADS-Related Regulatory Activities

Fall Regulatory Agenda: [https://www.reginfo.gov/public/do/eAgendaMain](https://www.reginfo.gov/public/do/eAgendaMain)

- Facilitating New ADS Vehicle Designs for Crash Avoidance Testing ANPRM
- Considerations for Telltales, Indicators & Warnings in Vehicles With ADS ANPRM
- Occupant Protection for ADS Final Rule
- Framework for ADS Safety ANPRM

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Volume 1: Near-Term Research

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Temporary Exemptions
Framework for ADS Safety ANPRM – Publication History

- **December 3, 2020** – ANPRM published
- **January 29, 2021** – Comment period extension published
- **April 1, 2021** – Comment period closed
Framework for ADS Safety

- Safety assurance includes broad proactive approaches to minimize risk

**ADS Safety Framework**

- Process Measures
  - manage & minimize risk during design & development

- Engineering Measures
  - safety performance through testing of a finished vehicle or system

**Administrative Mechanisms**

- Voluntary Mechanisms
- Mandatory Mechanisms

NHTSA ADS International Activities

United Nations Economic Commission for Europe

- WP 1 – Road Traffic Safety
- WP 29 – Vehicle Regulations
  - Working Party on Automated/Autonomous and Connected Vehicles (GRVA) and various sub-groups

EU-US-Japan Trilateral Automation in Road Transport Work Group
Standing General Order – June 2021/Amended August 2021

What: Requires manufacturers and operators of ADS and SAE Level 2 ADAS equipped vehicles to report crashes to the agency.

When:
- For ADS and ADAS Level 2 – 1 calendar day, updated report 10th calendar day – for hospital treated injury, a fatality, a vehicle tow-away, an air bag deployment, or a vulnerable road user (such as a pedestrian or bicyclist).
- For ADS ONLY – 15th day of following month - reports of other crashes involving vehicles equipped with ADS and that involve any injury or property damage.

Why: Obtain timely notice of incidents that may provide information regarding potential safety defects and lead to a possible Special Crash Investigation, and/or future research projects or data analysis from trends

So What? Company compliance violations subject to civil penalties, possible referral to DOJ
NHTSA ADS Other Activities

• Special Crash Investigations
  Completed cases - https://crashviewer.nhtsa.dot.gov/SCI/SearchIndex

• Import Exemptions
NHTSA ADS Voluntary Information/Data Efforts


NHTSA ADS-Related Recent Publications

https://rosap.ntl.bts.gov/

• A Framework for Automated Driving System Testable Cases and Scenarios See https://rosap.ntl.bts.gov/view/dot/38824

• “An Approach for the Selection and Description of Elements Used to Define Driving Scenarios” See https://rosap.ntl.bts.gov/view/dot/55465

• “Advanced Test Tools for ADAS and ADS” See https://rosap.ntl.bts.gov/view/dot/55991

• Safety of the Intended Functionality of Lane-Centering and Lane-Changing Maneuvers of a Generic Level 3 Highway Chauffeur System See https://rosap.ntl.bts.gov/view/dot/53628

• FMVSS Considerations for Vehicles With Automated Driving Systems
  • Volume 1 – See https://rosap.ntl.bts.gov/view/dot/54287
  • Volume 2 – See https://rosap.ntl.bts.gov/view/dot/54442


NHTSA Research Days
NHTSA Safety Research Portfolio Public Meeting: Fall 2021 - NHTSA-2021-0060

Yokohama, Japan, April 3-6, 2023

Call for Abstract coming soon!
Peer Review abstracts
February 1, 2022: Call begins
April 15, 2022: Deadline for submission

Traditional abstracts
March 1, 2022: Call begins
June 1, 2022: Deadline for submission

Conference website available soon https://www-esv.nhtsa.dot.gov/
Contact Stephen.Summers@dot.gov for more information

Dee Williams
National Highway Traffic Safety Administration
Deputy Associate Administrator for Vehicle Safety Research

https://www.usajobs.gov/