Automated Vehicles: FAV Policy Overview

Tim Johnson, Director NHTSA's Vehicle Research and Test Center

TIA Panel Session: Autonomy at Scale: The Policy, Technology and Business of Autonomous Vehicles

November 29, 2016



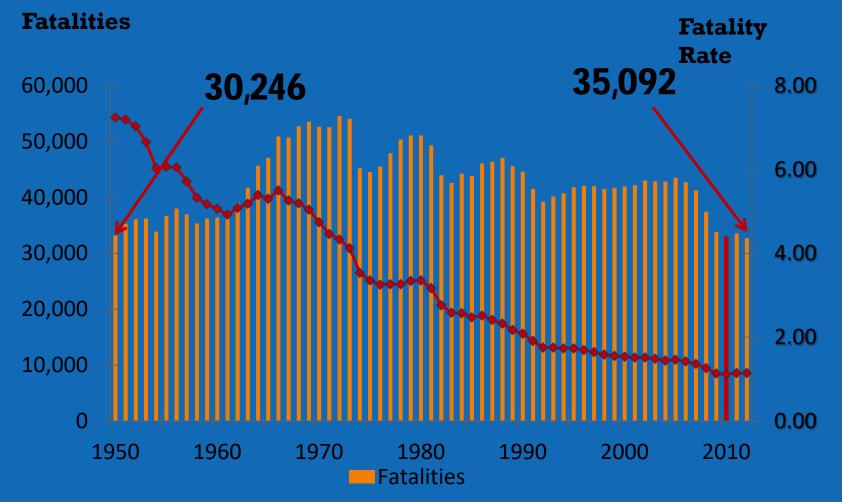


National Highway Traffic Safety Administration's (NHTSA's) mission is: to save lives, prevent injuries, and reduce economic costs due to road traffic crashes through education, research, safety standards, and enforcement activity.

http://www.nhtsa.gov/



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Motor vehicle crashes cost nearly \$836 billion



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Advanced Driver Assist Systems: What's Motivating Implementation?

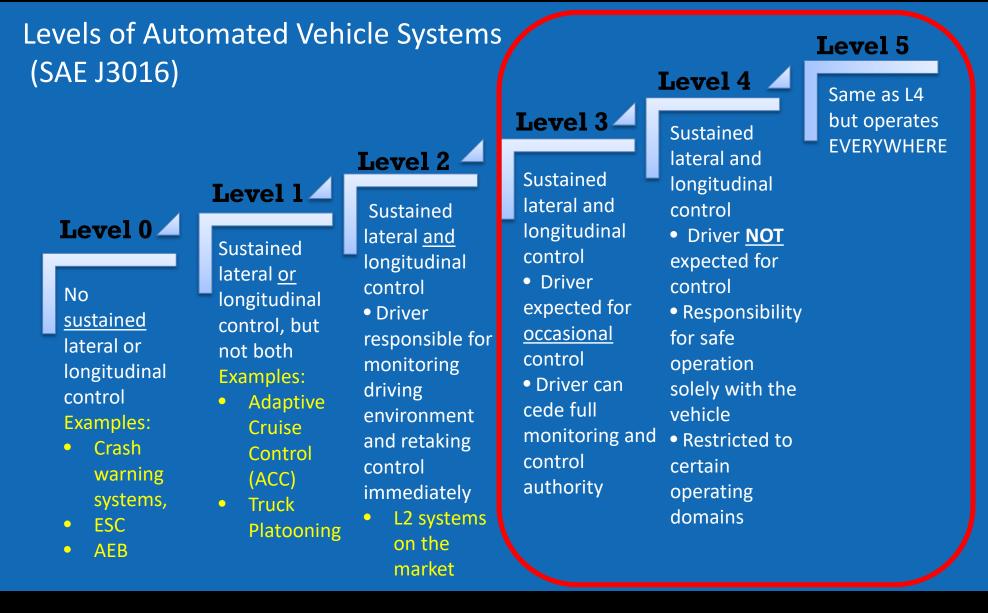
- 94% of police-reported crashes involve driver error
- Data indicates safety benefits for driver assistance systems, i.e. "smart" technologies
- Government perspective
 - Vehicle crashes continue to be a leading cause of fatalities and injuries new technologies have potential to greatly improve safety

• Industry:

 Integration of functions, cost reduction, and tech savvy drivers will make it attractive for OEMs to say "yes" to advanced technologies



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- Federal Automated Vehicles (FAV) Policy
 Released September 2016
 - www.transportation.gov/av

Accelerating the Next Revolution In Roadway Safety







FAV Policy - Main Sections

- Vehicle Performance Guidance for Automated Vehicles
- Model State Policy
- NHTSA's Current Regulatory Tools
- New Tools and Authorities

Levels of Automation

• Adopts SAE International definitions (SAE J3016)



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- Data Recording and Sharing
- Privacy
- System Safety
- Vehicle Cybersecurity
- Human-Machine Interface
- Crashworthiness
- Consumer Education and Training
- Registration and certification
- Post-Crash Behavior
- Federal, State, and Local Laws
- Ethical Considerations
- Operational Design Domain (ODD)
- Object and Event Detection and Response (OEDR)
- Fall Back Minimum Risk Condition
- Validation Methods

Crosscutting Areas

System Specific Areas Safety Assessment Letter (voluntary)



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- FAV Policy Document is a first step, significant additional public input and work tasks ahead!
- Many next steps envisioned, including:
 - Request for Comments
 - Public meetings/other stakeholder engagement
 - Work plans for certain areas in vehicle guidance and state model policy sections
 - Education
 - Notice and Comment on potential changes to regulatory tools and authorities



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- Request for comments (RFC)
 - Comment period closed Nov. 22, Docket No. NHTSA-2016-0090
- Public meeting November 10, 2016, Washington DC

 Morning session Public comment on the four sections of the Policy
 Afternoon session Public comment on the Safety Assessment Letter
- Additional public meetings/stakeholder engagement planned





Thanks for your Attention!

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