

Submitted Electronically via the [Federal Rulemaking Portal](#)

August 22, 2022

Ann Carlson, Acting Administrator
National Highway Traffic Safety Administration
Docket Management Facility
U.S. Department of Transportation
1200 New Jersey Avenue S.E.
West Building Ground Floor, Room W12-140
Washington, D.C. 20590- 0001

**Re: Notice of proposed rulemaking (NPRM) – Event Data Recorders
[Docket No. NHTSA-2022-0021]**

Dear Acting Administrator Carlson:

Thank you for the opportunity to provide comments on the National Highway Traffic Safety Administration (NHTSA) Advance Notice of Proposed Rule Making (ANPRM) concerning increasing the amount of pre-crash time and vehicle data that Event Data Recorders (EDRs) are required to capture published on June 22, 2022. State Farm Mutual Automobile Insurance Company (State Farm) has a long history of advocating for the improvement of auto and highway safety for the benefit of its customers and the general public and recognizes NHTSA's work in seeking to balance innovation and safety considerations. As with NHTSA, State Farm is supportive of automotive technological advancements to the extent they improve auto and highway safety.

State Farm is the nation's largest auto insurer with over 40 million active automobile insurance policies. Its 19,400 agents and more than 53,000 employees serve approximately 87 million policies and accounts, including handling tens of thousands of car insurance claims each day.

State Farm is very active in promoting research to increase safety on U.S. roads and highways. State Farm supports developments that have the promise of saving lives and avoiding injuries, including continued research and consumer education on the impact of advanced vehicle technologies. State Farm has been active in providing input to NHTSA on safety-critical event data being created by today's Advanced Driver Assistance Systems (ADAS) and Automated Driving Systems (ADS) vehicle technologies and ensuring that access to relevant EDR pre-crash data is made available to law enforcement and other parties, including insurance companies. To this end, State Farm is appreciative that the ANPRM for EDRs proposes to increase the EDR recording duration and vehicle data elements captured by the EDR.

Automated vehicle technology will significantly impact how insurers protect policyholders and claimants from financial loss and risk. State Farm supports technological developments that have the promise of saving lives and avoiding injuries, including the incorporation of higher levels of automation in vehicles to minimize human error factors and encourage safer driving behavior. While highly automated vehicles will reduce or eliminate many risks on the roads, drivers will still need protection from the unexpected. Further, technology such as data collection after accidents can help make vehicles even safer in the future.

As a proponent of technological advances that will improve automotive safety, State Farm participates in a number of research opportunities across the country. State Farm is a founding member of the University of Michigan's MCity program and is a member of the National Surface Transportation Safety Center for Excellence hosted by the Virginia Tech Transportation Institute. In addition, State Farm has also published consumer research and has been a key participant in a number of forums and conferences on automated vehicles, including the National Transportation Safety Board's program on Advanced Driver Assist Technologies, the SAE International Government/Industry Meeting, and the AUVSI/TRB Automated Vehicle Symposium. These endeavors have helped position State Farm as a thought partner and leader on automated driving system technology.

State Farm must gather and analyze a number of data points in order to effectively underwrite automobile insurance policies, determine liability, and appropriate settlement amounts in over 10 million auto insurance claims each year. The NHTSA developed its Federal Automated Vehicle Policy Guidance that was issued in 2016 (Guidance) highlighting the importance of data access in determining the performance of automated vehicle technology. Moreover, such data is critical in determining the facts of a collision and the assessment of liability. Accordingly, State Farm appreciates the following Guidance language:

For crash reconstruction purposes (including during testing), it is recommended that ADS data be stored, maintained, and readily available for retrieval as is current practice, including applicable privacy protections, for crash event data recorders.

Vehicles should record, at a minimum, all available information relevant to the crash, so that the circumstances of the crash can be reconstructed. This data should also contain the status of the ADS and whether the ADS or the human driver was in control of the vehicle leading up to, during, and immediately following a crash. Entities should have the technical and legal capacity to share with government authorities the relevant recorded information as necessary for crash reconstruction purposes. (Emphasis added)

State Farm previously submitted comments to the NHTSA with respect to the recommended minimum EDR requirements. The basis of State Farm's recommendations arose from its sponsored research engagement with Carnegie Mellon on automated vehicle functionality in various situations. Working

with the Pennsylvania Department of Transportation, Carnegie Mellon conducted testing in Pennsylvania and identified the following approach to handle information relevant to crashes. An ADS EDR should contain at a minimum:

- Individual sensor data (static and moving obstacles)
- Forward looking and in-cabin views
- Sensor fusion outputs (obstacle classification)
- Localization – where is the vehicle in terms of latitude and longitude
- Driving context – at intersection, lane change, speed, etc.
- Decision-making – traffic light status, slowing down
- Current and planned path and speed profiles
- Health status of hardware and software tasks
- V2X communications

In terms of duration, capturing just the last 5 minutes (with a maximum of 10 minutes) of driving data is appropriate to store in the ADS data recorder according to Carnegie Mellon's research to date. State Farm's position, consistent with the spirit of AV 2.0, is that the ANPRM regarding EDRs further supports a standardized framework for the availability of data.

It is important to note that access to ADAS data is a key issue for numerous stakeholders. The American Association of Motor Vehicle Administrators (AAMVA) issued its "Jurisdictional Guidelines for the Safe Testing and Deployment of Highly Automated Vehicles" highlighting in a number of sections the need to make crash related data available to law enforcement and other parties. In addition, the Governor's Highway Safety Association (GHSA) Automated Vehicle Safety Expert Panel: Engaging Drivers and Law Enforcement workshop, highlighted data access as a critical issue for law enforcement and other stakeholders.

For the reasons stated by the NHTSA in the Rulemaking Analyses and Notices section, State Farm supports the NHTSA's authority through the ANPRM process to increase the pre-crash EDR recording duration from a 5-second recording duration to a 20-second duration and the sample rate of 2 samples per second (Hz) to the improved rate of 10 Hz.

Conclusion

In conclusion, State Farm appreciates the opportunity to provide the NHTSA comments on the ANPRM concerning EDRs and continue to advance the goal of improving auto and highway safety for the benefit of its customers and the general public. State Farm applauds the NHTSA for taking this step in further advancing a standardized approach to existing capabilities to capture, access, and analyze relevant pre-crash data. State Farm looks forward to continuing to work with NHTSA on rulemaking and other automated vehicle issues.



If you have any questions or comments, please contact me at (309) 735-4685 or maria.hagglund.d3xu@statefarm.com.

Sincerely,

/s/ Maria L. Hagglund

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