

motor carrier's participation in the pilot program shall be contingent upon the carrier meeting the following eligibility criteria:

1. Must have applicable interstate operating authority and registration;
2. Must have the minimum levels of financial responsibility under 49 CFR part 387, if applicable;
3. Must not be a high or moderate risk carrier, as defined in the Agency's **Federal Register** notice titled "Notification of Changes to the Definition of a High-Risk Motor Carrier and Associated Investigation Procedures" (81 FR 11875, Mar. 7, 2016);
4. Must not have a "Unsatisfactory" safety rating;
5. Must not have any FMCSA enforcement actions within the past 3 years;
6. Must not have a driver out of service (OOS) rate above the National average; and
7. Must not have a vehicle OOS rate above the National average.

In addition, unpaid civil penalties may be grounds for exclusion from participating in the pilot program.

Further, motor carriers participating in the pilot program would be required to:

- Grant permission for drivers to participate in the pilot program;
- Agree to comply with all pilot program procedures;
- Grant permission for the Virginia Tech Transportation Institute to gather RODS information for each participating driver throughout the study duration; and
- Grant permission for drivers participating in the study to operate under the applicable exemption.

A driver would not be eligible for participation in the pilot program if the driver is identified in FMCSA's Drug and Alcohol Clearinghouse, regardless of whether the driver has completed the return-to-duty process, or during the 2-year period immediately preceding the date of participation, the driver had his or her license suspended, revoked, cancelled, or has been disqualified for a conviction of one of the disqualifying offenses listed in § 383.51. In addition, drivers would be required to:

- Possess a valid commercial driver's license;
- Maintain a valid medical certificate from a healthcare professional on the Agency's National Registry of Certified Medical Examiners while participating in the pilot program;
- Be employed by a motor carrier who has been approved for participation in the pilot program and/or certify as an owner-operator;

- Agree to the release of specific information to FMCSA for purposes of the pilot; and
- Agree to comply with all study procedures, including the use of actigraphs and RODS.

FMCSA would also reserve the right to exclude from participation any driver whom the Agency believes has a safety history incompatible with the interests of the pilot programs.

The study will use a convenience sampling approach, where participating carriers and drivers volunteer to participate. This is expected to attract drivers who are likely to use the exemption, which is key to obtaining sufficient data during the exemption period and maximizing statistical power for analyses. However, the sample of drivers will be drawn from carriers who are representative of the overall distribution of carrier sizes in the population of interstate motor carriers utilizing drivers beyond a 100-mile radius. A total of 256 CMV drivers will participate in this study.

The "method of comparison" for the "safety analysis plan" will vary depending on the data, but may include *t*-tests, χ^2 tests, other inferential/descriptive statistics, and/or qualitative analyses to include case narratives (*e.g.*, for crash events). To make effective comparisons between drivers operating in compliance with the current regulations and drivers operating under the conditions of the exemption, the study has been structured as a within-subjects research design, which will compare data for the same drivers operating under both conditions.

Title: Hours of Service of Drivers: Pilot Program to Allow Commercial Drivers to Pause Their 14-hour Driving Window.

OMB Control Number: 2126-00XX.

Type of Request: New ICR.

Respondents: CMV drivers.

Estimated Number of Respondents: 256 CMV drivers.

Estimated Time per Response: Varies depending on the task, 16.68 total hours per respondent over 16 weeks.

Expiration Date: This is a new ICR.

Frequency of Response: Daily.

Estimated Total Annual Burden: 4,270.92 hours.

Public comments invited: You are asked to comment on any aspect of this information collection, including: (1) whether the proposed collection is necessary for the performance of FMCSA's functions; (2) the accuracy of the estimated burden; (3) ways for FMCSA to enhance the quality, usefulness, and clarity of the collected information; and (4) ways that the burden could be minimized without

reducing the quality of the collected information. The Agency will summarize or include your comments in the request for OMB's clearance of this ICR.

Issued under the authority of 49 CFR 1.87.

Nicole S. Michel,

Acting Associate Administrator, Office of Research and Registration.

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BILLING CODE 4910-EX-P

DEPARTMENT OF TRANSPORTATION

National Highway Traffic Safety Administration

[Docket No. NHTSA-2025-0060]

Agency Information Collection Activities; Submission to the Office of Management and Budget for Review and Approval; Request for Comment; Assessment of Contextual Driver Monitoring Systems (DMS)

AGENCY: National Highway Traffic Safety Administration (NHTSA), Department of Transportation (DOT).

ACTION: Notice and request for comments on a request for approval of a new information collection.

SUMMARY: In compliance with the Paperwork Reduction Act of 1995 (PRA), this notice announces that the Information Collection Request (ICR) summarized below will be submitted to the Office of Management and Budget (OMB) for review and approval. The ICR describes the nature of the information collection and its expected burden. This document describes a collection of information for which NHTSA intends to seek OMB approval to assess contextual driver monitoring systems (DMS). A **Federal Register** Notice with a 60-day comment period soliciting comments on the following information collection was published on June 10, 2026 (with an administrative correction published June 18, 2026).

DATES: Comments must be submitted on or before November 5, 2026.

ADDRESSES: Written comments and recommendations for the proposed information collection, including suggestions for reducing burden, should be submitted to the Office of Management and Budget at www.reginfo.gov/public/do/PRAMain. To find this particular information collection, select "Currently under Review—Open for Public Comment" or use the search function.

FOR FURTHER INFORMATION CONTACT: For additional information or access to background documents, contact Jeffrey

Dressel, Office of Vehicle Safety Research, Human Factors/Engineering Integration Division NSR-310, West Building, U.S. Department of Transportation, 1200 New Jersey Avenue SE, Washington, DC 20590; (202) 366-7409; jeffrey.dressel@dot.gov.

SUPPLEMENTARY INFORMATION: Under the PRA (44 U.S.C. 3501 *et seq.*), a Federal agency must receive approval from the Office of Management and Budget (OMB) before it collects certain information from the public and a person is not required to respond to a collection of information by a Federal agency unless the collection displays a valid OMB control number. In compliance with these requirements, this notice announces that the following information collection request will be submitted OMB.

Title: Assessment of Contextual Driver Monitoring Systems (DMS).

OMB Control Number: New.

Form Number(s): There are multiple forms for this new information collection including:

- NHTSA Form 2235—Advertisement
- NHTSA Form 2243—Eligibility Questionnaire & Availability Form
- NHTSA Form 2249—Scheduling Form
- NHTSA Form 2236—Appointment Reminder Form
- NHTSA Form 2246—Informed Consent Document
- NHTSA Form 2238—Demographics Questionnaire
- NHTSA Form 2251—Simulator Sickness Questionnaire
- NHTSA Form 2239—Acceptance Questionnaire 1
- NHTSA Form 2240—Acceptance Questionnaire 2
- NHTSA Form 2241—Acceptance Questionnaire 3
- NHTSA Form 2242—Acceptance Questionnaire 4
- NHTSA Form 2237—Debrief & Honorarium Confirmation Form

Type of Request: New information collection.

Type of Review Requested: Regular.

Requested Expiration Date of

Approval: Three years from date of approval.

Summary of the Collection of Information: The National Highway Traffic Safety Administration (NHTSA) is proposing a new information collection consisting of a single, one-time experimental research study that involves voluntary participation from members of the public. The purpose of this research is to develop and evaluate a prototype contextual DMS, which fuses data gathered from driver attention (*e.g.*, gaze location), physiological state

(*e.g.*, heart rate variability), vehicle kinematics (*e.g.*, lateral lane position) and environmental sensors (*e.g.*, time to collision). The research goals are to examine the efficacy of a contextual DMS with respect to safety-critical events and assess driver response and acceptance. Data collection will occur as needed, and results will be shared with NHTSA for eventual publication in the National Transportation Library for public access. The final report will include a literature review and a supplementary report documenting the down-selection process of candidate DMS systems and scenarios. This information collection is for reporting purposes.

This information collection will be a one-time effort to recruit 48 participants from the public to address NHTSA's research questions on the effectiveness of a contextual DMS. Recruitment will occur via Westat's internal participant database and social media posts, with sex and age balanced among experimental groups. No specific experience is required to participate, but generally, participants must be at least 18 years old, possess a valid driver's license, and drive at least 3000 miles per year. Participation is voluntary and individuals may withdraw at any time. This research will require Westat's institutional review board (IRB) approval.

Participant attrition is acknowledged, and specific measures are being taken to ensure the target sample size is achieved. Participants will complete a series of four drives in a driving simulator using either a contextual or conventional DMS. The conventional DMS will consist of either a research or production-grade DMS model that uses standard practices at classifying driver distraction (*e.g.*, gaze direction, head pose). The contextual DMS will retain all the capabilities of the conventional DMS but will also factor in driver physiological state (*e.g.*, heart rate variability), vehicle handling (*i.e.*, kinematics), and driver interactions with the driving environment (*e.g.*, extended glances towards hazards). While completing the driving scenarios, participants will perform a secondary task in which they recite number strings displayed on an adjacent tablet, mimicking distraction from a smartphone or infotainment system, in order to assess the performance of the DMS during distracting events.

Each of the four drives will be approximately ten minutes in length to allow for sufficient data collection. All drives will consist of typical highway driving environments and speeds.

The first three drives will have one of three safety-relevant events (*i.e.*, events that could cause a crash) occur at randomized drive portions. The last drive will consist of a safety-critical scenario that requires drivers to perform an action (*e.g.*, brake) to avoid a collision, such as a covered-to-revealed road obstruction. The first three drives will be counterbalanced to control for order effects, however due to the potential for significant behavioral changes, the safety-critical scenario will always occur last.

Eligibility screening will be completed through an online questionnaire (NHTSA Form 2243—Eligibility Questionnaire & Availability Form) hosted by Qualtrics, a secure online survey administration platform. Form display and branching logic will ensure respondents see the minimal number of questions required to determine eligibility by ending the questionnaire early if criteria are not met at different points in time. The components include (1) a PRA statement informing participants about the rules governing federally funded research; (2) consent for the eligibility questionnaire and study introduction and description to inform participants about the study and specific data to be collected; (3) eligibility questionnaire to identify participants based on predefined criteria; and (4) contact information for scheduling purposes.

The landing page of the questionnaire will contain a forced response question asking if the respondent is above 18 years old, then (if yes) branching logic will display the consent text that contains the elements necessary for eligibility consent. Participants will provide consent to the online questionnaire when they answer "yes" to both the consent and study interest questions. These questions will be set to force response. Respondents who are less than 18 years old, or those who do not give consent to provide responses to the online eligibility questionnaire, or who are not interested in the study will be directed to a message informing them they are not eligible and thanking them for their time. Everyone else will be directed to complete the questionnaire. The questionnaire will ask potential participants about their ability to adhere to study requirements, driving qualifications, and general health history.

If criteria are not met, participants will be directed to a message thanking them for their time and telling them they are not eligible. If criteria are met, participants will be asked to provide their contact information and general availability. They will be informed this

would link their questionnaire responses to their name. If a participant meets study criteria, a researcher will schedule the study session using participant information provided in the eligibility questionnaire and confirmed by a scheduling phone call, where the participant's name, study date and time is recorded as part of recruitment record keeping (NHTSA Form 2249—Scheduling Form), until all slots have been filled. Approximately 24 hours before the participant's study session, NHTSA Form 2236—Appointment Reminder Form will be sent (via email) along with a copy of the informed consent document for their records. This email will also serve to remind participants to abstain from alcohol and recreational substance use (including marijuana) 24 hours before their study session. The email also requests that participants verify they have no current symptoms of illness, do not feel unwell, that they have experienced no changes to their health or mobility since completion of the eligibility questionnaire and to respond to the email confirming their attendance, which will be recorded by researchers as part of recruitment recordkeeping. Note that recruitment record keeping will be kept separate from any data collected during the study to maintain confidentiality.

Participants will be quasi-randomly assigned to complete four simulated driving scenarios using either a conventional or contextual DMS. Researchers will attempt to balance age and sex across groups. All data will be anonymized such that any data linking study data to participant eligibility criteria will be kept separate and secured on Westat systems that are only accessible by the research team. Only participants who complete the study will have their data retained for three years per OMB data storage requirements. All other data will be destroyed after the project period of performance.

Upon arrival at the study location, participants will be greeted and led to a private room where data collection will occur. Researchers will review the participant's driver's license to ensure validity, age and sex for participation eligibility and condition balancing. Participants will then complete NHTSA Form 2246—Informed Consent Document, which will be presented physically for both the participant and researcher to sign. If individuals agree to participate, they will then proceed with the Intake Procedures, completing the NHTSA Form 2238—Demographic Questionnaire on a tablet using Qualtrics. If participants decline to

participate, they will be thanked for their interest and escorted out.

The second component of the Intake Procedures consists of driving simulator training to determine if participants can complete study procedures (*i.e.*, no simulator sickness). Participants will be directed to the driving simulator, where a researcher will describe how to operate the driving simulator, and give an overview of the DMS functions and alerts. Participants will receive the same explanation for the DMS functionality regardless of DMS type to enable group comparisons across self-report measures. Next, participants will receive an explanation of the secondary task, called the Numbers Task, which will be displayed on a tablet next to the driving simulator designed to replicate smartphone or infotainment center distraction. Researchers will inform participants that their recitations will be scored for accuracy to encourage consistent engagement with the secondary task while driving. After all procedures have been explained, participants will be instrumented with a physiological sensor suite to capture participant heart rate variability and electrodermal activity. These sensors do not interfere with participant dexterity or mobility.

After the sensors have been secured, participants will complete a 5-minute practice drive to familiarize themselves with vehicle control and secondary tasks. This drive will be similar to the study driving scenarios, including highway setting and speed (*e.g.*, >45 mph). However, no safety events will occur during the practice drive. Participants can request as many practice drives as needed to feel comfortable with the driving simulator. Participants will then complete NHTSA Form 2251—Simulator Sickness Questionnaire (SSQ) to assess any symptoms that developed during the practice drive. If participants are feeling unwell, they will be provided with bottled water and a place to rest until symptoms have passed. The SSQ will be administered to participants following each study drive to continuously monitor participant wellbeing. Participants may stop driving at any point during practice or study drives.

Participants will then complete a series of four driving scenarios, all of which consist of standard highway driving and will take ten minutes to complete as part of Data Collection Activities. These drives are 10 minutes long to ensure adequate distraction data is captured from both DMS. The first three scenarios will not contain a safety-critical scenario due to potential behavioral changes resulting from the

near crash and will be counterbalanced to control for order effects. The safety-critical scenario will occur in the final drive (*e.g.*, a covered-to-revealed road obstruction). No other vehicle maneuvers will prevent a crash from occurring. The secondary task will be coordinated with the safety-critical event such that participants will be engaged in the task immediately preceding the safety-critical event to ensure consistency in assessment of the DMS. After each drive, participants will complete NHTSA Form 2239—Acceptance Questionnaire 1, which consists of survey questions focused on the usefulness, annoyance, predictability, timing, and perceived accuracy of the DMS. After all drives have been completed, participants will complete NHTSA Form 2240—Acceptance Questionnaire 2, which asks two questions about the participant's comfort level with being monitored by the DMS and their preference for having such a system in their vehicle (*i.e.*, their acceptance of the DMS). This questionnaire is administered once after all drives to ensure that participants have sufficient exposure to the system, providing more consistent and well-informed feedback regarding their experiences.

Next, participants proceed to System Comparison Activities. To help participants understand the differences between the two DMS types, they will watch four videos, one for each driving scenario, accompanied by explanations highlighting how the systems differ. The DMS will be labeled as System A (conventional DMS) and System B (contextual DMS) to avoid biasing participants. As the contextual DMS is a prototype of a new technology, it is critical to examine how a deeper understanding with its functionality influences participant opinions. After each set of videos (a total of four), participants will complete NHTSA Form 2241—Acceptance Questionnaire 3. The questionnaire will ask participants to rate the systems side-by-side on factors of usefulness, annoyance, predictability, timing, and perception of system accuracy of the system's distraction detection for a total of four repetitions. Participants will watch the videos in the order they experienced the driving scenario. However, the presentation of System A and System B videos will be counterbalanced across drives to control order effects. After all sets of videos have been watched, participants will complete a final survey (NHTSA Form 2242—Acceptance Questionnaire 4) to assess their comfort with DMS

monitoring and their acceptance of the two DMS. They will be asked to indicate their system preference, if they have one.

After the study is completed, participants will complete NHTSA Form 2237—Debrief & Honorarium Confirmation Form where researchers will discuss the purpose of the study and answer any remaining questions. As part of this process, participants will complete a document acknowledging receipt of the honorarium. Participants will receive \$120 for completing the study, which is anticipated to last approximately two hours.

Description of the Need for the Information and Proposed Use of the Information: NHTSA's mission is to save lives, prevent injuries, and reduce the economic costs of road traffic crashes through education, research, safety standards, and enforcement activity. As vehicle technologies advance, they have the potential to dramatically reduce the loss of life from roadway crashes. Alternatively, the systems may not reach this potential or could potentially decrease safety when drivers do not understand how to safely interact with the systems or do not understand the capabilities and limitations. This new information request is for a driving simulator study designed to assess a new type of driver monitoring system that uses external sensor data to identify potential hazards, determine driver distraction based on whether they observed the hazard and modify countermeasures based on this joint understanding of driver distraction and the driving environment. The following components will be used to obtain the necessary information to achieve this purpose.

*NHTSA Form 2235—Advertisement—*This form is necessary to recruit potential participants. This document's content will be published on the contractor's intranet and social media channels, as well as distributed via email to a database of former participants expressing interest in future research. Participants who are interested in participating will be redirected to NHTSA Form 2243—Eligibility Questionnaire & Availability Form to determine eligibility.

*NHTSA Form 2243—Eligibility Questionnaire & Availability Form—*Determining participant eligibility is critical both for completing the study objectives as well as the health and wellbeing of participants. This process will involve online screening and diverse outreach efforts, such as social media advertisements and intranet postings, to assemble a representative

participant pool. At the end of the eligibility questionnaire, participants will also provide their contact information and days of the week and session times they are available to participate so researchers may contact them to schedule their study session.

*NHTSA Form 2249—Scheduling Form—*The next step in the enrollment process involves calling eligible individuals to schedule their appointment.

*NHTSA Form 2236—Appointment Confirmation Form—*Sending a reminder email 24 hours before scheduled sessions is a critical step to ensure smooth coordination and minimize participant no-shows. Participants will be asked to confirm their intention to attend their session, which will be noted by researchers. This form will include essential information such as the session time, location, materials to bring, and instructions to confirm their attendance. Additionally, the email provides an opportunity for participants to ask any last-minute questions or inform the research team of scheduling conflicts. This step is designed to reinforce participant preparedness, reduce logistical issues, and enhance overall study efficiency.

*NHTSA Form 2246—Informed Consent Document—*Obtaining informed consent upon arrival is an essential step to ensure compliance with ethical research standards.

*Intake Procedures—*The purpose of the intake procedures is to collect important demographic information from participants for reporting purposes. Afterward, participants under driving simulator training to learn how to operate the driving simulator, respond to the secondary task, and to ensure that participants can complete the study drives without experiencing motion sickness.

*NHTSA Form 2238—Demographics Questionnaire—*Collecting participant demographics is an integral part of communicating sample characteristics and ensuring representativeness and generalizability. Participants will complete an online survey that focuses on only the most important demographic characteristics needed to describe the sample, including age, sex, ethnicity, highest level of education level completed and income. Age and sex are collected a second time to ensure balance among experimental conditions.

*Driving Simulator Training—*This step is necessary for preparing participants for driving in the simulator. Simulator driving may feel different from regular driving and requires an adjustment period to successfully control the

vehicle. *In addition*, participants who experience simulator sickness can withdraw from the study. Before entering the vehicle, participants will receive training on the operation of the vehicle, the DMS, and the secondary task on an adjacent tablet, which is expected to last approximately eight minutes. Participants will then enter the vehicle and receive additional training. Next, participants will complete a 5-minute familiarization drive to practice driving, experience the DMS, and practice completing a secondary task.

*NHTSA Form 2251—Simulator Sickness Questionnaire (SSQ)—*This form is required to ascertain whether participants feel well enough to continue after the driving simulator training and after each of the four subsequent study drives (administered five times). The SSQ is important to administer after the last drive because some participants may feel motion sickness due to vehicle control or the safety-critical event and would require monitoring from study staff until the symptoms pass.

*Data Collection Activities—*This process is required because it captures the information necessary to answer NHTSA's research questions regarding acceptance and the valuation of the contextual DMS. It is composed of two subcomponents: study drives, and a DMS acceptance form. Each subcomponent is discussed in greater detail below. The subcomponents of burden can be seen below.

*Driving Scenario Test Drives—*These driving scenarios will serve as the main source of data collection. Measures will include data gathered from the driving simulator that relate to vehicle control (e.g., standard deviation of lane position, velocity), driver behavior (e.g., gaze location, head and body pose data) gathered from the DMS, and driver physiological data (e.g., electrodermal activity, heart rate variability). Participants will complete four driving scenarios using either a conventional or contextual DMS. All drives mimic standard highway settings and speed. The first three driving scenarios will have non-crash imminent events (e.g., passing vehicles, merging) and will be counterbalanced to control for order effects. The last drive will have a crash-imminent event (e.g., a covered-to-revealed road obstruction). The secondary task will be synchronized with the simulator such that participants will be distracted approaching the hazard to ensure validity of the DMS assessment.

NHTSA Form 2239—Acceptance Questionnaire 1: This questionnaire is critical as it directly answers NHTSA's

research question regarding how a contextual DMS affects driver acceptance of the DMS. The questionnaire will be administered after each study drive and consist of five questions related to the participant's perception of the DMS's usefulness, annoyance, predictability, timing and perceived accuracy.

NHTSA Form 2240—Acceptance Questionnaire 2: This questionnaire is critical as it directly answers NHTSA's research question regarding how a contextual DMS affects driver acceptance of the DMS. Two questions will be collected focusing on the participant's comfort with DMS monitoring and their acceptance of the system. These items were not added to NHTSA Form 2239—Acceptance Questionnaire 1 because these address long term factors which require more experience with the systems before participants can form meaningful conclusions.

System Comparison Activities: This process is required because it contains the information necessary to answer NHTSA's research questions regarding acceptance. It is composed of two subcomponents: a review of conventional and contextual DMS drives and completing a DMS acceptance form. Each subcomponent is discussed in greater detail below.

Review of Conventional and Contextual DMS Drives: Participants watch videos comparing the DMS types across driving scenarios to increase their understanding of how a contextual DMS operates. Driving scenarios will be presented in the same sequence experienced by the participants, while the order of DMS presentation will be counterbalanced to control for order effects. Each video is anticipated to last two minutes covering the lead up to the DMS action or inaction, and the conclusion of the triggering event. Each drive scenario will have two videos, one for the conventional DMS and one for the contextual DMS (referred to as a set of videos). After each set of videos, participants will then complete NHTSA Form 2241—Acceptance Questionnaire 3 before proceeding to the next driving scenario.

NHTSA Form 2241—Acceptance Questionnaire 3: After each video, researchers will ask participants to complete this survey, which consists of rating both types of DMS side-by-side on the factors of interest from NHTSA Form 2239—Acceptance Questionnaire 1.

NHTSA Form 2242—Acceptance Questionnaire 4: After all sets of driving scenario videos have been watched, participants will complete a survey

comparing the conventional and contextual DMS in terms of monitoring comfort and acceptance, as well explicating indicating their preference for the conventional or contextual DMS.

NHTSA Form 2237—Debrief & Honorarium Confirmation Form—Debriefing is an essential study component which is designed to gather participant insights and refine study outcomes. Following NHTSA Form 2241—Acceptance Questionnaire 4 completion, participants will engage in a semi-structured debriefing session where the researcher will explain the purpose of the study and participants will provide feedback on the DMS, including usability and their overall study experience. This process allows researchers to identify potential issues, capture subjective perspectives, and gain insights into interface design features (e.g., alerts, warnings), ensuring comprehensive evaluation and improving the quality of study findings. The honorarium confirmation form will be completed after the debrief and is necessary because it ensures that participants are compensated for their time and provides a record of compensation.

60-Day Notice: A Federal Register notice with a 60-day comment period soliciting public comments on the following information collection was published on June 10, 2026 (91 FR 35296), with an administrative correction published on June 18, 2026 (91 FR 36946). NHTSA received a total of 11 comments from: Alliance for Automotive Innovation (Auto Innovators), *Responsibility.Org* and the National Alliance to Stop Impaired Driving (NASID), Mitsubishi Electric Automotive America (MEAA), The Insurance Institute for Highway Safety's Highway Loss Data Institute (IIHS HLDI), Consumer Reports (CR), American Trucking Associations (ATA), and comments from five individuals: Juli Patrick, Sean Patrick, Paul Runstrom, Emily Faubion, and Sergio Drosihn. The following excerpts summarize the key points submitted by commenters for NHTSA's consideration; all cited references have been removed for brevity. When applicable, to facilitate a clear mapping of the agency's response to the specific issues raised, the points are numbered to correspond with the numbered responses below.

Auto Innovators stated that the notice did not describe in detail the methods and scenarios to be used in the research, concerns over whether the DMS used would reflect commercially available systems and whether limited exposure to such a system would reflect the efficacy of such systems, and concern

with the use of physiological measures and their feasibility of use with in-vehicle systems.

NHTSA thanks Auto Innovators for the feedback on this topic. Regarding the specific points, NHTSA agrees with Auto Innovators about the need to be specific with regard to the construction of the candidate contextual DMS system and associated scenarios. While the 60-day notice provides a high-level summary, these operating parameters will be described in full detail in the research and analysis plan and included in the final report. Specifically, the candidate scenarios (and alerting strategies) are safety-relevant and selected based on conditions where a contextual DMS may offer enhanced safety and performance over a conventional DMS, and part of the system down-selection process involves engaging with industry stakeholders, including original equipment manufacturers (OEMs) and tier-one suppliers, to gather feedback on scenario definitions, alerting approaches, and sensor integration parameters. NHTSA also agrees with Auto Innovators' point regarding the study limitations of a prototype contextual DMS compared to an eventual commercial application and will clearly qualify findings with regard to future generalization of a commercial contextual DMS as appropriate by noting study parameters within the controlled simulated environment.

In addition, NHTSA acknowledges industry perspectives on the practical considerations for use of physiological sensors in mass-market implementation. Physiological measures were referenced to illustrate the broader potential range of inputs that a contextual DMS could incorporate, and within this exploratory research, if they are collected, it will primarily be to better understand participant state and cognitive workload under controlled simulated conditions. To ensure practical feasibility in vehicle environments, physiological sensors that can be integrated directly into touchpoints such as steering wheels or in-cabin radar sensors (e.g., heart rate variability monitors) may be utilized, whereas intrusive setups (e.g., electroencephalography) are not being considered as feasible for implementation in this study. In addition to exploring these measures, the research study incorporates a broad array of primary performance and behavioral metrics, including standard deviation of lane position, glance frequency and duration, eyes-off-road time, response times to safety-critical events, and driver acceptance questionnaires, to evaluate prototype

contextual DMS efficacy. NHTSA agrees that the report will reflect the findings of the exploratory research study, and will make additional efforts to qualify the findings as specific to the prototype DMS and scenarios tested, to list limitations, and to avoid over-generalization of these initial research findings.

Responsibility.Org and NASID provided three comments, summarized here: (1) “Consider the Impact of Significant Implementation Differences in the Proposed Conventional and Contextual DMS Approaches,” (2) “Equally Evaluate Potential Safety Benefits Alongside User Acceptance,” and (3) “Future Research Should Consider Additional Driver States such as Drowsiness and Impairment.”

NHTSA thanks *Responsibility.Org* and NASID for the compelling comments. Regarding the first comment, NHTSA acknowledges the *Responsibility.Org* and NASID’s perspective regarding potential implementation and technological maturity differences, as well as the practical considerations of sensor invasiveness. To be clear, NHTSA is not building a prototype contextual DMS for future commercial implementation; rather, the prototype capability features a production equivalent DMS and driving simulator environment, which is designed to evaluate the core concept of a potential contextual DMS as it pertains to driver acceptance and the potential to yield improved driving performance and safety metrics by gathering and utilizing contextual information from the environment. Because the specific prototype configurations are still in development, the final hardware and software specifications are not fixed yet; however, the research design relies on a common baseline production-grade DMS (currently deployed in the U.S. vehicle fleet) for both conditions to establish a consistent technical foundation. NHTSA recognizes that participant perceptions must be interpreted within the context of a controlled laboratory simulation rather than a commercial deployment and will ensure participants are fully briefed on the exploratory nature of the study, noting that questions surrounding features of the prototype system tested pertain to hypothetical, potential features. With regard to sensor configuration, if included, the intent is to utilize practical, non-intrusive touchpoint-integrated physiological sensors (such as steering wheel monitors) while avoiding intrusive setups like electroencephalography. From the participant’s standpoint, the primary and most noticeable difference

will center on what and how alerts and warnings are presented, as the research focus is squarely on evaluating these modified alerting strategies rather than evaluating core classification capabilities.

Regarding *Responsibility.Org* and NASID’s second comment, NHTSA agrees that assessing safety outcomes alongside user acceptance is critical for understanding the underlying value of contextual intelligence (as described by the commenter). In addition to measuring subjective perceptions of usefulness, annoyance, and acceptance, the research study incorporates a comprehensive array of primary performance and behavioral metrics, such as standard deviation of lane position, glance frequency and duration, eyes-off-road time, response times to safety-critical events, and driver acceptance questionnaires (including trust calibration dynamics), to evaluate prototype contextual DMS efficacy. Furthermore, while NHTSA concurs with the commenter on the fundamental importance of trust in the functional use of a contextual DMS, it notes that recent research indicates there may not always be sufficient discriminant validity between measures of acceptance and trust (Rönkkö & Cho, 2022;¹ Chen, *et al.*, 2023²).

Regarding *Responsibility.Org* and NASID’s third comment, NHTSA acknowledges the recommendation to consider broader driver states such as drowsiness, fatigue, medical events, and substance impairment in future efforts.

Mitsubishi Electronic Automotive America, Inc. (MEAA) made multiple comments focused in four topic areas: (1) “The Necessity and Practical Utility of Information Collection”, (2) “Accuracy of the Burden Estimate,” (3) “Ways to Improve the Quality, Utility and Clarity of Collected Information,” and (4) “Ways to Minimize Respondent Burden.”

NHTSA thanks MEAA for their helpful comments. Regarding the first topic, NHTSA acknowledges the commenter’s interest in metrics such as sensitivity, false positive rate, ROC/AUC, and reaction time. Because both the conventional and contextual conditions utilize the same underlying camera-based classification architecture,

with the contextual DMS primarily modifying alert timing and presentation based on additional inputs, thus, system-level classification performance differences is not an experimental variable. Consequently, the research focus is on evaluating the comparative impact of these modified alerting strategies rather than re-evaluating core algorithmic classification. Where available, manufacturer-reported DMS performance metrics will be included in the final report to provide contextual transparency.

In addition, NHTSA notes that physiological measures are referenced primarily to illustrate the broader range of multi-modal inputs that a conceptual, future-generation contextual DMS could potentially incorporate to gather deeper contextual driver state information. To the extent physiological sensing hardware and software are utilized in the study, they will serve to monitor participant state under controlled simulator conditions rather than validate hardware-level measurement accuracy or establish commercial sensor specifications. Because the primary focus of this study is driving performance and the potential safety benefit of these additional inputs rather than testing a production-ready sensor suite, any collected physiological signals will support the evaluation of relative changes in cognitive workload and driver acceptance.

Regarding MEAA’s second topic, NHTSA appreciates the detailed review of the burden calculation assumptions. The figures, rounding for Form 2242, and participant cost accounting will be verified and reconciled in the final package to ensure full consistency across all tables and narrative text, and unrevised placeholders will be corrected.

In response to MEAA’s third topic, where available, NHTSA will include manufacturer-reported DMS performance metrics in the final report. To the extent physiological sensing hardware and software are utilized in the study, high-quality research-grade equipment will serve to monitor participant state under controlled simulator conditions rather than validate hardware-level measurement accuracy or establish commercial sensor specifications. When available, the error margin reported by the manufacturer will be included in the final report. Because the primary focus of this research is driving performance and potential safety impact, rather than testing a production-ready sensor suite, any collected physiological signals will support the evaluation of relative changes in cognitive workload.

¹ Rönkkö, M., & Cho, E. (2022). An updated guideline for assessing discriminant validity. *Organizational Research Methods*, 25(1), 6–14. <https://doi.org/10.1177/1094428120968614>.

² Chen, Y., Khalid Khan, S., Shiwakoti, N., Stasinopoulos, P., & Aghabayk, K. (2023). Analysis of Australian public acceptance of fully automated vehicles by extending technology acceptance model. *Case Studies on Transport Policy*, 14, 101072. <https://doi.org/10.1016/j.cstp.2023.101072>.

Furthermore, alerts will be constructed in a method designed to enable preemptive DMS alert status, where perceived false alarms will be captured by the acceptance questionnaires.

In addition, the conventional and contextual conditions utilize the same production-grade DMS currently employed in the U.S. vehicle fleet. NHTSA will include the relevant DMS and alerting capabilities described in the final report, alongside a transparent description of the down-selection process, which is focused specifically on driving performance and safety metrics, rather than evaluating different core DMS hardware platforms. NHTSA agrees with the point regarding the scope of comparisons, as this study is designed to assess the differences between a contextual DMS and a conventional DMS rather than validate the importance of DMS relative to vehicles without such systems.

Also, NHTSA agrees with the potential inferential limitation regarding the effects of video comparisons to experiencing the drives. We will take care to construct the videos as closely as possible, but will acknowledge the associated limitations in the final report. While the final research report and aggregated summary metrics will be made publicly available, releasing raw participant datasets directly is not feasible at this stage due to privacy protections, proprietary baseline DMS architecture agreements, and human-subjects data governance restrictions regarding personally identifiable information (PII).

Regarding MEAA's fourth topic, NHTSA agrees that the use of electronic submission is helpful at reducing participant burden. It is anticipated to be the primary form of survey cataloguing from this study. To further minimize burden, NHTSA will limit questionnaires to only those items strictly necessary for the research objectives and will utilize clear pre-briefings and standardized protocols to minimize participant confusion and ensure high data quality.

The Insurance Institute for Highway Safety's Highway Loss Data Institute (IIHS HLDI) provided valuable input summarized into eight topic areas: (1) "[d]esign the study to test when contextual DMS provides added value," (2) "[d]istinguish sensing from system response," (3) "[k]eep feedback consistent across conditions," (4) "[c]ollect baseline data before simulated drives," (5) "[f]irstly, evaluate and compare how the DMS solutions identify distraction," (6) "[c]onsider using production systems or collaborating with industry partners,"

(7) "[a]ccount for prior experience with driver assistance technologies," and (8) "[r]econsider the video-based acceptance evaluation."

NHTSA thanks IIHS HLDI for their valuable feedback. Regarding the first topic, NHTSA agrees that the proposed numbers task is likely to produce frequent glances away from the roadway, which the conventional DMS is well-suited to capture. However, the primary goal of this empirical research is to examine potential improved safety behavior and acceptance of the contextual DMS. To incorporate this comment, the researchers will consider other tasks that may be more cognitively distracting than visually distracting. It should be noted that a previous commenter recommended the reverse; the researchers will consider the balance of cognitive and visual-manual distraction in the tasks selected for the experiment.

Regarding the second topic, NHTSA agrees with IIHS' point about the importance of alerting strategies.

In response to the third topic, NHTSA clarifies that while the fundamental alert modalities (auditory sounds and visual instrument cluster displays) and content remain identical across both conditions, the timing and escalation methods of the alerts in the prototype contextual DMS used in this experiment may be adapted based on real-time traffic conditions, environmental data, and time-to-collision metrics. Unlike the conventional DMS, which may trigger alerts strictly using standard driver gaze thresholds, vehicle measures, or a mix of both, the prototype contextual DMS will have the capability to preemptively issue or escalate alerts when an imminent traffic hazard is detected or suppress/de-escalate alerts if the driver is already actively attending to the specific roadway threat. This localized adjustment in alert timing and feedback structure serves as the core mechanism being evaluated to determine whether adapting feedback to the driving context improves driver responses to safety-critical scenarios, improves overall driver acceptance as a function of reduced false alarms, and ultimately improves safety.

Regarding the fourth topic, NHTSA agrees with the importance of establishing baseline measures of driving behavior and driver state. To incorporate this comment, baseline measures will be captured in the pre-driving simulations component as part of the quality checks to ensure adequate data quality throughout the session.

With regard to the fifth topic, NHTSA agrees that DMS sensor fusion can introduce additional noise in the model.

To ensure that the DMS performance remains the same across integrated sensor systems, the same production-quality DMS will remain unchanged. The alerting strategies are informed and modified by additional simulated driving environment sensors, allowing repeatability. NHTSA currently anticipates physiological data being used for exploratory purposes of workload assessment.

Regarding IIHS HLDI's sixth topic, the proposed prototype DMS is a production-grade system currently available in the U.S. vehicle fleet, with proposed alerting modalities and iconography reflecting common designs. Furthermore, the research will involve outreach to industry stakeholders, providing valuable feedback during the down-selection process to ensure the selected sensors, scenarios, and alerting strategies are feasible and practical.

In response to the seventh topic, NHTSA agrees that controlling for participant prior experience with ADAS is an important study consideration. To incorporate this comment, NHTSA and the researchers amended the eligibility questionnaire to collect data on whether participants have used a system that monitors their attention.

Regarding the eighth topic, NHTSA clarifies that the study design relies primarily on extensive, hands-on driving experience across four distinct simulated drives (three safety-relevant and one safety-critical) before any video-based preference evaluations occur. Participants complete iterative technology acceptance questionnaires (Acceptance Questionnaires 1 and 2) directly following their hands-on driving sessions. The comparative video phase and subsequent questionnaires (Acceptance Questionnaires 3 and 4) are administered *only after* direct operational experience is established, serving solely to help participants articulate nuanced preference tradeoffs between the two specific architectural approaches.

Consumer Reports expressed support for the research and provided valuable feedback, summarized into four topic areas: (1) specificity of the description of the research design, including operational definitions, specific physiological metrics, and baseline conditions, (2) concern with the proposed sample size, a recommendation to conduct a power analysis, and a suggestion to consider prior participants' experience with DMS, (3) a recommendation to consider a visual-manual distraction task as well as a cognitive distraction task, and (4) a recommendation to keep researcher scripts strictly neutral in the video

comparison explanation component of the research, to avoid a potential halo effect or injecting other biases.

In response to Consumer Reports' first topic, NHTSA agrees with Consumer Reports' points regarding variable definitions and characteristics. While the 60-day notice provides a high-level summary, these variables are described in the full research and analysis plan and will be included in the final report. NHTSA agrees with the importance of establishing baseline measures of driving behavior and driver state. This will be captured in the pre-driving simulations component as part of the quality checks to ensure adequate data quality throughout the session.

Regarding the second topic, a power analysis was included in the full research and analysis plan and will be included in the final report. The 2 (between; DMS type) $\times$ 4 (within; drive type) returned sufficient statistical power to detect a small effect with a between subjects group size of 24. To further incorporate Consumer Reports' comment, a sensitivity power analysis with more conservative assumptions was performed to seek greater confidence in the adequacy of the planned sample size, and the sample size was confirmed. Regarding Consumer Reports' suggestion to consider prior participants' experience with DMS, a screening question will be added to assess prior experience. This question will be administered during contact information collection for eligible respondents, meaning it will only target a subset of those who complete the screener. Consequently, the addition of this single question is expected to introduce negligible burden to participants.

In response to Consumer Reports' third topic, NHTSA acknowledges the value of evaluating multiple distraction modalities and notes that the proposed numbers task is specifically structured to test visual-manual and cognitive demands by requiring drivers to look away from the road to an adjacent tablet to recite digit sequences. To further incorporate this comment, the researchers will consider incorporating additional tasks that target different distraction modalities, including visual-manual and purely cognitive tasks.

Regarding the fourth topic, NHTSA agrees with Consumer Reports' assessment of the importance of keeping procedures neutral to avoid biasing participants. We will carefully review procedures, scripts, and videos to ensure neutral language, and that there is no favoritism for a particular system.

American Trucking Associations (ATA) provided insightful comments, stating that contextual DMS in the trucking industry has been shown to accommodate drivers' privacy and data capture concerns, as well as demonstrating efficacy in providing context-specific feedback and training opportunities, concluding that it is valuable for NHTSA to study such technologies.

NHTSA thanks ATA for their insights and feedback on this topic.

NHTSA appreciates comments received from the five individuals, as well. Paul Runstrom's comment addressed alcohol impairment detection; NHTSA clarifies that such technologies are not within the scope of this project. Juli Patrick and Sean Patrick both shared concerns about the potential accuracy, false alarm and false positive rates of potential contextual DMS. NHTSA acknowledges and notes those concerns, and while system performance is not the focus of this research, NHTSA anticipates such potential effects to be better understood and empirically addressed by this research. Emily Faubion described concern with unintended consequences of contextual (and non-contextual) DMS potentially altering driver behavior. NHTSA acknowledges and notes those concerns, and expects such effects to be explored and documented by this safety focused research effort. Sergio Drosihn shared a suggestion that DMS may serve a safety function best by assessing driver consciousness, and by doing so using only posture and head position. NHTSA thanks the commenter for his insight and cited research; the concern is noted. Several of the commenters mentioned a concern with privacy, and DMS capability to collect biometric sensitive personally identifiable information. NHTSA thanks the commenters for sharing these concerns; the concerns are noted. In addition, NHTSA clarifies that one metric of interest in this research is driver acceptance of contextual DMS, which may yield results reflecting and documenting such concerns.

After thoughtful consideration of all the above comments, NHTSA ensured that additional sensitivity power analyses were conducted, PRA documentation was aligned, the eligibility form was updated, and cognitive and visual-manual tasks are being considered, among other actions to be taken as mentioned above. These modifications yielded an addition of two hours in the participant burden estimate from that which was published

in the 60-day notice, for a total of 134 participant burden hours.

Affected Public: Individuals in the Washington, DC metro area who have opted to receive research-related emails through the contractor's participant database will be contacted. Recruitment efforts will be supplemented by advertisements placed on the contractor's intranet and via social media posts and advertisements. Respondents must meet specific eligibility criteria to be included in this information collection. Respondents must (1) be at least 18 years old, (2) possess a valid driver's license, (3) drive at least 3,000 miles annually, (4) have normal or corrected-to-normal vision, (5) have normal or corrected-to-normal hearing, (6) refrain from alcohol and recreational substance use (e.g., marijuana) for 24 hours before the session, (7) not take sedative or psychotropic medication, (8) not wear bifocal lenses while driving, (9) not require specialized driving equipment, (10) not have medical conditions that might impact their ability to get in and out of vehicles or sit for extended periods of time with intermittent driving, (11) no history of simulator sickness.

Estimated Number of Respondents: The contractor estimates contacting 204 respondents to achieve a final, valid dataset consisting of 48 respondents. Of the 204 respondents anticipated, the contractor anticipates contacting 68 respondents via phone call. Of the 68 respondents contacted, the contractor anticipates nine percent attrition, resulting in 62 scheduled participants; the contractor anticipates an attrition rate of nine percent between scheduling and study session, resulting in 56 participants attending their scheduled session. Some respondents may experience minor simulator sickness and be unable to complete the study, which the contractor estimates at seven percent, resulting in 52 respondents completing the study. Finally, the contractor estimates eight percent of respondent data will be unusable due to data quality problems (e.g., equipment malfunction, non-compliance), resulting in the target dataset of 48 valid respondents.

Frequency: One-time collection.

Estimated Total Annual Burden Hours: The total estimated burden is 134 hours, which can be seen in Table 1 and is the sum of the total opportunity burden hours column. All data collection is estimated to occur within the same year, so the annualized burden equals the total burden.

TABLE 1—BURDEN HOURS

NHTSA form No.	Information collection	Total number of respondents	Estimated burden per response (minutes)	Frequency of response (count)	Total opportunity burden hours
2235	Advertisement	204	1	1	3
2243	Eligibility Questionnaire & Availability Form	204	5	1	17
2249	Scheduling Form	68	5	1	6
2236	Appointment Reminder Form	62	1	1	1
2246	Informed Consent Document	56	3	1	3
2238	Intake Procedures (Demographics Questionnaire, Driving Simulator Training)	56	16	1	15
2251	Simulator Sickness Questionnaire	52	2	5	9
2239	Data Collection Activities (Driving Scenarios Test Drives, Acceptance Questionnaire 1)	52	12	4	43
2240	Acceptance Questionnaire 2	52	1	1	1
2241	System Comparison Activities (Review of Conventional and Contextual DMS Drives; Acceptance Questionnaire 3)	52	8	4	29
2242	Acceptance Questionnaire 4	52	2	1	2
2237	Debrief & Honorarium Confirmation Form	52	6	1	5
Total Burden					134

Estimated Total Annual Burden Cost: Participation is voluntary and there will be no start-up or record-keeping costs to respondents to obtain these data. The only cost burdens respondents will incur are costs related to travel to and from the research location. The costs are minimal and are expected to be offset by the honorarium that will be provided to the research participants. NHTSA estimates that each participant will travel less than 30 miles one-way to the research location (60 miles round trip). Using the IRS standard mileage rate of \$0.70 per mile, each respondent is expected to incur no more than \$42.00 (\$0.70 × 60 miles) in transportation costs. Therefore, estimated travel burden costs are no more than \$2,352 (\$42.00 × 56 respondents).

Public Comments Invited: You are asked to comment on any aspects of this information collection, including (a) whether the proposed collection of information is necessary for the proper performance of the functions of the agency, including whether the information will have practical utility; (b) the accuracy of the agency's estimate of the burden of the proposed collection of information, including the validity of the methodology and assumptions used; (c) ways to enhance the quality, utility and clarity of the information to be collected; and (d) ways to minimize the burden of the collection of information on respondents, including the use of appropriate automated, electronic, mechanical, or other technological collection techniques or other forms of information technology, e.g., permitting electronic submission of responses.

Authority—The Paperwork Reduction Act of 1995; 44 U.S.C. Chapter 35, as

amended; 49 CFR 1.49; and DOT Order 1351.29A.

Cem Hatipoglu,

Associate Administrator, Vehicle Safety Research.

[FR Doc. 2026–20394 Filed 10–5–26; 8:45 am]

BILLING CODE 4910–59–P

DEPARTMENT OF TRANSPORTATION

National Highway Traffic Safety Administration

[Docket No. NHTSA–2026–2113]

Request for Information: Nationwide Implementation of Prehospital Blood Transfusion

AGENCY: National Highway Traffic Safety Administration (NHTSA), Department of Transportation (DOT).

ACTION: Notice; Request for Information (RFI).

SUMMARY: The National Highway Traffic Safety Administration (NHTSA), on behalf of the Federal Interagency Committee on Emergency Medical Services (FICEMS), is seeking comments from all sources (public, private, governmental, academic, professional, public interest groups, and other interested parties) on the nationwide implementation of prehospital blood transfusion. The purpose of this notice is to solicit comments on strategies, barriers, and solutions to advance prehospital blood transfusion capabilities across State, local, tribal, and territorial emergency medical services (EMS) and 911 systems, and to request responses to specific questions provided below. This notice is an

information-gathering inquiry and is neither a request for proposals nor an invitation for bids.

DATES: Comments on this announcement must be submitted on or before November 5, 2026.

ADDRESSES: You may submit comments, identified by Docket No. NHTSA–2026–2113, by any of the following methods:

- **Federal eRulemaking Portal:** Go to <http://www.regulations.gov>. Follow the online instructions for submitting comments.

- **Mail:** Docket Management Facility, M–30, U.S. Department of Transportation, West Building, Ground Floor, Room W12–140, 1200 New Jersey Avenue SE, Washington, DC 20590.

- **Hand Delivery or Courier:** West Building, Ground Floor, Room W12–140, 1200 New Jersey Avenue SE, Washington, DC, between 9 a.m. and 5 p.m. Eastern Time, Monday through Friday, except Federal holidays.

Instructions: Regardless of how you submit your comments, you must include the docket number identified in the heading of this document. Note that all comments received, including any personal information provided, will be posted without change to <http://www.regulations.gov>. Please see the Privacy Act heading below.

Privacy Act: In accordance with 5 U.S.C. 553(c), DOT solicits comments from the public to inform its decision-making process. DOT posts these comments, without editing, including any personal information the commenter provides, to <http://www.regulations.gov>, as described in the system of records notice (DOT/ALL–14 FDMS), which can be reviewed at <https://www.transportation.gov/privacy>.