

**Supporting Statement for Justification of Rear Visibility Testing Questionnaire
OMB Control No.**

A. JUSTIFICATION

1. Explain the circumstances that make the collection of information necessary. Attach a copy of the appropriate section of each statute and regulation mandating or authorizing the collection of information.

The Cameron Gulbransen Kid Transportation Safety Act (K.T. Safety Act) directs the Secretary of Transportation to prescribe final standards amending Federal motor vehicle safety standard (FMVSS) No. 111 "to expand the required field of view to enable the driver of a motor vehicle to detect areas behind the motor vehicle to reduce death and injury resulting from backing incidents, particularly incidents involving small children and disabled persons."

Further, 49 U.S.C. 30111, 30112 and 30117 of the National Traffic and Motor Vehicle Safety Act of 1966 specify that the Secretary shall prescribe standards that are practicable, meet the safety need for motor vehicle safety, and are stated in objective terms. The Secretary is authorized to issue, amend and revoke such rules and regulations as she/he deems necessary to carry out these sub-chapters. The Secretary is also authorized to require manufacturers to provide information to first purchasers of motor vehicle equipment when the vehicle or equipment is purchased, in a printed matter placed in the vehicle or attached to or accompanying the equipment.

The National Highway Traffic Safety Administration (NHTSA), in prescribing a FMVSS, is to consider available relevant motor vehicle safety data, consult with appropriate agencies, and obtain safety comments from the responsible agencies, states, safety commissions, public and other related parties. Further, the Act mandates that in issuing any FMVSS, the agency considers whether the standard is "reasonable, practicable and appropriate for the particular type of motor vehicle or item of motor vehicle equipment for which it is prescribed," and whether such standards will contribute to carrying out the purpose of the Act.

In support of the rulemaking to amend FMVSS No. 111 (pursuant to the K.T. Safety Act), NHTSA has been conducting research to evaluate drivers' use of backing aid technologies. In order to ensure that our current analysis is robust, NHTSA aims to complete an additional human factors observational study. This testing will help widen the range of vehicles and driver demographics tested. NHTSA is requesting clearance to collect voluntary information in order to identify eligible participants for this study. In addition, the collected driver information will assist the agency in comparing the results from this additional study to the agency's previous studies.

2. Indicate how, by whom, and for what purpose the information is to be used. Indicate the actual use the agency has made of the information received from the current collection.

NHTSA is asking the Ohio Bureau of Motor Vehicles for the name, address, VIN, and purchase date of registered owners of Model Year 2008-2012 Nissan Altimas within the State of Ohio. The Ohio Bureau of Motor Vehicles will not perform any analysis of this information. NHTSA will filter the information provided by the Ohio Bureau of Motor Vehicles for potential participants who have owned the subject make/model vehicle for at least 6 months and who live within approximately 1 hour driving distance from NHTSA's test facility (approximate distance from the test facility may vary depending on the number of potential test participants available).

After filtering the information from the Ohio Bureau of Motor Vehicles, NHTSA anticipates that it will identify approximately 3500 individuals that have owned the subject make/model vehicle for at least 6 months and who live within approximately 1 hour driving distance from NHTSA's test facility. These 3500 individuals will receive a recruitment letter and response form from NHTSA in the mail with questions designed to help NHTSA assess a participant's eligibility for the observational study. We anticipate approximately 300 of the aforementioned 3500 individuals will fill in the information requested and return the response form to NHTSA. The vast majority of those 300 respondents will be asked follow up screening questions from NHTSA that NHTSA will also use in assessing eligibility for the observational study. The agency estimates that approximately 290 individuals will be asked these follow up screening questions because NHTSA will ask these questions to all respondents of the recruitment form unless NHTSA is already able to determine from the recruitment form that the individual is ineligible for participation in the observational study (e.g., under 18 years of age, driving frequency, or vehicle owned). NHTSA anticipates that it will be able to identify a sufficient number of participants for the study from this group of 290 individuals.

The information requested in both documents is intended to assist NHTSA in: (1) assessing the eligibility of a participant for the observational study, and (2) for comparing the results of this study to the previous studies that NHTSA completed regarding backing aid technologies.

In general, the agency is asking questions regarding the vehicle owned by the potential participant in order to ensure that participants are familiar with a given vehicle and backing aid technology. Further, in order to ensure that the participants are able to safely participate in the observational study, the agency is proposing to ask questions regarding the participant's medical history. Additionally, some questions are being asked in order to ensure that participants are not made aware that the nature of the experiment is to test the participant's use of the backing aid technology. Finally, NHTSA is proposing to ask questions regarding age and gender of the participants in order to ensure that NHTSA can compare the results of this study to NHTSA's previous studies.

More specifically, the response form contains questions about candidate participants' name, age, contact information, driving frequency, driving license, personally owned vehicle characteristics, and their availability for participation in the

experiment. Responses to these questions will be used by NHTSA to assess the suitability of a person for participation in the observational study. The information permits NHTSA to ensure that participants are licensed drivers who drive regularly and have experience with the particular vehicle and equipment being studied in the experiment.

The response form questions that ask about vehicle equipment inform NHTSA as to whether the person's vehicle is equipped with a backing aid technology that is relevant to the research. The form also asks about other types of equipment that may be present on the vehicle so as not to inform the subject that the experiment will examine whether the subject can avoid a crash with an unexpected obstacle using a backing aid technology. The validity of the unexpected obstacle study test condition depends on the participants being unaware that the study will involve an unexpected object during a backing maneuver. Likewise, additional questions in the response form that relate to what non-driving activities (e.g., using a cell phone) serve to promote the ruse that the study is focused on driver distraction measurement as opposed to backing maneuvers.

The follow up screening questions are designed to assess a potential candidate's fitness for participation in the observational study and availability to participation during the time frame of the planned experimentation period. Candidate participants would be considered "fit" to participate if they do not have any of several listed health conditions that may impact their ability to drive or that may make them prone to experience some health-related discomfort or other issue during their participation. Finally, the informed consent form does not collect any information, but serves to document the person's agreement to participate in the experiment.

After identifying eligible participants by using the questionnaires that are the subject of this information collection request, NHTSA intends to conduct a study utilizing the general procedures outlined in this paragraph. NHTSA intends to take participants (unaware that the study focuses on backing aid technologies) on a preliminary "familiarization drive" to get familiar with a "test route." After completing the familiarization drive, the participant will be instructed to enter the garage at NHTSA's test facility to receive training on a radio tuning task. Afterwards, the participant will be asked to conduct a backing maneuver out of the garage to begin a "study drive." Participants will believe that they are conducting a backing maneuver out of garage in order to exit the lot between two grass areas at the NHTSA test facility. As participant backs out of garage, an unexpected obstacle will be presented.

For the purposes of the observational study, NHTSA is striving for age and gender balance within each test condition (to the extent possible). Further, NHTSA intends to include drivers age 18 and over in this study and NHTSA will strive to ensure that all test conditions have similar age distributions such that the agency can compare the results.

In each test condition, NHTSA seeks to test at least 36 test participants because

the agency estimates that this number should comfortably facilitate an analysis that can identify significant differences (where $\alpha = .05$) between test conditions with an associated power of at least 80%. The agency's power analysis conservatively estimates that, given an effect size of 37%, it can identify a significant difference between test conditions with an associated power of at least 80% using less than 30 participants. Thus, the agency anticipates that this planned study should be able to identify a significant difference between test conditions because we expect that the effect size (when comparing baseline test conditions to backing aid technology test conditions) will be greater than 37% and the agency expects to use at least 36 participants per test condition.

Finally, as this is a new information collection request, NHTSA has not yet made any actual use of the information received from a current collection because NHTSA has not yet conducted any information collection.

3. Describe whether the collection of information involves the use of technological collection techniques or other forms of information technology.

NHTSA anticipates that the response form may be completed in approximately 10 minutes by hand or internet form. The agency expects that the follow up screening questions can be completed in about 15 minutes. It will be administered by phone to the potential participant.

4. Describe efforts to identify duplication. Show specifically why any similar information cannot be used.

The information collected during participant recruitment is specific to the particular individuals that will participate by driving in the experiment. Therefore, similar information collected from other individuals is not relevant or applicable. The agency is also not aware of any other sources of this information.

5. If the collection of information involves small businesses or other small entities, describe the methods used to minimize burden.

This collection of information involves individuals and does not involve small businesses.

6. Describe the consequences to Federal program or policy activities if the collection is not conducted or is conducted less frequently.

If the information is not collected, NHTSA will not be able to conduct the study because the agency would be unable to schedule participants for the study. Further, the agency would be unable to confirm that participants have the necessary amount of experience with the vehicle and technology being studied.

7. Explain any special circumstances that require the collection to be

conducted in a manner inconsistent with the guidelines set forth in 5 CFR 1320.6.

The procedures specified for this information collection are consistent with the guidelines set forth in 5 CFR 1320.6.

The information collection is consistent with the guidelines set forth in 5 CFR 1320.6.

8. Provide a copy of the Federal Register document soliciting comments on extending the collection of information, a summary of public comments responding to the notice, and a description of the agency's actions in response to the comments. Describe efforts to consult with persons outside the agency to obtain their views.

As the agency is seeking emergency processing of this request, the agency has not published a Federal Register document to solicit comments regarding this collection of information.

9. Explain any decision to provide any payment or gift to respondents, other than remuneration of contractors or grantees.

As is consistent with normal experimental practice, NHTSA will provide monetary payment for participation in the research program in order to compensate participants for their time and to encourage involvement in the testing. Payment amount is determined using an hourly rate corresponding to a non-professional federal government employee and is reviewed by an independent Institutional Review Board. The amount specified in the recruitment letter is \$54 per hour plus 51¢ for each mile that driven from the participant's residence or workplace to our facility to participate (up to \$200).

10. Describe any assurance of confidentiality provided to respondents.

The agency will provide participants with an informed consent form which explains to participants that NHTSA will protect their private information to the extent provided by law.

The persons administering the study will not unite the recruitment information with the observational experiment data. Candidates who are chosen to participate will be assigned a subject number. The subject number is then used to label observational experiment data files. Someone would need both the recruitment data file and the observational experiment data file to be able to identify which individual is associated with which observational experiment data file. After the experiment is completed, the recruitment info is deleted, any printed documents are shredded. Further, during the observational experiment, responses to recruitment questions will be securely stored in files on non-networked computer drives in password-protected computers and on portable media stored in a safe as a backup. Changes or additions to this process may

be necessary as a condition for approval by the Institutional Review Board.

11. Provide additional justification for any questions on matters that are commonly considered private.

Age and gender information is collected to ensure that the NHTSA can compare the results of this observational study to NHTSA's previous studies. Information regarding health conditions and medications that may affect driving ability is obtained to ensure that test participants do not require assistive devices to drive a vehicle and are healthy enough to safely participate in the experimental protocol.

12. Provide estimates of the hour burden of the collection of information on the respondents.

As mentioned above, the agency expects 300 individuals to complete the response form and return it to NHTSA. We estimate the burden on those respondents as follows:

Number of respondents	300	
Number of annual responses	300	
Total annual responses	300	
Annual hours per response	0.15	
Total hours	45	(300 x 0.15)
Total annual burden hours	45	
Cost per hour in dollars	\$0	
Annual cost associated with the burden hours	\$0.00	

The vast majority of those 300 respondents will receive follow up questions from NHTSA. We estimate the additional burden on those respondents to be as follows:

Number of respondents	290	
Number of annual responses	290	
Total annual responses	290	
Annual hours per response	0.25	
Total hours	72.5	(290 x 0.25)
Total annual burden hours	72.5	
Cost per hour in dollars	\$0	
Annual cost associated with the burden hours	\$0.00	

13. Provide estimates of the total annual cost to respondents or record keepers resulting from the collection of information. (Do not include the cost of any hour burden shown in Question 12 or 14).

There are no additional costs to respondents or record keepers.

14. Provide estimates of annualized cost to the Federal government.

There are no costs incurred by the Federal Government as a result of this data collection that could be considered to be outside normal overhead costs associated with the daily activities of NHTSA.

An estimate of the required cost has been prepared based on NHTSA's experience with programs of a similar nature.

The total one-time cost is equal to the cost associated with analyzing each individual respondent for the first and second round of questions.

$$\text{Annual Cost} = N \times H \times C$$

where N, Number of respondents = 300

H, Hours to analyze one report = 0.10

C, Cost per hour in dollars = 25

N, Number of respondents = 290

H, Hours to analyze one report = 0.25

C, Cost per hour in dollars = 25

The estimated annual cost to Federal government is \$2652.50.

15. Explain the reasons for any program changes or adjustments reported in Items 13 or 14 of the OMB Form 83-I.

This is a new data collection. Thus, there are no program changes or adjustments.

16. For collections of information whose results will be published, outline plans for tabulation and publication.

NHTSA may publish the age and gender results from this data collection in aggregate as part of a research report and future rulemaking documents.

17. If seeking approval to not display the expiration date for OMB approval of the information collection, explain the reasons that the display would be inappropriate.

NHTSA is not seeking such approval.

18. Explain each exception to the certification statement identified in Item 19, "Certification for Paperwork Reduction Act Submission," of OMB Form 83-I.

There are no exceptions.

B. COLLECTION OF INFORMATION EMPLOYING STATISTICAL METHODS

This information collection will be utilized to identify individuals who are eligible for a human factors observational study from individuals who drive a vehicle model of interest that has been registered with the Ohio Bureau of Motor Vehicles. The information collection (using the questionnaires) itself is not the result of the study. The human factors observations will be the results of the study. In addition, the questionnaire answers will be used to help compare the results from previous NHTSA studies with the results from our new human factors observational study. The information from the questionnaires is not intended to be used to describe, estimate, or analyze the characteristics of groups, segments, activities, or geographic areas. Thus, the agency does not believe the use of sophisticated statistical survey methodology is necessary.

In addition, the observational aspects of this study will utilize a convenience sample that is also not intended for statistical generalization. The observational aspects of the study are intended as a human factors study that places people in situations to observe their behavior. The agency intends to examine the differences between test conditions.