Ms. Claire Shapiro
Eisen & Shapiro
10028 Woodhill Road
Bethesda, MD 20817

Dear Ms. Shapiro:

Thank you for your letter submitted on behalf of the Owner-Operator Independent Drivers Association (OOIDA) concerning the Federal Motor Carrier Safety Administration's (FMCSA) March 29, 2011, Notice of Request for Information titled "Evaluating the Safety Benefits of an Onboard Monitoring System in Commercial Vehicle Operations: Independent Evaluation and Data Analysis." I have utilized the five discussion categories in your comments to organize FMCSA's response.

I. Background Information to Allow the Public to Offer Meaningful Comments

You requested additional background information on the larger Onboard Monitoring Field Operational Test project and the current Information Collection Request (ICR) FMCSA-2011-0074. Both are provided below. I am also attaching copies of the four questionnaires. Please note that there only four questionnaires but they are administered at six points over the course of 18 months.

Background: Onboard Monitoring System Field Operational Test

In direct support of FMCSA's mission to reduce the number and severity of large truck crashes, the Research Division is sponsoring a 270-truck onboard monitoring system (OBMS) field operational test (FOT). The primary objective of this safety research program is to determine whether on-board monitoring will reduce at-risk behavior among commercial motor vehicle (CMV) drivers and improve driver safety performance. As its secondary objective, the OBMS FOT will collect over 35 million miles of naturalistic large truck driving data to support future CMV safety research efforts.

The commercial OBMS being utilized for this FOT is the Drive Vision Pro technology suite developed by Transecurity LLC. It integrates several safety technologies and applications together into a single system. The integration of several safety technologies into one system was a strong basis for FMCSA's choice of the Drive Vision Pro for the OBMS FOT. These safety technologies include:

- Lane/Roadway departure warning.
- Forward collision warning.
- Driver behavior monitoring:
    - Monitoring and recording safety events identified by extreme maneuvers.
    - Driver inattention events.
    - Hard braking/steering.
    - Lane changes/lane position.
    - Fuel economy/engine overspeed/idling/coasting events.

    - Route monitoring.
- Fatigue/inattention monitoring.
- Alcohol detection
- Electronic on-board recorder (EOBR).

The OBMS technology suite offers two approaches to improving driving safety. First, immediate, real-time feedback is presented to the driver when a crash is imminent or when unsafe behaviors are detected. Second, recorded data are transferred to a management information system where analyses are conducted and results are compiled for the company, division, and individual driver to support meaningful and consistent coaching processes.

Three CMV fleets will participate in the study. Across these fleets, the system will be installed and operated on 270 trucks for a period of approximately 18 months. Utilizing quantitative and qualitative data collected from the OBMS system and participating drivers over the 18-month period, FMCSA will seek to answer the following research questions:

- Does individual driving performance improve over time with OBMS feedback?
- Does the OBMS program of immediate feedback combined with management feedback improve safety?
- Can the OBMS accurately distinguish "good" (safe) drivers from "at-risk" (unsafe) drivers?
- If driving performance improves, does it remain improved over time?
- How do drivers' attitudes towards the OBMS system and program change over time?
- What are fleet safety managers' attitudes about the OBMS system?
- What is the business case for implementing an OBMS program?

The 270 truck OBMS FOT project team consists of Transecurity as the technology vendor, the University of Washington as the Independent Evaluator and the Virginia Tech Transportation Institute (VTTI) as the cooperative agreement project team manager. The project started in October 2009 and the data collection and analysis plan was peer reviewed by a panel of experts in January, 2010. The three participating fleets have been selected and a small pilot test involving one truck at each fleet has been completed. Full system deployment on all 270 trucks and subsequent data collection is expected to commence by August 2011. The expected project completion date is August 2013.

<u>Background: OBMS FOT Information Collection Request (FMCSA-2011-0074)</u>

The information collection effort is a small subset of the larger OBMS FOT project. The focus of this information collection is to understand CMV drivers' expectations, attitudes and acceptance of OBMS. This includes changes in attitudes over 18 months, covering the periods before, during, and after drivers receive coaching feedback. Based on the driver attrition rate for each carrier, up to 500 drivers are estimated to participate in the OBMS FOT study.

Drivers will be randomly assigned into a comparison group (group 1), long-term feedback group (group 2) and short-term feedback group (group 3). The number of drivers to be randomly assigned to each group is as follows:

Group 1 drivers (no feedback): Drivers who are in Group 1 (30 devices, up to 125 drivers) will use the OBMS in their vehicle for an 18-month period without any feedback provided.
Group 2 drivers (long-term feedback): Drivers who are in Group 2 (210 devices, 250 drivers, long-term adaptation group) will experience an approximate data collection period of a 2-month Baseline phase, 14-month Intervention phase, and 2-month Withdrawal phase.
Group 3 drivers (short-term feedback): Drivers who are in Group 3 (30 devices, up to 125 drivers, short-term adaptation group) will experience an approximate data collection period of a 2-month Baseline phase, 7-month Intervention phase, and up to 9-month Withdrawal phase.

Drivers will be asked to complete four unique questionnaires **(administered at six points)** over the course of 18 months. Regardless of assigned study group, drivers will receive questionnaires at month 0 (start of study) and at the ends of months 2, 4, 9, 16, and 18.

The four unique ICRs have been included as attachments and a brief description of each is as follows:

a. IC-1, Form MCSA-5852, OBMS Study Pre-Study Questionnaire. The Form MCSA-5852 will be used to assess drivers' initial understanding and attitudes toward the system prior to use. The questionnaire includes questions on usefulness, ease of use of specific components, as well as general system use. The pre-study questionnaire also includes demographic questions.
b. IC-2, Form MCSA-5853, OBMS Study Intervention Questionnaire. The Form MCSA-5853 will be used to assess drivers' attitudes toward the OBMS after experiencing it. The questionnaire will have questions on system usefulness and ease of use similar to those on the pre-study questionnaire (Form MCSA-5852).
c. IC-3, Form MCSA- 5854, OBMS Study Withdrawal Questionnaire. The Form MCSA-5854 will be used to assess drivers' attitudes toward the OBMS after the system is no longer in use. It will capture their perceptions and use based on their memory of past experience with the system and current driving experience without the system.
d. IC-4, Form MCSA-5855, OBMS Study Exit Interview. The Form MCSA-5855 will be used at the end of the study when drivers have completed all portions. It will be used to assess drivers' overall likes and dislikes about the OBMS, influence and change on safety climate, and to consider suggestions for improvement to the onboard monitoring system.

Estimates of Burden Hours for Information Collected

In response to your question about how we calculated the burden hours and estimated average annual responses for each questionnaire, the table below provides a detailed breakdown.

	IC-1 **Pre-study questionnaire** **Form MCSA-5852**	**IC-2** **Intervention questionnaire** **Form MCSA-5853**	**IC-3** **Withdrawal questionnaire** **Form MCSA-5854**	**IC-4** **Exit interview** **Form MCSA-5855**	**Total for ICs 1-4**
Respondents	500	500	500	500	
Time per Response	20 minutes	15 minutes	15 minutes	20 minutes	
Year 1 Responses per Respondents	1	3	3	0	7
Year 1 Total Responses	500	1,500	1,500	0	3,500
Year 1 Total Hourly Burden	167	375	375	0	917
Year 2 Responses per Respondents	0	2	2	1	5
Year 2 Total Responses	0	1,000	1,000	500	2,500
Year 2 Total Hourly Burden		250	250	167	667
Average Annual Responses	**250**	**1,250**	**1,250**	**250**	**3,000**
Average Annual Hourly Burden	83.3	312.5	312.5	83.3	**792**

II. FMCSA should seek comments on the merits of onboard monitoring systems

As you rightly noted in your comments, FMCSA's request for comments on the OBMS ICR is not part of a rulemaking proceeding under the Administrative Procedures Act. FMCSA is simply seeking public comments in accordance with the Paperwork Reduction Act of 1995 (PRA). The OBMS FOT is not part of any ongoing or perceived rulemaking effort. There are no regulatory options being considered in connection with the OBMS project. The objective of this safety research program is to determine whether onboard monitoring will reduce at-risk behavior among commercial motor vehicle (CMV) drivers and collect more than 35 million miles of naturalistic truck driving data. The specific research questions we seek to answer have been provided in Section I above.

Given that the OBMS ICR is not part of a rulemaking proceeding we cannot seek comments on the merits of onboard monitoring systems as part of the ICR. On the contrary, the goal of the OBMS study is to try and understand the merits of the system. When the study is fully completed, the findings will be documented in a final report that will be available to the general public.

III. Onboard Monitoring Systems are problematic in a number of ways

Again, FMCSA's request for comments on the OBMS ICR is not part of an ongoing or perceived rulemaking proceeding. FMCSA is keenly aware of some of the perceived negatives of onboard monitoring systems. OOIDA's comments about the problems and negatives associated with OBMS have been noted and will be communicated to the research team.

IV. The desired Improvement may be more effectively obtained through less costly and more efficient means

Many of the views expressed by OOIDA in this section are not directly related to the ICR. The ICR is not tied to a rulemaking effort and a cost-benefit analysis is not part of the planned ICR. However, the larger OBMS FOT study will investigate the business case for implementing an OBMS program. Upon completion, the findings from the broader study will be available to the general public.

V. Participants must fairly represent the majority of CMV drivers who have not been subjected to electronic monitoring.

The 500 drivers who will be participating in the OBMS FOT and the information collection effort will be selected from three commercial vehicle fleets who have expressed interest in participating in the OBMS project. This is essentially a convenience-based sample. The choice of carrier fleet and terminal was based on the following factors: carrier willingness and commitment to undertake the FOT, fleet size, geographic location, type of operation (long-haul or short haul), budget constraints, and carrier's technical capacity to successfully implement the

requirements of the FOT. Given that the objective of the information collection request is to understand CMV drivers' expectations, attitudes and acceptance of OBMSs, the findings from the information collection effort will only represent the views of the participating drivers from the participating fleets. The findings from the survey about CMV drivers' expectations, attitudes and acceptance of OBMSs will not be generalized to the entire CMV industry.

Should you need additional information or assistance, please feel free to contact Olu Ajayi, Mathematical Statistician, FMCSA Research Division, at (202) 366-0440 or olu.ajayi@dot.gov.