

University of Iowa News Release

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### **Driving Simulator Seeks Participants For Heavy Truck Disc Brake Study**

The National Advanced Driving Simulator (NADS), a research and teaching unit of the University of Iowa College Of Engineering, is seeking Class A Commercial (CDL-A) drivers for a study investigating the effectiveness of various braking systems in heavy trucks.

The study involves recruiting 150 CDL-A drivers between the ages of 22 and 55 to take part in a two-hour visit to the NADS in Coralville, Iowa. CDL-A drivers who would like to participate in this or future studies can learn more by visiting <http://www.drivingstudies.com> or by calling the NADS hotline at 319-335-4719. Participants will be compensated.

The study, which began Nov. 13 and will continue through the beginning of January 2007, is the first in a series of NADS studies examining safety issues related to heavy trucks. For the heavy truck brake study, the braking systems being studied include standard s-cam drum brakes, enhanced s-cam brakes, and vented air disc brakes.

In 2005, one out of eight traffic fatalities resulted from a collision involving a heavy truck. Researchers are interested in examining the potential of different braking systems to reduce the number and severity of such crashes. Vented air disc brakes are newly developed for the North American market, but their use is limited to select emergency or specialty heavy trucks. They currently are optional on over-the-road trucks. Air disc brakes and other newer braking systems, such as enhanced s-cam brakes, are able to stop heavy trucks in a shorter distance. The stopping distance when driving at 75 miles per hour for vented air disc brakes is 371 feet, compared to 618 feet for s-cam drum brakes, which currently comprise 90 percent of the heavy vehicle brakes in the North American fleet. The study will examine the extent to which these shorter stopping distances are able to help drivers avoid crashes.

Located at the University of Iowa's Oakdale Research Park, NADS is the most sophisticated research-driving simulator in the world. Developed by the National Highway Traffic Safety Administration, it offers the highest fidelity real-time driving simulation experience. The NADS mission is to conduct and support simulator-based research and motor vehicle systems research with the goal of enhancing the safety of U.S. highways and improving the safety and productivity of the vehicle-manufacturing sector. The NADS vision is to achieve these goals in collaboration with academia, government, and industry through the advancement of multi-disciplinary simulation science and technology.

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