IS YOUR EXISTING DRIVER TRAINING SUFFICIENT?

miniSim™
HEAVY TRUCK

Most of the research findings on adult learning and instructional technology from the **last 30 years have not been incorporated** into many commercial driver training enterprises.

The MiniSim is a PC-based driving simulator with powerful scenario editing and data acquisition capabilities that is based on over a decade of research and driving simulation experience at the University of Iowa's National Advanced Driving Simulator (NADS).

Simulator training at least once a year showed in the first full year of training, drivers had a **64% reduction in preventable accidents** and a **44% decrease in overall accidents**.

Source: Paducah Area Transit System (PATS) driver study, 2008

The MiniSim simulator can be configured in a variety of ways, including ¼ cab with plasma or projection displays.

The cab is of robust design with realistic pedals, real truck steering wheel and seat, and manual transmission shift lever with software configurable transmissions.

The instruments on the dashboard are displayed on an LCD, enabling fast and cost-effective customization to simulate different vehicles. As an option, a pitch/surge motion base is available to provide onset braking and acceleration cues to the driver.

Using a driving simulator helps...

... drivers experience and prepare for the unexpected in a simulated and controlled environment.

... routinely exercise skills to enforce safe practices.

... improve driver confidence and boost morale.

... lower insurance costs.

... reduce insurance claims.

... save time and money by sharing a mobile unit.

... reduce turnover costs.

... reduce operational costs. (fuel / repair / tire wear / ...)

... achieve fewer crashes.

... address CSA 2010.
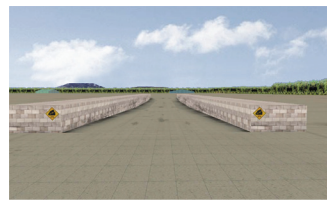
NADS DriveYard™
Training Environment

Uncontrolled Rural Intersection
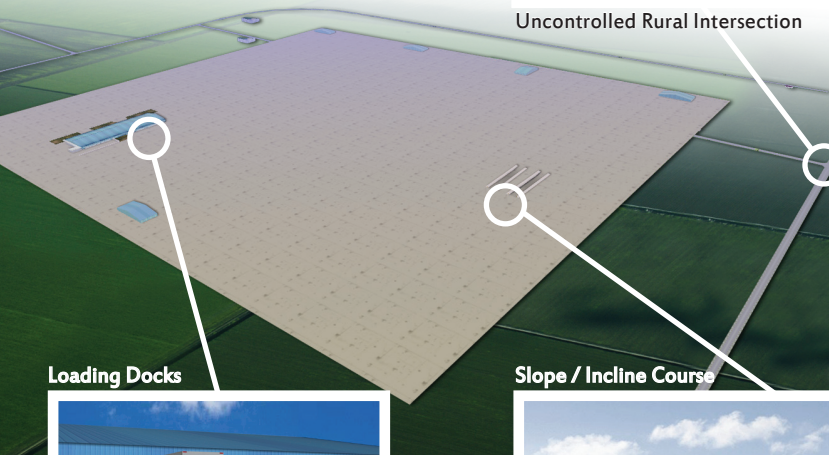
Loading Docks

Slope / Incline Course

NADS has developed a training environment specifically for heavy trucks, called DriveYard™. This environment includes an area to practice maneuvering the tractor-trailer, such as serpentine, backing-up, and docking. There is a building with several types of loading docks and an area with two different inclines. A road network that includes rural and interstate roads is also included where turns at intersections and higher-speed maneuvers such as merging, lane change, and passing can be practiced.

It provides the benefit of training and testing drivers on potentially risky on-the-road scenarios and difficult climatic conditions like rain, fog, and snow that are difficult or dangerous to conduct in real life, thus saving time, cost and lives. Drivers of trucks are required to operate in urban areas as well as in less populated places, thus raising matters of safety and environmental pollution when training is required. Any vehicle driven by a novice is likely to require higher than average visits to maintenance and repair workshops, while fewer instructors would be needed to staff a simulator facility than to accompany student drivers on public roads.

Training Curriculum:

- Adverse Weather Driving
- Crash Avoidance
- Detecting Critical Information
- Evasive Action Skills
- Good Driving Strategies
- Handling Weather Conditions
- High Risk Situations
- Intersections
- Safe Driving Techniques
- Transit Bus: Driving Awareness

- Limited Access Highways
- Rural Roadways
- Searching for Safety
- Stopping in Time
- Threat Recognition
- Perception

Simulator training has reduced accidents per mile, decreased driver turnover, increased fuel mileage by 15% and provides a tool to reduce insurance premiums.

Source: Jim Van Der Elzen - Business News 2/1/2010

Significant safety benefits have been reported by a transit agency using a bus simulator. In 90 days following the training, the accident rate for the drivers trained on the simulator was 18 percent; the accident rate for the drivers trained conventionally was almost 32 percent.

Even more significantly, the tasks specifically trained on the simulator - left and right side vehicle passing, and collisions with fixed objects - resulted in 17 accidents for drivers trained on the simulator, and 137 accidents for the contentionally trained drivers.

Source: TCRP Report 72, p. G-3-4; "MTA NYC Transit's Bus Simulator: Design, Delivery, and Results"

In addition, simulated environments can also be tailored to suit specifc requirements, including geospecific locations and custom object models.

Please contact us for more information:

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