FAAC

PRODUCT CATALOG

TRANSPORTATION
SIMULATION TRAINING

50 Est. 1971
Years of Innovation

CONTACT US TO LEARN MORE

BASIC OPERATIONS

Coach Securement

Stopping Distance

Controls

Mirrors

DEFENSIVE DRIVING

Hazard Recognition

Clearance around the Bus

Defensive Driver Attitude

MANEUVERING THE BUS

Sharing the Road

Lane Changes

Intersections

Angled Turns

FREEWAYS

Entering

Driving

Lane Changes

Exiting

ADVANCED OPERATIONS

Night Driving

Adverse Weather

Railroads

SERVICE STOPS

Near Side

Far Side

Kneeling

Lift & Ramp Use

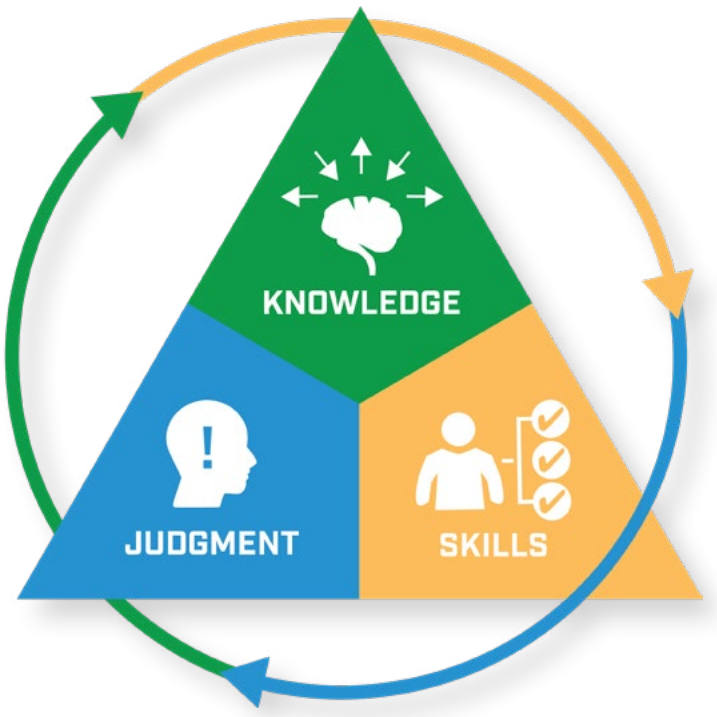
RADIO PROCEDURES

Routine Calls

Codes

Communication Protocols

SIMULATION TRAINING APPLICATIONS AND USE CASES



Simulation training requires student operators to apply their knowledge, skills, and judgment in a way that facilitates learning. With an active learning environment, student operators are provided a chance to learn-by-doing, while learning from each other.

IMMERSIVE EXPERIENCE
Practice until perfect.

WORKFORCE DEVELOPMENT
Advance together.

MEASURABLE RESULTS
Through equitable evaluations.

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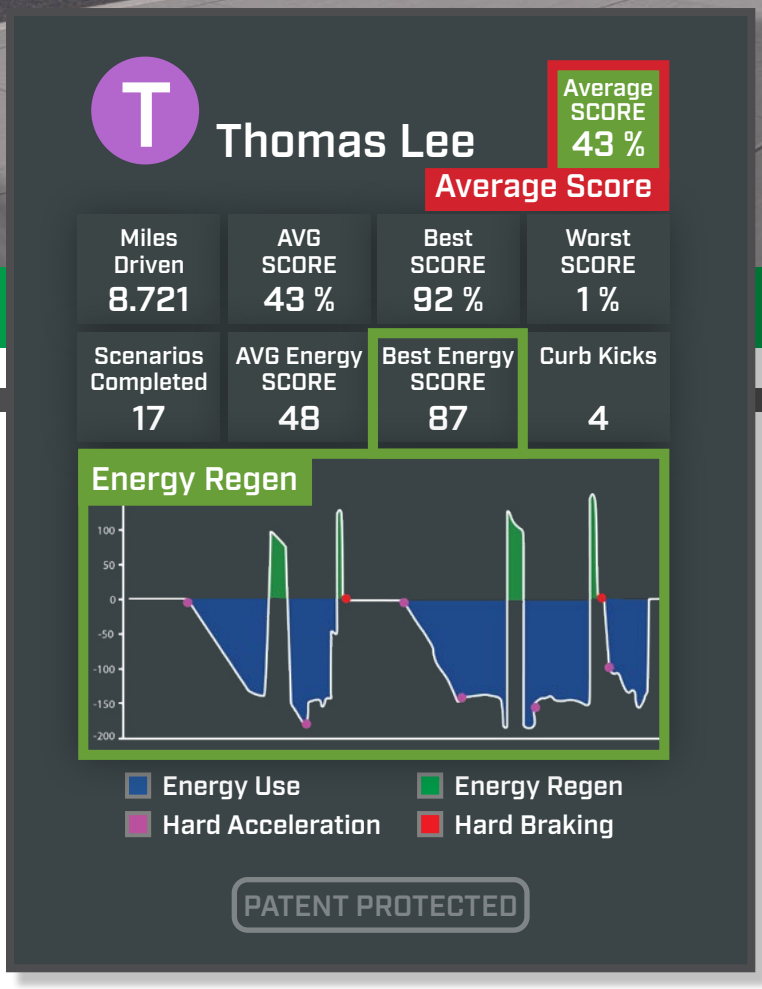
VITALS®



VITALS
Virtual Instructor Trainee Assessment & Learning System

- Capture and Monitor Student Performance
- Standardized and Objective Assessment Process
- Analyze Performance and Debrief While Minimizing Individual Instructor Filters and/or Bias
- Operator Performance Dashboard Recommends Areas for Improvement
- Modifiable Dashboard Showcases Agency-Specific Information

“CTE has observed more than 25% differences in energy efficiency based on driver performance and driving style (e.g., braking and acceleration techniques).”

National Academies of Sciences, Engineering, and Medicine. 2021. **Guidebook for Deploying Zero-Emission Transit Buses.** Washington, DC: The National Academies Press. https://doi.org/10.17226/25842.

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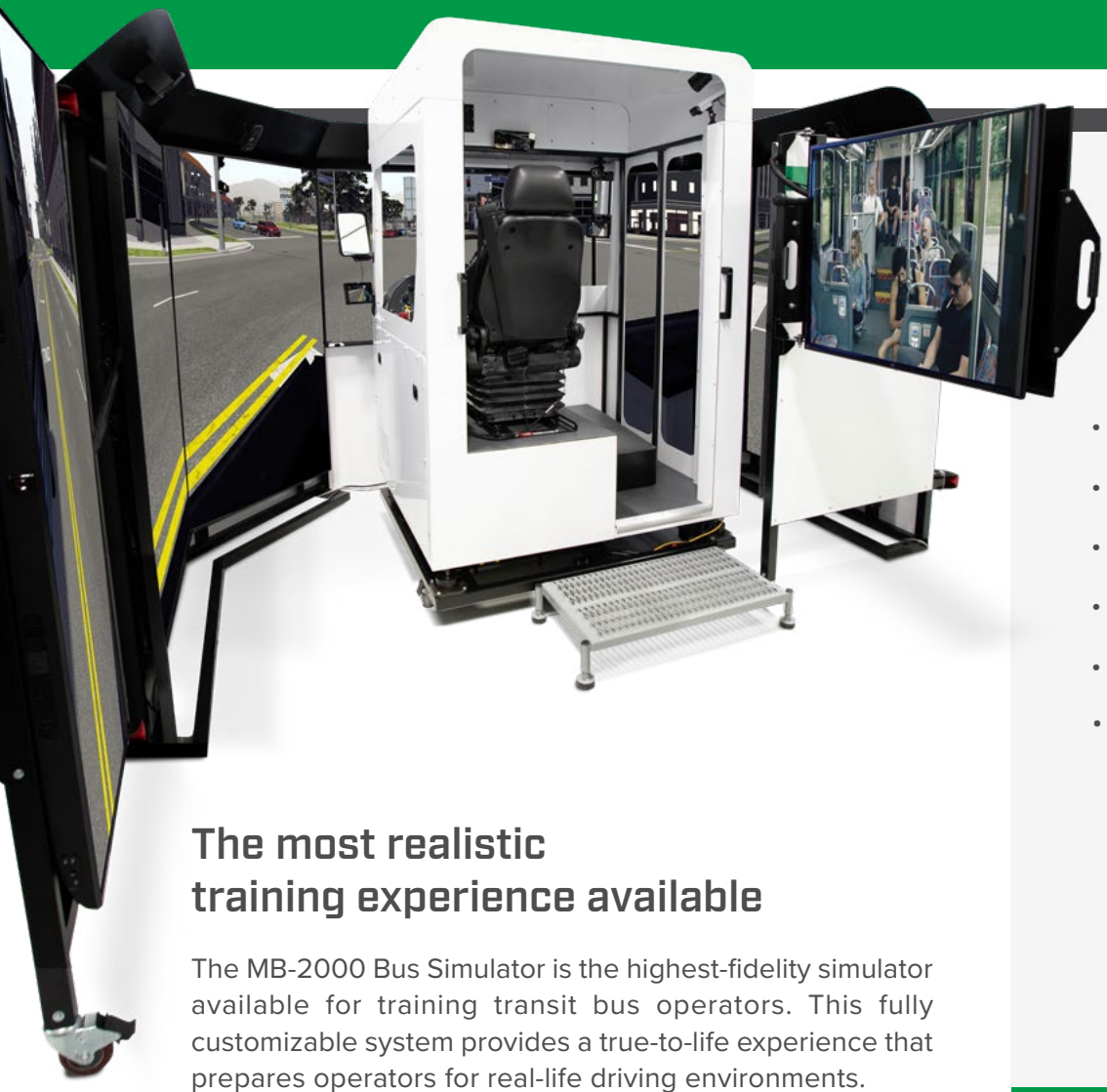

MB 2000

FAAC

BUS OPERATOR TRAINING SIMULATOR

- OEM ZEB Vehicle Catalog
- Whole-World Viewing Angles
- Train with Flat Glass Mirrors
- OEM Driving Experience
- Full Motion Cab
- **RESPONSE SITUATIONAL SIMULATOR**: Embedded passenger interaction simulator that prepares operators for realistic passenger interactions

The most realistic training experience available

The MB-2000 Bus Simulator is the highest-fidelity simulator available for training transit bus operators. This fully customizable system provides a true-to-life experience that prepares operators for real-life driving environments.

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PARATRANSIT

FAAC

OPERATOR TRAINING SIMULATOR

- Previous In-Service Vehicle (de-commissioned)
- Whole-World Viewing Angles
- Train with Flat Glass Mirrors
- Full Motion Cab
- **RESPONSE SITUATIONAL SIMULATOR**: Embedded passenger interaction simulator that prepares operators for realistic passenger interactions

The Paratransit simulators are created from a de-commissioned vehicle, donated by the customer. The MB 2000 and paratransit cabs are interchangeable so you can swap this paratransit cab using the shared system resources, or it can be purchased as a standalone training system.

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MB 1000

FAAC

BUS OPERATOR TRAINING SIMULATOR

- Compact Equipment Footprint
- Digitally Rendered Mirrors
- Functional Levers, Gauges & Switches
- Integrated Motion System

The MB-1000, with its more than 225-degree field-of-view capability, realistic dash controls, and optional motion system, is a testament to the innovative solution FAAC provides to the transit industry.

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DESKTOP TRAINER

- Optional Configuration for all Transportation Simulators
- Compact Equipment Footprint
- Simple Setup and Transportable
- Snowplow Control Integration
- Ideal for Introducing Simulation

The Desktop simulator provides a compact design that is easily transportable. This simulator can be deployed at scale, providing classrooms of student operators a chance to learn a wide variety of simulation activities collectively.

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Prepare bus operators for passenger interaction

“What should I do next?” FAAC’s Response Situational Simulator features interactive scenarios that are embedded on the rear monitor of MB 2000 and Paratransit simulators. Operators practice de-escalation, emergency response procedures, and passenger interactions with this comprehensive training solution.

RESPONSE
Passenger Interaction Training

- Interactive scenarios are embedded on the rear monitor of MB 2000 and Paratransit simulators
- Operators practice radio commands, verbal feedback to passengers, and securing the bus during an incident
- Scenario branching is directed by the instructor who chooses the scenario progression according to operator reactions
- Choose from ready-made scenario packages or have custom scenarios filmed on location

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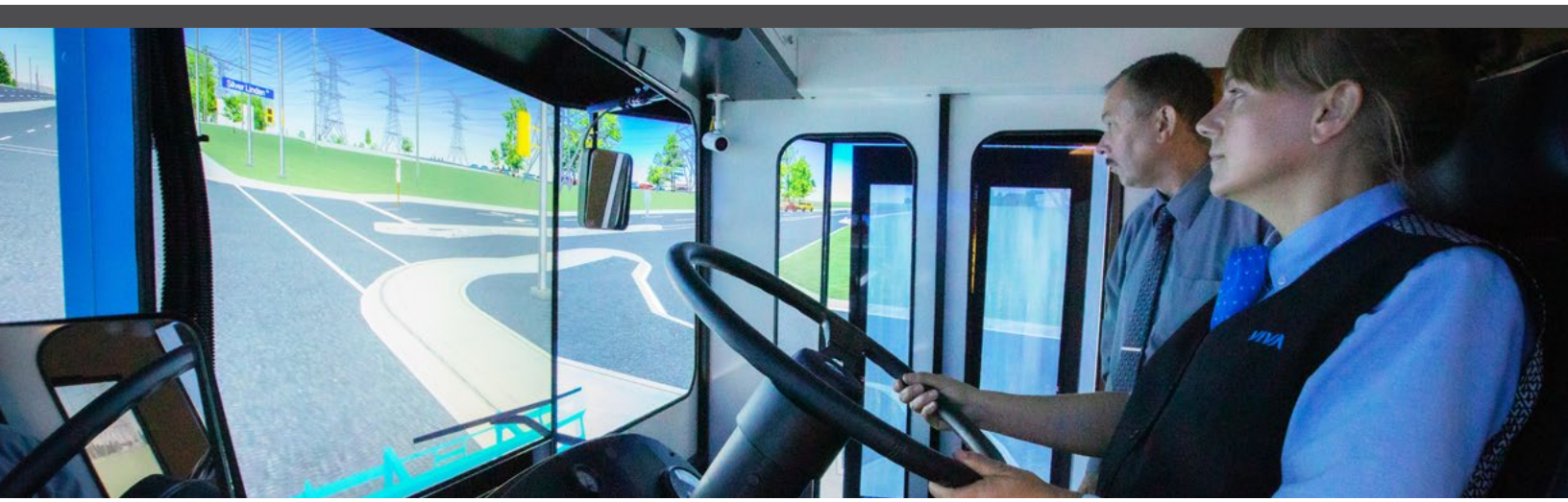
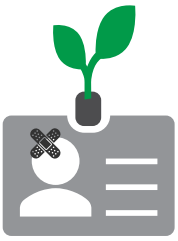
THE VALUE OF SIMULATION TRAINING



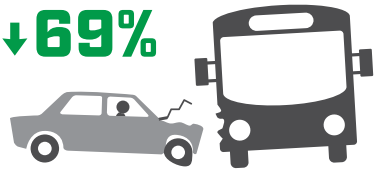


NEW-HIRE ACCIDENTS DECREASED

↓70%

Champaign-Urbana Mass Transit District recorded a 70% decrease in new-hire accidents **in their first year of simulation-based training.**

↓69%



OVERALL ACCIDENT REDUCTION

Central Florida Regional Transportation Authority ("LYNX") reported a 69% overall reduction in accidents **after adopting a simulation-based training program.**

↓35%

WASHED OUT WASHOUT

MTA New York City Transit's Department of Buses saw a 35% reduction in the washout rate of new hires completing training **after the introduction of the MB 2000.**

Simulation is beneficial to both student and Instructor.

"Simulation allows students the opportunity to navigate a world of potential hazards without the consequence of an actual collision. It also gives the Instructors a chance to not only teach the fundamentals of driving a transit bus in a safe environment, but also to assess a student's performance when presented with challenging situations that can't be replicated on the road."

WILLIAM "BILLY" CAMERON
Fmr. Division Chief of Training - Bus & Rail
Massachusetts Bay Transportation Authority (MBTA)

Learn more at www.faac.com/transit

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SIMULATION TRAINING CASE STUDIES

Training Results with Lasting Implications for Safe Operation

When NYC MTA incorporated an MB 2000 simulator into their training program, they tracked new-hire operator statistics for the first 90 days of training & route familiarization:

WITHOUT SIMULATION TRAINING	vs	WITH SIMULATION TRAINING
709 students		177 randomly selected
226 total accidents		32 total accidents
48 right-side accidents		**0** right-side accidents
31.9% accident rate		**18.1%** accident rate

OVER TIME, SIMULATOR-TRAINED STUDENTS HAD AN ACCIDENT RATE REDUCTION OF 43%

The Efficiency of a Dual Cab Simulator in a Mobile Unit

Texas Association of Counties used a dual cab simulator in a mobile unit to train law enforcement personnel and truck drivers across the state. Here's what they accomplished in four years:

Counties Covered
134

LE Personnel Trained
2,336

Truck Drivers Trained
1,505

Pre-Simulator Liability Claims
$6,370,958

Post-Simulator Liability Claims
$5,102,458

Total Saved After Four Years
$1,268,500

TOTAL SAVED COVERED: SIMULATOR COSTS, INSTRUCTOR SALARY, COST OF OPERATION

Return on investment isn't limited to savings from accidents averted.

"Training simulations... run anywhere from 30 seconds to a couple minutes... So, if [the students are] having trouble with right turns, left turns, soft stops, hard stops—that's where the advantage starts to come out on the side of training on the simulator... In just a minute or two, I can do a repeat three to five times in a sim. In a traditional bus, I'm not going to be able to do that."

STEVE BERRY
Fmr. General Manager for Public Safety at St. Louis Metro

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THE LEADERS IN SIMULATION

DESIGNED FOR OPERATORS

LEVERAGE INDUSTRY EXPERTISE

ADAPTABLE & INNOVATIVE

PREPARE INSTRUCTORS

HIGHEST QUALITY STANDARDS

CONTINUED DEDICATION

Innovation comes from a commitment to do more, learn more, and challenge existing paradigms. With over 50 years of product development, sustainment, and innovation, we are continually improving not only what we do but how we do it.

50 Est. 1971 Years of Innovation

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