



**BEFORE YOU INVEST IN AND INTEGRATE  
NEW LOCOMOTIVE ROLLING STOCK  
NEW TECHNOLOGIES  
NEW SYSTEMS OR  
ERTMS**



**Have you considered;**

- Risk Assessment?
- Human Factors?
- Human Systems Integration?
- Simulators?



**PROVIDES BEST-OF-BREED MOBILE AND  
FIXED SITE SIMULATORS COMBINED WITH HUMAN FACTORS  
AND HUMAN SYSTEMS INTEGRATION TO OPTIMIZE PASSENGER  
SAFETY AND DRIVER TRAINING TO AIRLINE PILOT STANDARDS OF CERTIFICATION**

**Human Factors and  
Human Systems Integration provided by the  
Federal Railway Administration's  
Cab Technology Integrated Laboratory (CTIL) Research Simulator**



**FRA's CTIL:**

The Cab Technology Integration Laboratory (CTIL) is a mobile, full-sized Locomotive Simulator configured with tools for the analysis of Crew Performance given new cab technologies and configurations.

## FRA's CTIL Mission Objectives:

CTIL is to be the resource to provide a broad-based collaboration with the railroads, railroad industry, academic, and government scientific and technical resources on fundamental problems of human performance in integrating advanced cab technology in a way that assists people, improves crew reliability and enhances routine operations.

## Video of FRA's CTIL Research Simulator:

For detailed information of the CTIL's Training, Research capabilities and benefits click on the link following link <http://www.youtube.com/user/usdotfra>

## GLT's MOBILE SIMULATORS FOR DRIVER TRAINING ON-SITE OR AT A SIMULATION TRAINING CENTRE OF EXCELLENCE



**GLT was the Prime Contractor for the design, supply and Integration of the above Mobile Simulators.**

We provide “bespoke” Simulator Training systems to the global rail transportation industry, including full mission simulators with motion bases, part task simulators, which can be “fixed site” or, set up in a GLT designed “**Simulation Training Centre of Excellence**” to train large numbers of drivers.

Until recently, an essential element of Military Training has not been widely available or fully utilized in the Rail industry. Specifically, **Human Factors (HF) and Human Systems Integration (HSI)**. HF and HSI is used by the U.S. Military to avoid unforeseen design errors and can eliminate the risk of introducing new technologies and training procedures, such as ERTMS in the UK. To complement and optimise Simulation training and passenger safety, GLT is now spearheading the use of HF and HSI with a consortium of 31 British Universities engaged in Rail Research.

**Simulation, Human Factors and Human Systems Integration** technologies have long been used for training Astronauts, the Military, and in safety critical fields like Aviation, Super Tanker Shipping and Nuclear Power. GLT can combine these essential technologies together and provide them to Rail Industry to enable locomotive engineers to be evaluated and trained to airline pilot's standards of certification.

FOR MORE INFORMATION CONTACT

Graham H. Stokes. Chairman & CEO  
Guiding Lights Technology Inc. 168 Springhead Gardens, Richmond Hill  
Ontario, Canada L4C 5C6 T: 905 508 1287  
Mobile: 416 709 3800  
Email: [grahamstokes@rogers.com](mailto:grahamstokes@rogers.com) Visit us at: [www.gltsim.com](http://www.gltsim.com)