




Advances in Transportation Technologies



Safety is our Priority

- **CAST Specialty and Visionary Solutions** sought to improve our safety through technology advances
- **These systems were not contract required**
- **We continue to seek ways to improve**



ZONAR

- **Pre-Trip and Post-Trip Vehicle Inspections**
- EVIR simplifies the entire pre- and post-trip truck inspection process improving safety, efficiency and CSA compliance scores. It is easy to use, captures powerful new fleet performance data and speeds vehicle repairs. EVIR is the *only verified visual inspection system* available. It complies with all DOT-mandated pre- and post-trip vehicle inspection regulations, as well as OSHA and MSHA equipment inspection requirements.
- **The Only Verified Electronic Trip Inspection**
- Zonar's EVIR system uses the innovative *Tag Once, Inspect Regularly, Know Always* approach to capture, transmit and record inspection, compliance and maintenance data. Required pre- and post-trip truck inspections are automated *and* verified using Zonar's patented technology. Zonar has eliminated the errors, inefficiencies and risks inherent in all other approaches.

On Guard



On Guard

- Collision Mitigation
- Stationary object audible & visual warnings that alert drivers to possible obstruction in their lane
- Object collision audible & visual warnings that alert drivers to developing rear-end collisions
- Haptic warning provides short brake pulse which causes drivers to respond faster to imminent rear-end collisions
- "Always on" at speeds above 15 mph even when cruise control is not set
- Applies up to 50% of the vehicle's braking power to help avoid or mitigate an impending collision
- Adaptive Cruise w/Active Braking
- Assists in maintaining a 3.6 seconds interval between driver's vehicle and the vehicle ahead
- Makes cruise control a more useful tool in various traffic conditions
- Allows for a more relaxed driving experience in various traffic conditions
- Reduces driver fatigue in congested traffic

Safe Trak



Alerting distracted or fatigued drivers to unintended lane changes could prevent thousands of roadway departure crashes involving large trucks each year. The Takata LDW system combines a small video camera and sophisticated machine vision software to watch the road ahead and warn drivers if they unintentionally leave their lane, or if their driving pattern becomes erratic.

Roll Stability Control (RSC)



Enhanced use of EOBR

- Our DOE contract requires use of EOBR for Electronic hours of service (log books)
- However CAST and VS have chosen to enhance our use of these systems for:
 1. Communication
 2. Redundant tracking
 3. Regulatory compliance

EOBR

