Active Collaboration
Project Overview

• Goal
  • To accelerate the adoption of ADAS by the trucking industry to reduce fatalities and prevent injuries and crashes.

• Objectives
  • Conduct a national outreach campaign to determine the technical and market barriers to nationwide adoption of ADAS.
  • Development of outreach materials for fleets, to include training materials for drivers and maintenance personnel.
  • Conduct data collection and analysis to evaluate the effectiveness of outreach efforts and deployment rates.
ADAS Technologies

ADAS – Braking
- Automatic emergency braking
- Air disc brakes
- Adaptive cruise control

ADAS – Steering
- Lane keep assist
- Lane centering
- Adaptive steering control

ADAS – Warning
- Lane departure
- Forward collision
- Blind spot detection

ADAS – Monitoring
- Driver-facing camera
- Road-facing camera
- Camera-based mirror systems
Originally Selected ADAS Technologies

- Video-based On-Board Safety Monitoring
- Lane Departure Warning
- Automatic Emergency Braking
- Air Disc Brakes
Additional ADAS Considerations

- Adaptive Cruise Control
- Blind Spot Warning
- Collision Mitigation System
- Active Turning Assist
- Blind Spot Detection
- Active Electric Steering
- Lane Keep Assist
- Camera Monitoring System
### Estimated ADAS Societal Benefits*

<table>
<thead>
<tr>
<th>ADAS</th>
<th>Annual Fatalities Avoided</th>
<th>Annual Injuries Avoided</th>
<th>Annual Crashes Avoided</th>
</tr>
</thead>
<tbody>
<tr>
<td>Automatic Emergency Braking (AEB)</td>
<td>55</td>
<td>2,753</td>
<td>5,294</td>
</tr>
<tr>
<td>Air Disc Brakes (ADB)</td>
<td>37</td>
<td>1,447</td>
<td>2,411</td>
</tr>
<tr>
<td>Lane Departure Warning (LDW)</td>
<td>115</td>
<td>1,342</td>
<td>6,372</td>
</tr>
<tr>
<td>Video-based driver monitoring</td>
<td>293</td>
<td>17,733</td>
<td>63,000</td>
</tr>
</tbody>
</table>

*AAA Foundation for Traffic Safety*
Two-year effort to accelerate the voluntary adoption of ADAS by trucking fleets:

• **2020 Objectives:**
  - Establish baseline adoption rates
  - Develop outreach and educational materials

• **2021 Objectives:**
  - Promote ADAS safety benefits, ROI, and O&M practices
  - Measure ADAS adoption rates in new truck sales
  - Quantify safety benefits, effectiveness of education/outreach
  - Summarize results in a report
### Survey Respondents

#### 726 Drivers
- Male, 45-64 yrs old, 11+ years of experience
- 88% For hire, 12% Private

#### Types of For-Hire Operation

<table>
<thead>
<tr>
<th>Type of For-Hire</th>
<th>MC Exec</th>
<th>Truck Driver</th>
</tr>
</thead>
<tbody>
<tr>
<td>Truckload</td>
<td>53.6%</td>
<td>76.8%</td>
</tr>
<tr>
<td>Less-than-Truckload</td>
<td>22.4%</td>
<td>6.6%</td>
</tr>
<tr>
<td>Specialized</td>
<td>11.2%</td>
<td>7.9%</td>
</tr>
<tr>
<td>Other</td>
<td>12.8%</td>
<td>8.7%</td>
</tr>
</tbody>
</table>

#### 200 Motor Carrier Executives
- Male, 45-64 yrs old, 11+ years of experience
- 74% For hire, 26% Private

#### Length of Haul

<table>
<thead>
<tr>
<th>Length of Haul (miles per trip)</th>
<th>Motor Carrier Executive</th>
<th>Truck Driver</th>
</tr>
</thead>
<tbody>
<tr>
<td>Local (less than 100)</td>
<td>14.7%</td>
<td>7.9%</td>
</tr>
<tr>
<td>Regional (100-499)</td>
<td>57.1%</td>
<td>28.2%</td>
</tr>
<tr>
<td>Inter-regional (500-999)</td>
<td>22.1%</td>
<td>32.7%</td>
</tr>
<tr>
<td>Long-Haul (1,000+)</td>
<td>6.1%</td>
<td>31.3%</td>
</tr>
</tbody>
</table>
Survey Results and Outreach Launch

Survey Results—March 24 Webinar
• Technical and Market Barriers to ADAS Use
• Adoption Rates and Expected Safety Benefits
  • Wednesday, March 24 at 12 Noon Eastern Time
  • Register at www.tech-celeratenow.org

National Outreach Campaign Launch
• Upcoming online and in-person information sessions at industry conferences (TMC, ATA)
• ADAS Information Guides on Safety Benefits and ROI
• Four Tech-Celerate Now videos
https://www.tech-celeratенow.org

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