IIHS Proves the Value of Mobileye® Aftermarket Collision Avoidance Systems

Introduction

Collision avoidance systems have proven their worth in the field and are now an available option in a broad spectrum of new vehicles. But for fleet managers who are looking to improve safety in their existing fleet, replacing the entire fleet with new vehicles is not an option. Could retrofitting fleet vehicles with collision avoidance systems be a solution? If so, this might be ideal for fleet managers trying to improve fleet safety on a tight budget.

The Insurance Institute for Highway Safety (IIHS) was offered the Mobileye 6 Series to test how vehicles equipped with aftermarket collision avoidance systems could improve vehicle safety. Of special interest was the system’s effect on driver behavior and how this behavioral change might differ between urban and rural drivers. The IIHS monitored the Mobileye alerts and change in driver behavior through a telematics system that integrates with the Mobileye unit.

The Mobileye 6 Series aftermarket collision avoidance system has a suite of ADAS features:

- **Speed Limit Indicator**: Notifies the driver whenever the vehicle exceeds the posted speed limit
- **Forward Collision Warning**: Alerts the driver of an imminent rear-end collision with a vehicle in front
- **Lane Departure Warning**: Alerts if the vehicle leaves the lane without the use of the turn signal
- **Headway/Following Time Monitoring & Warning**: Monitors the distance from the vehicle ahead and alerts when the distance becomes unsafe
- **Pedestrian & Cyclist Collision Warning**: Alerts of an imminent collision with a pedestrian or cyclist
Key Findings by the IIHS

For the drivers with vehicles equipped with Mobileye 6 Series, there were significant reductions in forward collision and headway warning rates measured by IIHS. This was consistent with increased following distances, an improvement in driver performance.

**Significant Improvement of Driver Behavior**

Drivers triggered fewer collision alerts after having driven with the system for some time, suggesting they became more aware of their behavior and drove more safely. The rates for forward collision warnings decreased by 45% and 30% for rural and urban drivers, respectively, over the research period. Lane departure warnings dropped 54% (rural) and 70% (urban) between the two type of drivers, and the rates for headway warnings decreased by 63% (rural) and 39% (urban). These numbers indicate a reduction in the risk for a rear-end collision. Volunteers reported safer driving behaviors, including using turn signals more often and increasing following distances.

<table>
<thead>
<tr>
<th></th>
<th>Rural</th>
<th>Urban</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fewer Forward Collision Warnings</td>
<td>-45%</td>
<td>-30%</td>
</tr>
<tr>
<td>Fewer Headway Warnings</td>
<td>-63%</td>
<td>-39%</td>
</tr>
<tr>
<td>Fewer Lane Departure Warnings</td>
<td>-54%</td>
<td>-70%</td>
</tr>
</tbody>
</table>

95% of drivers opted to keep the system

For more details, request a copy of the full study from IIHS
[https://www.iihs.org/iihs/sr/statusreport/article/53/7/2](https://www.iihs.org/iihs/sr/statusreport/article/53/7/2)