REACHING ZERO CRASHES

A DIALOGUE ON THE ROLE OF ADVANCED DRIVER ASSISTANCE SYSTEMS

OCTOBER 27, 2016

National Transportation Safety Board

National Safety Council
Role of New Car Assessment Program (NCAP) in Educating Consumers About Vehicle Safety

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October 27, 2016
What is NCAP?

- Established in 1978 by NHTSA
- A consumer information program that aims to improve motor vehicle safety by:
  - Providing meaningful and timely comparative safety information for new vehicle purchasers
  - Encouraging manufacturers to voluntarily improve the safety of their vehicles through market forces
- Provides safety ratings information on approximately 85 percent of the new model year vehicle fleet
Current NCAP

GOVERNMENT 5-STAR SAFETY RATINGS

Overall Vehicle Score
Based on the combine ratings of frontal, side, and rollover. Should ONLY be compared to other vehicles of similar size and weight.

Frontal
Driver ★★★★★
Crash ★★★★★

Side
Front seat ★★★★★
Rear seat ★★★★★

Crash ★★★★★

Rollover
Based on the risk of rollover in a single vehicle crash.

Star Ratings range from 1 to 5 stars (★★★★★) with 5 being the highest. Source: National Highway Traffic Safety Administration (NHTSA) www.safercar.gov or 1-888-327-4236

Recommended Advanced Technology Features

Rearview Video Systems: Standard ✔
Forward Collision Warning: Optional ✔
Lane Departure Warning: Optional ✔

Frontal Crash Test

Side Crash Tests

Rollover Tests
## Past Four Decades of Market Response to NCAP

### Full Frontal Impact: Percent of Vehicles with 4- and 5-Star Ratings (Old NCAP)

<table>
<thead>
<tr>
<th>Model Year</th>
<th>Driver</th>
<th>Front Passenger</th>
</tr>
</thead>
<tbody>
<tr>
<td>1979</td>
<td>30%</td>
<td>43%</td>
</tr>
<tr>
<td>2010</td>
<td>99%</td>
<td>99%</td>
</tr>
</tbody>
</table>

### Side Impact Barrier: Percent of Vehicles with 4- and 5-Star Ratings (Old NCAP)

<table>
<thead>
<tr>
<th>Model Year</th>
<th>Driver</th>
<th>Rear Passenger</th>
</tr>
</thead>
<tbody>
<tr>
<td>1997</td>
<td>24%</td>
<td>20%</td>
</tr>
<tr>
<td>2010</td>
<td>97%</td>
<td>95%</td>
</tr>
</tbody>
</table>

### Percent of Vehicles with 4- and 5-Star Ratings (Current NCAP)

<table>
<thead>
<tr>
<th>Model Year</th>
<th>Full Frontal Impact</th>
<th>Side Impact Barrier</th>
<th>Side Impact Pole</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Driver</td>
<td>Front Passenger</td>
<td>Driver</td>
</tr>
<tr>
<td>2011</td>
<td>79%</td>
<td>66%</td>
<td>85%</td>
</tr>
<tr>
<td>2014</td>
<td>89%</td>
<td>81%</td>
<td>95%</td>
</tr>
<tr>
<td>2016</td>
<td>98%</td>
<td>93%</td>
<td>97%</td>
</tr>
</tbody>
</table>

**Note:** The percent numbers are based on vehicles rated by NCAP.
Percentage of Trim Lines Offered LDW and Passed NCAP Performance Test Criteria

Lane Departure Warning Systems (LDW) : MY 2011-2017

- 2011: 7%
- 2012: 9%
- 2013: 17%
- 2014: 25%
- 2015: 25%
- 2016: 41%
- 2017: 46%
Percentage of Trim Lines Offered FCW and Passed NCAP Performance Test Criteria

Forward Collision Warning Systems (FCW) : MY 2011-2017
Percentage of Trim Lines Offered RVS and Passed NCAP Performance Test Criteria


- 2014: 15%
- 2015: 13%
- 2016: 24%
- 2017: 25%
Percentage of Trim Lines Offered CIB, DBS, or both

**Crash Imminent Braking (CIB) Systems: MY 2015-2017**

**Dynamic Braking Support (DBS): MY 2015-2017**

<table>
<thead>
<tr>
<th>Year</th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>CIB</td>
<td>4%</td>
<td>10%</td>
<td>8%</td>
</tr>
<tr>
<td>DBS</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Optional or Standard Equipment

Standard Equipment
NCAP Success and Goal

Success

• Manufacturers respond to our crash test programs by designing vehicles to achieve 4- and 5-star ratings at a much faster pace than ever before
  – Full frontal impact test (old NCAP) - more than 2 decades
  – Side impact barrier test (old NCAP) - about 10 years
  – Last upgrade (current NCAP) - less than 4 years
• Steady increases of vehicles with advanced technologies that are recommended by our current program

Goal

• Encourage continuous advancement of vehicle safety
Planned NCAP Upgrades

- Overall Vehicle Score: 5 stars
- Crashworthiness: 5 stars
- Crash Avoidance: 5 stars
- Pedestrian: 5 stars
Promoting the CURRENT 5-Star Safety Ratings Program - To Date

- Online and social media campaign
- Videos: Lane Departure Warning, Forward Collision Warning, AEB, and Rearview Video Systems
- Online automotive sites and vehicle-focused organizations
- Auto Shows
- OEM advertising guidelines
- Dealer tool kits
Communicating the NEW 5-Star Safety Ratings Program – Coming Soon

- Videos to demonstrate new technologies, dummies, and crash tests
- Online automotive sites and vehicle-focused organizations
- Online and social media campaign
- Dealer tool kits
- Auto shows
- Webinars
- Press Event