

This 1992 IIHS Status Report demonstrates that it was well-known long before the 2019 GAO Truck Underride Report that underride deaths were being undercounted.



Clearly, a congressional mandate is needed in order to make NHTSA take action.

"It is anticipated that the proposed Standard will be amended, after technical studies have been completed, to extend the requirement for underride protection to the sides of large vehicles."

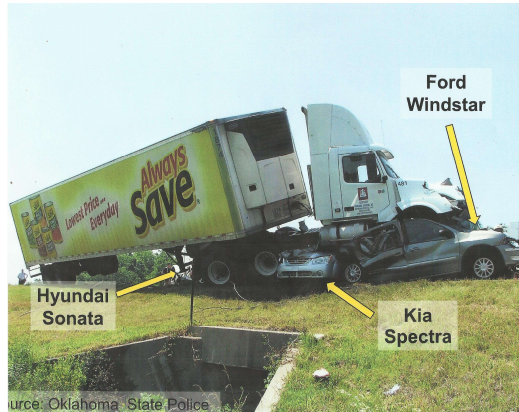
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Wednesday, **March 19, 1969**

Lois Durso lost her precious daughter, Roya to a side underride crash on November 24, 2004.
Marianne Karth lost AnnaLeah and Mary Karth due to a rear underride crash on May 4, 2013.

Their lives were snuffed out abruptly and needlessly -- disturbing examples of preventable tragedies which are repeated in the United States hundreds of times a year.

We were sick & tired of waiting for someone else to do something, so we drafted the **STOP Underrides! Bill**, which was introduced by Senators Gillibrand & Rubio, Congressmen Cohen & DeSaulnier on December 12, 2017 & again on 3/5/19.

2009 Crash Investigated by the National Transportation Safety Board:



10 fatalities
This 1989 IIHS Report recommended Front Underride Guards:



Head-on collisions between trucks and cars are deadly encounters for auto occupants. Researchers report that nearly two-thirds of the German car passengers killed in truck crashes were the victims of such impacts.

To help prevent such deaths, researchers at the Technical University of Berlin developed a new front crash protection system for trucks that, its researchers say, could greatly reduce occupant death and injury if adopted by vehicle manufacturers.

Data from a previous study showed that the average speed for real-world, head-on fatal crashes between cars and trucks in Germany is about 47 to 56 mph.

Crash tests demonstrate that auto passenger compartment deformation in impacts with heavy trucks can occur at speeds of 37 mph due to the stiffness and height of truck front ends. The researchers goal was to develop a design that can prevent passenger compartment deformation and intrusion at those speeds.

The researchers developed a design incorporating a front-end soft plastic exterior face to absorb minor collisions without damage, with a metal honeycomb mounted behind to a support frame. In a more severe crash, the honeycomb absorbs some of the crash force. The support frame prevents the car from sliding beneath the truck's front end and trans-

SAFETY RESEARCH
This special issue of Status Report focuses on research findings presented at the Twelfth International Technical Conference on Experimental Safety Vehicles in Gothenburg, Sweden earlier this year. The conference is made possible through bilateral agreements between France, the Federal Republic of Germany, Italy, Japan, Sweden, the United Kingdom, and the United States. Agencies of these governments, the automotive industry, and vehicle safety research organizations meet periodically to share state-of-the-art safety technology. The conference reflects the international concern over traffic deaths and injuries around the world. The complete proceedings of the conference will be published by the National Highway Traffic Safety Administration (NHTSA) and should be available early next year. Copies may be obtained by sending a self-addressed mailing label to: Linda O'Connor, Technical Coordinator, NHTSA Office of Research and Development, 400 Seventh St. SW, Washington, D.C. 20590.

fers the crash energy to the chassis of the truck. In 70 kph, or 44 mph, overlapping frontal impacts, the researchers report the guard spreads the crash force over a broad area of the car, which greatly reduces the intrusion into the passenger compartment. In a comparison test with-

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The Best Possible Protection

GAO Truck Underride Guards Report

April 15, 2019

STOP Underrides! Act S.665 & HR.1511



Their deaths were preventable.

<http://annaleahmary.com/>
<https://stopunderrides.org/>

The Best Possible Protection

What GAO Found

Underride guards are in varying stages of development, and gaps exist in inspection of rear guards in current use and in research efforts for side guards.

NHTSA has proposed strengthening **rear guard** requirements for trailers (the rear unit of a tractor-trailer) and estimates about 95 percent of all newly manufactured trailers already meet the stronger requirements. Although tractor-trailers are inspected, Federal Motor Carrier Safety Administration annual inspection regulations do not require the rear guard to be inspected, so damaged guards that could fail in a crash may be on the roadways.

Side underride guards are being developed, but stakeholders GAO interviewed identified challenges to their use, such as the stress on trailer frames due to the additional weight. NHTSA has not determined the effectiveness and cost of these guards, but manufacturers told GAO they are unlikely to move forward with development without such research.

Based on a 2009 crash investigation, the National Transportation Safety Board (NTSB) recommended that NHTSA require **front guards** on tractors. NHTSA officials stated that the agency plans to complete research to respond to this recommendation in 2019. However, stakeholders generally stated that the bumper and lower frame of tractors typically used in the U.S. may mitigate the need for front guards for underride purposes.

Regarding **single-unit trucks**, such as dump trucks, NTSB has recommended that NHTSA develop standards for underride guards for these trucks, but the agency has concluded these standards would not be cost-effective.

- From 2008 through 2017, an average of about 219 fatalities from underride crashes involving large trucks were reported annually, representing less than 1 percent of total traffic fatalities over that time frame. However, these fatalities are likely underreported due to variability in state and local data collection. For example, police officers responding to a crash do not use a standard definition of an underride crash and states' crash report forms vary, with some not including a field for collecting underride data. Further, police officers receive limited information on how to identify and record underride crashes. As a result, NHTSA may not have accurate data to support efforts to reduce traffic fatalities.

Recommendations for Executive Action

Recommendation 1: The Administrator of the National Highway Traffic Safety Administration should recommend to the expert panel of the Model Minimum Uniform Crash Criteria to update the Criteria to provide a standardized definition of underride crashes and to include underride as a recommended data field.

Recommendation 2: The Administrator of the National Highway Traffic Safety Administration should provide information to state and local police departments on how to identify and record underride crashes.

Recommendation 3: The Administrator of the Federal Motor Carrier Safety Administration should revise Appendix G of the agency's regulations to require that rear guards are inspected during commercial vehicle annual inspections.

Recommendation 4: The Administrator of the National Highway Traffic Safety Administration should conduct additional research on side underride guards to better understand the overall effectiveness and cost associated with these guards and, if warranted, develop standards for their implementation.

What GAO Recommends

GAO recommends that DOT take steps to provide a standardized definition of underride crashes and data fields, share information with police departments on identifying underride crashes, establish annual inspection requirements for rear guards, and conduct additional research on side underride guards. **DOT concurred with GAO's recommendations.**

Meanwhile, people continue to die from underride crashes at the front, side, and rear of trucks, while viable and practical technology exists or could quickly be available to install on trucks to save lives — if Congress would only say the word.

It would have been helpful if either the trucking industry stakeholders, NHTSA, or the GAO team would have spelled out precisely what they mean by “effectiveness” of side guards. What more are they looking for to prove that they are effective than the crash testing which has been conducted at IIHS (on March 30 & 31, 2017) and at the DC Underride Crash Test (on March 26, 2019)?

NHTSA has not yet done anything with the side underride research they have already completed. What guarantee do we have that they will do anything with further research unless mandated to do so?

It seems clear to me that the 219 documented underride deaths annually warrant the development of standards for implementation of comprehensive underride protection as outlined in the STOP Underrides! Bill. DOT has demonstrated that they have no intention of issuing rulemaking without a mandate which would force them to do so.

Marianne Karth, May 12, 2019