

# **Turning Tragedy** Into Advocacy **Coming Together On A Mission To Make Truck Crashes More Survivable**

2/27/2021

- Put yourself on Mute & please make sure that we can see your name. (Upper right hand corner where there are 3 dots.)
- Put questions in Chat -- to be answered in two Q&A periods.
- The meeting will be recorded & video file made available later.

# Invocation

### **Pastor Mike Noel**

# Introductory Remarks

### Senator Kirsten Gillibrand



Andy Young

### **Underride Timeline Video**



### Andy interviews Riley's dad, Eric Hein.





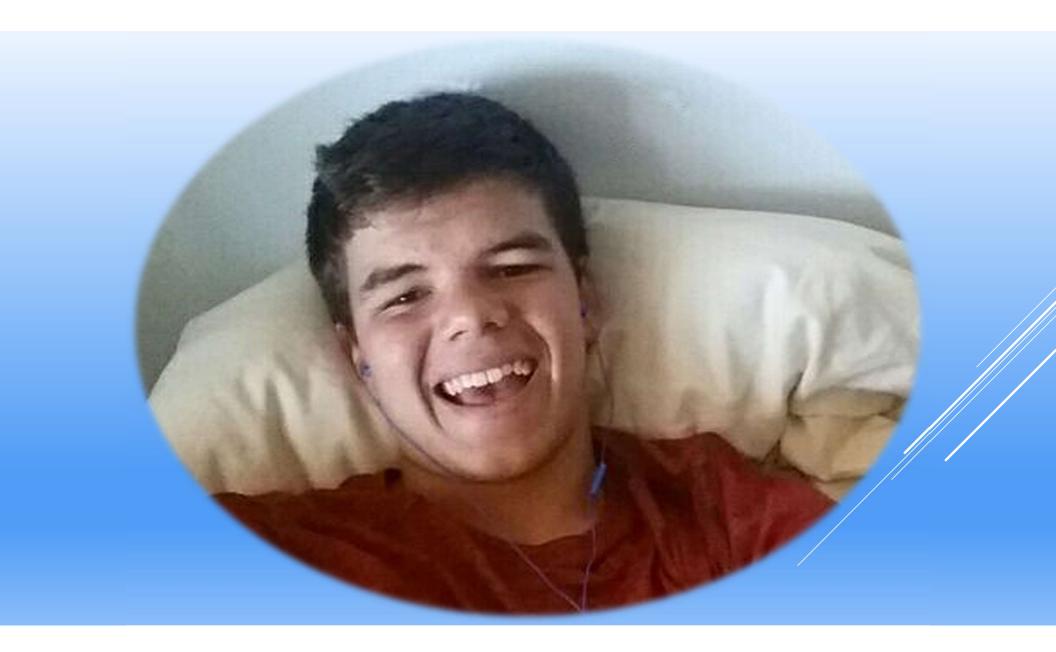
















Remembering precious ones gone too soon



#### Matthew 2020



Virginia State Police (FILE)

Ξ

By NBC29 Newsroom | December 22, 2020 at 11:27 AM EST - Updated December 22 at 11:27 AM

VSP says it responded to a crash on Interstate 81, near Raphine Road, around 1:15 p.m. Monday, December 21.

Authorities say a 2019 Honda Accord had been going south in the left lane of northbound I-81 when it struck a 2019 Freightliner tractor trailer head-on.





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### Ally 2020



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Ally Davis, 21, was a senior musical theatre student at Northern Kentucky University.

By: WCPO staff
Posted at 5:56 PM, Jul 08, 2020 and last updated 6:37 AM, Jul 09, 2020

HIGHLAND HEIGHTS, Ky. — A woman who died in a crash in Boone County on Monday is being remembered for her friendship, humor and dedication to her craft this week.

Twenty-one-year-old Allyson Davis, who hailed from Floyd County, Kentucky and was a senior musical theatre student at Northern Kentucky University, died Monday morning in a crash on I-75 near Walton. NEWS > REGION NORTHERN KENTUCKY

#### F У 🗠

#### NKU student who died in crash remembered for big heart, talent and 'infectious smile'

Ally Davis was 'destined for a strong vocal career'

#### Audria 2019



#### of the softball team.

#### The college released the following Facebook post:

"It is with great sadness that we must share with you that the Lincoln Trail College family lost one of our members today – Audria Truelove. The college has made grief counseling available to our student athletes through the Highland Church of Christ and First United Methodist Church. Counseling services will also be available on campus on Monday for students, faculty & staff. Our thoughts are with all those impacted – Audria's teammates, her classmates and instructors, and most especially her family."

The softball team's Facebook page posted the photo below asking the community for their prayers.



# **Alex** 2019



#### Minneapolis bicyclist's death adds volume to safety message

By Paul Walsh (https://www.startribune.com/paul-walsh/6134706/) Star Tribune NOVEMBER 26, 2019 — 9:19AM

A 30-year-old bicyclist struck and killed by a truck in Minneapolis last week was the latest casualty in what ranks among Minnesota's deadliest years for riders.

Alexander Wolf of Minneapolis, a bicycling enthusiast who worked in a bike shop in his adopted home city, collided with a semitrailer truck late Wednesday afternoon on 12th Street at Linden Avenue and diela at the scene.

Eleven bicyclists have been killed on Minnesota roads so far this year, according to state Department of Public Safety data. A high of 13 deaths were reported in 2008.

"The death of Alex and others on our streets are a stark reminder that we have a lot more to do as a community to ensure that people biking, walking and rolling are safe," said Ash Narayanan, executive director of Our Streets MpJs, a nonprofit organized around the idea that streets are for more than somewhere to drive a car. "We need to start making safety on our streets the single most important infrastructure priority in transportation decisionmaking."

Narayanan said he's encouraged the city has increased spending on protected bike lanes and pedestrian infrastructure in recent years.

Another advocacy group, Safe Streets Save Lives, played out one of those safety measures two days after Wolf's death by creating a human-protected bike lane along a block of 12th Street, where Wolf had ridden moments before the creah.

Narayanan also wants to see speed limits lowered in the city "so all road users feel safe, rather than making car travel speed the top priority. This means reducing car speeds citywide by reducing the number and width of car travel lanes."

Police said Monday they are still investigating the collision. Preliminary indications are that the truck stopped on 12th heading toward downtown and was turning right while the light was still red when he collided with Wolf, said officer Garrett Parten, a department spokesman.



Poice said the crash between Alexander-Wollison Alexander-Walswinn warkedin adatarabapion Musipanovison and a historical and a historical and killed on Minnesota roads so far this year.



## Leslie & Sophie 2018



Family petitions for more lights, no 'dark colors' on big rigs following fatal crash



om Cathy Forman's Change.org petition

A new petition is asking transportation officials to require several changes to commercial motor vehicles to make them more visible at night in hopes of saving lives.

The <u>Change org petition</u> was created by Cathy Forman and is addressed to the National Highway Traffic Safety Administration and state transportation departments.

The petition describes an <u>October 2018 crash at Highway 21 and FM 1362 in Burleson</u> County, Texas, that left Forman's sister Leslie Rosenberg, 62, and niece Sophie, 19. dead. Students, community remembering Aggie sophomore killed in car crash



By Erika Fernandez Published: Oct. 17, 2018 at 5:36 PM EDT S S S M D In

28

Ed 2014





<image>

#### Wheeling Man Killed in Two-Vehicle Crash

WEST WHEELING – A Wheeling man died following a crash with a tractor-trailer late Thursday on Ohio 7 in West Wheeling.

The Ohio State Highway Patrol said Edward Hall, 71, was pronounced dead at the scene by the Belmont County coroner.

Belmont County 911 received the call shortly after 11 p.m. Thursday and Brideport Police were the first to arrive on scene. The accident occured at the intersection of Ohio 7 and Kilgore Road.

The initial investigation by the patrol's St. Clairsville Post revealed a commercial averhill, Mass., was traveling north on

### Catherine 2019

**Northwestern High School** 

#### Image The Daily Record

#### State Route 83 serious injury crash remains under investigation

By Emily Morgan / Staff Writer Posted Oct 10, 2019 at 2:53 PM

Updated Oct 10, 2019 at 3:32 PM

Home of

WAYNE TWP. — The Ohio State Highway Patrol is investigating a two-vehicle serious injury crash involving a commercial tractor-trailer and a car Wednesday afternoon.

The crash occurred at approximately 12:13 p.m. on state Route 83 at Hutton Road, just north of Wooster. The crash involved a blue and white 1995 Peterbilt

### Caitlin 2019

#### Caitlin Preston Killed in 18-Wheeler Accident on Route 72 in Greene County, OH

Greene County, OH – On May 28, 2019, 18-year-old Caitlin Preston was killed in a collision with a tractor-trailer on State Route 72 in Greene County, south of Cedarville Township.

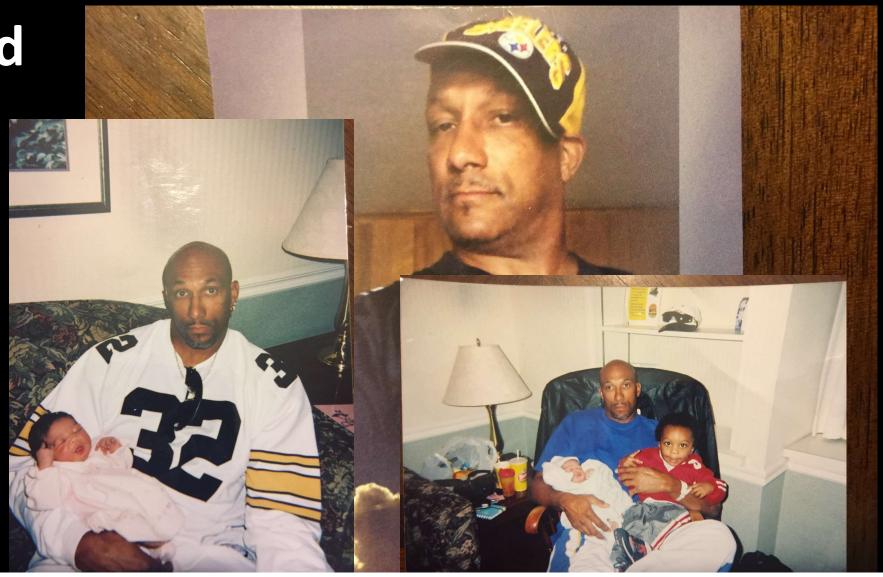
According to authorities, the incident happened Tuesday afternoon around 3:05 p.m. A Freightliner 18-wheeler driven by 27-year-old lan Knisley was reportedly headed south on the highway near Turnbull Road when his truck drifted off the right side of the road for unknown reasons. Knisley attempted to steer back onto the road but over-corrected, causing the truck to overturn and hit Caltlin Preston's Honda Civic. The passenger car was forced off the road and came to rest in a ditch.



### Josh







### Brittany 2016

#### **Fremont News Messenger.**

#### NEWS

#### Semi runs red light, kills Bellevue woman in crosswalk

#### Craig Shoup Reporter

Published 9:22 a.m. ET Aug. 19, 2016 | Updated 9:24 a.m. ET Aug. 19, 2016

BELLEVUE - A Bellevue woman died Friday morning from injuries she sustained Thursday after being struck by a semi while walking her bike across a crosswalk.

The crash, according to a news release from the Ohio Highway Patrol's Norwalk post, said Brittany McHargue, 20, was struck by a semi driven by Tema Samson, 48, of Columbus, while McHargue was attempting to cross in a marked crosswalk on US 20 and Orchard Street at 5:02 p.m. Thursday.

Samson ran a red light, the release said, and crashed into McHargue as she began walking her bike across the road.

McHargue was taken to Bellevue Hospital by North Central EMS and later flown by Life Flight to St. Vincent Medical Center in Toledo, where she was pronounced dead at 4:05 a.m. Friday.

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The investigation remains under investigation, and charged are pending against Samson.

#### **Courtesy: Virginia State Police**

#### Va. family grieves after man killed in Thanksgiving underride crash

"Please do something about it. We don't need an extra person to die this way."

Author: Eric Flack Published: 10:17 PM EST December 4, 2017 Updated: 1:02 PM EST December 5, 2017

UNDERRIDES

A Northern Virginia family is now among those calling for new safeguards on tractor trailers after a horrific crash killed a local father.

Thirty-year-old Christopher Padilla was killed in a violent crash with a tractor trailer on I-495 in Fairfax County.

Christopher 2017



### Riley 2015

2015

Forever Loved, Always Missed RILEY ERIC HEIN 1999-2015

"We didn't realize we were making memories,

#### Manzano student identified as person killed in I-40 crash

BY NICOLE PEREZ / JOURNAL STAFF WRITER Monday, November 16th, 2015 at 6:46pm

f SHARE TWEET in LINKEDIN

EMAIL

PRINT

SUBSCRIBE

ALBUQUERQUE, N.M. — The person killed in a fiery crash that closed I-40 Friday morning is Manzano High School junior Riley Hein, school officials confirmed Monday.

Bernalillo County Sheriff's Office deputies were called to westbound I-40 near the Tijeras exit around 6:30 a.m. for a crash between a car and a semi-trailer. Authorities closed westbound lanes of traffic all morning while they investigated.

Sheriff's Office spokesman Aaron Williamson said a passenger car and a semitrailer that were both driving on westbound I-40 collided with one another at a curve, and the passenger car got trapped underneath the semi.

The semi dragged the car for a quarter mile, and when authorities arrived, the truck was on fire. The driver of the passenger car, whom school officials identified as Hein, was pronounced dead at the scene of the crash.





**Rod** 2017



# Thomas, Christina, Sophia, Elianna



BUSINESS

HOME NEWS

in

SPORTS

AUTOS LIFE + I

LIFE + HOME ENTERTAINMENT

#### OPINION PHOTO + VIDEO

#### 'It's tragic': Vacationing Grosse Pointe family dies

Leonard N. Fleming, The Detroit News Published 3:43 p.m. ET April 8, 2018 | Updated 9:30 a.m. ET April 9, 2018



Thomas Toth was a huge Grateful Dead fan and a

Share your feedback to improve our site exper

MORE



## Tennessee sheriff's deputy who attended high school in Belleville killed in crash

BY ELIZABETH DONALD

2019 02:24 DAA LIDDATED JAAILIADV 02 2019 02:24 AA

22



# Memorial planned for Davidson Co. deputy who died after crash

Joseph 2018

Posted by Briona Arradondo and Payton Knobeloch © Posted Jan 1, 2018 NATION-WORLD

#### UPDATE: Three killed, one injured after multi-car wreck on I-75 South identified

THP said three people have died after a wreck on I-75 South in Campbell County.

Author: WBIR Published: 5:24 PM EDT July 11, 2018 Updated: 5:24 PM EDT July 11, 2018

UPDATE (Monday 10:25 a.m.): Three people are dead and one is injured after a multi-vehicle wreck on I-75 in Campbell County on Sunday.

Lieutenant Don Boshears with the Tennessee Highway Patrol said the crash involved a tractor trailer and a Dodge Caravan at the 141 mile marker near Jacksboro.

42-year-old Rebecca Bachman, 13-year-old Daniel Bachman and 15-year-old Lauren Bachman were all killed in the crash. 10-year-old Jake Bachman was injured. All four were wearing a seat belt and are from

#### Rebecca, Daniel, 2018



# **Roya** 2004

2/27/2021

-moni First of all, I want to say that I love you so much. I'm so oppreciative that I have you as a wonderful momer and as a taithful friend. Thank you for your integrity, sacrifise and abundant love which you display



# **Mary** 2013

Dear marcus IQU I Hope you like the Book Don't forget me

NOD OCHOONN Aunt Mary



Bear's Adventure with Mary

by Marianne Karth

## AnnaLeah 2013









Near Frederickburg, Texas May 4, 2018 -- A fatal accident took the lives of two Austin women around 12:20 p.m. Friday, May 4. Ramiro Sanchez, 54, of Tomball, was driving eastbound in the 17000 block of U.S. 290 East, between Stonewall and Hye, in a 2017 Kenworth truck tractor semi-trailer with a flatbed. For reasons not yet known, Sanchez lost control and both the truck and connected trailer veered into the westbound lanes, according to the Texas Department of Public Safety. The truck portion of the rig struck a 2015 Honda Civic traveling west, driven by Jack McGuff, 27, of Pearland.

The Honda was forced off the road and came to a stop in the grass. Jordan Ruth Hensley, 26, of Austin, and her passenger, Erin Nicolle Alexander, 22, also of Austin, were traveling west in a 2012

#### FOCUS

## Grieving mother takes on trucking industry, fighting for side rails

Side rails could prevent cars from sliding under the sides of semitrucks. After her daughter's death, a mother is asking why we don't have them yet.

#### Author: John Charlton, Andrea Ash, Will Weible Published: 7:53 PM EDT May 8, 2019 Updated: 12:07 AM EDT May 9, 2019

LOUISVILLE, Ky. (WHAS11) -- The connection between mother and daughter is everything, especially, for a daughter raised by a single mother.

"I had her my senior year in college. So, we kind of grew up together," said Christa Hammack.

llision.

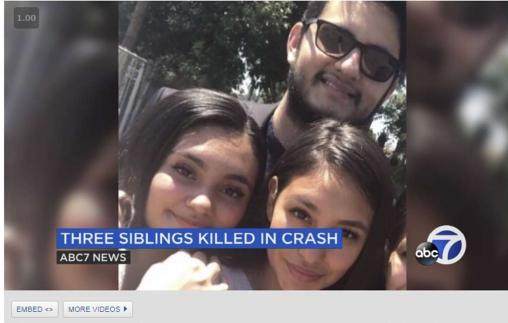
the trailer portion of the truck tractor. Hensley and Alexander cene, according to DPS.



# Siblings Eli, Sarah and Eva

TRAFFIC

Bay Area triple-fatal crash: Family speaks out after 3 siblings killed en route to visit ailing father in hospital



Villareal says her children went home to rest. When their dad began coding overnight they decided to drive back to the hospital but never made it.

🔊 By Melanie Woodrow

Saturday March 2 2019

triple-fatal crash: Family speaks out after s killed en route to visit ailing father in



Brophy was cited for failure to yield one-half of the roadway.

#### 1974 River-Cade **Attendant Injured**

SIOUX CENTER, Iowa - A during this year's River-Cade former River-Cade Queen celebration. She was a member Sioux City hospital from in- queen contest.

attendant remained in of Queen Kim Johnson's court "serious" condition Sunday at a and participated in the 1973

juries she suffered in a traffic accident near Orange City Saturday. Anita Plantage, 19, of Sioux

Center, was still confined to the intensive care unit at St. Luke's Medical Center, according to hospital authorities. The Sioux County Sheriff's

us,

Department said Miss Plantage was eastbound on Iowa 10 when she collided with a westbound truck about two and a half miles west of Orange City. The truck's driver, Jack Brophy, 27, of La Vista, Neb., was unhurt. Miss Plantage was taken to the Floyd Valley Hospital at Le Mars, then transferred to St. Luke's ollowing the mishap.

She served as an attendant

Anita Plantage







nita Plantage, Northwestern cheerleader last year, is in stable condition in a Slour City hospital following an accident Saturday west of Orange City, Anita, 19, suffered two broken legs, her pelvis was broken in three places and she was operated

She was traveling east on Highway 10 in her 1971 Chevrolet when a 1972 International semi driven by Jack Brophy of La Vista, NE., swerved into the left lane to avoid hitting a pickup parked on the shoulder of the road. The two collided almost head-on and Brophy was charged with failure to yield half the roadway. The semi

and the Plantage vehicle was totaled, according to investier of the Highway Patrol and the Sheriff's Department.

Anita Plantage hopes to be out of body cast by November 25

Anita Plantage, 19, daughter of Mr. and Mrs. Wm. Plantage of Sioux Center, who has been recuperating at her parental home here from severe injuries sustained in a car-truck collision 21/2 miles west of Orange City



My family and I wish to thank all our relatives and friends for the many prayers, visits, cards, gifts and food which we have received while I was in the hospital and now at home. A Very Special Thank You to Pastor Kiel and Pastor Huizenga for their many visits and prayers. I will never forget the thoughtfulness and kindness of this

thoughtfulness and survey and survey community. <u>GOD KNOWS BEST</u> Our Father knows what's best for us, complain. So why should we complain. We always want the sunshine, But He knows there must



#### Gabrielle 2019

Little girl in critical condition after violent Waterboro crash



Little Gabrielle Kennedy had to be taken by helicopter to Maine Medical Center, where authorities say she is in critical condition. (Troy Kennedy)

Let's take a moment of silence as we remember countless precious ones gone too soon.

2/27/2021

# Reintroduction of the STOP Underrides Bill

## Lois Durso-Hawkins

A B To reduce the number of pre caused by underride cr carrier and passenger motor other purposes.

IN THE SENATE OF THE U MARCH 5, 201 Mrs. GILLIBRAND (for herself, Mr. RU Mr. MARKEY, Ms. DUCKWORTH, Mr. UDALL, and Mrs. FEINSTEIN bill; which was read twice and on Commerce, Science, and T

To reduce the number of preventable dea caused by underride crashes, to im carrier and passenger motor vehic other purposes.

S. 665



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e deaths and injuries o improve motor ehicle safety, and for

#### PRESENTATIVES

2019 ESAULNIER) introduced the ferred to the Committee on cture

#### ILL

ventable deaths and injuries ashes, to improve motor motor vehicle safety, and for

Other P-

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## The **STOP** Underrides Act

- Strengthen the requirements for rear underride guards, add the requirement to single unit trucks and ensure that these standards are based off of crash testing
- Require all new trailers, semi-trailers, and single unit trucks are equipped with side guards
- Require all new trailers, semi-trailers, and single unit trucks are equipped with front guards

2/27/2021

The bill would update the annual inspection that all motor carriers perform to include underride guards as one of the critical components of inspection, and require the DOT to review underride standards every five years to evaluate the need for changes in response to advancements in technology.

#### Vulnerable Road Users are also at risk

#### Motorcyclist suffers garbage truck

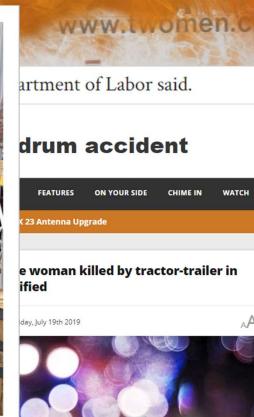


#### Pedestrian Hospitalized After Tractor Trailer In West Melbou

By Space Coast Daily // July 18, 2019 INCIDENT HAPPENED ON WEST HAV









#### Underride can happen under any part of the truck

SCHOOL BUS

262

MCLANE

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SIRU 947 33 9

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NERNEDAL

## Head-On Underride

Iruck Rental

GoPenske.com 1-800-GO-PENSKE

OR at several

## It can happen in a head-on crash or when a truck rear-ends a car

2/27/2021

#### **Front Underride**



Head-on collisions between trucks and cars are deadly encounters for auto occupants. Researchers report that nearly twothirds 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 (ront 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* tocuses on research findings presented at the Twelfth International Technical Conference on Experimental Safety Vehicles in Goleborg, 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, NRD-01, 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-(Cont'd on Page 3)



## Single Unit Trucks Single unit trucks are not required to follow the Federal standard

Household & Business Re

5 4

61



62

## New York Garbage Truck Underride



#### Single Unit Trucks are exempt from federal underride regulations.

#### The **STOP** Underrides Act

would establish a committee, to monitor the underride rulemaking process, that is composed of: manufacturers, road inspectors, motor vehicle engineers/technicians, motor vehicle crash reconstructionist specialists, traffic safety organizations, truck and auto insurance industry representatives, law enforcement crash investigators, emergency medical service providers, public health/injury prevention professionals, and families who have been impacted by underride crashes.

2/27/2021

# **Rear Guards Update**

## Thanks to IIHS tests, trailer manufacturers have improved their underride guards.

# Rear Guards Update: Sean O'Malley, IIHS, Senior Test Coordinator

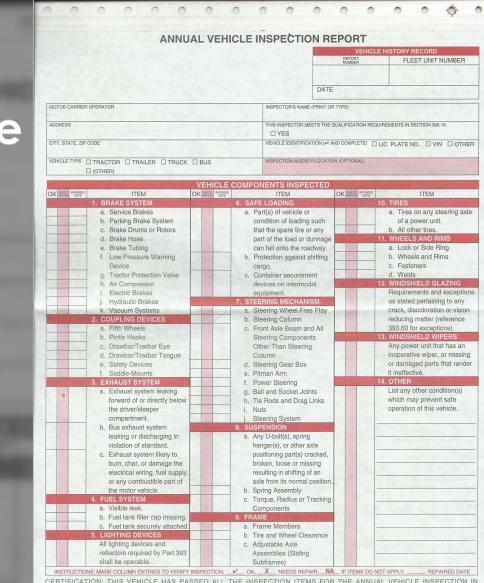
# Rear Guards Update: Rulemaking Call to Action

While the FMCSRs have required rear impact guards for more than 65 years, they are not included on the list of components in Appendix G that must be inspected during the annual CMV inspection. This means that a vehicle can pass an annual inspection with a missing or damaged rear impact GUCIC. https://public-inspection.federalregister.gov/2020-27502.pdf

2/27/2021



#### **Guard Maintenance** is not on the CMV **Annual Inspection** Checklist



CERTIFICATION: THIS VEHICLE HAS PASSED ALL THE INSPECTION ITEMS FOR THE ANNUAL VEHICLE INSPECTION IN ACCORDANCE WITH 49 CFR PART 396.

FMCSA Proposed Rule for Inspection of Rear Underride Guards: Comments Due By March 1, 2021

# Rear Guards Update: Retrofit Options

**Utility** "is pleased to announce its dry vans, refrigerated vans and flatbeds produced after 2002 can be retrofitted with Utility's standard 7" deep horizontal Interstate Commerce Commission (I.C.C.) bumper... "Utility strongly recommends their 7" deep horizontal bumper for horizontal bumper replacement on new or older Utility trailer models that were built after 2002 in order to exceed all rear trailer guard safety regulations.

Utility will discount the new bumpers as an incentive to replace the old bumpers with the new upgraded 7" deep bumper...

"...is also I.I.H.S. certified and TOUGHGuard awarded. TOUGHGuard awards trailers with guards that prevent underride in all three of the institute's rear underride tests ... Utility Implements Standard 7" Rear Impact Guard on All Trailer Models

#### Thankfully, there are many RIG retrofit solutions available. This is what I know. .

2/27/2021

## Great Dane Trailers has a <u>retrofit</u> solution.

2/27/2021

## Stoughton Trailers has a <u>retrofit kit</u>.

2/27/2021

Vanguard Trailers and Manac Trailers have the improved guard available for sale.

#### I don't have information about retrofit options for the other trailer manufacturers.

2/27/2021

TrailerGuards offers a generic Rear Impact Guard (RIG) Retrofit out of aluminum which can be installed on most any model of trailer.

#### Update from Aaron Kiefer on his underride research



#### See it crash tested here at 38 mph. https://www.youtube.com/watch?v=pFFXMWSDBFw

#### SAFETYSKIRT<sup>TM</sup> www.TrailerGuards.com

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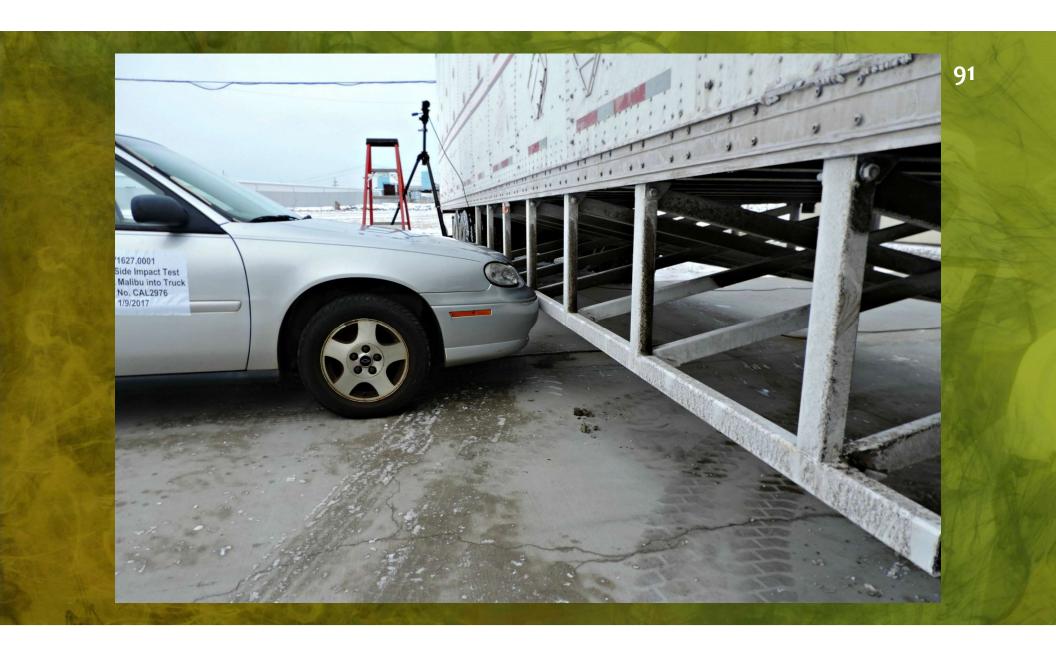






https://www.youtube.com/watch?v=Ofw9xSoWwu8&feature=emb\_logo

## Side Underride Update



### Side Underride Update Perry Ponder, AngelWings

### Side Underride Update Clenn Berry, Thomas Transport

#### Side Underride Update Ferdinand Heres, Heres Transport

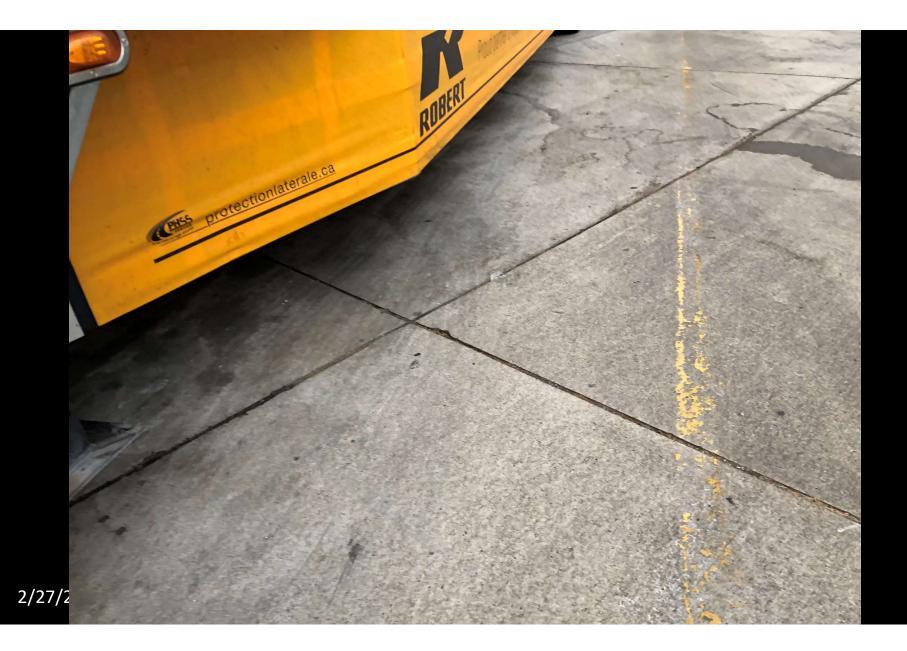
#### Side Underride Update Richard Camden, Prest Xspress

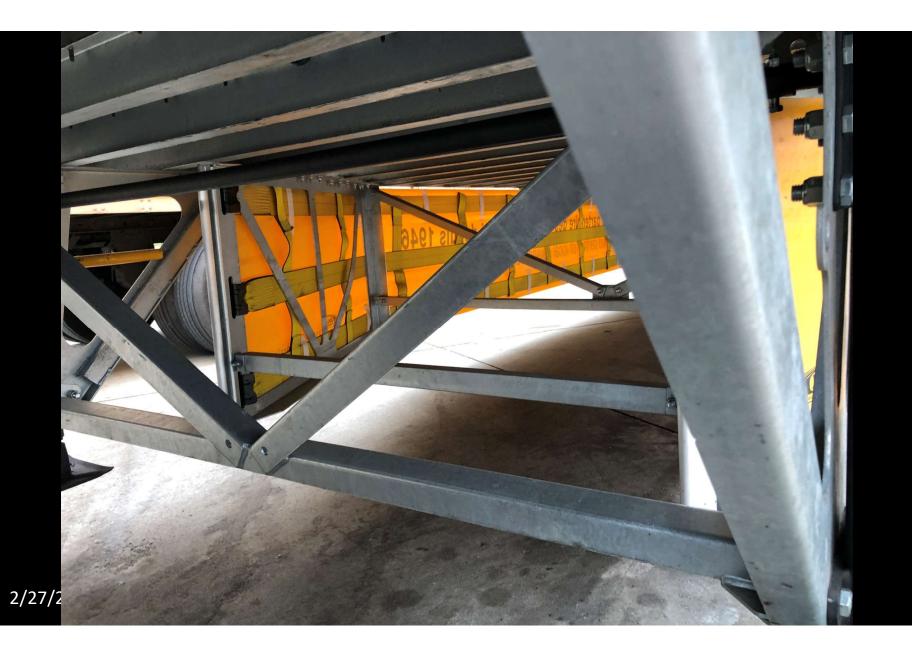
### Side Underride Update Vicky Bilodeau, PHSS Fortier













#### Subcommittee Reports

#### Industry Engagement Lois Durso-Hawkins

#### **Side Guard Pilot Program**

Purpose: Address potential operational issues in the use of side guards.

Weight of Side Guards:

- Effect on fuel cost
- Effect on trailer's frame

#### **Road Clearance:**

- Ability to navigate loading docks
- Ability to clear rail grade crossing

**Effects on Under-Trailer Equipment/Access:** 

- Do side underride guards limit access to or displace equipment?
- Do side underride guards inhibit inspection of vehicle

Track trips & mileage. Report any collisions with passenger vehicles or VRUs.

2/27/2021

#### **Research Subcommittee**

# How often does underride happen?

2/27/2021

#### STATUS INSURANCE FOR HIGHWAY SAFETY REPORT

Vol. 27, No. 9

#### **Death Count May Be Too Low**

How often do cars and other passenger vehicles slide into and under the rear of big truck rigs, killing the people in the passenger vehicles? Underride crashes may happen more than twice as often as the National Highway Traffic Safety Administration (NHTSA) recognizes.

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Institute researchers analyzing NHTSA data files have discovered that many states don't identify any fatal rear-end truck crashes as involving underride. These omissions lead researchers to conclude that many more deaths may be occurring in underrides than the average of 72 annually that NHTSA recognizes.

In California, for example, 24 percent of all 1989 passenger vehicle occupant deaths that occurred in rear-end truck and parked vehicle crashes are identified in NHTSA data files as involving underride. But, in 36 states and the District of Columbia, not a single one of the 400 passenger vehicle occupant deaths in such crashes is identified as involving underride. (See table on page 2.)

Institute researchers scrutinized police reports for the 1989 California crashes identified as underrides and verified them as such. "It's more than likely a coding problem that's keeping more crashes nationwide from being properly identified as underrides," says Institute President Brian O'Neill. Police reports don't always include enough information to determine whether individual crashes involve underride, so the crashes don't get coded as such in NHTSA's data system. As many as 151 deaths in underride crashes may be occurring each year not the 72 NHTSA recognizes — if the proportion of underride crashes in California holds true for the nation as a whole.

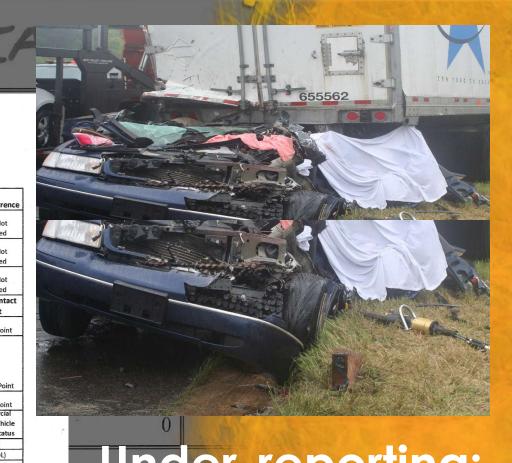
July 11, 1992

"If underrides are underreported, and it appears they are, then it's all the more reason to get on with federal rulemaking for improved underride guards." O'Neill says. NHTSA's recent proposal to require lower, stronger guards on truck trailers is the agency's sixth announced plan to upgrade a 1953 underride regulation that's still in force. Proposals were issued then abandoned — in 1967, 1969, 1970, 1977, and 1981. (See Status Report, Vol. 27, No. 2, Feb. 8, 1992.)

Referring to the likely underreporting of underrides, the Institute says NHTSA should amend its data-gathering processes to more accurately identify such crashes. Plus, Institute researchers have identified the following shortcomings in NHTSA's proposed underride guard requirements:

Guards Too High The proposed 22inch maximum ground clearance for rear underride guards is preferable to the 30 inches now allowed, but it's still way too high. It'll fail to prevent many underrides and won't take full advantage of automobile safety technology like air bags, the Institute says. A 20-year-old NHTSA

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			Passenger Vehic	le Compartment Intru	sion? Total		
	éear by Init o <del>n the Lar</del> o		ompartment	No Comp	partment		
2011	Ļ						
2012			FATAL MOTOR V	BLE LISTING OF CASE # EHICLE TRAFFIC CRASH ITY ANALYSIS REPORT	ON MAY 4, 2013	IN GREENSBORO,	GA
		Extent of	Vehicle		Related Factors-	Related Factors-	1
	Ĩ	Damage	Removal	Most Harmful Event	Vehicle Level	Vehicle Level 2	Fire Occ
2013	ļ	Disabling Damage	Towed Due to Disabling Damage	Motor Vehicle In- Transport	None	None	No o Repo
	2	Disabling Damage	Towed Due to Disabling Damage	Motor Vehicle In- Transport	None	None	No o Repo
2014	Ì	Disabling Damage	Towed Due to Disabling Damage	Motor Vehicle In- Transport	None	None	No o Repo
	2	Emergency Use	Travel Speed	Underride/Override	Rollover	Location of Rollover	Initial ( Po
2015	Ť	Not Applicable	Not Reported	No Underride or Override Noted	No Rollover	No Rollover	1 Cloc
	-			Underriding a Motor Vehicle In-Transport, Underride, Compartment Intrusion			
1994-		Not Applicable	Not Reported	Unknown	No Rollover	No Rollover	11 Cloc
2015		Not Applicable	Not Reported	No Underride or Override Noted	No Rollover	No Rollover	6 Cloc
	2	Driver Presence	Driver's License State (FARS Only)	Driver's ZIP Code	Non-CDL License Status	Non-CDL License Type	Motor
		Yes	California	90025	Valid	Full Driver License	Va
		Yes	North Carolina	27804	Valid	Full Driver License	No (
	1	Yes	Florida	34420	Valid	Full Driver License	Va Va



### Under-reporting: a major problem

file:///U:/ Eas

is report was a

#### <sup>7</sup>ehicle Compartmen c Int



110

## nder-reporting: major problem

I	ndiana	FARS Passenger Vehicle Compartment Intrusion?									
Crash Year by	Initial Impact Point on Large Truck	Compartment Intrusion	No Compartment Intrusion	Compartment Intrusion Unknown							
	Rear	0	0	1	1						
	Total	1	0	3	4						
2003	Rear	1	0	0	1						
	Total	1	0	0	1						
2004	Left Side	0	0	1	) 1						

Koya

FULL FIELD DATA DUMP OF 2004 FARS CASE 180748 - VEHICLE FILE FATAL MOTOR VEHICLE TRAFFIC CRASH OCCURRING ON NOVEMBER 24, 2004 IN INDIANA THE CRASH INVOLVED A BMW AND A TRUCK TRACTOR 2004 FATALITY ANALYSIS REPORTING SYSTEM (FARS) - FINAL

ST_CASE	VEHICLE #		VIN_1	VIN_2	VIN_3	VIN_4	VIN_5	VIN_6	VIN_7	VIN_8	VIN_9	VIN_10	VIN_11	VIN_12	STATE	OCCUPANTS	MAKE	MODEL	BODY TYPE
180748	1	WBABN33441JW	w	В	A	В	N	3	3	4	4	1	1	w	Indiana	2	BMW	34	2dr Sedan/HT/Coupe
180748	2	1FUJBBCK94LN	1	F	U	1	В	в	С	к	9	4	L	N	Indiana	1	Freightliner	883	Truck/Tractor

**Crash** Y

ST_CASE		REGISTRATION STATE			JÁCKKNIFE		HAZARDOUS CARGO			NUMBER OF AXLES	CARGO BODY TYPE	SPECIAL USE	EMERGENCY	
180748	1	Illinois	Driver Not Owner	No Rollover	Not Articulated	Unknown	No	No	Not Applicable	Not Applicable	Not Applicable	No Special Use	No	CI
180748	2	Multi-In State	Business or Govt	No Rollover	No	Unknown	No	Yes/1 Unit	Tractor/Semi	5	Van/Enclosed Box	No Special Use	No	(

ST_CASE		PRINCIPAL IMPACT		DEFORMATION	VEHICLE ROLE	MANNER LEAVING SCENE			FACTOR		CRASH AVOIDANCE MANEUVER	HARMFUL	FATALS IN VEHICLE	EVENT 1
180748	1	Clock 12	No Under/Override	Disabling	Striking	Towed Away	No Fire	None	None	Going Straight	No Maneuver	Veh in Transp	1	Veh in Transp
180748	2	Clock 3	No Under/Override	Disabling	Struck	Towed Away	No Fire	None	None	Going Straight	No Maneuver	Veh in Transp	0	Veh in Transp

ST_CASE	VEHICLE #		EVENT 3	EVENT 4	EVENT 5	EVENT 6	VIN	BUS USE	GVW RATING	VEHICLE			VIN SERIES TRUCK	VIN_BT	MOTOR CARRIER ID	TRUCK FUEL CODE	WHLBASE SHORT-AUTO	
180748	1	Unknown	Unknown	Unknown	Unknown	Unknown	17	Not Used a Bus	Not Applicable	BMW 3-series	2001	5Cl	***	СР	000000000000000000000000000000000000000	*	1073	
180748	2	Unknown	Unknown	Unknown	Unknown	Unknown	17	Not Used a Bus	26,001 or more	FRHT COE hi ent	2004	ST2	CON	DS	5780806	D	9999	

ST_CASE	VEHICLE #	CC DISPLACEMENT		TRUCK WEIGHT CODE	DRIVER	DRIVER	LICENSE			COMM MV LICENCE STATUS	COMPLIANCE W/LIC ENDORSEMENTS	LICENCE TYPE		VIOLATIO
180748	1	0	3252	0	Driver Operated	No Drinking	Illinois	Full License	Valid	No (CDL)	No Endorsements	Valid	No Restrict,N/A	Non
180748	2	0	0	8	Driver Operated	No Drinking	Michigan	Full License	Valid	Valid	No Endorsements	Valid	Complied	Non

FIELD DATA DUMP OF 2016 FARS CASE 120918 - VEHICLE FILE L MOTOR VEHICLE TRAFFIC CRASH OCCURRING ON MAY 7, 2016 AT 4:40PM IN FLORIDA CRASH INVOLVED A TESLA AND A TRUCK TRACTOR FATALITY ANALYSIS REPORTING SYSTEM (FARS) - FINAL

ecutive			Underride/Override	Rollover	Location of Rollover	Impact - Initial	Extent of	and the second second second	Most Harmful Event	Related Factors	Factors	Fire Occurrence	and the second sec	Driver License State	Driver ZIP Code	Non-CDL License Status	License
120918	1	035 MPH	No Underride or Override Noted	No Rollover	No Rollover	9 Clock Point	Functional Damage	Not Towed	Motor Vehicle In-Transport	None	None	No or Not Reported	Yes	Florida	34684	Valid	Full Driver License
120918	2	065 MPH	No Underride or Override Noted	No Rollover	No Rollover	12 Clock Point	Disabling Damage	Towed Due to Disabling Damage	Motor Vehicle In-Transport	None	None	No or Not Reported	Yes	Ohio	44705	Valid	Full Driver License

#### Joshua Brown Tesla Side Underride Crash

2/27/2021

### Under-counted and under-reported

- Inconsistency in police reports
- No checkbox for underride in police reports
- Poorly understood by law enforcement
- Looking for reason for crash not reason for fatalities.
- Looking at driver behavior instead of dangerous design of trailer.
- Lack of awareness
- Well-documented inaccuracy of data

### **GAO Truck Underride Report**

... these fatalities are likely underreported due to variability in state and local data collection... As a result, NHTSA may not have accurate data to support efforts to reduce traffic fatalities.

### Underride Cost Benefit Analysis Study

### University of North Carolina Gillings School of Global Public Health Kristen Hassmiller Lich

### Protecting Passenger Vehicles from Side Underride with Heavy Trucks Garrett Mattos

### Underride Literature Review Virginia Tech

### Engineering Subcommittee

**Consensus Side Guard Standard** Front Underride Protection Panel

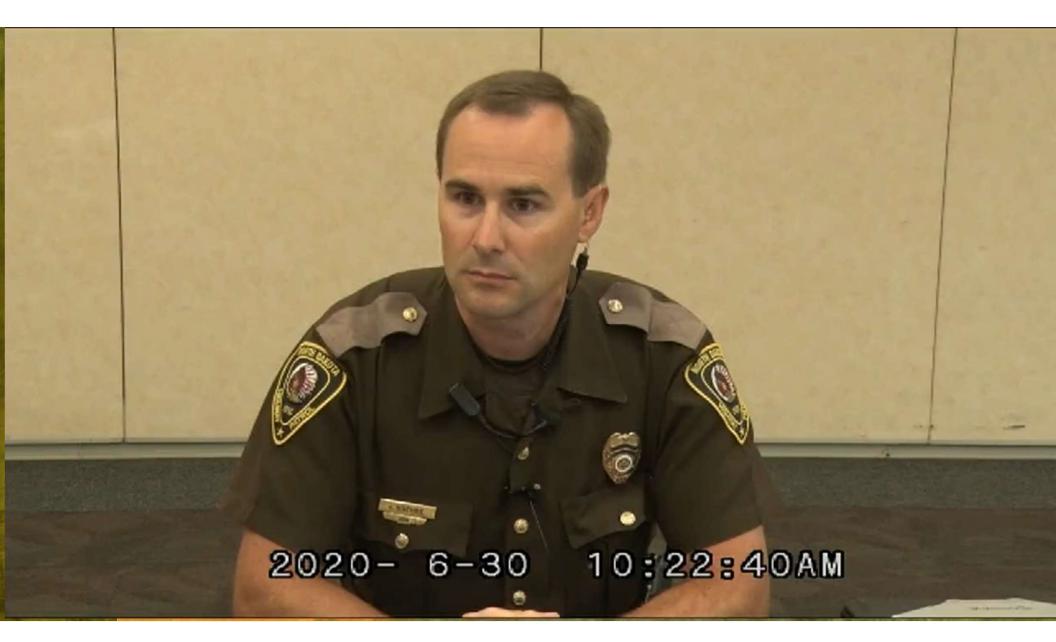
Consensus Side Guard Standard Malcolm Deighton & Jared Bryson

#### **Consensus Side Guard Standard**

A side underride guard shall be considered to meet the performance standard if it is able to provide vehicle crash compatibility with a midsize car, to prevent intrusion into the occupant survival space, when it is struck at any location, at any angle, and at any speed up to and including 40 mph.



#### Front Underride Protection Panel Andy Young, Iain Knight, Aaron Kiefer, Keith Freidman, George Rechnitzer



# The front of a truck can go over a car

Hyundai

Sonata

irce: Oklahoma State Poli

Ford

Windstar

Kia

Spectra



#### **Front Underride Protection Crash Test**



Action Items Consensus Side Guard Standard Underride Petition to Secretary of Transportation

### Underride Petition to Secretary of Transportation

https://annaleahmary.com/wordpress/wp-content/uploads/2021/02/Petition-for-Comprehensive-Underride-Supplemental-Rulemaking.pdf

### Underride Hero Hall of Fame



### **Consensus Side Guard Standard**

2/27/2021

### Trailer makers said they were prepared to adjust to any mandate.

"We do not currently offer this feature. Like other manufacturers, we have looked at the concept but have not yet found a way to make them commercially viable," Glenn Harney, chief sales officer at Hyundai Translead, told Transport Topics.

#### If the government makes them mandatory, we would, of course, do our best." Use of side guards will have to emerge from regulations, "or else the playing field won't be level, and no one is going to accept it," said Charles Willmott, chief sales officer at trailer maker Strick Group. Highway Safety Institute Backs Side Underride Guards for Trailers, Transport Topics, May 11, 2017

The New Mexico Supreme Court explained, "[w]e hesitate to embrace a standard that would allow an industry to set its own standard of reasonable care and to determine how much product related risk is reasonable." ON AND ORDER, Hauck vs Wabash National, February 17, 2021

The government has not yet made side guards mandatory. But we know that, in 2002, the industry anticipated side guard regulations. They are not here yet, but we know they are coming.

### Side guard regulations are not here yet, but we have now provided you with a Consensus Side Guard Standard.

### Can you grab the baton and do your best to finish the race so that no more lives are lost?

IIHS came up with the TOUGHGuard standard for the rear, and you responded beautifully. We are hoping that you will do the same with this Consensus Side Guard Standard.

Instead of waiting for government regulations, take this standard -- as is or improve upon it. Then, make it the TTMA standard for side guard excellence.

By coming together in a joint agreement on side guards, you, - the trailer manufacturers – can act now to level the playing field yourselves.

### Strategic Goal: Get side guards installed on all new trailers.

# (Just like you're doing with TOUGHGuard!)

By the TTMA Summer Meeting, on July 20, 2021, announce either a jointly-developed generic side guard design OR the development of a side guard design by each trailer manufacturer. Discuss the Consensus Side Guard Standard at the TTMA Annual Conference in San Antonio, on April 7-10, 2021. Take on the mantle of leadership to provide side underride protection and discuss the CSGS during the Engineering Subcommittee meeting, in the San Juan Room, 2-4:30 p.m. Adopt the Consensus Side Guard Standard or improve upon it. Next day: Discuss it at the TTMA Board meeting.

In the following nine months, develop prototypes, crash test them, and install side guards on trailers in order to carry out a field study to assess operational issues.

By the TTMA 80th Anniversary Annual Conference, on April 27-30, 2022, announce via a Press Conference that every manufacturer is ready to offer, as a standard feature, side guards on all new dry van trailers.

Show the world that you care about saving lives.

Make it a landmark year.

Discuss the Consensus Side Guard Standard at the TTMA Annual Conference in San Antonio, on April 7-10, 2021.

Take on the mantle of leadership to provide side underride protection and discuss the Consensus Side Guard Standard during the Engineering Subcommittee meeting, in the San Juan Room, April 8, 2-4:30 p.m.

Adopt the Consensus Side Guard Standard or improve upon it.

Next day, April 9: Discuss it at the TTMA Board meeting.

#### Get Side Guards Installed On All New Trailers

By the TTMA Summer Meeting, on July 20, 2021, announce either a jointly-developed generic side guard design OR

the development of a side guard design by each trailer manufacturer.

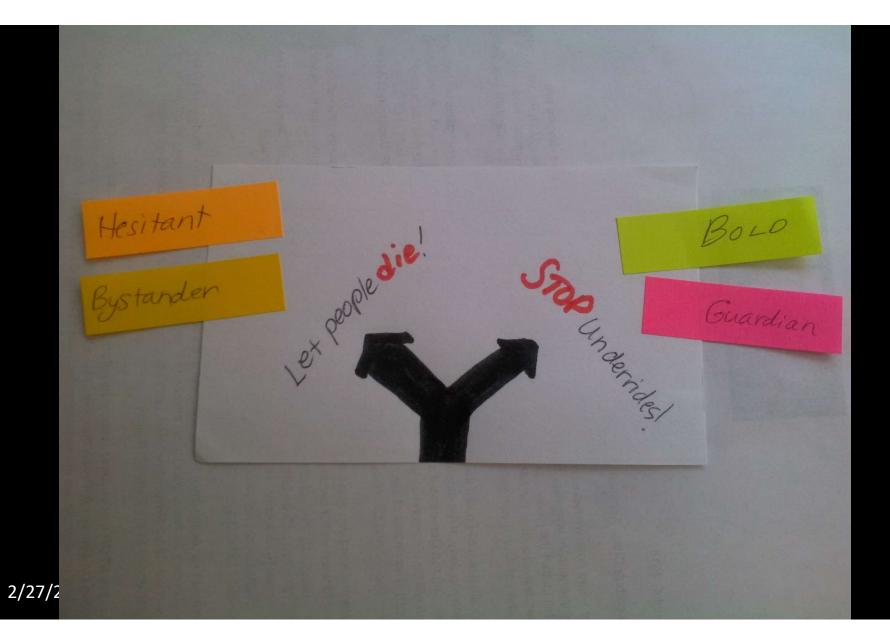
Get Side Guards Installed On All New Trailers By the TTMA **80th Anniversary Annual Conference,** on April 27-30, 2022, announce via a Press Conference that every manufacturer is ready to offer, as a standard feature, side guards on all new dry van trailers.

### Get side guards installed on all new trailers.

# Show the world that you care about saving lives.

### Make 2022 a landmark year.

We want to encourage you to move ahead of any government requirement into this safety marketplace that has been prepared for you.







## **Closing Remarks**

2/27/2021