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Safety Sidekick Newsletter

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As you know, to reach zero fatalities, all safety stakeholders must work together. One key partner in this effort is law enforcement. Therefore, this summer, the Safety Center will be focusing on how transportation agencies can work with their law enforcement partners. The first step was to meet some of our law enforcement partners at our exhibit during the 2017 National Sheriff's Association Conference in Reno, NV. We are also pleased to announce the creation of two new resources for communicating with our law enforcement partners. You can download these handouts [here](#) and [here](#). Lastly, please join us on August 1 for our webinar: Collaborating with Law Enforcement to Reach Zero. You can find out more about the webinar and register [here](#).

Sincerely,

Steve Albert
Director
National Center for Rural Road Safety
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Safety Center Update

Stakeholder Spotlight: Marie B. Walsh, PhD

This issue of the Safety Sidekick introduces you to Marie B. Walsh, Director of the Louisiana Local Technical Assistance Program at the Louisiana Transportation Research Center. Marie has been a member of the Stakeholder Team since the inception of the National Center for Rural Road Safety and a long time local road safety advocate.

Marie began her professional career in the environmental engineering field, and was involved with the environmental auditing and systems management field nationally before moving to the Louisiana Department of Environment Quality (LDEQ.) At the LDEQ she managed the Technical Services Program of the Air Quality Division. Performing a wide variety of tasks ranging from intensive emissions data collection and analysis, emissions

inventory development, tracking compliance performance measures, outreach and training to industrial and governmental organizations, and coordination with other parts of the LDEQ and with the Environmental Protection Agency. Marie recalls maintaining the technical library for the department and began working on electronic information resources before the internet was popularized.



Looking back, Marie believes that now we would call the work of the Technical Services Program a "multi-disciplinary," data driven approach to reducing toxic air emissions. We worked to improve and expand federal, state and local data collection to ensure that critical data elements were available to allow better problem identification and mitigation strategies. Extensive outreach and education of industry and community groups was necessary. Providing technical, data-laden information in a usable form to diverse user groups was a constant challenge. The parallels between that job and today's safety initiatives have become more apparent over time. But to Marie, safety has remained more challenging, and certainly more interesting.

The challenges involved with improving the processes that supported the functions of the Technical Services Program led Marie back to LSU where she began a PhD program in Human Resource Education and Work Force Development; structuring her coursework so she could learn about business process re-engineering and improvement, performance management, organizational development, leadership training, and workforce development.

Marie's link to the LTAP program evolved through her work with the East Baton Rouge (EBR) City Parish in the Quality and Employee Development Department. She was familiar with the LTAP Program through her work with the EBR Public Works, where they had often hosted LTAP classes in their training facility. Marie was fortunate enough to hear about the Director position and was hired at LTAP 2004.

Marie shares how she become involved in safety as it relates to the transportation field.

"I attended my first TRB meeting in January of 2004, five days after I started with LTAP. I went to every session that remotely related to local roads, low volume roads, safety and workforce development. The safety ones were the most interesting and compelling. I returned to Baton Rouge with questions as to why Louisiana did not have a local roads safety program and closer to home, why our Louisiana LTAP didn't teach road safety classes or offer safety technical assistance. When hurricanes Katrina and Rita devastated Louisiana in 2005 the LA DOTD was working on the first comprehensive Strategic Highway Safety Plan (SHSP). LTAP represented the locals (who were swamped with disaster recovery efforts) at the SHSP meetings. When the Local Road Safety Program was proposed for inclusion in the SHSP a leader was needed. Seeing the opportunity I volunteered and committed LTAP resources as well. My safety focus really began here. Through the following years I shamelessly advocated for inclusion of the local roads in Louisiana's safety programs and over times the Local Road Safety Program has moved closer to being integrated with the other state and local safety efforts."

"My work with our DOT safety office led to my participation in TRB and AASHTO Safety Committees and I am currently a member of the TRB ANB10 Transportation Safety Management Committee and chair its Towards Zero Death Subcommittee. I've participated in the national TZD Steering Committee as the NLTAPA Representative and also been the NLTAPA liaison to the AASHTO Safety Committees. When I was elected President of NLTAPA I promoted increased participation by all LTAPs in safety and made it a central focus of my leadership efforts."

We've asked Marie to share an example of a safety activity that she has been involved with that may be a best practice for others.

The Louisiana Local Road Safety Program in partnership with the DOT Safety Office has implemented processes to improve the quantity, quality and accessibility of local road crash, roadway characteristic and volume data. While not finished, excellent crash data is available in almost every part of the state and they are working on the other components. Using the data that is available they have prepared Crash Data Profiles for all 64 parishes. Concentrating on the top twenty (out of 64) parishes, where the vast majority of serious and fatal road crashes occur, they conducted training with the locals on the use of the parish profiles to identify priorities and develop road safety projects for application for funding or local implementation. These profiles are the basis for local road safety plans and are consistent with the process to select projects in the HSIP which is important for sustainability.

Marie leaves us with some practical thoughts- "Do what you can, where you are, with what you have. It's amazing what you can do in safety if you just get started. Each of these simple steps will lead local practitioners to a higher level of safety involvement and access to resources. Local and rural road safety has come a long way in the last 12 years. There are more people willing to help you and more resources than ever available. While money may be in short supply, it's often not the lack of finances that limit the success of beginning or even established safety programs. It's just as likely to be a lack of interest, understanding or commitment that impedes progress."

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Safety Center Blog

Roundabout Education ListServ Offers Peer to Peer Resources

The National Center for Rural Road Safety would like to share that a new ListServ has been created by a group of local public agency engineers across the United States who would like to promote the exchange of educational content and outreach strategies about roundabouts.

Effective roundabout education at the grass roots level can make a positive difference to reduce common non-injury crashes we have become accustomed to witnessing at many roundabouts in and around our communities. It is the hope that the ListServ will help improve awareness about roundabouts to reduce confusion, improper navigation, and the misconception that roundabouts are dangerous.



The group welcomes ListServ membership from interested DOT and local agency engineers, law enforcement, professional driving instructors, elected officials, etc. If you desire to be included in this ListServ, send an email to Mark McCulloch at mccullochm@wcroads.org and he will have you added to the list. If you ever want to disconnect from the ListServ, send a message to the same email address asking to be removed.

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Safety Culture

David P. Brand First Recipient - NACE David P. Brand Safety Award

Reprinted from the NACE News, May 2017

With local road safety at the forefront of our mission,

NACE is pleased to announce that David P. Brand is the first recipient of the David P. Brand Safety Award. The award was presented at the NACE annual banquet on April 12 in Cincinnati, Ohio.

Chris Bauserman, Delaware County Engineer and a longtime peer and friend of Dave's, presented the award to Dave's widow, Julie Brand. Dave's daughter and son, Sophie and Andrew, also attended the event. "Dave was NACE's "go-to" guy on all things related to local road safety," commented Chris. "He knew the FHWA Safety staff personally, and, though always respectful, he was sometimes a thorn in their side. "When FHWA began to cite statistics on decreasing fatalities on our nation's highways, Dave repeatedly reminded them that fatalities were increasing on our local roads. "I am convinced that the current and previous Federal Highway legislation's pertaining to local road safety programs were influenced by Dave Brand's tireless advocacy. Dave's legacy is a life that inspires each of us to be passionate about our work and about life."

Throughout his career, Dave, Madison County Engineer, Ohio, was a champion of local road safety. He was the chair of the NACo Highway/Highway Safety Subcommittee, which was significant in that he led, as a County Engineer, a committee comprised primarily of County Commissioners.

Dave was recognized by FHWA Deputy Administrator Greg Nadeau for his work on the Every Day Counts (ECD) initiative during the 2013 NACE Annual Banquet. Brand was also commended for his success on the Safety Edge program, for which he led the 3 year process involving federal, state and local stakeholders.

Dave had represented NACE on numerous national roadway safety initiatives, including the Center for Excellence in Rural Safety (CERS), the National Local Technical Assistance Program Association (NLTPA) Roadway Safety Working Group, the Every Day Counts (EDC) Safety Edge Team, Toward Zero Deaths (TZD), and the National Center for Rural Road Safety.



L-R: NACE President Brian Stacy, Julie Brand & Awards Committee Chair Richard Spraggins



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Road User

Vermont Agency of Agriculture- Share the Road with Farmers: Be

Alert. Be Patient. Be Kind.

Source: Vermont Agriculture Agency, June 14, 2017

Be alert. Be patient. Be kind. That's the message state officials are sending to Vermont drivers this season, as farmers return to the roads with tractors and heavy equipment. The Agencies of Agriculture, Transportation, and Department of Public Safety have teamed up to create a new public safety message that reminds Vermonters to take extra care on the roads. They are sharing the PSA with Vermonters on social media, in an effort to build awareness for rural road safety.

View the PSA [here](#) .

"Farmers are working hard to grow our economy, and keep Vermont beautiful," according to Anson Tebbetts, Vermont's Secretary of Agriculture.

"Sometimes they need a little extra patience and care from fellow drivers - let's give it to them."

"Living in Vermont means living among our beautiful farms. Farmers are our neighbors, friends, and co-workers," added Tom Anderson, Commissioner of Public Safety. "We're asking all motorists to put safety first. Slow down, be patient and courteous, and enjoy the scenery."



Ryan Carabeau is a farmer from Richmond who worked with the state to produce the PSA. He says he understands drivers can feel frustrated and confused when they encounter tractors on the road. He hopes the PSA will serve as a reminder to Vermont motorists to be careful.

"I've had a few close calls over the years with impatient and distracted drivers," he says. "It can be scary."

"Attention, patience, and kindness are key to living and driving in rural communities," says Tebbetts.

Here are some specific actions motorists should take when they approach a tractor on the road:

1. **Slow down:** The first thing you should do is slow down. Remember, the top speed for most tractors is 20mph. Slow down and give yourself the time and space to assess the situation.
2. **Pay close attention:** You should always give the road 100% of your attention - especially when approaching farm equipment.
3. **Don't get too close:** Give the farmer some space. Do not tailgate - it causes stress and distraction.
4. **Don't pass until it is safe:** Wait for a safe opportunity to pass. When it's all clear, it's OK to pass a tractor, as long as you do so safely!
5. **Be alert for turns:** Look for turn indicators, like hand signals and blinkers from the drivers. Farm machinery makes wide turns. Sometimes tractors will turn directly into fields - no driveway needed. Be especially alert for left hand turns. The left-turn collision is the most common type of farm machinery collision on public roads. It happens when the farm vehicle is about to make a left turn; meanwhile, the motorist behind the farm vehicle decides to pass.

Remember. Manure spreaders are our friends.

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Need to Identify Road User Needs to Reduce Crashes? The Human Factors Guidelines for Road Systems May Be What You're Looking For

TRB's National Cooperative Highway Research Program (NCHRP) Report 600: Human Factors Guidelines for Road Systems: Second Edition provides data and insights of the extent to which road users' needs, capabilities, and limitations are influenced by the effects of age, visual demands, cognition, and influence of expectancies.

The Human Factors Guidelines for Road Systems document focuses on road user needs, capabilities, and limitations. It has been designed to be an aid for highway designers and traffic engineers through presentation of factual information and insights from scientific literature to be used in complement with other existing sources of road design information, such as the Highway Safety Manual.

NCHRP Report 600 provides guidance for roadway location elements and traffic engineering elements. The report also provides tutorials on special design topics, an index, and a glossary of technical terms.

To download a PDF of NCHRP Report 600, click [here](#).

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Road

Roadway Safety Spotlight: Longitudinal Rumble Strips and Stripes

A roadway departure (RwD) crash is defined by the Federal Highway Administration (FHWA) as "a crash in which a vehicle crosses an edge line, a centerline, or otherwise leaves the traveled way." These crashes, comprising run-off-road (ROR) and cross-median/centerline head-on collisions, tend to be more severe than other crash types. In 2013, RwD crashes accounted for 59 percent of all motor vehicle traffic fatalities. There are a number of reasons a driver may leave the travel lane, including an avoidance maneuver, inattention or fatigue, traveling too fast with respect to weather or geometric road conditions. Over the past few decades, different engineering countermeasures have been proposed, implemented, and tested by various state and local agencies to mitigate RwD crashes. These countermeasures include, but are not limited to: installation of longitudinal rumble strips and stripes, elimination of shoulder drop-offs, enhancement of pavement markings, and removing and relocating objects within roadside clear zones. Longitudinal rumble strips include a series of milled or raised elements on the pavement. Tires rolling over rumble strips generate noise and vibration which alert a distracted or drowsy driver to make a safe steering correction. Centerline rumble strips and shoulder rumble strips are examples of applications that can be implemented on two-lane roads.

Centerline Rumble Strips

Centerline rumble strips (CLRS) are a longitudinal safety feature that can be installed at or near the centerline of undivided roadways (Figure 1). The CLRS can be implemented by means of a single or double line of rumbles. It should be noted that the centerline pavement markings are typically installed on the rumble strips, which are also known as centerline rumble stripes. The CLRS are typically used as a treatment to reduce the single-vehicle RwD crashes and multi-vehicle cross-centerline crashes, which are some of the most severe crash types.



Figure 1: Sample of Installed Milled CLRS (Image: Neal Hawkins)

Additionally, the CLRS help drivers keep the vehicles within travel lanes in poor-visibility conditions such as rain, fog or snow. In 2012, longitudinal rumble strips and stripes on two-

lane roads became one of the FHWA's nine proven safety countermeasures. Moreover, the FHWA developed some recommendations on CLRS installation, accommodation, and mitigation. According to the National Cooperative Highway Research Program (NCHRP) report results, the number of head-on fatal and injury crashes dropped by 44 percent and 64 percent for rural two-lane roads and urban two-lane roads, respectively.

Shoulder Rumble Strips

Shoulder rumble strips (SRS) are usually installed in paved shoulders that are adjacent to the travel lane (Figure 2). Similar to CLRS, SRS provide acoustical and vibrational warnings to drivers who are straying from their travel lane. To enhance the visibility or accommodate narrow shoulder conditions, SRS can be painted with edge line markings, commonly known as edge line rumble stripes. Installation of SRS on two-lane roads is on FHWA's most recent proven safety countermeasures list. According to survey results from 50 state departments of transportation (DOTs), the benefit-to-cost ratio for SRS was estimated to be approximately 50:1. Moreover, based on the [NCHRP Report 641: Guidance for Design and Application of Shoulder and Centerline Rumble Strips](#), installation of SRS on rural two-lane roads reduces the number of run-off-road fatal and injury crashes by nearly 36 percent.



Figure 2: Sample of Installed SRS in Washington State (Image: FLG)

Regarding rumble strip maintenance, it should be noted that all rumble strips are typically self-cleaning. It means that snow/ice/rain or sand do not usually remain for any length of time due to the wind caused by passing vehicles. Moreover, milled rumble strips typically need little to no maintenance. To be specific, several state DOTs (e.g., Missouri DOT, Pennsylvania DOT, South Carolina DOT, and Washington DOT) reported no use of preventative maintenance techniques on their rumble strips.

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South Carolina Department of Transportation Unveils Rural Road Safety Program

Source: South Carolina Department of Transportation

Secretary of Transportation Christy Hall has presented a plan to begin a reduction in the high death toll on South Carolina's roads should new funds become available. The presentation was made at the monthly meeting of the South Carolina Department of Transportation (SCDOT) Commission meeting held Thursday, January 19 in Columbia.



Hall told Commissioners that improving safety on roads in the rural areas of the state should be the top priority for any new funding. She said, "South Carolina has the deadliest roads in the nation. Nearly 30% of our rural fatal and serious injury crashes take place on just 5% of our highway system outside of our urban areas." Hall noted that "Our Interstate highways and US primary routes in our rural areas are the deadliest roads in the state."

The Secretary suggested that \$50 million per year would be a good start in reducing highway deaths on these roads in the rural areas. Hall proposes targeting nearly 2,000 miles (1,957) of these roads with solutions tailored for those particular corridors. Those solutions include rumble strips, raised pavement markings, high reflective signs, wider pavement markings, guardrail, specialized pavement treatments, wider shoulders, paved

shoulders, wider clear zones adjacent to the roadways and relocating drainage ditches further away from roadways.

Hall added that improving safety on roads in our rural communities, and all highways, will require everyone's cooperation, including state and local law enforcement and drivers as well. "If all of us work together and do our part, we can make South Carolina's roads safer," Hall said.

The visuals used by Secretary Hall for the Rural Road Safety Program presentation are available [here](#).

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FHWA Launches Roadway Safety Hardware Microsite

The Federal Highway Administration (FHWA) has created a new microsite to provide a central resource for information about roadside safety hardware, including guardrails. The site contains state guardrail data, including preliminary data from an In-Service Performance Evaluation (ISPE) Pilot Program (2015-2019). To visit the microsite, click [here](#).



Photo Source: FHWA (2009)

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Upcoming Trainings and Events

Upcoming Safety Center Webinars

July 2017 - How to Address Roadway Safety Issues for ATVs and Other Off-Road Vehicles

Date: July 12, 2017

Time: 11:00 AM to 12:30 PM Mountain/1:00 PM to 2:30 PM Eastern

This webinar will provide an overview of the risk factors associated with deaths and injuries when riders take ATVs and Recreational Off-Highway Vehicles (ROVs) on the road. These include youth as a particularly vulnerable riding population, and the higher risk of traumatic death when crashes occur on rural versus urban roads. It will also include a discussion about the challenges and potential strategies related to raising public and stakeholder awareness of this widespread roadway safety issue.

To register for this webinar, click [here](#).

August 2017 - Collaborating with Law Enforcement to Reach Zero

Date: August 1, 2017

Time: 9:00 AM to 10:30 AM Mountain/11:00 AM to 12:30 PM Eastern

This webinar will provide an overview of the ways that transportation agencies can work with law enforcement to assist with efforts to reach zero fatalities. Law enforcement is a KEY safety stakeholder and efforts by both law enforcement officials and transportation practitioners would be even more effective through coordination and collaboration.

To register for this webinar, click [here](#).

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Attending the 2017 National Local/Tribal Technical Assistance Program Conference?



NLTAPA

2017 National Conference
Portsmouth, VA

If you're attending this year's conference in Norfolk, Virginia, be sure to participate in the safety breakout sessions scheduled for Tuesday and Wednesday. On Tuesday, from 3:15-4:15 p.m. there will be a session on Urban and Rural Pedestrian Safety. Wednesday's program will run from 10:45 AM to 11:45 AM and will focus on Every Day Counts (EDC) Safety Initiatives. In addition, the Monday pre-conference afternoon session will be "Communicating Safety: Engaging Elected Officials and the Public".

For more information about the conference, click [here](#).

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What's Hot Off the Press?

MnDOT Releases Strategy Guide to Reduce Speed at Roundabouts

Minnesota Department of Transportation has released a [report](#) that provides a resource for engineers to identify and select appropriate speed reduction treatments for high-speed approaches to roundabouts.



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Ready Results Explores Overhead Sign Lighting

NCHRP Report 828: New Guidelines for Lighting Overhead Signs has a follow up [Ready Results](#) brief published which explores lighting for overhead signs in suburban and urban areas, where more complex road designs may make headlight illumination of overhead signs inadequate.



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AASHTO Releases Report on State Funding for Public Transportation

AASHTO has released *Survey of State Funding for Public Transportation- Final Report 2017*, based on FY 2015 Data. This is an annual report snapshot of state-by-state investment in public transportation. To purchase the report (\$10/member, \$13/non-member), please click [here](#).



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NCHRP Report Explores Crash Modification Factors for Uncontrolled Pedestrian Crossings

TRB's National Cooperative Highway Research Program (NCHRP) [Report 841: Development of Crash Modification Factors for Uncontrolled Pedestrian Crossing Treatments](#) quantifies the

safety benefits of four types of pedestrian crossing treatments-rectangular rapid flashing beacons, pedestrian hybrid beacons, pedestrian refuge islands, and advanced YIELD or STOP markings and signs-and presents a crash modification factor (CMF) for each treatment type.



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AAA Research Focuses on Rates of Motor Vehicle Crashes and Driver Age



Saving lives through research and education

The AAA Foundation for Traffic Safety has issued an updated [Research Brief](#) on Rates of Motor Vehicle Crashes, Injuries, and Deaths in Relation to Driver Age (United States, 2014-2015). The full report can be found [here](#).

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Have You Visited EMS.Gov Lately?

The National Highway Traffic Safety Administration's Office of Emergency Medical Services (EMS) has partnered with a multitude of organizations to collect resources that help EMS agencies understand ambulance crashes. The website EMS.Gov has a section located [here](#) with useful traffic safety information.



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