



## Newsletter

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### Greetings

□ By *Becky Crowe*, RSA Program Manager  
FHWA Office of Safety

On a regular basis you update us with positive results of how RSAs are making your roads safer. From law enforcement in New York, to new RSA policies in Georgia and Idaho, to Tribal nations in Wisconsin, RSAs are being used to drive down fatalities. If you are not using RSAs, I challenge you to consider how to incorporate RSAs in your safety management system; either through your Highway Safety Improvement Program, High Risk Rural Roads Program or Safe Routes to School Program. You should serve on an RSA team or engage planners, law enforcement, or Tribal nation representatives and consider how you can collaborate on an RSA. I know your efforts will lead to positive results.

As always, thank you for reading our newsletter and please let me know if we can assist you in any way to advance your RSA efforts.

For more information, please visit:

<http://safety.fhwa.dot.gov/rsa>

or contact **Becky Crowe**, RSA Program Manager  
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### Register for RSA Training

A special RSA Train-the-Trainer and Facilitator Workshop will be held June 6-8 in Las Vegas. The course will serve as a refresher on the basics of performing Road Safety Audits and instruct students on the roles and responsibilities of the RSA Team Leader. Attendees will learn what makes a good RSA team, how to coordinate an RSA team, and why the multidisciplinary approach is key. Attendees will learn about some of the challenges generally faced when performing RSAs and how to address them to ensure the successful completion of the RSA process.

The training is being offered by FHWA at no charge. For more information and to register, go to <https://www.seeuthere.com/register/m2c640-4M45E5ZYNKN6W>

To highlight your agency's RSA in the newsletter or to learn about upcoming RSA training activities contact:  
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U.S. Department of Transportation  
**Federal Highway Administration**



## RSA Focuses on Improving Safety for Law Enforcement and Emergency Responders

In February 2011, a Nassau County, New York police officer was fatally struck while conducting a routine traffic stop on the Long Island Expressway (LIE). To assess safety on this portion of the LIE, a Road Safety Assessment (RSA) was performed with a particular focus on identifying strategic corrective actions to enhance safety of law enforcement, emergency responders, and roadside assistance personnel.

A diverse team of individuals representing Federal, State, and local agencies conducted the three-day RSA in May 2011 on a 7.2 mile section of the expressway. The study corridor is an eight-lane roadway divided by a concrete median. Both the east and westbound directions have three general purpose lanes and one high occupancy vehicle (HOV) lane.

The New York State Department of Transportation (NYSDOT) provided the RSA team with collision information for incidents occurring between 2001 and 2011. Over the period reviewed, there were 29 incidents reported with one fatality and six incapacitating injury incidents. The majority of incidents occurred while conducting routine law enforcement, responding to distressed motorists, or conducting traffic mitigation for accidents or maintenance. The incidents occurred in both the median and shoulder in varying weather conditions.

The RSA identified several positive attributes of the LIE in addition to several opportunities to improve safety. Some positive



Horizontal curvature on a section of the LIE  
IMAGE COURTESY of FHWA NY Division Office

features include the generally good condition of the pavement, roadside guardrails, and signing. Additionally, traffic sensors and closed-circuit television cameras monitor congestion. Variable message signs are used to communicate traffic, weather, HOV, and safety information to drivers. The State has also implemented a number of recent campaigns to improve roadway safety, including "Move Over" legislation, the "Steer It, Clear It" program, and the Primary Cell Phone Law and Texting Law which prohibits the use of handheld cellular devices while driving.

The RSA team, in coordination with law enforcement participants, identified characteristics of "preferred" and "undesirable" locations to construct stops for enforcement purposes. The table below summarizes the characteristics identified by the group. The RSA team also recommended increasing officer visibility by enhancing police uniforms and considering rear-facing blue strobe lights on police vehicles. Another recommendation was to explore the use of automated speed enforcement to reduce travel speeds.

Other RSA team recommendations included: 1) improve or repair roadway lighting; 2) refresh or repaint pavement markings; 3) install reflectors on guiderails; 4) trim vegetation obstructing lighting or signage; and 5) correct edge drop-off conditions where applicable. Many of the low-cost recommendations, such as trimming vegetation, filling edge drop offs, and replacing reflective markers, have already been completed since the RSA was performed.

RSAs are a valuable tool that transportation agencies can use to evaluate road safety issues that are contributing to injuries and deaths, as well as to identify opportunities for improvement. The Long Island Expressway RSA is an example of how the process can be applied to responder safety.



Example shoulder "enforcement area" along Route 15 in Lucketts, VA  
IMAGE COURTESY of FHWA NY Division Office

| ENFORCEMENT AREA  |  |
|---|--|
| PREFERRED   | UNDESIRABLE  |
| <ul style="list-style-type: none"> <li>• Considerable separation from through traffic (e.g., shoulder next to merge lane)</li> <li>• Adequate sight distance for approaching motorists</li> <li>• No roadside barrier</li> <li>• Overhead roadway illumination</li> </ul> | <ul style="list-style-type: none"> <li>• Constrained separation from traffic (e.g., narrow shoulder, roadside barrier, overpass structures)</li> <li>• Inside of a curve with limited sight distance</li> <li>• Outside of a curve (potential tangent path for errant vehicles)</li> <li>• Lack of rumble strips</li> <li>• Sun glare (day) or dark areas (night)</li> </ul> |

For more information about the Long Island Expressway RSA, please contact:

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## Wisconsin DOT Partners with Tribes on RSAs

□ By Bill Bremer, Safety Engineer, FHWA Wisconsin Division (retired)



Roadway on the Red Cliff Reservation  
IMAGE COURTESY of Dan Nabors, VHB

The Wisconsin Department of Transportation (WisDOT) and the eleven Native American Indian Tribes in Wisconsin are partnering for the purpose of improving the lives of Native Americans living on reservations in Wisconsin. The partnering effort was started several years ago when WisDOT and the Tribes created a Tribal Task Force. Road Safety Audits (RSAs) of existing roads through the reservations was among the initial projects undertaken by the Task Force

The RSAs were the early impetus for developing tribal highway safety plans for the individual Tribes. The safety plans are being developed in three phases: 1) identification of issues; 2) mitigation strategies; and 3) implementation plans. The RSAs play an important part in the tribal safety plans. Information from the RSAs has provided the stakeholders at the safety plan meetings with valuable information on crash history and preliminary observations performed by the independent audit team. Stakeholder groups involved in the safety plan meetings include Tribal police, County Sheriff officers, WisDOT Region office staff,

educators, as well as Tribal leaders. The multi-disciplinary plans contain near-, mid-, and long-term infrastructure, public awareness/education, and enforcement improvement suggestions. The tribal safety plans will also complement the Wisconsin Strategic Highway Safety Plan and will offer local and regional strategies to address many of the statewide targeted safety issues.

WisDOT sponsored several of the initial Tribal RSAs in 2008 on roads within the Menominee and Mole Indian Reservations. The major safety issues identified and countermeasure recommendations from the RSAs included lane departure crashes, signing and delineation improvements, speed management strategies, non-motorized facility improvements, and access management improvements.

One of the lane departure recommendations was the use of the Safety Edge<sub>SM</sub> countermeasure. As a result of the RSA, the WisDOT North Central Region recognized an opportunity to incorporate a Safety Edge<sub>SM</sub> specification requirement into paving projects through the Menominee Indian Reservation using

Safety Edge<sub>SM</sub> equipment loaned by the FHWA Wisconsin Division office. These successful projects were the first two Safety Edge<sub>SM</sub> projects constructed in Wisconsin, and have led to additional pilot Safety Edge<sub>SM</sub> projects constructed in 2011, including on US 2 near the Bad River Indian Reservation.

Additional RSAs have been conducted, including on the Red Cliff Reservation on STH 13 and Blueberry Road, with financial and technical support provided by FHWA's Safety and Federal Lands Office, the WisDOT North West Regional office, the Tribal Technical Assistance Program at Michigan Tech University, and the Bureau of Indian Affairs. The RSA recommendations were incorporated into a 2010 improvement project constructed by the Northwest Region on a portion of STH 13 in the reservation, as well as improvements to the intersection with Blueberry Road, which is an important local corridor for the Tribe.

The value and accomplishments of Road Safety Audits have been well documented and highlighted at Tribal Safety Summits held every two years. The most recent Summit included a one-day RSA training class taught by the Michigan Tech TTAP staff.



Roadway on the Red Cliff Reservation  
IMAGE COURTESY of Dan Nabors, VHB

For more information about the Wisconsin RSA, please contact:

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## Idaho Using RSAs as a New Safety Tool

□ By Lance Johnson, Safety/Traffic/ITS Engineer, FHWA Idaho Division Office

On a daily basis highway agencies work to address potential safety issues on their facilities. A team in Idaho recently found the Road Safety Audit (RSA) process to be a valuable tool in this pursuit. Following a RSA training course, the Idaho Transportation Department (ITD) formed a RSA Team to review the intersection of SH-44 and Linder Road. The intersection comes under the jurisdiction of multiple agencies; SH-44 under ITD and Linder Road under the Ada County Highway District. The location was selected due to a high number of crashes and a planned maintenance project at the intersection.

The RSA team was comprised of individuals from the Idaho Transportation Department, the Ada County Highway District, the City of Eagle, and the Federal Highway Administration to comprise an independent, multidisciplinary team. Law enforcement officers from Ada County also participated in the RSA. The group was tasked with identifying potential road safety issues as

well as opportunities to improve safety for all road users. Collectively, the representatives brought years of experience in highway design, operations, safety, and law enforcement to the Team.

The Team spent two days reviewing the location and observing traffic. They also reviewed safety and operational data as well as development plans for the area. With this information, they identified the primary safety issues at the intersection and recommended potential solutions. They also noted several things that worked well at the intersection. The RSA findings were presented to ITD and others in a closeout meeting. A final report was prepared by the Team documenting their recommendations. When applicable, information from the Crash Modification Factors Clearinghouse (<http://www.cmfclearinghouse.org>) and the AASHTO Highway Safety Manual (<http://www.highwaysafetymanual.org>) was utilized to provide crash modification factors (CMF) alongside recommended strategies. The addition of CMFs helped the

team provide an estimate of the potential safety benefits associated with the recommendations.

The recommendations in the final report were divided into three categories: short-term, medium-term and long-term for implementation over the next 6 months to 3 years. The primary safety issue at the intersection is rear-end crashes in the eastbound direction of SH-44. To address this issue, recommendations included the addition of a Signal Ahead warning sign, refreshing and enhancing pavement markings, and trimming vegetation. Recommendations will be considered and implemented based on available resources.

Following the success of this RSA, ITD planned several RSAs and RSA training for 2012. In an effort to institutionalize RSAs, ITD developed a new Road Safety Audit Manual available at [http://itd.idaho.gov/manuals/Online\\_Manuals/Current\\_Manuals/RSA/ITD%20RSA%20Manual.pdf](http://itd.idaho.gov/manuals/Online_Manuals/Current_Manuals/RSA/ITD%20RSA%20Manual.pdf). ITD will continue to refine the manual as the State's RSA knowledge base continues to grow, so check back often!



IMAGE COURTESY of Idaho DOT

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## RSA Highlights

### ⇒ Georgia Draft RSA Policy

Georgia DOT has developed a draft RSA policy.

### ⇒ DVRPC I-95 Final Report

The Delaware Valley Regional Planning Commission recently published the I-95 Delaware County Road Safety and Operations Audit final report. This marks an important advancement in the Pennsylvania RSA program. More than 15 identified improvements have been implemented since the audit event, and are identified in the final report. You can access an electronic copy of the report at DVRPC's home page: <http://www.dvrpc.org/> (see "Publications"). Or you can search for it and other DVRPC reports here: <http://www.dvrpc.org/asp/publicationsearch/>.

### ⇒ Students Conduct RSA in Tampa

On February 15, a group of Middleton High School students conducted an RSA near their high school in Tampa following a roadway safety briefing and orientation by the Florida Department of Transportation (FDOT). The RSA was sponsored by the National Organizations for Youth Safety (NOYS) and the American Traffic Safety Services (ATSS) Foundation.

### ⇒ RSA Programs Advance in Arizona

The Arizona DOT provided technical assistance to the Maricopa Association of Governments (Phoenix) and Pima Association of Governments (Tucson region) to initiate RSA Programs in their regions.



## WHERE IS CRAIG?

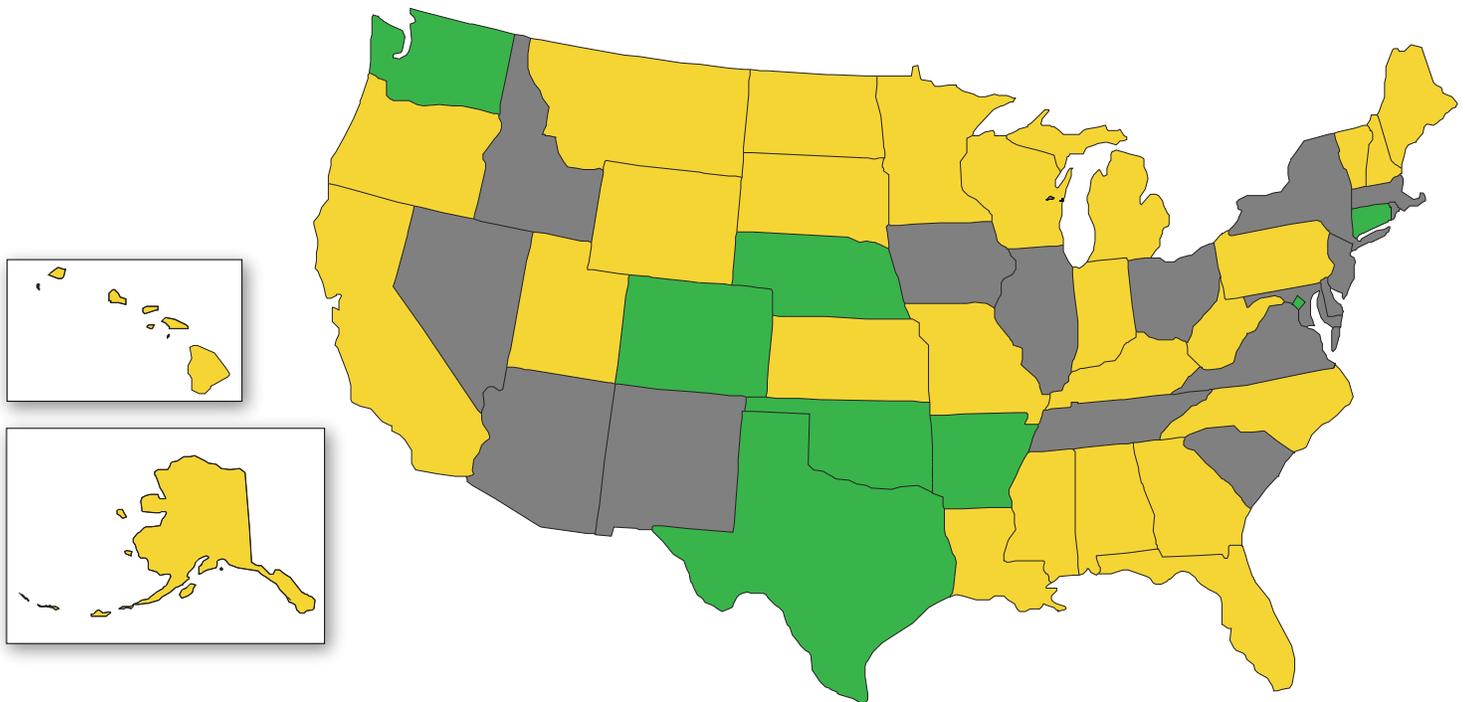


Craig Allred recently visited the Great Lakes Region to participate in the Transportation Bonanza on February 16. The one-day conference was held in Lansing, Michigan and hosted by the Michigan Association of Planning in partnership with Safe Routes to School program. The event brought together professionals from the fields of land use planning, education, transportation, health, engineering, and others to connect around the topic of community building for health and accessibility. Craig conducted a training session on RSAs and participated in an RSA session titled *The Many "Paces" of Walking Audits*.

## National Map of RSA Activity

Below is a map showing the status of RSAs across the US. Do you have other information on RSAs to report for your state? Please let us know!

**KEY:** ■ = hosted or received RSA training in the last 2 years ■ = piloting or performing RSAs ■ = RSA program



To highlight your agency's RSA in the newsletter or to learn about upcoming RSA training activities contact:

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For more information on the Road Safety Audit Peer Assistance Program email: [safetyP2P@dot.gov](mailto:safetyP2P@dot.gov) or call: (866) P2P-FHWA

The FHWA Office of Safety's mission is to reduce highway fatalities by making our roads safer through a data-driven, systematic approach and addressing all "4Es" of safety: engineering, education, enforcement, and emergency medical services. Increasing awareness of the need for roadway safety infrastructure improvements is very important. We are striving to provide decision-makers with important information, tools and resources that will improve the safety performance of roadways. Safety should be considered first, every time and at every stage of a project. Make safety your first consideration in every investment decision.