

AASHTO TIG/FHWA RSA Peer Exchange
May 22-23, 2007
Francis Marion Hotel, Charleston, SC
Meeting Notes

INTRODUCTION

A National State/county Peer Exchange on Road Safety Audit (RSA) programs was held in Charleston, SC. Roughly 30 States were represented. The purpose was two-fold:

1. Share best practices to allow those with a RSA program to enhance their RSA's
2. Provide an opportunity for those States who do not have a RSA program to learn how other States established RSA programs that often required addressing the concerns of DOT management in their State. RSA programs can be established in many ways. These do not have to be in the format of the classical, textbook, traditional RSA which most of you have read about. As demonstrated at the Peer Exchange, there are less "threatening" and resource-consuming RSA programs that many States and counties have implemented as a Phase one RSA initiative.

Below is a link with the presentations from the States and counties who discussed their programs, the attendees, etc.: <http://tig.transportation.org/?siteid=57&pageid=2263>

The following links to the FHWA RSA web site: <http://safety.fhwa.dot.gov/rsa/index.htm>

The AASHTO/FHWA RSA Technology Information Group (TIG) is considering holding a few regional RSA Peer Exchanges. The first will likely be in the south central area of the USA later this year or early next year. This area of the country was under-represented in Charleston. If your State does not have an RSA program, you were not able to send someone to Charleston, and you have interest in pursuing an RSA program, contact your FHWA Division Office.

Further, a member of the RSA TIG group can be made available to come to any state to discuss alternative approaches to establishing a RSA initiative. Terecia Wilson (South Carolina DOT; WilsonTW@dot.state.sc.us) and Tom Welch (Iowa DOT; Tom.Welch@dot.iowa.gov) co-chair the RSA TIG initiative; contact either with questions at any time.

MEETING NOTES

The information below provides some key points from each presentation and a summary of the Q/A sessions. The presentations may be obtained, in full, at <http://tig.transportation.org/?siteid=57&pageid=2263>.

Tuesday, May 22

8:30 – 9:15 am

Welcome Remarks by AASHTO TIG Co-Chairs and FHWA

- Terecia Wilson of SC DOT welcomed the attendees. She noted that FHWA has developed several brochures, videos and other RSA-related materials in recent years. Also, the TIG was established in response to further interest in RSAs. Sessions at TRB's Annual Meeting in 2007 brought a large response regarding RSAs, and this first-ever Peer Exchange is a culmination of these various efforts.
- Tom Welch of Iowa DOT welcomed the attendees, and encouraged any States without an RSA program to develop one. He explained that RSAs are a good tool to help address State's 5% safety projects. He added that it is helpful to see the various RSA approaches implemented in different ways; he explained that there is no one method to use in all cases.
- Beth Alicandri of FHWA HQ welcomed the attendees and noted that the interdisciplinary nature of RSAs may be their most intriguing aspect. She added that having these different sets of eyes from various disciplines would make roads safer. She applauded the impressive level of commitment demonstrated by safety professionals. She also thanked Louisa Ward, former FHWA RSA Program Manager, in her efforts to organize the first RSA Peer Exchange.

9:15 – 10:15 am

Arizona's RSA Program (Michael Blankenship, ADOT, mblankenship@azdot.gov)

- Formed Governor's Traffic Safety Advisory Council (GTSAC): identifying RSAs is the priority
- Administered by ADOT Highway Enhancements for Safety (HES)
- RSAs conducted by request
- Developing Peer to Peer Program
- Goal in first year: to conduct 15 RSAs in all phases (scoping, design, construction, existing)
- Low cost safety solutions considered
- Owner responds to the RSA report with an implementation plan/list
- Q/A: Examples of ways to promote new ideas or proactivity within an agency? One way to increase proactivity is to include RSAs as part of traffic impact studies.

Tennessee's RSA Program (Gary Ogletree, Tennessee DOT, gary.ogletree@state.tn.us)

- Goal is to have one RSA every other week, though Tennessee calls them RSARs since they are on existing roadways
- Complex RSA process flow chart for all tasks
- Seek low cost, quickly implemented improvements
- Multidisciplinary team (human factors, law enforcement, maintenance, etc.)
- Presently improving data gathering processes
- Distinguishing between qualifiers (injuries) and disqualifiers (police chases)
- RSARs reevaluated for next three years after completion

- Typical challenges: managing expectation, liabilities
- Responsibilities: committing all types of resources
- Q/A: Safety Circuit Rider (SCR) Program tied to TDOT RSARs on local roads? RSARs not presently performed on local Tennessee roads. In addition, if an agency has a safety program and is addressing deficiencies (or has plans to do so), the courts are usually understanding, even in the case of administrative delays

Florida District 7's RSA Program (Peter Hsu, Florida DOT District 7, ping.hsu@dot.state.fl.us)

- Program initiated in 2006
- 15 potential RSA locations identified, and two location reports have been generated with support from consultants
- In-house staff: top five locations reviewed in February 2007
- 55 agency members trained via FHWA training
- Pasco County had first joint FDOT/FHWA RSA; also, top 10 locations reviewed
- City of St. Petersburg: one location with short and medium range recommendations implemented
- Built a database with 25 other locations assessed
- Q/A: Discussion on funding strategies (HSIP funds, SCR funds). For example, Tennessee DOT used NHTSA funds to fund their SCR Program. Also, HSIP funds are eligible for SCR Programs.
- Q/A: Should night RSAs be held if lighting is an issue? Yes, this can be done.

10:45 am – 12 noon

South Carolina's Program & Evaluation Results (Terecia Wilson, SCDOT, WilsonTW@dot.state.sc.us)

- Diverse geography and road types in SC
- SC receives lowest per mile state funding
- RSAs are possible with limited resources
- Performed research on international RSA programs, then held meetings with Directors of Traffic Engineering, Maintenance, Legal, etc.
- Researched funding strategies
- Sent staff to training – trained 60 auditors
- Established an RSA Advisory Committee
- RSA team members are elected and serve for two years
- District Engineering Administrators respond to report and recommend what to implement for an RSA
- Expenditures, actions, time)
- Perform follow-up study three years after audit
- Retention issues due to retirement, so looking to train new auditors
- Q/A: How is the RSA program coordination funded? SC allocates \$50K per year for program coordination (no salaries, just travel expenses).
- Q/A: Regarding motorcycle accidents/speed accidents, SC spoke to local law enforcement. A Task Force may also be created to address these accidents. EMS groups may help via promoting promotional materials as well.

Maine's RSA Program and Policy (Duane Brunell, Maine DOT, duane.brunell@maine.gov)

- Perform RSAs when ready to start action
- Importance of recruiting strategic allies
- Understand local issues (school dismissals, etc.)
- Record any significant achievements
- Maine performing 1-2 large RSAs per year, and 3-6 smaller RSAs per year
- Chose sites by crash history, complexity of issues, community needs
- Q/A: Rumble strips – what was the consensus found on their use? No pavement condition needs were found re: adding strips.
- Q/A: When managing group expectations, be honest and upfront about issues (funding, staffing).
- Q/A: For press coverage, it is important to be cooperative and not to appear adversarial.

Pennsylvania's RSA Program (Gary Modi, Pennsylvania DOT, gmodi@state.pa.us)

- Crashes – 85-90% driver responsible, 5-10% roadway responsible, 5-10% vehicle responsible
- Can control roadways to an extent
- Use experts from ped/bike, human factors, motor carrier safety, etc.
- Formal reviews are conducted at various stages; seven stages of an RSA
- Open ended contract used – over five years and \$2M
- Under contract, consultants ready for RSA work orders – must provide benefit of each RSA
- Benefits – created consistency across projects and throughout adjacent networks
- Q/A: To see trial consultant contracts, contact the specific states with contracts in place directly.
- Q/A: Any size limits for large or small RSA projects? Arizona noted no limit in size. Additionally, the point was made that size should not be a limiting factor.

12 noon – 1:00 pm Luncheon Speaker: Craig Allred, FHWA Resource Center, RSA Video Presentation

1:00 – 3:00 pm

Minnesota's RSA Program (David Engstrom, Minnesota DOT, david.engstrom@dot.state.mn.us)

- Toward Zero Death (TZD) Program
- RSAs are one of MN's 15 critical strategies
- Project safety reviews proposed for all MNDOT projects
- Districts fund recommendations on a priority basis
- Grants from Central Safety Fund used to implement county-level proactive strategies (rumble strips, rumble stripes)
- Q/A: Who are the team members for any inter-district RSAs? The team members are still independent, multidisciplinary personnel.

Iowa's RSA Program (Troy Jerman, Iowa DOT, troy.jerman@dot.iowa.gov)

- Pre 2000 reorganization, only plans to resurface the roads (3R projects)
- Interest in addressing longer corridors with safety improvements
- Transition from Central office to Districts
- 3R Safety Audit Field Reviews – needed methods to share information
- Q/A: What was the response from bicyclists regarding rumble strips? The granular shoulders were removed, but the 2' strip is still somewhat narrow. Both positive and negative comments were received equally from the members of the biking community.

Kansas' RSA Program (Brian Gower, Kansas DOT, gower@ksdot.org)

- Reactive response in past, lack of consistency
- Developed a guide for staff on preparing RSAs
- Counties are assigned to engineers
- Letters are sent to locals to obtain locations of concern
- Field review – drive every highway
- No maintenance activities included in the reports (addressed separately)
- Benefits (more consistency along highway system)
- 141 counties since 1997 (two phases)
- Lessons learned (importance of hand delivering correspondence)
- Q/A: Are public roads included? State roads are included for now; not yet including all public roads.

New York's RSA Program (Barbara O'Rourke, NYS DOT, borourke@dot.state.ny.us)

- Goal: safety is considered in the development and implementation of all department program and projects
- Hazard elimination process
- Preventive Maintenance Paving (PMP) not part of HSIP
- Requirement for 1R projects: safety audit team work
- Timing: 4 to 6 months total
- Q/A: What are some funding strategies for 1R projects? Some Federal money may be used for 1R projects.

South Dakota's RSA Program (Cliff Reuer, SDDOT, cliff.reuer@state.sd.us)

- LTAP training in 2001
- 12 RSARs on county, State and Tribal systems
- 3 RSARs on interstate and state highway systems
- Divided into four categories of needs
- Concern – if report needs were not addressed, protected by 23 USC sec. 409
- Create list of work to be completed for use as funds become available
- Q/A: Regarding follow-up, counties will complete low-cost items on the list and then a representative will visit the site for an inspection.

Vermont's RSA Program (Mario Dupigny-Giroux, Vermont Agency of Transportation, mario.dupigny-giroux@state.vt.us)

- Program started in 2001
- Local input team brings data; different from independent audit team members
- Responsible entities involved
- Illustrate solutions
- Written response (issue – agreement) document developed
- Before and after photos for documentation
- Low cost safety improvements widely used
- Benefits: education for local officials, also benefits for towns with very little staff
- Challenges: maintaining enthusiasm
- New direction: high risk rural roads program

3:30 – 5:00 pm

RIDP Intersection RSA Program Results (Bob Lariviere, AAA Michigan, rglariviere@aaamichigan.com)

- Road Improvement Demonstration Program: public private partnership to enhance traffic safety by reducing frequency/severity of crashes at high risk urban intersections
- RIDP toolkit completed in 2006 – designed for planners/designers
- Toolkit provides safety countermeasures to positively impact issues
- 450 locations studies in Michigan and Wisconsin
- 15-year savings projected at \$100M
- Flowchart for program
- Conduct a benefit/cost analysis to determine investment benefit
- Use before and after photos for documentation
- Q/A: It was clarified that AAA conducts these studies, but locations seek the funding to implement the suggested improvements.

Blue Earth County's RSA Program (Al Forsberg, Blue Earth County (MN), alan.forsberg@co.blue-earth.mn.us)

- Comprehensive State Highway Safety Program (CHSP)
- In conjunction with TZD campaign
- 22 RSAs in 2006
- 12 RSAs in 2007 – followed consultant selection process under Federal rules
- SRF Crash Analysis Tool
- Crash Mapping Analysis Tool (CMAT) via DOT and ISU/CTRE: macro/micro mapping tool, GPS use, create charts/maps
- Safety wedges used as a low cost safety improvement

Collier County RSA Program (Robert Register, Collier County (FL), robertregister@colliergov.net)

- Increase in traffic and residents
- RSAs as a proactive approach to safety

- 5-year multimillion dollar Capital Improvements Project
- FHWA Case Study RSA: Immokalee Road (mainly rural, though university construction nearby); 10,000 students expected
- Also, RSA on Collier Boulevard – mostly urbanized
- Oil Well Road RSA: adjacent to three schools – solution to reduce lane widths to reduce speeds
- County/design engineer responsible for any design decisions; RSA team provides suggestions
- Reviews at 30 and 90% project phases
- Q/A: Consultants were used as the lead auditors in Collier County to reduce costs.

Utah's RSA Program (Stuart Thompson, Utah LTAP (New England soon), stuart@cc.usu.edu)

- Process: training /assistance (tools) /implement (case studies)/ evaluate
- Mailing list of trained RSA locals
- This list is made available to municipalities
- Facilitate team organization
- Safety software suite tools – available to anyone (<http://waylon.engr.usu.edu>)

Kentucky LTAP RSA Program (Lance Meredith, Kentucky LTAP, Meredith@engr.uky.edu)

- Driver inattention is the leading cause of accidents
- Safety Circuit Rider Program – furnishes technical support and training to local governments to reduce roadway departures, ped crashes, crashes at intersections, etc.
- 12 Focus Counties selected
- Roads chosen based on statistics of crashes
- Example benefits: in 2006, saw a 49.9% crash reduction

Wednesday, May 23

9:00 – 10:30 am

Maryland's RSA Program (Morteza Tadayon, Maryland State Highway Administration, mtadayon@sha.state.md.us)

- Review of plans and field reviews of existing roadways
- Human factors training and train-the-trainer sessions planned for 2007
- Expanding involvement to MPOs, local jurisdictions, law enforcement
- Develop countermeasures to apply in planning/design phase
- Challenge of buy-in from county traffic engineers due to cost/liability issues
- Success: plenty of senior management support
- RSAs incorporated into SHSP and SHA business plan
- HSIP funds not used – funding from spot improvement program used
- UMD has added online RSA training to website recently
- Q/A: How to maintain interest levels and support? The administrator support helps sustain interest in the program. Also, SHA provides resources to improve roads in the team members' areas.

**Virginia's RSA Program (Stephen Read, Virginia DOT,
stephen.read@vdot.virginia.gov)**

- Piggybacked RSAs on Highway Safety Corridor Program
- Now connected to SHSP
- Also buried into various strategies (intersections, ped/bike safety, human factors)
- Locating hot spots in corridors
- Developing district maps of high crash intersections
- Organizing crashes by quarter-mile mileposts in non-urban areas
- Use field review assessment tool
- \$38M allocation in FY07 to conduct district RSAs and to improve corridor locations
- HSIP application template available online at <http://virginiadot.org>
- Q/A: HSIP funds used? HSIP funds are mainly used for signing/markings upgrades. An RSA helps to show what the signing/markings issues are for a location.

**Georgia's RSA Program (Scott Zehngraft, Georgia DOT,
scott.zehngraft@dot.state.ga.us)**

- Three RSAs since 2000
- Currently perform reviews with DOT staff
- Safety Enhancement Reviews – not formal RSAs
- Problem to not have any GDOT member at first RSA – press noticed the independent team
- Most recent RSA very successful, so City of Albany will use RSAs as a basis for annual evaluations and recommendations for top 10 crash lists
- Example challenge: designers reluctant to change established procedures
- Local governments looking to GDOT to use RSAs.

**Wisconsin's RSA Program (Rebecca Yao, Wisconsin DOT,
rebecca.yao@dot.state.wi.us)**

- No formal RSA program, but RSAs in Madison/Milwaukee/northern Wisconsin
- Mainly w/existing facilities (bypasses)
- Reports also available
- Used access management to improve safety
- Lesson learned: better to complete RSA in design/late phases (60-90%), but then it may be difficult to implement changes
- Lesson learned: RSAs reinforce traffic section recommendations
- Lesson learned: use consistent templates/forms
- Consultants helping to develop a statewide RSA process
- Initiative to incorporate RSAs into value engineering process or to have two parallel tracks; though may bring risk of conflicting results
- Interest in establishing an annual RSA work plan and providing RSA training
- Q/A: For clarification, it was noted that value engineering and RSAs have different designated teams at WisDOT.

New Jersey's Safety Impact Teams (Karen Yunk, FHWA NJ Division, karen.yunk@fhwa.dot.gov)

- Safe Corridors legislation introduced in 2003
- Highway Safety Fund established from ticketed violations
- Not called RSAs – called Safety Impact Teams (cover all 3Es)
- Larger teams of roughly 20 people with wide ranges of expertise
- \$2.5M for FY08 for Safe Corridors (HSIP funded)
- Senior safety pilot program – considers older drivers/seniors (three locations completed)
- Pedestrian safety corridor program (three locations completed)
- Future: Truck corridor program
- Lesson learned – some intermediate and long term solutions are getting lost
- MPO involvement helps in getting down to county/local levels

10:45 – 11:45am

Roundtable Discussion

Tom Welch moderated the discussion. He noted that roughly 29 states were represented at the Peer Exchange, along with high-level FHWA Officials.

A concern was raised regarding the challenges of funding local projects. It was suggested that interested parties consider programs on a system wide basis. More information dissemination on funding resources is requested and needed. South Dakota noted the trading of HSP funds to fund other programs as one solution.

A comment was made on the importance of including older drivers' input in planning RSA activities. It may also be helpful to allow the families of victims to participate on teams. Also, it is important to note the near-misses. Many times, adjacent businesses can provide insights on how intersections and roadways operate; they can oftentimes describe what is happening in the near-miss instances.

A question was raised regarding the needed modification of checklists every time an RSA is performed. There are different needs depending upon the state and location. It was noted that NYC and NYS have very different promptlists, as an example. There are promptlists available on the FHWA RSA website; these are tailored to different phases of a project. There is some sensitivity in using the terms checklists or promptlists, so agencies should be aware of this.

A request for a database of lessons learned was made. Arizona noted that the state has received requests to post their RSA findings. A final decision is pending, but if there are no issues (liability, logistics), then those may be made available.

A question was raised about the value of independent consultant or non-community reviews. It was noted that senior level, safety engineers (either in-house or consultant) should be included. Also, bringing a completely separate team might raise questions on why the main team was not involved. For this reason, it is important to have an insider engineer as a resource in preparation of the RSA.

A question was asked on how section 409 is referenced in RSA materials. It was noted that some draft disclaimers in RSA reports include the language. Some agencies advise listing it on the first page of any documents.

Two resources, the FHWA Peer to Peer program and the LTAP Centers, were highlighted. The Peer to Peer program pays the transportation costs for an experienced RSA agency member to attend an RSA in a locale interested in introducing RSAs. The LTAP Centers were noted as potential avenues for developing a new foundation of safety staff members.

11:45 - 12 noon

Closing Remarks

RSA Resources (Beth Alicandri, FHWA) and Send Off (Terecia Wilson and Tom Welch): The representatives thanked the Peer Exchange attendees for their participation and contributions to the meeting.