

NOTICE TO READERS

Starting in 2011, *Safe Highway Matters* will be an e-newsletter. This issue is the last print version of *Safe Highway Matters*. To remain on our mailing list please send us your email address or visit safehighways.org and fill out the subscription form.

Technology Enhances Safety and Service

By Rick DeMeis

In a world of changing technologies, Safety Service Patrols (SSP) have improved methods for responding to road incidents. Advancing from recording incidents on paper and relying on verbal descriptions to assess an event, SSP professionals are now often equipped with the latest technologies to increase patrol efficiency in response time, record keeping, and communication.

Frequently, dispatchers use Computer Aided Dispatch (CAD) stations to communicate with SSP and log response “stop” timelines. CAD stations provide a faster and more accurate method for record keeping and eliminate the need for crews to keep records on paper after returning from a shift. Both Minnesota DOT and Tennessee DOT use a combination of CAD and GPS-based Automatic Vehicle Locators (AVL) for position information.

Future challenges for DOTs that use these technologies include integrating CAD with

traveler information and freeway overhead signboard software. This integration will undoubtedly add to dispatcher workload, but the benefits including faster notification to motorists with more comprehensive information, thereby mitigating traffic tie ups.

MNDOT equips each SSP vehicle with a laptop with dedicated Virtual Private Network (VPN) access to the CAD system. This arrangement enables SSP units and State Police to send electronic messages and view other units’ locations.

Tennessee DOT still uses public safety radio channels to direct SSP drivers. Bob Van Horn, TNDOT Incident Management Coordinator, says Tennessee’s system is keyed to minimizing SSP driver “exposure” at stops, thus they do not use laptops or PDAs to record information, which adds to stop time.

In the future, TNDOT hopes to fund speed detection sensor monitoring to identify incident slow downs more quickly. Both John McClellan, MNDOT Freeway Operations Supervisor, and Charles

Remkes, PE, Manager of ITS Operations for New Mexico DOT, currently use those microwave sensors to monitor traffic flow (i.e., vehicle numbers and speed (level of service)) on SSP covered roads.

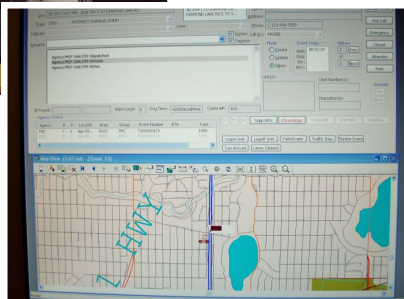
Closed Circuit Television (CCTV) has been a great leap in road safety technology with less reliance on patrol reports. MNDOT has a comprehensive CCTV traffic network to complement traffic sensors, while MNDOT’s traffic center’s full video display wall of traffic-camera images allows dispatchers to “enlarge” images from an area of interest indicated by speed sensors—and then monitor response actions.

On the road, McClellan believes the SSP truck-mounted overhead signboards are extremely effective for warning drivers of SSP presence. McClellan plans to upgrade these VMS signs to LEDs for enhanced visibility and reduced electrical power consumption. Another area for improvement, according to Remkes, is the use of cameras on DOT vehicles giving center operators drivers’ eye views of the roads.

In the Office...



Top: MNDOT TMC with CAD stations and large CCTV traffic network. These technologies allow dispatchers to communicate with SSPs and to see a camera view of the incident scene.



Below: Close-up of CAD station screen. CAD stations are used to communicate with SSPs and log response “stop” timelines.

On the Road...



Bottom: MNDOT Arrow Boards mounted on the back of each FIRST vehicle help inform motorists of SSP presence.

Right: Laptop and PDAs found in MNDOT’s FIRST vehicles. **Below:** SSP vehicle radio system. All three technologies allow SSP drivers to communicate with dispatch and other first responders.



Photos provided by MNDOT.



Company: Massachusetts Department of Transportation

Department: Highway Division

Position/Title: Highway Administrator

Please describe your early aspirations/ career goals that led to your current role as Highway Division Administrator?

I have been interested in highways since childhood. I grew up in Fitchburg, and Route 2 was (and is) my favorite road. After college internships in the state highway department and a three year tour in the U.S. Peace Corps, I decided to pursue a career in public service. I returned to the highway department in 1989 and have been here ever since. Safety has long been one of my strongest professional interests, and my very first directive as Commissioner was to require the use of personal protective equipment by all of our employees. As I often tell our employees, safety begins with each one of us, and we have spent a lot of resources and effort to ensure that our field employees are well-trained, highly visible, protected and safe.

Improvements to highway safety are among your greatest accomplishments. What are some of your other major accomplishments?

I am indeed very proud of our organization's record on safety, including worker safety. But we have also made great strides in improving the physical condition of our roads and bridges – our Interstate pavement conditions are ranked first in the nation, and we have reduced structurally deficient bridges by more than 10% in the past two years. These actually reflect a number of factors – the Governor's \$3 billion Accelerated Bridge Program, the hiring of

Luisa Paiewonsky

additional engineering and other professional staff, streamlining our design and construction activities, and introducing performance measures in key areas. The size of our annual Statewide Road and Bridge construction program has doubled to \$1.1 billion, and it is important for our public credibility that the condition of the state's highway infrastructure reflect that level of investment.

You are one of the longest serving Administrators in the history of the Commonwealth working under two governors of different parties. Do you think that with your appointment the position was returned to one of professional management from one of politics/ management? Please explain.

As a career professional, I feel very fortunate to have been given the opportunity to lead the organization for this long. I do think that the public views highways and bridges largely as essential government responsibilities and not necessarily as partisan issues. Whatever their political beliefs, people expect us to do our jobs with competence and commitment.

As a state agency, we are responsible for carrying out the Governor's

transportation policies and agenda. At a more basic level, citizens count on us to plow the roads, fill potholes, inspect and repair bridges and respond to emergencies around the clock, every day of the year. Our fundamental mission is safety, and that is a priority embraced across the political spectrum.

With the recent merger and reorganization of the Massachusetts transportation agencies into MassDOT, what have been the benefits and challenges for the new Highway Division?

The biggest challenge has been merging the cultures and practices of four separate highway organizations with four distinct sets of cultures, practices and mindsets. But there is an unprecedented opportunity to blend the best practices of each organization and try to build a cohesive whole. The Turnpike Authority excelled in operations in maintenance;

MassHighway had outstanding design and construction capability; the Massport Tobin Bridge staff specialized in bridge management; the Department of Conservation and Recreation brought advanced public outreach and environmental stewardship experience to MassDOT. Blending these attributes gives us the chance to create one of the best highway organizations in the country, consistent with MassDOT's goals of becoming a national model of transportation excellence.

What challenges do you face as a woman in a largely male dominated field? Do barriers still remain for women in the field?

When I began my career, Jane Garvey was serving as the Agency's first woman Commissioner, and there were several women Associate Commissioners. But overall there were very few women holding management, technical or engineering positions, and it was very noticeable. I was helped enormously by joining the Women's Transportation Seminar (WTS-Boston), a professional networking organization for women in transportation, and

Even with the ability to use pavement sensors, video technology and advanced communication devices, it is still important to have real people patrolling the roads...

I always recommend that young employees join professional networks and trade associations to advance their careers

and develop leadership skills.

Today at MassDOT, the atmosphere is much different from when I started out. Now women hold key positions in many different disciplines, including engineering, operations and construction. I think we benefit by having an organizational culture that values productivity and teamwork, and that keeps us focused on the right things. We have worked closely with organizations such as WTS-Boston and MassGAP to recruit qualified women candidates and that has been very helpful. We still have a long way to go in recruiting a more diverse workforce – women make up only about 15% of our employees. But it is a far better environment now than it was when I started and it is going in the right direction.

Massachusetts was one of the first states in the nation to implement a Safety Service Patrol Program and to forge one of the

Headlights on... continued on page 3

first public-private partnerships with the Consumer Value Stores (CVS). Twenty-five years later, Mass Highway again led the nation with the implementation of a new public/private model whereby the state operates a privately supported program through sponsorship. What are your views on this business model?

I like this model because it capitalizes on the respective strengths of the private and public sector partners. We have intimate

knowledge of the highways, including the congestion points, the appropriate response to various operational situations, and our

private sector partners have the resources and expertise to staff and support the program and communicate its goals to the public. It is a mutually beneficial partnership and we are certainly committed to continuing it and perhaps expanding it to other areas.

With the development of new technologies and pressing economic conditions, how does the Highway Assist program continue to meet the safety needs of motorists?

The past twenty years have brought great advances in technology as well as more recent budget constraints. But we believe that the Highway Assist program remains a cost-effective tool for improving safety and reducing congestion. Even with the ability to use pavement sensors, video technology and advanced communication devices, it is still important to have real people patrolling the roads and using their best judgment to respond to emergencies, incidents, disabled vehicles and crashes. When you think about how expensive road closures and restrictions can be in terms of lost productivity and driver delay, and add in the safety costs from secondary crashes, it really becomes clear that using a variety of tools, including highway patrols, is a very efficient method of managing our highways.

What types of changes and improvements have you made to the Commerce Insurance Highway Assist program over the years to ensure safety remains the first priority on Massachusetts' highways?

The fundamental model of patrolling the major highways and providing immediate assistance to disabled vehicles has remained unchanged. But we have made improvements

in response to our experiences in the first few years. We increased funding of the program to incorporate three additional routes, increasing the program from 22 to 25 routes. We require the van drivers to wear safety vests and hard hats at all times when outside the vehicle.

We make sure that drivers approach vehicles on the passenger side, rather than the driver side to keep them away from an active lane of traffic. We require all drivers to carry photo

Public agencies don't often receive this kind of feedback from citizens, so we are happy to hear from those who were assisted by our van patrols.

identification badges that clearly identify them as working for MassDOT, to ensure that drivers are not alarmed by someone approaching their vehicle.

Please share a tale of a driver that went "above and beyond the call of duty."

I really can't name just one since there are so many, but I can say that the most heartfelt and grateful correspondence I receive is about the CARES Vans. Many assisted drivers have sent in money and wanted to give the money back to the program (we send it back, with our thanks). There are some letters from assisted drivers that stand out in my mind:

"Best use of my tax dollars."

"He was so kind and helpful. Did a wonderful job. He was perfect. Especially in my time of need."

"Anthony saved me! I couldn't get in touch with any tow trucks, and thankfully he came along to give me gas. He was amazing."

And two grateful drivers sent marriage proposals to one of our van patrol operators. Public agencies don't often receive this kind of feedback from citizens, so we are happy to hear from those who were assisted by our van patrols.

What type of training do Massachusetts Highway Assist drivers undergo?

All drivers attend a training class twice a year. There is a standard operating procedure manual from which all drivers are trained. All drivers are taken on a comprehensive tour of the HOC so they can understand who they are speaking with on a daily basis when reporting to the HOC. MassDOT does regular checklist

inspections of all vehicles to ensure that drivers are properly outfitted and that their vehicles are carrying all the required equipment.

How do you envision the program will change over the next decade?

The fundamental model of patrolling the major highways and providing immediate assistance to disabled vehicles has remained unchanged. But we have made improvements in response to our experiences in the first few years. We increased funding of the program to incorporate three additional routes, increasing the program from 22 to 25 routes. The creation of the MassDOT Highway Division itself will propel changes in the program. Both the Massachusetts Highway Department and the Massachusetts Turnpike Authority had highway patrol vans sponsored by Commerce Insurance, but were operated differently. On I-90, the drivers were Turnpike employees in Turnpike vehicles. The MassHighway program used private contractors to drive patrols on the major highways. Those contracts for the Highway Assistance Program end in early 2012. We are now looking into how the two programs will be merged together. We have already consolidated the management of programs under our



MassDOT has signs along the covered areas informing motorists of the Highway Assistance Program and the number to call when they need assistance.

Deputy Chief Engineer for Operations and Maintenance. In the coming year, I envision these two programs being fully integrated with more MassDOT personnel and equipment performing the work.

Additional Comments:

Just a reminder to drivers that as the days get shorter and darker, it is more important than ever to wear seat belts, and ensure that your passengers do too.

Florida

A Silver Alert that was initiated on Aug. 17, at approximately 10:30 p.m. ended successfully on **Florida's Turnpike** when a State Farm Safety Patrol located the vehicle and 83-year-old male driver in the Delray Beach area. The Silver Alert program allows the immediate broadcast of information to the public regarding missing elders with dementia or other cognitive impairment with the goal of returning them home safely. State Farm Safety Patrol driver Louis Luchessi, while on overnight patrol at approximately 12:26 a.m., rolled up to the broken down vehicle on the southbound right shoulder. Once reviewing the tag, Luchessi immediately advised the Turnpike's Traffic Management Center personnel who notified Florida Highway Patrol Troop K. A Trooper responded and confirmed that the gentleman and vehicle was the 2005 Hyundai reported missing out of Miami, and dispatched EMS and Fire Rescue to provide a medical check-up for the gentleman. The gentleman was unharmed, and the Trooper transported him to the West Palm Beach Service Plaza where he was picked up by a family member. This is the third Silver Alert to be concluded successfully on Florida's Turnpike.



Florida's Turnpike patrol operator Louis Luchessi (above) discovered a broken down vehicle belonging to a reported missing elderly man who was the subject of a Silver Alert. Both the man and the vehicle were brought to safety.

The **Florida Department of Transportation** District Four expanded its Road Ranger Service Patrol to Martin, St. Lucie and Indian River Counties, providing an additional 71 centerline miles of coverage on I-95. The Road Rangers started patrolling on September 6 and received a very warm welcome

Great Assist from NYSDOT HELP at the Great NY State Fair

HELP drivers perform numerous duties at the fair, but their most important duty is that of incident detection and clearance. The drivers are empowered to take action depending on the situation. A great example of this follows:

In September Byron Requeno and NYSDOT Region 3 (Syracuse) employee Tom Bard were on patrol and heard a call for police on Tom's scanner reporting a wrong way driver on I-690. At the time many families were on their way to the fair and traffic in the area was heavy. They happened to be heading towards the area in the center lane and they spotted the errant vehicle approaching eastbound in the westbound left fast lane traveling at highway speed. Byron activated his vehicle warning lights, quickly moved to the left lane and blocked the path of the wrong way driver.

The wrong way driver stopped about 10 feet in front of the HELP Truck. As they approached the vehicle the driver appeared disturbed and unreasonable so Tom removed the keys from the vehicle and they detained the driver until police arrived.

A second HELP truck was dispatched to protect the scene while EMS evaluated the driver and law enforcement investigated. This incident could have turned out much different, but due to the brave actions of Byron and Tom, there was a happy ending.



from both emergency responders and motorists. For more information on the program, visit www.SMARTSunGuide.com.

New York

For the sixth consecutive year, Highway Emergency Local Patrol (HELP) vehicles from the **NYSDOT Hudson Valley Region 8** moved west to assist with the Great New York State Fair located in Syracuse, NY. With the increasing popularity of the Fair, a major construction project by the main entrance, and the drawing of an estimated one

million people during the twelve day event, there was a need to manage incidents and reduce congestion in the area.

This year a fleet of three trucks patrolled I-690 and the local surrounding streets, entrances and exits to the NY State Fairgrounds. Over the two week period, HELP drivers assisted 56 disabled vehicles, made 11 debris clears, helped with one fluid spill, and aided with traffic a total of six times.

Members of the public who interact

with the HELP drivers are extremely satisfied with the program and hope that someday it will become a full time program for Region 3. Region 8 HELP has continually responded to the request for assistance, and will be happy to provide HELP trucks in the future years.

Pennsylvania

While state lawmakers consider legislation on the use of handheld devices while driving, the **Pennsylvania Turnpike Commission** took the initiative to declare their roadways "Text-Free" in conjunction with the Turnpike's 70th birthday on October 1, 2010. The motorist-education campaign designed to raise awareness about the dangers of texting behind the

**TEXT-FREE
TURNPIKE**
Keep your thumbs on the wheel.



wheel will have messages displayed on tollbooths, on Variable Message Signs along the road, window stickers and lawn signs at Turnpike rest stops and online at

Move Disabled Vehicles Faster

According to the Traffic Incident Management Coalition (TIM), opening as many lanes as possible, as soon as possible, remains a top priority for traffic incident management and will reduce the chance of secondary accidents.

The Master Vehicle Mover or MVM™ is the quickest and safest way to move wrecked or disabled vehicles. The MVM™ has its own self contained trailer device which allows the MVM™ to be deployed to traffic incidents with first responders (deploys in seven seconds) and clear the roadway without delay rather than waiting for other specialized equipment to be dispatched.

An average two-car accident that blocks multiple traffic lanes can be removed from the roadway and onto the shoulder in two minutes or less once the MVM™ has arrived on scene. Utilizing the MVM™ will allow the highways to be cleared quickly while saving your community time and money.

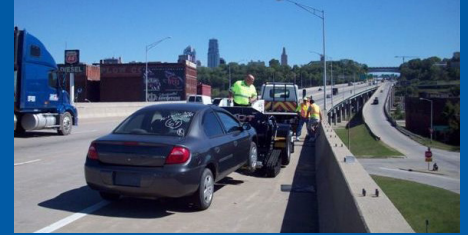
The MVM™ operates much like a

zero turn mower or skid steer and is capable of turning in its own foot print. It utilizes a 4X rubber track drive system to easily maneuver cars and light trucks from the roadway. The MVM™ is highly visible, maneuverable and rated for 3,500 pounds of lift.

A Testimonial from MODOT



Earlier this year, KC Scout took delivery of the first Master Vehicle Mover in production. The MVM is utilized by our Motorist Assist and Emergency Response units in the Kansas City Metro area. We have used the MVM on many occasions since it was placed into service. When the MVM is at the scene of an incident



Above KC Scout Drivers use the MVM to remove a disabled vehicle from the highway.

we are able to clear traffic lanes much quicker than we were able to before. We can quickly and safely move vehicles and debris from the roadway, allowing for lanes to be reopened. While the MVM is normally used to move vehicles, we have also used it to assist in the repair of expansion joints on a bridge.

The sooner that we are able to clear the roadways and resume the normal flow of traffic, the safer it is for responders and motorists. We minimize our exposure to traffic, the exposure of our equipment to traffic, and reduce frustration on the part of motorists.

The Master Vehicle Mover is an innovative piece of equipment that has improved the efficiency of our Traffic Incident Management Program. We hope to increase the number of units in service in our program soon.

- Rusty James, Incident Management Coordinator, KC Scout

News & Notes... continued from page 4

www.paturnpike.com.

Distracted driving, an issue recognized nationwide and seen daily by Safety Service Patrols, led to more than 120 Pennsylvania Turnpike accidents in 2009. "Without doubt, drivers today have far too many diversions taking our attention away from what we should be doing behind the wheel," Turnpike CEO Joe Brimmeier said when announcing the new campaign. "An unfortunate consequence of these technological advances is an increase in accidents involving multitasking motorists." The State Farm

Safety Patrol drivers patrolling the Pennsylvania Turnpike will be keeping their eyes open for motorists driving carelessly in order to report it to the State Police and do their part in keeping the



On September 17, 2010 Central Texas Regional Mobility Authority Executive Director Mike Heiligenstein spoke at a press conference announcing the reinstatement of the HERO Program.

Pennsylvania Turnpike a text-free zone.

Texas

After the Texas Department of Transportation discontinued the HERO (Highway Emergency Response Operators) program in 2005 due to budget constraints, the Central Texas Regional Mobility Authority relaunched the service patrol on September 20th for service along Interstate 35 in Austin. The HERO vehicles will be stationed every 15 miles along the interstate from Buda to Round Rock, Monday-Friday 6 a.m. – 8 p.m. The vehicles will assist stranded motorists, clear debris from the roads and serve as back-up emergency responders.

Responding to Roadway Incidents

In November, the Emergency Responder Safety Institute (ERSI) hosted a webinar entitled “The First 15 Minutes: Decision Making at Roadway Incidents.” Jack Sullivan, Director of Training for the Emergency Responder Safety Institute, spoke to first responders about the importance of safety when responding to incidents.

The webinar highlighted training and communication as two necessities for safety. While official trainings should be attended annually, Sullivan’s first suggestion for first responders was to plan before being dispatched - reflect on areas that are frequently the scenes of incidents and then draw out a map of those areas and consider how traffic will be handled, where the first responder vehicles should be positioned and what safety equipment will be used. Sullivan then suggested repeating the pre-planning for the same location under variable conditions, such as changes in weather and different times of day.

The ERSI suggests first responders pre-plan in collaboration with other first responders who may respond to the same

incident. So, when incidences occur Sullivan highly recommended that all responding agencies be on the same communication systems and on the same radio frequencies to facilitate a coordinated approach.

Once a call for assistance comes in to dispatch, first responders should consider the type of incident; the type of units responding; the road, weather, traffic and lighting conditions; the location of the incident; the number of vehicles involved; and any immediate hazards at the incident scene. From there responders can determine the positioning of the first-in units, initial assignments, the need for safety apparatus placement and, most importantly, the best way to ensure safety of all parties.

Sullivan, also, reminds responders to be aware of their surroundings. Motorists are unpredictable as are their actions and reactions, but proper safety precautions can help save responding units and victims from being injured. Blocking of the scene with safety apparatus, advance warning signs, traffic cones, flags and flashlight



wands are among some of the tools responders can use to ensure safety.

Webinars, like this one, have been made available to further the National Unified Goal of responder safety; safe, quick clearance; and prompt, reliable, interoperable communications. For more on the National Unified Goal, please visit <http://timcoalition.org> and to view “The First 15 Minutes: Decision Making at Roadway Incidents” webinar, please visit <http://www.firehouse.com/webcasts>.

The ERSI website, <http://www.respondersafety.com>, is a great resource for emergency responders on the subject of roadway incident safety. ERSI’s efforts are aimed at all roadway incident responders including Fire, EMS, Law Enforcement, Towing & Recovery and Safety Service Patrols.

Editor’s Note

With winter approaching Safety Service Patrols across the country are out on the roads helping motorists who find themselves unprepared for, amongst other things, the cooler temperatures, the wild animals roaming the highway and the increase in rainfall, wind and in the northern regions, snow. We at *Safe Highway Matters* would like to acknowledge and thank the additional efforts put forth by the Safety Service Patrol Operators and professionals who ensure that highway safety remains the top priority throughout the change in seasons.

An increase in our readership participation and outreach has helped form one of our best issues yet. Extended news stories from multiple patrols as well as interviews and input provided by other patrols, helps to expand the network that *Safe Highway Matters* was created to be for Safety Service Patrols across the country. We would like to thank each and every reader who contributed to this and previous issues.

This issue focuses largely on technology and the role it plays for SSPs. It is impressive to see the types of technologies available to highway safety workers and to explore their benefits. Simultaneously, it is refreshing to discover that despite all of these technologies, nothing can replace the assistance of an SSP driver. SSP drivers provide the compassion and reassurance to motorists that would otherwise be lost on technology. Luisa Paiewonsky, MassDOT Highway Administrator, recognizes the importance of a combined effort: “It really becomes clear that using a variety of tools, including highway patrols, is a very efficient method of managing our highways.” (See *Headlights on... Luisa Paiewonsky, page 2.*)

On a final note, *Safe Highway Matters* would like to remind its readers of its upcoming switch to an e-newsletter in 2011. Please be sure to send us your email for inclusion on our mailing list. In addition to the e-newsletter, SafeHighways.org will have

a fresh look and house all previous issues of the newsletter for your convenience. Be sure to check it out!

Wishing you safe travels,

Rita Gallagher
Editor in Chief

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