



Safe Highway matters

Summer 2010

A Platform for Safety Service Patrol Programs



CMAQ Funding Supports Clean Air and Safety Service Patrols

With over 40% of SSP funding coming from the state, some states have used the connection between SSPs and clean air to expand the programs' funding sources. Maryland, Arizona and California are examples of states that have incorporated the FHWA's Congestion Mitigation and Air Quality (CMAQ) Improvement Program to support SSPs.

State and local governments' transportation projects that help to meet requirements set forth by the Clean Air Act (CAA) qualify to receive funding from CMAQ. "CMAQ money supports transportation projects that reduce mobile source emissions in areas designated by the U.S. Environmental Protection Agency (EPA) as in non attainment or maintenance of national ambient air quality standards."

Key funding requirements of CMAQ:

- Funds must be invested in a state's non attainment or maintenance area(s)
- Funding must be spent on projects that reduce ozone (O₃) precursors – volatile organic compounds (VOCs) and nitrogen oxides (NO_x) – carbon monoxide (CO), or particulate matter (PM) from transportation sources
- CMAQ projects must come from a transportation plan and Transportation Improvement Program (TIP)
- CMAQ projects must conform to established CMAQ guidance.

For the majority of CMAQ projects, federal funding contributes 80 percent. The program, however, works on a reimbursable basis; therefore, the funds are not provided to the state until the project work is completed.

The "Green" Effect

Safety Service Patrols Offer Tangible Environmental Benefits

By Tara Baukus Mello

Safety Service Patrols' top benefit is motorist safety. A less often discussed, but extremely significant additional benefit of these patrols is their proven "green" effect of reducing pollution. By helping disabled motorists get off the road, traffic congestion decreases, so fewer cars sit idling and therefore fewer pollutants fill the air. "Service Patrols are one of many efforts that can help reduce emissions and improve local air quality and livability in general," said Doug Hecox, spokesperson for the FHWA Office of Transportation.

While no data exists at the federal level about the environmental benefits of Safety Service Patrols, numerous regional studies have been conducted showing substantial reductions in greenhouse gases.

In Los Angeles, which has one of the largest patrols in the country, the environmental benefits have been one measure of the effectiveness of the Metro Freeway Service Patrol since 2004 and have shown a steady improvement over the years. With a minimum of four minutes of congestion created for every disabled vehicle incident, the Metro FSP program's environmental benefits are dramatic. In a 2007-2008 fiscal year study by LA Metro on the measures of the effectiveness of the FSP, Reactive Organic Gases (ROG) Savings were calculated at 411/kg a day, while daily CO and NO_x Savings were calculated at 8,935/kg and 1,333/kg respectively.

"While there's no silver bullet in solving this issue, the FSP program helps by reducing emissions and greenhouse gases that are a constant threat to the overall health and well-being of Los Angeles County and its residents," said Ken Coleman, Metro Motorist Services Program Manager.

In the Hampton Roads, Virginia area, service patrols reduced ROG, CO and NO_x emissions by 28,000/kg, 1,500/kg and 6,300/kg respectively annually, while the San

Francisco Bay Area logged an annual savings of 444.9/ton CO, 95.1/ton NO_x, 18.6/ton ROG for the 2004-2005 fiscal year, the most recent study. "Initially we viewed the FSP as a congestion-relief program, but today we see two other clear benefits—motorist safety and improved air quality," said Jaime Maldonado, the Bay Area FSP senior program coordinator.

Both a 2006 Benefits Analysis for the Georgia Department of Transportation NaviGator Program Final Report, completed by the U.S. Department of Transportation, and the 2001 Benefits of ARTIMIS study, conducted by Cambridge Systematics in Ohio, have looked at cost savings associated with the emissions reduction. In the Cincinnati, Ohio metropolitan area, the Advanced Regional Traffic Interactive Management and Information System, of which the Service Patrol is a component, saves \$12 million annually in its emissions reductions alone, according to George Saylor, Ohio DOT Senior ITS Engineer. A similar program, called NaviGator, in the Atlanta, Georgia metropolitan area, of which service patrols are a part, was calculated to save \$20.2 million yearly, according to a US DOT 2003 study.

Without these efforts to reduce emissions, the U.S. faces tremendous financial impacts. A Tufts University study indicates that, if left unchecked, global warming could cost the U.S. economy \$3.8 trillion annually by the year 2100. While associate research scientist Lance Dougald of the Virginia Transportation Research Council notes that the environmental impacts of Service Patrols have a far greater impact in urban areas versus in rural areas with lower traffic volumes, the emissions benefits of patrols are one component in the larger green initiatives designed to curb global warming.

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NOTICE TO READERS: Starting in 2011, *Safe Highway Matters* will be an e-newsletter. To remain on our mailing list please send us your email address or visit safehighways.org and fill out the subscription form.

Wanda Williams

Company: Sunshine Towing contracted to

Florida Department of Transportation

Position/Title: Road Ranger

Patrol Location: I-95, I-595 and I-75 in Broward County, Florida

How did you become a Road Ranger? What previous positions have you held? How long have you been a patrol operator?

I've been with the Road Rangers for five years. I joined the team after seeing an ad for drivers in the newspaper and interviewing for the job. Before becoming a Road Ranger, I was driving tractor trailers. I took a year off in between the two jobs to spend with family.

Why did you pursue a position as a Road Ranger?

When I saw the job posting in the paper, the fact that the work was for the Department of Transportation really stood out to me. I spent a lot of time on the road as a driver, so the working conditions were the least of my worries.

What kind of training did you undergo for this position?

I had to complete a full week of working with a trainer. They covered all of the bases from how to safely change tires on the road, dealing with the most frequent auto repairs, and dealing with motorists. After that week, I started out on my own. FDOT also provides an annual training session that Road Rangers and Transportation Management Center operators take together.

In your opinion, what are the most important qualities and skills a Road Ranger should possess?

Any Road Ranger needs to have strength and endurance – both physical and mental. But as a woman working in a man's world, there's a third quality: confidence. My confidence has to be my attire every day that I am out there.

You are the only female Road Ranger in Florida, why do you think this position is predominately held by males?

Men have the stereotype of being mechanically inclined, strong, and able to handle stressful situations. Motorists seem to expect this stereotype, too, as it's not uncommon for them to doubt my opinion on a situation just because I am female. There's no room to be shy or prissy

out there. But just because I'm willing to get my hands dirty out there doesn't mean I don't like to get my hair and nails done. I have to hang with the guys, but I don't have to look like them.

What challenges do you face as a patrol operator, and are there any additional challenges being a female driver?

The biggest challenge is always staying safe, but specifically as a female, it's showing that you have just as much authority as the men. People think that they can get away with more just because I'm a woman. For instance, after a hurricane a few years ago, there was a man that attempted to take gas supplies off my truck without any hesitation. This probably wouldn't have happened to one of the guys.

What do you like best about your job?

I think it's great that every day I go to work and deal with something different and interesting. I get excited when I have the opportunity to clear big accidents. It really keeps me on my toes and challenges me to think of the best ways to clear the road as quick as possible.

What is the hardest part about your job?

They are a lot of hard aspects about being a Road Ranger, but I accept them as part of the job. If I had to pick out one thing that was especially tough for me to deal with, it's fatal accidents where children are involved. I have three kids of my own, so it really hits home.

What are motorists' general reaction to your presence on a scene? Any particularly noteworthy stories?

People are just as surprised to see a woman hop out of a truck as they were five years ago when I started!

What was your most significant assist?

One assist will always stay with me is a night time fatality...I was rushing to get to the scene because the road had to be closed and we needed to get MOT (maintenance of traffic) set up. I arrived and hurried to start setting up cones. I had just gone back to my truck to get more cones when a Trooper pulled me back by my vest. In the split second I had turned around, a drunk driver had lost control and was headed right toward me. Thanks to the Trooper, I was out of the way. The drunk driver hit my truck right where I had been standing.



What's one rule of thumb you think all motorists could benefit from following?

There are so many things to choose from, but one thing a motorist should know after being helped is to accelerate on the shoulder and then merge. Many people jump right back on the highway before picking up enough speed. This causes oncoming traffic to slam on the brakes or swerve, both of which could cause an accident.

What's one rule of thumb you think all patrol drivers could benefit from following?

Be defensive while you are driving and be alert when helping motorists. When you are in a hurry to get to a call, you still have to be aware of the motorists around you. Don't get in an accident on the way to help someone out! It's also important to be on guard while you are helping people. Not everyone is happy to see a Road Ranger pull up behind them.

What would you like other states to know about the Road Rangers?

The Road Rangers open Florida's highway safely and quickly, but also offer travelers directions, if needed.

What would you like to know about other state's safety service patrols?

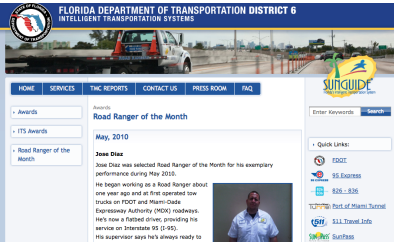
It would be great to hear more about other states' patrols and how they compare and contrast to ours. Every state has its own challenges and we could really learn from each other.

Additional Comments:

Road Rangers don't just help with car issues. We are also social workers and doctors. Many times a Road Ranger is the first to respond. We need to be ready to deal with ANYTHING while waiting for other agencies to arrive.

Florida

The District Six Traffic Incident Management (TIM) Team has added an awards section on SunGuide.org that recognizes Road Ranger Service Patrol Operators.



Congratulations to Mark McBride, Florida Road Ranger, for his heroic act of returning a lost bag containing \$8,000 in cash, credit cards and other personal belongings to its owner after finding it while clearing debris from the highway. The police connected McBride's discovery with a report of a bag being stolen earlier that day.

Hawaii

On June 17, Hawaii DOT's Freeway Service Patrol celebrated its completion of the first year of the two-year pilot program. At the same time, Lt. Gov. James "Duke" Aiona announced that the patrol would expand its coverage area into Leeward and Central Oahu. The expansion will come at no additional cost to taxpayers and no reduction in service.

Idaho

The Treasure Valley Incident Response Team in Idaho started 12 years ago and has since responded to more than 100,000 incidents on the Connector (I-184) and on I-84 between Nampa and east Boise. 2009 proved to be its busiest year to date with a total of 11,100 assists!

Kansas

On July 1, 2010 two press events were held to announce the reinstatement of the KTA patrol, State Farm Safety Assist, which will consist of three cars that travel the turnpike from Topeka to Kansas City. The Safety Assist program, originally started in 2000, was discontinued due to the downturn in the economy.



Pennsylvania

The Pennsylvania Turnpike Commission (PTC), who aims to be recognized as a leader in promoting highway responder safety, recently took the initiative and adopted retro reflective red and yellow chevrons to the rear of the State Farm Safety Patrol units in an effort to enhance the emergency vehicles' visibility and conspicuity. The PTC used the guidelines provided by the 2009 U.S. Department of Homeland Security Emergency Vehicle Visibility and Conspicuity Study.



Texas

The Dallas Courtesy Patrol was featured on multiple news stations this past quarter as part of a safety message to drivers about summer heat and help on the roadways. Officer Mark Taylor said that requests for help during summer months are already skyrocketing. Taylor and the other 50 courtesy agents carry bottled water in their trucks to help the residents in distress.

Washington, D.C.

The Metropolitan Washington Airports Authority announced the addition of a Safety Service now available to motorists traveling the Dulles Toll Road and the Dulles Airport Access Highway. The SSP will be available Mon-Fri from 6 a.m.-8:30 p.m. and on weekends from 9 a.m.-5 p.m. and will offer a number of free services to stranded motorists.

FTE Adds Incident Response Truck To Safety Patrol!

The Florida's Turnpike Enterprise has taken its next step in its continued effort of enhancing its Safety Patrol fleet by adding an Incident Response Truck (IRT), with the goal of improving on-scene incident response and clearance. The IRT provides additional emergency traffic control capability at incidents, enhanced spill cleanup capabilities and better tools for clearing vehicles from travel lanes.

The Safety Patrol IRT operator is trained in traffic incident management, quick clearance operations, emergency traffic control, vehicle fluid spill mitigation, and related techniques. The new IRT began patrolling on June 18 in northern Miami-Dade County and will respond as needed to any major incidents on Florida's Turnpike or the Sawgrass Expressway in Miami-Dade and Broward counties.

The IRT is equipped with a Dynamic Message Sign, providing the ability to display incident messages to approaching motorists.

With a GVWR of 16,000 pounds, the IRT is a more robust vehicle than a pickup and better able to relocate disabled or crash



vehicles from travel lanes. Its high profile utility truck body allows more storage of supplies and equipment with better weather protection, plus it carries some basic vehicle fluid spill mitigation materials beyond the capabilities of pickups.

Florida's Turnpike Safety Patrol fleet will also begin proactive use of the "Emergency Scene Ahead" signage on its roadways to better inform motorists. The shoulder placed signs will be used in coordination with the Turnpike's ITS devices with the goal of reducing secondary crashes.

Driver Question of the Quarter

What's your best practice for staying safe while on the job?

"Pulling behind the vehicle and keeping an adequate distance of approximately 20 feet between the ESP vehicle and the motorist's vehicle to create a buffer zone, engage safety lights and arrow board and/or truck mounted variable message sign (VMS) of vehicle, approach the motorist vehicle from the non-traffic side and never stand between vehicles. Know where you are as opposed to where the traffic is and monitor your surroundings at all times. Always keep your composure. The life you save could be your own."

- ESP Supervisor, New Jersey DOT

"I try to follow these practices at every incident: 1) Wear your Personal Protective Equipment (PPE) at ALL times; 2) Always attempt to leave a buffer zone between the response vehicle and the incident; 3) Keep ALL parked response vehicles on the same side of the roadway at an incident; 4) Always turn the wheels of the response vehicle toward the shoulder of the road and away from the travel lanes; 5) Always attempt to face oncoming traffic and NOT walk with your back to oncoming traffic; and 6) Always attempt to approach the victim's vehicle from the shoulder side of the roadway."

- Rick F, Pennsylvania Turnpike Commission

Recent Safety Service Patrol Publications

Title: *A Simulation Tool to Assess the Impacts of the Parameters of Service Patrol Operations*

Authors:

Mohammed Hadi
Luou Shen
Jianguo Li
Yan Xiao
Chen Dong

Source Data: Transportation Research Board Annual Meeting 2010

Link: <http://pubsindex.trb.org/>

Summary: *Despite the successes and the benefits of these programs, however, recent budget cuts have increased the needs to demonstrate the benefits of the programs, to show the differences in the benefits of different operation schedules, and to select the parameters of the operations to make the best use of the available resources. This paper reports on an effort to develop a tool to assess service patrol performances under different operation parameters, the impacts of performance on transportation network measures, and for the selection of operation parameters.*

Title: *Benefit-Cost Analysis of Freeway Service Patrol Programs: Methodology and Case Study*

Authors:

Chihsheng Chou
Elise Miller-Hooks
Sergeant/Station Commander Ira Promisel, NY State Police

Source Data: Advances in Transportation Studies

Link: www.i95coalition.org

Summary: *In this paper, a simulation-based methodology is employed to estimate the benefits of such a FSP program, the Highway Emergency Local Patrol (H.E.L.P.) program, operating within New York State. The average reduction in incident duration due to the execution of the H.E.L.P. program was estimated through a statistical comparison of incident durations resulting from response by troopers or H.E.L.P. vehicles. Hundreds of incidents that arose along a roadway segment were replicated and benefits in terms of reduced travel delay, fuel consumption, emissions, and secondary incidents were estimated.*

Upcoming Articles

Here's a look at some of the topics Safe Highway Matters is working on for future issues. To offer your input please contact Elizabeth LaBelle, Assistant Editor at elabelle@travelersmarketing.com.

Keeping Your Driver Safe - What training is required? What do drivers need to know?

The Benefits and Disadvantages of Outsourcing Safety Service Patrol Operators

A Closer Look at the Benefit:Cost Ratio of Safety Service Patrols

To Patrol or Not to Patrol - How are patrol routes chosen? What are the key influential factors?

Matters of Communication - What technologies are used by SSPs to communicate on the road? Best options?

Editor's Note

In these summer months, Safety Service Patrols have to be extra aware of the safety of motorists as well as themselves. 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 highway safety remains the top priority despite increasing temperatures and storms. A bottle of water and a helping hand are just what some motorists need during their summer travels.

As *Safe Highway Matters* continues to cover the news of Safety Service Patrols across the country, we would like to thank those patrols who contributed to this issue. Many patrols are taking the initiative to update their vehicles, their equipment and their recognition of the operators who make these programs successful on a daily basis. Be sure to check out our "News & Notes" section of this issue for updates on a number of these patrols. *Safe Highway Matters*

welcomes contributions to this publication throughout the year.

The feature article of this issue is a particularly important one. While the main priority of many of these patrols is to assist motorists along the highways, it is also imperative to recognize the many other benefits that the patrols provide, of which a cleaner environment is just one. We'd like to thank Tara Baukus Mello for penning "The 'Green' Effect" article as well as the many Safety Service Patrol professionals who offered their input on the topic.

A special thank you to Wanda Williams, Sunshine Towing and the Florida DOT for working with us to produce an outstanding profile piece on a courageous female Road Ranger. For many of these programs it is a rarity to see a female hold the position of Safety Service Patrol Operator, but Wanda proves that women are ready to step up in any facet of the field.

Finally, *Safe Highway Matters* would like

to inform 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.

Wishing you safe travels,

Rita Gallagher
Editor in Chief

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