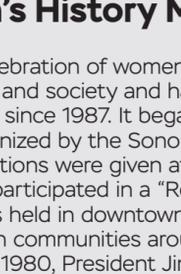


from the desk of

TIM SMITH
ADMINISTRATOR



Celebrating Women's History Month

Women's History Month is a celebration of women's contributions to history, culture and society and has been observed annually during March since 1987. It began as a weeklong commemoration organized by the Sonoma, CA school district in 1978. Presentations were given at dozens of schools, hundreds of students participated in a "Real Woman" essay contest and a parade was held in downtown Santa Rosa. After the idea gathered speed in communities around the country in subsequent years, in 1980, President Jimmy Carter issued the first presidential proclamation declaring the week of March 8 as National Women's History Week. The following year, the U.S. Congress passed a resolution establishing a national celebration. Six years later, the National Women's History Project successfully petitioned Congress to expand the event to the entire month of March.

MDOT SHA is proud to celebrate National Women's History Month, honoring and celebrating women who are influential, innovative and inspirational. MDOT SHA supports women's achievements as part of our mission to help all employees achieve their professional and personal career aspirations and have their voices heard and their contributions respected. Four of our seven district engineers are women, and women throughout the agency are making important contributions to all that we do. There's no better reflection of this than the 30 women who were recently honored with a Women's Transportation Seminar (WTS) International 2020 Innovation Transportation Solution Award for the Baltimore Chapter.

MDOT SHA Engineers Meredith Spicer and Virginia Collier and Pamela Destino of the firm Whitman, Reardon and Associates, LLP (WRA) managed the I-695 Transportation Systems Management & Operation (TSMO) Design/Build project. It required innovative congestion relief along an almost 20-mile corridor of I-695 in Baltimore County and was the first project in Maryland to utilize Part-Time Shoulder Use, an innovative congestion-relief strategy. Besides meeting Governor Larry Hogan's commitment through the Innovative Congestion Relief Program, the project also had to make the best use of existing infrastructure to improve mobility within the corridor. Most project meetings included one male and the rest females, a departure from customary project meetings.

Along with Meredith and Virginia, the MDOT SHA project team members included Lisa Shemer, Jessica Pilarski, Sara Al-Najjar, Karen Arnold, Rebecca Chojnacki, Allison Grooms, Anne Elrays, Erin Kuhn, Carole Delion, Lisa Sirota, Fran Ward, Brandi McCoy, Patrice Emezie, Alicia Brandys, Janet Frenkil, Chrissy Brandt, Rebecca Howell-Crew, Catherine Robbins, Belinda Cavey, Shelley Brunelle, Ashley Ross, Karen Kalbaugh, Celine Kalemba and Ayende Thomas, as well as many others supporting this project in the consultant roles.

Congratulations to all of you for advancing women in transportation and making herstory here at MDOT SHA and beyond. I hope that your amazing efforts are recognized not only by the Baltimore Chapter, but by the WTS International award competition in May. You've made us proud!

Winter '21 a Tough One Compared to '20



A frequent sight: MDOT SHA units often led plow trains of salt trucks preparing for February's storms.

We got off easy last year. It was back to winter this year.

The 2020-2021 winter season – actually the seemingly unrelenting February 2021 series of storms – brought out the best in snowplow operators, contractors, managers and responders. It also induced lots of fatigue, then relief late in the month when temperatures climbed comfortably above freezing.

"It was definitely a more active weather pattern in February than we had any point last winter," agrees OOM Director Michael Michalski.

Last year, MDOT SHA recorded 5 winter events Statewide; this year there were 11 by late February. And March snow has surprised us in past years, so the winter watch continues.

Look at District 6 in Western Maryland, which had 28 district events by late February. Garrett County in D6 was on winter alert the entire month, with a Lake Erie effect sometimes bringing Midwestern snow to linger over Maryland's mountains with heavy snowfall.

The temperatures bear out what we all observed. At BWI last year, temperatures were 3 degrees above average in December, 7 degrees higher in January, 6 in February and 7 in March. This season started out with milder weather in December and January. But then came February, and even though temperatures were technically average, they offered conditions that brought sleet, freezing rain and snow for much of the month.

The MDOT SHA response was strong, with crews putting in 12-hour shifts and more to prep the roads and then plow to keep highways safe. The demand was strong, and management worked hard to schedule workers so that they had time off between long shifts. Plow trains, often with an MDOT SHA truck leading six or seven contractor trucks, seemed everywhere, including on social media.

The public noticed. Governor Hogan recorded a video thanking MDOT and MDOT SHA, legislators told Administrator Tim Smith that they were impressed during a budget hearing and one former Marylander living through the monstrous winter storm in Texas wrote how he missed the efficiency of MDOT SHA crews.

The toughest part for management, says Michalski, was planning given uncertain weather forecasts. "Not knowing whether there will be rain, sleet or snow adds layers of difficulty when you're trying to plan staffing, decide when to bring people in, how many contractors and when," he explains.

For crews, he said, the toughest part was the arrival of one storm after another, making it almost impossible for workers to rest for a couple of days before the next snowstorm arrived.

That much snow also stressed the supply of salt for treating and pretreating. As more snow fell, MDOT SHA had to compete with counties, municipalities and other states to keep enough salt on hand. That made life hard for salt vendors, too.

The contrast in salt usage was clear: Last year, MDOT SHA used just 39,000 tons of salt. By February 23, 2021, we had already used 225,000 tons, more than the 210,000 tons expended in the relatively normal winter season of 2018-19.

Protecting the environment from salt that drains into fresh water is an important factor to consider. During the last decade MDOT SHA officials have worked to protect the State's waterways by limiting salt usage as much as possible and reminding staff and contractors to use judgment before applying.

"Just look at your neighborhood supercharging under your feet when you go to your neighborhood supermarket parking lot the day after a storm," he says. MDOT SHA does a balancing act, applying enough salt to make sure that drivers and passengers are safe while protecting the Chesapeake Bay, rivers and lakes.

Through all the storm response, there was worker pride.

"I've heard people say that when they lower the plow and then look in the rearview mirror to see that the highway is safer than before they came – that's their favorite part," he says. "What's satisfying is the visual progress – you don't always get that in the workplace."

Looking at the terrible toll that a February storm took on Texas and nearby states led Michalski to point out the differences in preparation – after all, he observed, while Northern Texas sometimes experiences snow, southern cities like Austin normally don't.

"We're in a situation," he says, "that even in Southern Maryland and the Eastern Shore, we experience winter weather that it's less likely to catch us off guard. We know we must be ready. We keep equipment throughout the State – we all have salt structures and hired contractors. Of course, that's in different amounts. But we all have the tools to handle what Mother Nature throws at us."

As a planner, he sees another important lesson for MDOT SHA from Texas' woes.

"If we know we'll have severe weather in an area that doesn't typically experience it, we need to talk beforehand about deploying resources," he says. "That way if a specific region is forecast to be hard hit, we can divert resources where they're most needed."

Surface Treatment on Capital Beltway Likely to Reduce Crashes

If you ask D3 Area Engineer Mike Little, putting your feet down on the surface treatment that MDOT SHA began applying to the Capital Beltway in February is kind of like standing on sandpaper. On a rainy night, this is not your slippery tarmac that forebodes a crash.

And that's the point.

Last month in District 3, contractors from Allen Meyers and Skidabradar shot tiny metal spheres into the road surface on the Outer Loop of the Capital Beltway along a 7-mile stretch, with 30 lane miles, between Connecticut Avenue and MD 191. The work is scheduled to conclude this month.

The road will be safer. Traffic on I-495 is always steady, even at night during rainfall when crashes often increase. The treatment adds friction and drains away water. It is expected to protect drivers and could be a particular benefit to truckers.

Says D3 Assistant District Engineer William "John" Gover, "In theory it will stop trucks from flipping over because there will be better traction and less of the kind of hydroplaning that happens in bad weather."

Watching the installation is a sight to behold.

"A self-contained unit impacts the roadway with these BBs at a high rate of speed," explains Little. Amazingly, they don't scatter everywhere. "It recycles little using magnets and air, so they only lose 3% of them. That means they can utilize the materials for long stretches of roadway."

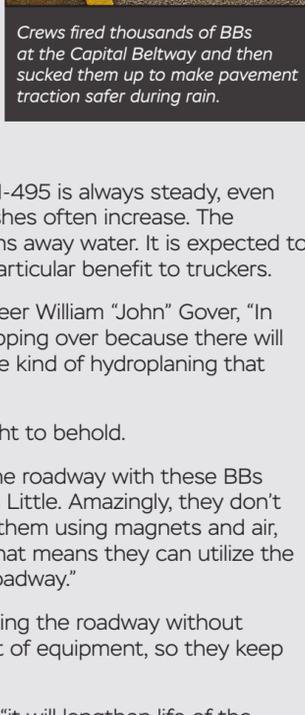
"What they're doing is sandblasting the roadway without damaging it. They don't use a lot of equipment, so they keep the cost down."

Adds Gover, an added benefit is "it will lengthen life of the roadway out there. So, you won't have to resurface as soon."

A preliminary study shows that the treatment improves friction and drainage by 70%.

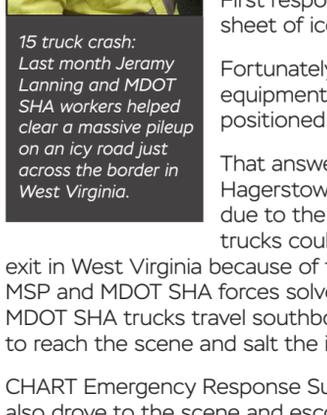
And does it feel like driving on sandpaper?

Says Little, "Everyone was worried that it would be a rough ride. I drove on it and you can't tell that we did anything to the road."



Crews fired thousands of BBs at the Capital Beltway and then sucked them up to make pavement traction safer during rain.

Help Thy Neighbor: MDOT SHA Assists MSP, W VA Police with Truck Pileup



15 truck crash: Last month Jeremy Lanning and MDOT SHA workers helped clear a massive pileup on an icy road just across the border in West Virginia.

On the night of February 18, during a month of ice and snowstorms that led to numerous crashes, the Western Region Traffic Operations Center got a call about a crisis just across the border: Maryland State Police (MSP) received a report that 15 tractor trailers and several cars

had piled up during a massive chain-reaction crash on I-81 just south of the Potomac River Bridge in West Virginia. First responders said the highway was "a sheet of ice." Could MDOT SHA assist?

Fortunately, MDOT SHA crews and equipment in Hagerstown were positioned to answer the call.

That answer required some finessing. Hagerstown Shop fielded the call but, due to the crash, snowplows and salt trucks couldn't turn around at the first exit in West Virginia because of the blocked cars and trucks. MSP and MDOT SHA forces solved the problem by letting MDOT SHA trucks travel southbound in the northbound lanes to reach the scene and salt the icy roadway.

CHART Emergency Response Supervisor Jeremy Lanning also drove to the scene and escorted heavy-duty wreckers from Maryland. He was able to help West Virginia State Police relocate numerous vehicles so that light and heavy-duty wreckers could unpack the tangled cars and trucks. He went on to release trapped traffic by guiding frustrated drivers along the right shoulder.

"Jeremy and the rest of the western region staff have vested many hours building and maintaining partnerships with multiple internal and external players and built a trust among them all," says CHART Division Chief for Regional Operations Tim Peck. "This incident shows the arsenal of resources that can be brought to bear in a multi-jurisdictional and multi-state trust and partnership. I believe it will help us continue to add allies to our cause in strengthening these relationships both within MDOT, Maryland and beyond."

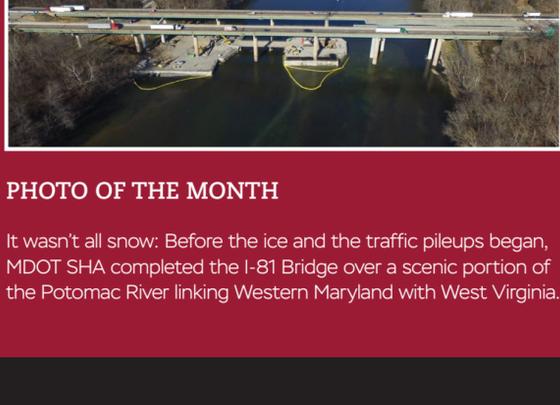


PHOTO OF THE MONTH

It wasn't all snow: Before the ice and the traffic pileups began, MDOT SHA completed the I-81 Bridge over a scenic portion of the Potomac River linking Western Maryland with West Virginia.