

Photo Courtesy of Kyle Karienek



Fall 2018 MRA RAIL UPDATE

A publication of the Michigan Railroads Association

THE EYES & EARS OF FREIGHT RAIL

According to new data from the Federal Railroad Administration, U.S. railroads set multiple safety records in 2017.

Derailment rates and accidents caused by track flaws also reached all-time lows. These safety achievements continue a string of record-setting years for freight railroads and are a testament to how seriously the industry takes its goal of an accident-free future.

How are railroads achieving such sustained safety success? By pioneering groundbreaking technology and investing billions of dollars in a 21st-century network. Here are just a few of the many safety technology initiatives being employed by railroads:

Innovative "Ears"

For years, freight railroads have used ultrasound technology to look inside a track and determine its health, the same way that a doctor determines the health of a human body. These track "check-ups" have helped railroads identify invisible imperfections before they pose a danger to trains. While ultrasound technology has proved effective, freight rail researchers recently questioned whether they could improve safety even further by listening— not just looking — for track imperfections.

As a train travels over any segment of track, energy is transmitted from the train through the track and into the ground below. This energy can be measured as a series of sound waves, collectively known as an acoustic signature. The acoustic signature of a track is different depending upon the health of the track.



Trackside Acoustic Detection System

In 2013, scientists installed fiber-optic cable alongside a test track at the industry's test facility in Colorado and began listening to the track's acoustic signature as trains repeatedly ran overhead.

The track was designed to break, and when it did, the experts had the data they needed.

Specifically: the acoustic signature of a healthy track, the acoustic signature of a broken one, and

the acoustic signature of a track on the verge of breaking.

Now, researchers are diving into this data with the hope of being able to monitor tracks across the country and detect safety issues in real-time, including deteriorating tracks, failing brakes and even rogue trespassers walking along the rails.

Sci-Fi "Eyes"

Railroads are also taking to the skies and mastering technologies once found only in the pages of science fiction novels.

Two years ago, BNSF Railway flew unmanned aerial vehicles, or drones, mounted with high-definition video cameras over tracks in parts of Texas and Oklahoma that had been swamped by floodwaters. Safety experts monitored the drones' video feeds to see precisely where rail tracks had been washed away and examine the condition of rail bridges, some of whose foundations had been slammed with debris. By pinpointing the location of the damage, BNSF was able to safely deploy employees as soon as the floodwaters receded and quickly return the rail line to safe operation.

Today, Class I railroads across the nation are deploying drones for a variety of safety

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Jon Cool, President

@MI_FreightRail

FROM THE PRESIDENT

As the leaves start to turn and we enjoy cooler temperatures, I am reminded of how beautiful our state is during autumn. Though it may be tempting to snap photos on or near railroad tracks,

please stay safe and do not trespass on private railroad right-of-way.

The general election is unfolding and Michigan will

soon have a new governor – due to term limits – and many new faces in the legislature. The freight railroad industry looks forward to partnering with the new elected officials when they officially being in January. I always enjoy meeting freshmen legislators and sharing the freight railroad story.

Member freight railroads helped promote national rail safety week this Fall to highlight the need for continued vigilance at rail crossings – and on railroad right-of-way. Trespassing on rail property

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LEGISLATORS VISIT RAIL OPERATIONS

The rail industry always appreciates the opportunity to welcome public officials to their operations for informational tours. Rep. Beau LaFave recently spent a day touring the Escanaba & Lake Superior railroad and its operations in the Upper Peninsula. In Ferndale, Reps. Ellison, Moss and Wittenberg visited the CN Intermodal Yard to see firsthand how the freight supply chain moves through S.E. Michigan. Thank you legislators for coming out to see how Michigan's railroads move commodities across the state and we look forward to future visits.



State Reps. Robert Wittenberg, Jeremy Moss and Jim Ellison joined Jim Kvedaras from CN for a tour of the Ferndale Intermodal facility.



(L-R) Matt Hopkins - ELS Signal Maintainer, Rep. Beau LaFave, Bob Anderson - ELS Roadmaster, Tyler Delvaux - ELS SLE/Operations Manager, Tom Klimek - ELS VP Marketing tour ELS facilities. Photo courtesy of ELS.

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and environmental purposes. In remote areas, drones are being employed to explore thousands of miles of track to ensure that freight trains continue to safely traverse such unforgiving terrain.

Drones are also being used to test air quality to ensure compliance with federal and state environmental regulations and for the inspection of bridges and telecommunications infrastructure.

Aided by Investments

High-tech innovations and accompanying safety gains have only been possible because of nearly four decades of massive private investment by the freight rail industry. Since Congress established a balanced regulatory environment in 1980, freight railroads have been able to spend more than \$660 billion to improve the safety and efficiency of the nation's rail network.

In recent years, freight railroads have continued to spend an average of \$26 billion per year improving the safety and performance of the network. However, such investments – and the innovations that result – are only possible through effective federal agency partnerships, and the freedom to achieve improved safety with the technologies developed, and insights gained, from the industry's innovative research. Whether it's fiber optic cables buried underground or drones flying overhead, America's freight railroads are committed to innovating and investing in a safer, accident-free, future. *Source: AAR*

TOP TO BOTTOM TECH

IT'S A BIRD...IT'S A TRAIN?
It's true: freight railroads are taking to the skies! Railroads are using drones to inspect bridges and examine track located in remote terrain or during extreme weather events. Railroads are even testing long-range drones that can fly hundreds of miles from their operators.

UNDERGROUND SOUND
Researchers are using underground fiber-optic cables to study sound waves created by passing trains. Variations in sound reflect changing track conditions and will help railroads monitor track safety in real-time.

FREIGHT RAIL WORKS

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continues to be a major concern and the industry continually spreads the message of being safe at rail crossings.

The 6th annual Michigan Rail Conference was held in Saginaw in August. Railroad company officials,

industry partners and many others helped contribute to a successful meeting. Stay tuned for the 2019 conference location.

The Local Surface Crossing Program is now in its 3rd year and local road agencies across the state

have partnered with railroads to help improve rail grade crossing surfaces. The MDOT Office of Rail effectively administers this program and we encourage interested local road jurisdictions to communicate with the railroad that operates in your community regarding potential projects.

MOVING MICHIGAN

FEATURING LAKE STATE RAILWAY



John Rickoff – President & CEO

legacy was continued this year when the company was named 2018 Short Line of the Year by Railway Age. The award was given to recognize a rejuvenation of rail shipments in the northern portion of LSRC. At the same time, LSRC is vigorously reinvesting in its infrastructure to support future growth.

Lake State Railway was facing a big challenge in 2013. The original territory, purchased from Detroit & Mackinac in 1992, had dwindled to a very low traffic density. That year saw a 27% drop from just one year prior capping a long trend of diminishing carloads and customer closings.

The Huron and Mackinaw Subdivisions total 210 mainline miles and the infrastructure was worn-out, with over 100 miles of the Huron Subdivision classified as excepted track. A recent inspection had found over 1,000 broken pieces of 85lb rail and poor tie conditions.

Lake State Railway Company (LSRC), headquartered in Saginaw, MI, was created by the vision of the late Jim George in 1992 when he acquired the railroad lines previously operated by Detroit & Mackinac Railway Company (D&M). His passion for expanding the railroad and providing exceptional freight transportation services is what brought these lines from being nearly abandoned, to being a successful railroad.

LSRC has been providing "excellence in Transportation" for over 25 years now and continues to grow at a rapid pace. Jim George's



LSRC locomotive 6302 transporting US military equipment to Camp Grayling. Photo courtesy of LSRC.

A drastic change had to occur in order to justify continued operations on over 200 miles of track with only 3,605 carloads of traffic. Many of the customers were shifting away from rail as a hedge because they were convinced the end was near for the northern branch lines. It seemed the former D&M lines would meet a similar fate as the hundreds of miles of rail that was converted into Rail Trails in the State of Michigan.

In late 2013, a new strategic growth plan was put into place along with a 5-year capital plan. The first order of business was to reenergize customer relationships and work towards earning back lost business. Thankfully, most of the recent traffic loss was still moving, just by truck instead of rail. LSRC managed to earn back the lost traffic and grow additional lanes with existing customers.

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The second step was to identify transload customers and aggressively pursue conversion to rail. Five new transload customers have been located on the northern lines in the last four years. LSRC invested in 190 aggregate cars to support a large customer in Alpena and replace a fleet of rusted out former coal cars, some of which were built in the 1950s.

LSRC also invested in a fleet of mill gondola cars, helping one customer decide to cancel long term trucking contracts and shift the majority of their business to rail. Additionally, over a half of a billion dollars of industrial development projects are underway, generating hundreds of new jobs and thousands of new rail car loads.

From 2013-2016, non-coal carloads grew 38% with

15 new or expanded customers across the 300+ mile rail line. Saginaw future awarded LSRC the Economic Excellence Award for Outstanding Economic Investment in 2017 which marked a record year for the company, of capital investments focused primarily on infrastructure.

This year is shaping up to be another great year of revenue and investment, including geographically with the commencement of operations on the Bluewater Subdivision - a former Grand Trunk Western branch line in Port Huron. The addition of the Bluewater 4-mile operation marks the first expansion of LSRC's service area since acquiring lines from CSX back in 2005.

LSRC is also excited about the soon-to-open Arauco North America plant in Grayling, MI.

Service to Grayling had once dwindled to "as needed," sometimes only once a week. Grayling now has a local on duty 5 days per week, soon to go to two shifts in 2019. Service south of Grayling is now up to 5 days per week as well. A lease of 60' Plate F 286K boxcars allowed LSRC to gain new business out of an OSB mill in Grayling.

Last year was the inaugural year of the LSRC Santa Train benefiting Toys for Tots in the Grayling, MI area. This year the Santa Train is planning on making a few stops. On November 30th the Santa Train will be stopping in Freeland, MI and on December 1st it will make its rounds from Standish to Roscommon and finish in Grayling. The company is looking forward to this event and giving back to the communities LSRC serves.

HEADQUARTERS: **Saginaw, MI**

EMPLOYEES
92

SYSTEM MILES
300

VP SALES & MARKETING
SHASTA DUFFEY
P 269.753.4957

MAJOR COMMODITIES
**AGGREGATE
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LUMBER
PAPER
PLASTIC
SCRAP METAL**

WEB SITE: **lsrc.com**



SRC locomotive 1502 moving through Port Huron. Photo courtesy of LSRC.

RAIL SAFETY WEEK 2018

Michigan Operation Lifesaver kicked off National Rail Safety Week 2018 at the East Lansing Amtrak Station Sept. 24 with many law enforcement partners. CSX and CN railroad police were joined by Michigan State Police, MSU Campus Police, and Ingham County Sheriff. State Rep. Tom Barrett participated in the kick-off event as well. The theme of this year's Rail Safety Week is "Stop Track Tragedies." Activities were held across the state Sept. 24-29 to help promote rail safety and to reduce heartbreaking tragedies from occurring.



Rail Safety Week 2018 participants. Photo courtesy of MDOT.

MICHIGAN OPERATION LIFESAVER - SAM CROWL UPDATE

CRASHES DOWN YTD IN 2018 FOR MICHIGAN

Federal Railroad Administration reports show a decrease of 8 automobile incidents, down from 36 in 2017, to 28 for the same period in 2018. That is a 22% improvement in crashes for the year-to-date in Michigan for 2018 through July.

Trespass incidents are also down from 11 in 2017 to 7 in 2018 for the same time period, with 5 of the 7 being fatalities. Earbuds continue to be a major factor in most of the trespass tragedies. In addition, 4 suicides have occurred across the state.

Michigan Operation Lifesaver Authorized Volunteers (OLAV) have continued to support the goals of seeing a reduction in crashes and trespasser related incidents by holding special events and making presentations. Ten new OLAVs have been trained to do presentations and special events.

Some of the special events, meetings and presentations include:

- 'Day out with Thomas' at the Henry Ford Museum in Dearborn was held on three weekends in May. Over 2,000 visitors came by the MI-OL display in the Roundhouse each weekend. Twelve OLAVs assisted with the very special event.
- 'Rail Fan Days' at the Crossroads Village/Huckleberry Railroad near Flint was held in



OL State Coordinator Sam Crowl (R) thanks Rep. Ben Frederick for speaking at April OL meeting in Durand. Photo Courtesy of Rahn Stokes.

August. OLAV personnel had a display inside the pavilion where over 1,000 visitors were contacted over the two-day event.

- Michigan Tech University (MTU) of Houghton invited the MI-OL team to have a display at the Michigan Rail Conference held at Saginaw Valley University in August. MTU awarded MI-OL a cash award for its special display.
- Two 'Officer on the Train' (OOTT) special events were sponsored by the Grand Elk Railroad and Lake State Railway with a police officer on

board the locomotive calling out violations to officers on the ground in chase cars.

- Rail Safety Week (RSW) was held the last week of September with CN Police Inspector Jon Bondra heading up the planning group from MI-OL, MDOT, MRA and other railroads. A proclamation was made by Governor Rick Snyder and read at the East Lansing Amtrak Station for the kick off. MI-OL contributed \$14,000 it had received from an FRA grant. The money was spent on radio ads and cell phone banners across the state promoting the OLI mission.
- Monthly Classes are now scheduled for new SMART bus drivers at its training center in Clinton Township. CN Police also attend each class.
- MI-OL now has two trained OLAVs in the Upper Peninsula helping with special events and presentation.
- Other special events were held in Ann Arbor, Auburn Hills, Grand Rapids, Hazel Park, Holland, Lansing, Warren, Wyandotte City and others.

For more information about becoming a volunteer, attending any of the Operation Lifesaver meetings or other information - contact Sam Crowl, State Coordinator at 248.823.7037 or samcrowlcomcast.net.



Sam Crowl presents GLC Engineer Justin Ellis with an Outstanding Supporter award. Photo Courtesy of Rahn Stokes.



Richard Burn is presented an Outstanding Volunteer award by OL Asst. State Coordinator Curtis Stewart (L) and Sam Crowl (R). Photo Courtesy of Rahn Stokes.

LOCAL GRADE CROSSING CLOSURE PROGRAM

In late 2002, a legislative proposal was approved that allowed MDOT's Local Grade Crossing Closure Program to offer local communities a substantial cash award in exchange for permanently closing a road at the location of an active railroad crossing. With base awards now ranging between \$50,000 and \$150,000, MDOT has been able to partner with communities and railroads across the state to close more than 60 crossings.

With bonuses for multiple closures and conditional federal matching funds if railroads choose to participate, the Closure Program is a great way to improve public safety and improve the quality of life for residents near railroad tracks.

In addition to eliminating car-train crashes, other advantages of closure include cessation of train horns at the crossing, lower traffic volumes, and

reduced vehicle speeds on the truncated roadway. If there is interest in any prospective crossing closures, please contact the relevant local road agency for coordination. Similar to the new Local Crossing Surface Program, road agencies are the only eligible applicants for these funds and they will need to work directly with the Office of Rail to meet closure requirements.



MRA

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Kris Foondle - Local Crossing Project Manager, MDOT.
Photo Courtesy of Steve Nowakowski.

Q: PLEASE INTRODUCE YOURSELF.

A: I was born and raised in Michigan, and I am a graduate of the University of Michigan. I have been married for 20 years and I enjoy baseball, football, reading, golf, kayaking, running, biking, and model railroading - not necessarily in that order.

Q: DID YOU HAVE ANY INTERACTION WITH RAILROADS GROWING UP?

A: My grandparents had a house near Frankfort on Lake Michigan, so I spent many summer weekends throughout the 1970s watching the Ann Arbor Railroad's car ferries and trains. We also happened to live near a grain elevator served by the C&O, and I was able to

RAIL INSIDER SPOTLIGHT

catch a few caboose and cab rides. One day when I was 11-years-old, the crew let me run a GP9 diesel locomotive on the siding, with supervision of course!

Q: WHAT DID YOU DO PRIOR TO JOINING MDOT?

A: Right out of college I worked for the City of Ann Arbor Transportation Division, where my office managed traffic studies, pavement analysis/repairs, pavement markings, and crash report reviews. Prior to joining MDOT, I spent four years in construction management/marketing, developing ISO-compliant programs, and publishing project-based websites.

Q: HOW LONG HAVE YOU BEEN WITH MDOT?

A: I started in March 2002.

Q: WHAT IS YOUR ROLE AT MDOT OFFICE OF RAIL?

A: I manage the Local Grade Crossing Program and certain special rail projects. This typically consists of the Section 130 priority project development for identifying crossing safety upgrades, the new Local Crossing Surface program that enables railroads and road authorities to access grant funding for

rebuilding eligible crossings, and the Crossing Elimination Program that includes permanent roadway closure and track relocation projects. I also managed the grant for the Howell-Ann Arbor Commuter Rail Study and the grant to rebuild the firebox of Pere Marquette 1225 steam locomotive.

Q: WHAT ARE YOUR THOUGHTS ON THE RELATIONSHIP BETWEEN THE RAIL INDUSTRY AND MDOT?

A: I think it is a good relationship that can get even better, as we work together to address mutual concerns and interests. Recent events, such as the 2018 Rail Conference in Saginaw, are a strong indicator that MDOT and the railroads recognize the value of collaboration, and I look forward to many years of continued cooperation with the railroad industry.

Q: IF PEOPLE WANT TO LEARN MORE ABOUT THE MDOT OFFICE OF RAIL, WHERE SHOULD THEY LOOK?

A: Twitter: twitter.com/MDOT_Rail
Facebook: facebook.com/MichiganDOT
YouTube: youtube.com/MichiganDOT