Chairperson Green, Vice Chairperson McClain, Ranking Member Sheehy, and members of the Transportation and Public Safety Committee:

My name is Jared Cassity and I am the Alternate National Legislative Director for the Transportation Division of the International Association of Sheet Metal, Air, Rail, and Transportation Union, which is a broad-based, transportation labor union consisting of approximately 100,000 active and retired railroad, bus and mass transit workers in the United States. Thank you for allowing me to submit testimony on the very important public safety issue of freight train crew staffing.

Currently, the vast majority of all *over-the-road/long-haul* freight train operations in America are done with the utilization of two-person crews; a conductor and an engineer. In fact, it is safe to say that it is the norm for Class 1 railroads. However, in recent months, it has been widely broadcast by class 1 railroad executives that they are looking to amend that standard in the very near future, and that it is their hope and intent to begin making crew size reductions as soon as next year (2020). And while freight train incident/accident rates are allegedly at an all-time low, they are still happening and they are still very, very dangerous.

SO WHY THE PUSH FOR ONE PERSON CREWS OR COMPLETE AUTONOMOUS OPERATIONS

In 2008, Congress mandated implementation of a program called Positive Train Control or PTC. By statute, PTC is a technological program that must prevent train-to-train collisions; prevent overspeed derailments; prevent incursions into established work zones; prevent movement of a train through a main-line switch in the wrong position; and be interoperable. As a result of that statute, the railroads had to spend a lot of money in order to be compliant with the mandated implementation of PTC. They are now looking to recoup that money[1], despite making record profits through nearly the entirety of the PTC development and installation project.

Additionally, America's class 1 railroads have made it known that they seek a reduced crew under the guise of safety. According to [them], there is no data that reveals a two-person crew operation is any safer than a one-person or no-person crew. The irony, however, is that, likewise, there is no data to support that a one-person or autonomous operation is any safer than a two-person crew, as the vast majority of freight operations is currently performed with a two-person crew. Compounding that even further is the railroads' argument that one-third of all train related accidents/incidents are attributable

[1] Stephens, Bill. "CSX expects PTC to pave way for 1-person crews; autonomous operations." *Trains Magazine* Sep. 6, 2018

to human factor causes, and that, by eliminating or reducing the crew size, they in turn reduce one-third of railroad related accidents/incidents.

So, by the carriers' own admission, even if the elimination of crews was to be successful, which we by no means consent to, two-thirds, or the majority of all rail accidents/incidents, are still going to occur. But, now, instead of two people, there will either be one person onboard the locomotive that is unable to respond, or there will be no one onboard that is able to respond. This is because railroad rules and/or regulations prohibit a single employee from departing the locomotive without satisfying a litany of tasks and/or tests, some of which cannot be performed safely or satisfactorily by a lone crew member.

HOW WILL HB 186 HAVE THE MOST DIRECT IMPACT ON OHIOANS[2]

If a train being operated by a reduced crew was to impact a vehicle at a highway crossing at grade, the occupants of that vehicle would be at the behest of emergency responders. The lone crewman[3] would have to notify the train dispatcher that a collision occurred, but then would be unable to render assistance, first aid, or whatever else might be required to care for those individuals. Should an autonomous train impact a vehicle at a crossing, we have no certainty that the system would be capable of determining that an emergency had occurred, much less provide the specific information that is invaluable to first responders.

To the contrary, a train staffed with today's standard of two persons would not only be able to recognize the seriousness of the situation, but they would be able to immediately begin an inspection of the train and vehicle impacted. In addition, they would be able to relay necessary, life-saving information, as well as provide first-aid, CPR, and/or comfort until help arrived. Thankfully, the one major advantage people have over machines is sympathy, empathy, compassion, and a genuine concern for the preservation of life. It is human nature to do everything in our power to care for one another, but should the railroads have their way, that human element will be lost.

In America, we have more train-to-vehicle and train-to-trespasser impacts than anywhere else in the world. In fact, Operation Lifesaver has determined that an incident occurs, on average, every three hours. In Ohio, there are over 5,700 public crossings alone, each one a potential for disaster. The fact is, accidents happen, cars break down, people get lost. How they end up on or near the tracks doesn't always make sense, but it happens. Having two sets of eyes on a locomotive watching the rail that lay before them matters. An engineer is required to manipulate controls, trip optimizer[4], PTC, and a host of other tasks. It is not possible for him to maintain a constant visual contact with the territory that he is traversing. Having another person in the cab of the locomotive allows for greater reaction time, greater reaction tactics, and greater potential for a life-saving moment.

---

[2] See Appendix A & B

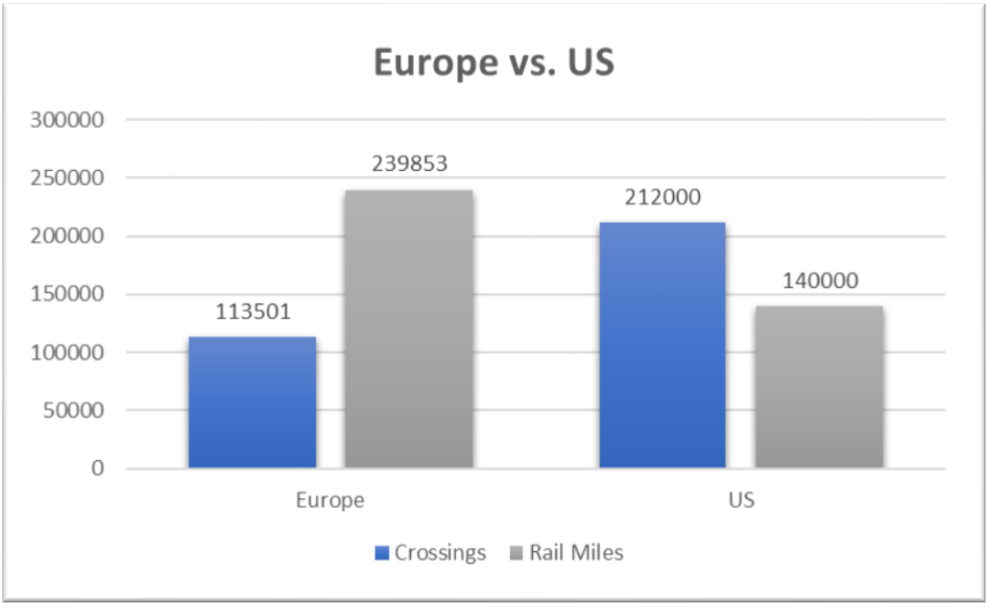
[3] All gender references are made in the masculine

[4] GE's Trip Optimizer™ System is an intelligent, fuel-saving cruise control for locomotives that optimizes fuel consumption based on a specific train's make up and route traveled

Additionally, the railroads are operating, or are planning to operate, longer trains in an effort to improve their operating ratio. By extending the length of trains, the railroads are not only increasing the amount of time that people spend waiting at crossings, they are also increasing the tonnage that locomotives are forced to haul, as well as the dynamics that are exerted by and upon the locomotive(s). This results, we believe, on more wear and tear of the equipment, which, ultimately, leads to an increase in mechanical failure(s). These failures, in turn, are then more likely to result in blocked crossings, as the trains stretch in excess of two miles, or even three in some instances.

Again, having two persons onboard matters. If the crew consists of two people, the crew is immediately able to assess the situation, as well as cut the train to clear the crossings. However, should there only be one person on board, that reality is not feasible. He would be at the behest of the railroad dispatching someone else from a remote location to come and assist him. God forbid there was an emergency vehicle needing to cross, as it would have to wait for someone else to arrive.

To these points, the railroads commonly argue that European models with one-person crews reflect greater safety statistics. Those statistics should come as no surprise, as all of Europe has approximately half the number of crossings compared to the United States, despite having nearly double the amount of rail miles. To make a comparison simply based on numbers is nothing more than an assumption, as the infrastructures share very little alike.



LEARNING FROM FAILURES

If there was one event that could serve as the reasoning for the need in crew-size regulation, it would be Lac-Mégantic, Quebec. On July 6, 2013, a Montreal, Maine & Atlantic Railway train derailed in Lac- Mégantic, leaving the town in total devastation and disaster. As a result of the derailment, the town estimated the damages at $400 million dollars. Nearly 6 million liters (approx. 1,585,032 gallons) of crude oil was spilled, and 47 lives were lost.

The major contributor to that derailment was that it was staffed with only one crew member. The fact is, the tasks associated with train operation are just too many for one individual. On this event, the railroad instructed the engineer/driver to secure the train on steep grade outside of town so that it would not block the town's crossing. Ironically, the train could have been secured and left unattended on flat terrain much closer to the town after having been separated, or "cut," to keep the crossing open, but that task cannot be accomplished safely and in compliance with operating rules with a single crew member. Also, attempting to both secure the train with hand brakes and properly test the securement cannot be accomplished as safe operating standards dictate. The securement of the train ultimately failed and the result was that the train traversed down the steep grade into the center of town where it derailed near the town's center.

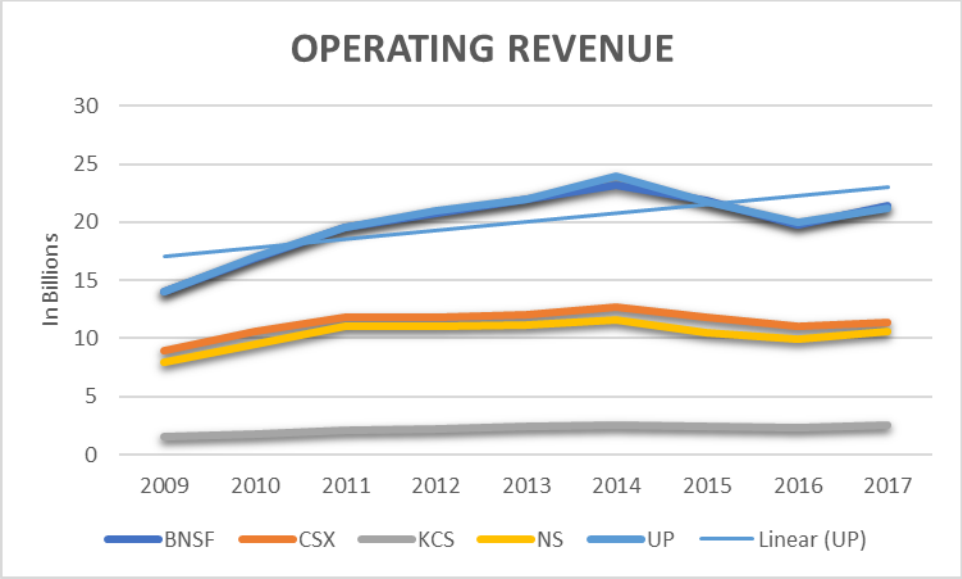
Following this horrific accident, Canadian regulators took action and banned this type of one-person operations throughout Canada.

In a letter to the Montreal, Maine & Atlantic Railway (an American and Canadian railway), Federal Railroad Administrator, Joe Szabo, said he expected the railroad to stop manning trains with one-person crews. He wrote, "[i]n the aftermath of the Montreal, Maine & Atlantic derailment at Lac- Mégantic, Canada, I was shocked to see that you changed your operating procedures to use two-person crews on trains in Canada, but not in the United States. Because the risk associated with this accident also exists in the United States, it is my expectation that the same safety procedures will apply to your operations here."

This rogue operator now operates with two-person train crews in Canada because Canadian legislators took action to require it. However, since there is no similar statute or regulation in the United States at this time, this very same railroad continues to operate with a single crewmember on its U.S. trains. The Federal Railroad Administration (FRA), however, did attempt to correct/prevent the dangerous practice of one-person crews. In 2014, they announced their intention to issue a rule requiring a minimum of two-persons crews on U.S. trains. In that effort, U.S. Transportation Secretary, Anthony Foxx, stated, "[s]afety is our highest priority, and we are committed to taking the necessary steps to assure the safety of those who work for railroads and shippers, and the residents and communities along shipping routes." The regulation was not finalized under the Obama administration, and on January 26, 2018, the Trump administration officially withdrew the pending rule.

FINANCIAL IMPACT

The current standard for freight train staffing in the United States of America is for two-person crews. So, the actual financial impact of HB 186 is minimal, if not non-existent. America's railroads are one of the richest industries in the country, and, despite the mandate for PTC, have enjoyed record-breaking profits throughout its implementation and subsequent operation; even with two-person crew operations. To suggest there would be an adverse financial effect on the railroads as a result of two-person crew legislation is simply unfounded. If anything, two-person crews should be considered as one of the most significant contributing factors to the railroads' financial growth, as it has been present throughout one of railroading's greatest and richest decades.



HAZARDOUS MATERIALS AND TWO PERSON CREWS[5]

Every single day thousands of gallons of hazardous materials roll through the rural countryside and urban downtown centers of our beautiful Commonwealth, and every single train poses risk. Having two-persons onboard the locomotive matters. As a certified engineer, I can tell you that it is physically not possible to visually inspect both sides of the train from the engineer's control stand while the train is in motion. The only points of view the engineer has are through the front window, the side window to his right (with rearward facing mirror), and the rear window directly behind him. To the contrary, the conductor has the exact same views, only to his left. In other words, for the train to have both sides visually monitored while in motion, the locomotive has to have two persons onboard.

While that sounds so simple, it matters. In fact, it matters a lot. Trains can give off a host of sensory cues to trouble: Audible – they make sounds; Scent – they give off odors (e.g. chemical, heat, etc.); Visual – they act incorrectly (e.g. smoke, excessive car rocking, obstacles ahead, etc.); Feel – like your vehicle, trains have a way of behaving. Train crews are taught through instruction and experience on how to notice and react to these cues. And while railroad technology does exist along the route to assist in identifying these types of problems, they are separated by miles of track and are just not capable of replacing the invaluable human element.

In the event there is a threat to the integrity of the train, a two-person crew permits an immediate inspection, whereas a one-person crew does not. To that point, a two-person crew on a train possessing hazardous materials permits a much quicker diagnosis of the situation and a much, much quicker notification of the potential threat to life and the surrounding environment. In the event of a hazmat release, that time is invaluable.

[5] See Appendix C

[Very briefly, to break that statement down: with two people, the engineer can remain at the control stand, which means that the conductor can begin a walking inspection immediately. If there was only one person onboard, he would not be permitted to leave the control stand so as to protect from additional/unintended movement or threats from/to the train. Alone, if he were to depart the locomotive to make a walking inspection, he would first have to tie a number of handbrakes and perform a series of tests, all of which take considerable time and effort, before beginning his walking inspection.]

As Alternate National Legislative Director for our Union, I am very proud to have been assigned to our National Safety Team which serves to assist the National Transportation Safety Board on specific railroad related accidents/incidents. In that regard, I have investigated a number of railroad accidents involving an unintended release of hazardous materials (through rupture of a tank car(s)). The actions of the crew have never ceased to amaze me. It seems human nature to run from danger, but my experience has been to the opposite. Whether It's simply because a railroad operational rule is in place for a crew to provide emergency responders with train consist information and location, or more toward the human element, I have yet to see a crew flee the scene. In fact, every single applicable investigation that I have been on, the crews have acted with pure professionalism, concern for their surroundings, and a determination to ascertain that the public was protected. Despite there being a railroad operational rule to the contrary, I have heard the railroads testify that crews run from the locomotive at all costs. That is simply not true. I have seen crews go to great lengths to protect the public, including conductors walking toward the danger so that they can make a *cut* on the train to remove other hazardous materials (those that have not derailed) from the area, thus preventing an exacerbation of an already very dangerous scenario.

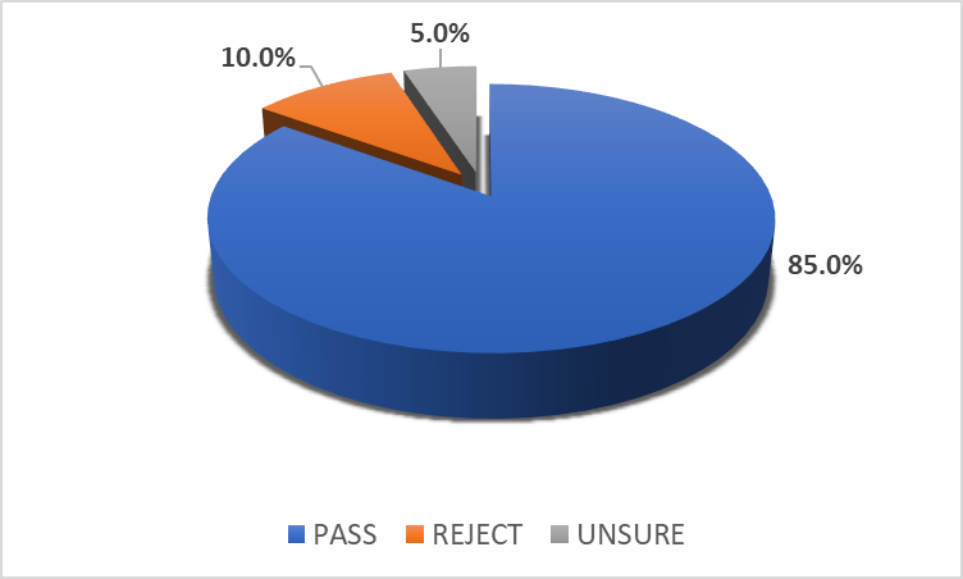
GLOBAL AUTONOMOUS TRAIN OPERATIONS

Currently, there is only one railroad in the world that is operating fully autonomous trains, and that is the Australian mining firm, Rio Tinto. (It is important to note that the railway is solely owned and operated on by Rio Tinto only.) Their autonomous train operations are confined to the Pilbara region of Australia, which has a total population of approximately 60,000. Operations on the Rio Tinto are unique in that the general public has very little interaction with the actual railroad property. Aside from a minimal number of crossings, the general public is not permitted to utilize roads that provide access to the railroad tracks unless they complete an online course and receive a certification that they are qualified to drive on Rio Tinto's roads. To surmise that there are many, if any, similarities to railroads in the U.S., with exception to the actual train cars themselves, is a gross and unfounded twisting of the truth.

Autonomous train operation on the Rio Tinto began in July of 2018, however, it has not come without its mishaps. As an example, four short months after its roll-out of autonomous operations, Rio Tinto experienced a run-away train. The driverless train travelled 57 miles out-of-control, over 50 minutes, before being purposefully derailied by company and emergency officials, ultimately prompting the mining operator to halt all rail operations until clean-up was completed. What this revealed to the railroad industry is that autonomous trains are fallible and that they, too, pose great risk. Like U.S. railroading, while incidents are rare, when they do happen, they do so with devastating results. But, unlike Rio Tinto, our railroads are not confined to areas of minimal interaction. Our railroads make-up the backbone of our country, intertwining through the busiest of downtowns to the most bountiful of our nation's farmlands.

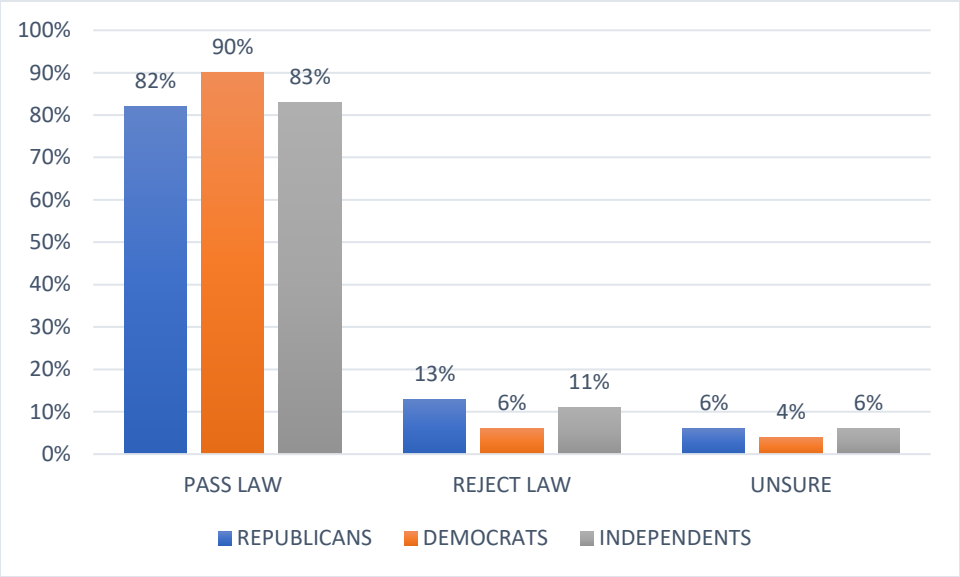
AMERICA SPEAKS ON THE ISSUE

85% of respondents to a series of surveys favored legislation requiring two-person crews:[6]



[6] Combined data is from 8,649 interviews from 18 statewide and congressional district surveys (January 2015 to January 2019). Results are weighted by congressional district. For full methodology and question wording, look for National Survey Compilation at www.dfmresearch.com.

and, it's an issue beyond political party:



PREEMPTION[7]

The states clearly have authority to regulate crew size. The Seventh Circuit Court of Appeals in a case entitled *Burlington Northern and Santa Fe Railway Co. v. Doyle*, 186 F. 3d 446 (7 th Cir. 1999) held that the state of Wisconsin's requirement for a two-person crew was valid and was not preempted by federal law. The court said that a state could require two persons on a train, but could not mandate that the crew members be either a certified engineer or a qualified trainman. It is valid simply to legislate that two persons are required to operate a train. The court determined that the federal regulations cover the actual qualifications of each employee.

CSX v. Easterwood, 507 U.S. 658 (1993) clearly rejects the position advanced by railroads here. The Supreme Court held that a subject matter is not preempted when the Secretary has issued regulations which merely "touch upon" or "relate to" that subject matter. *Id*. 507 U.S. at 664. The Court stated that Congress' use of the word "covering" in § 20106 "indicates that pre-emption will lie only if the federal regulations **substantially subsume** the subject matter of the relevant state law." *Id*. The Court recognized the state interest and right to regulate railroad safety, noting that "[t]he term 'covering' is ... employed within a provision that displays considerable solicitude for state law in that its express pre-emption clause is both prefaced and succeeded by express savings clauses." *Id*. at 665.

The Federal Railroad Administration recently suspended its consideration of two-person crews. Therefore, until such time as the FRA issues such a regulation, the states are free to do so.

[7] See Appendix D

As to the issue of collective bargaining and two-person crews, the FRSA has been in existence since 1970, and no court has ever ruled that collective bargaining agreements or any rights under the Railway Labor Act preempted a safety law. *See, e.g., Hawaiian Airlines v. Norris*, 512 U.S. 246 (1994). This, of course, is the only rational conclusion that could be drawn from the FRSA. Otherwise, the railroads and the unions could potentially negotiate away critical safety protections, which would undermine the protections afforded by the FRSA.

CONCLUSION

Lastly, we live in a day and age where cyber-attacks are a real, genuine threat. I will openly admit to having very limited knowledge on the subject, but the idea of a remote user located hundreds of miles from an actual train operation which is carrying thousands, upon thousands of gallons of hazardous materials without a soul onboard almost certainly, if not absolutely, is vulnerable to being hacked. The Rio Tinto has already had to purposefully derail its autonomous operations. Thankfully, for them, their operations are located in a very, very sparsely populated area of the Country. Odds are, in America, we won't be so lucky.

HB 186 will save lives. Perhaps the greatest data of all to these arguments is the data that doesn't exist. While unfortunate, there is no mechanism for or our members to report the near-misses or events that almost happened, but didn't happen, because of their human intervention. Every single day there is a success story. Whether it's a conductor blowing the horn to alert a child who wandered onto the tracks while the engineer was manipulating his PTC or Trip Optimizer programs, or a crewmember in place to aid his fellow crewman in need of medical attention, two-person crew success stories happen every day. Those success stories would not be possible with a one-person crew or autonomous operation.

Having sat in the seat, and having experienced it for myself, I can assure you – having someone else in the cab of the locomotive has been the difference between life or death.

Therefore, we urge a favorable vote for HB 186. Thank you for your time. I will be glad to answer any questions that you might have.

Jared Cassity, Alternate National Legislative Director
SMART Transportation Division

APPENDICES

Appendix A – Two Person Crew Saves Life
Appendix B – Very Long Trains Article
Appendix C – Larry Mann Brief
Appendix D – Stephens, Bill. “CSX expects PTC to pave way for 1-person crews; autonomous operations.” *TRAINS*. Sept. 6 2018. Print
Appendix E - Current Status of Two-Person Crew Legislation by State

A rail carrier group says: “There is no data showing that two-person crews are safer than one-person crews.”

“On January 20, 2018, two SMART TD members were on a train with an engineer from another union when they encountered an unfortunate incident. SMART TD members **Donovan Neely** and **Noah Messlein** were working a transfer job to the Port of Stockton. After delivering their rail cars to the port and picking up some return cars, they began heading back to Mormon yard in Stockton, Calif. After the crew members heard a strange noise, the engineer looked in the rearview mirror and noticed something out of the ordinary. The three-man crew decided the best course of action was to stop the train and walk back to investigate.

Donovan

“Noah and Donovan noticed a man lying near the tracks with a severed arm. Noah immediately began coordinating emergency services with the dispatcher, and Donovan realized that the man was going to bleed out if nothing was done to help him. Relying on training from his time in the U.S. Navy, Donovan had Noah hand his belt over and fashioned a tourniquet around the man’s limb to stop the bleeding.

Noah

“Emergency services arrived and took the man to the hospital for treatment, but they noted that if the bleeding had not been stopped with the tourniquet before they arrived, the man would not have survived.

“Our local is very proud of Noah and Donovan’s actions in such a stressful and difficult situation. Their immediate action saved this man’s life, and is a great compliment to their personal character and a testament to the great brothers and sisters we have working alongside us every day.”

— **Andrew Andrakowicz,**
SMART Transportation Division Secretary and Treasurer,
Local 1241 (Richmond, Calif.)

What would have happened with one person or no crew on the train?

SMART®
TRANSPORTATION DIVISION

INSURANCE JOURNAL

View this article
online: https://www.insurancejournal.com/news/national/2017/12/07/473390.htm

U.S. to Investigate Growing Length of Freight Trains as Threat to Safety

The investigative arm of the U.S. Congress is launching a probe into the safety of increasingly long freight trains being operated by CSX Corp, Union Pacific Corp. and other major U.S. railroads to boost profitability, the U.S. Government Accountability Office (GAO) said.

Train length is currently unregulated. Any push to add rules would likely face stiff industry opposition because railroads use longer trains to boost margins through the better use of fuel, locomotive power, and rail cars without having to add extra crew.

In addition to the GAO study, safety regulator the Federal Railroad Administration (FRA) has beefed up its presence at CSX rail yards, according to CSX employees and SMART Union Chairman Dale Barnett, citing conversations with FRA inspectors.

FRA spokesman Marc Willis declined to characterize concerns over CSX train length but said any appearance of increased inspections is due partly to safety complaints and a spike in railroad accidents or incidents.

“In recent months, there have been accidents involving long trains which are currently under investigation by the NTSB and the FRA,” Willis said.

The GAO will launch its study on safety and other impacts of longer trains in February, GAO spokesman Chuck Young told Reuters on Tuesday. The action was prompted by a Nov. 7 letter, seen by Reuters, from U.S. Representatives Peter DeFazio and Michael Capuano, both Democratic members of the House Transportation Committee.

DeFazio said his office has received complaints over safety and traffic jams at rail crossings.

CSX, the No.3 U.S. railroad by revenue, told investors in October its freight trains have increased more than 400 feet to 6,833 feet (2.08 km) on average since March, when newly appointed Chief Executive Officer Hunter Harrison launched his plan to boost profits and streamline operations.

CSX’s eastern U.S. rival Norfolk Southern Corp’s trains average longer than 5,500 feet, a year-to-date record, the company said in the third quarter.

Western U.S. railroad Union Pacific said it posted record third quarter "train size performance" after hitting a record in 2016.

"Longer trains maximize crews, locomotives, fuel and other resources," said Union Pacific spokeswoman Raquel Espinoza.

FRA data shows CSX's train accidents and incidents as a portion of miles traveled at the highest level in a decade after climbing in each of the last five years. (https://tinyurl.com/ybf6bqyy)

SMART Union transportation division spokesman John Risch told top rail regulator the Surface Transportation Board (STB) at an October hearing on CSX service problems the average U.S. train is up to 1.5 miles long (2.41 km), but CSX has routinely operated trains two or even three miles long since Harrison took over.

The STB declined interview requests.

CSX spokesman Bryan Tucker said the industry trend toward longer trains is a "tried and proven way to increase efficiency."

The latest concerns follow the fiery derailment of a 178-car CSX freight train in Hyndman, Pennsylvania in August, and the Nov. 27 derailment of a CSX train with 192 cars – nearly 2 miles long excluding locomotives – in Lakeland, Florida, spilling hazardous molten sulfur.

The FRA told Reuters it is also investigating the June derailment of a 13,147-foot CSX train in Crestline, Ohio.

National Transportation Safety Board rail division head David Bucher told Reuters train length and build were "an important part of the investigation" into the Hyndman crash, adding he was hesitant to draw conclusions about an ongoing investigation.

"Train lengths are increasing across the country," Bucher said. "It is becoming more and more common, not just with CSX."

The NTSB, FRA, and STB do not collect data on train length, except for specific accidents or mediations.

The American Association of Railroads (AAR) declined to comment.

CSX employees and union officials said many conductors lack experience to run long trains.

CSX's Tucker said the railroad's crews are fully qualified to operate longer trains and CSX uses computer modeling before running longer trains on a new route.

One CSX manager told Reuters FRA inspectors have showed up almost daily in recent weeks looking for long trains and conducting inspections at terminals in Cincinnati, Ohio, Waycross, Georgia, and elsewhere.

“They (FRA inspectors) do more blitzes than they used to, where several inspectors will show up in a place and stay for a couple days,” the manager added.

(Reporting by Eric M. Johnson in Seattle; Editing by Lisa Shumaker)

WITNESS INFORMATION FORM

Please complete the Witness Information Form before testifying:

Date: December 9, 2019

Name: C. Jared Cassity

Are you representing: Yourself: No Organization: SMART TD

Organization (If Applicable):

Position/Title: Alternate National Legislative Director

Address: 1750 New York Ave. NW, 6th Floor

City: Washington State: DC Zip: 20006

Best Contact Telephone: 202-543-7714 Email: jcassity@smart-union.org

Do you wish to be added to the committee notice email distribution list? Yes No X

Business before the committee

Legislation (Bill/Resolution Number): HB 186

Specific Issue: Railroad Safety

Are you testifying as a: Proponent X Opponent Interested Party

Will you have a written statement, visual aids, or other material to distribute? Yes X No

(If yes, please send an electronic version of the documents, if possible, to the Chair's office prior to committee. You may also submit hard copies to the Chair's staff prior to committee.)

How much time will your testimony require? Only submitting written testimony

Please provide a brief statement on your position:

Please be advised that this form and any materials (written or otherwise) submitted or presented to this committee are records that may be requested by the public and may be published online.