

Statement of Dennis R. Pierce
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and
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Committee on Transportation and Infrastructure
Hearing on
Oversight of the Amtrak Accident in Philadelphia
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Good morning, Chairman Shuster, Ranking Member DeFazio, and Members of the Committee. My name is Dennis Pierce and I am the National President of the Brotherhood of Locomotive Engineers and Trainmen, or BLET, which has nearly 39,000 active members; I also am the President of the 70,000-member Rail Conference of the International Brotherhood of Teamsters. My testimony today will encompass the views and concerns of both groups.

I would like to begin by offering my most sincere condolences to the victims of the tragic Amtrak 188 accident and to their families. One of the most difficult parts of my job is when I have to convey the BLET's sorrow to the families of members killed in the line of duty. I have had to do that eleven times — to the families of Glenn Steele, Chance Gober, Dan Hall, John Hall, Todd Burckhard, J. G. Hadden, Chris Carter, Tom Anderson, Tom Kenny, Stanley Watts and Darrell Amerson — since I became BLET National President on July 1, 2010, and unfortunately I fear that I will have to do it many more times during my tenure.

What is even more difficult to accept is when proven safety technology exists that could have prevented even one of those deaths. In fact, of the eleven names I just mentioned, five of those deaths could have been prevented by Positive Train Control alone. Further, for the period from 2005 through 2013, the NTSB completed 16 investigations of railroad accidents that could have been prevented or mitigated with Positive Train Control (PTC). These 16 accidents claimed 52 lives and injured 942 others; the damages totaled hundreds of millions of dollars. These figures exclude the PTC-preventable accidents that NTSB did not investigate. So believe me when I say that I share the frustration of those whose lives have been forever changed by the Amtrak 188 tragedy.

As background information, the BLET's Safety Task Force is a party to the ongoing National Transportation Safety Board investigation of Amtrak 188. An investigative team from the Brotherhood of Maintenance of Way Employees Division of the Teamsters Rail Conference also is assisting in the investigation. Both Organizations are governed by the NTSB's confidentiality rules and, therefore, and have been asked not disclose any investigative information that may have come to our attention unless it has been publicly released by the NTSB.

In this regard, the NTSB has publicly commented on two points. One is that excess train speed at the Frankford Junction curve contributed to Amtrak 188 leaving the tracks. The other is that this accident would not have occurred if PTC, as an overlay on top of the existing signal system, had been operational.

Beyond that, I can tell you that the Amtrak 188 tragedy places a number of core elements of federal oversight of the nation's railroads front and center. One is the statutory mandate that PTC be implemented by year's end. Another is the safety redundancy afforded by maintaining two-person crews in locomotive cabs. A third is the vexing issue of crew fatigue. Fourth, I want to briefly address inward-facing cameras as I am certain that subject will come up during this hearing. And, finally, I want to comment on the nation's expectations for Amtrak.

But before I turn to those issues, I'd like to spend a few moments giving you — and all those watching — the unique perspective shared by locomotive engineers and, indeed, all railroad operating employees. It is important that you spend a few minutes in our shoes, because what non-railroaders see as solutions to problems often bring with them adverse unintended consequences that we can identify in advance.

About one in ten thousand Americans is a working locomotive engineer today. We comprise one of the most highly skilled, highly trained and highly regulated and federally licensed professions in the nation's workforce. Our work is very dangerous, with the potential for catastrophe — for ourselves, our co-workers, the traveling public and the communities through which we work — always lurking in the background, as May 12th starkly reminds us.

Just as in nearly every other workplace over the past couple of decades, technology has revolutionized the workplace of locomotive engineers in freight and passenger service. In fact, the efficiency and the productivity of today's locomotive engineer are at levels that couldn't be imagined 50 years ago.

But the increased efficiency and productivity due in part to various technologies are increasingly being offset by heightened safety risks:

- The use of “distributed power” or DP locomotives — which are strategically placed in the middle or at the rear of freight trains even though they are controlled by the engineer on the lead locomotive — allows railroads to run much longer and heavier trains with one crew ... that's good in terms of efficiency and productivity. However, the engineer must divide his attention in order to monitor and control those sets of locomotives separately, including constantly making separate mental calculations to operate each set of locomotives ... and that increases risk.
- A large number of locomotives are equipped with “fuel saver” technology, which optimizes fuel consumption through a series of computer calculations ... again, good for efficiency and productivity. However, the system records all locomotive activity and if the engineer substitutes his or her professional judgment and experience for the computer algorithm, the engineer could suffer employment sanctions ... again, there is increased risk because the system punishes exercises of professional judgment and experience.
- Virtually every locomotive in America is equipped with an “event recorder” that records dozens of locomotive activities ... which, once more, is good for efficiency and productivity. However, event recorder data is routinely downloaded during a trip, and then analyzed by a computer program that looks for — among things — rapid manipulation of the throttle that increases fuel usage or rapid braking that more quickly wears out brake shoes

on locomotives and cars. When an anomaly is discovered, the computer automatically notifies someone in railroad management, which leads to a more in-depth investigation and, all too often, causes the engineer to suffer employment sanctions even when no accident or incident results ... once more, risk is increased because the system punishes exercises of professional judgment and experience.

A typical workday for today's freight locomotive engineer consists of up to 12 hours of monitoring and operating multiple train control systems, all the while doing his or her best to avoid the pitfalls presented by fuel saver and event recorder technologies, all of which distracts the engineer from focusing on the external environment in which the train is operating. Similar distractions exist for passenger and commuter engineers, who have to account for every minute of delay during their trip, even if the train's schedule allows that time to be made up when the train arrives at its final destination.

Today's operating environment also increases risk because engineers are punished for taking steps to avert a potential emergent situation. When I was a young locomotive engineer, the "old timers" used to tell me, "If you think you need to use your emergency brakes to avoid a problem and don't do it immediately, you're already too late." Today, I am convinced that preventable train accidents and incidents are occurring due to the fact that engineers have been trained under threat of discipline to *never* apply the emergency brake. When they do, even if it is to avoid an unsafe situation, engineers are routinely charged with a violation of railroad policy. In other words, the foundation of today's operation leads to accidents in situations where they wouldn't have happened in the past.

The fact of the matter is that the level of vigilance required of a locomotive engineer has reached the point of task overload in many parts of the industry. And when too much is expected of any system — whether man or machine — some type of breakdown is inevitable.

It's fashionable to look for a single cause of an accident, and when the cause appears to be a human error that usually seems to be the end of the inquiry. It's been said that if people would just not make mistakes then everything would work fine ... their otherwise faultless systems would run smoothly and without incident.

Anyone who engages in root cause accident analysis will tell you this is an oversimplification that punishes the person, in most cases an employee, and camouflages underlying systemic problems. If drivers obeyed every speed sign and every traffic law and never made mistakes there would be no car collisions; yet we mandate seatbelts and airbags because we know humans are not infallible. Because weaknesses and shortcomings in equipment design and operational practices are generally found if a thorough root cause analysis of an accident is performed, the question really must evolve into "which humans" made errors that contributed to the accident in addition to the last human assumed to have made an error.

So, for example, we know that Amtrak's Automatic Train Control (ATC) system was active for westbound moves through Frankford Junction, but was not active for eastbound moves, such as the move Amtrak 188 was making at the time of the derailment. Amtrak has explained that the westbound speed reduction from 110 mph to 50 mph entailed a higher risk than the eastbound speed reduction from 80 mph to 50 mph, which made ATC activation for the westbound move a

higher priority. Was that decision a human error that contributed to the accident? Similarly, if we eventually learn that, for some reason, the engineer of Amtrak 188 became temporarily confused as to his location, it may be reasonable to conclude that the simple use of speed signs in the approach to the curve, as a reminder, may have prevented this accident. That would raise a question whether the decision not to post such signs was a human error that contributed to the accident.

It also may be true that Amtrak was forced to prioritize ATC installation the way it did because the railroad did not have sufficient resources to implement ATC on a faster scale, including financial resources. Did the decision to not appropriate sufficient funding to implement ATC on a faster scale constitute a human error that contributed to the accident? Our attention is currently focused on the engineer's actions or inactions on May 12th, and while those actions may have been the last link in a chain of events leading to the tragedy, they are far from being the only link. And, so, it is within this context that I will now turn to the current status of PTC.

I. Positive Train Control (PTC)

I'm not going to take this Committee's valuable time by providing a chapter and verse recitation of the history of PTC. We all know that the NTSB has been advocating this type of technology for more than 40 years. In fact, I recently saw a table that I believe the NTSB prepared, covering August of 1969 through the end of 2013, which detailed over 140 PTC preventable accidents that killed 288, injured over 6,500 and resulted in over \$327 million in property damage. There has been PTC development, but no full implementation on any railroad throughout almost that entire period.

The final impetus for a PTC mandate was the September 12, 2008 head-on collision between a Metrolink commuter train and a Union Pacific freight train in Chatsworth, California. That accident claimed the lives of 25, and injured over 100 others who were on board. Congress responded swiftly — and appropriately — by enacting the Rail Safety Improvement Act of 2008 less than a month after the tragedy.

The RSIA established a December 31, 2015 deadline for PTC implementation on routes where it is required. However, significant segments of the industry began dragging their feet on PTC before the ink on the legislation was dry. These dilatory tactics included suing the Federal Railroad Administration in order to paralyze its rulemaking efforts to execute your mandate.

And even today industry lobbyists are telling you that the railroads need a blanket extension of five years. They also have built in a back door to their proposal that would add yet another two years to the deadline, pushing this life-saving technology all the way back to nearly 2023.

To be sure, there have been some significant problems. Obtaining radio spectrum has been difficult, particularly in some large metropolitan areas. And the Federal Communications Commission's process for approving radio towers was not designed for the volume of requests that PTC has triggered. These are legitimate roadblocks to a national implementation of PTC, and should be addressed as such.

But do these problems justify a blanket, industry-wide delay of 5–7 years? Amtrak doesn't think so. In fact, long before the May 12th tragedy Amtrak announced that it would be able to meet the

deadline. Coming from a railroad that relies so heavily on government funding, I think that says a great deal about whether the December 31, 2015 deadline is reasonable. Also — if my memory serves me correctly — BNSF Railway likewise plans to install PTC with or without a government mandate. These rail carriers should be commended for at least trying to meet the requirements of the law since it passed or even before it passed.

So I want to underscore today that you should not be stampeded into granting a blanket PTC delay. Address the legitimate peripheral problems, to be sure, but hold the industry's feet to the fire to implement as much as they can by the statutory deadline, and provide strong evidence of localized problems — to FRA's satisfaction — that may cause them to miss the deadline on some portions of their system. If you don't do that, you will reward bad behavior ... punish BNSF and Amtrak for making PTC the economic priority you demanded in 2008 ... and dishonor the memory of those who perished in Philadelphia on May 12th.

II. Crew Size

As much life-saving promise as PTC holds, it is by no means a silver bullet ... it won't prevent every railroad accident because it's not designed to prevent every railroad accident. This is important to remember, because there are some who erroneously insist that deployment of PTC will render the second crew member in the locomotive cab unnecessary. On freight trains that second crew member is the conductor, and on many Amtrak intercity trains that do not operate on the Northeast Corridor it's a second locomotive engineer.

While PTC as an overlay on an existing signal system will, indeed, prevent many serious railroad accidents, it cannot replace a conductor or a second engineer because the technology doesn't do all the things that those crew members do. In addition to in-cab safety redundancy at numerous levels throughout the trip, the public safety aspect of the duties of this second engine crew member includes, among other things ... monitoring the "left" side of the train for defects such as stuck brakes or shifted lading to mention just two ... observing the "left" side of highway-rail grade crossings for drivers who fail to stop for the approaching train ... and separating stopped trains that are blocking crossings, to facilitate the movement of motor vehicles operated by first responders and other emergency personnel who must cross the tracks.

Because we are here as a direct result of the Amtrak 188 accident, I also think it's important to summarize for the Committee how a lone engineer came to occupy the locomotive cab on that train because that question has been asked. Prior to 1983, crews for Amtrak trains on the Northeast Corridor and all commuter rail service in the Northeastern U.S. were provided by Conrail. The locomotives of conventional passenger and commuter trains were crewed by two individuals: an engineer and a fireman, each with separate duties and responsibilities. Multiple-unit passenger trains — such as the old Metroliners and non-locomotive-drawn commuter trains — had only an engineer, but the train crew had access to the operating cab at all times.

On August 13, 1981, the Congress passed the Northeast Rail Service Act of 1981, or NERSA, as part of the much larger Omnibus Budget Reconciliation Act of 1981. Section 1136 of NERSA relieved Conrail of any legal obligation to operate commuter service as of January 1, 1983, and Section 1165 relieved Conrail of any legal obligation to provide crews for intercity passenger service on the Northeast Corridor. Section 1143 of NERSA expressly eliminated the second en-

gine crew position on all locomotive-drawn commuter rail trains. Armed with that legislative precedent — and mindful of where its funding originated — Amtrak refused to crew Northeast Corridor trains after December 31, 1982, with any more than the one crew member identified by the Congress for the commuter trains running on the same tracks ... the locomotive engineer.

As you know, on April 13th, Congressman Young introduced the Safe Freight Act — H.R. 1763 — which would, if enacted, mandate that no freight train or light engine used in connection with the movement of freight may be operated unless it has a crew consisting of at least two individuals, one of whom is a certified locomotive engineer, and the other of whom is certified as a conductor. This is the same bill that was introduced as H.R. 3040 in the last Congress and had about 80 co-sponsors. Congressman Young's bill was referred to the Subcommittee on Railroads, Pipelines, and Hazardous Materials on April 14th, and we urge you to take action on the bill during this session. I would also suggest that the events of May 12th are cause for Congress to reconsider the 1981 NERSA language that eliminated the second set of eyes and ears on passenger and commuter trains on the Northeast Corridor.

III. Fatigue

Another oversight concern is crew member fatigue. Now, let me say at the outset that I am not suggesting fatigue was or may have been a causal factor in Amtrak 188. I don't believe that sufficient information has been obtained for anyone to make such a determination. However — and like PTC — fatigue mitigation has been a subject that NTSB has pointed to again and again as a causal factor in rail accidents.

This Committee knows well how serious this issue is. Hours of service laws governing operating employees were fundamentally overhauled by Congress in 2008, with enactment of the RSIA. But, I must tell you, I'm disappointed that very little progress has been made on this front since then.

Particularly troubling is the fact that post-accident discussions regarding how to prevent fatigue in the railroad industry have almost uniformly centered on processes to identify individual workers who may be suffering from a sleep disorder and removing them from work until they obtain medical treatment. Completely ignored are the very same fatigue factors that affect locomotive engineers and trainmen regardless of whether they have a sleep disorder — namely, poor lineup information and far too many surprise calls for work — that we have identified for more than a decade. Confirmed data has also shown that variable work cycles where engineers move from shift to shift routinely contribute to fatigue, yet very little has been done to address any of these issues.

The fact of the matter is that the only relief from fatigue the RSIA-driven changes have provided has come from additional time off duty and restrictions on contact by the railroad during statutory off-duty periods. Little meaningful progress has been made towards greater predictability of work schedules since you enacted RSIA nearly seven years ago, and the railroads have tightened down their attendance policies to the point where exhausted operating employees are going to work tired rather than risk discipline or dismissal by calling off fatigued. I am here to tell you that C-PAP machines that treat sleep apnea will not begin to solve the railroad industry's systemic crew fatigue problems when the involved employees are not given reliable predictions as to

when they need to get their rest. It is clear to me that Congressional oversight of railroad safety needs to ramp up its efforts regarding predictability of work.

IV. Inward facing Cameras

I also would strongly urge you not to blindly jump on the inward-facing camera bandwagon. These cameras are an accident investigation tool and not an accident prevention tool. Not a single life would have been saved if the locomotive cab on Amtrak 188 had been equipped with an inward-facing camera. Installation of cameras will provide the public nothing more than a false sense of security.

Over the 25 months since the first Class I freight railroad filed suit against us — seeking a judicial green light to install these cameras — we have engaged in countless discussions with individual railroads, groups of railroads, the Federal Railroad Administration, and within the FRA's Railroad Safety Advisory Committee. So what I'm about to say should come as no surprise to anyone in the industry who has been paying attention.

Our primary concerns are similar to many concerns in America; they are about privacy and the railroads using the camera data punitively against employees. On the privacy issue, engineers and trainmen are all but captives on locomotives for up to 12 hours, with no ability to ever leave the locomotive cab in many cases. Yet, more than 2 years into these discussions, the railroads continue to refuse to even consider shutting the cameras off when trains are stopped. This level of continual surveillance for up to 12 hours — whether the train is moving or stopped — and with no way to ever take even take a break from that surveillance is oppressive and un-American. Insofar as punitive use of video data against locomotive engineers and trainmen is concerned, you only need to review what has happened since you last revised Whistleblower protections found in 49 U.S.C. Section 20109 to confirm that many major railroads routinely retaliate against their employees. Our concerns are not without merit.

BLET has also made suggestions both to the freight carriers and to the FRA that the railroad industry follow the cockpit voice recorder model for the aviation industry. That model includes use of data for purposes of federal accident/incident investigation, with privacy protections enacted in law or regulation. It also provides for detailed, collectively bargained conditions on whether, when and how such data is used by a carrier in its own internal processes.

The industry has rejected these good faith proposals out of hand and — in light of the failure by the RSAC to reach consensus on a proposed inward-facing camera regulation — it is apparent that FRA will have to issue a regulation based on its best judgment. I sincerely hope FRA will give appropriate consideration to the legitimate problems we have identified. It is clear to our Organization that the money being spent on cameras would be better spent installing true lifesaving technology like PTC, which would actually prevent an accident as compared to getting film of that same accident. I expect we will have more for you to consider in the coming months, but felt it was important for you to hear our position directly.

V. Support for Amtrak

Finally, and with all due respect to the Speaker, some things do come down to dollars and cents, at least for Amtrak. That's why the railroad's PTC implementation deadline is December 31,

2015, and not December 31, 2014. It's why ATC was operational westbound at Frankford Junction on May 12th, but wasn't operational eastbound at that location. It's why Amtrak doesn't have a second crew member in the cab of the locomotive, all of these items cost money.

All U.S. transportation modes are federally supported but — relatively speaking — passenger rail receives crumbs. When compared to the rest of the world, federal support for Amtrak in the Number One economic power on the globe is nothing less than shameful. Last year, 5.8% of China's government spending was on rail, and one-half of one percent of the U.K.'s government spending was on rail. The U.S. share? A minuscule three one-hundredths of one percent.

Calculated as a percentage of gross domestic product, 2013 government investment in rail in Britain was four times the U.S. investment. The French and the Australians invested six times as much as we did. And over the past decade we have consistently lagged behind India, Russia and Turkey.

We cannot continue to demand that Amtrak operate a first-class railroad while at the same time funding it at Third World levels. We cannot expect reliable performance from the portions of the Northeast Corridor infrastructure that are 75 ... or 100 ... or 125 years old. And we shouldn't turn our noses up at a transportation mode that pays 85% of operating costs out of the farebox because of a retreat by some from the consensus in favor of federal support of transportation that dates back to before my 152-year-old Union was founded. It strains our collective memory to think of a case where we attack a problem by defunding it when we want a positive outcome. Programs or institutions that are defunded by Congress are defunded for one reason and one reason alone: so that they wither on the vine and die.

I'm going to resist the urge to climb up on my soapbox here, but I want to stress that the public transportation infrastructure upon which our nation and economy were built over generations is crumbling around our feet ... and that includes Amtrak. Amtrak is a good investment, and a necessary resource. And shortchanging Amtrak creates its own costs elsewhere. I strongly urge you to provide the resources necessary for Amtrak to thrive and grow, and not just to limp along.

Chairman Shuster and Ranking Member DeFazio, I appreciate the opportunity to address you today. Working together over the years with this Committee — and with the Railroads, Pipelines, and Hazardous Materials Subcommittee — much has been accomplished to enhance rail safety, and I look forward to working with you to implement the lessons learned from Amtrak 188. Thank you for inviting me to speak, and I will be happy to try to answer any questions the Committee may have.