

Testimony by

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Development, and Related Agencies**

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**Amtrak
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Railroad Safety at Amtrak

Introduction

Good afternoon. I wish to extend my thanks to Chairman Collins, Ranking Member Reed, and the whole subcommittee for setting aside time today to focus on railroad safety. My name is Stephen Gardner and I serve as Executive Vice President and Chief Commercial Officer for Amtrak and it is my pleasure to testify here today on behalf of our 20,000 dedicated employees.

While FY 2018 began with a strong start operationally, the fiscal year has turned into a particularly challenging year as the company has faced a number of tragic accidents that impacted our customers and our employees. The December derailment of Train 501 near DuPont, Washington, the February collision between Train 91 and a CSX freight train in Cayce, South Carolina, several high-profile grade crossing and trespasser incidents and the recent death of an Amtrak employee in Bowie, Maryland weigh heavily on all of us at Amtrak, prompting us to review and strengthen our policies, training, and operations to ensure they reflect the highest degree of safety possible.

After the December 2017 Train 501 accident in Washington state, Amtrak decided to hire a new Chief Safety Officer who would devote all his attention to learning from the incidents in recent years and put in place new safeguards for our customers and employees. For this position, the company selected Ken Hylander, who joined the railroad in January 2018, reporting directly to CEO Richard Anderson. Ken most recently served as Chairman of the Flight Safety Foundation, previously served as the Chief Safety Officer at Delta Air Lines, and brings more than three decades of experience in the aviation industry. He retired as a senior vice president from Delta Air Lines in 2014, where he successfully managed the occupational, operating safety, security, quality, and environmental compliance programs. Foremost among his duties is to lead the Amtrak Safety Team and whole company in its implementation and operation of a Safety Management Systems (SMS), which I am pleased to report is underway.

SMS Implementation Plans

Safety Management System (SMS)

Amtrak is implementing a SMS to improve our approach to safety by primarily strengthening hazard identification and complimentary mitigation programs. An SMS is a proactive risk management system, which will move us toward a more predictive safety management method at an organizational level. Having a safety mindset that continually identifies and mitigates future risk is the demonstrated way to improve overall safety performance. It has been a cornerstone of improving safety in many industries, including aviation, health care, and energy – and it is the right system for Amtrak.

As a company, an effective SMS will help us gather better safety data for decision making; systematically analyze safety risks before we do something, not after; and have closed-loop processes that identify hazards, mitigate them, and verify efficacy. Additionally, our safety processes will be fully integrated into our organizational decision-making and supported by strong oversight to ensure compliance with the practices we want to implement. At a personal level each Amtrak employee will know his or her role in the safety process.

We know that the implementation of an SMS is a significant undertaking – it requires our organizational commitment. SMS demands that all safety related procedures must be carefully documented, universally understood, and unfailingly applied. SMS is designed to advance that outcome by formalizing our knowledge into processes, procedures, and governing documentation in order to improve consistency. These efforts are in line with the NTSB’s recommendation that Amtrak, and our unions, implement a SMS program and are generally consistent with the Risk Reduction Program approach mandated by Congress in the 2008 Rail Safety Improvement Act and required by FRA through the development of a System Safety Program. Amtrak believes the implementation of SMS will truly take our safety performance to the highest level of service and we are already starting to see some of the benefits of this type of system at our railroad.

SMS Implementation Governance

The Amtrak Safety Team has identified priority areas and gained support for their plans to address these issues from the Board of Directors and Amtrak leadership. These demonstrations of high-level support reinforce the message across the company that safety concerns will underpin all we do, and guide every decision we make.

As part of this effort, Amtrak’s Executive Safety Council serves as a sounding board for SMS implementation across the company. Made up of representatives from across the railroad, this Council is identifying opportunities for collaboration and removing barriers to ensure coordinated execution of our safety efforts, while providing a crucial forum for communications across the organization. Similarly, a more front-line group of Safety, Compliance, and Training personnel are meeting bi-weekly to manage the implementation of SMS priorities. This multi-tiered approach involves people from many different organizations, soliciting ideas from all of them while making clear the central importance of our safety efforts.

Concurrent with these efforts and under the terms of our High Speed Rail agreement with the Federal Railroad Administration, Amtrak is required to submit a full System Safety Plan (SSP) by November 1, 2018. This plan will cover areas such as risk assessment, configuration management, and change control, and will form the blueprint for new operational practices we will adopt as part of the introduction of our second-generation Acela Express service. This SSP is being prepared within the framework of our new SMS methodologies and is a valuable opportunity for multiple disciplines across the company to work together and focus their attention onto matters of safety.

Safety Policy and Promotion

Amtrak Board Resolution, New Corporate Safety Policy and Annual Safety Letter

Communication is key to the success of any significant program to change behaviors across an organization. In March 2018, Amtrak’s Board of Directors passed a resolution which endorsed and required our industry-leading implementation of SMS, our Positive Train Control (PTC) compliance efforts, and the associated SMS risk assessments of territories not likely to have PTC by the December 2018 deadline. This resolution was an important step to move forward with these safety initiatives and demonstrates a commitment to safety at the very top of the Amtrak structure to all of our employees and stakeholders.

Following the Board Resolution, Amtrak Executive Leadership Team approved a new safety policy and released it to employees early April 2018.

The key points of the new safety policy are:

- Our goal is to become America’s safest passenger railroad. We believe that zero accidents and zero serious injuries is possible – and we will work together towards everyone performing at this level.
- All business functions are expected to make safety an integral element to how they operate. This commitment is central to SMS. Everything we do must consider and advance our safety performance.
- We will operate at the highest level of safety – by exceeding regulatory standards. It is not good enough for us simply to meet Federal Railroad Association (FRA) guidelines. We must do better.
- We will proactively identify and mitigate risk based on data. We are identifying new metrics that will allow us to focus on leading indicators – instead of relying on historical incident data.
- We will become a stronger “learning” organization where safety self-reporting is encouraged. We will not discipline employees for self-reporting a safety issue. We need to know where we are falling short in safety so we can study these incidents and learn from them.
- All employees are empowered to stop an operation if an unsafe condition exists. This means everyone – at any time.
- We must not tolerate an intentional disregard for safety or reckless behavior. These incidents will be handled appropriately.

Amtrak’s Executive Leadership team also released its first annual Safety Letter as part of this policy. Going forward, we plan to refresh the policy with an annual letter to make sure the material and priorities are relevant and clearly understood across the company. While these communication steps are essential, they don’t change safety on their own. Actions and behaviors determine safety culture and outcomes and we are moving forward with concrete steps to implement SMS.

Risk Management

Safety Metrics

To obtain better insights into our operations and uncover potential safety issues as early as possible, Amtrak's Safety Team is working to develop a new set of metrics, which will connect with our Operating Plan objectives. These metrics are part of a larger, more fundamental effort to move away from a "violation/discipline" mindset to something closer to what was in use at Northwest Airlines and Delta Air Lines, where both Mr. Anderson and Mr. Hylander drove world-class safety results. Our new metrics will foster a multi-variable "Safety Index" concept, which will measure customer and employee safety, along with operating anomalies and other key indicators of safety performance. Understanding data and managing outcomes driven and prioritized by that data are key principles of a SMS. These changes will cascade down through Amtrak starting at the executive level and reaching the field to provide clear and consistent expectations for our employees.

We are also implementing risk-based hazard management systems, starting with our Transportation employees. Building on lessons learned from the incidents of the past few years, we aim to provide risk assessment toolkits to our employees. We will make sure adequate training is provided so our crews can get the most out of these resources. On a related note, we are working to enhance our Voluntary Safety Program – the Confidential Close Call Reporting System (C3RS). Working together with our employees, we can make these existing programs more impactful on day-to-day performance at Amtrak.

Risk Assessment

Signal Suspension Risk Assessments

Following the tragic February Train 91 accident, we have launched a Signal Suspension Risk Assessment initiative. Driven by our determination to safeguard our customers and employees, and not simply adopt the standard operating practices of our host railroads, we now have a new review process instituted for known and planned signal suspension events. Featuring more centralized decision making than past practice, the deliberations under the new policy naturally rely on input from our Transportation and Safety groups. This formalized risk assessment process helps decide what mitigation strategy or strategies need to be adopted to safely operate through these areas. Possible responses to signal suspensions include rerouting a train, operating at reduced or restricted speeds, coming to a stop before operating over switches, and even the possibility of canceling an operation entirely. Since this approach was instituted in late March 2018, it has been successfully used dozens of times.

Enhanced Route Qualification

To address opportunities to strengthen our qualifications practices coming out of Train 501, changes to our routes and services are now evaluated for impacts to safety under a

consistent and centrally managed process. This formalized process sets forth minimum acceptable engineer and conductor route qualification and training required as it relates to the number and timing of trips and the physical characteristics requirements. The new approach also stipulates post-qualification “check ride” requirements, as well as both physical observations and event recorder reviews to ensure operating rules compliance.

Inward-Facing Cameras

Following the May 2015 Train 188 accident, Amtrak announced its plans to add inward-facing cameras to the cabs of our locomotives and we have made significant progress with that effort. We now routinely review such footage as part of our safety data collection in the places where it is available. We are moving forward with installations on our current Acela trainsets, which will be completed by the end of FY 2018. On the National Network diesel fleet, the outward-facing camera technology currently installed is approaching obsolescence, so we are working with vendors to develop an integrated solution which meets crash-hardened criteria and can process larger file sizes. We also continue to explore better options, as the field is advancing rapidly.

Changes to Charter and Private Car Operation Policies

Last month, Amtrak announced changes to our charter train and private car operations policy. With these new policies, we will avoid the operational risks of operations over “one-off” routes that we don’t normally serve and minimize the distractions that charter and private car operations cause, enabling our personnel to focus on our core railroad operations. In addition, our new policy on private cars will help ensure that our customers and your constituents are not delayed in order to couple a private car to an Amtrak train. Ultimately, we think this is in the best interest of all our customers and your constituents who expect, rightfully so, to have the best service our operations can provide and arrive at their destination on time.

Safety Assurance

One of the important components to SMS is safety assurance, which requires continual data analysis, testing, monitoring and investigation of your safety system to show that it is functioning properly. These measurements are important for identifying a root cause or trend and ultimately plot a course of action moving forward. To that end, Amtrak is developing a formalized process for incident and accident investigations. We are also implementing an assessment tool through an Internal Evaluation Program (IEP) for critical self-assessment of safety processes.

Enhancing Operations and Data Collection and Analysis

We are making improvements in our internal practices and rules compliance testing, known as “efficiency testing”, with better data management and analysis software, using the test result data to drive operating improvements through our training programs. We are also focused

on our testing process to ensure the credibility of the data points and collection. We have also invested in our data management tools to enhance our analysis capabilities, including our use of event recorder downloads and analysis, moving from on-demand downloads to routine downloads – all trains, every trip, every day.

Positive Train Control

One of the most critical tools that the rail industry needs to improve safety is the prompt implementation of Positive Train Control (PTC) technology. As Richard Anderson recently testified, PTC must be standard for all Amtrak routes and this technology will make the entire U.S. rail network safer for passengers, railroad employees, and communities.

Amtrak is a leader in the installation of PTC, having already deployed systems across many of the tracks we control. As we stated in a letter to Secretary Chao, we are set to complete the required installation of PTC on the remaining elements of the infrastructure we control and on all our equipment by the December 31, 2018 deadline.

For the tracks we use but do not own or control, we are cooperating with our freight and commuter host railroads as they advance their obligations to complete PTC installations, which are required either because of the presence of passenger trains or certain hazardous material. Additionally, the various freight and commuter railroads that operate over Amtrak's infrastructure must equip their rolling stock with PTC for use on our infrastructure and we are working cooperatively with them to advance these tasks.

As the Subcommittee knows, railway operations in the United States require multiple companies and agencies to cooperate closely to ensure the safe, reliable, timely operation of various types of trains across differing networks. Integrating PTC into this complex environment is a significant undertaking for the industry and its suppliers. While Amtrak is eager to bring this technology online, it has been a difficult process and required the dedication of significant resources, both in terms of funding and personnel.

PTC relies on three interdependent elements, all of which must be in place for the system to function. The first includes equipment that must be installed on the locomotives by owners and operators. Second, trackside equipment must be installed by host railroads along the protected routes that monitor signals, switches, and track circuits. Third, there are computer systems, or back office servers (BOS), which link the locomotives and the trackside equipment while integrating more information about the network. Additionally, each host railroad and rail operator must have a BOS and ensure it is correctly integrated before the system can be operational. All of this must be done in the proper sequence, and for the carriers required to use the system, it must be achieved in accordance with the timetables set by law.

Locomotive Installation

The first part of a PTC system is the equipment installed on locomotives and cab cars, which monitors a train's position and speed and activates braking as necessary to ensure compliance with speed restriction and territorial limits. The complexity of our operations requires Amtrak to use three different PTC systems across our network. Since 2000, Amtrak's Northeast Corridor operations permitted to exceed 125 mph have depended on our first form of PTC called Advanced Civil Speed Enforcement System, or ACSES. By the end of 2015, Amtrak enabled ACSES for all our locomotives, cab cars and trainsets operating on the NEC. For equipment that operates on a 98-mile stretch of track Amtrak owns in Michigan and to permit higher speed operation on the newly purchased and upgraded line owned by the State, we have installed a second form of PTC equipment, called ITCS.

To operate across the other host railroads that make up 72 percent of the miles our trains travel, we are also installing a third form of PTC in our locomotives to integrate with another system called I-ETMS in use by freight railroads. Apart from our locomotives and rolling stock, several of our state partners also own their own equipment which we operate and maintain. Amtrak is working with these owners and various suppliers to help achieve compliance prior to year's end.

Trackside Equipment

The second part of a PTC system is the trackside equipment, which monitors railroad track signals, switches, and track circuits. By law, each railroad owner is responsible for installation of PTC equipment on the tracks within their rights-of-way. Additionally, the hosts are responsible for reporting their PTC trackside readiness schedule to the FRA. Amtrak is working with the host railroads to develop an implementation schedule for PTC integration and testing. While 9 out of 19 host railroads that will be using I-ETMS have not provided a notice of intent to start PTC testing, the six Class I railroads that own the majority of the track over which Amtrak operates (BNSF, CSX, NS, UP, CN and CP) have all provided letters of intent.

Regarding the trackside installations for which Amtrak is responsible, Amtrak completed the ACSES PTC implementation on all but a few miles near terminals and stations on the NEC in December 2015 and on the Harrisburg Line during the first quarter of calendar year 2016. On our Michigan Line, trackside PTC implementation on our segment was fully completed in 2011 and the State-owned portion of our route to Detroit will be completed by the end of December 2018. Installation of the ACSES PTC system on Amtrak's Springfield Line will also be completed by late the end of December 2018 and we will soon begin hardware installation on the portions of the Hudson Line in New York which we control, with implementation expected by December 31, 2018.

Back Office Servers (BOS)

The third part of a PTC system is the back office server, which stores all information related to the rail network and trains, and transmits authorization for individual train movements. Each host railroad and each rail operator will have a BOS that enables the necessary information exchanges. For a BOS to be operational, the tenant who operates over a host railroad must establish a dedicated two-way communication link between their BOS and the host BOS, a

process known in the field as federation. Amtrak's ACSES system does not require a BOS, so Amtrak only needs a BOS for its ITCS system in Michigan and its I-ETMS operations over freight hosts.

Amtrak's BOS will pass crew and train information to the host railroad system, as well as to the locomotives themselves. Amtrak's BOS is currently operable. The next step in the process is federating the Amtrak BOS with the 18 host railroads using I-ETMS, and current estimates suggest this will occur with twelve of them before the deadline. There are six hosts where Amtrak does not currently expect to have federation complete by the end of the year.

Potential Operational Scenarios under PTC

As a whole, the rail industry is moving forward, so as we look forward to the various scenarios we expect to encounter starting on January 1, 2019, it is important to note that some of our partners will have PTC implemented and operational in time for the December 2018 deadline. Where this is the case, Amtrak will continue to operate passenger rail service with the certainty that PTC is operational on that route.

However, a phased implementation brings us to a number of challenging policy questions facing Amtrak, FRA, Congress and the various railroads we interact with across our network. It is now clear that we are likely to encounter four different scenarios where PTC is not yet operational by the end of the year.

First, there will be carriers that made sufficient progress to apply to FRA for an alternative PTC implementation schedule under the law. In these instances, Amtrak's equipment will be ready for PTC operation, but additional work, testing or approvals are still required by the host railroad before the system is considered functional. At this time, we believe there is only a small percentage of segments outside the NEC that will face this situation.

Second, there may be carriers over which we operate who appear unlikely to achieve sufficient progress to apply for an alternative PTC implementation schedule by year's end. For any such route segments, Amtrak will suspend operations until such time as the carrier becomes compliant with the law.

Third, there are areas over which we operate for which there is an FRA "Mainline Track Exclusion Addendum" (MTEA) in place exempting that segment from the PTC requirements based on the low levels of freight and passenger train traffic or the presence of low-speed operations, such as in yards and terminals. We are currently conducting risk assessments on these routes and determining the appropriate risk mitigation efforts needed for continued operations.

Lastly, there may be railroads that operate over Amtrak tracks in the NEC which may not have sufficient PTC-commissioned rolling stock by the December 31, 2018 deadline to operate normal services. Under the present rules, Amtrak cannot permit non-compliant equipment to be used over our railroad after the deadline and we are working closely with our partners and the FRA to determine the best way to address these situations.

I want to re-emphasize that Amtrak has not made any decisions to cease train operations across our network or on any specific routes at this time. Instead, we are thoroughly analyzing each route on a case-by-case basis and considering the appropriate strategies for enhancing safety on such routes, where possible, for operations after the December 2018 deadline. In particular, as we assess these routes, we know that some of them are shared with our commuter partners who face their own challenges to reach the deadline.

Fiscal Year 2018 and 2019 Appropriations

Before closing, I especially want to thank the members of this subcommittee and their staff for all the hard work and late nights that were dedicated to crafting, and eventually passing, the FY18 appropriations bill. We at Amtrak know it was not an easy task, and on behalf of our CEO and Board of Directors, I wish to offer our sincere appreciation.

The FY18 bill provided \$1.94 billion for Amtrak, an increase of more than \$400 million above last year's levels. This much needed additional funding will support long-standing critical infrastructure projects on the Northeast Corridor (NEC) and allow Amtrak to continue to improve our assets and operations across our National Network. This strong support allows us to move past simply maintaining the status quo and begin to address the twin challenges of old and unreliable assets and growing passenger demand. We look forward to working with the subcommittee as we progress the programming of these funds and you consider funding levels for FY19.

Equally important, the bill also included funding for several Federal Railroad Administration (FRA)-administered discretionary grant programs that will supplement Amtrak's annual grant funding and will further advance intercity passenger rail. For example, the Federal State Partnership for State of Good Repair grant program now has \$250 million to help repair or replace some of the nation's most critical assets, like the tunnels and bridges that many of your constituents use every day to travel to work and support the national economy. The Consolidated Rail Infrastructure and Safety Improvements Program (CRISI) received \$592 million to improve the safety, efficiency, and reliability of rail, including funding for PTC. Additionally, the FTA Capital Investment Grant program, and in particular the funds set aside for Core Capacity, has the potential to advance key infrastructure projects that we share with our commuter partners. These grants are just a few of the programs funded in the FY18 bill that will support passenger rail, and we fully intend to work with our various, state, commuter, and host railroad partners to pursue all appropriate grant opportunities once the official funding notices are made available by DOT.

Taken together, your subcommittee and this Congress have made historic investments in passenger rail that we believe will serve as the foundation for a new era of modernization and improvement. Like you, we see the value rail service brings to transportation, communities and our economy. We are confident in the increasing relevance of intercity passenger rail in 21st Century America, as population growth, greater urbanization, increasing air and highway congestion and a generational shift away from driving all propel consumers to our mode. From

growing ridership and revenue to the significant reductions we have made in our operating losses, our progress is clear.

It is encouraging that Congress reached a two-year deal to raise the budget caps for FY18 as well as for FY19 which permits an increase in vital infrastructure funding. As you now begin your work on FY19 appropriations, we hope that the FY18 enacted levels will serve as the new baseline for funding levels for passenger rail. We have good momentum underway on improving safety and rebuilding the railroad for the future and by continuing robust levels of investment in FY19, we can finally make sustained progress towards the major infrastructure projects and fleet needs so critical to this nation and to your constituents.

Thank you for the opportunity to appear before you today, and I welcome your questions.