TESTIMONY OF

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BEFORE THE

SUBCOMMITTEE ON RAILROADS, PIPELINES AND HAZARDOUS MATERIALS

OF THE

HOUSE COMMITTEE ON TRANSPORTATION AND INFRASTRUCTURE

ON "OVERSIGHT OF PASSENGER AND FREIGHT RAIL SAFETY"

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SUBMITTED BY

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The American Public Transportation Association is a non-profit international association of more than 1,500 public and private member organizations, including transit systems and high-speed, intercity, and commuter rail operators; planning, design, construction, and finance firms; product and service providers; academic institutions, transit associations and state departments of transportation. APTA members serve the public interest by providing safe, efficient and economical transit services and products. More than 90 percent of the people using public transportation in the United States and Canada are served by APTA member systems.

Introduction

Chairman Denham, Ranking Member Brown, and members of the Railroads, Pipelines, and Hazardous Materials Subcommittee, on behalf of the American Public Transportation Association (APTA) and its more than 1,500 member organizations, I thank you for this opportunity to testify on the oversight of passenger and freight rail safety. My name is Michael Melaniphy, and I am the President and Chief Executive Officer of the American Public Transportation Association. We appreciate the subcommittee's attention to the critical issues of rail safety and positive train control and the struggles publicly funded commuter railroads have encountered as they attempt to implement this technology.

About APTA

The American Public Transportation Association is a non-profit international association of more than 1,500 public and private member organizations, including transit systems and high-speed, intercity, and commuter rail operators; planning, design, construction, and finance firms; product and service providers; academic institutions, transit associations and state departments of transportation. APTA members serve the public interest by providing safe, efficient and economical transit services and products. More than 90 percent of the people using public transportation in the United States and Canada are served by APTA member systems.

Overview

First and foremost, please let me state that APTA is unequivocally committed to safety: passenger and employee safety is the number one priority on our nation's commuter railroads. Since its inception, APTA and its predecessor associations have been vocal advocates and active instigators for safety improvements. In the mid-1990's, APTA developed the Passenger Rail Equipment Safety Standards (PRESS) program to develop safety standards for commuter rail cars. In fact, just last week the railroad industry's commitment to safety was heralded by Federal Railroad Administrator (FRA) Joe Szabo, who announced safety statistics citing that "since Fiscal Year (FY) 2004, train accidents and derailments have each declined 47 percent and highway-rail grade crossing accidents have declined 35 percent." And additionally, the FRA's "preliminary data indicates that FY 2013 was even safer than FY 2012, our safest year on record." With that said, we are always working to make commuter railroads safer.

Commuter rail safety has improved in recent years, but we continue to strive for superior safety. Commuter rail ridership has grown by 42% since 1990, going from just under 328 million trips then to more than 466 million trips in 2012, and safety on the nation's commuter systems has improved. Over the past 10 years, fatalities have declined from just above 0.9 per 100 million passenger miles to 0.5 per 100 million miles in 2011. While commuter rail operators will always seek to improve and enhance safety, it is clear that travel by commuter railroad is among the safest modes of travel in the U.S.

Public Transportation Industry Safety and Initiatives

In similar testimony before this subcommittee last year, we were asked to address rail safety policy in the context of broader passenger rail legislative priorities. Public transportation generally, and commuter and passenger rail specifically, are among the safest modes of transportation. It is important for Congress and the general public to know that the people involved in the operations and management of commuter and passenger railroads, and public transportation systems in general, are completely committed to the safety of their systems, passengers and employees.

As noted, public transportation is one of the safest modes of transportation. In fact, public transportation has half the fatalities and only 40 percent of the injuries of automobile travel. According to analysis completed for the Transit Cooperative Research Program, public transportation is the safest mode for travel within a city. Public transportation's fatalities are 0.54 per 100 million passenger miles traveled, compared to 0.85 per 100 million passenger miles traveled for autos. According to the Centers for Disease Control, each day, 15 older adults die in car crashes and 500 are injured. They recommend the use of public transportation as a strategy to increase safety. Furthermore, for those under the age of 35, car crashes are the leading cause of death. Public transportation use can reduce exposure to high-risk activities, particularly for groups with higher than average auto accidents and fatalities.

Industry Safety Programs

In terms of particular safety aspects, any particular technology or practice should be recognized as but one element of an overall integrated approach to system safety. An effective safety culture is more important than any one specific procedure or technology. It begins with the commitment of the organization and senior leadership, working in collaboration with employees and labor in adopting common safety goals and expectations. The transit and commuter rail industries have been leaders on safety improvements over a 20 plus year evolution during which a great deal of attention and effort has been directed toward development of standardized systems and approaches to the delivery of safe service and work environments.

As an example, all commuter rail agencies have developed Safety Management Program Plans, the framework of which is based upon APTA's Rail Transit Safety Audit Program. The APTA Safety Audit program is a voluntary, comprehensive program developed more than when a number of North American rail transit systems requested APTA to develop and implement a standardized format for rail system safety and to provide an auditing service that would enable a transit system to determine the degree to which the standardized elements for rail transit system safety were being addressed. By way of adapting existing industry best practices and system safety standards from the aerospace industry, the APTA Rail Safety Audit Program was inaugurated in 1989. This program was subsequently adopted in 1996 by the U.S. Department of Transportation Federal Transit Administration as the base guideline for its federal state safety oversight requirements.

The benefits derived from participating in the APTA Safety Management Program include adoption of standardized safety management practices, safety management processes for service

delivery and workplace safety, and mechanisms for continual improvement of system safety. Effective Safety Program Implementation includes policies and procedures on: Facilities Maintenance and Inspection; Vehicle Maintenance, Inspection and Repair; Rules and Procedures Review; Training and Certification; Emergency Planning and Response; Workplace Safety Program; Passenger and Public Safety; Rail Corridor Operational Study; and Environmental Management Programs. These are just a portion of the lengthy list of considerations involved in ensuring a safe system.

Peer Review Panels are also available to APTA members, which enables a transit system's general manager to request a team of transit operating industry professionals to perform a review of specific operating, security or safety problems or conditions with the intent to make corrective action recommendations. APTA provides direction and staff support to the panel during and immediately following the on-site review and also edits, with direction from panel chairperson and input from the entire panel, the final report which is then shared with the transit system.

Standards Development

Additionally, industry developed standards (such as PRESS and others) are contributing greatly to ongoing safety improvement. APTA has written over 270 standards and recommended practices, 71 of which address particular safety needs for mainline rail equipment, and over 111 for rail transit alone. Standards help improve the safety of public transportation systems by addressing vehicle crashworthiness, passenger door systems, emergency lighting and evacuation, and new standards to improve the safety of vehicle interiors including seat attachment strength and safer workstation tables. APTA has initiated new efforts within its standards body to improve current standards on vehicle design affecting derailments and has initiated new studies to better understand the potential for derailments at slow operating speed. Standards also define safe operating practices, inspection and maintenance of equipment, train control maintenance requirements, electrical propulsion system design, catenary electrical distribution wire maintenance, and wheel and axle assembly procedures among many other areas of a general nature including cyber and physical security, railcar procurement, tunnel ventilation, and sustainability.

APTA also partners with the FRA, AAR and labor in developing rules to help design, build and operate safe transportation systems. In this regard, APTA is very active as an industry representative within the RSAC. Recently FRA and industry have collaborated on the development of language for new safety rules particular to high speed rail equipment. The public transportation industry and especially our commuter rail agencies will continue to maintain a strong emphasis on safety.

Finally, APTA continues to maintain active standing committees of the industry that meet on a regular basis to discuss current issues, effective practices and lessons learned through the following committees; Rail Transit Committee; Commuter Rail Committee; Rail Safety Committee; Commuter Rail Safety Committee; and the Risk Management Committee. APTA actively participates through its staff and industry representatives on the numerous FRA Rail Safety Advisory Committee working groups to address current and emerging safety issues. APTA maintains a close working relationship with the National Academies' Transportation Research Board to participate on its various safety-related research activities and to also distribute its resources out to our industry. APTA also maintains a close working relationship with the National

Transit Institute (based at Rutgers); the Transportation Safety Institute; the John A. Volpe Center (Cambridge, MA); and the Transportation Technology Center (Pueblo, CO), to actively participate on safety-focused research, training and testing. Issues pertaining to rail safety are highlighted in sessions at all APTA conferences. And, in liaison with support from the TSA, APTA manages and provides a daily security/ public safety information service through the Public Transit Information Sharing Analysis Center (PT-ISAC). As areas and issues in public transportation emerge, APTA addresses these issues through information sharing, teleconferences, webinars, industry tasks groups and dialogue with relevant stakeholders. Examples include; MAP-21; State of Good Repair/ Asset Management; Positive Train Control; federal NPRM's and ANPRM's. The bottom line: there is a constant dialogue and information sharing process within our industry on all aspect of safety and the practices, processes, and investments necessary to keep our riders, employees and communities safe.

Positive Train Control (PTC)

As the members of this committee also know, the Rail Safety Improvement Act (RSIA) of 2008 mandated that positive train control (PTC) technology be implemented on passenger railroad and certain freight railroads by December 31, 2015, and it also authorized funding of $250 million over five years to assist with implementation. APTA's commuter railroads support and are committed to the implementation of PTC.

As defined in the statute, a positive control system is a "system designed to prevent train-to-train collisions, over speed derailments, incursions into established work zone limits, and the movement of a train through a switch left in the wrong position." When the RSIA was drafted in 2008, there was no off the shelf technology capable of achieving these safety objectives for all railroads – as is still the case today. Yet many commuter railroads have long made use of collision avoidance systems that would have helped protect against certain accidents that have occurred in recent years. Since the enactment of RSIA, APTA and its commuter rail members across the country have aggressively pursued the funding and technology necessary to implement this safety mandate by the current statutory deadline. However, challenges beyond our control have presented obstacles to implementation.

APTA consistently supported the concept of positive train control PTC long before the RSIA, provided that proven technology, resources and radio spectrum necessary were available to put PTC into practice. We are working with our member railroads to meet the law's requirements that all of the nation's commuter railroads have federally approved systems that help protect against accidents. We urge the committee to focus on how to best install these still developing systems on an enormous and complex network of interconnected railroads in a way that maximizes all of an operator's safety considerations while efficiently moving toward implementation. Commuter systems provide important transportation in and around many of our metropolitan regions, and demand for service and ridership continues to grow.

PTC Funding

In terms of funding, many commuter railroads are still feeling the pinch of the economic downturn, which resulted in decreased state and local revenues for transit agencies. Coupled with the absence of a long-term transportation authorization funding bill, many commuter railroads have had to make difficult funding prioritization decisions regarding the implementation of PTC over critical safety state of good repair projects. While such a decision may be without severe consequence for some commuter railroads, for other agencies, delaying state of good repair projects on legacy systems with infrastructure dating back to the early 1900's could have in significant safety implications.

A June 2013 survey of our commuter railroad agencies found that many commuter railroads have state of good repair (SGR) needs that far outweigh their capital budgets, even before including the additional costs associated with implementing PTC. More than one legacy system responded that its SGR backlog amounts to several billion dollars, while their available capital budget was being redirected to fund PTC implementation. Capital investments such as replacing bridges that are over 100 years old, rehabilitating otherwise outdated locomotives, upgrades to tracks, system safety, signal and communication systems will be deferred to fund PTC. These SGR costs are in addition to the costs associated with the implementation of PTC. The same survey found that of those who responded, their estimated costs to implement PTC had grown to $2.75 billion. For publicly funded agencies who rely on federal, state and local funding, along with passenger fares, to fund their service, this number is staggering. As publicly funded commuter railroads continue to struggle financially and defer critical state of good repair safety projects in order to meet the PTC mandate, we request that Congress appropriate federal funding to cover 80 percent of commuter railroads costs to implement.

PTC Technology Development

Of equal concern is that key components of the technology used to build a positive train control system are still largely under development, such as software upgrades and revisions, and roadway worker protection. Absent these essential elements, full implementation by 2015 will be impeded, even for those railroads that have secured the necessary funding. PTC is a system of subsystems overlaid on existing systems. Though commuter railroads are currently in the process of installing these systems, a one-size-fits-all approach to implementation does not exist. Each individual commuter railroad has its own unique and complex operating environment and a PTC system must be tailored to meet those operating requirements. As such, what works for one commuter railroad may not work for another. The absence of proven, off the shelf technology creates uncertainty about whether the new technology will work as intended, cause service degradations, or worse, result in service failures. Further, critics of implementation delays ascertain that sufficient time has elapsed for the technology to be properly developed. While progress has been made, there are real challenges associated with implementing a technology that remains under development and untested in some key areas. Providing a way to extend the deadline would allow for maturation of PTC technology to ensure its successful implementation.

PTC Spectrum

Additionally, we remain concerned with the availability of radio spectrum necessary to meet interoperability requirements. The same June 2013 survey found that of 17 respondents, only three indicated they have spectrum. Of those three commuter railroads, two will be leasing spectrum and do not have a permanent solution, and the remaining commuter railroad has only been able to acquire partial coverage in the required territories. The APTA survey found many commuter railroads have attempted to secure spectrum on the secondary market, only to encounter issues such as questions about ownership and legal authority to sell, unavailability in required geographic areas, and cost prohibitive contractual requirements. We ask that Congress direct the Federal Communications Commission (FCC) to allocate adequate spectrum to publicly funded commuter railroads, at no cost, to ensure that core safety functions of PTC are implemented in a timely and efficient manner.

PTC Towers and Antennas

A new obstacle to implementation relates to the ability of commuter railroads to construct towers and antennas necessary for PTC related train communications. The RSIA requires that passenger and freight railroads be able to communicate on a nationwide interoperable network. To achieve the statutory mandate, freight and passenger railroads will be installing tens of thousands of wayside poles located along a railroad's right of way. According to an FCC Public Notice, "because the poles will support antennas that will use radio spectrum licensed by the Commission, the Commission considers the installation of PTC infrastructure to be an FCC undertaking under the NHPA" (National Historic Preservation Act). As such, tower sites will be subjected to environmental, historic and tribal preservation regulations. The FCC facilitates compliance with this requirement through their Tower Construction Notification System (TCNS), an online system whereby entities can submit notice of their intent to construct towers and the FCC shares that information with the necessary parties.

It is our understanding that more than 20,000 antennas are required for PTC nationwide, however, the FCC is able to process only a mere fraction of that number on an annual basis. With tens of thousands of towers required to complete PTC installation, the FCC has suspended the tower construction process until a solution can be achieved. According to the FCC, exceptions will be made for certain commuter railroads to proceed with tower construction on a case by case basis depending upon the number of towers needed. This *ad hoc* process has led to confusion regarding who is excepted and for what reason. While some smaller commuter railroads will certainly have a significantly lower amount of towers that need to be constructed, other commuter railroads will be required to install a significant number of towers and no clarity has been provided by the FCC on the exact threshold of allowance for proceeding with their process.

There are also two misconceptions I would like to address regarding this issue. To be clear, commuter railroads are not receiving any preferential treatment from the FCC throughout this process. Other than being told that progress will occur on a case by case basis, APTA members

have received no guidance on who is to proceed and who is to wait for further notice. Further, the FCC has inaccurately implied that approval of towers under the normal process is not a significant problem for commuter railroads, due to the fact that the commuter railroads have fewer towers that need to be constructed than the freights. At this point in time most, if not all, commuter railroads that are required to install these structures (excluding tenant commuter railroads operating on freight owned lines, in which case the freight railroad is responsible for such work) are still in the design and preliminary engineering stage of PTC implementation, undertaking work such as radio propagation studies to determine spectrum frequency coverage and the number of required towers. Commuter railroads continue to experience the same tower construction issues as the freights and already precarious implementation schedules may be further extended for indeterminate periods of time while the FCC works out internal procedural issues.

New RSAC Working Groups

The July 2013 Lac-Me´Gantic freight derailment that occurred in Quebec, Canada resulted in an Emergency Order and a Safety Advisory from the FRA regarding the securement of unattended trains and vehicles. The Safety Advisory included a set of recommendations to APTA, including recommendations to review with its commuter railroad members the circumstances of this particular derailment, requesting information on crew staffing requirements, requiring the removal of reverser levers to prevent unintended train movement and the reexamination and updating of safety and security plans for transportation of hazardous materials. There are portions of the Safety Advisory which do not apply to our members because either they have no freight operations on their line(s) or have no trains that transport hazardous materials. To comply with the FRA's request, APTA surveyed its members and found that all of the appropriate reviews of information and evaluations had been conducted for those who responded to the survey. In terms of specifics regarding hazardous material transportation, generally this portion of the Safety Advisory does not apply to our members as only one railroad that responded directly operates freight service, or otherwise controls how freight trains operating on its lines are staffed. Some commuter railroads that share lines with freight operations that transport hazardous materials have also reported that the necessary reviews were conducted.

In terms of removing levers to prevent unintended train movement, in almost all cases APTA member reported that their operating rules require such removal or that all unattended equipment is required to be locked, or that unattended trains and equipment are not permitted on mainline track or mainline sidings outside of a yard or terminal. As an example, Metra in Chicago reports that employees are required to remove the reverser lever whenver the cab is unoccupied and all cabs must be secured when unoccupied.

Following the accident, the FRA also convened an emergency Railroad Safety Advisory Committee (RSAC) meeting in August 2013, and proposed three task statements to be undertaken by RSAC working groups. These included: Hazard Materials; Train Securement; and Minimum Train Crew Size. The FRA has advised the members of all three working groups that the working group effort must be complete and ready for transmittal to the Administrator by April 2014. APTA and its members are participating members of all three working groups.

Cameras and Safety Features

APTA most recently polled its commuter railroad members in January on PTC and related safety issues. Of the 20 agencies that responded, we found that half have some type of cameras already installed on their locomotives and others stated that they are considering camera installations. Of the twenty respondents, seven have forward facing cameras and three have forward as well as inward facing cameras. A safety feature we found prevalent on many commuter railroads is an "alerter." Alerter technology requires an engineer to acknowledge an alert by applying active pressure at frequent intervals, depending on the speed of the train, to indicate responsiveness. If no response is provided after a set amount of time, usually mere seconds, the brakes are applied to stop the train. Sixteen of the twenty respondents indicated the presence of alerters on their system. In addition, eight agencies responded affirmatively to using "recorders," as a tool to evaluate employee train handling, in addition to its required regulatory purpose as a forensic tool after an incident. Recorders can be used as a tool to monitor engineer compliance with speed, train handling, use of throttle, brakes, horn and various other parameters. We also found that five responding agencies employ overspeed protections on their cab signaling system, a type of speed restriction that is automatically implemented when the train is above the permitted cab rate speed.

Fatigue

Much is being done to address fatigue on commuter railroads. The RSIA of 2008 directs the Secretary of Transportation to promulgate regulations for certain railroads as specified in the statute, to prepare Risk Reduction Programs, one component of which shall be a fatigue management plan. APTA and its member railroads have actively participated in the FRA RSAC working groups to advance this consensus rulemaking. The industry awaits publication of the regulation, in order to know what will be the requirements that must be addressed.

Additionally the RSIA granted FRA the regulatory authority to establish hours of service limitations for train employees providing commuter and intercity rail passenger service. In developing these regulations, the Secretary was to "consider scientific and medical research related to fatigue and fatigue abatement, railroad scheduling and operating practices that improve safety or reduce employee fatigue."

In 2009, FRA initiated a RSAC task statement and working group, and determined that certain research in the way of employee sleep diaries was needed as ground work for this effort, but such research involving humans required a lengthy federal approval process and at least a year of data collection and analysis. Due to industry concern that the statutory deadline might be missed (hence passenger railroads would inherit the freight hours of service requirements), the commuter railroads asked APTA to establish a task force, to which we invited the Association of American Railroads (AAR), the American Short Line and Regional Railroad Association (ASLRRA), Amtrak, rail labor representatives and FRA. The commuter railroads assessed themselves a fee totaling more than $100,000 so that APTA could contract with a renowned fatigue researcher to start analyzing the actual work schedules of train employees in passenger service. Hundreds of actual work schedules were analyzed using an FRA approved bio-mathematical fatigue modeling tool.

Due to the scheduled nature of commuter passenger service, and the fact that most employees have the chance to sleep at home every night, the results of the modeling showed that most passenger schedules did not put the employees working those schedules at risk for fatigue. There were, however certain work schedules that exceeded the threshold, primarily those were overnight jobs and schedules that start later in the day and end late at night. These results are widely substantiated in the scientific and medical research. Another area that was of potential concern was the use of split shifts, where a crew may work one or two round trips during the morning commuter peak, then be released for several hours in the off peak, and return to operate one or two round trips in the evening commuter peak. Although the interim release period allows employees the opportunity to rest, nap, relax, and/or conduct personal business, often at their homes, the model assumed that no daytime rest occurred. These schedules generally did not evidence a risk for fatigue when modeled.

The final regulation, published in August 2011, requires all passenger railroads to review and assess all of their work schedules. If any schedules start and/or end outside of an approved window (determined through the modeling that was done during the development of the regulation), then the railroad must use an approved bio-mathematical model to determine the risk for fatigue. In some cases, the work schedule can be modified to reduce the risk of fatigue. Unfortunately, it is not possible to eliminate all overnight, early morning and late evening schedules, as some work (yard work, work trains) must be done during these hours. In that event, the railroad must develop a fatigue mitigation plan, and inform employees of the increased risk and tactics the employee can take to minimize fatigue when working these schedules. The regulation also limits the number of consecutive work days overall, with a more limiting number of consecutive work days when the schedule includes an assignment that is at higher risk of fatigue.

All affected railroads were required to develop and implement fatigue awareness training for all covered employees and their supervisors by December 31, 2012. At a minimum, refresher training is required every three years. The training must cover information on the physiological and human factors that affect fatigue; opportunities for identification, diagnosis and treatment of related medical conditions; alertness strategies; opportunities to obtain restful sleep; and the effects of abrupt changes in rest cycles.

Since the enactment of this regulation, passenger railroads have invested significant sums to acquire the approved modeling tool and related electronic crew scheduling and assignment programs; to enhance "quiet rooms" and interim rest facilities for employees who cannot return home; and to provide fatigue awareness training to employees and supervisors.

Metro North Railroad

The commuter railroad industry works diligently to provide safe service to our riders. Accidents like those that have occurred on the Metro North Railroad (MNR) remind us that while commuter railroads are one of the safest modes of public transportation, we must remain ever vigilant and continue to make safety our top priority. As a result of the accident, the FRA issued Emergency Order 29, outlining the steps MNR is required to take to mitigate safety issues related to the

accident. Metro North has worked tirelessly with the FRA to ensure that the previous hazards are eliminated and has committed to take all necessary actions to ensure safe operations without disrupting the transportation needs of their passengers in the New York metropolitan region.

Although the National Transportation Safety Board (NTSB) is conducting a comprehensive accident investigation and analysis, MNR immediately initiated work on an action plan that identified safety deficiencies and how to address these issues. According to Metro North, the following steps are being taken:

- Critical curves/Moveable Bridges
  - MNR is continuing to implement signal-based speed solutions to enforce speed at identified curves and moveable bridges. MNR is working to complete these projects as expeditiously as possible and expects to issue a revised schedule that improves upon the time frames.
  - MNR has implemented a program approved by the FRA to promote closer communication between the engineer and conductor at critical curves and moveable bridges.

- Speed Compliance
  - MNR has surveyed all mainline track locations requiring a reduction of more than 20 miles per hour from the maximum authorized speed (MAS) and has reduced the MAS at each of these locations.
  - MNR has posted speed limit signs at each critical curve location.
  - MNR has completed 2,000 audits through its speed compliance program since December 10 and is in the process of enhancing the program.
- Alerters
  - Alerters will be installed in the remaining one-third of MNR's fleet that only uses dead man controls. This includes MNR's M-3 and cab cars. A statement of work has been developed with the vendor and PHW/Siemens. The new software is expected to be tested in February, with installation of the new software to begin in March, during the individual car's inspection cycles. Installation of alerters will be complete by the end of this year.

- Confidential Close Call Reporting System (C3RS)
  - MNR and Long Island Railroad (LIRR) had a conference call with the Volpe Center on December 18, 2013, regarding the implementation of C3RS. A kick-off meeting was held with the local unions and MNR management on January 7, 2014, and the FRA and Volpe will hold a Q&A and working session with the unions on January 22, 2014. It should be noted that C3RS cannot be implemented by MNR management unilaterally. Input from and approval of MNR's unions must be obtained before implementation.

- Safety Stand Down
  - MNR will hold its next quarterly safety stand down in late March.

- Positive Train Control (PTC)

- On December 18, MNR and LIRR met with their PTC systems integrator (a joint venture of Bombardier and Siemens) to discuss opportunities to expedite their PTC schedules.

Metro North continues to work with the FRA on the implementation of PTC.

In 2008, an accident occurred on the Southern California Regional Rail Authority (SCRRA) Metrolink in Chatsworth, California. In the wake of this accident, Metrolink committed itself to implementing Positive Train Control technology on its commuter railroad. Metrolink's PTC program calls for installing a back-office system (BOS), replacing the current computer-aided dispatch (CAD) system, installing on-board PTC equipment on 57 cab cars and 52 locomotives, installing systems to stop a train at 476 wayside signals, and implementing a six-county specialized communication network to link the wayside signals, trains and a new 24,000 square foot security enhanced building to house the command and control equipment and personnel to dispatch the railroad at all times. The Metrolink Operations Center (MOC) is the dispatching hub for rail providers in Southern California, including other passenger and freight carriers.

The estimated cost for developing, installing and deploying PTC on the Metrolink system including the expansion of the communication network to support the PTC System is $216.3 million. Metrolink secured full funding via 30 grants from local, state and federal sources with the funding split at 50%, 42%, 9% respectively. Metrolink now has the ability to implement PTC on specific trains. The FRA has authorized Metrolink to operate PTC Revenue Service Demonstration (RSD) on BNSF territory using Wabtec's Interoperable Electronic Train Management System (I-ETMS). Wabtec's I-ETMS® PTC System was selected by the four Class One freight railroads and by Amtrak outside of the northeast corridor as well as Metra and Coaster. Metrolink's PTC service on BNSF track will be implemented on select trains on the Metrolink 91 Line (between Riverside-Downtown and just east of LA Union Station), Orange County Line (between Fullerton and just east of LA Union Station) and Inland Empire-Orange County Line (between San Bernardino and just east of Anaheim Canyon). PTC capability on Metrolink territory is expected to be available later this year, while the entire service area is anticipated to be complete well before the Rail Safety Improvement Act (RSIA) mandate of December 2015.

Investment Needs and State of Good Repair

In June 2010, the Federal Transit Administration published a national state of good repair assessment in which it reported on the condition of all transit assets; including roadway and fixed-guideway modes, vehicles, and facilities such as maintenance buildings, stations, administrative buildings, and rights-of-way. The report estimated that the level of investment required to bring all U.S. transit assets – including the assets of all urbanized area and rural transit operators – into a state of good repair amounted to a national SGR backlog of $77.7 billion. For commuter rail agencies, the SGR backlog was $12.6 billion, and these estimates are believed to have grown since the FTA study was published.

The national SGR backlog does not include the estimated over $2.75 billion necessary to implement PTC on more than 4,000 locomotives and passenger cars with control cabs and 8,500 track miles, nor the millions needed to purchase or lease radio spectrum to meet interoperability

requirements. Despite the tremendous cost, Congress has appropriated only $50 million of the authorized $250 million to assist publicly funded commuter railroads with implementing Positive Train Control.

As previously mentioned in this testimony, the billions of dollars in SGR backlog include investments that have significant operational and safety implications. For example, the Massachusetts Bay Transportation Authority (MBTA) in Boston, has 467 bridges that it maintains on its system. Keeping these bridges in good condition is critical for the MBTA to ensure safe operations. The Southeastern Pennsylvania Transportation Authority (SEPTA) in Philadelphia, has a current state of good repair backlog of $5 billion and regional/commuter rail accounts for 61% (or $3.05 billion) of this backlog. Regarding PTC implementation, SEPTA continues to be on track to meet the December 31, 2015 deadline, but has little to no flexibility with their timeline. To meet the mandate, SEPTA will ultimately expend $320 million on the installation of PTC and its associated technologies, limiting the availability of capital resources for other critical state of good repair projects, such as bridge reconstruction and power substation rehabilitation and replacement. The Nashville Regional Transportation Authority (RTA) in Tennessee, has almost no discretionary capital funding, meaning plans for capital replacement, expansion, and maintenance programs will be deferred as the funding is redirected to PTC. The Trinity Railway Express (TRE) in the Fort Worth/Dallas, Texas area determined their annual SGR needs to be $14 million, yet funding PTC will cause deferment of capital programs needed to maintain critical existing assets. Denton County Transportation Authority (DCTA) in Lewisville, Texas will delay much needed service expansion plans in order to fund PTC. The staggering amount of funding necessary to implement PTC is having a significant impact on the ability of our nation's commuter railroads to perform critical system safety state of good repair projects and expand their much needed transportation service into new areas. We ask that Congress and the Administration consider these costs and authorize and appropriate funding so that publicly funded commuter railroads can both implement PTC and attend to the massive backlog of critical system safety upgrades.

Conclusion

In closing, we want to reiterate the long standing and continued commitment the public transportation and commuter rail industry has for advancing the safety of our riders, employees and communities. On behalf of APTA and its members, we appreciate the work that this committee has done to enhance safety on our nation's railroads. We look forward to continuing to work with you and your staff on this and many other common issues that face public transportation agencies.