TESTIMONY OF

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BEFORE THE

SENATE COMMITTEE ON COMMERCE, SCIENCE AND TRANSPORTATION

ON

"STAYING ON TRACK: NEXT STEPS IN IMPROVING PASSENGER AND FREIGHT RAIL SAFETY"

SUBMITTED BY

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The American Public Transportation Association (APTA) is a nonprofit, international association of nearly 1,500 public and private member organizations, including transit systems and commuter, intercity and high-speed 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 public transportation services and products. More than ninety percent of the people using public transportation in the United States and Canada are served by APTA member systems.

INTRODUCTION

Chairman Rockefeller, Senator Thune, Acting Chairman Blumenthal and Senator Blunt, and members of the Commerce, Science and Transportation Committee, 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 rail safety as it relates to the nation's commuter railroads. In particular, I will update the committee on progress and challenges related to the implementation of positive train control (PTC) on the nation's commuter railroads.

My name is Kathryn Waters. I am APTA's Executive Vice President, Member Services, here in Washington, D.C. Before coming to APTA, I was Deputy Administrator at the Maryland Transit Administration in Baltimore, where I was responsible for all transit operations departments. Previously, I worked at the Dallas Area Rapid Transit (DART) in several positions, including Vice President – Commuter Rail and Railroad Management, and earlier, for MARC Train Service in Maryland, culminating as manager and chief operating officer.

As an APTA member, I served as chair of APTA's Commuter Rail Committee, and on APTA's Executive Committee as vice chair – commuter and intercity rail. I have represented APTA for more than 15 years on the rail safety advisory committee of the Federal Railroad Administration.

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. More recently, our commitment to safety was heralded by the rail industry regulator, Federal Railroad Administrator (FRA) Joe Szabo, who announced safety statistics citing that 2012 was the safest year in railroad industry history. With that said, we are always working to make our industry safer.

APTA consistently supported the concept of positive train control (PTC) long before the Rail Safety Improvement Act (RSIA) of 2008, 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 complicated 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.

Commuter rail safety has improved in recent years, but we continue to strive for improved 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.

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.

CULTURE OF SAFETY

While we address in this testimony a very significant element of the RSIA in the requirement to implement PTC, it is important that we make clear that PTC is 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. It involves recognition that responsibility for safety lies at all levels and with all staff. One way our commuter rail agencies demonstrate their commitment is by having a comprehensive safety plan in place. It includes having sound policies and procedures, training, maintenance practices that include asset management and state of good repair considerations, data tracking for monitoring trends in operational, equipment, and infrastructure performance, and systems in place for auditing and assessing that performance. The transit and commuter rail industries have been leading 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 was based upon APTA's Safety Audit Program. The APTA Safety Audit program is a voluntary, comprehensive program developed over a decade ago 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 the adaptation of 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.

Currently there are dozens of rail transit systems and bus transit systems participating in APTA safety audit programs. These systems include mass transit/subway systems, light rail systems, automated guide-ways, heavy rail commuter systems, and bus transit operations across North America and Asia. Modal programs have been developed that are specific to urban rail, commuter rail, and bus safety management processes. The benefits derived from participation in the APTA Safety Management Program include:

- Adoption of safety management practices that have been established as an industry standard;

- Building and enhancing safety management processes for service delivery and workplace safety;
- Providing a tool for demonstrating transit system diligence for safety; and
- Providing a mechanism 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.

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 initiation 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.

Finally, APTA 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 Rail Safety Advisory Committee (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.

RSIA AND PTC

As the members of this committee know, the Rail Safety Improvement Act (RSIA) of 2008 mandated that PTC technology be implemented on passenger railroad and certain freight railroads by December 31, 2015, and it authorized funding of $250 million over five years to assist with implementation. 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 protected against 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.

The initial conservative estimate for PTC implementation on commuter railroads was more than $2 billion, with more than 4,000 locomotives and passenger cars with control cabs and 8,500 track miles to be equipped. Since this initial estimate, as commuter railroads have begun their contracting and technology acquisitions, the estimated costs of implementation have risen well beyond the initial $2 billion estimate. These estimates do not include costs related to the acquisition and operation of the radio spectrum necessary to meet the interoperability requirements set forth under RSIA and they do not include costs associated with operating PTC systems.

To date, Congress has only appropriated $50 million of the total authorized amount. At a time when critical State of Good Repair backlogs are creeping above nearly $80 billion dollars on our nations public transportation systems, commuter railroads are being forced to choose between performing critical system safety maintenance projects and implementing PTC by 2015. Insufficient funding is a significant impediment to implementation for publicly funded railroads.

While Congress authorized $250 million for PTC implementation in the five fiscal years 2009 to 2013, only $50 million was appropriated during those years. It has also been suggested that federal funding for high-speed rail projects can be used for PTC implementation costs, but this is only the case where existing commuter rail service and potential high-speed intercity passenger rail alignments are identical, and unfortunately that is not the case for most of the nation's commuter rail operators. Similarly, debt financing and Railroad Rehabilitation & Improvement Financing (RRIF) loans have been suggested as a way to pay for PTC implementation, but many of the agencies charged with installing PTC on their commuter rail systems are carrying enormous debt service and many have substantial state of good repair capital projects – which are also necessary to ensure safe operations – that are competing for scarce resources.

Key components of PTC systems are still in the developmental phase, 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. Moreover, the inability of most commuter railroads to acquire necessary radio spectrum is also impeding full implementation by 2015. The FCC has not responded to APTA's requests to make available spectrum available as a public safety imperative and insisted that the necessary bandwidth can be purchased on the open market. One railroad purchased spectrum only to have it now held up while the courts decide who owns the rights to sell the spectrum.

In 2011, after several years of working towards implementation and complying in good faith with FRA reporting requirements on PTC implementation plans, the APTA Commuter Rail CEOs committee concluded that the industry would not be able to fully implement interoperable PTC systems on all commuter railroads by the current deadline. Thus, APTA approved a policy position recommending that the deadline for PTC implementation be extended to December 31, 2018. It is important to add that APTA's position also states that extending the deadline shall not inhibit efforts to implement PTC on some commuter railroads prior to the existing deadline and in fact urges Congress to prioritize funding for those efforts. The hope was that lessons learned from early implementers such as Metrolink, would serve to facilitate and expedite implementation for other commuter railroads. Other APTA positions adopted in 2011 included recommendations that Congress appropriate federal funding to cover 80% of PTC implementation costs for commuter railroads and direct the Federal Communications Commission (FCC) to provide radio spectrum, without cost, required for PTC implementation by publicly funded commuter railroads.

I should note that representatives from commuter rail systems across the nation and APTA staff have conducted numerous meetings with Members of Congress and staff from congressional committees of jurisdiction to explain APTA's views and the challenges faced trying to implement PTC. While we have always expressed a commitment to implement PTC technologies, industry experience indicated that it would be difficult, if not impossible, to implement PTC on all of the nation's commuter railroads by the 2015 deadline. We believe we acted responsibly by coming to Congress well before the deadline, rather than waiting for the deadline to become imminent.

Further, in January 2012, APTA shared a report with Congress which documented the technical challenges of implementing PTC. This report, which was written jointly with the Association of American Railroads (AAR), also outlined the technical challenges that freight railroads are experiencing in their effort to implement PTC and reached the shared conclusion that implementing a fully interoperable PTC network was not achievable by December 31, 2015.

FEDERAL RAILROAD ADMINISTRATION REPORT TO CONGRESS

Under the Rail Safety Improvement Act, the FRA was statutorily required to transmit a PTC implementation status report to Congress in 2012. The goal of the report was to update Congress on the status of implementation, to identify major issues and to offer potential risk mitigation solutions. The FRA report which was issued in August 2012, stated, as part of the report's executive summary recommendations: "Based on the results of this report, FRA believes that a majority of railroads will not be able to complete PTC implementation by the 2015 deadline." It went on to say: "FRA recommends that it be allowed to approve a railroad to use alternative safety technologies on specified line segments in lieu of PTC, particularly in areas with lower safety risks, if appropriately and properly justified to FRA." Further, in its report to Congress, the Federal Railroad Administration recommended that:

"Congress consider legislation that allows FRA to approve the use of alternative risk mitigation technologies in lieu of a PTC system on specified line segments if:

> • *The use of the alternative technologies will not result in a decrease in the level of safety from that which currently exists.*
>
> • *The alternative technologies proposed provide an appropriate level of risk mitigation with regards to preventing train-to-train collisions, overspeed derailments, protection of roadway workers within their authorized work zones, and movement of a train through misaligned switches.*
>
> • *The alternative risk mitigation technology implementation plan, submitted as part of a petition to substitute alternative risk mitigation technologies for a PTC system, implements the alternative risk mitigation technologies in order from areas of least risk to areas of greater risk.*
>
> • *The alternative technologies are installed as soon as feasible.*

APTA strongly supports the language contained in the FRA Report to Congress and recently adopted a policy in support of the FRA's recommendation to Congress. As adopted, the policy requests the FRA be allowed to consider alternative technologies in lieu of a PTC system on

specified line segments. We believe that the statutory mandate for PTC implementation will only be strengthened by taking a system safety approach, rather than a "one size fits all" approach.

ADDITIONAL APTA RECOMMENDATIONS

Alternative Risk Mitigation Technology

All APTA member railroads fully support initiatives that enhance safety. Not all railroads have the same operating environments, safety challenges or risk exposures. Some commuter railroads already have collision avoidance systems in place (some for many years) that protect against the occurrence of a train to train collisions such as Chatsworth. APTA in no way supports any blanket exceptions in this regard, but supports the FRA's recommendation that it be permitted to examine the feasibility of the use of alternative technologies on a line by line basis, and permit such uses only after rigorous analysis and evaluation of overall risk reductions.

While the vast majority of railroads would still require PTC, there would be some that could then prioritize their safety enhancement projects to address their most urgent safety risks first; freeing up the pipeline for procurement of PTC components and other resources in order to expedite implementation for other railroads.

In terms of any concerns regarding interoperability, there is nothing in the APTA policy or in the FRA's report to Congress that would change the statutory and regulatory requirements for interoperability. Any railroad's controlling locomotive that operates on another railroad must be able to communicate with and respond to the PTC system that will be installed. Similarly, if FRA is able to approve any alternative technologies, then any controlling locomotive operating on a line or segment where the alternative technology is installed must be able to communicate with that technology. If rolling stock will operate on lines with different technologies or even different PTC systems, more than one type of onboard equipment may need to be installed. For example, some commuter railroads that operate on the Northeast Corridor and a freight railroad must be able to interoperate with both the Advanced Civil Speed Enforcement System (ACSES) PTC system used by Amtrak as well as the Interoperable Electronics Train Management System (I-ETMS) PTC system being used by freight railroads, and anticipate having to install onboard equipment for both types of PTC systems to achieve interoperability.

In this regard, and while the National Transportation Safety Board (NTSB) is still conducting its investigation and has issued no findings, the unfortunate accident on the Metro-North Railroad in Connecticut makes clear that there is no one size fits all approach to rail safety for all situations. While we cannot comment on the details of the accident before the NTSB completes its investigation, their press release dated May 24, 2013 stated: "Positive train control is a technology that prevents two trains, traveling on a single track, from colliding with one another. The Metro-North trains involved in this accident were traveling on two separate but parallel tracks. The collision occurred after the eastbound train derailed. Because the trains were not traveling on a single track, it is not believed that PTC would have prevented the accident." We should also note that the Metro-North passenger rail cars damaged in the accident were designed according to specific strength requirements for the ends of cars that are intended to protect occupants in such a collision. They performed as designed, according to standards developed in part under the Passenger Rail Equipment Safety Standards (PRESS) program that APTA developed and administered in cooperation with FRA in the 1990's, as mentioned earlier in our testimony.

<u>Open Standards/Federal Inspections</u>

In addition to language concerning alternative technologies, APTA also recently approved policy positions requesting the FRA to promulgate open interface and communication standards permitting interoperability of products within PTC system hardware architecture to foster competition among providers. APTA also approved language put forth by Metrolink, requesting that Congress allocate additional funding to the FRA and other regulatory bodies to ensure adequate resources are available to inspect, review and authorize PTC implementation.

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. We would also underscore that none of the PTC policies adopted by APTA are intended to prevent early implementation by those commuter railroads which seek to implement by or before the existing deadline. In fact, APTA has a long-standing policy and record of urging Congress to prioritize funding for early implementation efforts. As with any major initiative for nationwide implementation of a complex new technology, PTC implementation has posed, and is certain to continue to create, challenges that could not have been foreseen by legislators, regulators or implementers at the time of enactment.

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.