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Before the
U.S. Senate Committee on Commerce, Science, & Transportation
United States Senate

“PTC Update: Are Railroads on Track to Meet the Impending Deadline?”

October 3, 2018

Chairman Thune, Ranking Member Nelson, and Members of the Committee:

Thank you for the opportunity to testify today and provide the committee with an update on railroads’ implementation of positive train control (PTC) systems.

As we approach critical deadlines for railroads’ implementation of PTC systems, myself, and the men and women that serve at FRA remain committed to working with the railroads and its supply industry to ensure the full implementation of this important rail-safety technology in a timely manner.

I. PTC Mandate

Railroads’ implementation of PTC systems has been, and remains, at the top of our agenda. PTC systems represent the most fundamental change in rail safety technology since the introduction of Automatic Train Control in the 1920s. As mandated by the Rail Safety Improvement Act of 2008 (RSIA), each Class I railroad and entity providing regularly scheduled intercity or commuter rail passenger service must implement an FRA-certified PTC system on (1) its main lines over which 5 million or more gross tons of annual traffic are transported if the main line carries poison- or toxic-by-inhalation hazardous materials, and (2) its main lines over which intercity or commuter rail passenger transportation is regularly provided. Under RSIA, railroads were originally required to complete implementation by December 31, 2015. Approximately two months before that deadline, the House and Senate overwhelmingly passed, and the President signed, the Positive Train Control Enforcement and Implementation Act of 2015 (PTCEI Act), extending the deadline for full PTC system implementation to December 31, 2018.

In addition, under the PTCEI Act, Congress permits a railroad to request FRA's approval of an "alternative schedule" with a deadline extending beyond December 31, 2018, but no later than December 31, 2020, for full PTC system implementation. The law requires FRA to approve a railroad's alternative schedule with a deadline that is as soon as practicable, but not later than December 31, 2020, if a railroad submits a written request to FRA that demonstrates it has met the statutory criteria to qualify for such an alternative schedule. Currently, 41 railroads are required by statute to implement PTC systems: all 7 Class I freight railroads; 30 commuter and intercity passenger railroads, including the National Railroad Passenger Corporation (Amtrak); and 4 short line and terminal railroads. The technology is required to be implemented on approximately 58,000 route miles of the 140,000-mile railroad network.

While railroads are making progress, FRA expects that most railroads will need to request an alternative schedule to complete testing, obtain PTC System Certification, meet the statutory interoperability requirements, and fully implement PTC systems on all main lines required to be governed by PTC systems. FRA continues to take a proactive approach to help railroads acquire, install, test, and fully implement certified PTC systems as soon as possible.

At the direction of Secretary Elaine L. Chao, FRA senior leadership met individually with executives from each of the 41 railroads in January and February of this year. In May and June, we also held follow-up meetings with the twelve railroads identified as at risk, as of Quarter 1 of 2018, of not meeting the statutory criteria necessary to qualify for FRA's approval of an alternative schedule. Railroads have generally been candid in detailing the challenges and obstacles confronting their properties. During the meetings, we sought to objectively evaluate each railroad's PTC deployment status, and learn what remaining steps each railroad needs to take to meet the deadline or satisfy the statutory criteria necessary to qualify for an alternative schedule.

During these meetings and throughout our conversations with the railroads, they commonly conveyed the following ongoing challenges:

- There is a competitive yet limited number of PTC system vendors and suppliers. Unusually weighted demand and supply has constrained the timely serving of all 41 railroads and their tenant railroads;

- As reliability and stability of PTC systems is still immature, railroads are experiencing significant technical issues with both PTC system hardware and PTC system software that often take considerable time to diagnose and resolve, impacting current operations;
- Host railroads (totaling 36) noted that many tenant railroads (estimated at 250+) that operate on main lines requiring PTC system implementation have made variable, and often unknown, progress equipping locomotives with operational PTC technology, while some tenant railroads report that their host railroads are not providing opportunity for testing. FRA is initiating efforts to synchronize the coordination among the host and tenant railroads;
- Railroads have only recently begun testing PTC systems for interoperability;
- Many commuter railroads stated that negotiating legal agreements with certain vendors and suppliers often took time to complete, given various insurance, liability, and State law issues;
- Absence of consistent leadership at several railroads, regardless of leadership quality, weakened the “sense of urgency” and the focus on PTC system implementation at some entities subject to the statutory mandate; and
- Railroads noted concern about FRA’s review and approval cycle, given the surge in submissions requiring FRA approval in 2018–2020.

By law, it is the railroads’ responsibility to implement PTC systems, but FRA is facilitating railroad and supplier collaboration to hasten, and urge, implementation. We have also met individually with PTC system component suppliers to learn more about their capacity to meet the high demand of railroads to achieve timely implementation.

This summer FRA hosted three PTC symposia for the 41 railroads mandated to implement PTC systems. Each of the day-long sessions brought together railroad safety officials and FRA’s PTC experts to ensure that each and every railroad subject to the mandate is aware of its obligations and is equipped to meet the Congressionally mandated deadline. The first symposium discussed industry questions and focused on requirements for the December 31, 2018 statutory deadline. The second focused on best practices for testing PTC systems on the general rail system, including field testing, revenue service demonstration (RSD), and interoperability testing. The third focused on lessons learned and best practices for PTC Safety Plans, which are required for

host railroads to obtain PTC System Certification and achieve full system implementation. As FRA tracks railroads' progress, additional symposia on PTC may be offered, as new challenges arise.

II. PTC Status Update

Since April 1, 2016, FRA has been closely tracking and displaying on its website individual railroads' self-reported PTC system implementation status. FRA's PTC Dashboard tracks railroads' progress toward full implementation on a quarterly basis, including the number and percentage of locomotives equipped and PTC operable, track segments completed, radio towers installed, training completed, spectrum acquisition, route miles in RSD, whether the railroad has obtained PTC System Certification, route miles in PTC operation, and more recently, interoperability between host railroads and tenant railroads. In addition, FRA tracks, on a quarterly basis, the progress each railroad has made toward meeting the statutory criteria necessary to qualify for FRA's approval of an alternative schedule.

Based on railroads' most recent Quarter 2 reports (with data current as of June 30, 2018), PTC systems are in operation on 35,487 route miles, which is approximately 66 percent of the freight railroads' route miles that are required to be governed by a PTC system. Passenger railroads have made less progress, with PTC systems in operation on 975 route miles, which is approximately 24 percent of the required route miles. Notably, PTC systems are being operated in RSD on an additional 1,103 freight railroad route miles and an additional 140 commuter railroad route miles, as of Quarter 2. Fifteen railroads report they have completed installation of all hardware necessary for PTC system implementation, and twelve other railroads have installed between 95 and 99 percent of the PTC system hardware identified in their PTC Implementation Plans, as of June 30, 2018. All but one railroad, whose PTC systems use spectrum, reported they have acquired sufficient spectrum. In addition, 14 railroads have initiated sufficient RSD or met substitute criteria, which is also one of the six statutory criteria needed to qualify for an alternative schedule.

The most recent data also shows a reduction in the number of railroads at risk of not qualifying for an alternative schedule, from twelve railroads as of Quarter 1 of 2018, to nine railroads as of Quarter 2. FRA generally considers any railroad that had installed less than 90 percent of its PTC system hardware as of June 30, 2018, to be most at risk of failing to qualify for an alternative

schedule. Installation of all PTC system hardware is only an initial phase of implementing a PTC system and only one of the six statutory criteria required to qualify for an alternative schedule to complete full PTC system implementation after December 31, 2018.

In addition to the letters of concern from April and June 2018, on approximately August 24th, I sent letters to the following nine railroads that were at risk, as of Quarter 2 of 2018, of both missing the statutory implementation deadline, and failing to qualify for an alternative schedule: Altamont Corridor Express, Capital Metropolitan Transportation Authority, Central Florida Rail Corridor (SunRail), Maryland Area Regional Commuter (MARC), New Jersey Transit, New Mexico Rail Runner Express, Peninsula Corridor Joint Powers Board (Caltrain), South Florida Regional Transportation Authority (Tri-Rail), and Trinity Railway Express. This assessment was based on railroads' self-reported progress as of June 30, 2018 (Quarterly PTC Progress Reports for Quarter 2 of 2018). In September, I also sent similar letters expressing concern to the relevant state departments of transportation and governors.

FRA is working closely with all 41 railroads subject to the PTC mandate, and FRA is actively engaging in frequent communication and providing additional on-site technical assistance to the at-risk railroads. Of course, all railroads subject to the mandate must pay careful attention to the requirements for an alternative schedule if they will not achieve full PTC system implementation by December 31, 2018, and must continue vigilantly working toward prompt PTC system implementation.

As of September 25, 2018, three Class I railroads and one commuter railroad have submitted formal written notifications requesting FRA's approval of an alternative schedule, pursuant to the PTCEI Act's procedural requirements. On September 5, 2018, FRA approved BNSF Railway's request for an alternative schedule, based on its supporting documentation related to the six statutory criteria necessary to qualify for an alternative schedule. FRA is committed to complying with the PTCEI Act's mandated review and decision period, requiring FRA to issue a decision not later than 90 days from receipt of a railroad's written request for FRA's approval of an alternative schedule. In addition, in the interim, within 45 days of receipt of a railroad's written request, the PTCEI Act requires FRA to provide the railroad, if applicable, with: (1) a written notification of any deficiencies that would prevent approval of the railroad's alternative schedule and (2) an opportunity to correct the deficiencies before the 90-day period expires. If a

railroad demonstrates it has met all six applicable statutory criteria, under the PTCEI Act, FRA shall approve the railroad's alternative schedule for fully implementing a PTC system as soon as practicable, but no later than December 31, 2020.

FRA has encouraged railroads to submit any formal requests for FRA's approval of an alternative schedule, with the required supporting documentation, as soon as they meet the six statutory criteria and are eligible to submit the formal request required under the PTCEI Act.

III. Grant Funding and Financial Assistance

PTC technology is designed to provide important safety improvements, but these systems come with significant costs, both in terms of immediate acquisition and increased operations and maintenance costs. Industry estimates PTC acquisition will exceed \$14 billion, and maintenance will cost 10 to 20 percent of annual capital costs. Since 2008, FRA has awarded approximately \$961 million in grant funding to support railroads' implementation of PTC systems. FRA also supported the Federal Transit Administration (FTA) with its evaluation and selection of approximately \$197 million in grant funding awarded to 17 commuter and intercity passenger railroads and state and local governments for installation of PTC systems, which were announced on May 31, 2017. More recently, on August 24, FRA selected 28 PTC projects, including 13 commuter rail projects not usually eligible for FRA funding, to receive \$203.7 million under the Fiscal Year 2018 Consolidated Rail Infrastructure and Safety Improvements (CRISI) grant program. Given that applications for this funding were due July 2, I would note that FRA worked tremendously hard to evaluate the applications and make selections. Our hard work allowed us to make the grant announcements two months after receipt of the applications. This process can typically take up to six months or longer to complete.

Currently, FRA has two open funding opportunities that can further aid railroads, states, and other stakeholders with implementing PTC as well as other important safety and infrastructure needs: \$318.4 million under the broader Fiscal Year 2018 CRISI program, and \$46.3 million for the remaining funding under the PTC-specific Fiscal Year 2018 CRISI program, applications for both funding opportunities are due October 12, 2018. And finally, FRA is evaluating applications submitted under the \$65.2 million Fiscal Year 2017 CRISI and \$4.8 million Fiscal Year 2017 Restoration & Enhancements grant programs, and will be making selection announcements in the near future.

In total, the sources of the approximately \$1.16 billion in FRA and FTA grant funding for PTC are:

- \$475 million from FRA's High-Speed Intercity Passenger Rail Grant Program;
- \$197 million in Section 3028 of the Fixing America's Surface Transportation Act (FAST Act) funding;
- \$204 million in CRISI grant funding;
- \$0.3 million in a Special Transportation Circumstances Grant;
- \$142 million in annual capital grant funding to Amtrak;
- \$86 million from FRA's Railroad Safety Technology Grant Program;
- \$52 million in American Recovery and Reinvestment Act grant funding to Amtrak; and
- \$2 million in Research and Development grants.

Additionally, in May 2015, FRA issued a \$967.1 million loan to Metropolitan Transportation Authority for Long Island Rail Road's and Metro-North Railroad's implementation of PTC systems. And on December 8, 2017, the Build America Bureau closed on a \$162 million Transportation and Infrastructure Finance and Innovation Act loan and a \$220 million Railroad Rehabilitation and Improvement Financing loan to be issued to the Massachusetts Bay Transportation Authority for PTC system implementation.

In sum, thanks to the funding provided by Congress, the Department has made available over \$2.5 billion in grants and loans since 2008. This amounts to nearly 20 percent of industry estimates for PTC implementation costs.

IV. Enforcement of the PTC Implementation Mandate

FRA is committed to helping ensure that railroads implement PTC systems as safely and expeditiously as possible, in accordance with the congressional mandate. FRA is authorized to assess monetary civil penalties against any railroad that fails to implement a PTC system by the applicable statutory deadline (either December 31, 2018, or, if a railroad has an approved alternative schedule, the applicable date not later than December 31, 2020). FRA's civil penalty schedule recommends, as guidance, a \$16,000 civil penalty for a failure to timely complete PTC implementation on a track segment where it is required. For any violation of a Federal rail safety statute, regulation, or order, however, the current statutory minimum civil penalty FRA may

assess is \$853, and the ordinary statutory maximum is \$27,904. FRA may assess a civil penalty for each day the non-compliance continues, but FRA may elect to take enforcement action on a one-time basis or each month, quarter, year, or other interval of time during which the noncompliance continues. FRA is currently considering all options, within the framework established by law, to determine what type of enforcement action will be most effective and appropriate under the circumstances. Our goal is to ensure any enforcement action compels a railroad to fully implement its PTC system as efficiently and safely as possible.

Also, I would like to note that in June and July 2018, FRA initiated enforcement action against each of the 13 railroads that failed to complete one or more of the end-of-2017 hardware installation milestones and/or spectrum acquisition milestones the railroad established in its PTC Implementation Plan. Consistent with FRA's commitment to ensuring railroads comply with the statutory mandate, including interim requirements, FRA's Notice of Probable Violation to each of the 13 railroads proposed the maximum civil penalty for this type of interim violation—i.e., a one-time civil penalty of \$27,904.

Since this Administration took office, railroads have made significant progress toward installing and implementing PTC systems. From Quarter 1 of 2017 to Quarter 2 of 2018, railroads increased the total amount of installed PTC system hardware from 77 percent to 97 percent. As of June 30, 2018, PTC systems are either in RSD or in operation on approximately 37,705 route miles (i.e., 65 percent) of the nearly 58,000 route miles that are subject to the statutory mandate.

Moving forward, FRA will continue to support and facilitate railroads' implementation of PTC technology by utilizing the tools afforded by Congress and providing extensive technical assistance and guidance to railroads and suppliers. We remain vigilant in harnessing and leveraging all the personnel, financial, and other resources available to help expedite railroads' implementation efforts. We appreciate the Committee's support for our critical programs, and we welcome your continued partnership to advance rail safety and service. I look forward to your questions.