Board Members:

Yesterday afternoon I promised you an updated summary of the status of Positive Train Control on Sound Transit services and corridors.   This has been an area of intense media interest since Monday's tragic Amtrak Cascades Service derailment.  Though this is a very technical subject with multijurisdictional complexity, I hope what follows is a helpful overview.

**PTC overview and context**

Though in widespread use in other parts of the world, Positive Train Control (PTC) is a relatively new technology in the United States that can control train movements automatically. Under PTC, onboard systems can actively control a train if an engineer fails to operate within established parameters.

It is important to stress that PTC is not a prerequisite for safe rail operations, but is an additional value-added safety overlay mechanism, especially in high-risk situations. Sounder has provided 36 million boardings without a single passenger fatality due to derailment or collision. Amtrak Cascades had provided 14 million boardings without a passenger fatality prior to Monday’s tragic accident.

Sound Transit is well ahead of most commuter rail operators in the country in implementing PTC. We expect to fully execute our PTC responsibilities by the second quarter of 2018, though remaining implementation steps with other agencies mean that we will not control the exact date of full PTC activation.

**Why has PTC taken so long?**

The NTSB has recommended the widespread installation of PTC technology across the national rail network for a great many years.  The Federal Government initially required nationwide PTC implementation on all congested corridors by December 2015.  This requirement was implemented following the tragic Chatsworth, CA Metrolink crash that claimed the lives of 25 individuals.  The Federal Railroad Administration (FRA) and Congress eventually extended the deadline to December 2018 after recognizing the unique challenges faced by regulators, freight rail companies, and commuter rail providers. These challenges include a $15 billion unfunded mandate and multi-jurisdictional software compatibility issues.

**PTC equipment**

There are three general categories of PTC equipment: (1) wayside equipment, for which the track owner has installation and operational responsibility; (2) onboard equipment, for which the train owner has installation and operational responsibility; and (3) back office systems, which for our Sounder services are handled by BNSF’s control center in Texas. Before PTC is operational on a given segment all of these equipment systems must communicate with each other seamlessly following complex configuration work and the completion of testing. Because Sound Transit has procured the same on-board and wayside PTC equipment as BNSF, our system software is fully interoperable with BNSF.

**What is the status of PTC in the Tacoma-DuPont/Nisqually corridor?**

Sound Transit owns the Lakewood Subdivision from Tacoma to the DuPont/Nisqually area, where Monday’s incident occurred.  While Sounder trains do not currently operate further south than Lakewood, in 2015 Sound Transit executed a contract under a partnership with WSDOT to replace and upgrade the tracks and equipment, including installation of PTC wayside equipment between Lakewood to DuPont to enable the tracks to handle passenger rail service. This partnership with WSDOT has focused on enabling AMTRAK trains to bypass the longer tracks along the shores of Puget Sound.

Sound Transit has already fulfilled its responsibility as the track owner to install all wayside PTC equipment on the entire length of the segment from Tacoma to DuPont, though the PTC system is not yet operational and certified.  In order for the service to be fully certified for use, it must communicate seamlessly and routinely with the "back office systems" to be deployed by BNSF.  Sound Transit expects this integration to be completed by the second quarter of 2018.  In the meantime, Sounder trips between Lakewood and Tacoma will continue to operate under traditional signaling and dispatching procedures through which Sounder has been able to maintain its outstanding safety track record.

To facilitate better corridor integration, the Federal Railroad Administration has approved BNSF to exercise effective operating control of the corridor. This means that despite owning the corridor, for purposes of PTC operations, Sound Transit will effectively be a tenant customer. Activation of PTC will move forward under our strong operating partnership with BNSF. While we have every reason to be confident in the successful completion of the coming work, the fact is that the date for final PTC activation is outside of Sound Transit’s sole control.

**What is the status of PTC in the Tacoma-Everett corridor?**

From Tacoma to Everett, BNSF has fully installed and activated PTC on its tracks, which our Sounder trains access through Sound Transit’s leases and easements with BNSF. Sound Transit has also installed and certified PTC equipment on all Sounder locomotives and cab cars, with the exception of the nine brand new cab cars that are still in the process of being delivered and certified.

For all Sounder trips in which a PTC certified vehicle is in the lead, we already attempt to operate under PTC.  Currently, approximately 56 percent of trips using a PTC-certified locomotive or cab control car operate under PTC.  We are working diligently with our partners to improve this number.  Due to the early stage of deployment we are in, technical issues often occur that prevent every service from starting the trip under PTC. Trains are dispatched under traditional signaling procedures in instances when the PTC system initialization is unsuccessful.

**Going forward**

Monday’s tragic accident underscores the high priority we all place on safety, and the rarity of these events makes them all the more shocking when they do occur. I want to again emphasize that our Sounder service has provided safe, reliable travel for 17 years to more than 36 million riders.

This morning, I spoke with NTSB Chairman Robert Sumwalt and committed Sound Transit to being a full and cooperative partner to their investigation.  We will be working very closely over the coming months, if not years, with the National Transportation Safety Board, FRA, Amtrak, and WSDOT to determine what additional steps can be taken to prevent future accidents.  But the bottom line is that we and BNSF are nearing completion of PTC throughout the entire Everett-DuPont corridor, ahead of many of our peer agencies and in advance of the December 2018 federal deadline. We look forward to full PTC activation on all Sounder services.

Please don't hesitate to contact me on this or any other matter.  -P

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