Commuter Rail and Positive Train Control
FACT SHEET

APTA AMERICAN PUBLIC TRANSPORTATION ASSOCIATION

AN OUTSTANDING SAFETY RECORD

Public transit is the safest form of surface transportation available to Americans. In fact, traveling by commuter and intercity rail is **18 times safer** than traveling by automobile. Each day, commuter rail safely carries riders on 1.7 million trips.

SIGNIFICANT PROGRESS IN IMPLEMENTING PTC

According to the most recent data as of June 30, 2018, commuter railroads have made solid progress to meet the congressional mandate:

- **91%** of all needed radio spectrum has been acquired
- **85%** of 13,698 pieces of on-board equipment on locomotives and cab cars are PTC-installed
- **79%** of 14,083 wayside installations have been completed
- **78%** of back office control systems are ready for operation
- **74%** of 14,847 employees have been trained in PTC
- **34%** of commuter railroads are in testing, revenue service demonstration, or are operating their trains with PTC

Safety is the first priority for commuter rail operators and the entire public transportation industry.

It's not simply a value we share; safety is a core operating principle and a promise to our riders.

That's why we are 100% committed to making commuter rail even safer by implementing Positive Train Control (PTC).

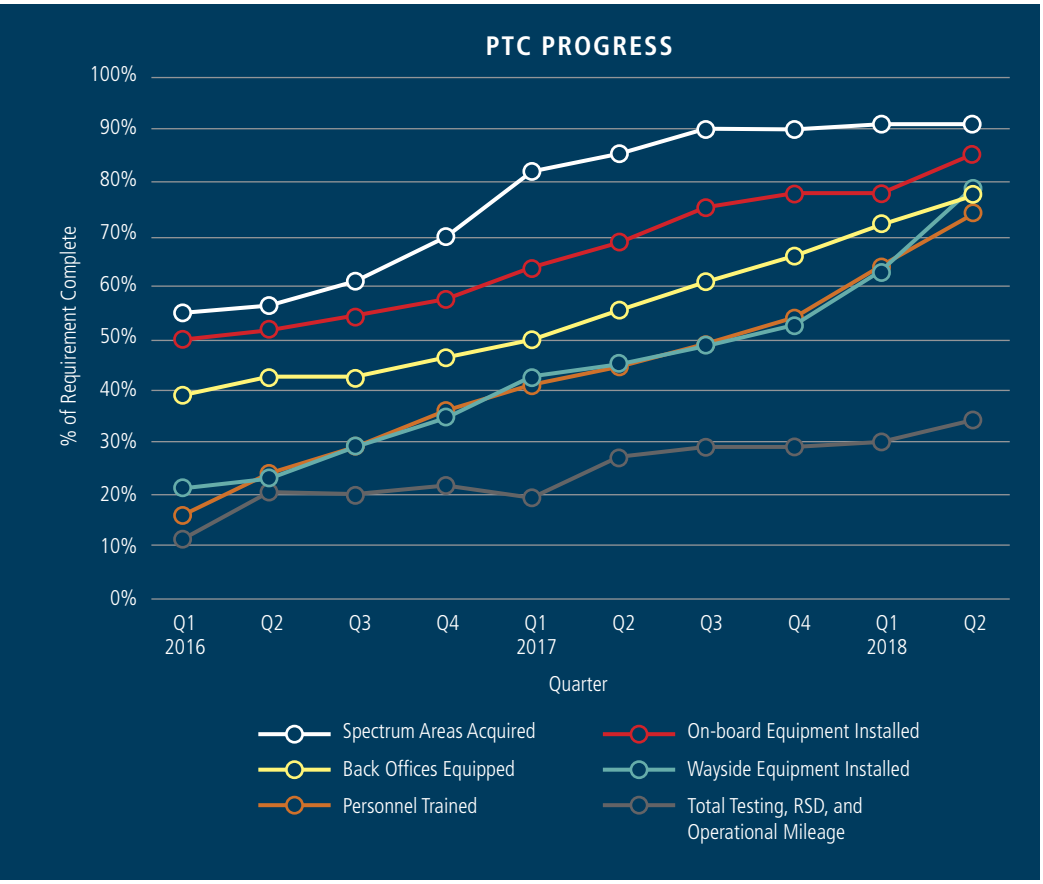
WHAT IS POSITIVE TRAIN CONTROL (PTC)?

PTC is an unparalleled technological and financial challenge in scale, complexity, and time required. PTC is a complex, innovative technology that is designed to make commuter rail even safer.

PTC activates a series of sensors installed on railcar equipment and track that use a combination of wireless Internet, GPS, and encrypted radio transmissions to report to monitoring systems in real-time speed and location data. PTC will prevent train-to-train collisions and derailments caused by speed. However, PTC will not prevent grade-crossing collisions and trespasser fatalities.

UNPARALLELED TECHNOLOGICAL CHALLENGE

PTC isn't off-the-shelf technology that was readily available to buy – it has required significant innovation. Many of the interconnected array of systems needed to be developed, customized, and installed according to its use in each and every system. Commuter rail operators are working tirelessly to achieve critical milestones.



OVERCOMING CHALLENGES

Total cost: PTC will cost commuter rail operators an estimated **$4.1 billion** to implement and $80 to $130 million a year in maintenance and operation costs.

Funding available: Since Congress mandated PTC in 2008, the federal government has awarded $435 million in PTC grants, $360 million of which has been awarded only since May 2017. At a time when the national state-of-good-repair backlog stands at an estimated $90 billion, commuter railroads had to divert funds from other critical infrastructure and safety priorities. In addition, two commuter rail operators have also secured federal loans to help pay for PTC implementation. While this financing has been helpful, the burden of repaying these loans still falls on public agencies that are already under financial pressure.

Limited expertise: There are a limited number of contractors with the expertise to install PTC on both commuter rail and freight railroads. Both modes required the suppliers at the same time, causing delays in installation.

Acquiring spectrum: PTC requires radio spectrum to transmit data between trains and communications towers (just like the spectrum needed for everything wireless, from your garage door opener to your cellphone). Early on, a major hurdle was gaining access to the necessary spectrum.

Time to install: PTC must be installed and tested while operators simultaneously continue to provide safe, reliable service for commuters who took 501 million trips in 2017 alone.

Interoperability: Many railroads run on tracks that they own or are hosted by freight railroads, or a combination of both. Critical to the successful implementation of PTC is making sure that all trains, tracks and the back office of each railroad communicate with one another.