

LEADING THE WAY IN PTC

BNSF is committed to Positive Train Control (PTC) technology. In fact, BNSF began developing PTC well before Congress mandated it for all Class I railroads in 2008. BNSF continues to lead the way in PTC implementation, and is on track to meet the Dec. 31, 2018 PTC implementation deadline.



What is PTC?

PTC is technology that overlays existing train hardware and software, designed to stop trains before certain types of accidents occur. PTC will prevent train-to-train collisions, enforce speed limits, protect roadway employees and equipment and prevent the movement of a train through a switch in the incorrect position.

How big a job is PTC?

The scope of BNSF's PTC installation includes installing PTC technology on 5,000 locomotives and 11,300 miles of track. When implementation is complete, roughly half of the BNSF system and 80 percent of BNSF's freight density will run on PTC.

BNSF must address not only the issues of implementing PTC for freight service, but also the unique equipment, software and integration involved with passenger commuter railroads that operate on BNSF's track.

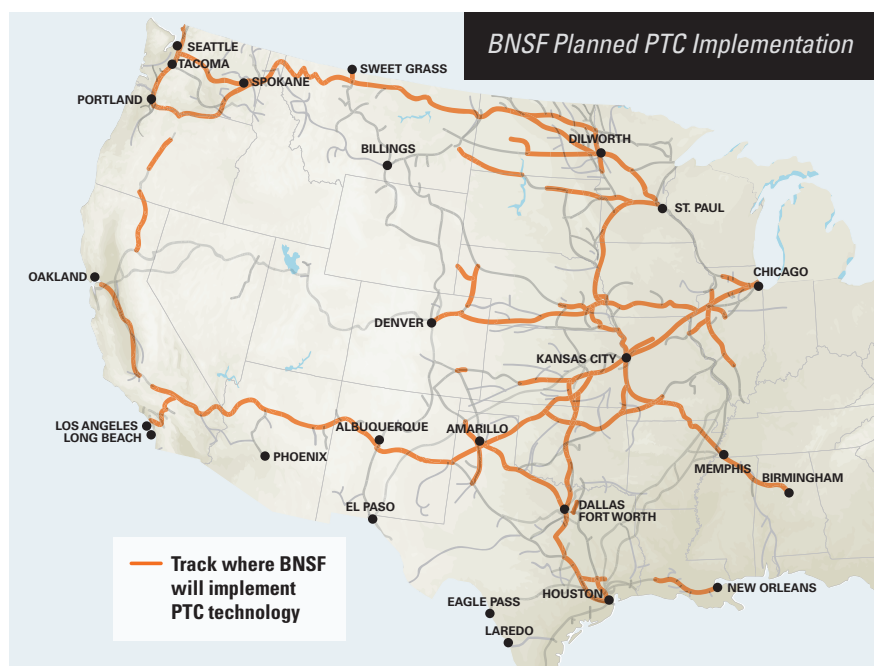
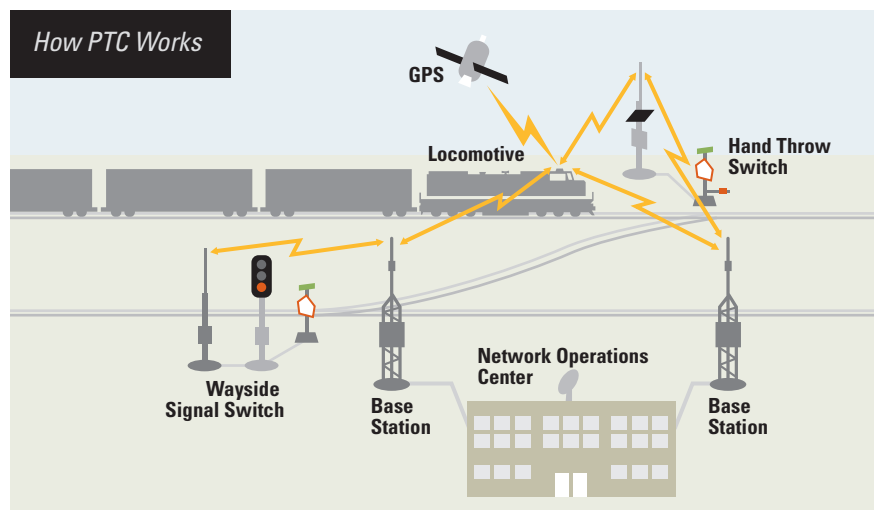
How does PTC work?

PTC uses GPS, Wi-Fi and high-band radio transmission to:

- > Determine the location, direction and speed of the train
- > Warn the train crew of a potential problem
- > Take action by stopping the train if there is not a response by the train crew.

When is the PTC implementation deadline?

Congress has mandated that PTC be implemented by Dec. 31, 2018, on all railroads on routes that carry passengers and/or toxic-by-inhalation (TIH) freight. Congress has stated it would possibly add an additional two years for railroads to test and fine tune already installed and at least partially operational PTC systems.



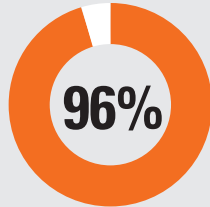
BNSF PTC Progress

BNSF leads the industry in PTC implementation. As of September 30, 2017, here is where we are in several key areas.



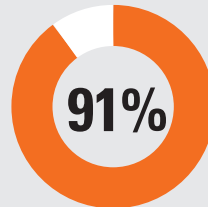
22K+

BNSF employees trained to operate and maintain PTC trains and equipment



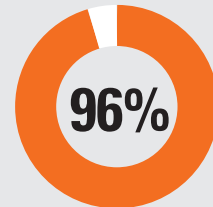
Locomotives Equipped with PTC Technology

4,849 of 5,000 locomotives



Route Miles in PTC Infrastructure Installed

10,263 route miles of 11,300



PTC Radios Installed

Approximately 8,000 of 8,374 radios

On Track for Success

BNSF is on track to meet the Dec. 31, 2018 deadline for PTC implementation, and reserves the right to continue testing past the deadline to address issues such as railroad interoperability. To improve safety for everyone, the BNSF PTC team continues to work closely with the Federal Railroad Administration to ensure PTC is done right.