ASSOCIATION OF AMERICAN RAILROADS

POSITIVE TRAIN CONTROL

Key Takeaways

- Positive Train Control (PTC) overrides human error to prevent certain types of collisions and derailments.
- PTC is fully active on all required Class I PTC route miles.
- PTC features allow for future safety technology. PTC will continue to evolve with these advancements.

Mandated by Congress as part of the Rail Safety Improvement Act of 2008 (RSIA), PTC has been an unprecedented technological undertaking. It requires each railroad to develop—from scratch—a system. Hundreds of thousands of components must work across an interconnected network of freight, passenger and commuter railroads. PTC is therefore a critical step forward for freight rail safety.

PTC AUTOMATICALLY STOPS A TRAIN TO PREVENT CERTAIN ACCIDENTS RELATED TO HUMAN ERROR OCCUR.

PTC prevents train-to-train collisions or derailments caused by excessive speed. PTC systems determine the precise location, direction and speed of trains. They warn train operators of potential problems and safely bring the train to a stop if the operator does not act.

PTC also prevents unauthorized train movement onto sections of track where maintenance activities are taking place. Additionally, it prevents movement of a train through a track switch left in the wrong position. However, it does not prevent accidents caused as a result of track or equipment failure. It also doesn't prevent improper vehicular movement through a grade crossing, trespassing, or certain types of train operator error.

PTC PROVIDES THE FOUNDATION FOR FUTURE INNOVATIONS.

PTC is a key part of freight rail's strategy to enhance an already safe network. Since 1980, nearly $810 billion in investments—along with advanced inspection tech, better rail cars, and rigorous training—have helped reduce track, equipment, and human error caused incidents. Expanding tech use can further boost safety and efficiency.

PTC's geo-mapping, advanced communications, and upgraded locomotives support greater capacity, better service, and lower emissions. To fully unlock these benefits, regulations must evolve to support a modern, tech-driven rail industry.