

# PTC for short lines makes debut in Pennsylvania

By Al DiCenso | October 12, 2015

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Equipment installed in a Lycoming Valley locomotive is part of a new positive train control system that makers hope will comply with federal requirements. Here the gray band on the speedometer indicates the allowable speed for the track segment. The speedometer will change to yellow as a restriction is approached, then to red when braking is required. The locomotive display unit will then indicate a braking profile to the restricted point.

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MUNCY, Pa. — Shortline and regional railroads looking for a positive train control system may have a product tailored for them coming around the corner.

*Trains* NewsWire recently visited central Pennsylvania's Lycoming Valley Railroad for

demonstrations by Massachusetts-based Cambridge Communications and Signaling Systems of its "Cambridge Sentinel System."

The Cambridge system is a communications-based PTC system that company officials say is specifically designed around the requirements of shortline and regional railroads. It is intended to be fully interoperable with Wabtec's Interoperable Electronic Train Management System being adopted by most class I railroads. Cambridge distinguishes itself from other companies by catering to shortlines, specifically, and offering to host back office computing power. Most railroads installing a PTC system keep all computing functions within their company.



***A Lycoming Valley locomotive in early October. The central Pennsylvania railroad is hosting a demonstration for a new positive train control application targeted for use by shortline and regional railroads.***

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Cambridge ran four scenarios over an eight-mile segment on the Lycoming, a "dark", mostly single-track railroad, with observers from the Federal Railroad Administration, suppliers and subcontractors, other interested short line operators, as well as executives and operating personnel from the railroad. Train location information was provided by placement of transponders at key locations along the track instead of by satellite, and wayside equipment substations were installed at two strategic locations along the route. Two locomotives were equipped with the on-board equipment and engineers' displays, and a caboose was outfitted with a dispatcher's display and keyboard. Routes and movement authorities were generated by the "dispatcher" for each of the four track segments each day.

System designers ran an equipped locomotive through four scenarios that broadly reflect requirements defined by the Rail Safety Improvement Act of 2008: operation against an improperly aligned switch; moving against protected work zones; moving through a speed-restricted area; and moving against an oncoming train.

In each case, the Cambridge system alerted the locomotive engineer about a pending violation and the engineer reacted by applying the brakes to slow or stop as appropriate. Each demonstration series was run twice on each of two days in early October.

When asked his opinion about the results of the trials and the operation of the equipment, Gary Shields, President of the North Shore system which is the parent company for the Lycoming Valley Railroad says he was pleased with the demonstrations but that any future installation would depend on input from the FRA and class I railroad schedules' for deployment.