TECH TRACKS

Helping Members Track Railroad Technology

A publication of the American Short Line and Regional Railroad Association's Technology Committee

ASLRRA Meeting Dates that Rate!

2009 Railroad Day on Capitol Hill
February 26, 2009
Grand Hyatt Washington
Washington, DC

2009 Annual Convention
April 25-28, 2009
Red Rock Resort
Las Vegas, NV

2010 Annual Convention
May 2-3-4, 2010
Hilton Bonnet Creek
Orlando, FL

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Happy New Year! This is the first 2009 edition of Tech Tracks, a quarterly publication of the American Short Line and Regional Railroad Association issued for the purpose of highlighting technology issues of importance for the short line and regional railroad community. The first article of this edition is an overview of Positive Train Control (PTC) written by Bill Everett of ARINC and the second is an update on railroad radio narrowbanding written by Steve Friedland, the operations director of the Morristown & Erie Railroad and the president of Shortline Data Systems, Inc. Mr. Friedland is the chair, through Spring, 2009, of the ASLRRA Technology Committee, and Mr. Everett is a new member of that committee:

PTC (Positive Train Control)

PTC is a safety technology whose objectives include:

- Prevention of train-to-train collisions
- Prevention of train derailments due to overspeed
- Protection of roadway workers operating within their authorized limits
- Prevention of collisions or derailment due to improperly-lined switches.

PTC is designed to keep a train within authorized limits on a track and under its maximum speed limit. To accomplish this, sophisticated technology and braking algorithms will automatically bring PTC-equipped passenger or freight trains to a safe stop prior to an actual violation of authority or speed limits.

Signed into law on October 16, 2008, The Rail Safety Improvement Act of 2008 requires all Class I railroads and passenger railroads to implement a PTC system by December 31, 2015 on all main line track where intercity passenger railroads and commuter railroads operate, as well as on lines carrying toxic-by-inhalation hazardous materials, including such lines as designated by the U.S. Secretary of Transportation. Traditional cab signal systems such as Automatic Cab Signals (ACS), Automatic Train Control (ATC), or Automatic Train Stop (ATS) are used across many rail networks today and may be incorporated into PTC technology, but themselves do not fully meet the objectives of PTC. ACS, ATC and ATS may not positively prevent collisions under all circumstances. PTC includes predictive technology that monitors a train's performance within its current and upcoming operating limits and applies enforcement braking when a violation is detected or predicted.

Control Chief Corporation

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RailSoft Systems, Inc.

Mark Kramer
10East Corp.

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Gregg Phillips
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PTC's sophisticated computer systems, with safety-critical software, may use GPS and/or other technologies for determining train location. Additionally, PTC designs have been developed to support many different railroads' methods of operation. The requirements for data accuracy, availability and communications have been evolving for more than a decade, requiring funding from the railroads, the government and suppliers.

Each Class I freight railroad must develop and submit a PTC implementation plan to the Federal Railroad Administration by April 2010. In October 2008, the four largest Class I freight railroads (UP, BNSF, CSX and NS) reached an agreement to develop interoperability standards for their respective Positive Train Control implementations.

Join us at a Technology Track breakout session on PTC at our 2009 Annual Meeting in Las Vegas and get the latest information on this important mandate.

Radio Narrowbanding Update

The changeover to narrowband radios is approaching! On July 1, 2010 all locomotives in interchange service will need to be equipped with radios that have both the current radio channels and the new narrowband channels (12.5KHz). Following this first step, the plan is for railroads to change over to the new channels following a geographic plan that will have dates that are still to be determined. The entire US rail system will have completed the changeover by January 1, 2013. What should you be doing now?

1. Work with a radio supplier or Class 1 to determine if your current radio equipment is narrowband capable, and what equipment is going to need to be replaced.

2. If you are going to be purchasing new equipment, it is the recommendation of the ASLRRA that you purchase equipment that is tri-band – current channels (25KHz), narrowband channels (12.5KHz), and very-narrowband channels (6.25KHz) – capable to ensure that you will be able to get the longest lifetime from your purchase.

3. If you have questions, ask your supplier, Class 1, or call ASLRRA.

4. Stay tuned for more information as it becomes available.