

Caltrain CBOSS PTC APTA Peer Review Report Background July 28, 2016

1. WHAT IS CBOSS PTC?

The Communications Based Overlay Signal System (CBOSS) Positive Train Control (PTC) system is an advanced signal system that will monitor and control train movements, providing significant safety improvements, increased reliability and operating performance, and improved capacity and service.

The project also fulfills a federal mandate that requires implementation of a Positive Train Control (PTC) system on all commuter corridors. PTC is intended to prevent train-to-train collisions, over-speed derailments, and movement into established work zones or through a misaligned switch.

2. WHAT IS THE FEDERAL PTC MANDATE?

In response to a fatal train collision in September 2008 on the Metrolink System, Congress passed the Rail Safety Improvement Act (RSIA) of 2008, which updated the Code of Federal Regulations (CFR) to require PTC to be installed along every passenger rail corridor prior to December 31, 2015. In 2015, Congress passed a PTC extension which mandates implementation of PTC by December 2018.

For Caltrain, the core safety enhancements provided by PTC include the prevention of:

- Train-to-train collisions by enforcing movement authority limits;
- Over-speed derailments by enforcing speed limits; and
- Incursions into established work zones by protecting track work zones throughout the corridor.

Caltrain is one of a handful of railroad operators nationwide that has completed installation activities and has commenced testing of the system.

3. WHAT IS AN AMERICAN PUBLIC TRANSPORTATION ASSOCIATION (APTA) PEER REVIEW PANEL AND WHY DID CALTRAIN ASK FOR IT ON THE CBOSS PTC PROJECT?

APTA's Peer Review Program is designed to assist transportation organizations in addressing public transportation-related needs and issues through subject matter experts within the public transportation industry. Through the coordination by APTA and the support of their respective own organizations, the subject matter experts convene at the requesting public transportation organization and conduct an intensive review of the issues to be addressed. Peer Review participation is conducted by mutual consensus and through industry acknowledgement that this service is an extremely valuable resource to strengthening and enhancing public transportation functions and effectiveness.

In April 2016, Caltrain requested the APTA Peer Review to have a third party take a closer look at some of the challenge areas that the CBOSS PTC Project was facing and make recommendations on how to strengthen the project delivery efforts.

In May 2016, the Peer Review team was formed with experts from around the country that are familiar with the PTC federal mandate. In June 2016, the APTA Peer Review team spent several days looking at the project and meeting with key personnel from Caltrain staff, the contractor (PTG) and railroad support staff (TASI). Caltrain received the final report in July 2016.

Caltrain staff have mentioned that the APTA Peer Review was in process at previous Board meetings and there will be an update on the Peer Review Report at the August 7, 2016 Board meeting.

4. HOW IS CALTRAIN IMPLEMENTING RECOMMENDATIONS FROM THE PEER REVIEW REPORT?

Caltrain has already taken several steps to implement many of the recommendations. Key elements for Caltrain include:

- Better integrate the agency, contractor(s) and railroad support staff in efforts to prepare the railroad for a final CBOSS PTC product. Close coordination is needed from all parties and based on the recommendations in the report, Caltrain has created a “Go Live” team that will ensure everyone is working together as the program transitions to operations.
- Work through the commercial negotiations with the contractor. Caltrain has requested that the contractor establish a viable re-baselined schedule that is appropriate and identify areas of commercial disagreement.
- Continue using the CBOSS PTC product and continue Caltrain’s community outreach efforts. The report found that the CBOSS PTC design was robust and meets industry standards. The report also praised Caltrain’s extensive and commendable outreach efforts on the project.
- Continue regular meetings at the Executive level between Caltrain and the Contractor (PTG) and their subcontractors to ensure appropriate resources and responsiveness to the project. Caltrain has a weekly call between the JPB Executive Director and PTG CEO. The Caltrain Chief of Rail also has a weekly call with the PTG Vice President. Additional monthly meetings are held between Caltrain project management and their counterparts at PTG and their subcontractors.
- Caltrain is working hard to take action now and to place Caltrain CBOSS PTC equipped trains on Caltrain track into revenue service as quickly as possible. This requires working closely with the Federal Railroad Administrator (FRA) and its tenant railroads,

including the UP, to develop a phase in of the CBOSS PTC product through the testing and implementation phases of the project culminating in Revenue Service Demonstration (RSD).

- Caltrain has taken steps to strengthen the project management team, including changing project team members and commencing the search for additional Caltrain staff with the requisite technical experience.

5. WHAT ARE THE ENHANCED OVERSIGHT PROVISIONS THAT ARE IN PLACE FOR THE CBOSS PTC PROJECT?

On a regular basis, Caltrain staff reports to the Peninsula Corridor Joint Powers Board (consisting of representatives from San Francisco, San Mateo and Santa Clara counties) on the status of the CBOSS PTC project. A link to the board website can be viewed here:

<http://www.caltrain.com/about/bod.html>

Caltrain also has a project management oversight committee that consists of members of the Caltrain Executive Team that meets on a monthly basis.

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For the last three years, CBOSS PTC staff have provided monthly briefings on the CBOSS PTC project to staff from the parties that signed the 9-party MOU for the Early Investment Projects (that includes CBOSS PTC).

Finally, as part of a recent agreement with the 7-parties to the Early Investment Supplemental Funding MOU, there is a Funding Partners Oversight Protocol for the CalMod Program (including CBOSS PTC). The protocol outlines the open door policy with the funding partners and encourages their participation. A copy of the protocol can be found by clicking the link [here](#).

6. HOW IS CALTRAIN'S CBOSS PTC SYSTEM FUNDED?

CBOSS PTC is a key element of the CalMod Program, which includes electrification of the corridor and replacement of the system's diesel trains with high-performance electric trains. Of the overall CalMod Program, the CBOSS PTC project accounts for \$231 million of the total cost.

- Local funds: \$ 71 million (San Francisco, San Mateo and Santa Clara counties)
- State funds: \$113 million (includes \$106M in High Speed Rail Connectivity funds)
- Federal funds: \$ 47 million
- Total Budget: \$231 million

The project is partially funded through the 2012 early investment 9-party MOU. The 2016 7-party Supplemental MOU only funds the Peninsula Corridor Electrification Project.

7. DO WE EXPECT ANY INCREASED COSTS TO THE CBOSS PTC PROJECT?

Yes. The CBOSS PTC Project has taken longer than expected. Caltrain is currently in commercial negotiations with the contractor. Caltrain asked that the contractor to establish a new schedule that reflects the additional time needed by the contractor and take responsibility for the current delays for the project.

The Caltrain Board has approved \$14.3 million in their FY17 budget. However, the exact amount will be determined through the commercial negotiation.