Caltrain Modernization Kicks Off Advanced Signal System Work

Caltrain has begun work on an advanced signal system that will significantly improve the performance and enhance the safety of the rail system. With this milestone underway, Caltrain is formally kicking off the first element of the Caltrain Modernization Program.

Called the **Communications Based Overlay Signal System** (CBOSS) **Positive Train Control** (PTC) Project, the new installation is the first step in the Caltrain Modernization program that will lead to the electrification of the rail system and prepare for future High Speed Rail operations.

The CBOSS PTC system equips the corridor with federally mandated safety technology and increases system capacity, which will help accommodate future increases in services and make it possible for Caltrain to respond to skyrocketing ridership demands.

This phase of the project involves installing a fiber optic backbone along the Caltrain right-of-way so that signals, trains, dispatchers and other components of railroad operations can communicate seamlessly. Once complete, the system will monitor and, if necessary, control train movement in the event of human error. The technology is designed to prevent accidents like the one in Spain, which killed 80 people earlier this year, and the Metrolink accident in Chatsworth, CA., in 2008 in which an engineer was texting while operating the train, causing an accident that killed XX. The Chatsworth incident prompted legislation requiring positive train control technology on all railroads.

This system will increase safety on the Caltrain corridor, which has more than 40 at-grade vehicular and pedestrian crossings by:

- Eliminating the risk of train-to-train collisions
- Reducing the risk of potential derailments by enforcing speed limits
- Providing additional safety for railroad workers on the tracks

More dependable passenger service and operating performance will be achieved through:
Schedule Management – improved accountability and management of train schedules.

Enforcement of Scheduled Station Stops – a train will no longer be able to overshoot a station stop or platform.

Improved grade crossing performance - travelers crossing the tracks will benefit from reduced gate downtime and improved local traffic circulation.

As more and more customers crowd onto Caltrain, the rail system is limited in its ability to add more trains and more capacity, due, in part to the current wayside signal system, which forces distance between trains based on the slowest train type using Caltrain’s tracks.

CBOSS PTC reduces the distance required between trains to assure safety, matching the safe braking needs to specific train types. Combining the CBOSS PTC Project with the operation of high-performance electric multiple unit (EMU trains), which is planned with Caltrain Electrification, will upgrade the system to provide faster and/or more frequent service to more stations and more riders.

With 35 months or nearly three years of consecutive ridership growth, the modernization of Caltrain is long overdue. The CBOSS PTC project will be the first of several projects that lead to the electrification of the Caltrain Corridor by 2019. The Caltrain Modernization Program will electrify and upgrade the performance, operating efficiency, capacity, safety and reliability of Caltrain’s commuter rail service, providing Peninsula communities with a modernized rail service that will help meet growing ridership demand between San Francisco and San Jose.

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About Caltrain: Owned and operated by the Peninsula Corridor Joint Powers Board, Caltrain provides commuter rail service from San Francisco to San Jose, with limited commute service to Gilroy. Caltrain has enjoyed 28 consecutive months of ridership increases, surpassing more than 50,000 average weekday riders earlier this year. While the Joint Powers Board assumed operating responsibilities for the service in 1992, the railroad will celebrate 150 years of continuous passenger service in 2014. Planning for the next 150 years of Peninsula rail service, Caltrain is on pace to electrify the corridor by 2019, reducing diesel emissions by 90 percent and adding more service to more stations.

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