



METROLINK SAFETY INITIATIVES – August 2010

New CEO and Metrolink initiatives

- New CEO with focus on safety as top core value
- ***Mission to Excellence*** launched in June, 2010
- Commitment to customers, efficiency, transparency, fiscal responsibility, integrated service design
- Instituting a process to enhance and highlight a culture of continuous safety improvement (including Contractor co-workers)
- Realigned staff around functions and core competencies to improve our efficiencies
- Establishing a strategic planning process with short- and long-term strategies, goals, and measures to serve as our roadmap
- Developing programs to focus on the customer, including senior Metrolink staff riding trains and talking to passengers on a regular basis
- Rebuilding mission-critical relationships with our regulators, Federal & State
- Forging relationships with the rail labor unions that are transparent and inclusive
- Evaluating schedules and on-time performance, developing task force groups around service design and marketing
- Developing partnerships with Union Pacific and BNSF to improve operational capabilities and performance
- System Safety department reports directly to the CEO
- System Safety Department defining long-term measureable objectives for safety including leading and lagging indicators
- CMF Site manager for contract oversight; Qualified Maintenance Person (QMP) at MOC
- Additional Field Compliance Officers for oversight and management
- (Add note here about USC)

Inward- and Outward-facing Cameras

Metrolink is the first railroad, passenger or freight to install inward- and outward-facing cameras in locomotive cabs. Our camera program provides a significant deterrent to the type of dangerous and inappropriate activity, including text messaging, unauthorized persons in the cab and sleeping. In January, 2010, the National Transportation Safety Board endorsed placing video cameras in train cabs after concluding its finding on the Chatsworth collision.

Use of this digital technology is another important step in Metrolink's multi-faceted program to reduce the risk of accidents or incidents along our rail corridors and to provide an exceptional safety environment for our passengers and crews.

Metrolink has adopted stringent procedures governing the authorized usage, retrieval, preservation and disclosure of the LDVR recordings captured by the video cameras and audio devices to ensure they are used

only for the purposes permitted in its policy and procedures, or as required by law. The policy outlines the express purposes for capturing recordings on its fleet, which are:

- To promote and enhance safety and security for the general public, as well as for Metrolink and contractor employees
- For incident investigation purposes
- Random testing for compliance with rules governing use of electronic devices, sleeping and unauthorized persons in the cab
- Where appropriate, to assist in Metrolink and contractor personnel discipline
- To examine and evaluate conditions on the right-of-way

Hyundai Rotem Cars

Metrolink has procured 117 new passenger cars, with the first two delivered in February. The cars are the first commuter rail cars in the U.S. manufactured with advanced collision absorption technology (called Crash Energy Management - CEM) designed to enhance and protect the passenger compartment in the event of a collision.

- First two pilot cars arrived from South Korea on February 27; more cars have arrived and are undergoing testing
- T & E Crews undergoing testing according to FRA regulations
- Public launch scheduled this fall
- The procurement was already underway when we approached FRA/Volpe Institute for CEM program
- Initial order is for 117 cars (60 coaches and 57 cab cars)

New Operations Contractor - Amtrak

The SCRRRA Board found that it was in the best interest of Metrolink to pursue a sole source contract with Amtrak because they provide a depth of relevant experience and management support for Metrolink operations that is unique in the current passenger rail environment. Amtrak was Metrolink's operator for commuter rail services from the start-up in 1992 through 2004 and they are uniquely qualified to re-assume responsibility because they operate existing intercity service on four of the seven lines that comprise the current Metrolink system. No other entity matches these qualifications for this service.

In addition, Amtrak is the largest employer of passenger train and engine crews in the country; therefore, it has a large pool of employees already qualified on Metrolink territory. Amtrak has existing programs for the safety, training and efficiency testing of its employees, and promotes safety throughout its organization with a very extensive toolbox. Amtrak also operates under Federal and State regulatory oversight and is familiar with the requirements of these laws and codes, and already has existing agreements with the Brotherhood of Locomotive Engineers and Trainmen (BLET) and the United Transportation Union (UTU), the unions that represent the current T & E crews.

Amtrak replaced Connex Railroad at the end of June 2010.

Positive Train Control (PTC) - This technology is still being designed

Congress enacted the Rail Safety Improvement Act, prompted in part by the collision in Chatsworth of the Metrolink and Union Pacific trains. This law includes a requirement for railroads to install Positive Train Control, or PTC. PTC is brand new technology (not “off the shelf”) for passenger railroads and is currently under design and development. The FRA issued the final PTC rule on Jan. 12, 2010.

PTC is an integrated set of technologies that will help avert train-to-train collisions, derailments caused by excessive speed, accidents caused by human error or misaligned switches, and help prevent harm to roadway workers.

PTC sends and receives a continuous stream of data transmitted by wireless signals about the location, speed, and direction of trains. PTC systems utilize advanced technologies including digital radio links, global positioning systems and wayside computer control systems that aid dispatchers and train crews in safely managing train movements.

We are working on an accelerated strategy along with the freight railroads in Southern California to install PTC on all our trains two years before the federal mandate for national implementation in 2015.

- Working with BNSF, UPRR, Amtrak, FRA on cost-effective design and deployment of a completely interoperable PTC system
- Metrolink committed to rollout in 2012

Efficiency Testing

- Increased efficiency testing (observations and changes ongoing per CFR Part 217)
- Redefined safety-critical tests both for contractor co-workers and Metrolink
- Implemented Root Cause Analysis (RCA) of failures
- Established targets (monthly review) and metrics

Additional ATS Inductors

Metrolink activated 49 additional inductors to increase the number to 105 on Metrolink routes in four counties. The ATS system includes magnetic indicators placed next to the track at locations where the train is approaching a curve or a required speed change. The ATS system sounds an audible alarm and flashing alert on the engineer’s control panel when the train passes over the inductor. The train brakes are automatically applied if the engineer does not push a button acknowledging the alert within approximately eight seconds.

- Used in 90-mph territory, used where approaching a curve or speed change
- Added 49 inductors to safety-critical locations

Locomotive Simulator

- Locomotive simulator and software
- Incorporates BNSF, UP and Amtrak territories
- Tool to train and retrain locomotive engineers and will include training with onboard PTC technology

Sealed Corridor

The Sealed Corridor program targets improvements to the vehicle and pedestrian grade crossings throughout the rail network to improve safe operations of the trains and vehicle traffic across the tracks and enhance grade crossing safety. The Flower St. crossing in Glendale has opened and four crossings are under design. Fifty-one additional crossings in the sealed corridor are either under construction or under study. SCRRRA has released a set of comprehensive standards on the design and construction of grade crossings within the Metrolink system, which will likely set the standard for many other passenger rail agencies. Crossing enhancements that may be implemented at Sealed Corridor crossings may include:

- Four-quadrant gates
- Median separators or raised islands
- Crossing warning device “health monitoring” systems
- Crossing geometry improvements
- Pedestrian safety improvements
- Grade separation or closing of crossings
- Gates and fencing at crossings