

20th Anniversary Report

Proudly serving Southern California for 20 years

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Message from the Board of Directors

On Oct. 26, 2012, Metrolink celebrates 20 years of providing transportation solutions to Southern Californians. In 1988, Southern California commuters voiced a need for commuter rail service as an alternative to the widespread gridlock in our region, and transportation officials from five counties banded together to make it happen. Metrolink has grown tremendously, from transporting around 939,000 riders during fiscal year 1992-1993 to more than 11.9 million riders in fiscal year 2011-2012. Sixty-five percent of passengers surveyed after Metrolink's first year of service said that they drove alone before Metrolink's debut. *Today an estimated 8.5 million weekday automobile trips are removed from the road each year because of the service Metrolink provides.*

Throughout its history when the public needed a solution, Metrolink rose to the challenge, whether that meant extending service lines like we did after the 1994 Northridge earthquake when freeways collapsed or introducing Bike Cars in 2011 to accommodate growing demand for bicycle storage on trains or adding service on the Ventura County and Antelope Valley lines during the Interstate 405 closures in 2011 and 2012. Metrolink has grown from operating 24 weekday trains in 1992 to 163 weekday trains in 2012.

Our on-time performance has steadily improved and remains above 93 percent despite the increase in the number of trains operated over the years.

Metrolink continues playing a greater role in meeting the region's transportation needs. There are several future projects on the horizon that will allow us to serve a larger area and operate even safer, more efficiently and in an environmentally friendly manner.

This report is the story of how our agency came to be and how we've grown over these 20 years to become a safety and customer service leader in the rail industry.

Metrolink, where safety is foundational, is well on its way to becoming the safest passenger railroad in the United States, a goal we expect to meet before our next birthday.

-Richard Katz, Chairman, on behalf of the Metrolink Board of Directors

CHAPTER 1 Who we are

Who we are

CHAPTER

Metrolink is the Southern California commuter rail service that provides transportation to commuters throughout six counties. During fiscal year 2011-2012, the agency provided 11.9 million passenger trips. Metrolink's governing body, the Southern California Regional Rail Authority (SCRRA), was formed in 1991 as a Joint Powers Authority that was tasked with addressing the need for increased mobility and reducing traffic congestion in the region. The SCRRA is made up of five major transportation agencies that, together, govern Metrolink via an 11-member Board of Directors: Los Angeles County Metropolitan Transportation Authority (Metro), Orange County Transportation Authority (OCTA), Riverside County Transportation Commission (RCTC), San Bernardino Associated Governments (SANBAG) and Ventura County Transportation Commission (VCTC). In 1992, the SCRRA began operating Metrolink as a solution to the region's transportation needs. Over the years, Metrolink has served as a major link between the six counties it serves, providing seamless transportation connectivity options. During the past two decades, Metrolink has expanded from 112 route miles, three service lines spanning two counties, 11 stations and 2,300 daily boardings to 512 route miles, seven service lines spanning six counties, 55 stations and more than 44,000 daily boardings. As of 2012, Metrolink is the nation's third largest commuter rail agency based on directional miles and the seventh largest based on annual ridership.

Mission

To provide an outstanding passenger experience on every ride with safe, clean, dependable and on-time operations.



Ridership over 20 years

*Service began in Q2 of the fiscal year



Advent of the automobile stops train in its tracks

Before the advent of the automobile, there was such a thing as Red Cars, a network of railroad lines and electric street cars that made travel between Los Angeles, Orange, Ventura, San Bernardino and Riverside counties possible. The Red Cars were in high demand and reached their peak in the late 1920s. But with the increased popularity of the automobile, commuters' desire to ride the Red Cars began to wane. Southern Californians' preferred method of transportation became the automobile, and by the early 1960s, the popular Red Car Lines that connected communities ceased operations. But after three decades of people pouring into Southern California and congestion on streets and freeways becoming unbearable, Southern Californians once again turned to the railroad.

Traffic congestion sparks railroad resurgence

In November 1988, Riverside County residents voted in favor of Measure A, a 20-year half-cent sales tax that became the first of a series of the public's endorsement of rail improvements that would drastically change public transportation in Southern California for the better. In November 1989, San Bernardino

County residents followed suit and supported Measure I. The next year in 1990, Los Angeles County residents voted to approve the half-cent sales tax initiative, Proposition C, while Orange County residents approved the half-cent sales tax known as Measure M. During the same year, California residents turned out to the polls in large numbers to vote in favor of State Propositions 108, 111 and 116. Combined, the measures authorized the sale of nearly \$3 billion in general obligation bonds that were designated for the creation of commuter rail, intercity, light rail and subway services.



Voters casting their ballots for transportation improvements

When Southern Pacific Railroad offered 173 miles of active and abandoned rights-of-way for sale in May 1989, Southern California transportation officials from the counties of Los Angeles, Orange, Riverside, San Bernardino and Ventura seized the opportunity to build a much-needed commuter rail system. The Los Angeles County Transportation Commission (LACTC) began negotiations in February 1990 for the purchase of the rights-of-way. The San Bernardino Associated Governments (SANBAG) and Ventura County Transportation Commission (VCTC) would later join in on the negotiations. The LACTC, SANBAG and VCTC were able to reach a \$450 million agreement with Southern Pacific in October 1990 to purchase the rights-of-way, despite a tense negotiation process.

Negotiations between the county agencies and the Atchison, Topeka and Santa Fe Railway (ATSF) had also begun in February 1990 for purchase or acquisition of operating rights over 336 miles of track that would allow future commuter train service from Los Angeles into Orange, San Bernardino and Riverside counties. In July 1990, the five county agencies offered ATSF (now known as BNSF Railway) \$300 million, but the offer was met with silence. In March 1991, Santa Fe finally replied, demanding a hefty \$1.3 billion.

Senate Bill 1402 was signed into law by Governor George Deukmejian in mid-1990 to encourage Los Angeles, Orange, Riverside and San Bernardino counties to develop a coordinated multicounty rail and bus transportation plan. The bill was spearheaded by Senator Robert Presley (D-Riverside), who was given the idea for the law by **Riverside County transportation** planners working with the other transportation agencies on starting up the commuter rail service.

Determined not to let their plans of building a commuter railroad fail, the three county agencies, LACTC, SANBAG and RCTC, looked in another direction. They approached Union Pacific (UP) about purchasing track and operating rights that would allow commuter rail service from Los Angeles into the Riverside/San Bernardino area. In late July 1991, a \$17 million agreement was reached for the purchase of four miles of right-of-way on the east bank of the LA River and commuter rail operating rights on UP's LA subdivision from Los Angeles to Riverside. The agreement also included a \$33 million requirement to fund right-of-way second track and siding construction. Negotiations with ATSF continued to prove difficult, and it was not until June 18, 1992, that a \$500 million agreement to purchase ATSF rights-of-way and an operating easement was reached. In addition, another \$80 million in capacity improvements were required by the agreement.

In November 1990, the Los Angeles County Transportation Commission approved the \$51 million purchase of 40 bi-level passenger train cars from the Urban Transportation Development Corporation (UTDC), a Canadian-based manufacturer. Meanwhile, negotiations were under

way for the purchase of locomotives compatible with the UTDC cars. General Motors would eventually be selected as the manufacturer because it provided the cleanest burning, low-emission diesel engines in the nation at the time. Amtrak was selected to operate the future commuter trains.

In August 1991, the Southern California Regional Rail Authority (SCRRA), the joint powers authority that governs Metrolink, was formed. It was made up of the Los Angeles County Metropolitan Transportation Authority (Metro) (LACTC had been absorbed by Metro), Orange County Transportation Authority (OCTA), Riverside County Transportation Commission (RCTC), San Bernardino Associated Governments (SANBAG) and Ventura County Transportation Commission (VCTC). In November 1991, the SCRRA chose the name "Metrolink" as the official name of Southern California's future commuter rail agency.

The SCRRA worked quickly on the designing and construction necessary for Metrolink to begin operations in 1992. The agency would go on to operate over three routes on its opening day: the Ventura County Line from Los Angeles to Moorpark, the Santa Clarita Line from Los Angeles to Santa Clarita and the San Bernardino Line from Los Angeles to Pomona. Metrolink would make stops at 11 stations along its first three In 1991, 18 students attending the Art Center College of Design in Pasadena worked eight long weeks under the direction of instructor and professional designer Julie Kalash to come up with proposed railcar and logo designs, as well as a name for Southern California's future commuter rail service. The winning proposal was submitted by 25-year-old Gretchen Barnes. "I tried to create a feeling of motion, linkage and twodirectional capacity," said Barnes. "The name Metrolink emphasizes the five-county connection, conveying a much-needed solution for urban sprawl."



lines upon its debut: Moorpark, Simi Valley, Chatsworth and Van Nuys, Burbank and Glendale on the Ventura County Line; Santa Clarita, Burbank and Glendale on the Santa Clarita Line (later renamed the Antelope Valley Line); Pomona, Covina and El Monte on the San Bernardino Line and L.A. Union Station, which all lines travel to. The SCRRA also completed \$36.6 million in renovations to L.A. Union Station so it would be ready for Metrolink's debut.

Tracks leading into L.A. Union Station

In September 1992, SCRRA announced that

it reached a \$67.8 million agreement with Southern Pacific for the purchase of the 67-mile Saugus Line that runs from downtown Los Angeles to Palmdale. The line would allow Metrolink to eventually extend all the way to Lancaster. Service to this area would later be accelerated in response to the 1994 Northridge earthquake. The deal also included other properties located in Canoga Park, Burbank and Chatsworth for future expansion.

Commuters flock to trains upon Metrolink's debut

On Oct. 26, 1992, Metrolink was ready for the commuters that would flock to its services. More than 400 commuters and bystanders, including city officials, police, transit professionals, community activists and train enthusiasts, gathered at the Ventura County Line Moorpark Station before 5 a.m. to await the first Metrolink train that would come rolling down the tracks. Nearly every seat on the 162-seat cars was full as the 5:06 a.m. train departed the station. That day, commuters who boarded the trains along the Ventura County, Santa Clarita and San Bernardino County lines were elated as their long-awaited public transportation prayers had been answered. Not only were Metrolink riders able to breathe a sigh of relief because they would no longer have to fight traffic, but they would also contribute to reducing emissions in the congested Southern California region by using an environmentally friendly alternative, Metrolink.

Expansion continues as region demands more service

Metrolink continued expanding to meet the needs of riders in all five counties. Southern Californians in Riverside and Orange counties anxiously waited for Metrolink to add service to their areas.

New stations popped up as Metrolink added new lines, and riders continued to crowd its trains. In 1993, it began operating on the new Riverside Line, and in 1994 Metrolink started operating on the Orange County Line. In 1995, the agency opened the Inland Empire-Orange County Line, the nation's first suburb-to-suburb commuter rail line. The 91 Line, Metrolink's seventh and final route to date, opened for service in 2002, linking Downtown Riverside, Fullerton and Downtown Los Angeles.





On Jan. 17, 1994, at 4:31 a.m., a magnitude 6.7 earthquake shook the San Fernando Valley area of northern Los Angeles, causing loss of life, injuries and \$40 billion in infrastructure damages. It was called the Northridge earthquake because its epicenter was in Northridge, Calif. The earthquake's violent shaking caused several freeway structures to collapse. Sections of some of Southern California's busiest freeways, including Route 14 (Antelope Valley) and Interstate 5 (Golden State), which parallel Metrolink's Santa Clarita Line, and Route 118 (Simi Valley) and Interstate 5



Damage caused by the Northridge earthquake

(Golden State), which parallel Metrolink's Ventura County Line, were closed to traffic. In contrast, the railroad tracks stood strong.



The U.S. Navy Seabees construction battalion and crews from the L.A. County Public Works quickly built the Vincent Grade/ Acton Station. The station was completed in five days, compared to the usual three to six months it took to build stations at that time.

Metrolink already had future plans to extend into the Antelope Valley, but those plans were accelerated by almost 10 years after the Northridge earthquake hit. Metrolink constructed emergency stations along its Santa Clarita and Ventura County lines so Southern Californians could get back to work, school or wherever they needed to travel. The Federal Emergency Management Agency funded both lines' emergency extensions.

Following rigorous safety standards, Metrolink completed six stations in just six short weeks, extending the Santa Clarita Line from Santa Clarita to Lancaster and the Ventura County Line from Moorpark to Camarillo: Lancaster, Palmdale, Sylmar/San Fernando, Vincent Grade/Acton, Via Princessa and Camarillo. And to top that off, the first two stations (Lancaster and Palmdale) were built in a mere three days, and the agency started running trains exactly one week after the earthquake rocked the region.



Metrolink was approached by a member of the public with an idea for a show that would bring cheer to thousands of families throughout Southern California. The idea was to introduce a decorative holiday-themed train to the region, similar to the holiday train operated by the BNSF Railway. Metrolink ran with the idea and quickly made plans for its first holiday train, which debuted in December 1997.

The 450-ton Metrolink train was adorned with sparkling lights, awe-inspiring holiday displays as well as a massive stage that featured a live musical performance. In addition, the agency partnered with KABC-TV/ABC 7 and Southland firefighters to collect toys for underprivileged children.

The introduction of the special train was an opportunity for Metrolink to introduce itself to the public so more people could start using environmentally friendly transportation, but it was also the agency's chance to connect with the communities and families it served. The Holiday Toy Express[®] continues to play an important role in Southern California communities, with many people continuing the tradition of attending the event each year and giving back to those who are less fortunate. The donated toys are distributed to families within the station's local community. Each year people show up with their families and friends to watch Santa, Mrs. Claus, the reindeers and the rest of Santa's crew celebrate the joy of the holiday season on board the train decorated with more than 50,000 sparkling lights.





Rail 2 Rail

On Sept. 5, 2002, Metrolink and Amtrak partnered with the California Department of Transportation (Caltrans) to introduce the Rail 2 Rail pilot program, which offered Metrolink Monthly Pass holders along the Orange and Ventura County corridors additional commuting options by adding more trains and improving connectivity. Metrolink Monthly Pass holders could choose from 78 Amtrak Pacific Surfliner trains within their designated station pairs to ride at no additional cost. Amtrak Pacific Surfliner



Metrolink and Amtrak trains waiting at L.A. Union Station

pass holders were able to ride any Metrolink train within their designated station pairs free of charge as well. The program became extremely popular among Metrolink and Amtrak riders, and it became a permanent program. In 2005, Metrolink, Amtrak and Caltrans celebrated the 1 millionth Rail 2 Rail customer. The program has paved the way for other partnerships that have improved connections for Metrolink riders.

Seamless connections

Metrolink has worked with other agencies to offer riders seamless, convenient connections to most shuttle, bus and rail carriers, giving them added value for being Metrolink riders. For example, Monthly Pass holders with a valid flight boarding pass can ride the FlyAway bus between L.A. Union Station and LAX at no additional cost. All Metrolink ticket holders can take a free shuttle between the Burbank-Bob Hope Airport Station and the airport free of charge. They can also take advantage of a complimentary shuttle between



Commuters making their way through L.A. Union Station

the Bob Hope Airport and the Downtown Burbank Station. Riders who present a valid Metrolink ticket can take the City of Irvine's iShuttle to and from the Tustin Station to the John Wayne Airport.



On Jan. 26, 2005, Metrolink was doing business as usual, transporting commuters during the busy morning rush hour. But just after 6 a.m., a tragedy unfolded that neither Metrolink nor the commuters on board southbound Ventura County Line Metrolink train 100 could have imagined.

A Jeep Grand Cherokee doused in gasoline was parked on the train tracks near the Chevy Chase Drive grade crossing in Glendale, causing a major derailment when Metrolink train 100 struck it, a parked Union Pacific freight train and oncoming northbound Metrolink train 901.



Train inspection under way

Both Metrolink trains derailed. Eleven people died and nearly 200 were injured. The owner of the abandoned vehicle was left unharmed. In 2008, a Los Angeles Superior Court jury found the vehicle owner guilty on 11 counts of first-degree murder and one count of arson, sentencing him to life in prison.

After the collision, Metrolink quickly began working with legislators and regulators to get support for safety improvements on the Metrolink system. In September, the agency met with federal lawmakers in Washington, D.C., to discuss the importance of making railcars safer and making it more difficult for cars and people to access Metrolink's rights-of-ways.

The American Public Transportation Association, a member of the ad hoc CEM working group, stated that it intended to use Metrolink's CEM specifications as a starting point for an industry standard. Also, the Standing Committee on Rail Transportation (SCORT) expressed its interest in adapting Metrolink's specifications to meet its needs. The SCORT is an organization that addresses policy, regulatory, safety and enforcement issues impacting states' ability to develop and maintain their portions of an efficient national freight and passenger rail transportation network.

Crash Energy Management technology

At the time the Glendale collision occurred, Metrolink had been leasing cars from Sound Transit and the San Joaquin Regional Rail Commission to ease crowding on certain lines. The agency had already planned to purchase additional cars to better accommodate growing ridership. The Glendale collision became the driving factor behind the agency's initiative to incorporate new Federal Railroad Administration (FRA) and Department of Transportation's John A. Volpe National Transportation Systems Center research into their procurement process. To create a safety-enhanced passenger car that would reduce passenger injuries if an incident were to occur, Metrolink sought the help of the FRA, the Federal Transit Administration (FTA) and the American Public Transportation Association (APTA) to develop Crash Energy Management (CEM) feature specifications based on FRA findings on passenger train crashworthiness. In May 2005, the FRA, FTA and APTA formed an ad hoc CEM working group, made up of participants from the railroad industry, including passenger railroads, suppliers, unions and industry consultants, to develop specifications that would be used in the production of the new cars.

On Sept. 16, 2005, Metrolink released its CEM specifications as part of its bidding process to acquire the new fleet. More than 100 firms requested bid packages. Each manufacturer was required to bid on the base order of 54 trailer cars and 33 cab cars, as well as four other options: option 1 for up to 10 cab cars, option 2 for up to 10 cab cars, option 3 for up to six trailer cars and up to four cab cars and option 4 for up to 20 trailer cars. Three major manufacturer Hyundai Rotem, Bombardier Transit Corporation and Kawasaki Rail Car, Inc. Hyundai Rotem's bid, \$306 million, came in at the lowest, compared to Bombardier's \$389 million and Kawasaki's \$557 million. After comparing the bids, Metrolink found that Hyundai Rotem's costs for the actual manufacturing of the trailer and cab cars were in line with Metrolink's estimate. In addition, the manufacturer's CEM costs were comparable to the estimate prepared by the John A. Volpe National Transportation Systems Center. Metrolink also sent surveys to Hyundai Rotem's major customers and received positive responses. The manufacturer had produced and delivered more than 4,000 railcars for transportation agencies in 31 countries internationally.

On Feb. 24, 2006, the Board of Directors awarded a contract to South Korean-based Hyundai Rotem to design and build commuter railcars equipped with state-of-the-art CEM technology. Metrolink would become the first commuter rail carrier in the nation to incorporate the advanced safety technology in its railcars to enhance passenger and crew member safety. The equipment would be assembled at Metrolink's Eastern Maintenance Facility in Colton, satisfying the Buy America provisions of the American Recovery and Reinvestment Act of 2009 by creating and maintaining jobs for Americans.

In March 2010, after years of anticipation, the first two cars of what became known as the "Guardian Fleet" arrived at the Port of Long Beach. They were the first of 117 stainless steel cars built with collisionabsorption technology – crumple zones on each end to divert energy away from passengers in the event of a collision. They were also equipped with other safety features like high seatbacks, bolted-in seat cushions and energy-absorbing tables. Then CEO John Fenton strongly recommended exercising an option before it



New Metrolink railcars equipped with Crash Energy Management Technology arrive at the Port of Long Beach

expired at the end of November for the purchase of 20 additional cars, bringing the total ordered to 137. The Board of Directors voted on Nov. 10, 2010, to purchase each additional car for \$1 million below the market value; the cars would have been more expensive once the option expired. In addition, it was cheaper for Metrolink to purchase the additional cars instead of overhauling the older cars. By the end of the year, on Dec. 6, 2010, the agency made history when it began day one of its four-day seven-city "Whistle Stop Tour" to introduce its Guardian Fleet to Southern California.

Sealed Corridor Program

CHAPTER

After the Glendale collision, Metrolink began working toward implementing a Sealed Corridor Program. A Sealed Corridor is a comprehensive strategy to enhance the safety of trains, passengers, motorists,

pedestrians and neighboring land uses within and along a railroad corridor, using appropriate safety measures (e.g., vehicle quad gates to prevent motorists from driving across the tracks when a train approaches and widening the roadways to prevent large vehicles from getting stuck on the tracks when turning) to reduce the opportunity for accidents at grade crossings or elsewhere within the corridor.

Metrolink received a \$250,000 study grant from the Federal Railroad Administration to begin planning its Sealed Corridor Program in the San Fernando Valley, as well as \$3 million Sealed Corridor funding in fiscal year 2005-2006 federal transportation appropriations.

The plan for the Sealed Corridor Program was unveiled in March 2006 in the City of Simi Valley. The plan identified 57 crossings along 65 miles of track on Metrolink's Ventura County and Antelope Valley lines that needed safety enhancements. Improvements at the crossings would include four quadrant gates, "Z" pedestrian crossings, pedestrian gates, median islands, fencing as well as other enhancements. "Our intention is to systematically



reduce the opportunity for accidents at grade crossings," stated Keith Millhouse, a member of Metrolink's Board. "The safety of trains, passengers, crews, motorists and pedestrians throughout Southern California is Metrolink's number one priority."

On Aug. 20, 2007, Metrolink held the first Sealed Corridor groundbreaking at the Van Nuys Boulevard crossing in Pacoima. The agency would go on to make history by becoming the first commuter rail agency in the nation to apply Sealed Corridor methods to a densely populated urban setting with correspondingly high volumes of street and rail traffic. Metrolink modeled the program after the Sealed Corridor approach that was successfully employed by the North Carolina Department of Transportation.

Support for safety and security enhancements

On May 2, 2008, during a ceremony held at the Metrolink Glendale Station, the California Governor's Office of Homeland Security awarded Metrolink \$9 million for infrastructure, security and public safety enhancements. The funds originated from voter-approved Proposition 1B, which was strongly supported by Governor Arnold Schwarzenegger.

Bounce back after Glendale collision

Following the safety measures Metrolink began implementing after the Glendale collision, the agency continued to make progress on a number of fronts. Ridership steadily increased, and the agency opened new stations and began leasing cars to handle increasing ridership. It saw its 100 millionth rider, celebrated its 1 millionth Rail 2 Rail customer, offered late-night service for the first time and was in the planning stages for introducing a new low-cost ticket option – the Friend & Family 4-Pack – to Metrolink riders.



What unfolded the afternoon of Sept. 12, 2008, overshadowed Metrolink's recent progress. At about 4:22 p.m., westbound Ventura County Line Metrolink train 111, which had just left the Chatsworth Station and was headed toward Moorpark, collided head-on with an eastbound Union Pacific Railroad (UP) freight train. The lead Metrolink passenger car (there were a total of three passenger cars) and locomotive derailed, as

well as UP's two locomotives and 10 of its 17 cars. Twenty-five people on board Metrolink train 111 died in the crash, including the engineer, and 135 others were injured, making the collision the deadliest in Metrolink's and the nation's history. National Transportation Safety Board (NTSB) investigators later discovered that the collision was caused by the Connex/Veolia engineer texting while operating the train and subsequently running a red signal. Metrolink contracted with Connex/ Veolia to operate its trains.

Assisting victims and making safety improvements

Following the collision, a family assistance center was set up at Chatsworth High School to assist injured passengers who were not



Los Angeles Mayor Antonio Villaraigosa, former California Governor Arnold Schwarzenegger and Los Angeles City Councilmember Mitchell Englander arrive at the site of the Chatsworth collision

transported to hospitals. On Sept. 12 and 13, Metrolink employees worked with the Red Cross, Los Angeles Police and Fire departments and other representatives from the City of Los Angeles to provide assistance and information to families and friends seeking information about passengers who were on board train 111 at the time of the collision. Metrolink employees set up and staffed a phone bank to answer incoming phone calls, as well as distributed food to the families and friends of injured passengers. Staff also distributed free cell phones donated by the local Best Buy so people at the family assistance center could contact loved ones.

Sheryl Carrerow, who at the time headed Metrolink's Passenger Services Department, recalled briefing her employees before they began their duties at the family assistance center. "I took them behind the closet in the school gym, and I closed the door and said, 'We are not just Metrolink employees today. We are people here to comfort and sit and just be someone to lean on."

Rachel Chaires, a senior representative for the Passenger Services Department, who worked at the family assistance center, recalled how Metrolink employees banded together. "Everybody from all over this agency kicked in to do whatever they could to help, whether it was answering phones, returning items to the victims' families or doing office work in the place of employees who were unable to do their normal duties because they were at the family assistance center with the victims' families."



A year after the Chatsworth collision, Metrolink unveiled a commemorative plaque at L.A. Union Station in honor of those who lost their lives during the Chatsworth collision. The plaque was also dedicated to the victims' families and friends, as well as first responders.

The Metrolink Board of Directors took swift action to assist the victims of the train collision. At a special meeting on Sept. 17, the Board unanimously approved creation of the Metrolink 111 Assistance Fund, which was established to help victims and their families with expenses incurred as a result of the collision. The fund was officially launched on Oct. 7 at an event hosted by the San Fernando Valley United Chambers of Commerce where Metrolink made an appeal to the general public, businesses and community leaders to donate to the fund. The agency partnered with the San Fernando Valley Community Foundation (a division of the

Economic Alliance of the San Fernando Valley), which was responsible for receiving and administering the funds.

In addition, the Board approved creation of a temporary assistance fund with an appropriation of \$200,000 to allow for faster payment to families so they could cover costs, like funeral expenses, incurred by victims and their immediate families. "A mechanism to provide immediate assistance and cut through red tape was needed to help families now," said then Board Chairman Ron Roberts. "The Temporary Assistance Fund gives us a way to help people now when they really need the help."

Metrolink acts to ensure prompt compensation for Chatsworth victims

After the 2008 Chatsworth collision, lawsuits were filed by survivors and families of the deceased. To expedite compensation, Metrolink took a leadership role in creating a \$200 million fund to compensate victims as soon as possible. This action allowed victims to receive the largest amount allowed by the Amtrak Reform and Liability Act, which sets the liability limit to avoid a lengthy legal process. Victims accepted the funds and the case was finalized in July 2011. Payments to victims were divided by Judge Peter D. Lichtman.

As of 2012, lawmakers, survivors and families of deceased passengers continue to pursue raising the federally established liability limit for railroad-related accidents.

Board approves sweeping set of safety motions

Metrolink met with Senators Dianne Feinstein and Barbara Boxer to discuss safety and operational changes it was committed to making while the investigation into the accident was under way and lawmakers worked to pass federal safety legislation. Among the changes the agency implemented were increasing crew member efficiency testing to ensure that safety and operating rules were followed and temporarily adding a second engineer on board as many trains as possible traveling on single track shared with freight trains, a practice that came to be known as the "second set of eyes." Metrolink also modified its operating rules to ensure proper "calling out" or verification of all signals by train engineers and conductors while operating trains, and updated its emergency preparedness and response plans and protocols. In addition, the agency began exploring PTC technology and expanded the Sealed Corridor Program it originally introduced in 2006.

During its Sept. 26, 2008, meeting, the Board approved a sweeping set of safety motions. They included selecting a subcommittee to appoint an independent commuter rail safety peer review panel to conduct a thorough analysis of Metrolink's entire operations, Metrolink conducting its own independent background check of all contracted engineers instead of depending on Connex/Veolia Transportation's background check, revisiting of the agency's operating contract with Connex/Veolia Transportation and the independent review of engineers' hours of service to ensure engineers are in top shape and not fatigued when operating Metrolink trains. At the time, the FRA did not have hours of service requirements in place for railroad agencies, only recommendations, something that Metrolink wanted to change, according to Los Angeles County Metro representative Richard Katz. However, the FRA did have hours of service requirements for other transportation providers such as school, tour bus and truck drivers, and aircraft and helicopter pilots, something that Metrolink wanted to change.

"The Metrolink Board has taken definitive action to continue to be a leader in rail safety in the U.S.," said then Board Chairman and Riverside County representative Ron Roberts. "From our soon-to-arrive passenger cars with Crash Energy Management technology to our Sealed Corridor initiative, Metrolink has consistently been on the leading edge of rail safety. We intend to lead the industry into the next phase of rail safety development."



Safety panel submits recommendations

The independent panel appointed to review Metrolink's operations was made up of national commuter rail industry experts tasked with reviewing all aspects of Metrolink, from operations to internal and external communications to crisis communications procedures.

In January 2009, the panel submitted its report. It included recommendations, called the Enhanced Safety Action Plan, which pointed to eight key areas that Metrolink needed to improve: Safety Culture, SCRRA Organizational Structure, System Safety Program Plan, Safety Performance Measurements, Infrastructure Maintenance, Analysis of Metrolink Short-Term Safety Projects, Strategic Plan and Governance.

As of mid-2012, staff has completed the majority of recommended improvements for the first six key areas. Improvements include the following:

- Development of a stronger, more unified safety culture among Metrolink employees and contractor co-workers (Safety Culture)
- Enhancement of interdepartmental communications to break down silos (SCRRA Organization and Structure)
- Development of an agencywide risk assessment process (System Safety Program Plan)
- Creation of a field operations department responsible for conducting efficiency testing of foreign railroad agencies operating on Metrolink track and providing oversight testing of contractors (Safety Performance Measurements)
- The purchase of Guardian Fleet cars equipped with Crash Energy Management technology and implementation of grade crossing safety and education enforcement (Infrastructure Maintenance)
- Installation of Automatic Train Stop technology at 49 locations to improve engineer situational awareness, installation of inward-facing video cameras in all locomotives and continued pursuance of PTC (Analysis of Metrolink Short-Term Safety Projects)



Metrolink activated inward- and outward-facing cameras on board all locomotives in October 2009.

Inward-facing cameras introduced

Before the Sept. 12, 2008, Chatsworth incident occurred, Metrolink had already been looking to incorporate forwardfacing cameras into the CEM cars it planned to purchase. Following the incident, the agency realized it needed to install inward-facing cameras on its current locomotives and on the CEM cars once they arrived in order to deter unauthorized crew member behavior while operating trains. Then Metrolink Board Chairman and Riverside County representative Ron Roberts made a commitment to lawmakers that installation of the cameras would be a top

priority. A little more than a year later on Oct. 5, 2009, after working toward installation of the cameras, the agency was close to fulfilling that promise.

Metrolink announced its plans to activate inward- and outward-facing video cameras in all 52 of the agency's locomotives between Oct. 7, 2009, and Oct. 12, 2009; the Crash Energy Management cars the agency had ordered would have the cameras installed as well. Metrolink became the nation's only railroad agency, commuter or freight, to install inward-facing cameras. "Use of this digital technology is another important step in our 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," said then Board Chairman and Ventura County representative Keith Millhouse.

The cameras are part of a Locomotive Digital Video Recorder (LDVR) system that includes three cameras per locomotive: an outward-facing camera to record activity in front of the train and two inward-facing cameras to record the control panels and human activities inside the locomotive cab. The LDVR also captures ambient audio transmissions associated with the visual images.

Installation of the cameras was recommended in January 2009 by the Independent Rail Safety Peer Review Panel that was appointed to closely examine Metrolink's operations and would later be endorsed by the National Transportation Safety Board. "Use of this digital technology is another important step in our 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," said then Board Chairman and Ventura County representative Keith Millhouse.

NTSB collision investigation and recommended changes

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The National Transportation Safety Board (NTSB), an independent federal agency that investigates significant transportation-related accidents, launched an investigation immediately after the Chatsworth collision, and 16 months later on Jan. 21, 2010, it released its findings. The NTSB attributed the collision to the negligence of the Connex/Veolia engineer, who failed to heed a red signal; Connex/Veolia was the company that Metrolink had contracted with to operate Metrolink trains.

The NTSB found that during the engineer's morning and evening shifts on the day of the accident, he sent 21 text messages, received 20 text messages and made four outgoing phone calls. He sent his last text message 22 seconds before the collision. The engineer's actions were in violation of the General Code of Operating Rules, which forbids operating crew members' use of cell phones while on duty. When analyzing the engineer's cell phone records, it was also discovered that on separate occasions he had allowed unauthorized persons to accompany him in the cab car as well as operate the train, yet another violation of the operating rules. In addition, the NTSB found that the engineer and conductor did not follow operating rules for announcing and repeating back signals. Operating rules require engineers to make radio announcements of all signals encountered, and conductors must repeat back the engineer's radio announcements for signals other than green.

The NTSB concluded that, although the use of wireless devices was prohibited while operating trains, the privacy the locomotive cab affords engineers makes it difficult to discover operating rules violations through ordinary management supervision or efficiency testing. It made two recommendations to the Federal Railroad Administration to make crew member oversight more efficient. The first was to install crash- and fire-protected inward- and outward-facing cameras in all controlling locomotives and cab car operating compartments to verify that train crew actions meet necessary operating and safety rules and procedures. It was recommended that the cameras record for a minimum of 12 hours and that the recordings be easily accessible for review to assist in accident investigations or for efficiency testing and systemwide performance review conducted by management. The other was to require railroad agencies to regularly review the recordings in conjunction with performance data to verify that crews meet safety rules.

Prior to the NTSB's recommendations, Metrolink had already taken the initiative in October 2009 to activate inward- and outward-facing cameras in its locomotives and review the recordings to verify crews were in compliance with rules that ensure the safe operation of the trains. The NTSB's endorsement of the cameras further validated Metrolink's move to install the cameras to enhance safety.



Immediate safety improvements

The Board discussed implementing additional Automatic Train Stop (ATS) inductors throughout its system; ATS was already installed on 30 miles of Metrolink's system in Orange County. On Oct. 23, 2009, Metrolink added 49 additional ATS to speed-sensitive areas across the system. When a train passes over an ATS, an alarm sounds that requires the engineer to take action. If no action is taken, the train's brakes are automatically applied, bringing the train to a stop.

"As part of Metrolink's comprehensive public safety program, Automatic Train Stop will provide greater situational awareness for our engineers and will establish an additional level of protection," said then Metrolink Board Chairman and Ventura County representative Keith Millhouse. "Inward-facing video cameras, second set of eyes on strategic routes and ATS, working together, will help reduce the risk of collisions along our rail corridors and provide an exceptional safety environment for our passengers and crews."

Sealed Corridor Program expanded

When Metrolink first announced its grade crossing safety enhancement plan in March 2006, 57 crossings along the Ventura County and Antelope Valley lines were identified for improvement. More than a year later in August 2007 during the



The Flower Street crossing in the City of Glendale

groundbreaking for the program, the agency increased the number to 63. Following the Chatsworth collision in September 2008, Metrolink eyed more crossings that would benefit from the enhancements, bringing the total number to nearly 120 across the San Fernando Valley and Ventura and Orange counties. On April 20, 2009, Metrolink made history when it opened the new Flower Street crossing in Glendale, equipped with enhanced safety features. The agency became the first commuter rail service in the nation to apply Sealed Corridor methods to a densely populated urban setting with correspondingly high volumes of street and rail traffic.

Metrolink continues to expand its Sealed Corridor Program. For example, Metrolink and OCTA partnered with local Orange County cities to implement the Orange County Grade Crossing Safety Improvements (OCX), a countywide effort to enhance safety at 50 railroad crossings in Orange County. The project was completed at the end of 2011.

The Flower Street grade crossing that was upgraded in 2009 was the first of six crossings to receive safety enhancements in the Glendale corridor, as part of the Glendale Corridor Grade Crossing Safety Improvements. Metrolink continues to move forward with the remaining five.

New grade crossing design practices and standards

On June 30, 2009, Metrolink published a design practices and standards manual for grade crossing improvements. It also serves as a guide for other agencies, such as cities, that make upgrades to streets and surrounding areas near or connecting to the Metrolink system.

PTC funding and initiation

Metrolink fully supported the Rail Safety Improvement Act of 2008, which was signed into law on Oct. 16, 2008. The mandate requires Class 1 freight carriers and intercity and commuter rail agencies to implement PTC by the end of 2015. Metrolink had been discussing the availability of PTC technology that would work on its complex system, which it shares with other commuter and freight railroads. During its Sept. 26, 2008, meeting, the Board of Directors authorized staff to seek state and federal funds for safety improvements,

including PTC. The technology had been on the NTSB's most-wanted safety innovations list since 1990, and Metrolink was determined to become the first commuter rail in the nation to implement the life-saving technology on its system to ensure the safety of its passengers. The agency also committed to implementing PTC ahead of the federal mandate.

What is PTC and how will it work?

Positive Train Control (PTC) is Global Positioning

System-based safety technology capable of preventing train-to-train collisions, overspeed derailments, unauthorized movement into work zones and train movement through switches left in the wrong position. PTC monitors and, if necessary, controls train movement in the event of human error. PTC may also bring trains to a safe stop in the event of a natural disaster.

Video overview of Positive Train Control

PTC sends up-to-date visual and audible information to train crew members about areas where the train needs to be slowed or stopped. This information includes the status of upcoming signals, the position of approaching switches, speed limits at upcoming curves and other reduced-speed locations, speed restrictions at approaching crossings and speed restrictions at areas where work is being performed on or near the tracks. PTC communicates with the train's onboard computer, allowing it to audibly warn the engineer and display the train's safe braking distance based on the train's speed, length, width, weight and the grade and curvature of the track. If the engineer does not respond to the warning and screen display, the onboard computer will activate the brakes and safely stop the train.

PTC implementation challenges

Rail carriers' national efforts to develop an interoperable system remain a major challenge. Interoperability means continued smooth, uninterrupted train operations for each agency when they cross onto tracks operated by another agency. PTC implementation in Southern California requires coordination between Metrolink, Amtrak, North County Transit District and Class 1 freight carriers, BNSF Railway and Union Pacific Railroad. Metrolink is also working with Class 1 freights Norfolk Southern Railway and CSX Transportation. Interoperability is imperative because all agencies'

In 2012, a proposal sent to Congress for consideration would delay the deadline for PTC implementation from 2015 to 2020. Metrolink remains committed to implementing PTC ahead of the initial 2015 federal deadline.

systems are interconnected. Metrolink shares tracks with Amtrak and freight carriers, and one-fifth of the tracks that both Metrolink and freight carriers operate on is single track. This presents a higher risk for collisions. PTC will help reduce such risks.

In addition, the implementation of PTC requires additional radio bandwidth. In 2009 Metrolink entered into an agreement with Maritime Communications/Land Mobile to purchase 220MHz of spectrum and in 2010 filed necessary paperwork with the Federal Communications Commission (FCC). Metrolink's planned

Chatsworth collision inspires safety transformation

purchase of the bandwidth was challenged by a third party that filed a pleading with the FCC, as well as a filing of bankruptcy by MCLM's holding firm. Metrolink reached an understanding with PTC 220 LLC, a spectrum holding company formed by Class 1 freight railroads, to temporarily lease spectrum for testing while long-term solutions are developed.

Estimated PTC implementation cost

The estimated cost for developing, installing and deploying PTC on the Metrolink system is \$210.9 million. Metrolink secured full funding for PTC implementation from local, state and federal sources. Approximately 34 grants were secured.

PTC Milestones

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September 2008	SCRRA Board of Directors directs the Chief Executive Officer to pursue funding for safety enhancements from the "North American Joint Positive Train Control Program" funded by the Federal Railroad Administration and any other sources of federal or state funding eligible for developing, implementing or operating a Positive Train Control system for Metrolink.
October 2008	The Rail Safety and Improvement Act of 2008 is signed into law, requiring installation of Positive Train Control systems.
February 2009	CRRA establishes organization to proactively develop and deliver PTC by December 2012.
January 2010	The Federal Railroad Administration issues its final rule requiring railroads to install Positive Train Control technology.
March 2010	SCRRA issues Request for Proposal (RFP) for the Vendor/Integrator component of the project.
April 2010	SCRRA submits PTC Implementation Plan (PTCIP) to the Federal Railroad Administration.
May 2010	Federal Railroad Administration conditionally approves SCRRA PTC Implementation Plan.
October 2010	Award Vendor/Integrator contract to Parsons Transportation Group.
February 2011	PTC Development Plan (PTCDP) Variance Type Approval submitted to FRA.
July 2011	Onboard pilot installations begin.
August 2011	Draft PTC Safety Plan submitted to the FRA for informal review.
October 2011	Award communications backhaul to Parsons Environmental and Infrastructure.
February 2012	ETMS VII brake testing conducted on the BNSF San Bernardino Subdivision.
June 2012	Interoperability communications testing with UP and BNSF.

New era of leadership

The Metrolink Board of Directors launched a national search to find a new CEO who shared its commitment to safety and customer service. In April 2010, after months of searching, the Metrolink Board of Directors appointed John E. Fenton as CEO because of his track record of putting safety first. With his extensive transportation and executive management experience, Fenton put into place new leadership, policies and standards that not only enhanced safety in the region but also increased Metrolink ridership. Fenton's leadership team had diverse backgrounds, including experience in the hospitality industry, which helped the agency drive focus on customers' needs.

Pioneering safety education

Under Fenton's direction, the agency partnered with the University of Southern California (USC) Viterbi School of Engineering to create a first-of-its-kind advanced rail system safety certification program titled "Rail System Safety: Safety Culture and Human Performance." Metrolink selected USC Viterbi to spearhead the curriculum because the school is internationally renowned for system safety "John emphasized two major components: safety and our customers. Other than safety, nothing was more important to him than customers. Over the years, that has been forgotten in the railroad industry. The best thing we can do for our customers is provide a safe, reliable method of transportation and one they can count on and is a good experience when they use it. Without customers, we don't have a railroad, not the other way around."

-Board Chairman and Los Angeles County Metro representative Richard Katz

development; it designed the U.S. Air Force's aviation safety curriculum in the 1950s. "My goal was to elevate the safety culture so that safety was the DNA of Metrolink's culture. Technology can only take



Metrolink staff posing with USC Viterbi School of Engineering faculty after completing the advanced rail safety certification program

you so far. The human element is the most important part," said Fenton.

The curriculum, which focuses on safety leadership principles, was completed in summer 2011. In August 2011, Metrolink managers made their way to USC to attend the two-day course focusing on topics such as safety management systems, risk identification and data analysis and human factors. Participants studied lessons learned from disasters, collisions and system equipment failures that occurred across the country.



Metrolink has continued to raise its level of service throughout its 20-year history as new technology has surfaced, new partnerships benefiting riders have been formed and customers have continued to provide feedback on how the agency can better serve them.

Customer call center

From the start, Metrolink call center representatives have been eagerly standing by to assist riders. They provide information to passengers about Metrolink schedules and special programs, help passengers plan their Metrolink trips, assist with lost and found inquiries and just about anything else that Metrolink passengers contact the agency about. Metrolink has gone from receiving customer comments and questions by phone, fax, mail and on board comment cards, to receiving comments and questions through email and our online comment form as well.



All call center representatives receive ongoing, extensive customer service training to respond to all types of calls. They are required to ride Metrolink trains and visit stations once every quarter so they can remain knowledgeable about the Metrolink system. Their training combined with their first-hand Metrolink experience and dedication to the customer enables them to provide passengers the best assistance possible.

Assisting passengers at stations

Upon Metrolink's debut, ambassadors were available at stations to educate the public about how to use the new commuter rail system. SCRRA member agency Metro initially provided ambassadors from its agency to help with the startup of Metrolink. The ambassador program was only meant to be temporary but ended up being a permanent program because of the demand for rider assistance.

Ambassadors provided Metrolink passengers assistance with purchasing tickets, understanding train schedules and ticket options, finding their way around the stations, etc. They also made rounds at select Metrolink grade crossings to educate motorists and pedestrians about rail safety. In the event of major train delays that required passengers to remain onboard a stopped train for a prolonged period of time, ambassadors traveled to the train location to distribute water and snacks to passengers, give passengers updated information about their commute and direct passengers to alternative transportation if necessary.

On July 1, 1999, ambassadors graduated from temporary part-time employees to full-time permanent employees. In 2004, ambassadors stationed in the field became known as Field Service Representatives (FSRs), while ambassadors who worked at L.A. Union Station and at Metrolink's headquarters became known as Customer Service Representatives (CSRs). On June 6, 2011, field service and customer service representatives became known as Customer Engagement Representatives (CERs).

In July 2011, Metrolink introduced its Customer Onboard Assistance Team (COAT) to provide assistance to passengers on board the trains. CERs who are part of the COAT are the same employees who have always assisted passengers at stations, except now some of them ride the trains to answer passenger questions, help passengers board or detrain if they require special assistance, provide support to conductors and pass out assessmentbased surveys that help Metrolink determine ways to improve service.



A Customer Onboard Assistance Team member answering a passenger's questions

Station communications

In late 1993, Metrolink began installing electronic message boards that provide riders information about service disruptions. They display the time, date and basic messages that Metrolink needs to communicate to passengers, and they include audio and visual features (i.e., electronic message boards and Public Address system) that comply with the Americans With Disabilities Act.

Forty-six of 55 stations have electronic message boards. Using what was at the time cutting-edge dial-up modem technology, the agency was able to send passengers train updates from the Metrolink Operations



Electronic message board equipped with Public Address system technology

Center (MOC). The dial-up system only allows messages to be sent to one station at a time. Messages are manually sent to L.A. Union Station electronic message boards using a computer at L.A. Union Station instead of the dial-up system at the MOC.

In 2004, Metrolink began upgrading the electronic message boards so that they could display more information, and in 2008, the agency began redesigning the system in order to allow the agency to communicate to customers faster and more efficiently. In April 2012, the agency completed the first phase of a \$1.6 million upgrade to its communications system. The upgrade, called the Customer Information System (CIS), will allow the agency to provide passengers at stations more timely information. Completion of the first phase allows for automated messages informing passengers of departure and arrival times for the next three trains, as well as announcements about track changes and delay notifications. CIS allows Metrolink to post the same messages on social media and electronic message boards, making it quicker and easier to communicate consistent information to passengers. The system is operational on all of Metrolink's seven lines.

The second and third phases will add a text-to-speech feature, which will allow the MOC to send safety, security and other public messages through visual and audio announcements to the stations. These last two phases are expected to be applied in conjunction with PTC implementation. The third phase will connect the communications system upgrade to the PTC onboard Global Positioning System so that the most up-to-date train arrival and departure time can be displayed on electronic message boards.

New website is born

When the Internet boom of the 1990s hit, everyone flocked to their computers to start net-surfing, and many of those people were looking for services they frequently used. On June 10, 1997, Metrolink joined multitudes of other businesses when it introduced its new website, metrolinktrains.com, giving riders easy access to information about its promotions and services.

On Jan. 23, 2012, Metrolink revamped the website, making it more user-friendly, easy on the eye and consistent with the agency's branding. The new website design gave riders the option of signing up for *My Metrolink*, which allows them to



Metrolink redesigned its website in 2012, making it more user-friendly for customers.

customize their metrolinktrains.com experience. Passengers can subscribe to specific content such as news, marketing and alerts to get the latest information about Metrolink services and promotions.

metrolinktrains.com goes mobile

In October 2010, Metrolink caught up with the mobile boom and introduced its new mobile site, which was designed and developed by staff. The site was created as a result of passenger requests for easier access to Metrolink information via their phones.



Staff identified eight key categories to display on the mobile site home page that would allow riders to access the latest, most pertinent Metrolink information at the touch of their fingertips: Service Updates, Schedules, Trip Planner, Station Guide, News, Special Offers, System Map and Contact Us.

Metrolink gets social media savvy

When Facebook emerged on the social media scene in 2004, it was open only to college students. But as the social media site gained popularity, it began allowing other groups to join, including high schools, businesses and eventually anyone who wanted to sign up. YouTube was created in 2005 and then Twitter popped up in 2006. These sites led the social media explosion.

In late 2009, Metrolink started actively using Twitter to inform riders about train delays of 15 minutes or more and as a real-time online customer service center. On Twitter, Metrolink communicated information about all lines on the main @Metrolink account, and information on seven other accounts pertinent to those specific lines: @MetrolinkANT (Antelope Valley Line), @MetrolinkIEOC (Inland Empire-Orange County Line), @MetrolinkOC (Orange County Line), @MetrolinkRIV (Riverside Line), @MetrolinkSB (San Bernardino Line), @MetrolinkVC (Ventura County Line) and @Metrolink91 (91 Line).



Metralinik Mobile

Metralinik Mobile

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Service Updates

Schedules

Trip Planner

Station Guide

News

Special Offers

System Map

Contact Us

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In response to passenger feedback, Metrolink developed a mobile site for smartphone users.

Metrolink also used Twitter to participate in two-way communications with passengers, allowing them to submit questions and comments that the agency responded to. In January 2011, Metrolink changed the minimum delay notification time from 15 minutes to 10 minutes. The agency also extended its social media support hours to 4 a.m. to 12:30 a.m. Monday through Friday and 6 a.m. to 11 p.m. on weekends. In addition, Metrolink started posting more information

Metrolink's Facebook page

about its marketing promotions and other positive initiatives in January 2011. More and more riders are following us via Twitter. In late 2009, nearly 3,000 people followed the main @Metrolink Twitter account, and more than 600 followed the individual line accounts. In 2012, those numbers grew to more than 8,000 and 6,000, respectively.


In mid-2010, Metrolink began actively engaging riders on Facebook. The agency had less than 300 Facebook fans at the time, but in 2012 the agency saw that number grow to more than 3,000.

With the revamping of the Metrolink website (metrolinktrains.com) on Jan. 23, 2012, visitors have the ability to share Metrolink pages via Facebook, Twitter and email, and they even have the option of copying the page link with the click of a button.

In 2010, Metrolink added pages for all of its stations on Foursquare and Yelp. Riders can check into the stations, post tips for other riders about the stations and share their comments.

New service and partnerships to enhance customer experience

Metrolink has set out to change the perception that public agencies have bad customer service. The agency has actively pursued partnerships and new service to create more transportation options and improve Metrolink's level of service for Southern California commuters. From April 2010 to June 2012, the agency began implementing cost-saving policies like shutting down the engines on idling locomotives to save fuel so Metrolink could set aside more funds for initiatives aimed at improving the customer experience. Metrolink experienced record increases in ridership as a result of partnerships formed and popular new services implemented.

Highlights:

Metrolink partnered with the Dodgers and Metro to offer Antelope Valley, Ventura County and San Bernardino line riders late-night train service to L.A. Union Station for weeknight Dodger home games starting on March 31, 2011. From L.A. Union Station, riders connected for free to Metro's Dodger Stadium Express bus. The service, which was funded by an Air Quality Management District (AQMD) and Mobile Source Air Pollution Reduction Review Committee (MSRC) grant, lasted until the last home game on Sept. 22.

Metrolink teamed up with OCTA to offer train service on the Orange County Line to and from weeknight Angels home games from April 8 through Sept. 28, 2011. More than 20,000 baseball fans took advantage of the service. Because the Angels Trains proved to be so popular, Metrolink and OCTA rolled out the service again for a second time during the 2012 baseball season.

On May 9, 2011, Metrolink debuted 16 trains for commuters, including morning and afternoon express trains that can save Antelope Valley and San Bernardino line riders up to an hour each day. The successful express train pilot program was extended after six months, and the agency continues to operate the popular trains.

Focusing on customers

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On July 1, 2011, Metrolink introduced the \$10 Weekend Pass as an affordable option for commuters interested in exploring Southern California. The \$10 Weekend Pass allows commuters to ride any Metrolink train operating on weekends starting at 7 p.m. on Friday until 11:59 p.m. on Sunday. Monthly Pass holders ride weekend trains at no additional charge.

On July 30, 2011, Metrolink introduced Bike Cars on designated Orange County and Inland Empire-Orange County line weekend trains to accommodate growing demand for bicycle storage. Metrolink designed and retrofit the cars in-house. Bicycle bays are located on the lower level of each of the Bike Cars, which have the capacity to hold up to 18 bicycles. The agency continues to increase the number of Bike Cars. As of 2012, the agency has 17 Bike Cars in rotation.

On Oct. 3, 2011, Metrolink introduced the Quiet Car on all weekday trains for riders who enjoy a more peaceful commute. The Quiet Car is the second car away from the locomotive, and it's free of charge to passengers.

On June 15, 2012, Metrolink transported an estimated 750 L.A. Kings fans to and from L.A. Union Station so they could make their way to downtown Los Angeles to celebrate the Kings' first-ever Stanley Cup win.

Metrolink partnered with LiveNation, the world's largest entertainment and eCommerce company, to offer U2 fans convenient, safe, reliable and affordable transportation to the sold-out June 17-18, 2011, concerts at Angel Stadium of



L.A. Kings fans heading from L.A. Union Station to downtown Los Angeles to celebrate the Kings' first-ever Stanley Cup win

Anaheim. Metrolink experienced record ridership, recording more than 11,000 boardings total for both days. Angel Stadium is just a short walk from the Metrolink Anaheim Station, and concert-goers were able to avoid traffic and save money on parking and gas.

CHAPTER

Adding more value to the Metrolink ticket

Rewarding riders with exclusive discounts

In 2012, Metrolink launched an incentive program for riders called Metrolink Rewards. The agency has partnered with local businesses near the stations along its seven lines to allow riders to take advantage of discounted goods and services ranging from food to salon services to bicycle repair to arts and crafts stores. Participating businesses benefit from the program because they gain exposure on Metrolink's website under the Metrolink station page closest to their business and are featured in Metrolink's Offers and Promotions monthly newsletter that reaches more than 15,000 subscribers in exchange for offering Metrolink passengers exclusive discounts. Participating businesses affix a special window decal at their place of business to alert Metrolink passengers that they are part of the Metrolink Rewards program. To receive discounts, riders must simply present a valid Metrolink ticket to the vendor at the time of purchase.









Fact: The cars Metrolink removes daily from freeways prevent 94,140 metric tons of carbon dioxide (CO2) from being released into the air each day.

Fact: Metrolink reduces traffic congestion by removing approximately 18,000 cars from the road each day.

Fact: Seventeen Metrolink stations are equipped with electric vehicle charge stations, allowing environmentally conscious riders who own electric vehicles to park and charge their cars before boarding the train. Each station is equipped with an average of two vehicle charging slots, with the exception of the Industry Station, which has 64 charging slots.



Charging slot at the Sylmar/San Fernando Station

Anaheim	Lancaster
Anaheim Canyon	Northridge
Baldwin Park	Oceanside
Chatsworth	Riverside-Downtown
El Monte	Sylmar/San Fernando
Fontana	Tustin
Fullerton	Van Nuys
Industry	West Corona
Irvine	



Providing an environmentally conscious service

Metrolink continues to adopt environmentally friendly practices.

Fuel Conservation Program: During fiscal year 2010-2011, Metrolink introduced its Fuel Conservation Program, which allowed the agency to save 860,000 gallons of fuel. Train and engine crews shut down the Head End Power (HEP) engines, the components that power the car lights and air conditioners, when trains are not in service. When train sets are stored overnight and on weekends, the locomotive main and HEP engines are shut off and the train set is connected to Wayside Power, which is power supplied by the local electric utility, instead of using power supplied by the HEP engines.



Metrolink locomotive fuel gauge

Pilot plug-in program: Metrolink is committed to being a good neighbor to surrounding communities. We continuously examine our maintenance and service operations to maximize our efficiency and minimize our impact. For example, in April 2012, Metrolink put into practice a pilot plug-in program at its Central Maintenance Facility in Los Angeles to reduce electrical power consumption and emissions generated by locomotive engines. The plug-in power the agency uses allows trains to operate from ground power during a part of Metrolink's daily servicing and maintenance routine instead of relying solely on locomotive power.



Commuters exiting the train at L.A. Union Station

Employees say yes to public transportation: Metrolink not only encourages the public to go green, but it has also encouraged its employees to be environmentally friendly from day one. As of 2012, 66 percent of Metrolink employees ride public transportation to work, compared to the 2010 national average of 5 percent. **Green vehicles:** When Metrolink employees have to drive to do their jobs, they do so in an environmentally friendly way. The 150 support vehicles Metrolink employees use include electric, hybrid, low-emissions and flex-fuel varieties.

Reduce, reuse, recycle: Metrolink is constantly working to reduce the amount of waste it produces. To accomplish this, the agency has incorporated the "reduce, reuse and recycle" concept into its operations. For example, we recycle most of our waste material and dispose of and recycle our engine oil, antifreeze, oil filters, train brakes and batteries as well as many other parts in an environmentally friendly way. We also replace conventional train air conditioners with Environmental Protection Agency and U.S. Department of Energy ENERGY STAR air conditioners. In addition, Metrolink's older passenger cars have been retrofitted to accommodate bicyclists on Metrolink trains. The passenger cars were turned into Bike Cars capable of holding up to 18 bikes, compared to other cars that hold up to three.



CHAPTER



Green publications: Making its way on board trains in 1997, the passenger newsletter *Metrolink Matters* has provided riders with the latest news, discounts and all kinds of fun in an environmentally friendly way. The newsletter is printed using soy ink on 100 percent recycled paper stock.



Metrolink has grown tremendously since our first day of service in 1992. Our agency continues to improve because of support from the people of Southern California, regional transportation commissions, state and federal lawmakers and regulators, and the extraordinary employees and contractors that work hard every single day so Metrolink can continue to operate safely and smoothly to give our customers the commute of their dreams.

Metrolink has faced serious challenges, but we have learned from and overcome them to make our system safer, more efficient and more reliable. The agency will continue to foster an environment where employees and contractor co-workers can do their part to drive our safety culture to the next level, ensuring safe and optimal service performance. Metrolink employees and contractor co-workers are the lifeblood of our agency, always working tirelessly to provide exceptional service to meet the needs of Southern California commuters.

Metrolink will continue to work with transportation officials in the region to make the commuting experience for passengers as seamless as possible, coordinating with other rail, bus and shuttle providers to offer convenient connections. The agency will continue pursuing partnerships that will allow us to provide current and future commuters more incentives to leave their cars at home and join Metrolink in reducing emissions and congestion in the region.





The customer will continue to remain a top priority for the agency. The agency will always be receptive to rider feedback about ways to improve their Metrolink experience. We know that if it weren't for you, our riders, voicing your need for commuter rail service in our region, Metrolink would not exist.

As unstable gas prices continue to plague the region and more and more people flock to Southern California and crowd freeways that struggle to handle the extra capacity, the need for public transportation solutions has never been greater.

Metrolink is positioning itself to take on a more prominent role in the region by finding new ways to meet the region's demands. The agency will make enhancements to its infrastructure and fleet to improve our level of service for commuters. Our member agencies and other regional transportation providers are working on projects that will enable Metrolink to expand its service to more communities:



- SANBAG (San Bernardino Associated Governments) will extend service from San Bernardino east to Redlands by 2018, allowing Redlands residents and communities as far as Loma Linda, Highland and Yucaipa to have easy access to Metrolink's services.
- RCTC (Riverside County Transportation Commission) is leading the effort to extend Metrolink commuter rail service approximately 24 miles southeast of Metrolink's 91 Line. The estimated construction cost for the service extension, called the Perris Valley Line Commuter Rail Project, is \$250 million. The project will

include four new stations between downtown Riverside and south Perris, providing an alternative for commuters who want relief from the heavily congested Interstate 215 that runs parallel to the planned extension.

- OCTA (Orange County Transportation Authority) is spearheading plans for construction of a new Metrolink station in Placentia along the 91 Line to accommodate increasing ridership; construction begins in late 2013.
- BNSF (Burlington Northern Santa Fe Railroad), with whom Metrolink shares track, is working with Caltrans on a 15-mile main line track expansion (the Triple Track Project) between Commerce and Fullerton that will lay a third track next to the existing track. The project will give Metrolink more flexibility to recover from service interruptions, translating into fewer delays to passengers. It will also reduce the number of trains using the same track, improving safety and on-time performance.



Metrolink continues to be an environmentally conscious provider and efficient operator. We are working to secure funding to upgrade our locomotives to Tier 4, the cleanest engines in railroad history. This upgrade will reduce particulate matter by an estimated 86 percent and nitrous oxides by 84 percent. The improved fuel efficiency will allow Metrolink to operate on 6 to 10 percent less fuel, saving up to 700,000 gallons of fuel, which would result in an annual savings of \$2.63 million.

In addition, the higher horse-power engines will allow Metrolink to accommodate increased

ridership, having the capability to operate with four additional cars per train set, that can carry 15,600 more passengers a day, while removing an additional 150,000 automobiles from the road each year.

We are exploring new, innovative technology that will make the Metrolink experience safer and more convenient for riders. We will soon become the first commuter rail agency in the nation to implement the state-of-the-art Positive Train Control, which is perhaps the most significant safety improvement that we will see in our lifetime. We also plan to incorporate mobile ticketing functionality into our new-and-improved website so riders have the option of buying tickets though a mobile application or even their personal computers, instead of being limited to station Ticket Vending Machines or requesting tickets through the mail.

After 20 years of history-making accomplishments, Metrolink is on its way to becoming the commuter railroad that everyone else in the country measures itself against. Metrolink will soon become the safest commuter railroad in America. Our customers and crews deserve nothing less. We are all grateful for the outstanding service that is provided by everyone associated with Metrolink. We deeply appreciate those who have supported us on our journey to being a major transportation solution in Southern California.

Thank you.

-Richard Katz, Chairman, on behalf of the Metrolink Board of Directors





Then



Now



- 1. The Red Cars of Los Angeles USC Libraries, University of Southern California
- 2. Measure A Riverside County Transportation Commission
- 3. Measure I Central San Bernardino Associated Governments
- 4. **Proposition C to Ease Gridlock** Neil Peterson, Los Angeles County Transportation Commission (Los Angeles Times)
- 5. Report 93114 Summary March 1994 California State Auditor, Bureau of State Audits
- 6. <u>CALIFORNIA ELECTIONS: BALLOT MEASURES: Propositions 108, 116 Would Fund</u> <u>State Rail Systems</u> Kenneth Reich, Los Angeles Times
- Transit Officials Urge Reopening Rail Line Talks: Transportation: County Supervisor Ed Edelman wants new negotiations for 173 miles of abandoned Southern Pacific track for commuter rail lines Paul Feldman, Los Angeles Times
- 8. Panel OKs County Deal to Buy Rights of Way Los Angeles Times
- Santa Fe, Transit Officials Reach Deal for Track: Commuting: The \$500-million agreement for 336 miles of rail line ends years of heated negotiations Mark A. Stein, Los Angeles Times
- 10. 2 Railway Routes for Commuter Service Acquired: Rapid transit: Accord with Union Pacific gives regional agency access to Union Station and right to run trains to Riverside. The deal is expected to provide leverage in Santa Fe talks Mark A. Stein, Los Angeles Times
- Panel OKs Purchase of Cars for Rail Network: Transportation: The 40 double-deckers will be used on commuter lines linking Los Angeles with Ventura and San Bernardino counties Kenneth Reich, Los Angeles Times
- 12. Panel OKs Deal to Buy 40 Bi-Level Rail Cars Kenneth Reich, Los Angeles Times
- 13. Union Station Dispute Threatens to Disrupt New Metrolink Service Mark A. Stein, Los Angeles Times
- LACTC Agrees to Purchase of Southern Pacific Rights-of-Way Los Angeles County Transportation Commission
- 15. Law Encouraging Counties to Coordinate Traffic Is Signed Jerry Gillam, Los Angeles Times
- Commuter Rail Agency Launched New System Will Be Called "Metrolink" Metro Moves, Los Angeles County Transportation Commission
- 17. This Week Ahead Los Angeles Times
- 18. Metrolink to the Rescue Pacific RailNews

- 19. Jury spares killer's life in rail crash Ann M. Simmons and Jack Leonard, Los Angeles Times
- 20. Deadly Metrolink crash figure back in court Veronica Rocha, Glendale News-Press
- 21. Appellate court upholds conviction in deadly 2005 train derailment Glendale News-Press
- Overview of a Crash Energy Management Specification for Passenger Rail Equipment David Tyrell, Eloy Martinez, Kristine Severson, Karina Jacobson, Daniel Parent, Michelle Priante (Volpe National Transportation Systems Center, U.S. Department of Transportation), A. Benjamin Perlman (Department of Mechanical Engineering, Tufts University)
- 23. <u>Standing Committee on Rail Transportation</u> American Association of State Highway and Transportation Officials
- 24. Rotem scoops Metrolink car order Railway Gazette
- 25. Buy America U.S. Department of Transportation
- 26. The Recovery Act United States Government
- 27. Metrolink on the slow track to safer cars Dan Weikel, Los Angeles Times
- 28. Metrolink adding to fleet of crash-savvy cars Dan Weikel, Los Angeles Times
- 29. Metrolink unveils plaque honoring train crash victims Ruben Vives, Los Angeles Times
- Collision of Metrolink Train 111 With Union Pacific Train LOF65-12 National Transportation Safety Board
- 31. <u>NTSB Determines Engineer's Failure to Observe and Respond to Red Signal Caused 2008</u> <u>Chatsworth Accident: Recorders in Cabs Recommended</u> National Transportation Safety Board
- 32. One year later: is Metrolink safer now? Joan Trossman Bien, Ventura County Reporter
- 33. Chatsworth Metrolink victims meet with Sen. Feinstein aides ABC Inc., KABC-TV/DT
- 34. Metrolink offers \$200-million settlement in Chatsworth rail disaster Rich Connell, Los Angeles Times
- 35. Compensation determined for Metrolink crash victims Carol J. Williams, Los Angeles Times
- 36. Metrolink Commuter Rail Safety Peer Review Panel HNTB Corporation (Ventura County Star)
- Viterbi Joins with Metrolink to Create Safety Culture Eric Mankin, University of Southern California Viterbi School of Engineering
- 38. Metrolink archives (Board of Directors meeting minutes, press releases, reports, newsletters, etc.)



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