

#### TRANSPORTATION RESEARCH BOARD

LET news

#### on the Internet!

LRT News is published exclusively on the Internet. The table of contents offers links directly to each article, or you can scroll down to read the entire newsletter. To receive LRT News, please bookmark the TRB online publications page www4.trb.org/trb/onlinepubs.nsf.

The Transportation Research Board

is one of six major divisions of the National Research Council, which serves as an independent advisor to the federal government and others on scientific and technical questions of national importance. The National Research Council is jointly administered by the National Academy of Sciences, the National Academy of Engineering, and the Institute of Medicine. The mission of the Transportation Research Board is to provide leadership in transportation innovation and progress through research and information exchange, conducted within a setting that is objective, interdisciplinary, and multimodal. www.TRB.org

Vol. 21, No. 1 July 2009

CONTENTS

WASHINGTON, D.C.

Message from the Editor: The Corner.....2

**Light Rail Transit Conference in Los Angeles....3** 

**Utah Prepares for the Future** with Rail Transit Program.....5

Boston's Vintage Light Rail Line Returns....9

The Corner.....16

Metro-North News.....16

Project Update: San Diego Sprinter.....19

Commuter Rail Project Progress Report Table.....21

LRT News is published intermittently by the Transportation Research Board to disseminate information on new developments in light rail transit planning, technology, and operations. The newsletter also reports on new studies, completed research, and current literature. The publication of LRT News is made possible through funding under the Technical Assistance Program of the Federal Transit Administration. Jack W. Boorse, editor. John D. Wilkins, Chairman, TRB Committee on Light Rail Transit. Peter L. Shaw, TRB staff. Submit news items to LRT News, Transportation Research Board, 500 Fifth Street, NW, Washington, DC 20001, e-mail pshaw@nas.edu. ISSN 0162-8429.

## TRANSPORTATION RESEARCH BOARD

OF THE NATIONAL ACADEMIES



**Message from the Editor: The Corner** 



Light Rail Transit
Conference in Los
Angeles



Utah Prepares for the Future with Rail Transit Program



Boston's Vintage
Light Rail Line
Returns



**Metro-North News** 



Project Update: San Diego Sprinter



Commuter Rail Project Progress Report Table



## FROM THE EDITOR: THE CORNER

Following through with the concept of branching out that was mentioned in the previous edition of *Light Rail Transit (LRT) News*, we have set aside a "corner" of this issue to present information related to one of LRT's sibling passenger rail modes.

The material for this issue has been provided by TRB's Commuter Rail Transportation Committee (AP070). It includes two articles on subjects related to the committee's namesake mode, which is also known—and perhaps better described—as Regional Rail.

Also presented is a table that lists all existing and emerging commuter/ regional rail systems in the U.S. and Canada and documents their current status. Some readers may recognize that it is patterned after the *LRT Project Progress Report Table* that has appeared in numerous past issues of *LRT News*.

We hope that you find this expansion of our coverage useful. As always, we invite and appreciate comment from all readers.

—Jack W. Boorse, Editor Principal Professional Associate Parsons Brinckerhoff Emeritus Member, TRB Committee AP075, Light Rail Transit



Message from the **Editor: The Corner** 



**Light Rail Transit Conference in Los Angeles** 



**Utah Prepares for** the Future with Rail **Transit Program** 



**Boston's Vintage Light Rail Line** Returns



**Metro-North News** 



**Project Update: San Diego Sprinter** 



**Commuter Rail Project Progress Report Table** 



## LIGHT RAIL TRANSIT CONFERENCE IN LOS ANGELES

Vol. 21, No. 1

More than 350 public transportation industry experts from across the country met at the Los Angeles Millennium Biltmore Hotel in downtown Los Angeles for the 2009 Joint Light Rail Conference, April 19–21. Sponsored by the Transportation Research Board (TRB) and the American Public Transportation Association (APTA), and hosted by the Los Angeles County Metropolitan Transportation Authority (LACMTA), the conference focused on the demands of rapidly growing light rail systems.

With 15 sessions, five tours, a workshop, and a products and services showcase, the conference offered up-to-date information on planning, design, construction, maintenance, and operations involved in running a light rail system. Research papers and MTA exhibits were presented at a special "Meet the Authors" poster paper session (see "Conference Sessions," page 4).

The opening general session was guided by John D. Wilkins, director (retired), capital planning, New Jersey Transit Corporation. Welcome remarks were made by Supervisor Don Knabe, chair, Los Angeles County Board of Supervisors; Arthur T. Leahy, chief executive officer, LACMTA; 2009 TRB Executive Board Chair Adib K. Kanafani, civil engineering professor, University of California; and William W. Millar, president, APTA. A keynote overview of the Status of North American Light Rail Systems—2009 Update was presented by John Schumann, senior transportation consultant, LTK Engineering Services.

Tom Larwin presented a special TRB-APTA award to retired California state senator James Mills for his outstanding lifelong commitment to transit. As a writer, historian, and statesman, Mills has been a leading voice for California transit. He authored California's Mills Act in 1972 supporting historic places; his successful ideas on funding and restoring historic systems are finding their way into other transit systems around the country. At the conference, Mills presented the California perspective on transit.

Another special session focused on the APTA effort to better standardize specifications for light rail vehicle procurement. Sponsored by the Federal Transit Administration (FTA), development of a new and more universal specification will help agencies to specify light rail vehicle designs that are less costly as well as easier to build and to deliver on time. Presiding was Winston M. Simmonds, rail operations/engineering officer, Port Authority of Allegheny County, Pittsburgh, Pennsylvania.

The peer-reviewed papers presented at the conference will be published in a TRB E-Circular Proceedings in September 2009.

The conference planning committee members were John Wilkins, Chair; Winston Simmonds, Vice Chair; Harvey Berliner; Jack W. Boorse; Danielle Boutier; Thomas J. Carmichael; Thomas B. Furmaniak; Thomas R. Hickey; Charles Joseph; Jeffrey LaMora; Thomas F. Larwin; Anthony Loui; Thomas G. Matoff; Paul O'Brien; John Schumann; Gregory L. Thompson; Martin P. Schroeder; and Peter L. Shaw.



## Message from the Editor: The Corner

**•** 

# Light Rail Transit Conference in Los Angeles

•

### Utah Prepares for the Future with Rail Transit Program

**\** 

# Boston's Vintage Light Rail Line Returns



#### **Metro-North News**



## Project Update: San Diego Sprinter



### Commuter Rail Project Progress Report Table



#### **Conference Sessions**

#### **Controlling Capital Costs: Design and Delivery**

Moderator: Winston M. Simmonds, Rail Operations/Engineering Officer, Port Authority of Allegheny County; *Pittsburgh, Pennsylvania* 

#### Light Rail: A Tool to Improve Regional Transit Ridership

Moderator: Gregory L. Thompson, professor, Department of Urban and Regional Planning, Florida State University; *Tallahassee, Florida* 

#### Energy, Environment, and Transit: Greener/Efficient

Moderator: Jeffrey LaMora, rail service project administrator, Utah Transit Authority; *Midvale, Utah* 

#### **Traffic Engineering Issues: LRT Performance**

Moderator: Jack Boorse, principal professional associate, Parsons Brinckerhoff; *Philadelphia, Pennsylvania* 

#### BRT and Light Rail, What Is the Role for Each Mode?

Moderator: Thomas G. Matoff, director, Transportation Planning, LTK Engineering Services; *Sacramento, California* 

#### Stations, Stops, and Arts in Transit

Moderator: Harvey L. Berliner, chief facilities engineer, InfraConsult LLC; *Honolulu, Hawaii* 

#### **LRT Operations Planning: Coping with Change**

Moderator: Thomas R. Hickey, associate vice president, Metropolitan Transit Authority of Harris County; *Houston, Texas* 

#### **Regulations and Standards**

Moderator: Martin P. Schroeder, M.S.M.E., P.E., senior program manager, rail programs, APTA; *Washington, D.C.* 

#### Infrastructure Maintenance: Renewal/Refurbishment

Moderator: Thomas F. Larwin, Larwin Consulting; San Diego, California

#### **Streetcar Circulators and the New Urbanism**

Moderator: John Schumann, senior transportation consultant, LTK Engineering Services; *Portland, Oregon* 

#### **Operations, Supervision, Service Quality**

Moderator: Charles Joseph, division manager, Link Light Rail, Sound Transit; *Seattle, Washington* 

#### **The Next Generation Vehicle**

Moderator: Thomas B. Furmaniak, P.E., vice president, Southeast region, LTK Engineering Services; *Decatur, Georgia* 

#### **Closing General Session**

Moderator: Winston M. Simmonds



Message from the Editor: The Corner



Light Rail Transit
Conference in Los
Angeles



Utah Prepares for the Future with Rail Transit Program



Boston's Vintage
Light Rail Line
Returns



**Metro-North News** 



Project Update: San Diego Sprinter



Commuter Rail Project Progress Report Table



## UTAH PREPARES FOR THE FUTURE WITH RAIL PROGRAM

Five New LRT Lines and One Commuter Rail Line in the Next 7 Years

As one of the fastest-growing states in the nation, Utah will experience a population increase of 1 million by the year 2030, and it is expected that most of these new residents will be living along the already-crowded Wasatch Front in north-central Utah.

This situation means more travel demand and increased traffic congestion. In 2004, local elected officials along the Wasatch Front suggested accelerating Utah Transit Authority's (UTA) 2030 Long-Range Transportation Plan to help meet these challenges. This approach was presented to voters in Salt Lake and Utah counties, and in 2006, residents approved a quarter-cent sales tax increase to finance the 70 miles of light rail and commuter rail outlined in UTA's Long-Range Transportation Plan.



The Delta Center, a downtown terminal.

These 70 miles of rail make up UTA's Front Lines 2015 project, which consists of the FrontRunner commuter rail line between Provo and Salt Lake City as well as four additions to the LRT network TRAX: the Mid-Jordan Line, the West Valley Line, the Draper Line, and the Airport Line. Construction has begun on the lines and by 2015, all five projects will be completed and in full operation—15 years ahead of UTA's original schedule.

UTA's system currently features the 26 km [16 mi] Sandy/Salt Lake TRAX line, which runs most of the length of the Salt Lake Valley, and the 4 mi University Line, which connects downtown Salt Lake City to the University of Utah.

Message from the Editor: The Corner



Light Rail Transit
Conference in Los
Angeles



Utah Prepares for the Future with Rail Transit Program



Boston's Vintage
Light Rail Line
Returns



**Metro-North News** 



Project Update: San Diego Sprinter



Commuter Rail Project Progress Report Table





The University Line runs from Salt Lake City to the University of Utah.

In April 2008, UTA opened its first FrontRunner commuter rail line. Front-Runner provides service between Salt Lake, Davis, and Weber counties. By May 2008, UTA's rail division averaged more than 57,000 weekday riders.

#### **Mid-Jordan Line**

The Mid-Jordan Line is a 17 km [10.6 mi] extension of TRAX through Murray, Midvale, West Jordan, and South Jordan. The line will run from the existing Fashion Place West Station on UTA's Sandy/Salt Lake TRAX line and will follow the Bingham Branch Railroad corridor until 5600 West, where it will turn south into Kennecott Land's Daybreak development. The line will also provide direct service to the Salt Lake Intermodal Hub in downtown Salt Lake City, where it will connect with commuter rail and bus services.

#### **West Valley Line**

The West Valley TRAX extension will provide high-capacity rail transit service to and from the residential, shopping, business, and entertainment venues of Utah's second-largest city. The 8.2 km [5.1 mi] line will begin at the 2100 South Station on the Sandy/Salt Lake TRAX line in South Salt Lake and will extend southwest through the areas of Chesterfield, Decker Lake Business Park, and the E-Center. The line is proposed to end at West Valley's future intermodal center, which will be located near the community's city hall. This line will also offer direct service to the University of Utah and downtown Salt Lake City.



FrontRunner commuter service opened in April 2008.

Message from the Editor: The Corner



Light Rail Transit
Conference in Los
Angeles



Utah Prepares for the Future with Rail Transit Program



Boston's Vintage
Light Rail Line
Returns



**Metro-North News** 



Project Update: San Diego Sprinter



Commuter Rail Project Progress Report Table



#### **Draper Line**

The Draper Line is a 6 km [3.7 mi] extension from TRAX's current terminus at 10000 South in Sandy into Draper at 12300 South. UTA is currently studying the line using the Federal Transit Administration's environmental process and is evaluating the impacts of extending the line along the rail corridor currently used by the Sandy/Salt Lake TRAX line, as well as exploring the feasibility of an alignment along State Street.

#### **Airport Line**

The Airport Line, a 9.6 km [6 mi] expansion of TRAX, will provide high-speed transit service from downtown Salt Lake City to the Salt Lake International Airport. The line will travel north from the existing Arena Station along 400 West to North Temple. From there, the alignment will turn west and follow North Temple until 2400 West, where it will then run northwest to a station at the airport terminal.

#### FrontRunner South Commuter Rail Line: Provo to Salt Lake City

The FrontRunner South project is a 72 km [44.5 mi] high-capacity, locomotive-powered system that will provide passengers with 127 km/h [79 mph] service from Provo, in Utah County, to downtown Salt Lake City. The line's eight stations will feature 260 m [850 ft] platforms, park-and-ride lots, and bus staging areas. Transfer points to the TRAX system will be located at the Salt Lake City Intermodal Hub and at the existing Murray Central Station at approximately 5300 South.

#### **Front Lines 2015 Benefits**

With the transportation of goods and services a \$900 billion annual business, the Wasatch Front must have a comprehensive transportation network designed to contain traffic congestion in order for it to maintain its economic prosperity. Front Lines 2015 will offer a variety of transportation options to the region's



Front Lines 2015 Project map.



Message from the Editor: The Corner



Light Rail Transit
Conference in Los
Angeles



Utah Prepares for the Future with Rail Transit Program



Boston's Vintage
Light Rail Line
Returns



**Metro-North News** 



Project Update: San Diego Sprinter



Commuter Rail Project Progress Report Table



residents, allowing them to decrease personal vehicle usage while still being able to fulfill their daily tasks. The project will enable residents to save on fuel costs and decrease the amount of local pollution; it will also provide persons with disabilities and others who cannot drive the opportunity to fully participate in society, adding benefit to the community.

The Front Lines 2015 project will provide jobs for Utah residents, help provide an environment for the rapid movement of goods and services, and will generate revenue through the sales and activities associated with planning and constructing the system. The project will allow Utah residents to maintain their high quality of living, by spending less time in traffic and more time in productive and enjoyable activities.

More information on UTA's Front Lines 2015 project can be found at www.rideuta.com or by calling 1-888-UTA-RAIL.

—Chad Saley Communications Department Utah Transit Authority



Message from the Editor: The Corner



Light Rail Transit
Conference in Los
Angeles



Utah Prepares for the Future with Rail Transit Program



Boston's Vintage
Light Rail Line
Returns



**Metro-North News** 



Project Update: San Diego Sprinter



Commuter Rail Project Progress Report Table



## BOSTON'S VINTAGE LIGHT RAIL LINE RETURNS

Mattapan-Ashmont "high speed" trolley line makeover was part of intermodal terminal project.

The Massachusetts Bay Transportation Authority (MBTA) marked the reopening of the Mattapan-Ashmont "high speed" trolley line on December 22, 2007. The line connects the Dorchester and Mattapan sections of the City of Boston via a bucolic right-of-way along the Neponset River, passing through the Town of Milton along the way. This high speed line—while a far cry from Rail Europe's TGV—represents the first example in the Boston area of the modern light rail concept. When separated from street traffic, rehabilitated Presidents' Conference Committee (PCC) cars reach speeds of 30 mph, a relatively high speed when compared to that of buses using congested streets at rush hour.



A rebuilt PCC car dating from the 1940s is shown at Mattapan Station.
(Photo: MBTA)

The Mattapan-Ashmont Line operates as an extension of the Ashmont Branch of the MBTA Red Line, a traditional rapid transit line that extends north through Dorchester to downtown Boston and, from there, west to a terminal at Alewife Station in Cambridge. Service is provided every 10–12 minutes, with peak-hour service at 5-minute headways. Six intermediate stations on the trolley line include two in Dorchester (Cedar Grove and Butler Street) and four in the Town of Milton (Milton, Central Avenue, Valley Road, and Capen Street). With the exception of two grade crossings in Milton, the line is separated from local streets.



**Message from the Editor: The Corner** 



Light Rail Transit
Conference in Los
Angeles



Utah Prepares for the Future with Rail Transit Program



Boston's Vintage
Light Rail Line
Returns



**Metro-North News** 



Project Update: San Diego Sprinter



Commuter Rail Project Progress Report Table





This MBTA subway map shows the Mattapan-Ashmont line, a light rail operation at the southern end of the Ashmont Branch of the Red Line.
(Graphic: MBTA)

#### **Station Renovations During the Service Suspension**

Service was suspended for nearly 18 months to allow needed improvements at Ashmont Station, particularly the reconstruction of a viaduct used by the light rail line. The renovation included the removal of a train shed that spanned the rapid transit and trolley tracks, which opened up the station to more natural lighting. The new Ashmont Station has been integrated into a privately constructed transit-oriented development project consisting of six stories of mixed-income housing with ground floor retail space.

The service suspension provided the opportunity to make additional improvements at Mattapan Station as well as minor renovations to the six intermediate stations, including elevated platform ramps for easier access, temporary shelters and seating, new tactile platform edging, new station signs, police call boxes, new concrete platforms, and new station lighting.<sup>1</sup>



Ashmont Station before improvements. A PCC is visible on the viaduct (lower right). This viaduct, which crosses the "heavy rail" Red Line tracks, was removed and reconstructed, necessitating a service shutdown. (Photo: MBTA)

<sup>&</sup>lt;sup>1</sup> Massachusetts Bay Transportation Authority. *Mattapan Trolley Re-opens*. 2007. www.mbta.com/about\_the\_mbta/ news\_events/?id=14165&month=&year=



**Message from the Editor: The Corner** 

•

Light Rail Transit
Conference in Los
Angeles

•

Utah Prepares for the Future with Rail Transit Program

**•** 

Boston's Vintage
Light Rail Line
Returns



**Metro-North News** 

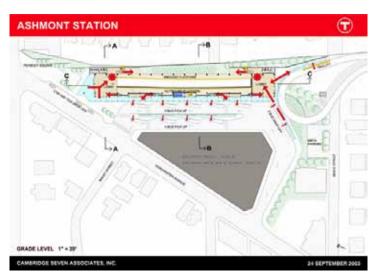


Project Update: San Diego Sprinter



Commuter Rail Project Progress Report Table





The renovation of Ashmont Station will provide for privately constructed transitoriented development (gray area). The high speed trolley line now has a simple turnaround loop at the south end of the station. (Graphic: MBTA)



Rendering of the renovated Ashmont Station. The train shed that once covered the streetcar and bus berths has been removed. (Graphic: MBTA)

The biggest change of the renovation will be for high speed trolley users. From the opening of the station, streetcars—and later, buses—served both sides of the rapid transit platforms. First, the streetcars would serve the inbound platform, where patrons would exit the left doors of the streetcars and pass through the turnstiles to ride the rapid transit to Boston. Then, the empty cars would loop around the north end of the station, crossing over the rapid transit tracks, and stop again in one of three covered trolleyways where outbound riders would board after exiting the rapid transit trains. The renovation replaces the long loop-around arrangement with a simple trolley loop on the south end of the station. A single platform handles both inbound and outbound riders transferring between the trolley and Red Line trains.

Message from the Editor: The Corner

•

Light Rail Transit
Conference in Los
Angeles

•

Utah Prepares for the Future with Rail Transit Program

**•** 

Boston's Vintage
Light Rail Line
Returns

•

**Metro-North News** 

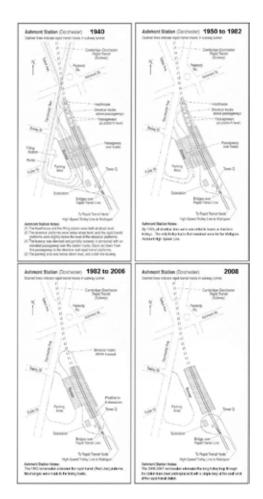
**♦** 

Project Update: San Diego Sprinter



Commuter Rail Project Progress Report Table





Ashmont Station track layout over the years. In 1940, local streetcars mingled with the high speed trolleys (upper left); by 1950, only the tracks for the high speed line remained (upper right); the renovations of 2006-2007 simplified the trolley trackage to a simple loop at the south end of the rapid transit platform (lower right). [Graphics: B. H. Clarke (upper left); John F. Burckardt (right, lower left)]



A rendering of the redesigned Mattapan Station. (Graphic: MBTA)



Message from the Editor: The Corner



Light Rail Transit
Conference in Los
Angeles



Utah Prepares for the Future with Rail Transit Program



Boston's Vintage
Light Rail Line
Returns



**Metro-North News** 



Project Update: San Diego Sprinter



Commuter Rail
Project Progress
Report Table





Improvements at Mattapan Station include a new station building (purple) and improvements to canopies, signs, lighting, and landscaping.

(Graphic: MBTA)

Construction work on additional amenities on each station continued through 2008. Some of the final work completed at each of these stations included new speaker systems, new long-term canopies and shelters, closed-circuit surveillance cameras, electronic message boards, bike racks, and land-scaping.<sup>2</sup>

#### **History of the Line**

According to Ronald Dale Karr's *The Rail Line of Southern New England*, the high speed line represents portions of the original Shawmut and Milton Branches of the Old Colony Railroad. The Dorchester and Milton Railroad opened in December 1847. The line ran west from a junction with the Old Colony mainline at the southeastern tip of Dorchester, into an industrial section of Milton, and on to Mattapan Square. Commuter service from Boston to Mattapan continued until 1929.

In 1872, the Old Colony built the Shawmut Branch through lower Dorchester to a junction with the Milton Branch, passing through Ashmont. The Shawmut Branch was converted to rapid transit service with the opening of Ashmont Station on September 1, 1928.<sup>3</sup> The Dorchester Extension, an extension of the Cambridge-Dorchester subway from Harvard Square, was built in the former New Haven Railroad right-of-way and was one of the first examples of the conversion of a rail corridor to rapid transit service.

The rapid transit line ended at Ashmont Station (Peabody Square), which became a major transfer station used by streetcar lines serving all parts of Dorchester. Though consideration was given to extending the Dorchester rapid transit line to Mattapan, the decision was made to convert the commuter rail line to what were then called "high speed" trolley operations.

Massachusetts Bay Transportation Authority. Mattapan Trolley Re-opens. 2007. www.mbta.com/about\_the\_mbta/ news\_events/?id=14165&month=&year=

<sup>&</sup>lt;sup>3</sup> Clarke, B. H. *The Boston Rapid Transit Album*. Boston Street Railway Association, Inc., Boston, Mass., 1981.



**Message from the Editor: The Corner** 



Light Rail Transit
Conference in Los
Angeles



Utah Prepares for the Future with Rail Transit Program



Boston's Vintage
Light Rail Line
Returns



**Metro-North News** 



Project Update: San Diego Sprinter



Commuter Rail Project Progress Report Table





Freight service operated side by side with PCC cars through the 1970s, according to David R. Sweetland's New Haven Color Pictorial–Vol. 3, The East End. (Photo: Hank Raudenbush)

When the line opened in 1929, a trolley traveling on a private right-of-way at speeds up to 30 mph was considered "high speed." With the opening of the high speed line, the entire Shawmut Branch was converted to transit service, with the rapid transit line serving Fields Corner, Shawmut, and Ashmont stations and the high speed line serving Ashmont and Cedar Grove stations. Stations from Butler Street to Mattapan are on the Milton Branch.

Freight service was maintained on all but 800 m (1/2 mi) of the Milton Branch after the construction of the high speed line. Separate freight tracks were located on either side of the trolley tracks, and the two operations were kept separate. A flyover was provided to carry the trolley tracks over the northerly track of the Milton Branch at Shawmut Junction, where the two branches meet. Freight service continued into the early 1980s; today, the freight track is a bicycle path.



The tracks of the Mattapan-Ashmont Line follow the Neponset River. Near Milton Station (top, center) are factory buildings, once served by freight sidings. One siding bridge is visible crossing the river. (Photo: http://maps.live.com)



Message from the Editor: The Corner



Light Rail Transit
Conference in Los
Angeles



Utah Prepares for the Future with Rail Transit Program



Boston's Vintage
Light Rail Line
Returns



**Metro-North News** 



Project Update: San Diego Sprinter



Commuter Rail Project Progress Report Table



In late 1955, PCC cars were introduced to the high speed line; from then on, the PCC car has been the only type of car used on the line. Beginning in the late 1970s, the PCC cars on the light rail Green Line were phased out in favor of new light rail vehicles (LRVs) from Boeing and Kinki-Shayro. Consideration was given to using the same LRVs on the high speed line; however, the line's bridges cannot withstand the higher axle loading of the LRVs.

Over the years, a variety of other proposals have been considered. A proposed extension of the rapid transit service to Mattapan was rejected due to the reduced patron demand for service beyond Ashmont. Another proposal to convert the line to an express busway (what might now be called bus rapid transit) was also considered, but rejected.

In each case—even while factoring in the effort to keep the 60-year-old fleet of PCC cars running—the continued operation of the high speed line as light rail remains the best option. The Ashmont-Mattapan high speed line is perhaps the only light rail line that retains the use of PCC cars. This is not for nostalgic or historic interests, but for reasons of practicality, engineering, and economics: PCC cars remain the most cost-effective way to run the service.

For more information on the reopening of this line, visit www.mbta.com/about\_the\_mbta/ news\_events?id=14165&month=&year=

—John F. Burckardt Parsons Brinckerhoff Boston

#### References

Clarke, B. H. Streetcar Lines of the Hub—The 1940s: Heyday of Electric Transit in Boston. Boston Street Railway Association, Inc., Boston, Mass., 2003.

Clarke, B. H. *The Boston Rapid Transit Album*. Boston Street Railway Association, Inc., Boston, Mass., 1981.

Karr, R. D. *The Rail Lines of Southern New England: A Handbook of Railroad History.* Branch Line Press, Pepperell, Mass., 1995.

Sweetland, D. R. *New Haven Color Pictorial Volume 3: The East End*. Four Ways West Publications, La Mirada, Calif., 2006.

Massachusetts Bay Transit Authority. www.mbta.com.



**Message from the Editor: The Corner** 



Light Rail Transit
Conference in Los
Angeles



Utah Prepares for the Future with Rail Transit Program



Boston's Vintage
Light Rail Line
Returns



**Metro-North News** 



Project Update: San Diego Sprinter



Commuter Rail Project Progress Report Table



## THE CORNER

#### **METRO-NORTH NEWS**

MTA Metro-North Railroad of New York celebrated its 25th anniversary in 2008. Recognized as one of the nation's preeminent commuter railroads, Metro-North serves Manhattan, the Bronx, and the suburbs north of New York City in the Lower Hudson Valley and southwestern Connecticut.

Created in 1983, when the Metropolitan Transportation Authority assumed control of Conrail commuter operations in New York and Connecticut, Metro-North has roots that can be traced from Penn Central Railroad to the New York Central and New Haven railroads, to the New York & Harlem Railroad, which began in 1832 as a horse–car line in lower Manhattan.

The railroad has grown significantly since its humble beginnings. In 2007, Metro-North's yearly ridership rose above 80 million for the first time in its history. With skyrocketing gasoline prices causing many people to turn to mass transit, in 2008 Metro-North's total ridership exceeded 84 million.

#### **2008 News**

Metro-North experienced several significant developments in 2008. In July, railroad president Peter A. Cannito retired, and Howard R. Permut, an original member of the founding management team, was named Metro-North's fourth president.

The railroad also made a major change to the way it sells tickets on board trains. Metro-North introduced hand-held ticket-issuing machines (TIMs) for use by its conductors, replacing the manually validated "duplex" paper tickets. Developed by the railroad's Information Technology Department, these units allow tickets to be sold and issued electronically on board trains (see photo below), and were developed as a component of Metro-North's three-tiered ticket sales modes: advance-purchase tickets, ticket purchased at stations, and tickets purchased on board trains. Record-keeping is performed automatically by the machines at the end of the conductor's shift, eliminating the need for time-consuming manual entries required by the use of duplexes. In addition, conductors



MTA Metro-North Railroad uses ticket-issuing machines, or TIMs, for onboard ticket sales.



Message from the Editor: The Corner

**\** 

Light Rail Transit
Conference in Los
Angeles

•

Utah Prepares for the Future with Rail Transit Program

**•** 

Boston's Vintage
Light Rail Line
Returns

**♦** 

**Metro-North News** 



Project Update: San Diego Sprinter



Commuter Rail Project Progress Report Table



will be able to receive messages from the railroad's Operations Control Center via the TIMs in the event of service disruptions. In the near future, customers will be able to use debit and credit cards to purchase tickets onboard trains.

#### **2009 News**

On May 23, 2009, Metro-North inaugurated service at its new Yankees–E.153rd Street station. This new station (see photos, below), located on Metro-North's Hudson Line, serves various markets: it is a station serving Yankee Stadium, with direct service to and from Grand Central Terminal and Hudson Line stations for all games and direct train service to and from Harlem and New Haven Line stations for weekend, holiday, and select weeknight games; a park-and-ride station for commuters to New York City; a neighborhood station for local residents, allowing travel to New York City and the suburbs to the north; and a "reverse peak" destination for people who have business to conduct at the various nearby government offices.





The new Yankees-E.153rd Street station is located on Metro-North's Hudson Line.



Message from the Editor: The Corner



Light Rail Transit
Conference in Los
Angeles



Utah Prepares for the Future with Rail Transit Program



Boston's Vintage
Light Rail Line
Returns



**Metro-North News** 



Project Update: San Diego Sprinter



Commuter Rail Project Progress Report Table



In early 2010, Metro-North will begin testing the first of 300 new M-8 electric cars—with options for the purchase of an additional 80—for use on the New Haven Line. These cars, purchased jointly with the Connecticut Department of Transportation, are being manufactured by Kawasaki and are equipped with pantographs for picking up power from the overhead catenary on the New Haven Line. They are also outfitted with the third-rail shoes required for operating in Grand Central Terminal and on Metro-North's Harlem Line, on which the M-8s must travel to access the New Haven Line.

In 2012, when the new M-8s are fully in operation, they will allow the retirement of the 32- to 35-year-old M-2s, which currently make up the majority of Metro-North's New Haven Line fleet. In addition, the M-8s will be able to operate on the Connecticut Department of Transportation's Shoreline East service between New Haven and Old Saybrook, Connecticut.

—Scott Ornstein Operations Planning and Analysis Department MTA Metro-North Railroad, New York



**Message from the Editor: The Corner** 



Light Rail Transit
Conference in Los
Angeles



Utah Prepares for the Future with Rail Transit Program



Boston's Vintage
Light Rail Line
Returns



**Metro-North News** 



Project Update: San Diego Sprinter



Commuter Rail Project Progress Report Table



## THE CORNER

### PROJECT UPDATE: SAN DIEGO SPRINTER

Originally known as the Oceanside-Escondido Commuter Rail project, the Sprinter opened on March 9, 2008, after approximately 4 years of intense construction, rail activation, and systems testing activities. The project delivered 22 miles of completely rebuilt single- and double-track railroad—accommodating both Sprinter and Burlington Northern Santa Fe local freight on a shared-use, temporally separated basis—as well as 15 stations; a brand new yard and shop in Escondido, California; a control center facility, which hosted train dispatch and security functions within the shop building; and many complex supervisory control and data acquisition (SCADA) links providing closed-circuit television, call box, and PA/message sign functionality between the control center, stations, and parking lots, moving over a newly installed fiber network. With an anticipated final budget of just under \$485 million, the project also acquired 12 Siemens VT-642 Desiro Classic diesel multiple units.



The Sprinter opened on a weekend day and carried approximately 13,000 riders (the weekday ridership forecast was 11,300). The remainder of March 2008 saw nearly 8,000 riders per day on both weekdays and weekends, but this number gradually trended down as customers determined their optimum travel patterns and potential new riders made their first trips. In April and May 2008, ridership stabilized at about 6,500 on weekdays—along with a refined connecting bus network—and 3,000–4,000 on weekends. After Memorial Day, despite a July 1 fare increase to offset fuel prices, ridership counts began trending back up as a result of rising gasoline prices and public acceptance of the system as a part of normal commute patterns. On-time performance has ranged from 98 to 99 percent, and freight operations have occurred, on average, only 2 nights per week, with ample time to enter and exit the line and with no impact to service. As of this writing, weekday ridership is about 7,000, and diesel fuel cost is an average of \$1.50 per gallon or less.



Message from the Editor: The Corner



Light Rail Transit
Conference in Los
Angeles



Utah Prepares for the Future with Rail Transit Program



Boston's Vintage
Light Rail Line
Returns



**Metro-North News** 



Project Update: San Diego Sprinter



Commuter Rail Project Progress Report Table



On July 4, 2008, Sprinter provided its first special event service to the O'Fest event and fireworks in Oceanside, California. Operating and security plans included crowd control and seven post-event trips offering a capacity of approximately 3,500. Because of a coastal fogbank blocking the view of attendees, however, as well as revisions to event safety regulations by the City, overall event attendance fell by approximately 50 percent. Riders were handled very smoothly on five trains after the event. On July 12, 2008, Sprinter improved weekend headways from every 60 minutes to every 30 minutes between 10 a.m. and 6 p.m. This action was supported by a federal grant, in light of the surprising strength of weekend ridership—residents and travelers have found the new line convenient to reach the beaches of Oceanside; often, surfboards are stowed along in the overhead luggage racks.

Because of transit funding constraints in both the state of California and in San Diego County, no further or immediate capacity or facility expansions are planned, but the Sprinter service is off to a good and satisfying start.

—Walt Stringer North County Transit District

## Message from the Editor: The Corner



Light Rail Transit
Conference in Los
Angeles



Utah Prepares for the Future with Rail Transit Program



Boston's Vintage
Light Rail Line
Returns



**Metro-North News** 



Project Update: San Diego Sprinter



Commuter Rail Project Progress Report Table



#### THE CORNER

#### COMMUTER RAIL PROJECT PROGRESS REPORT TABLE

(As of December 2008)

FOCUS CITY OR REGION	CONCEPTUAL PLANNING	IN FINAL DESIGN	UNDER CONSTRUC- TION	IN REVENUE OPERATION					
					Atlanta	I	-	-	I
Albuquerque/Santa Fe	E	-	-	I					
Anchorage	-	-	-	I					
Austin	-	-	I	-					
Baltimore/Washington	=	-	-	S					
Boston	E	-	E	S					
Charlotte	I	-	-	-					
Chicago	E	-	-	S					
Dallas/Ft. Worth	E	-	-	I					
Denver	S	-	-	-					
Harrisburg	I	-	-	-					
Los Angeles	E	-	-	S					
Miami	E	-	U	I					
Minneapolis	-	-	I	-					
Montréal	E	-	-	S					
Nashville	=	-	_	I					
New Haven	=	-	_	I					
New York/Newark	E	_	Е	S					
Ottawa	=	-	_	I					
Philadelphia	=	_	_	S					
Portland, Oregon	_	_	I	_					
Salt Lake City	Е	E	_	I					
San Diego	_	_	_	S					
San Francisco Bay	U	_	_	S					
Seattle/Tacoma	E	_	E	I					
Toronto	E	_	_	S					
Vancouver	-	_	_	Ĩ					
TOTALS	16	1	7	21					

Legend: E = Expansion of existing facilities (extension, new route, added trackage, etc.)

I = Initial or basic one-corridor line S = System (more than one corridor)

U = Upgrading of existing facilities (same basic route)

Pending further arrangements, this progress table will be published periodically as an adjunct to LRT NEWS. The content was reviewed and updated shortly before publication. Readers having fresh information or wishing to comment on the table, please contact:

#### John Hugunin

AECOM Transportation 2101 Webster Street, Suite 1000 Oakland, CA 94612

Phone: 510-419-6751 Fax: 510-419-5355 E-mail: John.Hugunin@aecom.com

Message from the Editor: The Corner



Light Rail Transit
Conference in Los
Angeles



Utah Prepares for the Future with Rail Transit Program



Boston's Vintage
Light Rail Line
Returns



**Metro-North News** 



Project Update: San Diego Sprinter



Commuter Rail Project Progress Report Table



#### RELATED TRANSIT LINKS

2006 LRT Conference E-Circular www.trb.org/news/blurb\_detail.asp?id=7392

LRT News

http://onlinepubs.trb.org/Onlinepubs/Irtnews/LRTv20n1.pdf (April 2008)

http://onlinepubs.trb.org/onlinepubs/lrtnews/lrtv19n1.pdf (December 2005)

www.trb.org/publications/lrtnews/lrtv18n2.pdf (November 2003)

http://gulliver.trb.org/publications/lrtnews/lrtv18n1.pdf (May, 2003)

http://gulliver.trb.org/publications/lrtnews/lrtv17n1.pdf (December 2002)

http://gulliver.trb.org/publications/lrtnews/lrtv16n2.pdf (Fall 2001)

http://gulliver.trb.org/publications/lrtnews/LRTv16n1.pdf (July 2001)

Intercity Rail Passenger Systems Update http://onlinepubs.trb.org/Onlinepubs/irps/IRPSWinter2008.pdf (Winter 2008)

TRB 2010 Annual Meeting www.trb.org/meeting/

TRB Calendar www.trb.org/calendar/

TRB Transit Cooperative Research Program www4.nas.edu/trb/crp.nsf/

Federal Transit Administration www.fta.dot.gov/

American Public Transportation Association www.apta.com/

This Is LRT

www.trb.org/trb/publications/circulars/ec033.pdf

### THE NATIONAL ACADEMIES"

Advisers to the Nation on Science, Engineering, and Medicine

The nation turns to the National Academies—National Academy of Sciences, National Academy of Engineering, Institute of Medicine, and National Research Council—for independent, objective advice on issues that affect people's lives worldwide.

www.national-academies.org