

# The Bulletin



**Electric Railroaders' Association, Incorporated**

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## The Bulletin

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## NEW YORK RAILWAYS' STREET CARS QUIT 80 YEARS AGO by Bernard Linder

On June 8, 1936, buses replaced street cars on the last New York Railways line, 86<sup>th</sup> Street Crosstown. This company, which operated most of the Manhattan's street cars, converted to bus rapidly as shown in the following table:

LINE	DATE CONVERTED	STREET CARS	BUSES
4 <sup>th</sup> & Madison Avenue	February 1, 1935	56	89
8 <sup>th</sup> Avenue	November 12, 1935	40	55
9 <sup>th</sup> & Amsterdam Avenue	November 12, 1935	19	27
Broadway-7 <sup>th</sup> Avenue	February 12, 1936	55	86
Columbus & Lenox Avenue	February 12, 1936		
7 <sup>th</sup> Avenue	March 6, 1936	46	35
8 <sup>th</sup> Street Crosstown	March 6, 1936	11	15
6 <sup>th</sup> Avenue	March 12, 1936	26	40
Lex-Lenox Avenue	March 25, 1936	63	75
116 <sup>th</sup> Street Crosstown	April 1, 1936	10	16
34 <sup>th</sup> Street Crosstown	April 1, 1936	37	41
23 <sup>rd</sup> Street Crosstown	April 8, 1936	30	32
14 <sup>th</sup> Street Crosstown	April 20, 1936	42	45
86 <sup>th</sup> Street Crosstown	June 8, 1936	9	24
<b>TOTAL</b>		<b>444</b>	<b>580</b>

Horse cars started operating in the second half of the Nineteenth Century with each company usually operating only one line. The Metropolitan Traction Company, which was incorporated on February 19, 1886, acquired the capital stock of seven horse car companies until the company's name was changed to the Metropolitan Traction Company of New York on August 4, 1892. The company was able to create a unified system by buying eight additional companies, after which it sold its assets to the Metropolitan Street Railway on September 14, 1897.

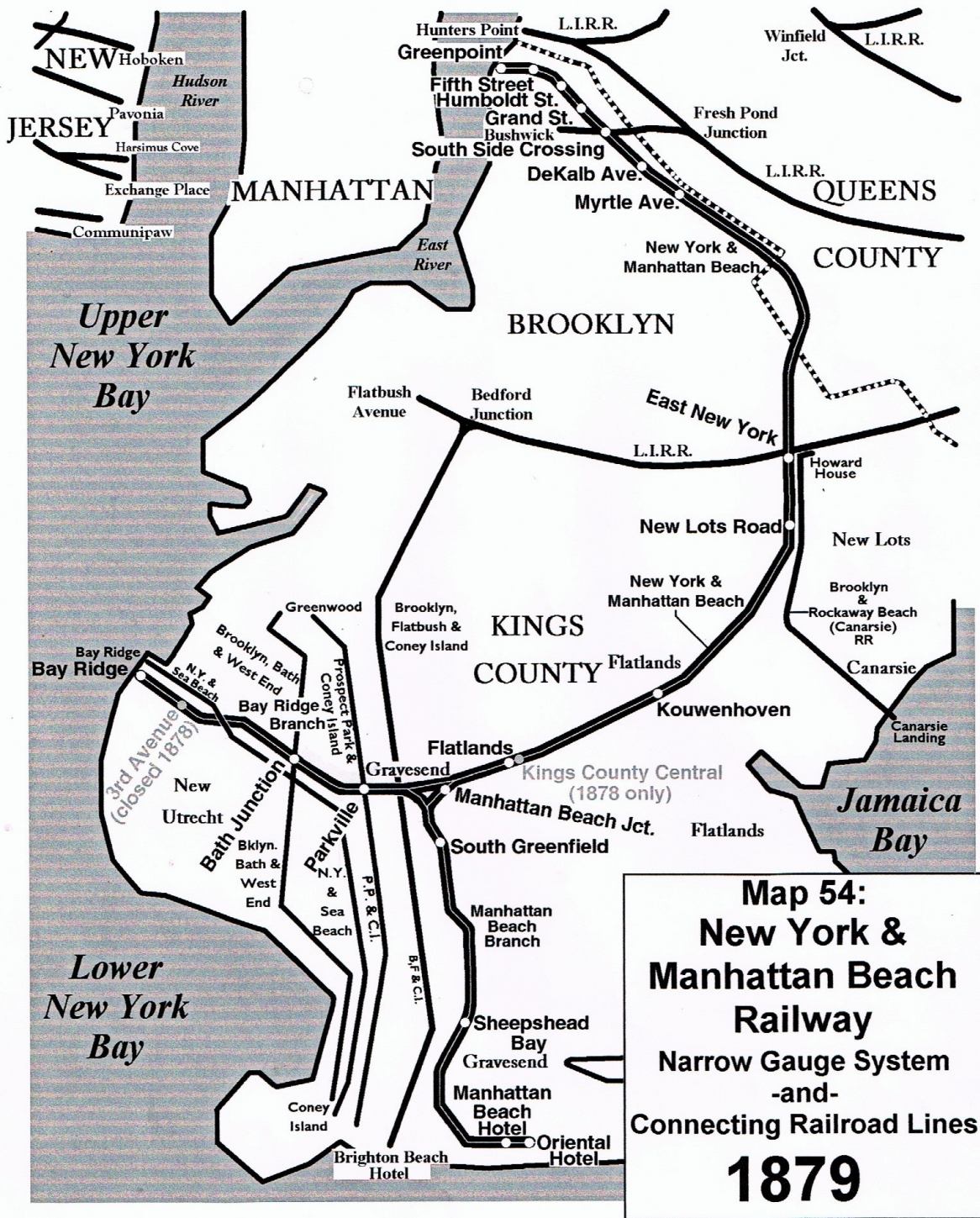
Meanwhile the unpredictable happened. An obscure 1.57-mile Mount Vernon trolley line was able to acquire the giant Manhattan Metropolitan Street Railway. Operating from the New Haven station to Columbus Avenue at the city line, the North Mount Vernon Railway Company, which was incorporated April 20, 1892, tried battery cars, then converted to horse cars, both of which were unsuccessful. The company never made a profit and was sold to the New York, Westchester & Connecticut Traction Company on January 16, 1900. The latter, which was incorporated on February 12, 1895, operated a 2.86-mile line in Mount Vernon from the New Haven station to East Lincoln Avenue at the city line. On December 9, 1901, the company leased its property and franchises, and relinquished North Mount Vernon to the Interurban Street Railway, which was incorporated on November 25, 1901. After completing several transactions, Interurban was able to lease the Metropolitan Street Railway and was in substantial control of the entire street surface railway system of Manhattan, the Bronx, and

*(Continued on page 4)*

**NEXT TRIP: BLACK RIVER & WESTERN RAILROAD — SATURDAY, JUNE 18**

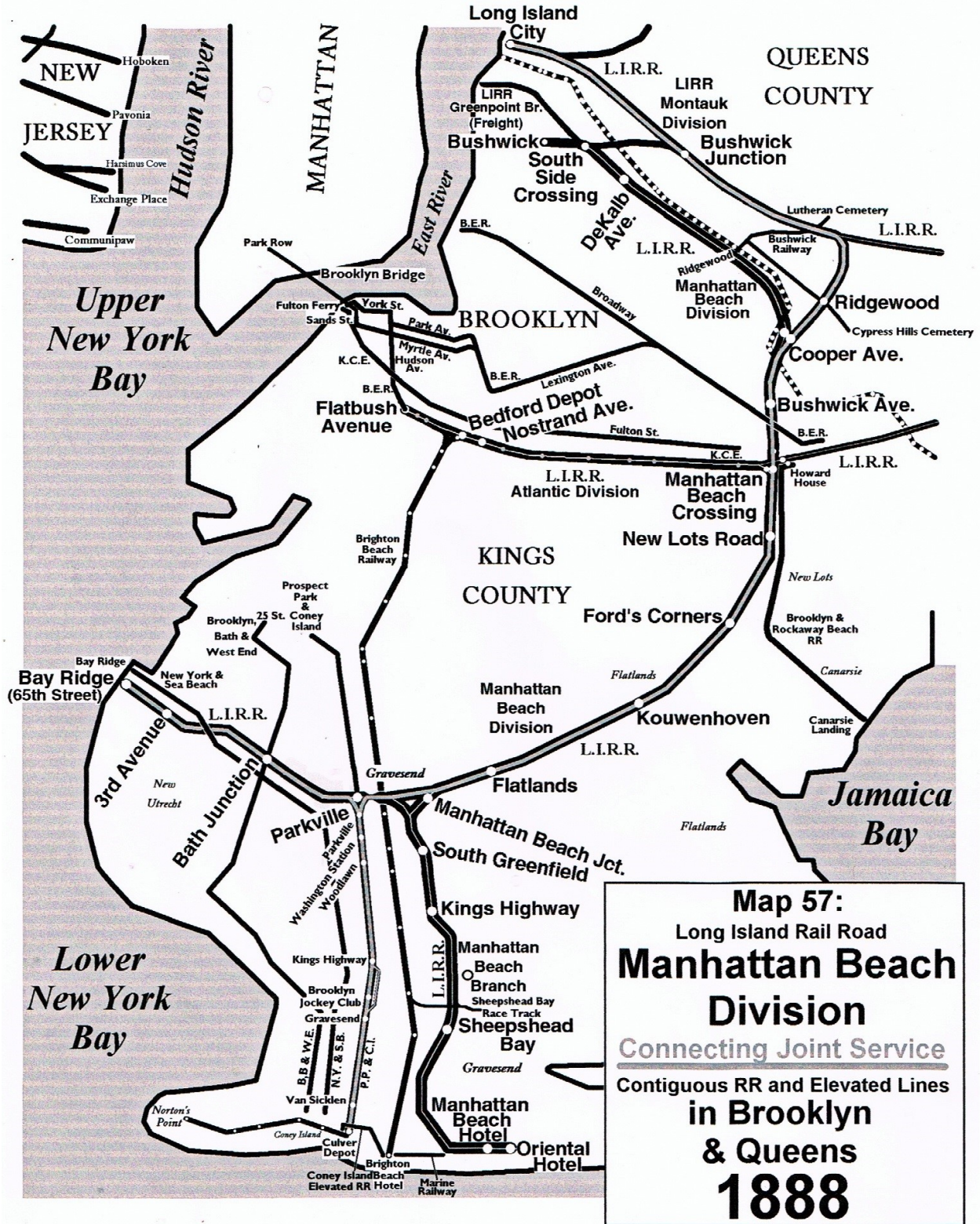
# FROM RECOGNITION TO DOMINANCE: THE NEW YORK CONNECTING RAILROAD (BRIDGING THE BAY AND CONNECTING THE PIECES)

by George Chiasson  
(Continued from May, 2016 issue)



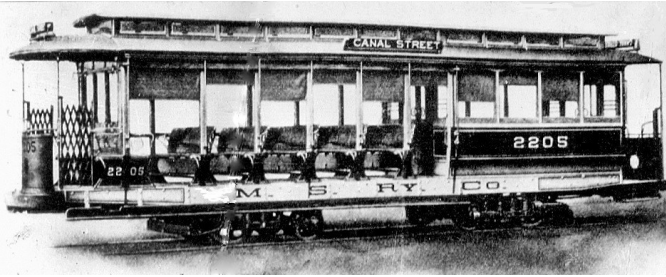
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**From Recognition to Dominance**  
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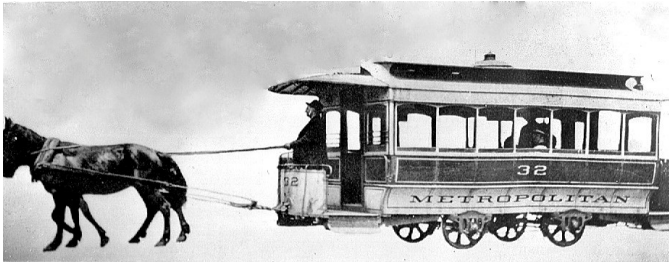
**New York Railways Street Cars Quit 80 Years Ago**  
*(Continued from page 1)*



**Half open car 2205.**  
Bernard Linder collection



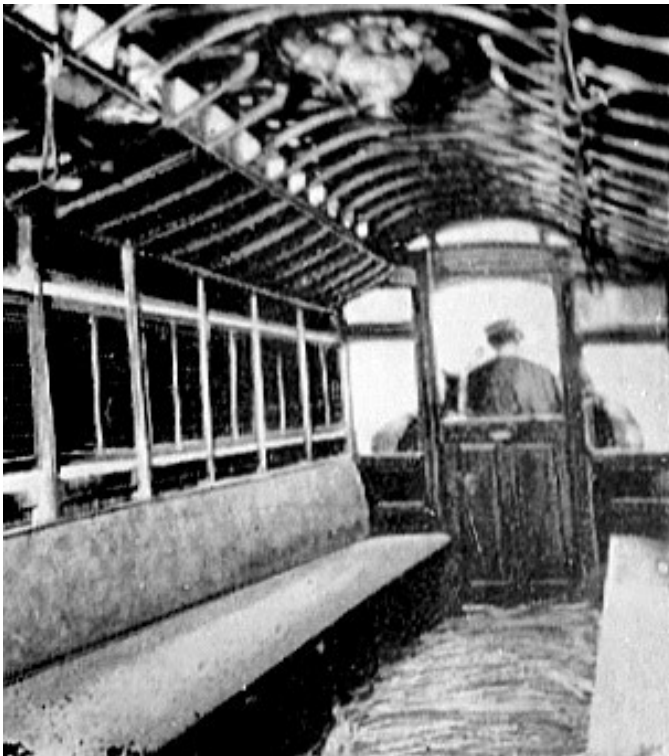
**Open car 280.**  
Bernard Linder collection



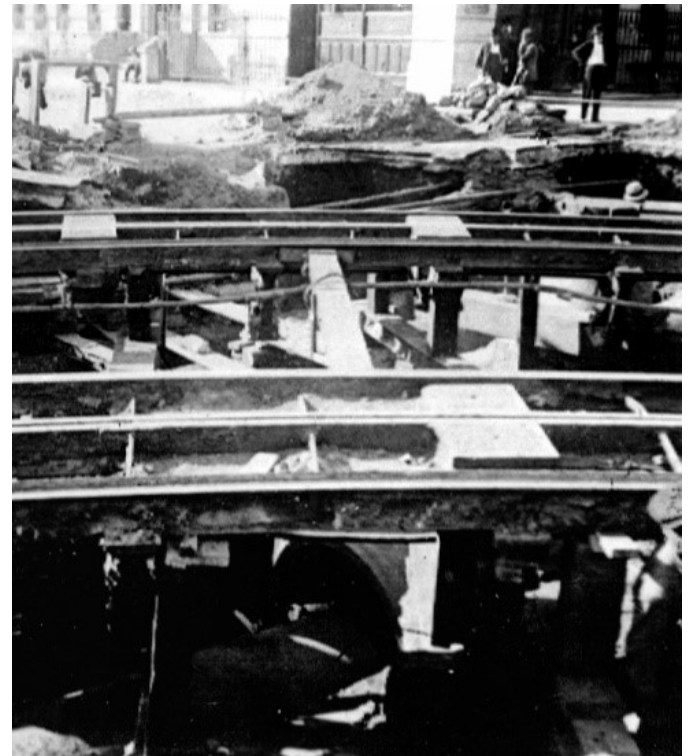
**Horse car 32.**  
Bernard Linder collection



**Horse car in the snow.**  
Bernard Linder collection



**Interior of horse car.**  
Bernard Linder collection



**Underground conduit construction at W. 109<sup>th</sup> Street and Manhattan Avenue, June 9, 1915.**  
Bernard Linder collection

*(Continued on page 5)*

**New York Railways Street Cars Quit 80 Years Ago**

*(Continued from page 4)*



**Metropolitan Street Railway at Cooper Union.**  
Bernard Linder collection



**New York Railways cars on Delancey Street, April 30, 1919.**  
Bernard Linder collection



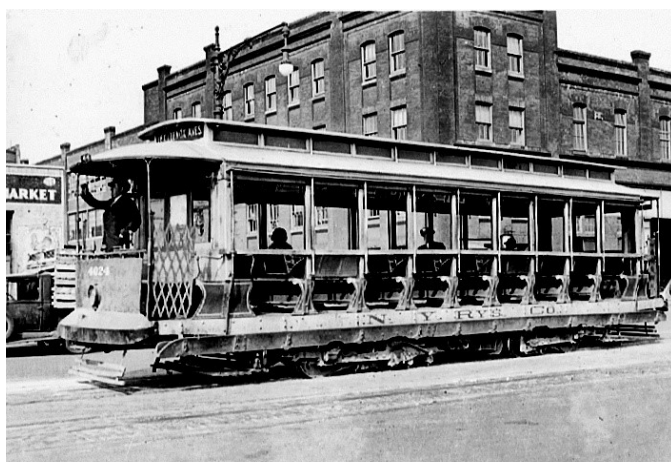
**New York Railways car 1589 in Central Park, June 7, 1936.**  
Bernard Linder collection



**Eighth and Ninth Avenue Railway rear shed at W. 155<sup>th</sup> Street, just after the first of April 19, 1933.**  
Bernard Linder collection



**Delancey Street, 1919.**  
Bernard Linder collection



**New York Railways car 4024 at W. 146<sup>th</sup> Street and Lenox Avenue.**  
Bernard Linder collection

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**New York Railways Street Cars Quit 80 Years Ago**

*(Continued from page 5)*

the southern part of Westchester County with the exception of a horse car line between Bartow Station and City Island. To properly identify the company with New York City, the name was changed to New York City Railway Company on February 10, 1904.

After the new subway opened on October 27, 1904, street car riding declined appreciably and the company was on the verge of bankruptcy. To bolster the company's finances, a new holding company, Interborough-Metropolitan, was created on January 14, 1906. It tried to acquire the capital stock of the Interborough Rapid Transit Company, which was profitable, and the street railways, which were not profitable. When the Metropolitan declared bankruptcy late in 1907, IRT refused to support the bankrupt system. Meanwhile, the company disintegrated gradually. Second Avenue Railroad was separated on November 13, 1908 and Third Avenue Railroad, the largest and oldest, resumed independent

operation on December 31, 1911. A new company, New York Railways Company, started operating the remaining Manhattan street car lines on January 1, 1912.

The following subsidiaries were separated and later returned to New York Railways as shown in the following table:

COMPANY	SEPARATED FROM NEW YORK RAILWAYS	RETURNED TO NEW YORK RAILWAYS
New York & Harlem	February 1, 1920	December 17, 1932
Eighth Avenue Railroad	August 1, 1919	June 1, 1935 (A)
Ninth Avenue Railroad	October 1, 1919	June 1, 1935 (A)

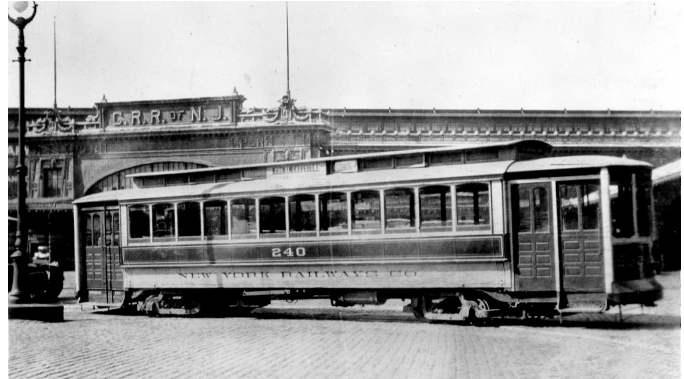
ing table:

(A) Companies were merged into Eighth & Ninth Avenue Railways on December 22, 1926

After the Contract 3 and 4 subway lines were opened, New York Railways riding declined appreciably and rush hour service was reduced from 911 cars in 1919 to 444 cars at abandonment, 1935-6.



Car 1308 on 86<sup>th</sup> Street Crosstown.  
Bernard Linder collection



Car 240 at W. 23<sup>rd</sup> Street Ferry, 1920. Car was part of a series sold to Third Avenue Railway in 1924 and renumbered to 401-527.  
Bernard Linder collection

*(Continued in August, 2016 issue)*

**Around New York's Transit System**

*(Continued from page 20)*

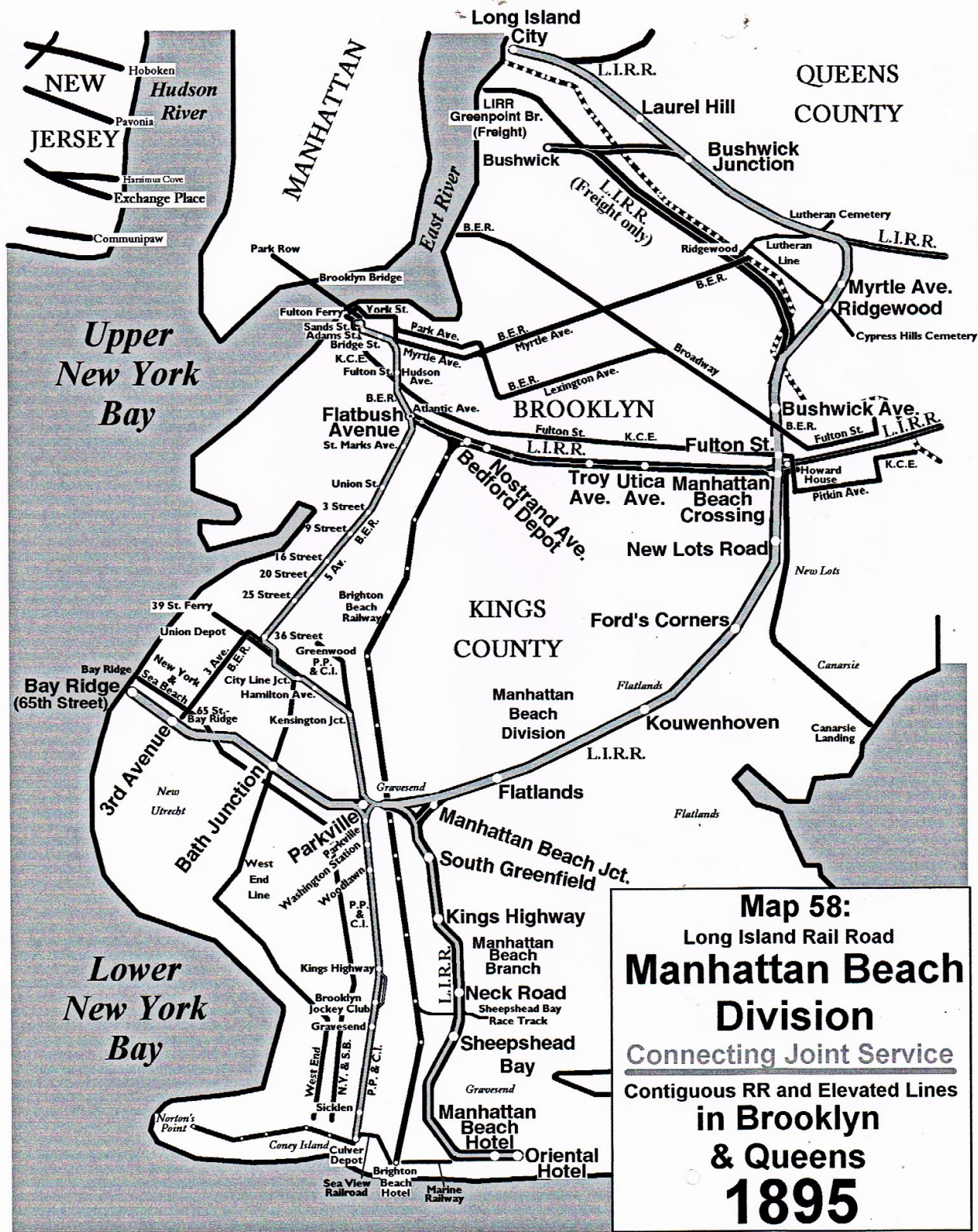
**F** that calls for some trains to operate express for the first time in over 30 years between Church Avenue and Jay Street with an intermediate stop at Seventh Avenue. It is proposed to take effect as part of a service change planned for the summer of 2017. While it reduces travel times to Jay Street and Manhattan by six to seven minutes for the 48% of the line's riders traveling to and from Church Avenue and points south, 52% of the line's riders will experience a decrease in service in the form of fewer and more crowded trains stopping at their stations, including Fort Hamilton Parkway, 15<sup>th</sup> Street, Bergen Street, Carroll Street, Fourth Avenue, and Smith-Ninth Street. These bypassed stations include the Park Slope section of Brooklyn, whose City Council member, Brad Lander, has vowed to oppose this plan. However,

on the other side of the fence (so to speak), City Council member David Greenfield, representing Midwood, applauds the plan to restore the **F** express in Brooklyn. The riders from Park Slope will have **G** from Church Avenue to Bergen Street to supplement the loss of **F** service, but the bottom line is that **G** does not go to Manhattan. At this time, it is not possible to add any additional **F** trains to replace the service lost from the local stops due to fleet size limitations (insufficient cars in the fleet to support adding more consists).

**W to be Restored**

The MTA Board approved the restoration of **W** from Whitehall Street to Astoria/Ditmars Boulevard starting in November to replace the current **C** service to Astoria, which will be diverted from 57<sup>th</sup> Street-Seventh Avenue via the new Second Avenue Subway to 96<sup>th</sup> Street when it opens in December.

From Recognition to Dominance  
(Continued from page 3)



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From Recognition to Dominance

(Continued from page 7)



(Continued next issue)

# Commuter and Transit Notes

No. 331

by Ronald Yee and Alexander Ivanoff

## METROPOLITAN TRANSPORTATION AUTHORITY

MTA is taking its first steps toward mobile or e-ticketing on its commuter railroads by utilizing a ticketing app designed for mobile devices. Developed in conjunction with the British-based Masabi Corporation, the ticketing system will initially be used on the Long Island Rail Road's Port Washington Branch and Metro-North Railroad's Hudson Line during June. Assuming a smooth rollout, the rest of the commuter rail system should have the e-ticketing system by the end of 2016. Customers seeking to utilize this new means of fare payment will download a free app to their mobile device, set up an account, and link it to a credit card or bank account. Upon purchasing a single- or multiple-ride ticket, the user activates it upon boarding the train and allows the train crew to scan the code displayed on the mobile device with a special scanner to redeem that e-ticket as they pass through the cars while performing their fare collection sweeps. This ticketing app is already in use on Los Angeles' Metrolink, Boston's MBTA, and NICE, the suburban local bus system on Long Island, a suburb east of New York City. (*Newsday*, May 18)

## MTA METRO-NORTH RAILROAD

In its ongoing effort to insure the safety and integrity of its tracks, Metro-North contracted with Ensco to design and build an \$11 million, state-of-the-art track geometry vehicle to inspect its tracks, ending a long standing practice of depending on private contractors or borrowed LIRR track geometry vehicles. The new inspection vehicle, expected in early 2018, should be capable of inspecting track gauge, cross-level, rail-head profile, and curvature. (MidHudsonNews.com, May 13)

Metro North evening peak service was completely shut down around 6:30 PM Tuesday, May 17. An intense fire at a gardening supply business establishment located under the elevated structure at E. 118<sup>th</sup>-119<sup>th</sup> Streets burned so hot that the structural steel supporting the Park Avenue Viaduct and elevated was heat damaged. Engineering staff worked overnight to evaluate the damage before considering any train service over the damaged portions. Alternate services were quickly set up from Grand Central and midtown Manhattan to enable passengers to travel to and from Westchester and points north and east during the remainder of the evening peak and evening/late night hours. The Hudson Line turned its trains at Yankees-E. 153<sup>rd</sup> Street with passengers using the NYC Transit ④ and ⑤ to 161st Street and walking ½-mile to the Metro-North station. Passengers originating on Manhattan's west side also had the option of riding ① to 225<sup>th</sup> Street and making a one-block transfer to the Marble Hill station. Hudson Line tickets were also being honored on the west-of-Hudson Pascack Valley and Port Jervis Line trains to Hoboken. The Harlem Line turned its trains at

Wakefield, with passengers using ② to 241<sup>st</sup> Street-White Plains Road and walking ½-mile to the Wakefield Metro-North station. New Haven passengers rode the NYC Transit ② (⑤ rush hours) to 233<sup>rd</sup> Street and walked ¼-mile downhill to the Woodlawn Metro-North station where New Haven Line trains were being terminated and turned back eastward. During overnight inspections by engineering staff, significant structural damage to the elevated structure was confirmed. As a result, train traffic was limited to the outer two tracks, Tracks 3 and 4. The middle express tracks, 1 and 2, were taken out of service until the structure below could be shored up. As a result of the reduced capacity, a Saturday schedule was operated on all three lines to Grand Central Terminal starting Wednesday, May 18. Extreme overcrowding and delays of up to 80 minutes were reported that morning as Metro-North Railroad encouraged its customers to telecommute and work from home or find alternative travel arrangements. During Wednesday's PM peak, inbound trains between 5 PM and 8 PM bypassed Harlem-125<sup>th</sup> Street in an attempt to relieve the train traffic congestion resulting from trains stopping at that station. Some outbound peak trains were also instructed to skip this station to increase through-put. By the start of the AM peak period on Thursday, May 19, an "enhanced" Saturday schedule was placed into effect with extra trains added to a normal Saturday schedule to handle up to 75% of normal weekday peak period ridership. A normal weekday schedule was restored in time for the AM peak period on Friday, May 20 once six new steel columns were installed to supplement a column damaged by the fire. It was revealed that the gardening supply business that had caught fire was storing gasoline and liquefied petroleum gas and other flammable materials without the proper permits and was issued at least four citations for the violations. (Editor's Note by Ron Yee: The platforms at Marble Hill, Wakefield, and Woodlawn are only four cars long; this must have been a crowd control nightmare. In addition, passengers traveling north from Grand Central on the Lexington Avenue Subway were required to change from ⑤ at E. 180<sup>th</sup> Street to ② as only a few ⑤ trains operate over the White Plains Road Line. In comparison, the Hudson Line's Yankees-E. 153<sup>rd</sup> Street station has two 10-car island platforms to handle diversion crowds. (WNBC-TV, WABC-TV, *New York Post*, *New York Daily News*, May 17-21)

Almost three years after the May 17, 2013 derailment in Bridgeport, Connecticut, Metro-North crews moved four M-8s that had been damaged to the Kawasaki facility in Yonkers, New York for repairs. The transfer of cars 9174-5 and 9310-1 occurred over the weekend of May 7-8. (Internal MTA source, May 18)

(Continued on page 10)

**Commuter and Transit Notes**

(Continued from page 9)

Speaking of Metro-North/CDOT's M-8 fleet, a copy of the ever-elusive M-8 car fleet roster was obtained by this Editor from an internal Metro-North source who prefers to remain anonymous. The 405-car M-8 fleet, subdivided by owner and type, is listed below:

CAR NUMBERS	FLEET SIZE	OWNER	TYPE
9100-99	100	CDOT	Married Pair
9200-99	100	MTA	Married Pair
9300-99	100	CDOT	Married Pair
9400-21	22	MTA	Married Pair
9460-76	9	MTA	Single Car; even numbers only
9500-19	20	CDOT	Married Pair
9560-90	16	CDOT	Single Car; even numbers only
9600-23	24	CDOT	Married Pair
9530/9631-9542/9643	14	CDOT	Potential Cafe Married Pairs; 95xx even numbers only, 96xx odd numbers only

**MTA LONG ISLAND RAIL ROAD**

On Saturday, April 30, LIRR resumed weekend service between Greenport and Ronkonkoma. It will operate until November 27. With the May 23 schedule change LIRR fully implemented its summertime service, including its famous *Cannonball* offering direct service from Penn Station to Montauk on Thursdays and Fridays leaving Penn Station at 4:06 PM, operating non-stop to Westhampton in 95 minutes and arriving in Montauk at 6:48 PM and leaving Montauk at 6:37 PM and Westhampton at 7:39 PM, operating non-stop to Jamaica and arriving at Penn Station at 9:31 PM on Sundays and on Monday for three-day holiday weekends. This schedule offers two new Friday extra trains to Montauk from July 1 through September 2 in addition to the usual three added trains to Montauk from prior years. In addition to the *Cannonball*, there are four extra inbound trains from Montauk on Sundays and a Monday morning extra train from Montauk to Hunterspoint Avenue. There will also be one added train to Greenport, an additional weekend round trip to Long Beach, and additional midday service to/from Speonk. The usual weekend bus connection to and from Jones Beach will once again be available at Freeport. New for 2016 is an effort to alleviate crowding on East End trains during the summer season. Staying within the constraints of its limited diesel passenger fleet, LIRR is operating a prototype demonstrator service that will include: the 4:00 PM departure from Montauk will operate to Hunterspoint Avenue instead of terminating at Jamaica, offering a one-seat ride to passengers who had ridden out from that terminal on Friday to start their weekend. There will also be two extra trains operating ahead of two through trains to Montauk, which will hopefully take on the cus-

tomers looking to ride to Bay Shore, Sayville, and Patchogue and connect to Fire Island Ferries and move them off from the crowded Montauk trains. These two extras will be serviced by the same equipment consist which will operate from Jamaica at 8:04 AM to Patchogue, deadhead back to Babylon to connect with an extra electric train from Penn Station, and return to Patchogue on a second trip. On summer Friday nights, a deadhead train will be "livened up" to carry passengers from Greenport to Ronkonkoma, then non-stop to Jamaica. (*Newsday*, April 27; LIRR press release, May 22)

The \$37 million in funds to purchase Diesel Multiple Unit (DMU) passenger cars for use on eastern Long Island shuttle services has apparently been reallocated toward the purchase of 24 work locomotives to replace the current fleet of 1970s-vintage engines. (MTA Capital Program, May, 2016)

**NJ TRANSIT**

The two unions representing the Locomotive Engineers (BLET) and Conductors and Assistant Conductors (UTU Local 60) rejected the contract agreement reached in March to avert a threatened strike. While there is now again the potential for a strike toward the end of June, both sides have agreed to return to the negotiating table. The margin of votes to reject the March agreement was quite narrow. The 14 other unions have already ratified their negotiated contracts. (NorthJersey.com, May 1)

After several delays, NJT opened its new Wesmont commuter rail station on the Bergen County Line on May 15. This station was constructed between the existing Garfield and Rutherford stations in Wood-Ridge to serve a \$400 million development surrounding the former Curtiss-Wright aircraft engine factory dating back to World War II and earlier. (North Jersey.com, NJ Transit, May 15)

**AMTRAK**

Amtrak announced that the system timetable issued effective January 11 as the Winter/Spring, 2016 edition will be its final issue. Citing costs of production and the inability to accurately reflect ongoing changes in schedules in a mass printing that is a national timetable, the nation's intercity passenger railroad will only issue corridor- and route-specific schedules beginning this summer. For the most current and accurate schedules, customers will be urged to consult the Amtrak website at [www.amtrak.com](http://www.amtrak.com). (Amtrak, April 25)

Amtrak is planning to operate a "Farewell to the AEM-7 Locomotive" excursion train on June 18, originating out of Washington D.C. and running as far north as Philadelphia's "Zoo" Interlocking before turning back south to D.C. A tour of Amtrak's Wilmington Shops is planned for excursion trip attendees as is a photo stop enroute. The fleet of 54 locomotives has a combined total of over 220 million miles over their 37-year service on the Northeast Corridor and Harrisburg Line. (*Progressive Railroading*, May 5; Amtrak, May 6)

Queens County officials in New York City want to cele-

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**Commuter and Transit Notes***(Continued from page 10)*

brate the centennial birthday of the Hell Gate Bridge, which, when completed in September, 1916, was the world's longest steel arch bridge. Officially opened to rail traffic on March 9, 1917 and utilized by the Pennsylvania Railroad to reach Boston, officials want to commemorate the occasion with fireworks, historical tours, night-time lighting, and a fresh coat of paint. Thus far, Amtrak is reluctant to actively participate in this effort, at times stating the proposed lighting could interfere with locomotive Engineers' night vision going from a totally dark roadbed to a brightly lit bridge all of a sudden. As for the paint, Amtrak's position is that the current layer of paint, while faded, is sufficient to achieve its primary purpose, to protect the steel of the bridge from corrosion/rust. (*Queens Gazette*, May 4)

Nippon Sharyo, under contract to build 172 bi-level passenger cars for Amtrak's California and Midwest services, is still committed to completing the order before the September 30, 2017 deadline of being able to apply for up to \$551 million in federal funds under the American Recovery and Reinvestment Act stimulus monies intended to generate economic activity during the severe economic downturn of 2007-9. 130 cars of this order are earmarked for Midwest corridor services. The delays in construction and delivery of these cars stem from the prototype carbody failing to meet the American Association of Railroads' (AAR) 800,000 pound compression test, necessitating a significant redesign of the frame to meet the Federal Railroad Administration's (FRA) requirements for passenger rail equipment in the USA. Until the car's design is re-engineered to meet FRA/AAR standards. (Al Holtz, May 18)

**INDUSTRY**

The April 29 announcement that Michael P. Melaniphy, the President and CEO of APTA (American Public Transportation Association), would be leaving was met with optimism, seeing how the departure of New York's MTA from the organization was seen as a loss of credibility to APTA. In a statement, the organization stated that Melaniphy's resignation "comes after consensus between the APTA Executive Committee and Melaniphy." Now that Melaniphy is out of the picture, there has been speculation that MTA could return to the APTA fold, provided that several key changes take place. Among MTA's complaints is that no so-called "Legacy Systems" (MTA, NJ Transit, SEPTA, CTA, MBTA, PATH, BART, MUNI, PATCO, etc.) or commuter rail systems have voting representation on the APTA Executive Committee. MTA Chairman Tom Prendergast called this "unconscionable."

In the interim, former APTA Chair and APTA Vice President-Member Services Richard A. White is Acting President and CEO until a permanent replacement is selected. (*Editor's Note by Sasha Ivanoff: Melaniphy struck me (and Joe Boardman at Amtrak is guilty of it in my view, from time to time) as a bit of an industry cheerleader, and I am not the only person who has said this. I forget where I read this,*

*but what this piece stated was that APTA was more focused on shoring up transit, even when legislation before Congress was inadequate to meet the needs of many transit systems. Melaniphy's fall from APTA leadership can only make the organization stronger. Let us hope that new leadership is wiser than prior leadership.*) (*Railway Age*, April 18 and May 1)

**OTHER TRANSIT SYSTEMS****BOSTON, MASSACHUSETTS**

A westbound MBTA Green Line LRV derailed as it approached the Park Street station in downtown Boston just before 9 AM on Friday, May 13. No injuries were reported amongst the 200 passengers aboard the LRV. While the incident severely disrupted operations on the Green Line, normal service was resumed shortly after 12:50 PM. (*Boston Globe*, May 13)

**LAKE PLACID, NEW YORK**

Governor Andrew M. Cuomo has approved a \$23 million plan for a state-owned rail corridor, which calls for renovating 45 miles of track to extend the route of the Adirondack Scenic Railroad to Tupper Lake and converting 34 miles into a multiuse recreational trail from Tupper Lake to Lake Placid.

The work will begin this fall and be completed within three years, Mr. Cuomo said on May 17. The Olympic Regional Development Authority in Lake Placid will have a hand in managing the broad, flat trail that will be used for bicycling, walking, skiing, and snowmobiling.

Rail supporters, who lobbied to have the tracks upgraded all the way to Lake Placid, vowed to fight the plan. (*New York Times* via Associated Press, May 17 )

**PHILADELPHIA, PENNSYLVANIA**

At the beginning of April, SEPTA released its capital plan for the 2017-22 timeframe, in part doable thanks to the passage of Act 89. In a change of tradition at SEPTA, the focus, while still on a state of good repair, has been expanded to also include some urgently needed service expansions, including the extension of the Media/Elwyn Line to Wawa and eventually its original terminus at West Chester, the extension of the Broad Street Line to the Philadelphia Naval Yard, improvements to transit on Roosevelt Boulevard (short of building Philadelphia's own Second Avenue Subway), and the extension of the Lansdale/Doylestown Line to Quakertown. (SEPTA press release and capital plan report, April 1)

**WASHINGTON, D.C. AREA**

MARC commuter rail service and Amtrak's *Capitol Limited* were suspended by the derailment of 10 cars of a freight train near the Rhode Island Avenue Metro elevated station at 6:40 am on Sunday, May 1. One of the derailed freight cars was carrying a load of sodium hydroxide, classified as a hazardous cargo as it is highly corrosive but not an airborne inhalant agent; therefore, WMATA closed the Rhode Island Avenue station and established a bus bridge between the North Massachusetts Avenue/Gallaudet and Brookland stations to carry customers around the scene. WMATA service was resumed in time for the Monday morning rush hour.

*(Continued on page 12)*

**Commuter and Transit Notes***(Continued from page 11)*

(Associated Press, May 1)

After decades of mismanagement, neglect, and insufficient funding, starting in June, the Washington Metro will begin a year-long program called SafeTrack, during which the system will be repaired and its many issues addressed. This effort will create many inconveniences for customers, necessitating week-long, and, in some cases, multiple week closures of entire sections of a line to expedite the repairs. A third rail insulator that had been set on fire by high voltage electricity on May 5, which was recorded by security cameras at the Federal Center SW station, prompted WMATA General Manager Paul Wiedefeld to take drastic action in an effort to prevent yet another serious incident. Operation SafeTrack will involve 15 work projects, which will be similar to “maintenance blitzes” seen on freight railroad mainlines. Ten projects will require the single-tracking of select sections of a line for periods of one to six weeks, reducing the number of trains that can be operated over the entire line, leading to crowding and delays. The remainder of the work, which will require line closures, will begin June 18-July 3 between Eastern Market and Minnesota Avenue; July 5 between Reagan Airport and Braddock Road for one week; then another week starting the following week on July 12 involving the Blue and Yellow Lines between Reagan National Airport and Pentagon City. There will be a 23-day closure from October 10-November 1 between NoMa and Fort Totten on the Red Line with a concurrent closure of the Brookland-CUA and Rhode Island Avenue stations. An 18-day closure from December 7 to December 24 will shutter the Blue Line from Pentagon to Rosslyn and idle the Arlington Cemetery station (with exception of December 17 for the Wreaths Across America event there). The single-tracking disruptions will occur June 4-19 on the Yellow and Blue Lines between Franconia-Springfield and Van Dorn; June 20-July 3 and July 20-31 on the Green and Yellow Lines between College Park and Greenbelt; August 1-8 from Takoma to Silver Spring and August 9-19 from Shady Grove to Twinbrook on the Red Line; on the Orange Line September 9 to October 21 from Vienna to West Falls Church, November 2-12, 2016 and March 6-20, 2017 from West Falls Church to East Falls Church; the Orange and Silver Lines between East Falls Church and Ballston from November 12-December 5 and the Yellow and Blue Lines from Braddock Road to Huntington on the Yellow Line and Van Dorn on the Blue Line from January 2-15 and 23-26, 2017. Most of the work will involve the replacement of 50,000 wood ties that have deteriorated as well as rail replacement and third rail power assemblies that have become prone to short circuits and fires. In addition to all of this work, beginning June 3, the Washington Metro will no longer be open until 3 AM and will close down at midnight. This will provide longer construction/work time windows overnight by which maintenance crews can perform vitally needed work. (*Washington Post*, May 9)

WMATA General Manager Paul Wiedefeld abruptly fired 20 managers, seven of whom were senior managers at Metro operations. Of the 13,000 employees at WMATA, most of whom are represented by three unions, 650 are “at will” employees who can be let go at the General Manager’s discretion. The recent woes at the beleaguered agency were probably the catalyst for this reorganization and streamlining effort. (*Washington Post*, May 20)

**FLORIDA**

The first six of 136 new Miami Dade Metro railcars are expected to enter the testing phase and lead the way for the remaining 130 cars to begin entering service in 2017 with completion of the \$313.8 million order in 2019. These cars were originally scheduled to begin service in 2015 but encountered delays stemming from the assembly factory being late in opening up for production as well as a design change ordered by Miami-Dade Metro to make the ends of the car bodies more rounded and slightly sloped at the ends to create a streamlined appearance, as well as delays in the construction and opening (March, 2016) of the assembly plant in Medley, Florida for Ansaldo-Breda, whose rail manufacturing assets have been taken over by Hitachi. The new cars will feature more space for bicycles as well as high-definition security cameras, additional screen monitors in each car announcing the next station, advertising, high-quality audio systems for announcements, and improved high-efficiency air-conditioning. (*Miami Herald*, May 22)

The Florida Department of Transportation (FDOT) has decided not to apply for a federal TIGER (Transportation Investment Generating Economic Recovery) grant that would have gone toward funding an extension of the SunRail commuter rail line from its current northernmost terminus of DeBary 12 miles northward along the former CSX line (now owned by FDOT) to DeLand in Volusia County. The principle reason for the decision not to apply for the federal grant was that the amount of the grant was not going to be as high as previously hoped for, requiring FDOT to assume a greater share of the extension’s cost. (*Editor’s Note by Ron Yee: There had also been some debate amongst county officials as to whether the originally planned location of SunRail’s new terminus at DeLand should be located on the large parcel of land adjacent to and just south of the current Amtrak station located 3 miles outside of town. The city of DeLand was more in favor of having SunRail come off the former CSX mainline (now owned by FDOT) at a switch located south of the Amtrak station onto a branchline spur that goes right into downtown DeLand, serving the city center and linking it with Orlando.*) (*Progressive Railroading*, May 4)

**CHICAGO, ILLINOIS**

Lawyers acting on behalf of Bombardier, the losing bidder for up to 846 of the next generation of subway and elevated cars for the Chicago Transit Authority (CTA), have made allegations that the winning bidder, China-based CSR Sifang America, may produce rail-

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## Commuter and Transit Notes

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cars with ineffective anti-climbers built into the design of the structure, making them prone to “telescoping” in the event of a collision. A CTA spokesperson has released a statement that the claim is without merit. The claim is based on artist’s conceptions released by CSR that do not incorporate all of the features with which the actual cars will be equipped. Bombardier is also alleging that CTA changed some of the evaluation criteria without informing Bombardier. CSR’s bid was \$226 million below Bombardier, a significant percentage of the \$1.31 billion order. (*Crain’s Chicago Business*, April 27)

### KANSAS CITY, MISSOURI



Kansas City Streetcar 803 passes the Muse of the Missouri fountain along Main Street in downtown Kansas City on the first morning of passenger service, Friday, May 6, 2016.

Andrew Grahl Photo.

May 6 marked the return of electric traction to Kansas City after a 59-year absence. With glorious blue skies as a backdrop and a crowd of several hundred people in front of him, Kansas City Mayor Sly James proclaimed the start of a new era of rail transit in the city with the grand opening of KC Streetcar. (Also present was ERA Program Manager Andrew Grahl with his wife.)

James acknowledged the many city and federal partners who helped make the new \$100 million, 2.2-mile streetcar starter line a reality and said it is an example of the challenging, risky, and historic projects that cities need to tackle to play in the big leagues.

To sum up, there were decades of planning, election failures, legal setbacks, hard work and progress, construction disruptions, and months of testing leading up to the final big day. But the streetcar is also an emotional and sentimental project for those who remember the heyday of Kansas City streetcars, before the last car stopped in 1957. Many of those riding that Friday also rode on the original system.

Before World War II, Kansas City had one of the most robust streetcar systems in the country, but it shut down 59 years ago. The city pursued a number of transit stud-

ies from 1966-96, and then followed repeated citywide light rail elections that failed with voters or were unworkable.

Kansas City has not been a stranger to urban planning challenges, including the hassles that came with restoring the Union Station that is in part the rail transit hub for the region. Amtrak left the station in 1985 only to return in 2002, one of many that Amtrak has returned to after originally leaving. Despite a failed vote in 2014 to expand the system, groups in Kansas City are determined to expand the current two-mile line into a major system. (*Mass Transit Magazine* via McClatchy, May 8; *Kansas City Star*, May 6 and 19)

### DALLAS, TEXAS

In March, 2017, Dallas Area Rapid Transit (DART) will introduce a cash-reloadable, pre-paid value farecard in a partnership with PayNearMe. Riders will be able to buy such cards at hundreds of retail locations such as 7-Eleven, Fidelity Express stores, and those on the Blackhawk network. Passengers can pay with cash or DART’s Go Pass mobile app to reload their cards. These cards will be valid on DART transit vehicles, Denton County Transportation Authority, and Trinity Railway Express. The aim of this system is to reduce the volume of cash fare transactions on DART transit vehicles, especially on the buses. (Yahoo News, May 16)

During the week of April 11, the Lone Star Rail District went on the offensive two months after Union Pacific announced it would not participate in a proposal to use its tracks for a commuter rail between San Antonio and Austin.

On April 8, the district’s Board was called for a special meeting where it was presented with four alternatives to the previous plan, which is dead in its tracks. At the meeting, the Board voted to continue the environmental study, which could enable future funding. Interstate 35 has a history of serious congestion issues.

The alternatives all involve the I-35 corridor and include: “the SH130 corridor, the abandoned MoKan rail alignment, and new right-of-way parallel to the Union Pacific mainline, as well as hybrids of these options.”

According to the Lone Star Rail District, the project is halfway through the implementation process. It expects the environmental study to be completed by 2018. (*San Antonio Current*, April 18)

### DENVER, COLORADO

With the successful opening of its first commuter rail line, the A Line, linking Union Station in downtown Denver with its international airport on April 22, 2016, Denver’s RTD announced that it is on schedule to open its second electric commuter rail line, a major portion of the B Line linking downtown Denver with Westminster, on July 25. A third line, the C Line linking South Westminster with Longmont, will utilize diesel-powered equipment and will be built when funding becomes available. (*Progressive Railroading*, May 6)

Construction of Denver’s Southeast Rail Extension is to start on May 16, following a groundbreaking ceremony on May 10. Held at the site of the future Sky Ridge

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**Commuter and Transit Notes***(Continued from page 13)*

station, the ceremony was attended by RTD General Manager and CEO Dave Genova, local mayors, and the Federal Transit Administration's Regional Administrator, Linda Gherke.

FTA is contributing \$92 million towards the \$233.1 million project from its Capital Investment Grant program, with the rest being covered from local funding sources. RTD says it has raised an "unprecedented" \$25 million in cash and an estimated \$3 million in land and right-of-way permits from the City of Lone Tree, Douglas County, Coventry Development, and the Southeast Public Improvement District.

Part of the FasTracks program approved by voters in 2004, the extension will add a further 2.3 miles to the 19-mile Southeast Line. The route will follow the Interstate 25 corridor south from Lincoln Avenue to serve Sky Ridge and the future Lone Tree City Center before turning east to reach the new terminus at Ridge Gate Parkway. Transit-oriented development is part of all the plans. Concurrent with the project, RTD is to purchase an additional eight LRVs.

In July, 2015 RTD selected Balfour Beatty Infrastructure, Incorporated as construction contractor for the extension, which is due to be completed by 2019. It will be served by three light rail routes: the E Line to Union Station, the F Line to 18<sup>th</sup> and California in the city center, and the orbital R Line through Aurora to an interchange at Peoria with the University of Colorado A Line commuter rail line to Denver International Airport. (*Railway Gazette*, May 12)

**Seattle, Washington**

Sound Transit's Board voted to keep the Tacoma Link light rail fare-free until 2022, the projected opening date of its 2.2-mile extension to the Stadium and Hilltop neighborhoods. It was deemed that the cost of administering and performing the fare collection aspects would exceed the amount of revenue based on current ridership levels. The Downtown Tacoma Business Improvement Area (BIA) has been subsidizing the operation of the light rail line since 2014 and will continue to do so. (*Progressive Railroading*, May 2)

**SAN FRANCISCO, CALIFORNIA**

MUNI expanded its new E Line streetcar service from weekends only to a seven-day-per-week operation from 10 AM to 7 PM beginning April 23. Out of the Market Street Railway's fleet of nearly 60 historic and/or vintage streetcars from all around the world, five of the seven double-ended PCCs in the fleet are needed to operate this service on a 15-minute headway linking the Embarcadero waterfront area, CalTrain, and the Giants baseball stadium as there are no turn-back loops on this line. It is hoped that the operating hours can be expanded to 6 AM later this year. (Al Holtz, April 24)

**LOS ANGELES, CALIFORNIA**

In addition to Positive Train Control (PTC) teething issues, Metrolink's leased freight unit locomotives are also a significant source of delays. Added to the oppo-

site end of the train from the Metrolink locomotive, these leased freight locomotives were supposed to temporarily replace the Rotem-built cab control cars while engineering staff came up with a permanent solution for the safety issues presented by poorly designed "pilots" on those cars, which proved to be ineffective at handling the forces from impacting large motor vehicles at grade crossings. In addition to train crews having to "spot" the trains on account of the extra locomotive, there are now issues where the braking characteristics of these heavy freight units may be presenting a hazard when braking a consist made up of a mix of two types of coaches. These freight units are much heavier than passenger locomotives and instead of using straight air as their primary means of braking, these units rely primarily on their dynamic brakes to slow a train. The combination of mixed braking modes on the locomotives at each end of the train combined with a mixture of Rotem-built stainless steel bi-level coaches and relatively lighter weight aluminum-skinned Bombardier bi-level coaches are creating heat-related stressing on the brake rotor assemblies of the Rotem cars. (Unnamed Metrolink internal source, April 30)

In a second effort to shore up falling ridership levels, the Metrolink Board of Directors approved the lowering of fares for trips of less than 20 miles effective July 1. Earlier in 2016, a \$3 station-to-station fare was put into effect as a pilot program for six months but attracted limited interest as it was limited to select ticket types. (Metrolinktrains.com, May 18)

The Expo Line extension to Santa Monica opened on May 20 at noon, restoring rail service between Los Angeles and Santa Monica for the first time in 63 years. Free rides were offered to the public through Saturday, May 21 on the seven-station, 6.6-mile, \$1.5 billion line extension. Free rides were offered on Friday, May 20 and Saturday, May 21. (*Los Angeles Times*, May 20)

As the June *Bulletin* goes to press, prospective riders are closer than ever to actually riding the Perris Valley Line.

Transportation officials on May 11 announced that the commuter rail line will open for service June 6. Riverside County Transportation Commission Deputy Executive Director John Standiford confirmed the tentative date for the planned opening of the 24-mile spur with four new stations in Riverside, Moreno Valley, and Perris.

The extension of the 91 Line was approved by RCTC in 2003, cost \$248 million, and is the first extension of Metrolink service in 22 years. The Perris Valley Line is expected to serve more than 4,000 riders a week, according to the transportation officials.

According to the new Metrolink schedule released at the beginning of May, service to the four new Perris Valley Line stations will be active Monday through Friday, but not on weekends.

Three early-morning trains departing South Perris will transport riders to downtown Los Angeles via the 91 Line. There will also be trains running between South

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**Commuter and Transit Notes***(Continued from page 14)*

Perris and downtown Riverside, but not serving the rest of the line.

On its website, Metrolink is touting special grand-opening fares for Perris Valley Line riders: a \$10 round-trip fare for those traveling in Riverside County, and a 10 percent discount for passengers starting at one of the four new stations and traveling outside the county. (**Press Enterprise** [Riverside, California], May 11) *(Editor's Note by Sasha Ivanoff: With a well-over-two-hour-long running time compared to an hour just to Riverside, the train will not be popular with the car crowd, but I can see people living close to the new stations lining up in droves to use it. Disappointingly, Metrolink has not used the addition of service to boost schedules, which might be just what the agency needs to boost sagging ridership.)*

**MONTREAL, QUEBEC, CANADA**

AMT cancelled a \$103-million call for tenders for 24 double-decker train cars, for which Bombardier Transportation was the only bidder. The cancellation could mean delays getting much-anticipated double-decker trains on the overcrowded Deux-Montagnes Line.

Bombardier said in its bid that it cannot furnish several items that are standard on AMT trains: screens announcing the next stop, an intercom, and a passenger-detection system. AMT stated that Bombardier has built all the agency's cars and most of its locomotives to date, and never had a problem providing those features up to now.

Bombardier also said it is not able to build the trains within the 24-month period stipulated in the contract, saying it needs 36 months to build the cars.

AMT went to tender last December on the double-decker cars to be used on the Candiac, Vaudreuil-Hudson and St-Jerome Lines. The new cars would allow AMT to move the old cars to the agency's busiest Deux-Montagnes Line, bringing double-deckers to that line for the first time. AMT plans to take the MR-90 cars currently used on that line out of circulation for several months so they can be recommissioned.

Montreal is now on a list of cities disappointed with Bombardier's rail operations.

As noted below, Toronto's \$1.2-billion order for 204 streetcars, placed by the Toronto Transit Commission in 2009, has turned out to be a serial disappointment for the city. Bombardier has repeatedly reduced the number of streetcars it expects to deliver this year, promising 75 in 2015, reducing that to 54 in January, then further lowering its estimate to 30 this month.

The company is also several months behind in building light-rail trains for the city of Waterloo.

In March, Bombardier's transportation division faced another challenge to its reputation when it was accused in a scathing report of "duping" London Transit about its ability to complete a signaling project in the British capital. The report, prepared by the London Assembly's budget and performance committee, said Bombardier was unable to deliver on a \$670-million sig-

nalizing contract awarded in 2011 that would allow more people to use the London Underground. The contract was terminated in 2013. (**Montreal Gazette**, May 17) *(Editor's Note by Sasha Ivanoff: If AMT gets desperate, a worst-case scenario could be that the agency purchases Silverliner Vs from Hyundai-Rotem in the interim, since Denver's RTD is still taking delivery of them. Bombardier's collapse is something that I am still stunned about — how a company that has built reliable equipment in the past is struggling to fulfill basic orders.)*

**TORONTO, ONTARIO, CANADA**

In an effort to speed up the much-delayed Toronto street car replacement project, Bombardier has reallocated its resources amongst four plants located in Quebec, Mexico, and Ontario. The plant at Kingston, Ontario will be focused on light rail projects for Metrolinx and the Kitchener/Waterloo regions while the Thunder Bay plant will focus on orders from GO Transit and completing an order for the Toronto subway. The plant in La Pocatiere, Quebec will manufacture Montreal's new Metro cars as well as assume some of the manufacturing responsibilities for the Toronto street car order. The location of a second production line for the manufacture of Toronto street cars will be identified by the end of May. Only 16 new street cars are expected to be delivered by the end of 2016, raising the total new LRV count to 31 out of the 204 ordered in a \$1.2 billion contract. The revised production schedule calls for 40 cars in 2017, 76 in 2018, and completion in 2019 with 57 cars. (**Toronto Star**, May 21)

A featurette done by the **Toronto Star** for its May 13 edition shows the inside scoop on the rehabilitation of the Toronto Transit Commission's (TTC) fleet of CLRV (Canadian Light Rail Vehicle) and the ALRV (Articulated Light Rail Vehicle) equipment.

In addition to causing frustration among transit riders, the delayed delivery of TTC's new streetcars has posed a major logistical problem for the transit commission.

Bombardier was originally supposed to supply 73 state-of-the-art vehicles by the end of 2015, but as of mid-May only 19 had arrived. To make up the difference, TTC has been forced to extend the life of some of its older vehicles.

At the Harvey Shop of the TTC's Hillcrest complex, crews strip the cars down, build them back up, and get them ready for the road again. It is a tremendous undertaking that will take thousands of hours of work and cost an estimated C\$33.1 million. (**Toronto Star**, May 13)

TTC announced that it will be operating one of its two vintage PCC street cars every summer Sunday until Labour Day weekend on its Route 509/Harbourfront Line between Union Station and Fleet Loop. The PCC will operate over this line from noon to 5 PM and the public will not be charged a fare to ride. (citynews.ca, May 22)

**ENGLAND**

Passenger franchisee TransPennine Express has announced orders worth £230 million for CAF electric multiple-units and locomotive-hauled coaches for delivery

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**Commuter and Transit Notes***(Continued from page 15)*

in 2018-9.

The £120 million order for 12 five-car Civity UK Inter-City EMUs with a maximum speed of 200 kilometers per hour is to be financed by Eversholt Rail. The 25,000-volt, 50 Hertz units are scheduled to enter service by April, 2019 and will be used on Anglo-Scottish trips operating on the West Coast Main Line from Manchester and Liverpool to Glasgow and Edinburgh.

The 13 sets of five-car hauled coaches will be financed by Beacon Rail Leasing, and will work in push-pull mode with Class 68 diesel locomotives owned by Beacon Rail that will be subleased from Direct Rail Services. TPE said, "most of the required Class 68 engines are already built and by buying state-of-the-art carriages to be pulled by these engines, much-needed additional capacity can be introduced quickly." The new equipment will have amenities that are very similar to what air travelers on most full-service carriers are used to, including Wi-Fi, mobile streaming, and power outlets.

The coaches will initially operate at up to 160 kilometers per hour, with the capability to run at 200 kilometers per hour as routes are electrified. They will enter service starting in Spring, 2018, initially operating between Liverpool and Newcastle. Later in 2018 some will begin running to and from Scarborough. Once TPE's Hitachi AT300 fleet arrives in December, 2019, the coaches will then be transferred to routes from Liverpool and Manchester Airport to Middlesbrough and Scarborough.

The orders announced on May 20 follow an earlier agreement for Hitachi to supply TPE with 19 five-car electro-diesel AT300 trainsets from its plants at Kasado in Japan and Newton Aycliffe in northeast England. (*Railway Age*, May 23)

**SWITZERLAND**

The Zurich City Council and the Transport Council of the Canton of Zurich have approved the acquisition of 70 meter-gauge Flexity 2 LRVs from Bombardier to replace the ageing Tram 2000 fleet introduced in the 1970s.

The 43-meter-long seven-section vehicles will be 2.4 meters wide, accommodating up to 93 seated and 186 standing passengers (4 passengers per square meter). Deliveries will take place between 2018 and 2023.

The SFr 358 million (US\$363 million) order includes spare parts, specialist tools, and staff training. According to the Zurich City Council, the price per vehicle is SFr 4.3 million. (*International Railway Journal*, May 19)

**GERMANY**

Karlsruhe tram-train operator AVG signed a €59.5 million contract with Bombardier Transportation on May 18 for the supply of a further 12 Flexity Swift ET 2010 light rail vehicles.

Deliveries are due to take place between September, 2017 and March, 2018. Equipped to run on both the 750 volts d.c. and 15,000-volt 16.7 Hertz a.c. parts of the tram-train network, the LRVs will be 37 meters long and 2,650 millimeters wide, with capacity for 244 pas-

sengers, including 93 seated. The air-conditioned vehicles will be fitted with a toilet and Wi-Fi.

AVG already has 30 Flexity Swift ET 2010 vehicles in service, which it ordered from Bombardier in September, 2009. (*Railway Gazette*, May 20)

**IRAN**

To cope with rising road congestion, air pollution, and the need for urban mobility, Iranian cities are expected to call tenders for at least 4,000 metro cars by 2025, Industry Minister Mohammadreza Nematzadeh told the inaugural Oil Rail Ports conference held in Tehran on May 15-16.

With several cities — including Shiraz, Tabriz, and Esfahan — having opened metro networks in the past five years, the supply industry is anticipating a surge in demand as the relaxation of international trade restrictions make access to the Iranian market easier.

Meanwhile, expansion in Tehran is attracting considerable attention from international suppliers. A sixth metro line is currently under construction and tracklaying is underway on the Line 1 extension south from the city to Imam Khomeini International Airport. Among the companies examining the market potential is Transmashholding, which is seeking export orders for its Metrowagonmash subsidiary, the largest metro car builder in Russia. (*Railway Gazette*, May 17)

**SOUTH KOREA**

South Korea's national train operator Korail has selected Hyundai Rotem to supply a fleet of 30 HEMU-250 trains for operation on the new Gyeongjeon line to Masan in the south of the country in 2020. The Won 102 billion (US\$86 million) contract for the 250 kilometer per hour trains was due to be finalized in mid-May. Korail invited tenders for a fleet of high-speed trains in November, 2015, but withdrew the tender twice as it failed to agree terms with suppliers.

Hyundai Rotem has been testing its HEMU-430 train since 2012, and this is the first order for trains in this family. (*International Railway Journal*, May 23)

**CHINA**

Trial passenger operation began on May 18 on the first metro line in Fuzhou, the capital of China's southeastern Fujian province. Trains are now operating on the Sanchajie-Fuzhou South Railway Station section of the 24.9-kilometer north-south Line 1 from Xiangfeng to Xiayangcun. Line 1 has 24 stations, including nine on the section now in operation.

Service on Line 1 is operated by a fleet of 28 six-car trains built at CRRC Tangshan's plant in nearby Quanzhou. The 80-kilometer-per-hour aluminum-bodied Type B trains accommodate up to 1,460 passengers, 256 of them seated.

A second east-west line is under construction and the two lines will intersect at the Nanmendou station.

Last December the National Development and Reform Commission, China's top economic planning authority, approved a construction plan for the Yuan 65.4 billion (US\$9.9 billion) second phase of the metro, which will extend the system to 147.5 kilometers by 2021.

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## TOUR OF TURKEY

by Jack May  
(Continued from May, 2016 issue)  
(Photographs by the author)

The skies were clear the next morning and it turned out to be a perfect day for riding and photographing with temperatures in the mid 70s. Antalya has a population of 930,000 year-round residents. It is a major tourist center, owing to its tropical weather and beautiful setting along the Mediterranean Sea near many beaches and archaeological sites. The city itself is very clean and bright, with a busy palm-lined downtown area and a lovely sheltered harbor that has been turned into a marina. A great deal of its conversion from a sleepy little village to a major resort transpired from the advent of low-cost charter flights and later, low-cost air carriers, which now fly to Antalya from most major cities in Europe.

The old city is called Kaleici and has been restored, with limited access allowed for automobiles. Two of the city's principal tourist attractions are Hadrian's Gate, a triumphal triple arch with pillars, built to commemorate the Roman emperor who visited the city in the year 130 A.D., and a 19<sup>th</sup> century clock tower, both along the original city walls.

A single-track standard-gauge heritage streetcar line was opened in 1999, ostensibly to fight automobile congestion around the old city. Three MAN-built motors with matching trailers were acquired from Nurnberg to operate over the 3.2-mile long line, which has three passing sidings and loops at both ends. The literature indicates that the line was donated to Antalya by its sister German city. On our 2001 visit the cars were painted in a montage depicting the tourist sights in Antalya and its neighboring areas, but now advertising schemes dominate. The route is shaped like an inverted backwards "L," with the east-west part running close to the sea and the north-south portion running to the east of the old city. Two of the motor-trailer sets are used to operate a 30-minute headway. It's a very pleasant line with an end-to-end running time of 25 minutes.

In addition to the nostalgic streetcar route, Antalya now has a light rail line, called Antray. This modern standard-gauge double-track operation opened in 2009.

It is 7 miles long and shaped like the letter "L," symmetrically opposite to that of the nostalgia line. The 90-degree turns on both undertakings are at the same intersection, but there is no track connection. One could say they just miss side-swiping each other. The light rail line has 16 stations and operates entirely in grassy and paved medians, with two long underpasses, each hosting a station. Antray's fleet consists of 14 100-percent low-floor LRVs built by CAF in Spain, capable of 65 kilometer per hour operation. They're similar to the cars operating in Seville and formerly in Velez de Malaga (CAF has also built high-floor LRVs for Pittsburgh and Sacramento).

While the line's infrastructure is quite modern, operation was rather slow, possibly because of safety considerations during the system's break-in period. Cars did not go faster than 15 kilometers per hour in the downtown area, but improved to about

25 or 30 on the outer portions, where the line is fenced in — but still much too slow. Also unfortunately, all of the cars are wrapped in full advertising regalia, some quite garish. But the line is new and clean, and seemed to be well-patronized. In one part of the downtown area its central reservation is paved with stone, while in another the median is wide enough to have trees and shrubs between the tracks. Like the other new lines we rode, station fare collection is used, with the medium being smart cards.

I first rode and photographed the new light rail line, and then after a lunch snack, devoted time to the nostalgic tramway, walking a great deal of the route. I spent the last portion of the day, before meeting Clare, in the busy downtown area, which was crowded with strollers and shoppers. Clare and I decided to return to the same restaurant for dinner, but were disappointed when the food was not as good as the previous night's. Perhaps the

regular chef was off one of the two days. Despite this "bump" we had a thoroughly enjoyable visit along the "Turkish Riviera," similar to our tour of its western portion in 2001.

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Our charming hotel, the Deja Vu, in the old city, has a beautiful patio.

**Tour of Turkey**

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The clock tower, at the edge of Kaleici, is just one of the many tourist sights in Antalya, and is located along the streetcar line.



The northern end of the line is almost perfectly straight, and runs in the grassed-in center reservation of Antalya Blv. This view is near the Dokuma station.



Antray ducks under a major traffic intersection ...



...with the Calli station located between the two ramps.



One of Antalya's LRVs is shown on Ali Çetinkaya Cad, almost in the city center, where the two tracks are separated by a wide median containing a great deal of greenery.



Another example of Turkey's penchant for flowers. After leaving the city center a tram turns off Ali Çetinkaya Cad onto Aspendos Blv.



One of Antalya's CAF-built cars lays over at the Meydan terminal at the eastern end of the L-shaped line.

*(Continued on page 17)*

**Tour of Turkey**

(Continued from page 16)



The center of the line is located at the edge of the old city, where many tourists tend to congregate. One of the line's three passing tracks is located here at the Kalekapisi stop. Entrepreneurs offer horse-drawn carriage tours, but this cart will soon move, sans customers, to make way for one of the two streetcars on the line.



The Zerdalilik station at the southern end of the line. Cars operate on a long street loop serving the carhouse, far from the tourist areas of town.



The line's southern section mainly serves the residents of high-rise apartment buildings. Balconies are *de rigueur* in this area, and a portion of the line is well-landscaped with a lovely fountain.



Much of the eastern end of the line parallels the shore and a park. The motor-trailer sets turn on a loop next to the sea and then pull into the Muze station.



(Continued next issue)

## Around New York's Transit System

### Subway Ridership at Record High

Ridership on NYCT subways has reached 1.8 billion rides per year, highs not seen since 1948. 7, L, and C are already operating at capacity with no realistic ability to add more trains due to signaling constraints. It is hoped that the Communication-Based Train Control (CBTC) system being installed on 7 by the end of 2017 can add perhaps 1-2 more trains per hour. The opening of the Second Avenue Subway by the end of this year should relieve some of the crowding on the Lexington Avenue Line, but because the new line turns west at 63<sup>rd</sup> Street, it cannot serve as a genuine reliever line south of there to lower Manhattan. In the meantime, riders on the rest of the system will continue to have to deal with the increased congestion, crowding, and delays on a system strained to capacity and dependent on technology and systems dating back to over 70 years ago. Stoppag measures at key and/or crowded stations include "platform controllers," a form of additional staffing to help with crowd control and facilitate the faster unloading and loading of trains in an attempt to reduce dwell times and therefore increase hourly throughput per track or reduce delays. Additional measures such as platform edge gates/doors such as seen on the JFK Airport AirTrain to prevent people from accidentally falling onto the tracks and exploring the concept of "open gangway" design subway cars (no doors between cars within linked car units), which would increase each train's capacity by around 10%, are being studied by NYC Transit. Concepts currently in use or being tried on London Transport's (LT) underground tube lines may eventually come to NYCT, including closure of the entrances to stations that become dangerously overcrowded and changing passenger behavior on escalators. The latter is a controversial tactic being tried on LT where people are being instructed to ride escalators side-by-side and not leave an entire side open for people in a hurry to pass. It is felt that leaving an entire side clear actually contributes to crowding as much of the escalator's total capacity is simply being wasted keeping one side open for passing.

### Canarsie Tubes Closure Options Presented

NYC Transit's two main options regarding the process by which the Canarsie Tubes will be repaired from damages resulting from seawater flooding after Hurricane Sandy can be viewed by clicking on the link to a

YouTube video. Readers here should click on the link to this very informative video that provides an illustrated guidebook of what needs to be done: [https://www.youtube.com/watch?v=Gt\\_JloKcE7s](https://www.youtube.com/watch?v=Gt_JloKcE7s).

### Simulated Gas Attack in Subway System

In an exercise to determine the vulnerability of the subway system's tunnels to a biological, chemical, or nuclear agent attack, NYC Transit and the Department of Homeland Security performed a test to measure how a gas could spread through the subway tunnels. A harmless substance (allegedly an easily detectable perfume derivative) was released at undisclosed locations in Manhattan, Brooklyn, and Queens during the week of May 9. *(Editor's Note by Ron Yee: This Editor observed "sniffer" devices placed on the platforms at Lexington Avenue NQR, at 68<sup>th</sup> Street 6, and Grand Central 456. Decades ago, during the cold war, there was a secret study conducted by the military where agents dropped lightbulb-like glass containers onto the tracks between cars of select trains as they rolled down the tracks releasing "inert" gases whose progression (or lack thereof) was tracked throughout the system.)*

### Tenth Avenue Station to be Built?

New York Senator Charles Schumer is pressing for a revival of efforts to build the Tenth Avenue-W. 41<sup>st</sup> Street station that, while originally planned when the extension to 34<sup>th</sup> Street-Hudson Yards was built, was dropped due to budgetary constraints to save New York City \$600 million in costs to construct the line. Fortunately, provisions and property easements alongside and above the new tunnel were established in the area to permit the construction of the then-cancelled station at some point in the future if and when funding became available. With an estimated \$30 billion in revenue being spurred on by the massive development of real estate in the area, Senator Schumer believes that the time for it has arrived, given the scale of development that has been brought into the far west side of Manhattan. *(Editor's Note by Ron Yee: Serious efforts to begin construction of this cancelled (postponed) station should be started now, especially in light of the fact that there are now serious plans to relocate and build a new Port Authority Bus Terminal (PABT) at Tenth Avenue, west of the existing bus terminal spanning Eighth to Ninth Avenues.)*

### Brooklyn F Express Service Proposed

NYC Transit has proposed a service improvement on

*(Continued on page 6)*

### Commuter and Transit Notes

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Ultimately Fuzhou plans to construct a 338.1-kilometer nine-line network with 215 stations including 26 interchanges with the aim of increasing rail's share of public

transport trips in the city to 30%. In addition, the Chinese government is considering lowering the threshold at which cities become eligible to develop urban rail projects from 3 million inhabitants to 1.5 million. *(International Railway Journal, May 20; Railway Gazette, May 18)*