The Bulletin

Electric Railroaders' Association, Incorporated

Vol. 57, No. 11 November, 2014

The Bulletin

Published by the Electric Railroaders' Association, Incorporated, PO Box 3323, New York, New York 10163-3323.

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INCONSISTENT BROOKLYN TRANSFER PRIVILEGES

In the 1930s, about 80 years ago, the base fare on Brooklyn's surface lines was only a nickel, but most passengers paid an additional two cents or a nickel when transferring between trolley cars or buses. They also paid an additional nickel on several trolley lines with two-fare zones.

The map and guide to the BMT Surface Division describes the bus routes and explains the transfer privileges. Because there is no date on this map, we studied the information on the guide and we were able to determine the approximate date. BMT started operating six bus lines on August 10, 1931 and was operating full service by November 1, 1931. On February 20, 1933, buses replaced trolley cars on the Norton's Point shuttles, but the map shows a trolley line. Therefore, we concluded that the map was issued between 1931 and 1933.

Many passengers have often wondered why the Brooklyn surface transfer privileges were so inconsistent. Oddly enough, one line allowed passengers to transfer to nearly every intersecting line while another, parallel, line had hardly any transfer privileges. In this article, we will explain why these inconsistencies evolved.

Shortly after World War I began in 1914, inflation made it difficult for BRT to make ends meet. But Mayor Hylan, a foe of the "traction interests," and the Board of Estimate refused to allow the company to increase the fare. Meanwhile, BRT's financial condition grew steadily worse. When it was unable to pay the October 1, 1919 quarterly rental to the Brooklyn City bondholders, a judge ruled that Brooklyn City, which was still solvent, would have to be separated from BRT. On October 1, 1919, BCRR became a separate entity, and transfer privileges were curtailed on October 16, 1919. More than 30,000 passengers paid two fares because transfers between the "L" and BCRR trolley cars were discontinued. The only transfer points that were retained were 86th Street-Fourth Avenue, Sands Street, and Marcy Avenue. On the same date, most transfers, 150 points among BCRR lines and 450 points between BCRR and BRT lines, were discontinued. But several other transfer points were retained because of franchise or other legal obligations. Two fares were charged on several BCRR lines, and transfers between most BRT lines cost two cents. Free transfers between all intersecting lines were still issued at several locations.

Feeder tickets, which were valid on all intersecting former BCRR and BRT lines, were issued on all cars operating in Downtown Brooklyn, the Williamsburg Bridge Plaza area, and the Greenpoint area. Another feeder ticket was issued to a passenger handing in a feeder ticket. Continuing trip tickets, issued on cars operating in the opposite direction in the above areas, entitled passengers to the same privileges as a cash fare.

Following are the lines operated by Brooklyn City: Avenue C, Bergen Beach Shuttle, Bushwick Avenue, Calvary Cemetery, Court Street, Crosstown, Cypress Hills, Flatbush Avenue, Flushing Avenue, Flushing-Ridgewood, Fulton Street, Gates-Prospect Park, Graham Avenue, Grand Street, Greene and Gates Avenue, Greenpoint, Hamilton Avenue, Lorimer Street, Meeker Avenue, Myrtle Avenue, Nostrand Avenue, Nostrand Avenue Shuttle, Nostrand-Prospect Park, Putnam Avenue, Richmond Hill, Sixteenth

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TOWARD UNDERGROUND (AND UNDERWATER) ROLLING STOCK: THE ALL-STEEL REVOLUTION
by George Chiasson
(Continued from October, 2014 issue)

As subscribed under its original operating plan of April, 1902, the Pennsylvania only planned to run electric-powered trains from Bergen Hill, immediately on the "Jersey" side of Manhattan, through two stiff tunnel grades (1.93% each) to and from Sunnyside Yard immediately on the Queens side, and the desired maximum speed was 45 mph under a load of 500 tons. But by the time both AA-1s had arrived on PRR property, the scope of PRR's terminal electrification was being coincidentally expanded under a revised operating plan that was adopted by the aging Cassatt in May of 1905. The addition and removal of electric motive power on the New Jersey side of the Hudson was to be relocated from the tight confines of Bergen Hill to the more spacious and accommodating "Manhattan Transfer" (as this nondescript location was unofficially coined in 1906), a more or less arbitrary point in the "Meadows" where the entirely new line to the New York Terminal diverged from the former United New Jersey Railroad & Canal Company right-of-way into Jersey City (née Exchange Place). This instantly added 4.2 more miles to the electrified zone, and as well increased the projected duties of the proposed electric motive power fleet, as it would now have to be switched on and off all trains at the merger point, as opposed to just pulling whole consists, including their idle steam power, through the terminal under Manhattan as was existing practice in B&O's tunnel. For this reason among others, a higher speed was sought from the developing electric locomotive's specifications, but when the two prototypes were pushed beyond their original limit during initial tests on the 4-track portion of LIRR's long, straight, and electrified Atlantic Division main line, they displayed excessive lateral force that in turn caused damage to both motor driving systems.

As the Pennsylvania's engineering staff continued to scrutinize ongoing industry advances during the time that the New Haven's early electrification was being developed (it ultimately commenced on July 24, 1907 between Woodlawn Junction and New Rochelle), the engineering partnership of Westinghouse, with PRR help, began to explore possible remedies to the apparent deficiencies in the two d.c. prototypes' design in terms of speed and power. Thus was drawn up a third, entirely different trial locomotive, which the Pennsylvania classed as a lone "Odd D" unit and dubbed "10003." This newer prototype was designed for use under New Haven-style a.c. catenary, built by Baldwin at its plant near Philadelphia and (similar to 10001 and 10002) equipped with two 375-hp motors and control from Westinghouse Electric. It was, in fact, actually owned (and "contributed") by that company specifically for these tests. Through that time the overhead system of a.c. power distribution was proving itself superior to d.c. third rail for main line operations and of better potential in the long run (this comparison being played against a constantly raging d.c. vs. a.c. debate among the Pennsylvania's predisposed engineering staff). Most unlike its companions though, 10003 was a single-ended unit possessing a 4-4-0 wheel arrangement (that is, 4 pilot wheels, 4 driving wheels, and no trailing wheels without a tender) with a frame similar to an "American" type steam locomotive, and one motor connected to each of the two powered axles, which turned its 72-inch diameter drivers. This was based on an important design modification that was at that time being incorporated into both the New York Central's "T" motors and the New Haven's EP-1s: the expanded use of single or double guiding axles to stabilize the inherent oscillation of main "B" or "C" type trucks at speed.

When completed in April, 1907 10003 was static tested at the Westinghouse Electric plant near Pittsburgh, then progressed to making short runs around the company's grounds in a controlled operational environment by July 12. To evaluate the differences in lateral stress that were experienced by this newer unit in comparison to the two earlier designs, particularly on a long, slight curve, the Pennsylvania then set up a test track of seven miles length near Franklinville, New Jersey on its West Jersey & Seashore affiliate (an electrified route from Camden to Millville). Between November 12 and December 11, 1907 all three prototype PRR locomotives plus an imported New Haven EP-1 (028) were so examined, with 10003 toting a flat car that held an inverter and step-up transformer that changed the 650 volts d.c. it collected from the third rail to the 11,000 volts of a.c. needed for proper functionality, which was then wired into its otherwise idle pantographs. During the tests, all four electric locomotives were checked against a pair of steam engines provided by the Pennsylvania for comparison—a 4-4-0 "American" and a 4-4-2 "Atlantic." Aside from evaluating and understanding the causes and effects of the earlier lateral stress phenomenon, the proscribed testing process eventually enabled prototype 10003 to reach a speed of 80 mph on its scripted run of November 16. Under such tremendous speed very little of the shuddering, side-to-side movement that had been felt on the two earlier units was exhibited, which thus reduced its stress on the mo-

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Toward Underground (and Underwater) Rolling Stock

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tors and opened the door to yet another level of improvement. In the end, the Franklinville tests proved to be too inconclusive to make a final, binding corporate judgment and thus acquire production units for the New York Terminal, so on May 8, 1908 George Gibbs reported back to PRR President McCrea that under comparative circumstances, at that time, he still tended to favor the application of direct current over alternating current given the New Haven's unrelenting difficulties in fully developing its pioneer a.c. system.

The internal wrangling thus continued, but while the Pennsylvania was still not officially committed to either type of electrification for its part of the Penn Station project, it would have been hard to justify the added expense (and complication) of an a.c. installation given that LIRR's operations were already using the d.c. system of third rail power. On May 21 the company then authorized a new series of comparative a.c. vs. d.c. tests under a budget of $50,000, and an appropriate location sought where both systems could be installed concurrently. In the middle of 1908, the inadvertent serenity of the former Central Railroad of Long Island main line (certainly unbeknownst but "between wars," so to speak) was determined to be a perfect setting for this venture. By this time the importance of such an undertaking was exaggerated all the more, as the Pennsylvania was facing self-inflicted pressure from its progress on the construction aspects of Penn Station, as all six tunnels and the station were swiftly nearing completion. With the site finally identified, a "test railroad" layout was hastily designed for the designated segment of the Central and in late September a "Wire Train," composed of mixed equipment owned by the Long Island and Pennsylvania Railroads, as well as Westinghouse Electric Company, set up approximately 13,000 feet of sectionalized test track. The area that it encompassed began immediately east of the Hempstead Crossing (about MP 19) and went straight east to a point near the grade crossing at New Bridge Road (about MP 24).

Included along the entire distance were eleven distinct sections of single-phase, 11,000-volt, 15Hz a.c. catenary (a frequency more common in foreign applications), along with overlapping portions of 650-volt d.c. third rail. The first and eleventh sections were oriented to acceleration and braking and had simple catenary hung on steel bracket arms, in turn mounted on vertical wooden poles; the second consisted of four 300-foot spans hung on double-width steel lattice supports; and the third had guy-wired supports with one or two vertical struts stretched widely enough to simulate a four-track right- of-way. Section Five included a secondary contact wire; the sixth section had a compound catenary system (specifics unknown); and the seventh was a 1,200-foot stretch of overhead hung from small "gantry" style side supports. The eighth section was the most pronounced of all, consisting of a 1,000-foot simulated "tunnel" built from wooden baffles that were deliberately confined to mimic the anticipated conditions in the Pennsylvania's underriver tubes. The specifics and nature of the ninth and tenth sections have been lost with time, but in general a one-way trip would encounter catenary hung from various types of steel brackets including "strut & span," single- and double-section, and single- and double-hung trolley wire, using several different sorts of hanging devices.

By the end of September, 1908, PRR 10001 (now affixed with a special transformer car to provide a.c. power from the d.c. third rail as that unit was by then reconfigured for overhead power), 10002, and 10003 were on hand (the latter without its d.c. conversion unit), then being utilized to haul strings of standard wooden coaches that belonged to both railroads under various load circumstances. They were run both singly and in multiple, with several pantograph-equipped express motors (identified as "work cars") employed for current collection exercises that altogether saw as many as seven pantographs raised for one move. There was also an open-vestibule, pantograph-topped elevated railway motor car sometimes used at one end of the test train, along with a steam locomotive coupled to a non-powered utility car that was used for maintenance purposes and enabled motion to continue if problems with the electrified facilities developed, or they were otherwise unavailable. In 2014 the origin of said "elevated railway motor" remains enshrouded in mystery, but it was evidently employed by Westinghouse. As exhibited in a photo, its body design reflects influence from the Manhattan Railway or possibly that of Chicago's Metropolitan West Side, but the surviving disposition records of both companies offer no clues.

In any case, the virtual railroad certainly served its intended purpose, as the Pennsylvania was able to garner sufficient data to develop specifications for yet another and even more advanced electric locomotive that would actually be used to power its trains through the New York Terminal district, as per its formal decision to employ a 650-volt direct current system of electrification in the Pennsylvania Tunnel & Terminal project on December 2, 1908. And while the body of non-revenue test experience that it was able to gather about the characteristics of a.c. catenary was of no immediate use in the opening of Penn Station, it would later prove to be valuable when the Pennsylvania undertook the subsequent a.c. electrification of its suburban operations near Philadelphia starting in 1915. This ultimately led to the complete electrification of its Northeast Corridor during the early 1930s, after such technologies had evolved to workable "main line" standards. As for the test units,

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Inconsistent Brooklyn Transfer Privileges

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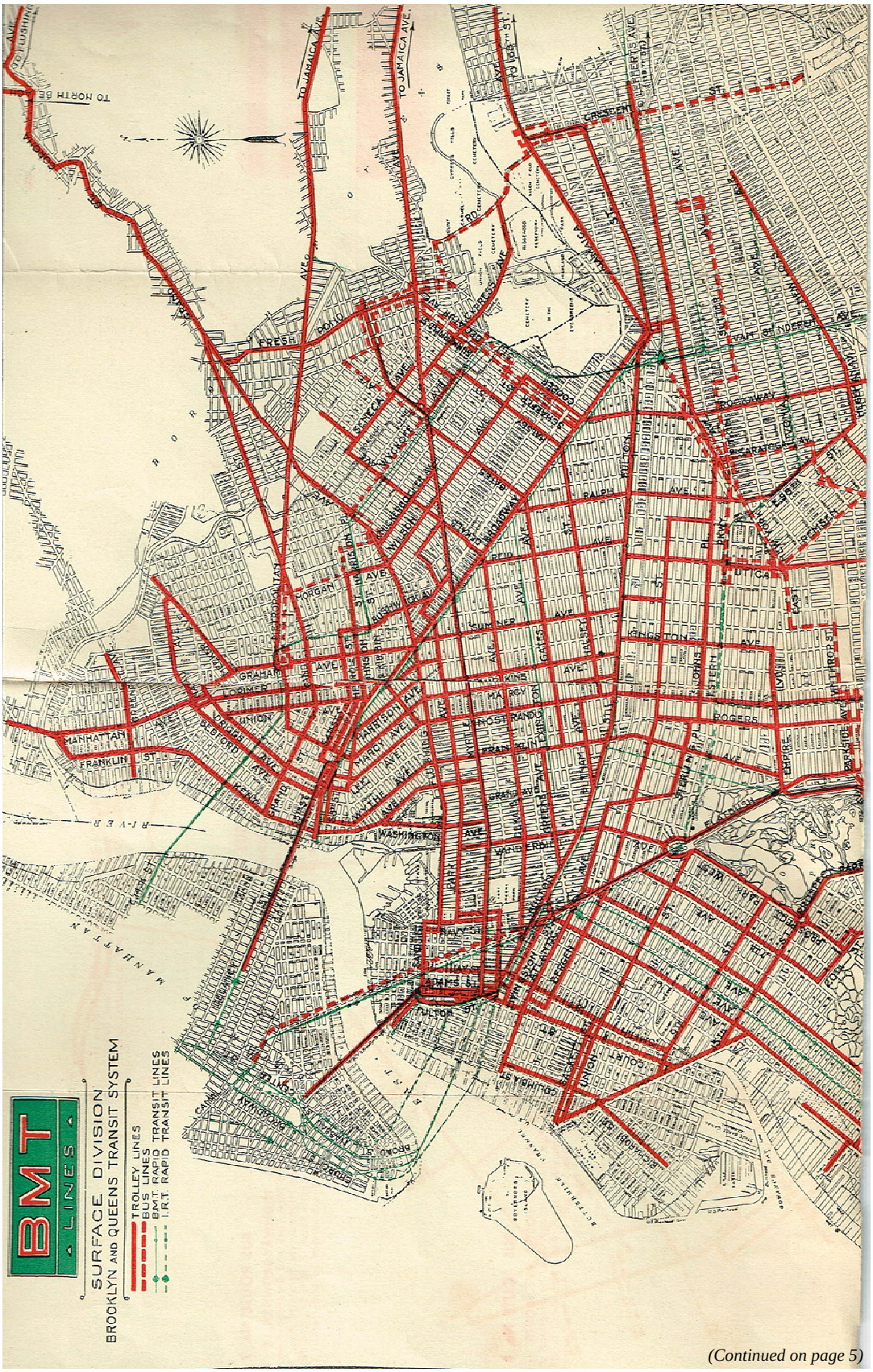

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Inconsistent Brooklyn Transfer Privileges

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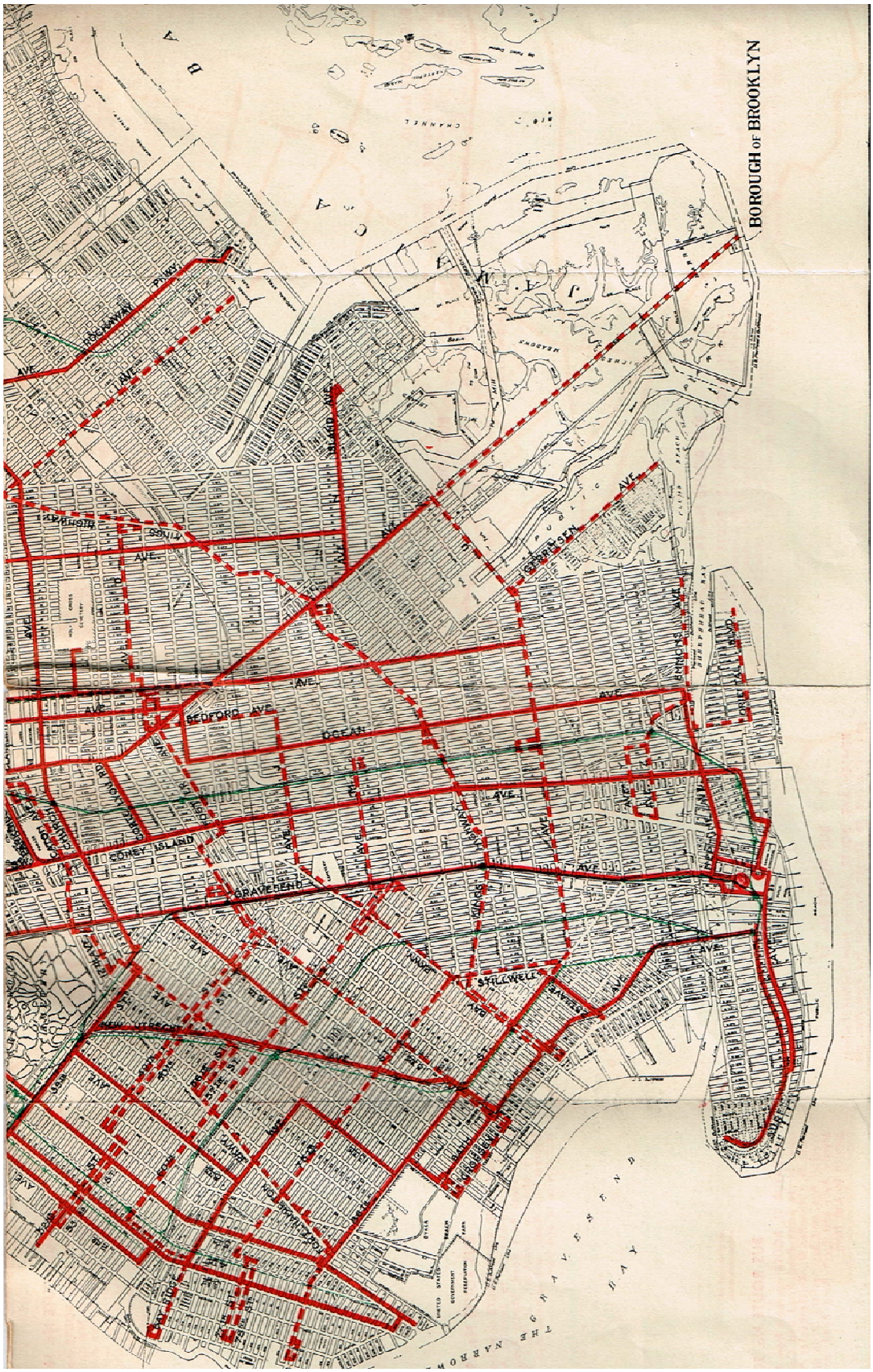

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Inconsistent Brooklyn Transfer Privileges

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Avenue, Third Avenue, Tompkins Avenue, Union Avenue, 65th Street, Bay Ridge Avenue, and 65th Street-Fort Hamilton. The transfer privileges and restrictions that went into effect on October 16, 1919 were changed only slightly until BMT (BRT and BCRR's successor) started operating buses in 1931. At that time, it added 282 transfer privileges between trolley and bus at 52 points specified in the franchise. There was a two-cent charge for these transfers, which were not issued between all intersecting trolley and bus lines. At many intersections, passengers were allowed to transfer only in the direction allowing a shorter ride. For instance, passengers on Kings Highway B-5 and B-7 buses could transfer to southbound Flatbush Avenue cars for a short ride to Avenue U, but could not transfer to northbound cars for a long ride to Downtown Brooklyn.

During the next five decades, transfer privileges were revised several times until Brooklyn finally received a simplified universal transfer system on September 12, 1982.

At the present time, the universal transfer system is apparently still in effect. Because a list of transfer points has not been published, riders swiping their *MetroCard*s at intersections hope that the computer will record a transfer.

Toward Underground (and Underwater) Rolling Stock

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AA-1 prototypes 10001 and 10002 continued to be unstable at higher speeds during the Garden City tests. Their short wheel base and concentrated axle weight resulted in severe lateral motion on the lightweight 70-pound rail, with the ensuing torque as they shuddered to a speed of 70 mph again damaging the rigidly-mounted motors. By comparison, "Odd D" unit 10003 was quite firm at the 85 mph speed it was able to attain on the long, straight, and level Central main line, which easily met the Pennsylvania's criteria for anticipated operations associated with the New York terminal. When George Gibbs' engineering group submitted its final recommendation as based on both the Franklinville and Garden City tests to the PRR Board on March 13, 1909, its basic elements incorporated the knowledge gleaned from 10003 and adopted the unit's features as a starting point for an entirely new design.

The end result of all this testing was the Pennsylvania Railroad's acquisition of what became the "DD-1" class d.c. electric locomotive, which consisted of two 4-4-0 electric units paired back to back as an articulated, double-ended "behemoth" of 64'11" in length, 9'1" in width, and 14'8" in height that had a composite 4-4-0+0-4-4 wheel arrangement. In a similar manner to the AA-1s of 1905-6, two complete "DD-odd" prototypes (four units total, two each numbered 3998 and 3999) were fabricated at Juniata Shops immediately after Gibbs' report was submitted to the Pennsylvania's Board in March, with an overall order for 24 units being approved shortly afterward as a joint venture with Westinghouse Electric, subject to future price negotiation. 3999 was delivered to the railroad at Long Island City for 15,000 hours of road and dynamometer testing on August 20, its first self-powered operation taking place on the Long Island Rail Road's four-track Atlantic Division between Woodhaven Junction and "CN" Tower at Chestnut Street in Brooklyn, where they exhibited exceptional speeds of up to 85 mph. The order with Westinghouse for 24 locomotives (including the 1909 prototypes), was finalized on December 19, 1909 for delivery by July 1, but many parties to the effort already knew this was going to be a challenge to meet, at best. By early 1910 the two DD-odd units were also showing some signs of instability at high speeds, so more substantial counterweights were added to the huge driving wheels of the most current production DD-1 units at Altoona, the first of which (numbered 3978) was received on April 2. The process of analysis for all three was moved over to Sunnyside Yard by the summer and, eventually, included the Meadows Division in New Jersey and Pennsylvania Station itself as its opening neared.

As for the old Central Railroad of Long Island main line, after PRR and Westinghouse engineers had completed their testing in early December of 1908, all equipment was quickly returned to its respective owners. 10001 (as 3950) and 10002 (as 3951) were then used for a while as New York Terminal switchers after Penn Station was opened (that is, between "Manhattan Transfer" and Sunnyside Yard), but not assigned to regular road duty. PRR AA-1 3950 was renumbered "New York Terminal" 8 in 1911 then eventually leased to LIRR in May of 1916 and became its unit 323, better known around the property as "Phoebe." Complete with its flat bed companion, which was used to haul an air compressor instead of a transformer and testing devices, "Phoebe" then performed shunting around the Long Island's "Terminal Zone" (that is, Penn Station and Flatbush Avenue to Jamaica, plus Holban Yard and assigned freight haulage) until August, 1937, when it was retired. 10002 also stayed in the terminal area, but worked on the "Pennsy" side for a similar length of time

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NEW YORK CITY SUBWAY CAR UPDATE

Subdivision "A" News

From late June to mid-September, 2014, these 30 R-142As were transferred to KRC-Yonkers for CBTC/R-188 compatibility conversion: 7286-7300 in July; 7301-15 in August, and 7316-20 through September 19. Cars 7321-5 were observed in 6 service over the weekend of September 6-7. Four additional sets of "converted" R-142As were also returned from Kawasaki, joined by their respective, single-unit "C" cars: 7251-60 with 7903 in July; 7261-80 with 7904 and 7905 in August; and 7281-90 with 7906 by September 19. There now remain 310 more "converted" R-142As to come, along with 31 single "C" car companions. The eighth and final train of "new" R-188's (7877-87) was placed in 7 service on July 10, followed by the next CBTC-compatible R-142A train (7241-50) plus C-car 7902 on July 22. 7251-60 with 7903 had followed suit as of August 25, while 7261-70 plus 7904 were introduced on or about September 5 to raise the total quantity of accepted cars to 154, or 14 11-car trains. However, this total includes the pilot set of converted cars (7211-20 plus 7899), which remains out of service at Corona for CBTC circuit design and testing. To date it is observed that the R-188s all solidly remain in the sequence in which they were accepted; no intermixtures of the two types or day-to-day, non-consecutive train sets are in evidence, though two have been out-of-sequence since their acceptance and remain as such: 7855-9 with 7871-6 and 7860-5 with 7866-70. It is also noted that while MTA's prominent United States "flag" decals have been applied to the new R-188s, they are omitted from the new C-cars, while the former R-142As are retaining their original (2000-2-era) body décor.

As of September 19, 2014 there are 165 R-62As station on 6, creating sixteen (16) 10-car trainsets, still largely in support of the 330 R-142As that remain there. While nominal weekday service can now produce a nice balance of both types and are indiscriminate in operation (that is, divided between "Parkchester Locals" and "Pelham Expresses"), there were certain summertime weekends when the presence of R-62As was tentative if not outright disallowed. This practice should fade in time as the remaining quantity of available R-142As continues to shrink. The newest additions to Pelham's growing army of SMEEs included 1816-20 and 1781-5, which were delivered from 7 on July 8, followed by 1706-10 on July 16. 1-assigned unit 2326-30 then migrated to 6 on July 19. Two more trains of R-62As were moved to 6 in correspondence with the acceptance of new "conversion" trains on 7 in August: 1711-5 (heretofore half of the "Seinfeld" ad-wrapped train) and 1806-10 on August 8, then 1726-30 and 1736-40 on August 27. Finally, after the 7261-70 plus 7904 set was placed in service, R-62As 1751-60 were transferred to 6 on September 9. As such, on September 19 there remained just 35 of the former group of 185 previously-unitized ex-6 R-62As, ranging from 1651 to 1840, that have been running on 7 since they replaced the Redbirds in 2001-3. Meanwhile, the same train of R-62s that has been farmed out to 1 continued to be present as of September 19, consisting of 1351-5 joined to 1456-60.

From late June through early mid-September, 2014, full-width cabs were installed on Corona R-62As 1976; 2001, 2005 (together); 2026, 2030 (together); 2036, 2040 (together); 2061, 2065 (together); 2070; 2085 (as part of the "Seinfeld" train); 2111; 2126, 2130 (together); 2131; 2136; and 2141. In the 1961-2155 group overall,

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Toward Underground (and Underwater) Rolling Stock

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and was renumbered "New York Terminal" 9 in 1911. Nicknamed "The Covered Wagon" by PRR switching crews, it could be found cruising around Penn Station and Sunnyside Yard until the conversion to overhead a.c. was completed in 1935. After that it was rarely used, being officially decommissioned in June, 1937 and then ultimately reunited with its sister prototype just in time to be scrapped that fall. The fate of "Odd D" unit 10003 remains unknown, but it may have been delegated to Westinghouse at its base in East Pittsburgh, Pennsylvania for further experimentation before ultimate disposition. As for the Central itself, all of the test catenary structures were gradually removed, though as late as 2001 a handful of concrete bases were still in place (if they could be located beneath the overgrowth). As it was fed from a portable substation that had been installed at Hempstead Crossing for the original electrification of May, 1908, the third rail that was installed from Hempstead Crossing toward New Bridge Road for the Garden City tests was also retained and as of 1911 was still active; even being expanded for freight movements as what had been the 1908 testing zone was transformed into a heavily industrialized area. A short time after that it became even more useful to support a new service to the nearby Meadowbrook Golf Club which evolved into the well-remembered "Mitchel Field Shuttle" after World War I.

Among the many resources used in the compilation of **From Dubious to Ubiquitous, Part Four: Juice Jack Prototypes, the Garden City Catenary Test of 1908, and the Pennsylvania's DD-1 Locomotive**, *the author gives particular credit to* **When The Steam Railroads Electrified** *by William D. Middleton (Kalmbach Publishing, 1974).*

New York City Subway Car Update

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there were 6 unitized sets that remained with no full-width cabs at either end (end cars shown): 1986-90, 2006-10, 2071-5, 2091-5, 2106-10, and 2121-5; 15 unitized sets that had a full-width cab at one end (cars ending in 0 and 5): 1996-2000, 2011-5, 2016-20, 2021-5, 2031-5, 2041-5, 2046-50, 2076-80, 2081-5, 2086-90, 2051-5, 2066-70, 2096-2100, 2101-5, and 2116-20; and 18 unitized sets that had full-width cabs at both ends: 1961-5 (note: this set is NOT linked), 1966-70, 1971-5, 1976-80, 1981-5, 1991-5, 2001-5, 2026-30, 2036-40, 2056-60, 2061-5, 2111-5, 2126-30, 2131-5, 2136-40, 2141-5, 2146-50, and 2151-5.

On Sunday, June 8 a 9-car SMEE train operated on 7 between Times Square and Mets-Willets Point to assist in commemoration of New York's two World's Fairs, which were held 50 and 75 years ago respectively. Making several trips between 10 AM and 5 PM were: N-9306 (single R-33); 9017-6 (red R-33); 9207-6 and 9011-0 (silver and blue R-33); and 9586-7 (Redbird R-36)-S. This was the debut event for the latter, which are now the lone, functioning survivors of their class.

Subdivision "B" News

Over here we *begin* with a series of special moves: on Saturday, June 7 NYC Transit highlighted its extension of weekend M shuttle service to Manhattan by offering a 5-car shuttle on the new route between Essex Street and Metropolitan Avenue using the following consist: S-1802 (R-9); 1000 (R-6-3); 381 (R-1); 401 (R-4); and 1300 (R-6-1)-N. A week later three of the Transit Museum's longest-tenured residents (modified R-7A 1575, modified R-4 484, and original R-1 100, in that order) were activated to provide a shuttle service on the south track between its Court Street exhibit area and Hoyt-Schermerhorn (where one could then board an almost-equally "venerable" R-32 if so desired to complement any time travel). Finally, on its third and final "Museum Excursion" of the Summer on August 3, the Transit Museum employed a Subdivision "B" "Train of Many Metals" for the first time, which was composed of a mixed bag of SMEE equipment that was replaced by its more recent acquisitions. That very atypical 8-car consist: S-6387 (R-16); 8013 (R-11/R-34); 4028-9 (R-38); R-42 4572-3 (Morrison-Knudsen-overhauled R-42); and 4280-1 (slant R-40) drew raves from within and without and performed with very little trouble (the only two blemishes of note being body lights cut out on the R-11 owing to a roof leak and the motors cut out on R-38 4029), given its eclectic composition and their inherent periods of retirement. By all measure it can be concluded that MTA New York City Transit's world-famous fleet of historic, operational equipment now encompasses two full generations across six decades, from the Lo-Vs of 1922 through the R-42s of 1970.

Starting on June 9, one set of R-68s or R-68As and another 10-car train of Phase I R-32s have been used on A in the afternoon rush hours. In the first instance, the R-68/68A from B begins its final northbound trip as the 8:23 AM out of Brighton Beach, discharges at 145th Street upper, and is laid up at 207th Street Yard for the midday period, then becomes the very last PM put-in. In the other, an 8-car train of Phase Is is laid up from morning C service after discharging at 168th Street-Washington Heights and proceeding to 207th Street Yard, where a fifth pair of R-32s is added. Both of these train sets then make a single round-trip to Lefferts Boulevard and back during the late PM peak and are returned to 207th for next day's use. At the other extreme, the year's "Summer Swap" was still in effect as of September 19, with the Phase I R-32s still running on JZ, and R-160As on C. It was unknown as yet if one train of R-32s will be left behind as it had been through the 2013-4 Winter season. Regular service was also restored in the Montague Street Tunnel overnight on September 14-15, ending "North" and "South" R shuttles after 13 months. In R's first days there was mostly Jamaica-assigned R-46 equipment observed as previous to the closure, helped by a handful of R-160s. There were also just a few R-46s remaining on F during the first week as it slowly reverted to the primary use of R-160s. Curiously, one train of R-160s (9183-92) was shipped from Coney Island (NQ) back to Jamaica (EF, sometimes R), from whence it originated in June, 2011.

G service was provided almost entirely by R-68s once again this summer, with R-68As reduced to supplementary appearances and kept mainly on B. At least one R-68A set did make it onto D August 10 (a Sunday) composed of cars 5012/11/09/5010-5004/3/1/2. On N during this interval, older trains were observed as follows (listed by cab cars only): R-68s 2828/2830-2858/2856 and R-68As 5196/5194-5198/5200 on August 6; R-68As 5012/5010-5004/5002 on August 7; R-68As 5200/5198-5194/5196 on August 8 and 9; R-68As 5166/5168-5024/5022 on August 12; R-68As 5040/5038-5082/5084, 5150/5152-5014/5016, and 5074/5076-5096/5094 on August 18; R-68As 5020/5018-5138/5140 on August 22; R-68s 2862/2860-2886/2884 along with 2788/2790-2912/2914 on August 28; R-68s 2910/2908-2816/2818 on September 15; and, finally, one train of R-68s on September 17: 2828/2830-2868/2870. There were also similar appearances on Q, in part due to swaps instigated when the presence of bedbugs was briefly detected on some of the R-160 equipment based at Coney Island, particularly after it passed through the NYCT terminal at Astoria. In this case R-68As 5016/5014-5062/5064 and 5008/5006-5198/5200 were found on August 11, with the latter running through the next day as well. On August 20 R-68As 5064/5062-

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Commuter and Transit Notes

No. 312

by Ronald Yee and Alexander Ivanoff

METROPOLITAN TRANSPORTATION AUTHORITY

William Ronan, the first head of MTA from its founding in 1966 as the Metropolitan Commuter Transportation Authority, passed away on October 16, reported the obituary section of the ***New York Times*** on October 18. Although Dr. Ronan, who was a professor at NYU and a powerful figure (before starting what would become the MTA in 1966, he served as Governor Nelson Rockefeller's aide and advisor) he never held elected office. Dr. Ronan could be considered the "redheaded stepchild" and successor of Robert Moses' empire. A protégé of the MTA founder was Richard Ravitch, who presided over MTA's first capital program in the early 1980s. Dr. Ronan was quoted in the ***New York Times*** in 2007 when the Second Avenue Subway started construction again as saying, "There used to be a saying in New York, 'I should live so long,' Well I sure hope they'll do it this time because time is moving on," Unfortunately, he will be unable to see the line open in 2016, but a nice tribute could be in the form of a naming the concourse for the East Side Access project after him or even a stop on the Second Avenue Subway. (***New York Times***, October 18, 2014 and April 9, 2007; MTA press release, October 18, 2014)

A $2.4 million, 2,400-square-foot "pocket" park was opened by the Metropolitan Transportation Authority at 48 E. 50th Street in Manhattan on September 16, 2014. Called "50th Street Commons", it features granite flooring, tables, seats, and benches surrounded by an illuminated glass waterfall and a garden with trees and vines on a trellis. It is located where a ventilation plant will provide air-conditioning and ventilation for the Long Island Rail Road (LIRR) concourse in Grand Central Terminal. This plant will also provide emergency ventilation for the complex and train tunnels if it were ever needed. The park is adjacent to a loading dock for trucks delivering goods and supplies to the shops and eateries in the new eight-track, four-platform LIRR complex at Grand Central Terminal. The waterfall will mask the noise levels emanating from the ventilation shaft. (***New York Newsday***, September 17)

The MTA Board approved its next five-year capital plan totaling $32 billion on September 24, 2014. Included in this program for the subway system are: $2.775 billion for 940, 60-foot-long R-211 subway cars to replace the mid-to-late-1970s-vintage R-46 class); $2.898 billion for stations, including $448 million for renewing 20 stations, $561 million for new elevators for accessibility, $436 million for the replacement of 46 elevators and 35 escalators, $890 million for station repairs already identified as urgent; $1.962 billion for track replacement and upgrades; $723 million for line equipment in the tunnels including 6.1 miles of upgraded tunnel lighting, ventilation, fan plant systems, and water removing pumps; $823 million for line structures, under which four elevated lines would be rehabilitated and 13.9 miles of elevated structure repainted; $357 million for new shops and yards; and $3.179 billion to upgrade signal and control systems, including the installation of Communication-Based Train Control (CBTC) on the Queens Boulevard and Sixth Avenue lines. The capital plan would also fund new commuter railcars and buses as well as infrastructure maintenance and improvements to keep the entire system in a state of good repair; $5.5 billion to complete phase one of the Second Avenue Subway and the Long Island Rail Road's East Side Access project featuring a new station deep under Grand Central Terminal; $4.3 billion toward instituting new, more advanced technology information systems such as countdown clocks as well as a new fare collection system, replacing *MetroCard* and the current paper tickets and passes on the commuter rail lines, as well as continued funding for the construction of the new Tappan Zee Bridge currently underway. However, MTA has only identified firm sources for $16.9 billion, just a little more than half of this amount. Once again, innovative ideas to fill in the funding gap, including tolling the East River bridges and congestion pricing for driving a motor vehicle south of 60th Street, are being discussed, as well as the more traditional methodology of increased borrowing, higher taxes, and or/fares, scalebacks of this ambitious plan, or some combination of all of the above. On October 2, the plan was rejected by the state Capital Program Review Board without prejudice; while no reason was given, it is assumed that the high cost is a major factor. (***The New York Times***, September 25; gothamist.com, September 24; ***New York Post***, October 3)

A blue ribbon panel of rail experts appointed by MTA Chairman Tom Prendergast has found that Metro-North Railroad and the Long Island Rail Road both need to create a more effective system of recording, analyzing, and sharing track maintenance protocol. In light of the fatal wrecks and derailments that had plagued Metro-North in 2013, the railroad will purchase an autonomous track geometry inspection system to be mounted on four rail cars: an M-7, an M-8, a Bombardier coach, and a diesel locomotive. Metro-North will also purchase a high-tech track geometry car to perform detailed inspections of all of its tracks on a regular basis. New York City Transit was cited as having a relatively mature safety program with a good track record of accomplishments. (***New York Daily News***, August 27)

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MTA Long Island Rail Road

As work finishes on the rebuilding of the Massapequa train station, under which the station structure, platform, canopy, signage, waiting rooms and escalators were repaired or replaced, the next station slated for rebuilding, Wantagh, is expected to begin in September, 2015 at the cost of $20.7 million. Expected to take around two years, this station is the last station on the Babylon Branch to be rehabilitated in Nassau County. (***LI Herald***, September 11)

At its September meeting, the MTA Board approved the contract that had been ratified by LIRR unions which had narrowly averted a mid-July, 2014 strike. (***New York Newsday***, September 25)

LIRR carried 7.6 million riders in June, the most since October, 2008, which was just as the deep recession was hitting the New York area. The second year of through service out of Penn Station on the all-reserved "Cannonball" was a resounding success as well, the Friday-only runs being sold out. LIRR carries the highest ridership of any North American commuter railroad. (***Long Island Newsday***, September 24)

MTA Metro-North Railroad

The last sections of original New Haven Railroad catenary on the New Haven Line will be replaced with the constant tension catenary system that has already been installed over the rest of the system. The replacement of the catenary in the sections between East Norwalk and Greens Farms and Bridgeport and Milford, and within the railroad's East Bridgeport Yard, is expected to be completed by Spring, 2017. (***Norwalk Daily Voice***, September 5)

As part of its share of MTA's $32 billion five-year capital plan spanning the period 2015-9, Metro-North Railroad is seeking $532 million to acquire a fleet of M-9 class electric multiple unit (EMU) railcars to replace the current fleet of 140 early-mid-1980s-vintage M-3a EMUs by the end of 2019. Another $743 million would be earmarked for an expansion of service to Penn Station with four stations (Co-op City, Parkchester/Van Nest, Morris Park, and Hunts Point) along the existing Amtrak Northeast Corridor tracks between New Rochelle and the Hell Gate Bridge while $465 million would fund a new shop at Croton-Harmon Yard. The balance of Metro-North's $2.6 billion share of MTA's capital plan would be applied toward improving safety and keeping the railroad's infrastructure in a state of good repair. (***The Journal News***, September 24, 2014; dnainfo.com, September 25)

August, 2014 brought Metro-North Railroad's highest on-time performance levels of the year at 95.6%. (***Journal News***, September 20)

The November 9, 2014 schedule change will add more trains to the outer end of the New Haven Line, bringing 30-minute headways to the section between Stamford and New Haven. On weekdays, three new trains will depart New Haven at 11:25 AM, 12:25 PM, and 1:25 PM while four new trains will depart Grand Central Terminal at 9:34 AM, 10:34 AM, 11:34 AM, and 12:34 PM. On Saturdays, there will be new departures from New Haven at 2:25 PM, 3:25 PM, and 6:25 PM and from Grand Central Terminal at 10:34 AM, 11:34 AM, 12:34 PM, 1:34 PM, 2:34 PM, and 10:34 PM. On Sundays, there will be new departures from New Haven at 2:25 PM, 3:25 PM, and 7:25 PM and from Grand Central Terminal at 11:34 AM, 12:34PM, 1:34 PM, 2:34 PM, and 10:34 PM. Metro-North will also increase services on the Waterbury Branch, responding to customer complaints of infrequent service on the line. (darientimes.com, September 24)

The State of Connecticut will provide the final $188 million toward the $465 million project to replace the Norwalk River bridge serving Metro-North and Amtrak trains. Expected to take six years to design and build, the replacement of this bridge has become an urgent matter as it has become a source of frequent delays to rail service stemming from failures in its swing mechanism to properly close it after it is opened for marine traffic. (***Hartford Courant***, October 2)

As of October 7, 2014, 380 M-8s have been delivered to Metro-North. 374 M-8s have been conditionally accepted while six M-8s (including two of the 25 single non-powered cars) are undergoing inspection and testing by Kawasaki Rail Car, Incorporated. (MTA Metro-North website, October 8)

Connecticut Department of Transportation

Shore Line East set a new ridership record in July, 2014, carrying 63,959 passengers during that month. Special services implemented for July's Sail Fest contributed to the increase in ridership, but service improvements such as increased weekday and weekend/holiday services have contributed to steady ridership increases over the past years. (***Progressive Railroading***, September 9)

Port Authority Trans-Hudson Corporation

October 1 brought a fare increase to the PATH system, the base fare going from $2.50 to $2.75 with some discounting available to those using *SmartLink* cards for 10, 20, or 40 trips, which would reduce each ride to $2.10, a 7-day unlimited pass for $29, or a 30-day unlimited *SmartLink* for $89. In 2011, PATH announced three annual fare increases of 25 cents each to help fund a ten-year capital plan that includes a $1.5 billion line extension from Newark Penn Station to Newark Liberty Airport, replacing the Harrison station, and renovating the Grove Street station. Many PATH riders and toll payers of Port Authority bridges and tunnels are questioning the value of the Newark Airport extension with its hefty price tag. The PATH system recovers only

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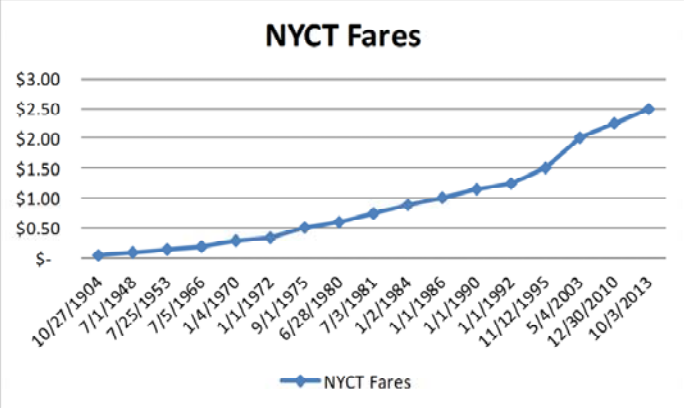
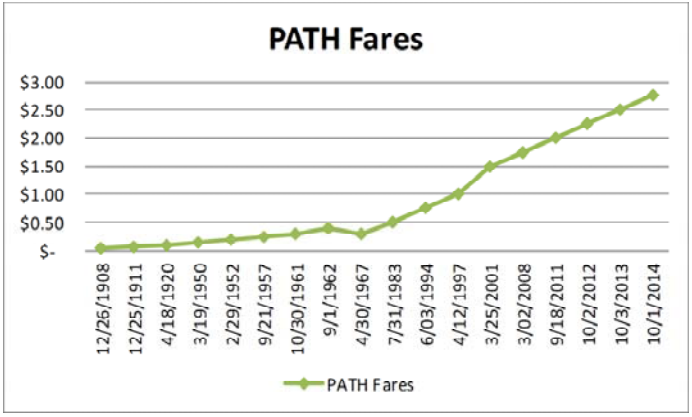
around 25% of its operating expenses through the farebox. For the first time since 1961, the PATH fare is higher than the New York City subways. Charts listing PATH and NYCT fares from October 27, 1904 through October 1, 2014 were made by member Randy Glucksman and are shown below. (NBC News 4 New York and ***The Star Ledger***, October 1)





NJ TRANSIT

Randy Glucksman reports that NJT's website states that, as of September 12, 2014, all 429 multi-level coaches, including the eight former ACES coaches, are in service. Just one ALP-45DP (possibly unit 4519), four ALP-46s, and two single-level coaches are still undergoing repairs from Hurricane Sandy flood damage two years ago. (NJ Transit, September 12)

On the topic of Hurricane Sandy damage, four of the six underwater tunnels (two of four across the East River and both tubes under the Hudson River) carrying Amtrak, NJ Transit, and LIRR trains to and from New York's Penn Station will need to be closed for upwards of a year each to perform $689 million in repairs to floodwater damage. It is expected that the insurance policy Amtrak has for these tunnels should cover the costs. The seawater had completely flooded the lowest point of both Hudson River tunnels and flooded two of the East River tunnels almost halfway up to the roof at its lowest point. The benchwalls along the edges as well as all power, signal, and lighting systems will need to be replaced. Current plans call for the repair of the first of two east river tunnels to begin in late 2015 with work on both tunnels completed sometime in 2018. The loss of one of four tunnels would translate into somewhat less than a 25% reduction in capacity under the East River. LIRR as well as NJ Transit plan to adjust their scheduled train movements through these tunnels to accommodate this project next year. However, similar work needed for the two Hudson River Tunnels will require year-long shutdowns that would result in a 75% reduction in capacity as the Northeast Corridor would be reduced to a single-track river crossing, permitting just 6 trains per hour instead of the current maximum of 24. The only relief would come from the construction of the Gateway Tunnels just south of the current tunnels to take over the train traffic while the older tunnels are closed for repairs. Funding of these tunnels has yet to be determined and a sense of urgency is now taking form as there is a possibility that repairs to the flood-damaged tunnels may not be able to wait for ten or more years. (***The New York Times***, October 2)

A report issued by NJ Transit provides additional details on the agency's fleet change strategy. It focuses on increasing the capacity of trains while reducing the overall fleet size by replacing all of its single-level railcars. Comet II, Comet IV, and Comet V coaches would be replaced with multilevel coaches and as a first for North America, NJ Transit would seek to acquire multilevel electric multiple unit (EMU) cars to replace its Arrow III class EMUs. The railroad would shrink its passenger car fleet by 7% from 1,124 cars to 1,050 while increasing seating capacity by 6%. This would also bring the average age of the railcar fleet, which would be topping an average of 20 years by 2019, back down to 15 years when the fleet upgrades are complete in 2020. Similar efforts are being planned for the bus operations at NJT with an emphasis on longer, higher-capacity buses. (NJ Transit, September 20)

In the agenda for the October 8 Board meeting, it appears that NJT intends to acquire multilevel "power cars" configured as passenger-carrying coaches designed to propel trains made up of the standard multilevel coaches currently in use. It may be similar in concept to the 4-car multilevel train sets in use on commuter trains in Amsterdam since the late 1990s where the set is propelled by power coaches bracketing two non-powered coaches. Engineering consultant LTK Engineering Services (LTK), already under contract from 2005-10 to investigate single-level EMU trains to replace the aging Arrow III EMU fleet, was instructed to suspend its studies in 2010 in response to the cancellation of the Access to the Region's Core (ARC) tunnel project by New Jersey Governor Christie. LTK will now be re-directed to explore the technical and engineering

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issues associated with designing multilevel power cars, such cars increasing the carrying capacity of each train over tracks with limited capacity. Amending the contract with LTK for an additional $1.6 million retains an organization already familiar with NJT and prevents the time-wasting need to bring a new consultant up to speed. Among the other topics covered at this Board meeting are the conceptual design of a bridge to replace the 103 -year-old "HX" drawbridge over the Hackensack River at milepost 5.48 on the Bergen County Line and $13.3 million to replace 163 wood catenary poles on the Gladstone Branch with steel poles mounted on concrete foundations. The poles are now over 30 years old and had been installed during the re-electrification of the entire Morris and Essex Lines and many had been damaged during Hurricane Sandy. (New Jersey Transit, October 3)

Bombardier Transportation has been awarded a $296 million contract renewal to operate and maintain the *RiverLine* diesel light rail service for 15 years beginning March 1, 2015 with an option for an additional five years. It has been the operator for NJT since the line opened in March, 2004. (***Railway Gazette***, October 2)

The last two coaches of a train from Waldwick derailed as the train entered Hoboken Terminal at 8:43 PM on Monday, October 6, 2014. No injuries were reported among the 16 passengers and crew of three and the coaches were quickly re-railed. (***Star Ledger***, October 8)

AMTRAK

The State of Michigan has expressed interest in purchasing the two trainsets of Talgo equipment that were originally built for rail service in Wisconsin but rejected by that state's Governor as being an "unwarranted" expense on its taxpayers. The Talgo sets would replace two trainsets of conventional equipment currently in use on the Amtrak's *Wolverine* services connecting Chicago, Illinois with Pontiac, Michigan. The Talgo option is currently being evaluated and would only be expected as interim equipment until the bi-level equipment being built by Nippon-Sharyo as part of a multi-state purchase. The $58 million for the Talgo train sets will come from $200 million in federal funds for Amtrak improvements for Midwest corridor service improvements. (***The Detroit News***, September 15)

Amtrak's Northeast Corridor was suspended for around 12 hours on Tuesday, September 16 when a northbound 71-car Norfolk Southern freight train carrying two wide-carload transformers struck and felled a catenary pole, which pulled down most of the catenary wires near Aberdeen, Maryland (north of Baltimore) around 2 AM. The downed wires also suspended MARC commuter service at the Perryville and Aberdeen stations, with customers advised to board their trains at the Edgewood and Martins Airport stations, south of the incident scene. A single track was returned to service for Amtrak trains just under 12 hours later, but MARC service was not restored until later. (dcist, September 16)

The two-track, 104-year-old Portal Bridge, spanning the Hackensack River just south of the Frank Lautenberg Station in Secaucus, New Jersey has been named the "Achilles Heel" of Amtrak's Northeast Corridor, over which around 450 Amtrak and NJ Transit trains operate. A replacement (possibly consisting of two replacement spans carrying four tracks at a higher elevation over the river), has a $900 million price tag, for which funding source(s) have yet to be identified. This ancient bridge is the source of around 250 delays to NJ Transit trains. In addition to a geriatric mechanical swing system that operators hold their breaths over with each opening and closing, it is partially made of wood and is vulnerable to fire as well. (***The New York Times***, September 26)

While continuing to operate the *Hoosier State* under contract extension valid to January 31, 2014, Amtrak added some amenities for its riders. Complimentary 4G technology Wi-Fi as well as light food and beverage services and available business class seating. The improvements are seen as a means by Amtrak to convince Indiana to award it the contract to continue operating the *Hoosier State*. Indiana had originally awarded the operation of the train to Corridor Capital LLC for $2.8 million but that has encountered delays with regulatory hurdles. In the original plan, Amtrak would have continued to provide crews to operate the train, but Capital Corridor would provide its own refurbished passenger coaches, which would be maintained and serviced by a subcontractor. (***Indianapolis Business Journal***, October 1; ***Metro*** Magazine, October 2)

A new station was officially opened in Hermann, Missouri on September 12. Replacing a Plexiglas shelter, the new station building, first approved for construction in 2006, will serve four daily *Missouri River Runner* Amtrak trains linking St. Louis and Kansas City on a 283-mile run formerly known as the *Ann Rutledge* and *St Louis/Kansas City Mules*. (midmissouri.com, September 12)

Siemens has begun its 15-year contract with Amtrak under which it will provide the technical and engineering support as well as spare parts supplier for the 70 ACS-64, 125 mph a.c. traction electric locomotives, the first of which went into passenger service in February, 2014. Siemens technicians will be stationed at four locations on the Northeast Corridor (NEC) at Washington, D.C.; Wilmington, Delaware; New York City; and Boston, Massachusetts. The ACS-64 locomotives will be equipped with automated data transmittal, enabling technicians to analyze each unit's performance and perform proactive maintenance based on the data received. (***Railway Age***, September 29)

Amtrak's proposed "Gateway Tunnels," providing new

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links for the Northeast Corridor (NEC) between New Jersey and New York Penn Station, would likely involve the purchase of a $400 million hotel that is among 35 properties along W. 30th and 31st Streets between 7th and 8th Avenues that will need to be torn down to accommodate the construction of its planned annex to Penn Station to take fully take advantage of what the pair of Gateway Tunnels would offer. A much less costly alternative would be not to build the annex and construct just one of the Gateway Tunnels to allow the existing Hudson River Tunnels to be taken out of service one at a time for a year-long repair as well as to improve the operation and train traffic flows of NJ Transit, which have significantly longer dwell times at Penn Station than LIRR trains. (nj.com, October 7)

OTHER TRANSIT SYSTEMS

BOSTON, MASSACHUSETTS

The 4.3-mile, six-station extension of MBTA's Green line northward through Somerville has encountered unexpected delays from multiple design modifications that have ballooned the cost of the extension from $1.3 billion to $1.6 billion with whispers of a top end price of potentially around $1.9 million, although officials have been quick to deny that. Opening day of this extension has been postponed one year from late 2016 to December, 2017 at the earliest. (***masslive news***, October 6)

PHILADELPHIA, PENNSYLVANIA

Effective with the September 1, 2014 schedule change, all SEPTA services departing 69th Street have changed to a "Pay As You Enter" system to reduce en-route dwell times for outbound trips. This includes Route 101/Media and Route 102/Sharon Hill as well as the Norristown High Speed Line. (SEPTA, September 1)

The weekend "Owl" services on Friday and Saturday overnights have proven so popular that SEPTA has decided to extend the program indefinitely. The Market-Frankford Line has been carrying an average of 10,000 riders each weekend and the Broad Street Line 5,000 riders. On holiday weekends, ridership has swelled to 24,430 riders for the Independence Day weekend and 17,192 passengers over the Labor Day weekend. While more costly to provide than the "Owl' bus services, ridership is much higher with train service and justifies its continuation. (***Progressive Railroading***, October 9)

WASHINGTON, D.C. AREA

Washington Metro's General Manager, Richard Sarles, announced his retirement after a four-year tenure, during which he was responsible for turning around a troubled agency reeling from the fatal collision at Fort Totten where a train under automatic control rammed the rear of a standing train. (Only now are the fully updated automatic train operation systems slowly being phased back into operation). Safety practices were revised and improved, new 7000-class cars ordered to replace the original 1000-class cars deemed as structurally inferior based on today's safety standards as well as provide for service expansions and consist lengthening; the Silver Line was expanded; the bus fleet was updated; a rededication to customer service was made and a working relationship with WMATA's labor unions was restored. (***Metro***, September 25)

D.C. Streetcar commenced pre-revenue operations on September 29, 2014, operating streetcars on its intended service headways, without passengers, to finalize and validate all schedules and operating practices and certify the operation as safe for passengers. While no opening date has been announced, November has been hinted as a possible start date. (***Washington Post***, September 26)

DETROIT, MICHIGAN

Welded rail is scheduled to begin appearing on Detroit's Woodward Avenue as rail infrastructure begins appearing for the city's M1 (or M-1) streetcar project.

An outdoor assembly site in the city's midtown was producing and storing the rail during the month of September, in preparation for placement, according to local media.

Installation will begin on the right-of-way between Campus Martius and Grand Circus Park.

In September, M1 received a $12.2 million grant from the federal Transportation Investment Generating Economic Recovery (TIGER) program, administered by FTA.

Momentum was added to the project on September 15 when Ford Motor Company and DTE Energy joined other Detroit-area companies and non-profit entities committing funding and other support. Ford and DTE each announced $3 million in funding for the $140 million project. Meanwhile, the M1 group has selected Ostrava, Czech-Republic-based Inekon Trams, a.s. for streetcar vehicles. The purchase comes as construction of the M1 project continues.

The contract, pegged at roughly $650 million, includes delivery of "three sets of trams" by the end of 2016's third quarter, presumably equaling six individual cars per previous needs specified by the partnership. However, the contract was under negotiation as of October 10.

Inekon Trams is part of Inekon Group, the latter no stranger to the growing U.S. streetcar market. Seattle and Tacoma, Washington, Portland, Oregon, and Washington, D.C. have purchased from the Czech-based manufacturer, though the latter two have opted for other manufacturers in subsequent streetcar purchases. However, the selection of Inekon is not without controversy, as the company has been late in delivering Seattle's batch of streetcars. Passenger service on the $134 million project has been delayed until "as early as the

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first quarter of 2015," said a memorandum to the Seattle City Council. Inekon underestimated how long it would take to design and build the seven trains, said Ethan Melone, streetcar program manager for the Seattle Department of Transportation.

The Capitol Hill community may have to wait nearly a year and a half beyond the city's original goal of late 2013, which was pushed to early 2014 by the time construction began there two years ago. The delays on Inekon's part stem for various reasons, including component shortages and design test failures. American-made streetcars are available from Siemens in Sacramento, but Inekon won the Seattle bid competition, Melone said. He also said the most common Siemens trains are a foot wider than the 8-foot-wide Inekon trains, a disadvantage on tight Seattle streets. (***Railway Age***, September 29 and October 10; ***Seattle Times***, September 23 via Jack May)

KENOSHA, WISCONSIN

In a 10-to-5 vote, the Kenosha City Council approved an expansion of the city's streetcar operations, in essence adding a north-south line layered over its existing east-west route.

The split vote, taken September 22, reflected ongoing tensions over streetcars in the city, and followed a two-hour public hearing where supporters and opponents traded observations on the project's value, including its potential for economic development. But Council approval appeared likely, with the result therefore being unsurprising.

The new route would establish "a north-south loop" bounded by 48th Street, Sixth Avenue, 61st Street, and Eighth Avenue, according to local media.

Expected to cost $10.3 million to implement, the city expects to cover 80% of the costs through federal funding, possibly from the Federal Transit Administration's Small Starts program.

Kenosha's existing 1.7-mile east-west route, patrolled by PCC streetcars, links the city's Metra passenger station with the city marina and two parks along Lake Michigan.

Many U.S. streetcar supporters consider Kenosha a model for adaptive reuse of heritage streetcar equipment, as well as an outlier pro-rail city in Wisconsin, a state recently hostile to urban and intercity rail transit. Supporters point to nearby Milwaukee, and its decades-long effort to establish a streetcar despite opposition from county and state leaders, as a contrasting example. (***Railway Age***, September 24)

CHICAGO, ILLINOIS

Metra reopened the western ends of both the inbound and outbound platforms at Downers Grove on the BNSF Railway commuter line to Aurora. The project had been expected to completely replace the crumbing concrete of both platforms, but drainage issues uncovered early on in the project slowed the progress of the job. To attempt completing the eastern portions of the platforms would have entailed the risk of pouring and curing concrete in sub-freezing temperatures typical of the fall season in the Chicago area. Instead, work will be suspended until Spring, 2015. (***Chicago Tribune***, October 2)

Metra acquired three former GO Transit F-59-PH locomotives from Rail World Locomotive Leasing. They are the former units 526, 530, and 532, retired by GO Transit in 2009. They were rebuilt and briefly leased to the Montreal commuter transit agency before being sold to Metra. They will be moved to Altoona, Pennsylvania for mechanical work and painting before being delivered to Metra. However, these three units will not be cab signal-equipped, limiting their use to lines without cab signals. *(Editor's Note by Ron Yee: With the coming of federally mandated Positive Train Control (PTC), one can wonder just how long Metra expects to utilize these three locomotives.)* (Al Holtz, September 30)

Metra's 2015 budget includes a 10.8% fare increase to cover modernization of the system as well as debt service requirements and increased operating costs due to labor and employee benefits, fuel, and electricity; an aging fleet of locomotives, coaches, and electric multiple unit cars; a reduced state subsidy from Illinois; and $275 million to install and implement positive train control. More alarming is the prospect of fares increasing by 68% over the next ten years to finance a $2.4 billion effort to modernize Metra. (***Chicago Sun-Times***, October 8)

HOUSTON, TEXAS

The Houston Metro has confirmed that it will be forced to postpone the opening of two light rail lines it had promised to open by the end of 2014, pushing the opening date back to April 4, 2015. The $1.3 billion Purple and Green lines had originally been scheduled to open in 2012, but construction delays since the project began have pushed the opening day back several times. One major factor in the delays in construction is the accidental severing of a chilled water line under the tracks that supports the air-conditioning at Minute Maid Park. The repair of that line required the entire track bed and rails meant to serve both the Purple and Green lines to be ripped up for access. There are also issues with a car counting system that enables the dispatching system to keep track of the trains. The delay will give CAF-USA some additional time to complete its 39-car order, the last car now expected to be delivered in January, 2015. The first CAF-USA car, 301, passed its 4,000 mile defect-free burn-in acceptance testing, paving the way for the delivery of the rest of the fleet. On the bright side, the severe car shortage Metro had been bracing for with the 2014 opening dates will no longer be an issue as all cars are expected by the time the

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lines actually do open. (***Houston Chronicle***, September 17 and October 8; ***Railway Track & Structures***, October 2)

Dallas-Fort Worth, Texas

The Fort Worth Transportation Authority (The T)'s TEX Rail project has received a Record of Decision (ROD) from both the Federal Transit Administration (FTA) and ironically, the Federal Aviation Administration, The T announced on September 29. Construction could begin in 2016, with service beginning in 2018, The T said.

Initial TEX Rail service would link downtown Fort Worth with Dallas/Fort Worth International Airport's Terminal B, running 27 miles across northeast Tarrant County and Grapevine and into DFW Airport at Terminal B. The line would launch with eight stations, with hopes of serving 10,000 riders at first, growing to 15,500 riders by 2035.

Further assistance came from the North Central Texas Council of Governments, Tarrant County, the City of Fort Worth, the City of Grapevine, and DFW Airport. TEX Rail's inclusion in the President's 2015 Budget for New Starts funding was a key component in the project. (***Railway Age***, September 29)

TUCSON, ARIZONA

Ridership on the Tucson Streetcar is now averaging 5,000 riders per day, far exceeding the 3,600 per day initially forecasted. It had been 3,600 during the first two months of operation in the summer months until the University of Arizona began its Fall semester. Local businesses have noted a rise in customer volume as well as increased pedestrian activity on the streets along the route. However, there have been a high number of customer complaints regarding the fare collection system where, while the base fare is $1.50, only $4 day passes are sold at kiosks at each station. *SunGO Card*, a reloadable farecard, is only available online and at the Ronstadt Transit Center downtown and is not as convenient to acquire. The operator is now exploring options of acquiring ticket vending machines (TVMs) that will sell all types of farecards. However, the TVMs are quite expensive. (***Arizona Public Media***, September 24)

SEATTLE, WASHINGTON

Seattle's second streetcar line, the 2.5-mile, $132 million First Hill Streetcar, has now postponed the commencement of service until early 2015. The manufacturer of the six cars, a partnership of Prague-based Inekon Group a.s. and Seattle-based Pacifica, has experienced production delays with these cars, which were to have been delivered in June, 2014. The consortium is also building one additional car, which will be assigned to the existing South Lake Union Streetcar. A new alignment on First Avenue that was approved by the Seattle City Council will allow the linking of both streetcar lines. (***Railway Age***, September 18; ***Mass Transit Magazine***, September 24)

Sound Transit's light rail line, running from the Westlake station to Seattle Tacoma International Airport since 2009, is halfway through with construction of a 1.6-mile extension of the line from Sea-Tac to the new station at Angle Lake scheduled to open in September, 2016. Other extensions toward an eventual 50-mile system include Westlake to Capitol Hill and University of Washington (UW) (early 2016), UW to Northgate (September, 2021), and a 2023 target date for Northgate to Lynwood, International District Chinatown to Bellevue and Overlake and Angle Lake to S. 240th Street. (***Sound Transit Link Progress Report***, September 24)

PORTLAND, OREGON

Portland's Tri-Met began a one-year countdown to its planned opening on September 15, 2015 of its 7.3 mile, ten-station Orange Line. The line will originate at Union Station and run south, extending onto new trackage south of Portland State University, extending 7.3 miles southward to South Waterfront and southeast Portland and onward to Milwaukie in northern Clackamas County. The ten-station line will utilize the 1,700-foot-long Tilikum Crossing, the first car-free transit bridge carrying only light rail, buses, streetcars, bicyclists and pedestrians across the Willamette River. (trimet.org, September 15)

SAN FRANCISCO, CALIFORNIA

Aggressive plans for San Francisco's Transbay Transit Center, which include accommodations for improved Caltrain service and a terminus for California high-speed rail, are in jeopardy as developers and city officials have reached an impasse.

The new center, dubbed by some as the Grand Central Terminal of the West Coast and itself not in immediate harm's way, was to be the focal point of a $2.6 billion Caltrain extension for San Francisco, to serve a host of new skyscrapers and other development. But local media report developers are balking at the original agreement, and may sue the city, even as the city Board of Supervisors affirmed original terms of the tax district, and after all parties had agreed to a rough outline of the deal including some modifications over payment schedules.

The San Francisco Municipal Transportation Agency (SFMTA) awarded a $648 million contract to Siemens to build 175 light rail cars for MUNI to entirely replace the current fleet of cars built by Breda; the contract includes an option for 85 more cars. This is Siemens' largest light rail car order ever in the United States. The cars will be built at the Siemens plant in Sacramento, California with the first cars anticipated by the end of 2016. (Heraldonline.com, September 19)

Brookville Equipment Corp. said on September 24 that it and the San Francisco Municipal Transportation Agency (SFMTA) have agreed to terms "for the rebuild

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Commuter and Transit Notes

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of 16 Presidents' Conference Committee (PCC) streetcars, adding a minimum of 20 years of service life to the historic vehicles in a contract valued at nearly $34.5 million."

San Francisco currently has the largest and most active fleet of rebuilt PCCs in regular service, which routinely intermix with other, newer Muni light rail vehicles.

Brookville, Pennsylvania-based Brookville Equipment said the "end of life rebuild order includes 13 single-end PCC streetcars originally manufactured in 1947 and initially restored in 1993 after being purchased by SFMTA from the Southeastern Pennsylvania Transportation Authority (SEPTA) in 1992. Additionally, the order includes rebuilds for three SFMTA-original double-ender streetcars manufactured in 1948 and restored in 1995."

The company was one of several LRT and streetcar builders exhibiting at the American Public Transporation Association's (APTA) Expo 2014, scheduled for October 13-15 in Houston. (***Railway Age***, September 24)

The Transbay Joint Powers Authority had planned to use economic development as a lever to issue up to $1.4 billion in bonds. About $200 million in funding is on hand to complete the Transbay Transit Center itself, slated to open in late 2017. But improved rail access could be thwarted if local matching funds aren't in place to tap about $1.5 billion in federal and state contributions. (***Railway Age***, September 24)

The Sonoma-Marin Area Rail Transit Authority (SMART) did not receive a $20 million federal grant matching local funding from the Metropolitan Transportation Commission, meant to extend the commuter line to Larkspur. As a result, construction of the $660 million line could face significant delays. Five previous applications for TIGER grants have been unsuccessful. Alternative funding sources for the $20 million are now being explored to provide the $40 million needed to extend the line 2.2 miles south from downtown San Rafael to the Larkspur Ferry Terminal. Train service is expected to commence in 2016 on phase one, running 43 miles between downtown San Rafael and Airport Boulevard, just north of Santa Rosa. Seven two-car Diesel Multiple Unit (DMU) trains have been ordered from Sumitomo Corporation of America/Nippon-Sharyo, based in Rochelle, Illinois, at $6.67 million per train set. The propulsion and auxiliary systems of these DMUs will be capable of handling the addition of a third non-powered car inserted mid-consist if ridership demand warrant it in the future. A poll conducted among potential riders indicates a high interest in using the rail line, which would connect to ferry services to San Francisco. Two-thirds of Sonoma and Marin County residents would consider riding the SMART train. Origin-destination patterns became quickly apparent from the survey results, with 20% starting their commute from Railroad Square in Santa Rosa and 17% from downtown San Rafael. Surprisingly, the most common origin-destination pair would be Santa Rosa-San Rafael. The potential riders are very price-sensitive, with 45% considering the train if priced at $5 per trip but dropping off to 8% if the fare were $12. Not factored in in this survey is the potential ridership from tourists. *(Editor's Note by Ron Yee: Santa Rosa is the home of the museum honoring the works of Charles Schulz, the creator of Charlie Brown cartoons and comics, and I can vouch for the horrific hours-long traffic jams on Route 101 in that area headed for San Francisco.)* (***Santa Rosa Press Democrat***, September 16 and October 2)

CalTrain is purchasing 16 surplus bi-level push-pull coaches from Metrolink for $15 million. The cars, built by Bombardier and now rendered surplus by the new coaches built by Rotem, will be renovated to meet CalTrain standards, enabling the operator to add capacity to peak period trains. The CalTrain Board has also started reaching out for public comments regarding the design of the future fleet of electric multiple unit cars that will be expected to provide 75% of the service on the line once it is electrified. (***Progressive Railroading***, September 8)

The Santa Clara Valley Transportation Authority (VTA), operator of the San Jose Light Rail system, received $8 million in federal funding from the Metropolitan Transportation Commission for a $63 million project to add a second track between the Mountain View and Whisman stations on the Green Line, eliminating a major bottleneck in the system. Adjacent Caltrain tracks will have to be realigned and the VTA Evelyn station closed and eliminated before the work to double-track the light rail line can commence. Phase One will add 1,400 feet of new track west of State Route 85 and a new track for the storage of trains and be completed by July, 2015; Phase Two to complete the double-tracking is expected to be finished by November, 2015. This will enable VTA to better accommodate heavy ridership generated by events at Levi Stadium. (***Progressive Railroading***, September 26)

LOS ANGELES, CALIFORNIA

Ground was broken on October 1, 2014 in the Little Tokyo district in Downtown Los Angeles for the construction of the $1.42 billion, 1.9-mile Regional Connector project that will link the Blue and Expo Lines with the Gold Line in 2020. The connector line will have three stations: First Street and Central Avenue, Second Street and Broadway, and Second Place and Hope Street. The line will enable a one seat ride from Long Beach-Azusa and Santa Monica-East Los Angeles. (LAcurbed.com, October 1)

Metrolink changed schedules on October 6, 2014. The 91 Line from Los Angeles Union Station (LAUS) to Riverside (which is named for the State Highway 91 reconstruction project) had weekend service enhancements

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TRACTION TOUR TO SOUTHERN EUROPE
by Jack May
(Photographs by the author)
(Continued from October, 2014 issue)

The *Eurodam*'s next port of call was Barcelona, with a scheduled arrival of noon on Monday, April 22. We would be spending a day and half anchored in the harbor of this Catalonian city, and consequentially our ship would be more like a full-service hotel than a comfortable conveyance. Clare and I had been to Barcelona five times before, and we hadn't yet tired of it. For Clare, there would be a large number of museums along with the opportunity to again view the architecture of Antoni Gaudi. While I had ridden almost all of the electric rail lines, heavy and light, urban and suburban, I knew there were always more photographs to take. And since I planned to meet Phil Stevenson here as part of his first visit to Spain, there was lots to share. In addition, only a few months earlier the new tramway in Zaragoza had been completed, so a visit to that city was on the agenda for the following day.

Because of mutual preferences and time constraints, streetcars would be the main attraction of our first day in Spain. We had decided to meet at 13:30 outside the Glories Metro stop, one of the transfer points to the Trambesos streetcar system. The *Eurodam* was scheduled to dock at 12 noon, so we would have time to ride and photograph only one of the two tramway networks in Barcelona.

When the decision was made to return streetcars to Barcelona, the city fathers broke the system into two non-connecting parts and outsourced operations to the private sector. Lines T1, T2, and T3, called the Trambaix, run along 10 miles of line in the western portion of the city, while lines T4, T5, and T6, the Trambesos, comprise a 9-mile operation through the northeastern section. Both are now operated by an undertaking simply called 'Tram.' (See http://www.urbanrail.net/eu/es/bcn/bcn-tram.htm and http://www.urbanrail.net/eu/es/bcn/barcelona.htm.)

The infrastructure and rolling stock of the two systems are identical, with the two networks operating 19 and 18 Alstom 100-percent low-floor Citadis 302 cars--in the exact same color scheme and markings, and with identical number series!!!! The Trambaix roster consists for cars 01-19 while the Trambesos cars are numbered 01-18. The two systems are not connected, but plans are afoot to bring them together through the very congested downtown portion of the city. Thus a great deal of planning and engineering is taking place. (Dublin has a similar problem, but work is now underway to connect the Red and Green lines through the heart of the Irish city's business district.)

I should mention that our first visit to Barcelona was in 1968, when the legacy system was being wound down (it closed in 1971), but was still operating ex-DC Transit PCC cars, both prewar air-electrics and postwar all-electrics. Apparently two have been saved and at least one is being restored. It would be nice if an American PCC eventually operates on the new 750-volt DC tramway network.

There is another tramway in Barcelona, a legacy operation now reduced to running mainly a service for tourists. The Blue Tram is under a mile long and runs daily only during the tourist season. Also important is the standard-gauge portion of the suburban rail network, which evolved from an independent streetcar and subway network, and has restored two Brill-built interurban-like cars. They operate on special occasions (and charters).

And finally there is a very large subway system, now with 11 lines covering 75 miles. The metro dates from the1920s, although most lines were built over the last half century. Very little of it is outdoors, just a station or two on two of the earliest routes. While I've covered all of these operations on my previous visits, on this occasion I would only get to the Trambesos.

I should point out that Barcelona is part of Catalonia, now an autonomous province of Spain. It has its own language, Catalan, which can be quite different from Spanish. I was not aware of that on my first visit to Barcelona, as the language and culture of the area had been very effectively suppressed by Generalissimo Francisco Franco, the former despotic ruler of Spain. But now the pendulum has swung to the point that Catalan extremists, in a way functionally similar to many of the Quebecois, have even painted out Spanish on bilingual signs. I took 7 years of Spanish in junior high school, high school, and college, but it's pretty much useless in Barcelona, as I cannot understand much Catalan.

The *Eurodam* docked late, at 12:30 (12:00), a pattern that would later continue. I got off at 12:32 and made my way quickly to the port shuttle bus, which left at 12:52 for the 5-minute run to the foot of the Ramblas and the Drassanes station of the metro. I bought a day pass from a vending machine at 13:02 and my train on line L3 left at 13:09. After two stops I transferred at Pl. Catalunya to line L1 and arrived at Glories at 13:29, a minute before our scheduled meeting time. Both Metro trains were relatively new, with air-conditioning and open gangways from end to end. Phil got there a few minutes later and we spent the afternoon riding and

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Traction Tour to Southern Europe

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The terminal of the port bus is at the impressive Drassanes circle (Placa del Portal de la Pau), which hosts a statue of Christopher Columbus in its center and marks the beginning of the Ramblas, Barcelona's most important strolling boulevard. Two impressive buildings at the entrance to the port display the Classical and Neo-Classical architectural styles of old Barcelona: the Customs building (left) (Aduana Maritima) and the old Army Headquarters (right).

On the other hand, here is one of Barcelona's new buildings, the Torre Agbar, just a block or two away from the Glories station of the T4, which is also the terminal of the T5 and T6. Like it or not, this office tower built in 2005 is now the symbol of Barcelona to many of its inhabitants. It is very similar to "The Gherkin," a building designed by Norman Foster and constructed a year or two earlier in London. The Torre Agbar has other names, which I will not repeat here.

Barcelona's LRVs do not look this old-fashioned.

An Alstom Citadis car on the T4 route turns into the Glories tram station. T5 and T6 cars use a crossover beyond the station to turn back.

Rambla de la Mina, the only street traversed by the T6 that is not shared by either the T3 or T4 lines, was built new as a palm tree-lined boulevard with a wide walkway in the center reservation between the pair of roadways and trackways. This view was taken about halfway along the Rambla, near the La Mina station.

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Traction Tour to Southern Europe

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photographing the T4, T5, and T6. The T6 had not been operating on my previous trip, so we made sure to cover the track that had been added for its debut, which is only a couple of long blocks long, connecting the T4 and T5 lines with but one station. We were able to ride the entire Trambesos network in the next 4 hours. My return to the *Eurodam* was just the reverse of my going trip.

The Trambesos has a trolley subway with three stations under the Grand Via de les Cortes Catalanes, This is the eastern portal of the T5 and T6, where the width of the arterial boulevard forces single-track operation behind the photographer.

Carrer Torrassa on the T5, has an impressive bridge over the Besos River (Riu Besos). An inbound car is shown starting its traverse of the structure.

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Around New York's Transit System

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expected in December, 2014.

Staten Island Railway Capital Program

$372 million of the proposed $32 billion MTA five-year capital plan is allocated toward the Staten Island Railway for upgrading of track, power, stations, and communications on the line and includes $221.4 million to replace the 1970s-vintage fleet of 64 cars. No timetable or car specification details were given with this plan. (***The New York Times***, September 25, 2014)

Commuter and Transit Notes

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between downtown Riverside and LAUS introduced in the July 5, 2014 timetable change. The October 6 timetables changed for five 91 line trains: #703, 704, 705, 707, and 708 during the morning and afternoon peak periods are affected while two midday trains, the 12:40 PM out of LAUS and the 2:30 PM out of Riverside, were eliminated. Train #703 departs Downtown Riverside at 5:56 AM, arriving at LAUS at 7:32 AM and Train #704 departs LAUS at 3:40 PM, arriving at Downtown Riverside at 5:15 PM. Trains #707 and #708 will arrive at their destination five minutes later. Orange County Line Train #607 departs Oceanside five minutes earlier at 6:39 AM, arriving at LAUS at 8:45 AM, Train #644 departs Fullerton ten minutes later at 10:10 PM and arrives at Oceanside at 11:37 PM to minimize conflicts with trains from other lines, and San Bernardino trains #310, 327, 338, and 339 were eliminated to reduce expenses for the 2014-5 fiscal year budget. On the Ventura County/Burbank-Bob Hope Airport Line, Train #907 will depart LAUS five minutes later, at 8:55 AM, arriving at Bob Hope Airport at 9:20 AM and Antelope Valley Line Train #207 will depart LAUS 20 minutes later at 9:40 AM and arrive at Via Princessa at 10:50 AM. There are no changes on the Riverside Line. Note that this line is not the 91 line, which serves downtown Riverside. (metrolinktrains.com, October 6)

TORONTO, ONTARIO, CANADA

Metrolinx has purchased the 33-mile Georgetown-Kitchener section of the Canadian National Railway's (CNR) Guelph subdivision for C$76 million. While CNR will retain the right to continue operating freight trains over the line, the purchase will enable GO Transit to vastly improve its commuter train service. All-day bi-directional service is planned for the Kitchener Line, including weekends, starting in 2016. Metrolinx has also purchased a parcel of land in Kitchener that will house a future layover and storage yard for trains. With this purchase, Metrolinx now owns 80% of the tracks over which its trains operate. (***Progressive Railroading***, September 25)

Around New York's Transit System

Limited Service Disruptions in Cranberry Street Tunnel?

As part of MTA's Fix and Fortify program intended to improve the ability of the subway system to endure future storms of the magnitude of Hurricane Sandy in 2012, NYC Transit is leaning toward limiting service suspensions in the Cranberry Street Tunnel carrying A C trains to weekends only. High ridership levels on these two routes and the lack of viable alternative routings for these riders to reach the large number of employers in lower Manhattan are the driving forces behind the preference to limit the work to weekends only. The project is expected to begin during the first three months of 2015 and the duration has yet to be determined. During the planned weekend closures, A C trains will operate over F between Jay Street/ MetroTech in Brooklyn and W. 4th Street in Manhattan. Of the nine under-river tunnels that were flooded by Hurricane Sandy, two have undergone a total rebuilding that involved long-term outages over the past year, the Montague Street Tunnel carrying R and the Greenpoint Tunnel carrying G. Looking ahead, the 53rd Street Tunnel carrying E M trains will require similar weekends-only work, expected to take place in the second half of 2015. The repair and rebuilding process for the Steinway Tunnel serving 7 trains has been has been an ongoing process conducted during service outages between Times Square and Queensboro Plaza during select weekends over the past two years. This repair work is being conducted concurrently with the installation of communications based train control (CBTC) on the Flushing Line.

Flushing Line Extension Update

Opening day for the Flushing Line extension to the 34th Street-Hudson Yards station at 11th Avenue adjacent to the Javits Center has been scheduled for February 24, 2015. A financial incentive of up to $4.75 million has been agreed upon between MTA and the general contractor for the project to insure that the project is completed on or before that date. Originally slated to open in late 2013, technical issues primarily with the two specially built "Inclinators" (an inclined elevator) that would whisk passengers in glass enclosed compartments along a 170-foot route inclined at an angle of 27 degrees linking street level with the mezzanine as well as issues concerning the ventilation systems have pushed the opening date over 15 months behind the original schedule. The station will have an air-cooling system designed to keep the station 10°F below street level temperatures. The entire project still appears to be $16 million under its budget.

Station Rebuilding Progress Report

The southbound platforms of the 88th Street and 104th Street stations on A, closed since Spring, 2014 for a total rebuilding, re-opened at the end of September, 2014. The work included replacement or repair of the lighting, mezzanine to platform stairs and railings, and exterior and interior walls, and artwork added to the windscreen walls. Three other stations on A are slated for total rebuilding: 80th Street-Hudson Street, Rockaway Boulevard, and 111th Street-Greenwood Avenue.

Station Condition Survey

A report issued by the New York State Comptroller's Office based on a 2012 NYC Transit survey of its stations reveals that 90% have structural defects ranging from peeling paint and tiles falling off to severe corrosion of structural members and platform edgings falling off. In its defense, NYCT pointed to its ongoing program of aggressively addressing the most serious of the defects it already has categorized. The 2015-9 MTA Capital Program is expected to address many of the stations issues in the Comptroller's report.

New Subway Cars to Have Security Cameras

MTA announced that the 904 R-211 class subway cars it expects to order in the 2015-9 capital plan will be equipped with on-board surveillance cameras in an effort to deter crimes such as sexual harassment, robbery, and assaults, as well as improve security. MTA is also seeking to have the cameras installed on the 300 R-179 class cars already on order with the first cars

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New York City Subway Car Update

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5164/5162 were also present on Q, running to Astoria during the AM rush before being laid up. Last but not least, a mixed train of Jamaica-assigned R-160As and R-160Bs (9758/9762-9817/9813) was running around E and F during August, adorned with full-body ad wrap trumpeting Puma athletic wear.

Work Cars and Miscellaneous

The first ex-R-110A Pump Train based around cars 8002/3/4, while still not fully in use, made its presence known on the system this Summer. It was seen circling the shop complex at 207th Street on August 1 while performing curvature tests, followed by a similar undertaking at 239th Street Yard in the Bronx on August 6 and 7. Meanwhile, progress continued on the conversion of former R-110As 8007/8/9 inside 207th Street to another pump train through the month of August.