The Bulletin



New York Division, Electric Railroaders' Association

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The Bulletin

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20TH ANNIVERSARY OF DIRECT GOVERNMENT OPERATION OF COMMUTER RAIL IN THE NORTHEAST by Randy Glucksman

It might be hard to believe, but it was twenty years ago that five transit agencies in the Northeast assumed responsibility for commuter train operations. This occurred when the United States Congress enacted legislation enabling the Consolidated Rail Corporation, a k a Conrail, to become a forprofit corporation. As such, it was permitted to divest itself of its "money-losing passenger services."

In the metropolitan area, on January 1, 1983, the Metropolitan Transportation Authority, through its newly created subsidiary, the Metro-North Commuter Railroad, began to operate the former Penn-Central (original New York Central and New Haven Railroad) lines in New York State. In Connecticut, the responsibility went to the Connecticut Department of Transportation, which contracted with Metro-North. New Jersey Transit, created in 1979 to operate many of the state's bus services, found that on that date it also became responsible for Conrail's rail services. Some of the lines were also ex-Penn-Central (Pennsylvania Railroad). Others were the Central Railroad of New Jersey and the Erie-Lackawanna Railway.

SEPTA (Southeastern Pennsylvania Transportation Authority), which had been formed in 1963 to run the former Philadelphia Transportation Company and later the Philadelphia Suburban Transportation Company (Red Arrow Lines), assumed responsibility for the former Pennsylvania and Reading Lines, which had also been merged into Conrail.

The Massachusetts Bay Transportation Au-

thority (MBTA), which dated to 1964 and was already operating Boston's subway, trolley, trackless, and bus lines, now had the task of running the former New Haven Railroad commuter services, in addition to the ex-Boston & Maine rail lines for which it already had responsibility.

Maryland's DOT took over the running of what is known today as MARC's Penn Line between Baltimore and Washington, D.C.

Over these twenty years, the combined efforts of these agencies, thanks to billions of dollars in capital funding, have brought all of the systems up to a state of good repair. Commuters ride in hundreds of brand new or recently refurbished coaches, all climatecontrolled, which are hauled by completely new or rebuilt locomotives. Stations, tracks, power facilities, etc. have also been upgraded, and thousands of new parking spaces have been created. Although there have been a few retrenchments in service area, particularly in Philadelphia (Fox Chase to Newtown and Elwyn to West Chester are considered "temporary"), some agencies have even expanded their service territories. Some examples are Metro-North's extension to Wassaic, NJ Transit's to Hackettstown, and MARC's line to Frederick, Maryland. In fact, there is more service to some stations now than there was during the days of private operation.

If there is anything to lament, it could be that had there been more government interest and involvement in commuter services

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MANHATTAN BRIDGE TROLLEY CARS by Bernard Linder

Many years ago, there were two competing trolley lines providing service on the Manhattan Bridge. The 1914 Public Service Commission Report reveals that Third Avenue's Brooklyn & North River Line, whose cars operated from Desbrosses Ferry to Fulton Street and Flatbush Avenue, collected 5-cent, 3-cent, and 2½-cent fares. The Manhattan Bridge Three Cent Line, whose cars ran from Canal Street and the Bowery to Fulton Street and Flatbush Avenue, charged three cents or two tickets for a nickel.

Although this article features the Brooklyn & North River history, we must also briefly mention the Three Cent Line, whose history is interwoven with that of its competitor. A complete history of the latter was published in the December, 1962 issue of *Electric Rail-roads*.

The first cars to operate on the bridge belonged to the Three Cent Line, whose cars started running on September 4, 1912. The existing lower level subway tracks were installed on the bridge before construction was completed on the rest of the subway. Therefore, the trolley cars temporarily operated on these lower-level tracks — Three Cent cars on the south side and North River cars on the north side — until the upper level trolley tracks were available.

BROOKLYN & NORTH RIVER RAILROAD COMPANY

This company was incorporated January 2, 1912. It was controlled jointly through ownership of capital stock by the following corporations: Brooklyn Heights Railroad Company, 125 shares; Nassau Electric Railroad Company, 125 shares; Coney Island & Brooklyn Railroad Company, 250 shares; New York Railways Company, 250 shares; and Third Avenue Railway Company, 250 shares.

On February 29, 1912, the Third Avenue Railway Company, together with other Manhattan and Brooklyn companies, obtained a temporary permit from the Department of Bridges to operate over the Manhattan Bridge. This permit was confirmed by the Board of Estimate and Apportionment on July 15, 1912, with the proviso that only one company should operate over the bridge. The Third Avenue Railway Company was selected to do the operating. The company had applied for a franchise over the bridge and it was pending at the time the permit was granted. The Manhattan Bridge Three Cent Line had also applied for a franchise over the bridge and its application was pending. The Three

Cent Line attempted to prevent operation on the Manhattan Bridge under the permit of the Commissioner of Bridges by an injunction which was vacated August 16. 1912, provided the companies obtained the consent of the Public Service Commission. The Commission refused its consent to the exercise of the permit by order of September 20, 1912. The company began operation, however, under the permit of July 15, 1912, and by contract with the City of New York dated September 9, 1913, approved by the Public Service Commission November 21, 1913, it obtained a franchise for the Brooklyn portion of the route and over the Manhattan Bridge connecting with the existing tracks on Canal Street. The company did not need a Manhattan franchise because Third Avenue already had a franchise and trackage rights over the rest of the route.

INTERCORPORATE RELATIONS

An agreement was made with the Dry Dock, East Broadway & Battery Railroad Company and the New York Railways Company, October 14, 1913, granting the company the right to operate cars over the tracks of these companies on Canal, Vestry, Greenwich, Desbrosses, and Washington Streets. Brooklyn & North River also had an arrangement with the Third Avenue Railway Company for rental of cars, based on 2.66 cents per car-mile operated and 10 percent per annum on 90 percent of the cost of the cars; also an arrangement with the Brooklyn Heights Railroad Company to furnish power on the Manhattan Bridge at 2 cents per kilowatt-hour. The company reimbursed the Three Cent Line for use of the tracks and the power consumed by its cars operating on Flatbush Avenue Extension.

PLOW PITS

Power for the cars was furnished by overhead trolley in Brooklyn and underground conduit in Manhattan. The changeover, which was made at a plow pit, was probably similar to the changeover described in the March, 1996 *Bulletin*. The original plow pit was located at Bayard Street and the Bowery. At first the cars operated on the tracks now used by subway trains. Because underground conduit could not be installed, trolley wire was temporarily strung over the bridge tracks. When the cars were rerouted to the permanent upper level bridge tracks on May 23, 1915, power was supplied from an underground conduit and the plow pit was relocated to the Brooklyn Plaza on Flatbush Avenue Extension between Nassau Street and Concord Street.

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Manhattan Bridge Trolley Cars

(Continued from page $\bar{2}$)

Owners:

STREET CARS

January 2, 1912 Brooklyn & North River Railroad Company

BUSES

October 5, 1919 Independents operating under permits issued by the Department of Plant & Structures

November 13, 1929 Brooklyn Bus Corporation, a Brooklyn-Manhattan Transit subsidiary

June 1, 1940 Board of Transportation of the City of New York

June 15, 1953 New York City Transit Authority

Route:

STREET CARS

November 13, 1912 Battery cars started operating as bridge shuttles

February 9, 1913 Electric cars started operating from Canal and Hudson Streets via Canal Street, lower

level tracks on north side of Manhattan Bridge, and BRT's tracks on Jay Street, Wil-

loughby Street, and Gold Street to Fulton Street

June 6, 1913 Extended via Vestry Street, Greenwich Street (Washington Street in opposite direction),

and Desbrosses Street to West Street (Desbrosses Ferry)

October 30, 1913 Discontinued Manhattan Bridge local

December 11, 1913 Rerouted via Flatbush Avenue Extension to Fulton Street

October 4, 1919 Discontinued

BUSES

October 5, 1919 Route 4 buses started operating over the same route as the street cars

March 23, 1920 Discontinued because of an injunction

November 13, 1929 B-15/Manhattan Bridge buses started operating from Canal and Baxter Streets to Flatbush

Avenue and Fulton Street

March 19, 1942 Extended to Hanson Place and Flatbush Avenue

December 30, 1983 Last day of operation

September 9, 1985 B-51/Manhattan Bridge buses started operating from Park Row and Broadway to Smith

and Fulton Streets

CAR ASSIGNMENT

Following is an incomplete car assignment compiled from the company's semi-annual reports:

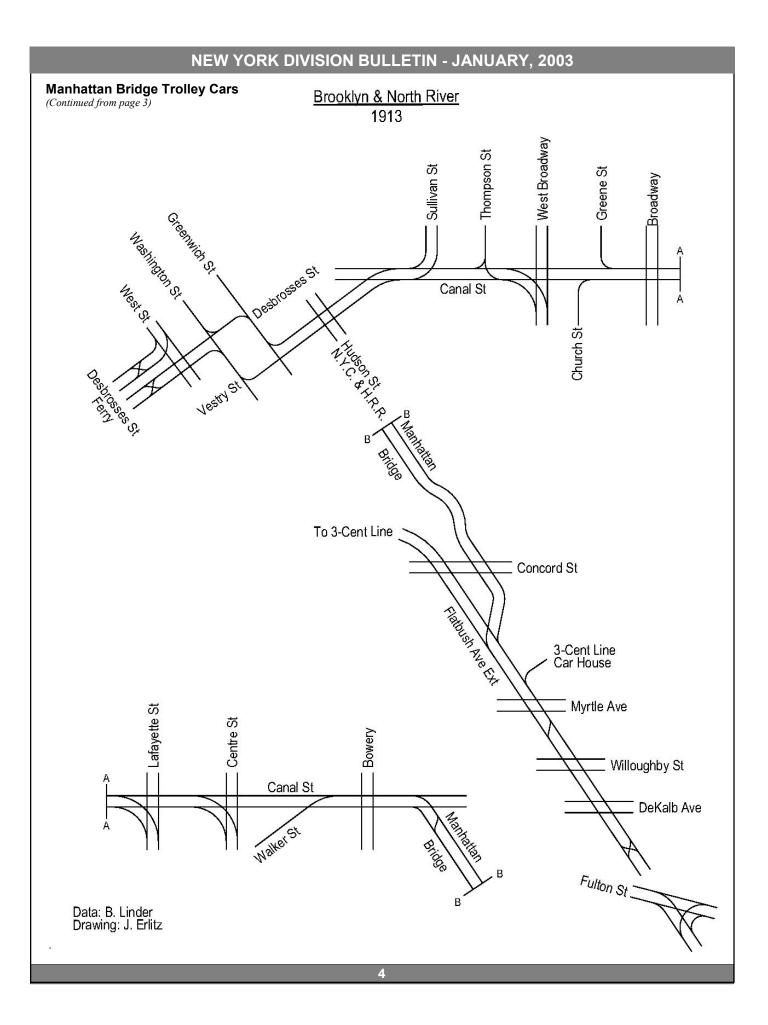
SIX MONTHS ENDING	CARS
June 30, 1913	721-750
December 31, 1913	721-750
June 30, 1914	751-770
June 30, 1917	721-770
December 31, 1917	721-770
June 30, 1918	721-770
June 30, 1919	721-770

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20th Anniversary of Direct Government Operation of Commuter Rail in the Northeast

(Continued from page 1)

twenty years earlier there would be a larger network of which passengers could avail themselves. There is hope on the horizon: even though NJ Transit has moved restoration of passenger service on the Susquehanna to the "back burner," other projects like the West Trenton Line, Middlesex-Ocean-Monmouth, and Lackawanna Cut-off, are alive. Maybe one day SEPTA will restore the aforementioned two "temporarily" suspended services plus add some form of the Schuylkill Valley/Cross County Metro.



BRIGHTON LINE Edward B. Watson/Arthur J. Lonto Collection

This July, the Brighton Line turns 125 years old. It has been in continuous operation longer than any part of the New York City subway system, except the Culver Line, which predates it by about three years.

CORPORATE HISTORY

	CORPORATE HISTORY
June 25, 1869	Brooklyn, Flatbush & Coney Island Railroad Company was founded. It built 6 miles of line, which was not operated
September 26, 1876	Flatbush & Coney Island, Park & Concourse Railroad Company was founded
September 29, 1876	Coney Island & East River Railroad Company was founded
September 13, 1877	Two above roads consolidated as Brooklyn, Flatbush & Coney Island Railroad Company
	(second company with this name)
September 2, 1887	Brooklyn & Brighton Beach Railroad Company was the successor
August 15, 1896	Kings County Elevated Railroad Company leased Brooklyn & Brighton Beach Railroad
/ August 10, 1000	Company
May 30, 1899	Sea View Railroad Company now controlled the Brooklyn & Brighton Beach Railroad
	Company
January 20, 1900	Brooklyn & Brighton Beach Railroad Company merged with Sea View Railroad Company
May 9, 1900	Sea View Railroad Company merged into Kings County Elevated Railroad Company
May 24, 1900	Kings County Elevated Railroad Company merged into Brooklyn Union Elevated Railroad
	Company
November 30, 1912	Brooklyn Union Elevated Railroad Company, Sea Beach Railway Company, and Canarsie
	Railroad Company consolidated as New York Consolidated Railroad Company (a BRT
	subsidiary)
June 7, 1923	New York Rapid Transit Corporation (a BMT subsidiary)
June 1, 1940	Board of Transportation of the City of New York
June 15, 1953	New York City Transit Authority
	ROUTE
December 8, 1877	A newspaper article reveals that the Brooklyn, Flatbush & Coney Island was building a 14-
	foot-wide open cut through Flatbush. Three-fourths of the line was graded and men were
	laying rails south of Manhattan Beach Junction
July 1, 1878	Brighton Hotel opened in the evening. The railroad operated a special excursion train for
l	prominent politicians who ate dinner in the hotel
July 2, 1878	Trains started operating between Prospect Park and Brighton Beach
August 20, 1878	Extended to Atlantic Avenue (over the route of the present-day Franklin Avenue Shuttle).
	There was joint operation of BF&CI and Long Island Rail Road trains from Brighton Beach
	via the Brighton Line and LIRR to Flatbush Avenue. During the next few years, the LIRR
	operated trains to Brighton Beach from several points
December 14, 1883	Last day of through service between Brighton Beach and Flatbush Avenue LIRR
August 13, 1896	A test train, whose consist was engine 46 and three cars, ran from the Brooklyn Bridge to
	Brighton Beach, stopping only at Court Street. Officials and reporters rode the train, which
	departed from the Bridge at 3:30 PM and reached Franklin Avenue at 3:43 PM and Brigh-
	ton Beach at 4:12½ PM. The train operated via a 2,700-foot extension on a 2½% grade
	from Fulton Street to Atlantic Avenue. A new station, Dean Street, was located on this ex-
A	tension
August 15, 1896	Trains started operating from Brooklyn Bridge to Brighton Beach on a 20-minute headway.
1899	Running time was 35 minutes Flatbush Avenue trolley cars started operating via the Brighton Line to Brighton Beach
	Electric trains started operating from Park Row to Manhattan Beach via the newly-
July 18, 1899	
	electrified Fulton Street and Brighton Lines, and a connection between the LIRR and the Brighton Line south of the Sheepshead Bay station
January 21, 1901	Trains started operating to Brighton Beach and continued running to Manhattan Beach
1902	Parlor cars were first operated on Manhattan Beach cars
1903	Discontinued Flatbush Avenue trolley service
1903	Discontinued Flatbush Avenue fromey service

(Continued on page 6)

Brighton Line

(Continued from page 5)

1903

May 22, 1904 August 26, 1905 March 5, 1906 June, 1907 October 16, 1916

April 22, 1917

Two-car trains, one an open car, the other a closed parlor car, operated to Manhattan Beach in the summer

Extended to Culver Terminal

Grade crossings north of Church Avenue were eliminated

Trains were rerouted via LIRR south of Avenue H during construction of the embankment

Trains started operating on the new embankment

Trains were turned at Sheepshead Bay. One track was left in service to allow the contractories to be a serviced to the contractories to be a serviced to the service to allow the contractories to be a serviced to the servic

tor's trains to operate between Eastern Parkway and the Brighton Race Track Dump Operation began on the new elevated structure between Sheepshead Bay and Ocean

Parkway with shuttles on the southbound track



R-42 4666 brings up the rear of a southbound shuttle train leaving the Avenue M station during a General Order on May 2, 1993. David Ross photograph

TRANSIT STRIKE CONTINGENCY PLANS— DECEMBER, 2002 by Randy Glucksman

The threat of a strike by NYC Transit workers who are members of Transport Workers Union Local 100 went down to the wire, and beyond. As we all know, a strike was averted when the negotiators came to an agreement. However, it is not final until the rank-and-file approves the new contract in a vote which was being conducted via mail ballot.

By order of Mayor Michael R. Bloomberg, passenger automobiles entering or exiting Manhattan would have required four occupants. All agencies issued Strike Contingency Plan brochures or flyers to describe their strike preparation plans. Tickets would not be sold on commuter trains, and for convenience, fares charged within New York City would have been reduced from \$3.25 to \$3 on the Long Island Rail Road. Both the Long Island and Metro-North planned to operate shuttle trains into either Penn Station or Grand Central, but only 24 hours after a strike would begin. For Metro-North this would have meant cancellation of seven AM Peak (3 Hudson and 2 each on the Harlem and New Haven) plus five PM Peak trains (1 Harlem and 2 each on the Hudson

and New Haven). Wooden platforms with steps were constructed adjacent to Track 4 at Yankee Stadium. Please note that a "station," albeit temporary, was constructed to serve the Yankee Stadium area to replace Melrose, which would have been temporarily closed. Metro-North shuttle trains would have operated every 15-20 minutes from 5-11 AM and 3:30-8:30 PM between Spuyten Duyvil and Grand Central, Yankee Stadium (Melrose) and Grand Central, and Mt. Vernon West and Grand Central.

The Long Island would have canceled seven AM and eight PM Peak trains. These trains would have served many New York City stations that regularly scheduled trains would have bypassed.

NJ Transit would not have operated any additional service, but PATH reported that it would operate additional service on its 33rd Street Line during off-peak hours. Extra service was to be operated on the Staten Island Ferry and New York Waterway reported that extra ferry service would be scheduled.

TECH TALK by Jeffrey Erlitz

All General Order-related work on the subway system was cancelled for the weekend of December 14-15, 2002 due to the possibility of a transit strike. Consequently, the cutover of the northbound BMT Canarsie Line track (P2 or Q2, depending on where you look) at Atlantic Avenue did not occur. The next possible date for this work is now Presidents' Day weekend in February (see **Track Construction Forecast** in this issue).

Back on the West End Line, the new signals and switches were placed in service on the 38th Street Yard leads north of the Ninth Avenue station between December 21 and 30. With this cut-in, the new master control panel in 38th Street Yard Master Tower is finally in service, though only a *very* small portion. This new control panel is just across the hall from the original master control panel, built by General Railway Signal and placed in service between May 19 and June 5, 1989.

I have finally gotten around to doing subway history research in the Science, Industry, and Business Library of the New York Public Library. This library has a nearly complete collection of a magazine series entitled *The Signal Engineer*. This publication was started in June of 1908 and remains in print, through several name changes, to the present day. An article in 1913 described the new signal system in the BRT Centre Street Subway and provided details of this subway line that I, for one, never knew.

Brooklyn Rapid Transit opened the Centre Street Subway on August 4, 1913. This was an extension from the original Delancey Street elevated terminal east of Essex Street, west across Delancey and Kenmare Streets, and south on Centre Street to a large, new terminal at Chambers Street. For the first two years of operation, only the two tracks on the north side of Delancey Street and west side of Centre Street were in operation. This is basically how this line will be operated after the Nassau Street Reconfiguration project is completed.

There were three towers to control train movements on this new subway line. The entire signal system was furnished by the Federal Signal Company. Sixteen-lever interlocking machines were installed at Bowery and Chambers Street stations. Chambers Street only had a single, diamond crossover installed for these first two years of operation.

The Brooklyn-bound track actually had a "hardrail" connection west of the Bowery station onto what is now the Brooklyn-bound express track. Track J4, the express track, was a stub-ended track in the Bowery station. This is why there was an interlocking just east of the station, where the Brooklyn-bound track swung back over to the space of what is now Track J4, the Manhattan-bound express track. I suspect that the interlocking machine from the Delancey Street Terminal was moved to Bowery for this temporary interlocking. I also suspect that the 48-lever Federal interlocking machine that survived at Essex Street until the Chrystie Street Connection was built in the 1960s was the machine that was installed in 1913. I also suspect that the single-track terminal at Bowery was why that station was included on the BRT/BMT Standard subway car roll sign curtains.

Interestingly, the automatic block signals between the Essex Street and Chambers Street stations apparently did not have the track numbers on their number plates, only the stationing number to the nearest hundred feet.

Before the south side of the Manhattan Bridge was opened on June 22, 1915, the remaining two tracks on Centre and Delancey Streets were installed, and the entire line was completely resignalled. Chambers Street received a new 44-lever interlocking machine from Federal Signal Company which remained until the early 1970s and was the last signal apparatus from Federal on the subway system.

Jeff may be contacted via e-mail at jerlitz@pipeline.com.



R-33S 9331 makes an appearance at Chambers Street on the Nassau-Centre Streets Line at the end of the New York Division's "Farewell to the Redbirds" fantrip on December 8, 2002.

Commuter and Transit Notes

by Randy Glucksman

Metropolitan Transportation Authority

Citizen members of the Long Island Rail Road and Metro-North Railroad Commuter Councils met in a rare joint session (they usually meet separately) in mid-November, 2002 to discuss the proposed merging of the two railroads (November, 2002 *Bulletin*). Representatives from the Metro-North group expressed fears that their railroad could suffer under a merger, because they believe that their railroad's maintenance practices are superior and that there is an esprit de corps among the crews. Both groups expressed doubts that any savings from combining administration expenses, etc., would be used to keep fares down and improve services. They also wanted each railroad to keep its own name and identity. Incidentally, according to one attendee, the MTA did not bother to send anyone to this meeting.

Concerning the fare increases: three options were put forth that would raise fares either 10%, 20%, or 33%. Under the first plan would there be service cuts. New York State fares have been unchanged since November 12, 1995. At its December 15 meeting, the MTA board voted to schedule hearings to raise fares. Within days, Connecticut transportation officials announced that the budget plan for this year calls for a combination of fare hikes of between 10 and 30 percent. CDOT last raised fares for New Haven riders in Connecticut on January 1, 1998.

MTA Metro-North Railroad (East)

Special Thanksgiving Weekend timetables were available on November 18, 2002, and featured a representation of an old sailing ship, similar to the *Mayflower*. Schedules were similar to those that were operated in previous years.

Two transit agencies in the metropolitan area have opposite beliefs about operating service during Thanksgiving week. Metro-North and its predecessors have recognized the value of providing additional services during this period and they have fine-tuned their schedules and their operating practices. NJ Transit has written off Thanksgiving weekend as a loss, and as such does not effectively provide any service on lines such as the Montclair and Pascack Valley Lines, even though the former now has *Midtown Direct* service, which would deliver attendees to the Macy's Parade.

For the Christmas/New Year's Holidays period, the usual special timetables with additional services were issued.

Connecticut Department of Transportation

Connecticut's Transportation Strategy Board was to approve a plan to spend \$250 million to purchase new commuter cars and locomotives, and, by the year 2020, spend a total of \$3 billion to upgrade rail facilities state-

wide. There are plans to overhaul the existing Shore Line East and Metro-North fleets, and there is a recommendation to purchase 12 electric locomotives and 40 coaches for the New Haven Line plus 24 coaches for Shore Line East. Parking spaces would be added at every station. Connecticut, like many state and local governments, is facing a budget crisis, and it remains to be seen how much of an impact there would be on these proposals. An important question that must be answered is what to do about the rail lines between New Haven and Rhode Island and New Haven and Springfield, which are owned by financially troubled Amtrak. Also under consideration is commuter rail service between New Haven/Hartford and Springfield, Massachusetts; however, that report will not be made available until June. Thanks to member David A. Cohen for sending the report from the New Haven Register.

MTA Long Island Rail Road

During November, I visited Jamaica Station and found that the *AirTrain* station was still a work in progress. Temporary wooden boards have replaced sections of the platform, and I learned that this was done to facilitate steel installation. During middays, there is no access to Platforms D and E (Tracks 6-7 and 8) to enable work to be performed.

A third Montauk Branch timetable, for the period November 18-December 15, 2002, was produced, this one with the wording "Revised 11/20." What would be the final set of timetables was issued for 2002 on December 16. This set, with *Seasons Greetings* lettering, will remain in effect through March 16.

This year 's \$1 billion LIRR budget calls for the elimination of five peak hour trains and the closing of seven station ticket windows. As of mid-December, 2002, neither the trains nor the stations that would be affected were identified. Railroad officials were quick to point out that the trains selected would be trains that operate on the "shoulders" of the rush hour, and that stations with ticket windows that would be closed would have TVMs available.

With the wave of child abductions that took place last summer, the Amber Alert System was put into use by highway departments using their message signs, as well as by radio and television stations around the country. It has been effective, and lead to the return of several children. As of November 12, 2002, the Long Island Rail Road is supporting this very worthwhile effort by broadcasting notifications on station public address systems and station information displays. This system is named for Amber Hagerman, a nine-year old girl who was kidnapped and found murdered in Texas in 1996.

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Commuter and Transit Notes

(Continued from page 8)

Member Dennis Zaccardi has located a few more former Long Island coaches, 2926, 2948, 2968, 2970, and 2974, at the Orlando and Mt. Dora Railway in Orlando, Florida. All of these cars were built in 1955 by Pullman-Standard and ran until they were replaced by the bilevels.

NJ Transit

After years of talking about buying bi-level cars, in December, 2002 NJ Transit awarded a \$250 million contract to Bombardier, whose bid edged out that of Kawasaki, for an initial order of 100 bi-level cars with two options for 131 and 100 cars. That works out to \$2.5 million per car. Critics have warned NJ Transit that it should keep close tabs on Bombardier given Amtrak's recent experiences with the Acela. Another area of concern is the size of the door opening. But NJ Transit's Executive Director George Warrington said that the new cars would have four doors and larger vestibules, which are designed to make it easier to unload crowded trains. It remains to be seen how closely this car will resemble the style of bi-level that Bombardier and its predecessors have been manufacturing since the mid-1970s. Artist's renderings of the cars were not shown, so it is anyone's guess what the cars will look like. They will have 2-2 seating though. For certain, in order to fit the clearance envelope of the slightly more constricted North (Hudson) River Tunnels, they should approximate the size of an Amtrak Viewliner, and be smaller than an LIRR Kawasaki bi-level. NJ Transit is purchasing bilevel cars for their increased seating capacity, because it is more difficult to increase train lengths. The order for the first 100 cars breaks down as follows:

- 48 trailers (no restrooms) with 146 seats
- 37 trailers (restrooms) with 141 seats
- 15 cabs (ADA accessible restroom) with 139 seats.
 The single-level Comet I trailers have 131 (2-3) seats.
 Prototype cars are due by 2005, and the balance of 100 cars being in service by 2007.

I have to correct the report that appeared in the September, 2002 *Bulletin* concerning the status of the Arrow II cars. According to *Cinders*, SEPTA purchased cars 1236 and 1237, and they will be converted to cab control cars for work trains.

One year into the job as State Transportation Commissioner, James P. Fox left that position to become the Chief of Staff for Gov. James E. McGreevey. Jack Lettiere, a deputy commissioner in NJDOT, replaced him.

Last year, NJ Transit awarded the first of three contracts (phases) for rehabilitation of the catenary system on the North Jersey Coast Line (July, 2002 *Bulletin*). The first section was from Rahway to Perth Amboy. In November, a \$3 million contract for the second phase,

painting and rehabilitation between Perth Amboy and South Amboy was awarded to Allied Painting Inc. of Franklinville, New Jersey. Work that will be performed includes repair of steel posts, concrete base, guy assemblies; clean and paint all of the catenary structures and install mile post and station number signs. These catenary poles have been in service since 1933.

A \$1.877 million contract was awarded for the replacement of the Hogback Undergrade Bridge at MP 40.21in Far Hills on the Gladstone Line. This is a single-span riveted, wrought iron, through-truss bridge with an open timber deck. It spans the north branch of the Raritan River, and has been in service for 112 years. The replacement bridge will be a ballasted deck design.

Port Authority of New York & New Jersey

Over the next five years, the Port Authority will reduce its capital spending by \$2 billion, thereby delaying a number of projects. According to the report in *The New York Times* (New Jersey section — November 18, 2002), projects are being reevaluated and a revised list is due out early this year. Unaffected is the rebuilding of the World Trade Center PATH station, repainting of the George Washington Bridge and a harbor-dredging project. Not so fortunate are entrance/exit roads from Exit 13A on the New Jersey Turnpike to Newark Liberty International Airport and new cargo terminals in Hudson County.

Amtrak

On November 7, several years late, the NYS DOT accepted the first of seven rebuilt Rohr TurboTrains from SuperSteel. Thanks to *Weekly Rail Recap* for the report.

It was not this train that member Josh Weis and I saw on Thanksgiving Eve in New York Penn, but the set composed of 2131-2281-2380-2279-2139 that came in attached to five *Amfleet* cars. On the open ends were DMs 707 and 716; this rather large consist was running as a combined 1286/286. The Turbo went out about an hour late as Train #265. New York Penn was everything that Thanksgiving Eve could portend: crowds, crowds, and more crowds.

A new *Downeaster* timetable went into effect on November 1. One northbound and two southbound trains operate on slightly different schedules on weekends and certain holidays. The Durham station in New Hampshire is now designated as Durham-UNH (University of New Hampshire) and only has service Fridays through Mondays.

Metropolitan Area

The region received its first significant snow in two years on Thursday, December 5. Mass transit was largely unaffected, and NJ Transit did operate some extra service out of New York Penn and Newark. One Raritan Valley train was extended from Raritan to High

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Commuter and Transit Notes

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Bridge.

Miscellaneous

Could it be that I'm finally going to be putting this story to rest? Member Allen Morrison emailed the following about the "Narragansett Trolley 6843" (November and December, 2002 *Bulletins*). It turns out that this car was originally Rio de Janeiro Tramway Light & Power 1758, built by that company in Rio about 1914 and one of 12 cars that a consortium of U.S. museums imported from Rio in 1965. One São Paulo car went to Dayton, Ohio, in 1964. A few of the Rio cars have been scrapped, but 8 or 9 are still running today in U.S. museums. Before closing the book on this one, it would be interesting to learn if anyone did purchase the car.

Museums

The Shore Line Electric Railway Museum (Branford) has decided that the ever popular *Autumn in New York* pageants will be on hiatus for a while. Run every year since 1988, the directors have decided instead to schedule a series of "less intense" subway weekends on May 17/18, June 21/22, July 19/20, August 16/17, September 20/21, and October 18/19.

Today's commuter cars are the excursion trains of tomorrow, and that may literally be sooner than one would expect. According to a report that was forwarded to me, the Morristown & Erie Railway has purchased 17 of the soon-to-be retired Comet I (long door) cars. These cars were part of the first modernization of the diesel lines and replaced the Erie-Stillwell cars operating out of Hoboken. They were rebuilt in the late 1980s, but with Comet Vs being delivered for NJ Transit and Metro-North, NJ Transit is bent on ridding itself of these cars. Motive power will be the six ex-Amtrak (original NH) FL-9s that were acquired last year.

Election Day 2002

Member Bruce Russell reported that the six antique trolleys that were to run in on a tourist line in Aspen had the referendum passed, were acquired from Lisbon, Portugal (December *Bulletin*). Bruce added that the cars were constructed between 1905-1915, and are similar to cars operating in Detroit. They have a two-foot 11-inch gauge.

Scheduled for 2003

Here is a listing of projects that were anticipated as coming on-line for the coming year. This information is correct as of December, 2002. Dates given are those given by the respective transit agency.

- BART SFO Airport Extension Spring
- MTA Dade Palmetto Extension Spring
- Bi-State Transit Metrolink Extension to Scott AFB
 May
- New Orleans RTA Canal Street LRT to Green-

- wood Cemetery June
- PATH re-opening of Exchange Place station mid-year
- LACMTA Pasadena Gold LRT Line opens July
- Sound Transit's Tacoma Link LRT opens July
- NJ Transit opens Secaucus Transfer (weekends)
 September
- Sacramento RTA South LRT Line extension to Meadow View – September
- U.S. Congress enacts new legislation to extend TEA-21 (successor to the original ISTEA) to continue transit funding through 2009 (October)
- Tren Urbano opens in San Juan, Puerto Rico November
- PATH opens of the temporary World Trade Center station December
- NJ Transit Secaucus Transfer full service December

The SNJLRT Line between Camden and Trenton is also expected to enter service this year, but no firm date was published.

Because of the fatal September 26, 2002 AirTrain accident, the initial revenue service, which was set to begin in November, 2002, with full service this year, has been postponed indefinitely.

Other Transit Systems

Boston, Massachusetts

A downfall in revenues has caused the MBTA to develop a plan to contain costs. First, the transit agency has joined the New England Power Pool, and expects to save approximately \$4 million annually over the next five fiscal years. Thirty-five employees in positions deemed non-essential to the Authority's core mission are being laid off for a saving of \$2.5 million annually. Parking fees are being increased by \$1 at commuter rail parking lots and \$.50 at rapid transit stations. These higher fees are expected to generate \$5.5 million. The "T" did not put a dollar figure on this item, a stepped up effort to curb fare evasion system-wide. Police will be positioned at turnstiles of selected stations at peak commuting periods, to crackdown on turnstile jumpers. They will also check for counterfeit and outdated passes.

In spite of the fact that the fare collection machines would be made in Italy, and the fare gates would come from Belgium (although they could and would be made in the United States), the German firm of Scheidt & Bachmann was awarded a contract by the MBTA to provide an automated fare control system. Cubic Western Transportation Systems, whose bid was \$19 million higher than the accepted bid of \$75 million indicated that they would challenge this decision, especially to insure that there is compliance with the federal "Buy-America" law.

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Commuter and Transit Notes

(Continued from page 10)

In the December, 2002 **Bulletin** we reported that the MBTA had received offers from three groups to take over operation of its commuter services this year, once the existing one with Amtrak expired.

And the winner is.......Massachusetts Bay Commuter Railroad. MBCR is a Boston-based consortium of three rail service providers: Alternate Concepts, Incorporated, Connex North America, and Bombardier. You can draw your own conclusions, but the group includes former MBTA General Manager Jack Leary, who is the Managing Director.

Due to the success of "Late-night Owl" service, this service is being continued, with some minor changes to routings etc. The hours extend service from 1 to 2:30 AM and cover 14 routes, nine of which follow subway routes. Thanks to member Todd Glickman for these reports.

Timetable collectors, who specialize in collecting editions with errors, will want to pick up the November 4, 2002 Lowell Line timetable. The time at Anderson for inbound Train #236 reads 6:44 PM, when it should be 6:39 PM. Todd wrote that the MBTA website has the correct time, but until you read this, there were probably only a handful of people who knew about it!

Two proposals to extend the Blue Line from its present terminus at Wonderland in Revere to Lynn or Salem are under consideration. Of two possible routings, one would parallel the existing MBTA tracks to Newburyport and Rockport, while the other would utilize an abandoned right-of-way known as the Point of Pines. A third proposal would add a station at Revere. Thanks to *Rollsign*, a publication of the Boston Street Railway Association, Incorporated, courtesy of member Gary Grahl.

Camden, New Jersey

The Delaware River Port Authority, operator of the PATCO Speedline, has purchased the ¾-acre parcel adjacent to the existing parking lot from the Borough of Collingswood for \$226,700. It will be converted to a parking lot, thereby adding 70-80 spots to the present 705. A survey found that the parking lot was filled by 10:30 AM. Seven PATCO stations offer 12,626 spots, and a recent study found that in future years that number would need to be increased.

Philadelphia, Pennsylvania

SEPTA has issued a pocket-sized fold-up map of its entire rail system. On the reverse is a station listing showing not only the street location, but also the line that serves it, and if it is accessible and has parking. Thanks to member Gregory Campolo for sending copies.

Philadelphia commuters have no exemption from ma-

jor transit delays. At about 5:45 PM November 15, a switch and signal failure at Wayne Junction brought the Railroad Division to a halt. Maintenance crews were dispatched to the scene immediately, but the damage was enough to wreck the trip home and cause cancellation of numerous trains. Member David Safford, who sent the report, wrote that some riders got home 2½ hours late. Refunds were given, provided a SEPTA Service Guarantee Card was submitted.

Washington, D.C. area

Metro officials endorsed building a rail line between Tysons Corner and Dulles International Airport. With its proposed \$4 billion price tag, it could be one of the costlest projects in the country. Thanks to member Phil Hom for the report.

Tampa, Florida

Two weeks after the TECO Line began revenue service ridership was reported to be on track, according to a report in the *St. Petersburg Times*. During this period 13,575 riders were carried.

Jacksonville, Florida

Add Jacksonville and St. Augustine to the list of cities that have been won over to starting up a commuter rail service. This followed a visit by the Colorado Railcar DMU in early November. The report in *The St. Augustine Record* described the DMU as follows: "It isn't a locomotive towing passenger cars. It's more like a bus with rails that rides on the same lines as freight trains." (Did you understand that?) Thanks to Dennis Zaccardi for these news reports.

South Florida

Tri-Rail and Metro-Dade Transit are negotiating with Cubic Transportation Systems to set up an automated fare collection system that would feature "smart cards." These cards could also be used to pay for tolls on the Florida Turnpike and for parking. Thanks to member Karl Groh for the article from the *Palm Beach Post*. *Cleveland. Ohio*

New timetables, which eliminated evening rail service between Tower City and Eastern terminals, went into effect on the Red, Blue, and Green Lines on September 16, 2002. The 2.5-mile section between Tower City and E. 55th Street is being rehabilitated under a \$6.6 million project, and shuttle bus service running every 15 minutes was provided between 7 PM and midnight. This work is expected to continue until April.

Chicago, Illinois

This month METRA will start putting into service the first of 300 new bi-levels and its MP36-PH-3S (400-426-series) locomotives. Ten cars are expected each month, and they will replace more than 250 older cars, which operate on the Union Pacific, Burlington-Northern, and Santa Fe Lines. The new cars are equipped with larger windows, better seats, a high-tech PA system, and GPS

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Commuter and Transit Notes

(Continued from page 11)

(Global Positioning System).

Madison, Wisconsin

Following an appearance by the Colorado Rail Car DMU, transportation officials in Dane County are predicting that commuter rail could be running within two years.

Seattle, Washington

A groundbreaking ceremony was held on December 11, 2002 for the new Tacoma Dome Sounder station at the Tacoma Dome Transit Center. Work is expected to be complete in September.

Also in December, 2002, Tacoma Link vehicles began testing between E. 25th Street and the maintenance facility located east of G Street, to the S 25th station located between A Street and Pacific Avenue. Once the remaining construction is completed to the end of the line at the S 9th/Theater District station, trains will be tested throughout the full alignment. Most testing is expected to occur Mondays through Fridays, between 8 AM and 5 PM. Trains may run every 10 minutes in each direction.

Los Angeles, California

Late evening service, 7 days a week, was expanded by 40 minutes on the Red (subway) Line, one hour on the Blue (light rail) Line, and 10-20 minutes on the Green (light rail) Line as of October 20, 2002. New timetables were issued.

San Jose, California

Altamont Commuter Express officials are giving up hope of ever obtaining 81 miles of right of way from the Union Pacific due to the decline in sales tax revenues that are used to support the commuter rail service between San Jose and Stockton. The cost to purchase this track ranges from \$90 to \$190 million. \$10 million, which would have been used to make some track improvements and help with purchasing some track rights of way, was to come from State Proposition 51, but that measure was defeated soundly by voters in November, 2002

The Valley Transportation Authority held hearings in early December, 2002 to discuss proposals to raise fares and cut service. If approved, in April, the 24-hour Santa Teresa to Baypointe service would end, and service would only operate from approximately 4:30 AM to 1:30 AM. Several weekday and weekend evening trips would also be eliminated. On the I-880/Milpitas to Downtown Mountain View route, evening service would operate every 60 minutes after approximately 10 PM. On weekdays and weekends, the last eastbound trip would leave the Downtown Mountain View station at approximately 12:40 AM and the last westbound trip would leave the I-880/Milpitas station at 11:49 p.m. On weekends, service would operate every 30 minutes.

Toronto, Ontario, Canada

Toronto's subway system was once again expanded when the Sheppard Subway opened on November 24. This line branches off to the East from the Yonge Street Line, at a station now known as Sheppard-Yonge. The other new stations are Bayview, Bessarion, Leslie, and Don Mills. Trains run every 5-6 minutes from 6 AM (9 AM Sundays) until 2 AM. This is the first subway expansion since the Spadina Avenue Line was extended to Downsview on March 31, 1996. A number of new bus lines were created, and several had their routings revised.

Tel Aviv. Israel

Four local and international consortiums have submitted bids to build and operate the first LRT line in Tel Aviv. The line, to be designated as the Red Line, will be 13.75 miles (22 km.) long, and about one-third will be underground. Three other lines, 28.75 miles (46 km.), are also being planned. This project has drawn the interest of the following:

- Africa-Israel Investments, Egged Bus Cooperative. Siemens, HTM, AECON Group
- Bombardier, Bouyges, RATP, Dan Bus Company, and Properties & Construction Limited
- Alstom, Connex, Ashtrom, Housing & Construction Limited, CGEA
- Daewoo International, CAF, BVG, Granite Hacarmel, Shapir Engineering Limited, Bateman Engineering Limited, Ocif Limited

By mid-year, a selection will be made, and it is anticipated that construction would begin by 2005, with service running in 2010.

In October, 2002, Alstom, CGEA, Polar Investments, and Ashtrom were selected as the "preferred candidate" to construct the Jerusalem LRT's first line. Thanks to member David Klepper for the article from *The Jerusalem Post*. He also wanted me to mention that the "light rail construction" that was previously reported, was actually preparatory work, moving pipes and electrical conduits, etc.

From the History Files

70 Years Ago: On January 1, 1933, the Pennsylvania Railroad began electric service on what would be known as the Northeast Corridor, between New York and Philadelphia.

40 Years Ago: On January 21, 1963, the Chicago, North Shore & Milwaukee abandoned service between its namesake cities. Some rolling stock was preserved in museums, including the newest equipment, the *Electroliners* (St. Louis Car Company, 1941). They can be found at the Illinois Railway Museum and the Rockhill Trolley Museum, following a short career on the Red Arrow's Norristown Line.

News items and comments concerning this column may be emailed to NYDnewseditor@aol.com.

REDBIRD UPDATE By George Chiasson

R-142s

Through December 14, 2002, Option R-142s 6896-6900, 6906-6915, 6936-6940, 7096-7105, 7111-7115, and 7121-7130 were delivered. By the same date, Option R-142s 6916-6920 and 7066 7090 were in service on 5, bringing the active New Technology IRT fleet to an even 1,200. Updating the futures department further, what were to be Option R-142s 7181-7210 will be numbered 1221-1250. These are actually part of the First Option for 230 cars, and will now follow the Second Option for 120. Bombardier has been pursuing the lease of 10 additional flat cars for increased delivery intervals, but other than a series of concentrated flurries, the new cars have continued to arrive at an inconsistent rate. As alluded to last time, R-142s from 6301-6700 have been assigned to 2, while those from 6701 upwards (280 cars-28 trains) are on 6. It should be well into this coming winter, if not even springtime, before 6 has its complete allotment and the balance begin moving to 4. R-62A Notes

On November 18, 2002 R-62As 1661-1665 were transferred from 1 to 7. They were joined by single cars 2081-2085 off 3 on November 25, but surprisingly there was no movement between 1 and 3, with each being directly reduced accordingly. With the long interval expected before R-142s start turning up on 4, it should also be a considerable time before additional R-62As are shifted from the IRT mainlines to Flushing. In the meantime, the 150 cars assigned to date on 7 are now providing roughly half of the service most days. The newness of R-62As to the Flushing Line was a factor on December 4 as the system experienced its first serious snowfall in some time (up to 7 inches in Queens). An 11-car train of R-62As is about 10 tons heavier than a similar string of World's Fair cars and when speeds and grades are factored in, a lot of Silver Sevens were observed skidding on the snow-coated rails that day. Experience and professionalism are the most valuable solutions in this situation, and the results were different when more snow came on December 8. The complete swap of 315 R-62s from 4 for 304 R-62As from 3 is expected to occur within the next several weeks. This will result in the "permanent" allocation of R-62s to 3, and permit single R-62As for long-term use on the \$\infty \lambda 42^{nd}\$ Street Shuttle to be based at Jerome. The remainder of the R-62As will be used on 4 until they can be replaced by new R-142s in 2003, and then reassigned to Corona for 7.

Redbird Notes and Status

Perhaps the biggest news with the Redbirds in recent weeks has been the ongoing appearance of Mainline R-

33s on **5** with freshly overhauled trucks and carbody remediation work. Official plans continue to call for the retention of up to 58 Mainline R-33s and all 38 remaining Worlds Fair R-33s for future work service, but it is unclear if these improvements are related to this projected outcome. Further, an examination of present requirements points compellingly toward a potential equipment deficit (albeit a small one) for the IRT, assuming peak hour service is not cut in the foreseeable future. AM rush hour maximums on lines which will use R-142s are: **2**-310 cars, **4**-340 cars and **5**-330 cars, while the proposed fleet allocations are 2-370 R-142s (now 400), 4-405 cars (including 290 R-142s, 45 R-62As, and 70 R-142As) and 6-370 R-142s (280 in service as of December 14). The projected deficit is most obvious on 6, where 90% of the assigned R-142s would be required to meet schedules. To address this situation, it would be reasonable to conclude that a relatively small pool of R-33s would have to be retained for protection of schedules on 6, as well as perhaps 2, until such time as either fleet size, fleet reliability, or service schedules are adjusted. Through December 14, 2002 the following 34 R-33s had been identified as receiving a "mini-overhaul" at 207th Street Shop for continued service on **5**: 8812/8813, 8834/8835, 8858/8859, 8868/8869. 8888/8889. 8890/8891. 8954/8955. 8964/8965. 9000/9001. 9016/9017, 9020/9021, 9032/9033, 9066/9067, 9070/9071, 9074/9075, 9138/9139, and 9206/9207. All but four of the surviving GE R-29s were transferred to 207th Street Yard for reefing by December 1, 2002; those used on the Rail Adhesion Train were likewise marked up for disposition by mid-December though they remained at E. 180th Street. Another 30 GE R-33s were gradually removed from service on **5**, though a few of these may have entered 207th Street Shop for rehabilitation work and will return. Surprisingly, only two WH Mainline R-36s (9528/9529) fell victim to the latest influx of R-62As at Corona, the explanation being a need to keep as many of the rest as possible to protect spare ratios on the busy ?... World's Fair R-33 9317 finally returned to Corona from its own rehabilitation at 207th Street on November 17, 2002. The car sports distinctive white porcelain GE grids and has GE controllers and modified door circuits (much like the unique 9337). This includes an electric interlock similar to the GE WF R-36s. 9317 also had the original WH Cam control system completely rebuilt (actually replaced), and received modifications which enable compatibility with NYAB-equipped Mainline R-33s (8806-9075 group). To date, 9317 has not yet reappeared in passenger service on 7, being seen only as

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Redbird Update

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a "horse" on transfer moves from Corona to Coney Island or 207th Street. Sister cars 9329 and 9343 remain at 207th Street receiving similar attention, and it is projected that all 38 R-33 single units will gradually receive the same modifications. They are expected to be used for utility duty at various locations after retirement from revenue service sometime in 2003. Other aspects of the World's Fair R-33 re-overhaul (associated with the 6-year SMS cycle) includes: In-house overhaul of the electric heaters and ventilating fans; brake valve replacement; replacement of WH XM579 Master Controllers with GE 17KC76AD1; rebuilt trucks; magnetic particle inspection; reinforcement of carbody framing and shell remediation; and replacement of the static converter capacitors and power module.

Redbird Retirements and Restorations

Taken out of service through December 14, 2002 were:

R-33: 8874/8875, 8992/8993, 9006/9007, 9022/9023, 9084/9085, 9106/9107, 9126/9127, 9128/9129, 9140/9141, 9166/9167, 9180/9181, 9186/9187, 9190/9191, 9192/9193, 9200/9201 (third time) off

R-36: 9528/9529 off 7

Restored to service through December 14, 2002 were:

R-33: 8956/8957 on **5**

Redbird Reefing

The most recent shipment of Redbirds on November 23, 2002 (and third in three weeks) consisted of the following 50 cars, destined for the coast off Chincoteague, Virginia:

R-33: 8806, 8807, 8808, 8809, 8822, 8823, 8824, 8825, 8852, 8853, 8860, 8861, 8872, 8873, 8908, 8909, 8928, 8929, 8952, 8953, 8962, 8963, 8990, 8991, 9030, 9031, 9060, 9061, 9072, 9073, 9086, 9087, 9140, 9141, 9144, 9145, 9148, 9149, 9274, 9275, 9280, 9281, 9288, 9289 R-36: 9390, 9391, 9416, 9417, 9424, 9425

The next batch of 50 will head to Georgia (off Savannah), but departure time is unknown as yet. Two more of shipments of 50 "deadbirds" each will then go to South Carolina (Hilton Head) into 2003. After that cars may go back to Delaware again, but there might also be renewed interest by New Jersey. The Garden State was originally negotiating with MTA for the acquisition of some cars, then dropped the idea during a 2001 change of administration. Water sports enthusiasts and Environmental Protection advocates have been pressing the case for artificial reefing again recently.

R-143 UPDATE by George Chiasson

Through December 14, 2002, R-143s 8237-8260 entered service, for a total of 144 cars. As of the same date, cars 8269-8273 and 8277-8292 had been delivered. 8261-8268 had almost completed testing but were being held aside for modifications, while all but 8289-8292 had operated under their own power. Cars 8273-8276 and 8293-8296 were expected by the end of December, 2002, with deliveries of 4-8 cars per week anticipated through the early weeks of 2003. This should find all 212 R-143s on NYCT by mid-to-late January.

The pace of R-40M transfers from East New York to Coney Island intensified during the late autumn, with the majority of this fleet nominally running on \(\mathbb{N} \) as of December 14, 2002, Incremental moves included 4490/4491 on November 13 and 4508/4509 on December 12, being done as part of regular shop moves between the two facilities. Two others transfers were entire consists: 4492-4495 and 4500-4503 on November 25, then 4496-4499 and 4504-4507 on December 4. These were gathered together and pulled straight out of passenger service before moving to Coney Island. In response to the December 4 R-40M reallocation. Phase II R-32s 3846-3849, 3858-3861, and 3874/3875 were shifted from Coney Island to Jamaica, leaving just three trains of R-32s in service at Coney Island. Two of these were observed on the shortened N of Saturday, December 14 at Pacific Street, as were two R-32 trains on eals, which ironically included four of the ex-Coney Island Phase IIs.

By late November, surviving R-110Bs 3001-3006 were no longer being held for stand-by service on **©** and had entered storage. A specially-designated crew had been used to operate these cars when operational circumstances required the added equipment, but most often wound up using a conventional train. The cars were last actually observed in **©** service (running as a "gap" train from 168th Street-Washington Heights to World Trade Center) during April. In the time since the 9-car set was removed from regular service in 1995, the R-110Bs have been less than desired equipment. This was in large part because the odd 3+3 configuration requires a special Conductors' zone (and unique "R-110B" positioning boards) which do not line up with the wayside closed circuit monitors now in place at many stations. The other 3 cars of the 9-car experimental train (3007-3009) remain outside at 207th Street and can be viewed from a distance at the 215th Street station of 11/9. In a couple of other part-time assignment changes of note, "Slant" R-40s were no longer seen on weekend @ trains after November 23, and since the first of the two large R-40M transfers to Coney Island (about November 26), it has become unusual to find R-68As on N.

AN HISTORICAL PERSPECTIVE ON R-29 CAR ASSIGNMENTS by George Chiasson

As part of an overall campaign to concentrate resources on the renewal of existing NYCTA assets, as opposed to expansion of the system, Chairman Patterson underscored the urgency of replacement rolling stock in 1959 by threatening to cut service if necessary to keep deteriorated cars from becoming a safety hazard. Most on the system were 20 years of age or older, many of those 35 years old or more. Though a small start had been made in the post-World War II era through acquisitions of the R-10 through R-22 series (1948-1957), with 210 more R-26/28 cars in the pipeline for the IRT, many of these newer SMEEs were being used to expand train lengths on existing lines and increase service levels where possible. Despite these measures the huge fleet of aging pre-war cars remained the backbone of the NYCTA system, and to stave off later negative effects on service availability, action had to be taken and soon. In 1961, the Authority sought financial participation from the State of New York for the broad-based acquisition of 1,800 subway cars. 1,200 of these would be assigned to the IRT to replace all remaining pre-war equipment, including that used on the Third Avenue "L" in the Bronx. balance would be used to renew the BMT service fleet and provide additional equipment for service additions associated with the Chrystie Street Connection, then being built.

Ultimately, this proposal was left on the table as the State Assembly in Albany adjourned for the year, and NYCTA proceeded on its own, using bonds to accumulate capital funds. 236 IRT cars ordered from St. Louis Car Company under Contract R-29 were the first in a series of acquisitions spawned by this arrangement. The specifications drawn up were very similar to the R-26/28s then being delivered, with slight changes in undercar materials and flooring to shed a little weight. These were also the first permanently arranged "married" pairs on the system, joined at the Bends by a drawbar (also called a linkbar) which required separation by the shop. Aside from a handful of different supply vendors, GE cars 8688-8805 offered a modicum of technological advancements including highvoltage circuit breakers instead of fuses on the main electrical panel and the first use of an up-to-date SCM control group. By contrast, 8570-8687 used a standard Westinghouse Cam Control system, as introduced on R-22s 7505-7524 in 1958. In response to interest expressed by the Chairman in improving New York's generally anachronistic technical specifications (and ironically at the time of his death), WH cars 8686/8687 and GEs 8804/8805 were fitted onto General Steel Castings (GSC) #70 trucks, which had evolved from PCC rapid transit designs through the years. In time

these, or a modified version of them, were commonly applied to rapid transit cars built for Cleveland, Boston, Toronto and in direct comparison to NYCTA, the Hudson & Manhattan. General 70s included a built-in or "package" tread brake unit which gripped the inner edge of each wheel, while the NYCTA's standard cast steel frame "Equalizer Bar" trucks had "clasp" braking which gripped the outer surface.

The first R-29s arrived in New York on March 28, 1962 by barge, being greeted on their way up the East River by a spray-over from an FDNY Fire Boat and foghorn calls from passing marine vessels. After initial testing, 8570-8579 were operated as a "Special" 10-car train on April 29, roaming the 7/Flushing Line, which at that time was using teenaged R-12/14s and R-15s with replacement cars anticipated. Formal revenue service commenced the following day on 1, the R-29s running separate from the usual dreary consists of R-17/21/22s. and making a sensational visual splash. Instead of maroon or olive drab, they were colored in bright tartar red paint (bearing the City of New York seal) with purplish-blue interiors. The Westinghouse half of the order arrived first followed by the GEs, with the four experimentals coming in last. Through the summer of 1962 the R-29s gradually supplanted all R-17/21/22s on 1. In turn these filled the ranks on 2 and 3, so the surviving Lo-Vs could be concentrated on the East Side Express routes. This led to withdrawal of the last 1916vintage "Flivver" cars from the Lexington-White Plains Road Line (today's 6) in August. In those days, IRT equipment assignments were a great deal more mixed than they are presently, with groups being shared across several different routes. All 1 consists were then 8-car trains because platform extensions were still far from complete. As part of their use on 2 and 3, R-29s were sometimes found on 6 at night and on weekends as well.

On October 1, 1962, mixed R-17/21/22/29 trains were the first blends of SMEE cars regularly assigned to 4/Lexington-Jerome Express. Some R-21/22s returned to (now mixed with R-29s) and trains of Lo-Vs were back on the Seventh Avenue Express routes. This freed up R-17s for movement to 6, where consists were extended from 8 to 9 cars. Additional R-17s were also shifted to Flushing by November to expedite 10-car operation. R-29s continued to dominate 1 until March, 1963, when R-12s, R-14s, and R-15s began coming over from the Flushing Line. At that time approximately 50 R-29s wound up on 6, where they were joined by a large group of newly-delivered Mainline R-33s. For the next two years all other R-29s melted into one giant

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An Historical Perspective on R-29 Car Assignments

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pool of rolling stock which was spread around IRT lines 1, 2, 3, 4, and 5. Main Line R-33s were assigned to specific routes by May, 1965 to provide communication with at least one set in each train, and the R-29s departed 6, all 236 then to be found on 2, 4, and 5. Beginning in 1964, the R-29s' original red color led to a partial repainting of the older R-17 fleet into a similar scheme.

With distribution of the IRT fleet based on electrical equipment in February, 1966, the 118 WH R-29s were used on the joint 1 and 3, while the GEs went to 2, **4**, and **5**. WH R-12s 5707-5729, which were sent to Work Service at that time, were restored to revenue service on 1/3 a year later and WH R-29s 8570-8599 correspondingly transferred to 6, where the Pelham fleet amounted to an incredible (by today's standards) 549 cars! Experimental cars 8686/8687 and 8804/8805 (so-called for their lack of outboard journals, which exposed the wheels and axles and looked like oversize roller skates) were in service with conventional heavyweight trucks by early 1970. From there the story becomes somewhat predictable, as the R-29s' relative modernity shielded them from the 20% fleet cut of October, 1976, but they were removed from 4 as joint assignment with 2/5 was discontinued. Starting in the early 1970s, increasing numbers of R-29s were repainted into the standard MTA blue and silver scheme, as the graffiti "work" of vandals also gained momentum.

As the GE World's Fair cars headed to Morrison-Knudsen at Boise, Idaho for contract rebuilding, GE R-29s 8734/8735 and 8804/8805 were among an array of standard SMEEs loaned to the Flushing Line from September to November, 1983. Air-conditioning was retroactively installed on most of the R-29 fleet in the early 1980s, but after assignments were again broken up in January, 1983, WH cars assigned to 1 (8600-8687) were among the last to receive it in 1984. This process also included the interiors being repainted from institutional green and gray into brighter beige and orange tones. WH R-29s on 6 (8570-8599) were repainted into the unusual all-white paint scheme between late 1982 and approximately April of 1983. All 118 GE R-29s were concentrated on 2 after January 10, 1983, mixed with GE R-14s, R-15s, R-22s, R-26s, and R-28s. They, too received the "whitewash" coloring through the following spring, followed by the 8600s on 1 between July and December. By mid-1984 cars 8640-8649 were being kept in a relatively clean, solid consist and emblazoned with "Spirit of Broadway" on the car sides in orange script. Later that year, an accident created oddball mis-mate 8672/9135, a half R-

29/half R-33 pair that was observed on **6** between December and February, then on **1** through the end of 1985. As R-62s entered service in 1984, followed by the R-62As in 1985, cars were shifted around the system to replace the oldest SMEEs, which were by that time almost totally concentrated on **3**. In April, 1985 this maneuvering resulted in the transfer of WH R-29s 8600-8619 from their Broadway base to Brooklyn's Livonia barn for use on **3**. There they replaced the Mainline R-36s, which had been shifted to **7** en route to GOH.

10 GE R-29s were the first cars shipped to Morrison-Knudsen's plant in Hornell, New York during June, 1985, after NYCTA let an initial contract for the complete General Overhaul (GOH) of all 446 R-26/28/29s. These returned to the property for evaluation and testing in September, and by the time the first train of true "Redbirds" was placed in revenue service on 2 on October 21, there were 28 cars already back from Hornell. The cycle of white, GE R-29s going out to M-K and being replaced almost in kind by Redbird R-29s returning was the story through the end of January, 1986, by which time there was only one unrebuilt train left in service. This was composed of cars 8722/8723, 8746-8749, 8752/8753, and 8788/8789, and was largely in as-delivered configuration, but for cosmetic changes like paint and flooring, as well as air-conditioning retrofits. GOH GE R-29s began mixing in trains with GOH R-26/28s on January 13, and never broke that pattern through the end of their service days. All were rebuilt and back on the IRT as of June 10, 1986 but for one mis-mated pair (8702/8723, which did not return until the entire effort was completed).

R-29s 8660/8661 were the first Westinghouse pair to go north, along with the final shipment of GEs in February, 1986. This set was unique in that it was rebuilt with a modified prototype interior mimicking the R-62/62A class, featuring fixed stanchions in place of traditional spring-loaded Ellcon handstraps. As the WH R-29s were intended for service assignment to Westchester Barn, a Westinghouse-oriented facility which provides cars for **6**, they were equipped with an upgraded version of the WH Cam control package with which they had been built. The first cars from the 8600-8619 3 group went to Hornell to form the WH R-29 pilot train in March, then as new R-62As entered service on 1 through April and early May of 1986, about half of its WH R-29s were shifted to 6, from which all were eventually forwarded to Hornell. By the end of May the first cars of the 8570-8599 6 group were at M-K, and the entire 8600-8619 sub-group had departed 3. These were temporarily replaced by other higher-numbered 8600-series WH R-29s from 6. With continuing arrival of the R-62As, all WH R-29s (what was left of the 8620-8687 sub-group) were removed

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An Historical Perspective on R-29 Car Assignments

(Continued from page 16)

from **1** as of June 2, 1986.

Meanwhile, 8660/8661 had returned to New York and were accepted for revenue service on May 14. As there were as yet no Redbirds (or any improved equipment) on 6, they were blended in with the GE R-26/28/29s and resumed their career on 2. This would be the case for subsequent WH GOH cars for a few months to come, until such time as R-62As were allocated to Westchester and the Car Appearance Program (CAP) set up to ward off defacement through graffiti. During June, 1986 the first 8600s (former 1 cars) went straight from 6 to Hornell for GOH. Through the unusual transfer of 18 GE R-33s to 3, all of 1 's remaining WH (8624/8625, 8664/8665, 8670/8671, and R-29s 8682/8683) were reallocated to 6 on June 25, and the class disappeared from the West Side IRT.

By the end of that month there were 10 WH R-29 Redbirds on 2, just enough to make up one whole train. New cars continued to be broken in on that route, but on July 10, 1986 the first 18 "experienced" GOH WH R-29s began running on 6, just a few weeks after the first R-62As heralded the start of graffiti eradication on that route. By August 16 there were again 18 GOH WH R-29s, fresh from Hornell, mixed into the 2 fleet. A week later cars 8640/8641 became the first pair to be accepted at Westchester and resume service straight onto 6. This completed the shift of program focus and as of September 9, all other GOH WH R-29s that were left on 2 (8634/8635, 8652/8653, 8656/8657, 8668/8669, 8676/8677) were finally redirected to Westchester. In early December, 1986 8570/8571, two of the original cars from the 1962 Flushing demonstration, and 8598/8599 became the very last Non-GOH, Non-CAP WH R-29s to be removed from passenger service on 6. Non-CAP WH R-17s, R-22s, R-26s, R-28s and R-33s remained for a time until all were gradually retired or sent to M-K by the end of 1987. At the end of January, 1987 there were nine trains (90 cars) of GOH WH R-29s in use on 6, then 114 by the end of March. The 118-car group was completed with the acceptance of 8598/8599 and 8570/8571 on May 5 and 6, respectively. The last two pairs of GEs were confounded by unexpected problems, so as an interim measure 8703/8722 was returned as a mis-mate in May of 1986, but not followed by 8702/8723 until October 22, 1987, at which time the 446-car contracts were closed out. Shortly afterward, both sets were reunited with their natural mates.

The GOH R-29s then led a prosperous service life for many years. No assignment changes occurred at all until May, 1995, when all R-26/28/29s were swapped

from 2 to 5 in exchange for GOH R-33s. This in part was intended to stem the run-up in mileage owing to the all-out, 24/7/365 operating nature of the line known to many as "The Beast." With its nominal part-time status, the amount of abuse the older Redbirds was subjected to on 5 was lessened, which helped to extend their reliable, useful life into the 35-40-year range.

In July, 2000 the first trains of R-142 and R-142A New Technology trains were placed in operation on 2 and 6 respectively. These had been procured specifically to enable retirement of the physically aging and deteriorating Redbirds, so to ensure removal of the oldest cars first, R-142s assigned to 2 were used to gradually bump GOH R-33s over to 6, from which R-26/28/29s could be removed and disposed of. The new R-142As entering service on the 6 would serve to replace the Redbird fleet there directly. Problems with the new cars persisted, and the retirement process delayed until May, 2001, by which time four GEs and the first ten-car train of WH R-29s were already in storage. With direct replacement by the more reliable R-142As, withdrawal of the WH cars proceeded at a much faster, steadier pace and by the end of November, 2001 only 46 cars (4 trains) were left. These were further reduced to one just before Christmas and on December 26 the last of them, which used cars 8588/8589, 8632/8633, 8640/8641, 8656/8657, and 8682/8683, operated in passenger service. 8652/8653 closed out the tenure of WH R-29s on MTA NYC Subway by being the last pair to depart Westchester Yard on December 31, 2001. The class in general was reefed by late March of 2002.

Because there was a larger overall fleet to retire, continued troubles with the R-142s, and the task was being accomplished in a third-hand manner, withdrawal of the GE R-29s followed a leisurely pace through the balance of 2001. The first large group of retirements finally occurred in December, with 56 remaining as the New Year dawned. From this point through the end of May, 2002 there was about one train per month removed from service on 6, as they were replaced by R-33s imported off 2. There were 24 GE R-29s remaining when R-142s were directly assigned full-time to 6 in May, and use of the few R-26/28/29 trains still active plummeted accordingly. By the end of August there were just 14 still in service during rush hours, enough to create two trains when mixed with the handful of R-26/28s that were still in operation. These made their last trip on October 7, after which a lone consist of GE R-29s continued to see duty on 6 on a day-to-day basis. Finally, the curtain call came at the end of service on Thursday, October 24 and after just over 40 years of service the R-29s departed the big city stage they had served so well.

TRACK CONSTRUCTION FORECAST FOR JANUARY, 2003 IN THE NYC TRANSIT SYSTEM by David Erlitz

Happy New Year to everyone! I hope you got everything you wanted for the holidays and then some. Hopefully this year will be a better one than last year. I would like to start off by saving that most of the work on the December 13, 2002 weekend was cancelled due to the threat of a strike that fortunately did not happen (see Around New York's Transit System on page 20 and Randy Glucksman's article on page 6 for details). Also, with the exception of the new Track Q2 tie-in on the Canarsie line that was supposed to have happened that weekend and now has been tentatively scheduled for Presidents' Day weekend, not much was lost. Also for the first week of the New Year, all of the general orders that are 24/7 like the Manhattan Bridge closure and the Stillwell station closure are reissued into 2003 general orders. For lack of space and time in writing this, I purposely did not include any of the carryover reissues for 2003.

On the IRT, the Flushing Line will have a lot of work with panels as well as the signal job. The White Plains Road Line will have more weekends in late January into February.

The IND will have its share of work with the structural rehabilitation between 145th Street and 168th Street. This will probably be over by the time you have re-

ceived this mailing, but I thought I would include it anyway. A rail renewal between Jay Street and Hoyt-Schermerhorn, will have the from 207th Street discharging at Jay Street and relaying to Fourth Avenue. The from Queens will terminate at Utica Avenue, and a shuttle bus will operate between Jay Street and Utica Avenue. This is scheduled to happen from Saturday night to Sunday afternoon, the first weekend of January. Lexington Avenue-53rd Street station rehabilitation works when the Flushing Line project does not. There also will be a panel job south of 80th (Hudson) Street on the Fulton Street Line that will include a bus.

On the BMT, switch #25, north end of 57th Street-Seventh Avenue (on the southbound side), will be reinstalled and put back into service. This switch was taken out a couple of years ago for lack of use, but now with the Manhattan Bridge closed it is really needed. DeKalb Avenue station rehabilitation, switch #345 in the Montague Street Tunnel, West End signals, Brighton structural rehabilitation, and Fourth Avenue tunnel lighting and pump room rehabilitation work as well as Jamaica Line work and Canarsie CBTC installation continue for the year. I hope you all have a good year and enjoy the articles. Until next month...

DATE(S)	TIME	LINE(S)	AREA OF WORK	SERVICE ADJUSTMENT(S)	DESCRIPTION OF WORK
1/10 to 1/20	Wkend		to S/E 42 nd Street & S/O 72 nd	• • • · · · · · · · · · · · · · · · ·	Electrical, plumbing, and architectural installations
1/18 to 1/20	Wkend	Bus	Plaza	•	Tunnel lighting, fire lines, painting, structural rehabilita- tion, etc.
1/04 to 1/12	Wkend	0	Track CMC, N/O 111 th Street to S/O Willets Point	No effect on service	Switches 207B & 205B re- newal
1/02 to 1/17	Daily Wed to Fri	0	N/E 103 rd Street	No express service between 69 th Street and Willets Point	Type III panels
1/04 to 1/19	Wkend	0	Track CM S/E 69 th Street to N/E 103 rd Street	No effect on service	Type III panels
1/07 to 1/17	Nights		nue to N/O 149 th Street- Grand Concourse	Relay at Jackson Avenue, single track via Track 3 S/O Jackson Avenue to N/O 149 th Street-Grand Concourse	Install wayside equipment
1/04 to 1/13	Wkend		S/E 125 th Street	 North – Woodlawn to 125th Street South – Utica Avenue/New Lots Avenue to 125th Street – Dyre Avenue to 149th Street-Grand Concourse 	Install track wall panels
1/18 to 1/20	Wkend	6		 Short – Pelham Bay Park to 125th Street Main – Brooklyn Bridge to 125th Street 	Install track wall panels
1/02 to 2/7	7 Nights per week		Track MM2 N/O 14 th Street to N/O Brooklyn Bridge		Type II-Type II chip-out
1/04 to 1/19	Wkend	9	Track W3 N/O E. 180 th Street to S/O 219 th Street	N/B via Track M N/O E. 180 th Street to S/O 219 th Street	Type III panels
1/10 to 1/20	Wkend		Track A1 S/O 168 th Street to N/O 125 th Street		Structural repair and tunnel lighting rehabilitation

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Track Construction Forecast for January, 2003

(Continued from page 18)

DATE(S)				SERVICE ADJUSTMENT(S)	DESCRIPTION OF WORK
1/04 to 1/05	Sunday		Tracks A3/A4 N/O Jay Street to S/O Hoyt-Schermerhorn	 North – 207th Street to Jay Street, relay to Fourth Avenue South – Far Rockaway/Lefferts Boulevard to Utica Avenue − 168th Street to World Trade Center − Jamaica Center to Second Avenue as per other plan Bus – Utica Avenue to Jay Street 	Re-alignment of track, Track Geometry Car repairs
1/02 to 4/14	24/7		Track B4 S/O Grand Street to N/O Broadway-Lafayette	No effect on service	Type II-Type II chip-out
1/04 to 1/13	Wkend	0 / 0 Sh.	Track C2 N/O Bedford Park Boulevard to N/O 205 th Street	Sh. – Bedford Park Boulevard to 205 th Street	Installation of DC track fuse box, safety bars, painting, etc.
1/07 to 1/24	Nights		Track D3 S/O Roosevelt Avenue to S/O 36 th Street	S/B operates express via Track A1 from S/O Roosevelt Avenue to S/O 36 th Street	Install plates and tie blocks
1/07 to 1/11	Nights		Track D3 S/O 23 rd Street-Ely Avenue to N/O Lexington Avenue	Operates via 60 th Street Tunnel and Broadway Line to Whitehall Street as per other service plan	Tunnel wash
1/14 to 1/18	Nights		nue to S/O 23 rd Street-Ely Avenue	Operates via 60 th Street Tunnel and Broadway Line to Whitehall Street as per other service plan	Tunnel wash
1/04 to 1/13	Wkend			Daytimes operates to Second Avenue, nighttimes operates to Whitehall Street	Construction of new escala- tor and elevator shafts
1/02 to 1/31	Daily		Track F1, N/O Aqueduct Racetrack to S/O Howard Beach	 ▲ – All mainline service to Lefferts Boulevard ♦ – Rockaway Boulevard to Far Rockaway ❶ – No effect on service 	Demolition of platform
1/11 to 2/2	Wkend	Bus	Track K1 S/O 80 th (Hudson) Street to S/E Rockaway Boulevard	 ▲ - 207th Street to Far Rockaway ▲ - 207th Street to Howard Beach Bus – Lefferts Boulevard to 80th (Hudson) Street 	Type III panels
1/07 to 1/27	7 Nights per week		Tracks A3/G3 N/O Lexington Avenue to S/E 57 th Street- Seventh Avenue	- Single pocket operation at 57 th Street-Seventh Avenue	Switch #25A/B renewal
1/13 to 7/25	Daily	0	Track A3 S/O Ocean Parkway to S/O W. 8 th Street	No effect on service	Rehabilitation of W. 8 th Street station
1/18 to 7/27	Wkend		Track A3 S/O Ocean Parkway to S/O W. 8 th Street	No effect on service	Rehabilitation of W. 8 th Street station
1/04 to 1/20	Wkend		Track B1 N/E Lawrence Street to S/E DeKalb Avenue	S/B trains operate via Manhattan Bridge from Canal Street to DeKalb Avenue	Concrete repair, painting, floor tile, plumbing, etc.
1/02 to 1/24	Nights		Tracks B1/R1 S/O Whitehall Street to N/O Lawrence Street	S/B trains operate via Manhattan Bridge from Canal Street to DeKalb Avenue	Switch #345 renewal
1/04 to 1/13	Wkend		Tracks B1/R1 S/O Whitehall Street to N/O Lawrence Street	S/B trains operate via Manhattan Bridge from Canal Street to DeKalb Avenue	Switch #345 renewal; con- crete pour second weekend
1/04 to 1/19	Wkend	8	Tracks D2/D3/D3/4/D4/DC2	N/B trains operate via Sea Beach Express Stillwell Avenue to 59 th Street	Track testing
1/04 to 1/13	Wkend	0/0	Tracks J1/J4 S/O Chambers Street to S/E Bowery	Jamaica Center to Essex StreetSh. – Essex Street to Chambers Street	Lighting upgrade at Bowery
1/02 to 2/21	Nights	Sh./	Track Q2 N/O Broadway Junction to S/O Myrtle Ave- nue	 North – Eighth Avenue to Myrtle Avenue South – Broadway Junction to Rockaway Parkway Bus – Myrtle Avenue to Broadway Junction 	Type II-Type II chip-out
1/10 to 2/3	Wkend	Sh./	Track Q2 N/O Broadway Junction to S/O Myrtle Ave- nue	North – Eighth Avenue to Myrtle Avenue South – Broadway Junction to Rockaway Parkway Bus – Myrtle Avenue to Broadway Junction	Type II-Type II chip-out; Last weekend is concrete pour

Daily = Days, Wkend = Fri to Mon Continuous, Wkndys = Sat/Sun Days

David Erlitz is a Superintendent with MTA New York City Transit and has been interested in trains all his life. He may be contacted via e-mail at tderlitz@juno.com.

Around New York's Transit System

Congestion Relieved at Lexington Avenue-53rd Street Station

The Lexington Avenue-53rd Street IND station has always been busy. The construction of new escalators at the south (west) end of this station has caused considerable crowding and altered the passenger flows. To relieve congestion, NYC Transit made several changes. Starting November 11, 2002, Queens-bound **and W** trains bypass this station from 7:30 to 9:30 AM on weekdays. At the construction site adjacent to the narrow passageway, the platform edge railing at the south (west) end of Track D-4 (Queens-bound) was extended 25 feet on November 8, 2002. At the same time, the 10-car stop sign and the Conductor's indication board on Track D-4 were moved 25 feet north (east) and the 4-car stop sign was moved 145 feet north because of the railing extension. On the southbound platform of the 51st Street-Lexington Avenue IRT station. there are signs informing passengers that they cannot use the passageway to transfer to the IND in the morning rush. We do not know whether there are similar signs on the northbound platform.

Energy-Saving Flywheels

The city's largest single user of electrical power, NYC Transit, whose electrical energy usage was 2.2 billion kilowatt-hours ten years ago, is constantly looking for energy-saving devices. The R-110s, R-142s, and R-143s have a feature called regenerative braking. When the brakes are applied, the train's motors are electronically turned into generators, supplying power to the third rail for use by another train taking power. Unfortunately, regenerative braking is not effective if there are no receptive trains in the area to absorb this power.

NYC Transit's August, 2002 At Your Service newsletter describes the new method of storing unused energy generated during regenerative braking. A test track where the new R-143s undergo acceleration and braking tests is located north of the Broad Channel station, just west of the main line tracks. Instead of building a new substation, NYC Transit decided to install and test a stored energy system adjacent to this test track. Construction began in September, 2001 on the Bay Flywheel House with a one-megawatt Flywheel Energy Storage System. Ten flywheels spinning up to 36,000 RPM in an almost frictionless vacuum store energy until needed. When a nearby train accelerates, electronic circuitry senses the voltage drop and the flywheels generate electrical energy, which moves the train. If these flywheels are installed throughout the system, they could cut 10-15% from NYC Transit's annual traction power bill, saving \$10 to \$20 million or more a year.

Last Vestiges of the Third Avenue "L"

The lower level Gun Hill Road-White Plains Road station and the girders supporting the tracks, the last vestiges of the Third Avenue "L," are still visible, but will soon disappear. NYC Transit will spend \$250 million to rehabilitate 16 Bronx stations, including Gun Hill Road. A new station, closer to the bus stops, will be built a half block south of the existing station, which will be torn down.

Transit Tech High School

This high school teaches students how to repair subway cars and buses, and also prepares them for college. Transit Tech, the first-rate career and technical school in East New York, was selected as one of New York City's best high schools. It began as a partnership between the Board of Education (now the Department of Education) and NYC Transit in 1986 to give the students job opportunities such as internships for seniors and apprenticeships for graduates. Majors include computer science, electrical installation, electronics, machine tool technology, and transit technician. When we watched NYC Transit's television program, *Transit Transit*, we saw R-30 car 8337, the school's rail car laboratory.

NYC Transit Strike Averted

Whenever the Transport Workers' Union's contract with NYC Transit expires, there is a chance that there will be a strike. Because NYC Transit is faced with a multimillion-dollar deficit, it was reluctant to give any pay raises. To avoid a possible strike, the MTA requested an injunction, which was issued on December 13, two days before the contract expired. This order stated that a walkout would violate the Taylor Law, which prohibits work stoppages by public employees. Strikers could lose two days' pay for every day they are on strike and the union could face huge fines.

The union and the MTA held round-the-clock negotiations during the weekend, but were still far apart when the contract expired at 12:01 AM Monday, December 16. The strike was temporarily postponed while negotiations continued, until a deal was announced at 7:30 that evening. Employees will receive a \$1,000 lump sum payment for the first year, and 3% raises in the second and third years. Changes to work rules, disciplinary procedures, and the health plan were also made

Where will the money come from? After public hearings are held, the fare may rise as high as \$2 this spring.

For more on the transit strike that wasn't, see Randy Glucksman's article on page 6 of this issue.