The Bulletin



New York Division, Electric Railroaders' Association

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The Bulletin

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In This Issue: Brighton Line — Track Plans ...Page 2

CONCOURSE IND OPENED 70 YEARS AGO

The Concourse IND, which opened 70 years ago, Saturday, July 1, 1933, cost \$44 million, including \$11,476,000 for cars at \$38,000 each. The first cars, 101-110, were delivered to 207th Street Yard on August 8, 1930, long before the Eighth Avenue Subway was opened on September 10, 1932. All 800 R-1 and R-4 cars were in service on June 7, 1933.

The first construction contracts were let early in 1928 and most of the work was completed by 1932. But the scheduled January 1, 1933 opening was postponed because the city was unable to appropriate \$200,000 to install lighting and other equipment. When the civic groups complained, the Board of Estimate found the money. The next scheduled opening date. June 24, was postponed because of a delay in the shipment of turnstiles. This problem was solved by transferring turnstiles from lightly patronized Eighth Avenue Subway entrances to the Concourse stations. The Board of Transportation saved even more money; the station columns were not painted.

Starting June 27, 1933, light trains provided full service. On June 29, 1933, civic organizations held a luncheon at the Concourse Plaza Hotel, after which they entered the 161st Street station and rode a light train.

The first northbound passenger train, a CC from Chambers Street, passed 145th Street at 12:55 AM. It was a 4-car train and it was very crowded. The first southbound CC, a six-car train, departed from 205th Street at 12:57 AM with the Chief Engineer and other officials on board.

Marker lights were as follows: A—207th Street-Bergen Street: red/red C—205th Street-Bergen Street: green/green CC—205th Street-Chambers Street: white/ white

CC—Bedford Park Boulevard-Chambers Street: green/white

CC—Tremont Avenue-Chambers Street: white/green

The July 3, 1933 schedule provided for C trains operating during extended rush hours making Concourse express stops in the direction of heavy traffic. C trains departed from 205th Street between 6:33 and 11:26 AM and from Bergen Street between 3:30 and 6:50 PM. CC trains operated to Chambers Street at all times and to 205th Street when C trains were not running. During the morning rush, CC trains continued running to 205th Street until 7:30 AM, after which they were turned at Tremont Avenue until 11:30 AM. There were several put-ins and layups from Bedford Park Boulevard, PM rush hour CCs were turned at Bedford Park Boulevard. On August 17, 1933, Tremont Avenue was abandoned as a terminal.

WEEKDAYS EFFECTIVE JULY 3, 1933

LINE	MID- NIGHT	AM RUSH	MID- DAY	PM RUSH	EVE- NING		
HEADWAYS							
С	_	4	_	4	_		
CC	12	4	5	4	5, 6		
NUMBER OF CARS							
С	_	6, 7	_	6, 7	_		
CC	3	5	3	5	3		

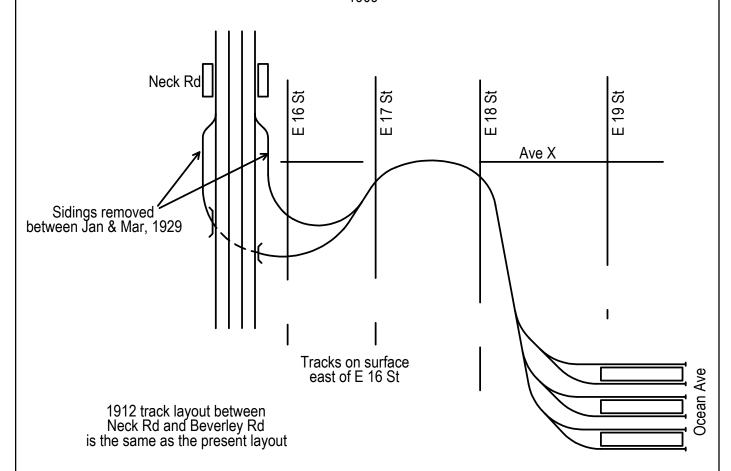
Concourse riding increased rapidly while IRT Jerome Avenue and Sixth and Ninth Ave-

(Continued on page 16)

BRIGHTON LINE TRACK PLANS

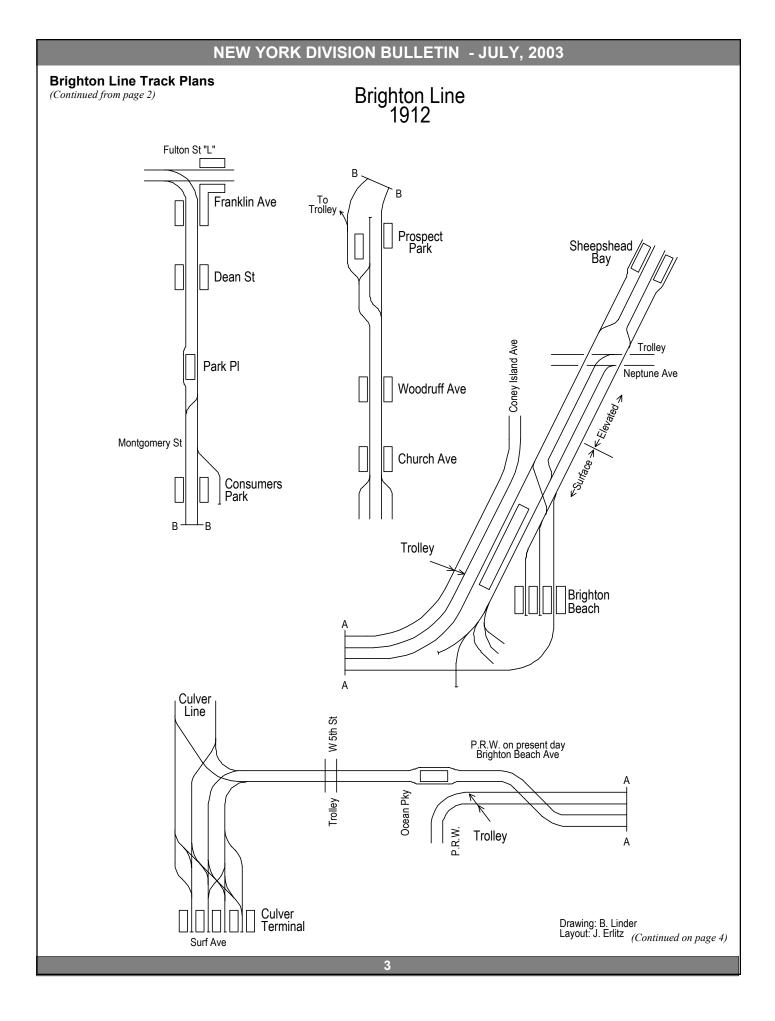
Sheepshead Bay Race Track Spur

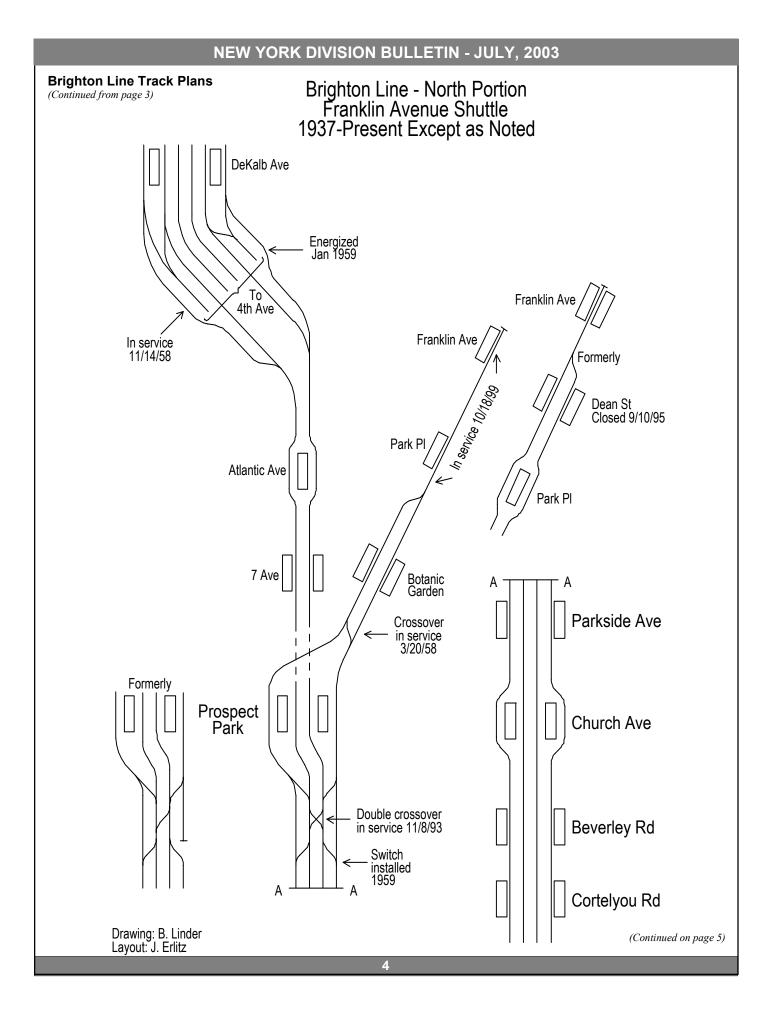
1909

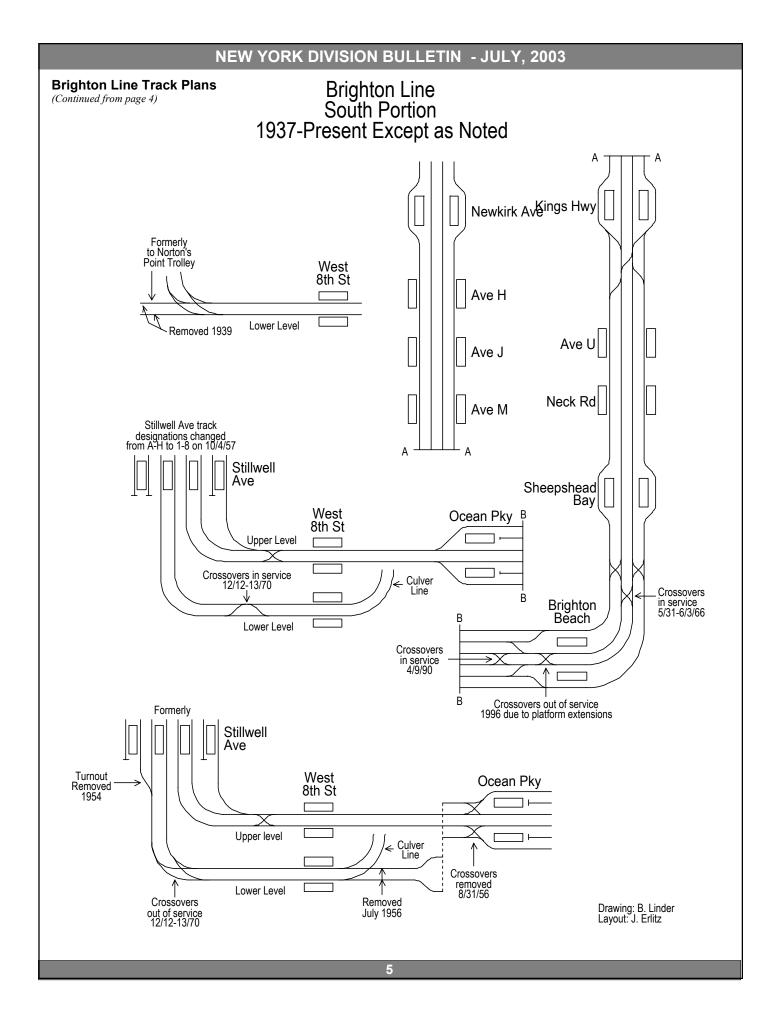


Drawing: B. Linder Layout: J. Erlitz

(Continued on page 3)







NEW MILLENNIUM, NEW TECHNOLOGY, NEW TROLLEYS, NEW LIGHT RAIL VEHICLES

by Raymond R. Berger

Most readers of the *Bulletin* are very much aware of the development of electrically propelled passenger cars and locomotives in this Age of New Technology. The use of advanced computers, microprocessors, propulsion, and braking equipment has spurred investments that result in substantial savings over older cars and locomotives. New systems are more economical to run, too, and this new technology gives impetus to consideration of their employment over other modes of transportation.

In New York, we have seen the beginning of this new era of electric railroading in the development of the New Technology Test Train Program. It resulted in the construction of one train of IRT-size cars built by Kawasaki Rail Car, Inc. (the R-110A) and another train of BMT-IND-size cars built by Bombardier Transit Services (the R-110B) in the early 1990s. The results of these tests served as the basis of the R-142 and spin-off R-142A Programs. We now expect that over 1,500 cars of these two car-classes will replace all R-26/28/29/33 and R36 cars in the passenger car fleet in the next few months.

Communication-Based Train Control is another element of New Train Technology and the decision to install it on is the basis for another order of cars, R-143, which are now all delivered. A further order was placed with Alstom, with Kawasaki Rail Car as a subcontractor, for as many as 1,700 BMT-IND size cars under Contract R-160. These should replace all the R32/38/40/42 cars.

Advances in New Train Technology have spread to the electrically propelled commuter train market in New York. The new M-7 contract is now expanded to exercise options to replace most of the M-1 fleet on both the Long Island Rail Road and Metro-North Railroad. Fifteen new high speed electric locomotives are now in service on Amtrak and six similar motors are being delivered to MARC for the Baltimore-Washington electrified service on the Northeast Corridor.

However, readers who follow the electric railway industry will not be surprised by any of this, as it is already known. The purpose of this article is to review parallel investments in new trolleys/trams and light rail vehicles made recently to round out your knowledge of what has taken place since the start of the new millennium.

In recent years, there has been a fall-off of orders for new light rail vehicles because of economic conditions. Also, transit operators want to purchase the most reliable fleet of cars, with the most advanced equipment and employing the best technology available today. Intertwined with this are the problems associated with a good low floor car design. Car builders have responded to a low average of 500 new cars a year by concentrating on their standard system cars and consolidating their operations. Remember that most of the smaller car builders have been bought out, so those firms like Alstom, Bombardier, Breda-Ansaldo-Firema, and Kawasaki are now multinational organizations.

Between April, 2002 and April, 2003 western carbuilders received orders for 236 low floor light rail cars, 239 low-to-mid-floor LRVs, and only 27 high-floor light rail units, for a total of 502. Additionally, about 20 cars were ordered in the United States, which are described as "heritage-style" cars. Of the 502 units, 351 were for extensions to existing lines or for new systems. Eighty-four LRVs and 67 trolleys/trams were replacements for existing rolling stock. Bombardier received the largest orders for trolleys/trams, for a total of 91, followed by Alstom for 89, Siemens for 59, and AnsaldoBreda for 14. On the light rail side, Kinki Sharyo leads with 104 cars, followed by Bombardier for 81 and Siemens for 54

In the electrical equipment market, Bombardier leads with Alstom, Siemens, Kiepe, AnsaldoBreda, and Elin following.

The total number of low-floor cars ordered during the last year is now 3,949, of which 35.6 percent are specially built for individual systems (1,424 cars). Of the 239-trolley/tram cars ordered this year, 179 are for individual systems. That number is broken down to 72 from Alstom, 69 from Bombardier, 24 from Siemens, and 14 from AnsaldoBreda. Only 61 trolley/tram cars are 70 percent low-floor vehicles; the remaining units are one hundred percent low floors. Of the 61, 52 are Bombardier's and 9 are Siemens'.

The width of light rail vehicles is now moving toward standardization. Transit systems in Germany's Chemnitz, Schwerin, and Bremen have decided on 2,650-mm- wide cars. This follows similar decisions by Melbourne, Australia and Gothenburg, Sweden. Further, the new trolley/tram systems in Sydney, Montpellier, Barcelona, Almeda, and Mulhouse have all opted for wider cars. Still, most transit systems continue to replace existing cars or buy new ones at the more traditional 2,400-mm width.

The future of new light rail car orders is interesting. Duesseldorf must purchase 76 double-ended cars by 2009 and Brussels will need about 40. Budapest has specified that it needs 40 cars no shorter than 52 meters in length and Strasbourg will need to add 35 cars to its fleet.

(Continued on page 7)

New Millennium, New Technology

(Continued from page 6)

Recent new construction has accounted for 21 percent of trolley/tram orders. Between 1987 and 2005, 31 new low-floor trolley/tram networks with about 50 lines will have opened. These will require 845 of the 3,949 low-floor cars ordered: 528 from Alstom, 188 from Bombardier 77 from Siemens, 53 from AnsaldoBreda, and 17 from non-Western carbuilders. Additionally, there are

12 new light rail networks with 17 routes that will require 487 out of the 1,091 low- or medium-floor LRVs. Kinki Sharyo has orders for 179, Bombardier for 159, Siemens for 133, and AnsaldoBreda for 16. Almost ninety percent of these cars were ordered in conjunction with new lines, but 50 cars will be replacements for existing cars in San Jose, California. Here are five tables which detail trends in trolley/tram and light rail vehicle acquisitions:

SUMMARY OF LOW FLOOR TROLLEYS/TRAMS ORDERED UP TO APRIL, 2003

A	PRIL, 2003		
Manufacturer	Orders	Options	
Siemens TS:	1351	62	
Various Duewag Models	728	18	В
Combino	471	44	ľ
SGP Ultra Low Floor	152		A
Bombardier:	1317	231	
GTN Series	460	22	S
Eurotram	151		K
Variotram	120	97	ľ
Incentro	38	16	Α
Cobra	75	22	
Vevey	73*		S
BN Brugge	45		l_
DWA Bautzen	142	31	Т
DWA Bautzen LF 2000	120	25	
BWS Wien Citirunner-1	18		
BWS Wien Citirunner-2	75	18	В
Alstom**:	975	208	l
TSF-1 (Nantes)	46		K
TSF-2 (Grenoble)	116		(
Cidadis	441	107	'
T-2000 (Brussels)	51		(
Vevey	20		
LHB (Various)	126***	48	(
Ferroviaria (Various)	105		A
Ferroviaria (Cityway)	70		Γ
Ansaldo+Breda+Firema:	257	60	S
Sirio	209	60	
Breda	24		Α
Firema	24		Ī
Socimi	42		ľ
CAF	7		L
Grand Total	3949	539	Т

SUMMARY OF LOW- AND MIDDLE-FLOOR LRVs ORDERED UP
TO APRIL, 2003 BY MECHANICAL PARTS AND ELECTRICAL
EQUIDMENT

EQUIPMENT							
Mechanical Parts	Orders	Options					
Bombardier Transportation	505	88					
AnsaldoBreda (Firema)	148						
Siemens TS	218	30					
Kinki Sharyo	179						
Alstom	28						
Stadler (Forchbahn)	13						
Total	1091	118					
Electrical Equipment	Orders	Options					
Bombardier Transportation	347*	88					
Kiepe Elektrik:	323						
(with Elin Motors)	78						
(with Alstom Motors)	176						
(with Skoda Motors)	69						
Alstom	207						
Siemens	148	30					
AnsaldoBreda	48						
Toshiba	18	24					
— Total	1091	118					

Chopper: includes DC motors with GTO thyristor chopper controls VVVF: includes Three-phase AC motors with variable-voltage variable-frequency thyristor controls and Intermediate voltage circuit GTO: includes direct Pulse-Width Modulation using air-cooled GTO-thyristors

Bipolar: includes direct Pulse-Width Modulation with three point water-cooled bipolar transistors

IGBT: includes direct Pulse-Width Modulation using Insulated Gate Bipolar Transistors in three-point air cooled (AEG) or two-point water cooled (Adtranz, Elin, Alstom, Siemens), or air cooled arrangement (Adtranz, Ansaldo, Elin, Kiepe, Parizzi, Siemens)

(Continued on page 18)

^{*}Includes 46 middle-floor cars

^{**}Plus 60 trailers

^{***}Plus 30 trailers

^{*28} with Alstom motors

^{**}includes 127 cars with Alstom, 126 cars with Skoda, and 51 with Siemens motors

TECH TALK by Jeffrey Erlitz

A great deal has been going on around the railroad since my last column. The West End Line signal job, S-32344, has now reached beneficial use, as of June 15. with the completion of all remaining work. Between April 12 and May 2, new signals were placed in service on Tracks D1 and D2 between Bay 50th Street Interlocking and the vicinity of the Stillwell Yard leads. Between May 12 and May 23, train operator pushbuttons and automatic route selections were placed in service at Ninth Avenue (West End Line), 36th Street and 59th Street (Fourth Avenue Line), and Sixth Avenue (Sea Beach Line) Interlockings. On June 6, Bay Parkway and Bay 50th Street Interlockings were finally placed under remote control from the Stillwell Avenue Master Control Panel in Coney Island Yard Tower. All that remains to be done on this project are the old equipment removals and perhaps punch list work.

Over on the IRT Flushing Line, the new Main Street Interlocking was placed in service between May 17 and May 27. The "old" auxiliary control panel at Main Street, a US&S Style C mini-lever control panel, was decommissioned. This was the first interlocking machine from contract S-60 of the mid-1950s to be removed from service.

Bids were opened on June 5 for contract S-32716, the design and furnish contract for Flushing Interlockings-Phase II. This contract was supposed to include all interlockings from Times Square to 74th Street, but Times Square and First Avenue are being deferred to a later contract. The new signal equipment provided under this contract will be installed under three separate installation contracts, S-32718 (Hunters Point Avenue), S-32719 (Queensboro Plaza), and S-32720 (33rd Street and 74th Street). At this point, I do not know what the contract numbers will be for Times Square and First Avenue Interlockings.

In case you were wondering, the completion of the Atlantic Avenue reconfiguration on the 14th Street-Canarsie Line *still* has not happened. This work apparently requires a weekend of good weather, and as most of you know there hasn't been any this spring!

Up in the Bronx on the Lenox Avenue-White Plains Road Line, the first of the new signals under contract S-32309-R were placed in service from north of Freeman Street to E. 180th Street during June, as follows:

DATE	TRACK
June 14-16	Northbound local Track 3
June 16-23	Express Track M
June 28- 30	Southbound local Track 2

A new relay room near the south end of the E. 180th Street station and a new Central Instrument Room (340 CIR) at 174th Street were placed in service.

The construction of a new station entrance and bus terminal at 74th Street-Roosevelt Avenue has begun in earnest. The new steelwork for the building is rising skyward and may be topped out by the time you read this. Demolition of various rooms on the Flushing Line mezzanine has been progressing. Both north stairs from both Flushing Line platforms down to the mezzanine have been closed off. Much of the IND mezzanine has been closed off for construction, also.

Kiska Construction Corporation of Whitestone, New York has been working on the rehabilitation of the Flushing Line elevated structure from Hunters Point Avenue to Queensboro Plaza under contract C-33223. The work includes the repair or replacement of stringers, top flange angles and column bases. All of the old lead-based paint is being removed and the entire structure will be repainted in a medium to dark green shade. This project also includes work to replace all of the tunnel lighting from Times Square to Hunters Point Avenue and the fire standpipe system. Seventy percent of the work has been completed and the project should wrap up by the end of this September.

Moving on to work equipment notes, construction was supposed to have started last month for one rail grinder under contract R-140. Harsco Track Technologies, formerly Pandrol Jackson, is the builder. Plasser American Corporation is providing four switch and production tampers under contract R-148, the last of which was delivered last month. Design is under way for forty Redbirds to be converted into rider and transition work cars under contract R-153, construction for which is supposed to start next January. In-house forces under contract R-155 are overhauling twelve R-113 3-ton crane cars and nine R-102 10-ton crane cars.

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

CORRECTION

The lead story of last month's issue was partially about the anniversary of the founding of the Brooklyn-Manhattan Transit Corporation in 1923. The headline

said it was the 70th anniversary. Of course, 2003 less 1923 equals 80, not 70. We regret the error.

Commuter and Transit Notes

by Randy Glucksman

MTA Metro-North Railroad (East)

During a recent visit to Grand Central Terminal, I stopped by the Station Master's Office to pick up a few timetables and was surprised to see just how many (small-sized) timetables Metro-North issues. Besides the larger ones for the Hudson, Harlem, New Haven and (combined) Port Jervis/Pascack Valley Lines, there are Tappan ZEExpress (Tarrytown/Rockland County), Haverstraw-Ossining Ferry, Newburgh-Beacon Shuttle, and three for Dutchess County (Beacon, New Hamburg, and Poughkeepsie). The Hudson Rail Link (Riverdale) is standard-sized.

The Highbridge Car Appearance Facility, which straddles a piece of land between the Hudson Line and the Harlem River, opened on June 2. It was built to allow for certain car maintenance functions that were being carried out in Grand Central Terminal but had to be relocated so that that space could be used for the LIRR's East Side Access into Grand Central Terminal. Inside its 67,000-square-foot building are two tracks with side-byside platforms that can accommodate two 10-car trains. Besides toilet servicing, air-conditioning systems will be cleaned using high-pressure air hoses, and each car will be cleaned twice a year instead of just once a year. Once the cycle begins, it is expected that the reliability of air-conditioning will be improved. Surrounding the building are tracks capable of storing 100 cars. Many years ago, the 16-acre site was used by the New York Central Railroad.

Track surfacing began on May 13, on Track 1 between New Rochelle and Port Chester. This year's track program calls for installation of approximately 24,201 wood ties, refurbishing 120 miles of track surface, and renewing 4.8 miles of continuous welded rail.

A free shuttle bus service began running between Pomona and Haverstraw to serve the Haverstraw-Ossining Ferry on May 27. The bus has designated stops, but can be flagged down at any safe location along the route, like any other bus route in Rockland County. Sponsorship is by Metro-North, Rockland County, and the New York State Department of Transportation, with the latter two sharing the costs.

2003 editions of their *One-Day Getaway* brochures have been published by Metro-North and the Long Island Rail Road. Formats are as in past years.

For the fifth year, from June 27 and September 3 weekend rail/bus service is being operated to Great Barrington in the Berkshires from Wassaic. Intermediate stops are made at former Upper Harlem Line stations Millerton, Copake, and Hillsdale.

Metro-North and CDOT have produced a colorful Connecticut UniTicket/UniRail brochure. On the map are

shown all connecting bus lines at each station from Stamford to New Haven-State St. The entire Shore Line East is shown, although there are no bus connections East of State Street. Inside is a description of each service and the costs.

MTA Metro-North Railroad (West)

Even though the event took place after midnight, there was quite a crowd on hand to watch the placement of the Church Street South Extension Bridge. The preparatory work had all been done, and following the arrival of the 1:05 AM train at New Haven, electric power was removed from the catenary and work began. The world's strongest mobile crane, with its 340-foot boom, lifted the 890-ton truss bridge, the size of a football field, and set it in place. All went flawlessly, according to the *New Haven Register*, and this part of the job was over by 2:30 AM. Pedestrians and drivers will, however, have to wait until next spring to use it. Thanks to member David A. Cohen for the report.

Connecticut Department of Transportation

David also sent an article from the **New Haven Register**, which reported that during 2002 Shore Line East recorded its largest increase in ridership, 24%, since service began in 1990. With the increase has come another problem: a shortage of parking at stations. And this problem is not expected to go away soon, as the replacement of the Pearl Harbor ("Q") Bridge over the Quinnipiac River with a 10-lane structure has not started. Commuters and transportation advocates are urging state and local officials to get moving on addressing this problem before riders begin to desert the trains.

MTA Long Island Rail Road

The new timetables that went into effect on May 19 will be in effect through August 10. At the bottom of each timetable there is this logo: "Buy Before Boarding – Save Money on Tickets," a warning to all that tickets purchased on board trains will cost more – from \$2.75 to \$3.50 more.

These new timetables bring some minor adjustments that were made due to customer requests. With the completion of the previous construction work on the Hempstead, Long Beach, and Montauk Branches, a track and surfacing project will commence between Freeport and Amityville, where one of two main tracks is being removed from service during midday weekdays. This results in the cancellation of four Babylon Express trains in each direction. Schedule adjustments will affect other trains. There will also be reconstruction work at Rosedale (a new 10-car platform), which will affect the schedules of trains on the Long Beach, Far Rockaway,

(Continued on page 10)

Commuter and Transit Notes

(Continued from page 9)

and West Hempstead Branches. Switches are being replaced in the area of Queens Village, and several crossings on the Oyster Bay Branch are being renewed. All of this requires scheduling changes. *AirTrain* work continues at Jamaica.

Memorial Day Weekend marked the return of the traditional extra services that are provided on the Montauk Branch. There are also ten pre-holiday trains, which depart from Penn Station as follows: three each for the Babylon and Port Jefferson Branches, one each on the Ronkonkoma, Port Washington, and Far Rockaway Branches, plus an express from Penn Station to Jamaica that connects with limited-stop Train #2798 to Montauk.

Several days before, a special one-day timetable was issued for the Montauk Branch on May 14, to enable the Sperry Car to test rails between Babylon and Patchogue. Buses were used to bridge the stations.

For the 135th running of the Belmont Stakes, the Long Island Rail Road operated fifteen extra trains from Penn Station to Belmont Park beginning at 9:59 AM and ending at 2:59 PM. Returning passengers found seventeen trains at 3:53 and 4:49 PM, then every 15 minutes from 6:30–9 PM. The much-anticipated "Triple-Crown" horse Funny Cide did not win.

The next day two additional inbound and outbound trips were operated on the Ronkonkoma Line for the Puerto Rican Day Parade. Those trains only made stops between Ronkonkoma and Hicksville, and Jamaica and Penn Station.

Since the retirement of former LIRR President Kenneth Bauer in March, James J. Dermody has been the Acting President.

NJ Transit

It could not have happened at a worse time, and it was just the first of what would be three consecutive days on which NJ Transit and Amtrak riders would have their rides interrupted. At 6:50 AM Monday, May 19, a crane being transported on a barge struck the River Drawbridge, which spans the Raritan River, knocking down seven of the overhead wires that provide electric power for the trains. Repairs were begun almost immediately, but it took until 3:30 PM for just limited service to be restored southbound. Work was completed by 7:15 PM, and full service was available on Tuesday morning. Rail tickets were cross-honored on both NJ Transit and Academy buses. Tuesday, around noontime, there was a three-hour suspension of all service (LIRR too) as police and their K-9 assistants searched for and apprehended a man carrying a "suspicious" package. When it was all over, a Liberian alien was in custody and held on immigration violations. Then on Wednesday, a truck hit the Northeast Corridor overpass at North and Pennsylvania Avenues in Elizabeth, delaying service for a time.

Just five weeks shy of two years since the north tubes of the Bergen Tunnels were removed from service for a major rebuilding, a friend reported that his evening Pascack Valley Line train used that tunnel on May 20. The South Tube was shut down for the next two months while NJ Transit repaired the bridge at West End, which was hit by an oversized Norfolk Southern freight train that was passing beneath. Other repairs will also be made inside the tunnel.

Still on the subject of the tunnel, when work started three Morris & Essex trains were canceled, and with the Tunnel soon to be back in service, commuters have begun asking whether these express trains will return. NJ-ARP has learned that ridership losses on the Hoboken Division due to the 9/11 terrorist attacks and some construction projects may preclude the return of these trains including the "Somerset Hills Express," although NJ Transit spokesman Michael Klufas said, "our current plan is to bring it back as it is now or in similar fashion, barring any unforeseen circumstances." A decision is likely to be made prior to the opening of the South Tunnel.

The next schedules were set to come out on June 15 for the North Jersey Coast Line to reflect additional summer services and on June 23 for the usual midday cutbacks on the Morris & Essex Lines. The cover of the North Jersey Coast Line timetable had its colors flipped — instead of white on blue, it is blue on white. When I went to Penn Station on June 13, the Morris & Essex was not available yet. This year the Hogback Bridge between Far Hills and Peapack will be replaced. There will also be some other track and station work.

Alan Kramer reported that after a period of stability, there have been some reassignments of Arrow III cars in Hoboken. Previously the 1500-1533 series plus all but four of the 1304-1333 group provided all service. Now, the singles are still there, but the rest of the cars are married pairs from the 1300-, 1400-, and 1500-series. This group also includes 1344/45, which are back after a long layoff due to collision damage.

The newly rebuilt Hazlet station (North Jersey Coast Line) was dedicated during ceremonies held on May 27. The \$6.1 million project provided a pair of 800-foot-long high-level platforms, as well as improvements to parking and lighting, heated shelters, and new canopies. New artwork in the form of mosaic tiles was commissioned. It highlights local scenery, Dr. John Hazlett, a founding father for whom the township is named, and the Vecchi Ketchup Factory, which operated in the early 20th century until it became a foundry for the manufacture of brass castings until its closure in 1960. In 1963 a fire destroyed the factory, but the chimney remained until it was dismantled so that the parking lot could be expanded. As a result of the 9/11 terrorist attacks, seven Hazlet residents died, and those bricks are being sold,

(Continued on page 11)

Commuter and Transit Notes

(Continued from page 10)

(there will be other fund raising events too) to finance a memorial to those individuals, which will be located nearby.

The West End substation (west of the Bergen Tunnels), which has been in service since 1929, is due to be replaced following the award of a \$1.2 million contract to RML Construction. "West End" supplies electric power for Hoboken Terminal (heating, interior and platform lighting, and air conditioning), the surrounding buildings (railcar shed and washer), switches and switch heaters, signals, and the operation of the Lower Hack Bridge, over which Morris & Essex and Montclair-Boonton trains operate. Its present location in the middle of a triangle of tracks makes it difficult for employees to access it, and so its new location will be on the south side of the tracks. Work is scheduled for completion next year.

LRV 2003 was derailed after being struck by a dump truck on May 12. The incident occurred at about 1:10 PM at Marin Boulevard and Grand Street in Jersey City, and caused service to be halted for 2½ hours between Harborside and Hoboken. Of the 23 passengers aboard the car, 4 (plus the operator) were taken to Jersey City Medical Center. The driver was issued a summons for failure to obey a traffic signal.

PROJECT	STATUS	CURRENT DEADLINE	ORIGINAL DEADLINE
HBLRT/ Weehawken	Under Construc- tion	Spring 2004	2003
HBLRT/22 nd Street	Under Construc- tion	Fall 2003	2003
HBLRT to North Bergen	Under Construc- tion	2005	2003
Bergen Tunnels	Track, wire instal- lation	*August, 2003	August, 2002
SNJLRT	JJLRT Operations test- ing		2003
Secaucus Transfer	Ongoing	September, 2003	2002
Pascack Valley	Sidings designed	2004	2000

^{*} A few months additional time is required to repair bridge on west end of tunnel that was damaged by a high container on an NS freight train

The New Jersey Association of Rail Passengers provided this status of rail projects in the Garden State.

Port Authority Trans-Hudson Corporation

The February/March edition of *pathways* appeared in late May, and once again it was in color. Its cover story reported on the work of preparing Exchange Place for last month's reopening. Eight new switches were installed and the platforms were extended, so now east-bound trains will be able to platform all of their cars. Prior to 9/11, the doors of the lead car of Newark/World Trade Center 8-car trains did not open at Exchange

Place. Now, with platforms capable of handling 10-car trains, this will no longer be a problem. In addition, all water-damaged infrastructure in the approximately 5,000 feet of in Tunnels E and F between Exchange Place and World Trade Center has been completely rebuilt. The new track system is now welded rail on insulated direct fixation fasteners with epoxy-coated concrete inserts. All of this should provide a smoother ride. A one-half page ad appeared in The New York Times (June 5) announcing that Exchange Place would reopen on June 29. In preparation for this, PATH trains have EXPL signs added over the doors in the place of WTC. Their existence will be short-lived, as they will have to be removed by November when the temporary World Trade Center station opens. By the way, the station will retain this name but it will not resemble its pre-9/11 appearance, as steel and concrete have replaced

the polished marble walls. There will also be no shops

to pass as commuters make their way towards the

street and subways. **Metropolitan Area**

Another vestige of railroad history disappeared during the second week of May when 127 feet of railroad tracks were removed from Piermont Avenue in Piermont, New York. This trackage was part of the Erie's main line to Dunkirk, New York, which opened in 1851. In fact, on that May 14, 1851, none other than the President of the United States, Millard Fillmore, and Secretary of State Daniel Webster were some of the dignitaries who stepped off a steamer at Piermont and rode that first train 450 miles across New York State to Dunkirk. Piermont's one-mile-long pier, which juts out into the Hudson River, at one time had railroad tracks on it, and it was from this debarkation point that many troops departed for their assignments during World War II. The Journal News reported that the last time that a train rolled over these rails was in 1981, when goods were moved to and from a warehouse owned by Continental Can Company.

The West Side Freight or High Line once again was the focus of an article in *The New York Times* (June 1). With the Bloomberg Administration in favor of some type of re-use of the structure, the Friends of the High Line sponsored a competition for ideas on what should become of the line. Seven hundred twenty proposals were submitted from around the world. Some were classified as "whimsical," e.g. making the 7,920-foot structure into an elongated swimming pool or turning it into a cow pasture. Proposals that were selected as winners included the swimming pool idea and one entitled "Black Market Crawler," a moving structure with shops, galleries, and theaters. Oddly, the article did not report that there were any that involved transportation.

Amtrak

When the new schedules were introduced on April 28, Acela First and Business Class peak hour tickets were

(Continued on page 12)

Commuter and Transit Notes

(Continued from page 11)

being sold for \$149 and \$99 or less, respectively, for travel between Boston and New York. This fare represents a 22% discount, and there are also discounted fares for off-peak travel. The usual peak fare between both cities is \$195 (First) and \$127 (Business). According to Amtrak, these fares will be available indefinitely.

An editorial entitled "Honesty About Amtrak," in The New York Times (May 29), once again supported continued funding for Amtrak. It said that "America's approach to passenger fail remains woefully haphazard and shortsighted" and that "the nation's other crucial transportation needs - like highways, aviation, and mass transit – are all routinely financed, without Congressional debate every year on their continued existence. Only when it comes to trains must Washington look around for spare change to keep the service running." The editorial criticized Congress and Amtrak for foolishly agreeing to pretend that a passenger rail system could pay for itself. It credited David Gunn, whom it described as the "subway turnaround artist" for issuing a "meticulous" five-year plan, which would cost \$8 billion that would cover operating deficits and capital investments.

Amtrak added cars to Train #252, its 8 AM departure out of Albany, and marketed it as a *Belmont Special*. Even with eleven cars, all 550 seats were sold out. The train operated to New York Penn, where passengers transferred to Long Island trains. Fares varied depending on where the passenger boarded, but all the fares included round-trip and connecting transportation on the Long Island, Grandstand admission, and *Post Parade* magazine.

Museums

Volunteers at Branford are in the process of rebuilding Brooklyn PCC 1001. The car has been totally stripped down and primed, and repairs have been made to its 68-year-old body. In addition, dented or bent window posts have been straightened. I hope that Tripper Editor and member Jeff Hakner will not be upset if I relate some Branford history about how 1001 came to the museum. For years I had heard that member Arthur Lonto was the one responsible, but when I spoke with him recently he set me straight. Prior to trolley service being abandoned, several Branford members decided that Branford should acquire this car. The late Ed Watson (also a Division member) put down a \$50 deposit, and Arthur was charged with collecting the additional funds. The Transit Authority wanted \$250 for the car, plus an additional \$500 was required for shipping. \$750 in 1956 was a formidable sum (remember the subway fare was 15 cents), and Arthur had little success in collecting anywhere near that amount. So, he and member Frank Pfuhler decided to sponsor the car. Those few individuals who had made contributions were asked if they wanted their money returned, but none said they did. In October, 1956, 1001 arrived at Branford, where it remains today. Upon arrival, the car body was completely rehabilitated (much metal replaced and painted inside and out) and the seats repaired and replaced by Arthur, Frank, and others. But that was over 40 years ago (twice the time the car served in Brooklyn) and time has taken its toll, thus the present job is overdue. There is still a lot of work to be done and donations would be gratefully accepted. You can mail then to The Shore Line Trolley Museum, 17 River Street, East Haven CT 06512.

Other Transit Systems

Boston, Massachusetts

Each year the Boston Street Railway Association publishes an MBTA vehicle inventory. Thanks again to member Todd Glickman, who sent me a copy of *Rollsign*. Unchanged from last year is the commuter rail fleet, which stands at 378 coaches and 83 locomotives. Of the five cars that are out of service, four (363, 366, 4607, and 1634) sustained damage last August 29 as a result of being hit by some construction equipment that was fouling the tracks. In February the "T" awarded Kawasaki a \$64 million contract for 28 bi-level trailers with restrooms. No delivery dates were specified in the article. The remaining car, 1648, has been out of service since 1990.

The subway fleet is also unchanged (70 Blue, 120 Orange, and 220 Red). Siemens was due to deliver a pair of prototype #5 Blue Line cars (the series will be 0700-0793) by year's end, but that has slipped into 2004 due to Buckeye Steel Castings going out of business last October. It seems that Kawasaki may wind up supplying the trucks. In November, 2001, #4 Blue Line cars 0622/0623 were shipped to Transportation & Technical Associates (a Siemens subcontractor) to be evaluated for possible conversion into Orange Line cars. Corroded sections of the roofs and side sills were replaced, and the cars were repainted prior to returning to service last October. No decision has been made on whether correction of the corrosion problems in this manner is costeffective. Plans call for 24 cars to be similarly overhauled and modified for service on the Orange Line.

As this survey was made as of February 28, the Type-8 Bredas were still not approved for service, so the active fleet was 8 PCCs, 51 Boeings, and 115 Type 7s. At that time, 16 Bredas were at Riverside awaiting a return to revenue service, 8 were undergoing acceptance testing, 3807 was out-of-service due to derailment damage, and two accepted cars, 3802 and 3803, were at Breda's plant in Italy for further modifications. Seventy-three were still under construction.

Last, but not least, Neoplan is expected to begin delivery this year of 28 low-floor trolley buses, to be numbered 4101-4128. Forty-four of the 1976-built Flyers are still on the property.

(Continued on page 13)

Commuter and Transit Notes

(Continued from page 12)

Buffalo, New York

At the end of May, my family attended a wedding in Buffalo, and it was a very short stay. When we arrived, the few hours that I could have done some railfanning were rained out, and on the next day, Sunday, service did not begin until after we had to leave. However, my son Marc, who arrived earlier in the week, reported that the NFTA-Metro's LRVs and buses are being painted into a new color scheme: white, with blue and gray stripes.

Fares were increased on June 1, for the first time since 1995. Base fares went from \$1.25 to \$1.50, and the prices of passes also went up. Reduced fares went up a dime, to 65 cents.

Philadelphia, Pennsylvania

Just after the June *Bulletin* went to press, it was announced that in response to complaints, SEPTA would operate limited rail service on the R6/Cynwyd Line, with three AM and three PM trains. Trains depart from Cynwyd at 6:32, 7:35, and 8:32 AM, and from the lower level of 30th Street Station at 4:44, 5:35, and 6:26 PM. There is also one reverse-peak train during the AM and PM. Suburban and Market East Stations will not be served during this time by R6 trains.

SEPTA crews are continuing their work to upgrade the R3/West Trenton Line. So far, 26 miles of catenary wire have been replaced in the past two years, the Woodbourne station has been renovated, and inter-track fencing has been installed. A new signal system will be cut-in between Neshaminy Falls and Woodbourne, replacing wayside signals, with cab signaling. This will enable trains to operate over either track. Cab signals have previously been installed on other sections of the line. Member David W. Safford, who sent these reports, also wrote that on May 16 the catenary was down on Track 4 at 30 St. Station's Suburban level, and two hirailers were parked on the track. Suburban traffic was squeezing by on Track 3, leading to a fair amount of griping by passengers. Despite good publicity and handouts about the project, it still seems that the average rider still has not gotten the message.

From *Cinders*: SEPTA's entire commuter rail system is now controlled from the Regional Rail Operations Center (RROC) at its center city headquarters. This occurred when Broad Tower in Suburban Station closed on March 14. "Broad" formerly controlled all interlockings between 30th Street Station and "Juniper," located in a tunnel east of Suburban Station. Republic-built RL-1 locomotives 60 and 61, which have had an unreliable performance history, are at Brookville Locomotive for upgrading and rewiring. Previously, two of SEPTA's three SW-1200s went to Brookville for re-powering. 50 and 51 are now classified as model BL1500, while 52 awaits shipment. Brookville is also rebuilding the PCCs

for the Girard LRT.

Washington, D.C. area

As often as necessary, Virginia Railway Express emails those who request it train delay information and other news concerning VRE service. During May I received several such emails, but what I will write about next is really more of a concern.

May 14 - the TVM at Union Station on platform 25/26 was vandalized and no longer works. Instead of repairing it in its current location, VRE plans to move it and the other vending machine on platform 23/24 up to the mezzanine level to make it more convenient for all. Riders were notified to please be sure to validate their ticket before descending to the 25/26 platform.

May 17 -Ticket Sales were suspended at Java Jacks in Manassas and Jeremiah's in Quantico and the Ticket Machines were removed because the vendor accounts were very much in arrears. In all cases, who loses out? ...the rider.

As of May 12, trains crews have been checking tickets more closely, thereby marking a stepped-up enforcement of VRE ticketing policies that require that tickets be purchased (and validated if necessary) prior to boarding trains. This comes about as a result of the implementation of VRE's "Fare Collection 2" system. Violators are subject to being summonsed, which can bring a fine of \$150 plus court costs and administrative fees.

When the security level was raised to Code Orange on May 20, VRE reminded its customers to be alert to anything suspicious, and that evacuation plans were on its website (www.vre.org).

VRE participated in the annual Manassas Days Festival on June 7. Special tickets were sold for \$5 for the excursion trains, and one locomotive was placed on display.

Tampa, Florida

During mid-April, the Federal Transit Administration gave "planning approval" to an extension of the TECO Line. Now elected officials will have to figure out how to come up with their 50% share of the estimated \$975 million (2002 dollars) for the project. Details were published in the April, 2003 *Bulletin*. Thanks to member Dennis Zaccardi for the report.

South Florida

Members Bob and Judy Matten, during a visit to Miami, rode Metrorail and visited the Gold Coast Railroad Museum. Located at 12450 SW 152nd Street, the museum is home to 15 passenger cars and 7 diesel and 7 steam locomotives. There are also freight cars, cranes, and cabooses. One of the featured cars is the *Ferdinand Magellan*, which was used by Presidents Roosevelt, Truman, and Eisenhower. This car is also listed as a National Historic Landmark.

On May 30, Metrorail's one-station Palmetto Extension opened. The station, the twenty-second, which was built

(Continued on page 14)

Commuter and Transit Notes

(Continued from page 13)

at a cost of \$87.8 million, added 1.4 miles to the existing 21-mile system. Through June 30, no fares were charged at the Palmetto station. With voters approving last November's sales tax increase dedicated for transit improvements, elected officials are promising that there will be more Metrorail expansion. Thanks to members Joe Gagne and Dennis Zaccardi for the news.

Chicago, Illinois

METRA recently dedicated several stations that had undergone rehabilitation projects. Ceremonies were held at Tinley Park (Rock Island District Line), Great Lakes Naval Station (UP North (Kenosha) Line), and Barrington (UP Northwest (Harvard) Line).

For the 2000 Subway Series between the Yankees and Mets, NYCT wrapped/painted several R-36 and R-62 subway cars. This year, for the inter-league games between the Chicago Cubs and Chicago White Sox, the Chicago Transit Authority issued a commemorative farecard, which went on sale at selected station vending machines on June 2. Wrigley Field is located at the Addison station, while U.S. Cellular Field (Comiskey Park) is at the Sox-35 station. Both stadiums are on the Red Line. The CTA will also issue a commemorative farecard for the 75th All-Star Game, which will be held on July 15 at U.S. Cellular Field.

Chesterton, Indiana

Schedules that had been intended to go into effect on June 1 have been postponed indefinitely. The plans were for NICTD (South Shore) to have all of its trains that presently stop at METRA's 59th Street station, stop at the 57th Street station. METRA has not completed work at 57th Street; until that is done, train service will remain status quo and the June 1, 2002 timetable will get additional use. There were also a number of other service changes involving stops, running times, etc., that will also wait to be implemented.

Seattle, Washington

Sound Transit announced, during a ceremony at the new Everett station, that an agreement had been made with the Burlington Northern Santa Fe Railway to start running trains to Everett later this year. The transit agency will pay the railroad a total of \$224 million, plus interest, over four years for the right to run eight trains between Seattle and Everett. In addition, it will pay BNSF \$27 million plus interest to purchase and/or lease the 21-mile Tacoma-to-Nisqually section of track for an additional \$27 million. This clears the way for expansion of Sounder service from Everett all the way to Southern Pierce County. The agreement will last through the year 2100.

San Pedro, California

The San Pedro Trolley Line serving the Port of Los Angeles, which had been scheduled to open last year, now is set to open on July 19. Two vehicles will be used

to operate over the 1.5-mile-long line and will serve four stations between the cruise terminal and 22nd Street in San Pedro. 1058 was built originally in 1907 and was completely rebuilt, while 501 is a replica of a car that was built in 1902. All-day tickets will be sold for \$1, and service will operate Fridays through Mondays, between 10 AM and 6 PM. Thanks to member Karl Groh for the report.

Vancouver, British Columbia

Since the return of several cars that had been leased to GO Transit, two trains have been extended to nine cars. Prior to their placement into service during April, those cars were refurbished. On January 6, West Coast Express reintroduced its "Train Bus," a service that departs from the Waterfront station one hour after the last train. This service originally started in 1999, but somewhere along the way it was stopped. The running times are 1:42 for the bus, compared to 1:13 for the train, but if you can't make the last train, it sure beats walking home!

Prague, Slovak Republic

The Mattens attended the ERA convention and sent a postcard from Praha (as it is known over there) that there are still diversions on the streetcar system from last August's floods. The subways are back in operation but station and electrical repairs are still ongoing. I spoke with Bob after he returned and he told me that the Prague subway is just like Budapest's. The stations are very deep and the "down" escalators are very fast. The cars are the Russian standard subway car, and five-car trains are operated. Frequencies are excellent and clocks at the end of the station (just like Spain) let you know how long it has been since the last train departed. Service ends at midnight.

From the History Files

10 Years Ago: On July 31, 1993, Bi-State Transit (now called Metro) began Metrolink service between East St. Louis, Illinois and Hanley Road in Missouri. Much has taken place in these ten years, as service was extended west to Lambert Field, which has two stations. Eastward, in May, 2002, there was a 17.3-mile extension to Belleville, Illinois, and very soon another 3.5 miles were to be added, temporarily ending the line at Scott Air Force Base.

45 Years Ago: On July 9, 1958, the Hudson & Manhattan introduced its first Class K cars. These fifty cars, jointly owned by the H&M (30) and the Pennsylvania Railroad (20), were the first fully air-conditioned rapid transit cars ordered for the New York metropolitan area. There were several experimental attempts made by the Transit Authority, but it was this order that proved that air conditioned cars were viable in New York. Still, it took almost another ten years until the TA began specifying this feature in its car contracts.

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

IRT CAR UPDATE By George Chiasson

R-142s--And Now Also, The R-142S

Through June 6, 2003, Primary R-142s 6921-6925 and 6931-6935 along with Option II R-142s 1191-1210 were delivered. As of June 6, 2003 Option II R-142s 1141-1170 were placed in service on 4, for a total of 12 trains (120 cars). After a lengthy delay, R-142s 6876-6885 entered 5 service on June 2, while 7121-7130 had been moved from 5 to 4 on May 20.

In mid-April, the MTA awarded a "Supplemental" R-142 acquisition contract to Kawasaki Rail Car Corporation for 180 additional IRT cars (see June, 2003 Bulletin). These are not an Option or extension of the existing R-142A agreement dating from 1997, but rather an entirely separate procurement and as such have been designated the R-142S. The R-142S will be technically identical to the R 142As delivered in 2000-02, and are to be numbered forward from that group as 7731-7810. The contract calls for complete deliveries by the end of October, 2003, and their addition should guarantee total replacement of the Redbird fleet remaining on 1, as well as make equipment available for East Side service improvements projected for 2004. As was the case with the Option R-142As, the 80 R-142S units will be fabricated as "kits" at KRC's new facility in Lincoln, NE and forwarded to the KRC plant in Yonkers for final assembly. Probable assignment of the R-142S will be 4. where they will join the Option R-142s and R 142As to build a fleet of approximately 420 cars, and also support larger allocations on 2 and 5 than was originally anticipated.

R-62/R-62A Transfers

As new R-142s entered service on 4, R-62s have been slowly but steadily moving on to Livonia barn and service. In many cases, the R-62s are routed via 207th Street Shop as part of the transfer to have extended SMS work performed. This may include high level electrical and mechanical maintenance, floor and car body work, and truck replacement. To date, the R-62s have been largely restricted to weekday use, depending on their availability. There have been up to six trains in service on any single day. Through June 6, R-62s 1301-1305, 1356-1360, 1456-1460, 1466-1475, 1501-1505, 1536-1540, 1601-1605, and 1616-1620 were transferred from 4 to 3. They joined previously assigned cars 1361-1365, 1401-1405, 1426 1430, 1441-1445, 1506-1510, and 1596-1600 to create a fleet total of 75.

With R-62s now regularly moving across town from 4 to 3, more R-62As from Livonia are being forwarded to Queens for 7. Accordingly, little time is being wasted in pursuing retirement of the remaining Redbirds at Corona. Most transfers have consisted of five single units

and one 5-car unitized set formerly imported from 6. To wit: 1751-1755 with 2066-2070 on May 10; 2055-2064 on May 15; and 1741-1745 with 2051-2054 and 2065 on May 22. Single car 2065 was caught on the Grand Central Shuttle when the May 15 transfer was being marshaled at Livonia, and thus temporarily skipped over. In late May, certain tasks required on single cars 2055-2064 were "farmed out" to E. 180th Street Shop, where it appeared briefly with Flushing-assigned R-62A 2110. For those into hard-core minutiae, that was the first time a Corona-based set of R-62As has visited the IRT mainlines (and who knows if it will be the last?...). Two additional transfers from 3 to 7 occurred as our deadline approached, 1756-1760 with 2046-2050 on May 31 and 1761-1765 with 2041-2045 on June 5. This has resulted in a 7 fleet as about evenly divided as it gets: 210 R-62As and 209 Redbirds as of June 6, 2003. Redbird Notes (End of the Main Line R-36s; Redbirds Enter The Home Stretch; A Correction)

As that large group of R-62As got to the Flushing Line in May and early June, the number of Redbirds was steadily reduced, affecting all sub-groups. Most notable among these was the removal of mainline R-36s 9542/9543 from passenger service on May 16, closing the book on this somewhat irregular class of 34 cars after a service history of almost 39 years. In their most recent past, the mainline R-36s were stationed on 6 before the R-142As arrived and bumped them to Corona, where the fleet size was enlarged for additional service needs on 7.

28 more World's Fair R-36s were also removed from 3 service during the past few weeks, and this number, along with the associated tempo, may increase rapidly in the near future. On May 19, the first group of six single World's Fair R-33s was transferred from passenger service on 7 to 239th Street Yard, where they were turned over to Subdivision C for work service. This consisted of 9328-9333 in consecutive order, with 9329 and 9332 being in "GOH-II" configuration and the remainder yet to make their way through this conversion. As time goes on and the number of required single units declines along with the Redbird fleet, more of these cars will be reallocated to facilities around the system for utility duties. In the meanwhile, 9325 and 9335 have returned to active **a** duty in their upgraded configuration. Several other single cars that have entered 207th Street for their GOH-II conversions may or may not be restored to passenger service.

Remaining focused on the so-called "GOH-II" program for the World's Fair R-33s at 207th Street, we were finally able to ascertain exactly what is being installed

(Continued on page 16)

Concourse IND Opened 70 Years Ago

(Continued from page 1)

nue "L" riding declined appreciably:

YEAR ENDING JUNE 30	IND CONCOURSE	IRT SIXTH & NINTH AVENUES	IRT JEROME AVENUE
1933	_	105,815,043	Approximately 58,000,000
1934	1934 24,752,308		Approximately 46,000,000

Concourse riding increased regularly, reaching a peak of 54,818,895 in 1943.

In 1933, the Surface Transportation Corporation collected an additional nickel from passengers riding beyond Tremont Avenue on Bx-1 and Bx-2 Concourse buses. Bus riding probably declined when passengers were able to take a faster and more comfortable IND

train ride without paying an additional fare. Three months after the IND Concourse trains started running, the 56-passenger Concourse double-deck buses were rebuilt to 33-passenger single-deck bodies. Surface Transportation Corporation helped boost IND riding when it rerouted the following north Bronx bus lines to the 205th Street station:

Bx-15A (present-day Bx-30) on September 26, 1935 Bx-15 (present-day Bx-28) on March 1, 1936

Bx-16 on March 16, 1936

In the 1940s, rush hour service reached a peak; headways were C—10 minutes, CC—4 minutes, and D—5 minutes. Rush hour riding has fallen off during the intervening years. At the present time, rush hour headways are B—10 minutes and D—7 minutes.

It is interesting to note that for most of the past 35 years (though not at the present time), Concourse D trains operated through to Brooklyn and continued onto the Brighton Line, whose 125th anniversary is this month.

BMT/IND CAR UPDATE By George Chiasson

As of May 12, R-40Ms 4534/4535 and 4542-4547 were shifted from East New York () (), (), () to Coney Island for () and (). The balance of 12 R-40Ms (4530-4533, 4536-4541, 4548/4549) were still being observed on East New York routes into early June. To further elucidate on last month's update, the trains of 60-foot cars used on weekend () and () services do consist of both R-40 and R-40M types.

As the MTA makes its rounds in the Public Hearing circuit regarding proposals for the restoration of service over the "A/B" (Chrystie Street/Sixth Avenue) Manhattan Bridge tracks, it is clear that several important and permanent routing changes are in store for Subdivision

"B". Whether these will remain as the process is finalized is uncertain, but reflecting on the proposals at hand, B will be routed via the Brighton Line as a weekday-only replacement for the ; D will be diverted to the West End Line, replacing ; and returns to its roots as a "Sea Beach Express," going over the Manhattan Bridge and up the express tracks on the Broadway Line. A new form of will be operated as a rushhour filler from Whitehall Street to Astoria in rush hours (the old EE revisited--sort of), while trains will again be scaled back to Chambers Street middays and then as a shuttle to Myrtle Avenue much earlier in the evenings than at present.

IRT Car Update

(Continued from page 15)

beneath the cars. As it turns out, they ARE receiving General Electric SCM I control groups (17KG192AE2) in place of the Westinghouse Cam control with which they were built. A previous and incorrect report stated that the single R-33 cars were retaining Westinghouse Cam control through the GOH-II process. The SCM control packages, along with the GE controllers alluded to previously and GE grids, are salvaged from reefed Redbirds, usually mainline R-33s. For those of you following closely, current and recent roster listings pro-

vided since the first of these (9317) was released from 207^{th} Street Shop in December, 2002 should be adjusted accordingly.

Redbird Retirements & Restorations

Taken out of service through June 6, 2003 were: R-33S: 9315, 9328, 9329, 9330, 9331, 9332, 9333, 9334, 9338, 9339, 9341, 9344 off R-36: 9396/9397, 9398/9399, 9440/9441, 9450/9451,9542/9543, 9580/9581, 9630/9631,

9450/9451,9542/9543, 9580/9581, 9630/9631, 9634/9635, 9636/9637, 9638/9639, 9664/9665, 9698/9699, 9724/9725, 9728/9729, 9740/9741 off **7**

Restored to service through June 6, 2003 were: R-33: 9325, 9335 on 7

New Millennium, New Technology (Continued from page 7)

Operator	Type	Firm Orders	Gauge	Length (mm)	Width (mm)	% Low-Floor	Power (KW)	Delivery Date
Operator	1,700	i iiiii Oracio		iemens Combir	` ′	70 2011 1 1001	i olici (itti)	Delivery Bute
Prototype		1 d	1435	26,500	2,300	100	4 x 100	1996
Potsdam		16	1435	30,520	2,300	100	4 x 100	1998-01
Augsburg		41	1000	41,860	2,300	100	6 x 100	2000-04
Freiburg		18 d	1000	41,960	2,300	100	6 x 100	1999-03
Basel		28	1000	42,860	2,300	100	6 x 100	2000-02
Hiroshima		12 d	1435	30,520	2,450	100	4 x 100	1999-02
Erfurt		7	1000	30,520	2,300	100	4 x 100	2000
Erfurt		29	1000	31,480	2,300	100	4 x 100	2002-05
Erfurt		12	1000	20,040	2,300	100	2 x 100	2002-04
Nordhausen		2	1000	19,080	2,300	100	4 x 100	2000-01
Nordhausen		2	1000	20,040	2,300	100	4 x 100	2002-03
Nordhausen		3 d	1000	20,040	2,300	100	4 x 100	2002
Nordhausen		3 d, de	1000	20,040	2,300	100	4 x 100	2003
Amsterdam		151	1435	29,200	2,400	100	4 x 100	2001-03
Amsterdam		4 d	1435	29,200	2,400	100	4 x 100	2002
Melbourne		21 d	1435	29,850	2,650	100	4 x 100	2002-04
Melbourne		38 d	1435	20,040	2,650	100	4 x 100	2002-03
Bern		15	1000	30,500	2,300	100	4 x 100	2002-03
Ulm		8	1000	30,830	2,400	100	4 x 100	2002
Verona		22 d	1435	20,040	2,300	100	4 x 100	2004
Poznan		14	1435	29,200	2,400	100	4 x 100	2004
Almeda		24 d	1435	33,000	2,650	100	4 x 100	2005
				l Alstom Cidadis				
Montpelier	401	30 d	1435	40,090	2,650	70	6 (**)	1999-02
Orleans	301	22 d	1435	29,860	2,320	70	4 x 140	2000-01
Dublin	301	26 d	1435	29,700	2,400	70	4 x 140	2001-02
Dublin	401	14 d	1435	40,900	2,400	70	6 (**)	2003
Valenciennes	301	17 d	1435	29,500	2,400	70	4 x 140	2004-05
Lyon	302	47 d	1435	32,400	2,400	100	4 x 120	2000-02
Melbourne	202A	36 d	1435	22,700	2,650	100	4 x 100	2001-02
Bordeaux	402	56 d	1435	43,900	2,400	100	6 x 120	2002-06
Bordeaux	302	14 d	1435	32,800	2,400	100	4 x 120	2002-06
Rotterdam	302B	60	1435	31,200	2,400	100	4 x 100	2002-04
Barcelona	302	37 d	1435	32,500	2,650	100	4 x 120	2002-04
Paris	302	26 d	1435	32,200	2,400	100	4 x 120	2002-04
La Rochelle	302	1 d	1435	32,400	2,400	100	4 x 120	2001
Grenoble	402	35 d	1435	43,700	2,400	100	6 x 120	2005-06
Mulhouse	302	20 d	1435	32,500	2,650	100	4 x 120	2005
				m Ferroviaria (
Torino		49 d	1445	34,000	2,400	100	12 x 41	2002-03
Torino		6	1445	34,000	2,400	100	12 x 41	2001
Messina		15 d	1435	22,500	2,400	100	8 x 41	2002

(Continued on page 18)

New Millennium, New Technology

(Continued from page 17)

Operator	Type	Firm Orders	Gauge	Length (mm)	Width (mm)	% Low-Floor	Power (KW)	Delivery Date
AnsaldoBreda Sirio (209)								
Prototype	3C2	1	1445	17,500	2,400	100	2 x 106	2002
Sassari	5C3	4 d	950	27,000	2,400	100	4 x 106	2002
Milano	7C4	58	1445	35,000	2,400	100	4 x 106	2002-04
Napoli	3C2	22 d	1445	18,500	2,400	100	4 x 106	2003-04
Milano	5C3	35	1445	25,000	2,400	100	4 x 106	2004-05
Gothenburg	5C3	60	1435	29,350	2,650	100	4 x 106	2003-05
Athens	5C3	35	1435	32,000	2,400	100	4 x 106	2004
Bergamo	5C3	14 d	1435	29,800	2,400	100	4 x 106	2004
			Во	mbardier Incei	ntro (38)			
Nantes	AT5/6L	23 d	1435	36,400	2,400	100	8 x 45	2000-01
Notingham	AT5/6	15 d	1435	33,000	2,400	100	8 x 45	2003
			Во	mbardier LF 20	00 (120)			
Dessau	NGT6	10	1435	21,000	2,300	45	4 x 85	2000-01
Dresden	NGT12DD	20	1450	44,570	2,300	56	8 x 85	2003
Halle	NGT6	30	1000	21,000	2,300	45	4 x 85	2003-05
Frankfurt/Main	NGT8 'S'	60 d	1435	30,000	2,400	62	4 x 95	2003-04
				nbardier Cityru	nner (75)			
Linz		21	900	40,000	2,300	62 (*)	6 x 100	2001-04
Lodz		15	1000	29,500	2,300	62 (*)	4 x 100	2001-02
Eskesehir		18	1000	29,500	2,300	62 (*)	4 x 100	2005
Geneva		21	1000	42,000	2,300	62 (*)	6 x 100	2004-05
Total		1424						

d=double-ended

de=supplementary diesel-electric drive

^{**4} x 140 plus 2 x 100 kilowatt motors

SUMMARY OF ELECTRICAL EQUIPMENT FOR LOW FLOOR TROLLEYS/TRAMS ORDERED UP TO APP	≀IL, 2003
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Supplier	Total	Chopper	VVVF Inverter	GTO Inverter	Bipolar Inverter	IGBT Inverter
Bombardier:	1487					177
ex-Adtranz	358					358
ex-ABB	577*	69			382	126
ex-AEG (Germany)	351	67		1		283
ex-AEG (USA)	24			24		
Alstom:	879					
Alstom (France + UK)	629	162		51		416
Alstom-Parizzi	145					145
Alstom-Netherlands	105		45			60
Siemens	821	14		276		531
Kiepe Elektrik**	304			127		177
AnsaldoBreda	263	54				209
Elin	188					188
Ingelectric (Spain)	7					7
Total	3949*	366	45	479	382	2677

^{*}includes 46 middle-floor cars

Chopper: includes DC motors with GTO thyristor chopper controls

VVVF: includes Three-phase AC motors with variable-voltage variable-frequency thyristor controls and Intermediate voltage circuit

GTO: includes direct Pulse-Width Modulation using air-cooled GTO-thyristors

Bipolar: includes direct Pulse-Width Modulation with three point water-cooled bipolar transistors

IGBT: includes direct Pulse-Width Modulation using Insulated Gate Bipolar Transistors in three-point air cooled (AEG) or two-point water cooled (Adtranz, Elin, Alstom, Siemens), or air cooled arrangement (Adtranz, Ansaldo, Elin, Kiepe, Parizzi, Siemens)

(Continued on page 19)

^{*}Internal ramps instead of steps give the passenger the impression of 100 percent low-floor car

^{**}includes 127 cars with Alstom, 126 cars with Skoda, and 51 with Siemens motors

IRT CAR ASSIGNMENT

	CARS REQUIRED APRIL 27, 2003								
LINE	AM RUSH	PM RUSH	LINE	AM RUSH	PM RUSH				
0/9	320 R-62A	300 R-62A	•	330 R-142	320 R-142				
2	310 R-142	300 R-142	0	370 R-142A	380 R-142A				
8	240 R-62A	230 R-62A	0	20 R-33S, 200 R-36, 121 R-62A	20 R-33S, 200 R-36, 121 R-62A				
4	260 R-62, 30 R-142, 50 R-142A	260 R-62, 30 R-142, 50 R-142A	8	10 R-62A	10 R-62A				

BMT-IND CAR ASSIGNMENT

CARS REQUIRED APRIL 27, 2003							
LINE	AM RUSH	PM RUSH	LINE	AM RUSH	PM RUSH		
A	20 R-32, 110 R-38, 200 R-44	20 R-32, 110 R-38, 200 R- 44	Ø	120 R-40, 60 R-40M, 16 R- 68	110 R-40, 60 R-40M, 16 R-68		
B	80 R-68	80 R-68	0	120 R-68	120 R-68, 8 R-68A		
0	104 R-32, 48 R-38	96 R-32, 40 R-38		140 R-40, 20 R-40M	140 R-40, 20 R-40M		
O	104 R-68	104 R-68	B	200 R-46	200 R-46		
3	260 R-32	260 R-32	V	120 R-46	120 R-46		
G	120 R-32, 264 R-46	90 R-32, 264 R-46	•	168 R-68A	168 R-68A		
G	40 R-46	36 R-46	(Grand Street)	4 R-46	4 R-46		
0/2	152 R-42	152 R-42	(Rockaway)	12 R-44	12 R-44		
0	8 R-42, 160 R-143	8 R-42, 160 R-143	(Franklin Avenue)	4 R-68	4 R-68		
•	144 R-42	144 R-42					

New Millennium, New Technology

(Continued from page 18)

MIDDLE- AND LOW-FLOOR LRVs ORDERED UP TO APRIL, 2003								
Operator	Type	Firm Orders	Gauge	Length (mm)	Width (mm)	% Low-Floor	Power (KW)	Delivery Date
			Вог	nbardier K-Type	e (83)			
Stockholm	A32	22 d	1435	29,700	2,650	65	4 x 120	1999-03
Den Haag	A32	6 d	1435	29,700	2,650	65	4 x 120	2003
Istanbul	-	55 d	1435	29,700	2,650	65	4 x 110	2003-04
			Si	l iemens Avanto (44)			
Houston	Avanto S70	18 d	1435	29,370	2,650	60	4 x 140	2003
San Diego	Avanto S70	11 d	1435	26,400	2,650	60	4 x 140	2004
SNCF	Avanto (*)	15 d	1435	36,370	2,650	70	4 x 160	2004
-			Alsto	m Reggio Citad	is (28)			
Kassel	15KV/600V	18 d	1435	36,470	2,650	67	4 x 150	2003-05
Kassel	DE/600V	10 d	1435	36,470	2,650	67	4 x 150	2004-05

d = double ended

de = diesel-electric drive

*Dual system: 25 kVAC and 600 VDC

Around New York's Transit System

New BMT-IND Schedules

When the new BMT-IND schedules went into effect on April 27, 2003, weekend schedules were revised on several lines. Because the Manhattan Bridge is closed on weekends, ① trains are routed via tunnel from Friday night just before midnight until 5 AM Monday. Saturday morning and afternoon ② trains, which formerly ran light to Church Avenue, are now turned at Fourth Avenue. Saturday and Sunday early evening ③ service was increased from a 12— to an 8-minute

headway. Sunday morning and early afternoon we service was increased from a 10- to an 8-minute headway. Service was adjusted on several other lines as shown on the following table:

The new weekday schedules are nearly the same as the previous schedules. Midday • service was reduced from a 6– to an 8-minute headway and • Grand Street Shuttle service was reduced from a 12– to a 15-minute headway.

HEADWAYS

EFFECTIVE APRIL 27, 2003							
SATURDAY					SUNDAY		
LINE	MORNING	AFTERNOON	EVENING	MORNING	AFTERNOON	EVENING	
0	12	12	12	12	12	12, 15	
B	12	12	12, 15	12	12	12, 15	
(Grand Street)	15	15	15, 20	15	15	15, 20	
W	8	8	8, 12	15, 8	8	8, 12	

EFFECTIVE SEPTEMBER 8, 2002

	SATURDAY			SUNDAY		
LINE	MORNING	AFTERNOON	EVENING	MORNING	AFTERNOON	EVENING
0	8	8	12	12	10	12, 15
B	8	8	12, 15	15, 12	10, 8	12, 15
(Grand Street)	12	12	12, 20	12	12	12, 20
0	8	8	12, 15	15, 12, 10	10, 8	12, 15

Flat Cars Used as Transition Cars

The following flat cars are equipped with receptacles for 12-point electrical jumper cables that allow them to be used as transition cars when coupled between two locomotives equipped with electric throttles. Because these cars' air horns have their own air supply separate from the brake pipe air charging system, activation of the horn cannot be used to test the availability of brake pipe air in the charging system.

CAR NUMBERS	CAR CLASS	CAR NUMBERS	CAR CLASS
0F142-0F149	R-51B	0F500-0F529	R-101
0F165-0F184	R-49	0F531-0F532	R-101A
0F185-0F199	R-51A	0F601-0F638	R-141
0F220-0F224	R-72		

Conventional flat cars 0F701-0F708 and 0F710-0F712, 714, and 716 do not have the same modifications as the above cars. They do not belong to a specific car class because they have been purchased by

contractors.

R-137 Vacuum Train Speed Restrictions

The R-137 vacuum train's speed must not exceed 40 miles per hour. An overspeed alarm will sound at 39 MPH and a warning will be displayed on the Train Operator's console. If this warning and alarm are ignored, the train will go into emergency and the operating systems will shut down when the speed reaches 41 MPH. The diesel engines will not restart until all circuits have been manually reset, a time-consuming operation.

To avoid emergency brake applications, the train's speed must not exceed 35 MPH or the posted speed for the track on which the train is operating. When traversing switches, the speed must not exceed 10 MPH, unless a different speed is posted. The speed must not exceed 10 miles per hour during vacuum operations.

If the overspeed alarm sounds when the speed inadvertently reaches 39 miles per hour, the Train Operator must immediately reduce speed to 35 MPH or the posted speed, and acknowledge and silence the alarm by depressing the illuminated General Fault button.