



BULLETIN

Volume 66, Number 2 | February 2023

East Side Access Opens

After being delayed from December due to final testing on Grand Central Madison's ventilation system, the Long Island Rail Road's Grand Central Branch opened for revenue service on Wednesday, January 25.

As we stated in last month's Bulletin, it had a "soft" opening, with only shuttle trains operating between Grand Central Madison and Jamaica. One change to the schedule shown last month was the addition of one later train from Grand Central on weekday evenings, departing at 8:04 PM.

Shuttle service started up on that Wednesday morning at 6:17 AM at Jamaica and 8:12 AM at Grand Central but these trips were operated lite with no passengers.

The first revenue trip with passengers, train #9013, departed Jamaica Station, Track 1, at 10:46 AM. Several dignitaries were on board, including Governor Kathy Hochul and MTA Chair and CEO Janno Lieber among others.

This train arrived Grand Central Madison on Track 302 (on the Lower Level) at 11:07 AM, right on time.

The consist for the first revenue trip was, not surprisingly, made up of M9 equipment, as follows:
W 9161-9162+9031-9032+9129-9130+9061-9062+9115-

9116+9071-9072 E. According to railroad sources, the inaugural run was fairly crowded, at 64% of the train's capacity. In actual numbers, that was about 835 people on a 12-car train.

After the inaugural trip was done, regular Jamaica-Grand Central shuttle service started.

During morning and afternoon/evening peak periods when trains operate hourly, the only local stop made is at Woodside, mainly for connections to Port Washington Branch trains. During the off-peak, when trains operate half-hourly, alternate trains operate either express between Grand Central and Jamaica or make all local stops (Woodside, Forest Hills and Kew Gardens) between those points.

The vast majority of shuttle trips arrive and depart from Platform C in Jamaica, Tracks 4 and 5. This requires essentially all passengers to go up and over from their arrival platforms or to their departure platforms to make the connection from or to Grand Central.

For the time being, the railroad has customer ambassadors on the concourse to greet riders and offer information about the new space. The temporary shuttle service will continue until February 27, at which time the full timetable will be put into effect.



Electric Railroaders Association

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2023 Convention, July 6–11

For its 2023 Annual Convention, the Electric Railroaders Association returns to the dynamic Pacific Northwest, anchored by our two primary destinations: Portland and Seattle. For details, point your browser to <https://www.erausa.org/conventions/2023/>.

Cover Photo

The first revenue train to Grand Central Madison, train #9013, is seen as it arrives on Track 302 at 11:07 AM on Wednesday, January 25.

James Estrin photo/The New York Times

Donations

The ERA Board of Directors express their deepest appreciation for these member donations in December 2022.

\$1000 and Above

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\$500 to \$999

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Monthly Zoom Meeting

Friday, February 17, 2023 at 7:30 PM.

Presenting This Month: Eric Oszustowicz

Eric (ERA #5985) will show photographs of the tram systems in Ukraine, in addition to views of its metros and mainline railroads. Eric and his wife Mary traveled extensively throughout Ukraine in 2017 and 2018.

Eric's program will start in the capital of Kyiv, which is home to an extensive tram, metro and trolleybus system, all of which will be covered. Then it is on to Lviv, Ukraine's westernmost large city, followed by the historic Black Sea port city of Odessa.

We then head east to Ukraine's second city, Kharkiv, home to a large tram system in addition to a metro system. While in Kharkiv, an MTV-82 tram car was chartered (arranged by Jack May) and taken around most of the tram system. This tram car, one of only four operable MTV-82s that were left in the world, was destroyed in February 2022 at the start of the currently raging war. Other cities to be visited briefly will include Dnipro, Kamianske, Mykolaiv, Zaporizhzhia and Kryvyi Rih.

If time permits, and enough participants are still present



(at least 100), videos taken during Eric and Mary’s travels during 2022 will also be shown. Videos of the unique Florida East Coast Railway, the Chicago Transit Authority’s 75th Anniversary, in addition to other subjects will be shown.

Eric’s presentations usually run well over three hours. Please join us for a special evening.

How to Join Our Zoom Meeting

A Zoom registration button will be posted on www.erausa.org about five days before Eric’s presentation. You can sign in at 7:15 PM. The show begins at 7:30 PM. If you have any problems, email Bob Newhouser at bnnyc1955@aol.com, or on the night of the meeting, text or call Bob at 917-482-4235.

Worldwide Suburban Electric Railway, Metro and Tramway Openings in January 2023

Table with 6 columns: Date, Country, City, Segment, Distance (miles), Rail/Metro/Tram. Rows include Istanbul, San Francisco, Bochum, Chongqing, Mumbai, Istanbul, Port Louis, and New York.

URBAN RAIL NEWS, JANUARY 31

Rail News in Review

New York Metropolitan Area

NEW YORK CITY TRANSIT (NYCT)

Long-Term Subway Track Outages

On January 20, the single crossover between southbound express Track B3 and local Track B1, located south of Church Avenue station (F G), was removed from service indefinitely due to “operational issues.” Your editor does not know exactly what those issues are.

This switch, 571A/B, is fairly new, having only been placed into service over the weekend of May 22-24, 2021 by Five Star Electric Corporation (electrical subcontractor to Tutor Perini Corporation) under contract S-47009, the IND Culver Line CBTC overlay project.

In Coney Island Yard, Track A, one of the yard’s switching lead tracks located just south of 86th Street station (N), was returned to service. It had been taken out of service on August 1, 2022 for flood wall installation work under contract C-34836, the long-term flood mitigation contract for the entire Coney Island Yard complex. Skanska Civil Northeast is the prime contractor on this project.

Queensboro Plaza (7 N W) Accessibility Project

Construction will shortly begin to install two elevators to make Queensboro Plaza a fully accessible station. This includes an elevator at the southern entrance of the station and an elevator between the mezzanine and the two platforms. The station is a busy transfer point in Queens that served approximately 70,000 riders on an average weekday in November 2022 – this estimate includes both riders who swipe in at this station and those who are transferring between the (7) and (N W). The work will be completed in phases and will require weekends of service changes beginning with service outages on (7) line at 12:15 AM Saturday, February 4 and later, in May, on the (N) line.

Queensboro Plaza is a station with high ridership and in the center of a rapidly growing neighborhood, rendering it a complex construction project, involving work to be done over the busy, 11-lane wide approach to the Ed Koch Queensboro Bridge, two of which are bike lanes. This project is also in coordination with the construction of a redundant accessible entrance on the north side of the station under a Zoning for Accessibility (ZFA) project.

On Wednesday, December 21, 2022, MTA Construction and Development President Jamie Torres-Springer and Deputy

**View east of the street-level elevator on Queens Plaza South.**

MTA rendering

Chief of Staff Cathy Li delivered a presentation on the costs and complexities of MTA infrastructure projects, including the challenges of building elevators in often constrained spaces. For remarks directly related to elevator accessibility projects, see this YouTube video at <https://www.youtube.com/watch?v=3c0rnqzPJMA&t=6553s>.

In addition to the two elevators, the project will also consist of:

- Expansion of the mezzanine by approx. 50 sq feet, improving passenger flow within the station;
- New lighting for the expanded mezzanine;
- Updates to the pedestrian bridge;
- New boarding areas compliant with the Americans with Disabilities Act (ADA) with new platform edges;
- Upgrades to existing street and station stairs to current ADA standards.

The project for building an accessible entrance on the south side is budgeted for \$74 million and is expected to be complete by mid 2024. The station's accessibility upgrade will be complemented with security and communication enhancements with upgrades to the fire alarm system, installation of a new security camera system, a new public address system, and digital information screens, offering better communication with clearer announcements and greater access to information via screens.

The Queensboro Plaza accessibility project is one of many improvements coming to the Line, across Manhattan and Queens, as outlined in a press release issued last month.

Details on Service Changes

For six weekends this Winter and early Spring, the **7** line will be closed between Queensboro Plaza and 34th Street-Hudson Yards in Manhattan. Riders can transfer to/from the **E F R** at 74th Street-Broadway or to/from the **N W** at Queensboro Plaza for service between Manhattan and Queens.

Free shuttle buses will be provided between Queensboro Plaza and Vernon Boulevard-Jackson Avenue, and between Times Square and 34th Street-Hudson Yards. The Grand Central Shuttle will operate all night and service will run

Saturdays from 7 AM to 7 PM and Sundays from 10 AM to 6 PM between Astoria-Ditmars Boulevard and 34th Street-Herald Square in addition to **N** service.

These service changes are scheduled to be in effect from 12:15 AM Saturday, February 4 until 5 AM Monday, February 6, as well as from 3:45 AM Saturday to 10 PM Sunday, on the following weekends:

- February 11–12;
- February 25–26;
- March 11–12;
- March 25–26;
- April 22–23.

Additional weekend service changes are anticipated later in 2023 and in 2024. Riders are advised to sign up the MTA Weekender, a weekly newsletter sent every Friday to inform riders of weekend service changes throughout the transit system. Print and digital signs will be posted in stations, along with announcements in stations and on trains, before the work begins. Service notifications will also be available on the MTA website, the MYmta app and social media.

In addition to building a fully accessible entrance on the south side at the Queensboro Plaza station, in August 2022, the MTA and New York City Department of City Planning announced the City Planning Commission authorization of an accessible entrance on the station's north side through the Zoning for Accessibility program, anticipated to be completed by 2025. The north side entrance will be financed, constructed, and maintained by the developer of 25-01 Queens Plaza North under the ZFA's transit improvement bonus program, saving the MTA millions of dollars in construction and maintenance costs.

[MTA PRESS RELEASE](#), January 3

New 34th Street **1 2 3** Entrance Opens

On January 26 a set of major station and accessibility improvements were opened at Penn Station, part of an effort to create a more accessible and comfortable station experience for the hundreds of thousands of daily Penn Station users. The project's new, fully accessible street entrance and fare control area on the northwest corner of Seventh Avenue and 33rd Street increases accessibility and reliability for all subway riders. Also recently completed is the full modernization of four existing elevators, three of which serve the subways and one of which serves the Long Island Rail Road (LIRR). The project, which was completed on time and under budget, will improve elevator reliability, provide redundant options for passengers who need elevators, and create a more seamless travel experience for Long Island Rail Road and subway riders.

The new elevators feature an Emergency Elevator Two-Way Communications System that facilitates better communication in case of emergency between rescue workers and all users, including those who are deaf or hard-of-hearing or have speech disabilities. The new fare control area provides riders with better access to subway service and features information screens which will display service alerts and

**View north of the new 34th Street-Seventh Avenue entrance.**

MTA/Marc A. Hermann photo

passenger communications. The project also includes the replacement or repair of five platform stairs serving LIRR riders, and improvements to station circulation, lighting and wayfinding.

The new entrance features artwork by Diana Al-Hadid, *The Time Telling*, inspired by Alfred Eisenstadt’s iconic photograph of the famed clock that hung at the entrance of the original Pennsylvania Station. The glass mosaic stands at an impressive 14 feet-9 inches high by 14 feet-1 inch wide.

The large-scale work features a scene viewed from above. Light pours through the windows, forming a veil of mist or fog. Below, commuters rush across the station floor. The rising architecture draws in the viewer, but it is the clock at the center that looms large. Its power is clear even though the precise moment is obscured. The artwork connects the past and present of this important station and offers a space for today’s riders and those of an earlier era to briefly meet in passing.

[MTA PRESS RELEASE](#), January 26

LONG ISLAND RAIL ROAD (LIRR)

Grand Central’s Operations Center

The entire Grand Central Branch, as it is officially known, is normally controlled from the Train Operations Center (TOC) which is located at the north end of the mezzanine. It is similar in operation to Penn Station Central Control and Jamaica Central Control, though smaller in size. A large-screen video display is mounted on a wall and there are several desks with computer workstations arrayed in front of it. From those workstations, block operators route all of the train movements into and out of the terminal.

There are seven individual interlockings on the branch between Grand Central and Harold Interlocking in Sunnyside, Queens. In addition to the TOC, all of the interlockings can be controlled from the Terminal Management Center

(TMC, located at the south end of the concourse), Incident Command Center (ICC, located north of the concourse in the 50th Street ventilation plant) or any of the individual Central Instrument Locations (CILs) located at each interlocking on the branch.

In each of those CILs there is a single desk with two monitors connected to a workstation. The portion of the CIL where each desk is located is physically separated from the section of the room where the actual relays are contained.

The dispatching and train movement software to control this branch is Rockwell Collins-ARINC’s Advanced Information Management (AIM) package. The only other location where the LIRR uses this particular software package is in Babylon.



The main display screen in Grand Central’s Train Operations Center (TOC) on January 6. The white track segments have no route established through them, green indicates an established route, red is an occupied block and the blue segments have “holds” on them, meaning a train is not allowed to enter them. A hold would be the same as to a “lever blocking device” on a mechanical interlocking machine.

Jeff Erlitz photo

METRO-NORTH RAILROAD (MNR)

40th Anniversary Celebrated

On January 1, MNR celebrated its 40th anniversary with a small ceremony in Vanderbilt Hall. MNR was created from Conrail’s Metropolitan Region. Before Conrail was created on April 1, 1976, the Hudson, Harlem and New Haven Lines were in Penn Central’s Metropolitan Region. The Metropolitan Region was itself created on April 26, 1970 from portions of Penn Central’s New York Region (Hudson and Harlem Lines) and New Haven Region.

The Northeast Corridor Region of Penn Central was created on May 19, 1974, in preparation for the eventual takeover of the Northeast Corridor by Amtrak. Soon after this, all of the operators on the corridor were offered the opportunity to purchase the sections they operated on. Only the states of New York and Connecticut did so. This is why MNR

dispatches the New Haven Line and not Amtrak.

Faster Service to Danbury?

Efforts to create a fast track to New York City will move to the environmental review phase in 2023 with a federally funded study to assess the impacts of running commuter trains along the old Maybrook rail line to Brewster.

“The project is continuing to move forward,” says Shay Nagarsheth, Danbury’s director of economic development and business advocacy. “The money has been allocated for the environmental study with the help” of U.S. Representative Jahana Hayes. “We are waiting on the federal transit funds to be allocated in early 2023.”

The fast-track concept, floated by former Mayor Mark Boughton during the final years of his administration, is to reopen the 14 miles of the Maybrook line between Danbury and Southeast, N.Y., where Manhattan-bound commuters would connect with Metro-North’s Harlem Line to Grand Central Terminal.

During talks between Boughton, Metro-North President Cathy Rinaldi and state Department of Transportation Commissioner Joe Giulietti in 2019, Boughton said there was widespread political will and popular will for the project.

Danbury Mayor Dean Esposito agrees.

“The train connection is moving forward,” Esposito told a crowd of 420 people at the annual state of the city address in early December. “This is a big deal for the community.”

Once considered a long shot, the fast track to New York City gained momentum in 2021, when a \$1 million study found the idea was “feasible both from a physical and economic perspective,” according to a consultant who led the study.

The study noted that reopening the Maybrook line is a priority for leaders in Danbury and leaders in nearby Putnam County, N.Y., and could be funded with federal infrastructure dollars.

The next step is a \$2 million environmental impact study.

Hayes, a three-term congresswoman who helped secure the funding, said: “The restoration of passenger rail service would extend the existing public transportation network and provide benefits to all communities along the corridor.”

Esposito during his state of the city speech agreed.

“Quick and easy access to New York City is definitely in our future,” he said. “Definitely.”

[DANBURY NEWS-TIMES](#), January 5

NJ TRANSIT (NJT)

40 Years of Service Celebrated

January 1 marked the 40th anniversary of NJT assuming control and management of the operations of New Jersey’s commuter rail network, previously operated by Conrail under contract to NJT and the State of New Jersey.

Shortly after midnight on that date, the first “NJ Transit” trains departed Hoboken and Penn Station New York with crews who were now officially NJT employees. Over the past

40 years, NJT improved New Jersey’s rail network by investing in modernized equipment, rebuilding the infrastructure and right-of-way, increasing service to Midtown Manhattan, introducing one-seat rides to Penn Station New York on three rail lines, increasing overall capacity and extending electrification on two busy rail corridors.



Two of NJT’s heritage locomotives, ALP-46 4636 and GP40PH-2 4109.

Photographer unknown

In recognition of this anniversary, NJT painted four locomotives in “Heritage” paint schemes to recognize the predecessor railroads that make up its system. In the photo, ALP46A 4636 wears a Pennsylvania Railroad-inspired scheme, while GP40PH-2 4109 appears reminiscent of its as-delivered Central Railroad of New Jersey paint scheme.

[NJ TRANSIT PRESS RELEASE](#), January 11

PORT AUTHORITY

AirTrain JFK Service Modified During Terminal Construction

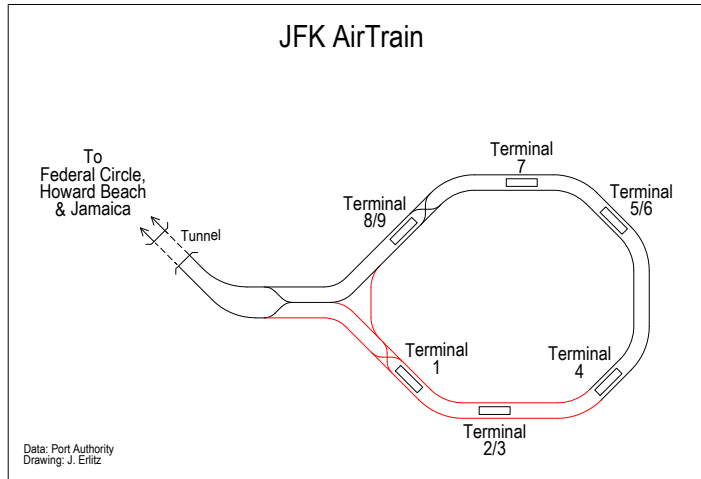
Beginning Sunday, January 15 and continuing through mid-February, AirTrain JFK station Terminals 1 and 2 are closed due to demolition work related to airport redevelopment projects. For access via AirTrain JFK, riders should use the AirTrain JFK station for Terminal 8 for connection via free buses to Terminal 1. AirTrain JFK’s Jamaica and Howard Beach lines are continuing to make stops at terminals 4, 5, 7, 8, Lefferts Blvd, and Federal Circle.

Terminal 2, the last of the original “Terminal City” buildings (all opened between December 1957 and 1969), is being demolished to make way for an entirely new terminal. Opened in November 1962, Terminal 2 was originally known as the Northwest Airlines terminal, though Braniff International and Northeast Airlines also shared the space. Northwest Airlines was absorbed into Delta Airlines on January 31, 2010.

Trains operating to the airport are now routed directly to the Terminal 8 (originally Terminal 8/9) station rather than Terminal 1, operating clockwise on the inner track. The airport terminals loop service, formerly operating on the inner track, has been discontinued for the duration of this temporary operation. All trains now terminate at Terminal

4 with the result that alternate trains operate “wrong-rail” from just east of the Terminal 8 stop to Terminal 4.

[PORT AUTHORITY PRESS RELEASE](#), January 13



Track diagram of the JFK AirTrain within the airport terminal area. The tracks highlighted in red are those not currently in service.

Other U.S. Systems

BOSTON

New Orange, Red Line Train Delivery Delayed Again

The Chinese company manufacturing the MBTA’s new Orange and Red Line trains, CRRC MA, hasn’t delivered any new cars for seven months, and despite already being years behind schedule, won’t be able to meet the new timelines it committed to this fall either.

Interim MBTA General Manager Jeffrey Gonneville told the Board of Directors on January 26 that CRRC will not be able to deliver the remaining Orange and Red Line cars by December 2023 and September 2026, and could face daily fines of \$500 for each late car.

He expects CRRC to provide an updated delivery schedule in late February, and resume delivery that same month.

Gonneville said the MBTA’s project team “feels strongly” that CRRC won’t be able to meet its contractual obligation to deliver eight cars per month, “without significant changes in production throughout” at its Springfield facility, where the new cars are being assembled.

Four cars per month is more likely, he said.

The current timeline already puts CRRC nearly two years behind schedule for the Orange Line, and three years behind schedule for the Red Line, based on the respective dates set in the initial contract: January 2022 and September 2023.

Only 78 of 152 new Orange Line cars and 12 of 404 Red Line cars have been delivered. Gonneville said shipments were suspended in July 2022 to address “manufacturing-related issues” identified by the MBTA.

CRRC halted production on Red Line car shell production in

November, due to what it described to the MBTA as a surplus of car shells, 26 Orange and 14 Red, currently stored at the company’s facility in Springfield.

All 152 Orange Line car shells have been produced, 78 of which are being stored and waiting to enter production at the Wellington car house.

Gonneville said CRRC has taken the position that its focus is on Orange Line car production, but the MBTA has asked for better balance when the company provides its revised schedule.

Gonneville recommended that the T take a step back and take a “fresh look” at the current contract to begin evaluating how different strategies can be used to ensure the delivery of safe and reliable Orange and Red Line cars, “as quickly as possible.”

The MBTA awarded CRRC MA a contract for new Red and Orange Line car production in 2014, which at the time was the Chinese company’s first awarded U.S. vehicle contract.

CRRC was the low bidder, coming in \$200 million below the next bidder above that. The initial contract was for \$565.18 million, but the MBTA ordered an additional 120 new Red Line cars in January 2017, which along with a change order, brought the current value to roughly \$870.5 million.

Since that time, there’s been a myriad of issues with production, and new cars put into service have been pulled several times due to a battery explosion, braking problems, and most recently, ill-fitting materials that led to a power cable failure in nine new Orange Line cars.

The MBTA wrote a scathing letter to CRRC MA in late December, describing the company’s failure to produce quality trains, meet delivery deadlines and respond to concerns raised by the T.

In a January 5 response letter, obtained by the Herald, CRRC MA Project Director Xianyi Jiang said the company remains “committed to delivering these vehicles with safety performance top priority and reaching mutually agreed-upon acceptance.”

Gonneville acknowledged that certain global factors were out of the company’s control.

For example, the National Defense Authorization Act of 2019 banned mass transit agencies from using federal funds to purchase rail cars and buses from Chinese-owned companies.

The U.S. increased tariffs on Chinese goods by 25% in 2018, which CRRC said has resulted in \$18 million in incurred costs, a number it expects to increase to roughly \$35 million throughout the course of this contract. CRRC has requested relief from the T on these charges, Gonneville said.

And inflation, low employment and vehicle delivery delays strained relationships between CRRC and its suppliers, he said.

[BOSTON HERALD VIA MASS TRANSIT](#), January 27

HONOLULU

Progress On Finishing Repairs

Lori Kahikina, Honolulu Authority for Rapid Transportation (HART)’s executive director and CEO, told the HART board

of directors on January 20 that the delay in trial runs of the Hitachi Rail trains will end only after a “communications software issue” is fixed.

HART is looking in the coming days and weeks to finish repairs to cracks in a score of rail support columns, resolve a wheels-to-rail equipment mix-up, and restart delayed safety tests to trains that will run along the nearly \$10 billion rail line.

According to HART staff, Hitachi hopes to have those glitches completed this month to allow a return to train testing on the initial stretch from East Kapolei to Aloha Stadium.

After that, the next step for the trains would be a system demonstration.

Hitachi is hoping to get that done in 30 days, though HART thinks it’s more like 45 to 60 days.

Kahikina also updated the HART board on repairs to hairline cracks on the T-shaped supports, known as hammerheads, built atop columns to support future rail stations on the 19.75-mile line. In late 2018, cracks were first discovered in the concrete forms of 21 hammerhead supports.

Currently, structural flaws on all 21 hammerheads are being resolved via the use of epoxy coatings to help keep out moisture and reduce further cracking.

HART reports that eight hammerheads need a little bit more rebar to add strength. More construction material, including rebar, has been ordered to complete the work.

The construction should start by the end of February, maybe early March, and that is also slated to be done by the end of April.

Meanwhile, the problem involving train car wheel rims, which were found to be too narrow and did not fit the rail they were supposed to run on, has been addressed for the short term. In December 2021 HART had obtained proposals from welding contractors.

However, the long-term fix, to be done by Hitachi, is to fully replace all of the wheels on the system’s trains.

HART stated that the weld is just temporary, but the first set of wheels has already arrived. Those wheels have been installed, and Hitachi is doing an analysis to make sure it is working well.

According to HART officials, the rail line is expected to open the first segment of its 19-station route by mid-2023. [HONOLULU STAR-ADVERTISER VIA MASS TRANSIT](#), January 24

SAN FRANCISCO

Central Subway Through Service Begins

The San Francisco Municipal Transportation Agency (SFMTA) began service along the T-Third section of the Central Subway on January 7. The new route connects Chinatown to Sunnydale and the Bayview in the new Central Subway, which opened with a soft launch in November of last year. The new T-Third route is intended to improve transportation and reduce travel times along its route.

With an above-ground station at 4th and Brannan and



S200 2061 (Siemens, 2019) leads a two-car train on the T-Third route south on 4th Street just north of King Street on January 12, the first sunny day after through service began. Peter Straus photo

subway stations at Yerba Buena/Moscone Center, Union Square/Market and Chinatown–Rose Pak, the Central Subway Project connects the southeastern and the north-eastern parts of San Francisco, including the neighborhoods of Visitacion Valley, the Bayview, Dogpatch, SoMa (South of Market), Union Square and Chinatown.

Service runs Mondays through Fridays, 6 AM to midnight every 10 minutes and Saturdays and Sundays, 8 AM to midnight every 12 minutes.

The T-Third now continues north at 4th & King, transitioning into underground tunnels with a portal under the I-80 freeway, cross under the BART and Muni Metro tunnels beneath Market Street and then continue under Stockton Street to Washington Street.

The T-Third’s new route means that it will no longer turn onto King Street and run along the Embarcadero and the Market Street subway. The K Ingleside will also now travel between Balboa Park and Embarcadero Station. Riders accessing those stops on Embarcadero at Folsom, Brannan and 2nd & King can now transfer to the N Judah at Powell Street or 4th & King.

This project features complex and award-winning designs. The Chinatown station is 120 feet deep, almost equivalent to a 12-story building underground. The International Tunneling Association awarded Chinatown Station “Project of the Year” for its sustainability aspects and community involvement, and Union Square/Market Street won an award for innovative solutions for underground space utilization. Most of the funding for the Central Subway Project is provided by the U.S. Department of Transportation and comes to about \$1.9 billion.

This project has been successful in avoiding disruptions to existing BART and Muni service and has not impacted travel through the Stockton Tunnel, despite its proximity.

[MASS TRANSIT](#), January 9

East Bay Repairs Set to Start on BART



Bay Area Rapid Transit (BART) will begin repairs on its Yellow Line in the East Bay, which is the busiest in the BART system. The upcoming work is being funded by voter-approved Measure RR, which is providing \$3.5 billion to rebuild BART's core infrastructure.

February 18–20, BART crews will work to replace 7,500 feet of worn rail between the Rockridge and Lafayette stations. Free buses will replace trains on that stretch of track all three days of the holiday weekend. Riders should expect 30-minute delays in that portion of the system. Yellow Line trains will run every 30 minutes during the weekend.

On five non-consecutive weekends in April, May and June, workers will replace an interlocking between the MacArthur and Orinda stations. Free buses will replace train service at the MacArthur, Rockridge, and Orinda stations on all five weekends. The tentative weekend dates for this project are April 1-2, April 15-16, May 13-14, May 27-30 and June 10-11. Riders can expect delays of 30 minutes in the work area.

The equipment being replaced is decades old and has outlived its design life. Riders will enjoy a smoother, safer, more reliable and quieter ride once the projects are complete.

This upcoming work is part of BART's overall effort to improve the safety and reliability of the 131-mile, 50 station system. There are now more rebuilding projects happening across BART than at any point in its 50-year history.

[MASS TRANSIT](#), January 11

WASHINGTON D.C.

Washington Metrorail Safety Commission Update

A series of directives issued late in the afternoon of January 13 by the Washington Metrorail Safety Commission (WMSC) to the Washington Metropolitan Area Transit Authority (WMATA) created a whirlwind of developments in which a directive to pull certain rail operators from service due to improper training was stayed, service cuts were announced and then recalled and the relationship between the District of Columbia region's transit operator and its safety oversight entity seemed to fray hour by hour.

On Friday, January 13, WMATA outlined new rail operator training enhancements following an internal safety investigation determination that some recently certified rail operators did not receive the proper sequence of non-passenger and in-service training. WMATA says "within minutes" of its enhanced training announcement, WMSC sent three emails, one pertaining to Train Operator Deficiencies in which rail operators without the proper training would be pulled from service until additional "stick time" training could be completed. A second directive delayed WMATA's plans to return additional 7000-series trains to service and the third dealt with Roadway Worker Protection Training. The authority said the directives regarding operator training and the return of additional 7000-series trains meant service would be reduced on the Blue, Orange and Silver lines starting on January 17 while it

appealed the two WMSC directives.

Later in the afternoon on January 16, WSMC issued a stay on the rail operators being pulled from service and gave WMATA until January 24 to provide the oversight agency with a list of operators who were certified using irregular training. WMATA says WMSC also committed to expediate its review of the next steps of the 7000-series return to service plan; two actions that prompted WMATA to recall the planned reduction in service on the Blue, Orange and Silver lines.

At a press briefing held on January 16, WMATA Board Chair Paul C. Smedberg said, "Safety is an absolute core value for Metro – full stop."

He noted the relationship between WMSC and WMATA had become structurally untenable, with additional members of WMATA's board expressing their exasperation and describing WMSC as blurring the lines between oversight responsibilities and operations.

However, WMSC does not believe any lines have been blurred.

"The WMSC carries out its duties in accordance with the WMSC Compact and WMSC Program Standard. This includes holding Metrorail to Metrorail's own safety commitments and procedures that Metrorail has established to provide for the safety of riders, worker and first responders," said Max Smith, WMSC spokesman.

WMATA explains its rail operators undergo several weeks of classroom training, followed by a written practical exam that must be passed before eight weeks of Yard Practical Training (YPT) begins where trainees receive eight hours of in-person, non-passenger training with an instructor on the mainline. The YPT is followed by 30 hours of in-revenue service training with an instructor, followed by a practical exam that must be passed for certification and follow-up assessments at the 30-day, 60-day and 90-day marks.

The issue with rail operator training surrounds the distribution of training time in YPT and revenue service. WMATA says all certified rail operators have a minimum of 38 hours of "stick time," but recently certified rail operators may have received less than the eight hours of training in YPT, but the balance was added to the revenue service training. For example, a trainee who received six hours in YPT would receive 32 hours of revenue service training.

An internal investigation by WMATA's Safety and Readiness Department found the discrepancy in training and developed new training procedures for those rail operators impacted. WMATA will use eight 7000-series simulators to supplement and reinforce safe operating practices of those rail operators.

WMATA explained current rail operator training classes would follow the proper sequence of training, which would be supplemented by additional use of the simulators.

Impastato told the January 16 press briefing that while the change to stick time had been informally discussed with WMSC, she could not find supporting materials it had been formally communicated to the oversight entity, nor could she find supportive material that WMSC needed to be informed of the change.

Smith says apart from training associated with a corrective



action plan, Metrorail is not required to inform or consult with WMSC on training changes, noting the authority’s rail safety training is “based on years of lessons learned and other safety inputs.”

Smith also noted issues with training were not about sequencing.

“The documentation Metrorail previously provided for specific train operators specified they were required to operate a non-passenger train for at least eight hours on mainline tracks with a training instructor prior to moving on to at least 30 hours of operation of a passenger train with a certified train operator,” Smith said. “Based on different information Metrorail provided late [the morning of January 16], the WMSC has granted Metrorail a stay until January 24 of our directive requiring Metrorail to provide a list of train operators Metrorail certified despite not meeting Metrorail’s safety training requirements. Related investigation and inspection activities continue as the WMSC awaits documentation from Metrorail regarding the new information Metrorail provided [on January 16].”

[MASS TRANSIT](#), January 17

International

BEIJING

Line 16 Opens Southern Section

Beijing MTR, a subsidiary of MTR Corporation, has announced the opening of Beijing Metro Line 16’s phase III southern section. Passenger services began on December 31, 2022.

Line 16 is considered a backbone line for China’s capital city, running from north to south and serving commuters in key areas including Lize financial business district, Beijing Fengtai railway station and Zhongguancun Fengtai science park.

The new 8.8-mile southern section takes MTR’s mainland China operational network to over 186 miles in length.

It has a total of 10 stops running from Bei’anhe to Yushuzhuang Station, and connects to the phase I northern and phase II middle sections.

[RAILWAY-NEWS](#), January 4

BIRMINGHAM

First Track Laid for Eastside Metro Extension’s Delta Junction

A total of 427 feet of double track has been installed along Lower Bull Street as part of the Birmingham Eastside Metro extension project.

This rail installation is the latest milestone reached in the project, following on from the 148 feet laid at the junction of Meriden Street and Digbeth High Street last autumn.

When completed, the extension will run 1.1 miles from the city center to Digbeth, and provide passengers with four new

tram stops.

More than half the route will be free of overhead wires, similar to the extension from Grand Central to Centenary Square.

A team from the Midland Metro Alliance (MMA), which is delivering the project on behalf of Transport for West Midlands (TfWM), spent over 330 hours installing the first pieces of rail for the delta junction after December’s concrete pour, which formed the base for the track and ties to be installed.

This will enable trams to travel in six different directions between Digbeth, Edgbaston and the Black Country.

Construction has been ongoing along Lower Bull Street since 2021. Urban realm improvements were completed in time for the Commonwealth Games and the installation of a complex junction with the existing Metro route won a major engineering award in October 2021.

More recently, works to demolish the Kings Parade building began last November.

The works in the Lower Bull Street and Dale End areas of the city center have been running concurrently with the Metro activity along Digbeth High Street, where urban realm improvements have recently been completed.

[RAILWAY-NEWS](#), January 11

BRUSSELS

New LRVs and Metro Trains Funded

The European Investment Bank (EIB) has signed its first loan with the Brussels-Capital Region, providing €475 million to improve public transport in the Belgian capital by funding new rolling stock and track renewals on the light rail and metro networks.

New rolling stock and infrastructure upgrades form part of the wider strategy being implemented by Brussels public transport operator STIB to achieve by 2030 a 39% reduction in its carbon emissions compared with 2010.

The EIB loan will fund the acquisition of 90 New Generation LRVs that will be 105 feet or 141 feet in length, as well as 43 new trains for the Brussels metro network that will be 308 feet in length.

Funding will also be provided for infrastructure upgrades to accommodate the new fleets, as well as the renewal of 39 single track-miles on the light rail and metro networks.

Once implemented, the improved infrastructure and new rolling stock should make services more frequent and reliable, according to EIB.

The loan to Brussels forms part of a €23.5 billion package of new financing for investment in transport, business, health, education, clean energy and climate action that was approved by the EIB board last month.

A total of €6.9 billion is being provided for new sustainable transport investment including high-speed rail and improving urban transport.

[INTERNATIONAL RAILWAY JOURNAL](#), January 4

CZECH REPUBLIC

First Moravia Trainset Enters Test Service

The first of the Southern Moravian Region's four-car Moravia trainsets has entered trial operation on the S2 line from Brno to Letovice.

This is the first of 31 four-car trains ordered from Škoda Group, with the others expected to enter operation in the following weeks.

Testing of the four-car unit begins as Škoda completed the delivery of the last of its six two-car units ordered by the Region.

The Moravia trains are based on the RegioPanter platform and designed for suburban and regional lines. They have a red and white livery, with each trainset named after a wine grown in the region.



The new four-car Moravia trainset has entered trial operation on the S2 line from Brno to Letovice Škoda Group photo

The four-car units have a maximum speed of 100 mph and are equipped with ETCS. They have a total capacity of 619, with seating for 333 passengers. Seats are on cantilevers to provide more space.

Other features include windows that mobile signals can pass through more easily, air conditioning, Wi-Fi, USB charging points, power sockets and defibrillators.

[RAILWAY-NEWS](#), January 21

EGYPT

Talgo Intercity Trains Commence Operations

Egypt National Railways (ENR) has commenced the commercial operation of Talgo Intercity trains between Cairo and Alexandria.

This achievement progresses Talgo's contract with ENR for the supply of six Intercity units, as well as their maintenance for eight years. The contract was valued at €160 million and involved the construction of new Talgo facilities in Egypt.

The Talgo trains have a maximum commercial speed of 100 mph and are equipped with 490 seats.

Each of the six units is made up of a locomotive and fifteen cars, five of which are used for first class and eight are used for second class. In addition, one of the cars has a cafeteria and seats for people with reduced mobility, and one is used as a technical car.

The vehicles were manufactured in Talgo's factory in Alava, Spain and have been certified to operate at temperatures of up to 122°F.

This contract was Talgo's first order in Egypt. In August 2022, the manufacturer also received its second contract in the country for the manufacture of an additional seven passenger trains, which will be used for night services.

[RAILWAY-NEWS](#), January 3

ESTONIA

New EMUs Ordered

Estonian railway operator Eesti Liinirongid (Elron) has taken up the option to order a further 10 electric trains from Škoda Group.

The original order for six EMUs was made in February 2021. This latest request takes the value of the contract to approximately €147 million.

The EMUs are based on the RegioPanter platform, which was also used in the design of the trains for neighboring Latvia. The Estonian trains will include first class carriages and food service cars.



Rendering of RegioPanter EMU for Estonia. Škoda photo

The first of the trains from the order, which now totals 16 vehicles, is already in production at Škoda's site in Ostrava, Czech Republic.

This production center is well equipped to meet the specific requirements of vehicles for operation in Estonia. In addition to the wider track gauge, trains must be able to withstand challenging temperature conditions, especially in winter.

During 2023, the first unit will be completed and ready for testing. Škoda plans to then transport the second unit directly to Tallinn, where it will enter a parallel commissioning process.

These vehicles are designed as dual-system trains for 3 kV and 25 kV 50Hz power systems, so they can serve sections with older catenary and newly electrified lines, such as the section currently being built between Tallinn and Tartu.

This is scheduled for completion by the end of 2024. Delivery of the first six trains is expected to be complete by the end of 2024.

[RAILWAY-NEWS](#), January 24

FRANCE

Talgo Signs Agreement with LE TRAIN for High-Speed Fleet

Talgo has signed an agreement with LE TRAIN to develop a fleet of high-speed trains based on its Avril platform.

These will be adapted for use on French networks and will operate across the regions of New Aquitaine, Brittany, Pays de la Loire and Centre-Val-de-Loire.

LE TRAIN obtained its railway company licence last month and is now working toward meeting the final requirements to begin commercial operation.



Rendering of Le Train's Talgo high-speed train. Talgo photo

Talgo was chosen following a call for tenders issued at the start of 2022 to European train manufacturers.

The agreement, signed in Bordeaux, covers the potential future acquisition of a fleet of up to 10 very high-speed trains, including possible extensions and maintenance options.

It also discusses the creation of a joint research and development unit in New Aquitaine.

Once the final contracts are signed, Talgo will begin manufacturing the LE TRAIN fleet at its plant in Rivabellosa, Spain.

This is expected to begin by the summer, with the first vehicle ready for delivery in early 2025.

[RAILWAY-NEWS](#), January 24

FRANKFURT

Rheingau Express to Get New Stadler FLIRTs

Stadler has won the contract to supply eight four-car FLIRT3

XL vehicles for use on the Rheingau Express lines in Germany. The agreement also includes an option for a further vehicle.

Alpha Trains will lease the FLIRTs to VIAS Rail on a long-term basis for use on the new RE 19 regional express line between Koblenz and Frankfurt, as well as the RB 10 line from Neuwied to Frankfurt.

This network was recently awarded to VIAS by the Rhein-Main-Verkehrsverbund.



Rendering of the FLIRT3 for VIAS Rail. Stadler photo

The FLIRT multiple units can carry up to 512 passengers, with seating for 230, while three multipurpose areas can transport up to 12 bicycles, baby carriages or wheelchairs.

Six boarding areas and an elevating lift make for fast and barrier-free entry and exit regardless of the platform height.

The trains will also be equipped with the latest version of Stadler's Guardia ETCS solution.

Stadler also signed an agreement with Deutsche Bahn Netz to retrofit up to 80 maintenance and track service vehicles with this train control system.

The electric trains will begin operating in 2025 and will increase the number of FLIRT vehicles in the VIAS fleet to 27.

[RAILWAY-NEWS](#), January 19

INDIA

Electric Locomotive Order

Siemens Mobility has signed a contract with Indian Railways for the supply of 1,200 locomotives of 9,000 horsepower (HP). This is the single largest locomotive order in Siemens Mobility's history and the single largest order for Siemens India.

The contract has a total value of approximately €3 billion.

The locomotives will be assembled in the Indian Railways factory in Dahod, India. Siemens Mobility will design, manufacture and commission the vehicles, with deliveries planned over an eleven-year period.

The contract also includes 35 years of full service maintenance. This maintenance will take place in four Indian Railways depots located in Vishakhapatnam, Raipur, Kharagpur and Pune.

Indian Railways will use the locomotives for freight transport, advancing the government's plan to increase the freight

transported by rail to 40–45% from the current 27%.

The vehicles are specified to haul loads of 4,500 tons at a maximum speed of 75 mph.

[RAILWAY-NEWS](#), January 17

ISTANBUL

Metro Line 8 Opens

Istanbul's metro network has grown by 8.9 miles with the opening of Line 8 on the eastern side of the Bosphorus on January 6.

The driverless line runs underground from Bostanci to Parseller with 11 intermediate stations at Emin Ali Paşa, Ayşekadın, Kozyatağı, Küçükbakkalköy, İçerenköy, Kayışdağı, Mevlana, İmes, Modoko-Keyap and Dudulluand Huzur.

Construction of the line began in February 2016. The new north-south line provides interchange with lines 4 and 5, which run east-west on the Anatolian side of Istanbul, as well as mainline services.

Services are operated with 10 four-car trains, with an end-to-end journey time of 25 minutes. The service headway is 8 $\frac{2}{3}$ minutes between 6:30 AM and 9:30 PM. The 13 stations on Line 8 are equipped with a total of 160 escalators and 51 lifts.

[INTERNATIONAL RAILWAY JOURNAL](#), January 10

ITALY

New High-Speed Service

FS Italiane has announced that new high-speed Trenitalia rail services between Roma and Milano commenced service on January 23. The Frecciarossa trains will connect Roma Tiburtina and Milano Rogoredo stations in just two hours and 45 minutes.



An example from Italy's extensive high-speed fleet, ETR.700 4801 (AnsaldoBreda, 2008) is seen at Milano Centrale station on September 9, 2022. Jeff Erlitz photo

This improves the existing journey times on offer between

Roma Termini and Milano Centrale, which takes upwards of two hours and 59 minutes on the fastest service.

Now, the Frecciarossa 9682 leaves Roma Tiburtina at 5:30 AM and arrives in Milano Rogoredo at 8:15 AM.

In addition, the Frecciarossa 9681 departs Milano Rogoredo at 8:44 PM and arrives in Rome Tiburtina at 11.29 PM.

With this new service, Trenitalia now operates 90 daily Frecciarossa connections between Roma and Milano.

The new route also conveniently connects to other modes of transport, such as the underground and urban railway services.

In serving Roma Tiburtina and Milano Rogoredo, instead of Roma Termini and Milano Centrale, FS Italiane aims to reduce congestion at its busiest stations.

[RAILWAY-NEWS](#), January 24

LIVERPOOL

Class 777s Enter Service

Liverpool City Region's new fleet of publicly-owned trains entered service on January 23. The new trains support the Liverpool Mayor's goal to develop a London-style integrated transport system in the city and a "Merseyrail for all" to serve communities across the region.

A phased rollout of the new trains will begin with the Kirkby line, followed by the Ormskirk line. Later in the year, the trains will then be introduced across both the Northern and Wirral lines.

The Stadler-built trains are replacing a fleet that has been in operation for over 40 years.

They are three times more powerful than their predecessors, allowing them to stop and start more quickly. Not only does this improve reliability and resilience, but also reduces journey times by up to 10%.

The trains are also more sustainable, as regenerative braking delivers energy back into the electrical supply network, and their lightweight design improves energy efficiency by a quarter.



Class 777 010 at Hooton Station on July 28, 2021. Phi Nash photo

In addition, on-board battery technology could allow the new trains to reach parts of the region not currently served by Merseyrail services, as well as operating as far afield as Wrexham and Warrington.

Co-designed in consultation with locals, the new trains feature USB charging points, Wi-Fi, air conditioning, digital passenger information screens, CCTV and improved legroom and larger seats.

They will also be the first in the country to provide level boarding for everyone at all doorways and on all platforms thanks to sliding step technology that meets the platform edge. [RAILWAY-NEWS](#), January 18

MONTREAL

Blue Line to Get CBTC

The government of Quebec has committed to providing more than C\$565 million (US\$423 million) to equip the Société de transport de Montréal's (STM) Blue Line with communications-based train control (CBTC).

The current system dates to the 1970s and detects train movement using an electrical circuit. CBTC communicates between onboard equipment and wayside elements that deliver a more reliable, intelligent and predictive signaling system. The Blue Line will be the first rail line in Montreal to implement CBTC, with the plan being to install the technology throughout the rest of the STM network.

Quebec Deputy Premier and Minister of Transport and Sustainable Mobility Geneviève Guilbault commented the investment ensures Montréal residents will be provided optimized and quality service.

A tender for the CBTC system was issued January 23 with plans to have it commissioned on the Blue Line in 2028 and on the Blue Line extension in 2029.

[MASS TRANSIT](#), January 24

NETHERLANDS

ICNG Fleet Approved to Enter Service

Dutch rail safety authority ILT has granted the Authorization to Place on the Market (Apom) that will enable the Intercity New Generation (ICNG) EMU supplied by Alstom to Netherlands Railways (NS) to enter service on the national network.

The Apom was granted on December 30. As the ICNG will operate only within the Netherlands, NS opted to seek approval from ILT rather than the European Union Agency for Railways.

For domestic operations on the conventional network and the HSL South high-speed line, NS has ordered 49 five-car and 30 eight-car ICNG EMUs, which are 361 feet and 541 feet long respectively.

Based on Alstom's Coradia Stream platform, the ICNG is equipped to take current at 1.5kV DC on the conventional network and at 25kV 50Hz AC on HSL South.

With a maximum speed of 124 mph, it must comply

with the Technical Specifications for Interoperability for high-speed rolling stock, which apply to all trains operating at over 111 mph.

The new NS fleet has been fitted with ETCS including a specific transmission module for the Dutch ATB automatic train protection (ATP) system.



NS's new generation intercity EMU. Quintus-Vosman photo

The ICNG has been authorized to operate in multiple up to a maximum of three five-car EMUs, one five-car and one eight-car train, or two eight-car EMUs. On certain sections of the national network, restrictions are imposed on operation in multiple so as not to exceed substation capacity.

When operating on the conventional network, the maximum speed is restricted to 99 mph as the ICNG's DC pantographs do not exert sufficient upward pressure on the overhead contact wire for higher speeds.

On upgraded routes equipped with the first-generation ATB-EG ATP, maximum speed is 99 mph compared with the standard 87 mph. The minimum curve radius that can be negotiated by an ICNG EMU is 492 feet.

After several delays, NS now plans to introduce the ICNG in commercial service this summer. The new trains will replace Traxx MS2 class 186 locomotives and ICRm coaching stock, initially on the Amsterdam Central-Rotterdam Central-Breda route and later on Den Haag Central-Rotterdam Central-Breda-Eindhoven services.

With the December timetable change, NS plans to reshape its Intercity (IC) network and to introduce IC services between Breda and Groningen via Rotterdam Centraal, Amsterdam South, Lelystad and Zwolle.

Drivers and other NS staff are currently being trained on the new ICNG fleet, which will be maintained at the Nedtrain workshops in the Watergraafsmeer stabling yard in Amsterdam. [INTERNATIONAL RAILWAY JOURNAL](#), January 5

PARIS

Metro Equipment Shuffled

Paris metro operator RATP is to undertake an upgrade program on Line 6 from Charles de Gaulle-Étoile to Nation,

which will include deployment of MP89 rubber-tired trains. Line 6 is 8.5 miles long, of which 3.8 miles runs on viaduct. Rubber-tired rolling stock was first introduced on the line in 1974 to reduce noise, and the MP73 fleet brought into service at that time is now approaching the end of its working life.



MP73 (left) and MP89 (right) equipment side-by-side.
Île-de-France Mobilités photo

The MP73 fleet will be replaced by MP89 trains cascaded from Line 4, which will be refurbished and shortened from six to five cars in length. A total of 40 trains are expected to be delivered by the third quarter of 2025.

Line 4 is being converted to driverless operation and is receiving MP14 trains from Line 14. The entire Line 4 fleet of 52 trains is due to switch to driverless operation by the end of this year.

The Line 6 upgrade program also includes modifications to signaling, track and station platforms. A new traction transformer is to be installed and additional storage tracks laid.
[INTERNATIONAL RAILWAY JOURNAL](#), January 12

Last of 73 Regio 2N Trains Arrives

Île-de-France Mobilités has announced that the last of 73 Regio 2N trains ordered to equip line N has arrived at Gare Montparnasse in Paris.

The Regio 2N units were ordered in 2016, as part of Île-de-France Mobilités' €10 billion modernization program.

This program has introduced new Francilien trains on lines H, J, K, L and P, RER NG units on the RER lines D and E, and Regio 2N double-decker trains on lines N and R.

The first Regio 2N trains were first put into circulation on line N in December 2020 to enhance passenger comfort. Following the latest delivery, line N is now the second line in Paris to be 100% equipped with this model.

The Regio 2N is designed from 95% recyclable materials. Each train has 25 on-board surveillance cameras, as well as crowd sensors to record and share service capacity.

The units offer 20% more seats than the models they are replacing and are fitted with double glazing, armrests, underfloor heating and air conditioning.

In addition, the new trains are equipped with on-board passenger information systems to inform passengers of the name and number of stops, the available connections and live journey times.

The transition to operating Regio 2N trains was accompanied by large-scale works on line N and the modernization of maintenance sites and depots. The new installations aim to improve the reliability of transport on the line and reduce the number of breakdowns.

[RAILWAY-NEWS](#), January 18

SCOTLAND

Alstom to Overhaul Class 334 EMUs

Alstom has been awarded a contract to carry out an overhaul of ScotRail's Class 334 fleet of 40 trains that operate between Edinburgh and Glasgow.



Scotrail Class 334019 at Dumbarton Central on September 17, 2022.
314manh photo via Wikimedia Commons

This contract is valued at €12 million and was signed with Eversholt Rail, which leases the trains to ScotRail.

Alstom initially built the trains to enter service for ScotRail in 2001. The units will now benefit from a mileage-based modernization, including the overhaul of pneumatic and electrical components such as automatic couplers, gangways, batteries, underframe air valves and toilets.

This work will build upon the Alstom's modernization of the vehicles in 2015, which upgraded the interiors by providing air conditioning, at-seat charging, CCTV and Wi-Fi.

The overhaul project is scheduled to commence in January 2024 at Alstom's Polmadie Depot in Glasgow.

[RAILWAY-NEWS](#), January 10

SLOVAKIA

Five More RegioPanter EMUs Ordered

Slovakian rail company Železničná spoločnosť Slovensko (ZSSK) has taken up the option to order a further five RegioPanter electric units from Škoda Group as part of the modernization of its fleet.

This order is being supported with funds from the Slovak

Republic's Recovery and Resilience Plan.

The original contract between ZSSK and a consortium of Skoda Group and ŽOS Trnava was signed in September 2021, when ZSSK ordered nine four-car, low-floor electric units, with an option for an additional 11.

The RegioPanter units are being delivered to Slovakia as two-system units, for 3 kV DC or 25 kV 50 Hz, with a capacity of 343 seats.



RegioPanter for Slovakia. Skoda Group photo

They are designed for operation on regional lines with a standard gauge of 4 feet 8½ inches and a maximum speed of 100 mph.

The sets also include multifunctional compartments for disabled passengers, baby carriages or bicycles, as well as air conditioning, power sockets, Wi-Fi and audio-visual information systems.

Škoda and ŽOS Trnava have an ongoing relationship with ZSSK and to date have produced 25 of these units for the rail company. When fulfilled, this latest order will bring the total of ZSSK's RegioPanter fleet to 39.

The nine RegioPanter units ordered in September 2021 will be deployed on lines in the Košice and Prešov regions – specifically on the Prešov – Košice (line No. 188) and Košice – Michalany – Slovenské Nové Mesto – Čierna nad Tisou (line No. 190) sections.

The five new units are scheduled for delivery in 2025.

[RAILWAY-NEWS](#), January 3

SWITZERLAND

Aargau Verkehr Orders Five Stadler Trains

Aargau Verkehr has ordered five low-floor ABe 4/8 Saphir II multiple unit trains for the use on the Wynental and Suhrentalbahn (WSB) railway in Aargau, Switzerland.

The oldest trains operating on the WSB network are due to be replaced in 2026. Aargau Verkehr has ordered five modern trains from Stadler to replace the outdated units.

This order is valued at CHF 39.5 million.



New ABe 4/8 Saphir II. Stadler photo

The new two-car trains will each be 131 feet long and will be in service on the WSB network from December 2025.

The design of the new low-floor multiple units aligns with the Saphir version that has been in use since 2019.

Similarly to the previous models, they will feature bright passenger compartments with air conditioning, passenger information systems, video surveillance and a barrier-free boarding area.

The two-car trains will each be able to carry up to 253 passengers, with 85 seated. They will also offer multifunctional areas for baby carriages, wheelchairs, luggage or bicycles.

In contrast to the Saphir I trains already in use, the new two-car trains do not have an intermediate car and are around 66 feet shorter.

Both versions can be combined during operation and used as 262 or 328-foot long compositions if needed. This will allow Aargau Verkehr to flexibly adjust to future capacity requirements.

Commissioning of the new vehicles will take place from summer 2025, leading to a timetable change in December 2025.

The first new trains will be used on the S14 route, joining existing Stadler vehicles operating on the WBS network.

[RAILWAY-NEWS](#), January 25

TORONTO

Scarborough Extension Tunneling Under Way

Tunneling is officially underway on Metrolinx's 4.85-mile Scarborough Subway Extension. The much-needed extension will bring subway service farther north into Scarborough and accommodate as many as 105,000 daily boardings.

Since arriving from Germany late last year, crews at the project's launch shaft, located at Sheppard Avenue East and McCowan Road, have been busy preparing the excavation required to bring the tunnel boring machine (TBM) to life.

Crews put numerous measures in place to safely and efficiently dig the deep pit, including building strong reinforced walls along the perimeter.

Over the next couple years, the TBM, named Diggy Scardust, will travel 33 to 49 feet daily, making its way south

from the launch shaft site towards Eglinton Avenue East and Midland Avenue. It will dig about 4.3 miles of the 4.85-mile tunnel that will be required to bring seamless subway service farther into Scarborough.

The remaining portion of the tunnel will be built by the contractor for the stations, rail and systems contract. At 35.1 feet wide, this will be the first subway tunnel in Toronto to contain two subway tracks operating in both directions.

As tunneling gets underway, crews have already started work at the project's extraction shaft site at Midland Avenue and Eglinton Avenue East, where the TBM will be extracted from the ground after completing its tunneling journey.

[MASS TRANSIT](#), January 19

WALES

New Fleet Launched

The first of Transport for Wales' (TfW) new fleet of trains has been officially launched.

The new trains entered into passenger service on the Conwy Valley line at the end of 2022, but were officially unveiled at a ceremony at Llandudno railway station on January 26 by Lesley Griffiths, Minister for North Wales.

These are being built in Newport, Wales by CAF, which was awarded the £800 million (\$990.53 million) manufacturing contract.

The 77 (51 two-car and 26 three-car) new Class 197 trains will become the backbone of TfW's services across the length and breadth of the Wales and Borders network.

They will offer increased capacity and enhanced comfort, with leather seats, modern air conditioning systems, wider doors and customer information screens.

They've also been fitted with electronic charging points and disability features for those with limited mobility.

The Class 197s enable TfW to run faster and more frequent services to destinations including Holyhead, Fishguard and Liverpool, and will sit alongside the 71 brand new trains and tram-trains being built for the South Wales Metro, the first of which has recently entered into passenger service.

Network Rail has been working with TfW to carry out upgrades to the railway such as gauge clearance, raising platforms and installing new stop car markers so the new trains can operate.

Up to 148 of the new trains will be named by primary school children across Wales as part of The Magnificent Train Journey competition.

This challenged children to come up with names based on a real place, landmark, historical site or mythical figure associated with Wales.

[RAILWAY-NEWS](#), January 26

WIEN (VIENNA)

New Cars on the Badner Bahn

The Vienna Local Railway, formally the Wiener Lokalbahnen but affectionately called the Badner Bahn (for its southern terminal at Baden) has started regular operation of its new light rail vehicles after the first train was put into service over the Christmas holidays. The second double set will be in service from January 10 and the third will follow shortly thereafter on the route between Vienna Opera and Baden Josefsplatz.

In the course of the spring, all 18 sets of the TW500 series that have been ordered will go into operation. Wiener Lokalbahnen received the official operating license required for passenger operations shortly before Christmas.



TW500s 514+511 (Alstom, 2022) at Baden Josefsplatz on January 18.
Klaus Matzka photo

The commissioning of the first new vehicles is the prelude to the fundamental modernization of the Badner Bahn vehicle fleet. In particular, the focus is on accessibility and passenger comfort. The barrier-free, or accessible, vehicle was developed together with representatives of disabled people's associations and the group officer for barrier-free access at Wiener Stadtwerke. The TW500 offers two places for wheelchairs and two for strollers and thus one more place each compared to the previous model TW400 (built by Bombardier between 2000 and 2009).

The new vehicles (ordered from Bombardier but delivered by Alstom) have air conditioning and video surveillance as standard. Double-glazed windows provide additional protection against heat in summer and store the heat inside the vehicle better in winter. The vehicle feeds braking energy into the grid via energy recovery, thus saving energy. With 74 seats, the TW500 also has 10 or 4 additional seats compared to the trains previously used. The boarding areas are spacious and multifunctional. The characteristic tables of the Badner Bahn on the four-seater seats have been preserved. Free Wi-Fi, sockets and USB charging options for smartphones, tablets and laptops complete the offer for passengers, as does new electronic passenger information.

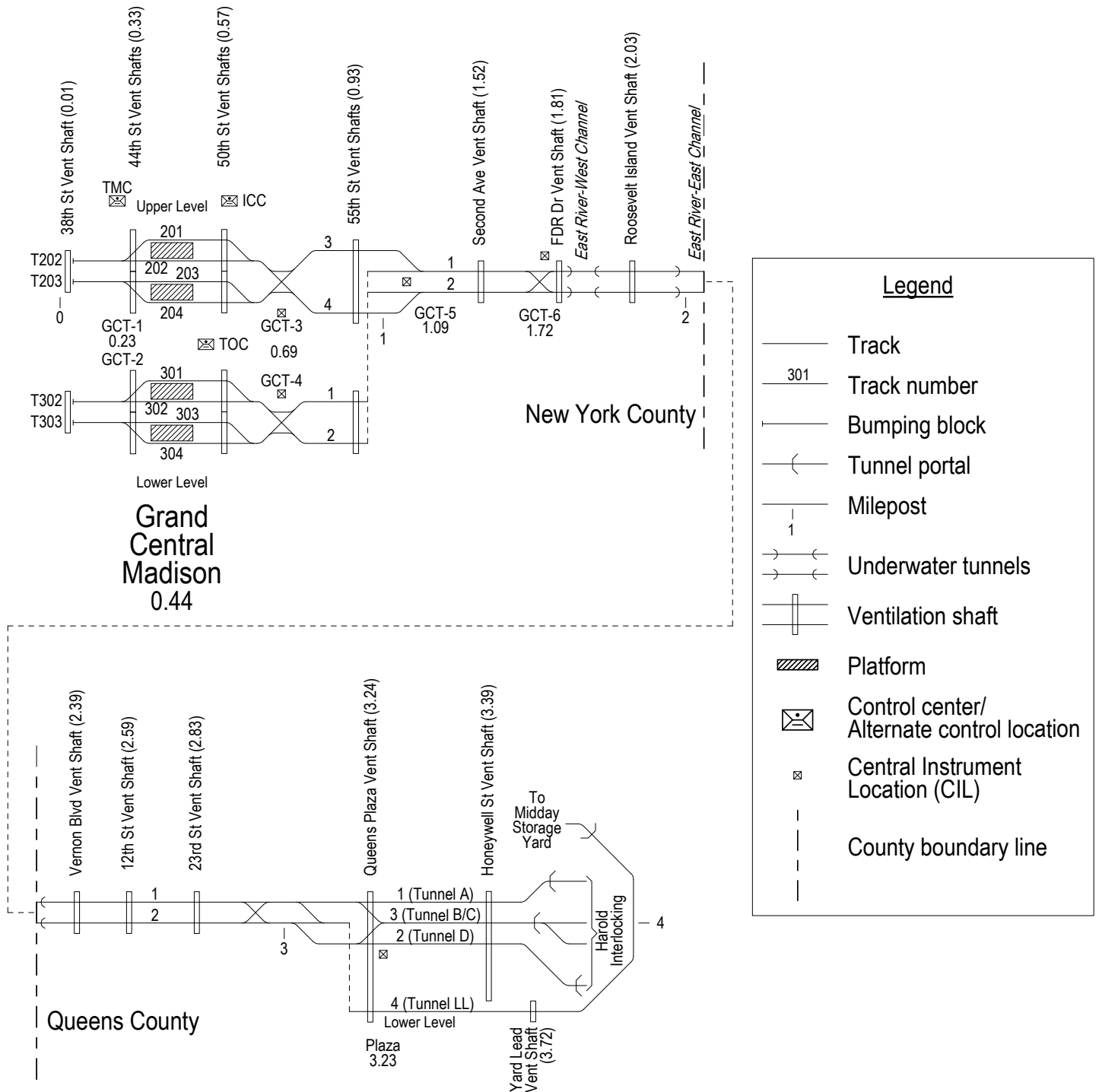
Over the next few weeks and months, the new TW500 series will gradually replace the older high-floor trains (100-series built by SGP Simmering-Graz-Pauker between 1979 and 1993), some of which will remain in stock as a vehicle reserve.

[BADNER BAHN](#), January 9

LIRR Grand Central Branch Track Diagram

The mileages shown on this drawing are measured from the west end of the branch, at 38th Street. At the time of publication, the exact locations of the Central Instrument Locations (CILs) for GCT-1 and GCT-2 Interlockings were

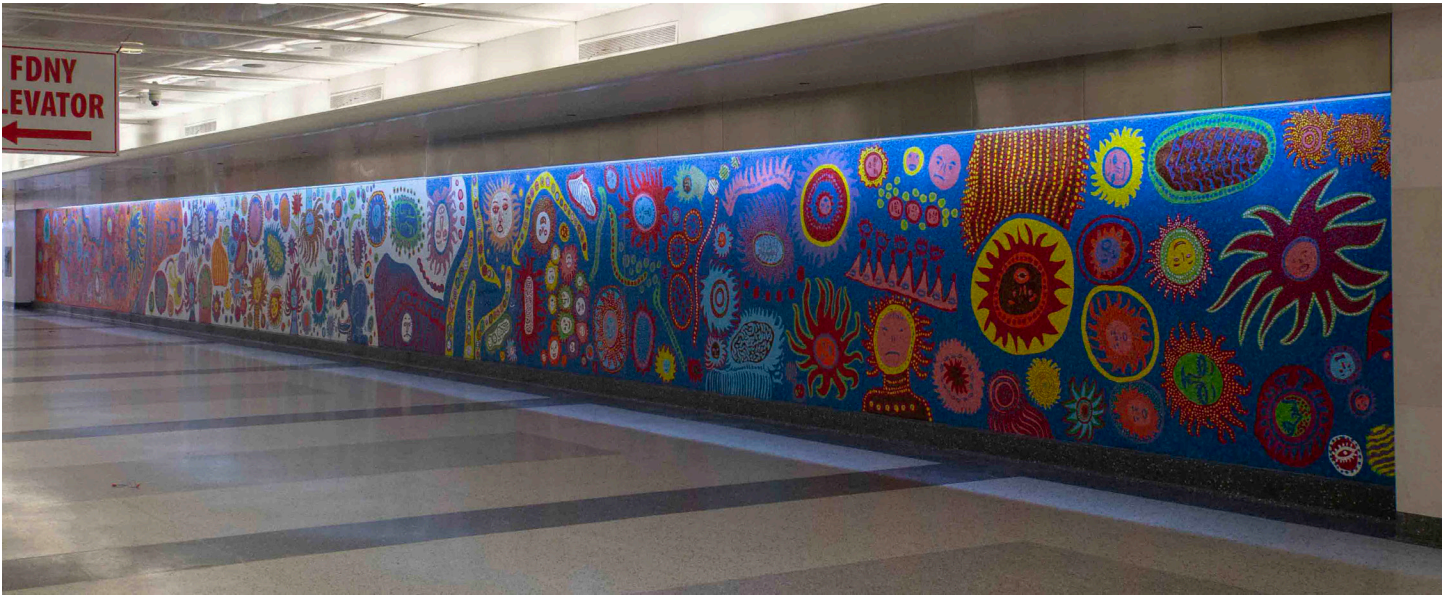
not known. Note that the portion of line from east of Second Avenue in Manhattan to 29th Street in Queens (somewhere around milepost 3) was built with the IND 63rd Street Line, as is the lower level of that structure.



The Artwork of Grand Central Madison

As part of the general construction of Grand Central Madison, MTA Arts & Design commissioned several major pieces of artwork. This cost \$1.4 million but is only .01 percent of the terminal's total budget. Some of the commissioned art includes photography by Paul Pfeiffer, the first installment of a rotating lightbox exhibition programmed in partnership with the International Center of Photography. These are located at the south end of the concourse between 43rd and

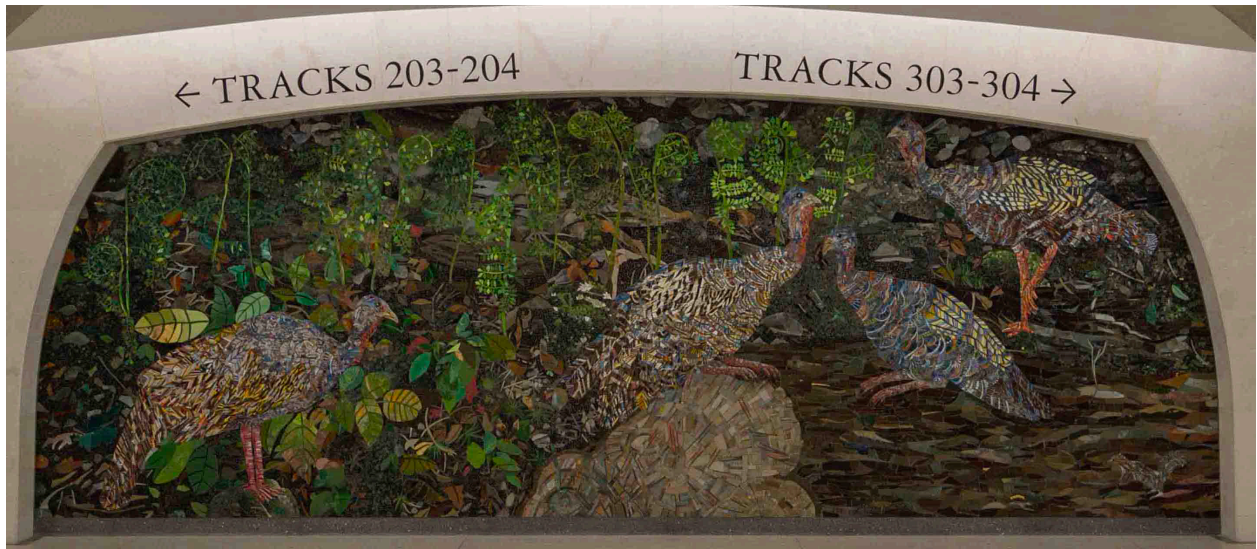
44th Streets. In addition, five large LED screens will show digital works by Gabriel Barcia-Colombo, Jordan Bruner and Red Nose Studio, which focuses on 3-D illustration and animation. These pieces of artwork are all on the concourse. Shown below and on the following page are works of mosaic tile by Yayoi Kusama and Kiki Smith. All photos here were taken by Jeff Erlitz on December 2.



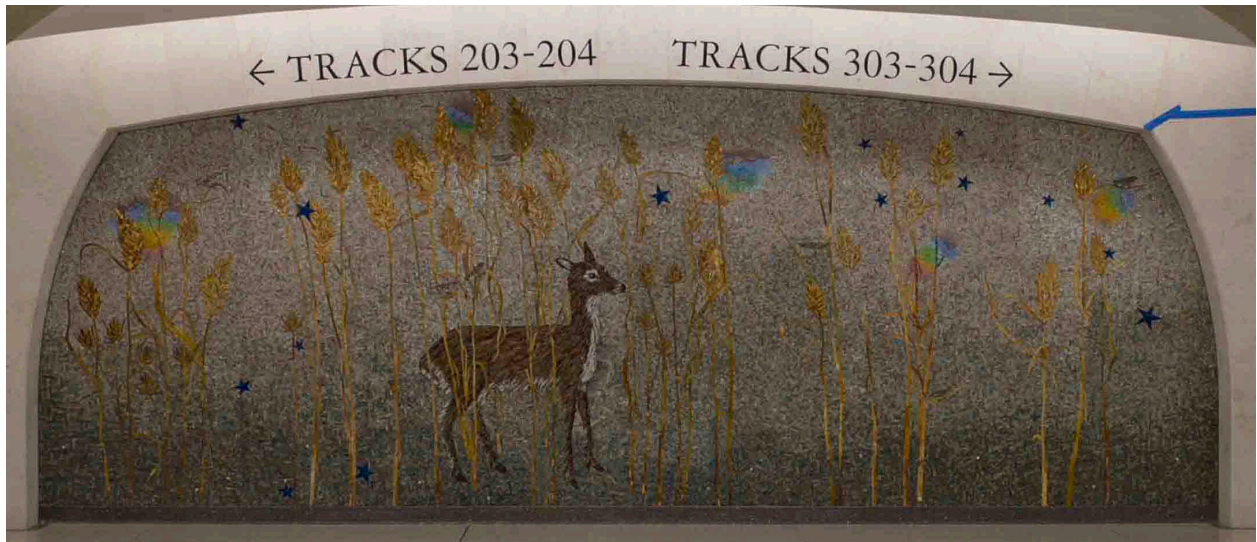
“A Message of Love, Directly from My Heart unto the Universe” by Yayoi Kusama. This 120-foot long wall of mosaics is located on the west wall of what is called the Gallery, on the Concourse between 46th and 47th Streets.



“The Sound” by Kiki Smith is located on the mezzanine level at 48th Street. This and Ms. Smith’s other three mosaics on the mezzanine level are all in arched alcoves on the east wall of the east cavern, nearest to Tracks 204 and 304.



“The Spring,” located at 47th Street.



“The Presence,” located at 46th Street.



“The Water’s Way,” located at 45th Street. Kiki Smith has a fifth piece of artwork, River Light, also done in mosaic tiles, and it is located at the extreme south end of the concourse.

Book Review

By Paul Grether

Mike Walker's North American Railroad Atlas (Third Edition)

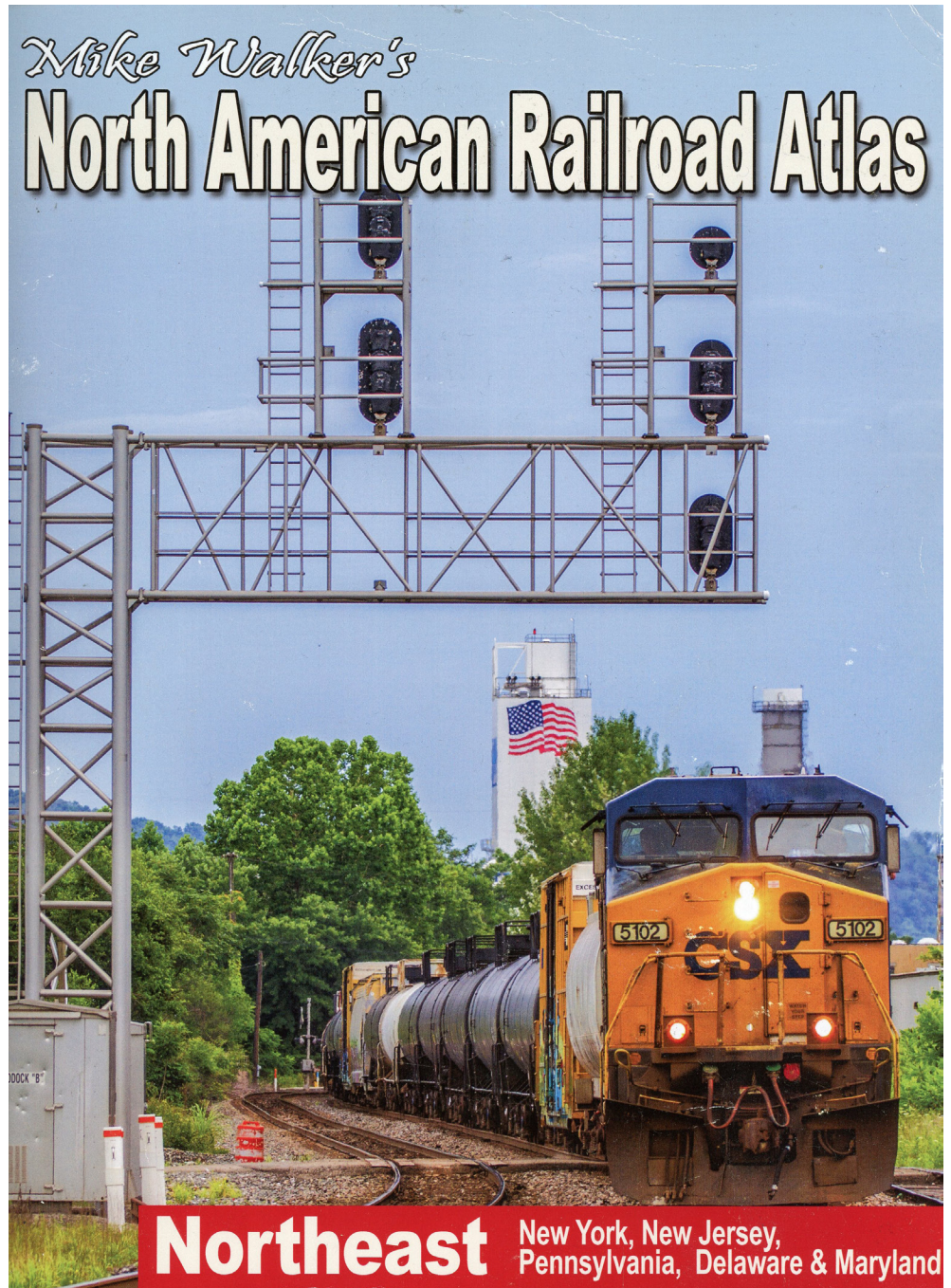
by Mike Walker, published in 2021 by RailfanDepot.com, softcover, 149 pages, maps with indexes.

For the 25 years or so the Steam Powered Video (SPV) Atlases have been the go-to for comprehensive maps of North American rail infrastructure. The SPV Atlases include current and historic alignments of railroads and electric interurbans including various physical characteristics such as tunnels, towers, bridges, stations, etc. The Atlases were developed by Mike Walker for SPV in the United Kingdom (!) and divided into many volumes covering specific geographies. The SPV atlas is an indispensable tool for field exploration and indoor research.

The Northeast volume covers New York, New Jersey, Pennsylvania, Delaware and Maryland. The previous 2007 edition became rare, and used copies are hard to find and expensive. RailfanDepot.com worked with Mike Walker to make updates to the atlas adding rapid transit lines, interurbans and logging railroads, enlarging the size and making other minor updates for the new 2020 Enlarged Edition.

The maps show rail lines by type, current and historic owner/operators, station location, certain mileages and many other attributes. Other than state lines and bodies of water there are no geographic elements shown other than rail lines. Roads are not shown. There are many detailed large scale maps of significant towns or complex junctions. A great feature are all the large map reference indices which list thousands of geographic locations by name, historic and current railroads by reporting mark and name, and a New York City list of stations by railroad/subway line.

This atlas will appeal to those with both an interest in the historic development of [electric] railroads and current operations configurations. The maps are designed to be used both in the field to find and/or understand abandoned/active rail rights-of-way and for home study.



The maps are particularly useful for understanding railroad geographic context. The 2020 Enlarged Edition is a good opportunity to get a copy of this once rare information at a retail price.

Travels with Jack May

Britain and the Baltics — Part XII

By Jack May (Photographs by the author)

Saturday, August 19 (continued)

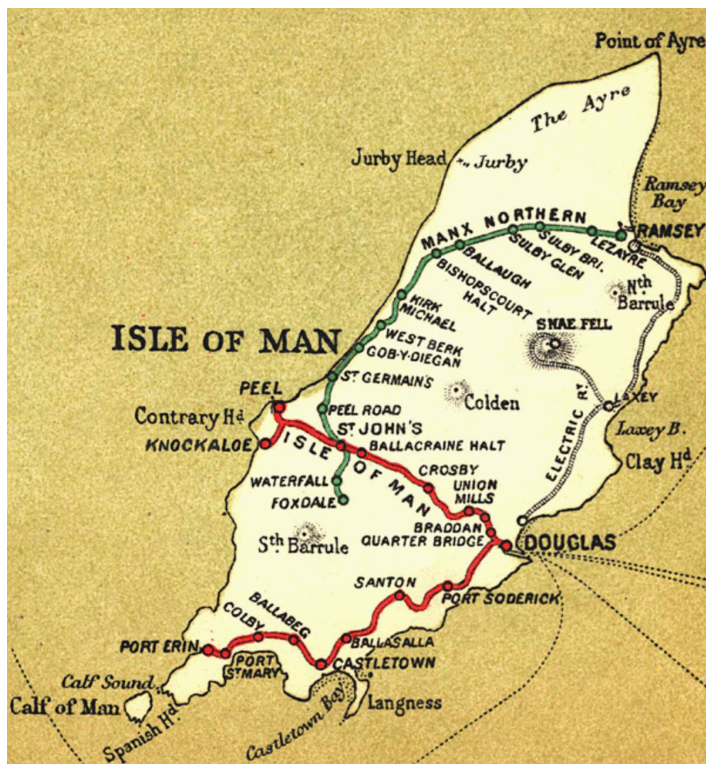
Part XI ended with our arrival in Douglas from Ramsey at 2:55 PM. I described our horsecar ride at 3:00 from Derby Castle to the Sea Terminal in part IX. We arrived at the end of the line at 3:15 and then quickly hurried, dodging raindrops, to the terminal of the Isle of Man Railway. It was only a

one-kilometer hike, and we arrived at the brick facility at about 3:30, in plenty of time for the 4:00 train, which allowed us to take photos and inspect the area. In fact, we had a great more time than we expected, as the train that would turn to be the 4:00 departure, which was due to arrive at 3:45, came in quite late.

The railway station is an attractive relic, opened in 1887, and now consists of two brick buildings, housing a ticket office, gift shop, and a vegetarian/fish restaurant, called The Tickethall, that partly occupies both floors of the main building. After a couple of photos Richard and I entered the main building, and found that a special event was in progress, entitled “Island at War,” with a 1940s theme. Recorded Glenn



(Above and Below) The red brick used to build the Isle of Man Railway passenger station in Douglas evokes an impression of Britain's industrial era. The buildings were constructed between 1887 and 1913 of Ruabon brick, fabricated from clay in Wales and used throughout the British Isles. The upper view shows the grand archway, the original main entrance to the terminal, topped with two gilt turrets and a clock tower. The gates were closed, and we walked down a hill to the vehicle entrance, where we found the bus shown below. The conveyance was built by Thornycraft in 1928 for the Isle of Man Railway, when the company began to supplement its rail services with road transport. The building in the background houses the railway's ticket office and The Tickethall restaurant, as well as tourist information and a waiting room.



In 1960 I made a circle trip from Douglas to Ramsey by tram over the MER—with a side trip up Snaefell Mountain—and then returned behind steam. I still remember how slow the IOM's train was, and how anxious I was to get back so I could take more photos of the horse and electric cars.

Miller-style big band music (British musicians doing similar arrangements) was being played over the public address system and many visitors and staff were dressed in World War II military uniforms, medical gear and civilian clothing

that reflected the period. There were some displays of wartime life, including stretchers, vintage cars (including an ambulance and other military vehicles) and even sandbags used for protection against enemy destruction. But Richard and I were more interested in the railway.

The three-foot gauge Isle of Man Railway was opened in pieces starting in 1873. It is now a shadow of its original self, when it was an essential part of the island's national transportation network (as was the Manx Electric Railway). Now it only runs to Port Erin, some 15.3 miles to the south, but formerly also operated to Peel (11 miles) and even to Ramsey, the latter via a 24-mile roundabout route (compared to the MER's 17¾-mile direct route).



Locomotive 13, Kissack, is shown running around the train, but prior to coupling up it would be coaled and watered.

The two other steam lines were abandoned in 1968, when the company's growing losses resulted in serious cutbacks. Its operation of island-wide bus services, started in the 1920s, had kept the company afloat for a while, but by then, automobile and truck use had even caught up to an Isle of Man whose lifestyle had always seemed to be a decade or two behind the present. In 1978 the enterprise was nationalized along with the MER, and like the traction line, shifted more and more away from a dwindling mass transportation culture to a tourist operation. Nowadays, its timetable is combined with MER and Snaefell operations in one folder (the horse tramway still has its own brochure).

The steam railway has a roster of five operating 2-4-0 tank steam engines, down from a total of 18 such machines in its heyday. Almost all were built by Beyer Peacock (including the five remaining ones), and range in age from 144 years old (built in 1874) to a young 108 (from 1910). There are also a few small diesel locomotives, which are used for shunting and work service.

The line that remains is 15.3 miles long, and trains are scheduled to make the run between Douglas and Port Erin in exactly one hour. The Douglas terminal now has a single, extra wide platform serving two running tracks, with additional tracks on both sides of them for locomotives to run around trains. There are also some sidings and a



One passenger is clearly thrilled to be aboard a steam-powered narrow-gauge train, ready to depart from Douglas.

lead into the shop and storage facilities. The train from Port Erin finally came in at 4:00. Locomotive 13, "Kissack," was immediately detached, moved to a crossover, and then operated toward the shed to be coaled and watered, eventually returning. Members of the public, awaiting the departure of the outbound train, took a great many images from the platform. Because of a lack of either a wye or a turntable, locomotives can face only in one direction, which in the case of the 1910-built Kissack, fortunately was outbound. Thus, once it finished its terminal duties and was backed up and coupled to the waiting coaches on the platform, it made a very pretty picture. By now the rain had stopped and the sun was shining intermittently, so, with an eye out for the conductor boarding the train, I waited patiently for an opportunity to photograph it in bright light. I was eventually rewarded and then hurried to a compartment of the ancient rolling stock.



The 4:00 train from Douglas to Port Erin, already late, is waiting for the stationmaster to give it the highball.

We finally departed at 4:23, 23 minutes late, with the 2-4-0T locomotive producing all the right sounds as it pulled our train uphill (a gradient of 1.65 percent). After running

past the sheds and shop, it was a scenic ride through a mostly wooded landscape. We passed an unexpected chartered train, which I hadn't been prepared for, so missed a photo. Our original plan was to ride only as far as Castletown (10 miles), where the train was scheduled to pass its return number, and return to Douglas aboard that train as it was the last inbound run of the day, at 4:37. But with a late start, and not knowing about the timekeeping in the other direction, we chose to alight at Ballasalla (only eight miles, about halfway in both distance and time to the end of the line at Port Erin), which we accomplished at 5:00, 30 minutes late. Even without the lateness we would have missed riding the outer end of the line, but now we also didn't see the platform for Ronaldsway Airport. At least we were able to drink in the steamy perfume of the coal-fired locomotive and take a few photos before the train continued to Port Erin.



(Above and below) Two views at Ballasalla, about halfway along the line. No. 13, Kissack, is shown pulling the train from Douglas to Port Erin.



We waited about 12 minutes for the "up train," whose motive power, No. 12, "Hutchinson," was pushing. Unfortunately, the Beyer Peacock unit from 1907 was facing the wrong way for a decent photo, but you have to snap when the opportunity arises. We took seats in a compartment that was already partly occupied in one of the coaches, and soon were on the way back to Douglas, where we arrived at 5:42,

instead of the expected 5:15. Ridership looked good as many passengers poured out of the coaches.

We raced back toward the Promenade but missed the 5:50 horsecar by about a minute. The next (and last) tram of the day was scheduled for 6:20, but we decided not to wait, and (heavens!) rode a bus back toward our hotels, alighting near a southeast Asian style restaurant we had seen earlier, which featured Thai and Filipino cuisine. It was an enjoyable meal after a very gratifying, though hectic, day of doing what we love best.

Our flight to Manchester was carded for 7:00 the following morning, with the first bus of the day scheduled to stop in front of my hotel at 5:24 for the 40-minute run. Thus, I pondered, without an alarm clock how could I be sure of not oversleeping? I doubted anyone would be staffing the hotel's front desk overnight to call me. I did not know whether there might be an Alarm Clock app on my phone but hadn't a clue about how I'd figure it out and be sure it would function properly. The solution finally hit me, 4:30 the following morning would be 11:30 PM in Montclair, and so Clare, right before going to sleep could call me! She agreed, although she was afraid she might fall asleep early.



No. 12, Hutchinson, is about to push the last Port Erin-Douglas train back to its home terminal.

Anyway, the exercise turned out to be redundant as I awoke a little after 4:00 and then waited for the phone to ring, which it did at 4:30. It was nice speaking with Clare anyway. I was at the bus stop by 5:10 and the coach arrived on time. Richard boarded one stop later and we arrived at Ronaldsway at 6:00, with a few others also on board. Our half-full Stobart Air ATR-72-600 turboprop, leased from and flying under the Flybe name, pulled away from the gate 7:09, seven late, and left the ground at 7:15. During the 55-minute flight I couldn't help reflecting on how much I enjoyed the previous day, visiting probably the only place in the world where I could ride vintage horsecars, electric interurban cars and a classic steam train in a setting that for all practical purposes is a totally authentic throwback to an era that existed decades prior to my birth in the late 1930s.

Manchester's tramway will be the subject of part XIII.