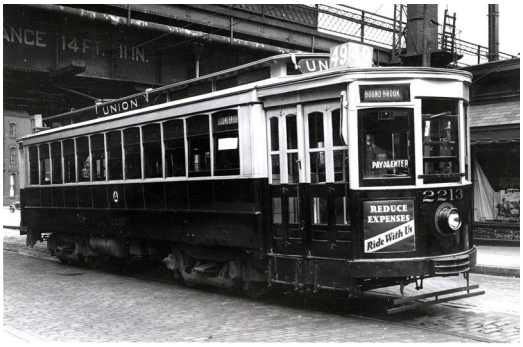
The Bulletin



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The Bulletin

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This Month's Cover Photo:
Public Service 2213 on the 49/Union route heading to Bound Brook, Broad Street at the DL&W station, Newark, 8/25/1935. Photographer unknown, Jeffrey Erlitz collection.

A FARE INCREASE MEMORY
by Henry Raudenbush

This article was inspired by an item that appeared in the New York Times on April 12, 2019 concerning the 1948 New York City transit fare increase.

A friend and I went down to our local station (169th St on the IND Queens Line, then the terminal) that night. He paid the last nickel fare, and I paid the first dime fare. We knew that there would be huge mob at Times Sq competing for the honor, but as we expected, we had no competition at 169 St. Right behind me, a guy came running down from a connecting bus, with his nickel ready, but he had to find a dime.

The turnstiles had been equipped with a dime slot parallel to the nickel slot, and there was a cap on the top with an off center slot, held in place by a couple of screws. That way, the Turnstile Maintainer only had to loosen the screws, turn the cap 180 degrees, and retighten the screws.

Most of the buses, both NYCTS and private operators, had had fare boxes that would take nickels (and some also dimes) but had no way to deal with pennies. Until new fareboxes were put in, the pennies for the 7-cent or 6-cent fare had to be dropped in a cigar box. (Some of the private companies were only allowed 6 cents; I think they had to go to litigation to get to 7 cents).

The most interesting detail was the 12-cent combination fare for surface plus subway trips. This was a great breakthrough. The mechanics were complex, and required a lot of new or recycled facilities!

Starting on a bus, you paid the 7-cent fare in the farebox. Then, near the rear door, there was a small vending machine which took a nickel, and spit out a little card ticket. In our station (which had very heavy bus to subway traffic), a row of the small three-bar turnstiles, removed from buses and PCCs were installed, and among them one of the old ticket chopper boxes used by the IRT before they went to turnstiles in the 1920s. You dropped the transfer ticket in the box, and were counted through one of those turnstiles. A platform man watched that you did use a ticket.

If you started on the subway, you paid your dime fare in the usual way. At a busy transfer station, inside the fare paid area, there was a small booth that had been installed. You paid the 2 cents to man there, and he punched out another small ticket, with a machine in the counter just like a movie box office. Boarding the bus, you handed that ticket to the driver.

What might be considered the longest-ever transfer walkover was set up between the subways and 3rd Ave "L" at South Ferry, and the bus terminal in St George – 5 miles on the ferry. The 12-cent combination fare was applied between Staten Island buses and the subway. The ferry had its own separate 5-cent fare.

When the South Ferry branch of the Third Ave "L" was abandoned, free transfers were provided between the "L" and M15 bus between Chatham Square and South Ferry. If you boarded the bus between Chatham Square and the ferry, there was a special transfer form sold on the bus.

A couple of years later, the bus fare was raised to 10 cents, and the combination fare to 15 cents. A little later, the combination fare was eliminated, and once again double fares were required to parts of the city not served by the subway – particularly eastern Queens and all of Staten Island.

THE GENESIS OF DASHING DAN — A NEW JAMAICA AND THE MAIN LINE COMPLETE

by George Chiasson

(Continued from April, 2019 issue)

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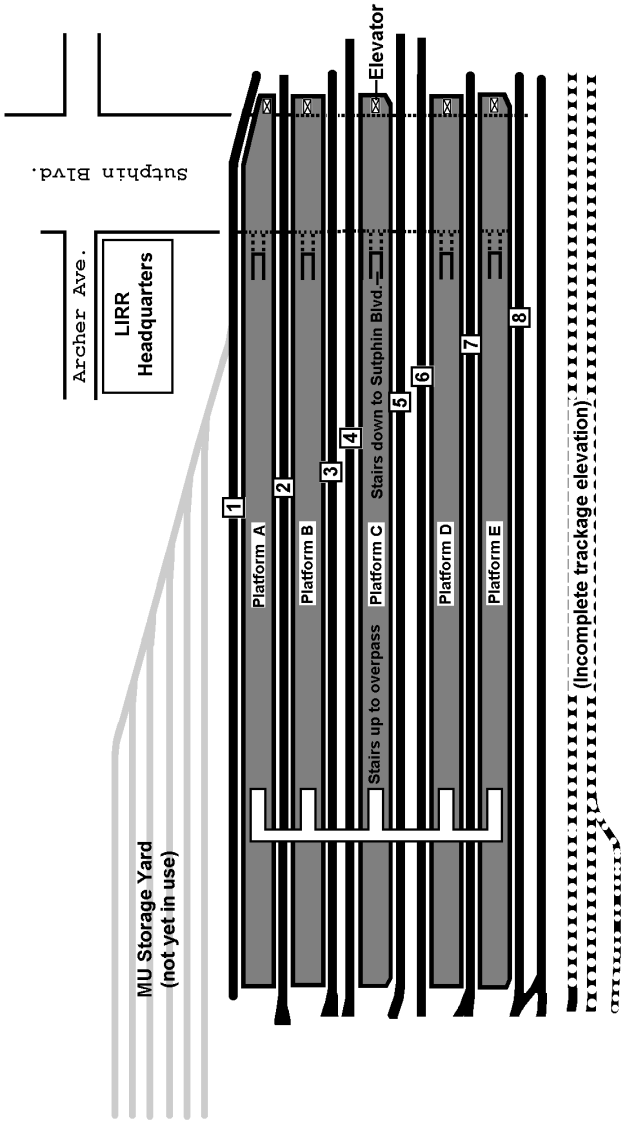
New Jamaica Station
July 1913



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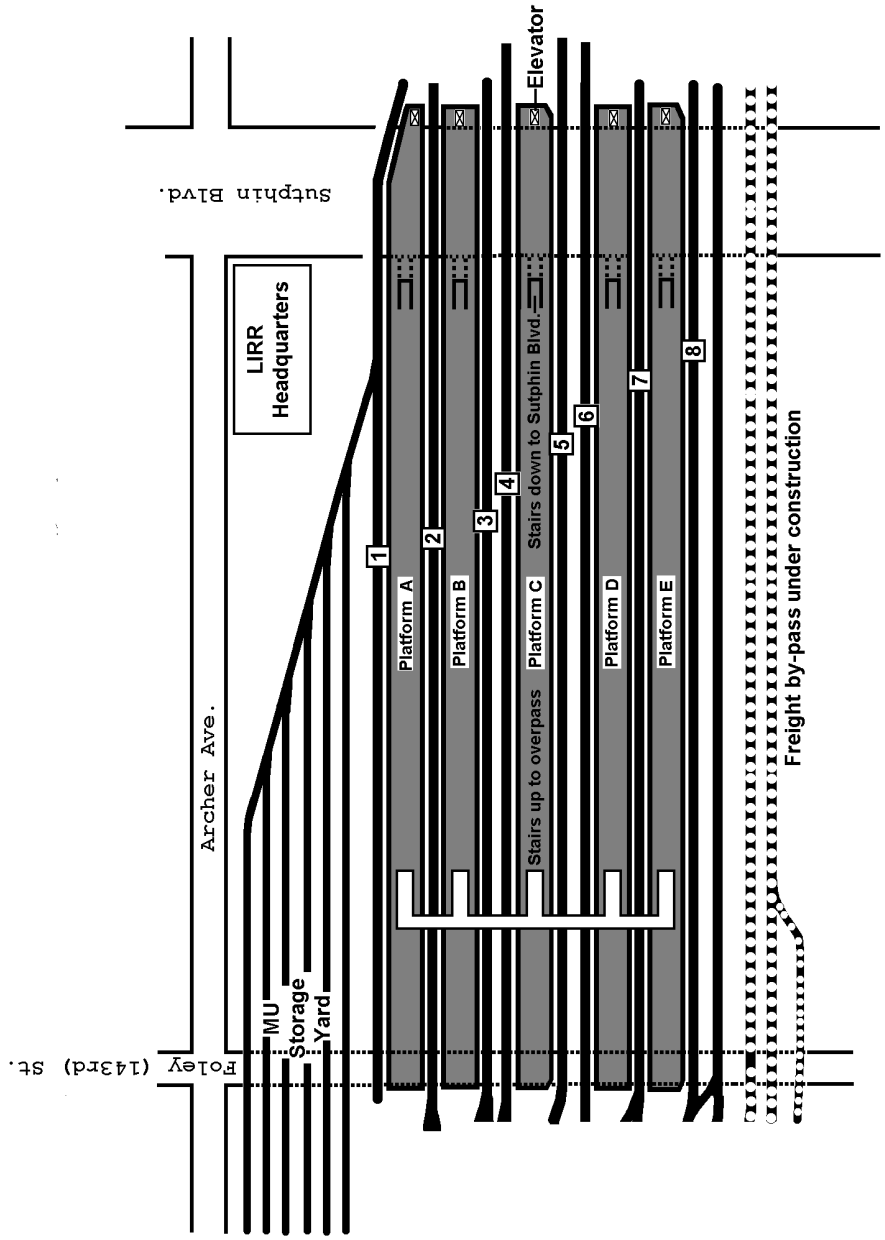
The Genesis of Dashing Dan

(Continued from page 2)

New Jamaica Station 28
August 1913



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The Genesis of Dashing Dan

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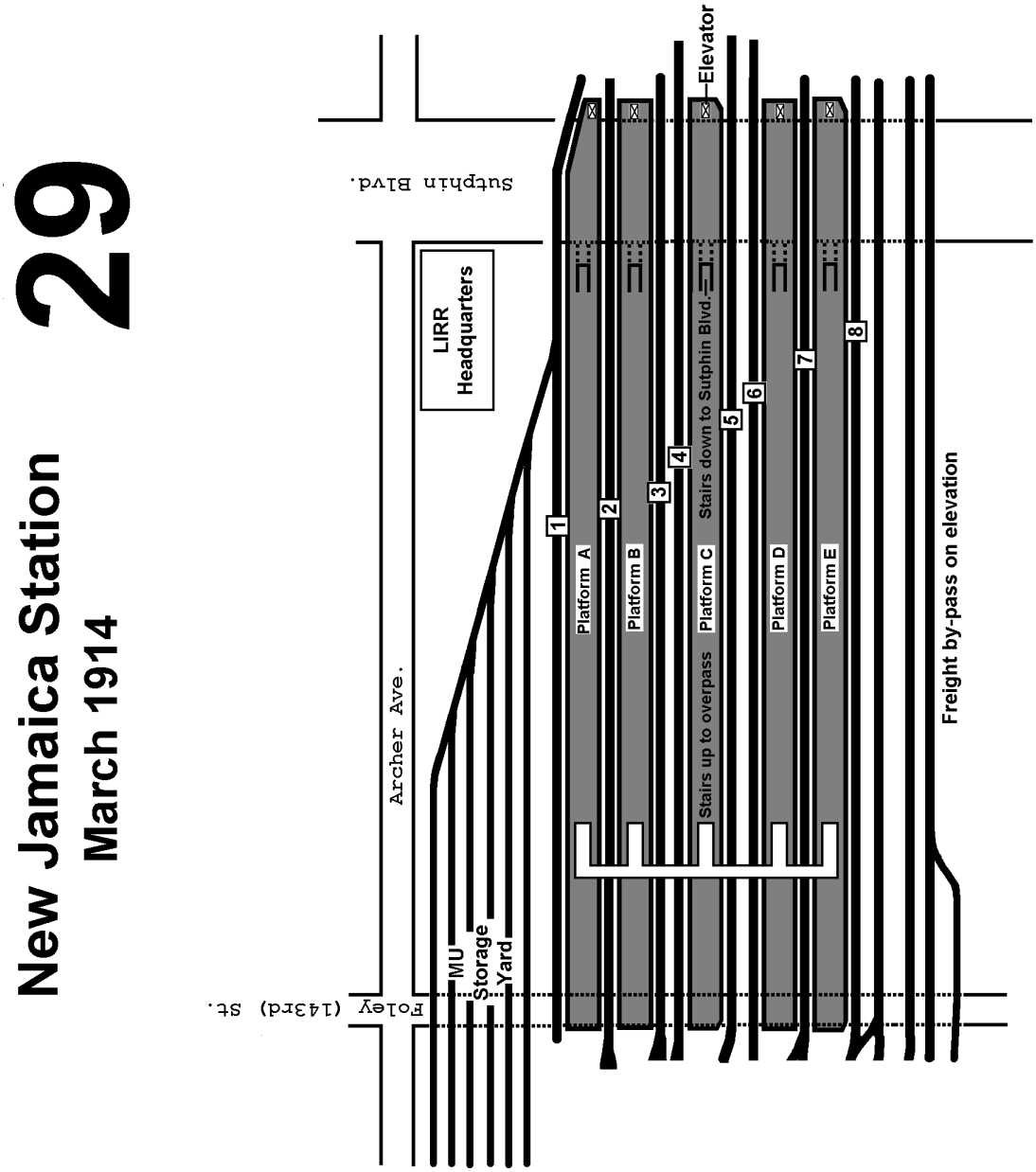

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MEMBER ROBERT S. KORACH (ERA #573) PASSES AWAY

The following appeared on the website of the **Philadelphia Inquirer** *on April 19, 2019. Mr. Korach was an ERA member for 78 years, having joined on July 26, 1940.*

Robert Stone Korach, 95, of Cherry Hill, the former head of operations for the PATCO Lindenwold High-Speed Line and a nationally known expert on public transportation, died Thursday, April 18, of complications from a stroke at Samaritan Hospice in Voorhees.

A longtime friend, J. William Vigrass, a transportation economist, said Mr. Korach excelled at generating operating plans for public transit systems.

"He was a master of scheduling, how to get the most out of the equipment and manpower to provide excellent service at a reasonable cost," Vigrass said.

Mr. Korach could do advanced calculations and form plans in his head that few others could follow. "He was really something special," Vigrass said.

Mr. Korach was recruited in 1967 to become the first employee and head of operations for the PATCO Lindenwold High-Speed Line. He recruited Vigrass to handle fares and set up stations.

At the time, the PATCO line was under construction. It was the first of the post-World War II "modern" rapid rail transit systems, and under Mr. Korach's leadership, it became the national model for effective and efficient rapid rail transit, his family said.

Virtually all the new rapid transit systems sent their senior supervisors to PATCO to learn Mr. Korach's management techniques. After a short period of retirement from PATCO in 1983, he returned to work as the Assistant General Manager of Operations for the Southern California Rapid Transit District.

He stopped working full time in 1988 and became a consultant for new rail projects across the country. The highlight of his career was being inducted in 1995 into the American Public Transit Association's Hall of Fame for his contributions to the industry.

Born in Cleveland, Mr. Korach spent the first half of his life in the Midwest. Right out of high school, he took a job checking the suitcases of rail passengers at Cleveland Union Terminal.

"The pleasure and reward of this position was my ability to constantly monitor the big blackboard that announced the comings and goings of the (trains)," he said in an undated autobiography.

He enrolled at the University of Wisconsin in 1940, interrupting his studies to join the Army during World War II. He served with the military police and in a Transportation Corps Officers Candidate Training School in New Orleans before being honorably discharged in 1945. He joined the Army Reserves in 1945, retiring in 1965 with the rank of Major.

After the war, he returned to the University of Wisconsin and graduated in 1947 with a bachelor's degree in economics. While there, he took jobs such as baggage handler for the Milwaukee Railroad in Madison and part-time operations manager for the university's intramural bus system.

Mr. Korach's first career job was in the Cleveland Transit System, where he rose to Superintendent of Schedules. In 1962, he was hired by the Los Angeles Metropolitan Transit Authority. He combined the Pacific Electric rail routes with the Los Angeles railway system.

In 1965, he became the Manager of Operations Planning for the MBTA in Boston before moving to head of operations for PATCO.

An avid historian, Mr. Korach was often asked to write, edit, and critique scholarly articles on early electric railways. He also collaborated on books about electric transit systems in Ohio and Pennsylvania.

Mr. Korach was a mentor to many young men and women who worked in public transit. He made lasting friendships across generations and traveled extensively into his 90s.

Port Authority Transit Corp.

Robert S. Korach. Photo from American Public Transit Association

Commuter and Transit Notes

No. 364

by Ronald Yee and Alexander Ivanoff

METROPOLITAN TRANSPORTATION AUTHORITY

The 4% fare increase for MTA commuter rail as well as NYCT subways and buses was approved at the March MTA Board meeting. It is expected to bring around $336 million more in passenger revenue to the MTA. Details on the fare increases were provided in the April, 2019 ***Bulletin***.

MTA METRO-NORTH RAILROAD

Following the LIRR's lead, Metro-North Railroad announced that by the end of June its customers should be able to track, in real time, the train they are waiting for at a station using a mobile phone app. While similar in function to the LIRR, it may not be a GPS-based system. At press time, no further details were available. For readers who want to sample the new phone-app tracking system of the LIRR, go to https://www.mylirr.org. The March ***Bulletin*** had covered the introduction of this system. (Metro-North Railroad press release, April 18)

As a continuation of Metro-North Railroad using "design-build" contracts to expedite its station improvement project, renovation work commenced on April 18 at the Crestwood station. Design-build requires a team of designers and contractors to be responsible for both designing and building an entire project to ensure that coordination is seamless with a goal of completing the work in the shortest possible time frame. The station improvement project is transforming and enhancing five stations: Harlem-125th Street (nearing completion), Crestwood (just started), White Plains (halfway to completion), Port Chester (expected completion Spring, 2019), and Riverdale (completed September, 2018). It is funded by MTA's 2015-9 Capital Program. When completed by the end of 2019, the Crestwood station will feature new LED lighting, signage, free Wi-Fi, benches in the overpass, and a kiss-and-ride area equipped with USB charging ports. The entrance plaza will have a new ramp with a canopy that will carry customers from the sidewalk level on Columbus Avenue and directly in front of the existing elevator to the overpass. There will also be a canopy over the kiss-and-ride area and the renewed overpass will have a digital information dashboard showing real time train status as well as ticket vending machines.

As part of the station improvement. MTA Arts & Design commissioned artist Tricia Wright to create original, site-specific artwork for Crestwood. Tentatively titled "The Perennial Village," the artwork will consist of stainless steel sculptural panels for the railings along the ADA ramp, and floor-to-ceiling art glass for the overpass windows. It will be a celebration of the perennial rhythms of daily commuting as well as the cyclical rhythm of the day and life in the villages of Crestwood and Tuckahoe. Elements including perennial flowers (morning glories, evening primroses), ornate arches, the village clock faces, and patterns of water lily pads will be featured to evoke a sense of fluid movement, the rich tradition of wrought-iron fence-work, as well as the cyclical rhythm of the day and village life. Work at the Port Chester station is virtually complete with only the landscaping work remaining to be done around the station area. The station has a new canopy covered kiss-and-ride plaza, a repaved and striped parking lot, and a raised sidewalk separating pedestrians from traffic. The 3,000 daily commuters using that station will have vastly improved access to the station and its platforms. An improved replacement stairway and a new elevator featuring a glass-enclosed cab connect the eastbound platform with the street below and the westbound platform now has an ADA (Americans with Disabilities Act)-compliant rampway connecting it with Westchester Avenue. To further improve safety at this rehabilitated station, a new heat trace cable heating feature has been added to the area in front to of the base of the elevator as well as at the foot of the stairway leading to the eastbound platform. Heating cables buried within the concrete will be automatically activated by two sensors when the temperature falls below a pre-set level, preventing any ice and snow accumulations. (Metro-North Railroad press release, April 14)

The new April 14 schedules have finally brought the train schedules into alignment with fare policy with regard to the definition of the morning peak period trains as those arriving or departing Grand Central Terminal (GCT) from 6 AM-10 AM. Previously, all trains in both directions until 10 AM were classified as peak period trains, despite some trains arriving or departing GCT prior to 6 AM. Beginning April 14, inbound Hudson Line Trains #700 and #802 and outbound Train #703 are now defined as off-peak trains. On the Harlem Line, inbound Trains #500 and #602 and outbound Train #501 are now off-peak trains. On the New Haven Line, inbound Trains #1301 and #1503 and outbound Trains #1404, #1504, and #1306 are now considered off-peak. *(Editor's Note by Ronald Yee: It is noted that the New Haven Line will offer early morning outbound off-peak service to all stations on the mainline while the Hudson and Harlem will only offer off-peak service to Croton-Harmon and North White Plains, an obvious inequity as peak fares remain in place for points north on the Hudson and Harlem Lines. Politically, this Editor suspects that there may be pressure for an adjustment to the next schedule slated for June 30, 2019 where outbound Trains #803 on the Hudson Line and #601 on the Harlem Line can be scheduled to depart GCT prior to 6 AM to provide off-peak fares for early morning outbound service to the northern ends of both lines. Moving Train #803 15 minutes earlier to a 5:59 AM departure would have that train arrive in Croton-Harmon at 6:50 AM, six minutes behind local train #703, sufficiently far behind to avoid being delayed by the local. On the Harlem Line, Train #601 can be*

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moved to 5:56 AM and arrive at White Plains 6:31 AM. Local Train #501 can be advanced two minutes to depart GCT at 5:37 AM and arrive into White Plains at 6:27 AM, maintaining the current four-minute spacing there. To accommodate these changes on the departure timeslots out of GCT, New Haven Line Stamford Local Train #1306 could be moved four minutes later to depart GCT at 6:02 AM (not a loss as customers to Stamford already have an off-peak train departing at 5:30 AM), with #1506 moved 2 minutes later and #1406 one minute later to maintain current spacing required for signal headways at Stamford. In this way, each line would have two early morning off-peak outbound trains serving all mainline stations. There may be some other deadhead trains or equipment moves that would have to be moved around to accommodate such a proposal.) (Ronald Yee, April 22)

NJ Transit

New Jersey Governor Phil Murphy and NJ Transit announced the resumption of commuter rail service on the Atlantic City and the Princeton Shuttle as of May 12, almost two weeks earlier than the previous target of May 24. In addition to the earlier reopening of the rail lines, two additional trains will be operated on the Atlantic City Line to fill in a late morning service gap as well as an additional peak period train that will arrive in Philadelphia before 9 AM. There will be five trains arriving at Philadelphia during the morning peak period. In 2018, there were only three. During the midday, the schedules have been adjusted to offer a headway of two hours or better. The Princeton shuttle will resume a similar service level to what had existed prior to the suspension of service last year. The lines had been closed at the end of summer 2018 to facilitate the installation of Positive Train Control (PTC) hardware and software aboard all locomotives and cab control cars as well as on the tracks. Initially, the closures were slated to end in January, 2019; service restoration was postponed twice, first to March and then to May 24 due to equipment and crew shortages over the winter. (***The Press of Atlantic City***, April 17)

NJ Transit will issue new timetables for only the Atlantic City and Northeast Corridor lines on May 12 to reflect the resumption of rail service on the Atlantic City and Princeton Shuttle. The October 14, 2018 schedules will remain in effect on all other lines with no changes. (NJ Transit, April 18)

Amtrak

ERA ***Bulletin*** Co-Editor Alexander Ivanoff reported seeing Amtrak's Great Dome *Ocean View* on the front of the westbound *Lake Shore Limited* leaving Albany-Rensselaer on April 13. Your Editor was coming back from a political engagement held outside Syracuse, New York and spotted the car while waiting for his southbound *Maple Leaf* to undergo an engine change.

More than 500 passengers have been contacted as Amtrak stops selling *Hoosier State* tickets beyond June while hope for $3 million in funding has become bleak. The customers are being told that they may need to find alternate means of transportation between Indianapolis and Chicago if Indiana's Governor Eric Holcomb has his way. Amtrak spokesperson Marc Magliari said that the railroad is not giving up on the route, but Amtrak needs to be transparent in case funding does run out before July 1.

State officials have been hoping for ridership on the *Hoosier State* to make enough of a jump to justify the payments the state makes to Amtrak to help support the route, which is also funded in part through money from local communities (Lafayette, West Lafayette, Tippecanoe County, Crawfordsville, and Rensselaer), which have been fighting to save the train. If funding does not make it into the next two-year state budget, the *Hoosier State* will cease operation. At press time, the Indiana Legislature was hoping to have the budget done before it adjourned on April 29. (Rail Passengers Association ***Hotline***, April 12)

Other Transit Systems

Washington, D.C. area

Senators have threatened to withhold funding for WMATA if the agency selects CRRC (China Railway Rolling Stock Corporation) as the builder of its next generation of Metro rail cars. They are expressing concern that the Chinese government could be surreptitiously installing spyware and listening devices aboard the new Metrorail cars to spy on its passengers, many of whom are members of the military or government officials and staff. China has internal laws requiring companies operating in China to cooperate with state intelligence and other Chinese government agencies. While CRRC denies that this could even be a remote possibility as it would have no control or access to the cars once they have been accepted for service on WMATA, many software experts have said that with today's technology, this cannot be ruled out. Simple periodic software updates sent from CRRC to operators of its transit equipment could include embedded malware undetectable by the transit agency. Thus far, Alstom and Hyundai-Rotem have expressed to WMATA a serious interest in building up to 800 new 8000-series railcars, a potential order valued at over $1 billion. While WMATA has expressed some concern over the potential for eavesdropping, it cannot legally exclude CRRC from the bidding process which has been extended to close on May 31.

Having a Senatorial push to legislate just such an exclusion order would relieve WMATA of the legal ramifications of refusing to do business with a potential low bidder. However, the ultimate cost to the agency could well be in the hundreds of millions in additional capital costs. The senators supporting the move to exclude CRRC from the bidding process are planning to insert such a clause into the reauthorization of the annual $150 million toward capital improvement. CRRC has won four contracts in recent years (Boston MBTA – new Orange and Red Line subway cars), Chicago's CTA (7000-series "L" cars slated to replace the 2600-series with an option order to replace the 3200-series "L"

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cars), Los Angeles' LAMTA Metro (HR4000-class subway cars replacing the Breda-built cars), and Philadelphia's SEPTA order for push-pull multilevel commuter rail coaches. There is a genuine concern that the Chinese government may be subsidizing CRRC's low bids, undercutting by 20-30% established manufacturers in the U.S. such as Bombardier, Siemens, Alstom, Kawasaki, Hyundai-Rotem, and Hitachi-Breda with a potential for driving them out of business, leaving a near monopoly on the railcar market. However, it should be noted that CRRC representatives have pointed out that Stadler underbid them for the Atlanta's MARTA CQ400-class metro cars. *(Editor's Note by Ronald Yee: No mention was made of the impact on the ultimate price of CRRC railcars due to the American import tariffs being placed upon Chinese-manufactured goods in the past year or so. The tariffs, if imposed with no exemptions, would "level out" the playing field with other manufacturers.)* (***Washington Post***, April 15)

Virginia Railway Express (VRE), which operates the 12th largest commuter rail service in the U.S., has positive train control (PTC) fully operational on all of its trains. VRE CEO Doug Allen made the announcement at an April 12 meeting of the VRE Operations Board.

VRE said the safety milestone was achieved April 11, 2019, when each of VRE's 32 inbound and outbound trains on the Fredericksburg and Manassas Lines ran under PTC operation.

VRE was responsible for installing PTC technology on its 20 locomotives and 21 cab control cars, training employees and integrating a back-office system. Close coordination was required with its host freight railroads, CSX and Norfolk Southern, to place compatible equipment throughout their systems, as well as on the 90 miles of track where VRE operates.

The federally-mandated safety overlay system is estimated to cost railroads nationwide more than $14 billion. VRE expects PTC implementation to cost it $15 million.

All railroads required to implement PTC had until December 31, 2018 to meet several statutory requirements to qualify for an alternative schedule to have PTC fully implemented by Dec. 31, 2020. All railroads met the 2018 requirements, but with only four of 41 railroads had PTC fully operational by the end of 2018. However, since the start of 2019, North County Transit District in southern California and Sound Transit's Sounder trains in Washington state are both fully operational under PTC. (***Mass Transit*** Magazine, April 12)

Atlanta, Georgia

The Metropolitan Atlanta Rapid Transit Authority has selected Stadler to supply 254 metro cars, with options for up to 100 additional cars. According to Stadler, this is the company's largest-ever rolling stock order by volume.

The $600 million contract includes a base order of 127 two-car married pairs, each pair 150 feet long, plus two options each for 25 married pairs. The first trains are due to enter service in 2023.

The cars, designated CQ400 by MARTA, will have 128 seats and will be ADA-compliant. They will draw power from a third rail at 750 volts d.c. and have a maximum speed of 70 miles per hour. Interior features include at-seat sockets, wi-fi, and luggage racks.

Stadler is contractually obliged to create at least 60% of the project's value in the USA. The trains will be assembled at the company's factory in Salt Lake City., Utah (***Metro Report International***, March 29)

Miami, Florida

Florida's Brightline was officially re-branded Virgin Trains USA effective April 1. Virgin Group founder Sir Richard Branson also re-christened its MiamiCentral terminal as "Virgin MiamiCentral". This paves the way for the new organization to raise the $1.5 billion expected to fund the extension of the rail line from West Palm Beach to Orlando via upgraded FEC railroad tracks to Cocoa and then on new tracks capable of supporting 125 mph speeds westward to a new terminus already constructed at Orlando Airport. Eventual plans that the Virgin Group has hinted at are to further extend the line west of the Orlando Airport station to serve the Disney complex and, in Miami, to potentially have a branch of the line serve the cruise ship terminal at Port Miami, making for convenient dockside rail to ship connections with Virgin Cruises cruise ships that the group expects to operate by the early 2020s. *(Editor's Note by Ronald Yee: No word was given on when the five uniquely colored and named coach consists as well as the Siemens SC-44 Charger locomotives will be "re-branded." Connecting the Disney complex and the Port of Miami with Virgin Trains USA may prove difficult as this would be in direct competition with the Disney Cruise line which sails out of Port Canaveral due east of the Orlando area and served by dedicated Disney-operated bus shuttles to and from the cruise ships. While a branch to the Port of Miami is within the realm of possibility, unless Virgin is able to negotiate a cooperative agreement with Disney that is beneficial to both parties, extending Virgin Trains USA from Orlando to the Disney complex may prove difficult. Only time and business economics will tell.)* (***South Florida Sun-Sentinel***, April 1)

Salt Lake City, Utah

Utah Transit Authority (UTA) officials marked the completion of construction on a new section of double tracking on the S-Line streetcar route, which connects the Fairmont station in Salt Lake City to the Central Pointe TRAX light-rail station in South Salt Lake City.

Begun in 2018, the project was designed to reduce the amount of time riders wait for trains, reduce congestion, improve air quality, and provide better connections with UTA's other modes of transportation, officials said in a press release.

The project was funded with $4 million from Salt Lake County Infrastructure and by a $1.9 million Wasatch Front Regional Council Congestion Mitigation and Air Quality Improvement program grant.

The Salt Lake City County is also pledging $500,000

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for additional operating costs for the first three years of double-track service.

Since the S-Line streetcar service began in 2013, the South Salt Lake and Sugar House areas have experienced "significant growth," including 1,000 additional residential units and over 2 million square feet of redevelopment, they said. (***Progressive Railroading***, April 11)

San Jose, California

The Santa Clara Valley Transportation Authority (VTA) has announced plans to close a light rail line in Silicon Valley as part of a recast of the public transport network, which is being implemented in response to the agency's growing operating deficit.

Known as the Almaden Shuttle, the 2.1-mile Ohlone/Chynoweth-Almaden branch in south San Jose opened in 1991, but ridership fell well short of projections and the branch was threatened with closure in 2003 and again in 2009.

Average weekday boarding in 2018 was just 141 passengers at Almaden and 166 at Oakridge, the only intermediate station on the branch. Under VTA's New Transit Service Plan, which is due to go before the board for approval in May, the Almaden Shuttle would be replaced by a bus service later this year.

Passenger numbers on the VTA light rail and bus network fell by 23% between 2001 and 2016. VTA is now making further changes to the network in a bid to reduce its projected $26 million operating deficit.

Under the New Transit Service Plan, Blue Line service from Santa Teresa to Alum Rock via San Jose City Center will be cut back to Baypoint. A new Orange Line will be created linking Alum Rock with the Caltrain commuter rail interchange at Downtown Mountain View. (***International Railway Journal***, April 9)

San Francisco, California

The San Francisco Municipal Transportation Agency (Muni) will end switchbacks on the T/Third Street light rail line in an effort to provide more reliable service to southeast San Francisco, agency officials announced.

To accommodate the elimination of switchbacks, a train will be on standby along the route to fill gaps in service and the agency will provide updated schedules with more accurate travel times.

Light rail wait times and performance data will also be reviewed regularly and rail service controllers will be integrated into a modern transportation management center. (***Progressive Railroading***, April 11)

A woman whose fingers were trapped by the closing doors of one of SFMTA MUNI's new Siemens Light Rail Vehicles (LRV's) was dragged by an LRV that departed despite safety systems designed to prevent an LRV from taking power and moving if the door edge sensors detect an obstruction and fail to close completely. Apparently, this is not the first time this has happened with the new LRVs. A MUNI spokesperson stated that some LRVs have had a second sensor installed to prevent just such an incident as will subsequent cars being delivered but most of the year-old Siemens fleet had yet to be modified. The woman was dragged by the LRV along the platform edge for several feet before she fell onto the tracks and was injured.

As a precaution, MUNI has locked out the rear doors of the Siemens LRV-4s until the door edge sensor issue is resolved. Another matter that has come to light with the LRV-4s is a higher-than-expected number of emergency brake applications due to cab signal and Automatic Train Control issues in the MUNI Metro tunnels resulting in the formation of flat spots on the wheels. These interface issues are a long-known known problem but the resolution has been elusive. As a result, the wheels undergo more frequent re-truings at the shop and are wearing out at a far faster rate than ever expected, with some wheels already reaching a wear level requiring replacement. LRV-4 availability has been as low as 20-30 of the 50 cars delivered from Siemens. Lastly, the couplers have experienced malfunctions, preventing the operation of two- and three-car trains. As a result, the request for $62 million to place an order for additional LRVs has been postponed. (WNBC-TV/4 News, April 20); ***San Francisco Examiner***, April 24)

After nearly seven months, the Transbay Transit Center in downtown San Francisco is nearing the completion of structural repairs and inspections. After a grand opening on August 12, 2018, the entire terminal was abruptly closed on September 25 after workers discovered cracks in two major beams supporting the structure over Fremont Street. Local and commuter bus operations have been significantly impacted during this closure. Workers are now removing the supplemental steel supports under the long spans over Fremont Street during four consecutive weeks from 9 PM to 5 AM Sundays through Thursdays beginning in late April until mid-May, requiring the closure of Fremont Street between Howard and Mission Streets during those times. An independent review of the repair work is underway and a re-opening date will be announced upon conclusion of that review. (***San Francisco Chronicle***, April 22)

Los Angeles, California

L.A. Metro held a ribbon cutting ceremony on April 3 to celebrate the completion of Southwestern Yard, which will serve the future Crenshaw/LAX Line and Metro Green Line. The rail yard will have the capacity to store 70 light rail vehicles, along with maintenance facilities capable of carrying out inspections, body repairs, painting, storage, and cleaning and washing.

The $172 million facility was designed and constructed to attain LEED Silver Certification. The "green" features include pollution-reducing construction processes, easy access to public transportation for workers, treatment of storm water runoff, and the use of low-emitting paints, sealants, coatings, and materials. There is also energy-saving lighting and air conditioning. The project was completed on budget and on time.

Southwestern Yard is part of the Crenshaw/LAX

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Commuter and Transit Notes

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Transit Project, the 8.5-mile light rail line that will meet with the Expo Line and connect with the Green Line near the Aviation/LAX station. In 2020, L.A. Metro is expected to begin major construction on the Airport Metro Connector/96th Street transit station, which will be next to the new rail yard. The station will be the transfer point between local transit — including the Crenshaw/LAX Line and Green Line — and Los Angeles International Airport's future Automated People Mover. The station and people mover are forecast to be complete in 2023. (***Mass Transit*** Magazine, April 4)

Montreal, Quebec, Canada

The appearance of the trains to be supplied for Montreal's Reseau Express Metropolitain automated light metro project was revealed by the Alstom-led Groupe PMM consortium on March 29.

The 106 two-car trainsets will be part of Alstom's Metropolis family.

The manufacturer said the vehicles would be designed "to perfectly fuse with the green spaces of the city," offering passengers "breathtaking views" through the large windows.

The green and white livery selected by the public is inspired by the new Samuel de Champlain Bridge, which is currently under construction, with the headlights "directly recalling" the stays of the bridge.

The cars will have wide doors to facilitate passenger flow, with vibration mitigation and real-time passenger information systems.

The 67-kilometer REM with 26 stations will be one of the world's largest automated transport networks when it is complete, connecting the south shore suburbs in the east with the city center and having western branches to the airport, Sainte-Anne-de-Bellevue, and Deux-Montagnes. Opening of the first section is planned for mid-2021. (***Metro Report International***, March 29)

Toronto, Ontario, Canada

The Toronto City Council has voted to make the King Street transit pilot permanent.

The pilot project, which prioritizes streetcar traffic along a 1.6-mile stretch of King Street between Bathurst and Jarvis Streets, has been in force since November, 2017. It restricts through traffic at most intersections.

As part of the decision to make the pilot permanent, the Council also voted to make improvements to streetscaping along the corridor, including enhanced lighting and "permanent patios."

City staff found the pilot shortened travel times for transit users, while increasing transit ridership. A recent staff report found that 30,000 minutes of travel time are saved by travelers each day; ridership increased by 16 percent overall with 25 per cent more customers per hour boarding per hour of service.

The 504/King streetcar is the busiest surface route in Toronto.

For businesses along the route, the report found that during the 12-month period before the pilot was installed compared to the 12-month period after it was installed, year-over-year growth in total spending along King Street decreased slightly from 2.5 percent to 1.7 percent.

There was little change to average travel times of cars forced to move off of King Street to other streets, according to the report. (CBC News, April 16)

Ontario Premier Doug Ford announced that the Province of Ontario will finance the building of the "Ontario Line," a new rapid transit line that will serve as much-needed relief for the overcrowded #1 (Yonge University) and #2 Lines (Bloor-Danforth). It's the centerpiece of a C$28.5 billion plan for a greater Toronto area enhanced transit network of which the province is committing C$11.2 billion. The Ontario Line is an expanded version of what had formerly been referred to as the "Downtown Relief Line" in previous rapid transit plans.

The primary goal of that line was to relieve the severe overcrowding at the Bloor-Yonge interchange station between Lines 1 and 2. This would be accomplished by constructing a relief line running from Osgoode on Line 1 (Queen Street West and University Avenue), under Queen Street and then heading north on the east side of the city to the Pape station on Line 2. The expanded version, now called the Ontario Line and estimated to cost C$10.9 billion, is scheduled for completion in the 2027-9 timeframe. It would extend westward to a yet-to-be-specified location at Exhibition or Ontario Place and northward from Pape and Danforth Avenues to the Ontario Science Center at Eglinton Avenue East and Don Mills Road. There, it will have an interchange with the Science Centre station of the Eglinton Crosstown Light Rail Transit (LRT) line that is currently under construction.

Of interest is a reference by the ***Toronto Star*** newspaper and CBC News that the Ontario Line will not operate with traditional rapid transit subway cars but instead, utilize smaller profile, automated trains similar to those operated on Vancouver's SkyTrain or London's Docklands Light Railway. The Ontario Line is expected to offer the same peak period capacity as the TTC's Line 1, provide a 50% increase in subway capacity to downtown, relieve Line 1 of up to 20% of its current ridership, and bring rapid transit service to underserved neighborhoods such as Thorncliffe Park and Flemingdon Park.

Rounding out the grand plan would be three additional transit projects. One is for a five-station Yonge North extension northward from Finch to Richmond Hill, costing C$5.6 billion, with construction beginning after the Ontario Line opens. The reason for the delaying this extension until the Ontario Line is built is to avoid adding even more passengers to the beleaguered Line 1 down Yonge Street to Downtown. The second is for a Scarborough Line 2 subway extension, projected to cost C$5.5 billion and slated to open before 2030. Lastly, a ten-stop extension is being considered of the Eglinton Crosstown Light Rail line, westward from Mount Dennis to Commerce Road, to be completed by 2031 and cost-

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ing C$4.7 billion.

The cost may be higher if the surface extension is placed underground west of Royal York. Studies are underway to determine the feasibility of extending a few miles farther to the northwest to Toronto Pearson International Airport. Two other line extensions previously discussed were notably absent from this latest plan. One is an eastward extension of the Eglinton LRT to Malverne Towne Centre and the other is the building of a Waterfront LRT line from Long Beach in the west to East Harbor in the east, utilizing a combination of existing light rail tracks and new trackage along the lakefront. The latter is being left to the City of Toronto to plan and fund its construction.

Lastly, the provincial plans call for the extension of Line 4 (Sheppard Subway) east to meet up with the Line 2 extension to Scarborough at the McCowan station of that line. This is currently an unfunded item. Rounding out the total funding of C$28.5 billion would be commitments from the City of Toronto and the Government of Canada. *(Editor's Note by Ronald Yee: Interesting how TTC is pushing for an extension of Line 2 to Scarborough replacing the Scarborough LRT with full-size rapid transit subway cars while Ontario Province is pushing for the Ontario Line to utilize technologies similar to the Scarborough LRT.)* (urbantoronto.ca, April 11)

London, England

The BBC reported on April 18 that Crossrail could be delayed until 2021, according to a senior source associated with the project to build a new railway underneath central London. The east-west route, officially called the Elizabeth Line, will run between Reading and Shenfield in Essex and had been due to open in December, 2018.

Crossrail said testing of the trains and signaling was "progressing well." However, sources indicated that dynamic testing was proving to be more challenging than originally believed. Once dynamic testing is complete then trial runs will commence, test runs per a real timetable will begin. The source said, with the current state of the project in mind, a "best case scenario" would be the new Elizabeth Line opening in spring, 2020, with the worst case being the following spring. Two other senior rail sources say this assessment is credible. It also tallies with one of the conclusions in a report written by members of the British Parliament on the Public Accounts Committee which was published in April.

However, there is still uncertainty over when the project can be completed because work to match a new signaling system in the 13-mile stretch of tunnel with software on the new trains is still ongoing. On top of the trains and signaling, all of the new stations along the route are incomplete, with the Paddington and Bond Street stations the furthest behind. A delay to the project only first became public in the summer of last year, just weeks before the railway was supposed to open in December, 2018. The project, which was projected in 2010 to cost £14.8 billion (US$19.09 billion) is now expected to cost £17.6 billion (US$22.7 billion) (BBC News, April 18)

Paris, France

All-night service on selected metro and tram lines in Paris is to be trialed later this year, Ile-de-France President Valerie Pecresse announced on April 13.

The trial will see six metro lines and three tram routes open at night one Saturday a month between September 14, 2019 and March 7, 2020. Service on metro lines 1, 2, 5, 6, 9, and 14, and on tram routes T2, T3a, and T3b, will run from 5:30 AM on Saturday to 12:30 AM on Monday. Not all stations will be served by night service, and bus frequencies on some routes will be increased to provide connections with later trains.

Delphine Burkli, Mayor of the city's ninth arrondissement, is responsible for implementing the plan. Local politicians are to discuss the project with city transport operator RATP and representatives of the night economy at a meeting on May 16.

Pecresse says that the measures are intended to boost nightlife in the city and come in response to pleas from the tourism and entertainment industries. Nightlife has suffered amid the recent gilets jaunes protests, which have played a role in putting off revelers. Following consultation with business representatives, it was decided to carry out the trials in the autumn and winter, when cold weather acts as a further deterrent to people going out at night.

RATP is contractually obliged to provide up to five nights a year of all-night service as part of its contract with transport authority Ile-de-France Mobilites. Any openings beyond this require extensive negotiations. Pecresse says that it will cost "millions of euro a night" to provide extra station security and other measures needed for nocturnal operation.

Following the final Saturday, Ile-de-France will review the success of the trial and decide whether to continue with night service on a permanent basis. (***Metro Report International***, April 15)

Germany

Deutsche Bahn has stopped accepting deliveries of new ICE4 trainsets, after it emerged that bodyshell welding had not been carried out as specified.

Siemens Mobility is the general contractor for the ICE4 fleet under a framework contract awarded in May 2011, with subcontractor Bombardier Transportation responsible for around 30% of the overall project, including the bodyshells and inside-framed bogies and finishing work for three of the car types, including the driving vehicles.

The two suppliers issued a joint statement on April 4 saying Bombardier's quality management procedures had determined that individual welds on the coach bodies had not been carried out as specified. They said this was not a safety issue, the bodies currently in production complied with the agreed quality standards, and there were "currently no indications" that the issue would have any impact on the trains already in service.

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Around New York's Transit System

ATO In Operation on Flushing Line

On Monday April 1, 2019, a General Order officially marked the beginning of Automatic Train Operation (ATO) on NYC Transit's 7 line. While Train Operators will always remain in the lead end operating cab, they will now oversee the train's operation over the line, pressing the "start button" on the control console to engage the ATO, which will initiate the steps to automatically operate the train to the next station. Due to some glitches resulting in significant operational delays in service, trains on the line reverted to manual operation by Train Operators controlled by CBTC speed control. The line had been operating successfully in this mode since the CBTC was gradually cut in between April and late autumn, 2018. After the technical glitches had been resolved, another General Order was issued to resume ATO on April 15, 2019. *(Editor's Note by Ronald Yee: In situations where the ATO system is inoperative, the Train Operator can assume manual control of the train under the protection of either the CBTC Cab Signal speed control systems or in cases of systemic outage of the CBTC, utilize the limited wayside signal system the CBTC "overlays." This mode would allow trains to move under wayside signal protection but at very limited (longer) headways since the signal blocks in many sections of the line are close to a half-mile long or two stations apart.*

Additional information: As of April 25, the ATO system on the 7 is not active. A Train Operator on the line told this Editor on April 25 that soon after ATO was resumed on April 15, at least one train unintentionally bypassed some stations while in ATO mode. The system was turned off shortly afterwards for further adjustments. As of press time, there are no estimates on when it will be reactivated. For the time being, 7 trains will continue to operate over the line under the signal protection and speed control of the CBTC that had been activated in stages beginning in April, 2018 and was completed that autumn.)

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Siemens and Bombardier have informed the Federal Railway Authority of the situation.

DB said the trainsets were safe and there was no impact on customers. However, the bodyshells did not meet the contractually-agreed quality standards and this could lead to higher long-term maintenance requirements.

The operator has requested that the manufacturers repair all affected vehicles within the scope of the warranty provisions. The details of this process are currently being worked out and DB said it would not be accepting any further ICE4 trainsets until a final agreement was reached. (***Railway Gazette***, April 5)

Nuremberg, Germany

The Nuremberg Transport Company (VAG) has ordered seven more G1 four-car U-Bahn trains from Siemens for the city's U-Bahn U1 line, taking its total order to 34. Following an initial order for 21 sets placed in 2015, VAG exercised an option for an additional six trains in November, 2018.

The first Class G1 train left Siemens' Simmering plant in Vienna, Austria, on January 22, with two completed trains now undergoing dynamic testing at a Siemens facility in Wegberg-Wildenrath, Germany.

Siemens will deliver the new sets at a rate of three to four per month, with open access operator Railadventure providing rail transport for delivery to Nuremberg.

The first units are expected to enter commercial service this summer. (***International Railway Journal***, March 21)

Kiev, Ukraine

Kiev Mayor (and former boxer) Vitali Klitschko and Deputy Mayor Dmytro Davtyan officially inaugurated a Tatra-Yug tram for the city on April 2.

On December 18 operator Kyivpastrans signed a $15,949,075 contract with Tatra-Yug for the supply of 10 trams to replace some of the current fleet operating on the city's "fast tram" route serving Troeshchina on the left bank of the River Dnipro.

The 70% low-floor three-section K1M6 tram is 94 feet long and 8.2 feet wide with capacity for 267 passengers. It is equipped with a wheelchair space, air conditioning, wi-fi, a passenger information system and LED lighting. Maximum speed is 47 miles per hour, and emergency traction batteries enable 0.6 miles of operation without external power supply.

The K1M6 is Tatra-Yug's latest model. It was presented in May, 2017 before undertaking tests on the network in Kamianske. (***Metro Report International***, April 4)

Harbin, China

A 5.3-mile extension of Harbin metro Line 1 opened on April 10. The extension from Hananzhan (Harbin South railway station) to Xinjiang Street is entirely underground and adds four stations. One more station is scheduled to open later.

The initial section of Line 1 opened in September, 2013 between the Harbin South and Harbin East railway stations. The extension brings the north-south route to 16.2 miles with 22 stations. Service is operated with a fleet of 17 six-car Type B trainsets supplied by CNR Changchun.

The city's second metro line opened in January, 2017. Extensions of Line 3 are planned to open in 2021 and 2023. Line 2 is under construction for opening in 2020, and two further metro lines are scheduled to open after 2025. (***Metro Report International***, April 15)

THREE ISLANDS OF ITALY
by Jack May
(Continued from April, 2019 issue)
(Photographs by the author)

SUNDAY, APRIL 10

After a sunny sunrise the *Dimonios* entered Cagliari's harbor at about 7:15. After we returned our cabin key to the front desk, we waited a short time for the exit doors to be opened, which occurred at 7:30 (7:30). Our B&B, the Marina del Castello, was virtually across the street from the pedestrian walkway at the terminal, so we hopped into the apartment house's elevator and rang the doorbell. There was no answer. It looked like there had not been any guests staying there the previous evening. What to do? Easy, ride the elevator back down to the ground floor and find breakfast.

The facades of this building and other nearby ones were lined with upscale shops and among them was the Cafe Bistrot, which we entered. We told the proprietor of our plight, and she replied, "oh, the Castello, that always happens. They're friends of ours and I'll call and tell them you're here." After a few minutes she told us that they would not get there until 10 o'clock and offered to let us wait inside the coffee shop. I did not want to do that, as we had an ambitious schedule for the day and asked if we could leave our luggage with her. The answer was "of course, we'd be happy to oblige." So after a nice breakfast we inquired about the bus to the airport, as the only car rental location open on Sunday was at that location, and we had made a reservation with Dollar Rent-a-Car prior to leaving the U.S. We were then told, "there are no buses to the airport, you'll have to take the train." That, of course, was fine with me, and that is exactly what we did.

The standard gauge Trenitalia mainline from Cagliari at the south end of Sardinia to Sassari in the north runs right past Elmas Airport and the Cagliari station was just a short walk from our hotel and the restaurant. Most interesting about that jaunt was the sight of narrow-gauge streetcar track in parts of the pavement, but more about that in the next installment. After arriving at the station we saw that there was no dedicated airport service, but all regional trains stopped there, with service to various points on the island operating about twice each hour. The trip would take five minutes and the fare was a mere 1.30 Euros.

Cagliari's 1893-built station has a beautiful facade, which has been restored. It was actually renovated in the 1980s, but unfortunately its large interior has that plastic sterile look common to that period. Equipped with fare vending machines, rest rooms, and a manned ticket counter, it unfortunately is missing most of the adjunct services that are usually found in large transportation terminals. For example there is no restaurant, but fortunately vending machines supply snacks and drinks.

But there is a 2-8-0 steam locomotive plinthed within the corridor leading toward the station's four stub-ended platforms.

We boarded the 9:18 DMU train with a few others, some who were carrying luggage, for the ride to the airport. Catenary poles dotted the landscape, illustrating a currently-dormant plan to electrify this portion of the railroad for tram-train service. There is a new (2008) tram-train operation in Cagliari, but it is part of the narrow-gauge Ferrovie della Sardegna, a railway that will be covered in the next portion of this trip report. We duly arrived at Elmas Aeropuerto on time at 9:23. The elevated station consists of two side platforms with stairs, escalators, and elevators leading to a concourse with ticket machines and access to a common auto rental facility, all being just a short walk from the terminal building, aided by moving sidewalks. The most unusual aspect of the facility is the "station dog," who seemed to greet the passengers of every train. I first thought it was a stray, but then read about it on the Internet. Cats are apparently off limits.

We actually had trouble finding the auto rental office, even though it was staring us right in the face, and first walked to the airline arrival and departure levels before finally being set straight. Our reservation at the Dollar desk was honored and we were soon in our Lancia. Our first destination was the Nora Archeological site some 25 miles due south, which we reached in less than an hour, even after making a few wrong turns after leaving the main highway.

We were fortunate that a tour of the ruins was about to leave upon our arrival at the reception area/ticket booth, so we joined it. It turned out that we were the only non-Italian speakers in the group, thus the pretty student paid special attention to us at each stop after she completed her narrative about the various exhibits to the others. This allowed us to ask questions and made it almost a private tour. The "town" we walked through was founded in the 8th century B.C. by the Phoenicians, but most of the remains are from the Roman era, which began about 500 years later, after the Carthaginians were conquered. The city was later pillaged and abandoned, and was not finally excavated until 1952. Herewith are some views of the settlement, which included thermal baths, temples and houses, as well as a large amphitheater, all connected by easily navigable walkways.

We grabbed some snacks for a light lunch at the site, and then were on our way to the mountains and seashore north of Cagliari. It took us a little under two hours to get to Muravera, and from there we worked our way back to the city, stopping here and there to admire and photograph the scenery.

We found a parking space on Via Roma, the main

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Three Islands of Italy

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drag through Cagliari's Maritime district, where our hotel was located. Retrieving our luggage, we went back to our B&B at about 17:30, and were graciously greeted and shown to our room and offered drinks, snacks, and an apology. We were also told that street parking is okay right now (it being a Sunday) but not allowed after 7 the following morning, and we should move our auto to a municipal lot across the very wide street, find a policeman, and pay him for a series of multi-hour parking permits, which we should display above our dashboard.

I accomplished this easily (and the fee was quite reasonable, about a half-Euro per hour). The street itself contains trackless trolley wire, but most of the frequent public transportation consisted of motor coaches, with only the occasional trolleybus passing by. Oddly the route numbers of the electric vehicles were the same as some of the buses, leading me to believe that the system is either in the middle of expansion or contraction. Our hosts recommended a number of local restaurants and we had a good, but not spectacular, dinner.

It was an enjoyable day well spent.

The facade of this beautiful station is adorned with the engraving, Ferrovie della Stato (State Railways), plus a sign that redundantly indicates the name of the city.

This standard-gauge 2-8-0, on display in the Cagliari mainline station, was the last steam locomotive operated by Italian State Railways in Sardinia, its boiler having been shut down in 1976. The series, which was used for both freight and passenger service, has been widely described as Italy's classic locomotive. Some 470 of these iconic units were built between 1911 and 1923 and were operated throughout the country into the mid-1970s. A sister engine is operable and is occasionally used for fantrips and other special events on the island.

Two scenes at the Elmas Aeroporto station, which was constructed in 2013. With Italian trains running left-handed, we see two Cagliari-bound DMU trains about to come to a halt at platform 1 a few minutes apart. The left view shows 1980-built 3202 on a local run. The right photo features one of Trenitalia's streamlined ATR 365 trains. Built by CAF, the three-car "Pendolinos" tilt and can reach a speed of 100 mph. They entered service in 2015 and are assigned to the railway's longest routes.

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A placid view of the Mediterranean Sea, with one of the walkways through the ruins of Nora approaching a Roman column, which is now home to a seagull. It had been part of the Temple of Tanit, the Carthaginian Venus, who had been worshiped in this area.

Nora's amphitheater faces the Mediterranean.

The mosaic floor at the home of one of the ancient city's richer residents some 25 centuries ago.

The Torre del Coltellazzo watchtower sits at the far end of the archeological site. It is said that the cylindrical structure was constructed in the17th century by the same people who built a famous building in Pisa — but this tower does not lean.

Another circular structure, but not a lighthouse. This is one of a large number of "nuraghi" that dot the landscape of the island. Archeologists believe more than 10,000 were constructed, with some dating as far back as the 20th century, B.C. (1900 years before the birth of Christ). The tower-like structures contain spiral stone stairways leading to upper floors. There are still about 7,000 nuraghi extant, but little is known about their function and what role they played in Sardinia's prehistoric civilization.

Highway SS125 twists and turns between Cagliari and Muravera, providing plenty of views of the mountains. However, there are few places to turn off and stop for photos.

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CONEY ISLAND YARD IN EARLY DAYS
(Photographs from the Jeffrey Erlitz collection)

Tracks to shed and shops, view southeast, May 16, 1928.

Approach tracks #14 and 15, looking north, May 16, 1928.