The Bulletin

Electric Railroaders' Association, Incorporated

Vol. 62, No. 3 March, 2019

The Bulletin

Published by the Electric Railroaders' Association, Inc.
P. O. Box 3323
Grand Central Station
New York, NY 10163

For general inquiries, or *Bulletin* submissions, contact us at **bulletin@erausa. org** or on our website at **erausa. org/contact**

Editorial Staff:

Jeffrey Erlitz
Editor-in-Chief

Ronald Yee
Tri-State News and Commuter Rail Editor

Alexander Ivanoff
North American and World News Editor

David Ross
Production Manager

This Month's Cover Photo:
Long Island Rail Road MP54s and MP41s at the Stone Avenue (now Mother Gaston Boulevard) portal, west of the East New York station, taken around 1908 by Hal B. Fullerton (1857-1935).

NYCT'S ENHANCED STATION INITIATIVE (ESI) PROGRAM COMPLETED

by Jeffrey Erlitz
(Photographs by Sunny Zheng)

As of January 28, 2019, MTA New York City Transit has completed the rehabilitation of all 19 stations under the Enhanced Station Initiative project. This $936 million project was originally supposed to renovate 32 stations, but the other 13 stations were deferred to the 2020-4 Capital Program due to budget concerns.

ESI work included cellular service, Wi-Fi, charging stations, interactive service advisories and maps, improved signage, strip maps for the subway routes, subway countdown clocks, service alerts, On-The-Go Informational Dashboards, neighborhood maps, new art, and improved station lighting. Cables and conduits were decluttered, simplifying the stations' wiring. The stations also included glass barriers near fare control areas (rather than the metal fences that separate the paid and unpaid areas of the stations), as well as new tiled floors that are easy to clean. Concrete repairs, new platform edges, waterproofing, most tile patching, and structural steel repairs got the stations into states of good repair. Passenger amenities included next-train countdown clocks and neighborhood wayfinding maps at the exterior of each entrance; digital maps, MetroCard vending machines, and station agent booths situated in a central location in the mezzanine; and digital next-train information and service change notices at platform level.

The complete list of stations that were actually completed, in order of closure, is as follows:

Station	Closed	Reopened
53 St (N)(R)	3/27/2017	9/8/2017
Bay Ridge Av (R)	5/1/2017	10/13/2017
Prospect Av (R)	6/5/2017	11/2/2017
30 Av (N)(W)	10/23/2017	6/22/2018
36 Av (N)(W)	10/23/2017	6/22/2018
163 St-Amsterdam Av (C)	3/12/2018	9/27/2018
Cathedral Pkwy (110 St) (B)(C)	4/9/2018	9/2/2018
72 St (B)(C)	5/7/2018	10/4/2018
86 St (B)(C)	6/4/2018	10/25/2018
39 Av (N)(W)	7/2/2018	1/28/2019
Broadway (N)(W)	7/2/2018	1/24/2019
57 St (F)	7/9/2018	12/19/2018
28 St (6)	7/16/2018	1/14/2019
23 St (F)(M)	7/23/2018	11/29/2018
145 St (3)	7/23/2018	11/28/2018
174-175 St (B)(D)	8/13/2018	12/27/2018
167 St (B)(D)	8/27/2018	1/9/2019
34 St-Penn Station (A)(C)(E)	n/a	n/a
Richmond Valley	n/a	n/a

In the case of 39 Av (N)(W), when the station reopened, it was also officially renamed 39 Av-Dutch Kills, a nod to the historic name of the surrounding neighborhood. The last two stations on this list, 34 St-Penn Station (A)(C)(E) and the Richmond Valley station on the Staten Island Railway, were not closed

(Continued on page 2)

NYCT's ESI Program Completed

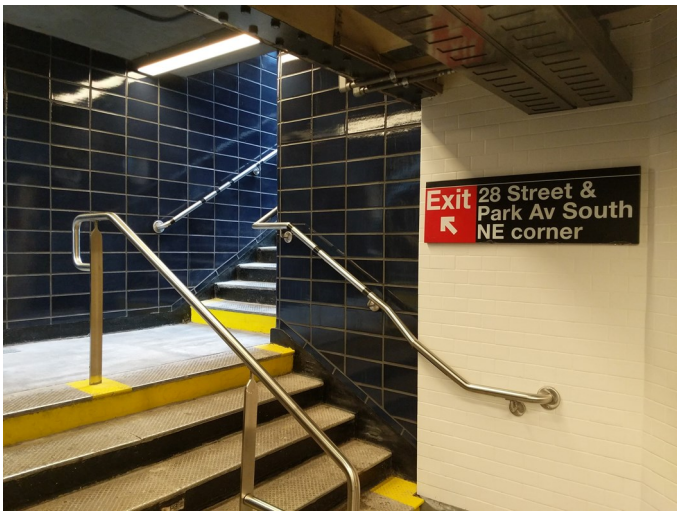
(Continued from page 1)

full-time as the work was performed under traffic.

The additional stations that were supposed to be included in this project were:

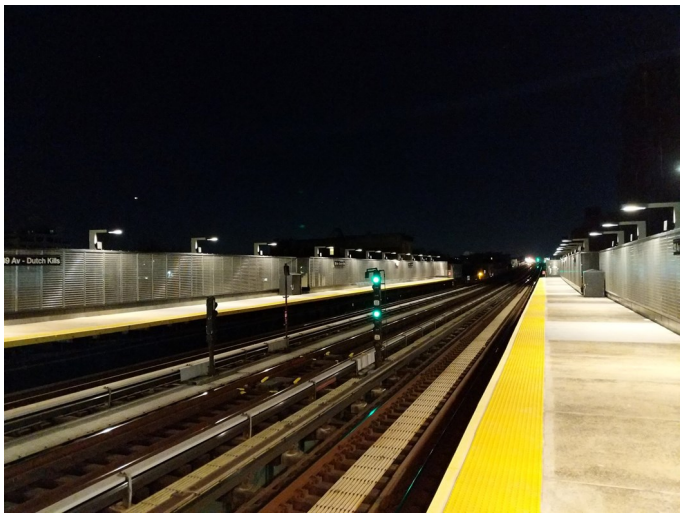
- Flushing Av G
- Classon Av G
- Clinton-Washington Avs C
- Kingston-Throop Avs C
- Van Siclen Av C
- 3 Av-138 St 6
- Brook Av 6
- Hunts Point Av 6
- Westchester Sq-East Tremont Av 6
- Pelham Pkwy 5
- Northern Blvd M R
- 67 Av M R
- Parsons Blvd F

28 St 6, reopened 1/14/2019, showing the fare array, LED lighting, non-full height gates, and new-style countdown clock display.



Street stairs leading from the northbound platform at 28 St 6, showing new tile work, railings, stair treads, and LED lighting.

Looking down one of the platforms at 39 Av-Dutch Kills N W on 1/28/2019, opening day. Almost everything in this view, save the original ironwork, is new: platform walls, railings, lighting, platform surface, canopy, and lighting.



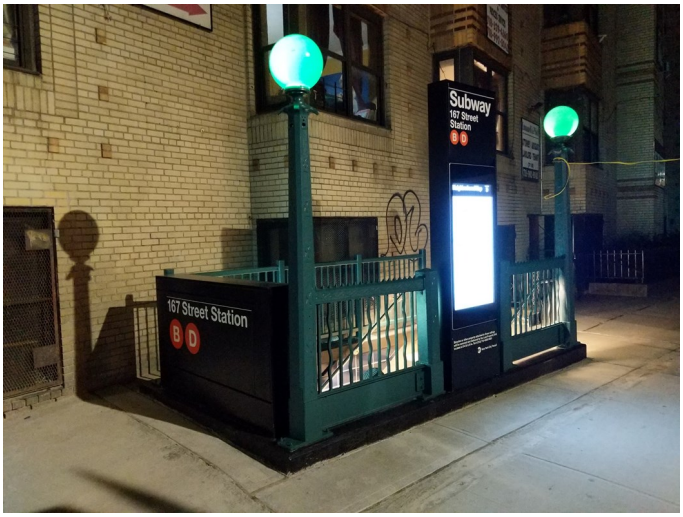
Looking north on the northbound platform, the new LED lighting is very evident and also has a pleasing color temperature. The corrugated metal walls were replaced with a stainless-steel mesh. Providing less shelter from the wind, especially in winter, it does create a more open environment as you can now see the streetscape below.

(Continued on page 3)

NYCT's ESI Program Completed

(Continued from page 2)

167 St (B)(D) was reopened on 1/9/2019, the date of this picture. The view is looking south on the northbound platform. The new artwork on the wall and improved lighting are most noticeable.



One of the street entrances to 167 St (B)(D) showing an electronic information display. This is the southeast corner of Grand Concourse and E. 167th Street.

At Broadway (N)(W), which reopened on 1/24/2019, an entirely new exit staircase was built towards the south end of the northbound platform. This will help to reduce the volume of passengers exiting through the fare control area on the mezzanine.

Looking north on the west side of the mezzanine at Broadway (N)(W). The translucent artwork on the outer walls creates a colorful display (at least during daylight hours) while the glass partitions along the platform stairs creates a more open environment. The simulated wood on the ceiling of the mezzanine, and platform canopies upstairs, are a nice touch.

(Continued on page 4)

NYCT's ESI Program Completed

(Continued from page 3)

A view of the shelter shed in the center of the eastbound platform at the Richmond Valley station on the Staten Island Railway. This station, along with 34 St-Penn Station (A)(C)(E), was not closed during its renovation.

R-44 418 leads a westbound train into the Richmond Valley station. The new lighting, railings, and shelters can be seen here. The new countdown clock displays are at the far (east, geographically south) ends of the platforms.

MEMBER ALLEN S. MORRISON PASSES AWAY

The following obituary appeared in **The New York Times** *on January 31, 2019. Mr. Morrison was a longtime ERA member, having joined on July 1, 1948.*

MORRISON — Allen S., 84, on January 6, 2019. Born in Lexington, Kentucky on May 10, 1934, he spent his childhood in Louisville, until age 11, and then Cincinnati. After graduating from Northwestern University in 1956, he lived abroad for a brief time, in Paris, where he earned a Diplome de Langue Francaise from the Ecole Pratique de Langue Francaise in 1958. That same year, he settled in Greenwich Village, Manhattan, New York, where he resided for the rest of his life. He taught French and French literature at Columbia University for almost 10 years and earned a PhD in French lit. from Columbia in 1968. A trip to Mexico rekindled a childhood love of streetcars, and his interest soon expanded to South America. In the 1970s, Allen Morrison embarked on what would become decades of pioneering research into the history of street railway systems throughout Latin America, many of which had used vehicles built in the U.S. He authored three books on the subject, starting with "The Tramways of Brazil" in 1989, and ultimately became widely regarded as the world's foremost expert on the history of electric transit in Latin America. His web site www.tramz.com entitled Electric Transport in Latin America, established in 1998, was one of two honored by the Association of American Geographers in 2005 as Best Web Site. He made arrangements to ensure that the site would be preserved after his death.

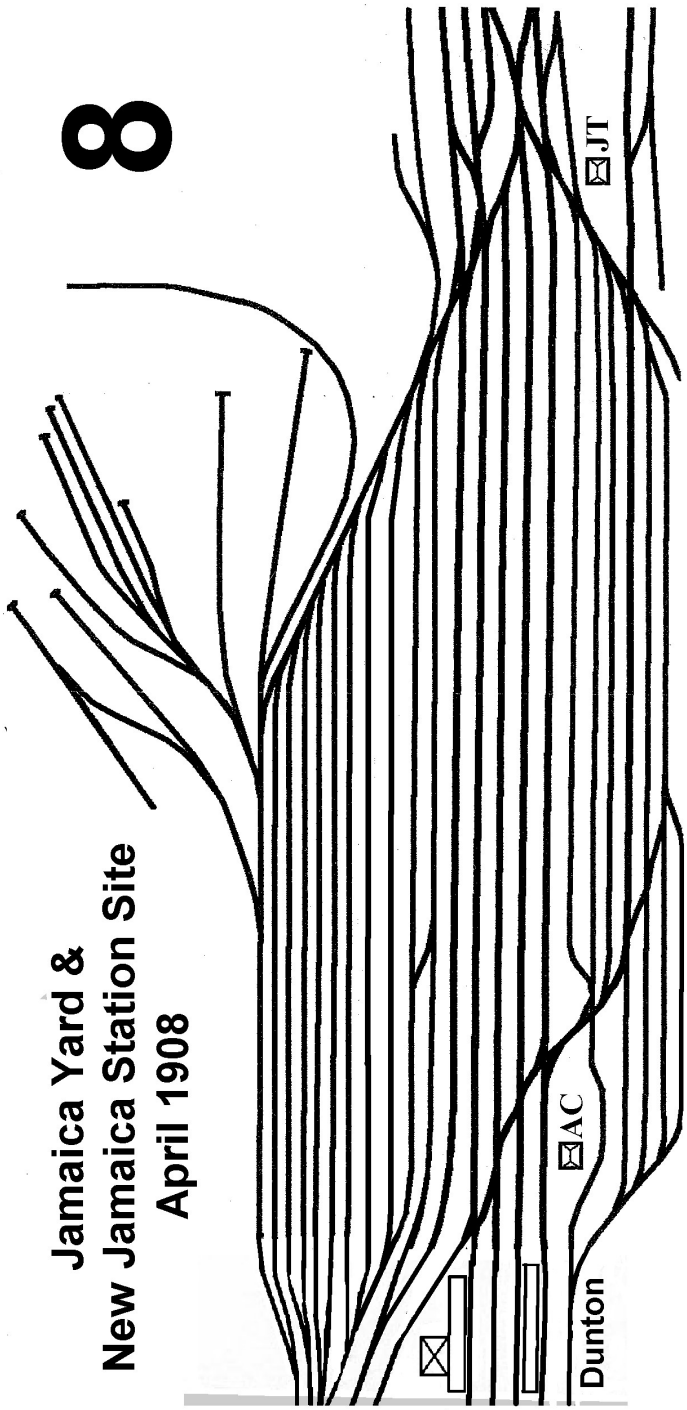
A NOTE FROM THE EDITOR-IN-CHIEF

With this issue, we are changing the cover photograph each month. We will try alternating between old, historic images and "current events"-type images. We hope you enjoy this little change.

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

by George Chiasson

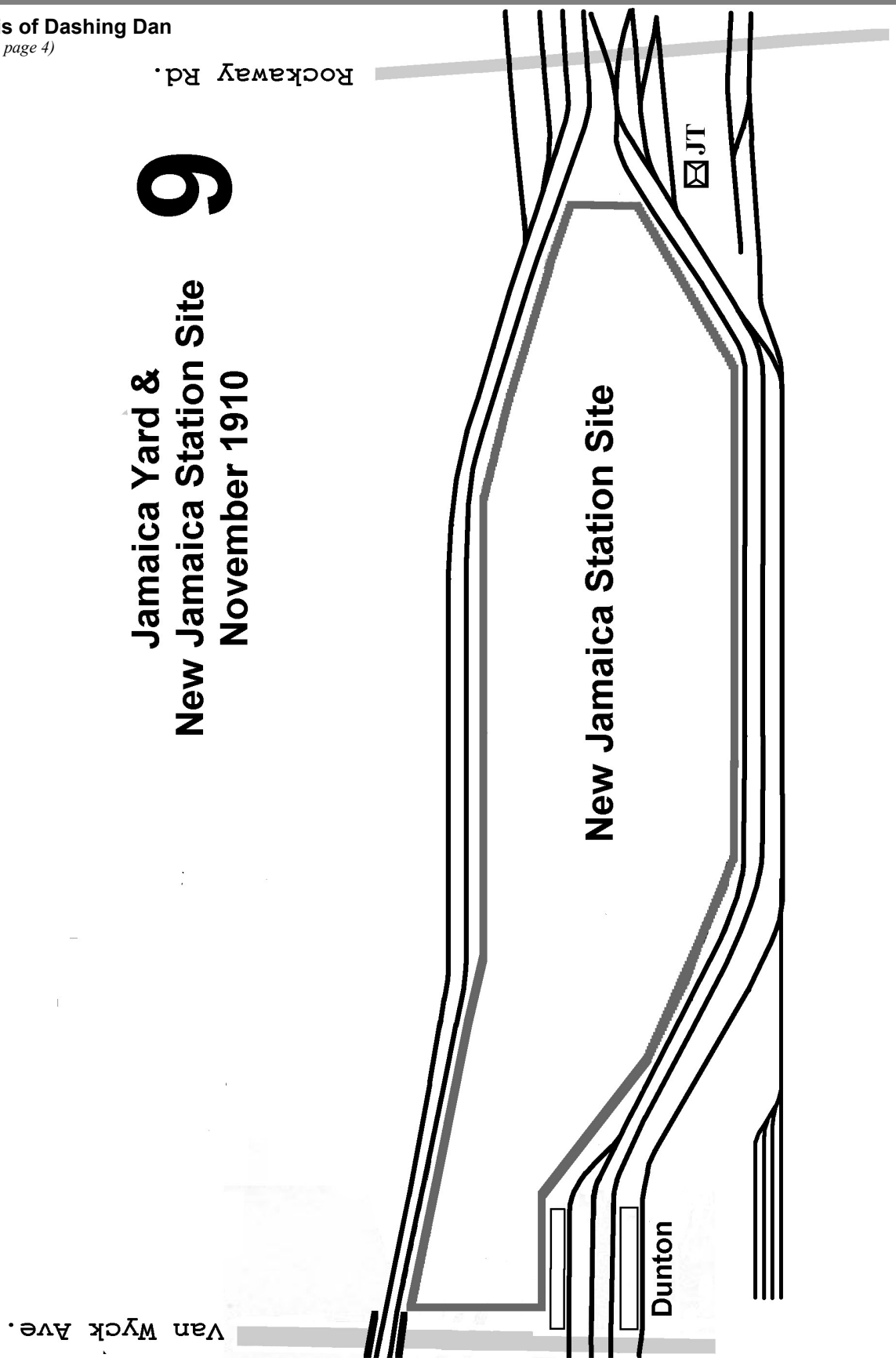
(Continued from February, 2019 issue)



(Continued on page 6)

The Genesis of Dashing Dan

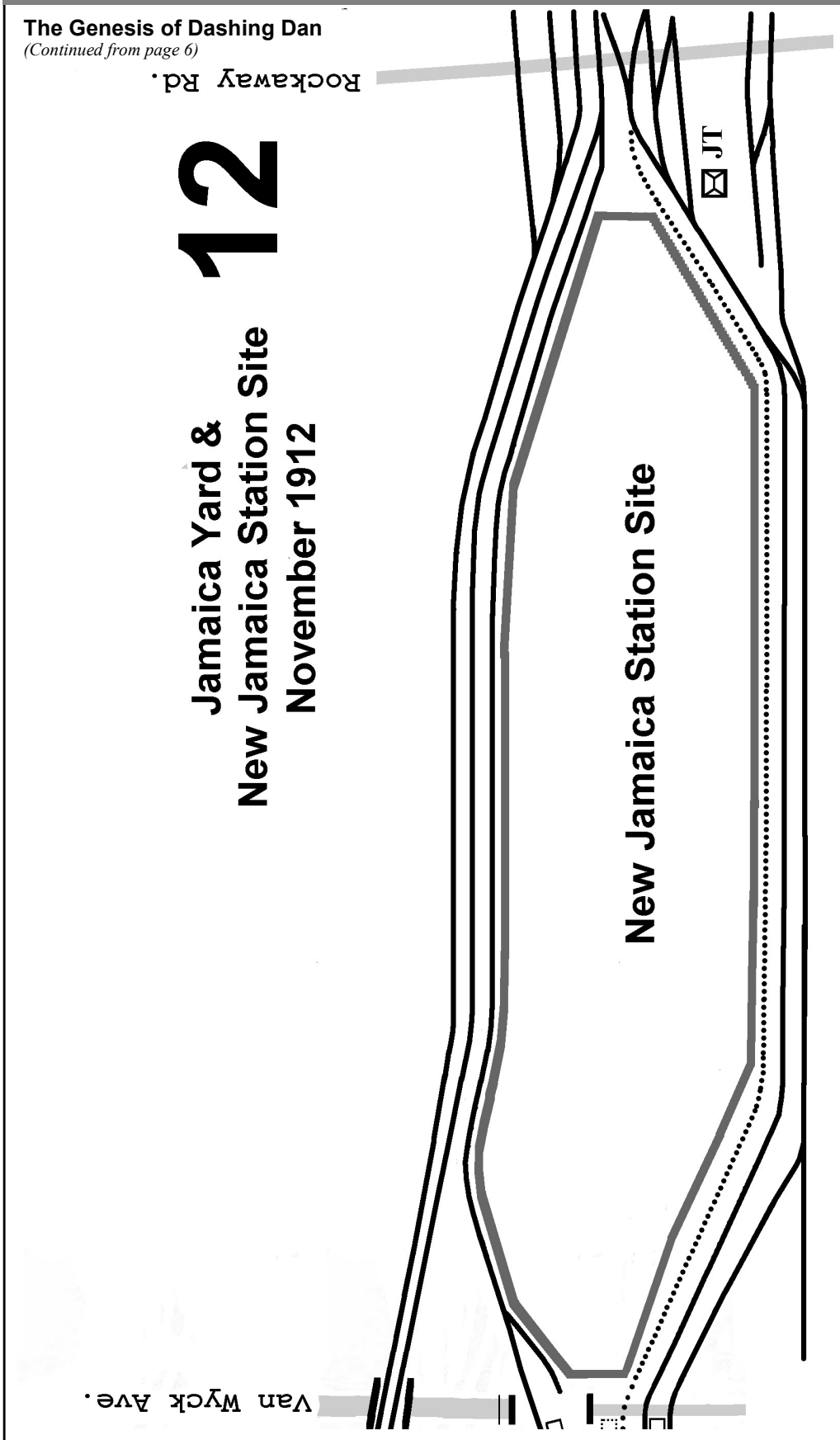
(Continued from page 4)



(Continued on page 7)

The Genesis of Dashing Dan

(Continued from page 6)



(Continued next issue)

Commuter and Transit Notes

No. 362

by Ronald Yee and Alexander Ivanoff

MTA Long Island Rail Road

The LIRR launched a new web-based train tracking tool the public can utilize to determine, in real time, the expected arrival times of the trains they are waiting for based upon GPS (Global Positioning System) train tracking. This information has been available to employees and other officials for years but only on the M-7 fleet as this equipment was delivered from Bombardier Transportation with GPS transponders installed. Equipping the M-3 and diesel fleet with similar GPS transponders during 2018 has enabled the LIRR to provide this real-time information for all trains. The information has been displayed on the automated train status and information signs at train stations and platforms and is now available to internet users at www.mylirr.org. It provides information regarding the location, equipment type, consist length, and expected arrival time (and number of minutes early or late if applicable) of all of its trains operating system-wide. The consist length will greatly help in passenger loading as customers will know in advance where to stand on the platform, a crucial piece of information if a train is operating with fewer cars than scheduled. With customers properly positioned on a platform, it is hoped that this will result in reduced station dwell times when trains operate with shorter than scheduled consists. (***LIRR Today***, February 3)

After a more intensive study, Amtrak and the LIRR have determined that the two East River tunnels damaged by Hurricane Sandy floodwaters and needing repair cannot use a similar tunnel repair proposal by which MTA New York City Transit can avoid a 15-month full-time shutdown of the Canarsie Tubes carrying the L under the East River. These two tunnels will require full closure, one at a time for around one year each, to enable the entire tunnel floor to be replaced with new concrete track bed, rails, and tunnel liner in addition to replacing the bench walls which contain the conduits carrying power, signal, and communication lines throughout the tunnel's length. The scope of work to repair the NYCT Canarsie Tubes does not require a track bed replacement, just bench wall repair or remediation, making possible the option of relocating the cables currently located in the bench wall conduits to a new location hanging from mounts attached to the upper side of the tunnel walls and not closing the tunnels on a continuous basis. (***LIRR Today***, February 3)

As part of the agreement reached by the MTA and Amtrak that will allow Metro-North Railroad trains to operate between New Rochelle and Penn Station via Amtrak's Hell Gate Line, there will also be a feasibility study to operate some of Amtrak's Northeast Corridor trains over the LIRR to select station endpoints. Proposed endpoints of such an extension or branch of the Northeast Corridor could include the LIRR mainline from Ronkonkoma, Hicksville, Mineola, and Jamaica. Potential Amtrak service to Huntington, Babylon, Bellmore, and Great Neck rounds out the potential market-share ridership list. Such trains would operate over the LIRR to Penn Station and then continue south to Washington, D.C. or north to Boston, Massachusetts. One issue to be resolved would be the use of dual-mode locomotives to avoid the need to change power at Penn Station, which would add a certain amount of travel time. The time lost would also negate any time and convenience gains for such a through service. Other issues would involve the need for locations at which to turn around a locomotive-hauled train. While push-pull operation may be feasible, the current fleet of available ex-*Metroliner* cab cars is already fully utilized on *Keystone* services to Harrisburg, Pennsylvania and shuttle service between New Haven, Connecticut and Springfield, Massachusetts. *(Editor's Note by Ronald Yee: The concept of Amtrak push-pull operation over the LIRR should not be discarded so quickly. Amtrak is currently studying the replacement of its 1974-vintage Amfleet I coach fleet, which makes up almost 100% of the Northeast Corridor regional service fleet. Since the* Keystone *services depend on push-pull operation, a provision for a number of cab control cars should be included in the new coach order, providing enough cab cars to make a LIRR extension of the NEC a possibility. Dual-mode locomotives for use on the NEC are already available "off the shelf" in the form of the proven design and operational experience with NJ Transit's Bombardier ALP-45-DP, which meet the clearance profile required for the tunnels under the Hudson and East Rivers. An upgrade may be needed to enable the Amtrak version of these dual-modes to reach the standard NEC operating speed of 125 mph for regional service trains. With the current leadership of Amtrak so heavily favoring corridor services, this may be an opportunity to take advantage of that focus before the political and executive landscape changes once again.)* (***LIRR Today***, February 3,)

In the late 1990s, 23 DM30AC dual-mode locomotives were delivered to the LIRR from EMD's Super Steel Industries plant in Schenectady, New York. One unit was lost in 2000 and another in 2009, leaving 21 units still operational on the LIRR. Then-LIRR president Tom Prendergast promised nine weekday dual-mode round trips into and out of Penn Station New York by 2000 with an ultimate goal of 11 round trips. In 2013, summer seasonal service expanded dual-mode through services to five with the addition of the Friday-only *Cannonball* out of Penn Station in 2013. With the February 26, 2019 schedule change, the number of round trips has reached six with Train #2742, the 6:27 PM to Speonk, operating daily except for summer Fridays when the *Cannonball* operates Penn Station to Montauk. While equipment utilization at the LIRR has recently become more innovative, the six round trips is still five short of

(Continued on page 9)

Commuter and Transit Notes

(Continued from page 8)

the original goal of 11. With Amtrak and Metro-North Railroad currently exploring their options in replacing their aging dual-mode locomotive fleets, there may be a push to have the LIRR consider sharing a larger order for dual-mode locomotives. *(Editor's Note by Ronald Yee: The goal of 11 weekday dual-mode powered round trips to and from Penn Station was based upon single locomotive operation with up to six multilevel coaches in a consist. Operational experience soon proved that a train powered by a single locomotive was vulnerable to becoming stalled (gapped) if the train should come to a stop within a long third rail gap, of which there are many when entering Penn Station. While similar gaps exist in Grand Central Terminal for Metro-North Railroad's dual-modes, Engineers are familiar with the location of third rail gaps and do not stop their engines within them when in the pull mode. In the push mode, the mode selector switch in the cab control car is set to third rail electric but the diesel engine is not shut down. It is placed in idle for the run through the Park Avenue Tunnel. If a train becomes gapped, the standard practice is to switch back to diesel mode and apply a small amount of power to get out of the gap. The diesel engine is only shut down when the train reaches the platform track. In the confines of Penn Station with its long river tunnels, limited ventilation, and the passenger concourse directly above the tracks, leaving a diesel engine running, even in idle, is not an option. Because of this, the LIRR was forced to assign two dual-mode locomotives, one at each end, to prevent a train from stalling out in electric mode. With a poor reliability record of under 10,000 miles between road failures, four round trips requiring eight dual-modes was all the LIRR could muster until recently, when locomotive reliability improved and the railroad could reliably field 12 dual-modes out of a fleet of 21 on a daily basis.) (Editor-in-Chief's Note: One possible solution to preventing an LIRR dual-mode train from getting gapped in Penn Station (or anywhere else for that matter) would be to equip the C-3 cab cars with third rail shoes and install traction power bus jumpers between the locomotive and cab car. One big advantage would be the use of only one locomotive instead of two. This would yield better utilization rates of the DM-30-AC fleet.)* (***LIRR Today***, February 3)

On Monday, March 4, the South Fork Commuter Connection will commence, offering connecting shuttle bus services to and from LIRR Montauk Branch trains. To support this service, six trains will be added to the schedule east of Speonk, offering connections at East Hampton, Bridgehampton, Southampton, Amagansett, and Montauk. There will be three trains in the morning and three trains in the afternoon. These trains will only serve the stations located within the South Fork service area and will not connect with trains to and from Manhattan, making them a stand-alone service pattern within the Montauk Branch. A joint fare of $4.25 will cover a one-way trip on both train and bus and will be sold at full service ticket vending machines (TVMs) as South Fork Commuter Connection tickets under the category "Deals & Getaways." Customers are encouraged to purchase a round trip when buying their tickets at the TVM. The goal of this new service is to reduce congestion on the overcrowded roadways of the South Fork of Long Island. (MTA press release, February 1)

NJ Transit

NJ Transit has announced that train service will be restored to the Atlantic City Line and the Princeton Branch (known as the Dinky) during the second quarter of 2019. The rail operator had been battling a combination of a severe shortage of locomotive Engineers, due to staffing and hiring issues, and a shortage of locomotives, cab control cars, and multiple unit cars. That shortage was due to the need to install the necessary hardware and software to comply with federally mandated Positive Train Control (PTC) by the December 31, 2018 deadline. (***Metro***, January 29)

Amtrak

Due to the record-setting cold temperatures engulfing the upper Midwest with -25ºF air temperatures and wind chills below -50ºF, Amtrak canceled all of its scheduled trains to and from Chicago on Wednesday, January 30 and most of its scheduled trains the following day, Thursday, January 31 out of concern for the safety of operating its trains over rails made more brittle and prone to pull-aparts. Service restoration began on January 31 with the resumption of long-distance train services, with the tri-weekly *Cardinal* and Midwest corridor services resuming on Friday, February 1. (Amtrak, January 31)

A second daily roundtrip Amtrak train to Norfolk, Virginia is scheduled to begin on March 4. In addition to the current 6:10 AM daily departure, the second Norfolk train will depart weekdays around 9 AM. Passenger rail service to and from Norfolk is part of Amtrak's *Northeast Regional* train service connecting the Commonwealth to the northeast, offering customers a same-seat trip between 17 Virginia stations and Washington, D.C., Baltimore, Philadelphia, New York City, Boston, and other destinations. Additional details regarding schedules and ticket sales are forthcoming.

The addition of service to Norfolk also comes with the announcement of the completion of major construction work at CSX's Acca Yard in Richmond. The on-time, on-budget completion of the $132 million project decreases congestion for passenger and freight trains between Richmond's Main Street and Staples Mill stations, increasing reliability for both Amtrak and CSX customers across the entire Commonwealth. As part of the yard work, CSX also granted additional capacity on its network between Richmond and Petersburg to allow for the additional Amtrak service to Norfolk.

Norfolk Southern was also a key partner in bringing the existing and new Norfolk passenger rail routes online. Inaugural Amtrak train service to Norfolk began in 2012 and marked the first passenger train out of the city since 1977. As part of the Commonwealth's initial investment in Norfolk Southern's network between Petersburg and Norfolk, NS in turn granted additional capacity to allow for current and future Amtrak service to

(Continued on page 10)

Commuter and Transit Notes

(Continued from page 9)

Norfolk.

The new Hampton Roads passenger rail service also includes optimized schedule changes to and from both the Norfolk and Newport News stations. In addition to the second mid-morning departure and early-evening arrival to Norfolk, Newport News customers will also have the benefit of an early-morning departure and early-evening arrival, providing all Hampton Roads customers additional daily options to get to Washington, D.C. and back.

Amtrak service in Virginia has both been popular and successful since the state took a larger role in the matter in 2008. Since then, gubernatorial administrations from both political parties have launched expanded service to Lynchburg in 2009, brought one train to Norfolk in 2012, worked with the General Assembly to create the Intercity Passenger Rail Operating and Capital Fund, and returned passenger rail to Roanoke in 2018. (***Mass Transit*** Magazine via Virginia DPRT, January 25)

OTHER TRANSIT SYSTEMS

BOSTON, MASSACHUSETTS

MBTA leadership has taken the preliminary steps needed to transform and modernize the 2.6-mile, eight-station Mattapan High Speed Line over the next decade with the primary choice alternative being to eventually replace the current fleet of 70-year-old, mid-1940s-vintage Presidents' Conference Committee (PCC) cars. Alternative plans of converting the line to a busway for bus rapid transit were discounted after it was determined that the existing bridges and overpasses would need to be replaced as they are not wide enough to handle standard-size transit buses. The bus alternative would also be unable to duplicate the six-minute ride the PCCs currently offer. Another alternative calling for an extension of the Ashmont Branch of the rapid transit Red Line would be equally unachievable with the current infrastructure. The MBTA has committed to an over $200 million, three-phase, ten-year project to fully modernize the line. Step one is already underway, with an interim $7.9 million program to overhaul eight of the ten-car PCC fleet at an MBTA facility in Everett. The rehabilitation work includes trucks, propulsion, braking and repairs to the car body and roof to address corrosion issues. Phase two would involve the repair and modernization of the infrastructure of the line, power substations at the Mattapan and Ashmont ends of the line, a new grade crossing signal system at Central Avenue and Capen Street in Milton, a second bridge spanning the Neponset River near Milton Landing and Lower Mills, and a rehabilitation of the bridge over Gallivan Boulevard as it approaches its terminus at Ashmont. Phase three would involve the selection of a future LRV fleet. As the PCC cars cannot be economically retrofitted to comply with Americans with Disabilities Act (ADA) requirements, they ultimately must be replaced. Six fleet alternatives have been presented to the MBTA. While there is an option for purchasing a small number of modern LRVs custom-built for the line, this is the most expensive option. Almost as expensive would be a fleet of replica trolleys manufactured to appear like the PCCs, but they would be more difficult to procure and they may not be able to economically meet all accessibility requirements. The MBTA has expressed a preference toward phasing in part of the Type 9 LRV fleet now being delivered to MBTA to expand the fleet to handle the extension of the Green Line beyond Lechmere to Somerset. These cars would have the advantage of already being fully compliant with all federal accessibility requirements. The transfer of a number of the Type 9 cars to the Mattapan-Ashmont Line could occur when the MBTA takes delivery of enough of the expected order for new Type 10 next-generation LRVs to replace the Green Line's current Type 7 and Type 8 cars sometime in the mid 2020s. (MBTA, January 25)

PATERSON, NEW JERSEY

Paterson may be getting a streetcar system as part of a proposed urban renewal project. The Art Factory on Spruce Street has been purchased by the Great Falls Industrial Park, which intends to re-purpose the entire 4.7-acre site containing 25 buildings. There will be 232,000 square feet available for boutique shops, art galleries for local artists, a restaurant, and overnight spaces for members, actors and visiting film crews. This site was once a rope factory operated by the American Hemp Company and from 1850 to the 1950s the Dolphin Manufacturing Company produced twisted jute carpeting. In 1978, the site was purchased by the father of the current owner who is now seeking its redevelopment. As there is very little on-site parking and scarce parking around the area, a trolley system is being proposed to link the complex with nearby parking garages. Two streetcar lines are envisioned. One is an outside loop traveling all around the city serving the Passaic County Administration building, Passaic College, and the NJ Transit train station. The inner loop would traverse the downtown area and the Great Falls National Park. Both lines would serve the Art Gallery complex as well as the numerous off-site parking garages. The two trolley lines are expected to operate 7 AM-6 PM daily and no fares would be charged. It is hoped that the redevelopment would spur a transformation of Paterson into a destination for visitors on day-trips similar to Lambertville and New Hope, New Jersey. (tapinfo.net, January 6)

PHILADELPHIA, PENNSYLVANIA

The Southeastern Pennsylvania Transportation Authority (SEPTA) Board voted on January 28 to award HTNB, Incorporated a contract to advance engineering of the King of Prussia Rail (KOP Rail) extension of the Norristown High Speed Line (NHSL).

This contract will progress the engineering and architectural design from the conceptual Locally Preferred Alternative (LPA), completing 15 percent of the total design (Phase 1). An option is also incorporated to con-

(Continued on page 11)

Commuter and Transit Notes

(Continued from page 10)

tinue advancing engineering to 30 percent complete (Phase 2). HTNB, Incorporated will be involved in taking into consideration the public's needs as the design is developed and finalized.

KOP Rail is SEPTA's proposed extension of the existing NHSL into King of Prussia, providing a "one-seat" ride to King of Prussia from either the 69th Street Transportation Center in Upper Darby or the Norristown Transportation Center. The extension is expected to provide better transit service between King of Prussia, Center City, and University City, the Greater Philadelphia region's three largest economic hubs.

The NHSL currently provides service between SEPTA's 69th Street and Norristown Transportation Centers, serving the Main Line area in Delaware and Montgomery Counties and connecting to Center City Philadelphia. (***Mass Transit*** Magazine, January 28)

Washington, D.C. area

WMATA will commence the operation of test trains over the phase two, 11.5-mile, six-station extension of the Silver Line, which will extend rail service from its current terminus at Wiehle-Reston East to the Ashburn terminal and serve Dulles Airport and other points in Loudoun County. Two, two-car test trains equipped with third rail shoes will be towed over the tracks of the line extension to scrape and polish the contact surfaces, as well as polish the rails. A small diesel locomotive will push the train initially until the rails are sufficiently polished for good electrical contact. Once that is achieved, the third rail will be energized and two additional test trains introduced to the line to begin performing “dynamic testing” processes, including safe-braking tests, acceleration, speed, and schedule-keeping tests. This testing phase is expected to continue for several months prior to the next phase of testing, leading toward the line’s planned opening for passenger service in 2020. (WMATA press release, February 5)

Miami, Florida

Parsons, a California-based consulting firm retained to coordinate the Strategic Miami Area Rapid Transit (SMART) study launched during the summer of 2017, has issued a few glimpses of its final recommendations for public mass transportation options linking Miami and Miami Beach due for release in fall 2019. Currently, the only option at Metro-Dade is buses, which are beset by long travel times and the need for many users to make transfers to continue on to their final destinations. Four of the seven original options are being recommended for further study. The three discounted options were: dedicated bus lane options south of I-395, Aerial Cable Transit, and Heavy Rail Rapid Transit. One of the four options being moved forward, the most expensive at around $1 billion, is the extension of the current system of the automated Miami Metromover across the causeway to a potential new terminus in Miami Beach at Fifth Street and Washington Avenue. Users would be able to utilize the Miami Beach bus network to reach the Metromover terminal, from which users could have a one-seat ride to downtown Miami and its government center office complex, the financial district at Brickell, the waterfront hotel district, sports complexes, and Brightline high speed rail. A cross-section drawing showing an elevated guideway located along the side of the MacArthur Causeway linking Miami with Miami Beach. The causeway appears to have three traffic lanes and a dedicated buffer-separated bicycle lane. Another alternative is an automated monorail similar to those used at Disney World, Jacksonville, Seattle, and Las Vegas. The advantages of this mode are higher speeds of 50 mph vs. 30 mph for the Metromover, as well as a higher capacity per train, 305 passengers for the monorail and 200 for Metromover. However, the monorail is unlikely to offer the short headways operated by Metromover, resulting in longer wait times at the stations. A third alternative is Bus Rapid Transit (BRT), but it would require a dedicated lane on the MacArthur Causeway, which is already carrying 50% more traffic during peak commuting periods than accepted norms. The BRT alternative would likely require an expensive widening of the causeway and its bridges. The fourth alternative is personal rapid transit (PRT), utilizing new-technology magnetic levitation to propel and control individual passenger pods designed for almost point-to-point travel for users. An experimental demonstrator system is being promoted by a company called Skytran based in Israel. At this time, no dedicated source of funding for any alternative has been identified. (***Miami Herald***, February 10)

Chicago, Illinois

With the coldest temperatures in nearly a generation gripping the entire upper Midwest, on Wednesday, January 30, Metra canceled all trains on its Metra Electric Line (the former Illinois Central electrified) serving University Park, South Chicago, and Blue Island, a day when temperatures dropped to -23ºF with a wind chill of -52ºF. All other Metra lines, powered by diesel locomotives, were limited to a maximum speed of 60 mph, standard Metra policy for operations in temperatures below -10ºF. Switch heaters using blown hot air, electric heaters, or open flame were utilized to keep the railroad operational. South Shore Line service, linking northwestern Indiana with Chicago, was also canceled for the day. *(Editor’s Note by Ronald Yee: It is suspected that the aging catenary on the Metra Electric and South Shore Lines, dating back over 70 years to the Illinois Central and Sam Insull-owned Chicago South Shore and South Bend Railroad days, may be too brittle for train pantographs to reliably ride under in the extreme cold. Unlike New York’s MTA Metro-North Railroad, which is now nearing completion of a catenary replacement project on its New Haven Line, Metra has not upgraded or replaced its catenary.)* (***Metro***, January 30)

Houston, Texas

Metropolitan Transit of Harris County, the operating agency of the Houston Metro, awarded Siemens a contract for 14 S-70 light rail vehicles (LRVs). They will add to the existing fleet of Siemens S-70 LRVs Houston

(Continued on page 12)

Commuter and Transit Notes

(Continued from page 11)

Metro already operates; 18 H-1 class (100-series car numbers that equipped the initial portion of the system in 2003) and 19 H-2 class (200-series car numbers as the Red Line was extended in 2012). This order will bring the Siemens portion of the car fleet to 51 cars. Houston Metro also operates 30 H-3 class (300-series car numbers) LRVs built by CAF USA in 2015 to cover the new Green and Purple Lines. The CAF cars were beset by multiple issues and faults which delayed their debut on Metro, stretching the Siemens H-1 and H-2 car fleets thin and causing system-wide car shortages during the first year of operation of the two new lines. *(Editor's Note by Ronald Yee: It could be assumed that this new class of cars will be designated as the H-4 class and probably will be numbered in the 400s.)* (***International Railway Journal***, February 5)

San Francisco, California

The Salesforce Transit Center, located in the South of Market district of San Francisco, will remain closed for at least another four months, until June. The two cracked beams supporting the structure over Fremont Street, as well as two identical beams over First Street, will require additional reinforcing steel in the form of two-inch-thick steel plates, each secured with 224 bolts. It has been determined that cutting holes into these girders most likely caused the "brittle fractures" discovered in September, 2018, six weeks after its opening in August, 2018. Over the weekend of February 2-3, 2019, temporary jacks supporting the section over First Street were to be replaced with more permanent supports. The jacks supporting the cracked beams over Fremont Street will remain until repairs are completed. Engineers are examining over 15,000 records and construction drawings to determine if any other beams are vulnerable to brittle fractures before any decision to reopen the facility. Until then, all bus operations will utilize the temporary terminal while the 71 year old Transbay Terminal was demolished and replaced. (***San Francisco Chronicle***, February 1)

BART's Transbay Tube survived the 1989 Loma Prieta earthquake unscathed, allowing train service to be restored just 12 hours after the quake struck. While the quake was centered 55 miles south of San Francisco, BART has sought to upgrade the tunnels to be capable of withstanding a stronger quake that occurs directly under the Bay Area. Thanks to Measure AA, approved by the voters of San Francisco, Contra Costa and Alameda counties in 2004, BART was allowed to issue bonds to fund up to $980 million of the $1.2 billion cost of upgrading the Transbay Tube to withstand the 1,000 year type of seismic event. BART has been performing upgrades to the tunnel structure, such as flexible seismic joints and structural upgrades, as phase one. Earthquake retrofit specialists developed seismic reinforcement measures, which were analyzed and tested at the University of California at Berkley as the program was refined and finalized. On February 11, BART was to begin phase two, installing these measures in the form of an inner steel lining at key sections of the 3.6-mile-long tube, attaching the curved liners to the existing tunnel walls with specialized grout and sealer at the seams. An enhanced pumping system capable of removing larger quantities of water than the previous systems were capable of will also be installed. The work will require nighttime single-tracking of Transbay services between 9:30 PM and 5 AM Sundays through Thursdays, limiting trains in each direction to a 24-minute headway. A custom-built, 800-foot-long Tier IV emissions-compliant locomotive will power a work train that will transport workers to and from the job site as well as perform the work in the tunnels. This work train is based at Hayward Shops, where it is stocked with the parts and equipment needed to perform that night's work, travel through Lake Merritt, and pick up the construction crews at West Oakland before proceeding into the Transbay Tube. While BART service commences prior to 5 AM, extending the construction window and limiting service to single-tube operation to 5 AM will extend the construction work window by 20%. Even so, the current scope of work will still require 3.5 years to complete. (BART press release, February 7)

Calgary, Alberta, Canada

The city of Calgary and the province of Alberta have signed a funding agreement that will allow for construction of the planned Green Line Light Rail project to begin.

The project will ultimately add 46 kilometers (28.5 miles) of light rail to the city's existing 59-kilometer (36.6-mile) light-rail network. The project will be built in stages with stage one connecting Calgary's Crescent Heights neighborhood to Shepard along 20 kilometers (12.4 miles) with 14 stations.

The provincial government explains that the agreement locks in C$3 billion (US$2.28 billion) in funding, with equal portions from the provincial and federal governments. The funding will flow over eight years to support stage one of the Green Line. In May, 2018, the federal government confirmed its commitment to provide C$1.53 billion (US$1.16 billion) to the project, which represented the largest investment in public transportation in Alberta's history. The total provincial contribution towards the Green Line is C$1.7 billion (US$1.29 billion).

The Green Line is made possible through provincial funding raised through the Climate Leadership Plan. The Calgary city government estimates that when stage one is complete, it will reduce CO_2 emissions by 30,000 metric tons. (***Mass Transit*** Magazine, January 31)

Firenze, Italy

Firenze tram Route T2 was opened at noon on February 11, ahead of the entry into passenger service at 2:30 PM, with rides on the route free for the first two weeks.

T2 runs from Piazza dell'Unità d'Italia in the city centre to Peretola Airport in the northwest, sharing a stop with

(Continued on page 13)

Commuter and Transit Notes

(Continued from page 12)

the existing east-west Route T1. The 13 stops on the 5.3-0kilometer route include a stop serving Belfiore high-speed railway station, which is under construction and due to open in 2022.

Construction started in November, 2011 but was delayed by the liquidation of some companies in the Tram di Firenze consortium that developed the project. The line was originally planned to open in June, 2014.

Hitachi Rail Italy supplied 22 five-section bidirectional 100% low-floor trams in November, 2016 to operate the route. Regular services require 13 vehicles, and peak frequencies are roughly ever five minutes. Future plans for route T2 to be extended. (***Metro Report International***, February 12)

Milano, Italy

Stadler Rail Valencia has been announced as low bidder for a contract to supply a new generation of 1,445 millimeter (meter) gauge trams to Milano public transport operator ATM.

Bids were opened on February 5 for a six-year framework agreement covering the supply of up to 80 vehicles at an estimated cost of €213 million. The package covers 50 cars for the urban network and 30 to work the two interurban routes to Desio and Limbiate, which are currently being refurbished. An initial build of 30 trams is expected to be called off immediately, with deliveries starting two years after contract signing.

Designated Tramlink S-3 Leo, the three-section vehicles would be around 25 meters long, with a low-floor center section, providing 22 fixed and 44 folding seats. There would be six sets of doors and wide gangways to facilitate rapid boarding and alighting. Unlike the majority of ATM's existing trams, the new vehicles would be bidirectional, avoiding the need to provide turning loops at the terminus of every route. (***Metro Report International***, February 6)

Innsbruck, Austria

Trams began serving the Olympisches Dorf area of Innsbruck on January 26, following a ceremonial opening of an extension the previous day.

The 4.3-kilometer branch between Leipziger Platz and Josef-Kerschbuamer-Strasse has 12 stops and is operated by Routes 2 and 5. It includes a new bridge over the River Inn, and has increased capacity by 40% compared with the bus route that previously served Olympisches Dorf.

The €290 million project cost was financed jointly by the city and the Land of Tirol. It forms part of the Regionalbahn project to expand the tram network. Further phases include a 1.2-kilometer branch from Schützenstrasse on the new line to Rum, and a 2.2-kilometer extension at the other end of the city from Technik West to Völs. Both of these are scheduled to open in 2021. (***Metro Report International***, January 28)

Warsaw, Poland

Tramwaje Warszawskie has selected Hyundai Rotem as preferred bidder to supply up to 213 low-floor trams, the operator announced on February 8. Hyundai Rotem beat Pesa and a consortium of Stadler and Solaris in the bid. Excluding taxes, the cost for the order is 1.9 billion zloty.

The base order is for 85 bidirectional and 18 unidirectional trams 33 meters long, as well as 20 unidirectional trams 24 meters long. There are options for a further 45 bidirectional and 45 unidirectional 33-meter trams. Deliveries are scheduled to begin 22 months after contract signature, with deliveries of the 123 trams from the base order due to be completed by the end of October, 2022. If the options are exercised, they would be delivered a year later.

The air-conditioned trams would be used on the existing network as well as on planned extensions. At present 59% of the TW fleet comprises low-floor vehicles. (***Metro Report International***, February 11)

Casablanca, Morocco

King Mohammed VI officially opened Casablanca's second tram line on January 23, with revenue service starting the following day.

Line T2 runs between Sidi Bernoussi and Aïn Diab. It has a total length of 22.5 kilometers, including 15 kilometers of new alignment and 7.5 kilometers of existing line between Anoual and Ain Diab which was previously operated as a branch of T1. There are 33 stops, including interchanges with T1 at Abdelmoumen-Anoual and Ibn Tachfine-Mdarka.

Construction began in January, 2016 and cost 3.8 billion dirhams, including the planting of more than 2,500 trees and the depot at Sidi Bernoussi. Engie Group supplied signaling, communications, CCTV, fire detection, and passenger information systems.

The network is operated and maintained by RATP Dev Services under a contract running for 12 years from December, 2017. T2 service runs every 6 minutes in the peaks and 9 minutes off-peak, with an end-to-end journey time of just over an hour. The line's initial fleet of 32 Alstom Citadis 302 trams operating in semi-permanently coupled pairs is to be gradually increased to a total of 50 trams in 25 pairs.

T1 has also been extended 1.8 kilometers from Facultes to Lissasfa at cost of 504m dirhams, taking it to 235 kilometers.

Two further lines are planned to open in 2022. T3 would run 14 kilometers from the Salmia district to the Casa-Port zone, and T4 would run 12 kilometers from Attacharouk to Mers Sultan.

Two bus rapid transit feeder routes are also proposed, with L1 to run 12 kilometers from Salmia to Lissasfa and L2 10 kilometers from Errahma to Boulevard Ghandi. (***Metro Report International***, January 25)

THREE ISLANDS OF ITALY
by Jack May
(Continued from February, 2019 issue)
(Photographs by the author, except where noted)

MONDAY, APRIL 4

Our flight to Catania was scheduled for 11:00 so we had a leisurely breakfast. The local transit system has a bus line to the Marco Polo Airport, while a private carrier, ATVO, runs an express bus from a terminal adjacent to the entrance of the light rail line's underground Stazione FS station. The fare is the same, so we opted for the express, and thus rolled our two carry-on bags for two blocks. We reached our destination at 8:30, joining a number of other people with luggage. The bus pulled in a few minutes later, and departed at 8:44 (8:45), about half full. The trip was scheduled for 16 minutes, but it took 19, which of course, was no problem. This would be the first time we would be flying on Volotea Airlines, a relatively-new low-cost Spanish carrier, whose ratings on the internet were not very high. Our only other choice would have been Alitalia, with a much higher fare and a stop at Rome, so we decided to take our chances.

As it happened the experience was quite favorable; we were handled very professionally at check-in, and the flight was pleasant in an almost full Boeing 717 plane. It was my first time aboard this aircraft model, which is relatively small, containing only 25 rows of 3-and-2 seating, somewhat like the Douglas DC-9 (eventually MD-80). I guess this is the successor. We were on the double side, and took a pass on purchasing beverages or snacks. The plane was parked on the tarmac and our bus left at 10:30. We began moving at 11:05 (00) and were in the air by 11:10. We hit the ground at 12:36, came to a halt at 12:40, and the bus delivered us to the terminal at this very small airport at 12:51 (45).

I had studied Catania's transit map on the organization's very difficult website, and found that bus line 457 would take us from the airport to a stop near the hotel — but no schedules were shown. The bus stop, however, was clearly marked and we did not have to wait long for the coach to arrive. We were half the bus load and the driver kindly let us know when he reached the appropriate stop, which turned out to be the first one on the route. It took us a little while to find the street on which our Bed & Breakfast was located, but soon we were ensconced in our room. For the most part, from now until the end of our trip, we'd be overnighting in B&Bs. Our accommodations were near a museum and church, so that occupied Clare for the rest of the afternoon, while I walked to the Avis office to make sure our car rental was in order for the following day, and then continued a short distance to the end of Catania's Metro, from which I planned to walk to pick up the car in about 24 hours. We found a nice place for dinner—ethnic food of course — we were in Sicily.

TUESDAY, APRIL 5

We had a busy day planned, the major event being a trip circling beautiful Mt. Etna, over the appropriately named Circumetnea Railway. But literally from the beginning we were plagued by mishaps. The first resulted in a late start, as the main staple of the breakfast was fresh bread, which did not arrive until about 7:30. We gobbled it down along with an ample amount of juice, fruit, and tea and by 8:00 had paid our bill, washed up, and left our luggage with the proprietors.

There are two ways you can circle Mt. Etna, either clockwise or counter-clockwise. The route of the 70-mile line is roughly in the shape of the letter “C,” with the center being the volcano and the right edge being the Mediterranean and the Trenitalia line paralleling it. I had figuratively tossed a coin and chose the latter direction. This meant we would be starting at Giarre, in a suburban area that is connected to Catania by Trenitalia regional and intercity rail service. We would end the journey at the Circumetnea's station in Catania, which is also the outer end of the Metro (operated by the same company), where we could catch a train to its inner terminal, near the Avis car rental office. Our plan was to ride the 8:41 train from Centrale to Giarre and then walk to the adjacent narrow-gauge station. Thus we now had to hurry, and instead of riding a transit bus, used a taxi, which turned out to be a five-minute ride, as road traffic was very light in that direction. As it turned out, our train, an intercity to Rome (ultimately carried aboard the Messina-San Giavonni ferry) was ten minutes late, so we ended up having to wait. We duly arrived at 9:12 (9:02), and now we really had to hustle to catch our 9:15 train. But not to worry, when we arrived at the narrow-gauge line's station at 9:16 there were a bunch of people waiting. However, as it turned out, "not to worry" was premature. The rails were rusty. I had a timetable for the line that I printed at home from the internet, while the other people, 10 German tourists, had the schedule on their phones.

We did not give up until about 10:00, when we walked back to the mainline station. I do not know what happened to the tourists; they were trying to reach the railway with their smartphones as we returned to the Trenitalia station. I checked with the ticket agent and other locals, but nobody spoke English, although I heard the dreaded word "bus." Anyway we rode the 10:14 suburban train and arrived back again at Centrale at 10:56 (50). So not wanting to write off the day, I suggested we ride the Metro to its end outer end at Borgo, and see if we would be able to find out what was going on.

I commented about the standard-gauge Catania Metro before, after having ridden it as part of our Eurocruise,

(Continued on page 15)

Three Islands of Italy

(Continued from page 14)

on a side trip between Palermo and Naples. This disgusting line had not changed, at least not for the better. The rolling stock is still covered by unending graffiti, but worse, the four underground stations, which were clean two years ago, now have their fair share of the obnoxious symbols. Service still runs every 15 minutes, along the single track at ground level from Porto to Centrale, and then double-track underground to Borgo. The virtually empty train came in shortly after we arrived at the short makeshift platform at the far end of the railway station. We were unable to find a working ticket vending machine, so we rode free through the intermediate stations and somehow made our way out of the terminal where there were fare gates.

After conquering the stairs we easily found the terminal of the Circumetnea. The train schedule posted next to the ticket agent's window was the same as I the one I printed. I asked for two tickets for Giarre and was sold paper credit card receipt-like coupons with the only comment (rattled off in Italian), being "change at Randazzo." The person on the line behind me spoke English so she told me what he had said, which was consistent with the timetable. A single DMU railcar was sitting at the platform, presumably the 11:26 to Randazzo that we were going to ride. It was now 11:10 and the timetable indicated a train was due in one minute. So I waited to get a photo of it entering the depot area, but finally gave up at 11:20, joining Clare aboard the DMU. Of course, Murphy's Law was in effect and it arrived at 11:21. I quickly ran out of our train and got a less desirable photo.

The 70-mile-long 950-millimeter-gauge line was opened in segments from 1895 to 1898. The fare for riding the entire line is €7.90, quite a bargain. The best running time, including a quick transfer at Randazzo, is a little over three hours. As you can imagine it is not a high-speed operation, but because of its grades and curves, and plenty of stops (37), its average speed of under 30 mph can easily be explained. And besides, tourists want to look at the scenery anyway. The line originally ran to the Port, but it was cut back to Borgo, being ostensibly replaced by the underground Metro in 1999.

Rather than describing the scenery myself, I will reprint the words from a Sicilian tourist site: "The railway line surely represents one of the best ways to admire the majestic shape of the volcano and the beautiful landscapes surrounding it. The landscape is rugged and wild, made up of lava fields dating back to various ages, and just after the station of Bronte a spectacular group of lava flows opens to view. Soon the railway reaches the highest point at Maletto, from which you can enjoy a fantastic view of the craters lying on the summit. In Randazzo you will change trains, and from this point the landscape becomes sweeter, with vineyards and orange plantations, with the first villas of the Alcantara valley in sight." Of course this is a slight exaggeration, but you get the idea. The map on page 17 is taken from that website and shows the string of villages along the route. The timetable is available at http://www.circumetnea.it/linee_orari_ferrovia/orario%20settembre%20%202018.pdf.

We pulled out on the advertised, and operated over single track, but soon stopped at a passing siding to wait for our opposite number. There were several such stops, and I was able to follow the Conductor off the train, which permitted me to get photos of passing DMUs. We soon entered a subway tunnel, and stopped at a number of attractive stations. While the patronage was weak on leaving the terminal, these stops had plenty of boarding passengers, and soon there was a great deal of local on-and-off traffic, mainly students and pensioners, which kept the Conductor busy. There were three sections of subway, through Licodia, Biancavilla, and Adrano. I finally figured out what the long-term plans of the company are, with the help of an Italian website, which I had Google translate.

Apparently the first phase calls for the standard-gauge double-track Metro to be extended underground about 12 miles to Paterno, replacing the 950-millimeter-gauge line (there are also plans to extend it in the other direction to the airport). The second will involve the widening of the existing line to standard gauge for an additional 31 miles, from Paterno to Randazzo. Much of that section has already been modernized and now contains underground portions. The question of course, is when will this happen.

After Adrano (12:30) we emerged from the last section of subway and began climbing earnestly into some attractive scenery, all dominated on one side by Mt. Etna. As we passed through Bronte and Malleto we began encountering black lava strewn on both sides of the track. Etna has seen nine major eruptions since the beginning of the 21st Century, the latest in August, 2016. The plume of ash released from the crater forced the closing of Catania Airport on several occasions. The last time the railroad suspended operations because of volcanic activity was in 1928. Naturally our cameras were busy. My photos are displayed below, but first they are preceded by two views from a Sicilian tourist site. These are superior to mine, which were mostly taken at stations on this hazy day. These two photos effectively show the grade and a snow-covered Mt. Etna.

We arrived at Randazzo at 13:22, where we were supposed to change to another railcar. Because of the tight connection I hopped off immediately to take photos of both trains, as they were posed in the sun. Clare followed me, and stood in the shade of the station building. After snapping a few slides, I noticed that the operator of the two-car train we had planned to ride had entered the cab in the direction pointing back to Catania. I quickly asked the uniformed Stationmaster adjacent to the station building about that and was told that our railcar would be going through, while the other train would head to Catania. Apparently our Conductor was waiting for us to get back aboard, because as soon as we en-

(Continued on page 16)

Three Islands of Italy

(Continued from page 15)

tered the vestibule, he gave the two-note signal to proceed.

Once back aboard, we began speaking to a young German couple with a baby seated opposite us, who happened to be spending their vacation camping on the mountain. They were taking a day off from their hiking to ride the train and view the scenery. We continued to ride with them as the train descended past orange and lemon trees and fields of olive and fig plants. Upon our arrival at Linguaglossa at 14:00, a half hour short of Giarre, it was "all off, transfer to buses." We boarded the motor coach, while our new friends waited to return on the railcar, which was scheduled to leave at 14:45. Our bus operated downhill from village to village, stopping in town centers as well as near the railway stations, losing more and more time (with respect to the rail timetable).

We finally reached Giarre at 14:50 (14:29), thereby missing the 14:48 Trenitalia run back to Catania. At least we found out that this section of the line was not abandoned, but instead had suffered a washout in February and was still being rebuilt. We rode the next train, which left at 15:11 (09) and arrived at Catania Centrale at 15:40 (36). It consisted of EMUs, as opposed to the locomotive-powered push-pull trains we saw more often on the line. After changing platforms, a graffiti-covered Metro train arrived quickly and we rode one stop to the Port terminal, arriving at about 15:50.

In summary, we did get to ride the beautiful Circumetnea, but in the clockwise direction, with the volcano on our right instead of left. Our original plan was to have lunch in Randazzo and then take a train that would have gotten us to Borgo at 14:20 with a probable arrival at the Port at about 14:45. So after walking to the Avis office, we ended up getting our car one hour later than planned, not that bad considering all of the logistics and extra travel we had to contend with. Our car was a Ford 500X, and having gotten a preview of the narrow and twisting streets of Sicily on our bus ride we sprang for a GPS. We first drove to our B&B to pick up our luggage. We had told the proprietors we would be there an hour earlier, and fortunately they waited for us and answered the doorbell promptly. After loading the car we said our goodbyes and at 16:30 headed to the town of Piazza Amerina, some 60 miles away.

With virtually no traffic and the help of the GPS we found our B&B easily, arriving at 17:45. It was the second of a series of Bed & Breakfast accommodations that were excellent — in every way. But the Kimera here was by far the best, beautifully decorated, with the largest sleeping quarters, the most comfortable bed, and the finest breakfast. Rita, the exceptionally charming innkeeper, could not have been more hospitable, and after explaining that the nearby restaurant was closed, drove us to another one she highly recommended, and even arranged for the proprietor to drive us back through the town's narrow hilly streets. Of course it was an outstanding meal. We stayed in Pizza Amerina because it is very close to a Roman archeological site, and we had a long list of attractions we wanted to visit on the following day.

(Editor's Note: The reports of the activities that took place on the next two days had very little transit content so we are condensing them and appending them to this installment instead of having them appear separately. With regard to last month's description of the Trieste-Opicina tramway and funicular, soon after Jack's visit two trams collided head-on in August, 2016 and service was suspended. It is expected to resume in 2020.)

WEDNESDAY, APRIL 6

This day was spent without any rail activity, at least until we were ensconced in our hotel in Agrigento for the evening — but we did see two important UNESCO World Heritage attractions. We did not have to travel far to reach Villa Romana del Casale, a beautifully preserved archeological site that mainly consists of colorful mosaics dating from the beginning of the 4th century A.D. After spending the morning there we headed for the Valley of Temples outside of Agrigento, some 60 miles away. Apparently it was built by the Greeks in the 6th century B.C. and contains three "main attractions" that have been preserved to display their impressive dimensions and Doric pillars. We also visited the nearby Agrigento Archeology Museum later in the afternoon.

Our accommodations were now close by and easy to find, as all we had to do was follow signs for the Agrigento railroad station, which housed our B&B. We had a great modern air-conditioned room with an excellent view over the station's tracks and platforms. Agrigento is a railhead with a stub-end station, and several trains of electric multiple unit cars tied up for the evening below our window. Service operates to Palermo and Caltanissetta (where connections are made for Siracusa, Catania, Messina and everywhere else).

The town is lovely, perched on a terraced hill. After a short nap we went out and enjoyed excellent dinners. We retired early after a very busy day.

THURSDAY, APRIL 7

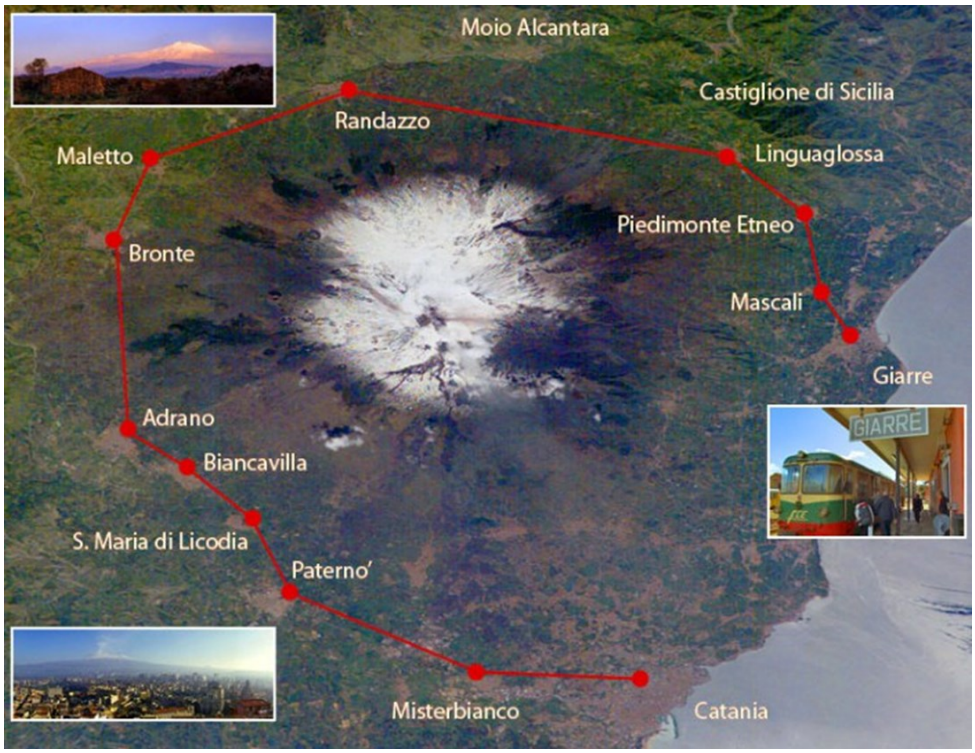
After breakfast we left for Palermo. According to plan we stopped at the Monreale Cathedral, an important tourist site, not far from our ultimate destination in Sicily. The cathedral was built in the 12th century and is especially noted for its Norman architecture and exhibits.

From there it was a hop, skip, and jump to another great B&B accommodation. We were housed in a pedestrian precinct of the old city, and had to roll our bags to the building, where we were enthusiastically welcomed. We then drove to Avis, dropped the car, and taxied back. Our hosts, Mauro and Antonella, provided a fantastic setting, plus two excellent breakfasts, cooking our eggs to order to accompany the juice, fruit, cereal, toast, pastries, and tea. They also gave us terrific advice on nearby neighborhood-style (as opposed to tourist-oriented) restaurants, and we had superb meals on both nights.

(Continued on page 17)

Three Islands of Italy

(Continued from page 16)



Map from www.circumetnea.it.

Two views of car ALn56-06, which was built in 1937 and apparently was the first of a series of Fiat-built DMUs that began the conversion of the railway from steam-propelled trains to railcars. I suspect the unit, which has been preserved by the operator, Ferrovia Circumetnea, was being used on a photo charter.
Photos from Unusual Places website

(Continued on page 18)

Three Islands of Italy

(Continued from page 19)

Left: An outbound push-pull regional train at Giarre, some 20 miles north of Catania. The Circumetnea's station is just a hop, skip, and jump from Trenitalia's.

The Ferrovia Circumetnea's Borgo terminal in Catania. The left photo shows a class ADe 21-25 railcar about to head into the yards just after discharging passengers subsequent to its arrival from suburban Adrano Nord at 11:21. This type of DMU, built by ITIN in 1991, was the FCE's newest until deliveries of NEWAG "Vulcano" railcars began in 2015 — I saw no sign of those on my journey. Note the montage of views of the railway posted above the headquarters of the company. The right photo is a close up of two of the scenes, showing that the FCE runs in all seasons.

Our outbound class ADe 11-20 railcar pauses at the Adrano Nord station, waiting for a similar unit heading for Catania to pass. These DMUs were built by Stanga in 1980 and constitute the Circumetnea's largest group of rolling stock. Note that the track area in this attractive modern station is sufficiently wide to allow for the line's eventual conversion to standard gauge.

A hazy view of Mt. Etna, as seen from the train window near Gurrida. Note the black lava from volcanic eruptions in the foreground.

(Continued on page 19)

Three Islands of Italy

(Continued from page 18)

Randazzo station, where we were supposed to transfer from our outbound DMU, shown in the left photo, to another railcar. The RALn 64 unit shown at right heads a two-car train about to leave for Catania. No. 02 is one of six diesel mechanical DMUs built by Fiat in 1979; all of the other railcars on the Circumetnea's roster are diesel-electric.

Linguaglossa station, the last stop for railcar 18 on its journey from Catania. We changed here for a bus to complete the circumnavigation of Mt. Etna, as a washout prevented continuing to Giarre on the rail line.

Right: The view from our hotel window. Alstom delivered the first of this series of emus for Trenitalia in 2014. They are called Minuetto, but are actually part of the manufacturer's Coradia line of railcars, which includes units built for Germany, the Netherlands and Denmark under the acronym LINT, which in German means *Leichter Innovativer Nahverkehrstriebwagen* (railcar for light and innovative local transport).

(Continued next issue)

LIRR Main Line Third Track project continues moving forward. Looking east from the center platform of Floral Park station (east of Tulip Avenue) on 2/9/2019. This is the modification of the viaduct for the third track, which will include new bridges over South Tyson Avenue (the bridge in the near distance) and Plainfield Avenue (beyond the substation in the distance).
Jeffrey Erlitz photograph