May 2017

electric transit vehicles are moving forward!! - A major meeting with a major manufacturer will take place this

### IN THIS ISSUE:

### **CURRENT EVENTS .....**

Remember Harriet, the Tunnel Boring Machine?.....She Retired! by A.J. Staley Custom Traxx About to Release Two New Decal Sets!
Urban Commuter / Light Rail / Modern Streetcar News! by Edward Havens
Trolleys on the Isle of Man by A.J. Staley
More Urban Rail Happenings!

### **MODELING INFORMATION ......**

Models for the East Penn Traction Club Meet in Allentown, PA! by Volkmar Meier

### CURRENT EVENTS.....

# Remember Harriet, the Tunnel Boring Machine?? She Retired!

By A.J. Staley

The LA Metro's Crenshaw/LAX line, which began construction in early 2014, is approximately 60 % complete and Harriet the underground Tunnel Boring Machine (TMB) has retired. Her work has been completed on the double tunnels that she was boring.



Harriet the Tunnel Boring Machine ready to retire-front view!



Close-up view of the back of the cutting head!

Harriet's retirement party was on April 21, 2017. The retirement ceremony featured brief remarks by Metro leadership including Board Chair John Fasana, County Supervisor Mark Ridley-Thomas, Board Member Jacquelyn Dupont-Walker, CEO Phil Washington and contractor representative Peter Shea who are all pictured below.



 ${\bf John\ Fasana, Mark\ Ridley-Thomas, Jacquelyn\ Dupont-Walker, Phil\ Washington, and\ Peter\ Shea.}$ 

Phil Washington stressed the importance of this major transportation infrastructure project, improving lives now through creating middle class jobs, and later through improved mobility helping South Los Angeles access education and jobs.

Harriet began tunneling at Expo/Crenshaw on April 26, 2016 and completed the first tunnel on October 20, 2016. She was then shipped back to Expo/Crenshaw, and dug the second tunnel from November 29, 2016, through April 6, 2017. She dug two tunnels each 1 mile long. The TBM tunneled at a rate of roughly 60 feet per day. The Tunnel Boring Machine parts are worn out and although Harriet made it through with flying colors, she now needs to rest for a while.



Worn out part - close view of one worn cutter head element!

Despite some construction delays, including heavy winter rains, the Crenshaw/LAX line is expected to open to the public in the Fall of 2019.



Looking north from the Crenshaw Line Liemert Park Station!



Looking south from the Crenshaw Line Liemert Park Station!

Congratulations on all your hard work underground, Harriet!

Custom Traxx will be concentrating their future decal efforts in two areas and in two modeling scales.

They have now have taken the business posture that in the near future, some entrepreneur will be making models of current light rail and modern streetears operating in the United States. Today's urban travelers, especially college students are learning something that older travelers have long forgotten, the cost and inconvenience of excessive use of an automobile in the urban environment. As these people invade the marketplace, they will make their desires know to the current group of model railroad manufactures or after some of them are out of business, others, most likely recent additions to the American business climate, will be making these models.

While some models may be injection molded and finished, there will be some that will only be available as shells done in either resin or from 3D printing programs using Shapeways or other 3D printing sources. They have been testing both types for years and in most cases find the models to be excellent in most cases. So they will be making decals of the modern Light Rail Vehicles and modern streetcars.

Since they have been testing the models of the San Diego S70 LRV in both HO and N scales, this month they will be releasing decal sets for those cars in both HO sand N scales. Prices will be announced at the East Penn Traction Club (EPTC) meet in Allentown, Pa on May 19-20, 2017 and the decals will be available at that meet. The HO scale set will be cataloged as CN-2052 and the N scale version as NN-2052. Also an announcement about the availability of the S70 models may also be made at that same EPTC event.



One of Custom Traxx' 3D printed HO scale Siemens S70 models!



LAMTA 3002 at Vernon Yard After abandonment!

Although their numbers continue to diminish, there are still a sizeable group of modelers who still build, paint and finish their rolling stock. So the second thrust of Custom Traxx will be creating decal sets for "unique" electric railway vehicles. Some of these were one-of-a kind historic vehicles that may have been around for a very short time.

In line with this policy, the second decal set to be released this month in both HO (CN-3002) and (NN-3002) scale will be for the Los Angeles Metropolitan Transportation Authority (LAMTA) PCC 3002 which became the "Crying Trolley" in early 1963 with the statement "GoodBye Forever-Ole Sweethearts and Pals". Since PCC 3001, the first PCC car in Los Angeles, had already been leased to a museum, Car 3002 was chosen for this honor. However, it was not saved. It went to Cairo, Egypt with most of its sisters. This set can be used on the current 3D printed PCC shells or some of the shells made in resin in the past. These decals will also be initially available at the EPTC event.

Both of these decals sets were printed by Microscale Industries, Inc of Fountain Valley, CA. The initial price of both of these decal sets will be a pleasant surprise to users.

As you may have surmised, Custom Traxx will be making future electric railway vehicle decal sets in both HO and N scale. They will also be adding N scale parts and other items as they become available! Stay tuned!

## Urban Commuter, Light Rail / Modern Streetcar News!

by Edward Havens

The Federal Transit Administration has approved the plan by Massachusetts Bay Transportation Authority to extend its Boston-based Green Line light rail system westward from Lechmere loop to Somerville and Medford. The federal contribution will be \$1 billion toward the overall cost of \$2.3 billion, the "metro dot u.s." site reported April 4. Construction of the 4.7-mile extension could start this fall. Federal statistics show the Green Line network is the nation's busiest LRT system and the extension could double rider ship.



Boston Breda Type 8 3800 in train with NipponSharyo Type 7 companion!

Welding of steel "T" rail for the downtown Milwaukee modern streetcar line in Wisconsin's largest city began in early April, KITI television reported April 5 Track laying was set to begin by mid-April.



The car line is set to open in 2018 with a wire-free branch to the Couture high-rise real estate development along the lakefront beginning service in 2019. Welding crews were taking 80-foot sections of rail and welding them into 320-foot lengths for installation in streets. Meanwhile, Milwaukee Business Journal reported five companies submitted bids by the April 4 deadline to operate and maintain the streetcar network. The first streetcar is being built by Brookville Equipment Corp in Pennsylvania and should arrive by the end of the year. Right now the contract calls for 4 but there could be as many as 24 eventually.

Kansas City Star reported April 5 that the western Missouri city is gearing up for an election to expand the two-mile modern streetcar line. Regional Transit Alliance, a citizens group, propose sending streetcars south to the University of Missouri-Kansas City campus. It will be one of three streetcar-related initiatives on the ballot. Clay Chastain is back with another light rail plan funded by local taxes and another citizens group wants voter to restrict streetcar expansion -- requiring a citywide referendum on any proposal approved by the city.



KC streetcar 803 crossing East 20th Street!

Denver Regional Transportation District is expanding its light rail system southward to handle an expected doubling of population at suburban Lone Tree, KDVR television reported April 5. The suburban community is expected to have 31,000 residents by 2035. Work already has begun on the 2.5-mile extension southward from the existing Lincoln Avenue terminal.



Philadelphia-based Southeastern Pennsylvania Transportation Authority is resisting a petition to abolish fees for transfers between buses, trackless trolleys, streetcars and rapid transit subway-elevated services, the "plan philly" site reported April 7.



SEPTA Kawasaki Streetcar 9107 westbound on Route 34-Baltimore Avenue!

Fifth Square, an urban political action committee, circulated a petition asking SEPTA to eliminate the \$1 transfer fee. SEPTA Deputy General Manager Richard Burnfield said the agency is not prepared just yet to make major changes in its fare structure but is willing to study the transfer fee. SEPTA processed 12 million paper transfers last year, accounting for 2.5 percent of passenger revenues. Fifth Square claims the fee forces some riders to take longer journeys on a single line rather than transfer to another mode and pay the transfer fee.

A plan was to be submitted by North Carolina's Durham and Orange counties to the Federal Transit Administration by April 30 for local funding of a proposed 17-mile light rail line to connect Durham and Chapel Hill in the "Triangle" metro area, the "news & observer" site reported.



Federal approval is required to enter the engineering phase of the LRT project which is based on receiving 50 percent of its funding from FTA. The newest financial plan assumes \$1.9 billion from the two counties and \$239 million from the state but the Legislature's contribution won't be finalized until June 30. Construction cost would be \$2.4 billion but the overall cost including interest on debt is targeted at \$3.3 billion.

The University of North Carolina-Charlotte has produced an aerial video showing how the Charlotte Area Transit System 9.3-mile, \$1.1 billion light rail extension will be routed from Uptown to the campus, The Charlotte Observer reported April 15. This system began operating in November 2007. Their first generation streetcar system was disbanded in 1938.



One of CATS original 16 Siemens S70 Partial Low Floor Light Rail Vehicles!

The opening of the LRT line has been delayed from August 2017 until March 2018. It will be a 22-minute ride from the campus to Uptown and the extension is expected to serve 25,000 daily riders.

Phoenix-based Valley Metro asked the City Council of Arizona's state capital city for \$50 million to help build the South Central Avenue light rail branch, KJZZ public radio reported April 15. Phoenix' ValleyMetro Rail [Metro] egan operation on December 2008. Their first generation streetcar system was abandoned in 1948 after a disastrous car-barn fire occurred in mid-dar while most of the equipment was in the facility.



Two of Valley Metro Rail's 50 KinkiSharyo Light Rail Vehicles

The council was due to vote on the request April 19. If built, the branch will head south from downtown Phoenix to a predominately minority- and low-income area surrounding Baseline Road at the southern edge of the city. The total cost of the project is \$704 million with federal funds expected to cover part of it. The design phase will last two years.

The new mayor of Baton Rouge, the state capital city of Louisiana, asked the regional planning organization for \$500,000 to help plan a proposed modern streetcar line, "the advocate dot com" site reported April 14. The car line would link downtown with the Louisiana State University campus. HNTB consulting would do the preliminary design work. See map of route at

An application is expected to be submitted in September for federal funding to help build the \$170 million route. Mayor Sharon Broome sees the car line as the backbone for area transit projects but the proposed federal budget of President Donald Trump calls for a reduction of money for transit so the future at Baton Rouge is a bit uncertain.

The last streetcar ran in Baton Rouge on April 23, 1936 when the City Belt Line operated by the Baton Rouge Electric Company [BRECO] was replaced by busses.



The Houston Chronicle reported April 12 that the Harris County Metro transit system is making a safety push to minimize accidents involving its light rail network and pedestrians, motorists and bicyclists. Between October 1 and February 28 there were 49 rail-related accidents and that stems from LRT system expansion. Houston currently operates 18 Siemens S70 vehicles obtained in 2003, series 101 to 118; 19 additional S70 vehicles obtained in 2012, series 201-219 and 30 CAF Urbos, series 301-330, which began operation in 2015.







Metro Car 219 and mate!

Metro Car 301 and mate!

The original seven miles of track now totals 23 miles with a north-south spine and two branch LRT routes to the east an southeast. The agency has released several safety videos, placed more warning signs at crossings and applied reflective tape to LRVs to make them more visible.

A public open house was scheduled for April 19 by the Phoenix suburban city of Tempe to discuss and get input on design features for it planned modern streetcar line, the "progressive railroading dot com" site reported April 12. Construction of the \$186 million car line could begin later this year. Stacy and Witbeck Inc. has been named construction manager for the project which is due to open for public service in 2020. it would be Arizona's second modern streetcar system following Tucson in the southern part of the state which opened a 3.9-mile, \$196 million car line in July 2014.



Artists rendering of Tempe Streetcar based on United Streetcar design!

Voters likely will decide the future of a proposed modern streetcar line at Omaha, KMTV television reported April 9. The mayor of the Nebraska city, Jean Stothert, want to place a referendum on the November 2018 ballot, asking the electorate whether the city should spend up to \$30 million on bonds to help fund the car line. The Midwestern city had a first generational street railway system until 1955.



### Trolleys on the Isle of Man!

\*\*\*

The Isle of Man is an island of about 266 square miles that is located between Ireland and Scotland. At one time, it was part of Scotland but was divested in 1399 and became a self-governing Crown dependency. The people who live on the island are referred to as Manx people and are a historic mix of early Viking and Celtic people. Their language is English and Manx Gaelic.

The Isle of Man's location made it an ideal location for trade and because of this the Manx people were one of the very few people that could speak all dialects of Gaelic for Ireland, Scotland, Wales, Brittany and the Outer Hebrides providing them with outstanding trading opportunities.

In the 1840-1850's many Manx people migrated to the United States, settling the area of East Cleveland, Ohio. People with names beginning with a Q, like Quale, Quilliam, Quiggin, and Quick are descendants of Manx people. Former Vice-President Dan Quale was a descendant of his great-grandfather Robert Quale who was born in Douglas, Isle of Man in 1853.

One of the visual symbols of the Isle of Man is the famous Manx cat easily recognized by its lack of a tail. Today the Isle of Man is well known for its very picturesque postage stamps, which are sought after by many stamp collectors. But its main claim to current fame is the annual TT motorcycle races held in May every year.



TT Motorcycle Race in progress!

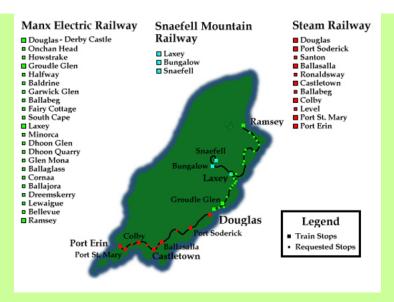
The races are held on public roads with speeds approaching 200mph with a never-ending series of bends, bumps, jumps, stone walls, manhole covers, telegraph poles, through villages, very picturesque country side and along beautiful shore lines. The races are well known throughout the world.

The island has a steam railway between Douglas and Port Erin but its most favored attraction is the Manx Electric Railway (MER) an electric interurban tramway that connects the towns of Douglas, Laxey and Ramsey. It connects with the Douglas Bay Horse tramway at its southern terminus at Derby Castle at the northern end of the promenade in Douglas. it hugs the Isle of Man's Irish Sea east coastline for much of its trek, twisting around tight curves and climbing steep gradients as mile upon mile of stunning scenery drift past. It is largely segregated from road traffic, running on double track on roadside reservation or private right-of-way. Many visitors take excursions on the trams.



Typical view from the railway while traveling through the countryside!

The first phase of the of the Manx Electric Railway was built as part of a real estate venture by the Douglas Bay Estates Ltd., and was financed by the local prominent bank Dumbells Bank of Douglas. It was going to be only two miles long from a point in Douglas to Groudle Glen which was under construction. However, while under construction, it was decided to extend the line an additional 5 miles to the mining village of Laxey. Derby Castle is the site of the line's important Douglas terminal. Unfortunately, it is a mile and a half short of Douglas's city center and its important boat dock, Victoria Pier.



The first section of the MER opened on September 7, 1893 and was built as a narrow gage with rail being only 3 feet (914mm) wide. The second phase was built and extended to Ramsey. The total line is now 17-3/4 miles long.



Isle of Man Derby Castle Terminus II around 1900!



Isle of Man Derby Castle Terminus II in 1938!

The trams are electrified using overhead line at 550 volts' direct current. Initially the trams used pairs of Hopkinson bow collectors (still used on the Snaefell Mountain Railway, owing to its dependability in strong winds on the mountains) but by the turn of the 20th century they were fitted with trolley poles. Originally the electricity was generated by the railway's own power stations, now it is supplied by the island's Manx Electricity Authority grid. At the time of opening the first phase, it had 3 trams and 6 open cross-bench trailers that would seat 44 passengers. Between 1893 and 1906 additional purchases were made of trams and trailers and by 1910 there was a total of 24 trams and the same number of trailers.



Car Barn Line-up at Laxey showing cars closed cars 5 and 6, open cars 16, 18 and 32!



Trailer #49 shown at the Derby Castle Car Barn!

To say that MER is unique is an understatement, two of the three original cars that opened the line in 1893 are still in use. Cars number 1 and 2 hold a place in the "Guinness Book of World Records" as the world's oldest operating electric cars. but are not operated daily.



Car #1, built in 1893 and still serviceable!



Car #2, also built in 1893 and also still serviceable!



Car 7 with unknown trailer!



Car 7 with another trailer lettered for Manx Electric Railway heading toward Ramsay by the sea!

Except for the Winter Saloon (closed car) car number 22, which was completely rebuilt following a fire in 1992, the MER operates all its original rolling stock. In 1930, some stock was lost in a disastrous fire at Laxey, but other than this all the original stock remains. At the time of the 1930 fire, 4 cars were replaced and several trailers. The line also has a Lisbon tramway equipment purchased in 1999, but they have never seen use on the line due to clearance difficulties.

The design pre-dates any consensus on design and they have distinctive boxy bodies, and Manx Electric Railway has retained that style. Most services are operated with a motor car towing a single trailer. Although most cars are built to haul two trailers, this has not been a common practice. It is not uncommon to see cars haling a box van for freight and, until 1975, a mail van. In September 1975, the line was closed between Laxey and Ramsey and the contract with the Post Office was lost. But in 1977 the line to Ramsey was reopened.

While the MER has three main terminals at Douglas and Ramsay, there are several intermediate railway stations at Groudle Glen, Laxey, Dhoon Glen, Cornaa and Ballaglass Glen which are shown in timetables. The official stopping points usually have a basic waiting shelter (more recent additions have been modern bus shelters), and there are "unofficial" stopping points that sometimes have "request stop" notices but not nameboards or other passenger facilities. Several in the more rural areas have the name of the nearby farm or farmer; these are most prevalent in the northern section with names such as Rome's Crossing, Watson's Crossing and Dhoon Farm, but none of these have carried its name. Some stopping points are known by their nearest pole number which are number 1 to 1904 from Derby Castle to Ramsey. Trams stop within reason at any point where it is safe to do so, except where the line runs parallel to a main road. These sections were originally toll roads, built at the same time as the line.

Adding further to MER's uniqueness is the that many of the line's Douglas (the capital of Isle of Man) riders use the Douglas Horse Tramway to connect with the company's electric cars. The Douglas Horse Tramway operates a 1.6 mile 3-foot gauge double-track from the MER's Derby Castle terminal to the City Center/Sea Terminal. It runs along Douglas's Sea-front Promenade. The horse tram is owned by The Douglas Corporation and has operated since 1876, except during the war years, whereas Manx Electric is owned by the Manx government. The trams have always operated year-round, the winter service is much less frequent than in summer, and has been intermittently dropped from schedules in recent years to allow substantial investment in infrastructure including relaying longer stretches of track.



Douglas Horse Tramway!

Manx Electric Railway through the years has had their share of closures for various reasons, and re-openings. Some of these have been due to updates of rail, minor collisions, and as late as 2012 about 70 meters of copper overhead wire was stolen sometime between January and February that year. The police did recover the stolen material. In July 2015, trailer 58 suffered a serious derailment on a relatively new crossover just north of Laxey station, toppling onto its side.

The Isle of Man also has three other Victoria-era railway systems beside the Manx Electric Railway and the Douglas Horse tram. At Laxey, the MER connects with a three foot 6-inch gauge electrically powered Snaefell Mountain Railway, which travels up the Mountain for which it is named and stops about 46 feet below the summit of 2,036 feet high. A steam rail service owned by the Isle of Man Railway runs from Douglas southwest to Port Erin and it is 15.37-miles longs. The line began on August 1, 1874 and it is powered by five historic Beyer, Peacock 2-4-0 tank locomotives which are still working and in service. The Groudle Glen Railway which runs some two miles north of Douglas and is a two-foot gauge, steam powered line runs between Derby Castle, Douglas and Groudle Glen.

For a small island that is quite a bit of rail and easy to get around all while enjoying the beautiful scenery.

### More Urban Rail Happenings!

\*\*\*

ATLANTA, GA - On March 30, 2017, a massive fire underneath a freeway viaduct was "maliciously set" by a group of three individuals underneath 1-85 in Atlanta, Georgia, resulted in the bridge's collapse, stranding motorists for miles during rush hour traffic. The area of the collapse is along SR 237 (Piedmont Road) in the Piedmont Heights neighborhood north of Midtown Atlanta Mayor Kasim Reed described the situation as a "transportation crisis" that could take days or weeks to resolve and Georgia Governor Nathan Deal declared a state of emergency. The fire started at approximately 6:15 p.m. in a state-owned storage area under the highway bridge, which contained high-density polyethylene (HDPE) pipes. The heat from the fire caused the collapse of a 100-foot (30 m) section of 1-85 northbound at about 7:00 p.m. Fire crews had the blaze under control by about 8:00 p.m.





The Metropolitan Atlanta Rapid Transit Authority (MARTA) operates four heavy rail lines, known as the RED, GOLD, BLUE and GREEN. The Red and Gold Lines are mainly north-south while the Blue and Green lines run east and west. As the location of the incident is in the proximity of both the RED and GOLD heavy rail lines, the (MARTA) reported that rider ship on the their system soared 25 percent on the Friday following the incident, according to MARTA General Manager and Chief Executive Officer Keith Parker and reported by Progressive Railroading. Sales of MARTA's Breeze fare payment cards soared 80 percent, according to Parker's Twitter account. After the section of the freeway collapsed on northbound I-85, MARTA increased rail services to accommodate commuters looking for alternatives to driving. Specifically, MARTA increased the frequency of trains at the Five Points station to every five minutes and to every seven minutes on the Red Line, The Atlanta Journal-Constitution reported.



MARTA operates three classes of vehicles, the majority of which are married pairs. The oldest are the 118 CQ310 class cars built in 1979-1982 by Societe Franco-Beige, series 101-200 and 501-520; Cars 501-520 are the only single units on the system. 120 CQ311 class cars, built in 1984-1987 by AnsaldoBreda (now Hitachi), series 201-320, and the latest CQ312 class, built in 2001-2005 by AnsaldoBreda, series 601-702.



All of the active class CQ310 and CQ311 cars were renovated by Alstom between 2006 and 2009.



Riders at MARTA's Sandy Springs Station!

CALIFORNIA & ILLINOIS - By April 30, Siemens' new Charger locomotives were to begin a 30-day revenue testing period on California's Capitol Corridor passenger route. The units meet Tier IV emissions standards and can operate at speeds up to 125 mph.

Six locomotives have been ordered for Northern California. Once testing is completed, the Chargers will begin service on the Capitol Corridor and San Joaquin routes, Siemens officials said in a press release. The units are part of a larger multistate order from transportation departments in California (Caltrans), Illinois, Washington and Maryland.



A Siemens Charger Locomotive built for the California Department of Transportation (Caltrans)!

Additional states receiving locomotives from that procurement are Oregon, Wisconsin, Missouri, Michigan and Iowa. The Charger locomotives are equipped with electronically controlled regenerative braking systems that use energy from traction motors during braking to feed the auxiliary and head-end power systems. The feature is expected to minimize fuel consumption, Siemens officials said.

In addition, the units' diesel-electric operation is designed to enable better acceleration, cleaner emissions and low noise levels. The locomotives feature a 4,400 horsepower Cummins QSK95 diesel engine. Not only will the locomotives contribute to a more sustainable transportation system, they also are expected to improve reliability and help efforts to double current statewide rider ship of 5.4 million passengers by 2040, said Caltrans Director Malcolm Dougherty.

Meanwhile, the Illinois Department of Transportation (IDOT) yesterday wrapped up testing of a Charger locomotive pulling empty Amtrak cars between the Chicago-Milwaukee, Chicago-Carbondale and Chicago-Quincy lines. The Charger units are expected to go into full-time service later this spring, IDOT officials said in a press release. IDOT has ordered 33 total Charger locomotives from Siemens. Additional testing on the Chicago-St. Louis line will be conducted later this year.

**DETROIT, MI** - Brookville Equipment Corp. last month delivered the final two off-wire capable Liberty Streetcars for Detroit's QLINE streetcar system as reported by Progressive Railroading.



Q-line Streetcar on wire-free portion of the line!

The company wrapped up QLINE's six-unit order **ahead of contractual delivery dates**, Brookville officials said in a press release. Since September 2016, QLINE has been testing a pilot vehicle in preparation for the line's opening scheduled for May 12. Designed and manufactured at Brookville's Pennsylvania plant, the streetcars will travel along a 6.6-mile loop on Detroit's Woodward Avenue.

For 60 percent of the route, the units will move without the aid of an overhead contact system and instead will use an onboard battery energy storage system, Brookville officials said. At 66.5-feet-long, each streetcar can transport up to 125 passengers. "Brookville worked with us every step of the way to ensure the QLINE would meet its spring 2017 operational launch," said Matt Cullen, chief executive officer of M-1 Rail, which will operate QLINE. "Our vehicle testing and training programs benefited from the early vehicle deliveries and we are looking forward to our May 12 grand opening." Brookville has delivered Liberty streetcars to Dallas Area Rapid Transit and is under contract to build similar units for Oklahoma City and Milwaukee.

KANSAS CITY, MO - Because the Kansas City streetcar Authority (KSCA) expects to reach two million riders by May 2017, they have started negotiations with CAF USA Inc to obtain two additional cars to bring their total fleet up to six vehicles. Each new vehicle may cost about \$5 million including parts and warranty.



One of the four CAF-built cars presently in service!

It may take two years to build the two units. KCSA also is expanding Sunday hours as rider ship grows. The agency plans to run streetcars from 7:00 a.m. to 11:00 p.m. on Sunday beginning April 9 instead of 10 a.m. to 8 p.m. Sunday is typically the second busiest rider ship day of the week for the KC Streetcar.

KCSA has logged total rider ship since the system opened in May 2016 at 1,787,746 rides. The authority expects to experience 2 million total riders by the system's first anniversary. There will be a one year birthday party for the KC streetcar at 11:00 AM in the East Plaza of Union Station.

LOS ANGELES, CA - The Los Angeles County Metropolitan Transportation Authority (Metro) has partnered with GPS navigation app Waze to provide grade crossing alerts for drivers. Users will receive alerts at designated intersections along the Blue, Gold and Expo rail lines. The chosen intersections were identified as having the highest occurrences of traffic violations, according to the agency's blog.



Two 1995-built P2020 NipponSharyo LRVs at a Grade Crossing in downtown Los Angeles!

Examples of these safety alerts include "Watch For Trains When You Turn!" and "Heads Up! Watch For Trains!" The initiative is part of a safety campaign that began last month and will end in June. The campaign also includes a series of ads aimed at curbing the number of rail accidents involving cars or pedestrians. Metro has already taken a proactive approach to this issue. Several of the P865 and P2020 Nippon Sharyo cars that operate on the Blue and Expo lines have been adorned for some time on the sides with large black letters "HEADS UP! WATCH FOR TRAINS! on a bright yellow background. Cars 105, 110, 114, 119, 120, 132, 147, 157, 158, 162, 165 and 168 have been observed so marked over the past year.

NEW YORK CITY, NY - A New Jersey Transit train carrying about 1,200 became disabled in the Hudson River tunnel between New York and New Jersey during the week of 9-16 April. The train was stuck in the tunnel for almost three hours as reported by Progressive Railroading.

The incident which occurred on Friday, April 14th seems to have been caused by a problem with the trains pantograph and not by any Amtrak infrastructure as reported by Amtrak spokesman, Mike Tolbert. When AMtrak learned of the incident a rescue locomotive was dispatched to tow the train into Penn Station. However, the rain was not able to be moved until the pantograph was dislodged from the overhead wires. After Amtraks' engineering forces removed the offending pantograph, The NJ Transit Train was able to move to the platform on its own power.

Pantographs in tunnels and overhead wire present problems when problems occur. There is little room to maneuver and it is usually a worn through blade that allows the wire to cut through it and then entangle itself in the overhead wires. After the offending pantograph and the now disabled train car or locomotive is removed, there is usually serious damage to the overhead wires that cause more problems and delays on the line. A recent such situation happened in Los Angeles involving NipponSharyo car 134 in the tunnel in downtown Los Angeles. A defect in the OCS far west of the downtown area on the Expo Line was damaging the carbon on the pantograph blades. Before the LACMTA forces could locate the issue, the unfortunate incident happened, shutting down the line for hours.

There may be a solution for some of these issues. Why not replace overhead wire in tunnels with an "overhead third rail"? Trolleyville has been told that this type of rail is going to be installed by Mass Electric Construction Company in the Regional Connector Transit Project in downtown Los Angeles. This connector will connect the Blue/Expo and Gold Lines and will for the first time allow all of the light rail lines in Los Angeles to be connected by tracks and wire. This more robust installation may survive some similar pantograph mishaps. Below are some photos of such installations.





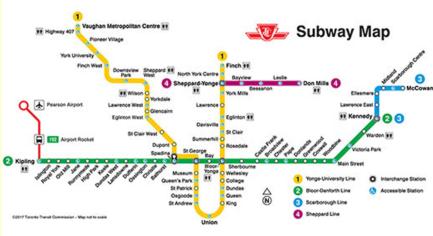
SACRAMENTO, CA - On April 20, Progressive Railroading reported that Siemens launched a new business that will use sensors and software platforms to help improve rail operations. Known as Siemens Digital Rail Services, the new business unit aims to "put intelligence behind billions of data points created on the country's rail systems." Siemens officials said in a press release.

Insights gathered from the data are expected to help U.S. rail operators improve operations and create an "Internet of Trains" to bring infrastructure and vehicles into the digital era, according to Siemens. The business unit is a part of the Siemens Mobility Division, which provides solutions for rail and road transportation.

The city of Atlanta and the Charlotte Area Transit System (CATS) are among the first transportation providers to work with Siemens to use Big Data to improve operations and safety. Both of these systems use a version of the Siemens S70 partially low floor vehicle, reputed to be one of the better vehicles available today.

In Atlanta, the Siemens digital services team will collect information captured via on-board systems from the Atlanta Streetcar and analyze data points to make the best use of the fleet. Meanwhile, CATS is working with Siemens on a pilot program for near real-time diagnostics and analytics of its light-rail system data. The data is expected to help the agency make prescriptive maintenance recommendations. "Today, rail vehicles send between 1 [billion] and 4 billion data points per year and rail infrastructure can send billions of messages just inside a specific system," said Simon Davidoff, head of Siemens Mobility Digital Services in North America. "With our digital services business, we're taking not only experience from our global rail footprint but also our extensive company-wide digital expertise to turn billions of data points into action, including the ability to detect malfunctions well before they can cause problems and information that helps improve arrival times and punctuality for riders."

TORONTO, ONT - The Toronto Transit Commission has powered up the third rail on its Line 1 subway extension to begin trial runs for trains according to Progressive Railroading on April 10.



Map shows the six new stations on the Number 1 (Yonge-University) Line!
(Vaughan Metropolitan Center, Highway 407, Pioneer Village, Finch West, Downsview Park and Sheppard West!)

The move also allows the TTC to test the automatic train control signal system, agency officials said in a press release. The third rail became live on March 26. Over the coming months, power will be tested across the extension or in parts as needed. Known as the Toronto-York Spadina subway extension, the project is the first subway to cross Toronto's boundary into the York region in Southern Ontario, TTC officials said. The 5.3-mile extension, which includes six stations, is jointly funded by the governments of Canada, Ontario, Toronto and the Regional Municipality of York. The extension is scheduled to open before the end of 2017.

#### MODELING INFORMATION.....

## Models for the East Penn Traction Club Meet in Allentown, PA! C&LE Red Devils, Electromobiles, Siemens S70s, Wood Interurbans in N scale!

\*\*\*

by Volkmar Meier

The East Penn Traction Club, located in the Philadelphia, PA area, sponsors one of the the larger trolley model meets in the USA. It attracts not only US modelers but also Canadian, European and some Asian modelers. The 2017 meet will be held at Allentown Fairgrounds, May 18-20. This is the first meet held outside of the Greater Philadelphia area. Interurban Traction Models, my Paris-based company, will be present at this meet with many models, mostly N scale, that are easy to transport in aircraft luggage. Here a review of some of the interurban, streetcar and light rail vehicle models that we will be showing at this meet:

The first model is the C & LE "Red Devil" in two versions:

First as delivered with a swing front door, and a second car with a folding door. The swing doors, enabled for high level platforms, were replaced after the plans for the Cincinnati Subway had definitely failed to materialize. They were replaced with driver operated folding doors.



[All photos by Volkmar Meier]



The N scale one piece body is 89 mm long, including the pilot. The is powered by a Tomytec TM-TR04 drive. This drive has the prototypically small wheels (4.1 mm, about 26 "), but the wheelbase (9.2 mm, about 4 '10") is a little bit too short. In this stage of N scale traction modeling, we must accept some compromises. Fortunately, this is not too visible, once the ABC truck frames are applied. The car can go around the smallest currently available N scale curves with 103mm radius.







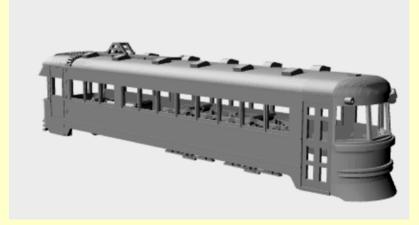
I will be showing are two more versions of the N scale "Red Devils" at the Allentown EPTC Trolley Meet. When the Cincinnati & Lake Erie ceased electric railway operation, the Lehigh Valley Transit bought several units and rebuilt them for their "Liberty Bell Limited" service.

The swing entrance doors on the right side were reinstalled, and an identical left side door was added. The cars received a second trolley pole in front, the pilot was covered in sheet metal and 3rd rail shoes were installed on wooden beams on the ABC trucks. The headlight was raised up to the roof, the dash lights removed and the horns were placed on the left front corner. The cars received a striking cream livery with red striping.



Both versions of the C&LE Red Devils with boomer LVT version!

So currently we have shown three "Devils", but there is a fourth to come. The Cedar Rapids and Iowa City Railway (CRandIC) bought also six "Devils" when the C&LE closed. First they ran nearly unaltered, but later some of them received a rounded front "spoiler" in place of the pilot and the trolley pole was mounted on a higher pole base. The folding doors remained in service. The cars were painted yellow and dark red/brown. This 3D printed model is still in production at Shapeways and will hopefully be delivered before the Meet.



Technically, the models are identical to the C&LE cars, and the models are powered by the same Tomytec TM-TR04 drives.

The second N scale model for the Trolley show is the "Electromobile" built by Osgood-Bradley for the Altoona & Logan Valley Line in 1929. This were very modern bidirectional cars, close to the Brill "Master Units". Identical cars were delivered to Scranton. In Altoona, the were called "Eldorado Cars", because they often served on the Eldorado line.





The car is powered by a modified Tomytec TM-TR01 drive. Due to the very low ceiling of the car, the upper plastic plate which holds the contac strips is removed. Otherwise the drive is unaltered. Purists see that the "Electromobile" runs currently on (Tomytec) Brill trucks, because we haven't yet finished the Osgood-Bradley truck frames in N scale. This is another adjustment that is reasonable at this time, we will also be bringing an HO scale model of this car to the Allentown Meet.

Note: For the record, making model electric railway cars in N scale is not so difficult. If the 3D drawing is well made, you only have to make some adjustments, deleting or thickening some details too small to print, like rivets or small handrails. And you have to adapt the inner shape of the car body to the Tomytec (or other) drive of your choice. If all is well engineered, you will receive your 3D printed car body from Shapeways and it will directly snap over the drive and stay in place. The paint job is a little tricky, but otherwise it's done. Modern LRV's and streetcars are not of the same shape. They are articulated and in some case, they consist of 2 or 3 sections permanently coupled together. Of course, if none of the available Tomytec drives fits, you have to build something on your own.

Of course, the third model is the Siemens S70 Ultrashort in N scale. I chose the Siemens S70 because I had already made the car in HO, and because its one of the vehicles most used in the USA. Also in most operations, they usually run in multiple unit trains of two to three cars. We wanted to make three Siemens S70 LRV for the meet, which could run as Multiple Units. I will not talk here about the headache I had, just to say you that is was not simple. But the three cars are now in the assembling line.



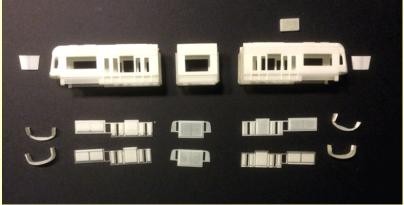
Three complete N scale S70 kits plus Custom Traxx decals await assembly, painting and lettering!

A first beta car was built and painted and sent for testing to a well-known trolley connoisseur from Southern California.



Beta car, later lettered as SDMTS 4011, in testing on Tomix street track!

The main hurdles are the building of an articulated frame, with two modified Tomytec TM-TR01 drives as A and B units, and a custom-built C unit made from laser cut styrene parts.



Above are all the parts, exclusive of the articulation bellows for one N scale S70! Note that lower fairings are provided for the streetcar version!

The resulting car with two motors (eight wheels powered) and all twelve wheels picking-up power is powerful. A three-car Multiple Unit is just tremendous. But you need fine, precise and calm fingers, for making the folded paper bellows, for soldering the fine wires connecting A, C and B unit, for masking and painting, for almost everything.



The first or Beta unit prior to painting showing the articulation bellows made from folded black paper.

Two cars will receive the red paint scheme of the San Diego MTS, with N scale decals made by Custom Traxx. One car will receive an all white paint scheme, in order to be decorated later - after the meet - as an Utah Trax from Salt Lake City.

The final group of N scale models for the Allentown meet are three classic Interurban cars, a combine representative of the mid 1920 steel car era, and two older wooden cars. All three models are derived from HO 3D models.



The steel car shown above is a St. Louis Car Co combine built for the Fort Wayne & Lima Interurban and the Indiana Service Corp, later Indiana Railroad. We are particularly attached to this model for two reasons, first because the late Paul Mayer asked us to make this car (at the time in HO scale) and gave us many photos and documents, and second because it was the first model we have drawn only from photos. Now we know that we could build every car even if only photos and no plans are available. We will present the car in two versions, the early two manned version with the baggage compartment in front (in production, red with green roof), and the later one man version turned front to back with a folding passenger door (already finished, in Indiana Railroad traction orange with green roof). The car is powered with the extra long Tomytec TM-TR05 drive and has Commonwealth truck frames.

The two wood cars are the famous big Winona "Windsplitter" and a C&LE arched roof box motor, based on C&LE car 622.





The fine wooden grooves are a challenge, because they are going to be at the current limits of 3D printing, and sometimes a little beyond. Both cars have Tomytec drives with bigger 5.6 mm (36") wheels and a 14 mm wheelbase, all trucks powered. The Box motor has a truck mounted micro-Trains Coupler in the rear and can safely pull (and push) several freight cars even through the sharpest curves with 103mm radius.





See you at the Allentown EPTC Meet!!