The Trolleyville Times

December 2015

Preproduction samples of the next Bowser streetcars (New Orleans

IN THIS ISSUE:

CURRENT EVENTS.....

Progress on the Phase 2 Expo Line!

(Culver City to Santa Monica)

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During the weekend, November 7-8, 2015, there was a lot of activity on this line as we were told that the LACMTA was performing "headway" testing. There were many cars at the end of the line at 4th Street in Santa Monica, with all three tracks occupied.

Another view of Siemens cars 241, 237 and Nippon Sharyo 124:

Crossing over Cloverfield Boulevard:

Three of the new Kinki Sharyo P3010 cars at the Blue Line Yard. These cars are currently being delivered and are slated for the Gold and Expo Lines.

Kansas City Streetcar Arrives!

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The last Kansas City streetcar ran on June 23, 1957. Now over fifty years later, the streetcar is back and in many of some of same places that they ran before.

On November 2, 2015, car 801 was unloaded from a trailer onto tracks and moved into the Singleton Yard Vehicle Maintenance Facility for testing. This is the first of four cars to be delivered. The next few days were spent checking all non-revenue trackage, clearance checks, overhead wires, wheel stops and track switches. On Friday, November 6 around 3:30AM, this car rolled down the streets over the entire line pulled by a tow truck to check clearances with platforms, curbs, corners, overhead wires, streetcar stops and shelters. This is the beginning of educating the public to respect the streetcar right-of-way and not to park so as to obstruct the cars movement.

The Kansas City Downtown Streetcar Line began construction in 2014 and the two-mile line should begin operation early next year. It is currently planned to be operated by the Kansas City Streetcar Authority, a not-for-profit corporation, that was incorporated in 2012 after the voters approved creation of the Kansas City Downtown Transportation Development District. The route is entirely street running and operates from Union Station to the River Market, mainly using Main Street.

Thursday, November 12, was the day for a powered test along the entire line.

The four Urbos 3 cars are being built by Construcciones y Auxuliar de Ferocities, S. A.(CAF) at their Elmira, New York plant. CAF was successful over KinkiSharyo, who also submitted a car for this project. Total car length is 77.5 ft and each car can transport as many as 267 passengers. The maximum speed is about 43 miles per hour. These are 100% low floor vehicles, which means that the floor is not higher than 16" above the rails. Similar cars are currently being delivered to Cincinnati, Ohio.

San Francisco Historic Cars Back Under Cover!

(From the Market Street Railway, Nov 12, 2015)

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In San Francisco, the historic streetcars are snug as a bug in a rug during this first rain of the season, now that they're back at Cameron Beach Yard, their longtime (and we hope future) home during the current shutdown of the connection to the Muni Metro East storage yard. The historic cars' trips going in and out of service again follow the J-Church line tracks from Balboa Park to 17th and Church. Ace photographer Curley Reed captured some great shots of the old cars on the J the past few days.

With El Nino on the way (so they say), Market Street Railway wants to see the streetcar fleet protected from the drenching overnight rains. Without overhead cover, which already exists at Cameron Beach but not at Muni Metro East, when streetcars are sitting still overnight, heavy rain can work its way into the cars and cause rust and rot to begin. Leaving the historic cars uncovered for decades before the canopy was built at Cameron Beach caused hundreds of thousands of dollars of damage to Muni's own most historic streetcars, such as Car 1 (now rebuilt) and Car 130 (still running, but very rusty).

Soon, the LRVs that have been taking the historic cars place at Cameron Beach Yard during the reconstruction of Green Light Rail Division yard across the street will be able to return to Green. As soon as possible, for the long-term protection of San Francisco's historic streetcar fleet, the vintage cars need to return to Cameron Beach Yard permanently.

Brookville Wins Modern Streetcar, PCC Rehab Contracts!

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by Edward Havens

The western Pennsylvania factory of Brookville Equipment Corp. will be busy building and rehabilitating streetcars for lines that are operating, planned or under construction in four states: Michigan, Oklahoma, Texas and Wisconsin. Brookville debuted its modern streetcar -- the "Liberty" model -- with two dual mode units for the downtown Dallas to Oak Cliff car line and the performance was impressive enough to persuade Dallas to order two more cars and other cities to jump on the production bandwagon.

Milwaukee was the latest convert to Liberty streetcars, deciding to order four units for $18.6 million for the starter downtown line and plans to order a fifth for a planned branch to the Couture high-rise development along the lakefront.

The contract will give Milwaukee the ability to order up to 24 streetcars.

Also during the second week of November, Brookville was chosen by Oklahoma City to build five dual mode Liberty cars. The city had picked Inekon for a $23 million manufacturing contract but the Czech Republic-based firm missed an Oct. 29 deadline to submit financial guarantees.

The Brookville units will cost $1.5 million more.

Detroit's M-1 Rail modern streetcar project announced Sept. 29 that it had struck a $32 million deal with Brookville to manufacture six dual mode cars for the Woodward Avenue car line now under construction.

Part of it will require off-wire capability so Liberty cars with storage batteries and pantograph current collection at 750V DC are required. They will use lithium ion batteries for 60 percent of the 3.3-mile line which will be off wire. An M-1 Rail news release said: "A key difference between the M-1 Rail vehicles and the Liberty Modern Streetcars in Dallas will be wider car body, measuring 8 feet, 8 inches, compared to 8 feet for the Dallas vehicles."

On Nov. 12, the west Texas city of El Paso shipped the first three of six ex-San Diego, ex El-Paso PCCs to the Brookville plant via highway truck trailer to be rehabilitated for service on a planned 4.8 mile line from just north of the Mexican border to the University of Texas-El Paso campus.

The project is funded with $97 million in state money. The Brookville contact is worth $18.8 million.

Meanwhile, Portland, Ore., City Council voted Nov. 12 to ask the Oregon Department of Transportation for a $3.5 million grant to buy three Inekon Trio streetcars that the city of Seattle, Wash., will put up for sale.

They are used on the South Lake Union car line and have pantograph current collection only. Seattle wants a dual-mode fleet because it plans to link the South Lake Union and First Hill car lines. The First Hill route requires battery operation for wire free operation on a downhill section to avoid conflict with dual wire electric trolley buses [ETBs] using the same street. With $1.5 million from the city, Portland's bid for the secondhand cars could total $5 million. Seattle could declare the three streetcars surplus in 2018.

MODELING NEWS.....

They Just Might Make Them As Soon As You Tell Them!

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Since July 2015, Volkmar Meier and Custom Traxx have been evaluating three HO scale models of the Siemens S70 Light Rail Vehicle (LRV) based on those prototype models operating in San Diego, Salt Lake City, Portland (Oregon) and Charlotte. While all three units, has bodies and chassis made using the 3D Printing process, the first unit used two Halling (Austria) drives, the second and third used a single Bowser drive.

The units have been test run for many hours including an all-weekend display at Arnie's Model Trains in Westminster, CA on November 7 & 8, 2015 where they performed without any problems at all. Unit 1 was left at Arnie's Model Train Shop for examination by their customers and, hopefully future buyers. Arnie's told us as we went to press that the model is getting a lot of interest and we are getting reservation forms.

On Monday, November 9, unit 2 was sent to Bowser Manufacturing for evaluation. Unit 3 remains at Custom Traxx for further testing while they await Unit 4 from Volkmar.

Custom Traxx visited the San Diego Metropolitan Transit System (SDMTS) facilities on November 15 to record the signs and sounds of the Siemens S70 for use in a decoder for these models when they are produced. The SDMTS has been very cooperative and has set a new high for assisting in this type of a project. However, we are getting used to this type of treatment by the people who almost introduced "Light Rail" to the United States in 1981. Andy Goddard, SDMTS Superintendent of LRV Maintenance, has told us that he wants to be on the top of the list for a model when they are produced. He is shown below left, studying models of both the S70 and the SD100, and below right assisting in the activation of the recorder just prior to the recording session.

The market for model LRVs is relatively new in the United States and is largely made up of people who built the lines, ride the lines, maintain and operate both the lines and the vehicles along with those who manufacture light rail vehicles and some of the support equipment. These are largely not yesterday's model railroaders, so they are not in the normal advertising channels for model train lovers. Add to that the disappearance of so many "well-known" model train stores, it is not easy to reach a lot of these people right now. Attached to this article are two questionnaires for those who would like to see the S70 and Other Light Rail Vehicle/Modern Streetcar models built. If you would take the time to fill them out and send them to us, it would be very helpful. The more we demonstrate an interest, the better possibilities that models will be made.

Our guess right now is that the partial low floor cars, like the Siemens S70 will dominate the US LRV orders in the next few years and the total low floor cars, such as the CAF Urbos and Bombardier Flexity will dominate the modern streetcar orders. Today's total low floor cars have a speed limits of about 40 mph. But all of this could change before you read this.

Bruce Battles' Hagerstown & Frederick 172!

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Having been immersed in the 3D Printing technology since last May, we could not resist showing you some of the great models that can come out of this process. On Veteran's Day, Bruce Battles shared with us his model of the H&F 172. It was created on a 3D Printer by Shapeways, back in Brooklyn. It uses a Hollywood Foundry belt driven Bull-Ant drive with a 24:1 ratio. The trailing truck is from a Bowser Brill Suburban. This kit included the fenders and the correct sideframes.

Bruce also has models of H&F Box Motor #1, Box Motor #5, Line Car #15 and Suburban Car #150!

TECHNICAL ACTIVITY.....

Not Your Grandpa's DCC Anymore!

(The Roco/Fleischmann Z-21!)

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by John McWhirter

In our October 2015 issue, I introduced you to three of the more sophisticated digital control systems designed for model railroading. Included in this discussion was the Roco/Fleischmann Z21, the ESU (**E**lectronic **S**olutions **U**lm Gmbh & Co.) ECoS (**E**lectronic **Co**mmand **S**tation) II and the Marklin Central Station 2.

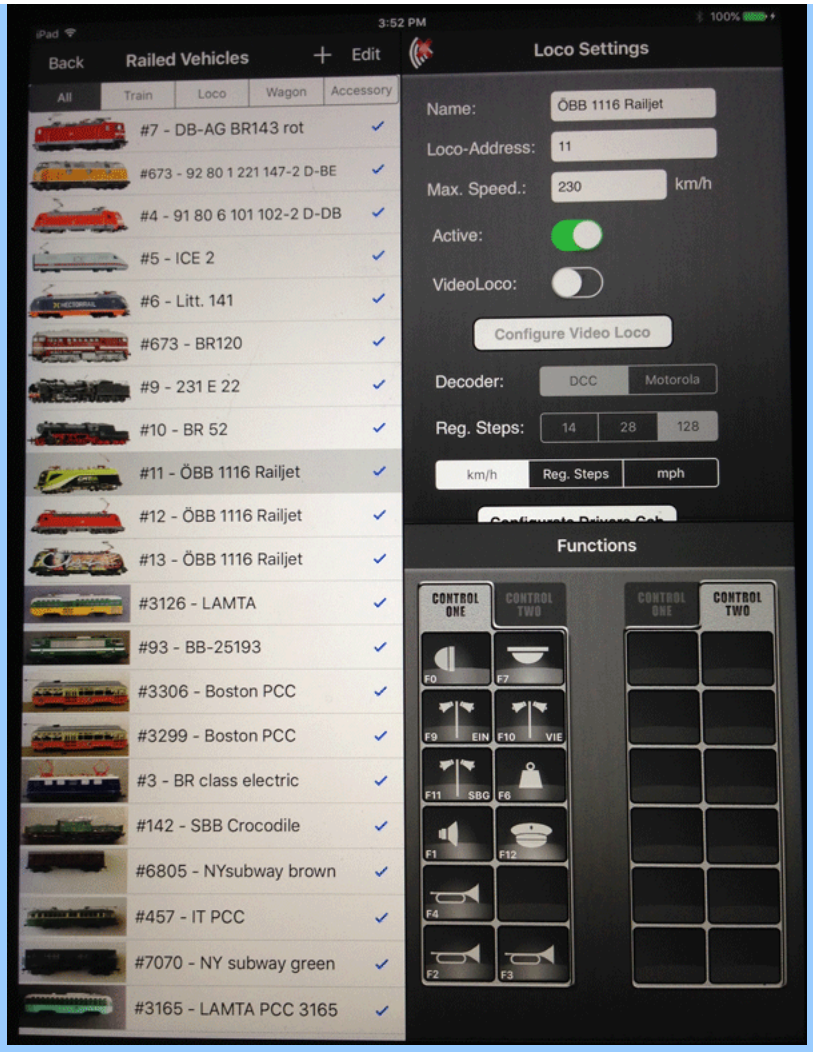
This month I will explore in more depth, the Z21. The Z21 comes in two versions; the black cased Z21 and the white case small z21. According to the Roco website, “The z21 for beginners has the same features as the Z21 for experts with only a few smaller connection and configuration limitations”. As I only have a Z21, I cannot confirm this but I am aware that there is no LocoNet, Sniffer-Bus, or programming track ports on the z21.The z21 is most often found in Roco and Fleischmann starter sets along with a train and some track. Reynauld's in Elburn, IL lists a Roco starter set with an HO electric loco, 4 freight wagons, an oval of track, and a z21 for $340. Somewhat cheaper than the Z21 alone at $419.

The Z21 digital center has ports on the rear for power in from the provided power converter, main track, programming track, sniffer bus, booster bus, LocoNet, Feedback bus, X-bus, local network, and CAN-bus. The CAN-bus or controller area network protocol is designed to allow micro controllers and devices to communicate with each other without a host computer. CAN-bus is most commonly used in automotive electronics. There are 2 additional X-bus ports on the front panel. Included with the Z21 is a WLAN router and power supply. Mine is a TP-LINK 300Mbps model TL-WR841N. These go for around $20 on ebay. Not important here, but as this router will also work with the ESU ECoSII or the Marklin CS2, keep that in mind.

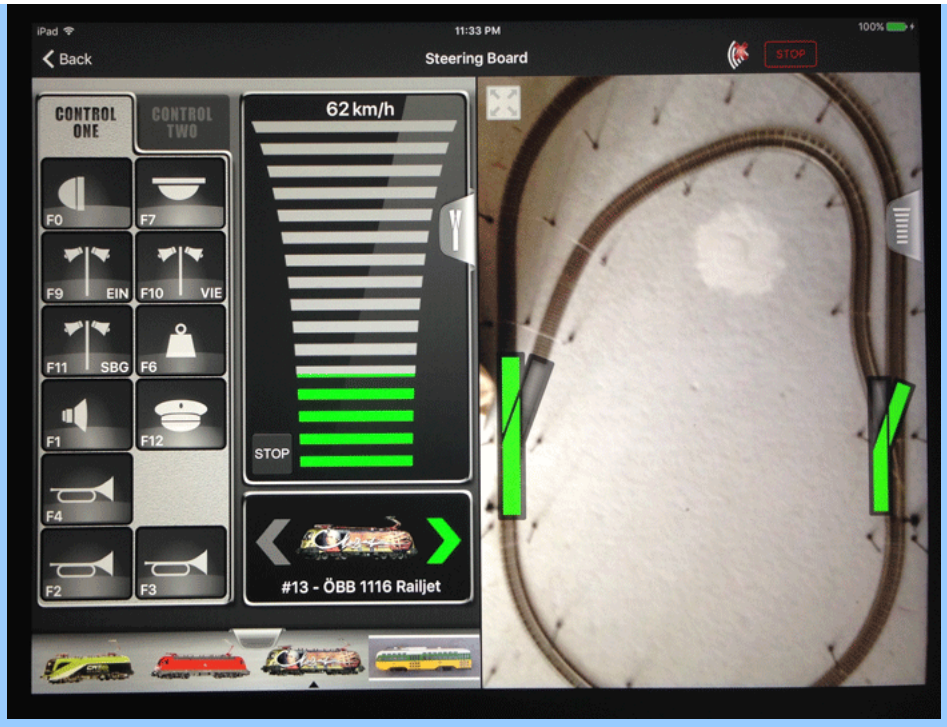
Setting up the system right out the box is fairly straightforward. First you need to configure the router. Included in the package is a CD with a Windows based setup wizard. Since I’m a Mac OS user, I needed to go to the web based setup. You connect the router to the internet, open your browser to the tplink login, configure a

name and password for your network and save your settings. The next step is to download and install the appropriate free smartphone or tablet app. The Z21 supports iOS or Android devices. For me that means going to the Apple App store on both my phone and iPad, finding the free Z21 app and installing it. The phone app and the tablet app are a little different. The tablet app is required to download and install various cab control views and to process the video from special camera equipped locos. The phone app has some limitations due to the small screen size. Here is the main start up page on the tablet app:

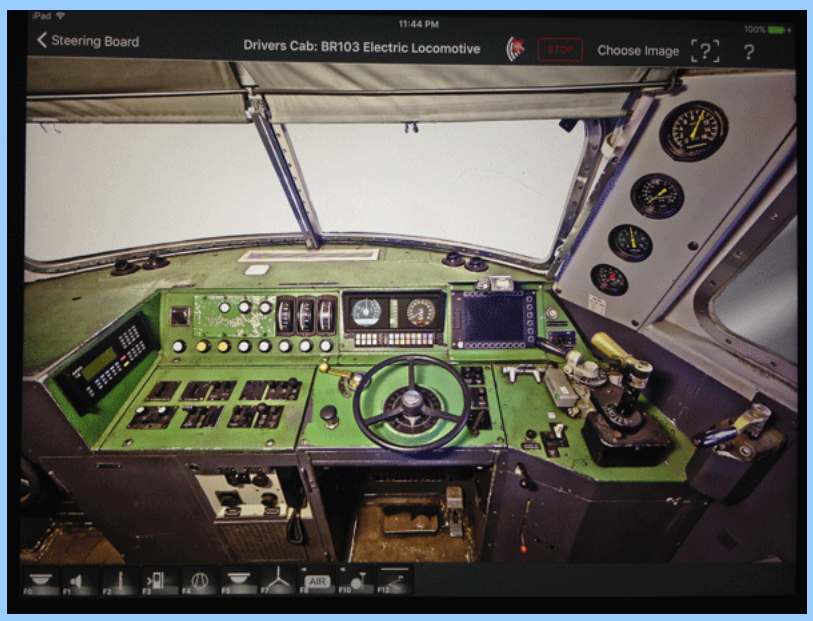
Before you can run any trolleys or locos, you need to power up the Z21 Black box, connect it to the main track, connect the Z21 to the router with the supplied CAT5 cable, connect your tablet to the WiFi network you just set up, open the Z21 app on your tablet, select the App settings, connect to the IP address of your Z21. Now you can select the rail vehicle settings. This is where you add and configure a new loco to your available stock of motive power. Just type in the required parameters such as name, address, type of decoder (DCC or Motorola), max speed, and add a picture icon. This app allows you to use a pre-existing file on your device or use the camera to take a picture on the spot. With a little practice you can get just what you want. (I really like this feature) The library of locos supports an unlimited number of entries. This screen also allows for configuration of any functions that may be available in the decoder. You can set up which function does what and test their operation if the loco is on the track. One thing about the Z21 system is that your loco settings are saved and contained in your mobile device, not in the digital center. This allows you to add and change loco settings off-line without the layout up and running. Here is a photograph of the loco setup page:



Should you wish to transfer your complete set of rail vehicle and track control settings to another device (such as to a friends phone so he can run your trains), you can export your layout via WiFi to his device. This is also useful to create a back-up in case your mobile device undergoes some sort of calamity. In order to run your loco, you switch to the steering board. Scroll through your locos to find the one in question. Select it and a panel of functions will appear next to the throttle. Swipe up the scale to move the loco. Activate the various functions as the situation requires. To configure an MU operation, you first establish a table of traction settings for each loco. This is accomplished by basically timing how long it takes a loco to cover a set distance at different speeds, then the Z21 uses this information to adjust the loco speeds to a common value. The more information you give the Z21, the smoother they will run together. In addition, you can toggle the track control panel. Decoder equipped switch machines can be configured and displayed on a graphic of your layout. Here again, you can use the camera in your device to capture your layout. This is all set up from the Track control settings. On my small test layout I have 2 turnouts controlled by Tam Valley Singlet DCC decoders and servo drivers. The switch type and other parameters are all configurable in the Track control settings. You also configure signals and create routes in the Track control settings. In the following photo, you will see the steering board and the track controls side-by-side on the same screen. This is a capability of the tablet app which is not available on the phone app due to limited screen size.



One feature which is only available with the tablet app is the ability to download prototypical cab views for various locos. At this time, most of those available are European prototypes, but there are many US locos available as well. If you are lucky enough to have the appropriate camera equipped loco, the video will be displayed through the cab window as you move down the track. In the cab view, the various controls and switches are interactive. Here's the cab view of a typical European electric loco:



The programming capabilities are extensive. With a loco on the programming track, you can read and write CVs and addresses. I don't have a booster, but when connected to the B-Bus, they supply the needed extra power for larger layouts. You cannot operate a non-DCC equipped loco on address 00 as you can with a Digitrax system. You can however use a wired hand held throttle such as a Roco multiMAUS connected to the X-bus. In the Z21 settings menu, you can configure the maximum track voltage and read the real-time current draw on your layout. Although the Z21 system is not well known in the US, even by the European Train Enthusiasts, it is a fully capable DCC system with lots of cool features. It may not be the DCC system your Grandpa would buy, but it's worth considering if you are into embracing new technology and hope to excite the next generation of trolley modelers. For more information, be sure to check out this Roco web site: http://www.z21.eu/en/What-is-Z21/HIGHLIGHTS

The demographics of the members of the electric railway modeling portion of model railroading are changing rapidly. We are getting new members that are interested in different areas like modern streetcars and light rail. So let us know what **you** want; let us know what does not interest you but...do **let us know**!