By the turn of the 20th century the street railway had become a vital part of urban transportation. Naturally, this phenomenon arrived first in larger cities, but it was soon desired by smaller municipalities as well. The hankering for a streetcar system became so strong that postcards appeared showing streetcars trundling down main streets in cities that did not actually have a street railway. The first, and for that matter last, streetcars in Oregon ran in the largest City, Portland. Their history has been told before. For an account of those systems readers are referred to the author's previous books, including Portland's Streetcars, Portland's Streetcar Lines, and Portland's Interurban Railway. This volume tells the story of the dozen streetcar lines, successful or otherwise, that operated in Oregon's small towns between 1888 and 1931. They are the less well-known systems; the unsung heroes, if you will, that brought modern transit, and all of the benefits that went along with it, to the hinterlands. The streetcars that plied Oregon's small town streets were every bit as diverse as those found in Portland, ranging from open cars, to convertibles, to interurbans. And, they utilized a variety of forms of power.

Small town streetcar systems often relied on secondhand rolling stock. This interurban-like Forest Grove Transportation Company car is thought to have started life as a trailer on the City & West Portland Park steam motor line in 1890. It is seen crossing Main Street on 21st Avenue about 1907.

(colored postcard courtesy Mary Jo Morelli.)
Oregon Electric Railway Historical Society

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Mission Statement

The Oregon Electric Railway Historical Society, Inc. is to preserve the regional heritage of electric railway transportation as a living resource for the benefit of the present and future generations.

To fulfill this mission the Society will promote:

- The study of electric railways, their physical equipment, properties and operations, devoting special attention to the electric railways of western Oregon.
- The procurement and preservation of historic electric railway equipment, materials and properties.
- The display, interpretation and operation of surviving historic equipment, materials and properties.

By Laws, Article II, 9/14/93

Official Notice

The Transfer is published quarterly as the official publication of the OERHS, a state and federally recognized not-for-profit institution. Operator of the Willamette Shore Trolley line between Lake Oswego and Portland and a demonstration trolley line at the railway museum in Brooks.

Greg Bonn

Interpretive Center Update

Spring 2014

Spring has seen a lot of progress in the interpretive center. All interior painting has been completed in the lower floor except for a few trim pieces around the ticket counter. The counter tops are nearly completed and the cabinet doors (twenty-six) have been fabricated and primed. The woodwork to frame the ticket and gift shop window are assembled and ready to install once the finish is completed on the counter top. The large display cabinet that was once in the old interpretive center at the trolley park has been moved into the display area and is being cleaned and repaired to be used as a temporary display as the design for the interpretive display and hopefully garner some donations.

Trenches have been dug for the water, sewer, downspout drains and outdoor lighting. The water main has been installed but not yet connected to the building. Final connection will be made when the sewer line and lift station are installed.

Two truckloads of gravel have been delivered and being spread around the building in preparation for the concrete pads at the entrances and walkways.

The push is on now to install the linoleum in the upstairs apartment bathroom and the member’s restroom on the first floor, install the toilets, kitchen and bathroom sinks and drinking fountain before steamup. The lift station (tank and pumps) for the sewer system has been ordered and will be installed as soon as it arrives.

Thanks to all who have been working a lot of extra volunteer hours on this project.

How we deliver The Transfer

The Transfer is delivered both electronically and by postal mail. With the electronic copy, you can see all the pictures in full high-resolution color, a big improvement over the black and white appearance in the printed version.

We have established a web site where you can view and download copies of The Transfer. We have set it up so it is also easy to print on your color or black & white printer if you prefer hard copy.

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We also mail black & white copies of the newsletter to all members of record. Not as clear as the color version available at the web site but some members have stated that they prefer physical copies.

The electronic copy that you can get on the web site can be printed in full color (or black & white of course) on your printer at home if you prefer to read The Transfer the way the individual writers intended and of the editor only, and may not necessarily represent the views or policies of the Society, its Board of Trustees, Officers or Members.

Please send any change of address, your dues and donations to Treasurer

Oregon Electric Railway Historical Society
3956 Brooklake Rd. NE
Brooks, OR 97303
Phone: 503.393.2424
www.oerhs.org

Do you want to be a Motorman?

Volunteers are needed at the museum in Brooks to be trained as Motormen, Conductors, Ticket sellers and Car Barn Tour guides. Saturdays from 10am to 4pm, motorman training on Sydney 1187 and later, other cars. The Museum will again be open to the public in early May on Saturdays and Sundays. For the weekday projects, contact Bill Binns or Charlie Philpot.

Please come out to the museum and lend a hand. For more information, contact Bob Terkelsen at 503.399.1882.

If you wish to volunteer for the Willamette Shore Trolley, call Rod Cox or Hal Rosene at 503.697.7436 for information about the many volunteer positions that may interest you.

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Since horses were expensive to feed and house, and could not reasonably be expected to pull a streetcar more than three or four miles, other forms of motive power were under consideration soon after the first street railway tracks were installed. In three Oregon towns, Albany, Astoria and Union, mechanized mass transit first appeared in the form of coaches (usually former horsecars) pulled by small steam locomotives known as “dummies.” Dummy engines were housed in wooden frames designed to look like streetcars so as not to frighten passing horses. Steam dummy trains offered more speed and power, and could travel longer distances, than horsecars. Their appearance opened up distant suburbs for development, but, they were soon replaced by an even more efficient kind of streetcar.

The majority of small town street railway systems in Oregon began in the late 1880's or early 1890's, by which time it had become apparent that the most effective form of streetcar was the electric car, or trolley, so-called because their poles “trolled” the wire overhead for power. Trolleys cost less than half the expense required to operate horsecars, and they were quieter and more efficient than steam locomotives.

Those railway systems that were able to make the transition from horse, or steam, to electric power survived the longest. Streetcars lasted more than 30 years in Eugene, Salem and West Linn, and for more than 20 in Albany and Milton-Freewater. In contrast, street railways disappeared from Klamath Falls after just four years, from Corvallis after six, and from Baker City in nine.

Of course, the streetcars in some towns were funded by large corporations with deep pockets. The Albany, Eugene, Salem and West Linn street railways became part of the Southern Pacific Railroad, and Astoria's streetcars belonged to the Pacific Power and Light Company. Smaller towns were not as successful in attracting corporate support and looked, instead, to local business interests, particularly those engaged in banking and real estate.

Street railways in remote parts of the state were exceptions in that their primary goal was to provide a link to other places, rather than to move people around town. The Union.....
Railway dropped street railway aspirations almost immediately and developed into the state's shortest short line railroad. Milton-Freewater never had city streetcars, however the interurban from Walla Walla, Washington served a similar, if less frequent, purpose since it ran between the close-together towns of Milton and Freewater. The trolley line in Medford merged with an older steam railroad to Jacksonville, which outlasted the city railway.

The streetcars in Forest Grove and in West Linn were electric from the start. However, unlike other small town systems in Oregon, they began as what we would now call shuttle services. Like the steam dummy trains in Union, Forest Grove’s trolleys connected the town with a mainline railroad that was inconveniently located outside city limits, while the railway in West Linn was intended to ferry employees from the town of Willamette to a Portland General Electric power plant.

The majority of Oregon’s twelve small town streetcar systems ceased passenger operation (sometimes...
converting to busses) during the 1920's, by which time they had been deemed unprofitable. The Astoria Street Railway, which began the first streetcar service outside of Portland in 1888, might have outlasted the others, but Pacific Power and Light decided not to rebuild after a disastrous 1922 fire destroyed most of the downtown.

The last two small town trolley lines in Oregon lasted into the 1930's. Streetcars stopped running between Willamette and West Linn in 1930 and passenger service between Walla Walla, Washington and Milton, Oregon was discontinued a few months later, in 1931. Of course, neither was a city streetcar system. The Walla Walla Valley Railway line to Oregon was an interurban operation, while the Willamette Falls Railway connected two towns using regular streetcars.

Driver Wiley Griffin poses with mule-drawn Eugene Street Railway car No. 4, which he drove from Willamette Street to the University District via 11th Avenue, about 1893. This is the only known photograph of an African-American streetcar operator anywhere in Oregon. Wiley was one of Eugene’s first African-American residents.  

The Willamette Falls Railway had the finest station of any small town Oregon railway, as can be seen here in this picture taken outside the West Linn headquarters in 1910. Rolling stock on the ladder tracks outside the car barn includes one of two beautiful Brill interurbans and a box motor and flatcar used on wood trains.

In October, 1920 both Astoria and Salem added modern Birney Safety Cars to their rosters. They would be the last new car orders placed by an Oregon streetcar system outside of Portland. The four Birneys, numbered 880-883, for the Salem Street Railway proved insufficient to overcome financial losses and streetcar service was discontinued in 1927, the year this picture of a Birney changing ends on Commercial Street was taken.

(A Courtesy Marion County Hist. Soc.)
Edmonton, Canada is credited with the first light rail system in North America opening in 1978. However, in 1981, San Diego ushered in the new era of modern Light Rail for the United States. Of course San Diego had electric traction prior to 1981 in the form of “old Fashioned” streetcars.

The first San Diego horsecar line opened in 1887. The first electric railway line opened in 1888, but failed and became a cable car line opening in 1890. The first real electric streetcar operation started in 1892 under the auspices of San Diego Electric Railway owned by John D. Spreckels. By the 1930's competition with the automobile and busses led the Spreckels Company to purchase new PCC's. The first PCC ran in 1937. Streetcar operation survived until 1949 when the Spreckels Company sold off SDERwy to National City Lines which, like some many other cities NCL took over, it quickly converted the streetcar system to busses.

Fast forwarding to the 1980's, San Diego was looking to return to electric Traction. They decided on modern Light Rail system, although they chose to call it the San Diego Trolley. They built a line on an existing Freight Railway stretching 15.9 miles from Downtown San Diego to the Mexican Border at San Ysidro. This is now part of the Blue Line. This line was built with local funds, no Federal Funds.

This allowed San Diego to procure new light rail cars from Siemen-Duewag of Germany without the need of the Bay America requirements. They picked a well proven U2 car which was already in service in Frankfurt Germany. The stations were simple affairs also to allow Freight train to continue to operate during late night hours.

The line to the border was an instant success. The original line was single tracked with passing sidings allowing for 15 minute service. This quickly proved...
Red Trolleys in the Sun
– Light Rail and PCC’s in San Diego

inadequate. Thus the line was fully double-tracked by 1984. At one point the farebox recovery ratio was over 100% meaning, fares collected more than paid for operating expenses. Further expansion continued. The first extension was building the line out to El Cajon and Santee. The line to Mission Valley was next, with eventual extension linking the Mission Valley Line with the line to Santee.

Today the San Diego Trolley is nearly 60 miles in length with 3 routes: The Blue Line to San Ysidro, the Orange Line to El Cajon via Mission Valley and the Green Line to Santee. The farebox recovery is no longer as good, but still ranks well among North American transit systems at over 55%.

A recent addition to the Light Rail System is the Silver Line. It is a clockwise loop line around downtown San Diego utilizing existing tracks and stations. What makes it unique is it uses a refurbished PCC car. Car #529 is currently the only car in operation. It was originally built in 1946 for St. Louis before heading to San Francisco as car # 1122. It had been stored at Lake Tahoe before coming to San Diego to be restored. San Diego did have PCC’s with the first one rolling on the rail in 1949. The odd part of #529 is the modifications made to meet ADA compliance. Wheelchairs are the only ones that can enter using the front door, as that is where the lift is located. Everyone else must enter/exit thru the rear door. This means the operator either needs to verify the proper passes/fares using his rear-view mirror, or at busy stops, he must walk to the rear to check them. Normal Light Rail fares and passes apply to the Silver Line.

The Silver Line only operates on weekends, holidays, and on Tuesdays and Thursdays during midday. Once they have the next PCC, car #530, operating hours might be extended. They have a total of 5 more PCC’s awaiting restoration. There is consideration to extend the Silver Line onto new trackage out to the tourist popular Balboa Park. It is home to many museums and the famous San Diego Zoo. I predict this line would prove very popular with locals and tourists!

Let’s discuss more on the San Diego Trolley (Light Rail). The system is old enough now, that it is starting to retire the fleet of U2 cars that opened the system. Eleven of them have found a new home in Mendoza, Argentina, operating on a newly built Light Rail System. Mendoza will be obtaining some more cars soon. Two of the U2 cars have found their way into museums. One went to Rio Vista, aka Western Railway Museum, near the Bay Area in California. The other went to Rockhill Trolley Museum in the central Pennsylvania. The U2’s have been mostly supplanted by low-floor Siemens S70 (similar to the Type 4 LRV’s in Portland) of 2 different lengths, high floor Siemens SD100’s round out the fleet.

San Diego continues to look at extending their Light Rail system. One key gap I see is no rail access to the airport. But that might change sometime in the future.

If you get tired of the Light Rail System, San Diego also had a commuter rail system called The Coaster. It runs from San Diego Santa Fe Station north to Oceanside. At Oceanside you can transfer to either the Los Angeles Metrolink Commuter Rail to LA, or the Sprinter. The Sprinter is a Diesel Light Rail line that runs from Oceanside inland to Escondido. It is operated by North County Transit District. Lastly Amtrak operates the Pacific Surfliner from San Diego to Los Angeles.

Fares for the San Diego Trolley system, Sounder and Sprinter are either tickets from fare machines, or the new Compass Card. The Compass Card is an RFID

PCC #528 at 12th/Imperial. Note the ADA lift clearly blocking the original front entrance to the car

PCC #529 by the Gaslamp District Station with the Convention Center in the background.

Continued on page 8...
Red Trolleys in the Sun
– Light Rail and PCC’s in San Diego

Next time you head to southern California, I highly recommend going to San Diego. It is a great city, with great weather most of the year, without the craziness of Los Angeles. And it has a great transit system!

contactless farecard system. Many transit systems around the world are switching to this fare collection method. The Seattle area has something similar called the ORCA card. You load the card with money and/or passes. Then just tap on to board the train. For the commuter train you must also tap off to capture the zone based fare system.

Maintenance and repairs on the Open Car.
After a rough start to the season, repairs and maintenance has progressed on the open car. At the end of the last operating season, the car had been experiencing a delay in the controls on both ends of the car. The crew spent numerous hours checking through the control components finding minor issues at every turn, hoping the repairs to each would solve the delay issue. The problem was eventually found to be a loose and burned connection in the junction box connecting the controllers on the ends of the car to the switch group under the car. The wire connector was replaced and repaired with a new screw cut to fit the terminal strip. The car was tested and performs properly.

Emergency track repairs and derailments
The first two weeks of operation saw several car derailments. Two of the drops were in the yard track at the first two frogs with one drop inbound and one outbound. Measurements found the gauge to be nearly 1" tight. Gauge rods were installed to correct the problem and appear to be working properly. The third drop occurred in the northeast curve, the gauge has been checked and determined to be within tolerance. The cause for the drop had not been identified. Locomotive 401 dropped an axle at the crossing while clearing the flange ways and quickly re-railed.

Interpretive Center Update  Spring 2014  continued from Page 2...

All photos by Mark Kavanagh
On May 1, 2004, the Yellow Line opened in Portland, four months ahead of time. The new line is a 5.8-mile extension of MAX light rail in Portland. Originally, it was planned to connect Milwaukie with Vancouver WA, but that ended when Vancouver residents in 1995 voted down the project. In addition, Portland voters rejected an increase in property taxes for a revised Oregon-only project.

The 5.8 miles consists of 10 stations, 2 surface Park & Rides with 300 spaces each, 12 connections with Tri-Met buses along the line plus numerous downtown bus lines. 6000 plastic recycled railroad ties were used in the imbedded line.

With the addition of the Yellow Line along Interstate Avenue, new small businesses have come to the area revitalizing the community and of course the famous 37-foot Paul Bunyan and Babe the Blue Ox were moved 59.2 feet to a new plaza to get it out of the right-a-way.

Also, a 4,000 foot long Vanport Bridge was constructed which goes over several industrial properties, a slough, railroad tracks, highways and a flood plain. As was pointed out, this name was in memory of the former city of Vanport which was engulfed in a devastating flood in 1948.

The Yellow Line originally went from North Portland over the Steele Bridge with the Blue and Red lines in 2004. With the re-do of the downtown transit mall, the Yellow Line moved onto the mall traveling North/South from the Union Station to the North ending in a loop at Portland State University returning North on S.W. 6th back to the Steel Bridge.
**Seattle Transit Updates**  
*By Roy Bonn*

**Sound Transit-Northgate Light rail extension**

The first tunnel boring machine began work on the Northgate light rail extension on July 7th with the second boring machine scheduled to begin in October after it is reassembled. The 3.6 mile extension from the University of Washington to the Northgate shopping center. It will be in twin tunnels until exiting the Maple Leaf portal at NE 94th Street to an overhead structure to the Northgate station. The tunnel is expected to reach Roosevelt Station early 2015.

**Seattle Streetcar- Broadway Line**

Construction was substantially complete in mid-June with the small remaining issues identified by the inspectors now being resolved. Inspections and testing will be ongoing until September when testing of the streetcars and operator training will begin.

With the construction of the Broadway line wrapping up in June and current testing of clearances, electrical and signaling, the latest guess for opening day is September 2, 2014. However, there may be a delay. The streetcars were initially scheduled to be delivered between January and April 2014. A key test of the cars revealed that the floors would not adequately protect the passengers should a fire start underneath the streetcar. The floors had to be redesigned and then had to pass the rigid fire test before manufacturing could continue towards eventual release for service.

Pacifica Marine is currently completing the manufacture of three cars being built in Seattle and Inekon in the Czech Republic is completing four cars. The fourth is being built by Inekon for the South Lake Union Streetcar line. This led to a six week delay in manufacturing.

The Broadway line cars have additional batteries which are recharged descending First Hill and will allow off-wire operation for a short distance. Streetcar testing is scheduled to begin in Sept 2014 after delivery has begun.

**Seattle Streetcar extensions**

The Seattle City Council approved the First Avenue route for the city center connector route to connect the Broadway line at First and Jackson St. to Pike Place and then connect to the South Lake Union Streetcar line at Westlake Center.

The one-half mile north extension to the Broadway line north from Denny Way was approved and construction is expected to begin in fall of 2016.

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**Tucson Sun Link Update**  
*By Roy Bonn*

Opening day took place on July 25th for the Tucson Sun Link streetcar line with free rides for 60,000 passengers. The last car to arrive was #108 on May 23 with testing beginning immediately. Operator training and streetcar testing has been ongoing with operation of two cars until May 28th when six cars on a ten minute schedule simulating actual operations started. The operators are gaining the experience that is needed for the forthcoming operations with real passengers.

I’ve mentioned that each streetcar undergoes extensive testing, a review of Sun Links program shows the following steps:

1- Preliminary track & systems at United Streetcar in Oregon.
2- Delivery to Sun Link Operations & Maintenance Facility (OMF).
3- At OMF, final assembly, power assembly testing, stationary systems interface & communications check.
4- Tow streetcar along rail to check clearance perimeter, visibility & overhead connections.
5- Personnel training: operations, command center, mechanics, drivers.
6- Controlled Low Speed tests along track: overhead electrical, vehicle & traffic signal interface.
7- Controlled high speed tests along track: brakes & signals, sand bags used to simulate passengers.
8- First Responder Drills: document maintenance & operations procedures and finish testing of OMF equipment.

Final: Each streetcar must be tested for 500 km with no failures in the last 100 km as part of the final streetcar acceptance by Sun Link.

The streetcars arrived in Tucson from United Streetcar on the following dates:


*Thanks to Tucson Sun Link and other resources.*

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**DC Streetcar**

On street testing of streetcars and training of operators resumed July 21st with four cars to simulate actual operations prior to actually carrying passengers.

Completion of work on the punch list is nearing completion. Enforcement of parking restrictions along the route started on July 14th to ensure that motorists do not encroach on the tracks.
In my “tender, formative years” in San Francisco, we were a one-car family, which my dad drove to work five days per week. That left my mother and us kids to our own resources. We either shopped in the West Portal district of San Francisco, or else we rode the “L” streetcar downtown to where the real action was. This is when and where I “contracted the trolley disease”. This was before the Market St. Railway was absorbed by MUNI. The moan of the traction motors was sweet music to the ears of this seven year-old. Naturally, I eagerly awaited these opportunities to race to the front of these “Iron Monsters”, there to stand next to the most majestic man in the universe, the motorman. I studied and admired his every move. He had the eyes of an eagle, the heart of a lion, and the hands of a surgeon. I had a “gee-wow!” moment every time he notched up to second point on the controller, and caused a switch to open...as if by magic. The awe and reverence I held for these guys stayed with me all through high school.

Fast forward to 1986 when my wife Annie caught sight of an article in the Oregonian about a consortium of local government agencies, stepping up to purchase a seven-mile stretch of unused Southern Pacific right-of-way. With the franchise awarded to O.E.R.H.S. for operations, Chuck Hayden mentioned that he would
Hal Rosene, continued

offer his services as pilot to train prospective motormen on Portland Traction's car #503. Annie read the article before I had a chance, knowing full-well that divulging it to me could well have led to trolley widow-hood for her! But in an act of selfless devotion, she told me, and “the rest”, as they say, “is history.”

For twenty-seven years I have been affiliated with the Willamette Shore Trolley, nineteen of them while serving as operations superintendent. They have been very happy years, and I consider myself privileged to be part of a volunteer organization that's so free of petty jealousies and so full of good cheer for everyone in our cadre.

Flexible Bus #435 was involved in a head-on collision with an automobile. The fender well was re-built by Dave in 1981 when no body parts of this kind could be purchased.

Hal with car #813 at the Nebraska St. crossing, fronting Willamette Park; soon after it went into service on the WST line. The conductor, John Carmony, did double-duty as the photographer. It was a “deadhead run”, and we didn't linger long enough to drain the wig-wag's battery. Those were the days when the line had the luxury of wig-wags at three of the busier intersections.

This is a “rare photo” of two streetcars in revenue service at the same time. The location is the WST siding just north of Nebraska St. The date: Sept. 18, 1992. Southbound on the main is car #731, the Blackpool Belle. “In the hole” is San Antonio Car #300. We used the staff-exchange system to avoid mishaps between the two. After the pass, and with staff in hand, I took car #300 out to the main, and proceeded to our northern terminus at Sheridan St. This was the Belle’s maiden run, and thankfully, everything mechanical and electrical on both cars performed without attendant problems. Noteworthy is the spotlight atop #731

The “Four WST Pilots” in front of VT#514, left to right: Ken Peters, Hal Rosene, Bob Kilpatrick, and Bob Sparkes.