

LET news

on the Internet!

LRT News is published exclusively on the Internet. The table of contents offers links directly to each article, or you can scroll down to read the entire newsletter. To receive *LRT News*, please bookmark the TRB online publications page http://www4.trb.org/trb/online pubs.nsf.

The **Transportation Research Board** is a division of the National Research Council, which serves as an independent advisor to the federal government on scientific and technical questions of national importance. The National Research Council, jointly administered by the National Academy of Sciences, the National Academy of Engineering, and the Institute of Medicine, brings the resources of the entire scientific and technical community to bear on national problems through its volunteer advisory committees. Vol. 18, No. 2

NOVEMBER 2003

WASHINGTON, D.C.

C O N T E N T S

New "Classic" Streetcars Return to Tampa 2

Antitax Voters Pass Transit Tax 7

King of the Road9

You Can Learn a Lot on the Bus 11

"New" Streetcars Begin Running in Tacoma 13

Related Transit Links 15







13

LRT News is published intermittently by the Transportation Research Board to disseminate information on new developments in light rail transit planning, technology, and operations. The newsletter also reports on new studies, completed research, and current literature. The publication of *LRT News* is made possible through funding under the Technical Assistance Program of the Federal Transit Administration. Donald O. Eisele, editor. John W. Schumann, Chairman, TRB Committee on Light Rail Transit. Peter L. Shaw, TRB staff. Submit news items to *LRT News*, Transportation Research Board, 500 Fifth Street, NW, Washington, DC 20001, telephone 202-334-2966. ISSN 0162-8429.

TRANSPORTATION RESEARCH BOARD OF THE NATIONAL ACADEMIES



<u>New "Classic"</u> <u>Streetcars Return</u> <u>to Tampa</u>

Antitax Voters Pass Transit Tax

King of the Road

You Can Learn a Lot on the Bus

*

<u>"New" Streetcars</u> Begin Running in <u>Tacoma</u>

Related Transit Links



NEW "CLASSIC" STREETCARS RETURN TO TAMPA

TECO Line Connects Major City Sites for Tourists, Convention Attendees, and Commuters

On October 19, 2002, electric streetcars triumphantly returned to Tampa as the new TECO Line opened for revenue service. Free rides were offered on opening day, and every car ran with a capacity load all day. It was an auspicious beginning, and ridership has continued to exceed expectations by about 50 percent.

Streetcars previously had run in Tampa from 1892 until 1946 when, as happened in so many other cities, they were replaced by buses. Tampa still has a healthy bus system, operated by HARTLine, and the new streetcar line is an adjunct to that system. Impetus for construction of the new line began in 1984 with the formation of the Tampa & Ybor City Street Railway Society, which provided the initial backing and enthusiasm for the project. In 1996, the city of Tampa and HARTLine formed a partnership to develop the new system. Construction began in February 2001, and testing of the line began in August 2002. The Tampa Electric Company (TECO) had developed Tampa's original streetcar line and has purchased the right to name the new system The TECO Line, although it is actually operated by HARTLine.

Completely New Route

The new line does not duplicate any of Tampa's previous streetcar lines, but it has been strategically positioned to be the nucleus of an expanded system. The current portion runs from Tampa's Convention Center to Ybor City (pronounced "eebor"), passing by the St. Pete Times Forum sports arena, the Channelside shopping and entertainment district, the Florida Aquarium, and three cruise ship terminals; then crossing the CSX railroad at grade with automatic interlocking en route to the rejuvenated Ybor City shopping and entertainment areas. Current clientele consists of several different groups of people. At 11 a.m. when service begins, customers are mainly tourists and cruise ship



<u>New "Classic"</u> <u>Streetcars Return</u> <u>to Tampa</u>

Antitax Voters Pass Transit Tax

King of the Road

You Can Learn a Lot on the Bus

<u>"New" Streetcars</u> Begin Running in <u>Tacoma</u>

Related Transit Links





Car No. 428 stops in front of Centennial Park on Eighth Avenue between Eighteenth and Nineteenth Streets in Ybor City, Tampa.

passengers, along with a scattering of regular commuters. At 5 p.m., tourists are replaced in the streetcars by convention attendees who want to visit Ybor City restaurants and night clubs. At 7 p.m., the streetcars are filled with customers heading to a sporting event or concert at the St. Pete Times Forum. From then until closing, customers generally head to and from Ybor City.

The new streetcar line is 2.4 miles long and has 10 handicapped-equipped stations. It is a single track system with six passing sidings. All of the track switches (except for a few at the carbarn) are spring switches and, interestingly, are normally set for left-hand running. Patrons and motorists who are not familiar with the system do not expect left-hand running, which has resulted in occasional confusion and has required extra alertness by motormen. Another interesting construction feature is the use of a double trolley wire on the single track portions. This eliminates the need for overhead trolley frogs, which have a tendency to cause dewirements. Trolley frogs are in use around the carbarn, where speed is restricted.



<u>New "Classic"</u> <u>Streetcars Return</u> <u>to Tampa</u>

Antitax Voters Pass Transit Tax

King of the Road

You Can Learn a Lot on the Bus

<u>"New" Streetcars</u> Begin Running in <u>Tacoma</u>

Related Transit Links



Brand New "Classic" Cars

The eight vehicles currently operating on the new line are replicas of double truck Birney Safety Cars, which had operated in Tampa. The new cars are numbered 428–435, chronologically following the old Tampa system that ended with Car No. 427. The new cars were built during 2000-2001 by the Gomaco Trolley Company located in Ida Grove, Iowa. Some of the parts, such as the K-35 controllers, truck frames, motor- and air-compressor housings, were salvaged from retired cars from Milan, Italy. The wooden walkover seats are reversed when changing ends at terminals. Each car has a trolley pole at either end that is equipped with sliding carbon shoes. The cars seat 44, and can accommodate 40 standing customers. Equipped with four 25-hp motors, the cars can achieve a top speed of 30 mph. The cars are 46 feet long, weigh 46,000 lbs, and cost \$605,000 each. They also are equipped with an Opticom system, which operates trolley signals at street crossings and inserts a special sequence into traffic signals to allow for streetcars to move through intersections.



The full carbarn, located on Nuccio Parkway between Sixth and Seventh Avenues, before the fleet of "new" cars start morning service.



<u>New "Classic"</u> <u>Streetcars Return</u> <u>to Tampa</u>

Antitax Voters Pass Transit Tax

*

★ King of the Road

You Can Learn a Lot on the Bus

*

<u>"New" Streetcars</u> Begin Running in <u>Tacoma</u>

* <u>Related Transit Links</u>



Other improvements on the old Birney car design include air-conditioning (a necessity in Florida), an automated station announcement system, two-way radios that enable the motorman to maintain contact with other streetcars and with rail dispatch, and a door sensitive edge feature that automatically reopens doors if they encounter an obstruction while closing.

Also on hand at the carbarn is Car No. 163, a single truck Birney which operated in Tampa from 1923 until 1946. This car was found being used as a storage shed in northern Tampa and was restored to operating condition by volunteers. The car will be used for special events as soon as it is fully operational and an air brake problem is fixed.

Handicapped Accessibility

Each of the 10 stations has a high-level platform equipped with a wheelchair ramp, which can be unlocked by the motorman and manually lowered into the doorway of the streetcar. The bench seats at either end of the car can fold up to accommodate wheelchairs. It is a tight squeeze getting some motorized wheelchairs secured, but it can be done.

Operating Hours

- Monday, Tuesday, Wednesday: 11 a.m. to 10 p.m.
- Thursday: 11 a.m. to 11 p.m.
- Friday: 11 a.m. to 2 a.m.
- Saturday: 9 a.m. to 2 a.m.
- Sunday: noon to 8 p.m.

The normal schedule provides 15-minute headway in each direction, and it takes about 22 minutes for a one-way trip. This requires the operation of four cars to provide the current level of service. Additional cars are operated for charters or special occasions when additional capacity is needed.

Fares

- One-way: \$1.25, (\$.60 for seniors, youths, handicapped)
- One-day unlimited ride: \$3 (\$1.50 for seniors, youths, handicapped)

<u>New "Classic"</u> <u>Streetcars Return</u> <u>to Tampa</u>

Antitax Voters Pass Transit Tax

*

★ King of the Road

You Can Learn a Lot on the Bus

* <u>"New" Streetcars</u> <u>Begin Running in</u> <u>Tacoma</u>

* <u>Related Transit Links</u>

- Three-day unlimited ride: \$9
- 20 ride card: \$25 (\$12 for seniors, youths, handicapped)
- 31-day unlimited ride: \$46
- Annual streetcar pass: \$100

Personnel

Tim Borchers is the Superintendent of the HARTLine Streetcar Division. Borchers was previously the Tramway Manager of the Bendigo Trust System in Australia, which operates the original Birney cars.

The streetcar conductor/motorman positions are filled mainly by former HARTLine bus drivers retrained as trolley motormen. There are two part-time motormen, both with experience operating streetcars at museums.

Future Expansion

The future looks bright for streetcars in Tampa. Several expansion scenarios are already under discussion, the first of which is very near to becoming reality. This will be an extension from the Convention Center onto Franklin Street through downtown Tampa and over to the Performing Arts Center.

—Thomas A. Bjorkman





<u>New "Classic"</u> <u>Streetcars Return</u> <u>to Tampa</u>

Antitax Voters Pass Transit Tax

King of the Road

You Can Learn a Lot on the Bus

*

<u>"New" Streetcars</u> <u>Begin Running in</u> <u>Tacoma</u>

Related Transit Links



ANTITAX VOTERS PASS TRANSIT TAX

Utah Strategy Yields Success in Expanding Public Transportation System

Westerners love their cars, and nobody understands this better than the Utah Transit Authority (UTA). Although Utah is a large state, about 75 percent of its population resides along a narrow 100-mile strip known as the Wasatch Front. But in the last several years, this urban area has experienced many problems associated with population growth, including congestion and poorer air quality. UTA and many other groups in Utah have come to a consensus that an expanded public transportation system is the key to successfully meeting the transportation needs of the growing population.

Before UTA could implement a long-range transportation plan, however, it had to overcome the lack of funding, which could only be raised from three uncertain sources: rider fees, county sales taxes, and the federal government. Since it was established in 1974, UTA had never succeeded in obtaining an additional tax increase. UTA hired R&R Partners to help it target three key counties for the sales tax push. This was a challenge because Utah state law forbids governmental authorities (such as UTA) from conducting advertising-driven political campaigns to persuade voters to approve a sales tax referendum. UTA could only educate the public about its vision for an expanded public transit system.

Meeting the Challenge in Educating the Public about Transit

With this constraint in mind, UTA and R&R Partners created an integrated program using advertising, public relations, and government and public affairs disciplines to educate various target audiences—primarily focusing on opinion leaders and voters in these counties. They created a series of campaigns that began with the theme, "Even if you don't ride it, you use it." The emphasis was how UTA was helping to take thousands of cars off Utah roads every day, thus cutting down on both congestion and pollution.



<u>New "Classic"</u> <u>Streetcars Return</u> <u>to Tampa</u>

Antitax Voters Pass Transit Tax

*

King of the Road

You Can Learn a Lot on the Bus

*

<u>"New" Streetcars</u> Begin Running in <u>Tacoma</u>

Related Transit Links



In addition, they conducted a public relations program focusing on special public events, including a commuter rail demonstration project and a transportation conference that provided a strategic opportunity for media coverage of UTA's Master Plan.

The results were overwhelmingly positive, with voters in all three counties approving the sales tax referendum. Analysis of election returns revealed the enormous success of the strategy to target voters in designated geographic areas. UTA is now benefiting from an additional \$42 million in revenues from the new sales tax, making it possible to expand light rail, improve bus service, establish commuter rail, and improve the community's air quality for years to come.

The main challenge in passing the referendum was that for years the UTA had focused its marketing resources on building ridership. Because the majority of voters do not partake in mass transit, it was imperative to build ongoing support among nonusers. We won the referendum by building this foundation, and it is crucial to maintain and add to that support.

Continuing the Effort to Preserve Transit Popularity

Moving forward, UTA has balanced its advertising budget between increasing ridership and maintaining its base of public support. A good example of this was the University Line grand opening campaign, which not only announced the opening of the light rail spur, but also demonstrated fiduciary responsibility by opening the rail ahead of schedule and on budget. Again, because of the constraints for how public money can be used, UTA is continuing to integrate the accountability message into advertising spots that, on the surface, appear to be strictly ridership oriented but actually work on a deeper level to continue building and maintaining public support. Since the referendum passed, UTA's public favorability rating has remained at a record high of more than 70 percent.

-Betsy Ward and Kyle Curtis, R&R Partners



<u>New "Classic"</u> <u>Streetcars Return</u> <u>to Tampa</u>

Antitax Voters Pass Transit Tax

*

★ King of the Road

You Can Learn a Lot on the Bus

*

*

<u>"New" Streetcars</u> Begin Running in <u>Tacoma</u>

Related Transit Links

*



The slides below were selected from one of the TV spots presented on regional television in the Salt Lake City area in the fall of 2000. The actor is singing "King of the Road" while driving on the empty highway. The last scene shows the light rail transit at crossing above the highway.











<u>New "Classic"</u> <u>Streetcars Return</u> <u>to Tampa</u>

Antitax Voters Pass Transit Tax

 \star

★ King of the Road

You Can Learn a Lot on the Bus

*

<u>"New" Streetcars</u> Begin Running in <u>Tacoma</u>

 \star

* <u>Related Transit Links</u>







That's enough to fill 3 lanes of traffic...









<u>New "Classic"</u> <u>Streetcars Return</u> <u>to Tampa</u>

Antitax Voters Pass Transit Tax

*

* King of the Road

You Can Learn a Lot on the Bus

*

*

<u>"New" Streetcars</u> Begin Running in <u>Tacoma</u>

* <u>Related Transit Links</u>



YOU CAN LEARN A LOT ON THE BUS

These photos appeared as backlight posters on the University of Utah campus and as advertisements in campus newspapers, promoting Utah Transit Authority services.



University of Utah students ride free with student I.D. **UTA**



University of Utah students ride free with student I.D. **UTA**



<u>New "Classic"</u> <u>Streetcars Return</u> <u>to Tampa</u>

Antitax Voters Pass Transit Tax

 \star

* King of the Road

You Can Learn a Lot on the Bus

*

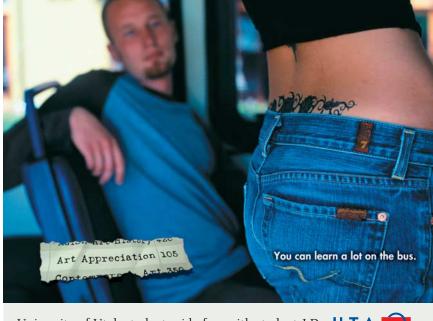
<u>"New" Streetcars</u> Begin Running in <u>Tacoma</u>

*

* <u>Related Transit Links</u>



YOU CAN LEARN A LOT ON THE BUS (continued)



University of Utah students ride free with student I.D. **UTA**



University of Utah students ride free with student I.D. **UTA**



<u>New "Classic"</u> <u>Streetcars Return</u> <u>to Tampa</u>

Antitax Voters Pass Transit Tax

King of the Road

You Can Learn a Lot on the Bus

*

<u>"New" Streetcars</u> Begin Running in <u>Tacoma</u>

Related Transit Links

"NEW" STREETCARS BEGIN RUNNING IN TACOMA

In One Month, Service Already Exceeds Projected Ridership for 2010

The Tacoma Street Car Line (officially known as Tacoma Link Light Rail System) is a 1.6-mile inner-city circulator that will serve a variety of needs. The southern most terminal, the Tacoma Dome Station, provides a transit hub for city buses, express bus service to Seattle, commuter train service to Seattle and Everett, and Amtrak service. The Tacoma Dome Sports Arena also is located nearby.

From the Tacoma Dome, a single-track heads west on Twenty-fifth Street, turns north on Pacific Avenue, and becomes double track at Twenty-first and Pacific. It proceeds another mile through downtown Tacoma and ends at the intersection of Ninth and Commerce Streets. Along the way the Tacoma Street Car Line runs through the business and banking district, and serves three world-class museums, the new Tacoma campus of the University of Washington, a new hotel and convention center (currently under construction), and the Theater District.

The street car line is expandable at both ends, and is designed to accommodate the larger light railcars, Sound Transit Central Line. Before the line opened there already was talk of extending it. A week before the grand opening, Sound Transit received a \$50,000 grant for a study of a 3/4-mile extension of the line to a proposed new gaming center.



Tacoma Street Car photographed by John Aurelius in August 2003. The Tacoma line was modeled after Portland streetcars, which Aurelius photographed in the Fall 2001 issue of *LRT News*.





New "Classic" **Streetcars Return** to Tampa Antitax Voters Pass Transit Tax King of the Road You Can Learn a Lot on the Bus * "New" Streetcars Begin Running in **Tacoma Related** Transit Links In the most pragmatic terms, the streetcar will relieve Tacoma of a severe downtown parking shortage. At the Tacoma Dome, a newly completed parking garage has spaces for more than 800 vehicles. At the north end of the line, existing parking garages were under utilized. A significant number of downtown office workers are expected to use the streetcar. Thus the line opens each day at 6 a.m.

City officials envision much more. Tacoma is an old mill town with turn of the century buildings, many of which are unoccupied. In the late 1980s Tacoma remodeled the old Union Station railroad into a structure that won numerous architectural awards. Located in the center of downtown, it quickly became the centerpiece of Tacoma's urban renewal efforts. Today the streetcar is proving to be a unifying force in the city's urban planning. Already the new streetcar alignment is bearing fruit. Old buildings are being renovated, and previously vacant lots are under new construction.

Out-of-town visitors to the new convention center can utilize the streetcar by attending events at the Tacoma Dome, taking a train or express bus to Seattle for the day, touring Freighthouse Square—a myriad of specialty shops and eateries, enjoying Tacoma cultural events at museums and theaters, and perhaps spending some cash in Tacoma at the local casino. All of this is in addition to the streetcar's ability to transport students and business men and women between the various amenities of a downtown that is growing daily.

Service officially opened on August 22, 2003. The number of boardings on the line already has exceeded the agency's projected ridership for 2010—just one month into its existence and seven years ahead of schedule.

Not including opening day, the ridership peaks on Thursdays due to the draw of the farmers market in downtown Tacoma. For example 3,355 riders used the line on September 18.

The cars were built in the Czech Republic to American standards by Skoda Inekon and delivered without any local assembly. The Tacoma Street Car Line was patterned after the cars recently put in service in Portland, Oregon, with only a few modifications specific to the needs of Sound Transit.

-Michael Hall, LTK Engineering



<u>New "Classic"</u> <u>Streetcars Return</u> <u>to Tampa</u>

Antitax Voters Pass Transit Tax

*

King of the Road

You Can Learn a Lot on the Bus

<u>"New" Streetcars</u> Begin Running in <u>Tacoma</u>

*

★ <u>Related Transit Links</u>



RELATED TRANSIT LINKS

LRT News

http://gulliver.trb.org/publications/lrtnews/	(May 2003)
lrtv18n1.pdf	
<u>http://gulliver.trb.org/publications/lrtnews/</u> <u>lrtv17n1.pdf</u>	(December 2002)
http://gulliver.trb.org/publications/lrtnews/ lrtv16n2.pdf	(Fall 2001)
http://gulliver.trb.org/publications/lrtnews/ LRTv16n1.pdf	(July 2001)
http://gulliver.trb.org/publications/lrtnews/ LRTv15n1.pdf	(June 2000)
http://gulliver.trb.org/publications/lrtnews/ lrtv14n2.pdf	(December 1999)

Intercity Rail Passenger Systems Update

http://gulliver.trb.org/publications/irps/ (Spi irps_9.pdf

(Spring 2003)

TRB 2004 Annual Meeting http://www4.trb.org/trb/annual.nsf

TRB Calendar http://www4.trb.org/trb/calendar.nsf

TRB Transit Cooperative Research Program http://www4.nas.edu/trb/crp.nsf/

Federal Transit Administration <u>http://www.fta.dot.gov/</u>

American Public Transportation Association http://www.apta.com/

This Is LRT http://www.trb.org/trb/publications/circulars/ec033.pdf

THE NATIONAL ACADEMIES

Advisers to the Nation on Science, Engineering, and Medicine

The nation turns to the National Academies—National Academy of Sciences, National Academy of Engineering, Institute of Medicine, and National Research Council for independent, objective advice on issues that affect people's lives worldwide. www.national-academies.org