



SANTA ROSA DEPOT

## IN THIS ISSUE

The New Jersey River LINE - 1

Chair's Commentary - 1

Transit Is Key to Effective Land Use - 1

Trinity Railway Express - 2

China by Rail - 3

Calendar of Events - 4



## The New Jersey River LINE

by David Schonbrunn

Recently I rode New Jersey Transit's River LINE, which runs between Trenton and

Camden. The system has some striking similarities to the SMART Project, including the use of self-powered rail cars. It has substantial amounts of single-track (with passing tracks) on a former freight right-of-way that is now publicly owned. Trains consist of one or two cars, and the short station platforms just fit.

Freight and passenger services share the right of way—freight trains use the tracks at night, when passenger service is shut down. The agency states that 99.2% of trains arrive on time.

The passenger rail vehicles are Stadler GTW light diesel multiple units, very quiet and rather like electric light rail vehicles, with a top speed of 60 mph. Each car accommodates up to 72 seated passengers and 78 standees. The cars have banks of diesel engines and generators in the mid-section, with seating at either end of the car, and a connecting passageway in between. Although this arrangement seems a little strange, it permits easy low-floor boarding, and passengers seem happy with the ride.

### Highest Passenger Satisfaction

The operators say they've received no negative comments, with this line having the highest customer satisfaction of all NJT lines; 76% of riders are new to transit. Riders' chief suggestions are that they would like more seating and more frequent service. Service is every 15 minutes during the peak period, and every half-hour the rest of the day. Trains use the passing tracks 9 times on each 34-mile trip, with 2-minute time windows each time trains meet. The operators are consistently able to meet this exacting schedule, except when some special event causes slow boarding, or if there is a rare mechanical problem.

Some called the effort to reconstruct an old rail line in a declining corridor a "boondoggle." It cost \$67 million just to acquire the right of way from the freight operator, and the overall cost of the system was about

*Continued on page 2*



The New Jersey River LINE has similarities with the SMART Project such as the use of self-powered cars.

## Chair's Commentary

by Steve Birdlebough

Welcome to the July 2006 issue of *On Track*, the newsletter of Friends of SMART. This month we take a closer look at three other passenger rail services. They underline our good fortune in having North Bay leaders with the foresight to keep the SMART right-of way in public hands. As you read about these other systems, note how much they had to pay for their rights of way! These trains all operate with miles of single-track line, relying on passing tracks to accommodate two-way operations, as will the SMART system. Travelers find these operations safe, reliable, and efficient.

We've seen some great presentations during June by Peter Calthorpe, Jeff Tumlin, Tom Matoff, and several other leaders in the field of transportation and land use at events sponsored by Sonoma County Conservation Action, and the Santa Rosa Chamber of Commerce. Both events highlighted the importance of rail service to the future of the North Bay.

In June, just after the first official day of summer, we saw several "Spare The Air" days, where almost all transit in the Bay Area was free. Ridership went way up, especially on the Ferry, which saw triple the normal ridership on mid-day runs as people enjoyed a traffic-free day on the Bay. With the rest of the summer ahead, we hope you'll take advantage of transit to get to work, and in November, open the opportunity for another mode of transit in the North Bay: The SMART Train.

## Transit Is Key to Effective land Use

The connections between transportation and land use have been gaining significant attention from community leaders recently. During the month of June, events sponsored by the Santa Rosa Chamber of Commerce, and Sonoma County Conservation Action featured architect Peter Calthorpe, planning consultant Jeff Tumlin, general manager Tom Matoff, and several other leaders in the field.

### Multimodal Transportation and Land Use Study

Calthorpe described the influence of land use concepts that grew from study of travel patterns in the SMART Corridor in the early 1990s. During those years he was audacious enough to bring experts in land use and transportation planning together to

*Continued on page 3*

**MISSION STATEMENT**

FRIENDS OF SMART IS  
A CITIZENS GROUP  
DEDICATED TO  
INFORMING THE PUBLIC  
OF THE BENEFITS  
OF RAIL AND SMART  
GROWTH IN MARIN AND  
SONOMA COUNTIES.

**CHAIR**

Steve Birdlebough

**VICE-CHAIR MARIN**

Mike Di Giorgio

**VICE-CHAIR SONOMA**

Ron Sundergill

**TREASURER**

Willard Richards

**SECRETARY**

Valerie Taylor

**CONTACT INFORMATION**

P.O. Box 4057

San Rafael, CA 94913

fos@pacbell.net

707-576-6632

www.friendsofsmart.org

# Trinity Railway Express

by Steve Birdlebough

On a recent visit to Dallas, we were invited to ride the Trinity Railway Express to Ft. Worth with Chief Mechanical Officer Josh Coran. Trains depart from the downtown Dallas Union Station and enjoy a cross-platform connection to the city's growing light rail system. Vending machines sell a round-trip adult ticket for \$4.50; transit passes are also accepted. The 34-mile ride to the historic Texas & Pacific Railroad Station in Ft. Worth takes a little over an hour, and we found it comfortable, quiet, and smooth.

Eight minutes after leaving downtown, the train stops at the Medical/Market Center Station, and nearly every empty seat gets filled. One of the new passengers assures us that were it not for the train she would have been unable to keep her current job; although the train takes 15 minutes longer than the drive from Ft. Worth, the traffic is just too stressful.

Josh tells us that forty-nine passenger trains carry an average 8,100 riders per day using six train-sets. They operate over the 34-mile single-track corridor between the two cities, arriving on time 96% of the time. Trains are locomotive-hauled, with two or three bi-level Bombardier and Hawker-Siddeley commuter cars capable of carrying up to 150 seated passengers apiece. Headways are about 30 minutes during commute

hours, and 90 minutes mid-day.

## Refurbished Cars Suit Passenger Needs

The TRE has 13 Rail Diesel Cars (RDCs) which were purchased from the VIA Rail System in Canada. These have been nicely refurbished by AMF Transport. The refurbished cars are equipped with high-back upholstered seats, non-skid rubber flooring, overhead luggage racks, space

for four wheelchairs per RDC car, and full air conditioning, heating, and ventilation.

## Quiet Zone Implemented

The line has a quiet zone in the city of Irving, which means that the horn is not used when the gates are down and the grade crossing is clear of traffic. A special flashing signal advises the operator when the horn should not be used.

Passenger and freight services are controlled by a centralized traffic control system located in the mainte-



Refurbished cars are equipped with high-back upholstered seats and overhead luggage racks, space for four wheelchairs per RDC car, and full air conditioning, heating and ventilation.



Trinity Railway Express between Dallas and Ft. Worth is comfortable, quiet and smooth.

nance facility at the mid-point of the line. While the right of way was acquired at a cost of \$1,000,000 per mile from the bankrupt Rock Island Railroad in 1983, it took until 1996 for the first 10-mile segment of passenger service to begin, under a joint operating agreement between the Dallas and Ft. Worth transit agencies.

## Expansion to Double Track

The TRE is also set to grow. A number of the single track sections are being converted to double track, a new crossing is being built over the Trinity between South Irving and Medical-Market, and plans exist for future extensions on the Ft. Worth area. For more information, see <http://www.trinityrailwayexpress.org/>.

Steve Birdlebough, Chair of Friends of SMART, was active in the successful effort to bring light rail service to Sacramento.

## The New Jersey River LINE

Continued from page 1

\$600 million, or \$20 million per mile.

Ridership was forecast at 5900 average weekday trips, but by setting the fare at a low \$1.25, the public has been wooed over. Most riders travel all the way from Camden to Trenton, or vice-versa. After two years of operation, the line carries 8,300 riders per day, and more on weekends. Due to the low fares only 11% of operating costs are covered by passengers, but state government is satisfied, because the railroad has stimulated substantial reinvestment in the area.

## DBOM and Financing

The project was a pioneer in using DBOM (design-build-operate-maintain) contracting. The winning bid was from a Bechtel-Bombardier consortium. They provide the vehicles, and receive a payment of \$18-20 million per year, which is just covered by the fare revenue. The transit agency pays debt service of \$48 million per year, to retire the economic development bonds that funded the capital cost of the project.

There are 50 grade crossings with gates and an additional 20 ungated street intersections, where the train runs in mixed traffic like a light rail. In response to complaints about train horns, requests have been made for quiet zones, where the horns would not have to be used. There has been one accident so far, where a car went around the lowered gate and hit the train broadside. The River LINE is a great example of a successful new rail operation.

David Schonbrunn is President of the Transportation Solutions Defense and Education Fund.

## TECHNICAL INFORMATION:

### The Stadler GTW Light DMU:

- Climbs a 6% grade • Low floor boarding
- Runs on the same ultralow sulfur fuel as New Jersey Transit's buses
- Travels 400 miles between refuelings
- Seats 72, with total capacity of 150
- NJT has 20 cars of this type.
- 74% of passengers travel entire length of LINE
- Average end-to-end speed is 30 mph.



# China by Rail

By Lionel Gambill

Recently my wife and I had the pleasure of seeing much of China in the best possible way—by train. Our accommodations were variously hard-seat coach, hard-bed sleeper, and soft-bed sleeper. Most sleeping cars have four-bed compartments, but on some trains one car has deluxe two-bed compartments.

We found China's trains fast, comfortable, and mostly on time. When train K254 reached Wuhan the conductor apologized because the train was thirteen minutes late; next morning we rolled into Shanghai on time. She also informed us over the PA that China had just completed the railroad to Tibet—the world's highest and longest rail line. Passenger service begins in July.

Anyone expecting to see a third-world country is in for some surprises, including such high-tech wizardry, such as green-laser light shows, Circle Vision (360°-wide-screen movies), dashboard video karaoke in your taxicab, and magnetic levitation (the last in Shanghai). We also rode in pedal-powered rickshaws, a sampan, and in my case a horse; in Sonia's, a sedan chair. In Hong Kong she nonchalantly chartered a junk to take us to the other side of the island. (No sails; junks nowadays have engines.)

Many of the rail lines we rode were largely single-track with passing sidings, yet every five or ten minutes we met a passenger train going by in the opposite direction. This level of train service was normal in the U.S. in the 1930s. We saw much new rail construction,

with heavily ballasted track, lots of electrification, and almost everywhere, concrete ties. Rolling stock looks more American than European, but one feature of present-day U.S. intercity rail travel was totally absent: not once was our passenger train shunted onto a siding to wait for a freight train to pass through.

Dining-car food varied from good to superb. Train T45, which we rode from Yan'an to Xi'an, was a sleek new trainset, and the dining car was elegant. On train K99 from Shanghai to Kowloon the dining car had an open kitchen, soon to become standard throughout China.

*One caution:* If you need a cup of coffee to start your day, be advised that the dining car serves Nescafé. Arriving in Chongqing, I was in caffeine withdrawal until I found a coffee house next to our hotel where they ground and then brewed for me a cup of Blue Mountain Jamaica. Chongqing, like Beijing, Shanghai, and Hong Kong, is a modern city. We boarded a ship there and sailed down the Yangtze to Yi Chang, where we caught our Shanghai train.

If you're planning to ride the train in China, reserve well in advance if possible. Trains are inexpensive and popular; typically, every coach seat and almost every sleeper bed is occupied. China is a beautiful country, enjoying an economic boom, and people are friendly and always eager to help. ❖

*Lionel Gambill is a board member of the Northwestern Pacific Historical Society; his encyclopedic knowledge of railroading is a great asset to Friends of SMART tours.*

## Marin/Sonoma ON TRACK



**China's trains are high tech, inexpensive and popular as well as fast, comfortable and mostly on time.**

### SMART FAST FACTS:

The costs of adding High Occupancy Vehicle lanes to highway 101 were recently summarized by the staff of the Sonoma County Transportation Authority as follows:

- A.** From Hwy 12 to Steele Lane in Santa Rosa:  
2 miles @ \$130 million = \$65 million per mile
- B.** From Steele Lane to Windsor:  
7.5 miles @ \$153 million = \$20 million per mile
- C.** From Hwy 37 to Old Redwood Hwy in Petaluma:  
16 miles @ \$587 million = \$36 million per mile
- D.** From Rohnert Park to Santa Rosa (completed):  
4 miles @ \$29 million = \$7 million per mile
- E.** Wilfred Avenue over-crossing:  
2 miles @ \$88 million = \$44 million per mile

The estimate reviewed by a blue-ribbon panel in May 2006 states the capital cost of the SMART rail project, including track upgrades, rail cars and contingencies at \$387 million, or \$5.53 million per mile.

No major right of way purchases are included in any of these estimates.

## Transit Is Key to Effective land Use

*Continued from page 1*

search for solutions to the physical and economic constraints that were restricting mobility in Marin and Sonoma counties. A Multimodal Transportation and Land Use Study, published in 1977 clarified the importance of restoring rail transportation and walkable places to the region. The insights from this report became a foundation for the New Urbanist movement that affects planning activity in all parts of the world.

### Geometry of Urban Space

Jeff Tumlin pointed out that key considerations in transportation planning include the geometry of urban space, and the dignity of individuals. He said we have been misled by measurements such as the "level of service" on a roadway. The focus on moving vehicles past a point tends to give the same status to a single-occupant automobile as to a bus with 50 people on board. If we allow ourselves to be driven by such measurements, we are encouraged to devote huge amounts of the urban landscape to parked cars and intersections, ignoring the needs of pedestrians, bicyclists and transit users. It would be better to give more weight to data that tell us how safe people feel when walking on the street at night.

Tumlin listed the critical considerations governing parking policies: manage spillover parking to assure residents that dense developments will be good neighbors; insist that all parking be shared so that drivers

are able to park their cars just one time to visit as many shops and offices as they wish; maximize on-street parking, and price it flexibly so that 15% of spaces are always vacant and available to visitors; design off-street parking to minimize its interference with walkable places; recognize that zoning requirements too often waste urban space by mandating excessive amounts of costly parking.

### Integration of Rail, Bus and Ferry

Tom Matoff described the growing network of rail lines throughout the Bay Area that will make people more productive and less stressed as they travel from place to place. He emphasized that integration of rail, bus and ferry operations is the key to convenience that will lead to greater transit use. Joint management of schedules, fares, and advertising will make it convenient for users to rely on more than a single line for travel.

### Climate Protection Campaign

These speakers come on the heels of earlier Transportation Forum presentations by David Erickson of the Climate Protection Campaign, and John Holzclaw of the Sierra Club, reviewing the trends toward global climate change, and the benefits of walkable transit-rich communities that reduce reliance on single-occupant vehicles.

More detailed summaries of the presentations and research by these experts can be found by visiting the Friends of SMART web-site:  
<http://www.friendsofsmart.org/> ❖



Friends of SMART  
 P.O. Box 4057  
 San Rafael, CA 94913  
[www.friendsofsmart.org](http://www.friendsofsmart.org)



## CALENDAR OF EVENTS - SUMMER/FALL 2006

<b>June 30, July 1-4</b>	Fri-Tues		Marin County Fair, San Rafael Civic Center
<b>July 12</b>	Wed		Grand Tour of Rail & Ferry Services
<b>July 19</b>	Wed	11:30 am	Friends of SMART meeting 42 Hillcrest, San Rafael
	Wed	1:00 pm	SMART Board meeting, San Rafael City Hall
<b>July 26</b>	Wed	1:30 pm	SMART Board meeting, San Rafael City Hall (tentative)
<b>August 2</b>	Wed	1:30 pm	SMART Board meeting, San Rafael City Hall (tentative)
<b>August 10</b>	Thurs		Grand Tour of Rail & Ferry Services ( <i>see below</i> )
<b>August 16</b>	Wed	11:30 am	Friends of SMART meeting, Santa Rosa TBA
<b>Sept 5</b>	Tues	7:00 pm	North Bay Rail Forum (TOD) Petaluma Community Center
<b>Sept 13</b>	Wed		Grand Tour of Rail & Ferry Services ( <i>see below</i> )
<b>Sept 20</b>	Wed	11:30 am	Friends of SMART meeting 42 Hillcrest, San Rafael
	Wed	1:30 pm	SMART Board meeting, Sonoma County Administration Bldg.
<b>Oct 3</b>	Tues	7:00 pm	North Bay Rail Forum (Mayor Boro) San Rafael
<b>Oct 12</b>	Thurs		Grand Tour of Rail & Ferry Services ( <i>see below</i> )
<b>Oct 18</b>	Wed	11:30 am	Friends of SMART meeting, Santa Rosa TBA
	Wed	1:30 pm	SMART Board meeting, San Rafael City Hall

For more information, go to: [www.friendsofsmart.org](http://www.friendsofsmart.org)

## Grand Tour of Rail and Ferry Services in the Bay Area

**SAVE THE DATES: • WEDNESDAY, JULY 12 • THURSDAY, AUGUST 10 • WEDNESDAY, SEPTEMBER 13  
 • THURSDAY, OCTOBER 12, 2006 • 9:45 AM TO 6:30 PM**

### ***Beginning and ending at the Larkspur Ferry Terminal***

Relax and experience the following services:

Larkspur Golden Gate Ferry • San Francisco Light Rail—N Judah Line  
 CalTrain Station and equipment—4th & King St. • Alameda/Oakland Ferry  
 AMTRAK Capitol Corridor • Altamont Commuter Express • BART

Details: Carpools between Santa Rosa and the Larkspur Ferry Terminal can be formed at the CalTrans Park'nRide. Trains and Ferries are accessible for bicycles and wheelchairs. For further information call 707-578-9133 (days) 837-8814 (evenings) or e-mail: [fos@pacbell.net](mailto:fos@pacbell.net)

**Reservations:** \$50 includes fares on ferries and trains other than BART, as well as a lunch salad at Scott's Sea Food, Jack London Square; does not include the cost of beverage.

Make checks payable to "SCT" and send with your e-mail address and phone number to:  
 Willard Richards, Treasurer, 1009 Hyland Dr., Santa Rosa, 95404