

RAILWAY MUSEUM

QUARTERLY

"Advancing Railway Preservation"

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arm

Spring 2009



An invitation received at the ARM 2008 Conference inspired the Editor to visit the Southern Museum of Civil War and Locomotive History, a growing ARM member in Kennesaw, GA. It's home to the *General* (Rogers 1855), the Civil War's most famous locomotive. For more on Georgia railway preservation, see page 4. Aaron Isaacs photo.

RAILWAY MUSEUM QUARTERLY

Railway Museum Quarterly is published quarterly by the Association of Railway Museums and distributed free of charge to member and affiliate member institutions and individuals. The opinions expressed herein are not necessarily those of the Association. Articles appearing in RMQ may be reprinted in whole or in part provided proper credit is given the source. Submissions are always welcomed, along with accompanying photos. Articles covering programs, initiatives, major events and undertakings of member institutions are of special interest.

ARM Membership

Membership in the Association of Railway Museums is open to nonprofit organizations preserving and displaying at least one piece of railway or street railway rolling stock to the public on a regularly scheduled basis. Other organizations, businesses and individuals interested in the work of the Association are invited to become affiliates.

All members and affiliates receive Railway Museum Quarterly as a benefit of membership. For more details, or to report address changes, please contact the Association of Railway Museums, 1016 Rosser St., Conyers, GA 30012, or email to cnc@lagniappeassociates.com.

Call us at (770) 278-0088 or visit our Web site: www.railwaymuseums.org.

Directors

Richard Anderson, Northwest Railway Museum, richard.anderson@railwaymuseums.org
David Dunn, Railroad Museum of Pennsylvania, david.dunn@railwaymuseums.org
Bob LaPrelle, Museum of the American Railroad, bob.laprelle@railwaymuseums.org
Peter Murphy, Exporail, peter.murphy@railwaymuseums.org
G. Mark Ray, Tennessee Valley Railroad Museum, mark.ray@railwaymuseums.org
Ken Rucker, National Capital Trolley Museum, ken.rucker@railwaymuseums.org
Jim Schantz, Seashore Trolley Museum, jim.schantz@railwaymuseums.org
Eric Sitiko, HART-TECOLine Streetcar Museum, eric.sitiko@railwaymuseums.org
Kyle Wyatt, California State Railroad Museum, kyle.wyatt@railwaymuseums.org

Officers

President: Bob LaPrelle
Vice President: David Dunn
Secretary: Ellen Fishburn, secretary@railwaymuseums.org
Treasurer: Ken Rucker, 1313 Bonifant Road, Silver Spring, MD 20905-5961, ken.rucker@railwaymuseums.org

Committees

Renewal Parts: Rod Fishburn, Chair, parts@railwaymuseums.org

Staff

Suzanne Grace, Executive Director, 1016 Rosser St., Conyers, GA 30012
cnc@lagniappeassociates.com

Railway Museum Quarterly

Aaron Isaacs, Editor, 3816 Vincent Ave. South, Minneapolis, MN 55410, (612) 929-7066, rmqeditor@railwaymuseums.org

The Association of Railway Museums is a Professional Affiliate Member of the American Association of Museums.

Organizational Mission: The purpose of the Association of Railway Museums is to lead in the advancement of railway heritage through education and advocacy, guided by the principles set forth in "Recommended Practices for Railway Museums" and incorporated in other best practices generally accepted in the wider museum community.

EXECUTIVE DIRECTOR'S LETTER

By Suzanne Grace

Each time I attend an ARM Board of Directors meeting, I am again impressed with the progressive leadership of the association. It is refreshing to observe a board whose members work solely for the benefit of the organization with no self-interest and in full cooperation with one another. There is, of course, no remuneration for ARM board members. Although much is expected of them, the work is strictly voluntary.

Each meeting begins with a review of the association's strategic plan. This document is a living plan for the association, a step-by-step map for reaching ARM's goals. Our facilitator is ARM member Don Evans of the West Coast Railway Heritage Park. His profession is strategic planning and he consults with organizations and companies all over the world. We are most fortunate to have someone of his caliber assist us in our planning.

The association's plans are big and all will result in better member service, new member benefits, and a smoother, more efficient operation. Here is the board's vision for ARM:

In 2016 ARM is recognized as the leading railway preservation support organization in North America. We have a membership of over 300 railway museums and heritage railway operations and several sources of revenue are sustaining our activities.

Our collaborative initiatives in working with other organizations have resulted in a unified and powerful voice in advocacy, education, and support for railway heritage.

New technology enables member connectivity and communications, and a constantly updated set of Recommended Practices are the standard for our sector and a model for others.

Some of the ways ARM is fulfilling its vision include discussions with other railway preservation organizations to seek out areas of common interest for collaboration and greater efficiency; an active membership campaign; a new web site set to launch before summer; a study committee to review member suggestions for revising and updating ARM's Recommended Practices for Railway Museums; improved member communication through email; and an effort to provide educational sessions at ARM conferences that meet the needs of all members.

The ARM Board of Directors is working hard and smart on your behalf and you can expect to see great results this year and in the coming years.

ARM 2009 IN BRITISH COLUMBIA



SEPT. 16-20 AT WEST COAST RAILWAY HERITAGE PARK “CHANGING SCENES”-THE 10-YEAR DEVELOPMENT OF A MUSEUM

Featuring:

BC Electric Traction Tour
BC Museum of Mining Tour
Trip to Whistler Resort on the Whistler Mountaineer
Royal Hudson steam trip to North Vancouver
SkyTrain Ride
Sea Bus cross harbor ride
Lunch on the Rocky Mountaineer
Heritage Park's new roundhouse
Former Pacific Great Eastern Shops

Seminars:

How planning drives museum development
Developing a future technology museum
Developing a learning destination
Finding sponsors and putting a name on facilities
Safety in museum workshops
Developing museums as sustainable attractions
Fundraising never stops
Maintaining a mainline steam locomotive
Steel and wood passenger car restoration

Conference Pricing (US Dollars):

	ARM members	Non-ARM members
Until July 15	\$275	\$300
July 16-Aug 15	\$295	\$325
After Aug 15	\$325	\$350

Registration:

Canadian ARM members: Book through West Coast Ry. Assn., www.wcra.org, 1-800-722-1233
Others: Book through the ARM office in Conyers, GA, www.railwaymuseums.org, 1-770-278-0088

Lodging:

Garibaldi Springs Resort - \$99 studio / \$119 - 1 bedroom
Mountain Retreat Hotel & Suites - \$95
(Rates in Canadian dollars, US equivalent about 80%, taxes not included)

Customs broker for US exhibitors:

Pacific Customs Brokers, www.pcb.ca, 604-538-1566



RAIL PRESERVATION IN GEORGIA

By Aaron Isaacs

Sometimes things converge. At the ARM 2008 Conference in Colorado Springs, I had met Dick Hillman, who encouraged me to do an article on his place, the Southern Museum of Civil War and Locomotive History in Kennesaw, Georgia. I needed material for RMQ, and a break from a particularly long, cold Minnesota winter sounded pretty attractive. ARM Executive Director Suzanne Grace lives near Atlanta, and wanted more first-hand exposure to rail preservation, so she accompanied me to Kennesaw, plus a short visit to the Southeastern Railway Museum in Duluth, GA. The trip concluded with a day-long visit to the Roundhouse Railroad Museum in Savannah.

Southeastern Railway Museum

In 1998, the museum moved from its old, 12-acre open-air site to a new, 30-acre former railroad car shop that was donated. Along with more land came two shop buildings, which made possible covered storage for a third of the collection. It converted the buildings to museum use through an \$810,000 TEA21 grant. The larger of the buildings houses the museum's best artifacts, a museum store, offices and interesting exhibits. The smaller building is open on the sides and only shelters rolling stock. Outside, a 44-tonner and caboose provide short rides on the yard trackage.

The collection of over 50 pieces provides a good cross section of southeastern railroading. There are nine steam locomotives, including a significant pair of 4-6-2s, Savannah & Atlanta #750 and Atlanta & West Point #290. Recently the museum acquired Red River & Gulf 4-4-0 #104 (Baldwin

1919), which for years ran at Stone Mountain disguised in faux-Civil War-era paint and diamond stack. Southern E8 #6901 (EMD 1951) graces the property in Southern Crescent green and gold. It is one of seven diesels in the collection. The 24 passenger cars include most car types and eras. Notable is the all-steel private car *Superb* (Pullman 1911), which carried President Warren Harding and is listed on the National Register of Historic Places. The nine cabooses represent most of the region's carriers.

Southern Museum of Civil War and Locomotive History

The subject of two motion pictures, the Civil War's Great Locomotive Chase was certainly one of the most famous rail episodes in American history. Its notoriety was sufficient to preserve its locomotive protagonists, the 4-4-0s *General* and *Texas*. Both survive today. The historic event itself started at Kennesaw, and that was the





The Southeastern Railway Museum occupies a former car repair shop outside of Duluth, GA.

Left: New York, Ontario & Western 44-tonner #104 (GE 1941) pulls the caboose train past Red River & Gulf 4-4-0 #104, still partially decorated for Stone Mountain.

Above: The complete interior of Southern RPO car #153 (Bethlehem 1928).

Middle right: Savannah & Atlanta 4-6-2 #750 (Alco 1910) occupies a display track in the main exhibit building.

Southern Crescent E8 #6901 (EMD 1951) in the smaller, open air carshop building.





Top: The exterior of the Southern Museum of the Civil War and Locomotive History in Kennesaw, GA.

Middle: This complete locomotive, built in 1926 and then repossessed, had been stored at the Glover Machine Works since the late 1920s.

Bottom: Wood patterns from the Glover Pattern Shop.

impetus for the museum created to display the *General*.

Dick Hillman gave us a tour of the place, which is much more impressive than I had expected. The City of Kennesaw owns the museum, but it receives considerable financial support through the efforts of its non-profit foundation, which employs Hillman. It is a Smithsonian affiliate.

A modern, professional-looking facility, it has been expanded more than once. It is divided into three main sections. After leaving the lobby, visitors enter an exhibit area that deals with the Civil War and the role of railroads in fighting it. The largest portion of the museum's space is dedicated to telling the story of the Glover Machine Works. This local company started out manufacturing machinery for the lumber business, including steam powered log skidders. Having learned to build skidders, it was a short step to building locomotives. Between 1903 and 1930 the company turned out 200 of them, mostly small industrial and logging engines. Family owned, they never threw anything away. When the company finally shut down in 1995, it was a virtual museum in its own right. All the records and tooling from the very beginning were intact. There were even two complete, unsold locomotives inside one of the buildings. With the family's cooperation, much of it is now displayed.

The third portion of the museum tells the story of the Great Locomotive Chase, featuring the *General* itself. The *Texas*, by the way, is exhibited in Atlanta at the Cyclorama.

Open seven days a week, the museum sees 50,000-60,000 visitors per year. There are 20 full time and part time paid staff, as well as 15-20 regular volunteers. There are 270 museum members. Revenue comes from admissions, the gift shop, capital grants, donations from local families and the city of Kennesaw.

Hillman showed us the state of the art climate controlled archive room. In addition to the Glover records, it houses a large collection of Southern railroad operating records, which are the owned by the Southern Railroad Historical Association. Its members are active in the cataloguing effort. Fundraising is underway to expand the archives space.

Savannah Roundhouse Museum

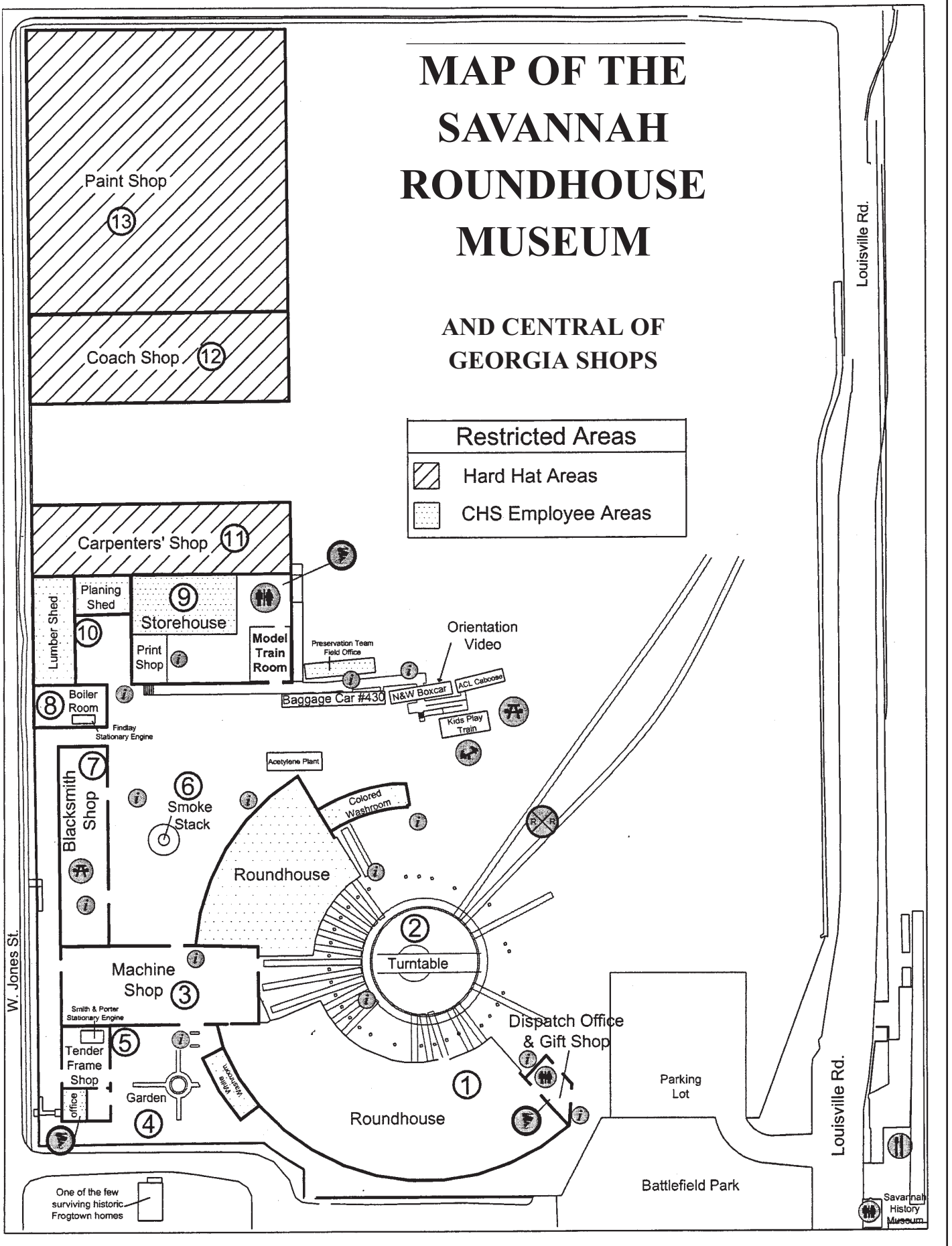
Its name is somewhat misleading, because this museum is preserving and restoring not just a roundhouse, but the entire eleven-building shop complex of the Central of Georgia. Much of it dates from 1855, and it was expanded in the 1920s. Abandoned in 1963, it had been heavily vandalized and portions had

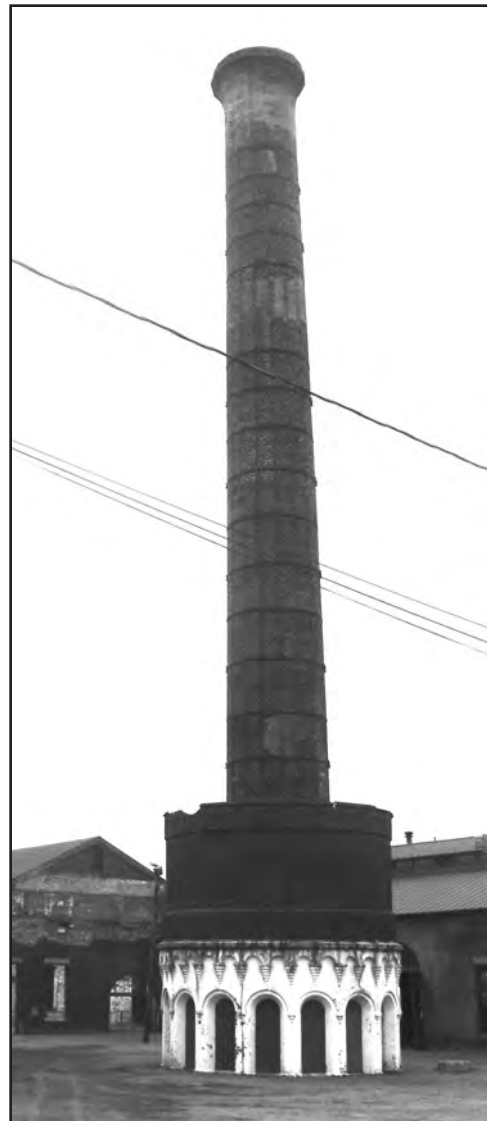
MAP OF THE SAVANNAH ROUNDHOUSE MUSEUM

AND CENTRAL OF GEORGIA SHOPS

Restricted Areas

-  Hard Hat Areas
-  CHS Employee Areas





Above: All the shops' exhausts were routed through underground pipes to this single smokestack. The doors around the base are individual toilet stalls.

Top left: The 1923 Coach Shop/Paint Shop building is being restored and will reopen in 2010.

Central of Georgia 2-8-0 #223 (Baldwin 1907) inside the roundhouse.

The already restored Central of Georgia depot is across Louisville Road from the shops complex. Today it houses the Savannah History Museum.

collapsed by the time the City of Savannah purchased it. The machine shop and carpenter shop currently have no roofs. The impetus for the city to step in and save the property came when local preservationists noticed that the tall smokestack was being disassembled for its bricks.

In the 1989, the city contracted with the non-profit Coastal Heritage Society to operate and restore the complex. The Society was already operating the Savannah History Museum, located in the large C of G depot across the street from the roundhouse. Since then there has been a major effort to stabilize the buildings, restore them and reopen the place as a museum.

The early 1990s saw major repairs to the roundhouse dispatch office, tender frame shop, blacksmith shop and



Preservation bonuses: A privately owned Cincinnati curved side carbody in Marietta, GA, and the old Wrightsville & Tennille Railroad offices in Wriightsville, GA.



storehouse. A master plan for the roundhouse and shops was completed in 1998. Beginning in 2002, a new local sales tax was approved to fund the restoration of the rest of the complex. This was combined with other city money, TEA-21 grants and fund raising by the Coastal Heritage Society. Repairs began to the roundhouse itself, which still needs rear windows. In 2004, the city was able to purchase the rest of the site from Norfolk Southern, including the large coach/paint shop building. It and the adjacent carpenters shop are currently being rebuilt, with completion scheduled for 2010. The boiler room, lumber shed and planning shed still require stabilization.

With the completion of building renovations within sight, the staff is turning its attention to museum operations and interpretive activities. The Savannah History Museum will move from the depot to the coach/paint shop building, which will also house a children's museum. Spring 2009 will see a track extension to the paint shop building, and the first regular shuttle trips on the existing yard trackage, including a spin on the 1923-built 85-foot turntable.

Currently, the roundhouse yard is isolated. By late 2010, the goal is to rebuild the missing bridge over Louisville Road and reestablish a live connection with the general railroad system. The city owns 2.5 miles of right of way extending north from the depot and that will be available for excursions.

In its current situation, partially restored with no formal docent program and with large areas off limits during construction, the museum has been drawing about 19,000 visitors per year. That is expected to increase as soon as train ride and other programmed activities are established. Active interpretation will begin this year. Seven paid docents will alternate between the roundhouse and the Heritage Society's nearby historic Fort Jackson. There are currently no volunteers, but that will also change in the next year or so.

The museum has representative collection of historic pieces. All are regional, except for a couple of 44-tonners that were purchased to power the shuttle trains. The museum employs a shop staff of eight people, who hours add up to five full time equivalents. In 2006 they completed the overhaul of 0-4-0T #30, which will be the demonstration steam locomotive. Recently they completed restoring C of G heavyweight office car *Atlanta* and a flatcar with benches for the shuttle runs. Currently they're working on a refrigerator car and an outside braced boxcar.

THINK YOU HAVE PROBLEMS?

How hard is it to manage a railway museum? Here are two stories that may be more extreme than most—or maybe not.

Part 1--My Last President's Report

By Jim Lundquist

Reprinted with permission from the Pacific Southwest Railway Museum's Hot Scoop newsletter.

As 2008 comes to an end, it's hard to believe that I am wrapping up my sixth year as your President (for the second term). This was far and away the hardest adventure in my life (possible exception – my teenage kids), and yet it all seems to have gone by so fast.

In late December 2002, the members voted to install a new 25 person Board to run the Museum. At the Board's first meeting, I agreed to be appointed the President. As a first order of business, we had to get a handle on where we were as a Museum. Frankly, it wasn't a very good place.

We had an office in the Santa Fe Depot, in downtown San Diego, staffed by one employee and some dedicated volunteers. The office rent was behind, the payroll was behind; we owed tens of thousands of dollars for office equipment and the utility payments were behind! In addition, our Library was also in the depot and was facing eviction. A quick review of the books and the profit/loss statement told us that we couldn't afford to keep the office open nor a paid employee to staff it. We sought relief from the owner of the depot, which granted us a waiver on the back rent if we moved out as soon as possible. In no time, we were sorting papers and moving stuff into storage or the La Mesa Depot. Almost immediately, our last paid employee left on her own. A few months later, we paid the last payroll check to her. No sooner did we finish up that move, our library was evicted. Once again, we fired up the moving vans, acquired used trailers and containers and moved everything to Campo. In just a couple of months, we were out of the rental office space.

Our attention then turned to Campo. It wasn't any prettier there either. There was a shut-off notice from San Diego Gas & Electric taped to the Campo Depot door. The upstairs portion of the depot was being used as an office and then an apartment. We lost part of the depot parking lot to a sand pit. Our Tecate trains were being operated by

someone else, with 10% of the gross being passed along to us for using our name and equipment. The Shop Building housed offices for another company, and the yard and shop were full of employees for that company. There was contaminated soil everywhere. Furthermore, we had no operating locomotives we could call our own. For me, it was simply overwhelming to look at the work before us and think we could pull it off by ourselves with our small group of dedicated volunteers. Soon enough, the other company left Campo for another east county town, and took their equipment and tools with them, leaving behind the contaminated soil and broken down Museum equipment for us to deal with.

"Where to start?" was the huge question. We started by cleaning up and cutting costs. I cut-out the switch to the air conditioner in the lounge, and begged the trash company to forgive the back bill for trash. We filled up many boxes of contaminated soil and paid to have them hauled away. We were able to "blue card" a locomotive and start our Golden State operations again. Soon, the other company wrote us giving us back our Tecate trains. That was the break we needed. We had several meetings with officials in Mexico to reestablish those operating rights. Soon, our trains were once again operating to Mexico and we were able to keep 100% of the ticket sales less costs. That was a huge break. With the revenues up and our expenses down, we were back to breaking even. But, how to get caught up with all the past due bills?

Along came a savior in a plain envelop to our La Mesa Depot address. I opened the mail one afternoon and inside was a check for \$210,400. Not quite believing it was real, I called the bank in Florida and was told the check was indeed real, and the donor wanted to be anonymous. I immediately drove across the street and deposited the check into our account, then started calling all our friends to tell the good news. We paid all our back debts, repaid the restricted funds and then looked for projects we wanted to push forward. As I recall, we put in the lights in the Display Building, a concrete slab there also, upgraded the Campo Depot with new siding, donated windows and paint, and put some away to start our endowment fund. Meanwhile, we plugged away and restored yet another locomotive and we reroofed and repainted several of our passenger cars. The emphasis was on our presentation to our public – the train, depot and Display Building.

During this time, our Board meetings

starting getting easier to manage. That first meeting in Spring Valley featured 25 board members and a public of around 40 members. One by one, the Board members resigned for various reasons, and, the meetings started calming down and became more manageable. Eventually, the members adopted new bylaws which called for eight Board members, a true blessing in terms of managing the meetings.

Our train operations continued to expand – some with great results, some still awaiting success. Our Tecate trains were popular, and really took off when Huell Howser (a local TV celebrity) came out, spent a day with us, then an evening of fundraising showing our train trip on the air and inviting KPBS listeners to travel with Huell. That program still continues to pay dividends for us. We started a Christmas train, working with the local High School students. Each year, the event keeps getting bigger, so that this year we are running ten trains and 3,000 people to the North Pole. Also successful are the Pumpkin trains and Easter trains. Still awaiting success are the Campo Valley Flyers and any train with food service.

Driving out to Campo and entering our property, it's easy for me to spot our improvements, starting with the Caltrans direction signs on State Route 94 and our own signs at our gate welcoming and thanking people for visiting us as they enter and exit. The main entrance road has been cleaned up somewhat, with the run down equipment removed and additional signage to the Depot. At the Depot, there are also two new signs there welcoming our visitors. The Depot itself features new siding, some new windows, new signs, a wheelchair lift, a completely rebuilt upstairs (not yet open to the public – a success story still waiting to happen, as are the new restrooms) and new paint. There are new swings, tires for the children, a new loading dock and new lights for the tracks and parking lot. A new brick sidewalk, a water fountain in need of repair and new shade trees replacing our beautiful tree which died of old age. There is a new Workamper site where happy volunteers live onsite, which replaced an old trailer which we hauled off to the dump in three large roll-off containers, one piece at a time. Still awaiting attention are the old tank car on the ground and the section houses. Up on Track One is our ATSF freight train, which is awaiting signs to interpret for our visitors. The Display Building has a new sign and, new interior concrete floors with electrical lights and new wiring replacing the extension cords which made their way down from the Shop Building. Inside

the Display Building is a nice new video program and TV showing off our beautiful #2353 steam locomotive. The Display Building has been the venue to several nice evening programs and could host others once a restroom is constructed nearby.

The Shop Building features a new concrete pit, upgraded electrical and air. All the contaminated soil has been removed. There are numerous new tools and machinery equipment inside. Outside is a new Track 15 with maintenance of way equipment, and a new motorcar shed. On the tracks are several pieces of new rail equipment, which took hundreds of hours and thousands of dollars to acquire, including ATSF #2381, a former San Diego switch engine and SP #7304, a former SD&AE operating engine. In addition, we have a rubber tired car mover, multiple forklifts, loaders, backhoes and other power machinery. We have much less "stuff" under and around the one remaining oak tree, as junk has been tossed and recycled over a four year period of time, lead by yours truly. Also, we installed new electrical service and have set up the library trailer and containers in this area.

So, as of December 2008, we are totally debt free, and in charge of our future. There are new and energetic volunteers to be found on site. I am turning over our Museum to our new President in much better shape than when I found it, thanks to a dedicated core of hard working volunteers. We are all doing great things together.

Part 2--Nevada Northern's 2008

By Mark Bassett, Executive Director

Reprinted with permission.

In March, we were finishing up different building projects around the property. The biggest one was the conversion of the Boiler Building into ADA restrooms. In April, we started in on locomotive 93 and made an historic decision. The repairs to locomotive 93 would be thorough, no half measures. We had a plan and we were confident in the plan, but we didn't have the manpower to implement it. A call to the Heber Valley Railroad asking for assistance was answered in the positive. They would help.

Our plan lasted until we removed the first tire from the wheel center. As the tire was being removed, shims started raining down. This was unexpected and, it turns out, all of the tires were shimmed. This would add to the cost and difficulty of the project, as well as more time.

People come to the Nevada Northern to ride behind our steam locomotives. With no steam locomotive in operation,

the 2008 season was beginning to look bleak. Then in May oil prices hit \$130 a barrel. If we were shocked to be paying \$3.50 a gallon for gas, the worse was yet to come. By mid-June, gas was over \$4 a gallon and in some of the more remote areas, it was over \$5. No steam locomotives and high fuel prices were bad enough but then the metals market went crazy. Daily, prices for the metal needed for the repairs to locomotive 93 kept going up—sometimes in substantial amounts.

Meanwhile down at the shops, work was proceeding on locomotive 93 and locomotive 204. All of the sixteen cylinders and heads were replaced with rebuilt units on locomotive 204. Then locomotive 105 goes out of service because of a traction motor bearing problem. Meanwhile locomotive 109 develops a water leak. Thankfully, it's caught in time and repairs are made.

In addition to taking care of the locomotives and track, we also have sixty-six buildings and structures to maintain. In June, RFP's were released for building projects in the East Ely Yard and McGill Depot. In preparing the RFP, a chilling discovery was made. The Master Mechanic's Building had received severe damage to its masonry. An inspection revealed that the building had new and recent degradation of the blocks and joints. We suspected that the culprit was the Wells earthquake. Since we had received earthquake damage to the Master Mechanic's building, we took a closer look at the Bus Garage. Cracks had been noted in the masonry in the past and now it was evident that they had opened. That spring, the north wall of the Materials Storage Building had been blown down. Then there was the Air Brake Building, foxes had burrowed under the building threatening its foundation. Its roof had blown off three years ago, and the temporary roof was failing. The good news: we had enough grant money to make the repairs to the buildings. The bad news: we might not have enough time to do the projects. It would be a race against time and the weather.

By late June, the new forgings for locomotive 93's axles were delivered to Salt Lake City. The wheel centers were being built up. Here in Ely, work was progressing on the locomotive as well. Things were beginning to look good; it looked like we could have locomotive 93 running by Labor Day. To celebrate we planned to have an open house featuring locomotive 93.

The 4th of July came and we carried more people than we had the previous year. Locomotives 204 and 109 were running just fine. Ridership was off, but it was stronger than it was earlier in the year. The RFP came in for the Club 50

project and with it a disaster. The project bid was a lot higher than we expected or that we had money for. At the same time, the track project was consuming more resources than was planned for. And more was being found wrong with locomotive 93. All three projects would take more money than was budgeted for them.

The Club 50 crossing project was to be paid with grant funds. If we didn't do the project, we'd lose the funds. If we didn't renew the crossing, the next option was to remove it and pave over it. Then if we could find the funds, the project would be even more expensive.

The Club 50 crossing was tied into the track rehabilitation project. It would make no sense to rehabilitate the track, if the Club 50 crossing was not done. Meanwhile, we found another unexpected problem with the wheel centers from locomotive 93. The good news is that the problem was repairable; the bad news is it would cost more money and delay the project. This setback was discovered right after all the summer issue of Ghost Tracks had been sent out inviting everyone to come to East Ely to see locomotive 93 operate Labor Day weekend.

Additional money was found for the Club 50 project, it was now a go. Work was continuing on the track leading up to the crossing. In addition work was now being done on the McGill Depot, the Transportation Building, the Garages, the Bus Garage, Chief Engineer's building, the Master Mechanic's Building, the Electric Shop, the Ice House, the Enginehouse and the Machine Shop. Work also continued on locomotive 93. And did I mention as all of these projects were going on, we also had a railroad to run? During the summer months, we operated two trains a day, every day, except Tuesday. So in addition to all of the projects, we had a train schedule to maintain.

July, August and September fly by, ridership was still off but it was improving each month. The Club 50 project was going on and looking good. The track project was on going. The state track inspector came to town. Together we inspected our track and success! We opened the track from East Ely to Hiline Junction and then opened the track from Hiline Junction to MP 130. He complimented us on all of the work that had been accomplished. Unfortunately, the track to Adverse is still out of service.

Things were looking up, ridership was improving month by month, gas prices were falling, projects were being completed, and now it was time to start our fall fundraising drive. Letters were prepared, mailed out and then the bomb hits. The State of Nevada announces the

East Ely Depot Museum is slated to close July 1, 2009.

Wow! This is devastating not only to the state employees who work at the depot but also to us. All of a sudden, we start getting phone calls from people who believe we're closing. They are confusing the East Ely Depot Museum with the Nevada Northern Railway Museum. We put out press releases to try and clear up the confusion but it's a tough fight. The news that the East Ely Depot Museum may close travels like wildfire. The state attempts to separate the two of us, but the message was already out there.

October comes and with it the Haunted Ghost Trains. The amount of effort to do the Haunted Ghost Trains is enormous. Not only do we need train crews but ghosts and goblins are needed too. And my hat is off to these ghosts and goblins, they're real troupers. They are at their haunting place regardless of the weather. This year we had snow, rain, and wind—sometimes at the same time.

It's heading into November and the weather was great! Projects are beginning to get wrapped up. The building projects are almost done. The Club 50 project was almost done. The track work was over for the year. The annual food drive with the local scouts was a success.

Next up are the Polar Expresses! And now the economy was heading south. We depend on the Polar Expresses for our end of year revenue. The bad news was that the pre-ticket sales were down, but walk up traffic was way up. We were actually running ahead of last year.

Now it's December, the weather is cooperating, we're getting snow for the Polars and all of our construction projects are winding up. On December 9, locomotive 93's wheels and axles arrive back in Ely. The shop forces jump in and start the reassembly of locomotive 93. She looked strange floating in the air since April waiting for wheels. In four days, all of the axles are installed. Then the rods and brake rigging go back on and just before Christmas locomotive 93 is back together! What a Christmas present!

At the same time, the Polar Expresses were going well except the flu was knocking out staff and volunteers. People are juggled to fill positions and the Polar Expresses keep running. On December 26, locomotive 93 rolls out of the enginehouse to the coaling area and the tender is filled with coal! December 27, a fire is built and locomotive 93 is hot for the first time since July 2007. December 28 is THE DAY!!! Locomotive 93 was running and everything appears to be great!

On December 29, after some adjustments locomotive 93 was out the door again for some additional testing. Everything was looking good.

Last year we received \$2,235,000 in funding for a long list of projects. The biggest project was the rebuilding of what we refer to the Club 50 crossing on US 93. Other projects were track rehabilitation along with building repairs and renovations. These projects were all funded through grants.

In addition to the above projects, the foundation undertook \$470,000 in locomotive repair projects and \$58,600 in additional track repair projects. These projects were funded by private foundations and local grants along with money raised from our members.

So the year ended as it started. We had our ups and we had our downs, sometimes within minutes of each other. At the end of the year, locomotives, rolling stock, buildings, and track all received needed attention. We're not done by any stretch of the imagination, but indisputably, progress was made on all fronts. The roller coaster ride continues in 2009, and I'm here to tell you—it's unquestionably an E-ticket ride.

REPLACEMENT MATERIAL FOR PANTASOTE WINDOW BLINDS

By Michael Jansson

The Pantasote Company manufactured a “vinyl like” material for use in the transportation, upholstery, and wall covering industries. The company switched to petroleum based vinyl products in the 1950's and was sold in 1989 owing to liabilities incident to the contamination of manufacturing sites, work related employee health problems, and financial problems. This paper describes a technique for replicating two sided (printed cotton on reverse) Pantasote railway coach blind material using modern vinyl, and silk screen processes.

Company History

The Pantasote Company put a faux leather product named Pantasote on the market in 1891. “Pantasote” is a coined word from Greek meaning “to serve all purposes”. The product was used for wall covering, vehicle covers, upholstery, and blinds. It was probably derived from coal tar and as such, would be considered a precursor to modern petroleum based vinyl products. The company did move to a petroleum based manufacturing system for its faux leather and sheet goods in the 1950's.

Owing to a lessening demand for its wall coverings the company sold this business in the mid 1990's. The successor company closed in early 2003. The Pantasote Company was faced with an increasingly difficult business environment stemming from liabilities incident to its contamination of manufacturing sites (now on Super Fund site lists), employee work related health claims, and financial problems. The remaining business units were sold in a leveraged buyout to the Butler Printing and Laminating Company. A brief communication with Butler suggests that they have copies of Pantasote's pattern books. Butler can produce a product similar to older railway coach blind material. However, they appear to have only two colours in which Pantasote was formerly manufactured and will only make large amounts in a product run. They have the capacity to laminate cloth to vinyl and can print up to six colours. Custom runs would be exceedingly large and expensive.

The highest demand for Pantasote was not from railway coach builders but from buggy and carriage makers, upholsterers, and automobile manufacturers. Most autos were open with a cover that could be used in foul weather. Pantasote was the chosen cover material well into the 1930's. Prior to WW I embossed Pantasote wallpaper similar to Lincrusta-Walton was sold in a very competitive upscale market.

Availability and Substitution

The type of Pantasote used in railway blinds is no longer manufactured nor is old stock available from commercial sources. Some museums have small stocks for their own use. Therefore, restoration shops are required to manufacture their own Pantasote, a virtual impossibility, or find a good substitute – a replica material.

Most Pantasote blinds used in rail cars are constructed on a plan utilizing a sprung roller (without stop ratcheting as in home window shades) at the top of the blind. The bottom of the blind incorporates a horizontal rod with pinch handles to free the rod ends from stops in the window jamb, allowing the attached blind to travel vertically in a track in the window jamb. The rod is held to the jamb stops by internal spring expansion pressure on each end. Sometimes one inch wide (1/8” thick) flat stock steel cut to the jamb width was sewn into the curtain at additional points. These “sash guides” ensured that the curtain stayed in proper apposition to the window and traveled smoothly.

To avoid problems in attaching the relatively thick Pantasote to the steel

roller a six-inch long piece of high count tight twill weave cotton the width of the shade less side hems was attached to the un-hemmed top of the Pantasote. The sheeting was inserted into the roller and retained by a steel wire. A common roller was the ‘REX’ made by the Curtain Supply Company of Chicago. Adams & Westlake (still in business and may still have some) made a number of models of rollers under the trade name “Adlake”.

When compiling specifications for the construction of new blinds, I carefully disassembled original, but now distressed blinds retrieved from old car bodies and body owners. After having verified that a particular blind was correct for a restoration job by type, model, reverse finish or pattern, length, and width, I completely measured the hems, bottom rod loop and the hemmed and surged leader. The stitching patterns were also noted. Measured drawings of each blind type (e.g. side window, vestibule, etc.) were then made. Next I tried to identify the fabrics by fiber and weave in order to find duplicates. I examined a second blind in detail to confirm the construction and materials. Fiber specifications and weave types were confirmed by a university fabrics laboratory. I was also able to get a second confirmation on textiles from the upholstery shop.

There appear to be two basic types of Pantasote blinds based on the types of material used. All were of the same type of general construction as summarized above. The only departure from this construction are horizontal blinds for separating the streetcar body from the vestibule and/or motorman's cabs, and perhaps some customized shapes in railway cars.

The first basic window blind type is the “one sided”. This blind consists of what appears to be a single sheet of Pantasote, generally embossed with the figures visible on the inboard side of the blind. I have not personally examined this type of blind in detail but do know from personal experience the material was heavier than that used in two sided blinds discussed below. The material may have been two ply (i.e. two thinner sheets glued together), which would allow reverse embossing, or just a thicker material. This paper does not discuss the replication of “one sided” Pantasote.

The two-sided blind consisted of a sheet of Pantasote with a sateen weave cotton (medium thread size) bonded to the reverse or non finished side. The sheeting was printed with a pattern of one or more colours. The blinds may have been hung with the print side either in or out, however, the print side

usually faced the car interior.

There is some controversy as to how the cloth and vinyl were bonded to one another. The attached GSA document suggests a "Pantasote Gum" was used. Those that I consulted, as well as my own investigation suggest a hot rolling process. The Pantasote leather and printed cloth were bonded by roller applied pressure when the Pantasote was still warm from manufacturing. This would have been a continuous flow process.

Pantasote was available in a variety of finishes and colours. Various print patterns and colours were available for the backing. Many specification documents for the purchase of railway and street cars indicate the finish, colour, and pattern by catalogue number. As an example a City of Edmonton purchase specification for streetcars included the following: "All side windows to be provided with curtains made of Pantasote, mounted on tin barrel shade rollers, and fitted at the bottom with Forsyth Roller Tip Pinch Handle fixtures. Curtains also to be provided for doors and windows in bulkheads. Sliding doors to be fitted with curtains rolling with door. Pantasote material to be pattern H, colour #74."

Still extant Pantasote catalogues would be a valuable research tool. However, an actual sample would be much preferred for the replication process.

How to Produce Replica Blinds

The first step is to identify upholstery and graphics shops interested in this highly customized work and possessing the equipment required. The proprietors of these shops should display a genuine interest and appreciation of what you are trying to achieve as well as have an appreciation of the history involved. Such highly motivated people can often help in finding solutions to process problems and give insight into historically correct fabrics and colours. As an example the upholstery shop owner doing blinds for a 1912 car was very familiar with streetcar blinds having often rode the cars as a child. He was emphatic in stating the Pantasote sample was "burgundy". I had always thought of burgundy being a deep purple wine like colour. It turns out he was correct. Evidently 90 years ago burgundy was basically dark brown with only the slightest hint of purple. Similar changes in colour nomenclature through time have been noted by others.

The chosen upholstery shop should be familiar with working with large pieces of vinyl and have the requisite equipment. In the Yellow Pages (Upholsterers) these firms will usually

advertise that they make custom boat covers, antique car roofs, car interiors, and other custom fabricated vinyl products.

The upholstery shop is also critical to the choice and purchase of the vinyl to be used for the project. The shop should have sample books from several manufacturers and access to their respective wholesalers. In the textile business wholesalers will not usually sell to persons or organizations outside the trade. This actually makes the proper selection easier and more convenient.

The choice of a graphics shop should be guided by the same general principles applied to the choice of upholstery shop. The shop must have a large format (at least 48" x 96") silk screen table, scanning equipment and computer graphics abilities, and the photographic equipment to produce the colour separations required to print the reverse pattern. These shops may be found under "Advertising Design" and "Decals" in the Yellow pages. They most commonly produce billboard advertising sheets, car cards, sports venue advertising, vehicle decals, and other large format low volume printed items. As well the shop should be experienced in the colour matching and mixing of silk screen inks. Most of the shops listed under "Graphic Design" produce logos, menus, posters, brochures, and other small format items and are not suitable for work of this scale.

Hopefully the graphics and upholstery shops are close together. This will make the transport of the materials between the two shops less time consuming.

The Step by Step Process – Two sided type

The process is described in some detail and may seem overly complicated. It is not, it merely reflects the necessary work and documentation to properly make replica material for historical restoration. The background material and details given here may speed your examination and documentation of original blinds, and the creation quality replicas.

1.) Choose the vinyl. Using a sample of an original Pantasote blind choose a vinyl that is similar in finish, colour, and weight. Most modern vinyls will be thicker than Pantasote. A thinner vinyl is most desirable.

The most important factor in the choice of vinyl is the closeness of the weave of the cloth on the reverse side. All vinyl has a cloth backing. On most varieties the weave is loose and has a low thread count. Some vinyls do have a more substantial backing cloth that is

printable.

NOTE: We did conduct numerous experiments in bonding cloth to vinyl. All ended in failure.

2.) Calculate the amount of vinyl required. This must include extra for hemming, experimentation, and general wastage. Since vinyl will stretch a great deal on one axis it is most important that the ordering calculations and cutting plan are based on the shorter dimension, i.e. generally the width of the vinyl being on the high stretch axis. This is most important for the silk screening. Failure to do this will result in out of register multi-colour printing; also deformation of a pattern may occur during printing if the stretch axis is going the wrong way.

Using your previously made drawing the upholstery shop cuts vinyl blanks for all the curtains required. NOTE: A more conservative approach on your first attempt at curtains would be to have the shop order and cut 2-3 blanks for experimentation; first in the graphics shop and then returned for final sewing and attachment of the cotton leader. This is a less risky approach and allows everyone to become familiar with requirements.

3.) The blind blanks are now delivered to the graphics shop. Most of the graphics procedures are quite technical and will be competently handled by shop staff. They will already have the technical knowledge for the steps outlined below.

4.) The graphics shop, using a sample of the original Pantasote scans the printed cotton pattern. From the computer scan file colour separation positives are made for each print colour. At this point the shop can provide you with a computer printed sample of the pattern for comparison with the original. While the colour match may not be exactly perfect, any lines and figures should have clean edges as good or better than the original.

5.) To help maintain the dimensional integrity of the vinyl during the printing process a Sandblast™ card is glued to the obverse side of the vinyl. This is also necessary to attain proper registration, the card is registered to the table.

6.) Ink is mixed to achieve proper colours. A lot of ink seems to be required to get good results. This is probably due to the large spaces in the loose weave low count backing.

7.) Silk screening is completed and backing card removed. cleaning may be required to remove all glue. The operator must be careful to minimize effects of stretch.

8.) Printed blanks are returned to the upholstery shop.

9.) At this point the upholstery shop

will need the bottom rods with pinch handles and any other hardware that was sewn into the finished blind.

10.) All blanks are hemmed and all other sewing, including the incorporation of the bottom bar is completed as per the supplied drawings.

11.) The cotton leader, unbleached tight twill, as per original sample is then sewn to the un-hemmed top of the blind.

12.) Blinds are attached to refurbished or new spring rollers. Sash guides, if used in the original blinds, are then inserted into the sewn strips. Blinds are installed in car.

The visual quality of our replica blinds is quite high. Installation did help us identify one anomaly that does not effect the functionality of the blinds in the car in which they were installed. As noted previously most vinyl is thicker than Pantasote. In cars with tight clearance for the top roller there could be problems. The initial choice of a thin material and fine hemming is essential. The value of having a prototype blind is obvious.

The blinds were installed in a car that is not yet operational so their performance in regular service has not been tested. There is some distortion of the edges from the unavoidable stretching inherent in the printing process. Exposure to hot sun may remedy this. The aging qualities of the material in this kind of use is unknown. At this time there is no deterioration evident.

RESTORING ATLANTIC SHORE LINE #100 PART 8

*By Donald Curry,
Seashore Trolley Museum*

At long last it looks as if we've turned the corner. We've removed the last significant pieces of wood and are putting on new.

The ends – All deteriorated framework pieces have been replaced or repaired with an infusion of West System epoxy and new/old southern yellow pine (syp). The no. 1 end is level and ready for the big 8 x 8 in. end sill, fabricated by Tom Dow last summer. We did a temporary leveling of the sills on the other end but some fine shimming and trimming is still required. We still have to dado near the outer ends of sills 4 and 5 on each end for the heavy reinforcing plates over the coupler braces.

To bolt or not to bolt – The original sills were 5 x 11 in. 30 ft. solid pieces of southern yellow pine. At some time

ASL or more likely YUCo had done the same kind of replacement of the top 3 in. of their ends. They did an excellent job of trimming and smoothing the remainder of the long sills so the new wood lay smoothly on the old. To fasten the joint they used square-head machine bolts. We have used the West System epoxy and no bolts but are wondering if we shouldn't do a 'belt and suspenders' thing and also install bolts. If we do, we'll have to make another 25 or so bolts.

The body bolsters – These heavy steel fabrications are located about 5 ft. in from each end and in addition to their function of connecting the truck with the body, also tie the eight longitudinal sills together. Before the 'new' outside long sills could be installed, both bolsters had to be solidly in place. The no. 1 bolster was installed in the fall and in December the no. 2 put in.

As we put them together we noticed that YUCo had installed shims between the side bearing castings, the center bearing and the bottom of the bolster frame. Those on the side bearings are rectangular pieces of steel. Over the center bearing the two pieces are strips of steel about 4 in. wide x 18 in. long with a large scoop out of each to make clearance for the king pin. We wonder why they felt they had to do this because the castings are shaped to 'surround' the bottom plate of the bolster? With the shims in place, the only thing which keeps these castings in place is the tightness of the bolts. Could it be the springs in the trucks or the wear of the wheels lowered the height of the couplers so they didn't meet

those on freight cars properly?

Because we had covered and/or filled in the pair of holes down through each sill at the bolster with new wood, and because the new holes in the bolster were slightly different than the original, getting them to line up all the way from the top to the bottom was a matter of careful 'guestimation'. We drilled up from the bottom and down through the top with a metal-cutting bit about 9 in. long. The holes lined up better but still there was a bit of a bent, making it very difficult to get the bolt down through. So we then purchased an extra-length 13/16 in. twist drill which could go through the metal. This did the trick. With the help of Dick Avy and Brendan Barlow all 12 of the 14-in. square head bolts were inserted in sills 2-7 and the bolsters are firmly in place. Now there is something to support the side sills.

The long sills – as you look at the front of 100 from the no. 1 end, the sills are numbered 1 through 8 from left to right. The original no. 8 sill has been gone since 1965, replaced by a large spruce timber by an enthusiastic group of early Seashore restorationists. It has now been replaced by a 'new' no. 8 syp. Sill. The no. 1 sill had been fabricated and installed the week before.

We would love to have seen the huge machinery at Laconia Car Company which made the two tenons on each end of the sills. We didn't have that advantage. After carefully laying them out, we cut the tenons with a combination of circular saw (which could only get half-way through the 5 in. thickness), a very coarse-toothed



The original body bolster--note how it supports the eight sills that run the length of the carbody.

timber saw and a chisel. On the bottom end of each sill we copied the 'aerodynamic' curve of the original, telling people this apocryphal tale:

The Cabot Paint Co. has been in business for well over 100 years and there is no question that Laconia Car Co. used it on their cars. So, they must have used one of Cabot's gallon cans as the pattern for the curve because it was exactly the same as what we found on the old sills.

This involved cutting with the coarse saw followed by some 'trimming' with the very coarse belt sander.

However, first the old sills had to be removed. There were a number of bolts that required the use of the Sawzall, then driving out to be turned into no. 1 scrap.

We had pondered what to do with the no. 8 sill, which was still in one piece without rot or deterioration. However reality set in as we saw it would be impossible to store it inside anywhere, let alone handle it so; reluctantly we also cut this into three chunks. It's probably going to end up as first-class blocking.

Cross sills (needle beams) - About 1/3 of the way down the body from each end is a cross sill, 5 x 7 in. syp, with notches in the top into which the longitudinal sills were set. These must have served to hold the sills in line as the frame was constructed. There is a square head bolt going down through the sill and holding the cross sill in place (two each on sills 4 and 5). Their other function is to hold and be the anchor for the casting under which the longitudinal truss rods pass. The truss rods also pass through the end sills and the pole pockets in each corner of the car. As the big square nuts on the ends of the rods are taken up, the truss rod, which is now unsupported in the middle bows way down, will tend to straighten and provide a lifting—straightening force to keep the outer sills straight. As this is written, the cross sills and side sills are all ready to be drilled and bolted into place.

Finishing treatments - Unfortunately the physics of drying large pieces of wood means they will inevitably form longitudinal cracks. The two long sills have cracks which do not affect their strength however, we have filled them with the West System resin and sawdust mixture and sanded them down smooth with a Bosch random-orbital sander and 60-grit paper. They are now probably as smooth as those which left the Laconia plant.

We were pleased with how smooth the beams were considering their size. John Rousseau, President of Barnstormers! told us that they were cut using an electric-powered 'Woodmizer'

horizontal band saw. He didn't have one with a sufficiently long carriage so he ended taking the beams across Massachusetts to a company that did.

There is strong evidence of a wiring fire between sills 6 and 7 above motor no. 4. The surface of these sills was charred. (The motor wiring in general seems to be a patchwork of spliced and friction taped bits, so there probably were other incidents of this sort that didn't get to the point of actually starting a fire.) Using the random-orbital sander with 60-grit paper this area was quickly sanded down to solid wood and given a coat of Cabot's stain.

When the locomotive was built, the under framework, except in the very outer surfaces was given a treatment of some sort of wood preservative—a barn red. We have seen this in virtually every wood car we have but don't know what it was. We have found it has lost any preservative value as it scrapes or sands off readily. (The air compressor, located under the no. 2 end hood, must have leaked oil badly because the sills in that area are coated with a mixture of dust and oily mud, which has done a good job of preserving the sills' integrity. We have scraped off as much of the grit as we can.)

For want of anything better we have painted what we can reach of the sills with Cabots' oil-based wood stain, Barn Red. It covers well and looks about the same as the original treatment. We apply it with a small foam roller. Where there are joints-at the intersections of the sills, we will insert a layer of Phenolseal caulk.

As we were scraping the tops of the long sills, in the area of the air compressor, where things were better preserved, we noted the remains of a white coating. It is probably white lead. We did try the Seep 'n Seal but found our supply was old and didn't dry. So we're going to go a bit modern and use strips of ice and water shield, the rubberized sheeting used to prevent ice dams on house roofs. While not necessarily curatorially correct it will provide the best possible protection for these vulnerable areas.

The paint system, for the wood areas will be Fine Paints of Europe Hollandlac enamels over their gray primer-undercoat. These will be brushed and rolled on. The price is now \$100 per 'euro gallon' (2.5 liters) for the enamels and \$90 for the undercoat.

1. Basic body exterior black
2. Cab interior lower wainscot brown
3. Cab interior window posts and ceiling ochre
4. Windows and doors tile (barn) red

What's next for the body work? Before anything can be done above the sills, while things are open and

accessible, the following must be done (starting from the least flexible):

1. The two truss rods (between sills 1 & 2 and 7 & 8)
2. The two coupler through-rods (between sills 3 & 4 and 5 & 6)
3. Air piping and air brake equipment (we have a purchase order to get the pipe)
4. Motor wiring and headlight wiring, ground wire (the wire is now on hand)

Barnstormers! makes their final delivery, the remainder of the recycled wood. For that we presented him with a cheque for \$4,750, the other 50%. We have enjoyed dealing with him finding him genuinely interested in what we do, and furnishing us exactly what we asked for including some extra (just in case!). He apologizes for delays but also says you can't rush in this business.

What came in this delivery was red oak for the decking and pilots. Some of the pieces are absolutely beautiful—fit for living room use! The decking is milled in 6 and 8 in. widths. (The original was in various widths.) It has been stacked up against the walls of the box enabling us to walk safely around the body. (Now with the sills in place the box is actually much more 'spacious'. The pilot 'kit' is a bunch of 2-in. pieces all labeled and ready for milling and assembly.)

The cab - Bob Reich and John Fatula are overhauling the ten cab sash. (six rectangular ones for the ends and four large squarish ones for the sides) The end sash are in pretty good condition although they are repairing any deteriorated joints. They have noted that whatever the original coating on them was, it is extremely hard to remove! Paint remover and elbow grease don't work as well as they would like.

The wood appears to be cherry but it's hard to tell. What I have seen looks as if they used the light colored sapwood that they would not use in a passenger car. It's very hard to tell what the color was originally and we couldn't afford another color match. What they have found under the present very deteriorated barn (or tile) red is brown, green, white, black, etc. Possibly the sash was originally varnished but, since we're going for the 1930s era, we're going to use a barn red enamel, inside and out.

One of the side sash appears to have been a replacement. Whatever wood was used was certainly not kiln dried and has warped about 2 in. along the stiles (sides) (bow-shaped) from being straight. We will have to make a new sash in this case while the others appear to be salvageable.



Hydro testing an air reservoir.

For some reason the two side sash on the right side have the glass divided in half by a horizontal rail, while the two on the left side are the original single pane. There is evidence of this change having taken place quite early and certainly was there during our period of restoration. The work of adding the rail is a bit crude so it definitely wasn't Laconia.

Truck work – Dean Look fabricated new motor mount angles to replace the eight originals that are badly rust-eroded. The original angles were bent from 1 x 4 in. bar in Alco's blacksmith shop, very likely using a steam or mechanically operated bulldozer. Dean joined these from two lengths of the bar by beveling one end of each piece and filling them with weld. Chuck Griffith trimmed off the corners of the angles and ground the welds. Bill Pollman and Bert Rendall primed and painted them. Bill is now fitting and installing them on the first truck. Dean fabricated eight motor mount bolts. Lloyd Rosevear blasted them, preparing them for Bert to prime them.

With the extreme (record) amount of snow in late fall and early winter we are recalling how lucky we were last year when we were able to take the trucks apart outdoors before bringing them inside for their final disassembly. Also it was fairly comfortable in the box because of the warm temperatures.

Air reservoirs – 100 is equipped with three reservoirs, all of which are the old-style riveted construction:

Two main reservoirs 16 x 48 in.

One auxiliary reservoir 12 x 36 in.

We were planning to send them to A. C. Electric for sand blasting but it seemed prudent to hydro-test them before that.

We set up the high-pressure test pump and found it leaked to the point it required repacking and a new check valve. Fortunately it is a simple-minded device and was easy to fix. Main reservoir no. 1 passed at 185 lbs. (1.5

times the operating pressure of 110 lbs.) We set up the other two tanks for testing but before they even filled with water, holes were found in each. On both the failure was under where the supporting straps were—not an uncommon thing. We also found that the auxiliary tank had been brazed in at least two places, not a good sign. Both tanks were unusable.

So we set out to look at our large and varied supply of air tanks, scattered here and there on the grounds. Unfortunately many were buried in snow and all are in areas which make them subject to corrosion. We did find one 16 x 60 in. as a replacement for the secondary main reservoir. Fortunately there is room for the larger tank on the locomotive's left-hand side where there is only that tank. The auxiliary reservoir will be a very new tank, constructed in 1999. It was designed to be mounted to brackets welded to the tank but we plan to carefully remove them and return to the original strap style of mounting. Because there are two tanks on the right side there is limited room so it can't be any longer than the original 36 in. (The distance between the trucks is short. Given the poor conditions under which our spare tanks are stored, it's very likely many more of these tanks will fail their test.)

THE MUSEUM REVIEW

Canadian Museum of Rail Travel Cranbrook, BC

When the privately owned Granville Island Museum in Vancouver closed recently, it donated a 65 x 15 foot O gauge model railroad that depicts railroading in the British Columbia mountains. It had to be cut in 30 pieces and transported in three trucks to Cranbrook.

Connecticut Trolley Museum Windsor Locks, CT

The museum has a number of

formerly operational cars that are now out-of-service due to mechanical failures. They have started a campaign to make those cars operational. The first two to run again are Connecticut Company open car #355 (St. Louis 1902) and Connecticut Company closed city car #1326 (Osgood-Bradley 1910).

Edmonton Radial Railway Society Edmonton, AB

The society's streetcars currently traverse an unpaved recreated commercial street in Fort Edmonton Park. That experience will become more authentic when the park completes a \$10 million project to replicate actual long-gone buildings from downtown Edmonton. These are classic 1920s one- and two-story commercial blocks, including a silent movie theater, bookstore, barber shop, beauty parlor, furniture store and tailor shop. In addition, the street will be paved. Construction is expected to be complete in 2010.

Ft. Smith Trolley Museum Ft. Smith, AR

Federal and city funding totaling over \$450,000 has been approved for a track extension.

Fraser Valley Heritage Railway Society

The Society, already owner of British Columbia Electric interurban #1225, has purchased BCE interurban #1304. The car was located at the Oregon Electric Railway Museum. Car #1304 has an unusual history. It was originally built in 1911 by BE Electric's New Westminster Shops. It was almost totally destroyed by fire in 1945. The BCE Kitsilano shops rebuilt it in 1946, complete with wooden body and arched windows, perhaps the last wooden interurban to be constructed in North America. It was preserved by Seashore Trolley Museum and loaned to OERM.

Friends of the Cumbres & Toltec

The Friends have entered into a cooperative arrangement with the Montana Heritage Commission. The Friends will volunteer for a variety of projects at the Alder Gulch Short Line in Virginia City, Montana. In exchange, the Friends will receive up to twelve pairs of narrow gauge trucks that are correct for the C&TS' narrow frame UTLX tank cars. That in turn will free up trucks that are correct for recently acquired "frameless" tank cars.

In the last issue of RMQ, the Editor remarked on how much better the track was than during his last visit in 2001. The latest Dispatch newsletter includes a detailed description of the work completed over the last three years.

30,000 ties-14 percent of the entire main line complement-have been replaced. 52 of the 64 miles have been ballasted, surfaced and aligned. In the course of this work, 81 kinks have been removed by cutting excess rail length.

Beyond the main line improvements, the Osier loop has been made operational, the Cumbres wye has been lengthened, and ties have been replaced in the Chama yard and at mainline sidings. The work has come in under budget, in part through the purchase of almost-new wood ties from class one railroads converting to concrete.

The Friends has a restoration site in Colorado Springs, which rebuilds one rail car at a time. This year it completed the rebuilding of 1891 pile driver #OB. Its new project is Maintenance of Way kitchen and diner car #0252 (Pullman 1889). The work is being moved to a new site, on the grounds of the Pikes Peak Historical Street Railway Foundation, host of the 2008 ARM Annual Conference.

Halton County Radial Railway Milton, ON

Barn 4 has been erected and \$660,000 has been expended to date. It has received \$20,000 from the Town of Milton Community Fund, but needs another \$80,000 to install the doors and track.

Houston Railroad Museum Houston, TX

A grant from the Houston Endowment has funded the repainting of Missouri-Kansas-Texas and Southern Pacific cabooses, Spokane, Portland & Seattle heavyweight baggage car #50 (which serves as the museum's library car) and Houston Belt & Terminal Alco S2 #14. As part of the painting initiative, volunteers are readying sleeping car *Verde Valley* for repainting.

Huntsville & Lake of Bays Railway Huntsville, ON

The 36th Annual G8 meeting of world leaders will be held in Huntsville in June 2010. In preparation, a large media center building will be constructed during 2009. The new building requires the relocation of the railroad's Rotary Station, which serves the Muskoka Heritage Place historic village. The railroad will not operate during 2009. The station will be moved further into the village, requiring a track extension up a rather steep hill to reach the new site. This year will be used to relocate the depot, build the new track and refurbish the line's rolling stock.

Illinois Railway Museum, Union, IL The museum has acquired Chicago,

South Shore & South Bend line car #1100 (St. Louis Car 1926). It's a classic heavy steel interurban that was built for Indiana Service Corporation, which was absorbed by the Indiana Railroad. The South Shore bought it in 1941. The car had been donated to another preservation group by the Northern Indiana Commuter Transportation District, but they were unable to follow through and the car was made available to IRM.

As the largest North American railway museum, IRM not surprisingly has a very active website. Its activity numbers for February 2009 give an idea of the potential impact of the web on rail preservation. The month saw 2,251,143 page views, an average of 167,339 per day by 18,932 unique users. Of those, 25 percent visited more than once. These numbers are for the off-season, and certainly increase during spring, summer and fall.

Museum of Transportation St. Louis, MO

Continuing a trend that started with the California State Railroad Museum and the National Railroad Museum in Green Bay, the Museum of Transportation is reducing the size of its collection. It is deaccessioning the following pieces of equipment.

Steam locomotives

Great Lakes Carbon #7 Fireless 0-4-0 (Porter 1941)

Great Northern #2100 Vanderbilt tender only (Baldwin 1923)

Diesel Locomotives

CB&Q/MARC #66 E8A (EMD 1954)

Wabash #547 GP-35 (EMD 1964)

US Army #1844 H-1244 (Fairbanks-Morse 1955)

Minneapolis & St. Louis #546 RS1 (Alco 1946)

US Army #7765 tiny single truck switcher (GE 1943)

Electric Locomotives

FDS (Italian State Railway) side rod steeplecab E550.025 (Westinghouse 1910)

Passenger Cars

St. Louis-San Francisco #200 steel sheathed wood office car (St. Charles Car Co. 1891)

Lehigh Valley/Chicago & Eastern Illinois #405 1911 steel coach

Chicago, Indianapolis & Louisville *Monon* #90 steel sheathed wood office car pre-1885

Colonial steel sheathed wood office car (Pullman 1905)

Minneapolis, St. Paul, and Sault Ste, Marie #49 steel sheathed wood office

car (Barney & Smith 1911)

Chicago, Milwaukee, St. Paul & Pacific Milwaukee lightweight office car (Milwaukee Shops 1948)

Baltimore & Ohio #5551 low profile dome car (Pullman-Standard 1949)

Union Pacific #903673 lightweight baggage-mail (ACF 1949)

Cabooses

Wabash #2229 wood cupola (Wabash 1904)

Missouri Pacific #1155 side-door steel (Missouri Pacific 1940)

New York, Chicago & St. Louis ("Nickel Plate") #1143 wood cupola (ACF 1909)

Southern Pacific #1859 steel bay window (International Car 1970)

Streetcars

SEPTA #2186 PCC on standard gauge trucks (St. Louis Car 1948)

Maintenance of Way

US Army #226 25-ton locomotive crane (Orton 1953)

National Capital Trolley Museum Colesville, MD

All the museum's streetcars have been moved into the new display car barn. The car barn yard and loop at the old site have been removed. The rail is going to the Shore Line Trolley Museum and the original ex-Baltimore overhead wire to the Baltimore Streetcar Museum. Completion of the new Visitor Center awaits the installation of the storm water management system sand filters. A Transportation Enhancement grant has been awarded for two of the sand filters.

Niles Canyon Railway Sunol, CA

The museum has acquired Santa Fe steel cupola caboose #999081. It had been owned by a private individual who rebuilt the trucks with new wheels, rehabbed the brakes, replaced the couplers, replaced exterior sheet metal and stripped the interior for rebuilding.

Northwest Railway Museum Snoqualmie, WA

On January 7 and 8, the Snoqualmie Valley experienced heavy flooding. It washed out the museum's railroad in numerous places and rose almost to the underframes of the rolling stock stored outdoors. Uninsured damage to the tracks totaled \$116,000. To date \$70,000 has been raised to fill, ballast and resurface 2000 feet of track.

Oklahoma Railway Museum Oklahoma City, OK

The museum has purchased an ex-Army SW8 switcher (EMD 1954) through the State Surplus Property



By rendering modern surroundings invisible, darkness can help a museum recreate historic scenes, such as these evocative ones provided courtesy of the Monticello Railroad Museum.

program. It will serve as backup power for the regularly scheduled trains.

Orange Empire Railway Museum Perris, CA

Although not yet complete, the large new Ruffalo carhouse has all its tracks and is connected to the rest of the museum's railroad. However, a number of pieces have been located for years on pieces of isolated track. On April 1-3, twelve of them were moved to live trackage and then into the new barn. This was a major undertaking, as most of these pieces hadn't moved for decades. Some had been used for storage and had to be emptied. In addition, a carbody that had been stored on the ground was placed on trucks and moved indoors. The moves were accomplished using a rail tilt trailer from Silk Road Trucking, known for museum equipment moves. It had delivered a pair of power trucks from the Electric City Trolley Museum, scheduled to arrive in Perris for the OERM project.

The museum has taken delivery of



Union Pacific 1928 modernized heavyweight buffet diner #4051 .

Pennsylvania Trolley Museum Washington, PA

Two significant private artifact collections have been donated. John Wilkins' includes 243 Pittsburgh Railways signs, maps and drawings dating as far back as the 1890s, and 45 West Penn drawings. Cy Hosmer has donated a large group of images and catalogs which had been discarded by Westinghouse Air Brake Company. The photos include early Pittsburgh Railways air brakes and the 1928 signal installation on the interurban to Washington, PA.

According to the latest Trolley Fare newsletter, Bombardier contacted the museum to say they could donate seven flat files, good for storing drawings and maps. This turned out to mean seven pallets of flat files, totaling 17 cabinets with 112 drawers, worth \$19,000 if purchased new. This is good news, since the museum's archive has sufficient items to fill all the drawers.

Seashore Trolley Museum Kennebunkport, ME

Seashore members have always been generous financial contributors, and 2008 was no exception. Total support for the year reached \$338,000, from 579 members.

Shore Line Trolley Museum East Haven, CT

During 2008, volunteers contributed 16,458 hours. The Tripper newsletter notes that 110 different volunteers were the equivalent of eight or nine full-time employees, and even at minimum wage, have a value of over \$100,000. Compared to most charitable organizations, volunteer-based railway museums are extremely efficient. Ninety percent of each donated dollar goes directly into operations, maintenance and restoration, as opposed to administration. Volunteerism should insulate museums from the current financial downturn.

Steamtown Scranton, PA

The National Park Service has announced nearly 800 projects totaling \$750 million that can be completed across the country with funding from the American Recovery and Reinvestment Act of 2009. Of this, \$3.3 million will go to Steamtown to stabilize 27 pieces of historic railroad equipment, remove asbestos, improve Park infrastructure and maintain/repair and restore operational locomotives and passenger cars.

Western Pacific Railroad Museum Portola, CA

Equipment acquisitions: Pacific Fruit Express refrigerator car #100468 has been acquired from the California State Railroad Museum. Built in 1953, it was

part of the first group of PFE cars with mechanical refrigeration.

A&K Railroad Materials has donated 44-ton center cab diesel #735 (General Electric 1946), the first diesel on the Tidewater Southern.


Western Railway Museum has deaccessioned Denver & Rio Grande Western wood boxcar #62962 (ACF 1909), and it is now part of the WP Museum collection.

Wiscasset, Waterville & Farmington Railway Museum Alna, ME

A 30 x 41 expansion of the shop building is nearing expansion. The additional 1230 square feet is about the size of a three-bedroom ranch house and has a high ceiling.

THIRD HAND INFORMATION

The Galveston Railroad Museum suffered major damage from Hurricane Ike. Floodwater that topped seven feet ruined most of the displays and artifacts inside the museum's four buildings. The 50 pieces of rolling stock in the collection sat in eight feet of water. Total damages are estimated at \$7 million. Insurance is expected to cover only a small portion of that amount, although about \$5 million in FEMA funding is anticipated. *Gulf Coast Railroading*



**The Horseshoe Curve
Sabotage and Subversion in
the Railroad City**

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At the Maine Narrow Gauge Museum, Sandy River & Rangeley Lakes two-foot gauge combine #15 has been restored by the Penobscot Company. The work was a donation. Photo courtesy Maine Narrow Gauge Museum