

TROLLEY FARE

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July-August-September 2015



Port Authority 4004 performs "Park and Ride" detail hauling the crowds at the Fair.

Bill Monaghan photo

COUNTY FAIR PARK & RIDE – BEST EVER!

By: *Scott R. Becker, Executive Director*

Our park and ride service to the Washington County Fair has been on a growth curve for the past two years with 2015 being the best ever. Over 8,000 were carried during that 8-day period! Despite some rain at the beginning of the week, this was a 10% increase over last year with Wednesday the busiest day. Special thanks to Eaton Crouse-Hinds for letting us use their parking lot, to Parks Moving for donating the use of a storage container and to Ohio Valley Septic for donating a portable restroom for use at McClane Loop. Many thanks go to our volunteers who did a wonderful job in operations and ticket sales during the event!

The Wexford Trolley Station has received considerable attention since it arrived at PTM on June 6. Moving contractor Jeff Pleta connected the roof portions together, made further repairs to the floor sill and removed temporary bracing. Two additional contractors have been busy as well. ACA Unlimited installed the floor and made repairs to the exterior. M&A Painting scraped off the old paint and applied primer to the exterior. We received two foundation grants as well as private donations. Thanks go to

the Washington County Community Foundation's McBride-McMaster Fund for a \$5,000 grant and the Thomas E. Dailey Foundation for a \$2,000 grant. These funds are very timely since they will help us to complete restoration work for opening next year. Thanks also to Waste Management for donating a construction dumpster that has been a big help to this project!

Thanks to all who donated during the WCCF Gives campaign on September 9! The Museum came in third with 55 people donating \$41,939. This is a big jump from the two previous years. In 2014 we had 48 people give \$34,264 and in 2013 we had 29 people give \$21,708. In addition to the General Fund, a number of projects also benefited. More than \$12,000 came in for the M283 Crane Car fund. This allowed us to meet the \$40,000 challenge grant from the 20th Century Electric Railway Foundation and we now have the funds to complete the truck project. We hope to have the trucks and motors done by the end of this year. We still need to raise approximately \$20,000 to meet our goal to complete work on M283. Another project that benefited was our

From the Front Platform

The 2015 Washington County Fair is over for another year. Again, PTM set another record in ticketed ridership, about 7700, up 10% from 2014. Of course, this does not include the riders under the age of two, and there are lots of them. In 2014, PTM riders represented about 10% of Fair admissions while in 2015 we represented about 11%. The busiest times are the evenings of Wednesday and the second Saturday although Friday evening has shown solid growth for the last five years. The Fair operation is a valuable asset to PTM for three reasons.

First, it is a community service. From either the paved and lighted 400 car capacity Eaton Crouse-Hinds lot or the 100 car capacity West Campus, we deliver the riders to within 200 feet of the fair gate. The fair's own parking is largely unpaved, most of that on a steep grassy slope, and at maximum capacity, a 1/3 mile walk to the gate. In addition, the PTM operation bypasses most of the traffic backups on North Main Street, where it can take 30 minutes to go a mile on a busy evening.

Second, using PTM's demonstration trolley line, this is the one time of the year where PTM can demonstrate what trolleys do best - move lots of people. All the traditional jobs are represented including a dispatcher, operators, conductors, reliefs, car starters, flag persons, ticket sellers, and more. Where else in the USA can one see truly vintage trolleys

By Dennis Bockus

run at a nominal 8-minute headway for eight hours straight over a single track line with passing sidings and signals?

Last, it is a PTM "family reunion." Volunteer members, some from as far as Atlanta or Boston, come to assist in the operations along with many from the local area. It takes a lot of people to operate this volume of service for an extended time. Obviously, a considerable amount of social interaction takes place. I want to thank all of our volunteers and paid staff that put in the time to make this all work. Special thanks also goes to Eaton Crouse-Hinds for letting us use their lot for this service.

However, not everything is rosy. On Wednesday evening, the incoming autos at Eaton had to be shut off for a few minutes but an alternate strategy was developed on the fly, and it worked well. Next year, along with some remedial work at the west end of the Eaton lot, I'm sure we will be ready in advance with the alternative strategy. As such, I believe we are OK for a few years. Ultimately the parking lot for the planned East Campus Visitor's Center will add about 30% more parking capacity to the Eaton lot.

The other problem is the Fairgrounds platform and entrance area itself. On Wednesday and Saturdays evenings the crowd coming from the Fair's large parking lot going across our crossing at the platform, then across a narrow uphill bridge and

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Mission Statement

The Mission of the Pennsylvania Trolley Museum is to communicate the story of Pennsylvania's Trolley Era to a diverse audience through the preservation, interpretation and use of its collection of electric railway and railroad equipment, associated artifacts and photo/document archives, and to ensure that visitors have an enjoyable and rewarding educational experience.

up a steep grade (as much as 18%), just couldn't move. Plus, PTM's center platform at Fairgrounds is very narrow. So when a trolley arrived with a standing load, they could not get off the car as the platform would hold half at best and those on the platform could not leave it due to the crowd crossing the tracks. Total gridlock. This means the car for Arden could not leave and the car for the Eaton lot could not leave and the result was a headway breakdown that took almost 1.5 hours to recover.

As an exercise, I looked at the remaining Fair hillside parking area and mentally placed the roughly 450 cars we parked in the space, completely full not to mention the added traffic they would place on North Main Street. Obviously PTM is a major asset to the Fair's attendance!

Since the existing arrangement at Fairground stop isn't satisfactory to either the Museum or the Fair, Washington County has contracted for an engineering study to see what might be done. One complication, is that while all the existing infrastructure was built before ADA (Americans with Disabilities Act) and is therefore grandfathered, any changes will have to comply. That is not simple with a substantial elevation change over a fairly short distance, plus a creek, a trolley line, and a public road to cross to get to the Fair. The County's consultant has generated several options which are now under evaluation. Stay tuned for future developments on this study.

In passing, I must relay that the AECOM study results for potential visitors, admission costs, etc. for an east visitor's center are starting to trickle in but are not far enough along to determine what the ultimate result will be. Again, stay tuned.

Executive Director Report, continued from Page 1

Restoration Shop Upgrade Project. This allowed us to purchase a new Jet Milling Machine and will give us a head start on converting the north end of our parts room in Building 2 to a functional woodshop complete with heating/air conditioning and a dust collector system.

As mentioned above, we have been fortunate to receive project funding from members and foundations. We are equally in need of donations to the general operating fund which makes it possible to keep the Museum open day to day. Admissions and other revenue alone cannot keep the doors open and we are constantly striving to improve the Museum. Our schedule for 2016 has been set and will feature a Daniel Tiger Weekend April 23-24 and the Western Pennsylvania Trolley Meet on May 13-14. There will even be a bus trip tracing the Washington interurban lines on Sunday, May 15! We expect to open Wexford Trolley Station later next year and it will contain exhibits featuring the interurban lines that ran north from Pittsburgh. We ask that you consider a donation to the general fund in your year-end giving and increasing this gift over last year's if you can. We sincerely appreciate your interest and support of the Pennsylvania Trolley Museum!



WCCF Check Presentation at Wexford Station by Judge Tom Gladden 9-2-15

Amy Shoup photo

Educator's Notebook

By Lynne Thompson

Educator & Volunteer Coordinator

Many things have been going on in the E & I department lately. As of the writing of this article we just wrapped up our bi-annual Merit Badge workshop. The fall workshop saw a marked increase in Scouts with 74 participating. Also this fall we had a large number of field trips from various groups including homeschoolers and technical school students. The E & I department is also planning on conducting a Tour Guide training class and will be continuing with a program to help train tour guides only and operators alike. Mike Ziviello and Bill Hostetter are heading up the training. If you are interested in becoming a tour guide please contact me.

I would like to focus this issue on two volunteers at the museum. Most volunteers and members know who member number 5 is, Arthur S. Ellis. As I write this Art recently celebrated his 96 birthday. Another member is turning 11 on Nov. 28. His name is Stephen J. Semerod. Two volunteers born in the same month 85 years apart. I thought it would be interesting to have them answer some questions and see what is similar and different about their volunteer experience. What follows are my questions and their answers:

Why did you start volunteering?

Stephen: I started volunteering because I wanted to know more about trolleys; the nice people have told me a LOT about the museum and the collection.

Art: I wanted to preserve, what was then (1950s) a disappearing technology. I had an interest in trolleys.

When was your first trolley ride?

Stephen: My first trolley ride was when I went to the Pennsylvania Trolley Museum for a field trip around 2007-8.

Art: My first trolley ride was in 1923 with my favorite Aunt Laura.

Do you have a favorite trolley?

Stephen: Cincinnati Street Railways 2227 which was built in 1919.

Art: Philadelphia & West Chester Traction trolley 78 built in 1932.

Which event do you like the most?

Stephen: Santa trolley.

Art: Santa and Bunny trolley the best when he took pictures. Now his favorite is County Fair.

Why do you think it is important to volunteer?

Stephen: "In my opinion, it is important to volunteer because most of the museum runs on volunteers, meaning no volunteers, no Pennsylvania Trolley Museum."

Art: "I want to help preserve the history of the trolley era and retain some purpose in my life."



Our Oldest and Youngest Volunteers, Art & Stephen with 1711.

Photo by Jim Herron

What would you say to someone thinking about volunteering here?

Stephen: "It is very nice to come here and volunteer because it keeps me busy on the weekends and you meet new people and if you want to be a trolley operator you can. Most trolley museums I've seen, you just cannot fill an application form, get training and be a trolley operator. At this museum, you can."

Art: "It is a very pleasant working environment. There are opportunities to utilize your skills and learn new ones while you accomplish something useful."

My last question was what would you like to see new at the museum?

Stephen: In the near future more track, "...more line, meaning that you have more tracks to ride on."

Art: "more attractions to occupy adults during wait times for rides." He specifically mentioned a plan for a trolley simulator, which we are looking into for a future exhibit.

I think that it is important to note that we wouldn't have young volunteers without Stephen if we didn't have volunteers like Art. Stephen mentioned more than once how nice the people are here and that brings him back. I want to say too that when you have a happy volunteer you often get more volunteers from their families and friends. Cheryl Semerod, Stephen's mother, volunteers side by side with him. The Ellis family has been involved with the museum for years and are multi-generation volunteers. Art's family welcomed another new member this year, great-granddaughter Adelaide Wells. Someday we may welcome a fourth generation of Stephen's family.

As always contact me if you are interest in volunteering: Lynne Thompson, educator@pa-trolley.org or 724-228-9256. Happy Holidays and Best Wishes! 

Visitor Services

By Christina Parise, Visitor Services Manager

As the season is winding down, it's time to reflect on the year and work on improvements for the 2016 season. One event we are looking to upgrade is Pumpkin Patch Trolley, held in October. Did you visit us during Pumpkin Patch Trolley last year? What are exciting things or improvements you would like to see with Pumpkin Patch Trolley? I'd love to hear your thoughts about activities that you and your family would like to see when you come and visit us for one of our special events. We are looking to make improvements to this event and others to keep them fresh.

We are currently putting together plans for our new event – Daniel Tiger's Weekend at the Pennsylvania Trolley Museum – April 23 and 24. We are looking forward to offering Breakfast with Daniel Tiger both days and meeting new friends through this event. We are also enhancing our Western Pennsylvania Trolley Meet this year (May 13-14) with a special bus trip tracing the two Washington County interurban lines on Sunday May 15.

Also for the New Year, we got new merchandise at the Museum Store just in time for the holidays. You've browsed through the books, and brought home your holiday décor. I'm excited to announce our newest line. We are starting to carry Science Wiz Cool Circuits and kits to learn about electricity, magnetism, and inventions. They are in a variety of age ranges and are hands-on learning experiences for electricity, motors, and magnets. These are great additions to the museum store's inventory. After your trolley ride and tour, you have the option to pick up a book and learn more about history of the trolley era, or pick up a science kit to learn about what makes the trolleys go!

Remember that the 2016 Calendars are now available. You can order them with the enclosed order form or you can call the museum with your order. As we wind up the 2015 season, remember that you can still order by phone, mail, or by emailing: store@pa-trolley.org

Dates to Remember:

Bunny Trolley – March 18-20, 25-26.

Daniel Tiger's Weekend (2016's New Event!) – April 23-24.

Western Pennsylvania Trolley Meet – May 13-14.

Bus Trip along the Washington County interurban lines – May 15.

Our new event: Daniel Tiger's Weekend, will be done in partnership with WQED Pittsburgh on April 23 and 24. As part of that event, we are pleased to offer "Breakfast with Daniel Tiger" on both days

from 8:30–10:00 a.m. Seating is limited to 50 people total and tickets are \$35.00. This will include a buffet breakfast and photo time with Daniel Tiger. Tickets for Breakfast must be purchased on-line: showclix.com/event/breakfast-with-daniel-tige 

Pittsburgh Points

By Chris Walker

The Labor Day holiday weekend this year brought not only the unofficial end of summer, but the return of bus service to several areas in Allegheny County that had been without mass transit for more than four years.

Thanks to the state legislature's passing the transportation funding bill (Act 89) in 2014, the Port Authority was able to extend some of its existing bus service to several communities, including North Baldwin and Groveton Village.

Penn State – McKeesport campus saw the return of mass transit to its doors, along with RIDC Park in O'Hara Township, providing links to both educational facilities and major employment centers.

Meanwhile, planning for the future continues.

Which fare is fair? Yes, this is a serious question! Over the summer, the Port Authority was looking for public input into possible changes to the fare system. Potential restructuring to the payment system could occur as early as next year, so a website was set up to collect opinions and suggestions from the public. A few of the options presented included:

- Eliminating fare zones and having a system-wide flat fare
- Making bus service pay-enter at all times (with passengers exiting primarily through the center doors)
- Having a higher cash fare, with a reduced rate available for all ConnectCard users
- Going to a cashless fare system on the T, with all riders required to purchase tickets/fare cards prior to boarding the vehicle.

The results of the survey will be compiled and evaluated prior to any decisions regarding your time at the farebox.

In the late-breaking department, the Monongahela Incline reopened several days ahead of schedule following a nearly three-month rebuilding program. The rehab job, consisting primarily of the overhaul of the trackway and cars themselves (along with a good bit of fresh paint in the stations, too), finished up in time for the annual Light-Up Night celebration on Friday, November 20. The cars now look especially shiny as they continue their 145-year tradition of climbing Coal Hill. 



SEPTA Trolley Crane Car W-56 is shown loaded on Jim Lilly's trailer for a trip to the Baltimore Streetcar Museum on Sept 5, 2015. Bill Monaghan photo

Philadelphia Notes

by George Gula

In early July, a SEPTA Regional Rail train was rolling along at 18 m.p.h. - five miles over its authorized speed limit - at the Frasier Maintenance Facility in Malvern when a beep sounded and an orange light lit up on the display unit of its newly installed Positive Train Control (PTC) system. SEPTA was demonstrating its new \$328 million Positive Train Control system to federal officials, including Representative Ryan Costello, Senator Bob Casey (D), Representative Chaka Fattah (D-2nd District) and Representative Pat Meehan (R-7th District). Positive Train Control is a system that slows down speeding trains if an engineer fails to comply with signals governing train speeds and movements. Congress has mandated that it be in place at the end of the year on all railroads following a deadly crash May 12 at Frankford Junction. An Amtrak passenger train entered a curve at 100 m.p.h., twice the posted speed limit, killing eight people and injuring 200. It appears that SEPTA will be one of the first mass transit systems in the United States to have it installed, while many other railroads are not even close to completing the task. SEPTA's Deputy General Manager Jeffrey D. Knueppel recently an-

nounced that to date the authority has spent \$328 million on the PTC installation on tracks, trains and other facilities while the total cost of the project will be around \$339 million. On July 8, one less Regional Rail train per line was in service on each of the Regional Rail routes as cars were shopped to upgrade the Silverliner electric multiple-unit fleet in preparation for use of Positive Train Control.

On July 8, a train of newly refurbished PATCO cars simply halted on the Benjamin Franklin Bridge during the Wednesday evening rush hour, suspending service for 20 minutes and significantly slowing the schedule during the remaining rush since the transit line is already operating on only one of its two tracks across the bridge due to a rail replacement project. PATCO later issued a statement noting that a "pinched" electrical wire in the operator's console was being blamed. The wire is part of the train's Automatic Train Control switch. "The switch slows the train from 20 mph to 15 mph at the curve on Track 1, west of Franklin Square, to improve passenger comfort when operating through this curve. When the operator activated the switch, the console lost power and the train stopped. The train operated

properly, since it recognized the loss of ATC protection and immediately came to a stop.” As a result, all 12 of PATCO’s refurbished cars have been taken out of service while inspections and any necessary repairs are made.

On Friday, August 7, PATCO officials announced publicly that they had found the part defect that was causing trains to suddenly stop after PATCO General Manager John Rink informed the Delaware River Port Authority Operations and Maintenance committee about this issue earlier in the week. The problem, which is only affecting older cars, happened 43 times between May and July, causing operators to remove passengers from trains traveling between Philadelphia and southern New Jersey. During the same period, an internal investigation brought staff’s attention to a high number of maintenance orders, a total of 797. Rink noted “We thought we had a gasket problem in the air brake system that connects the cars, but when replacing the gaskets did not solve the problem, further inspection found the issue was with the brake pad, which can cause air to leak from it at the couplers, causing the trains to stop.” PATCO President and DRPA CEO John Hanson told the committee the problem seemed to be a defective pad and said that the pads are ordered directly from the manufacturer who had been notified and was working on temporary solutions. Rink noted that summer heat has also caused problems with older cars with the result that traction motors have been burning out, also causing trains to stop suddenly, and that some train car doors have not been closing after passengers have finished entering and leaving.

Additionally, PATCO mechanics still can’t repair the newly refurbished rail cars because workers haven’t been trained on how to fix them and lack repair manuals. When one of the new cars malfunctions, it is moved back to Lindenwold Shop so technicians from Alstom Transport, Inc. can make fixes or advise train operators on troubleshooting problems. The road’s mechanics contend that the reliance on Alstom technicians has slowed repair work, but PATCO president John Hanson said that’s not true and that the mechanics, working without a new labor contract, are worried that PATCO will outsource their jobs. “That’s not the case,” Hanson said. “We’re not going to contract this work out. We’re going to develop our workforce and do it in house.” After more than 18 months of delays due to signal systems, communications, propulsion, and braking issues the first six rehabbed cars finally entered service on May 28, and

to avoid further delays while waiting on necessary repair manuals and training programs, PATCO began operating the trains while relying on Alstom factory mechanics for many repairs. “We have a two-year warranty with Alstom on the refurbished cars that covers breakdowns or related repairs,” said PATCO spokesman Kyle Anderson. “Alstom has two field service teams on-site on both night shift and day shift.” Anderson continued stating that mechanics are qualified to perform regular monthly inspections of the refurbished cars and that Alstom “is near completion” of repair manuals and will train PATCO employees to make other inspections and repairs and that a plan is in place to turn over all aspects of maintenance and repair to PATCO by the end of the two-year warranty period,” Anderson said.

A 16-day maintenance blitz began July 31 in the 2-1/2 mile trolley subway, which runs from 40th Street Portal in West Philadelphia to City Hall in Center City. Crews worked around the clock performing maintenance and construction work. Nearly 7,500 feet of track was replaced between 22nd and 30th Street stations westbound; new railings and stairs were installed at eight stations including 13th and 22nd Streets; 2,880 feet of eastbound overhead and wire support assemblies were installed. General station improvements and repairs were done with a focus on 19th St. Station and graffiti removal; painting and general maintenance was performed at every station in the Trolley Tunnel including repairing and clearing track drains and testing emergency generators and lighting. This is the second year SEPTA has taken a blitz approach to its trolley tunnel maintenance. In July 2014, the authority replaced 14,000 feet of rail, two switches, 24,000 feet of overhead contact wire and other track components. The authority indicated that this blitz is a continuation of work performed in 2014.

After 34 years on the job, General Manager Joseph Casey, 59, announced his retirement effective September 30. Since assuming leadership of the mass transit system in 2008, Casey has led the authority out of its dismal decades of doomsday scenarios, ancient infrastructure and a cash-strapped budget and replaced those with dozens of station rebuilds, 715 new hybrid buses, 120 new Silverliner V regional rail cars, and a 24/7, Twitter-driven, real-time transit alert system. Casey leaves SEPTA in much better shape than he found it and probably in the best shape it has ever been in. More information on his successor will follow in the next edition. Stay tuned. 

Power & Signal Report

By Scott Davis

I am happy to report that the signal painting project is winding down. At the time of this writing (October), everything is done east of Museum Rd, including the wayside cases for the signal primary disconnect and the “Bryant Zink” case holding a track transformer. Since the weather is holding up, the scaffolding has been set up around the steel pole-mounted Cheatham electric track switch box. This box is made of wood and is at least 70+ years old. Unfortunately, the door is showing its age. Presently, the wood and hardware are being gathered to make up a new door.



The fabled Cheatham switch cabinet recently rebuilt by Scott Davis and his crew. *ChateauGraphics composite photo*

In overhead lines, I have started on removing the wood from the metal end caps from rotten wood strain insulators. Once the wood is removed from the end caps fiberglass rods of the correct diameter can be epoxied into these end caps, making a suitable replica for reuse.

As usual, many thanks go to those who make all this possible: Jeff King, Kevin Zebley and your writer.

Streetcar Maintenance

By Brett Freithaler

At the end of Spring, Pittsburgh Railways 4145 was back together but on two motors, New Orleans 832 was back on the road following the last breakdown, and Pittsburgh Railways 1711 was riding with a newly rebuilt motor-generator set. These three cars all returned to the shop this summer for their own reasons and were joined by Philadelphia Suburban 14 and a special guest appearance of Port

Authority/PRCo. M210. Summer also included a test of the fleet- the eight day marathon that is the Washington County Fair during which some cars rack up more mileage than they have accumulated during the entire season leading up to it.

We left off in the last issue of Trolley Fare with 4145 having a defective motor that had failed. Another motor was pulled this summer to investigate whether or not it had the same defect. Luckily for the Museum, the second motor did not share the defect and it will be assumed, and hoped, that the motors in the other truck also do not have that defect. While this motor was out, the opportunity opened up to do some structural repairs on the car's underside. The car features stamped metal beams that run across the car and do things like hold up the



Here's a look at the work undertaken by Bernie Orient to reconstruct the underframe of 4145 *Bruce Wells photo*

floor and other components under the car. One of these beams in particular, after 104 years on this Earth, had largely turned to dust and what was left was certainly not holding the load, so it was completely rebuilt. Other repairs of this nature were near the car's body bolsters at both ends. The last day of repairs on this car could not have gone better with the beam being welded, the car lowered, motor leads and brakes being reconnected and the car rolling out smoothly and in a timely manner.

New Orleans 832 died in action one more, and hopefully last, time this summer. Back in the Spring, some questionable wiring was replaced in hopes that the problem lay in the wiring. The car went back out but failed again. This time though, the fuses all checked out. Previously the problem would always blow the fuse for the circuit that picked up the line switch. Bernie noticed a resistor tube in the line switch box that raised his eyebrows featuring a cracked ceramic tube and wires showing. It tested okay, but something like this could be

an intermittent cause of an issue if it did not test okay under different conditions. The tube was replaced and the car once again released to service. So far, so good as it has not had any issues since.

This year's Washington County Fair had two casualties, 1711 and 14. It was noticed by an operator that the front track brakes on 1711 were not working. After running around with a meter it was determined that a wire had failed in an inaccessible spot so a new wire was run, the problem was rectified and the car was returned to service the same day. 14 was in for work before the Fair due to complaints of a pole not tracking in addition to routine servicing. It went out on a test run to check the pole's performance and returned to the shop with a broken brake shoe holder and one very hot brake shoe. This is not the first time these types of shoe holders have failed and it will not be the last. On our last attempt to fabricate a new holder, we got the mounting angle wrong, so this time, two were made. This way, if it was wrong, it could at least be adjusted as the angles are adjustable as pairs. We got it wrong again, but less wrong and we now have a new much better pattern to copy. Attempt number three is forthcoming. The new holders were installed at the beginning of Fair and by the end of the week, one shoe had slid off the wheel and was



New Brake Heads for 14.

Bruce Wells photo

sitting on the flange. This was fixed with a shoe swap and a thicker shoe keeper. So far so good.

The special guest, M210, came to visit toward the end of the first week of August. It had been due for a visit for a long time, but proved difficult to schedule as an entire other department, Power and Signals, basically works out of it. The car was known to need the compressor swapped out as well as a good going

over. The compressor was swapped, a frozen brake hanger was discovered, oil levels were checked, and the controllers were serviced. One controller was bad, with burns and the signs of usual torture that K-controllers endure. The other was a record. Every single finger tip had to be removed and several drum bands had to be replaced with fabricated replacements. The frozen brake hanger was torched off, but the parts room came up short. Proper steel was acquired, but the laborious bushing machining had to wait for another opportunity as the car had to be returned to service to do its job.

Other cars to visit for less glamorous but equally important preventative maintenance this quarter included Philadelphia & West Chester Traction 78, Philadelphia Suburban (PSTCo) 66, and PAT 4004. The work was done by the tireless and dedicated maintenance volunteers and thanks go out to all involved including Bernie Orient, Brett Freithaler, Bob Powischill, Katie Imler, Tanner Coughenour, Armand Latour, Paul Falcioni, Dan Bower, and Breanne Lasorso.

Stay tuned next issue for an update on Philadelphia 5326 in regards to an issue with its doors. 



Shop Report author Brett Freithaler takes a break (not brake) from streetcar maintenance to play Bassoon and bring some "culture" to Richfol platform with the "West Hills Wind Quintet" Wednesday night of County Fair. Larissa Gula photo

Mission Statement

The Mission of the Pennsylvania Trolley Museum is to communicate the story of Pennsylvania's Trolley Era to a diverse audience through the preservation, interpretation and use of its collection of electric railway and railroad equipment, associated artifacts and photo/document archives, and to ensure that visitors have an enjoyable and rewarding educational experience.

Restoration & Shops Report

By Bruce Wells

Summer vacation is always the most productive time for accomplishment of project work on the streetcar collection. The ongoing work on West Penn 832 continues to lead the way in the main shop with wire mapping and brake work on Pittsburgh Railways 1138 also making progress there. Mon-West Penn 250, Red Arrow 66, Beaver Valley Traction 1 and the private car Toledo adding some excitement to the list, with work at the Trolley Display Building.

West Penn 832 saw significant progress in the wiring department over the summer to the point where Jim Ott was confident that the car was ready for a test run. However before that could be done the brakes needed to be working so Jack Sutherland and John Habek undertook the arduous task to get all the plumbing connected and ready to go. With everything connected and ready the compressor was energized and worked hard to pump up the air system. Unfortunately, the sum of the leaks exceeded the compressors ability and a line connected to the shop air was added but we were still unable to get the brakes to release.

At this point, early in August, I had several conversations with our friend and air brake guru Dave Garcia in Los Angeles, who has vast experience in such "Safety Car" air systems. He advised that too much leaking will cause the problem we were experiencing. With that advise I set about tightening fittings and and voila, I had brake application and release. It wasn't very consistent but it was working with the connections exactly as Jack and John had made them. Back to tightening I installed a new leak free feed from the shop air compressor to the reservoir tank under the car and tightened more pipe connections, and finally achieved consistant results. Sadly there were two problems. First the car would not stay out of emergency when transferring the handles from one end to the other and second the added pressure blew the threaded cap off of the bottom of the door control valve.

Serendipity strikes!

Fortunately this is when the Gods smiled on us in the person of Art Rizzino a new volunteer who Lynne had brought down to help with car cleaning. As I got the story, Art was working inside the New Orleans car when he felt compelled to find an air leak that he could hear while he was cleaning windows. He followed the sound, which he does all the time as he is not sighted, and pinpointed the leak

on the brake valve on the other end of the car astounding his co-workers. After hearing this story we somehow connected the dots and said "Art is the PERFECT person to work on 832's air system"! So, the next week he teamed up with John Habek and the rest is history.

September 4, with final checks of all the wiring, and the brakes working well Jim Ott, John Habek, Barrie Baker and Jack Sutherland watched the car as Brett Freithaler worked the controls. They noted that the motors were not all turning the same way. After a quick switch of the wire connections the car moved that first short distance inside the shop and the brakes performed flawlessly, marking the first successful powered move of West Penn 832 since February 7, 1954, the day that 832 brought the original museum supporters to County Home Siding from Pittsburgh and was the first car to carry passengers on the museum line and provide guest operations.



For the first time in 61 years, West Penn Railways curved side car 832 has moved under its own power. Two of the motors need to have their motor leads reversed, but the car ran well and stopped well. Thanks and congratulations go to the whole West Penn 832 team!" Those involved with today's test are shown in the attached photo: Jim Ott, John Habak, Barrie Baker and Jack Sutherland (holding balloons).

Scott Becker photo

At the rear of the shop on track 21 Pittsburgh Railways PCC 1138 sitting up on stands on where Katie Imler and Bernie Orient have been working on the brake shoe puzzle while, under the car Tim Moffat has been mapping out the intricacies of the wiring for the control system and motor connections. Tim is documenting the wiring so that a plan can be made for rewiring the most worn portions. As part of his effort it was found that new motor lead wires with special "spark plug" connectors were needed to replace what is likely the 1937 originals.

Serendipity struck again when in conversation

with Brookville Equipment regarding parts from Red Arrow cars 15 and 17, Scott Becker found that they could supply these very specialized wires at a reasonable cost. These wires were surplus from PCC rebuilding projects that Brookville had recently completed. On our first trip to retrieve Red Arrow car parts we also took delivery of the leads.

In July Brookville Equipment made final plans to dispose of the bodies of Red Arrow St. Louis cars 15 and 17 (sisters to cars 14 & 24 at PTM). They were acquired from the BVTA/ECTMA group in 2006 and Brookville had hoped to remanufacture them into cars for resale as they are quite similar to cars in San Francisco. This ultimately didn't come to pass, the bodies deteriorated beyond repair in outside storage and the decision was made to scrap them. With this decision Brookville honored the commitment to provide parts from the bodies to PTM and Shoreline museums and provided a crew to strip the bodies of parts identified for removal.



*Brookville crew removing parts from cars 15 & 17.
Laura Wells photo*

July 23 my daughter Laura and I took a break from our vacation at nearby Clear Creek park to go to Brookville for the work. Scott Becker and Larry Lovejoy joined us later in the morning with a large truck to transport the parts back to the museum. Not everything was removed that day so the Brookville crew worked all day Friday removing the remainder and carefully loading them on pallets. A second trip was necessary to retrieve the remainder and on August 8 my older daughter Sarah and I took a rental truck to Ellwood City to get parts from Hall Industries and then went on to Brookville for the parts waiting there. We returned late in the afternoon where Larry, Scott, Laura and Don Bailey were waiting to unload the truck. Larry did

the honors with the forklift and placed the parts in storage inside the TDB corral awaiting space in the Artifact Preservation Building (APB).



*Parts from Hall and Brookville arrive August 11 2015.
Don Bailey photo.jpg*

Last issue I mentioned that over the summer we hoped to correct the blistered (potholed) paint that developed on Red Arrow 66 during radical temperature swings in the Founders' Car House during the winter. With the hope of getting 66 back on the road for the Fair, Laura and I undertook the job repair to the damaged areas in the paint. Matching the paint was the first step and was made easy by the large chunks that had peeled loose on both letterboards. Next step was to trace the lettering in the damage areas. Once that was done it was a matter of sanding and feathering out the existing paint, applying the color and then replacing the lettering. When you look at the car you can pick out the shiny new letters and spots in the silver stripe with new paint. As part of the job we decided to refresh the paint on the sash and window posts and apply a couple new pieces of green glass. We had the car out the door in time but unfortunately the glass broke again.



Fair week saw the refinishing of the letterboard on Red Arrow car 66 following cold weather paint damage. Don Bailey photo.



Richlite Foglites were installed in Red Arrow 66 by Jeff King and Justin Skrbn to put a final touch on the restoration done by Bernie Orient and his team during 2014. Scott Becker photo

One item missing from the final product of work done on 66 last year were the distinctive flasher lights. These lights were added to entire Red Arrow fleet in the 1940s following the delivery after Brilliner cars were delivered with the lights. The late Philadelphia Suburban Transportation Company President Merritt Taylor indicated that these lights were added to the cars to alert motorists to their cars particularly on the West Chester line where cars ran primarily along the side of the road.

When 66 arrived at Arden in 1970 it was missing the lenses and bezels that make the lights complete. In the initial restoration work plastic lenses from traffic lights were acquired and shaved to fit over the “buckets” and this sufficed until last year when the car received its major facelift. Jeff King suggested early this year that he wanted to complete the proper look on the car by moving the complete units from sister car 73, restore them and apply them to 66. Jeff teamed up with Justin Skrbn and got the four units completely rebuilt and installed in time for Mr. McFeely’s Parade of Trolleys. They are also committed to restore the wiring, switches and flasher units to make them operate again using their experience from their work on car 14.

County Fair was about as late in August as it gets beginning on August 15 and running through the 22nd. Much was accomplished that week with the work on oval stain glass windows on the private car Toledo topping the list. This has been the personal goal for Bill Fronczek for a couple of years and lots of research went into the pattern for the glass, the hardware for the frames, moulding to hold the glass and the shape of the window so that they would accurately fill the 2 openings with exterior moulding renewed to finish off the look. Bill

was fortunate to find a craftsman with experience in making similar windows and moulding for a car being restored in southern Illinois and a craftsman with the skills to replicate the stained glass. Last year Toledo was moved to put it in a position where visitors would see the stained glass side of the car and to facilitate Bill’s work. Earlier this year Bill applied the new moulding that surrounds the openings on the outside of the car. The week of County Fair he completed installation of the windows with the application of hinges and hardware that allows the windows to stay open. With that tremendous effort behind him Bill is now studying the interior light wiring. If you are someone who understands wiring and wants to help please let us know.



Bill Fronczek proudly shows off the results of his huge effort to return stained glass windows to the private car Toledo. Bruce Wells photo

Work began August 15th to rebuild brooms on both ends of Beaver Valley snow sweeper 1. During the course of the week Laura Wells and her team of Caitlyn Arroyo-Myers, Don Bailey, Kathryn Black, Larissa Gula, Sarah Wells, Uncle Artie, Patrick Wells



Larissa Gula and Sarah Wells clamping broom bristles into one of 12 holders that make up half a broom. Laura Wells photo

and Kevin Zebley managed to re-bristle one half of one broom and restore components for the other half. They started with the #1 end of the car and decided to use the best of the used bristles. At first there was a steep learning curve but as they worked the job got more routine. Rust killer was applied to the rusted parts and all of the components were painted. The project extended on into September with hopes of having at least one end done for the winter.



*Don Bailey applying rust killer to the broom axle.
Don Bailey's photo, user unknown*

At the center of the TDB Art Ellis continued his ongoing work on Mon-West Penn 250. Since completing the installation of the coupler equipment his main focus has been to get the parts (removed from the car at its former home) stored inside it organized and catalogued for future work. To assist with this he purchased LED light fixtures and hung them inside the car. He has plans drawn and is looking into having new bumper ends made for the car as the originals are rather rusty.

Bill Pollman from Seashore Trolley Museum came



Digging into the deepest darkest recesses of the museum (PCC 1799) to get door panels for Seashore Trolley Museum.

by at the end of August with a big truck to load up PCC parts we acquired during 2014 on behalf of museums that acquired Newark (NJ) City Subway cars. We also traded a variety of other PCC parts from our storeroom that were exchanged for wide gauge Brill 77E trucks that came to Seashore from SEPTA.

Several of us capped off the summer with a trip to Illinois Railway Museum for the annual Fall meeting of the Association of Tourist Railways and Railway Museums (ATRRM). All in all it was a busy and productive summer. Keep up to date with what is happening by checking us out on Facebook and on my webpage at weaklyreports.net. Keep smilin'. 

Around the Museum

By Bruce Wells

June 27 was the scheduled date for Mr. McFeely's visit to PTM, however, we had a bit of a problem that weekend starting about 9:30 a.m. when the power went out. David graciously returned September 12 and made the day, as usual, and the Parade of Trolleys featured Beaver Valley 1 and Red Arrow 66 all spiffed up as well as our oldest passenger car 3487.



*Mr. McFeely took every opportunity to pose with children and families on September 12.
Bruce Wells photo*

Moving parts to the Artifact Preservation Building and then spending many hours sorting them continues to be the mission of President Dennis Bockus and a group of dedicated helpers that regularly includes Bill Fronczek, Ned Apalakian, and Scott Davis. A bunch of events converged at the end of July with the arrival of our new milling machine and some general cleaning up of the shop space.

July 27 the milling machine was set up in short order by Kevin Zebley and Scott Davis. Bernie Orient provided a needed compressed air line and Ray Hatfield was happy with the results. Our machines



Ray Hatfield with new milling machine. Scott Becker photo

now needed checked for level and we were fortunate to find Dave Macmillan from Mt. Lebanon who graciously donated his services to check the milling machine and then took care of a serious alignment problem that Ray had with the lathe.

After set-up of the mill Kevin, Scott Davis, Laura Wells, Sarah Wells and I embarked on removing the remaining parts and pallet racks from the back end of the parts room. This included Laura, Sarah and Kevin building a lumber rack on the rear wall of the shop extension and then moving all the stock to the new location. Kevin and Scott then power washed the floor in both sections, something much needed since the flood in 2004. The sandblaster was relocated and re-plumbed and then the squaring shear was set up next to it.

The long range plan is to move woodworking equipment to the parts room space creating a wood shop separate from the maintenance and restoration space. Plans are underway to remodel the space with David and Kathryn Black making a generous lead gift to the effort. Thanks also to Dave Carpenter for his help in the purchase of the new mill.



Dan Bower uses large Hyster forklift to unload the Thompsonville rotary converter that had been stored at IPS for many years. Don Bailey photo

You may not know (or remember) that PTM owns a rotary converter from Pittsburgh Railways. It is a 500 kw unit that spent many years at the Thompsonville substation and was moved to West Library sub with the abandonment of the Washington Interurban in 1953. It powered the trip that brought cars to the museum site in 1954, and it was a back up for the Library line until the substation building was replaced by Port Authority. In the early 90s, Steve Kuznetsov arranged for rewinding at the Westinghouse shop in Glassport before it was placed in storage. In early August Scott Becker arranged to have it moved from long time storage with our neighbor IPS (formerly Reliance) and it was placed in the APB lean-to. We thank IPS for donating storage for this important artifact!



Clean up prep for the Fair August 8. Bruce Wells photo

Right before the Fair Volunteer Coordinator Lynne Thompson organized a clean up day to get cars ready for the exciting week of operation. It was a beautiful day and lots was accomplished with the help of Grampa Ellis, his grand daughter Laura, Caitlyn, Tim Moffat, Jim Riedel, Jim Toeffer, Lynne and a cast of thousands.

County Fair this year saw the regular gang gathering for the week and the rider experience is well documented in Scott and Dennis's articles. For the volunteers that stay over the biggest change was the loss of the Crossroads Presbyterian food booth which, for as long as anyone could remember, was there to serve real breakfast to early morning fair-goers. It also changed the traditional Saturday "Breakfast Trolley" group photo. It was biggest loss to the fair since the barbequed chicken disappeared.

The PTM gang really missed them as the new vendor in that space served great lunch and dinner but although well intended did not really have a handle on breakfast. Hopefully it'll improve for next

year. In the meantime Caitlyn, Larissa, Sarah and Brett made the effort on different days and we had “cookout” breakfast at the museum.



With the demise of the Presbyterian food booth at the Fair volunteers working for the week had to improvise at breakfast time. Sarah Wells photo

There has also been lots going on at the east site where Larry Lovejoy has spent considerable time shepherding the Harmony Station project through the completion of foundation and capping off of the work by building mover Jeff Pleta. Part of that effort was to return all of the “gingerbread” to the outside of the building. Larry arranged to organize the parts and we restored one of the eve supports. With all of the parts attached the next step was to contract for the painting. M&A painters got the contract and their crew is doing an excellent job with the old and thirsty wood. Plans for the fall are for interior flooring and installation of the heating system in the basement.



M&A Painting Crew primes Wexford Station in late September. Scott R. Becker photo



Dave Hamley and Dan Bower enlarge holes on new plow for 89. Bob Jordan photo

With the completion of re-gauging of Loco 89 Dave Hamley proposed that it could be equipped with plows and used to open the streetcar line on a snowy day. That idea has come to fruition through Dave’s extensive planning, design work, specifications and finally finding a fabricator. September 19 he and Dan Bower installed the plows and Loco 89 is ready for winter! 



Plow installed.

Bob Jordan Photo

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County Fair 2015 saw many beautiful days that showcased the traditional value of our historic collection. Bruce Wells photo



This year the traditional Breakfast Trolley photo was taken at McClane School Loop. Don Bailey photo



Evening operation at the Fair always presents great photo opportunities.

Bruce Wells photo