

TROLLEY FARE

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Wexford Station Wins Award from PA Museums!

By Scott R. Becker, Executive Director

I am pleased to report that the Pennsylvania Trolley Museum has received a 2017 Institutional Award from PA Museums for the preservation, restoration and interpretation of Wexford Station. This award was received by PTM President Bob Jordan from PA Museum's Executive Director Rusty Baker during PA Museum's Annual Awards Luncheon at the Erie Art Museum on March 27. Each year, Institutional Awards recognize several outstanding and innovative projects that have provided an exemplary contribution to the museum, public history, or cultural tourism in Pennsylvania. PA Museums is a statewide organization that creates and supports the museum community in Pennsylvania through advocacy work, professional development programs and information sharing. I want to thank again all the donors and volunteers that made the Wexford Station project possible! Wexford Station is now a part of each public tour that goes through the Trolley Display Building.

The first quarter of each year is the time for the Museum to "recycle and rejuvenate" as we prepare for a new season. No public operation is normally scheduled and this gives us an opportunity to make improvements before the busy season begins. This year was no different with considerable effort being put into our Founder's Car House, Events Room and Parking Lot. Thanks to private contributions and a \$12,000 Mini-Grant recently awarded from the Rivers of Steel National Historic Park, new upgrades are being installed in the original carbarn, now called the Founder's Car House. This project was completed in partnership with the Rivers of Steel Heritage Area. Funding was provided in part by a grant from the Pennsylvania Department of Conservation and Natural Resources, Bureau of Recreation and Conservation, Environmental Stewardship Fund, administered by the Rivers of Steel Heritage Corp. Local electrical contractor Hartman

Executive Director's Report, continued on Page 2

and Hartman was the successful bidder to install new LED lighting in the interior and exterior of this building. The LED lighting is brighter and much more efficient than the 20-year-old metal halide fixtures that were replaced. They also can be easily turned on and off with no warm up time involved.

In the events room, ongoing problems with our ceiling grid were rectified with substantial help from Interior Supply and volunteers Bob & Mary Jordan. During this project the ceiling insulation was also repaired, making the room much more



John Habak repairs events room ceiling.

Photo by Scott R. Becker

energy efficient. In the parking lot, a new French drain and new stone were installed adjacent to the sidewalk which will allow the parking area to drain much more efficiently during heavy rains. Special thanks go to Kevin and Doug Zebley for loaning us a dump truck and excavating equipment to perform this work on a very cold March day!

As you can see a lot is going on and we could always use more help. Please consider volunteering to help your trolley museum grow even more! I look forward to seeing you all at the Museum this year!



Digging the Marianna Trench for drainage of the parking lot.

Photo by Laura Wells

A Look into the Season

Winter has come and gone and Spring is in full bloom! Since the museum is closed during the months of January, February and March, most people would assume that means slow times around the museum. But behind the closed doors of the seem-

ingly empty building are volunteers and staff members hard at work prepping for the 2017 season.

During the off season, our Museum store begins looking at its inventory. What do we need to add? What do we need to get rid of? What do the visitors

By Madelon Cline

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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, to ensure that visitors have an enjoyable and rewarding educational experience.

want? These questions are carefully considered and merchandise is purchased accordingly. Our store hostess, Diana Myers, is keen on finding what our visitors want! This year we are proud to unveil our 2017 shirt that displays West Penn 832. This car, which is currently being restored in our shop, is showcased in all of its renovation stages on the front of the beautiful charcoal gray cotton shirts. If you are not able to visit the museum anytime soon, you may order these shirts over the phone at 724-228-9256 ext. 311. Be sure to also check out our wide variety of trolley themed gift ware and our fantastic book selection! We know that our store is not what draws you to the museum, it's the history that we have here and the memories that you make with your friends and family.

That's why we offer a wide variety of rentals and additional activities on our property. Our large Event Room is a fantastic space to host birthday parties, graduation parties, corporate meetings and the list goes on. We also have our very popular activity, Operator for an Hour. Have a trolley fan in your house that is itching to get behind the controllers of a trolley? Then this is the perfect gift for them! Operator for an Hour includes a session where you learn to operate a trol-

ley, a one-year individual Museum membership and tickets for five additional passengers to ride and tour the museum. This year's Operator for an Hour will be hosted Monday, May 29 (Memorial Day), Tuesday, July 4 and Monday, September 4 (Labor Day). For pricing and additional questions, please contact me at vsm@pa-trolley.org or call 724-228-9256 ext 303.

A change that you will see happening this year is our summer schedule. Starting in June, the museum will be open 7 days a week. However, on Mondays, there will be no tours or trolley operations. The store and Visitor Education Center exhibits and film will be open. We will be open and running regular operations on Monday, July 3 and Monday, August 14.

Thank you to everyone who continues to help in the growth of the Pennsylvania Trolley Museum. It is your enthusiasm and support that allows us to continue teaching individuals about the Trolley Era. Be sure to begin planning your visit now and keep an eye out for these upcoming events:

Parade of Trolleys – June 24

Classic Car Show – June 25 (Interested in registering a vehicle? Please email: vsm@pa-trolley.org)

Washington County Fair – August 12 -19.

From the Front Platform

By Bob Jordan

“Get Ready for a Wild Ride”

There's a lot going on this year at your Pennsylvania Trolley Museum. In fact, the pace is dizzying. First I need to tell you about a few organizational changes. Walt Pilof and Kevin Zebley have term-expired and have rotated off of the Board of Trustees. That doesn't mean they're going away; quite the opposite. More on that in a moment, but first I want to welcome our newest and youngest Board Member, Laura Wells and returning Board Member Jeff King after a brief hiatus.

Back to Walt and Kevin...Walt has been managing our finances for quite some time and has accepted appointment as Controller and Kevin is enthusiastically stepping into a brand new role as Operations Manager. He's already off to a running start with an ambitious schedule designed to give every visitor a chance to take a tour and see the Wexford Station, or to just ride the trolleys if that's what they came for.

Other changes include Mike Ziviello as the new Education Manager, and since Kevin is going to be up to his eyeballs, Mary Jordan is stepping up to handle more of the minor building maintenance issues. Elsewhere, Scott will be elaborating more on some of the recent improvements to the physical plant including improved drainage in the parking

lot, improved lighting in the Founders' Carhouse, as well as photographic displays being planned for the door panels, and "Follow the Blue Line" thanks to Larry Lovejoy (see photo on page 15).

There are several major projects in the works; some in the planning stage, some in the design stage, and some in the development stage. We are just getting started on our biggest ever Capital Campaign. It's a little early to go into detail on the funding, but we've already secured some major commitments and challenge grants, and as one who has been anticipating our final expansion at the East Site for many years, I now anxiously look forward to its becoming a reality. In fact, you will actually start seeing dirt fly later this year for our new entrance to the East Campus. Another project in the design stage is lengthening the Fairgrounds Platform, in conjunction with Washington County, and will include replacing the pedestrian bridge to the Fairgrounds Entrance with one about double in width.

Other improvements include a new phone system, which is already a reality, and if you've called the Museum recently you already know this. Now each full-time staff person has their own direct incoming line, and if they're not there it goes straight to their own voice mailbox. No more post-it notes and lost messages, and a huge thank you goes to

Ken Fornof for his programming talents. Also in the works is a backup electrical power system so we won't have another situation like the one Mr. Bockus reported on in the last issue in which we lost an entire day of a major special event through no fault of our own.

Every PTM Board member contributes their time and talent in various ways, but at the start of the year I asked every Board Member to step out

Educator's Notebook

By Lynne Thompson

The winter months are often referred to as the slow time at the Museum, due to the fact that we are closed to the public. However, we don't slow down. The beginning of the year is a very busy time. In the education department we revise lesson plans and materials and book many of our field trips. This year we created a completely new brochure to mail out to school and have on hand for when we do outreach. On the volunteer coordination side of things we revamped our materials as well and updated our on-line match services. Also, we continue to reach out to new volunteers and strive to bring past volunteers back into the fold. I am happy to report that two former student operators and one revenue operator will be returning to take training this spring.

In March I attended a seminar on The West Virginia Association of Museums Core Documents for Museums Seminar at West Virginia University. Due to its proximity to our area it was heavily attended by staff and volunteers from western Pennsylvania Museums. Core documents for museums included: a mission statement, strategic institutional plan, institutional code of ethics, collections management policy, disaster preparedness and emergency response policy. This informative seminar will help us to fine tune many of these documents and policies that we already have in place.

I also attended the Pennsylvania Museums Annual Statewide Museums Conferences in early April. This year's conference Challenges and Change was hosted at the Erie Art Museum. PTM was there, in part, to accept an award for the Wexford station (Please see Scott Becker's article for more information.) There I attended various sessions including Considerations for Creating Sensory-friendly Programming for Teens and Adults. This talk focused on programs for individuals with Autism and sensory sensitivity issues. Mary Jordan joined me in attending this session and we were both pleased that the Pennsylvania Trolley Museum was recognized as a site that has become well know for our openness to special population groups. It was noted that we strive to be sensory-friendly. We learned

of their comfort zone, stretch, find one thing that needs improvement, and then take it on themselves to get it done. The results have been fantastic and some have even stepped up to the plate in multiple ways, and I thank them all.

As I said, there's a lot going on. Are you dizzy yet? I am! So Get In, Sit Down, Buckle Up, and Hang On!

We're in for a Wild Ride!!

about new techniques and practices in this area and look forward to putting them to use in the new season. Another session that was outstanding was Taking the Museum Outdoors. Becoming a certified outdoor classroom was a focus of this talk. With the Museums future expansion plans I hope that this might be something in our future planning.

As we gear up for another exciting season at the museum I have to say now more than ever we need volunteer help. Many of our dedicated volunteers are becoming up there in years. We need to keep adding to the pool of volunteers to keep the museum successful. As I have said in the past, our best new volunteers have come to us through our present volunteers. If you have family or friends that might be interested in volunteering please have them contact me, Lynne Thompson, educator@pa-trolley.org or my new direct line at 724-884-0285.



Scott Ambrose assembles new shelving for archival storage in our new first floor space. Photo by Ed Lybarger photo



Each Tuesday these volunteers and several others gather at the Archives to build, sort, catalog, organize, identify and overall work to preserve our collection. Photo by Lynne Thompson

While it's been awhile since we updated you on the PTM Archive, there is a great deal of progress to report. The influx of new material, largely from estates, had sorely taxed our available space, causing us to seek new ways to expand. The 1500 square feet that was added on the second floor in 2014 filled much more rapidly than expected, and by mid-2016 we were again short on flat surfaces.

Eaton came to the rescue once again, allowing us to occupy the 3300-plus square feet of office space adjoining our first floor quarters. This area had been repaired after the 2004 flood, but had never been rented. We contracted with Hartman & Hartman to modernize the lighting in one very large room, and with Seman Flooring to carpet it, thus providing clean, carpeted office and other work space throughout.

Nearly all of our vertical file cabinets have been moved into one half of the big room, while new (to us) 7-foot high shelving occupies another quarter of it. Thanks to All Ways Moving for muscling the files into place, and to Scott Ambrose, Chuck King, Janis Lybarger and the writer for building the shelving. We are beginning the long process of emptying the contents of file cabinets into archival boxes that will occupy the shelves (and more when these are full).

Other material is currently being sorted throughout the new space, but we will be designating the entry room from the hall as researchers' space, with work tables and coat lockers available. It is also our intent to tastefully decorate the walls with a number of the artifacts in the collection that we have previously had no place to exhibit. When this room is ready for occupancy we plan to hold an open house for members.

Our room housing the book stacks is hopelessly full at this point, and we will be moving that material into the space vacated by the file cabinets. The original book space will become a workroom. We



Archives volunteers took time out this spring for a luncheon arranged by Volunteer Coordinator Lynne Thompson.

Photo by Lynne Thompson

have set up one of the new rooms for scanning and one for housing stored exhibit materials. Both Ed and Lynne have offices nearby, providing them with workspace and filing capacity.

In June of 2015 we received from Wyatt Corporation a substantial donation of lateral files, office furniture and cabinets. Wyatt was renovating a building in Bayer's office complex in Robinson Township, and donated its contents to area non-profits. These items were in great condition and were moved to storage on the second floor by Scott Becker, Lynne Thompson and the writer. The new space has permitted us to utilize a big chunk of the Bayer furnishings...Thank you, Wyatt!

The other big news involves the installation of a functional internal computer network, or Intranet. Previously Dennis Bockus and Scott Davis had brought Internet to Archives, using a microwave link from the East Substation building, but we needed a network to share and store files. Enter new member Michelle Wittensoldner from Ohio, who does this kind of work for a living. Not only has she constructed a reliable network using brand new equipment (including routers and a computer), but she also arranged the donation from her company of five previously used laptop computers so that we can work from virtually anywhere in our space. Every computer now connects with the master, where files are stored (and backed up until we can arrange for cloud storage), and with the several printers available. Thanks, Michelle!

Several major collections have come to PTM since we last reported; thanks to all for thinking of PTM:

Long-time member Russell Cashdollar, now residing in Baltimore; large donation of a very wide assortment of Pittsburgh Railways material, from hundreds of photographs to company ticket sample books to car hardware to internal records.

The late Edson L. Tennyson of Vienna VA; employed at Pittsburgh Railways in the late 1940s and a nationally known transit consultant.

The late C. L. "Chick" Siebert, Jr. of Camp Hill PA; modeler par excellence, author (Northwestern Pennsylvania Railway and Valley Railways) and photographer since the late 1930s.

The late John Makar of McKees Rocks; a student of the Harmony Route and Butler Short Line who with others chased down and photographed all the remnants.

West Penn Railways – more from the now-closed Dunbar Records Center has made its way to us, thanks to Scott Ambrose and Karen Morelli.

Helping us process these and all the other collections in our possession are a wonderful group of volunteers: Joe Boscia (the Philadelphia collection); Scott Ambrose (our vice president – shelving has been curating the West Penn collection); Phyllis Smail (storage of uniforms and filing of newspaper clippings); Art Ellis (sorts and inventories numerous collections); Ken Leonardi and Chuck King (always ready to help with whatever today’s project is); George Gula (Philadelphia photos); Lee Gregory (photo scanning, slide sorting and inventorying contents of archival boxes); Jeff Coyne (project engineering and management as well as large format scanning); Katie Imler (engineering drawing sorting), John Swindler and Bruce Wells (collection acquisition and transportation) and new volunteer Jim Keener, who is tackling the scanning of large engineering drawings. And let’s not forget Jim Holland, who in absentia cataloged fully half of the Ed Miller negatives.

Regrettably, we have recently lost two long-time Archives volunteers: Dwight Long, an early museum member, passed away last August. Dwight visited several times a year and eagerly pitched in with the task du jour. We thank him particularly for building those rows of bookshelves on the second floor! Also, Leonard Marraccini has found it necessary to retire from his volunteer efforts at the museum due to increasing demands on his time. Len had for a number of years been cataloging our photographic negative collections; we thank him and wish him the very best.

It is said that no one retires from either of two organizations – the Mafia and the Pennsylvania Trolley Museum – but I am going to challenge that wisdom. I have announced that effective December

Pittsburgh Points

A major reconstruction project began in March with the rebuilding of the Neville Street ramp of Port Authority’s East Busway. For those unfamiliar with the facility, this ramp allows transit vehicles access into the heart of Oakland from the East Busway, linking Neville Street (at its intersection with Centre Avenue) to the busway lanes down in the valley along the Norfolk Southern mainline.

The ramp was installed along with the rest of the busway in the early 1980s, opening in 1983. For three decades now, residents of many of the east end communities of Pittsburgh have been enjoying the virtues of rapid transit thanks to the rubber-tired right of way. The Oakland ramp was another major part of the plan, allowing fast and easy access to the region’s second-largest transit destination.

31, 2018, I will no longer serve as Archives Manager. It is time that younger individuals take charge, and to that end, Chris Walker has stepped up to accept the responsibility. Chris is an excellent researcher/writer and avid historian who understands (or can figure out!) the items in our collection, and is the logical successor. He and I will work together during 2017 and 2018 so he can become thoroughly familiar with our holdings. His major task during this time is to begin to curate the Pittsburgh Railways corporate files and to bring unclassified documents into the company’s historical filing system. Let’s give Chris a big welcome!

And finally, big thanks to Lynne Thompson, who watches over the volunteers and keeps them busy when I’m away, along with working on future exhibit design in her new space, which also allows her to work on her numerous other duties. Lynne is extremely knowledgeable about archival techniques and procedures and her help is greatly appreciated.



Ed Lybarger and the late Dwight Long with newly assembled bookshelf. Fred Schneider photo

By Chris Walker

Today’s P3 bus route (East Busway-Oakland) is a heavy hauling service, connecting Swissvale, Wilkinsburg, Homewood, East Liberty and Shadyside to jobs, education and our cultural institutions. The busway is truly a lifeline for many area residents, which makes the ramp project even more important. The job is slated for completion later this year, during which time the P3 route is detouring via Ellsworth Avenue through Shadyside.

Speaking of the P3, there is currently a proposal to extend that route into Downtown Pittsburgh via another sort of rapid transit link. The Port Authority has released its first public documents on its plans for an on-street Bus Rapid Transit system (or BRT). A round of community meetings was held over the last month or so, with a public open house in Oakland on April 5.

The BRT system, as previously reported here, would consist of articulated buses (battery-electric powered models, according to the plan) utilizing reserved lanes on Fifth and Forbes Avenues between Downtown and Oakland. Traffic priority signaling and upgraded bus stop amenities would be included as part of the system.

The proposed routing structure would take one of four forms:

- BRT service from Downtown to Oakland only, with all of the existing 61 and 71-series routes terminating at a transfer facility in Oakland
- BRT service from Downtown to Oakland, provided with today's P3 service, extending the enhanced system via Neville Street to the East Busway and as far as Wilkinsburg Station; this plan would also entail all 61 and 71 series buses looping in Oakland
- BRT service with the P3 to Wilkinsburg and a branch to Squirrel Hill; this would replace the existing 61D service
- BRT service with the P3, 61D to Squirrel Hill and a third route to Highland Park (today's 71B)

Philadelphia Notes

On Wednesday, January 4 around 1:30 p.m., a collision resulted in minor injuries to 48 people when one Route 10 Kawasaki car rear-ended another on Lancaster Avenue at 38th Street in West Philadelphia. A local resident described the scene as “controlled chaos” with blocked trolleys backing up on Lancaster Avenue and a large police, fire and paramedic response assisting the injured passengers. Trolley service on Lancaster Avenue was curtailed while an investigation was conducted as to why the two trolleys, scheduled to run about 10 minutes apart, were traveling so closely together. The injured, including both operators, were taken to area hospitals for treatment or observation. The following day, a six-person team from the National Transportation Safety Board began an investigation into the



Cars damaged in the January 4 accident at 38th Street and Lancaster Avenue.

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Outbound streetcar at Fifth and Craig in the mid-60s. BRT is proposed to serve this area. Photo by William James

The City of Pittsburgh is leading the project, which would also include a complete reconstruction of Fifth and Forbes Avenues within the study area. It is hoped that a locally preferred alternative will be selected by the time you're reading this, after which the City will be applying for a Federal “small starts” grant to kick off the final design process. The price tag is somewhere between \$200 and \$240 million, depending upon which alternative makes the cut.

By George Gula

slow speed incident, announcing they would be examining several issues, including collision avoidance technology and federal oversight of transit operators.

The nearly 20-year old Market-Frankford cars had been undergoing a comprehensive overhaul when a weekend February 3rd inspection of two cars disclosed cracks in the body bolsters, the main load-carrying structural beams that link the body of the car to the trucks. SEPTA immediately pulled 110 of its 218 cars from service and warned commuters that they would face slower travel times on Monday when the agency would be short of the 144 cars needed for regular, weekday peak hour service. All of the sidelined cars had the above-described symptoms, while another 58 cars had vent box cracks which can spread to the bolster beam. At a Sunday press conference the agency indicated it could not determine when regular service would resume. Because the 12.8 mile Market-Frankford Line is SEPTA's busiest route with 187,000 average weekday trips, the agency immediately assigned 60 shuttle buses to operate during weekday rush-hours between 6 a.m. and 10 a.m. and between 3 and 7 p.m. on routes paralleling the Market-Frankford line to ease overcrowding. The line ran late on Monday, but ridership still rose 15% on the crowded El cars on Tuesday while more commuters began taking advantage of the shuttle buses. The system also did not meet SEPTA's goal of a train every six minutes. This caused residual delays along the entire line, causing SEPTA to place another twenty-four shuttle buses in service. Rid-

ers, remembering the recent issues with the new commuter cars in 2016, expressed their frustrations with this latest fiasco.

On Tuesday February 21 around 8:10 a.m., a collision and a derailment occurred on the Market-Frankford Subway-Elevated line at the peak of the morning rush-hour in the two-track loop just west of the 69th Street Terminal station platforms. Train 67 had halted on the Number Two loop track waiting to be cleared to head east into Center City and then on to Frankford when Train 57 ran into the back of the stopped train. The impact caused some of Train 57's cars to derail and cross over to the adjacent track where they sideswiped cars of Train 51 on the Number 3 loop. Seven cars were derailed, four cars from Train 57 and three cars from Train 67. In addition, several of the derailed cars were knocked off their trucks. The operator of Train 57 was taken to Lankenau Hospital in Wynnewood where he was listed in critical condition with serious injuries. The operator of Train 67 and two passengers were sent to Delaware County Memorial Hospital, with non-life-threatening injuries. Trains are supposed to have no passengers on board when they travel through the loop and it was unclear why there were riders on any of these trains. Shuttle buses replaced trains between 63rd and 69th Streets for more than five hours while crews cleared up the wreckage and began the initial investigation. Two of the three operators interviewed were unsure of what had happened and the third was unable to be interviewed. Full service resumed around 1:30 p.m.

On Tuesday evening, SEPTA halted the cleanup process when a six-person team from the National Transportation Safety Board and FTA announced that they were taking over the investigation to determine why the operator failed to stop despite safety measures that should have prevented the incident, and why passengers were aboard. SEPTA uses both an automatic train control signal system, which is



This is one of several cars damaged in the February derailment and accident on the Market-Frankford line at 69th Street terminal.

meant to automatically stop trains and prevent them from colliding or violating signals, and wayside signals — red light, yellow light — which should have alerted the operator that a train was stopped in the loop ahead of him. It was determined that the accident had nothing to do with the cracks discovered earlier that month in some of the El car's bolsters, but all three six-car trains involved in the derailment were scheduled to be inspected before they returned to service. Following the investigation of the wrecked cars, SEPTA crews worked through the night and into Wednesday morning removing the remaining cars from the loop. Removing the final car was a slow and tedious process. Once it was re-railed, crews used metal saws and cutting torches to make it safe to be towed away. SEPTA did not know the extent of damage to any of the 18 cars or whether any would have to be scrapped.

The agency normally needs 24 trains during the rush-hours, but had only 22 full train sets available during the previous week. The loss of 18 cars reduced that number to 18 as the inspections of cracked bolsters and vent boxes eliminated the possibility of any spare equipment. SEPTA announced later that day that although service was up and running, there would be no A/B express service during the evening rush hour and riders could expect delays and overcrowding. The next day, officials said the 30-year veteran operator, George Mink, was forced to activate his train's emergency mode (a last resort to avoid a collision) but was unable to do it in time. He was later placed in a medically-induced coma due to his serious injuries. The Broad Street Subway also experienced difficulties that week. On Wednesday, February 22, 2017 around seven in the morning, when a suicide at the Tasker-Morris Station snarled service for about three hours.

In late-March, SEPTA released its \$727.2 million capital budget for fiscal-year 2018 beginning July 1, 2017. It provides \$241.6 million for vehicle acquisitions and overhauls, including purchasing additional locomotives, multilevel rail cars and utility vehicles and allocates \$21.8 million for replacing catenary wire and modernizing railroad and transit substations, many of which were built in the 1920s and 1930s. In addition, the budget provides \$2.1 million for restoring rail service on the Media/Elwyn Regional Rail line from the existing terminus in Elwyn to a new one in Wawa. That project involves renewal of bridges, track, signals and the catenary system, as well as construction of a new station building and parking deck at Wawa. A SEPTA press release stated that this budget would advance its "Rebuilding the System" initiative, an ongoing transit reinvestment plan. The agency began implementing the ini-

tiative after the 2013 passage of Act 89, which provided transportation improvement funds throughout Pennsylvania. Meanwhile, SEPTA unveiled its 12-year capital program, which includes \$3.12 billion for vehicle acquisitions and overhauls with \$277 million for communications, signal systems and technology improvements.

The Delaware River Port Authority's PATCO rapid transit line began experiencing major delays for several weeks after January 7 when a light, powdery snow fell having a consistency easily sucked up into the trains' traction motors. John Rink, PATCO's general manager, explained that if direct current motors have even microscopic flaws in the waterproof copper coating over coils, moisture could short them out. He added that, since the storm, PATCO had repaired 21 traction motors costing up to \$18,000 each. Moreover, protecting a DC motor from powdery snow is difficult. Enclosing the motor creates other problems due to the heat it generates. A permanent solution involves replacing the DC motors with an alternating current system that is unaffected by moisture in the same way. The conversion of all of PATCO's cars would cost about \$100 million. PATCO moves approximately 40,000 riders a day between New Jersey and Philadelphia and since the storm, riders have been experiencing train cancellations or delays of up to a half hour. Some trains have halted in mid-trip, stranding passengers. On one day, the problem



The Winterfest get-together for trolley museum volunteers was held in Philadelphia this year. Photo by Laura Wells

Power & Signals Report

By R. Scott Davis

The big news from P&S land is that the old refrigerator car used to store signal material is finally empty. Empty to the point where even the light fixtures have been removed! The car may be headed to an undisclosed RR museum or melted down into razor blades; either is fine.

Moving on, the first major project electrical-wise is the installation by contractors of new LED lighting in the old carbarn. These new

caused four trains to be pulled from service. Due to an ongoing rehabilitation project, a car shortage has evolved as PATCO can only use 96 of its 120-car fleet on any given day. About one third of PATCO's cars have been upgraded by Alstom Transport of Hornell, N.Y. as part of a \$194 million project that began in May 2015. The rebuilt cars have improvements including a sensor system that can detect when moisture may be affecting a traction motor, giving workers advance notice and a chance to resolve the issue before a short occurs. The improvements have enabled rehabbed cars to be much less affected by the moisture issue. However, the entire fleet won't be completed until 2018. Riders have complained about a lack of information on delays, and how to find alternative modes of travel. In response, PATCO issued an apology and said that the agency was working to improve the accuracy of information on boards at stations and through smartphone apps.

On Tuesday March 7, an eastbound PATCO rush hour train suddenly stalled around 5:40 p.m. while crossing the Benjamin Franklin Bridge nearly 13 stories above the Delaware River. After the PATCO operator and dispatchers tried for 15 minutes to overcome a mechanical issue that prevented the six-car train's brakes from releasing, the agency sent a "rescue train" to free the 480 passengers trapped high above the river. They unloaded the passengers of another eastbound train at Eighth and Market Streets and then sent the empty train up the bridge, stopping within inches of the stranded one. Police officers and PATCO operators aided passengers who had to walk between the doors of the stranded cars to enter the rescue train. Most people remained calm, but a few did panic. One passenger, Douglas Robbins, described walking between the train cars on the bridge as "surreal." After the second train returned to the Eighth and Market Street Station in Philadelphia with the rescued riders, it resumed its eastbound trip into New Jersey. The disabled train was removed in 20 minutes at 6:30 p.m. and service returned to normal. Until then, other trains were delayed because of the need for single track operation in both directions.

lights replace metal halide fixtures installed over ten years ago. The LEDs are more efficient to operate and have no maintenance required. They make the old building much more pleasant for viewing our collection.

As always, many thanks to those who make this progress possible: Jeff King, Kevin Zebley, Denny Bockus, and the author.





Installation of the new LED lighting in the Founders Car barn took place during March. Photos by Bruce Wells



Power and Signals worked with the Track Guys to install authentic (W) whistle post signs for the N. Main Street crossing.

Trolley Maintenance

By Bernie Orient

This year began with New Orleans 832 in the shop for electrical upgrades. Previously we had mapped out the conduit runs, opened many pull-box covers and got a general idea of the project. I'll offer that opening the box covers was a quite dirty job and most of the fasteners needed to be cut or chiseled off. This time around we had less dirt and new fasteners to deal with. We had no comprehensive wiring diagram but we were somewhat familiar with what was needed. We also knew that all of the wires had to be removed from each section of conduit as the wires had bonded to each other as a result of flowing asphalt-based insulation and lots of dirt.

We began with #1 end where the conduit runs were essentially straight. Demolition went well and we found several unexpected splices and broken and missing insulation, enough to explain all of the car's inconsistencies, to be polite. A major positive by-product of the exercise was a complete re-wiring of the switch panel. Although all of the switches were in good condition, all the mounting screws were loose in the wood backing. Removing the original equipment required a whole lot of collateral activity. The steel cabinet was attached to the wiring panel; the buzzer cord attached to the cabinet; and various trim pieces had been screwed through the cabinet. An objective of the repair was to cleverly modify the board we were replacing so it could be removed in the future with radically reduced rigmarole. We fashioned a plywood picture frame of sorts and attached it in place of the original wood panel, then re-installed all of the peripheral items. The new panel was GPO3 (a fiberglass product) with threaded holes for the switch mounting screws, that could be installed (or removed) through the open cabinet door.

A junction box near the line breaker box was sort of a confluence of main trolley power, traction power from the line switch to each controller, plus low cur-

rent control and accessory wiring. At this point we inspected the wiring heading to #2 end and decided to renew it. This conduit had a 90-degree bend in the center and made pulling the wires much more difficult. We used a ratcheting tie-down strap attached to nearby P&WCT 78 plus assorted wire mesh grips to do the removal. As mentioned, the main trolley power feed was present in the line switch box but had smaller wires junctioned to it that fed all of the accessories. The conduit run from the line switch box to the side seat compartment at #2 end was another straight shot so we pulled the feed wire.

The large choke coil, part of the lightning protection circuit, was located under the seat. Although out of the weather the insulation looked a bit tired so we removed the coil and rewound it, noting that the insulation was actually expired and fell off the old wire when unwound from the wood core. The other half of the lightning protection was a capacitor that was located in a wood box under the floor. We found a fuse holder and fuse in the box that we relocated above the floor plus added a new fuse to protect a new wire that fed the accessory switch panel at #1 end.

The car used the steel car body as the ground, or negative return, so the wires were quite short running from the nearest heavy frame member to each controller and all were replaced. A nice "factory" feature was that one motor had a ground from the case to the frame. We cleaned it up and then added a ground from the second motor. Wires from motor cases are a much better return current paths than forcing through journal bearings, moving truck parts and center bearings.

The job was completed by February 11 with 217 volunteer hours. All routine maintenance plus a repeat cross-member repair that lasted just over a year was also accomplished. Another major item was the renewal of the brake cylinder packing. This was last



The dust collector frame engineered and fabricated by Bernie Orient. Thanks Bernie! Photo by Bruce Wells

done in 2005. The packing showed very little wear but the large spring had multiple flat spots and was replaced. The next car in was Rio 1758 because it was short. We moved the crane's #2 truck into the shop pit track between the center and south positions and therefore a full-size car would not fit inside the building. We spanned this truck with one of our lifting beams and placed an electric jack at each side to facilitate an overhead crane of sorts. More M283 news can be found in the M283 article.

Beyond 1758 most of the fleet maintenance was done in the Founder's Carhouse. On February 18 Armand Latour started compressors, ran MGs, checked lights and cycled doors. He found a leaking door balancing valve in 5326. We replaced it the following week. Like some other cars, 5326 uses emergency pipe air for the doors, so when the car is in "emergency" the air pressure is vented from the pipe allowing the doors to balance or open freely. We did not want leaks in this part of the system.

We revisited the car house on March 18 and serviced all of the trolley wheels and checked the journal boxes. Unfortunately we found lots of water in one box each on 66, 4398 and 14. We replaced the journal pads in 66 and 4398 and cleaned out the water in 14 and added oil but will attend to the pad soon.

To close out the quarter, on March 30 we moved

Crane Car M283 update #4

The roofing project is complete. Dan borrowed additional scaffolding from Power and Signals so workers could "walk around" the front and both sides of the crane cab. By the end of February all of the woodworking was complete, holes filled in and sanded. I unfolded the rubber roof membrane and let it "relax" to the shape of the roof for a few days. Dan glued down the top portion of the membrane on

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Volunteer Fred Cooley works on electrical repairs for New Orleans 832 described here. Photo by Bruce Wells

4145 into the shop for service. It had been used a lot for Operator re-qualification. 4145 sat out most of last season in the TDB for display and work on the interior with 138 miles logged. It missed the minor maintenance checks earlier but we went through it pretty well. We spent probably 5 hours on the controller and had to change out the trolley wheel.

In the miscellaneous activity department we fabricated a stand for the dust collector used on the planing machine. Previously three persons were needed to empty the chip barrel but now, when the stand is complete, it can be done single-handedly. Another "item" worked on were the 80-car trucks obtained from ECTMA last year. The long range plan is to build one spare truck for car 78 but a short range plan is to have spare brake hanger parts for 78. We removed most of the small parts from the trucks and hope to disassemble the larger pieces soon. On Pittsburgh Railways PCC 1138 we installed the last of the brake shafts and 6 of 8 brake shoe holders.

I have written a second article on the work progress on M283 crane car, volume 4, and you will see how those activities made the short winter season even shorter. Thanks to our team, Kate Imler, Paul Falcioni, Armand Latour, Bob Powischill, Fred Cooley, Eric Weinbrenner, Charlie Hallman, Bob Lydon, and the occasional Dan and Larry.

By Bernie Orient

March 18 using a water-based adhesive used for RV roofing. This type of adhesive has a long set time to allow for adjustments of the membrane and allows the installer to work out air bubbles. We used contact cement on the edge curves and then installed steel trim strips around the perimeter. Larry and Eric fashioned a simple fixture to keep the hole spacing of three inches fairly constant. Then the holes

were countersunk, deburred, sandblasted and painted. Lastly, holes were carefully punched through the rubber for the 24 fasteners to hold the PCC-style roof cleats. The cleats were then installed.

We brought out the roof boards - that is, the boards that are attached above the roof that will hold the pole base and lightning protection - and laid out the items in order to pre-drill the holes for the fasteners. We've been keeping the rubber matting from the old roof in the work area for easy reference. At this point we found the need to install a third roof board plus two smaller cleats in order to separately mount the lightning arrester components. These had been sort of "free-floating" at the time of demolition. The pole on M283 is normally swung about the full 360 degrees during normal operations so this route took advantage of the roof curve to lower these items and avoid being bumped by the pole.

After much detailing, the trucks are complete enough to install under the car. Unfortunately the outside team that did the lifting last year is presently working out of state so we're looking at other possibilities at this time. Once the trucks are installed we will need to examine the brake rod requirements as they will be different lengths from the old ones. There were enough modifications to the bolsters and brake beams to change other things. Also the old rods were quite tired and worn. We have enough materials on hand to fabricate 1/2 of each rod, saving the final fit until we can get the exact measurements of the lengths.

Restoration Report

Inside the Galbraith shop work continues on West Penn 832 and it feels like the project is winding down to completion! A great deal of detail work has been accomplished during the last five months. This includes, painting and installation of the doors, the metal advertising racks, the remainder of the seats, the interior metal work on the platform ends and bulkhead as well as installation of original mahogany veneer frieze panels and solid trim that finishes off their bottom edge.

The frieze panels are the woodwork along the length of the interior above the windows. These panels are the beautifully refinished 35 foot long originals that were spliced to the length of the interior at the factory and stand as a tribute to Jim Herron who sadly passed away in early April. Jim's dedication to this and the many restoration projects in which he was involved will be a tribute to his memory long into the future and we will miss him every Wednesday workday to come. Rest in Peace friend Jim.



Crane car M283 is back on its trucks and is now awaiting the brake connections discussed in this article.

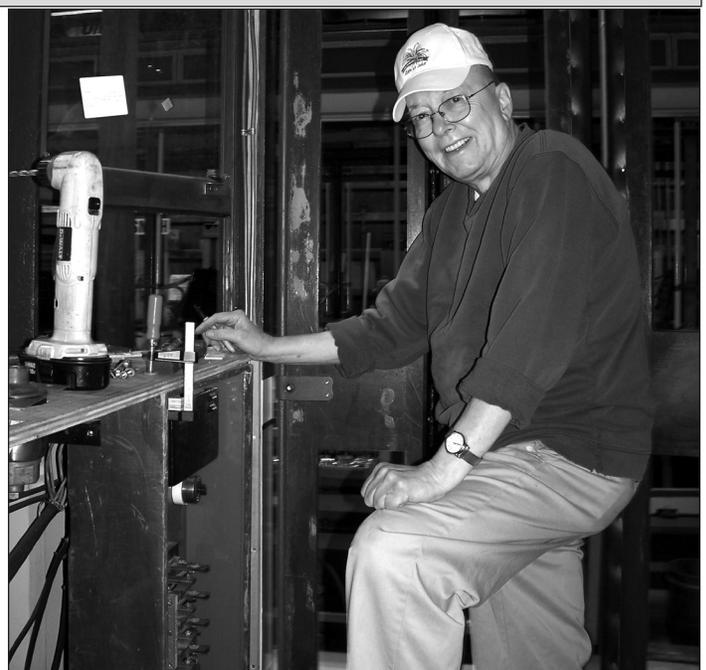
Photo by Bruce Wells

Another task we'll be looking into is the resistor heat shield. The old one was fractured in several places and the many holes (16) that should align with both the hanger bars above and the resistor grid frames below were more "L" shaped than round. We have new material on hand for the job.

In related news the troublesome former M283 #3 traction motor has been repaired. Noteworthy as being the underlying cause of the repair campaign we had taken the motor to United Electric. There technician Bob Trocano found a grounded main field coil and repaired it.

Volunteer hours to date total 1430. Hopefully the end is in sight. Thanks for those who helped this quarter, the same cast as mentioned in the maintenance article plus Ray Hatfield.

By Bruce Wells



Jim Herron working on West Penn 832. He will be sorely missed.

Photo by Scott R. Becker

TROLLEY FARE

The “final frontier” for the 832 project is to complete trimming out the end platforms. Jim Ott, Barrie Baker and John Habak have completed and installed the signature marker lights. These were standard on the West Penn system with red indicating the front of the car and green at the rear. Boxes to adapt the signals to the roof were the most challenging part of the project as there were no complete ones salvaged from the car. Boxes were fabricated last summer and fitted to the car in the spring of 2016 after installation of the headliner taught us their exact location. Jim, Barrie, John, Jack and Art Rizzino teamed up to finish up the framing for the dash front installation, getting the wood framing installed needed to attach the front panel. The light switches and air gauge aluminum trim under the controller are now in place.

Young Art Ellis (Artie who is 60 years old as opposed to his Dad who many of you know who is 97) is back in town and has tackled the project of recreating 832’s original handbrake mechanism needed to backdate the car to its 1930 appearance (see the photo). Art has purchased (with his own funds) Solidworks® software for 3D modeling so that he can continue his restoration efforts on Mon-West Penn 250 and extend those efforts to 832.

Part of the effort is to create handle castings and ratchet mechanisms to enable connection to the new right angle drive boxes obtained last year. Research shows us that the mechanism hidden inside the dash was a duplicate of what we find in Cincinnati car 2227. Having this car has helped greatly in understanding how the mechanism is to be installed. This is the final step before the dash panels are finalized and installed. Work will continue into the summer.

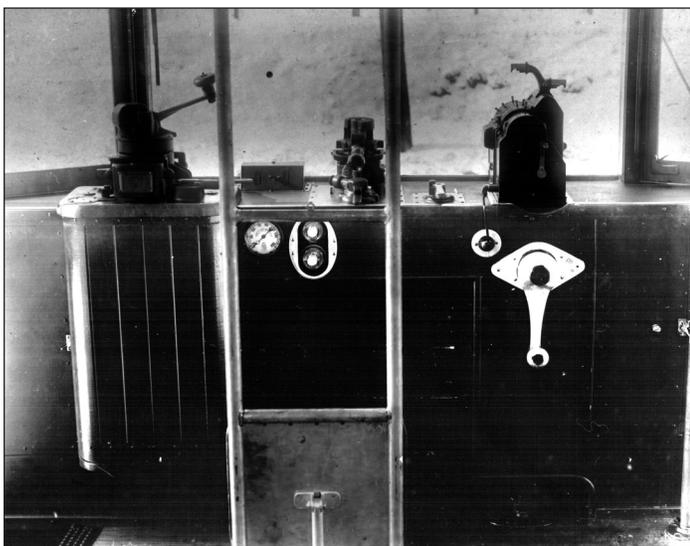
Meanwhile, Art Rizzino has been under the car installing the horn and under the dash and in the



832w #1 end showing lettering.jpg Photo by Sarah Wells

door engine boxes finding and correcting air leaks. In the door engine boxes Jim Ott, John Habak and Barrie Baker are reinstalling and wiring the step lights and connecting up the switches that allow them to turn on when the doors are open. The switch also disconnects the main power so that the car cannot operate while the doors are open. At the workbench Jack Sutherland and Barrie are working to assemble the new door engine compartment panels. These five foot long aluminum panels were fabricated by our good friends and neighbors at IGS industries in Meadowlands. Original panels from the car no longer fit and covered framing on the end corners of the platform so patterns were made and then laser cut by IGS. Each of the four panels has been already been fitted to the car so Jack and Barrie are attaching the original access doors with new hinges and priming them so that they can be finish painted.

Another item in the “critical path” to completion is the lettering. On the interior No Smoking Please is the single need for lettering and those graphics are ready. The interior woodwork with the builder decal and the car number are being refinished retaining the faded originals. On the exterior the car lettering includes the number (in six locations, two different sizes), Valley Route (letterboard) Special on the dash under the destination signs, West Penn System logos (like the ones on 739 at the TDB) and Miss Brackenridge lettering from 1930 rollout is what is needed.



West Penn Railways builder photo of an 800 series car showing the original handbrake handle. Photo by New York Studio



Installing the windshields 2017-04-24. Photo by Bruce Wells
 To this end a couple years back I applied the number to the end letterboard at the #1 end of the car while recently I got the urge to place the Special lettering to that same end as shown in the photo above. As time allows (after finishing up this issue) I hope to devote more time to this aspect of the project.

Finally, hot breaking news is the installation of the windshields shown in the photo above. This took place on April 24 and opens up the car ends to final woodwork installation. To that end Barrie and Jack have been busy applying final finish to original parts and trim custom cut to hold the glass in place.

Meanwhile down at the Trolley Display Building Laura Wells installed the back-splash bibs needed to keep snow from piling up on the motors on BVT 1 if the rear broom is engaged during sweeping operation. In January at the TDB we cleaned out the center aisle around 739 and 250 so the new LED lights can be installed when funding is finalized.

Around the Museum

By Bruce Wells

In the parking lot we have had a big problem with water collecting along the curb at the sidewalk in front of the building. The last weekend of Santa trolley the combination of snow melt, freezing and then rain forced run-off water to crest the curb of the parking lot and flow under the wall of the Visitor center Education Room. This created a situation where we had to move out all of the boxes that were stored under the table. So that they would not get waterlogged.

After this latest occurrence Kevin Zebley and Larry Lovejoy put their heads together and came up with a plan to build a French drain along the curb. This was accomplished using porous pipe and lots of crushed rock. This allows water flow down through the rock, into a perforated drain away to the front of the property and the ditch along N. Main Street.



While working to reinstall 832's doors, Barrie Baker shows off the painting of the bulkheads and stepwells he and Jack Sutherland undertook the previous week. Photo by Scott R. Becker



January 21, Laura Wells installing "Bibs" on the underside of Beaver Valley Traction 1. Photo by Bruce Wells



Dan Bower operating the Case loader worked with Kevin Zebley, Doug Zebley, Laura Wells, Larry Lovejoy and Jeff King to complete filling the french drain trench. Photo by Bruce Wells

Every year Santa Trolley decor and train layout needs to be packed away for another year. Using several of our pick up trucks Bernie Orient, John Habak, Ken Fornof and I assisted Diana, Maddy and Lynne in getting Santa returned to storage in our space at Eaton where our Archives live.



With the new operating season and Kevin Zebley the new Operations Manager many new things have been rolled out and put in place for operations. Kevin working with Laura Wells created a webpage and instituted use of *Google Docs* for collaborating information. This allows staff to update the schedule instantly. On the PTM website you will see a new link for OPS. This is where volunteers can electronically access operations schedules, crew assignments, operating bulletins, instruction information plus current and back issues of Two-Bells. Check out this on the new page at:

<https://pa-trolley.org/operations-department/>.

The new page facilitated re-qualifications this year and simplified the training for our new operator held in late April. The class pictured here includes: Fred Cooley, Eric Weinbrenner, Doug Zebley, Bob Popey Dennis Herbuth, Mike Zivellio our new Education Department head and that blue line.



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One decision made by the new operating team was to place traditional Pittsburgh Railways whistle post signs (W) to indicate where operators should start this warning signal at North Main Street crossing. In the photo above Larry Lovejoy and Kevin Zebley work with Jeff King on the auger truck install the signs.

This season a new operation sequence provides each visitor the option to take a streetcar ride on the entire line, a separate ride to tour the Trolley Display Building or both. With this the practice of having a crew member escort the visitors to the car was eliminated. This change in the operations pattern for this season prompted the suggestion to have a line painted on the sidewalk to direct passengers leaving the Museum store to the Richfol platform. With that Larry Lovejoy obtained the tape and the paint and set out to complete the job. A blue line to avoid confusion with safety markings painted elsewhere on the pavement. Bob Jordan's photo shown here shows an ecstatic Larry as he finishes up the job.



Earlier in this issue Scott Becker reported the work the inside the Founder's Car barn to improve lighting and the improvements to the Events room. Another aspect of the car barn project is to provide display panels on the inside of the track doors which give an overview of streetcar history and describe the cars housed there giving visitors additional opportunities to learn about the streetcar era while waiting for their ride or casually touring the museum. With that in mind our friends from SCI Greene were enlisted to apply a new coat of paint to the inside of the

15

doors. To that end the scissors lift from the TDB was brought to the building and employed to aid in the work. Bob Jordan's photo below shows Dan Bower moving the lift into place prior to the work.



Another goal for the new season was to have Philadelphia and West Chester Traction 78 repaired and ready for service. Thanks to John Habak the headlight was wired and working. In early April job was finalized with the painting of the interior ceiling facilitated by Brett Freithaler. Like the letterboard on car 66 (repaired last year) the ceiling had suffered from "potholing" after Winterfest 2015 when it moved from the warm shop building to the frigid confines of the Founder's building. The car is now in service sporting MEDIA and WEST CHESTER destinations on sign panels while new roll curtains are fabricated.



In preparation for the new season, our regular visitors and some distinguished guests, Larry Lovejoy, Jeff Coyne, John Habak, Barrie Baker, Jack Sutherland, Brett Freithaler, Bernie Orient and Lynne Thompson took on cleaning up the floor in the Founder's carbarn building. With help from the new pressure washer acquired from Dave Hamley the work went well with the biggest task removal of the "crater" gear grease from the floor between the tracks. In this photo provided by Bob Jordan, Larry is shown carefully removing the crater, which is the consistency of tar.



This brings us to the close end of another issue (late as usual) and the inclusion of some of the news that'll be really old with the arrival of the next issue. We had a very successful Bunny Trolley this year thanks to the efforts of many! Four of those stalwarts can be seen in this photo on a beautiful Sunday April 9. Dave Moffett is the hard working volunteers in the shirt trying to back out of the shot while Tim Moffat worked as dispatcher with Chris Golofski and Ned Apalakian were the crew on the car.



As you can see, a magnificent amount of volunteer effort goes into every special event. Here's one last photo showing more of the behind scenes effort.



Katie Imler primes figures she custom cut, laid out by Maddy Cline for spring and fall events. Maddy applied the final colors. The inset shows visitor and baby showing off some of this handy work.