

TROLLEY FARE

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April - May - June 2018



Red Arrow Cars 14 & 24 on a roll at McClane Loop a pleasant surprise for many attending the June 1 event. Bill Monaghan photo

On a Roll!

By Scott R. Becker, Executive Director

The April-June time period was momentous for PTM for a number of reasons. We started May with the Roast of Rep. Jason Ortity at the Hilton Garden Inn Southpointe on May 3. The event was well attended with Tom Rooney and John Swiatek serving as Co-Chairs. The Presenting Sponsor was Range Resources and Jim Roddey served as Master of Ceremonies. Jim presented the James C. Roddey Transportation Leadership Award to Christina Cassotis, CEO of the Allegheny County Airport Authority. OneJet was the awards presenting sponsor. Wabtec President & CEO Ray Betler and PTM President Bob Jordan presented me with a Silver Service Award recognizing me for 25 years of service to the Museum (has it been that long?). Wabtec Corporation was the presenting sponsor for this award. Rep. Ortity was very gracious as he

was roasted by Jennifer Culler (his sister), Senator Camera Bartolotta and Representative Mark Mustio. Tripp Kline was our auctioneer and Bronze Spike Sponsors included AirMall Pittsburgh, Raymond & Joneen Betler, Redevelopment Authority of Washington County, S&T Bank and WesBanco.

The week after the Roast was Daniel Tiger's Weekend. It was again very busy. We thank the Washington County Tourist Promotion Agency for their support of this wonderful event which we continue to partner with WQED Pittsburgh. June 1 saw us roll out West Penn Railways streetcar 832 and publicly announce our On Track for the Future capital campaign. Over 200 people were on hand for this great occasion and we had a number of great speakers that addressed the crowd including Ray Betler, President & CEO of Wabtec Corporation and Chair

of our Capital Campaign Steering Committee, David McDonald, Regional President of West Penn Power, State Representative Tim O'Neal, Chairman of the Washington County Commissioners Larry Maggi, Bob Jordan, PTM President, Edward Lybarger PTM Archivist, Tom Rooney, PTM Trustee, and myself. Ray Betler and Bob Jordan then unveiled the artist's rendering of the East Campus Development as part of the event and the rollout of West Penn Railways streetcar 832 was the crescendo! Special thanks to the Chartiers-Houston Jazz Band for their musical accompaniment and to all the PTM volunteers and staff that made the event such a success!

Tremendous effort has gone into the Capital Campaign and related development projects. For further details, please see the On Track for the Future Capital Campaign update in this issue.

If June 1 was not busy enough, we also had our Western Pennsylvania Trolley Meet going on both Friday and Saturday. This event attracted many members and trolley friends far and wide with area hotels doing a brisk business! As a special treat, a two-car Red Arrow train of Cars 14 and 24 debuted on Saturday night for the night photo session. It should be noted that Car 14 had been in storage for over 10 years and not only was brought to operational status but was upgraded to run a multiple unit with car 14. This was the first Red Arrow two-car train since SEPTA operated them in the 1970s. The Car 14/24 train made a return run during our Parade that was

part of our Trolley Fair event June 24. It was quite a crowd pleaser!

Fred Rogers was the creative genius behind the very popular Mister Rogers' Neighborhood television show. This spring saw the celebration of the 50th Anniversary of this iconic program. *Won't You Be My Neighbor* is a documentary of Fred Rogers life that was released in theaters around the world in June and had become very popular. Four different scenes featuring Pittsburgh Railways streetcar 4398 are in the film. These scenes were filmed at the Museum last August. Late in June *Visit Pennsylvania* announced a marketing campaign around the Fred Rogers Trail. Pennsylvania Trolley Museum is included in this trail which can be done in three days. For more information visit: <https://visitpa.com/fredrogers>

The Museum is fortunate to receive a number of non-cash donations of services and products throughout the year. Red Lion Controls donated Ethernet switches to upgrade communications between our two sites and the Archives. Gigavac has agreed to donate a capacitor to electrical distribution. This will help save on electrical costs, particularly with West Penn Power having installed smart meters at both sites.

We encourage you to consider getting involved with your Trolley Museum. This fall will be our busiest special events season with Dinosaur Train, Pumpkin Patch Trolley and Santa Trolley. Please consider coming out to help! 

TROLLEY FARE

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Annual Membership dues:

Family \$75	Couple \$60	Regular \$40	Associate \$30	Student \$20
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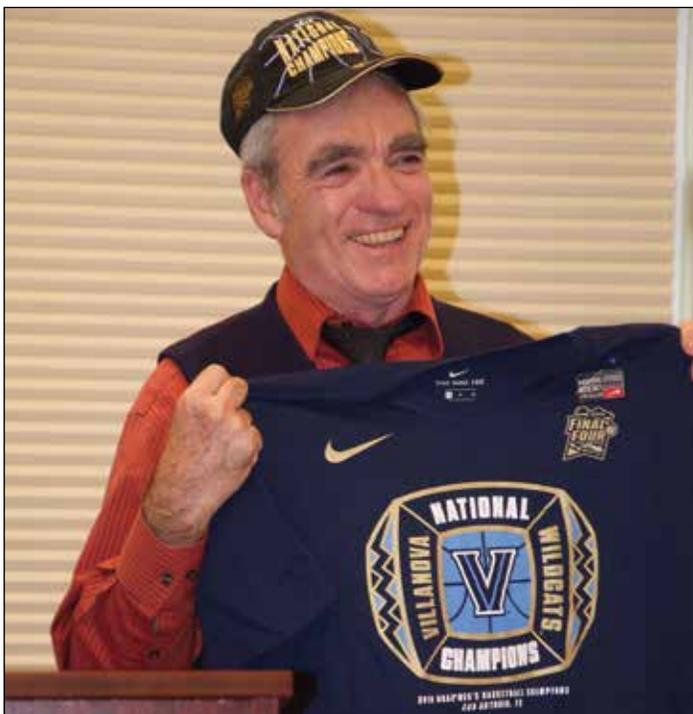
Mission Statement

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.

From the Front Platform

"Progress at Interurban Speed"

As is my practice, I want to bring you, our members, donors, and friends, up to date on several fronts. In the last issue I talked about "Unsung Heroes", being volunteers who are always there, always hard at work, and always shy away from recognition. In April we celebrated our volunteers at our annual Volunteer Recognition Banquet, and one of the surprises and highlights of the evening came when operations volunteer Ray Lonabaugh



Larry Lovejoy receives Villanova gear at Volunteer Banquet.

J. Bracken Burns photo

presented one of those unsung heroes, Larry Lovejoy, with a very special recognition of Villanova University (Larry's alma mater) memorabilia. To me, this demonstrates the fact that our PTM volunteers are recognized by their peers throughout the railway museum community.

Also at the banquet it was my pleasure to give special recognition, the *President's Award*, to John Habak. John is one who has that God-given gift that makes everyone feel special and he is just a real pleasure to work with. It was my honor to get to know John better while working with him to ferret out and resolve some of the electrical issues with West Penn 832. John would always thank me, but when working with him, the pleasure was all mine. Another little-known fact is that John carries his lunch in a big shopping bag, and he always has at least one spare PB&J sandwich. On more than one occasion when I would be there longer than expected, John came to my rescue. By now I probably owe him a large jar of peanut butter and a loaf of brown bread. One of the

By Bob Jordan, President

unsung heroes here is John's wife Beckie, who not only allows John to come to the Museum two days a week but was also there to see John recognized.



Bob Jordan presents the 2017 President's Award to John Habak.

J. Bracken Burns photo

On several other fronts, the East Campus driveway is progressing nicely (see photos) and the long-awaited Trolley Simulator is now up and running. Made possible in part by Highmark and designed and built by The Magic Lantern of Pittsburgh, this gem is now a huge unexpected treat for visitors young and old alike. The hands down favorite is Scenario #3 in which livestock appears unexpectedly on the track and the operator must bring his car to a safe stop to avoid an oops.

The bridge over Arden Creek at the Fairgrounds stop, which PTM volunteers built decades ago for our own protection, has now been replaced by a new structure that's more than twice as wide to allow both pedestrian and golf cart traffic in separate lanes. The new bridge will be getting a real workout even before you read this, and the temporary dirt and gravel crossing will be replaced over



The newly rebuilt bridge at Fairgrounds stop.

Bob Jordan photo

the next year as we widen and lengthen the Fairgrounds platform. The bridge itself was built by a contractor to the County. The vast majority of the new track alignment, overhead, signal, and platform will be performed by our already very busy volunteers. Some will include help from contractors where possible including earthwork and concrete.

The future doesn't stop with a new platform, new driveway, Trolley Street, and a new building. In deed when the dust settles, we need to perform and use the new facilities to the max to achieve the desired growth in visitors and enrichment of the visitor experience. To that end, on the organizational side, we have been engaged for several weeks in a long-range planning process. Paul Overby,

Vice President of Corporate Strategy for Wabtec, is serving to facilitate and guide the process, which includes interviewing past visitors, educators, and community and PTM leaders alike with questions like "what are we doing well?" and "what can we do better?" More on that as the process evolves, so...

Until next issue, please return your seat backs and tray tables to the upright and locked position, hold onto the bar, remain seated and DO NOT exit the car while still inverted. On behalf of the entire crew of the Pennsylvania Trolley Museum I'd like to thank you for riding with us, and we look forward to your next visit in person to marvel at all the wonderful accomplishments. Please consider coming out to lend us your skills! 

On Track for the Future Capital Campaign Report

Fundraising

The Board, staff, and volunteers of the Pennsylvania Trolley Museum are thrilled with the response to our recently announced *On Track for the Future* capital campaign. Since our last Trolley Fare, we have received an additional \$72,850 towards the campaign. This includes \$10,000 from the Apgar-Black Foundation and \$1,000 from the Pittsburgh History & Landmarks Foundation. The remaining \$61,850 came from our generous members and donors. Further grants are being sought and individual donations are gratefully accepted! Thanks to all that have supported this important effort!

East Campus Driveway

PTM opened bids for the East Campus Driveway on June 19; four bids were submitted. After careful consideration, the Board decided to move forward with Cast & Baker Corporation for the project. Cast & Baker did the original site work for the Trolley Display Building in 2004 and we were very happy with their work. Work on the Driveway began July 16 and so work is moving at a rapid pace. Completion of the work by mid-September is a real possibility!

Trolley Street

Steps have been initiated to stake out the pole locations so as to take advantage of Bioni Drilling's offer to donate the drilling of these holes. This has included:

- Determination of the state plane coordinates for each pole
- Locating of the water line serving the East Campus and making slight adjustments to some pole locations to avoid it.

We are also looking into in-kind survey support to stake out the poles and the track centerlines.

The Way & Track Department has been rehabilitating girder rail special work components for use on the Trolley Street project. This will continue as time permits, but it will soon become necessary to perform similar component rehabilitation for the Fairgrounds project. Dennis Bockus has been progressing the design of AC electrical systems for Trolley Street such as street lighting.

Fairgrounds Platform

The entrance bridge and road at the Museum's Fairgrounds platform has been completely replaced and the roadway regraded. This will be in service for this year's County Fair. A reimbursement agreement between PTM and Washington County has been approved and we are moving forward to acquire materials needed for the new track and overhead wire to be built there. PennDOT has bid the contract for demolition of the old Fairgrounds platform and construction of the new platform and trolley track. The apparent low bidder is a firm well-known to PTM. 



Construction of the East Campus Entrance Driveway commenced in mid-July.
Bob Jordan photo

The last three months have been a whirlwind of events and exciting announcements here at the Pennsylvania Trolley Museum!

April, May and June were host to Daniel Tiger's Weekend, the Western Pennsylvania Trolley Meet and Trolley Fair. These events, along with our regular visitation days, have attracted individuals from all over the country, including many international visitors. We pride ourselves on the fact that our museum has grown from its very humble beginnings of owning three trolleys to a museum that sees 30,000+ visitors each year and 50 trolleys in our collection. These numbers will only continue to grow as we expand into the future. This is why a round-of-applause could be heard around the region during the June 1 announcement of the Capital Campaign for the new Welcome and Education Center. This exciting new development will allow the museum to move into the future with new exhibits, educational programs and event spaces.

In the next few years, we will be seeing a lot of wonderful things happening here at the Pennsylvania Trolley Museum. This is why I wanted to use this article as a way to reach out to you, the mem-

bers of the museum who cherish the memories that you make here. In this issue of Trolley Fare, you will find a survey. I want to hear why you love this place and what your takeaways are from your visits. If you feel obliged, to complete the survey you have two options:

Digital Version:

<https://www.surveymonkey.com/r/SLCFFDX>

Mail to: Pennsylvania Trolley Museum

c/o Madelon Cline

1 Museum Road

Washington, PA 15301

*In order to keep these surveys anonymous, do not provide a return address on the envelope.

As of September 15, I will stop collecting the surveys and will compile the information that I have received into one document for museum purposes.

The Museum has over 150 active volunteers including numerous members who make what we do happen everyday. As a small museum in the Southwestern PA Area, we truly cherish all of the support that we receive. We greatly look forward to the years to come and cannot wait for you to be actively involved in our future! 



In May the Museum hosted Daniel Tiger's Weekend

Bruce Wells photo

Successful Scouting

By Sarah Lerch, Museum Educator

The time is motoring along here at the Trolley Museum! We have had a busy spring filled with special events, field trips, and groups. Educational programs at the Pennsylvania Trolley Museum give students vivid insight into one of the most transformative periods of American history. Trolleys were an important invention that transformed the world we live in. We invite groups to experience history through a scenic ride on two different antique trolleys and enjoy a guided exploration of our Trolley Display Building, where we spark imagination and curiosity about the Trolley Era.

While we are in the process of updating our educational program offerings, Boy Scout and Girl Scout programs at the museum have been the star of the show in the 2018 season! The museum is uniquely positioned to offer Railroading and Electricity merit badge workshops and has successfully presented these immersive experiences over the years. We are pleased to expand our programs to include new badge offerings, incorporating STEAM curriculum (Science, Technology, Engineering, Art, and Math) in 2018! Merit Badge programs teach life skills, appreciation for art, history, and culture while providing an exploration of interests and potential career paths. We are thrilled to be a part of a Scout's journey to success.

On May 5, 2018 the Trolley Museum hosted its first Scout Day of the season. Scouts came from near and far to participate in Railroading, Electricity, Music, and Scouting Heritage merit badge programs. As part of the requirements for the Electricity badge, I instructed a session on First Aid and Safety related to electrical emergencies. I have previous experience working on Girl Scout programs in Texas and was excited to continue my work with Scouts and to learn new material.

Also available that day was Boy Scout Personal Management and Girl Scout Financial Literacy courses, offered free to youth thanks to a generous donation from the CFA Society of Pittsburgh. Overall, the event was very well received with 100 Scouts participating in the badge programs!

The summer Scout Day was held on July 7, 2018 with American Heritage, Art, Collections, and Textile classes being offered along with written review of the Reading and Scholarship merit badges. We are continuously expanding our programs to better serve the needs of Scouts and their Leaders. Our Textile and Art program included both Boy Scouts and Girl Scouts. Scouts who selected Collections had the opportunity to get a sneak peek behind the scenes in the Trolley Display Building and Artifact Preservation Building to view and discuss the museum's extensive trolley collection.

Many thanks are extended to Jim Herrington, Carmen Herrington, and Armand Latour for all their hard work and dedication in creating and facilitating the successful Merit Badge Programs at the Trolley Museum. Additionally, two dozen museum members, staff, and other volunteers donated their time and expertise to assist with preparation and serve as counselors for Scout Days.

The next Scout Day is scheduled for Saturday, November 3, 2018. Railroading, Electricity, Scouting Heritage, and Collections will all make a return in addition to Engineering and BSA Communications/GS Troupe Performer.

Save the dates! Scout Days for 2019 will be on May 11, July 6, and November 2. We are always looking for volunteers and qualified Scout counselors to assist with our programs. Please contact me at educator@pa-trolley.org or 724-228-9256 x 302 if you have questions about our programs or are interested in volunteering. 



Michael Buchta and Mary Jordan provided textiles instruction to Scouts at the July 7 Merit Badge workshop. Bob Jordan photo

The summer season got off to a rough start on the T this year thanks to mother nature.

On the night of Wednesday, June 20 a severe thunderstorm blew through western Pennsylvania, causing widespread damage to the area. Flash flooding was particularly severe, with water rising to waist depth in places and doing so very quickly. Local homes and businesses were inundated, with some parts of the South Hills seeing as much as three inches of rain in just an hours' time.

The T system laid directly in the storm's path, and the effects were swift and severe. By 10:30 Wednesday evening, all rail service was suspended. Floodwaters rose so quickly at the outer end of the Library line that one LRV had to be abandoned where it sat.



The Trolley-Stop-Inn, directly adjacent to the Library Line, was inundated by waters in the June 20 flooding that has closed the line for repairs until September. Amy Wadas KDKA TV photo

When the clouds lifted and the sun rose on Thursday, it was clear the damage had been done. Owing to its higher elevation routing, the Red Line through Dormont and Beechview was relatively unscathed (outside of a few areas with issues), and turned out to be the only route in operation for several days.

The Overbrook line experienced washouts in its lower lying areas, which necessitated its shutdown until repairs could be made. The southern end of the Library line, however, suffered an incredible amount of damage. Ballast had been wiped out for lengthy stretches of line, along with heavy debris strewn across the right of way. Other areas suffered damage as well.

Maintenance crews went to work almost immediately to begin the cleanup. By Saturday morning, the Overbrook line had been repaired and cleared for service, and Blue Line – South Hills Village trains resumed normal operation.

Library service was also partially restored that weekend, as far as Lytle Station. Rail cars connected with shuttle buses there which would accommodate passengers for the rest of the ride to Library. Mesta crossover was utilized to turn the trains back.

That Sunday, the Port Authority opened its South Hills Village parking garage free of charge for any passengers, as the Library and West Library park and ride lots were closed to allow maintenance crews to store equipment for the extensive cleanup. The Library line is scheduled to reopen by the beginning of September. 

Philadelphia Notes

By George Gula

A Philadelphia Inquirer article on April 11 indicated that CRRC Tangshan, located in China's Hebei province, had released the first images of the stainless steel body shells they are constructing for SEPTA's new double-deck coaches under a \$137.5 million contract that was let in May 2017. The shells have already undergone the static strength testing required to ensure they meet US standards. These cars are the first mainline passenger rail equipment that CRRC has made for a United States customer. CRRC Tangshan says its technology research center has been actively carrying out technical research and experimental verification throughout the development and design phase to ensure full compliance with American Public Transportation Association Passenger Rail Equipment Safety Standards. The majority of the 45 cars will be assembled by CRRC MA at its new plant in Springfield, Massachusetts. Deliveries are scheduled to begin in late October 2019 and the entire

order is scheduled to enter service in 2020. Each car would have two bike racks on the first floor.

At about 11:30 p.m. on Wednesday May 2, an 88-car Norfolk Southern freight train derailed along the Amtrak Northeast Corridor underneath the Interstate 95 overpass at Baldwin Interlocking, located between the Crum Lynne and Eddystone SEPTA stations in Ridley Township, Delaware County, Pa. The rear two cars derailed and tipped over, spilling stone over the tracks and delaying both Amtrak's mainline passenger trains and SEPTA's Wilmington Regional Rail line. Crews worked overnight to clean up the spilled ballast and upright the overturned freight cars, but all passenger service was suspended until 7:45 a.m. Thursday morning. A May 7 Monday newspaper article warned SEPTA Newark/Wilmington SEPTA Regional Rail Line riders to brace themselves for at least four weeks of 24/7 delays as a result of this incident. To effect repairs, two tracks have been removed from service, leaving the

remaining two tracks available to handle what normally operates on four tracks. Repairs will involve rebuilding not just the track but the switches and frogs as well. Until repairs are completed and the interlocking plant is put back into service, SEPTA has implemented an emergency schedule for its Wilmington-Newark Regional Rail service on both weekdays and weekends because it shares the track with Amtrak, which wants the commuter trains off its line by 9:00 p.m.. During the week, the 4:51 a.m. and 6:34 a.m. outbound trains will be discontinued; inbound trains at 6:03 a.m. and 7:59 a.m. also will be suspended. The authority will begin operating a shuttle bus between 30th Street Station and the Claymont, Delaware Station after 7:15 p.m. during the week. These shuttles will run about once an hour.

In June, SEPTA's board approved both an operating and a capital budget. While the operating budget is not expected to rise very much, the capital budget includes large amounts of money for new equipment and additional funds for the authority's Smart Card that continues to be expanded in the service area. Nearly \$750 million is earmarked for locomotives, buses and other vehicles and \$103 million will allow the purchase of 525 hybrid buses and 25 electric buses through 2021. The cost of completely modernizing the bus fleet is estimated to be \$467 million.

An additional \$113 million will be used to purchase 15 new ACS64 electric locomotives for the Regional Rail system, of which three have already arrived and are being tested. The entire fleet is expected to arrive between June 2018 and mid-2019. As they replace aging equipment, it is hoped that on-time arrival numbers will improve. The Capital Budget also includes \$42 million for signals, communications and new technology, \$46.5 million for various infrastructure renewal and \$7.6 million for track and right-of-way improvements. SEPTA had estimated that continued spending could eliminate its backlog of deferred maintenance in approximately 15 years. Currently SEPTA contributes about 22% towards the cost of capital improvements; 29% comes from Federal sources and about 50% is covered through state money.

The \$1.4 billion fiscal 2019 operating budget reflects SEPTA's overall falling ridership numbers, notably on its bus routes. Ridership is the lowest that it has been in the past ten years. In fiscal 2018, SEPTA riders took only 308 million trips; as a result, the authority is projecting \$4.7 million less in passenger revenue in fiscal 2019, or \$528 million. That number is \$2.9 million lower than the previous year. Predictably, about \$1 billion of the operating budget is composed of labor costs, mostly wages and benefits, and



Father's Day Friends of Philadelphia Trolleys Excursion 6-17-2018

Bill Monaghan photo

these will increase by \$1.8 million in fiscal 2019. At the same time, the State of Pennsylvania will provide \$735 million, about \$10 million more than it did in the previous year. Federal funding will decline by \$1.6 million to \$80.5 million and local sources will provide \$105 million to SEPTA's budget.

In late June, SEPTA issued the results of a 100-page report by Jarrett Walker, a nationally recognized transit expert from Portland, Oregon who recently studied the city's bus network that is currently struggling with declining ridership, slow service and competition from ride sharing companies. His recommendations include: the elimination of all transfer fees, using all doors to board riders, making stops at every other block rather than at every intersection in Center City, making stops beyond traffic lights rather than before them, adding additional service to transportation centers and regional rail stations, configuring bus routes to make them easier to understand and eliminating Route 15 Girard Avenue trolley service.

Walker, who recently did a major redesign of bus service in Houston, said that Philadelphia would not need the major overhaul that was required in Houston as about 70% of the current bus network is effectively designed to serve the needs of riders and many of the bus routes would probably not have to change. Still, there is room for an overhaul. He recommended

that more frequent service should be added for more of the day and noted that buses are fuller in the mid-day period that during rush hours. He also pointed out that there is route duplication where several bus routes overlap, such as on Roosevelt Blvd. or compete with trolleys or the subway network.

SEPTA's bus system is the region's most widely used mode of public transportation, with 18 percent of working Philadelphians and 7 percent of workers region wide using it to commute to work. But over the last five years, bus service has been slowly worsening and bus speeds have been declining almost 1% a year since 2014; they now average 12 mph for much of the day and 54 of the 83 city bus routes don't meet SEPTA's standard on-time rate of 80%. This weakening of service, combined with lower gas prices increasing traffic congestion and the popularity of ride-sharing services Uber and Lyft has contributed in the decline of bus ridership.

Walker concluded that better service could be achieved without SEPTA's buying more buses, making substantial hires, or spending significantly on infrastructure. While SEPTA does not have to accept any part of this report, it is expected to put out a request for a proposal in July for a contractor to create a redesigned city bus network in July. A review of suburban bus routes is to come later. 

Trolley Maintenance

By Bernie Orient

This quarterly accounting of maintenance activities is more intense and complicated than has been the norm. We've dealt with more motor failures in the past quarter than in the past several years combined. Virtually all of the adventures overlapped making a chronological column somewhat obtuse. So I'm proceeding through more or less by the cars, than by associated projects .

4398 enjoyed two scheduled maintenance visits, one April 4, and then May 30. One was actually a month late and the second a month early. Sadly the car had a collision with a dangling broken span wire on May 30 which damaged a copper rain deflector on the roof. The entire five-foot piece will need to be removed and repaired or replaced but has presently been deferred until quieter times.

3756 was lowered to trucks April 19. This stature allowed me to more safely access the roof to attend to the choke coil and capacitor replacement, new ground and accessory wiring, and some cosmetic roof board repairs. The boards were not nearly as bad as they looked and are a bit more presentable, now. On May 16 we "bump" tested the car, which ran in the intended directions, plus stopped,

once I reconnected the brakes. A last-minute repair was to an interior light fixture. The small brass tab at the base bottom that contacts the bulb base had been sufficiently eroded and annealed such that the lamp would not light. We removed the fixture, found the exiting wires were burned bare. Naturally the porcelain portion of the assembly was not in stock. Fortunately Wayne Wickes found some online and with the help of a hollow spacer sawed from a pallet skid and some paint, Fred Cooley made the re-install. Fred had previously worked with similar light fixtures while illuminating the Toledo car. The car made its date with destiny concurrent with West Penn 832 on June 1 but suffered from dragging brakes, an oddity on the rattling N or M-25 arch bar trucks. The culprit appeared to be unconnected release springs on the brake beams. A pressure check at the brake cylinder and at the emergency pipe indicated normal operations. This was the culmination of 800+ volunteer hours to make the car more serviceable.

GE 89 locomotive: We observed the alternator belt was broken during the 4004 retrieval described below. We replaced the fan belt on April 18 in nine

hours while avoiding the air shutter and radiator removal which was the prescribed rigmarole. I also re-worked the tensioning mechanism so a smaller belt could be used and kept in tension. The persistent sticking brakes finally exceeded my strategic patience and Fred, Mike Buchta and I replaced the shoes on May 26, 10 hours. The shoes were badly worn, some had false flanges that tended to embrace the wheels, and all looked overheated.

2711 had scheduled maintenance on April 11. Full service then developed the familiar “surging” and then complete failure on April 14. With 89’s help we towed 4004 from the shop (story to follow) and got 2711 into the shop. One of the unit contactors, M1, was severely burned and lesser damage was observed on its immediate neighbors, B1 and M2. Another malady was the accelerator drum which demonstrated a propensity to stick or bind mechanically around the halfway point. With the connivance of Kris Rosenwald, our business manager, we arranged a buy from a vendor previously unavailable to us for new copper peripheral rings and new contact fingers for the accelerator drum. I also found a new spider wheel which we’ll install concurrently. I also changed out the trolley pole base, using one rebuilt from the M283 campaign. Then back in service May 9, then back out of service on June 23.

An unusual chain of events on April 14 resulted with a motor problem discovered in PCC 4004, a tow job resulting in discovering the broken fan belt on 89 Loco plus forcing the brake issue. With 4004 the car was jacked, truck and motor pulled on May 23. I got the motor plus some spare armatures to United Electric May 25. My initial diagnosis was that a mounting screw backed from a brush holder terminal and lodged in the lower brush “smearing” the copper bars of the commutator. A quick-fix, I thought, might be an armature swap. However Bob Trocano at the motor shop removed the damaged armature and cleaned the bars and found no further damage other than the smeared surface. The remainder of the comm was quite good, at least as good as the spares. He also found a smoking gun burned chard of steel in the motor bottom plus an intact brush holder screw. The metal chunk did not come from the motor and the damaged upper brush suggests the culprit was swept in with the cooling air. We began to install the motor, first in the suspension cradle, then the combination in the truck on June 13, then an additional 12 hours in re-installing the propeller shaft, guards, and wire routing before rolling it under the car and lowering the jacks on June 16. The installation was completed on June 20 and the car back in service that day.

Eighty-two volunteer hours were logged on the job.

78 enjoyed a painfully short operating season of eight days. Initially released for service on April 20 with some rebuild brake hanger sockets, a needle valve installed within the PC 19 accelerator as an attempt to tame down the unit, and several new master controller fingers, operators noticed a sound of something under the car slowly rotating to a stop after the car did so. The item in question was found to be the cooling air fan within #3 traction motor. A quick records check indicated the #3 motor was installed in August, 1999 following a lengthy and expensive armature rewind including a new shaft. 78 languished on the dead-line until D-Day, June 6, when we moved the car into the shop on track 22 and removed the truck, then the motor on June 8 and delivered it to the motor shop. While the truck was out I quickly spotted several brake bushings and pins in need of renewal and repairs are in progress. Another item of note is that we achieved extra efficiency by retrieving the W1432 motor (for 4004) with the return trip from United Electric, not that we have that many motor repairs at PTM but these, plus a third, overlapped.

1758: Partial scheduled maintenance in the car house April 27, then full service in the shop on May 26, then back poling damage on May 31. 1758 suffered damage to both original trolley catchers with in 12 months. These were two-of-a kind and we had the very good fortune to be able to repair both. Late in June we discovered probable back-pole damage to N832 including pole and pole base damage.

W832: late-breaking news no doubt covered elsewhere is that the car suffered an electrical failure in a traction motor during an evening training mission. A combined Maintenance-Restoration team jacked the car on June 27 and removed the #1 truck. The actual motor removal was a bit more challenging than the other two previous jobs but we succeeded in 27 volunteer hours including returning the truck to the car body and reconnecting the brake rods. Jim Ott and John Habak joined the regular Maintenance crew.

Other endeavors:

From time to time I write about pole base repairs. The so-called PCC pole base, Ohio Brass form 11, is perhaps the most widely used on our fleet and normally function much longer than they should. Not surprising all of the “spare” bases we’ve opened up from stock plus ones removed from the cars have excessive wear in the same places. Obviously pulling a functioning base from a car and simply replacing \$200 or so in bearings and pins periodically is a tough sell but when one looks at

the more challenging and expensive repairs needed when the bearings or pins ultimately grind through each other you've found you went down the wrong road. And judging from the patches and previous work found on many of the bases we weren't alone. Presently we have three bases in various stages of rebuilds and parts being repaired by three different shops. The form 11-s are not always interchangeable among themselves as the main base plate was evidently available in at least two bolt hole patterns.

M551: Some effort has been put forth to ready the former M283- former weed sprayer trucks for reuse under our Difco side dumper. One traction motor has been repaired and installed, a cracked bolster welded and the brake beam reinstalled. The truck was moved first from the track 22 area to the back or north shop, then to the Display Building then the Artifact Preservation facility. At some point we'll have the second truck retrieved from that facility and repeat the process. M551 had seen significant action this spring while cou-

pled to GE 89 re-mediating washouts along the Arden Valley.

With PST 24 again operational, I ratcheted up work on the brake shoe holder manufacture. While we experienced some premature failures with those on PST 14 (all were brand new), those on 24 had failed long ago. Also both cars use the "slider-shoe-harp" rather than the wheeled harp so we need to augment our now small supply of bronze inserts.

Ray Hatfield, who has been our Wednesday machinist since the passing of Sam Bear, has opted to pursue other opportunities at PTM. Despite tutelage from both of these craftsmen I haven't absorbed enough knowledge and skills to address other than basic turning and milling operations. So I've been foraging through local and remote shops to find one or more aligned with our needs and resources.

Those who helped this quarter include:

Ray Hatfield, Bob Powischill, Fred Cooley, Wayne Wickes, Kate Imler, Mick Buchta, Ken Ringer, Eric Weinbrenner, Brett Friethaler, 

Power and Signal Report

By Robert Scott Davis

I'll start off with an update of the auxiliary generator project. For those who don't already know, the wiring for the soft start circuit for W1 is complete and operational! In other words, the generator can now start and stop automatically. Tasks remaining are to grout and level the generator.

All the T5 fluorescent lamps for overhead lighting in the APB have been replaced with a T5 LED lamp. In addition, we have been experimenting with replacing the light bulbs in the US&S signals with an LED equivalent. All these upgrades can save hundreds on the Museum's power bill per year.

Planning continues on both the Fairgrounds and Trolley Street projects. One big hurdle was to locate a source of Common Grade span wire used in overhead construction. Fortunately, through the diligence of Art Schwartz, a manufacturer of this wire has been located and at a reasonable price. Trolley frogs are being machined at Hall Industries, and Kevin is working on signal foundation forms for Fair Grounds. Wood strain insulators are also being prepared as well as relay cases overhauled.

As always, I would like to thank Jeff King, Kevin Zebly, Art Schwartz, Denny Bockus, Bill Fronczek and myself.



Laura and Sarah Wells make emergency line repairs along the line near Yanavich. Jeff King photo





West Penn 832 on one of its inaugural runs, June 1, 2018

Karen Warkany photo

For many many years it was very difficult to imagine the day when the puzzle that was West Penn 832 would finally be reassembled and I would

be operating it along the museum line. The journey of 832's restoration has indeed been a long one with many dedicated volunteers working to make it so...



West Penn 832 being moved to storage in Galbraith shop in June 1993.

Edward H. Lybarger photo

Hopefully, these then and now photos show that miraculous transformation. Our thanks goes to the team that dedicated over seven years to make it happen. The list is very long and we had the opportunity to recognize many of these individuals at the ceremony on June 1.

West Penn 832 is the longest term restoration project in museum history. Legend has it that the project started in 1964 with the dismantling of the interior to replace the ceiling (headliner) and re-



Interior being dismantled 1964.

Bruce Wells collection



WP 832 Platform Photo 6-1-2018 Bill Monaghan photo

pair electrolysis damage to aluminum shoe castings that tied the window posts to the window sill. The late John Bagiensky took the project on after disassembly was underway and expanded the scope to include replacing the entire roof and ceiling as well as the side sheets. New shoe castings were obtained through a connection at WABCO in the late 60s and new side sheet metal was rolled and beaded by a fabricator in Cheswick in the early 70s. In 1975 John, Artie Ellis and I removed the



John Swindler stands next to his father's vintage photo of himself as a young lad with WP832 at Castle Shannon, May 10, 1953 as 832 was moved from Charleroi to Ingram to join M1. John, who is one of our regular operators had the honor of running the car through the banner. Bill Monaghan photo



WP 832 interior is readied for the June 1 inaugural run.

Bill Monaghan photo

side sheets on the #1 side (the one largely stripped in the 1964 photo) acquired riveting tools and materials and installed the new metal on the car.

In 1976 we received a grant for work on Philadelphia 5326 from the American Revolution Bicentennial Association via SEPTA to provide 5326 as an historic car for operation near Independence Hall. John dedicated his remaining years to this project and no further work on 832 was undertaken until 2009 when we inventoried the car's contents and prepared it for shipment to Brookville for the rebuild.

The rebuilt body was returned to PTM in July 2011 and work proceeded with installation of the windows and canvassing the roof. The amazing transformation proceeded right up until May 31 with the whole crew busy wrapping up final details and giving the car a much deserved bath. 



On May 31 at about 5:00 PM...Fr. Jack Demnyan and John Habak were busy providing the star its much deserved bath.

Bruce Wells photo

Around the Museum

By Bruce Wells

It has been one incredibly busy year so far! Out along the line and around the property two big construction projects have occupied Larry Lovejoy' and Bill Piper's time. Earlier in this issue Bob Jordan referred to the new driveway underway at the East Campus and a picture is provided showing the initial phase of the work. Next issue will show how that job proceeded to completion.

At the Fairgrounds stop contractors for the County and State are building a new bridge to replace the one we built in 1981. That work commenced in April and will be complete for the Fair in August. The new bridge and walkway up to Arden Mines Road is re-contoured to a more gentle grade. The bridge includes two separated lanes that will accommodate pedestrians on the downstream side and golf carts (these will be carrying disabled persons) on the upstream side. Phase 2 of the project will begin right after the Fair. On

Sunday August 19 all of the overhead wire and signals will be removed from the siding. To this end Kevin Zebley organized a crew and installed new poles at either end of the siding to aid in the tie off of loose wire ends.

On the track, switches will be removed along with various components. Plans call for a new longer level platform and accompanying siding. Plans are to have the new installation ready for the Fair in 2019. Until work is complete operations will be restricted between the Richfol platform and McClane Loop.

Preparations for the construction of "Trolley Street" trackage and completion of the Enterprise Wye are underway. The photo below shows arrival of wooden poles for this project. Steel poles have been on hand for a while. Work on the project will proceed next summer when work on the other projects settles down.



Lifting concrete planks in place at Fairgrounds 6-25-18.

Photo by Larry Lovejoy



Poles for Trolley Street are unloaded 4-18-18

Photo by Larry Lovejoy



Michael Buchta receives Youth Volunteer Award. Presented by Steven and Nicole (previous recipients) and staff members Sarah Lerch and Madelon Cline.

Photo by J. Bracken Burns



Arthur W. Ellis (Artie) receives recognition for his Volunteer hours.

Photo by J. Bracken Burns

Volunteer Recognition Banquet

April 28 was the Museum's annual Volunteer Recognition Banquet. This year the venue was the very spacious meeting room at the Chartiers Township Community Center, located in Arnold Park adjacent to the former Arnold Siding on the Washington interurban.

Mary Jordan took charge of the meal arrangements which was catered by our friends at Countryside Deli. On this page we feature awards in addition to those called out in the President's article.

The Executive Director's Award was presented to Art Rizzino who has provided tremendous help in the shop, particularly with air operated devices including the door and brake system components. Arthur W. (Artie) Ellis earned an award for hours of donation while new, tremendously enthusiastic and versatile volunteer Michael Buchta. Michael volunteers in the shop, a fully uniformed conductor and docent and with the line and track crews. Mike is a student at Chartiers-Houston High School and a member of the Jazz Band that played for the June first event.



Art Rizzino, with Peyton, receives Executive Director's Award from Scott Becker.

Photo by J. Bracken Burns



Scott Becker receiving Silver Service Award May 3, 2018

Laura Wells.photo

The Roast

Our annual "Roast" and public supporters awards banquet was held on the evening of Thursday May 3. This year local state representative Jason Ortitay was our roast honoree while the Jim Roddey Award for Transportation Excellence was presented to Christina Cassotis, CEO of the Allegheny County Airport Authority.

For the Museum Family the Silver Service award for Executive Director Scott Becker was the highlight of the evening. East Campus Steering Committee Chairman Ray Betler presented the award to honor Scott's 25 years of service to PTM.



*Rep. Jason Ortity receives a special operators cap from Bob Jordan, PTM President during the Roast of Jason Ortity.
Madelon Cline photo*



*Christina Cassotis receives the James C. Roddey Transportation Leadership Award from Jim Roddey and Matt Maguire, CEO of OneJet.
Photo by Laura Wells*



*Scott receives Certificate of Recognition from WA County Commissioners on June First.
Bob Jordan photo*



Our beloved mascot Frank J. Sprague Official Cat of the Pennsylvania Trolley Museum...

We mourn the passing of three cherished and valuable members of our Museum Family.

In Memorium



*Ray Mackenzie during County Fair August 2006.
Scott Becker photo*



*Bill Segar & Bruce Wells inspect 2227's armatures at Swiger Coil.
Scott Becker photo*