



# STACK TALK

## JANUARY 2016

The Official News Letter of the Adobe Mountain Railroad  
Phoenix Arizona, Operated by the Maricopa Live Steamers  
Railroad Heritage Preservation Society,

### UP-COMING MEETS

**2016 OPS MEET JAN. 14, 15, 16, 17**

**2016 SPRING MEET MARCH 17, 18, 19, 20**

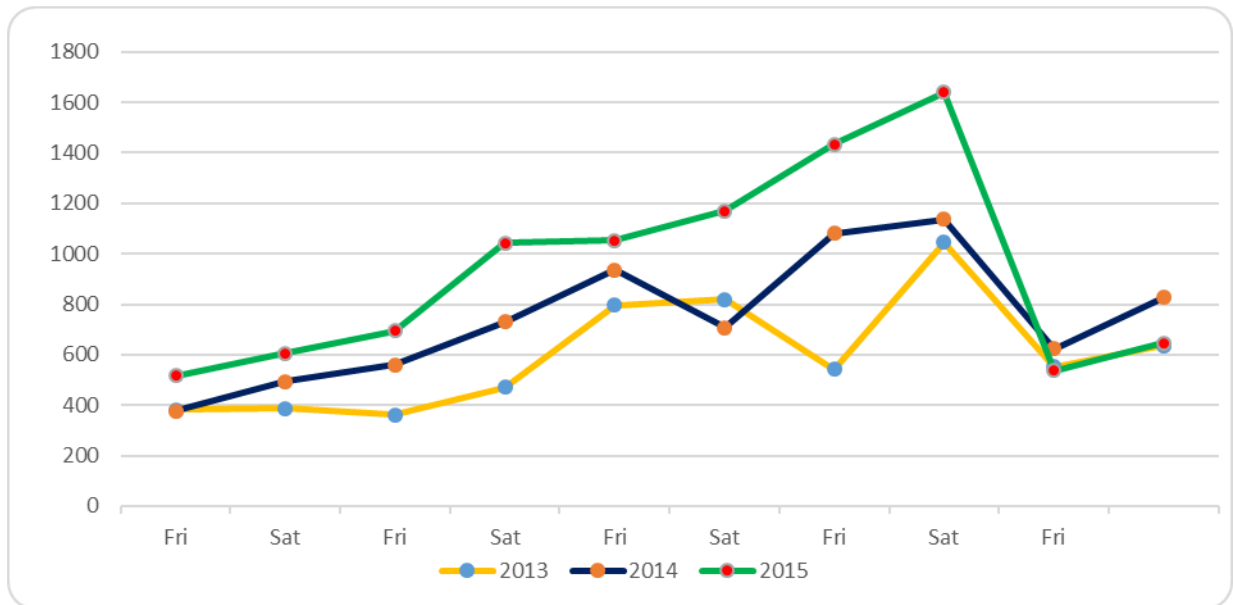
**2016 FALL MEET NOV. 3—6**

Happy New Year! My wish for all of you is a year filled with family, joy, good health, and happiness.

I would like to first thank the outgoing board members for their service to the club in not only this year, but in years past. Without them, we would not be the great club we are today. They have built a very strong foundation that we can expand. I am so privileged and excited to lead MLS as the president for 2016, and I am honored to serve the club in the best way I can. I look forward to working with all of you in the coming year as we continue to expand our holiday night rides, improve the infrastructure of the railroad, and make the park an inviting place for members and guests alike.

The 2015 Holiday Lights Night Rides were an absolute success. We broke records nightly, both in ridership and donations. The total number of riders carried over the five weekends was 9342. We had reasonably good weather on all but the last weekend, where we got hammered with cold temperatures and frosty winds. You can see on the graph below how we have grown over the last three years. The new gift shop ran out of most items to sell. We had steam trains almost every evening, and on our first weekend, there were three steamers puffing away in the station. What a sight that was! I can't even begin to tell you how proud I am of our organization and all the volunteers who braved some very frigid nights and blustery winds to put smiles on kid's faces and a warm feeling in their hearts. Santa Clause set new records as well, I was told.





So what is in store for 2016, you might ask? That's a great question, and here are some of the things coming up this coming year.

- We have a redesigned website coming online by then end of January. I hope to be able to preview the site at the January general membership meeting.
- As part of the new website, I plan to make available the agenda for the General Membership meeting before the meeting. I request that by the Wednesday before each month's board meeting that you submit any items for discussion to Mike Lewandowski (club secretary (email: fun2rr@msn.com)) so that he can put together the agenda. I encourage all members to attend the monthly meeting. This is your time to communicate with the Board of Directors, and let them know what direction the club should be moving in. We ALL have a vested interest in the future of our railroad, and as such, we ALL have a responsibility to be involved.
- We will be growing our holiday lights train rides. The additions that were added for this year (music and lights choreographed to audio by Hank Gallo and his helpers) were received with great gusto.
- Once the various county departments (Flood Control, Parks, and Department of Transportation) get themselves sorted out, our parking lot will get paved.
- Track improvement will continue, with steel rail replacing more and more of the aluminum rail in the high wear areas.
- Our signal crew is replacing and upgrading parts of the signaling system, to ensure safety on our railroad.
- Our public rides Facebook page (<http://www.facebook.com/trainrides>) currently has over 1000 followers, thanks in large part to the pictures posted by Hank Gallo of all the participants in our hugely successful Junior Engineer program. This program has grown so much that we now have multiple members running Junior Engineer School.
- Our railroad is maintained by a group of very dedicated volunteers, who give large amounts of their time to keep the railroad in good shape for all of us to use. I have had the privilege of working with them over the last 6 years and learning how our railroad operates. In order to assure the continued existence and maintenance of our railroad, I am calling on all our members to take some time, and learn how to help keep our railroad in great condition. All the superintendents are more than willing to share their knowledge with you, all you need to do is ask to help, and be open to their direction (this is key!). Remember, they have been do-

ing this for a while. I have asked many times why something is done a certain way, and have learned much.

- To go along with the item above, I have asked all the superintendents to put together a list of all the projects and maintenance that needs to be done throughout the year. When our redesigned website is online, I hope to publish this list, and be able to schedule items in advance, so that you, the members, will know what work is being done when, and how you can best help out your fellow club members. There is great pride to be had in knowing that you help make our railroad look and operate the best way it can.

Coming up in just three short weeks is our annual “operations meet”, coordinated again this year by Jim Zimmerman. It is a great opportunity for all members to experience how a real railroad operates, mixing both freight and scheduled passenger operations. If you have not been to an operations meet before, I encourage you to attend. This year we will have even more time to switch cars, since Jim moved his briefing to Wednesday evening, instead of Thursday morning. Let Jim know you want to help, I am sure he will have signup sheets posted in the clubhouse for various ways to assist during the meet. I encourage all members to take time to learn the various roles (yard master, station master, dispatcher, consist maker, etc.) that help make the operations meet a great success. You will be surprised at all the work that goes on behind the scenes. I had a great time as yard master last year, and look forward to doing it again this year.

As I finish this column, I am looking back at the time I spent at the railroad the last few days of 2015, priming and painting the trucks for the locomotive I am building. While there, I got a chance to talk with members and guests visiting the park. A new steamer was run for the first time by its new owner, and another steamer got prepped for a long winter, till its owners come back in a few months. The prep for the ops meet has begun, and the Christmas decorations are being taken down. Tomorrow is New Year’s Eve. I wish each and everyone one of you, and your families a safe, happy, joyful, and prosperous new year.

John Bergt

# STEAM LOCOMOTIVES

## MAIN RODS

Well, there's another year in the shredder ! Here we go, taking a look at main (sometimes referred to as a connecting) rods.

We'll start with the main rod, this being the one that connects the crosshead to the main crank pin. Typically this rod is tapered from front to rear, hence the terms "little" and "big" ends as illustrated below.

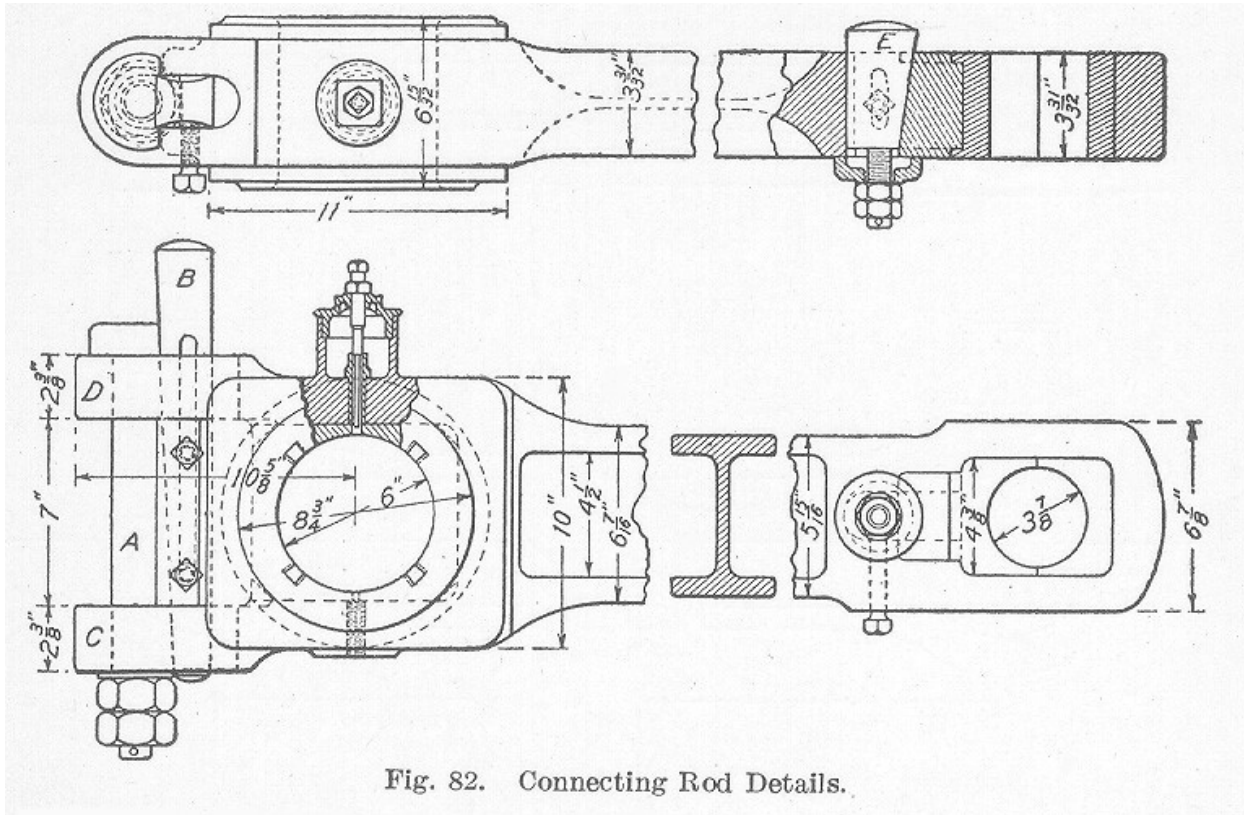


Fig. 82. Connecting Rod Details.

As can be seen on the drawing, the bearing is split in two halves, using a tapered key to close the bearing halves on the crank pin. The fit of the bearing is developed by putting the two halves together and boring it to the required fit on the crank pin, then the two halves are brought hard together with the key, which is cinched up with set screws to prevent its loosening in service. When the bearing wears a bit, it can be adjusted by filing or machining the faces of the bearing halves and reset with the keys. All in all, a fairly simple design which continued from the very early years (as shown below) from the 1830's-----

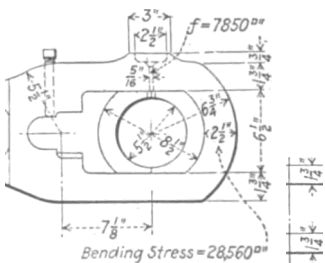
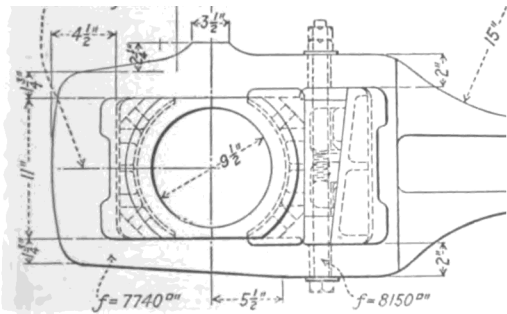
DAVE GRINER





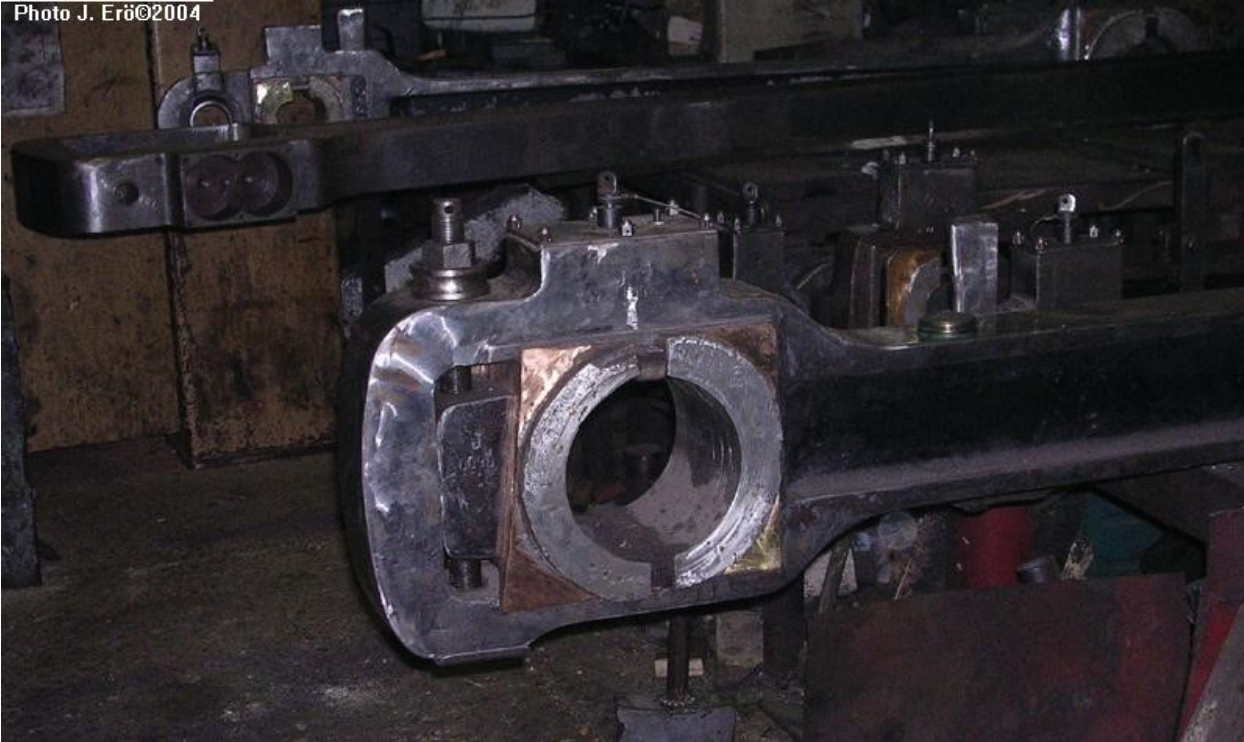


-----well into the twentieth century as noted here from the 1922 Locomotive Cyclopedia. Note the wedge key has been replaced with bolting to make more positive adjustments and prevent loosening of the key.



This picture clearly shows the set up using bolted adjustment and white-metalled (Babbitted) bearing surfaces, along with the oil reservoir. The wedge design serves both the “big” and “little” ends of the rod.

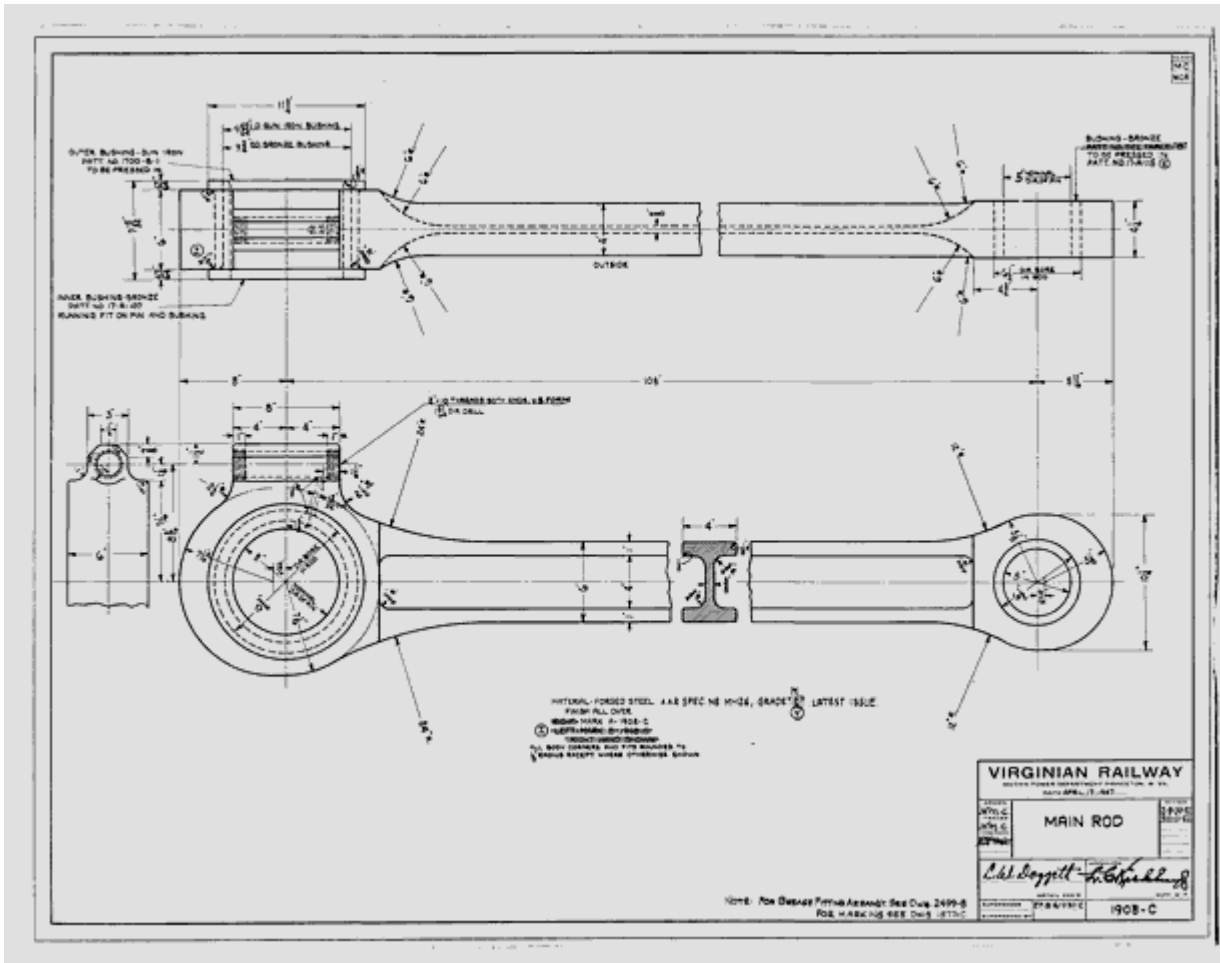
Photo J. Erö©2004



The strap and wedge was always a problem waiting to happen where the strap had a tendency to break, causing the rod to fail about and to allow the piston to slam into the cylinder head. The following design removed this problem and provided better wear characteristics, where the bearing rotated in a steel sleeve inserted into the rod end. The strap has been eliminated and the rotational speed of the bearing relative to the crank pin is reduced, thus reducing wear. This



type of rod bearing was applied from the 20's on to the end of steam but was superseded by the roller bearing system.

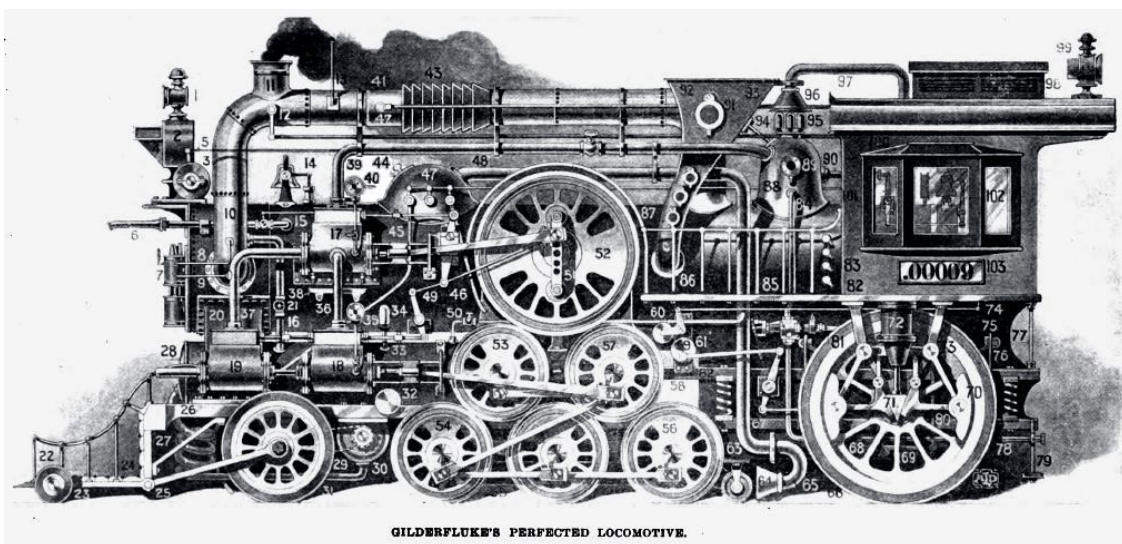


We will have to leave it here for this time (running out of space!).

The following drawing presents a version of the steam locomotive as perceived by the more forward looking mechanical institutions of higher learning. Careful studying here will reveal some very innovative thinking !!

Take care until next time, and Happy and Safe New Year to you all !!

Dave





***Engineer cards expired on May 31st, so now it is time to take your test***

***It can be taken online at [Maricopalivesteamers.com](http://Maricopalivesteamers.com)***



## **AED (Automatic External Defibrillator)**

**Classes in the use of the AED were recently given to our members by fellow member Mick Janzen.**

**We now have an AED in the Club House. All members should know where it is located , in case that it is needed somewhere in the park. There are two bags a large one and a small one in the cabinet, be sure both are taken to where needed.**

**Donations are being taken for a second AED to be located in the Station. CPR and Defibrillation (if needed) need to be in a 4 minute window. See the Treasurer with your donation.**

**REMEMBER THE LIFE YOU SAVE MAY BE YOURS**



# TIME LOG HOURS

The hours shown are from 11-1-15 thru 12-22-15. Where entries were incomplete, it was not possible to determine the hours worked.

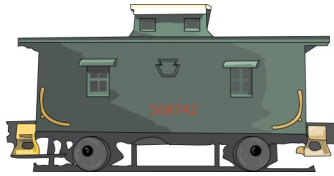
Donna Holm	114.5 hrs. / Painting/ Public runs/ lights
Bob Douglas	204.5 hrs. / Track/ Treasurer duties
Joe Snyder	85 hrs. / Track/ lights
Terry Liesegang	79 hrs. / Signals /Track building
Joe Fego	85 hrs. / Track / Equipment maintenance /weeds /Christmas trains
Perry McCully	60 hrs. / Trash disposal /lights /Train rides /maintenance /track
Pete Pennarts	27 hrs. / Facilities maintenance
Ed Houk	45.5 hrs. / Public Run crew /lights /Christmas run crew
Linda Houk	23 hrs. / Club house cleaning
Fred Greenwald	104 hrs. / Equipment maintenance /lights /Christmas run crew
Mickey Janzen	34.5 hrs. / Lights / Public and Christmas run crews
Paul Lator	50.5 hrs. / Lights /Public and Christmas run crews
Bill Lowe	16.5 hrs. / Switch building
Mike Russell	59.5 hrs. / Lights /Public and Christmas run crews
Joe Kalisak	59.5 hrs. / Public and Christmas run crews
Trish Kalisak	46 hrs. / Public and Christmas run crews
Dave Griner	25.5 hrs. / Track /weeds /Equipment maintenance
Jerry Grundy	14.5 hrs. / Dispatcher
Tom Smith	9 hrs. / Public and Christmas run crews
Louden Smith	9 hrs. / Public and Christmas run crews
Jim Zimmerman	66.75 hrs. / Ops. Meet organization /Public and Christmas run crews
John Bergt	11 hrs. / Public and Christmas run crews
Tom Harrington	28 hrs. / Facilities maintenance /Christmas run crew
Dave Kulman	31 hrs. / Track
Gabe Zofbas	9 hrs. / Public run crew
Frank Berle	8 hrs. / Christmas run crew

Jim Theobald 16 hrs. / Public run crew

Mike Levandowski 26.5 hrs./ Christmas run crew

Total logged hours = 1,348.25 hrs.

It should be noted that this does not count the many hours put in but not listed on the log. A Great Thank You to all !!



## The Railroad

### Phoenix & Passenger Rail

By: Gabe Zorbias

When you hear “Phoenix” many things may come to mind. The heat, the large suburban population, the Suns. Trains, however, are something that most people don’t think about when they hear Phoenix. By all means, Phoenix is not a railroad city. However, while Phoenix may not be the railroad capital of the country, we do have a very rich history with the railroads.

The picture to your right may be new to you. It might be a familiar sight.

What is it? Well, it’s obviously a train station, but which one? It’s not San Diego’s Union Station. It’s not the Tucson or Albuquerque Amtrak stations. Although it might be surprising to think about, this station is the Phoenix Union Station! To those who have lived in Phoenix before 1996, when Amtrak discontinued service, this may not be all too surprising. However, for us post 96’ transplants, the thought of an Amtrak train, and for that matter



any passenger train, traveling through the Phoenix Metro is a weird and humorous thought. Yet, for twenty years now, Phoenix has been the largest city in the United States without passenger service. Amtrak had rerouted the Sunset Limited after the Union Pacific threatened to abandon the former Southern Pacific line. The Sunset Limited was re-routed to the city of Maricopa. (Which is not in Maricopa County, but rather 40 miles south of Phoenix.) Phoenix Union Station is still standing and is used for storing telecommunication equipment.



In 1995, another piece of railroad history unfolded. The Sunset Limited was leaving the metro area, passing Buckeye, at about 1:30 in the morning, when the passengers were suddenly awoken by the derailment of the train. Emergency services from the city of Buckeye raced to the wreck. As emergency crews arrived, they found nearly a hundred people injured and one dead. Spotted along the tracks were several notes, signed by a group called the

“Sons of Gestapo”. The derailment was sabotage. The FBI was called to the scene. Investigators had found several ties were pulled up and that the track’s circuit system was tampered with so it wouldn’t alert the trains in the area of damaged track. Twenty years later, and the investigation is still ongoing. It is said this incident may have contributed to the rerouting of the Sunset Limited.



However, Phoenix was not only served by intercity rail, at one time the city also had a rather large and growing commuter rail service. The Phoenix Street Railway started serving the Phoenix metro in 1887, and at its’

peak, went as far as 55th avenue in Glendale from downtown Phoenix. The railway was completely electrified with a line voltage of 550 VDC with, at its’ most, 33.8 miles of track and nine lines. To put that in perspective the current Phoenix light rail

system only has 23 miles of track. The railway was even proposing extensions to



Tempe, Mesa, and Scottsdale. In 1925, the city of Phoenix purchased the railway and ridership increased. However, on October 3rd, 1947, disaster struck the railway, as a fire destroyed most of the streetcar fleet. From there the city of Phoenix decided to invest money in buses, highways, and roads instead of further investment in the railway. The railway shuttled its' final passenger and closed for good in February of 1948.

Finally, the history of passenger service is still being created in Phoenix. The Metro Light Rail, which began construction in March 2005 and opened for service in 2008, is being expanded, with routes being planned for expansion into the west valley, and the cities in the northeast of Phoenix. There have also been plans to restore inner city service to Phoenix, albeit, unlikely. There has also been talk of high speed rail connections to Tucson from Phoenix and other cities. Passenger rail service in Phoenix is not dead, and will continue to grow.





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### JANUARY SUPPLIMENT

#### Why we need a second AED

A very special THANK YOU to Mike Lewandowski, Santa, and all who donated to the purchase of our AED. The generosity and kindness of members of this club always amazes me.

At first, I thought that one AED would be sufficient, and that we could move it back and forth between the clubhouse and the train station but that is problematical. If the AED is removed from its cabinet, it is not possible to let everyone know where it is. Precious time would be lost if it was needed and was not where it belongs. (I moved it myself to the train station for the Christmas night runs, forgot to put it back, and looked for it in its cabinet) It is confusing and not practical to move it.

The second problem is that it is an unsafe situation for anyone to run between the train station and the clubhouse. In an emergency, with adrenaline flowing, it is almost certain that anyone would trip on the tracks in the freight yard, probably injuring themselves, and again losing time.

Therefore, I really believe that we need a second AED to be housed in the crew side of the gift shop. We had over 9,000 visitors for the Christmas runs alone, and hundreds of visitors every Sunday. And let's not forget all our members who are working strenuously on the railroad every day. Bob Douglas is accepting donations for the second AED. One life saved will make it all worthwhile.

Thanks

Mick Janzen