

Arizona Railroad



Historical Society

# The Desert DISPATCH

## Timetable

### ARHS

Arizona Capitol Museum  
1700 W. Washington St.  
Phoenix, AZ

The AZ Capitol Museum is  
open **Monday -- Friday**,  
9:00am 4:00pm

**Saturday** 10am-2pm

## Events 2024

### ARHS Swap Meet

*Everything Trains*  
Saturday May 11, 2024,  
9am-1pm

Glendale Christian Church  
9661 N 59<sup>th</sup> Ave.  
Glendale, AZ 85302

### Sun City

#### Model Train Show

Saturday February 10, 9am  
Fairway Recreation Center  
10600 W. Peoria Ave  
Sun City, AZ

### Winter Cactus Swap Meet

Saturday February 17<sup>th</sup>, 9am  
El Zaibah Shriners Aud.  
5757 N. Central Ave  
Phoenix, AZ



A massive Schnabel car recently found its way into the SP yard on the layout. It is almost as long as 5 40-foot boxcars! *Ray Rumble photo*

## President's Message

**H**ello ARHS! Well, since my last message, we have had disappointments and possibly promising news regarding a new venue.

First, the disappointment. The Arizona Historical Society withdrew their support, which was a big surprise. We won't go into detail here as to the reasons they presented, however you have probably already heard. To put it simply, they changed their minds.

As to the possible promising news, John Mick has made the gracious offer to purchase a building for us to use as our next venue. This would be a large investment for John. Jess has been examining the cost of running our own venue. It is obvious that we would face expenses that we don't currently have, such as property tax, utilities, property management fees, phone, internet, etc. as a group, we will have to decide if

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## ARHS Officers 2023-2024

- President** - Craig Faris
- Vice President** - Ken Nelson
- Secretary** - Dave Brown
- Treasurer** - Dan Kubarych
- Director** - Dennis Ranke
- Director** - Dewayne Koltin
- Past Presidents** - Don Stewart, Jesse Poole

*The Desert Dispatch* is a publication of the Arizona Railroad Historical Society. Views expressed by guest authors are their own and do not reflect the opinions or positions of the ARHS.

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## Mission Statement

The Arizona **Railroad Historical Society** strives to create a world class railroad experience which includes history, education and railroad operations centered around the state of Arizona.

We are honored and excited by the opportunity to create an exciting experience in the Arizona State Capitol Museum in downtown Phoenix.

12/20/23

## President's Message

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we are willing to take that additional cost on, in order to have our future in our own hands.

Yes, I do believe that our dues would rise somewhat, it is unclear how much. This is a discussion to be had by the membership. Believe me, I do not want to lose any of our members. You guys are family. Also, we would need to do additional fund raisers, such as one or even two additional swap meets each year. I need everyone's help for ideas as to where we would be able to raise funds.

We need our thought process to revolve around reasons of why this will work, instead of why it won't.

Also, if the new space has room, I would like to establish a small railroad museum aspect as an attraction for visitors. This would serve a couple of functions. We could actually become the Arizona Railroad Historical Society, conducting research and accumulating historical records of the railroads in Arizona, some artifacts, and oh yea, a killer model railroad layout! The second reason is that our 501c3 has a historical designation. A museum organization would be a much more attractive recipient for grants from organizations such as the railroads, as well as other donors.

We will discuss all of this during our January general meeting, no meeting in December.

I want to thank all of you for the amazing camaraderie that we all have. Once again, the swap meet was a total success, the participation you have shown at the museum continues to be outstanding. I could not ask to have a better group of guys.

Starting the second Saturday of January, the museum will be open every Saturday. Jess and Don are working on getting the pertinent info into the computer so we can have operating sessions.

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## President’s Message

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I think this could be a lot of fun. Please let me know what Saturdays you could be able to be there. We really can’t do operations with just a couple of guys. We also may just do operations one Saturday a month, with just a couple of guys the rest of the Saturdays. Just something to think about.

I hope everyone has a fantastic Christmas season.

**Craig**

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## Southern Pacific Piggyback Champs

By Bill Chamberlain

Southern Pacific Railroad got into the piggyback business in 1953 hauling trailers from Houston Texas to Lake Charles Louisiana. A week later they started in California, over the Los Angeles to San Francisco coastline. They were the first western railroad to get into the piggyback business. By the middle of 1956 they had developed a piggyback network with loading and unloading facilities from New Orleans to Los Angeles, north from LA to Portland Oregon, and to the northeast to Ogden Utah.

By September of 1956 their piggyback system extended for more than 7000 miles. They were hauling 275-300 trailers daily, had over 300 piggyback flats, and more than 1000 enclosed trailers and flatbeds.



1950s Southern Pacific piggyback flyer.

250 more piggyback flats were on order and refrigerated trailers were under consideration. Their annual piggyback traffic for the prior year, 1955, was over 61,000 trailers.

Southern Pacific had interchange roads available in Ogden Utah (Union Pacific), in Dallas Texas (Kansas City Southern), and in Shreveport LA (Cotton Belt). The total number of cities with loading and unloading ramps was approximately 24-30.

One interesting decision made by Southern Pacific was not to haul any piggyback loads from common carriers on their equipment. They owned all their own trailers and flatcars and would only haul their own trailers on their rail lines. *Continued next page*



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## SP Piggyback Champs

They figured if they hauled the common carriers loads on their trains it would only make the common carriers more competitive. Changing this approach was being considered but no decision had been made at the time this article was written in 1956. Most other piggyback haulers in the east had been hauling common carrier traffic for some time.

Sante Fe did get into piggyback hauling shortly after Southern Pacific, and Union Pacific began experimenting with piggyback traffic in the middle of 1954.

## Diesel History

*By Bill Chamberlain*

### **Dynamic Brakes**

The original EMD FT demonstrator, which was introduced in 1939 did not have dynamic brakes. Sante Fe Railway was impressed with the performance of the FTs and soon ordered several sets of A-B-B-A units from EMD.



AT&SF diesel FT units outside the roundhouse at Winslow, AZ in March, 1943 . Photo by Jack Delano, FSA, Library of Congress.

The first 5 sets of FTs that received from EMD, #100-#104, did have dynamic brakes but they only had two designated speeds which the dynamic brakes could be used. The engineer had to slow the train down to either 13 MPH or 21 MPH using the air brakes, then engage the dynamic brakes.

Although this was handy on a steep grade they were not much use on the down grade from Seligman to Needles California which was approximately 1.4% for about 140 miles. When the next group of FTs arrived from EMD the dynamic brakes had been changed to allow the engineer to set the dynamic brakes to any desired speed without having to slow the train down using the air brakes.

The first successful road switcher introduced by EMD , the GP7 had dynamic brakes as an optional feature. When the upgraded GP9 came out 4-5 years later the dynamic brakes were more of a standard feature.

### **Diesel Transition - Series to Parallel**

When a diesel engine or a diesel consist first start out pulling its train, the traction motors start up as “pairs” in series, with each pair of traction motors in parallel. As the train speed increases and the generator or generators cannot produce as much current as the motors can take, the system will transition to “all in parallel”. The early EMD diesels had a manual transition control that the engineer had to engage after watching the engine gauges as the engine was ramping up and gaining speed. An automatic transition control device was



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optional equipment, and most railroads decided the engineer could handle the transition at the correct speed. As engines became more and more complicated the automatic transition control became standard equipment.

One thing I could not find in my research was if a train had a 4-5 engine consist, would all engines make the transition to all in parallel at the same time, or would each engine in the consist make its own transition based on its individual transition setting. If anyone out there has this answer, please chime in.

## ARHS Warehouse District Buildings

*By Bill Chamberlain,  
Photos by John Clark*



The Phoenix warehouse district was in south Phoenix adjoining the tracks of the Southern Pacific Railroad. John Clark modeled these buildings using dock side building kits with freelance details added. The models that John used were matched to the era of the layout's theme of the middle 1950.

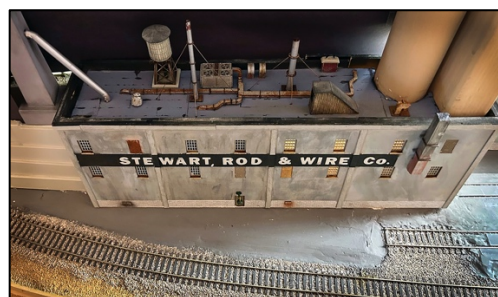
Builder - John Clark    Wiring - Bill Chamberlain  
Special Details - Don Stewart  
Painting - John Clark and Brandon Clark II.

The lighting design called for interior lighting in the three primary buildings so (3) interior lights



were installed in these, each on a different circuit. Exterior dock side lighting was installed (approx. 20) at rear man doors and dock exteriors. The lighting design for the dock interiors called for a dim light at each dock during daylight hours and a dimmer light at nighttime. This was accomplished with a little help from Jess Poole, a wiring diagram on a napkin was provided. A single light was installed at each dock interior and two circuits were used.

One circuit used an 820-ohm resistor, and the other circuit used a 1100-ohm resistor. So, the effect was dim during the day, dimmer during the night. (I think Jeff -Daniels and Jim Carey made a movie with that name, Dim and Dimmer!).



Three circuit boards were used and 20 different circuits. The remote buildings with exterior lights have quick disconnects installed so those buildings could be moved or disconnected without moving the three primary buildings.