

BIG STEAM NEWS

NEW MEXICO STEAM LOCOMOTIVE & RAILROAD HISTORICAL SOCIETY

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NEW MEXICO True



ANOTHER SUCCESSFUL OPEN HOUSE

Once again, the Society welcomed a large crowd to the annual Open House. The weather was near perfect. There was good food, music, model rail displays, and rail memorabilia. And again, the focal point of the Open House was Santa Fe 2926, now nearing operational status. For the first time in the series of such annual events, the classic locomotive and its large water/fuel tender were linked, providing visitors a better view of all 120 feet of the big machine as a whole. A complete view awaits more mechanical tasks, installation of insulation, and sheet metal that will cover many pipes, staybolts and other currently visible appurtenances.

With the tender and locomotive connected, the very popular cab tour was accessed via stairs on the fireman's side, with exit stairs on the engineer's side. Members of the restoration team rotated duty in the cab to explain the purpose and function of the various gauges and controls, that had been installed since the last open house. The picture below is representative of the day's activity.



These photos and those on Page 2 reflect the range of the Society's purpose and objectives that were in evidence at the Open House. Reaching beyond just the restoration of 2926, those objectives address the importance of rail in the past, present, and future of New Mexico and the rest of the United States. Pictured below are model rail layouts (left), and one of BNSF Railway's modern diesels parked inside the new 2926 engine house (right). Those displays, along with a presence of Railrunner, Amtrak, BNSF, WHEELS museum, and DOT's Operation Lifesaver, provided rail information for all ages and interests.



(Open House Continued on Page 2)

(Open House Continued)

The picture at right reveals a busy day at the Santa Fe 2926 restoration site. With booths on both sides of the locomotive, along with space for music and food, the site was a bit crowded at times, but everyone seemed to enjoy the experience.

Photos at the bottom of the page depict some of the many activities during the Open House. In Photo 1, visitors receive information about Railrunner, Amtrak, and Operation Livesaver. The other three photos present the younger Society members who are expected to carry the Santa Fe 2926 story into future years.

In Photo 2, Teddy, one of the youngest members of the restoration crew joins the Los Radiators band to sing “House of the Rising Sun”. Guitarist Rick has been told that she is only available to sing with his group when she is not occupied with work on Santa Fe 2926.

In Photo 3, Scotty, another youngster, displays his grandfather’s collection of steam gauges and whistles. He can also operate his grandfather’s steam tractor and other steam equipment at their South Valley farm.

In Photo 4, several members of the next generation pose in the cab of Santa Fe 2926.

Altogether, it was a day of food, fun, and facts about steam locomotives and railroad history. Visitors left with caps, T-shirts, art, jewelry, and other Santa Fe 2926 memorabilia. All that will probably assure an even larger crowd for the next Open House. Hopefully, by the time the next Open House comes around, it can be held at a different venue.

Santa Fe 2926 will be operational in coming months. When in operation, the locomotive will be able to move under its own power to a more crowd friendly location—perhaps a location near the Alvarado Transportation Center and the historic Santa Fe Steam Locomotive Shops. The iconic locomotive once carried passengers to and from that location when the Alvarado Hotel, crown jewel of the famous Harvey House chain, existed at the site currently occupied by Alvarado Transportation Center.



AN IMPROVED BRAKE SYSTEM

Upgrading To The 26L

When Santa Fe 2926 is steamed up and ready to run again, it must have an effective, safe braking system. In the decades since the locomotive last operated, there have been extensive technological and regulatory changes in rail equipment braking systems. The brakes that slow and stop the hundreds of tons of rolling equipment are still air activated. The new brake shoes, restored linkage and air lines still look the same as when the locomotive was new. But squeezed into tight spaces inside and underneath the cab are some major changes in the control system that are not so visible. Those changes involve electronic controls that did not exist until several years after 2926 was retired from service.

The 26L brake control device that is being incorporated into the 2926 brake system is widely used in modern rail operations. The brakes are still air activated, but like virtually all technology from autos and industrial equipment to household and personal items, key control elements of the 26L are electronic.

Pictures 1 and 2 below show two stages of reinstalling brake controls beneath the engineer's side of the cab. Picture 1 was taken from underneath the cab looking outward before the original components, i.e. pressure tank, air lines, etc, were reinstalled. Martin Sanchez and Paul Baynes discuss procedures for reinstallation of those components. The curved object at the bottom of Picture 1 is a mounting saddle for the small air tank in Picture 2. Picture 2 is an outside view taken after the tank and some of the other components have been installed. Ken Dusenberry is in the process fitting some of the many air lines that connect those items.



Getting It Done

Refitting the restored brake parts, with new pipes and fittings where necessary, called for a lot of study of the original drawings and many discussions as pictured above. Add to the original components the new electronic controls, and then squeeze it all into a very limited space is challenging to say the least.

Fortunately, as has been the case at many stages of the 2926 restoration, volunteers with the necessary skills were on board. Two of them are relatively new members who commute two hours just to get to a work session. Bill Reass, an electronic specialist from Los Alamos, is pictured at right (Photo 3) working on the Intermittent Inductive Train Stop. That small electronic box is a key part of the 26L system involved in multiple unit brake control.

Paul Baynes (Photo 1) is a retiree from Burlington Northern railroad in Minneapolis. A 1968 graduate of Crown College near St. Paul, Minnesota, he spent 36 years in the railroad industry.

A trained machinist, Paul has a wide range of experience in locomotive systems. He has extensive experience in both repair and inspection of current brake systems. It would be difficult to find anyone better qualified to manage the 2926 brake system upgrade to modern standards. He and the others pictured here comprise a team that should soon have the 2926 braking system ready to perform safely on the high rails

Paul is not the only Minnesotan who commutes from Espanola for each work session. Along with him is his wife Marcia. She has been assigned storekeeper duties at the restoration site, relieving Pete Adair, who preferred to turn wrenches instead of selling shirts and hats. Paul and Marcia do have another reason to make a regular drive from Espanola. Their daughter lives in Rio Rancho, and their grandson frequently spends time in the store with Marcia. Looks like they are training a next generation railroader.



Small Box, Big Job: The small box with a handful of circuit boards is a primary control component of the 26L system.

INFRASTRUCTURE MAINTENANCE AND REPAIR

When Santa Fe 2926 first rolled onto its current site at 1833 8th St NW in May 2002, it was parked on a deteriorating siding in the middle of a bare concrete lot. There were no tools, equipment or other necessary infrastructure items in place. The Society's volunteers had to build the workplace infrastructure before the first task could begin. It was built a bit at a time with donated equipment, tools, material, and hard labor, augmented by cash donations to allow purchase of other necessary items. Most donated equipment was already well used. Thus, any similarity between the 2926 restoration site and a classic steam locomotive shop is minimal. However, with innovative use of the donated materials, hard work and perseverance, the restoration is nearing completion.

Once 2926 begins operation, fixed infrastructure components such as the pit, storage containers, etc, are fine, and will continue to be useful. Those items are low maintenance, and can easily be kept serviceable. That is not the case with some of the machine equipment and tools that will be needed for operation. The shuttle, forklifts, compressors and other pieces of used equipment often needed attention even before they were put to use in the restoration. Though still serviceable, several such items were in serious need of additional maintenance and repair. Efforts to keep them functional for operational use are detailed below.

SHUTTLE

The Cline Shuttle Wagon is a most valuable piece of mobile equipment. Designed to move rail cars and related equipment around a freight yard, it is as complex as it is useful. It has both rubber tires and rail bogies to run on rail or road. With couplers on each end, and a fifth wheel, it can move all types of rail cars as well as semi-trailers. Rated to move 1300 tons on level rail, it can easily move the 500 ton locomotive and tender. Nicknamed 'Lurch' it has thus been a great asset for moving 2926 and the tender about the site when necessary. Now, with a house for the locomotive, Lurch is used twice per work session to move 2926 to and from the house. That additional use drew attention to a critical need for maintenance and repair.

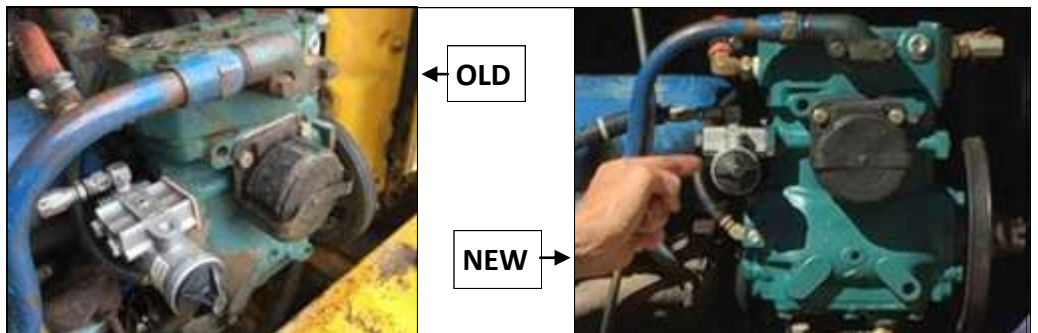
Lurch, powered by an industrial Ford V8 engine, has a huge air compressor to facilitate safe movement of rail equipment. Then there is the hydraulic system that enables operation of the rail bogeys front and rear. Starting with the engine, it seems just about all components had developed leaks, or were not functioning to expected level.

Work on Lurch started with inspection and study of the Cline manual. Then came many phone calls searching for parts and advice. Seals for the hydraulic units were located and ordered. The air compressor was a different story. It had to be replaced with a remanufactured unit from NAPA auto parts. At a cost of about \$300 with the old core returned to NAPA, the compressor performance was greatly improved—from half an hour to reach 100 PSI gain to under 15 minutes to reach the same level. The old and new compressors are pictured below.

Lurch still requires some attention, but its performance is improved, and leaks have been reduced. However, all the cleaning required in the Lurch maintenance task led to the next need for repair—the pressure washer used in the cleaning and degreasing equipment.



Several volunteers use Lurch to move 2926 out of its shed for a work a work session as others wait to start work.



PRESSURE WASHER

Cleaning parts and keeping the restoration site neat for the past several years caused serious wear to the Alkota Hot Water High Pressure washer. It was needed for degreasing Lurch, and it needed serious attention. As with many such cases during the past few years, some local 2926 friends stepped forward. In this case, it was Alkota distributors Candy and Ronnie Ivey, Owners of Active Environmental Equipment in Los Lunas.

The pressure washer was badly in need of parts and repair before it could remove even a few grease spots, much less the caked on grime that Lurch had accumulated with a mix hydraulic fluid, motor oil, and dirt.

Candy and Ronnie donated parts and provided assistance in the repair at no charge. They also visited the restoration site and added to their contribution with cleaning solution to use with the pressure washer. The washer will continue to be useful piece of equipment around the site when Santa Fe 2926 begins operation.

MORE COMPRESSOR WORK

The air compressor upgrade on Lurch was not the only compressor needing attention. From early in the restoration, the site has had a central fixed compressor for air tools and other needs,—even including the locomotive steam whistle mounted on a tall pipe. That system had worked well for several years, but it did not have the volume necessary for future operational needs. Components for an expanded system were available. All were donated items that were previously used. They had been stored on site for several years. There was a large Sullair rotary compressor donated by



Candy and Ronnie Ivey with 2926 member Kurt Olsen, who took on the challenge to maintain the infrastructure equipment..

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Intel Corporation, and storage tanks from government surplus at the local Federal Aviation Administration facility. Due to previous use and long storage, they needed attention. Maybe, like many packaged products, they should have been labeled—**some assembly (or repair & maintenance) required.**

One crew attacked the storage issue. Pipes, fittings, gauges and valves were acquired. The surplus air tanks were cleaned and painted. The storage system was soon assembled and ready for use. But bringing the compressor on line was a different situation. It seems that in the compressor's earlier use, it had been modified. Some of its electronic controls had been changed. As with many items of donated equipment, it was back to the manual and seeking help from someone familiar with outdated equipment.

A local Sullair service representative came by and did an oil change and checked the unit. The altered controls still needed expert attention that would be expensive if acquired from outside sources. Facing additional cost, frustration began to rise. And just then new 2926 volunteer Jeff Ordogne arrived on site. His background included work on off shore oil platforms where Sullair compressors were used extensively. His specialty was electronics, and he was familiar with operation of Sullair compressors. Jeff, Kurt, and Kevin, an electrician (and 2926 friend) from Otis Elevator Co., went to work. They acquired some new switches, checked the system, and the aging compressor was up and running. It was another case of finding the right help when it was needed.



Sullair Rotary Air Compressor: A step by step view of the compressor. At left, the compressor unit and tanks are positioned next to the Santa Fe 2926 WHQ. The compressor is anchored, levelled and connected to the tank battery. Center, a view of the electronics control panel. Right, Kurt Olsen and Jeff Ordogne and the new system. Hoses near Kurt's feet lead to the locomotive for pressure testing on staybolts and rivets.

FORK LIFTS

Among the first pieces of mobile equipment donated to NMSLRHS and added to the infrastructure were two forklifts. The one pictured at right was donated by Cutter Aviation. It has proved to be a very useful machine, and has been kept operating with regular maintenance and repair. It is now undergoing an upgrade with new tires, and other items as necessary. It will probably see less use once the restoration is complete, and it should be good to go for future on-site tasks.

The other fork lift is larger, and as old as Santa Fe 2926. Donated by an auto salvage yard, it dates from WWII and was used by the U.S. Navy. It is powered by a six cylinder engine that is also a relic of the mid twentieth century. Some older readers of this article will remember that popular engine type. It was built in several variations by Continental Motors, once the world's largest engine supplier,

The list of auto, tractor, light truck, and industrial vehicles that **did not** use Continental engines would be much shorter than the ones who did. Kaiser, Frazer, Hudson, Dodge, Reo trucks, Morris, John Deere, and many other companies used engines built by Continental. Like Santa Fe 2926, they served reliably in WWII.

Though virtually an antique itself, there is still hope the 60 year old forklift can be kept in service. With so many units manufactured over half a century, parts can still be found. With a little innovation and mechanical effort, the large fork lift might still be a useful infrastructure item for years to come. Maybe full restoration to display as an important piece of history is in order. Then, when it is no longer needed, it can be retired to a museum.

GANTRY CRANE

One piece of infrastructure equipment that has been critical to the restoration is the gantry crane nicknamed 'Big Bird'. It is shown here being used to lift the locomotive's sand dome into place. Though it will see less use once the restoration is complete, it will remain a part of the site's infrastructure.

Designed and built by the 2926 volunteers, Big Bird has become a landmark for the restoration site. It is obviously not a piece of power equipment—unless one considers the power of six or eight volunteers required to move it, or the several volunteers to operate it. It will be stashed on the site for occasional use as necessary.

In summary, the restoration infrastructure that has been built will continue to be necessary as Santa Fe 2926 begins operation. It will be needed for regular maintenance of an operating steam locomotive. And there just might be other historical rail related items to restore. There will still be plenty of work for those volunteers who like to come down to the site and work on equipment.



The small forklift is used to move the Sullair air compressor into place next to the WHQ.



Sand Dome Installation: 'Big Bird' lifts the sand dome and eases it into place atop 2926.

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MAILING ADDRESS

NMSLRHS
P. O. BOX 27270
Albuquerque, NM 87125-7270

Restoration Site: 1833 8th St. NW

Tel: (505) 246-2926 Web: www.nmslrhs.org

LOOKING DOWN THE TRACK

Some folks observing the Santa Fe 2926 work during the past several years might think project completion could mean that many hard working volunteers will be out of work.

Not true! Tasks may differ somewhat, but the iconic locomotive's future will include both operations and maintenance jobs. If anything, the Society will need MORE volunteers.

Steam locomotive operation is a very labor intensive activity. Those who choose to perform service with wrenches and power tools, will have plenty to do keeping 2926 in operation and maintaining the infrastructure.

There will also be a variety of new tasks related to operation. They will range from on the road operating crew to tasks dealing with passengers, depot authorities, crowd control, etc. at every stop.

One look at the photos below of Santa Fe 3751 in San Diego in 2008, and UP 844 at Gilbert Arizona in 2011, provides graphic proof there will be many more tasks providing an opportunity for even more volunteers.



Along with operation will come a number of other new non mechanical tasks. Looking outward and ahead those tasks will involve excursion planning, marketing, relations with events, destinations, and the general public.

Volunteers should not worry about something to do when in operation. There will be plenty of action. In fact, they might want to recruit even more volunteers.

THE COMMUTERS

Since its founding more than 20 years ago, the NMSLRHS has received statewide, nationwide, and even international support for the Santa Fe 2926 restoration. Without widespread contributions, in the form of equipment, tools, materials, and cash donations, the iconic locomotive might still be a rusty hulk in Coronado Park. Now let us take a look at more personal contributions that have occurred regularly during the restoration.

What about the volunteers who regularly show up in all kinds of weather to pick up tools and spend time working on the project?

Where do they come from?

Do they all reside within a few miles of the restoration site?

The answer is a flat **NO!**

Many volunteers do have a commute of less than 20 miles—i.e. from the mountains east of Albuquerque, Belen or Los Lunas in the south valley, or Bernalillo and Rio Rancho to the north.

But there are other dedicated volunteers whose commute is well over an hour, and a few who leave home in the wee hours to be at the 2926 site when work starts. That would be the folks from Lubbock and Odessa Texas. They don't drive over every work session, but they make the trip often enough to be called frequent commuters

There are several others who regularly make a commute that can take up to a couple of hours. Paul and Marcia Baynes of Espanola, Bill McSweeney from Glorieta, and Bill Reass from Los Alamos are in that category.

Then there is the illustrious Chief Safety Officer, Jon Spargo. It is probably safe to estimate that he has logged the most miles during the last 15 years. His commute is a bit over 75 miles from Socorro.

Jon's membership dates from the mid 1990's when he was still Chief Safety Officer at the National Radio Astronomy Very Large Array west of Socorro. During those two decades, he has logged a lot of miles in support of the effort to bring Santa Fe 2926 back to life.

There are other volunteers who commute from even greater distances a few times a year. Harold and Lori Emmons from Michigan spend a couple of months per year in Albuquerque. That allows Harold to attend several work sessions. Dick Downing, expert machinist from Indianapolis, Albert Leffler from Phoenix, Jim and Debbie Van Drunen from Ft. Lauderdale Florida all visit 2926 when their busy schedules allow.

Others are available to make a long trip when their expertise is needed. Those include project advisors, from other classic rail operations. Bob Kittel of the San Bernardino Rail Historical Society, owners of Santa Fe 3751, and Sam Lanter of the Grand Canyon Railway, are among those long distance friends of Santa Fe 2926.

With due credit to Ed Bukove and his small band of local residents who began the effort to save Santa Fe 2926 from a rusty demise, the restoration is certainly not a local project. The vintage locomotive has friends just about everywhere. Once 2926 is under steam again, the number of friends can be expected to increase.

Everyone is invited to travel to New Mexico to join the effort celebrating the return of 2926 to operation as an icon of America's rich rail heritage.

Anyone coming by to join the effort will find that some 2926 friends have been commuting for years.



Paul Baynes stands next to 2926. He and Marcia commute a couple of hours from Espanola for each work session. Paul's usual work station is the 2926 brake system tucked under the cab to his left.

THANKS FOR MAKING THIS A VERY GOOD YEAR

Santa Fe 2926 friends, both corporate and individual, have been especially helpful this year. At this time a year ago, our slowly growing GoFundMe project to erect protection for 2926 had just received a real boost. One of our favorite friends had agreed to match that effort. Earlier this year, that friend delivered, and the engine house dedication was described in the last newsletter. Thanks again to all those GoFundMe donors. Santa Fe 2926 now has a cozy home.

Another major contribution came from the family of a Society member. A \$50,000 gift honored a family member and longtime 2926 fan who had visited the restoration site. In addition to the wide range of individual contributions, there were grants from the following philanthropic donors that responded to our request for help via formal proposals.

Candelaria Fund \$10,000
John H. Emery Rail Heritage Trust \$9,000
Albuquerque Community Foundation \$8,000
National Railroad Historical Society \$4,000
Tom E Dailey Foundation \$2,500

Thanks again to all for your great support of our effort to restore the classic locomotive.

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NOTES AND ANNOUNCEMENTS

HOW TO BE A SPONSOR OF NEW MEXICO'S HISTORIC RAIL ICON

As the Santa Fe 2926 restoration nears completion, our proposal writers will continue seeking philanthropic support. We will also be seeking corporate sponsors for specific events, excursions, and tourism related activities, along with support for operational maintenance tasks. Suggestions for sources of corporate or philanthropic support are welcome anytime.

There will still be opportunities for individual members and fans to support 2926. That can be done through membership in the NMSLRHS and sponsorship of specific items. Individual and family sponsorship of such items as flue tubes, brake units, etc. has been extremely beneficial to date. In such cases, the donor names or memorial names suggested by the donor are permanently recorded in recognition of that support.

One new support opportunity is '*Sponsor-A-Letter/Number*'. The locomotive and tender carry official lettering in several places. Current numbers, such as the four large numbers (2926) pictured at right on the tender are temporary. Those, and other nomenclature on the tender and locomotive will be replaced in the proper historic font with new letters and numbers. Members and fans are offered an opportunity to sponsor one or more letters or numbers. More information on this and other sponsorship opportunities is being posted on one or more of the NMSLRHS official sources listed below.



The numbers strung across the rear of the tender represent the proper Santa Fe font.

KEEPING UP WITH SANTA FE 2926

Recent difficulties with our internet service, and related computer problems have caused some disruption in the ability to disseminate information promptly. There are several ways in which our members and fans can acquire accurate information about all Santa Fe 2926 related information. They are:

1. **TW3** (That Was TheWeekThatWas) This is a brief and very current weekly report from our Chief Mechanical Officer, and is a summary report of the week. It is emailed directly to the membership, and subsequently posted on the 2926 web site.
2. **Facebook** It provides current activity with photos that will often have more information than the brief TW3 report.
3. **Web Site** The web site (nmslrhs.org, or 2926.us) provides the most complete information, including historical photos, newsletters, TW3, contact info, rail links, etc.
4. **Newsletter** The newsletter, Big Steam News is produced quarterly. It is a narrative summary of on-site activity during the quarter, and includes additional narrative relating to members, supporters, and related rail history. It is emailed to members in digital format, subsequently posted on the web site, and hard copy is mailed to members with no email. A limited number of hard copies is produced for handout at meetings and to site visitors.

At any given point in time any one of these information sources may be delayed. If, for instance, members do not receive TW3 promptly, or the USPS mailing of the newsletter, check Facebook or the Web Site.

HEADS UP FOR THE SANTA FE 2926 LUMINARIA SPECIAL

This year, Christmas Eve is on a Saturday, usually a workday at the Santa Fe 2926 restoration site. Instead of a regular work session, that day, and the week leading up to it, will focus on preparation for our first participation in Albuquerque's annual Luminaria festivities.

There will be a planning meeting on site in November to work out event details. Meanwhile, any members who wish to participate in this special work session, or the planning leading up to it, should sign up, and if you have any extra unused lights, bring them along. There is a sign-up sheet in the WHQ.

Starting with Ron Taylor's photo shopped art at right Santa Fe 2926 will be well lit with strings of lights and luminarias for the annual Luminaria Event.



Santa Fe 2926 heading west with the second section of train 19, The Chief, one mile west of Victorville, CA in 1947. Photo Courtesy Jeffrey Mooreau Collection, Western Railway Museum, Rio Vista Junction, CA.

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True
New Mexico Steam Locomotive 2926 is



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