

BIG STEAM NEWS

NEW MEXICO STEAM LOCOMOTIVE & RAILROAD HISTORICAL SOCIETY

Quarterly Newsletter

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NEW MEXICO True



AT LAST THE PAST

AN ICON OF NEW MEXICO'S PAST WILL SOON RETURN TO ACTION

The first quarter of the new year saw a lot of activity at the 2926 restoration site. With reasonably good weather and motivated volunteers, restoration work proceeded apace. Though there are still many small tasks, some heavy lifting, and the all important hydrotest yet to be done, the restoration crew is looking forward to the first steam up this year. Several of those ongoing tasks and the heavy lifting are described following this brief pictorial recap.



Late 1995: Coronado Park: Santa Fe 2926, with peeling black paint and splotches of rust, rests forlornly in the park. Meanwhile, a group of rail history fans begin organizing to save the rail icon. They created the New Mexico Steam Locomotive & Railroad Historical Society.



June 2000: Under I-40: After incorporation in 1997, Society members began negotiation with the City of Albuquerque to save 2926 from further deterioration. In September, 1999, the Society purchased the classic locomotive for one dollar. Nine months later, Messer Const. Co. of Hereford TX stepped up to help move the locomotive from the park to a siding next to the main line on the other side of I-40.



May 2002: A Steam Sandwich On The Main Line: BNSF diesel units 2628 & 2376, still with Santa Fe colors, begin the move of 2926 from two years temporary storage next to BNSF's main line at Menaul Blvd. The Society volunteers, seeking a place to begin restoration had found a home at 1833 8th St NW. BNSF officials chose to have diesel units on both ends of 2926 to ensure a safe move.



May 2002, Worksite: BNSF 2628 eases 2926 across 8th St and over a siding built in 1937 to its new home on a concrete slab next to BIA and GSA buildings. The 2926 volunteers immediately began turning the bare concrete lot into a restoration site for the venerable locomotive.



November 2009, Halfway Point: After more than seven years, 2926 still looked like a rusty hulk, but there had been progress. The site infrastructure had been built, The 2926 tender had been completely restored, and other tasks started.



Circa 1948, Santa Fe 2926 In Action. This photo of 2926 under steam at the Los Angeles Union Passenger Terminal in its prime is from the Jeffrey Moreau Collection, Western Railway Museum, Rio Vista Junction, California. Soon this blast from the past can once again pose for photos while under steam.

MYRIAD SMALL TASKS, MILESTONE EVENTS, AND STILL SOME HEAVY LIFTING

SMALL TASKS: Lots Of Time Consuming Small Tasks

On site activity during the first three months of 2017 consisted of a seemingly unending list of small tasks. Many of them may have appeared at first glance to be routine pipefitting, electrical, painting, and installation work. However, they were often anything but routine. All those pipes, fittings, and related brackets that were removed years ago were pulled from storage to be reinstalled. Some required only cleaning and painting. Others were badly corroded, and required replacement. That meant making new brackets, acquiring new piping, and then bending and fitting it into places that were becoming increasingly tight. Likewise for the electrical components related to brakes, lighting, and safety issues. Much of that work related to current operational and safety requirements that didn't exist when the locomotive was built. The following pictures offer a very limited depiction of those tasks. Many more work pictures—literally hundreds—can be viewed on the internet at web site www.2926.us under PHOTOS.



Pipes, Pipes—

Rigid pipes too corroded to reinstall were replaced. That meant accurate measurement, purchase of new pipe, threading and bending it to original shape, (left) and then wrapping it with insulation (right) before installing it on the locomotive.



This whole process might look simple. Maybe it was to the skilled volunteer pipe fitters, but it was very time consuming.



—More Pipes,

Then there were lots of flexible pipes of various lengths. Many were associated with required components that did not exist when the 2926 was built.



Much of the flexible piping is shown under the right side of the cab, (left). The blue tags indicate that the connections are done. Electrical connections are made at the rear of the cab. (right)

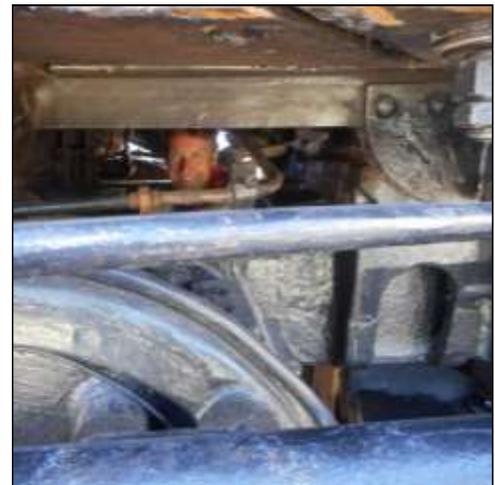


And Tight Spaces

Right, super welder Danny works away inside the firebox. Left, only one of Martin's hands is visible as he and Paul check flexible line fittings.



Below left, Ken works on a pipefitting in a tight space under the cab. Center, a barely visible volunteer is hiding behind some pipes inside the trailing truck assembly. Right, it is Ward working on some pipes.

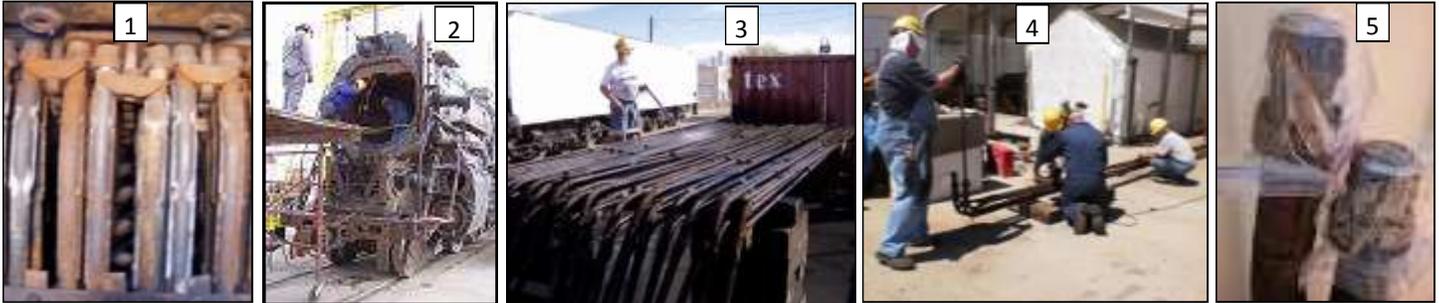


MILESTONE EVENTS: Superheater Tubes

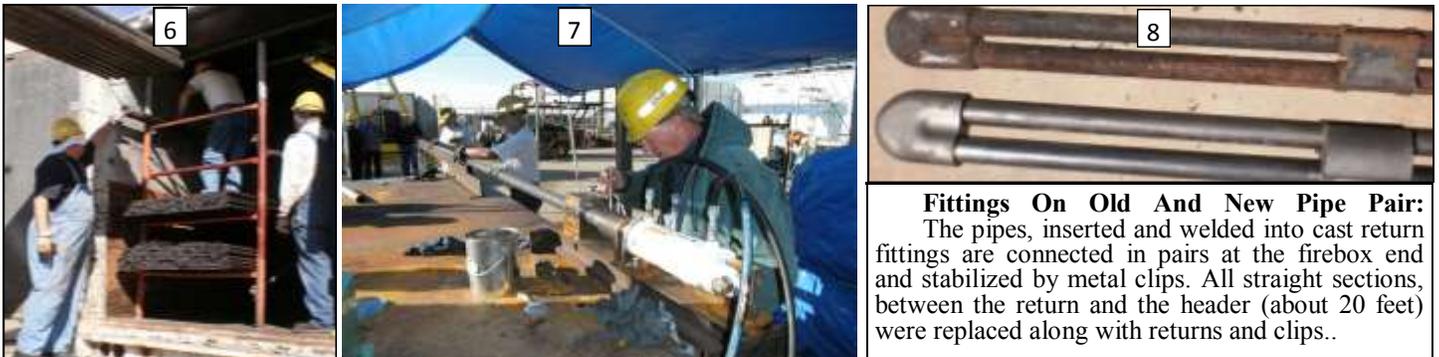
There are many stages of the Santa Fe 2926 restoration project that are of such significance that in the view of the volunteers, they represent a milestone on the way to a fully operating big steam locomotive. One such task is now complete. That is the rebuilding and testing of the superheater pipe bundles. This might have been considered a routine task when the Santa Fe Backshops were available. Now, with volunteer crew members working outside in heat or cold, using 'design-and-build-as-you go' equipment, it is anything but routine. For many months, welder Carlos and his superheater pipe crew have been working toward the time they could announce, "Task complete, superheater bundles are ready to install". That announcement came in mid February.

Briefly, the superheater pipe task included the following:

1. **Getting Started:** Starting in late 2007, the superheater bundles were pulled from the flue tubes and out through the smokebox. The bundles were separated and the straight sections cut from the curved header sections that have a beveled manifold fitting. The straight sections were scrapped, and the curved header sections were saved for reuse. The header sections were cleaned, and the beveled manifold ends were honed. They were then stored for reuse. Photos 1-5 below.



2. **Acquiring new pipes and related fittings, then preparing them for assembly:** By late 2009, new pipe and fittings had arrived and were stored on site (Photo 6 below). The straight sections of pipe were trimmed to proper length, and swaged on one end. Purchase of swaging equipment or having it contracted were both expensive. The volunteer crew, led by Dave V. set to work and designed a swaging device. Photo 7 depicts the swaging equipment in use. The straight sections of pipe were ready for Carlos and his welding crew to begin work, pairing them on the firebox end and fitting them to the headers on the other.



3. **Assembly, welding, and hydrotest:**

Once all parts were on hand, and swaging was complete, the volunteer superheater pipe team built an assembly station. The station was a metal table with an array of brackets and clamps. A weather protection canopy was erected, and the assembly began.

Week after week, Carlos and his superheater team spent work sessions at the assembly table. The pipes were connected into pairs on the firebox end with the cast return fittings. The swaged end of each pair was then welded to the header pipes. The pairs were then assembled into the bundles pictured in Photo 10. Altogether, the superheater team assembled the complex bundles using 880 welds, finishing in mid 2015.

The final step was hydrotesting the pipe bundles. It was back to the drawing board to modify the assembly table for the hydrotest. The table is depicted in Photo 11, with the final pipe bundle in place for testing.

The tests revealed only two welds with minor leaks. They were in original welds on the headers, and were corrected.

Carlos then announced, "The bundles are ready to install".



(Milestones continued, Page 4)

(Milestones, continued)

Insulation and Jacketing

One task just recently underway most certainly could be called a milestone, at least visibly. That is the production and installation of the locomotive's jacketing. From a technical standpoint, when all mechanical tasks are complete, 2926 might be considered operational. However, it will not look as it did when new until the insulation and sheet metal jacketing are in place.

The insulation arrived on site the first day in February, (Photo 1) and was placed in storage until the sheet metal jacketing is replicated and ready to install. When the locomotive was in service, jacketing replacement would have meant simply calling the sheet metal shop with a part number. Today, it means manufacturing new components.

The original jacketing was stored when removed to be used as patterns for making new jacketing. Some pieces of the old jacketing were too rotten to be used as patterns, (Photo 2). Replacing those will require a lot of measuring, bending and fitting before final cutting.



2/1/2017: Insulation to be installed under jacketing arrives on site. Insulation cost was covered by a \$4,000 grant from the NRHS.



Sheet Metal Puzzle: When the original jacketing panels were recovered from storage, it became obvious that the volunteer crew faced a serious challenge in production of new ones. It was somewhat like trying to assemble a jigsaw puzzle with pieces missing or severely damaged—but on a major scale. Some panels could be sent directly to a sheet metal shop and used as patterns for replication, but many were too far gone to even use as patterns. The solution was to use cardboard sheets and create patterns. That meant sorting the old panels to determine those that could be used. Those that could not be reused required the production of cardboard patterns. There was a lot of calculating, measuring, marking and cutting before the volunteer produced cardboard patterns could be sent to the sheet metal shop. The newly fabricated panels produced from the cardboard patterns are then double checked, and trimmed to fit if necessary. Those steps are depicted in photos 2 thru 5 above.

HEAVY LIFTING:

Heavy can be a relative term. In working on 2926, it often seems that virtually every task requires some heavy lifting, but there are different levels.

First there is very heavy lifting where outside help is necessary. In that case, someone like Messer Construction or Crane Services must be called, (Photo 6).

There is a lot of relatively heavy lifting that can be done with small cranes, forklifts, and related on-site equipment. And then there is lifting that just requires a lot of volunteer muscle power.

There are two remaining lifting tasks that do not involve a call for help, but they do require on-site equipment and lots of muscle power.

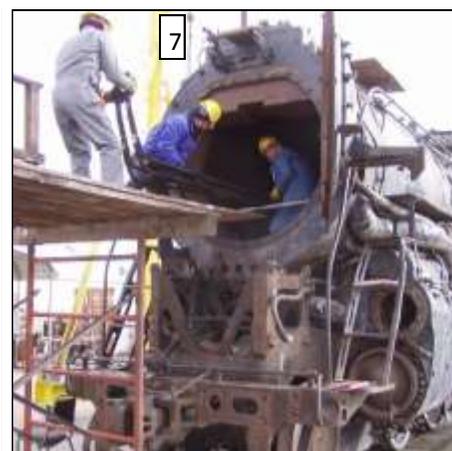
Superheater Pipe Reinsertion.

The superheater reinsertion task will require both forklifts and muscle power. All of those bundles that were recently pressure tested and set aside under cover must be reinserted into the flue tubes. Each bundle will require a number of volunteers. At more than twenty feet long, they are not just heavy, but also unwieldy.

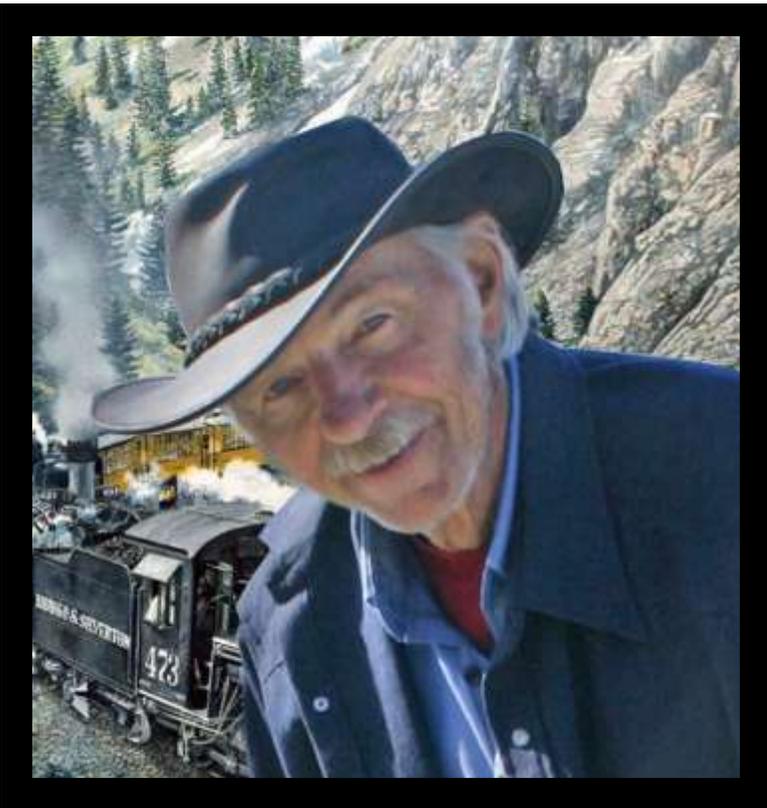
Without the long gone infrastructure of the Santa Fe Backshops, the restoration crew must improvise. A long scaffold will be set up in front locomotive at the level of the firebox. Forklifts or small cranes will be used to lift each bundle onto the scaffold. A number of volunteers working atop the scaffold will then insert the superheater pipes. This is more than just a lifting task. It also requires careful, orderly insertion, and proper bolting in place. Without all the soot in removal, it will be cleaner.



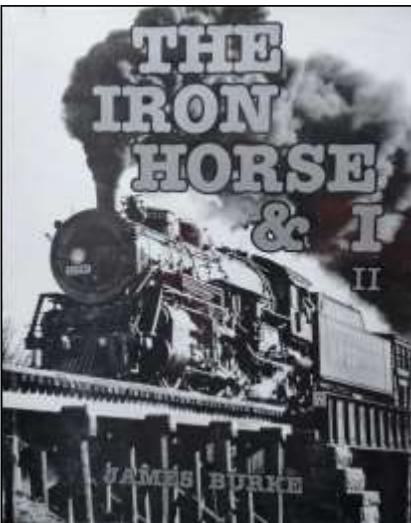
Really Heavy Lifting, Sept. 2007: Two large cranes were required to reassemble the 2926 tender—lifting the trucks onto the track, lifting the tender body onto the trucks, and then lifting the fuel bunker and dropping it into place on the tender body.



Superheater Removal 2007: Reinsertion of the superheater pipes is a reversal of this process. In addition to lots of muscle power, it will require careful precision. It will be much cleaner than the removal.



James Burke Rail Historian Extraordinaire: In the picture above, Jim is pictured in front of a painting by Jeff Ellingson of Burke's favorite engine, the 473 steaming past Burke's Curve between Durango and Silverton.



The Iron Horse & I: This photo depicts the cover of Jim Burke's two volume rail history at left. At right is a typical two page spread from Volume I. The full page picture of Santa Fe 2906 is followed on the second page by Jim's description of his encounter with an older sibling of 2926. Throughout both volumes, Jim's amazing penmanship is used exclusively to narrate his many experiences with steam locomotives.

SANTA FE 2926 LOST A FRIEND

James Burke, a truly unusual rail historian, and a long time friend of Santa Fe 2926 and its volunteer crew passed away in the early morning hours of April 20. Jim was more than just a historian documenting incidents he had researched in some library or museum. He experienced the history he wrote about, and documented it in unusual fashion with his amazing penmanship.

Jim was eleven years old in 1944 when his family moved from the farm to the city. The 'city' was the small town of Climax Kansas, on a branch line of the Santa Fe Railway. He discovered the local depot, began 'loafing' there, and to repeat an old adage, "The rest is history".

Starting by shooting pictures of locomotives with his sister's Kodak Brownie camera, Jim kept shooting with any camera he had available at the time, as he encountered steam locomotives everywhere he traveled.

Sixty some years later, Jim dropped by the 2926 site to visit with a locomotive that he knew well when it was still in operation. During those years, Jim's close relationship with steam locomotives had continued. In Jim's own words, that relationship included: "A kid shooting photos along a Kansas branch line, a half-baked teenage hobo, and eventually an engineman working for the railroad."

In that statement, Jim is being modest about his background. The 'kid and hobo' part is true. However, there is more to Jim's story. During the Korean war, he was a helicopter crew chief. He then received a mechanical engineering degree from Kansas State University. With the degree and an intense interest in power generation—especially steam—he entered the corporate world.

He worked for companies like Pacific Gas and Electric, Bechtel Corp., and San Diego based Ahlstrom Pyropower. It was while at the latter where he met his wife Kathryn. Anywhere such work took him, he had a camera, and captured steam locomotive activity. When he and Kathryn settled in Colorado and became involved in San Juan Publishing, he finally began to publish the history of his lifelong love of steam locomotives.

During the visit to the restoration site, Jim related his encounters with 2926 when the venerable locomotive was in operation. He encountered it both as a teenage hobo and as an engineman in the fireman's seat.

Following the visit, Jim 'adopted' 2926 and the volunteer crew, and remained a strong supporter. He donated many sets of 'The Iron Horse & I' to be sold by NMSLRHS to raise money for the restoration.

Jim described The Iron Horse & I as "—the only railroad books ever written". After all, the text in all those other books about railroads was typeset in print. In Jim's books, the narrative accompanying all the many photos he shot was *written*—in his beautiful handwriting.

Coincidentally, the last three sets of The Iron Horse & I at the restoration site were just sold a couple of weeks ago. Kathryn has said there are a few sets left that she will send to NMSLRHS.

Jim Burke was truly a great rail historian, and a good friend of 2926. Jim and his great stories of the golden age of steam will be missed by the 2926 crew.—*Editor*

TRIBUTE TO JAMES BURKE

There will be a tribute to James Burke in Silverton Colorado on May 6th 2017. That date is "First Train Day" for the Durango-Silverton scenic railway, when the regular excursions extend into Silverton for the start of summer season.

Jim enjoyed meeting the First Train of the season in Silverton. He did not want a typical 'service' in passing. Thus, the tribute in Silverton will celebrate Jim's favorite engine (No. 473), and his favorite place, 'Burkes Curve' so named by his friends.

No. 473 has been in the shop. The railway crew is trying to get it put together in time for the tribute. But whether it is 473 or another engine, the crew will blow the whistle as they come up through the canyon past 'Burke's Curve'.

Upon arrival in Silverton, Jim's friends and fans will go to Handlebars, Jim's favorite place to have a burger and a beer. Any of Jim's friends and fans of his unique stories are invited to join in the tribute.

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A LOOK AT THE LIGHTER SIDE OF NEW MEXICO RAILROAD HISTORY

Recently, while researching New Mexico railroad history on Newspaper Archive, I saw the news item at the bottom of this column. It described an incident on the historic narrow gauge railway known as 'The Chili Line'.

NMSLRHS member, Ernie Robart, a well known narrow gauge photographer, found the picture of Embudo Hill below.

Shot from a D&RGW train in August 1941 it shows limited brush but a lot of rocks in the narrow trackside spaces. Maybe the road crews had already cleared brush following orders issued by Corporation Commissioner Valdez.

Wonder if the folks who clear brush from rail lines today know their jobs trace back to Albee's lost teeth?



Santa Fe Examiner, July 19, 1939

DENTAL MISHAP FAILS TO DELAY

Lost time and lost teeth seem to be of equal value to the D&RGW.

The Saturday afternoon train, right on time, was coming down Embudo hill on its way to Santa Fe. Engineer Albee, of Alamosa Colo., felt an urge to cough, and inadvertently faced the cab window when he did so. His false teeth sailed out the window.

Engineer Albee stopped the train, backed up the hill to the place where the accident happened. The train crew and some of the passengers joined the search, and finally, F.D. Casan, of Chicago found the missing dental work.

Albee wiped off his teeth with his machine rag, replaced them and raced the train into Santa Fe, arriving promptly on schedule.

On hearing yesterday of the dental mishap on D&RGW, State Corporation Commissioner Bob Valdez announced plans would be made to issue orders to all railroads, asking them to clear brush from the vicinity of the railroad tracks in order that wigs, teeth and other detachable objects might more easily be found.

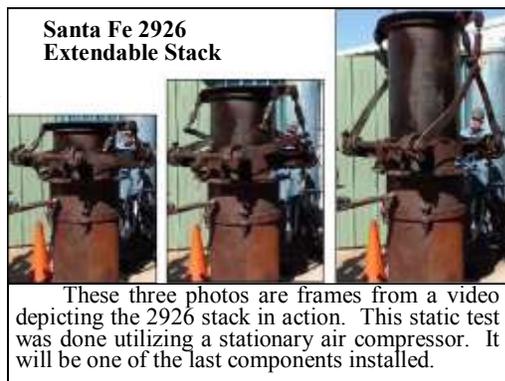
(Heavy Lifting Continued)

Reinstallation Of The Stack:

Among the more visible features that define a steam locomotive is the smokestack, usually shown billowing smoke. Over the decades, stacks have come in many different shapes, sizes and design. There were two very different reasons for variations in stack design—one for operational efficiency, and one for crew and passenger comfort. The first reason involved finding a design that would provide the best draft of the exhaust to provide higher fire-box temperatures, and thus greater boiler efficiency.

The second reason, especially with early wood and coal burning locomotives, was that a taller stack was supposed to protect crew and passengers from the smoke and cinders expelled from the stack by releasing them higher above the locomotive. Later oil burner locomotives like 2926 did not produce cinders, but the 'Bunker C' fuel oil did produce some serious smoke.

The variation installed on Santa Fe 2926 is an extendable stack. The last photo on page one of this newsletter shows 2926 in operation with the stack elevated. The stack is elevated by an air powered lift, and the entire assembly is very heavy. It will also be among the very last components installed. It can only be installed after all the super-heater pipes are in place, and the stack 'petticoat' has been installed in the smokebox.



Santa Fe 2926 Extendable Stack
 These three photos are frames from a video depicting the 2926 stack in action. This static test was done utilizing a stationary air compressor. It will be one of the last components installed.

Currently, the stack rests alongside a storage container. It has been mechanically tested, and is being painted and ready for installation. It will most certainly be a heavy lift.

**LOOKING DOWN THE TRACK
 Two Upcoming Events Herald A Fast Approaching Transition From Restoration to Operation**

The upcoming transition might more appropriately be called an expansion. Operating a steam locomotive is a very labor intensive activity, so there will still be a lot of work for the folks who enjoy working with tools and getting dirty.

The expansion will include regular liaison with a great variety of other organizations. They will include government departments at all levels, corporate rail interests, tourist organizations, and the general public.

To date, most of the 2926 visitors and supporters have been rail fans. There have been many of them, and their support has enabled the volunteers to bring an icon back to life. They have been an enthusiastic asset to the restoration.

However, there are others who will be interested in or will benefit from the 2926 operation who are not necessarily rail fans. They include hotels, restaurants, tourist sites, major events, and related entities that comprise a large segment of the New Mexico economy.

NMSLRHS volunteers will participate in two upcoming events involving such interests, one in Las Cruces, and one in Albuquerque.

Las Cruces Train Days

For the past three years, NMSLRHS volunteers have maintained an information table at the annual Las Cruces event. This year, there will be an added feature. For the first time in ten years the New Mexico Rail Runner will travel to Las Cruces. Several members who do rail photography plan to follow Rail Runner and photograph it at different points. The photos will be made available to the Rio Metro marketing staff. The volunteers will then be available to maintain the information table.

Governor's Conference on Hospitality and Tourism: This year, the conference will be held at the Albuquerque Convention Center. NMSLRHS member, Albert Leffler will be a speaker at the conference.

An Albuquerque native, Albert grew up a few blocks from Coronado park. As a 10 year old, he watched 2926 roll into place on the park where it rested for almost half a century. One of his claims to fame is that he was the first student employee at UNM's Popejoy Hall. A co-founder of Ticketmaster, he can be expected to address the growth and development of tourism related corporations in both for profit and non-profit sectors.