RETURN TO STEAM IN 2016

SIXTY YEARS AFTER RETIREMENT, SANTA FE STEAM LOCOMOTIVE #2926 WILL RETURN TO ACTION REPRESENTING NEW MEXICO’S RAIL HERITAGE

Work hours logged at the restoration site during the last week of 2015 brought the total amount of volunteer labor applied to the restoration of Santa Fe 2926 to 130,065 hours. That is an impressive amount of work, and it certainly reflects the commitment by those who donated their time and labor to the restoration project. It is also a tribute to several dedicated volunteers who are no longer with us to see the big locomotive under steam later this year.

The 2926 volunteers, “those guys banging on a 2900” are obviously pleased with the result of thousands of hours of hands-on labor in all kinds of weather. They clearly understand that they are not alone. The volunteers are aware that the 130,065 hours is just the “tip of the spear” in the entire restoration project.

The restoration has involved myriad tasks, many of which went far beyond what happened on the site. They involved businesses, professional groups, and individuals providing advice, parts, service, and monetary support. Some of the larger tasks, such as major donations, corporate assistance, advice from other rail history organizations, etc. have been described in previous newsletters and on our website. Without that diverse and eclectic support behind the volunteer labor, Santa Fe 2926 would not be returning to action soon.

It is impossible in this newsletter to provide details of all that support. That would require volumes. Following is a description of only one task that at first glance would appear quite simple—just the replacement of a steam gauge. But to maintain authenticity in the restoration, and keep cost as low as possible, the small task turned into quite a chase. That chase involved people and organizations from coast to coast, an Ebay purchase, a cutting edge technology that was in its infancy when the locomotive was built, and the reemergence of long time friends of 2926.

The ‘steam gauge odyssey’ and the amazing amount of help received in getting the job done right is typical of many tasks encountered in the restoration. Such experiences were repeated many times on other components and accessories. Yes, the ‘point of the spear’ 130,065 hours of volunteer labor is a major point of pride for those who showed up for work sessions. In addition to on site accomplishments, the on site activity did attract many visitors who became avid supporters, and in many cases new volunteer workers. But lacking those supporters and all of the efforts behind the scenes, the on site volunteer work would have been to no avail.

THE ODYSSEY OF THE MAIN STEAM GAUGE

One Small Task Becomes A Nationwide Chase

Sixty years ago this year, when Santa Fe 2926 rolled into Coronado Park, it was fully operational. Following its last major service (Class 5H Repairs) in the Albuquerque Shops (5/18/1953) it was used sparingly in freight service with running maintenance performed in Albuquerque, Clovis and Wellington, KS. At that time, it was donated to the City of Albuquerque, and placed on the park in October. Few, if any appliances, instruments, and related components were removed before going on display in the park.

Forty-four years later, many 2926 parts and accessories were either damaged, corroded, or completely missing. One such device was the Main Steam Gauge. Designed with two faces and internal lighting, it was mounted on the back head between the engineer and fireman so it could be easily seen by both. The 2926 Main Steam Gauge was missing.

At the time of the last 2926 service, replacing a destroyed or missing steam gauge would have been a simple matter. A call to the back shops parts department, and a new one would soon be delivered to the service bay for installation. Not so, half a century later. Many years ago, the Ashton Valve Co., manufacturer of the gauge, was acquired by another corporation, and that type gauge had long since gone out of production. With no replacement readily available, a search began.

Three Views Of An Ashton Main Steam Pressure Gauge: Photo 2 above is a view of the Santa Fe #5011 steam gauge mounted in place. That locomotive is on display in the Museum of transportation in St. Louis Mo. The other photos are of the gauge that was acquired and is being rebuilt. Photo 1 is the fireman’s side view, and photo 3 is the view from the engineer’s position. The light fixture is threaded into the housing where it fits to the bulkhead.
LOOKING (BACK) DOWN THE TRACK

When told that Santa Fe 2926 will be used to pull excursions once operational, a frequent question is, “Where will you run?”

That question has yet to be answered with any specificity. We are working on it, and hope to have some routes defined by the time 2926 is operational.

Another frequent question is, “Where did it run?”

That is easy to answer. Records show that the brand new 4-8-4 was released from the Topeka shops on May 17, 1944. For just over a year 2926 pulled fast freights in the Kansas City to La Junta, Colorado area. Then on September 9, 1945 the huge locomotive took up residence in Los Angeles California.

There it really began life as a true thoroughbred. It was placed in passenger service between Los Angeles and Kansas City. For the next four years Santa Fe 2926 pulled the ATSF railway’s passenger trains with names like The Scout, The Chief, and The Grand Canyon Special.

The picture below shows 2926 inbound to Los Angeles in passenger service.

It is safe to say that Santa Fe 2926 logged most of its million plus miles pulling luxurious passenger cars between Kansas City and the U.S. West Coast.

It is also probable that many of those miles were recorded at speeds in excess of 90 mph across the American Southwest, including the state of New Mexico.

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The Search

The task of finding an original 1944 Ashton 600 pound, double faced steam pressure gauge fell to Phoenix, Arizona member, Albert Leffler. He began the search for an authentic replacement. His internet search skills make up for the fact that he can seldom be at the site for hands-on work. He began scanning Ebay, Craigslist, rail parts sources, and other sites to locate a gauge of that model.

The response was often “no items match your search”. He did discover that a few gauges of that model still exist. But they were in museums, the hands of collectors, or in use on one of the few operating locomotives, and thus not available for use on 2926.

Finally, Albert found an Ashton 600 pound, double faced steam gauge for sale. It was in poor condition and needed work. The dial faces were not in great shape, and their white face with black markings did not fit ATSF standards applied to the original 2926 gauge. It needed cleaning, a thorough check, and recalibration. Also, the gauge’s light fixture and its threaded housing were missing.

Albert bought it anyway. He contacted Gauge Repair Services in Torrance, California, one of the few shops that still service “antique” Ashton gauges. He took it to that shop, there, the internal parts of the gauge were professionally cleaned, and determined to be functional. It was then sent to Albuquerque for further work to address the worn dial faces and the missing light assembly.

During his search for the gauge, on a visit to the St. Louis Transportation Museum, Albert had seen the main steam gauge in the cab of Santa Fe Locomotive 5011 on display there. It was the same model as the one he had purchased. He contacted the museum curator and asked to borrow it for 2926 machinists to copy the missing parts in the one for 2926.

Parts Replication Part I

After the 2015 Open House, Ft. Lauderdale member and video producer, Jim Van Druten, visited the St. Louis Transportation Museum on his way back home to Florida. He and the curator removed the light fixture and he shipped it to Rick Kirby in Albuquerque. Rick then shipped it to NMSLRHS member, retired Indianapolis machinist, Dick Downing, to be replicated.

With experience machining prototype parts for the automotive industry, Dick quickly made two copies of the parts. (It’s always good to have a spare.) He brought them along on a Christmas trip to Albuquerque.

On his way back home to Indianapolis, Dick made a stop in St. Louis to return the borrowed Santa Fe 5011 parts to the museum, and to thank them for their assistance.

Parts Replication Part II

Gauge Repair Services returned the gauge to Albuquerque, and the on-site crew continued work on it. They determined that the dial faces should be replaced. The following story of that part
of the Odyssey of the Steam Gauge is told by Chief Mechanical Officer Rick Kirby. Rick’s story emphasizes the level of support for the 2926 restoration, and how that support is derived from many personal acquaintances.

Albuquerque, Old Friends, and Santa Fe 2926

By Rick Kirby

This is an Albuquerque story about several person's lives, including my own, and how they have been instrumental and entwined in the 2926 restoration.

Back in the early days of NMSLRHS, when our meetings were being held in a church, I was enjoying a cold drink in the back yard of my first employer during my high school days. His name is Doug Arundale and we have stayed in touch over the years.

At the time I was self-employed operating a mechanical contracting company. He informed me about the group of folks of which he was a part that was trying to save the AT&SF 2926 from destruction. He told me "they could really use your kind of help down there." He invited me to one of their meetings and I became a member.

At that time the UNM Lobos were playing a decent brand of football and I began to tailgate with Doug. One of the tailgating participants was Pat Maloy, owner of a mobile storage container business. It turned out one of my high school classmates was also employed there. Maloy Mobile Storage became our container supplier. Those containers are used for parts storage, machine shop and a tool room. As time went along the container numbers grew to eight.

As we began rebuilding the air compressors, new metal gaskets were required. A company called Waterjet Cutting, Inc. was contacted and agreed to cut the intricate gaskets free of charge. Up until a few weeks ago I didn't know the owners of this company.

We are now in the process of procuring and/or rebuilding various cab gauges. Our boiler pressure gauge is currently being refurbished. It is a dual sided gauge so both engineer and fireman can easily see the boiler pressure. The two faceplates were in need of replacement so I took the originals down to Waterjet again and requested their assistance.

On this trip to Waterjet, we discovered that the owner, TJ Maloy, is none other than the brother of Pat Maloy who sold us our containers. Once again, TJ offered to help. He agreed to supply the metal blanks and cut the new faceplates free of charge.

And now for the rest of the story. When we moved 2926 out of the park in the year 2000, one of the many on-lookers was a boy about 10 years old named Alex Herrera. Alex was an avid rail fan, and his mother had taken him to see their beloved locomotive moved out of Coronado Park. While there he got a 2926 cap and coffee mug.

So why is this fellow Alex Herrera of importance to the 2926 restoration?

On that most recent trip to Waterjet, I met him. That young rail fan has grown up. Turning 26 soon, he is employed at Waterjet Cutting Inc. It was Alex who cut all the parts we have requested both times. While Gail and I were there we witnessed the cutting of the faceplates. Alex showed us that he still has the cap and mug he acquired fifteen years ago.

It just goes to show how a big city such as Albuquerque can be much like a small village. If you look around, you will find friends and helpers just down the street or around the corner.

A footnote to Rick's story might be called 'The Times They Are A-Changing'. It relates to ever evolving technology along with new rules/standards and methods of application. Those changes present a serious challenge to the restoration crew—that of retaining historical accuracy in the 2926 restoration. Many of the appliances and parts, as well as methods of maintenance/repair, have changed significantly, as have the methods of replicating the parts. For example, if Alex were around when 2926 was built, he would not have been operating a waterjet machine.

Use of water pressure in cutting is not new, and it was in use when 2926 was built—but only for cutting material like paper and thin plastics, not metal. The ultra-high pressure waterjet used by Alex is 'space age' technology that can cut almost any material faster, with greater precision, and less stress on the material, than earlier cutting machines.

Alex and the high pressure cutting technology are representative of the future that 2926 faces when it becomes operational. Rick and other members of the 2926 crew are happy to find that a young 2926 fan from 15 years ago is still contributing to the rebirth of an icon. The 2926 members are always looking for 'a few good young men' like Alex. They want to see the object of their hard work operate for years to come as a reminder of New Mexico's rail heritage.

Parts Replication Part III

There are still several steps to having a fully functioning Main Steam Pressure gauge, including preparation of the faceplates, reassembly and recalibration. The faceplates will be painted and lettered with white markings on a black background to meet AT&SF standards. That work will be done by Stevens Custom Screen Painting in Phoenix, Arizona using the original faces from the gauge Albert purchased as a pattern but reversing the black on white to white on black.

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Once the faceplates painting and lettering is finished, they will then be returned to Albuquerque. There, the holes for the spindle, mounting screws, the pointer stop a “0” psi will be drilled. The gauge housing, internal components and new faceplates will then return to Gauge Repair Services in California for final assembly, calibration and certification. The fully certified gauge will then return to Albuquerque. The new light fixture will be installed, and the much travelled classic two faced Main Steam Gauge will be mounted in the cab of 2926.

When steam power ruled, and a good support infrastructure existed, repair or replacement of the dual faced steam gauge would have been a simple task. Even today, many museums and professional steam operations have an infrastructure that would be able to handle such a task routinely. The intrepid 2926 volunteers, without such infrastructure, have had to rely on networking friends, other rail fans, public support and their own ingenuity for virtually every task encountered in the 2926 restoration. The steam gauge issue is just one small task. There are many more.

Coping with many tasks such as the Main Steam Gauge Odyssey, under conditions stated above is why a restoration that might have been a two year project is now in its thirteenth year. But now, Santa Fe 2926 is finally returning to action. However, without an amazing amount of advice, encouragement and support from around the country and beyond, the 2926 crew would still just be “a bunch of guys banging on a 2900”.

YEAR END WRAP

The Last Quarter Of 2015 Saw Renewed Energy And Anticipation Of 2926 Operation

The ‘CAN DO’ Volunteers
There has always been a ‘can do’ attitude among the volunteers at the 2926 site. As 2015 drew to an end, that attitude gained steam. On site activity has shifted from repair to reinstallation. The 2926 crew members, including a number of new volunteers, could see the object of their labor beginning to look more and more like an operating locomotive.

Much previous work, i.e. cab repair, boiler work, parts machining, etc. were either internal, scattered about the site, or even off-site, and not visible. Now, restored and freshly painted components like the cab, air tanks, pipes, lube lines, running boards, sand dome, etc. are being pulled from storage and reinstalled. That makes the restoration progress more visible. As the parts are reinstalled, Santa Fe 2926 is beginning to look it did when it left the Baldwin works under steam.

Two highly visible events were the arrival almost 4 tons of firebrick and final work on the sand dome. The large sand dome has been moved about the site while undergoing extensive repair and painting. Now finished, it will soon be installed high atop the locomotive, midway between the smokestack and the cab, and is one of the more visible appurtenances atop the locomotive.

A Variety Of Visitors
Anticipation of big steam operation is not limited to the 2926 volunteers. Visitors from around the country and abroad have continued to drop by on a regular basis. There has also been an increase in the number of visiting groups. The groups have included Cub Scout packs, auto clubs, students, city and state officials, and civic organizations. Some of those visits resulted from the successful Open House described in the last newsletter.

The visitors interest in the restoration, purchase of 2926 memorabilia, and their donations served to increase anticipation of future 2926 operation. At the end of the fourth quarter of 2015, NMSLRHS Treasurer John Gibbons revealed that the yearend fundraising, i.e. Christmas cards, membership renewals and other donations, was the best ever.

(See Visitors Pg. 5)
One important group of visitors scheduled to visit the site in late December encountered a delay due to a couple of weeks of bad weather. That group consisted of staff members of the Albuquerque Convention and Visitors Bureau ACVB. They finally made it to the site as this newsletter was being prepared. A picture of their visit is included below.

Their visit was just the beginning of what is expected to be regular visits and briefings for groups involved in New Mexico Tourism and visitor hospitality. Planning is now underway to brief the several dozen volunteers who staff Albuquerque’s visitor information centers.

Invitations for such visits and briefings will be extended to other hospitality and tourism organizations throughout the state.

The 2926 Operation Station

The last quarter of 2015 also saw planning for a future operational home for 2926. When 2926 becomes operational, it will remain at the current location for an undetermined period. To meet that need the NMSLRHS has agreements with the property owners, the U.S. Bureau of Indian Affairs (BIA) and the U.S. General Services Administration to maintain its presence at the 8th St. Location. A fundraising effort is underway to build a shelter for the locomotive and tender. The building will be designed so that it can be relocated to another site if necessary at a future date. The fundraising is proceeding well, and 2926 should have a shelter by the time the final insulation and sheet metal work is completed.

The initial operation of 2926 will thus begin in a neighborhood that had an interesting role in New Mexico history. The historic property from which Santa Fe 2926 will operate was once home to the Albuquerque Indian School. Now divided by I-40, the property houses BIA facilities, a GSA warehouse, and the Indian Pueblo Cultural Center (IPCC).

The IPCC is on the west (12th St) side of the property, across I-40 from the Santa Fe 2926 site. It is already a major New Mexico Tourist Destination. Current and planned IPCC and BIA developments underway on the historic property can be expected to increase commercial and tourism related activity.

Planned developments for the Albuquerque Indian School neighborhood include brewpubs, restaurants and other facilities related to current IPCC attractions. One, a new Starbucks, just opened adjacent to a Holiday Inn Express that was the first new business on the historic property. The Starbucks is the largest in New Mexico. Owned and operated by the state’s 19 Indian Pueblos, it is different from the thousands of Starbucks around the world. In a freestanding building, it features kiva fireplaces, a community room, and displays of historic pueblo art.

Santa Fe 2926 and the other big AT&SF 4-8-4 locomotives once pulled high speed passenger trains with names like The Chief and The Scout between Chicago to Los Angeles. They crossed and made many stops in New Mexico. The Chief’s luxurious passenger cars were named for many of the state’s pueblos. With that historic relationship, Santa Fe 2926 should continue to feel at home in the historic Indian School neighborhood.

A crowd attending the grand opening of the new Starbucks listens to IPCC, BIA and industrial development officials describe plans for the new restaurant and future developments.
SEALING AND TESTING THE 2926 BOILER

There are hundreds and hundreds of staybolts, two hundred seventy-two flue tubes, dozens of superheater pipes, and various other points on the restored 2926 boiler that must be securely sealed. The methods of sealing included welding, rolling (flue tubes), threaded seals, and gasket seals. None of those processes is perfect, there will be errors—and there will be leaks. The entire boiler system must be pressure tested, and any leaks must sealed before certification and first steam up.

The first test, with 125PSI air pressure is used to locate obvious leaks. In a few weeks as ambient temperature rises, a hydrotest will be done. Then, the pressure in the water filled boiler will be raised to 375PSI. Once it passes the hydrotest the boiler will be ready for certification and steam up.

The following photos give a view of the process of ensuring all potential leaks are located and sealed. It occupies a number of volunteers and is taking a lot of time to be sure the 2926 boiler is totally leak free.

And There Is That Big Hole On Top With The Copper Seal

Among the many points that must be securely sealed atop of the boiler is the manway. It is an opening that provides access to the inside of the boiler from the top. The manway cover is not a simple lid. It carries the boiler pressure relief valves, and is sealed with a special copper gasket. It is torqued down with large nuts on a ring of threaded studs around the reinforced perimeter of the opening. Pictures below depict the gasket preparation and installation process.
A SPECIAL YEAR END VISITOR
A Great American Rail Fan Drops By For A Surprise Visit

Just when some folks cancelled visits to 2926 because of bad weather, a surprise visitor dropped by the restoration site. Ross Rowland, rail fan extraordinaire, dropped by on one of the few fair weather days to visit with the 2926 crew and get a look at the restoration progress. Ross was founder of the American Freedom Train Foundation that operated a heritage train throughout the nation in 1975 and 1976. At that time, the American Freedom Train, (AFT) celebrated the U.S. Bicentennial (www.freedomtrain.org/american-freedom-train-home.htm). Ross is considered a leader in creating the steam excursion industry that honors and preserves memories of America’s steam rail heritage.

Now, Ross is planning another grand excursion. Like the Bicentennial American Freedom Train, the 21st Century Freedom Train would celebrate American heritage. Displaying historic artifacts, and honoring American heroes, it would travel 25,000 miles, bringing the historic display to 125 cities over a three year period from 2017 thru 2019.

Revenue from tickets, sale of promotional items and donations would be directed to programs for wounded veterans and other heroes who have helped maintain the nation’s safety and security. Currently, Ross calls it the Yellow Ribbon Express. He indicates that the name may change. He still likes American Freedom Train title. Check it out at,(http://www.yellowribbonexpress.com/about.htm).

Ross acknowledges that replicating the AFT is a challenging task. That acknowledgement might even be an understatement as to just how challenging. But based on his achievement with the Bicentennial train, and numerous other projects involving big steam excursions, it is obvious he is highly qualified to meet that challenge. In addition to the corporate, public, and political support he will be seeking, he will need a lot of help from other steam heritage organizations around the country.

The Santa Fe 2926 team supports Ross’s new effort. Hopefully, in addition to promoting U.S. heritage and our military heroes, it will also bring the few existing big steam programs into a working relationship that will continue to promote the role of steam rail in American heritage.

Albuquerque, The AFT And A Local Rail Fan

On February 3-5, 1976, the Bicentennial American Freedom Train stopped in Albuquerque. At that time, an active rail spur extended across the mesa up to Kirtland Air Force Base, and the AFT was accessible to visitors at the base. There was another very interesting Albuquerque connection to the AFT that few people know about.

The connection was in the person of a wonderful gentleman named Ted Marrs. After retiring from the U.S. Air Force in July 1976, Ted worked for the U.S. Indian Health Service in New Mexico until his death in 1990. Additionally he was involved in the development of Native American owned small business. But just prior to retirement to Albuquerque, Ted played a significant role the success of the Bicentennial American Freedom Train.

Ted’s last assignment before retirement was in Washington D.C. He was a Special Assistant to the President in the White House Public Liaison Office. In that position, he was responsible for handling matters relating to the Bicentennial. Ted was charged with obtaining approval of the AFT and the national museum treasures it carried about the country for all to see. Ross Rowland credits Ted for helping make the Bicentennial excursion a success.

Many New Mexicans will remember Ted Marrs, as will others around the country. Born in North Carolina in 1918, Theodore C. Marrs received a degree in medicine at the University of Tennessee. Called to service during WWII, he had an amazing career in the both U.S. Air Force and civilian roles. Long before the White House assignment, Ted was Special Assistant to the Air Force Surgeon General. Later he served as a deputy Secretary in both the Air Force and the Defense Department, rising to the rank of Brigadier General. After that final assignment at the White House, Ted retired to Albuquerque with the rank of Major General. Friends and associates in Albuquerque knew him as one dedicated to his work with the Indian Health Service and New Mexico’s business community. We also knew he was supportive of the nation’s rich rail heritage. Ted was a great American, dedicated to his adoptive state of New Mexico, and he was a true rail fan.

The 21st Century Freedom Train moving about the U.S. under 20th century steam power will honor Ted and all the other valiant Americans who have contributed to development and security of this great nation.
BNSF ANNOUNCES CHANGE IN SAFETY AND SECURITY PROGRAMS INVOLVING RAIL FANS

BNSF recently announced changes in two of its successful programs involving rail fans. The programs provide an opportunity for rail fans to contribute to the safety and security of railroad operations wherever BNSF operates. The company’s longstanding rail fan reporting program, Citizens for Rail Security (CRS) will be merged with Friends of BNSF. The merger of the two programs will become effective on January 1, 2016. CRS members are encouraged to join Friends of BNSF.

The following statement was issued by BNSF:

“BNSF was an industry leader in 2006 in establishing a community-based reporting program. Since the program’s inception, CRS members have helped the railroad by reporting security violations, trespassers and other unusual situations to BNSF Resource Protection. Starting in 2016, Friends of BNSF will take on the role of communicating to members about rail safety issues and contacting members when BNSF needs their help, for example in locating a person of interest.”

“As always, if you have an emergency to report to BNSF such as a vehicle stalled on a crossing or false activation of crossing gates, please call 800-832-5452.”

In an era where security in all walks of life has become a major issue, BNSF is to be commended on its increased effort to involve rail fans in reporting activities and incidents important to rail safety and security issues.

ONCE AROUND THE SITE IN PICTURES

On any work session, fifteen or twenty volunteers can be found on the 2926 restoration site. Atop the locomotive, inside the machine shop or at other locations about the site, the volunteers can be observed carrying out a variety of tasks. Many more photos similar to the ones below can be found on the 2926 web site at www.nmslrhs.org

1. Santa Fe 2926 with Sandia Crest in the background. 2. Volunteers at work on staybolts and mounting brackets for the running boards. 3. At work on the sand dome. 4. Preparing the running boards for installation. 5. Installing the running boards. 6. Inside the machine shop Ron produces small parts. 7. Henry at work in the machine shop. 8. Brake stand parts laid out for assembly in one of the storage containers. 9. New brake shoe prepped and ready to install.