



Hands Across History

A joint newsletter for the White Sands Historical Foundation and the White Sands Pioneer Group.



Volume VII, Letter IV

December 2011

President Taft Will Be In Las Cruces Jan. 6 To Re-enact Making New Mexico A State

By Jim Eckles, Editor

On Jan. 6, 1912, at 11:35 Mountain Time, President William Taft signed the proclamation making New Mexico the 47th state. He was surrounded by representatives from all over N.M. as the 60-year effort to gain statehood finally ended in success.

Dr. Jon Hunner, the chair of the Department of History at NMSU, has given talks for several years about the effort of New Mexicans to gain statehood. Why did it take so long? His short answer is that Congress was concerned about who lived here - mostly Indians, Mexicans and Catholics and they spoke a language no one in Washington understood.

To celebrate the state's centennial, Las Cruces is planning many special events. A biggie is a "living history re-enactment" at the N.M. Farm and Ranch Museum where professional Taft impersonator Dale Liikala will don his best William Taft suit and proclaim New Mexico a state. The event is free and will take place on Jan. 6 at 11 a.m. The plan is to have Taft sign the proclamation at the exact moment 100 years later.

Following the ceremony, at 12:15, Friends of NMF&RHM is sponsoring a special \$25 luncheon featuring foods from 1912. Professor Hunner will recount that discouraging history of efforts to gain statehood. You'll learn how Arizona played a major role in the New Mexico attempt time and time again.

The night before, at 7 p.m., Liikala will present a chautauqua program called "Our Reluctant President, William Howard Taft" at the museum. After serving as president, Taft went on to act as the Chief Justice of the United States Supreme Court. With such a resume, he should have some good stories to tell. Admission to the chautauqua is only \$2.

Finally, in something a little different for Liikala, he will appear in character as Taft to be the grand marshal in the Las Cruces Centennial Parade. The parade is on Jan. 7, will start at 11 a.m. and will move from the Loretto Town Center north through the old downtown area and back.

Since Mrs. Nellie Taft was the first, First-Lady, who insisted on riding with her husband to his inauguration, the parade committee felt a Mrs. Taft was needed in the parade. Las Cruces Judy Roscoe will fill that role.

Our own Dolores Archuleta is chairperson for the pa-

rade and indicates it could be big. The parade will obviously focus on 1912 with Taft leading it.

However, Dolores says they are highlighting 100 years of history during the parade - decade by decade. That means White Sands Missile Range will be a player in the celebration. Other than the engineering battalion marching, we don't know how WSMR will be represented.

The reviewing stand will be on the steps of the old city hall. If just a few of the invited VIPs show up for the parade, it could be quite a distinguished group. The invitees include: Governor Susana Martinez, former Governors, Mayors, and Mayors of Mesilla, Hatch, Alamogordo, El Paso, Commanders of WSMR and HAFB, Congressional representatives, and local elected officials.



The New Mexico centennial postage stamp.



New Mexico's turquoise-colored centennial license plate.

The Real Reason Statehood Was Delayed For New Mexico

By Jim Eckles, Editor :-)

This story may or may not be true but I have found it in print, in a real book of anecdotes, so I have used it repeatedly in my talks.

After the Mexican War concluded President Zachary Taylor wanted to know what the Southwest was like - what had the United States won. He sent young Captain William Tecumseh Sherman out to take a look at New Mexico, Arizona and California. (Yes, it was that same Sherman who made a name for himself in the Civil War by burning his way through the South)

When Sherman returned, Taylor asked him if all the blood and money spent to acquire the land was worth it. Sherman responded, "Sir, between the two of us, I think we'll need to go to war again."

Taylor was a bit shocked and asked, "Why, is that Captain?"

"To make them take the damned country back," said Sherman.

This next story hits close to home as I have heard many an old soldier talk about pulling guard duty stateside without much real authority to go with it.

A new soldier was on sentry duty at the WSMR main gate. His orders were clear; no car was to enter unless it had a military sticker on the windshield. A big Army car came up with a general seated in the back.

The sentry says, "Halt, who goes there?"

The driver, a corporal, says, "General Fulwyler."

"I'm sorry, I can't let you through. You've got to have a sticker on the windshield," the sentry replies.

The general yells, "Drive on!"

The sentry nervously barks, "Hold it! You really can't come through. I have orders to shoot if you try driving in without a sticker."

The general repeats, "I'm telling you, son, drive on."

The sentry walks up to the rear window and says, "General, I'm really new at this. Do I shoot you or the driver?"

I'm sure this joke has been going around in one form or another for decades. I still like it.

Lieutenant Sherman was calling names for the morning roll call:

"MASTERSON?"

"Here!"

"CREEK?"

"Yo."

"BLEVINS?"

"Present, sir."

"MONTROYA?"

"Yo."

"SEEBACK?"

(Nothing)

"SEEBACK?!"

(Still nothing)

"DAMMIT, SEEBACK!"

His first sergeant leans in and quietly tells the lieutenant, "Turn the paper over, sir."

Finally, another story that is probably true. Good humor always has a kernel of truth in it.

A group of new trainees is standing at attention during a parade practice. They are learning how to march and how to behave during the upcoming ceremony. Finally, a drill instructor barks, "OK, all you idiots can take a break now."

As the men shuffle off to find a shady spot beside the parade field, one lone soldier still stands rigidly as attention.

The drill sergeant gets in front of the soldier, looks him squarely in the eye and says, "Well?"

The soldier grins and says, "Sure were a lot of them weren't there sergeant sir?"

Statement of Purpose and Membership

The "Hands Across History" newsletter is published by the White Sands Missile Range Historical Foundation and the White Sands Pioneer Group (WSPG). Both nonprofit organizations aim to preserve the accomplishments of White Sands Missile Range.

The newsletter is intended to keep members of both groups informed about current events and share information of common interest. The edi-

tor is Jim Eckles. He can be contacted by email at nebraska1950@comcast.net or at either address below.

Membership to either organization is open to anyone who shares their goals. However, details of membership (dues, etc.) differ between the two groups. For more information, please contact the appropriate organization and we will send it via the Post Office or email.

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Shuttle Article Triggers Memories

By Jim Address

As Jim Eckles mentioned in his recent Space Shuttle/Northrup Strip article (August 2011), there were lots of WSMR people doing lots of different things to prepare for the landing. Along with all of the other range support activities, Commo, too, was faced with a large challenge.

The existing facilities in place to support Northrup were very inadequate for this high profile mission; only a few wirelines and cable pair at best. Due to the short time frame, the only real option was to deploy one of the mobile microwave systems. One of the terminals would be placed at Northrup, which would relay traffic to Salinas Peak, where it would then be connected into the primary range-wide microwave network.

An easy direct line-of-sight radio path, only 28 miles long, no problem. Equipment was deployed, the radio path established, traffic was connected, all worked well — at first

However, as area construction activities increased and more support functions brought equipment and trailers into the area, we began to experience partial and total radio path outages, lasting from two or three seconds up to six or seven seconds. At first these outages occurred only three or four times an hour. But as the area activities increased, these outage occurrences were happening two or three times a minute

What was going on ? This was getting serious !

After a lot of looking at trailer placement, surrounding trailers, auto and truck movement back and forth across the side of the commo trailer which faced Salinas, it was deter-

mined that there was a correlation between passing vehicles and the commo outages.

But why? The microwave antenna was located on top of the trailer looking over the top of passing vehicles, and it was pointed up toward Salinas - or was it.

More careful looking followed, along with checking the vertical alignment of the antenna. Guess what — the antenna was not pointed up toward Salinas, but toward the ground a few hundred feet out in front of the trailer.

It turns out a portion of the radio signal from Salinas was being reflected off of the hard flat ground surface out in front of the trailer. The microwave antenna had been inadvertently aligned on this reflected signal, so that when vehicle traffic drove across the reflection point, the radio signal path was briefly interrupted.

This situation illustrated very graphically one of the radio wave propagation issues that can and does occur frequently, and often requires special engineering to be overcome. This is especially true when using radio frequencies in the 7000 megahertz band. These signals can “bounce”, or be reflected off of hard flat surfaces, which are certainly prevalent in the Northrup Strip area. Geometry 101. Depending on the geometry of the particular radio path, it only takes two or three inches of antenna misadjustment to align on a reflected signal instead of the direct one.

So, the antenna was realigned onto the proper direct signal, a good solid radio path was established - problem solved.



With another article about Columbia landing at WSMR in 1982, what better reason to run another photo from the event. This is Columbia piggy-back on NASA's 747 on the morning of April 6. It required two cranes to lift the shuttle so the 747 could drive under it for loading. At the time, NASA had a stiff-legged derrick at Northrup so only one big construction crane was brought in. The derrick was soon removed so the need to import two cranes may have helped to thwart any later landing possibilities.

Broomstick Scientist Recalls Rocket Pioneer

Dear Jim:

I appreciated your article, “V-2 Impacts Spawned An Urban Legend of Sorts.” Interesting! What caught my eye and dredged up a bunch of memories was a brief reference to a study conducted by R. W. Porter of General Electric. What follows is another of those ever-present “Broomstick” stories. It goes like this.

I arrived at WSPG in January, 1951 after being drafted in the Army and having completed basic training. After some preliminaries there at White Sands, a group of us were sent up to Schenectady, N.Y. to work on General Electric’s Hermes Project. Much of the Project was housed in the then ‘secret’ facility out on the edge of town, the Campbell Avenue Plant. Of course, heading up Hermes was Dr. Richard W. Porter, the same referenced in your article. Porter had already developed an illustrious reputation in rockets and guided missiles stemming from GE’s work in this area. But also, Dr. Porter headed up a WWII effort to find anything and everything the U.S. could about the German V-2 and other programs. And that is what I wanted to tell you.

It was in the fall of 1951, after some of us had been at GE almost a year, Dr. Porter invited us, our little contingent of military (“Broomsticks”), to a barbeque at his home in Schenectady. It was a Sunday afternoon, a beautiful fall New England day when we gathered. And it was around the barbeque in the back yard that Dr. Porter told us a fantastic story few people had ever heard at that time.

Dr. Porter’s WWII team, mostly military – but maybe not all – followed the war through Europe. He told us they were as close to the front lines as was practical, following leads to where the German guided missile program was located. Leads took them here, leads took them there – they were all over the place. Peenemunde was known, but the front lines were not there yet. But where were the Germans, where were the factories, where was the documentation, where were the V-2s?

It was as the shooting ended, he told us, when the occupation zones were about to be set, that the Germans were located in some village that would end up in the Russian Zone. Porter’s team found them. They were there with their families and much documentation. Somewhere nearby were spares, much hardware. Amongst them was Werhner von Braun! (You may recall, he had broken his arm and was in a cast!)

Porter’s team had to persuade them, the Germans, to come with them (the U.S. team) to leave that area, and come to the U.S. If not, they would end up in Russia, the Soviet Union. (In fact in some reading I’ve done, some had already been taken to Russia.) Porter described to us the frantic efforts that took place. With a deadline looming, they knocked on doors in the wee hours of the morning, pleaded with the Germans to come with them. Most did! The Porter team commandeered a train, loaded it up with documentation, spares, other stuff – and the Germans of the V-2 Project. They got them out.

The long and the short of it is that those folks were transported to the U.S., mainly to Alabama, New Mexico and Texas.

That was what Dr. Richard Porter related to us that afternoon. Virtually no one had ever heard that story at that time. Later it was told as ‘Operation Paperclip’. And I think it was eventually made into a movie. I found his story again in, of all places, a Dr. Richard W. Porter obituary; he died in the early 90’s.

I do enjoy your *Hands Across History*. Keep us posted on the ‘goings-on’ down there.

Yours truly,
George N. Gianopulos,
“Broomstick” Retired



Broomstickers working at GE in 1951. Left to right are: George Gianopulos, Jim Herzog, Phil Mueller, Bob Rickard, Jerry Dowling, John McHugh, and Norri Sirri.

What Really Happened At Trinity Site, July 16, 1945

By Jim Eckles, Editor

I still work most of the Trinity Site open houses for Public Affairs but now as a volunteer. Its great. I no longer sit in the information booth mindlessly answering questions like, "Where are the toilets?" and "How do I get to the ranch house?" Instead, I plant myself at Ground Zero and field real questions about the history of the site or about the science of an atomic bomb or, sometimes, the ethical questions of using the BOMB on Japan. The time flies by.

During this last open house on Oct. 1, a father brought his young son by to show me what the boy had found grubbing in the dirt. He opened his outstretched hand and showed me a piece of Trinitite that had a distinctive blue hue. In visiting Trinity Site for 34 years, I had never seen anything quite like it. (See the photo at the end of this article)

I thanked the boy and in expressing my surprise at the find, got everyone around me excited as well. I must have spent half an hour holding the piece so people could take photos of it.

When I got home, I immediately sent the new Trinitite to Robb Hermes in Los Alamos. Robb is the chemist, now retired from Los Alamos, who reinvented our interpretation of how Trinitite was formed.

In 2003 we got involved with Robb and Bill Strickfaden, a retired physicist, when they asked for samples of sand from Trinity Site. They said they could use the samples to recalculate the yield of the bomb.

And, by the way, they added, could they get some samples of anthill sand from Ground Zero. We said sure, and on the next trip to Trinity Site we filled some quart plastic bags with the appropriate sand and mailed them to Hermes.

Not long after, Hermes contacted me excited about the ant sand. He said there were small balls or spheres of glass mixed in with the sand. In other words, there were tiny beads of Trinitite mixed in. Some weren't much bigger than a pinhead but some were larger and clearly balls and not shards. People have found larger spheres that are about the size of pearls and are appropriately called "Trinitite pearls."

The theory accepted for 60 years on the formation of Trinitite was that the fireball simply melted the surface of the crater and turned it to glass. Kevin Casey, who was in Public Affairs at the time, called it the Trinitite crème brulee effect.

This explanation doesn't account for the spheres.

Then using different models Strickfaden said he could not generate enough heat on the surface to form Trinitite over a half inch thick. The fireball just wasn't there long enough.

That got them looking for another mechanism to form the glass. When they looked at old reports and photos of the crater, as in the Groves account, they realized quite a bit of material was actually gouged out of the crater. It wasn't simply smashed down and compressed.

The two quickly realized that if this material was thrown up into the fireball, the tremendous heat would have melted the sand and turned it to a mist of liquid rock.

At this point it became something like raindrop physics. Droplets bumped into each other to form larger ones. Eventually, they fell back to the ground. In some cases the tiny spheres were suspended long enough to solidify and remain beads after they hit. Other drops hit as a liquid.

"Much of the layer was formed not on the ground but by a rain of material injected into the fireball that melted, fell back, and collected on the hot sand to form the observed puddles of Trinitite, especially within the radius of the hottest part of the event," they concluded in an article for the Fall 2005 issue of "Nuclear Weapons Journal."

"After falling to the ground, the top surface of the Trinitite layer was still heated somewhat by the fireball and thus developed a smooth surface." "We calculated an average fireball temperature of 8,430 Kelvin," they reported. That's 14,710 degrees Fahrenheit.

Their theory nicely explains the spheres. It also explains why there was Trinitite found on asphalt and on top of fence posts and rocks afterwards.

In this process of examining Trinitite they were able to confirm that the green color of the glass is simply caused by the amount of iron found in the sand.

In a very preliminary, quick-look, Robb says the bluish white color of the new bead seems to be from an abundance of calcium that he attributes to something in the soil. The mixture with the regular green glass might explain the robin's-egg blue.

I think it might be something else. I think we might have a murder mystery on our hands :-). Could the concentration of calcium be from the bones of some poor victim left dead under the bomb tower or maybe left still alive to be killed when the bomb exploded? "NCIS" here we come.

Unfortunately, Robb says a real analysis is coming.



The bluish spheroid of Trinitite found at Ground Zero during the last Trinity Site open house on Oct. 1. Photo by Jim Eckles

OLDSMOBILE

New "Rocket" Ready!

Ready for take-off! Ready to thrill America with the most beautiful, most powerful Oldsmobile ever! Ready with Oldsmobile's glamorous new "long look" styling! Ready with a brilliant new "Rocket" Engine—sensational new Hydra-Matic Drive—effortless new steering ease! Watch for the launching date at your Oldsmobile dealer's! Make this your year to "Ride the Rocket"!



Red Smoke

Red smoke from the block-house means that a rocket is about to be launched! That is the signal used at the White Sands rocket base to show that a rocket is ready for the take off!

Editor's Note: This is a magazine ad from my collection. Oldsmobile was obviously trying to tie their vehicles to the new rocket technology being tested at White Sands Proving Ground. The bold blue background makes this a great graphic.

Invest In A Lasting Holiday Gift For Yourself Or Another

By the time you receive this newsletter you should be just about done with your holiday shopping. But what if you aren't? What if you have procrastinated until the last minute? What if you are just stumped on what to get someone.

The Historical Foundation has the perfect solution, one that will not break the bank and will be there year after year. Plus it is for a great cause.

Make a donation to the Foundation in support of the WSMR Museum and get a personalized brick installed in the Museum's Signature Plaza. There are already close to 400 bricks in the plaza representing individuals, families, companies and government organizations.

The cost for a regular 4x8 inch brick is only \$65. On the top of the brick you get three lines of text with a limit of 14 characters per line. Put just about anything on there

that will fit. Larger bricks are available with a larger donation. On the larger bricks, logos and much more text can be engraved.

It takes a couple of months to get the bricks ordered, fabricated and returned to the Foundation for placing. So, your brick can't be complete by Christmas but we can certainly provide a nice note that it will be coming soon.

Live out of town and can't visit your brick? We'll send a photo of your brick to you.

If you don't want your brick placed at WSMR, we'll ship it to you and you can put it in your own patio - shipping cost extra.

For more information, contact Bob Lipinski at 575-678-1644 or email the *Hands Across History* editor at nebraska1950@comcast.net.



Additional Information On Hughes Testing At Holloman

Dear Mr. Editor,

Thank you again for the job you did in publishing my article in the June 2011 issue of *Hands Across History*.

There is one item, however, that I would like to clarify. On page 5 of the newsletter, referring to the antenna that Bob Varnes was staring at, this was the HAC (Hughes Aircraft Co.) telemetry antenna that was installed only on all R&D missiles that had the guidance system in them, and were to be launched at targets.

This system, basically, was a 24-point stepping switch with up to 24 missile functions tied to it, with a rotor turning continuously so that all functions were sent through the antenna for each revolution of the rotor. This channel was received by the HAC telemetry van, which was designed and operated by HAC engineers, and located down-range where the entire missile trajectory could be monitored.

The antenna itself was mounted so it extended about 10 to 12 inches out in front of the radome. It did not interfere with the missile's guidance system.

The advantage of the telemetry was that we could wire in, for any of our missiles, any function that we were worrying about. This was particularly helpful in improving guidance.

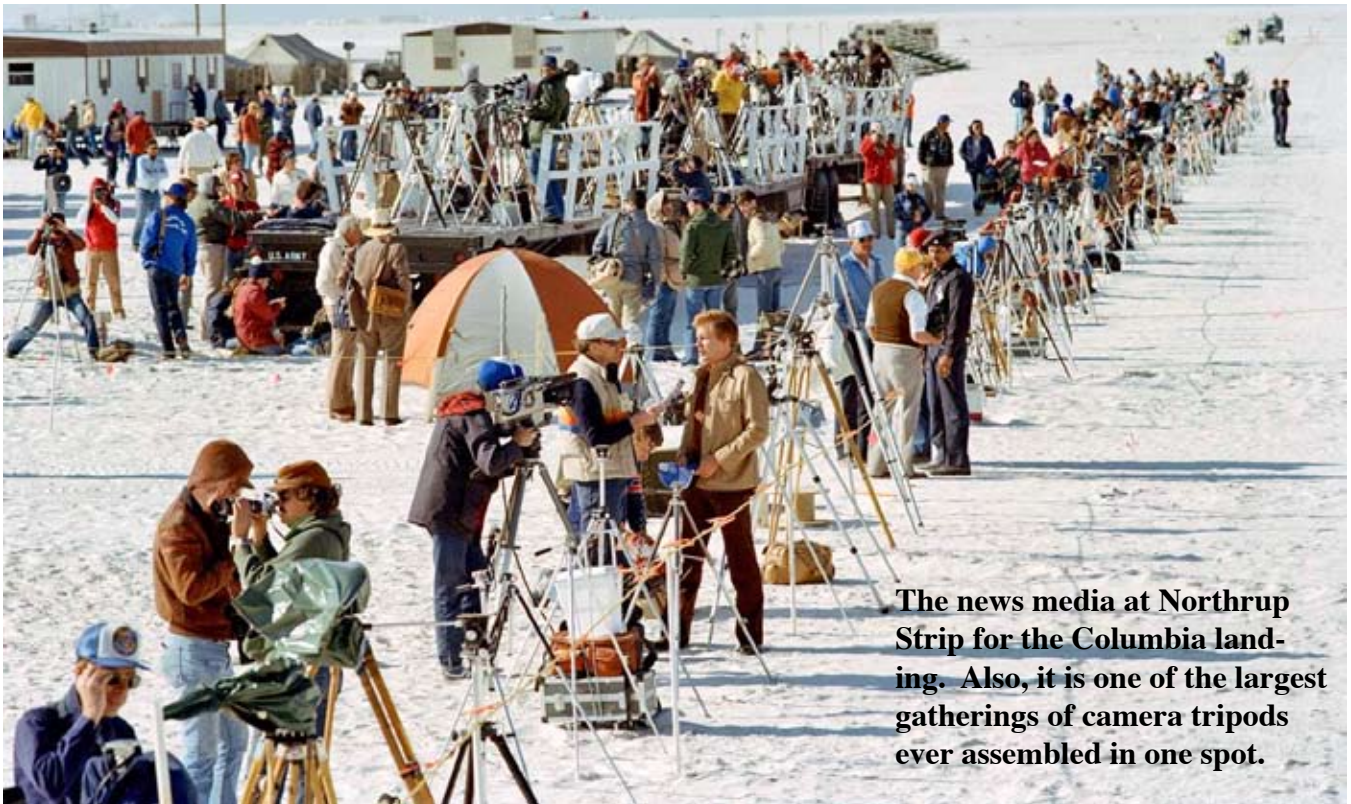
We were not using warheads in the R&D process, so this space was the ideal spot to install our telemetry system.

Another item of some interest: the U.S. Air Force adopted the Falcon IR circuitry for its Sidewinder missile, gratis from HAC.

Sincerely,
Allan Gruber

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The Back Page



The news media at Northrup Strip for the Columbia landing. Also, it is one of the largest gatherings of camera tripods ever assembled in one spot.