

SWANTON PACIFIC RAILROAD SOCIETY

Number 163

Cal Poly

April 2007

ON TRACK with your Director

Ed Carnegie:

I would like to dedicate this newsletter, in memory of, Dale Andrews who passed away last week at the age of 87. I will never forget seeing Dale walking to Cal Poly almost every morning on our way to work, in his tall stately manner with walking stick in hand. He always reminded me of Gandalf from Lord of the Rings. And just as in epic novels, Dale Andrews, (Gandalf) had an impressive roll in forming the link between Al Smith's Swanton Pacific Ranch and Railroad, and Cal Poly. Dale was special to Al. Al told me one day that he use to call, what we now know as Cal Poly Day, as "D-A-D"—Dale Andrews Day. Dale was one of our first contributors and joined our Swanton Pacific Railroad Society in 1993 from St. Paul, Minnesota—ten years after he retired from Cal Poly, as executive vice president. We owe a great deal to Dale Andrews for all he did for Cal Poly and for our railroad.

Now—back on the ranch/railroad and to our March workday. Arriving on Thursday, we saw that much progress had been made. Randy, Fitz and Richard had spent a very productive week working on the 1914 in order to get it running for the upcoming Al Smith Day. AND then special thanks to Brian Dietterrick, for arranging to have Supervisor Neal Coonerty, third district supervisor, visit the Swanton Pacific Ranch/Railroad.

On Friday we were joined by Fitz, Randy and Richard, who worked on the 1914. Pete and I worked on the siding in the train field, while Andy

and Bill worked on the meadow's sprinkler system. Martha came over to garden. Bob and Marty showed up in the late afternoon.

Saturday, a full crew worked on the 1914. Under the direction of Fitz and Randy--Richard, Bruce, Geoff and Matt worked on its plumbing and machining. Marty set up a paint booth and painted the cab's locomotive. Pete, Stan, and Scott joined me to continue work on the siding; while Lou, Estelle, Amy and Mary Ann worked in and around the gardens. Bob and Kyle assisted everyone as needed. Cal Poly Student, Colin, disked the train field to control weeds and to have it ready to plant trees this coming Spring. Saturday night dinner was hosted by Fitz, with cooking assistance from Marty and Mary Ann. Everyone partook in what is becoming SPRR's March tradition of serving corn-beef and cabbage. Sunday, work continued on many of the same projects, with additional help from Robert, while Geoff worked in the car-barn.

I would also like to take this opportunity to thank Tom Mastin, lead surveyor instructor at Cal Poly for supplying an interesting article on aerial laser surveying-included further on in the newsletter.

Next—Al Smith Day is fast approaching—Sunday, April 15. This day should be lots of fun, non-taxing, and as always we will need as many of our volunteers to assist with the many many tasks, before, during and after the event to make this a most successful and fun filled day for all participating. This is one of our days to really make Swanton shine and showcase all that Al Smith gave to us to share with all.



Dale Andrews and Lark Carter when our station was built



March crew ready to work

Down Behind the Railway

With your President, air monkey, & car-barnist.

Reynold 'Fitz' FitzPatrick

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My Fellow Swantons:

Spring arrived with rain and the flowers are thankful. The annual spring cleaning, and our preparation for Al Smith Day, Sunday April 15th, comes to mind, and the things we would like to accomplish in the next five years.

Yes! We do have long range plans. At the top of the "A" list is completing the restoration of the 1913 and 1500 locomotives for their hundredth birthday in 2015.

Other goals have more immediate target dates. I have included a partial list of projects without their completion dates. As you can see much of the list comprises 'backside' tasks; the routine maintenance, housekeeping, and upkeep that keep our railway operational.

If you compare the tasks listed with the members acknowledged by Ed in his "On Track" articles you will note a workload imbalance. In addition to those specific tasks we need a clerk to file and maintain various records, drawings, and such. And we need someone to

be our membership chairperson. With the joy of the internet this could be a telecommute position.

Please review the partial list of tasks and if you claim one for your own you will become a Swanton celebrity, with your name, and perhaps a picture, in the newsletter and on the net. What more could a person ask?

I hope to see you April 14th and 15th Al Smith Day!!

Fitz

Project list by loose category.

History

-  Obtain and install awning on the side of the OSH caboose.
-  Build and install pole mounted display rack.
-  Repair windows in OSH caboose cupola.

Facilities and Grounds

Roundhouse

-  Clean up south end of the Roundhouse, move 1500's cab to south side, arrange file cabinets in north east corner.
-  Build rack for radio battery chargers in Roundhouse.
-  Fix air line to hose reels.

Machine shop

-  Repair side door.
-  Mount bench vice.
-  Install solar powered battery operated lights on turntable.
-  Install steps and guard rail on turntable.

Car barn

-  Move west storage rack to south wall.
-  Move blast cabinet from machine shop to west wall.
-  Repair steel and pipe storage rack.
-  Identify and organize car parts – again.

College Park Station and BBQ

-  Clean up interior of Santa Fe caboose.
-  Paint signal stands and poles.
-  Fix raw water line to boiler water filters.
-  Set up Pete's billboard.

Operations and stuff (that's a technical term)

-  Build passenger disembark mesa in train field for photo-op's
-  Replace engine in Ford boom truck.
-  Replace engine in fork lift.
-  Update training manuals.
-  Upgrade Stone Crossing.

Engines and Rolling stock

-  Refurbish Keystone Car – see EdSki
-  Build electric brake test board.
-  Install electric connections on Maint.- Of - Way cars.

-  Install electric operated brake valves on all cars.
-  Finish rebuild of Overfair boxcar.
-  Axle bearing replacement; fill journal boxes with aluminum, machine boxes to accept roller bearings, turn axles to fit bearings and true wheels.



Randy and Fitz checking piping

UPCOMING EVENTS/PUBLICITY

Mary Ann Carnegie

- April 14 prepare for Al Smith Day run
- April 15 AL SMITH DAY RUN**
- May 12 workday
- May 13 GO HOME TO MOM'S
- May 26 start second work weekends
- May 27/28 Memorial Day weekend

Lasers rain down from the Sky on Swanton

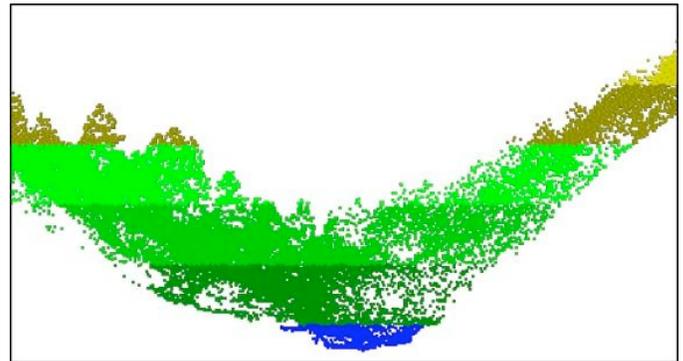
By Tom Mastin, BRAE Dept. Cal Poly-San Luis Obispo

Back in 2001, Swanton Ranch was pummeled with airborne lasers. This happened to be a good thing, however, as it was a part of a study being done on the effectiveness of LIDAR. Dr. Brian Dietterick, Director of Swanton Ranch, was the principal investigator on this study, which used the aerial firm of Spencer Gross to provide the LIDAR data.

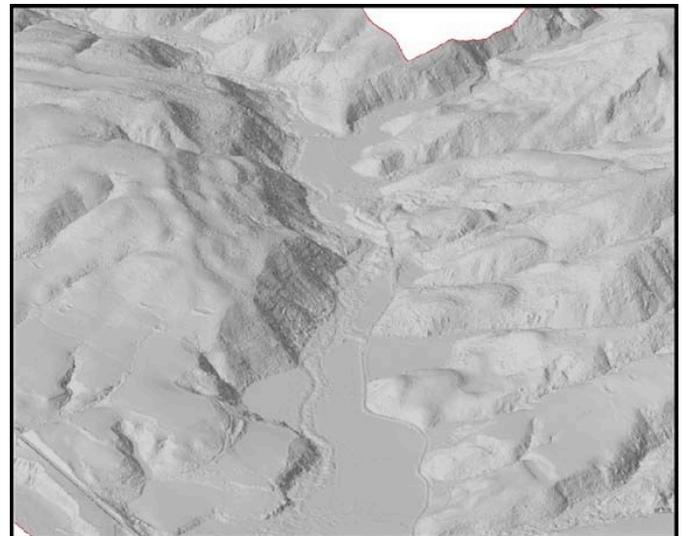
LIDAR is an acronym for Light Detection And Ranging. It is a fairly simple concept, in that it is trying to measure the distance from an airplane to the ground using a laser. As with many concepts the implementation is quite complex. The system requires a sophisticated laser component, fast processing computers on board, a GPS system on Board as well as Ground GPS systems in place during the flight. What all this complexity gets, is a three dimensional sampling of the ground below. The

sampling rate is quite impressive actually. The rate of sampling for this project was approximately 20,000 samples a second. The system sweeps across the terrain as the plane flies along designated lines. Eight flight lines were flown over Swanton Ranch giving spacing on the ground between pulses of roughly 5 feet and the elevation accuracy of ± 0.5 feet. They collected over 25 million positions within Swanton Ranch!

For those of you familiar with the Swanton Ranch area, you may remember that it is not clear open ground, in fact there are more than a couple of trees on the property. One of the aspects of LIDAR, is that as the laser pulse hits vegetation, some of the pulse reflects back to the airplane, and some of the pulse is transmitted through the vegetation, that then will hit either vegetation or the ground and again reflect back to the airplane. The system is able to determine up to 5 "returns" from a single pulse. The software can then make a determination if the last return it received from a pulse was actually the ground. Figure 1 shows what is called a point cloud, showing all the LIDAR points on a cross section of Little Creek. Note how you can see tree outlines as well as the ground.



1 - Point Cloud from LIDAR Data



2 - An Elevation Model using the LIDAR Data

The main purpose of this study was to develop a fairly dense model of the surface for the whole ranch and particularly of Little Creek. Figure 2 shows a portion of the surface model. You can easily distinguish dirt roads, cut banks and flow lines in the model. It is very easy to take that surface model and “drape” over an image. What draping does is set each pixel of the image to the same elevation as the surface model at that location. Figure 3 shows an orthophoto of the same area shown in Figure 2, that is draped over the model.



3 - Image draped over the previous Elevation Model

Part of the Study done in 2001, was to see how well LIDAR could map the surface of Little Creek within the Ranch. This creek lies within a steep canyon with dense canopy all around. It was determined that only about 15% of the LIDAR pulses actually penetrated to the ground within the Little Creek Study Area.

Advancements in LIDAR have increased the Pulse rate up to 100,000 pulses per second. It is anticipated that at these rates a more detailed model of the surface within Little Creek is possible. A research project is being developed now that would hopefully acquire funding to fly LIDAR over Little Creek again and analyze the current ability of LIDAR to penetrate such a rugged canyon.

LIDAR is being used in a number of applications these days. Major development projects use it to provide a ground surface from which the roads and other improvements are designed. It is used to determine volumes of pits and land fills. Utility companies use it to measure the sag of power lines, and they have even developed water penetrating LIDAR for hydrographic mapping. There are also terrestrial versions of LIDAR that allow precise mapping of building fascia, allowing architects to design around or rebuild historic fronts.

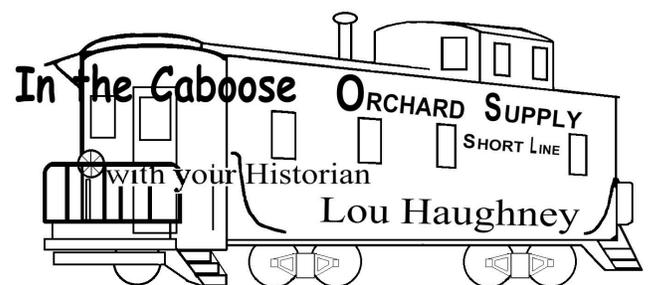
Spring has sprung, clocks have been changed and we're off and running. Train ride season starts with our

14th annual Al Smith Day celebration on Sunday, April 15. Seems hard to believe that Al has not been physically with us at Swanton now for 14 years, but we do know he is present with each and every project started, completed and for sure with every train that leaves the station. RSVP's indicate we will have a good turn-out for the event. The memories and experiences that our guests will remember while at Swanton Ranch and railroad will be enhanced by the teamwork that all of us put into making the day even better as good hosts. We will be assigning the usual tasks—cooking, serving, parking and the infamous cleanup jobs to be done. Volunteers are needed for it all and we will look forward to working together with all of you.

Remember too, with May comes our two work weekends a month. However the work weekend of May 12 is followed with Mother's Day on Sunday. The second work weekend is the 3-day Memorial Day holiday. Daylight will be longer, warmer evenings and so zamores, bonfires, Dutch oven cooking, and tall tales will be on the agenda. Any new ideas, desires for dinners, events are always welcomed.

PLEASE: anyone staying overnight for work weekends, call or e-mail reservations in ASAP.

Facilities are limited & we want to make sure we can accommodate alle. Call (805) 995-3659 or e-mail ecarnegi@calpoly.edu. This helps in successfully planning our Sat. night dinner.



BOY SCOUTS HONOR AL SMITH

Al Smith was an ardent participant in the Boy Scout program both as a young lad and as an adult. Memories of his experiences at the Scout Camp on Little Creek, just up from the Swanton Road, prompted him to acquire the camp grounds after he started his teaching career. Gradually then through the ensuing years, he bought more and more surrounding land until he had

formed what is now the 3,000+ acre Swanton Pacific Ranch.

In a series of articles in the SPRS Newsletters during the mid 1990's, Hart Fairclough, a fellow Scout with Al in Troop 3 of Santa Clara County, told of Al's early activities with the Boy Scouts.

On Sept. 25 1982, a testimonial dinner was held in Los Gatos to honor Al's continued and active support of the Boy Scouts' programs. A lengthy tribute was written by Robert Aldrich, a columnist of a local newspaper. (Unfortunately, the clipping we have does not include the newspaper's name or date.) Besides describing his scouting work, the article also tells of Al's lifelong interest in railroads. Excerpts follow.

Boy Scouts to honor Al Smith
By Robert Aldrich

"A lot of times we used to go walking up the railroad track, up Lost Little Creek Canyon. There were a couple of swimmin' holes up there. We'd have a campout, go swimmin', and build a campfire along with the other troops..."

It is a wealthy 62-year-old businessman and former Campbell High school teacher talking, nostalgia as thick in his voice as a good outdoor bean stew. Al Smith is remembering the 1930s - he was 13 in 1933, in the midst of the Great Depression. That was when Boy Scout Troop 3, as Troop 539 was then designated, used to meet on the Sewell Brown property near Pollard, across Winchester Blvd from the modest homestead where Albert B. Smith was born and where the millionaire bachelor still resides.

Smith has had two major enthusiasms most of his life, the Boy Scouts and railroading. On the evening of September 25 [1982], he will be honored for his services to Los Gatos scouting.

The outdoor barbecue is to be at the St. Mary's Church parish hall on Bean Avenue. The affair is jointly sponsored by the three service clubs, Kiwanis, Lions and Rotary, as a "Tribute to Scouting." Honors will go to former scouts, scoutmasters and assistants.

Not altogether incidentally, Al Smith will be presented with the Distinguished Eagle Award, signaling his many benefactions to the local scout movement. The award had gone to about 500 Americans, among them astronaut Neil Armstrong and former President Gerald Ford.

To hear the former Los Gatos mayor tell it, at least half a dozen others better deserve the honor.

He named Frank Filer, Chuck DeFreitas and "certainly Knowlton Shore."

"I'm a little bit embarrassed over this, because there's a lot of people have done more for the scouts in Los Gatos than I have. I guess they wanted one name and I ended up being it."

Smith is sitting comfortably in [his] caboose-office, located on the grounds of his old family home at 4561 Winchester. He could have a plush office if he wanted one, but he prefers the "Orchard Supply Short Line," a full-sized red Southern Pacific rail car that rests on 60 feet of track. "It cost more to haul that thing here than to build it in the first place," he remarked with a grin.

The elegantly refinished caboose is as neat and polished inside as a brakeman's lantern, as well-ordered as a good workman's tool kit. From this command post the Orchard supply board chairman can get in touch with managers of his several enterprises, including some 2500 acres of timberland cattle land he owns in various parts of California.

You get the idea he likes to be considered a plain workingman, the brakeman he once was - correction *is*. (He's still listed on the roster of Southern Pacific, where he began as an 18-year-old callboy.) Nobody has to go through a secretary to reach him. His number is listed, His ranch home is quite small and rustic.

He is a railroad fan despite a railroad accident at age 21 when a fall from a cartop cost him a leg. His answer to why the accident didn't sour him on railroading is blunt: "A lot of people get hurt in auto accidents, but they don't stop driving." {Al's scout training in first aid prompted him to fashion a tourniquet around the remaining part of the leg to reduce bleeding until medical help arrived.}

Another explanation is surely that he grew up quite literally with the sound of passing trains in his ears. Two tracks once ran by the Smith property and he timed his activities by their schedules.

"There were never less than eight steam trains a day. If you had any interest in trains, it was the perfect place to grow up." The back track was the "Macefield cutoff" between Palo Alto and Santa Cruz. [Mayfield cutoff?]. The front track, San Jose - Santa Cruz, was near. It washed out in 1940.

So Al Smith's lifelong zest for railroading is easy to understand. He had, he says, "no choice".

When his accident halted his active railroading career, he returned to school at Cal Poly, earning a master's degree in agriculture, and then taught the

subject at Campbell High, which he had attended. He has contributed generously to his college and serves on its board.

After 17 years of teaching, he became a director of Orchard Supply hardware, the firm his father has helped to start as a farm cooperative. ("Dad was afraid of nepotism, so my brother and I only worked there when they needed us.") In 1962 he became president. He boosted annual sales from \$2 million to \$50 million before swapping his stock in a deal with W R Grace. After retiring he retained chairmanship of Orchard.

As a youth Smith knew locomotive driver Billy Jones and his two sons. Both Jones boys died in World War II.

"Billy used to take me in the cab of his locomotive, which was like visiting an airplane cockpit nowadays, I guess."

At Smith's ranch at Swanton he had a mile of track.. There he runs engines, larger than those at Vasona Park, formerly part of the Jones collection. Los Gatos Scouts hold their annual roundup at the ranch.

Smith, who has been an "assistant" scoutmaster over 40 years, says he "never has the time" to be full scoutmaster.

He sees scouting as "a wonderful challenge for boys and girls." (Explorer Scouts is a co-ed organization; Smith has been an advisor.)

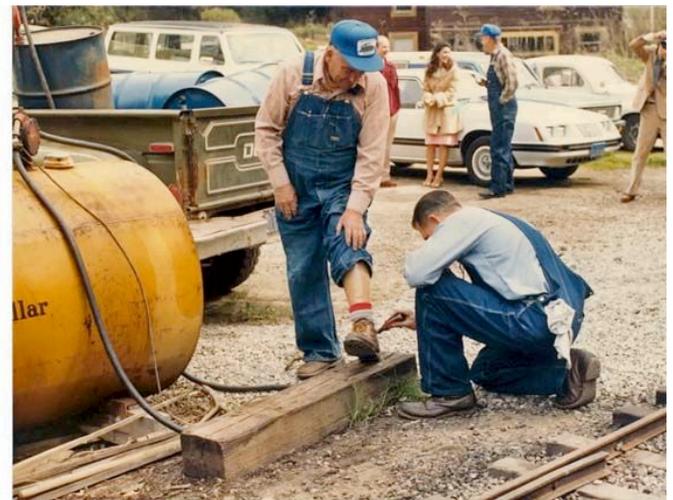
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The Tribute to Scouting, September 25, starts with a fellowship hour at 6 pm. Dinner is at 7 pm. Proceeds of the \$25 tickets support the scouting program of the Santa Clara County Council.

As indicated in the article, Al was always generous in remembering the people and the groups with whom he had been associated in his lifetime. Besides hosting the Boy Scouts' annual events at the Swanton Pacific Ranch, Al conducted special run days on the Swanton Pacific Railroad for the teachers with whom he had taught at Campbell H.S. and for the Golden Spikes, the Southern Pacific retired employees group. Since the early 1980's, Al's Ranch and the Railroad have been the site for an annual fund raising event of the Santa Cruz County Land Trust. Al was pleased to share his good fortune with his friends and associates.



Al Smith at the throttle on Golden Spikes Day, 1989



Charlie Hoyle is polishing Al Smith's shoe prior to the run for the wedding of Al's niece, Susie Spafford, to Robert England in 1984.



Al Smith and George DeLaTorre relaxing after a day of working on the railroad. Snapshot taken in early 1980's.