This may look like the beginning of the “Great Race”, with Rich Croll officiating. The real story is a “lineup” of two different scales that run at our Tilden facility. Engineer Sammy Tamez rides the new club engine, an RGS20, while membership chair, Rick Zobelein, pulls in with his heavy Mikado and freight consist. Contrary to popular belief, Rick does run his engine every now and then. As a reminder, any adult member can qualify to run the RGS20 upon completing a training program managed by Rich Croll. What are YOU waiting for??
The Call Boy

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Rick Zobelein
Ken Shattock

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Vice President: Berne Holman
Secretary: Pat Young
Treasurer: John Lisherness
Safety: Sheldon Yee
Ombudsman: Ken Blonski

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Public Train: John Bouey
Bits & Pieces: Stan James
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High Track: Jeremy Coombs
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Call Boy
Articles and photos submitted for insertion in the Call Boy should be sent to Pat Young at:
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phty95014@yahoo.com

Deadline for submittal to next months’ issue is 15th of the month

Announcements
Rich Croll has accepted the position of assistant to the Public Train Chair John Bouey but the Public Train committee is still looking for engineers and staff members. This is a great opportunity to learn about steam engines in general and how to operate them under real loads. If interested contact either John Bouey (johnb@morcompost.com) or Rich Croll (railroc66@yahoo.com).

Past CallBoy editor Mike Collins has been fighting pancreatic cancer for many months now and recently had a heart attack. Please send any well-wishes and cards to his house at: Mike Collins, 1 Madera Lane, Orinda, California, 94563.

An incident happened at the club last month that could have caused serious injury but luckily there was none. Please read the report by Engine chairman Mark Johnson for more details.

Both the club newsletter the CallBoy and the club web site can be used by members to locate items and services via the Classified ads. Rich Lundberg wants to remind members and their guests that it costs nothing to put in an ad and it does seem to work.
Club Meeting Minutes
The Club meeting was called to order on July 14, 2013 at 10:00 am by President Rich Lundberg with 34 members attending on a 52 degree morning that became a very comfortable, warm day.

New Members and Guests:
Soon-to-be new member Andy Kelsey, son of member Don Kelsey and new member Rick Reaves introduced themselves. Welcome Andy and Rick!

Steam-related Activities:
Rich Croll attended the Train Mountain Operations Meet (http://www.trainmountain.org/) for a second time on June 28 thru June 30 and had an absolute blast. The theme was to operate your train like the prototype and pick up & drop off freight cars according to a way bill issued to each train. It seems to take a lot of planning and strategy to do this quickly and efficiently and he has some photographs including one of a 54-car train that turned out to have some of the freight cars that he needed to pick up. With the help of some of the older members, they were able to retrieve the needed cars and continue on. If interested, contact Rich (railroc66@yahoo.com) for more information so that one can do something more than just running in circles.
Dave Luther volunteers his time at Railtown 1897 State Historic Park (www.railtown1897.org) at Jamestown, California. He was rewarded with a cab ride in the famous 1891 Rodgers 4-6-0 steam locomotive featured in TV shows like Petticoat Junction and movies like Back to the Future.

At our Spring Meet, the some of ladies of the club took the opportunity to sell some of the club's T-shirt collection to the public and ended generated $392 for the club's treasury. Kudos to Sandy Morris, Amy Herman, Pat Collins & Suzanne Waterman for doing this for the club!

Committee Reports:
The Buildings and Grounds report was presented by Rich Lundberg who pointed out that the graffiti-looking "X's" sprayed on the roundhouse walls was done by him to denote the panels and flimsy, leaking window frames that are to be replaced. The long barn will have the roof and some of the side panels replaced.

Dan Swanson presented a brief & informative demo of the new turnout LED signals that he developed for the club. It should eliminate the confusion of which way the switch is set. See the accompanying article by Dan for more details on this ingenious signal.

Bob Morris stated that the development at Boyer's Bluff is proceeding well with a new transfer table being built by Bob and his son. After the track and transfer table are installed, demolition will begin on the existing track and abutments put in place for the new bridge.
The Public Train report was provided by Chairman John Bouey and again the Public Train crew seems to out do itself each month with noticeably larger donations from the Public. Whether it's due to the economy, the weather, the efforts by the Public Train crew to please the crowds, or the station master to “tug on the heart strings” of the riders, it's working and Kudos to each and everyone for this success.

An innovative idea being implemented is to pass out to the adults, a handout summarizing what we do here, youtube links of engines pulling the Public Train, and ending with a “Thank You & Come Again Soon” closing. Another clever idea is to rubber stamp the hands of children with a picture of an engine or freight car which is quite the crowd pleaser. John is looking to follow up with the idea of passing out a small trinket of some sort to remind them of the wonderful time riding trains at the GGLS facility. John again personally wanted to thank all the members of the Public Train crew and especially John Bulger for the use of his Strawberry Canyon locomotive which really helps cut down the wait time for the crowd.

The boiler for the Heinz Atlantic has been taken off and disassembled for further inspection by Bill Smith, Jerry Kimberlin and John Lisherness. The boiler front with tube sheet has been removed along with all the tubes. The shell appears to be in good condition and will be sent out for sandblasting.

The new Public Train engine, the RGS #20, may need new safety valves and its air pump is not functioning. Rick Zobelein has corrected the unfiltered water supply by adding a debris strainer in the tender and cleaning the injectors.

The sister locomotive to the RGS #20 is being assembled by Bob Cohen and, although it is taking longer than he originally thought, he is still confident on delivering it on time. The problem with the 4-wheel front truck has been fixed and the front pilot is being attached. The axle pump access is being re-designed for easier maintenance, tender parts are being shipped and the smokebox is being fitted to the boiler with assistance from Mark Johnson.

The Hunter Atlantic has a problem with one of the injectors and Mark is looking for someone to take this project on. If interested, please contact him at markj12@earthlink.net.

The status on club's UVAS diesel switcher was given by Rick Zobelein. It now runs since he corrected the problem of an oil saturated air cleaner and carburetor. He wants to remind everyone to use the oil dip stick to determine how much oil to add and to not dump a full quart in it.

Rolling Stock chairman Rich Croll talked about his ongoing effort to repair the Public Train riding car where one of the sprockets on the hydraulic drive unit came off the end of its shaft. This then allowed the drive chain to drag along the track and snag on a switch frog causing the crew riding on the train to be thrown about. Luckily no one was hurt badly. Thanks to yeoman efforts by Jerry Kimberlin, Rick Zobelein, Sammy Tamez, John Lisherness, Dan Swanson, Jim Dameron and others, the Baldwin was quickly put back in service with a repaired axle and newly machined journal box. Keep in mind that this potential problem can happen with dragging safety chains also!

The Engine chairman Mark Johnson had a lot to talk about, starting with an incident with the club's Baldwin diesel switcher. While pulling a work train, the Baldwin had a catastrophic mechanical failure...
trucks by replacing the truck's ball bearings with needle bearing. The rest of the club's rolling stock seems to be in good running condition but he is looking at how to overcome the problem with the Mountain Car trucks.

Web person & CallBoy interim editor Pat Young spoke briefly, stating that Dale Furseth, our previous web master, has sent a CD with photos that was recovered from the previous web server. They will be migrated to our current web site as time permits. With all the Meet activities and special articles, the CallBoy has grown quite a bit and will require bit articles (like the Sacramento Live Steamers' 40th Anniversary Celebration) to reside on our web site instead of being included in the newsletter.

The GGLS Builders Group now has the use of a closed, private, Yahoo group to communicate with each other, so that they can describe what projects they are working on, pose questions on how to do things, etc. If you are interested in building & model engineering and would like to join, please contact Pat Young at phty95014@yahoo.com to become a member. There is no obligations to join up.

**Officer's Report:**
The treasury report was given by Rich Lundberg from a spreadsheet obtained from John Lisherness. Most notable was the drop in the club's bank account due to the yearly payment of the club's liability insurance. More information can be obtained from John if interested.

Safety chairman Sheldon Yee used the Baldwin incident, mentioned in this newsletter, to remind members how lucky the club was that there were no serious injuries or that this didn't happen while pulling the Public Train. This should be a wake up call to everyone owning motive power (steam, gas, electric or manual) that it be kept in a clean, safe running condition before venturing out onto the club tracks.

**Old Business:**
The Spring Meet was very well received on Saturday June 22 with warm weather but, was cold and foggy on Sunday June 23. As mentioned in the Announcements section, some of the club ladies were able to sell some of our excess T-shirts. The meet was well attended even though it wasn't well advertised and those attending seem to of had a good time. Bob Morris wanted to give his personal Thanks to everyone who helped out and is looking for more people to help out at the Fall Meet. A 10 meg article on the 2013 GGLS Spring Meet can be found at the club web site and at:


Rich Lundberg wanted to answer some questions about the rights and privileges of our junior members. A junior member is defined by the club Bylaws as an individual between the ages of 12 to 18 years of age. There are two restrictions concerning junior members. First, when they are admitted as junior members, the parents have agreed to be present when the junior members are on club premises.

The second restriction is their role with regard to operating the Public Train. This was changed last year with some relaxation of junior members being able operate (drive) the Public Train. Members sixteen years old may drive the public train as long as they are qualified to the same standards as are required of adult engineers and acceptable to the public train manager. However, any time they are driving the train with members of the public on board, they shall be accompanied by a qualified adult engineer sitting on the first passenger seat after the tender.

The final question regarding minors is that non-member minors can **never** operate any club equipment on the club facility.

To recap:

1. The parent or sponsoring adult must be present when they are on the premises.
2. Junior members operating the public train must have a qualified adult engineer on board immediately behind them.
3. And non-member minors must **NEVER** operate club equipment, whether hauling the public or otherwise.
We must always keep in mind that our junior members are quite a valuable asset to the club and represent the future of the club.

**New Business:**
The Fall Meet needs a chairperson to organize it, no experience necessary. Co-chairing the meet is possible and if interested, please contact Rich Lundberg at [luckylundy@sbcglobal.net](mailto:luckylundy@sbcglobal.net).

**Board Meeting Minutes**

There were not enough Board members for a quorum so the Board Meeting for July was canceled.

**Bits and Pieces**
By Stan James ([sjames563@gmail.com](mailto:sjames563@gmail.com))

Jerry Kimberlin surpassed himself this month with a large collection of bits and pieces, including no less than two large-scale smokeboxes. The first was for the Heinz Atlantic. It had been riveted to the boiler shell, requiring the time consuming task of removing all of the rivets before it can be cleaned up and painted with a heat resistant coating.

The second smokebox was an even more imposing piece of equipment, that Jerry has built, for the Garrett locomotive he has been working on for the last several years. For those not familiar with Garretts, they were articulated engines in which the boiler spans the space between the front and rear power units, supplying steam to both. On completion, this engine should be one of the most powerful in the Club! Jerry also showed a broken axle box from the Club’s ‘Southern’ locomotive and described the weakness of the design that led to the failure. Supplementary to this were a number of brake blocks that he made for the same engine.

Steve Vitkovits displayed an actuator-toggle that he has made for the operation of some of the track switches. All of the mechanism is contained in a weatherproof plastic box that will lie below the track head level, thus making it less likely to be damaged in use.

Rich Croll showed some of the axles and bearings from the Club’s riding cars and described how the design of the truck seems to lead to failure of these items. He is looking for a solution to this problem, so
that a longer operational life of the riding cars can be assured.

**Trial New Style V4.2 Turnout Signal**
by Dan Swanson

As of Sunday, July 14th 2013, there has been new style “V4.2” of turnout signals installed at T-33 (Signal bridge just before the shop) and T-42 (Approach to Tilden Station) for a trial duration of about 30 days. At the end of the trial period a review will be conducted to determine the feasibility of replacing all turnout signals with the V4.2 style signal. The development and installations of the new style turnout signals was a response to increasing reports by members experiencing uncertainty of some of the existing turnout aspects during night running and at times during the day. At issue was the distance separating the MAIN, FAULT, and DIVERGE lights on the turnout signal display. It was harder, at night, to distinguish the position of a switch from a distance.

Several prototype turnout signals were constructed and the latest version, designated V4.2, was developed from a combination of inputs from several members and problems discovered from earlier units. V4.2 alleviated problems of brightness, viewing angle, visual appearance and fitment. This latest version is now identical in size to current standard GGLS signal backboard. Along with the improvements, an original and unique feature remains in this latest version. Only the center light illuminates and flashes in FAULT aspect, making it easy to distinguish it from a distance. This version also utilizes long life light emitting diodes (LEDs) as display lights.

The LEDs are white in color to minimize any confusion with block signal operations. This model was designed to “drop in” for ease of installation for either RIGHT or LEFT diverging turnouts and has 5” color coded flying leads. The entire signal body is also fabricated from sheets of sturdy black 3/16” ABS (Acrylonitrile Butadiene Styrene) which carries a higher impact rating versus several other polymers. Although the pattern operation of the V4.2 signal display is mostly self explanatory, a V4.2 operational aspect guide is shown here and is available through a link on the GGLS website showing the four different signal displays. A notice of the installation and a guide are posted on the track board inside the clubhouse. Any comments or questions regarding the V4.2 turnout signal, please contact Dan Swanson.
**EMCO Compact 5 Lathe and Milling Head**

Selling an Emco (not Enco) Maier Compact 5 lathe and milling head made in Austria, in very good condition. The lathe dials are all in inch thread for thousands-of-an-inch adjustments. The lathe and mill head motors operate off 110 VAC/60 cycles. Sliding parts are adjustable and the lathe has a swing of 5-inches with a 12-inch capacity between the headstock & tailstock.

The vertical milling & drilling unit is included and converts the lathe into a complete mill/drill unit. The milling/drilling head is equipped to accept the supplied drill chuck, has a vertical fine-feed attachment and is moveable in 3 dimensions. The belt between the two pulleys will need to be supplied.

The lathe is equipped with many accessories including a 3 ½” clamping plate, live spindle, drill chuck with key (Morse tape arbor), top slide for taper turning with a double tool holder and many other. The lathe also has a splash guard in the back and a chip tray. The lathe has automatic feeds of both 0.003” and 0.004” per revolution of the headstock.

A copy of the instruction manual for both the lathe and mill head is included.

Selling both lathe and milling/drilling head for $750.

Michael B. Smith
San Francisco, California
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**Editor's Video Picks**

A 3:49 minute youtube video showing a small Swedish railroad work crew welding long rail sections using thermite welding. For those who haven't worked on a real railroad, it's pretty amazing how fast they can do it.

http://www.youtube.com/watch?v=5uxsFg1z2ig&feature=related

An explanation on the pretty interesting details on how the process works can be found at:

http://www.typesofwelding.net/thermit_welding.html
**Preventing Corrosion Between Dissimilar Metals**

During the construction of my 1 ½-inch scale 3-truck Shay, I had fabricated both a brass oil tank and brass water tank approximately to the outline drawings as provided by Ken Schroeder who also supplied the castings used in the locomotive. I then obtained 1/8-inch thick aluminum plates to place between the fabricated steel frames and the tanks in order to provide additional bearing area since the brass was only 16 gauge (0.059-inch) and the water tank would also serve as a seat for the full size engineer. After running the completed locomotive for about six months and with water finding its way between the aluminum and brass, I found that the aluminum surface in contact with the brass was showing signs of mild corrosion. I knew I had to solve this issue before running again since the mild corrosion at this stage was easily cleaned although if left for a longer period of time, the corrosion would become more severe.

After consulting with corrosion experts, it was recommended that a barrier be installed between the two materials since the brass acted as the cathode and the aluminum acting as an anode. With the water finding its way between the two metals, I essentially had a battery on my train. My solution which has worked was to paint both the aluminum and brass surfaces along with placing a 1/16-inch thick sheet of rubber between the tanks and the floor.

From basic chemistry, corrosion is essentially metals trying to return to their natural state in the environment. When dissimilar metals are placed together, and there is a means for electricity to flow between them, corrosion will occur between the anode and the cathode. In our case corrosion was most evident on the aluminum which was the anode. The water was the electrolyte allowing a slight electrical current to flow between the two metals. This type of corrosion is called galvanic corrosion. Please note that this is a very simplified explanation and the intent of the article is to inform potential builders of problems that we had encountered in order that they are aware of issues that could cause problems at a later date. In our case, I could have used 1/8-inch thick piece of brass instead of aluminum and the problem would have not occurred.

This same corrosion started occurring between the Allen Models aluminum water fill machined casting and the brass tank top despite painting the aluminum casting. A rubber gasket and the use of stainless steel socket head cap screws seems to have cured the problem.

Lessons learned for future locomotive builders.