



# Tucson Garden Railway Society's

## Time Table

Society web site: <http://tgrs.homestead.com>  
Editor e-mail: [dizen@aol.com](mailto:dizen@aol.com)

September, 2004

### Meeting This Month

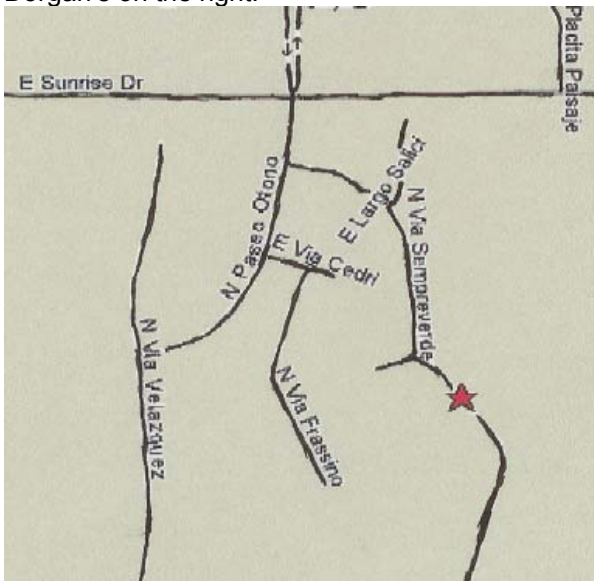
This month's meeting will be at 10:00 AM on September 18 at the home of

Jane and Mike Dorgan  
5416 N. Via Siempreverde  
Tucson, AZ 85750

The telephone number is:  
529-2430

### Driving Directions

The easiest way is to head East on Sunrise from Craycroft. Continue to Paseo Otono (there is a large "Fairfield in the Foothills" sign). Turn South onto Paseo Otono and the first street on the left will be Siempreverde. There is extra parking at that corner by the recreation center as well as three houses past the Dorgan's on the right.



### The Red Rock Railroad

Being western movie fans Jane and Mike Dorgan have built the Red Rock Railroad trying to stay true to the 1860's through the 1890's old west.

As you tour the Railroad you progress from Fort Knocks to the Indian village, then see a wagon train and on into Red Rock (A frontier town named after the water tower

near Picacho Peak). The town has a depot, a baggage area, Mike's bar, the general store, a hotel, a boarding house, a gun shop, a feed and grain, a Chinese laundry, etc..

Leaving Red Rock, you pass a wrecked caboose, the Pony Express stop, Robin Hood, a cavalry camp, a burned out fort, Spur's mine, a fishing lodge, a herd of sheep and three settler's cabins. There is a lumber mill, a trestle, a hacienda and then on to Rock City, an old western town with many features to enjoy.



Rock City on the Dorgan's Red Rock Railroad

The Red Rock Railroad has 500' of track, over 80 buildings, 250 people, 160 animals, 3 depots, 24 wagons, 8 bridges, 10 engines and 70 train cars. As many of you know, most of the buildings are scratch built and over 100 of the people were made by Jane.

We have added a few plants to the natural desert ones, including dwarf holly, blue rosemary, green mound juniper, dwarf myrtle, dwarf bottlebrush, dwarf Alberta spruce, ice plant and blue showers.

### G Scale Equipment Sale

Pat Barnes, one of TGRS's charter members has decided to thin her collection of G and O gauge equipment. She will host an open house sale at her garage every Saturday in September from 10 AM to 2PM. Pat lives at 3025 N. Placita Chorro.

There are too many items to list individually but generally Pat is selling a large number of A/B diesels, a number of heavyweight cars in various liveries, White Pass and Yukon diesels, passenger and freight cars and a number of European prototype locomotives and cars.

Gary Martin, who is assisting Pat with this sale will arrange for visits at times other than the open houses for people who have a serious interest in purchasing part of the collection.

## Radio Control Installation

By Rick Taylor

I have just completed installing an Aristo-Craft 75 MHz on-board receiver (CRE55491) into my LGB 2-6-0 Mogul. It was an interesting project, so I thought I would write a quick article explaining my approach to the installation. If any of you have other suggestions for me, it would be greatly appreciated. Especially since I plan on tackling the same installation in my LGB 2-6-6-2 Sumpter Valley engine next.

I had generated an email chain with most of you and I appreciate you information to help me think about DCC or on-board remote control. I decided to go with the Aristo on-board control for several reasons. One of those reasons being that the Aristo-Craft TE transmitter cost is less than others. I want to have 3 transmitters on my layout so that my nieces kids can come over and each control a train. And of course, I need a transmitter so I can hit Emergency Stop when needed! ☺

So, like any fun project, I was off the Ace Hardware Hobby shop to pick up the 75 MHz TE transmitter and on-board receiver. While there, I also picked up the Aristo-Craft Elite 22 volt 13 amps (CRE55464) power supply. Ya gotta love walking into that Hardware Store!

Next was the project itself. I quickly decided that the garage was too HOT for this project, so I decide to work on the family room bar (Debbie wasn't real happy, but she's a great sport when it comes to my train obsession). Figure 1 shows the proper Tucson summer time model train-working environment: INSIDE with Air Conditioning. ☺



Figure 1 – Rick's indoor workshop

Here is the approach I took to disassembly of the LGB Mogul:  
Remove the Engine Cabin Roof (1 screw in back and 2 in front).

Remove the Cabin Boiler structure (4 screws under the Cabin). There are plastic cylinders glued directly underneath the cabin and I had to remove those also. The glue was soft, so I just wiggled the cylinders off.

As seen in figure 2 the LGB engine control Printed Circuit Board (PCB) is exposed. You can also see where several years ago I had added 2 LEDs to light up the cabin: one is a red LED (that glows through holes I had drilled in the boiler door) and the second is a bright white LED that shines up into the face of Engineer "Bob"!

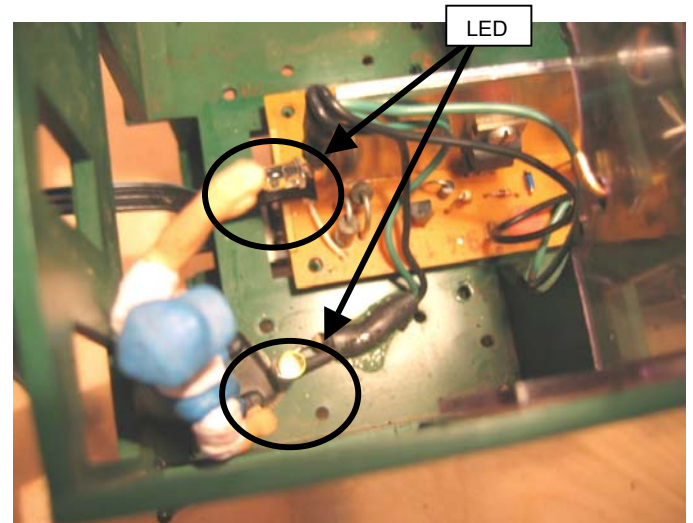
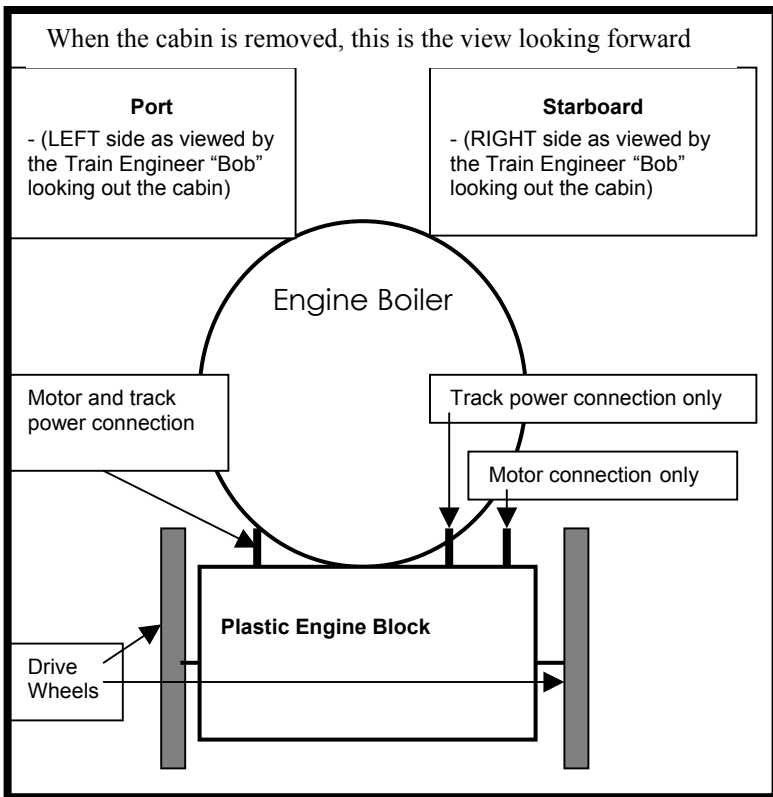


Figure 2 – Bob and the LEDs

Slide the (green) cabin structure back away from the boiler as seen in Figure 3 (there are brass rods that run the length of the boiler and will slide out of the holding stanchions. You can remove the brass rods as they are only pressed into the plastic cabin structure. The LGB engine control printed circuit board will have 4 wires (brown and black for the front head light, white and black for the smoke unit) running to the front of the engine. There is a ribbon cable with 3 wires (white, brown green) coming from underneath the circuit board and running to the plastic engine block.

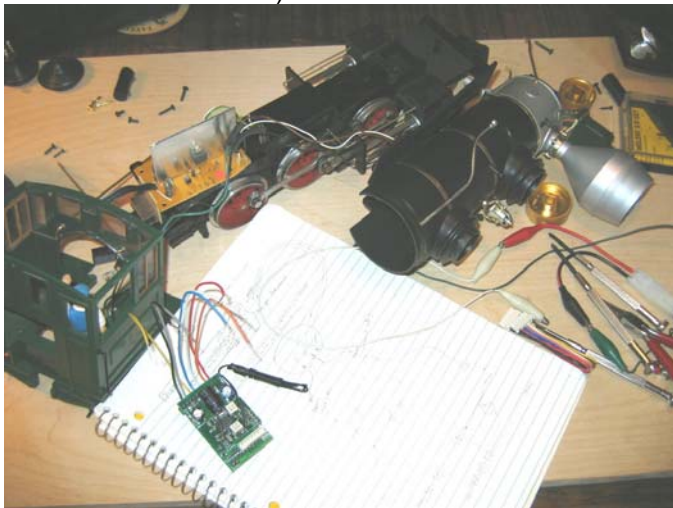


Figure 3 – Cab removed from boiler



Remove the Engine Boiler (remove 2 very small screws underneath and disconnect or unplug the two brass rods connecting the boiler to the front cattle guard)

As seen in figure 4 below, all of the wiring is exposed (the circuit board sitting on top of the note book is the 75 MHz on-board receiver).

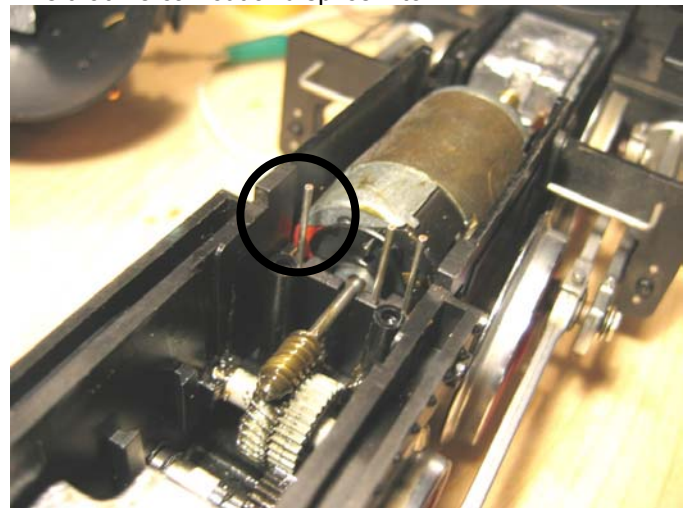


**Figure 4 – Engine parts and new On Board receiver**  
With an ohmmeter I discovered that LGB wired one of the track power pickup leads to one of the motor leads. That is why there are only 3 wires coming from the plastic motor block unit instead of the 4 wires, which I had expected. The Aristo on-board receiver **REQUIRES** that you have 2 wires for track power pickup (or battery power) and 2 wires for the motor drive. They **CANNOT** be connected in any way. The motor and track power must be isolated. Aristo says the on-board receiver would be damaged if we keep the common motor and track power lead. So, I had to go into the motor block

and see if I could separate the common motor and track power connection.

Remove top of the Motor Block (remove 4 long screws and 2 smaller screws. The smaller screws attach to lead weights in the Motor Block)

Figure 5 shows the Motor Block with the top off uncovering the motor, connection posts, and gears. Notice the **RED** tab on the motor to the left side of the picture (if this is not in color it is the left side of the motor next to the single connection post). That single connection post is our problem child because it connects to the port side track power and motor together (port: is left side as viewed from the train engineer looking in the cabin looking forward). This is a physical contact connection made by the motor resting on the post, not a wire that we can cut and splice into.

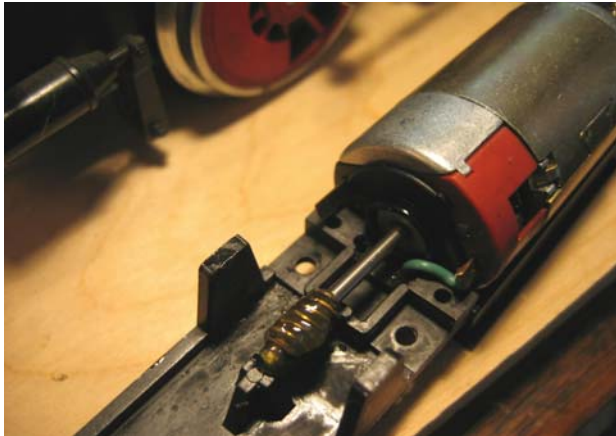


**Figure 5 – Pin connected to both track and motor**  
My solution was to remove the motor (simply pull the motor up and out from the plastic motor block housing), bend the port side (red tab) motor contact in half so that it would not make contact with the wiring post and then solder a wire to that bent motor contact as seen in Figure 6. Make sure that you have bent or cut the motor contact short enough so that it does not touch the port side motor block contact post.



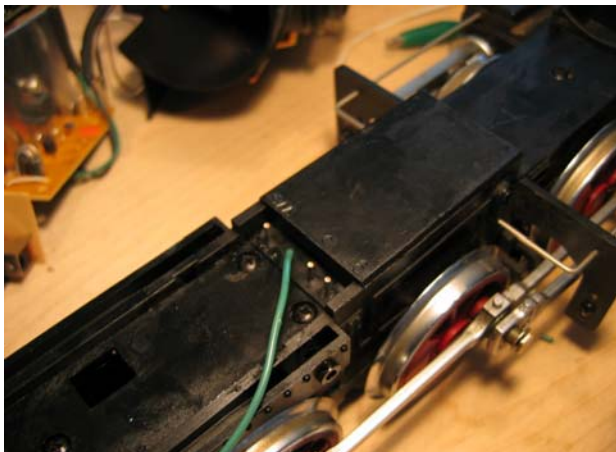
**Figure 6 – New wire soldered to bent back motor tab**

I then drilled a small hole in the motor block cover and ran my wire (green) out the top through the hole. Figure 7 is the motor block cover sitting upside down with the wire pulled through the hole and the motor sitting in place. I then installed the motor block cover and motor back in place all at one time. Putting the motor in place and then trying to install the motor block cover did not work for me. The wire kept getting in the way of the installation.



**Figure 7 – Motor in place with wire through cover**

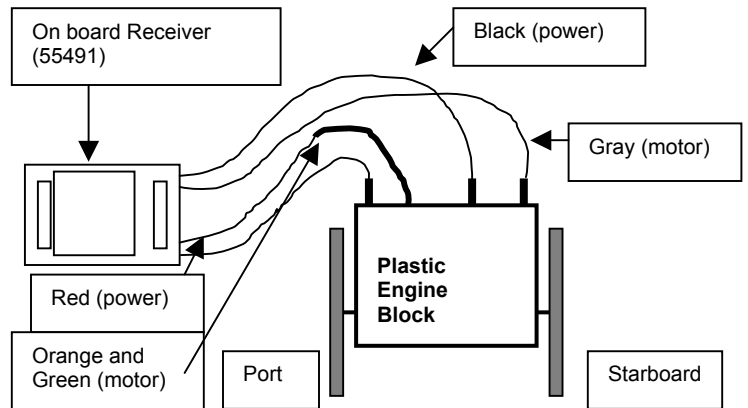
Figure 8 shows the reassembled motor block with the new green wire, which is attached to the port side motor connection.



**Figure 8 – Motor block with new wire to motor**

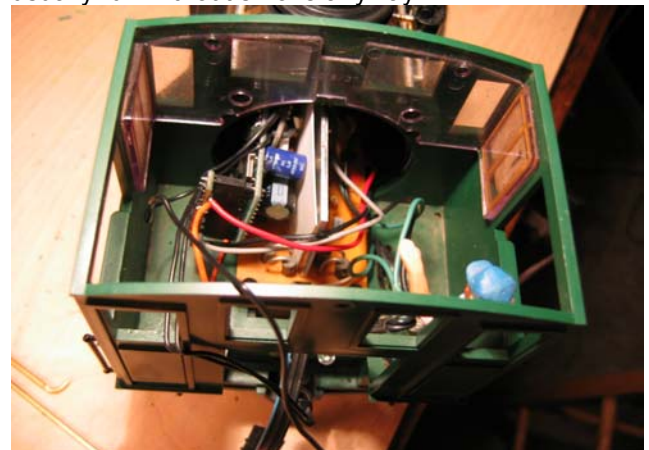
Now I can wire the motor and track power independently from the motor block to the On-board Receiver. Below is the description of how to connect the on-board receiver and the motor block.

- **Track Power:** I connected the port side track-power (which is the existing motor block post that we just isolated) to the Red, wire #7 called “Left Side Track Power Pick-up” in the manual. Then connected the starboard side track-power to the Black, wire #1 called “Right Side Track Power Pick-up”.
- **Motor:** I connected the new Green wire coming out of the motor block (which is our port side motor connection) to the Orange, wire #6 called “Left Side Motor Terminal”. Then connected the starboard side motor to the Gray, wire #2 called “Right Side Motor Terminal”.



**Lights:** I would recommend that you go to the Aristo-Craft web site and download the TE manual if you are going to connect up lights to the on-board receiver. The manual on the web page is called “Updated Instruction Manual for On-Board Train Engineer – CRE-55492” and once downloaded it’s called “te75manual.PDF”. (The 55492 is Aristo’s 55003 TE Transmitter and 55491 On-board Receiver packaged together). The small manual supplied with the receiver has a totally different way to connect up the lights with diodes. That method not only does not work, but it is more difficult to wire. The PDF manual has the proper light installation solution. Just connect the lights to the front and rear light connections (if LEDs include a series 1K ohm resistor for each LED) with the returns connected to the “common” wire. No diodes, no connecting cutting into track power.

I left the original LGB printed circuit board (PCB) in the cabin to control the all the LED lights and smoke device. There is a switch at the rear of the Mogul with three positions. Position (1) turns everything off (i.e. no motor, no lights, no smoke), (2) turns on motor and lights with no smoke, (3) turns on motor, lights and smoke. When the smoke element is turn on, with switch position 3, the LGB PCB gets rather warm. Since my on-board receiver was going to be position on top of this board (as seen in Figure 9) I did not want all the heat, so I moved the switch to position number 2 (motor, lights, no smoke). I will turn to switch position 3 when I want smoke, but I usually run without smoke anyway.

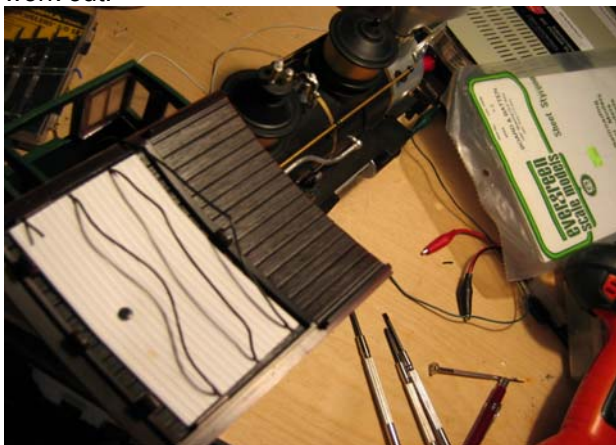


**Figure 9 – Sliding On Board receiver into boiler**

**Red Push Button:** There is a Push-button switch required for programming the 55491 receivers. It is supplied with a connector for easy removal, but it stands up rather high. In order to get the on-board receiver in to the Moguls boiler area I had to cut the connector from the push-button and solder the wires directly to the receiver's circuit board. It is a snug fit.

**Programming Lights:** Since I did not use the receiver to control the engines lights I needed to connect a light to one (front or rear) of the on-board receiver light controls. The receiver is setup to blink the train lights during programming. So connected a yellow LED with a 1 K ohm resistor to the "Rear Headlight" control and the "common" of the receiver. That way, I could see the blinking rate of the LED while programming, it would not be on while the engine is moving forward and when it came on while moving backward it would be a low intensity and look nice.

**Antenna:** Wiring the antenna was another interesting effort. You do not want the wires of the antenna to cross over top of each other or you effectively shorten the antenna's receive wavelength, which in turn reduces your reception capabilities. Hence, you will have to be closer to the engine than normal. So I cut a piece of styrene to be used to wrap the antenna wire (staggered with out crossing over itself) and mount to the roof of the engine cabin. Figure 10 shows the notches I cut an how I wrapped the wire. I also made sure that the wire leading from the boiler to the antenna did not cross. This arrangement seems to work pretty well. With the TE transmitter antenna in the collapsed position I can control the engine at about 30 feet. With the antenna pulled out, I can control the engine from all over my yard, which the longest run is about 90 feet. I have ordered some small 75 MHz antennas from [www.ecubedrc.com](http://www.ecubedrc.com) for \$10 each. These new antennas boast some very good reception numbers and are only 3 inches long. When I get one installed I will let you all know how they work out.



**Figure 10 – Antenna configuration**

Well, that pretty much wraps up my LGB Mogul on-board receiver project. It's always fun digging into the guts of these train products and seeing how they are constructed. LGB seems to be Tops when it comes to a quality design.

**EDITORS NOTE:** My Mogul, which is several years old, is exactly like Rick's with three pins, including one with both track power and motor contacts, coming from the motor block. Recently, however, I installed LocoLinc in a club member's new Mogul and found that LGB had modified the motor block to isolate the pickups from the motor.

This eliminated the need to remove the motor and solder the wire (the green wire in Rick's article) to the motor as Rick did. Be certain to check your Mogul as you may be able to eliminate that step if you are installing remote control in your Mogul.

## How I spent My Summer Vacation – or Rail Travels in Great Britain

by Nick C Buchholz

This June I was lucky enough to be able to attend the SPIE conference in Glasgow Scotland to present a couple of papers for the MONSOON project at NOAO. (SPIE is the International Society of Optical Engineers, but, when asked I say SPIE is the Society for the Prevention of Industrial Engineering.)



**Kilmartin Glen standing stones... and me!**

This gave Mary and I the opportunity to spend some vacation time traveling around the British Isles and seeing the sites. We spent time in Kilmartin Glen, Glasgow, Inverness and Stirling in Scotland; Blaenau Ffestiniog and Porthmadog in Wales; and Shrewsbury, The Cotswolds and Durham in England.

We traveled by train most of the time, using the facilities of a BritRail Pass purchased here in the states. (We rented a car in Kilmartin and the Cotswolds for a total of five days.) All of the train trips were pleasant and we only had a delayed train once in eight travel days. Three of the journeys took six hours or more and most required at least one train change during the trip.

We found the trains to be mostly clean and pleasant to ride. While the seating arrangements on the trains differed most consisted of forward and backward facing seats interspersed with four facing seats with a table between. We always tried to snag a table so we could spread out some and write or read. It's possible to reserve seats on most long trips though the one time we tried, all the "reserve-able" seats were already reserved. Reserving seats takes more fore thought than we were doing.

In addition to riding the trains from place to place in Britain, I got to ride two narrow gauge and one Std gauge preserved railroads which were especially fun. Britain has more than 169 standard gauge preserved steam railroads plus untold numbers of narrow gauge roads. (Seven that I know of in Wales alone.)



**The double Fairlie David Lloyd George, built 1979**

The trip from Blaenau to Porthmadog takes 45-55 minutes through some magnificent scenery. The fare is £9 (about \$16.00) for first class. The cars are all old style passenger cars with compartments that open directly onto the platform. In fact the old practice of having the guard (conductor) lock the passengers in is still followed. Our guard was a nice young lady who suggested that a modest bribe would get us released at the terminal station in Porthmadog. There was one meet on the line where our train met the uphill train at one of the stations. (Except for the stations the line is mostly single tracked.) I took some pictures of the uphill engine and later discovered it had been delivered to the original FRR in 1863. The booklet I purchased about the railroad shows this engine's boiler has been re-done at least 6 or 7 times since 1954.



**Standard and two-foot gauge meet at Blaenau**

The two narrow gauge roads were both in Wales. The Rheilffordd Ffestiniog is a 2-foot gauge former slate transport line that started in the 1840's with horse drawn trains. The present locomotive roster includes both new and preserved double and single Fairlie's as well as a number of standard rod driven tank engines and some diesel-mechanical and diesel-hydraulics. Some of the engines they use were delivered to the railway in 1863 and kept running since then. The present operation started in 1954 after the line and all equipment was abandoned in place by the collapse of the slate industry and a switch to road transport.

Volunteers started cleaning up and restring the line so passengers could again be hauled from Blaenau Ffestiniog, the grayest town in the universe to Porthmadog, a formally important port town. Both towns now survive mostly on tourists and the remnants of the slate quarries. Porthmadog (Porth-ma'-dak) was also once a major shipbuilding town with a substantial port.



**Actual magnificent scenery along the Ffestiniog RR**

There were Remnants of the old slate operations scattered along the right of way, including old rolling stock, repair sheds and small maintenance yards.



**One of the quaint Ffestiniog RR stations with garden**

The second narrow gauge line is the Rheilffordd Eryri, the new name of the resurrected Welsh Highland Railway. The WHR originally ran from Caernarfon to Porthmadog and was built to capture the tourist trade going to Mt. Snowdon in the early 1900's. By 1930's it was bankrupt and went into receivership.



**The Welsh Highland Railway current power at Porthmadog**

The new effort is building along the old right of way and currently has two sections the Caernarfon to Rhyd Dhu (12 miles) and Porthmadog (2 miles) sections. The current plans call for these two separate sections to be connected at Rhyd Dhu on the lower slopes of Mt. Snowdon within five years. The FR and WHR organizations and volunteers are undertaking this effort. The ROW acquisition has started and I told the cashier in the WHR shop that I'd be back in five years to ride the completed Railway

The last railroad was the Gloucestershire Warwickshire Railway or GWR. This was a standard gauge railroad running on a section of abandoned BritRail Branch line between Toddington and Cheltenham in the North Cotswolds. Here the train was straight out of the 1930's with first class corridor coaches and a snack and drink

bar complete with guard van and a 2-8-0 Consolidation to pull the eight-car train. We boarded in Toddington and had a lovely ride to Cheltenham stopping in between at Winchcombe. Because this was originally double track territory you could hang your head and camera out the windows without endangering life, limb or pocketbook. I got some neat pictures of the trip. Including one completely black frame taken inside the longest tunnel on a preserved RR in the UK.



**A locomotive kit at the Welsh Highland Railway (a dismantled Stem loco)**

All in all we had a great time. I just wish we had planned for a longer stay in some of the places we visited. Our last stop, Durham, had a cathedral, three nearby railways and Beamish, a living museum with a ride-on replica of "Locomotion No.1" built by George Stephenson in 1825. And because of the previous days train delays, rain and poor planning we only got to see the cathedral. Next Time for sure.

## Artificial Rocks



Most members at the July 17 meeting, held at Bob Hoffman's, didn't notice that two of the rocks, including the center one above, were artificial. Made of concrete, Bob said it cost only \$44, about a third of the cost of real boulders, and was purchased from Bob Daries of Backyard Boulders, 4237 Osage Ave. He may be reached at home (577-1161) or by cell phone (971-7800)

# Club's Financial Results

In July, TGRS's Treasurer, Willis Fagg, reported on the club's financial results for the 2003-4 fiscal year which ended on June 30, 2004. In summary the revenues were \$11,890.83 and expenses were \$13,716.08. Accordingly, our cash in the bank decreased \$1,825.25 from \$3,354.11 at July 1, 2003, to \$1,528.86 at the end of the fiscal year.

The principle reason expenditures exceeded revenues, despite the very successful public open house, was the purchase of a second trailer to haul club modules and scenery. The club spent \$6,921.84 on the new trailer and related items such as the graphics on the side. The additional storage space in the second trailer has allowed us to give up the storage locker in which some scenery modules had been stored.

The financial results are summarized and discussed below:

## Revenues

Members dues	2,960.00
Public Open House	4,772.00
Bus Trip to Phoenix (1)	1,224.00
Sales of club caps & shirts (1)	980.50
Raffles of starter sets at shows (1)	1,288.25
GATS prize	200.00
Donations	101.86
All other	<u>364.22</u>
Total Revenues	<u>11,890.83</u>

(1) See related expense item below

**Dues** include both renewals and new member dues. Since the club keeps its books on a cash basis some portion of fiscal 2003-4's dues were paid and recorded in the prior fiscal year. Similarly about \$1,520 recorded in this year are actually 2004-5 dues paid in advance.

The **Public Open House** was the very successful event organized by Roy Eberbach in which eight club members opened their layouts to the public for one weekend. This event raised considerably more revenues than we had anticipated and is planned to be repeated in this next fiscal year. Expenses for the public open house were \$483.96, primarily for printing of posters and tickets.

The **Bus Trip to Phoenix** was the round about with ABTO (Arizona Big Train Operators). Expenses in connection with this trip were \$915.38, principally for rental of the bus.

**Sales of club caps and shirts** reflects members payments for the items with the club logo. Note that while expenses to purchase these items was \$1,234.17 there is still inventory on hand for future sales to members.

The **Raffles of starter sets at shows** is partly offset by \$481.89 of raffle expenses. This is primarily the cost of

the LGB starter sets but includes such minor items as raffle tickets.

Other revenue items are minor but Willis will be pleased to provide additional details to any club member who inquires.

## Expenses

New Trailer	6,921.84
Public Open House	483.96
Bus Trip to Phoenix	915.38
Purchase of club caps & Shirts	1,234.17
Raffle expenses	481.89
Module construction & repair	893.30
Purchase of rolling stock	381.59
News letter copies & mailing	766.43
Insurance	504.00
Tucson Botanical Garden	381.01
All Other	<u>752.51</u>
Total Expenses	<u>13,716.08</u>

The first five items have been discussed above.

**Module Construction and Repair** includes the material cost for new modules including rail joiners and clamps, and repair costs such as the new legs, glue and paint.

**Purchase of Rolling Stock** was the purchase of cars owned by the club and used on the modules and other displays such as that at the Tucson Botanical Garden. In addition the club received several sets of FA/FB diesels and considerable rolling stock from the estate of Chris Lawson thanks to the generosity of Gary Martin and Al Lathrem.

**Newsletter copies and mailing** is the cost of reproducing and mailing this newsletter plus the costs of miscellaneous supplies such as labels. These costs will be reduced as more members sign up for the electronic delivery program.

**Insurance** is the annual premium for the club's liability insurance.

**Tucson Botanical Garden** is the costs incurred in setting up the holiday display at the garden. TBG has agreed to pay these costs and Willis has billed them.

Other expense items are minor but, as with revenue items, Willis will be pleased to provide additional details to any club member who inquires.

## Denver Convention, etc.

The 20<sup>th</sup> annual Garden Railway convention has come and gone and, despite some hotel related issues, was a delight with many excellent railroads on display.

On the way to the convention we visited and rode the Cumbres and Toltec from Chama NM to Antonito CO. Jeanne and I traveled first class in the parlor car and enjoyed the company of Peggy and Gary Martin and Nick Buchholz as well as other non TGRS railfans.





**Cumbres & Toltec engine working hard towards Cumbres with our train on August 10.**

On the following day we visited the Siebert's ride on railroad thanks to the Dirkson's and Hoffman's efforts.



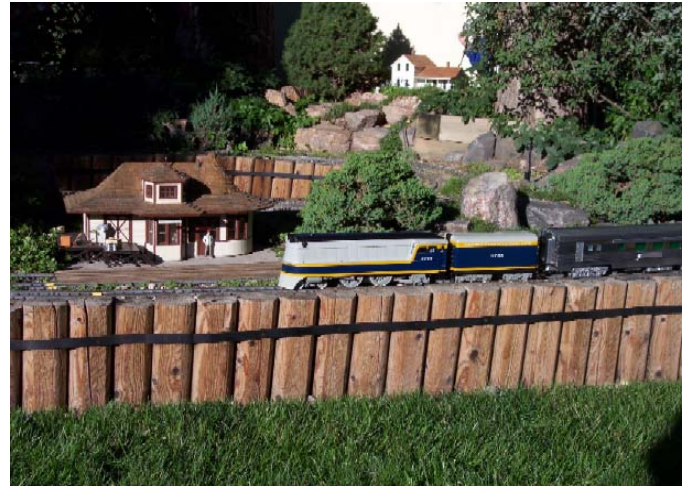
**Our hosts (and their new puppy) head out with their coal fired Rio Grande Midland 2-6-0 to join the rear of the train as a pusher locomotive.**

The front locomotive was owned by a friend who ran the engine for our train. In the great Garden Railroad tradition the two engines were built to different scales.



**Shown here working up steam, Chaparral Northern railroad's coal fired 4-6-0 led our train.**

My digital camera says I took 98 pictures of the various layouts but space limits mean that I can only show you a few:



**The Johnson Pass Spur Rail Line had a raised road bed and featured this streamlined 4-6-0 steamer.**



**Log train on the beautifully detailed Hard Rock & Dynamite Railroad which is set in the 1890s-1930s.**



**Scratch built scale model of the Georgetown Loop Railroad's high bridge on the D & R Loop Railroad.**

## Photos for Web Site

Members with digital cameras who take photos at our meetings are reminded that Jerry Tulino would like to have copies for our web site. You can e-mail them to Jerry at [lackawana79@yahoo.com](mailto:lackawana79@yahoo.com) or burn a CD for him.

## Annual Dues Past Due

If your address label has a "FINAL ISSUE" stamp your dues have not yet been received. It is important that you contact Treasurer Willis Fagg promptly. Checks should be made out to either Tucson Garden Railway Society or simply TGRS and may be mailed to: Willis Fagg  
12440 E. Ave. de la Vista Verde  
Tucson, AZ 85749

## New Members

The TGRS welcomes new members April and Michael Bidon and Bruce Duesenberry. We hope to meet you at the next meeting.

The Tucson Garden Railway Society is a non-profit corporation incorporated in Pima County, Arizona. Society members are interested in all areas of garden and modular large scale railroading. We welcome new members and hope you will consider joining. Members help each other build layouts and learn about railroading and modeling. The TGRS dues are \$30.00 per year and are due on June 30<sup>th</sup> of each year. For new members dues are pro-rated at \$2.50 per month remaining in the year until June 30th plus a \$15.00 initiation fee, the first year. Additional name badges cost \$1.00 for each badge after the first. If you are interested in the TGRS please contact one of the officers at the phone number listed in the Calendar section below. If you wish to join immediately, send a check and your name, address and telephone number and the names for any additional badges to:

Ibby Ulmer  
4935 N. Craycroft Road  
Tucson, AZ 85718

### Calendar of Events

Sept 18	Regular meeting at Jane & Mike Dorgan's home – 10:00 AM
Oct 16	Regular meeting at Jan & Lew Sleeper's home – 10:00 AM
Nov 6	Open house at Peggy and Gary Martin's house 10:00 AM to 4:00 PM
Nov 20	Regular meeting at Mary & Ken Karrels' home – 1:00 PM
Dec 18	Xmas party & meeting at Madelyn & Jim Cook's home – RR Open 4:00 PM, Meeting begins 5:00 PM, Pot Luck Dinner 6:00 PM
Jan 7-9	Home Show at Tucson Convention Center
Jan 15	Toy Train Operators Swap Meet- Rodeway Center (I-10 & Grant)

### TGRS Officers and Board of Directors

<b>President:</b> .....Nick Buchholz.... 520-744-4932	<b>At Large Board Members</b>
<b>V-President:</b> ..... Norm Ulmer.....520-299-9401	Chuck Cook.....520-888-3264
<b>Secretary:</b> .....Ellen Stoesser.....520-577-1210	Bob Dirkson.....520-742-9503
<b>Treasurer:</b> .....Willis Fagg.....520-760-0147	Bob Hoffman.....520-825-6967
<b>Editor:</b> .....Dick Izen..... 520-498-4634	Joe Stoesser.....520-577-1210

**Tucson Garden Railway Society**  
**12356 North Mount Bigelow Road**  
**Oro Valley, AZ 85737**