



Tucson Garden Railway Society's

Time Table

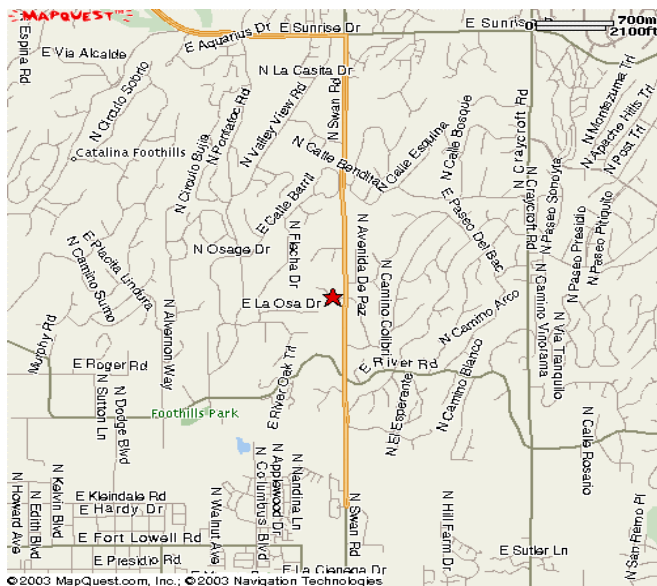
Society web site: <http://tgrs.homestead.com>
 Editor e-mail: dizen@aol.com

April 2003

Meeting This Month

This month's meeting will be on April 12, at 1:00 PM at
 Peggy & Gary Martin
 4625 E. Cerro de Aguila
 Tucson, AZ 85718
 Phone: 520-299-7428

Directions: Cerro de Aguila is a small street on the west side of Swan. The turnouts on Swan are marked with green warning signs in the median. If you are coming north on Swan it is above River. If you are coming south on Swan it is well below Sunrise. Look for the tall pole with the American Flag. It is the next road after the flag. The house is the second on the right after you enter the street.



Eagle Mountain Railroad

We bought this house in 1989 and moved in two weeks before Christmas. A yearly tradition was to put an HO train around our holiday tree. Gary saw and bought a G gauge train which was bigger and easier to set up. The first year the train went around the tree. The next year the train went around the tree and the TV, the following year around the tree, TV and behind the couch. He built a little village for the train (You're getting the picture!) After

seeing a Garden Railways magazine, we decided to build an outdoor railway. The layout has grown in three phases. First was the town area and 50 feet of track. Next came the logging area with waterfall and ponds and the third phase was the desert mining area. The garden incorporates a variety of native and other colorful plants that have been chosen for their resistance to desert animals. We have really enjoyed a project that brings two hobbies together, gardening and model railroading.

The Railway at a Glance

Eagle Mountain Railroad, owned by Gary & Peggy Martin
 Size: 30'x70' and 30'x100'
 Scale 1:22.5 & 1:20.3, gauge No.1 (45mm)
 Theme: 3' narrow gauge in Arizona mountains and desert
 Era: Steam late 1800's to the 1930's
 Age: 8 years, track powered, 1000 plus feet of track
 Maximum grade is 6% and minimum radius is 3 feet
 Track is a mix of LGB and Aristocraft all with code 332 rail
 Structures are Piko, Pola, Railroad Avenue and scratch built
 Bridgeworks, MRC and Hogger power supplies are used with Aristocraft Train Engineer remote controlling power to the track



Empty ore train descends the rocky grade near the town

Plants on Eagle Mountain Railroad

- | | |
|-----------------|---------------------|
| Trees | Ground Cover |
| Mesquite | Myoporum |
| Palo Verde | Lantana |
| Aleppo Pine | Showy Primrose |
| Dwarf Wine Pine | |

Dwarf Cedar
Dwarf Alberta Spruce

Cactus and Succulents

Saguaro
Fishhook Barrel
Prickly Pear
Agave
Teddy Bear
Buckhorn Cholla
Bunny Ears
Dollar Cactus
Tree Cholla
Crown of Thorns

Shrubs

Autumn Sage
Bird of Paradise
Blue Juniper
Brittlebush
Bursage
Creosote Bush
Desert Broom
Desert Phlox
Mexican Heather
Ocotillo
Penstemon
Rosemary

Editor's Rants

The club offers its condolences to Peggy and Gary Martin on the recent death of her brother after a long and painful illness.

I had been planning to respond to some requests and hunt up articles on improving the ubiquitous Bachmann ten wheeler but Jerry Tulino did better than that by putting up a link to "George Schreyer's Large Scale Trains page". To get there go to our web site and open the menu. Click on "Links". Then click on "Miscellaneous". This will display a listing including the link to Schreyer's site. Once Schreyer's site comes up, scroll down and click on "Large Scale Trains Technical Tips" and finally on "Bachmann Big Hauler" which is what the early models of the ten wheeler were called. You can also find all sort of other goodies on this site.

Minutes of March Meeting

By Ellen Stoesser

Hosts: Jim & Madelyn Cook
March 15, - Attendance: 56

Pres. Nick Buchholz called the meeting and thanked the Cook's for hosting. New members and guests were introduced.

The minutes of the last meeting were approved as printed in the newsletter.

Willis Fagg reported a bank balance of \$3073.54 in the club account. He also requested members who are submitting expenses for re-imburement to have an itemized list with a cash register receipt. He would also like to know if the member would like re-imburement by mail or at the next meeting.

Dick Izen reported that the newsletter would still be mailed out and if you would like a color version, it can be printed out from our web site. Dick was thanked for the very informative and interesting newsletter. More articles are always welcome so he can continue to keep up the good work. Jerry Tulino was also thanked for his great website.

Norm Ulmer would like more people to sign up to give seminars and work at the Pima County Fair, a Day Chairman and 4-5 are needed for each day to run trains, man the raffle table and help at the children's layout. Beginning tear down will start at 5:00P.M. on Sunday the 27th. Members with houses, trains should pick them up on Sunday night because of security measures. There will be a sign-up sheet at the May meeting for the American Home Show, with us being in the basement with a larger set up. The show is going to run from June 13-15 with set up beginning on June 12, at a time to be decided later.

Committee Reports: Joe Stoesser reported the mentor program is working, and he has gotten two mentors together with two new members. If you are in need of a mentor please contact him.

Dave Tiefenbach thanked all members for helping with the TBG event and if you are missing any equipment from the event please get in touch with him. Michelle would like to set up a meeting to talk about a permanent layout in the Children's Garden.

Joe Duda said "the track modules are being upgraded, so they will be lighter and easier to handle". The Tower of Power is also being rewired and updated. Wood from the old modules can be taken by the members of the club.

Old Business: George Fitzner will cut 60 new legs for the new track modules. George is also making two modules (a silo and a beer brewery) that will be combined into one and he will donate this to the club. These will also be in the lighter version.

New Business: Board members will be discussing changes to the by-laws at the March 17 meeting will be held at Roy Eberbach 's at 7:00P.M.

Nick Buchholz will check on a storage container to store equipment in and if the cost is not feasible, then we will continue to look into a second trailer. Alan Latham has volunteered to keep it at his house.

For a regular or renewal subscription of Garden Railways Willis will need a check and a subscription number. The deadline for Willis is 4/16 so he can meet the magazine deadline of 5/1. Prices: 3 years-\$58.00---2 years-\$41.00--1 year-\$21.00.

Madelyn encouraged all members to see her two rooms of miniatures, some of them have been on loan to several museums. VERY NICE!!!!!!!!!!!!

Next meeting will be an open house at Gary & Peg Martins, April 12 at 1:00P.M.

The meeting was adjourned.

Update on Window Glass

Bob Hoffman reports that there is an easier and less expensive way to get real glass for your building windows. Take the measurements for your window opening and go to Home Depot. Purchase a sheet of

picture frame glass for \$1.00 and they will cut the glass to size, free of charge. Thanks for the tip Bob.

I Think I Knew That # 3

By Roy W. Eberbach

The column presents my ideas and is not intended to be the only right way of doing things. This is what works for me. If you have different ideas that work for you send them along and I will share them with the club.

#3-1 What is a kitbash?

Sometimes a modeler needs something that is just not available commercially. One answer is to kitbash what is needed. On my railroad I have the Overland Stage Inn which is made from two Piko kits and some stuff from my scrap box. By combining parts from the two kits, which can take a little cutting, patching and fudging, I ended up with a unique building and met a need for my passengers. If you will look closely at any line of German "G Scale" buildings you will see that the engineers designed the parts of the kits to be interchangeable so that the same part can be used in many kits. For example all of the Piko wall panels are designed to work together. They make a large panel and then there is another panel that is one third of that size. There is also a panel that is one half the size of the large panel. By mixing and matching we can make buildings that are different. Your imagination is all that is needed.

#3-2 What is a scrapbox and how do you get one?

There is a simple rule in model railroading. That is, never throw anything away because you will be able to use it some time in the future. This rule may cause some problems in the family, but deal with it. (*EDITOR'S NOTE- Small problems from this collecting may be addressed with flowers or candy, larger ones may call for jewelry or cruises.*) Some important things to put in the scrap box are all left over parts from kits, scraps of wood, plastic, other materials, etc. and all those odd pieces of junk that are too good to throw away. I have found uses on the railroad for medicine dispensers, aerosol can tops, broken toys, samples sent in junk mail, scrap Plexiglas and left over parts from non-railroad projects. Yes, there will come a time that you will have to go through the stuff that you have accumulated and part with some of the goodies. The biggest problem that I have is finding that special part when I need it.

#3-3 Warning about Damaged Kits?

I, like many other model railroaders, buy kits and put them on the shelf to be assembled later. Recently I unpacked a kit only to find that the retailer had sold me a kit that had been damaged by a previous purchaser. All of the parts had been removed from their sprues and some were missing. Apparently the kit had been sold and then returned and resold as new. This one had been around for a while so I can't remember where it came from. If a retailer does this to you, demand that you be allowed to return it for a new kit or a refund. If postage is involved, the retailer should pick up the cost. If they refuse or if you

are treated poorly let me know and I will share the story here. That way other club members will not meet the same fate.

Martins on TBG List

by Bob Dirksen

No, the Martins are not on a hit list. Gary and Peggy's garden has been chosen to be one of the stops on the Tucson Botanical Garden's annual tour on April 5th and 6th. The tour is a fund raiser for the TBG. Congratulations to Gary and Peggy.

Articulated Steam Locomotives

Mallets, Duplexes and Simple Articulated Engines

By Robert S. McGonigal

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While most North American steam locomotives had a single set of cylinders and driving wheels (or "engine"), some of the 3000 manufactured were of the dual engine configuration.

Although the designations "articulated" and "Mallet" are often used interchangeably to describe such locomotives. The Mallet design was merely a type of articulated locomotive, and neither term applies to another type of dual-engine locomotive, the rigid frame Duplex drive.

Articulated Locomotives – The Basics

In any type of steam locomotive, steam from the boilers flows into a pair of cylinders (one on each side of the locomotive). As the steam expands in the cylinders, it pushes the pistons, which are connected to the driving wheels on each side via twin systems of rods. After the steam has expanded in the cylinders, it is exhausted out the smoke stack. The cylinders, rods and driving wheels are together referred to as an "engine".

A compound locomotive takes the steam after it has been partly expanded in one cylinder and pipes it to another cylinder, where it further expands, and pushes another piston, before going up the stack. Because the steam is at a lower pressure after its initial expansion, a larger cylinder is needed to develop equal piston thrust. This arrangement gets more work out of a given quantity of steam. Compound designs involving a single engine enjoyed some popularity for 20 years or so around 1900.

Articulated locomotives were compound locomotives with two engines hinged together under one boiler. The rear engine was firmly attached to the boiler while the front one was independent of it. By hinging the drivers in two sets, a locomotive with more wheels and a bigger boiler could take curves. Also, separate sets of cylinders allowed lighter side rods than if all the drivers were connected to a single cylinder set.

At first articulateds were used for slow, heavy freight and yard work; later designs hauled merchandise freight and even passenger trains.

An articulated's boiler was attached to the second engine, while the weight of its forward part was transmitted to the front engine via a sliding plate. Springs or other devices were used so that the side motion of the front engine helped guide the second into curves. The headlight was often mounted on the front engine (not the smoke box) so it aimed down the track on curves.

Mallets and Simple Articulated Engines

The first articulateds were 0-6-6-0's for the Baltimore & Ohio in 1904. Like most early articulated engines, these were Mallets, named for the type's Swiss inventor, Anatole Mallet (Mal-Lay Anglicized as "MALlee") used steam twice. In Mallet locomotives steam from the boiler goes to the rear engine first, passing through high-pressure cylinders; then is exhausted into the cylinders of the front engine through flexible pipes. The front cylinders were larger in diameter because the steam at reduced pressure, occupied a greater volume. They in turn exhausted to the stack.

The mid-1920's saw improved high-pressure steam joints, and many articulateds of later years were not Mallets but "simple" articulateds with all cylinders of the same size, using high-pressure steam direct from the boiler to both pairs of cylinders. (Some Mallets were even rebuilt as simple articulateds.) These locomotives generally had larger drivers for higher speeds than did Mallets. The 1930's and 1940's were the heyday of this design.

Modern articulateds were the equal of other big engines like 4-8-4's and 2-10-4's in speed, but had far more traction and were better on curves. While Mallets fell from favor, they never quite vanished; 2-6-6-2 and 2-8-8-2 Mallets were among the last steamers built for U. S. service.

With their long boilers and two engines, Mallets and simple articulateds look very similar. The cylinders give them away: Mallets have large front (low-pressure) cylinders and normal-size rear ones, while simple articulateds have standard-size cylinders on both engines. Most wheel arrangements had names, but few dual engine types did: the 2-8-8-4 Yellowstone, 2-6-6-6 Allegheny, 4-6-6-4 Challenger, and 4-8-8-4 Big Boy were exceptions.

The most popular Mallet types were 2-6-6-2 and 2-8-8-2. Among simple articulateds, the 4-6-6-4 (like Union Pacific's still operating No. 3985) and 8-coupled types (2-8-8-4, etc.) predominated. Most articulateds had the same number of wheels in both engines, though Great Northern had 2-6-8-0's. The largest (by wheel count) were 2-10-10-2's.

There were four "Triplexes" – Erie's three 2-8-8-8-2's and Virginian's 2-8-8-8-4 – which resembled conventional articulateds with a third engine under the tender. Other

oddities were Santa Fe's 2-6-6-2 Mallets, which had hinged frames and boilers.

Duplexes

Like articulateds, Duplexes had two engines to keep cylinder size and machinery weight down, but used a rigid frame. The idea was that with a divided drive, an 8- or 10-driver locomotive would be easier on the track and itself. The wheelbase of such locomotives was not thought long enough to warrant articulation, but most duplexes built did have trouble on curves.

Numerically, duplexes were a high-profile footnote. Only 83 were built (from 1937 to 1946), and all but one for the Pennsylvania Railroad. PRR's S1 6-4-4-6 preceded its 52 T1 4-4-4-4 passenger jobs. A Q1 4-6-4-4 freighter (whose rear engine, like that on B&O's N-1 4-4-4-4, faced backward in an effort to keep the wheelbase short that came at the cost of cylinder cleanliness and firebox size) presaged 25 Q2 4-4-6-4's. Thanks to mechanical bugs and diesels, the Duplexes had short lives.

Under the commonly used Whyte classification system, articulated and duplex drives are indistinguishable. A refinement of Whyte uses plus signs to indicate articulated joints, as in 2-8+8-2. Though it has its advocates (including Trains magazine in 1982-1987), the system has made little headway against Whyte, especially with the steam era over.

Financial Reimbursement

Willis Fagg, club treasurer asks all members to send a summary sheet categorizing their expenditures by expense category along with their receipts. The expense categories are:

Newsletter	Membership	Modules
Tucson Botanical	Hats and Shirts	Prizes
Group Purchases(1)	Insurance	Storage
Round About	Miscellaneous	Trailer
Meeting Fees	Rolling Stock(1)	Tools

- (1) Use Rolling Stock if you are purchasing equipment for the club and Group Purchases if it is equipment, such as the speeders, purchased for sale back to club members.

Of course, all expenditures under \$50 will be reviewed by the Treasurer alone, expenditures between \$50 and \$250 by the Treasurer and the President and expenditures over \$250 by the Board of Directors or the members at a meeting, as previously announced.

Willis also asks you to indicate if reimbursement is required on an urgent basis. If not he will bring your check to the next meeting.

One last point. Willis would prefer that you send him store receipts rather than credit card receipts so that he doesn't have your credit card number.

Magazine Offer

Garden Railways is celebrating it's 20th anniversary by offering club members special discount subscription rates. New subscriptions or renewals are offered at the rates of \$21 for one year, \$41 for two years and \$58 for three years.

If you are interested send your name, address, check (payable to TGRS) and an indication of new or renewal so that it is received no later than April 16. If the subscription is a renewal include a recent address label from Garden Railways magazine.

Several members signed up for the subscription at the February meeting but have not yet sent their check or other information. The club will not forward these signups unless the check and missing data is received by April 16.

Checks and information must be sent to Willis Fagg, 12440 E. Ave. De La Vista Verde, Tucson, AZ 85749.

Rail Bits

(A stopover at the Digital Station)

by Jerry Tulino

Introduction

This is the first in a (hopefully) monthly column exploring the world of the computer, the Internet and any related subjects. The email address to contact Rail Bits about anything discussed in this column is lackawanna79@yahoo.com. Although much of what will be discussed is universal in nature, please understand that the author has experience in the Microsoft Windows arena but not in the Apple/Mac or Linux environments. If you are willing to help other club members in either of these areas, please let me know so I can forward these issues to you. All questions are welcome (and could even provide a basis for future columns!). If you have an issue or question you would like explored, please feel free to email the details.

The TGRS digital mailing list

Nick Buchholz has established a mailing list on the Yahoo! web site. It provides a convenient method to send email messages to all registered members. Anyone who is a member can send a message, a request for help or information or just a simple greeting to everyone in the club in "one fell swoop". For example, whenever our club's web site is updated, an email message is sent to all members of this mailing list describing the change. It is a quick and simple way to be able to reach most members quickly. Also, by clicking on "Files" on the mailing list site, you will find the drawings for our modules, newsletters from the year 2000 and the digital version of the TGRS logo. Finally, since everyone maintains his or her own address, the list should always be accurate. You can use it to send a message to just one person or to several; you don't have to send every message to the entire list. Everyone who has an email address is encouraged to "get on board" and sign up. An information sheet about how to do it is distributed to all new members. If you would like a

copy of this information, please request it from Ibbey Ulmer. Her email address is nhulmer@earthlink.net.

The Prez Sez

By Nick Buchholz

Greetings all,

We have a busy month coming up, a meeting on the twelfth and the County Fair from the 14th to the 28th. To get ready for the excitement the Board met on March 15 at Roy and Mary Ann Eberbach's home.

Norm Ulmer reported that the correct dates for the American Home Show at the TCC were June 13-15. We will set the layout up on the 12th.

We also discussed the Pima County Fair, April 17-27, with setup on the 14th to 17th. There were two issues in particular discussed. First, during set up and take down there is **NO** security at the fair for this reason we'll need expensive items to be dropped off on Wednesday and Thursday. Norm will have more on this at the meeting. During tear down on the 27th, we need all members who loan buildings, locomotives etc., to arrange to have them picked up after 5:00 PM on Sunday the 27th. The actual modules can be loaded into the trailer on Monday the 28th.

Second, the board decided the raffle change fund would be reduced to \$30 each evening. Any additional raffle funds are to be secured by the day chairman. The board also discussed various methods for keeping children from leaving the kids layout and wandering around the inside of the modules.

We discussed storage and transport of the clubs rolling stock. Banker's boxes were discussed but it was thought that the current shelves on one rack might be adequate.

The electrical work on the new lighter yard modules has been begun and, after planning is completed, we will decide if one or more special work sessions are required to get everything working for the April set up.

Willis Fagg and Norm Ulmer will review the bylaws and propose changes needed to bring the bylaws into agreement with current practices.

The board approved the purchase of a roll up banner with the club logo to replace the older stiff sign. We all felt the benefits in ease of transport and storage would be worth the cost. We also approved the purchase of another LGB starter set for raffle at the June Home Show (we already have one for the April Fair).

Remember to consider joining a committee to help make the TGRS go. The more people who get involved the better the club works. And who knows you might even find it fun.

See you all at Gary's on the twelfth of April

Historic B&O Roundhouse

The roof of the historic 1884 roundhouse, centerpiece of the B&O Railroad Museum, collapsed under the weight of snow from a massive Washington DC area storm. A number of vintage steam locomotives were damaged in the collapse. Although the extent of the damage to the building and the historic collection is not yet fully known the directors of the museum have announced that they intend to "...restore, re-build and re-open..." the museum and the collection.

As a result of the damage the museum is temporarily closed and the scheduled Fair of the Iron Horse, intended to celebrate 175 years of U. S. Railroading, has been canceled by the museum directors. The Railway and Locomotive Historical Society and the National Railway Historical Society announced that they still intended to hold their conventions in the area as scheduled.

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 model 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 30th 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

April 12 Meeting and open house at Gary & Peg Martin's home – 1:00 PM
 April 14-17 Setup at Pima County Fair
 April 17-27 Running at Pima County Fair (Opens 6 PM on 17th, then 11 AM to 10 PM)
 May 17 Meeting at Glen & Janet Mitchell's home – 10:00 AM
 May 19 BOD meeting at Nick Buchholz's home – 7:00 PM
 June 5-8 Big Train Show on the Queen Mary in Long Beach, CA
 June 12 Setup at TCC for Home Show
 June 13-15 American Home Show at TCC
 June 21 Meeting at Norm & Ibby Ulmer's home – 10:00 AM
 July 9-13 National Garden Railway Convention at the Doubletree Hotel in Sacramento, CA
 August 16 Meeting at George & Kathy Fitzner's home 10:00 AM
 Sept 20 Meeting at Jay & Sallie Sanders' home 1:00 PM
 Oct Meeting at Neal & Winnie Mosely's home

President:.....	Nick Buchholz	520-744-4932
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Secretary:.....	Ellen Stoesser	520-577-1210
Treasurer:.....	Willis Fagg	520-760-0147
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