

PGRS TRACKIN'

Newsletter of the Piedmont Garden Railway Society- April 2017

Editor: Scott Williams

Happy April greetings Club Members!!

This month's newsletter will focus in detail on the annual PGRS meeting and Trainfest held, March 18th at the Cottages at Brushy Creek's Conference Center. We learn more each time we throw this Shindig and they just keep getting better and better. The meeting flowed so smoothly and seamlessly and we packed an AMAZING amount of club duties and information and comradery in to our allotted time and not a single second was wasted.

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Trainfest Photos:



Doughnuts and checking in, paying dues if necessary, and receiving tickets for door prizes.



Meet and Greet as members are checking in.



Jon Bole 'hams' it for the camera, correctly pointing out the locomotive in my display of the DIY power controller I brought to Trainfest.



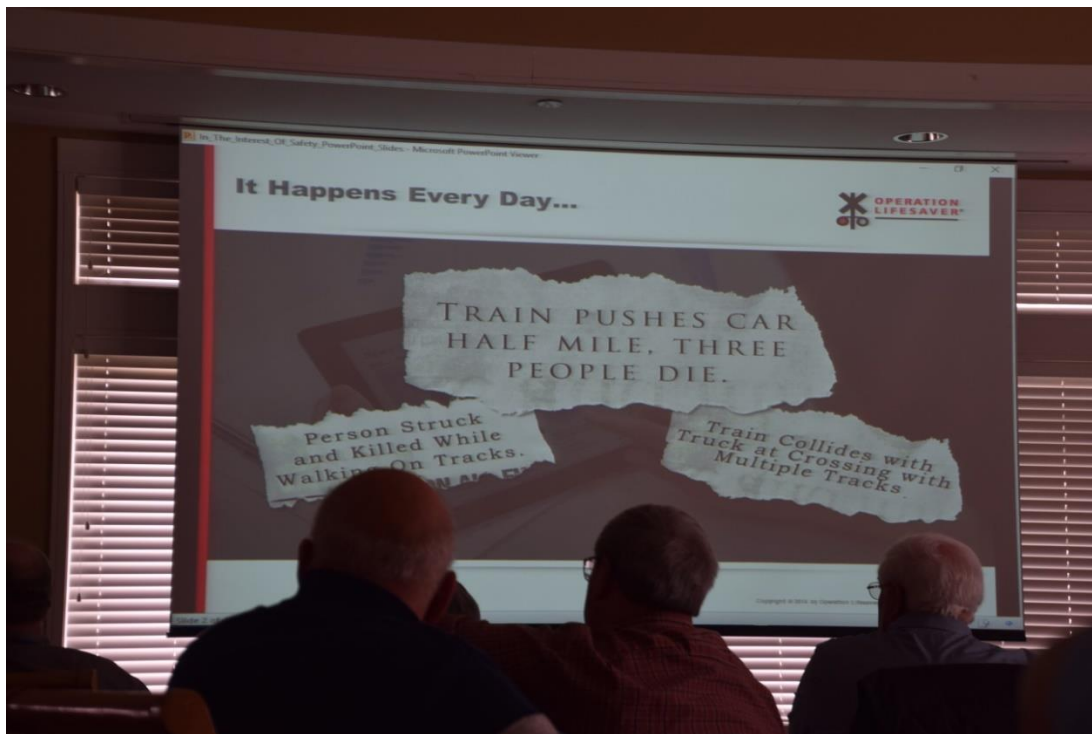
Larry Williams', beautifully prepared presentation on readily available spray can 'flat' paints for model train rolling stock shows a stellar example of 'posterboard presentation' design. The PGRS hopes club members will bring more poster board presentations of their research to share with everyone to future club meets. I did mine 'cut and paste' and glued to a poster board and a Sharpie magic marker so it doesn't have to be this slick, so just slap something together to bring to the meetings. This shows however, a great example of what can be executed.



Examples of several engines converted to RC control and battery power with sound systems on board were on display as well.



Ian tries not to get chocolate frosting on his laptop keys as the meeting is about to begin.



Operation Lifesaver's presentation by Katherine LeFevers on a **very serious topic** regarding crossing and trespassing on Railroad Right of Ways. This was powerful information we can all weave in to our discussions when sharing our model railroads with the public at places like the Apple Valley and the Rocky Cove Railroad and wherever the PGRS sets up our displays. We can remind motorists not to be complacent or foolish at RR crossings and individuals should avoid wreckless trespassing and use care when crossing RR right of ways. **Basic physics**, on foot or in a vehicle versus a train...**the train will win every time.**



Larry and Ian debut and demonstrate the amazing new PGRS website and field questions from club members regarding any difficulties or possible changes/suggestions to the newly released club site. The PGRS website is off to an impressive start and with every club member's submissions and suggestions it should become one of the better model train websites currently available on the Internet. Let's all help Ian and Larry make it AWESOME!!



Time for lunch!!



Adjourning to view the posterboard presentations, member's models and the swap meet tables.



Awesome array of door prizes!



Ian also debuted his new diesel model, nearing completion, constructed entirely on his University's 3D printing equipment on available motorblocks. If you can dream it and draw it on a computer, you can create it.

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All in all, it was an outstanding meeting and there was a **TON** of useful information presented to share with fellow enthusiasts looking for new and better ways to enjoy modeling Large Scale Model Trains.

The venue and refreshments were more than adequate. The presentations showcased the latest developments in Large Scale modeling, powering our trains, as well as useful information for vexing problems as simple as how best to paint our models in realistic colors with readily available spray paints.

The big news this meeting was, the unveiling of the truly slick looking **PGRS WEBSITE** constructed by Ian Pugliese and Larry Williams that will allow club members to access pertinent information posted by club members, calendar of events, 'How-To' articles, and to upload photos of all of our layouts and models to be enjoyed by anyone cruising the Internet Super Highway interested in the hobby of Large Scale model trains.

The website has been discussed for several years now, countless other model train club websites [in all scales], were visited and reviewed over that time to see what other clubs had presented. Some of them were pretty good and served as models but many of them are pretty

basic, and out-dated, others we found had been downright neglected with no posts or updating for years. We knew that we wanted something superior to those websites. I think you'll all agree the PGRS website is very attractive and 'cutting edge'. With everyone submitting photos and how-to articles to include we can grow this new tool to give large scale modelers inspiration and advice and hopefully help attract new enthusiasts to the world of Garden Trains.

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MINUTES FROM PGRS 2017 ANNUAL MEETING:

The PGRS held its 2017 Annual Meeting on March 18, 2017 at the Brushy Creek facilities in Greer, NC. This year it was held in conjunction with the 2017 Spring Trainfest.

The meeting was called to order by Bill Huntman at 10:00 AM. There were 36 members in attendance.

Bill discussed the club's activities for the past year, the current status of the club, and the club's future plans.

Highlights of the past year's activities included:

4 open houses, volunteer work at the WNC Arboretum and Mission's Children's Hospital in Asheville, NC, the display of the club's new layout at various area train shows and our continued friendship/collaboration with the Apple Valley Model Railroad Club in Hendersonville. Bill acknowledged the recruiting and promotion efforts of Fran Monahan and Pete Gendron. Bill also thanked Tim Wagner for his years of service as an officer of the club!!

The current status of the club was described as very healthy. At the time of the meeting we had 66 members of which 36 were in attendance. The club secretary/treasurer, Don Watson, stated the club had a balance of approx. \$2600 in its checking account. A detailed treasurer's report will be published on the club's new web site.

The future plans for the club include: More open houses, A fall Trainfest, the hosting of the PGRS club web site, the continuation of the club's efforts to promote the hobby by attending as many train shows as possible, providing education and support to our members on all aspects of the hobby through our newsletters, web site, and presentations at meetings, and continued support of the WNC Arboretum and Asheville Children's Hospital.

Elections:

Elections of new PGRS Officers were held following Bill's status report. The following officers were nominated and since there was only one nomination for each position, the attending members elected them by acclamation.

The PGRS Officers for the year 2017 are as follows:

President: Bill Huntman

Vice President: Pete Gendron

Secretary/Treasurer: Don Watson

Directors-at-large:

Fran Monahan

Randy Theis

Larry Williams

Jon Bole

Scott Williams will continue as the PGRS Newsletter Editor and Larry Williams will be our new web site administrator.

The official part of the meeting was adjourned at 10:30.

PGRS Web Site:

Following the elections, Larry Williams and one of our newest members Ian Pugliese gave an excellent presentation on our new club web site. The pair took questions from the floor and answered all of them successfully. The web site is now operational and details regarding access and other factors will follow. We, the PGRS, would all like to thank Ian and Larry for their outstanding work in developing the web site.

Before and after the meeting, outstanding dues were collected and each paid member received a complimentary, very handy, set of miniature screw drivers and a raffle ticket for the excellent door prizes donated by the club and club members.

At 11:00 AM there was a very informative presentation on Operation Lifesaver by Catherine LeFevers and following that Larry Williams gave an excellent presentation on ways to power your trains.

[Minutes provided by our club Secretary, Don, aka; "Doc" Watson. Thanks Doc!](#)

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[A call for input on where to hold future club meetings.](#)

As many of you may now know, the management at the Cottages at Brushy Creek has decided they no longer wish to rent their conference room out to outside groups so we need to find another centrally located venue to rent for big meetings. If you know of a facility that may accommodate us then please alert Bill and Pete so we can begin lining up the next location.

WHunteman@gmail.com and Pete9134@gmail.com

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Jim Hendley asked me to share this site for those who may be having trouble finding replacement parts for **Aristocraft Models**:

<http://glxscalemodels.com/cast-resin-products/g-scale/>

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A bit about power supplies as stolen, from the Bridgewater's FAQ site:

How to measure it: "Power is not measured by amperage alone." Power is probably the most misunderstood term in our industry. The term "10 Amp" on a power supply is meaningless; you must know the voltage at 10 Amps in order to determine the actual power of your controller.

Power is measured in Watts or VA (Volt Amps). Watts (or VA) are the voltage times of the current – in other words, when drawing full current, what is the voltage? A unit that has a power level of 130 VA and shows a rating of 10 Amps will only provide 13 Volts at 10 Amps. Many controllers advertise 10 Amps and 24 Volts; this may be true, but is misleading; you can only have one – not both – at the same time. A more accurate way to show the power of a controller would be to say 10 Amps @ 24 Volts; the power then would be 240 VA (or 240 Watts)."

Can you have too much? You cannot have too much power or current. The reason is that your train will only use as much power as it requires. If you were using a 15 Amp controller capable of supplying 24 volts at full current, your layout would use what it needs up to that power level. For example, the average house current is 300 or more Amps at 115 Volts. If you turn on one light bulb which draws 75 Watts, you are only using the amount of power the bulb requires. Voltage can be too high for some controllers, causing too much power to be dissipated in the power transistors. Bridgewater's units do not have this problem; with Bridgewater's controllers, you can run the newer engines that may require more voltage than some of the earlier engines without fear of damage

Can you have too little? Of course. The results will be any or all of the following: Fuse blowing; slow engines; poor sound; not enough power to run area lighting; over-heating of power controller, damaging output transistors, etc.

Bridgewater's FAQ page for other information: <https://bridgewater.com/tech-corner/faqs/>

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The 100 dollar DIY power controller I presented at Trainfest:

At the end of the Trainfest, Tom Phelps said he was interested in building one of my power controllers or one similar to it and asked if I could furnish the info from my posterboard so, here is an expanded version below:

Meanwell manufactures very clean switching power supplies used in medical and industrial applications and I easily found the parts I needed on Amazon.com. I was able to construct this controller using solderless connectors and 14 gauge wire, with no directions, just common sense and the Internet for guidance.

I am not an electrical engineer, I just ordered the parts that were listed on a Facebook site so please know there is no implied or guaranteed warranties involved in this design if you choose to build it. So far though, using these specified parts, it's working quite well for me. "Your mileage may vary", as they say on car commercials.



The Meanwell NES 350-24 power supply chosen is rated 24volts, rated current is 14.6 amps, current range then should be 0 to 14.6 amps, the unit is rated at 350volts. This power supply should be more than capable to power several loco motors at one time and I plan to have it run two tracks on a layout I'm going to build using 2 different track power controllers between this power supply and the tracks.

1. Straight forward logic is all that you need in **wiring it up**. You attach a [suggested] 3 prong, 14ga. power cord to the terminals on the Meanwell clearly labelled **AC Input**, labelled N, L and [ground] \perp Wire the white wire to N, the black wire to L and the green wire to Ground. I used a cord from Lowe's designed for a window AC unit. Cost: 9 bucks.
2. You then wire the +/- DC output from the Meanwell to the +/- inputs on your PWM speed controller which will control the power sent to the tracks.

3. This is the trickiest part and...*not really tricky at all*. Run wires from the PWM speed controller to the Dual Pole/ Dual Throw switch. [this is how you switch polarity making trains go backward and forward with a neutral/off position in the center.] Run your +/- input power wires from the power controller to the **center terminals of the switch**. It makes no matter which terminal/pole + or – that you connect them too so don't sweat this part. This is the power input to the switch and the neutral position. The other wire terminals on both sides of the switch will be run from the switch to the track. **Wire them opposite to each other.** One side of the outer terminals + and -, and wire the other terminals – and +. [See? Easy Peasey. It switches the Polarity. It will make sense when you get to there. Trust me.]
4. Wire an inline fuse coming from the DPDT switch between the power supply and track connections to protect your equipment. I used an automotive style fuseholder with a 5 amp fuse available on line or at auto parts stores.
5. Connect the unit to your track and run your own diagnostics before running your most expensive locomotive right away with your new DIY power supply.

Parts:

Meanwell NES- 350-24 Switching Power Supply 120 Volt.....	57.00
DROK PWM DC Stepper Motor Speed Control Module DC 10-60V 20A 600W.....	18.00
Dual Pole Dual Throw [DPDT] switch.....	5.00
In-line Fuse Holder.....	5.00
AC Power Cord & 5V fuse & 14Ga.wire.....	20.00

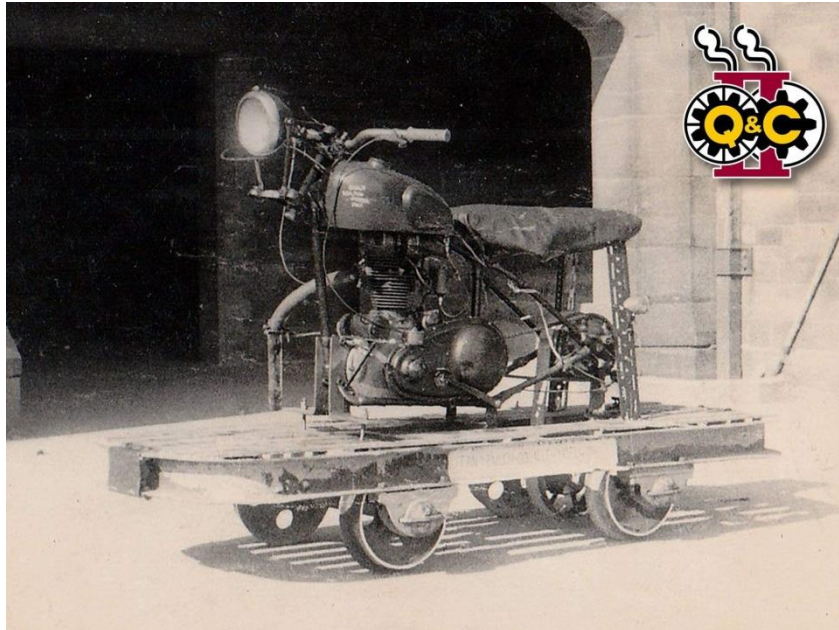
Total as I chose to build it.....105.00, plus tax and shipping

- This can be wired together and mounted on a board, or like I did, in a 7 dollar toolbox from Lowe's, with a 2 dollar banana plug connector for power connections.
- Straight forward, simple wiring. I did it all with solderless, crimp connectors.

Comparable MRC or Bridgewater's Controller = 2 to 3 times the price.

Another simple controller solution is, if you already have a controller like an old Train Engineer or buy one used/cheap on ebay all you will need is a power supply like the Meanwell, wire the two together and you are in business running trains but remember to install a fuse between track and controller.

Member Photos:



Jerry Bartle enjoys trains and motorcycles and he submitted a photo of a rig that might allow him to enjoy both. Looks like a wild ride to me. Does this thing have any brakes Jerry?

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Videos of interest:

Amtrak Train meets snow at passenger platform....

Jerry also sent me this video link of an Amtrak train approaching a snow covered passenger track platform. These folks are standing there filming the engine's approach on their '**Smart Phones**'. I wonder what Operation Lifesaver might have said to these people?

I would have been running the other way **LONG** before I saw the train approach but at my High School we studied basic 'Physics'. Apparently these folks were absent that day....

<http://imgur.com/UaFRJqH>

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2017 Great Scale Model Train Show in Timonium Maryland featuring the Warrior Run Loco Works Layout

<https://www.youtube.com/watch?v=XfaxrXVWq7U>

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Indoor G scale Hudson smoking like real!

An awesome display of realistic model loco smoke. I'm guessing from the layout running through the living and dining room and the possibility of setting off the smoke alarm each time this engine runs that this modeler may be...**a bachelor**.

<https://www.youtube.com/watch?v=BhH9HJiBRX4>

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Bob VanWagner sends this along to the PGRS. Bob was a founding member of the Del Oro Pacific Modular RR Club and a co-founder recently sent this video to him.

<https://www.youtube.com/watch?v=GoeQfqiT2WQ&feature=youtu.be>

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Trivia Question:

North American Railroad Signaling Devices. How do they work and what the Heck do they all mean?



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****** The **Apple Valley Model RR Club** in Hendersonville openly invites all PGRS members to bring their large scale trains to run on their Outdoor Large Scale train layout the **Last Saturday** of every month from 10-2 pm. **TAKE ADVANTAGE** of this generous offer to come run your locos on a beautiful garden layout. Track power, battery power, and PGRS members have even brought their Live Steam locos to run on this attractive layout on the passenger platform of the historic Hendersonville Railroad station

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Trivia Answer:

Well, there is almost as many answers to this question as there are American Railroads. There is no national standard or system for railroad signaling in North America. Individual railroad corporations are free to devise their own signaling systems as long as they uphold some basic regulated safety requirements.

Due to the wave of mergers that have occurred since the 1960s it is not uncommon to see a single railroad operating many different types of signaling inherited from predecessor railroads. This variety can range from simple differences of hardware to completely different rules and aspects. While there has been some recent standardization within railroads in terms of hardware and rules, diversity remains the norm.

There are two main types of signaling aspect systems found in North America, **Speed Signaling** and **Weak Route Signaling**.

Speed signaling transmits information regarding how fast the train is permitted to be going in the upcoming segment of track; **Weak route** signaling transmits information related to the route a train will be taking through a junction, and it is incumbent upon the engineer to govern the train's speed accordingly. Weak Route Signaling is applied with the term "Weak" because some speed signal aspects may be used in the system and also because exact route information is not typically conveyed, only the fact of a diverging or straight route, each having a predictable range of known speeds.

Simple answer right? Not really. But if you care to review a more detailed Wikipedia report of North American Railroad Signaling Devices then click on this link:

https://en.m.wikipedia.org/wiki/North_American_railroad_signals

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Membership:

Please consider sharing this newsletter with friends who might be interested and if they wish to become members ask them to contact our PGRS Secretary/Treasurer for a membership form.

Don Watson
125 Mistletoe Trail
Hendersonville, NC 28791

docwatson@morrisbb.net

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Train Lover Luncheons:

The current luncheons are:

Columbus Area: Meets every Third Thursday of every month at Larkins Carolina Grill, 155 West Mills Street in Columbus, NC 28722. @ 1:00 PM. Contact Pete Gendron: 954-812-6270

Greater Greenville Area: Meeting the first Tuesday of every month - at 12 noon. It has been moved to Mutts in Greer as it is more centrally located for the greater Greenville area. Contact Ken Majchrzak at: kemajchrzak@gmail.com or call Ken at: 864-385-4951

Asheville Area: Meets the 4th Thursday each month. We meet at 11:30 AM at Gondolier Italian Restaurant and Pizza located at 1360 Tunnel Road, Asheville 28805. Contact Tim Wagner timwagner2012@gmail.com

The location is on the east end near the VA hospital, so it is recommended that you access Tunnel Road from I-40, exit 55. Take a left at the first light after you exit and a left at the next light. The venue will be on the right a few hundred yards from the intersection.

Winston Salem luncheons are currently being planned by Tony Potter and J.R. Snider.

Charlotte luncheons are meeting at Bubba's BBQ 4400 Sunset Rd. (exit 16, rte. I-77). at 11:30am on the third Tuesday of each month.

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Thanks, and please help make our newsletters interesting!!!

Send any idea, project, photo, something you found surfing on the Internet, etc., no matter how great or small you may think them to be to your newsletter editor. I will use them right away or log them away on my hard drive for future use. Our newsletters will be as interesting as you can help make them. We all love trains so...if it's about trains, and you've got it on your computer, chances are you won't be the only person who might enjoy reading about it.

Send your input to: srwavl@outlook.com

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So long Chuck. Thanks! October 1926-March 2017
<https://www.youtube.com/watch?v=ZFo8-JqzSCM>



He used to carry his guitar in a gunny sack
Go sit beneath the tree by the railroad track
Oh, the engineers would see him sitting in the shade
Strumming with the rhythm that the drivers made
People passing by they would stop and say
Oh my that little country boy could play

Lyrics from Chuck Berry's "Johnny B Goode"

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Business Related to Our Hobby

Any Member who has a business related to our hobby is welcome to submit an entry for inclusion in PGRS Trackin' each month.



Garden Railroad Design
Old Trains Wanted

Jim's Train Sales

O & G Gauge New & Used Trains

Jim Hendley

Etowah, North Carolina 28729

Lionel, MTH, USA Trains, PIKO, LGB
Bridgwerks Power Supplies, Bachmann
Split-Jaw Rail Clamps, O & G Gauge Track

Email: jhh1218@att.net
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828.625-5551

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A non-profit museum to benefit Pancreatic Cancer
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2414 Memorial Hwy (Rte 64/74)
Lake Lure, NC 28746
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