

Newsletter of the Piedmont Garden Railway Society

November 2020 Editor: Scott Williams

Greetings Club Members!!

Not too much to report this month. Haven't received any new project photos. I've been busy with my new job, rounding up leaves and working on some trains but mostly spending my free time more indoors reading as the evening temps start to drop.

Please, as always, I request that you share a photo or two and maybe several lines about what you may be working on these days or interesting train stories that you discover. Thanks!

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Garden Train Fun at Jon Bole's. 10/23/2020



Jon agreed to have a couple of us come by if we would observe the best social distancing practices. So, we did. Pete Gendron, Larry Williams, and I attended the services. We wore our masks, kept about a 6' distance, and refrained from hugging and kissing so it was no big deal. I jumped at the chance to bring my Southern F3 A/B units pulling my heavyweight passenger cars around on Jon's awesome new layout. It gave me an opportunity to view my Southern RR passenger train running on a beautiful 'foreign' layout to see how they would perform and I'm pleased to report that they ran flawlessly on Jon's track power and perfectly laid rails. But,I think this winter I might still convert my Aristo F3 A/B to Railboss/battery power. I have to admit that I've become a big fan of 'on board' RC battery power for no headache, smooth running of Large Scale trains. At least the ones that I run most frequently.

Jon has used larger ³/₄" ballast for a sub base which I am a 'big fan' of even though it does not look remotely close to scale ballast but I think will give his track great floating stability and drainage, and doesn't foul the switches. I personally would be willing to just

quit there, but that's just me. I'm lazy. Jon, however, is currently working with top coating the track with gravel 'fines' that he 'screened' from the original gravel, held together around the ties with a mixture of 50/50% Titebond II and water for a more scale look to the ballast. He says..."it's a major, time consuming, pain in the Butt". But it DOES give a much more scale look to the ballast when finished and it looks great!

Jon has also used tarpaper or roofing felt for his roadways around his structures which gives great pathways to walk through the layout for access to the trains and buildings. Very wise planning! He asked us if we thought that he might be able to add more to his layout but we all agreed that he has PLENTY of structures and adding more structures would just limit his very fine access to all points on his layout and just clutter things up. He's also discovered that all those, cute, tiny little plants that he and Ruthie planted in the spring have now overtaken many of his structures like Kudzu so they will be judiciously removing the most invasive ones this fall.

As we packed up our stuff to go home Jon said: "You know? There's really NO reason that we can't all still enjoy getting together to enjoy our hobby since it's outdoors". I totally agree. So get together and be safe and stay healthy.



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Pete Gendron reminded me recently that long before there was this type of log skidder:



There was **THIS** type of log skidder. It may have paved the way for military tanks and caterpillar tractors that came later on...

The LOMBARD log tractor





The **Lombard Steam Log Hauler**, patented 21 May 1901, was the first successful commercial application of a continuous track for vehicle propulsion. The concept was later used for military tanks during World War I and for agricultural tractors and construction equipment following the war.

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Decided to dip my toe in to On30 and DCC this fall and I have to tell you, I like the 'On30' part a lot but I'm **totally** befuddled by the "**DCC**" part. It's a steep learning curve for a DC track power and Battery operated Large Scale guy like me. Fortunately, I have family and club friends who can help me figure it all out.

This coming winter, being more 'locked down' than usual, I thought I might like to try building a long On30 module for indoor train fun. I'm thinking about a 40" wide and about 10-12' long layout that I can move easily to my next home when I sell this one. I am planning to build kind of an On30 version of the Large Scale layout at the Apple Valley Model Railroad. I want to build a long, narrow oval around the perimeter that disappears in to a tunnel at each end for my new 2-6-0 Mogul to run around in circles on and build a logging switchback operation in the middle ground and have a small yard at the mill to operationally switch with my Heisler and log cars.

I do like the size and 'heft' of On30 but I'm used to working on Large Scales trains with tools like hammers and crowbars and it's a bit of an adjustment going back to models

that I need to look at with my Magnifying Light fixture and pick at with tweezers but it's WAY better than when I was modelling N Scale 7 years ago which was TOO small.



The detail and the 'heft' of the Bachmann On30 models is really quite nice. I'm using cheap Code 100 HO track, and I purchased both locos, and all the above rolling stock for 600.00, total, from Trainworld. The DCC controller is about another 200 bucks. On30 is not a 'Bank Breaker', if you care to pursue a smaller version of our hobby to get you through the winter months indoors in your basement, attic, garage, or spare bedroom and possibly a great indoor adjunct for the winter months.

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MEMBER PHOTOS:

I've 'twisted' several club member's arms this month to add to our PGRS website Gallery for everybody surfing the Web to view on our 'Gallery' page the level of our PGRS club member's expertise in modelling.

We have this **awesome PGRS** Webpage that a number of us put great effort in to building, but we need to <u>add to it occasionally</u> or else it will get 'stale'. I encourage club members also to check out our website occasionally and to <u>forward the link to family and friends</u> to view the PGRS 'Gallery' to see what we're all up to. <u>https://piedmontgardenrailway.org/gallery/</u>

Send photos of your trains and layouts to Larry Williams so he can post them in our club "Gallery" please. <u>Idweng@att.net</u>

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Doc Watson responded to my plea for new photos for the PGRS website Gallery and sent these photos in of his award-winning coaches. I share them here in the newsletter since I have not received other photos this month...

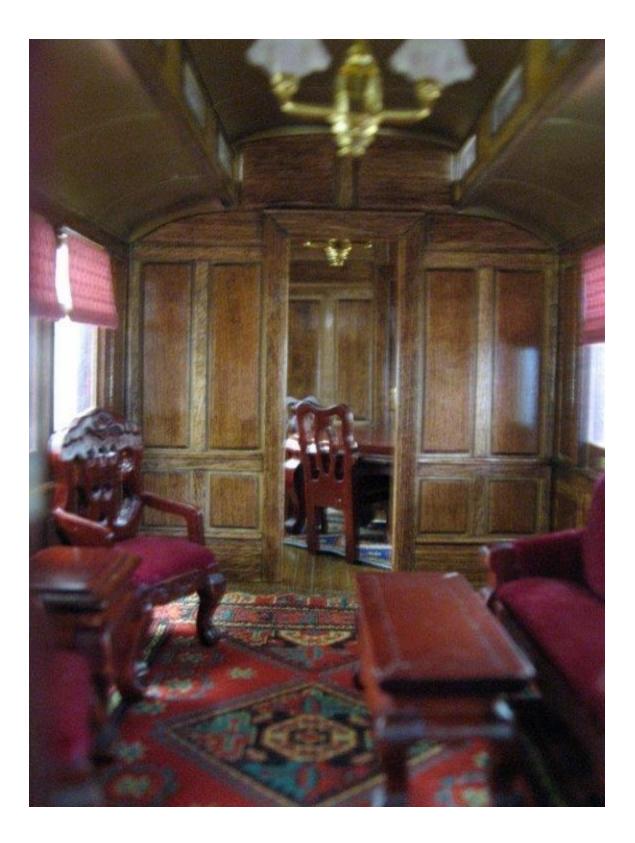


















Thank you Doc Watson. You are a gifted and talented and fastidious model train builder. These photos, added to our PGRS club website will illustrate the fine, 'next level' modeling that is possible in Large Scale model train building and does the PGRS proud!!

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Member Photos:

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. 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 viewing it.

Send your photos to: srwavl@outlook.com

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Trivia Question: 2020 has been a big setback for the whole world economy, the airlines and the rail industry have suffered horribly and frankly, <u>we're all just so exhausted from it</u>...so let's look out to the Future. What, if anything, do MAGLEV trains have to offer to the future?

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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

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Train Lovers Luncheons:

...have been postponed until things get safer with the Coronavirus.

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** A reminder from Terry Ketcham that he's been running some trains out back on the club's Large Scale Layout on Saturdays while the Hendersonville Farmer's Market has been going on.

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Trivia Answer: Comparison with conventional trains: [Wikipedia]

Maglev transport is non-contact and electric powered. It relies less or not at all on the wheels, bearings and axles common to wheeled rail systems.

Speed: Maglev allows higher top speeds than conventional rail, but experimental wheelbased high-speed trains have demonstrated similar speeds.

Maintenance: Maglev trains currently in operation have demonstrated the need for minimal guideway maintenance. Vehicle maintenance is also minimal (based on hours of operation, rather than on speed or distance traveled). Traditional rail is subject to mechanical wear and tear that increases rapidly with speed, also increasing maintenance. For example: the wearing down of brakes and overhead wire wear have caused problems for the Fastech 360 rail Shinkansen. Maglev would eliminate these issues.

Weather: Maglev trains are little affected by snow, ice, severe cold, rain or high winds. However, they have not operated in the wide range of conditions that traditional frictionbased rail systems have operated. Maglev vehicles accelerate and decelerate faster than mechanical systems regardless of the slickness of the guideway or the slope of the grade because they are non-contact systems.

Track: Maglev trains are not compatible with conventional track, and therefore require custom infrastructure for their entire route. By contrast conventional high-speed trains such as the TGV are able to run, albeit at reduced speeds, on existing rail infrastructure, thus reducing expenditure where new infrastructure would be particularly expensive (such as the final approaches to city terminals), or on extensions where traffic does not justify new infrastructure. John Harding, former chief maglev scientist at the Federal Railroad Administration, claimed that separate maglev infrastructure more than pays for itself with higher levels of all-weather operational availability and nominal maintenance costs. These claims have yet to be proven in an intense operational setting and they do not consider the increased maglev construction costs.

Efficiency: <u>Conventional rail is probably more efficient at lower speeds</u>. But due to the lack of physical contact between the track and the vehicle, maglev trains experience no rolling resistance, leaving only air resistance and electromagnetic drag, potentially improving power efficiency. Some systems, however, such as the Central Japan Railway Company SCMaglev use rubber tires at low speeds, reducing efficiency gains.[citation needed]

Weight: The electromagnets in many EMS and EDS designs require between 1 and 2 kilowatts per ton. The use of superconductor magnets can reduce the electromagnets' energy consumption. A 50-ton Transrapid maglev vehicle can lift an additional 20 tons, for a total of 70 tons, which consumes 70–140 kW (94–188 hp). Most energy use for the TRI is for propulsion and overcoming air resistance at speeds over 100 mph (160 km/h).[citation needed]

Weight loading: High-speed rail requires more support and construction for its concentrated wheel loading. Maglev cars are lighter and distribute weight more evenly.

Noise: Because the major source of noise of a maglev train comes from displaced air rather than from wheels touching rails, maglev trains produce less noise than a conventional train at equivalent speeds. However, the psychoacoustic profile of the maglev may reduce this benefit: a study concluded that maglev noise should be rated like road traffic, while conventional trains experience a 5–10 dB "bonus", as they are found less annoying at the same loudness level.

Magnet reliability: Superconducting magnets are generally used to generate the powerful magnetic fields to levitate and propel the trains. These magnets must be kept below their critical temperatures (this ranges from 4.2 K to 77 K, depending on the material). New alloys and manufacturing techniques in superconductors and cooling systems have helped address this issue.

Control systems: No signalling systems are needed for high-speed rail, because such systems are computer controlled. Human operators cannot react fast enough to manage high-speed trains. High-speed systems require dedicated rights of way and are usually elevated. Two maglev system microwave towers are in constant contact with trains. There is no need for train whistles or horns, either.

Terrain: Maglevs are able to ascend higher grades, offering more routing flexibility and reduced tunneling. However, their high speed and greater need for control make it difficult for a maglev to merge with complex terrain, such as a curved hill. Traditional trains, on the other hand, are able to curve alongside a mountain top or meander through a forest.

Comparison with aircraft

Differences between airplane and maglev travel:

Efficiency: For maglev systems the lift-to-drag ratio can exceed that of aircraft (for example Inductrack can approach 200:1 at high speed, far higher than any aircraft). This can make maglevs more efficient per kilometer. However, at high cruising speeds, aerodynamic drag is much larger than lift-induced drag. Jets take advantage of low air density at high altitudes to significantly reduce air drag. Hence despite their lift-to-drag ratio disadvantage, they can travel more efficiently at high speeds than maglev trains that operate at sea level.[citation needed]

Routing: Maglevs offer competitive journey times for distances of 800 km (500 mi) or less. Additionally, maglevs can easily serve intermediate destinations.

Availability: Maglevs are little affected by weather.

Travel time: Maglevs do not face the extended security protocols faced by air travelers nor is time consumed for taxiing, or for queuing for take-off and landing.

So, bottom line, high speed MAGLEVS appear 'on paper' superior to rail mounted trains and also superior to air travel in regard to people moving. Heavy freight will likely still be more appropriately moved by traditional rail.

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Businesses associated with our club:



**** Jim Hendley has moved**. To reach him use the following number:

828-333-2523 and if the email above does not work try hendleyjim4@gmail.com

** Peggy Keyes announced on Facebook that due to Covid the museum will be closed until further notice. Check The Right Track Facebook page for further developments.